SIEMENS

Press

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Siemens strengthens Gridscale X offering, enabling TSOs to accelerate the energy transition

- Gridscale X supports Transmission System Operators (TSOs) to operate grids closer to their physical limits, and deal with complexity of energy transition
- Siemens to release two new Gridscale X software products at CIGRE Paris Session 2024 from 25-30 August, "Gridscale X Protection Data Manager" and "Gridscale X Dynamic Line Rating"
- Gridscale X software is part of Siemens Xcelerator, enabling customers to accelerate their digital transformation easier, faster, and at scale

Siemens will release two new products as part of its Gridscale X portfolio at CIGRE Paris Session next week. The new Gridscale X software will enable power utilities, in particular Transmission System Operators (TSOs), to accelerate the energy transition by paving the way towards more flexible and autonomous grid management.

Driven by a significant increase in electricity demand, as well as renewable and distributed energy resources (DERs), TSOs face the challenge of ensuring the secure and reliable operation of transmission networks, due to rising complexities caused by the integration of renewable energy – such as system inertia drop, limited grid capacity, and expensive redispatch. With newly released Gridscale X software, such as "Gridscale X Protection Data Manager" and "Gridscale X Dynamic Line Rating", Siemens can support grid operators to accelerate their digital transformation across planning, operations, and maintenance, enabling the shift towards net-zero grids.

Siemens AG Communications Head: Lynette Jackson Werner-von-Siemens-Strasse 1 80333 Munich Germany Siemens AG Press Release

"Gridscale X is a game-changer for grid operators navigating the energy transition," said Sabine Erlinghagen, CEO of Siemens Grid Software. "By providing modular, interoperable software that seamlessly integrates with existing infrastructure, we're empowering utilities accelerate digital transformation easier, faster, and at scale, helping to solve their most pressing challenges efficiently and reliably."

About Gridscale X

Gridscale X paves the way for autonomous grid management, empowering grid operators to solve their most pressing challenges related to the energy transition. The modular software is easy to deploy and fast to integrate into any existing IT and OT landscape, while increasing the efficiency and reliability of utilities' operations. As a part of Siemens Xcelerator, the products are developed with the core design principles of interoperability, flexibility, openness, availability as a service, and the highest level of cybersecurity.

Gridscale X Protection Data Manager

"Gridscale X Protection Data Manager" is an essential tool for grid operators grappling with the challenges of growing grid complexity and data overload. The software enables them to create and maintain accurate and up-to-date transparency of their protection equipment, including protection settings, device information, and configuration data. Grid operators can achieve substantial cost savings by preventing outages that lead to penalties and operational downtime. Automated data imports save up to 80 percent of the time in comparison to manual processes, ensuring high accuracy and improved data quality.

Gridscale X Dynamic Line Rating

"Gridscale X Dynamic Line Rating" maximizes the utilization of the transmission grid amid the rising number of renewable generation sources. By calculating line capacity in real-time based on current local weather and ambient conditions, Gridscale X Dynamic Line Rating can unlock 10-15 percent capacity increase over 90 percent of the time. This allows grid operators to bridge the gap between urgent capacity needs and usual grid extension timelines, while reducing congestion management costs that can reach billions of euros annually.

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Further additions to Gridscale X portfolio

Siemens is continuously innovating its grid software approach to meet and adapt to the evolving needs of the industry. That is why, the proven software "Siguard DSA" and "PSS Cape", are also set to be migrated to Siemens' Gridscale X portfolio, including new features and functionality essential for accelerating the energy transition.

Gridscale X Dynamic Security Assessment (formerly known as Siguard DSA)

"Gridscale X Dynamic Security Assessment" delivers real-time and operational planning capabilities enabling transmission grid operators to operate highly dynamic grids securely under rapidly changing system conditions. It provides real-time awareness of potential contingencies and their impact on grid stability and recommends verified actions to prevent blackouts. The updated version of the software comes with a modern architecture and intuitive web user interface (UI). It features a brand-new model-based inertia assessment and an automated contingency assessment for more effective grid management.

Gridscale X Advanced Protection Assessment (formerly known as PSS Cape)

"Gridscale X Advanced Protection Assessment" is a highly-detailed protection simulation software that enables transmission and large distribution utilities to protect grids effectively and reliably despite evolving generation and load structures and increasing volatility.

This press release as well as further material are available here.

For more information on Siemens Smart Infrastructure, please see <u>Siemens Smart</u> Infrastructure

View more here on the new Gridscale X software here:

Gridscale X Protection Data Manager

Gridscale X Dynamic Line Rating

Gridscale X Dynamic Security Assessment (formerly Siguard DSA)

Gridscale X Advanced Protection Assessment (formerly PSS Cape)

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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. Siemens Smart Infrastructure has its global headquarters in Zug, Switzerland. As of September 30, 2023, the business had around 75,000 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. Siemens also owns a majority stake in the publicly listed company, Siemens Healthineers, a leading global medical technology provider shaping the future of healthcare.

In fiscal 2023, which ended on September 30, 2023, the Siemens Group generated revenue of €74.9 billion and net income of €8.5 billion. As of September 30, 2023, the company employed around 305,000 people worldwide on the basis of continuing operations. Further information is available on the Internet at www.siemens.com.

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