

Siemens' Gridscale X redefines system operations and agentic transmission planning

- **Latest evolution of Gridscale X provides a unified platform and shared digital foundation, enabling utilities to run their grid closer to technical limits**
- **Utilities can integrate, run, and build their own applications directly on Gridscale X, alongside Siemens' and third-party applications**
- **Successfully deployed at Dutch network operator Alliander, the first utility to integrate self-developed applications onto the Gridscale X scalable platform**
- **Gridscale X PSS E software introduces new AI-powered, agentic capabilities, enabling faster, transparent, and scalable transmission planning**

Siemens continues to be at the forefront of technological innovation, today announcing the next evolution of its Gridscale X platform at the Grid Software Summit in Amsterdam. Gridscale X provides the digital foundation for utilities to manage their grids at greater speed, and complexity at scale. Siemens also unveiled the next generation of PSS E on Gridscale X, introducing advanced AI-powered, agentic capabilities to the transmission planning software.

As utilities face rising demand and growing system complexity, both transmission planning and grid operations are being pushed beyond the limits of traditional approaches. Electrification, data centers, and AI-driven industries are scaling faster than anticipated, while renewables are injecting volatility that traditional grids cannot absorb. Meeting these challenges requires true system operations. A unified grid model and digital twin enables system-wide visibility to actively manage flexibility, reduce operational risks and operate grids closer to their technical limits with confidence – laying the foundation for autonomous, resilient grids.

“Gridscale X is the integral digital backbone that bridges long-term planning and real-time operations to enable true system operations,” said Sabine Erlinghagen, CEO of Siemens Grid Software. “The platform can support self-developed applications, enabling utilities to migrate their own applications onto Gridscale X to run and scale them on a shared grid model, integrating their innovations directly into system operations workflows. We are delighted that this has already been deployed by Alliander in The Netherlands.”

Dutch network operator Alliander, a strategic partner of Siemens, is the first utility to integrate its custom-built applications directly into the platform. Since announcing the partnership in 2024, Alliander has expanded medium-voltage grid coverage from 65 percent to 100 percent, migrated 85 applications onto Gridscale X, and achieved a 30 percent leaner IT landscape. This demonstrates how a shared digital backbone can unlock grid capacity, reduce complexity, and scale at speed.

Gridscale X PSS E: Unlocking the future of agentic transmission planning

Extending the same platform and shared grid model principles into transmission planning, Siemens has taken a major step toward unlocking the future of agentic transmission planning, unveiling the next generation of PSS E on Gridscale X. The software introduces new AI-powered capabilities that deliver the speed, transparency, and scalability required for resilient, sustainable, and autonomous grids. By combining proven simulation with domain-specific AI-automation and a new user experience, the software accelerates planning studies and workflows, expands team capacity, and improves decision-making end to end. Supported by over 2000 open APIs with automation capabilities, Gridscale X PSS E enables seamless integration, powerful automation, and the foundation for digital twin-based planning.

The latest release directly supports data center and large load integration scenarios, enabling planners to assess, prioritize, and respond to connection requests with significantly greater speed and transparency. A redesigned, cloud-native user experience streamlines workflows and automation for connection studies, cutting response times by up to 50 percent and helping transmission operators manage surging demand while maintaining system reliability.

“For more than 50 years, PSS E has been widely regarded as the benchmark for transmission planning, trusted by planners around the world,” added Erlinghagen. “We are incredibly proud to build on that foundation with the next generation of PSS E. By introducing AI-powered, agentic capabilities and a modern user experience, we are giving planners the tools they need to tackle growing complexity, work faster under increasing time pressure, and lead the next era of transmission planning with confidence.”

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

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

Contact for journalists

Siemens Smart Infrastructure

Lena Carlson

Phone: +49 159 0168 4611; E-mail: lena.carlson@siemens.com

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.