Wave Computing Accelerates its Machine Learning Software Bring-up by 12 Months Using Synopsys ZeBu Server Emulation System

Seamless Integration of Industry's Fastest Emulation System into Dataflow Processing Unit Development Effort

MOUNTAIN VIEW, Calif., April 26, 2017 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) today announced that Wave Computing has selected Synopsys ZeBu® Server-3 system as the emulation solution for early software bring-up and development for its Dataflow Processing Unit (DPU) architecture. With its high performance and integration in the Synopsys Verification Continuum™ platform, ZeBu Server enabled Wave Computing to accelerate the development schedule for its machine learning software by 12 months.

"Wave Computing is solving the performance and scalability challenges imposed by traditional solutions used in today's advanced machine learning applications," said Dr. Chris Nicol, CTO at Wave Computing. "Our dataflow-based compute appliance improves the performance of machine learning training and inferencing by orders of magnitude compared to CPU- or co-processor-based offerings. We selected Synopsys' ZeBu Server because it delivered 4 times faster performance than other emulation solutions. ZeBu helped to further speed development of our dataflow software, part of our overall system offering, which began in 2012."

Synopsys' ZeBu Server emulation system delivers the industry's highest performance for faster verification and earlier software bring-up of complex SoC designs. Utilizing Synopsys Verification Continuum's Unified Compile with VCS technology, Wave Computing was able to quickly add ZeBu to the verification environment for their Dataflow Processing Unit SoC. Wave's complex 16nm design features 6.7 GHz performance, 6 billion transistors and high-speed access to HMC memories. With ZeBu's virtualization technology, Wave Computing's software teams were able to develop and debug their entire software stack, including the WaveFlow Software Development Kit (with compilers, linkers, simulators and debuggers), WaveFlow Dataflow Agent Library and WaveFlow Execution Engine (with a resource monitor, drivers, and more), in their native Linux environment prior to taping out commercial silicon.

"The industry's leading SoC design, verification, and software teams increasingly require a high-performance emulation solution to achieve aggressive time-to-market goals," said Rohit Vora, vice president of engineering for the Synopsys Verification Group. "We continue our R&D collaboration with these leading teams to deliver high-performance emulation technology, focused on reducing time-to-market by months."

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.

Editorial Contacts:
Carole Murchison
Synopsys, Inc.
650-584-4632
carolem@synopsys.com

SOURCE Synopsys, Inc.