Synopsys Awarded DARPA Contract for Automatic Implementation of Secure Silicon Program

Advances SoC Design by Integrating Scalable Hardware Security Mechanisms Leveraging Academic and Commercial Partner Expertise, and Synopsys' Industry-Leading EDA Platforms and IP

MOUNTAIN VIEW, Calif., June 25, 2020 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) today announced that the Defense Advanced Research Projects Agency (DARPA) has selected Synopsys as a prime contractor for the Automatic Implementation of Secure Silicon (AISS) program. The program's goal is to automate the inclusion of scalable hardware security mechanisms in IP and system-on-chips (SoCs) to explore security versus other design trade-offs.

As part of the four-year AISS program, Synopsys will collaborate with other commercial and university experts, including Arm, Boeing, UltraSoC, University of Florida Institute for Cyber Security (FICS), Texas A&M University, and University of California San Diego. Government and commercial leaders are applying Synopsys' Zero Trust approach to design security and quantifiable assurance into microelectronics at the heart of their networks and systems. Synopsys' involvement in the AISS program highlights its commitment to provide industry awareness, enablement, and leadership for secure silicon.

In support of the AISS program, Synopsys will supply DesignWare® Security IP and will develop critical design-to-manufacturing flows, centered around Synopsys TestMAX™ Design-for-Test, and its industry-leading products and technologies based on the Synopsys Fusion Design Platform™ and Verification Continuum™ Platform for the automated implementation and verification of secure SoCs. The Synopsys solution will demonstrate simultaneous optimization of power, area, speed and security, resulting in technologies that will benefit both the defense and commercial sectors. Boeing will also contribute its systems design expertise and SoC reference platform to the AISS program to further the advancement of automating the inclusion of hardware security mechanisms in systems. Synopsys has also executed an Associate Contractor Agreement (ACA) with Northrop Grumman who is leading another AISS research team. As part of the ACA, Synopsys contributes tools and IP and Northrop Grumman provides the asset management infrastructure to protect SoCs throughout their lifecycle.

"Security is a shared responsibility across the ecosystem and Arm is committed to ensuring security is designed into silicon from the ground-up, as defined by the Platform Security Architecture framework and our Corstone and CryptoIsland families of secure system IP," said Dr. John Goodenough, vice president of technology collaboration and standards at Arm. "This collaboration between commercial industry and external research partners will simplify and accelerate the path to secure SoC systems using technology from Arm and Synopsys."

Synopsys' industry-leading architecture design, security IP, static and formal verification, emulation, RTL implementation, and test solutions are essential building blocks to the design and verification of hardware mechanisms that meet the critical power, area, speed, and security requirements of the AISS program.

"Security has emerged as an essential requirement in many industries including critical infrastructure, data centers, IoT, automotive, aerospace, and defense," said Deirdre Hanford, Chief Security Officer for Synopsys. "Synopsys is a leader in providing security solutions to the industry. In addition, Synopsys has a long track record of collaborating with defense contractors, silicon foundries, and universities to develop innovative design and verification technologies and methodologies. We are excited to partner with prominent industry and academic organizations to address the challenge that DARPA has issued. We look forward to supporting AISS and adding design for security technologies and flows to our market-leading security and interface IP, implementation, and verification products."

Resources

- Visit the Synopsys Aerospace & Defense website

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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