Synopsys Announces Availability of TSMC-certified IC Design Environment in the Cloud

TSMC and Synopsys Collaboration Streamlines Cloud-based IC Design

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Highlights:

- Synopsys Cloud Solution available to host customers designing in the cloud with TSMC process technology, accelerating IC design
- TSMC has certified the Synopsys Cloud Solution—meets TSMC security and performance requirements
- Synopsys Design and Verification Platforms available on Amazon Web Services, Microsoft Azure, and Synopsys Cloud Solution

Synopsys, Inc. (Nasdaq: SNPS) today announced it has collaborated with TSMC and leading cloud providers Amazon Web Services (AWS) and Microsoft Azure, to provide a streamlined cloud-based IC design environment on the Synopsys Cloud Solution. The Synopsys Cloud Solution provides optimized, secure infrastructure and services to enable IC design and verification teams to take full advantage of the benefits of the cloud. Built for unique EDA workloads, the Synopsys Cloud Solution supports compute infrastructures from major public cloud providers, as well as Synopsys-hosted infrastructures. Through collaboration with TSMC, the Synopsys Cloud Solution enables system-on-chip (SoC) teams to design securely and effectively in the cloud using Synopsys EDA tools and IP, third-party IP from Arm, and TSMC design infrastructure collateral, including process technology files, process design kits (PDKs), and foundation IP. For more information on the Synopsys Cloud Solution, visit www.synopsys.com/cloud.

"At TSMC we're committed to enabling our semiconductor customers to securely design in the cloud and take advantage of cloud infrastructures," said Suk Lee, senior director, Design Infrastructure Marketing Division, TSMC. "We've collaborated with Synopsys to certify the Synopsys Cloud Solution through the rigorous security and performance audits of our Open Innovation Platform (OIP) Virtual Design Environment (VDE). The Synopsys Cloud Solution is ready for mutual customers to design in the cloud using TSMC design infrastructure collateral"

The Synopsys Cloud Solution provides access to cloud-ready Synopsys design and verification platforms, reference flows, and a cloud-based license server. Complementing the design and verification platforms, the Lynx Design System provides powerful, easy-to-use automation for cloud-based SoC design. The environment enables designers to take advantage of cloud scaling for peak usage and full-flow workloads.

Leveraging the massive scaling offered by Synopsys tools like PrimeTime® signoff; StarRC™ extraction; IC Validator signoff physical verification; HSPICE®, CustomSim™, and FineSim® circuit simulation; SiliconSmart® characterization; VCS® functional verification; VC Formal™ formal verification; and Z01X™ fault simulation, the Synopsys Cloud Solution provides a robust environment to accelerate project cycle times. Synopsys will demonstrate these benefits at the TSMC OIP Forum [booth #716] on October 3, 2018, in Santa Clara, CA.

As the leading provider of interface IP for high-performance cloud computing SoCs, Synopsys continuously strives to accelerate design cycle times to meet customers' demanding schedules. By leveraging the performance of the IC Validator signoff physical verification solution with the scalability of the cloud to thousands of CPU cores, Synopsys' IP group successfully taped out the high-speed DesignWare® PHY IP for PCI Express® 5.0 on TSMC's advanced 7-nm process and met their aggressive project timeline.

"Arm's partners are increasingly turning to cloud computing, and we are enabling them to use Arm IP with trusted cloud service providers like Amazon Web Services and Microsoft Azure to help them achieve their time-to-market goals," said Rene Haas, president, Arm IP Products Group. "We've collaborated with Synopsys to enable our partners to take advantage of the Synopsys Cloud Solution for TSMC using Synopsys design and verification tools, along with cloud-proven QuickStart Implementation Kits for Arm's leading-edge, high-performance cores, including our recently announced Cortex-A76."

"Leading semiconductor and system companies rely on Synopsys tools and IP to design their most advanced SoCs," said Deirdre Hanford, co-general manager, Synopsys Design Group. "We're extending our leadership by collaborating with TSMC on OIP VDE to provide a robust and secure environment for our mutual customers to take advantage of the cloud to accelerate their IC design schedules. The Synopsys Cloud Solution, in conjunction with TSMC, Amazon Web Services, Microsoft Azure, and Arm, provides a proven environment that is ready for our customers to design on the cloud."

About Synopsys Cloud Solution

The Synopsys Cloud Solution provides optimized, secure infrastructure and services to enable IC design and verification teams to take full advantage of the benefits of the cloud. Built for unique EDA workloads, the Synopsys Cloud Solution supports compute infrastructures from major public cloud providers, as well as Synopsys-hosted infrastructures.

The Synopsys Cloud Solution includes:

- Support for complete EDA design flows, including cloud-optimized products that exploit the scalability of cloud infrastructures
- A range of services for EDA environments in the cloud, such as setup, configuration, on-boarding, tools, and license installation to provide fully integrated tools to handle diverse/complex EDA workflows
- Synopsys ZeBu® Cloud services, providing access to the industry's fastest emulation system in a fully managed cloud-based model.

Synopsys has been hosting customers in the cloud for more than 15 years. Our expanded Synopsys Cloud Solution leverages our deep understanding of EDA-specific requirements to accelerate adoption of the cloud for IC design and verification. For more information on the Synopsys Cloud Solution, visit www.synopsys.com/cloud.

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As the world's 15th largest software company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and is also growing its leadership in software security and quality solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest security and quality, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

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