



# PSA Certified Spotlight

## Cypress Semiconductor



psacertified™  
level one

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**Jack Ogawa**, Cypress Semiconductor

## PSoC 64 Secure Microcontroller (MCU)

### Scalable IoT Device Security

The PSA Certified program provides Cypress a standard framework for industry-leading security. Cypress Semiconductor is a semiconductor design and manufacturing company, and a major player in the fast-growing IoT market. The Cypress IoT Compute and Wireless business unit combines two strong leadership technologies: Cypress' deep strength in microcontrollers (MCU) with market-leading wireless expertise.

The goal of the group is to deliver a secure and affordable MCU that can be used as an application host processor for manufacturers. The secure MCUs are available off the shelf and offer a level of security functionality suitable for IoT applications. The secure MCUs provide three levels of hardware-based isolation, including a root of trust that is provisioned with material that is never exposed. This helps ensure that the cryptographic operations essential to protecting IoT devices are secure.

“One of the main barriers for IoT adoption is privacy,” says Jack Ogawa, senior director of embedded security at Cypress Semiconductor. “Hardware-based security is essential in providing end-user privacy. Although solutions designed for the payment industry seem attractive, they come with a cost of ownership that is not aligned to the fragmented IoT market. We’re building a scalable model for IoT device security that enables manufacturers to offer end-user privacy without cost of ownership penalties.”

### Solid Framework for IoT Security

To support this approach and to help move the IoT industry toward a common security framework, Cypress has achieved PSA Certified Level 1 Certification for the Cypress PSoC® 64 Secure MCU. PSA helps Cypress by providing a framework to discuss IoT device security requirements with customers and to offer the appropriate security capabilities for a given IoT use case.

“The PSA framework is a huge benefit to everybody in the industry because it provides the basis for a meaningful conversation about security,” Ogawa says. “We can show our customers that security is not a “black arts” endeavor, but a system design process. It makes security a lot more approachable.”

With the PSA Certified program in place, the Cypress sales team can leverage it to lead customer discussions around protecting IoT devices, and answer questions on technical requirements, including what type of security a particular microprocessor provides. Ogawa is pleased the company can now offer customers a secure IoT solution that is ultra-low power, flexible, and adheres to PSA principles so its customers can create and implement secure designs.

“The PSA premise of making embedded security accessible has helped develop the IoT marketplace. PSoC 64 is well-aligned to this premise, providing IoT device designers with a robust security solution that is optimized for their application,” he concludes.