

Siemens expands access to advanced simulation with Simcenter Cloud HPC

- **New Simcenter Cloud HPC provides instant on, rapidly scalable cloud-based high performance computing (HPC) for complex simulation studies, hosted on AWS.**

Siemens Digital Industries Software today announced that it has added scalable, on-demand, high performance simulation capabilities to Siemens Xcelerator as a Service (XaaS) with the launch of Simcenter™ Cloud HPC software. As part of the ongoing collaboration between Siemens and Amazon Web Services (AWS), the new service is hosted on AWS, optimized for Simcenter solver technologies, and managed by Siemens.

This service can help reduce the costs traditionally associated with on-premise high performance computing (HPC) deployment, allowing organizations of all sizes to access the benefits of advanced simulation, gain deeper insight into the performance for their products, and drive more informed engineering decision making.

“Having access to sufficient HPC resources is essential to get the most value from engineering simulation and this issue is a constant challenge for engineering departments with evolving needs,” says Jean-Claude Ercolanelli, Senior Vice President, Simulation and Test Solutions, Siemens Digital Industries Software. “By providing flexible, accessible and scalable HPC resources in the cloud, we are offering our customers a new freedom to rapidly scale up or down as their business requires, avoiding locked capital and paying only for what is used.”

Simcenter Cloud HPC is accessible seamlessly from the desktop simulation tool with no additional configuration needed. It provides immediate access to near-unlimited compute capacity, avoiding the complexity and cost of accessing third-party cloud services. Organizations of any size can benefit from instant-on HPC availability.

For small and medium-sized businesses that struggle with the cost of on-premise heavy compute hardware, this solution can help these businesses be more competitive in the industry. Larger enterprises can supplement on-premise clusters with near-unlimited cloud compute when extra capacity is needed to meet deadlines. This opportunity allows for significant capital expenditure (CapEx) savings by reducing the amount of long-term investment needed for HPC.

By using the accessibility of the technology platform provided by Siemens and AWS, including Amazon Elastic Compute Cloud (Amazon EC2), the engineering team at Heraeus Noblelight sees the potential to advance the accuracy and fidelity of their simulations while continuing to meet project deadlines and reducing run times for large models from days to hours. “Models are becoming more accurate, and we need to capture more physical realism. You can guarantee that we will frequently require more powerful HPC resources in the future,” said Dr Larisa von Riewel, Group Leader - CAE, Heraeus Noblelight. “Simcenter Cloud HPC offers that agility, which translates into a more competitive offering for our customers”

“We continue to expand access to AWS’s extensive HPC resources including Amazon EC2 instances that use the latest generation of processors, and Elastic Fabric Adapter (EFA) which allows customers to run applications requiring high-levels of inter-node communications at scale on AWS. Through these resources, our customers are able to meet the engineering challenges of tomorrow, and accelerate innovation,” said Ian Colle, general manager Batch Computing and HPC at AWS.

Siemens Digital Industries Software helps organizations of all sizes digitally transform using software, hardware and services from the Siemens Xcelerator business platform. Siemens' software and the comprehensive digital twin enable companies to optimize their design, engineering and manufacturing processes to turn today's ideas into the sustainable products of the future. From chips to entire

systems, from product to process, across all industries, [Siemens Digital Industries Software](#) is where today meets tomorrow.

Contact for journalists

Siemens Digital Industries Software PR Team

Email: press.software.sisw@siemens.com

Siemens Digital Industries (DI) is an innovation leader in automation and digitalization. Closely collaborating with partners and customers, DI drives the digital transformation in the process and discrete industries. With its Digital Enterprise portfolio, DI provides companies of all sizes with an end-to-end set of products, solutions and services to integrate and digitalize the entire value chain. Optimized for the specific needs of each industry, DI's unique portfolio supports customers to achieve greater productivity and flexibility. DI is constantly adding innovations to its portfolio to integrate cutting-edge future technologies. Siemens Digital Industries has its global headquarters in Nuremberg, Germany, and has around 76,000 employees internationally.

Siemens AG (Berlin and Munich) is a technology company focused on industry, infrastructure, transport, and healthcare. From more resource-efficient factories, resilient supply chains, and smarter buildings and grids, to cleaner and more comfortable transportation as well as advanced healthcare, the company creates technology with purpose adding real value for customers. By combining the real and the digital worlds, Siemens empowers its customers to transform their industries and markets, helping them to transform the everyday for billions of people. Siemens also owns a majority stake in the publicly listed company Siemens Healthineers, a globally leading medical technology provider shaping the future of healthcare. In addition, Siemens holds a minority stake in Siemens Energy, a global leader in the transmission and generation of electrical power.

In fiscal 2021, which ended on September 30, 2021, the Siemens Group generated revenue of €62.3 billion and net income of €6.7 billion. As of September 30, 2021, the company had around 303,000 employees worldwide. Further information is available on the Internet at www.siemens.com.

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