

# TSMC-Certified OIP Virtual Design Environment with Synopsys Tools Now Available on Google Cloud

Expanded Cloud-based Services Give SoC Designers More Scalability and Flexibility

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## Highlights:

- Synopsys Cloud Solution now supports Google Cloud Platform for TSMC OIP VDE
- TSMC has certified that GCP meets both its stringent security and performance requirements
- Synopsys and Google Cloud have helped eSilicon optimize its implementation cloud-based flow

[Synopsys, Inc.](#) (Nasdaq: SNPS) today announced that TSMC's Open Innovation Platform<sup>®</sup> Virtual Design Environment (OIP VDE) with Synopsys tools is now certified and available on the Google Cloud Platform (GCP). The combination of these cloud technologies enables system-on-chip (SoC) designs using Synopsys' electronic design automation (EDA) tools, IP, and TSMC design collateral—including process technology files, process design kits (PDKs), and foundation IP on GCP.

"Building complex ASICs on TSMC's advanced technology demands a highly efficient and scalable compute environment," said Naidu Annamaneni, chief information officer and vice president of global IT at eSilicon. "We've been collaborating with Google Cloud for more than a year to optimize our Synopsys-based implementation flow. We now run design tasks routinely in the cloud, taking advantage of the latest hardware technology, enhanced security, optimized networks, and high availability. This is the future of ASIC design."

"Three capabilities made this solution successful: Data locality, Custom Machine Types servers, and our world-class security features," said Paul Nash for Google Cloud. "Building with Google Cloud's global network, customers have the option to keep the data center geographically close to reduce latency. And Custom Machine Types help users meet the tailored high-performance computing requirements of EDA applications that ultimately allow one to fully utilize provisioned CPUs and memory to diminish resource slack. Additionally, our built-in multi-layered security delivers true defense in-depth with inherent security features, such as Identity-Aware Proxy and Encryption at Rest, by default and therefore provides the peace of mind customers deserve."

"We are pleased to collaborate with Google, a new member of our OIP Cloud Alliance," said Suk Lee, TSMC senior director, Design Infrastructure Management Division. "This was the first project that all three companies worked on together, which combines TSMC OIP VDE with Google Cloud Platform and Synopsys' Cloud Solution, lowering the cloud-adoption barriers for our mutual customers."

During its certification process, TSMC took a 7-nanometer (nm) reference design through Synopsys' suite of tools. The tests met TSMC's stringent requirements for security, runtime, and quality of results (QoR).

"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. "The Synopsys Cloud Solution, in conjunction with TSMC and Google Cloud, provides a proven environment that is ready for our customers to design on the cloud."

The Synopsys Cloud Solution provides optimized infrastructure with enhanced security features, as well as services to enable IC design and verification teams to take full advantage of the benefits of the cloud. Built

for the high-performance computing requirements of EDA workloads, the Synopsys Cloud Solution supports [major public cloud providers](#), as well as Synopsys-hosted infrastructures. For more information on the Synopsys Cloud Solution, visit [www.synopsys.com/cloud](http://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](http://www.synopsys.com).

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