

NEC Selects Synopsys ZeBu Server 4 Emulation Solution for Super Computer Verification

Enables Hardware and Software Teams to Optimize Software Performance Within Four Weeks

MOUNTAIN VIEW, Calif., Dec. 20, 2019 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) today announced that NEC, a key player in high-performance computing (HPC), has selected Synopsys' ZeBu[®] Server 4 as its emulation solution for the verification of its SX-Aurora TSUBASA high-performance compute solution products. With its high performance and scalability, ZeBu Server 4 and the Synopsys Virtual Host solution enabled NEC to set up an emulation environment to analyze performance bottlenecks within four weeks, compared to unsuccessful trials with their previous legacy emulation system. Use of Virtual Host allows device drivers, the operating system, and applications to communicate with the design running on the ZeBu system virtually, enabling pre-silicon development to shift left. In addition, ZeBu's debug visibility enabled NEC to find multiple performance bottlenecks that can't be observed within the real chip and resolved firmware performance issues within a few weeks.

"Developing super computers requires running and analyzing many software applications on the new HPC architecture," said Akio Ikeda, deputy general manager, AI Platform Division at NEC Corporation. "ZeBu Server 4 enabled execution of our HPC host software without modifications and running billions of software cycles prior to tapeout. We selected ZeBu Server 4 because of its superior performance and very fast bring-up time."

Synopsys' ZeBu Server 4 is the industry's fastest emulation system offering 2X higher performance over competitive solutions and a rich portfolio of virtual solutions. With its small footprint and one-tenth the power consumption compared to its largest competitor, ZeBu enables software and verification teams to efficiently scale their emulation farm to verify their most complex designs. ZeBu also enables verification teams to reduce the risk of missing critical power issues in their high-performance architectures by running actual customer application workloads rather than synthetic scenarios to validate performance and power requirements.

"We collaborate with the industry's leading verification and software teams to provide novel emulation solutions for new market segments to meet aggressive time-to-market timelines," said Rajiv Maheshwary, vice president of marketing and business development in the Verification Group at Synopsys. "ZeBu Server 4 and the Virtual Host solution provides a high-performance emulation solution to accelerate verification for their advanced SoCs. We are excited to see the rapid impact of our Virtual Host solution for NEC's HPC project."

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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