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Siemens works with Arm and AWS to bring PAVE360 to the cloud and unlocks next generation automotive innovation

- **Siemens Digital Industries Software, together with Arm and AWS, delivers breakthrough PAVE360 digital twin solution on AWS's cloud services to help accelerate next-generation software defined vehicle (SDV) innovation with virtual car in the cloud**
- **Developers can now access Arm automotive technology on AWS as part of PAVE360 digital twin solution to help customers speed development of automotive systems**

Siemens Digital Industries Software today announced that its PAVE360-based solution for automotive digital twin is now available on AWS. Expanding on the strong partnership between Siemens and AWS, PAVE360 helps foster innovation in the automotive industry through hardware and software parallel development, "shifting-left" the design phase of SDV. With a parallel approach, developers can compress the design cycle time and accelerate time to market. In addition, Siemens has collaborated with Arm to help enable developers to access Arm®-based technology running on Siemens' PAVE360 Digital Twin solution via AWS cloud services.

Automakers are now able to develop software and evaluate key Arm-based system and software components earlier in their IP selection and design cycles, without the burden of conventional on-premises software, simply by accessing the PAVE360 solution available on AWS. This not only helps address the technology and commercial challenges ahead but also helps empower developers to gain a competitive advantage by shifting left hardware and software development, with unprecedented simulation speeds, enabling them to meet shrinking time-to-market

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requirements. By using AWS technology, developers can experience near real-time simulation speeds which are significantly faster than conventional on-premises modeling and simulation infrastructures.

“The automotive industry is facing disruption from multiple directions, but the greatest potential for growth and new revenue streams is the adoption of the Software Defined Vehicle (SDV),” said Mike Ellow, Executive Vice President, EDA Global Sales, Services and Customer Support, Siemens Digital Industries Software. “The hyper-competitive SDV industry is under immense pressure to quickly react to consumer expectations for new features all while being pushed to move towards shorter software development cycles. This is driving the adoption of the “shift-left” methodology for parallel hardware and software co-development and the move toward the holistic digital twin. Delivering PAVE360 on Arm-based AWS cloud services helps enable organizational efficiencies that are simply not available through today’s traditional development methods.”

Siemens’ PAVE360, deployed on AWS includes IP from Arm that is built for automotive-specific workloads, functional system software, real-world stimulus and algorithm development tools such as Simcenter™ Prescan from Siemens, and class-leading mixed-fidelity EDA modeling and simulation engines. PAVE360 seamlessly integrates all these sources to provide not only a virtual car on an engineer’s desk but also a virtual car in the cloud that is more integrated and secure, dramatically reducing resources and costs for manufacturers. This helps to eliminate the need for costly IT upgrades to support high-speed simulation and can free up automotive engineers to focus on making more meaningful improvements.

"The software defined vehicle is survival for the automotive industry, requiring new technologies and methodologies for faster and more agile development,” said Dipti Vachani, Senior Vice President and General Manager, Automotive Line of Business, Arm. “The innovative Siemens’ PAVE360 solution is helping to accelerate the automotive system development required to address the increasingly demanding consumer expectations. Together with Siemens and AWS, we are enabling a breadth of use cases on the Arm automotive platform across the entire supply chain, from IP evaluation to fleet management.”

“The proliferation of digital twin methodologies throughout the automotive industry uses the compute capabilities and world-class infrastructure of AWS,” said Wendy Bauer, Vice President of Automotive and Manufacturing, AWS. “With PAVE360 mapping accurate embedded environments to optimal AWS instances while using Arm automotive enhanced IP, OEMs and suppliers are enabling software defined vehicle solutions and methodologies that were previously impractical.”

PAVE360 via AWS is available now to selected customers. To learn more about how Siemens is working with AWS and Arm to bring the power of PAVE360 to the cloud and how automotive developers can shift-left with faster, centralized virtual design of next generation software defined vehicles, visit: https://eda.sw.siemens.com/en-US/pave360/

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 – Accelerating transformation.

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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 2022, which ended on September 30, 2022, the Siemens Group generated revenue of €72.0 billion and net income of €4.4 billion. As of September 30, 2022, the company employed around 311,000 people worldwide.

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