

ARM mbed OS Gets Energy Friendly with Gecko Technology from Silicon Labs

Company Demonstrates Comprehensive Giant Gecko MCU Development Platform Running ARM mbed OS

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SANTA CLARA, Calif.--([BUSINESS WIRE](#))--[Silicon Labs](#) (NASDAQ: SLAB), a leading provider of silicon and software solutions for a smarter, more connected world, today announced broad support for ARM® mbed™ OS within the energy-friendly [EFM32® Gecko MCU portfolio](#) based on ARM Cortex®-M processors. Silicon Labs’ [Giant Gecko](#), [Happy Gecko](#), [Leopard Gecko](#) and [Wonder Gecko](#) MCUs running mbed OS along with mbed power management application programming interfaces (APIs) provide best-in-class energy efficiency, design simplicity and security technology for embedded developers creating battery-operated, ARM-based connected devices for the IoT.

Silicon Labs is demonstrating its mbed-supported development platform in the ARM mbed Zone at ARM TechCon today. Showcasing Silicon Labs’ popular Cortex-M3-based EFM32 Giant Gecko MCU, [Bluetooth® Smart technology](#), and [Si114x optical sensor](#) for ambient light and heart rate monitoring (HRM), the development platform demonstrates how easy it is to design energy-friendly connected devices that support mbed OS, Bluetooth Smart connectivity and biometric sensing. A pioneer in the use of optical sensors for HRM applications, Silicon Labs has developed unique hardware and software technology to simplify heart rate measurements in wearable designs.

In related news, ARM introduced its new wearables reference design featuring mbed OS integration at ARM TechCon, which incorporates [power management APIs](#) that Silicon Labs and ARM co-developed and introduced earlier this year. These low-power mbed APIs now provide a foundation for all peripheral interactions in mbed OS. Designed with real-world, low-energy application scenarios in mind, the APIs allow mbed OS developers to optimize their ARM mbed-supported designs for low energy consumption and longer battery life. Leveraging the power management APIs built into mbed OS, Silicon Labs’ EFM32 Gecko MCUs automatically enable the optimal sleep mode based on the MCU peripherals in use, which can dramatically reduce system-level energy consumption.

“We welcome Silicon Labs’ support for mbed OS and look forward to our continued collaboration across APIs and reference designs that will drive the future of ultra-low-power ARM-based microcontroller platforms,” said Zach Shelby, vice president of marketing, IoT business, ARM. “Silicon Labs’ deep understanding of system-level energy optimization, combined with mbed OS support, will help to advance innovation in energy-constrained IoT device technologies relating to elements such as sensing and low-power connectivity.”

“The combination of Silicon Labs’ Gecko MCU, wireless and sensing solutions and ARM’s energy-friendly mbed OS implementation provides an unparalleled platform for developing standards-based, low-energy products for the IoT,” said Daniel Cooley, vice president of marketing for Silicon Labs’ IoT products. “ARM mbed OS advances C++ embedded design for the IoT by abstracting the complexity out of device-to-cloud connectivity while providing essential security features to help safeguard IoT products.”

Pricing and Availability

Support for ARM mbed OS is available today for Silicon Labs’ Giant Gecko, Happy Gecko, Leopard Gecko and Wonder Gecko starter kits, each priced at \$29.99 (USD MSRP). For more information about Silicon Labs’ mbed platform support, please visit www.silabs.com/mbed.

A small-form-factor version of Silicon Labs’ mbed-supported development platform will soon be available to embedded developers. Planned for availability in January 2016, the new Thunderboard Wear demonstration board features Silicon Labs’ Giant Gecko MCU, Bluetooth Smart connectivity and myriad sensors, enabling developers to evaluate optical heart rate monitoring and other key technologies for wearables and IoT nodes. The board works seamlessly with mbed OS and Silicon Labs’ [Simplicity Studio](#) development platform. For more details including pricing and to pre-order the Thunderboard Wear board, please visit www.silabs.com/thunderboardwear.

Silicon Labs

Silicon Labs (NASDAQ: SLAB) is a leading provider of silicon, software and system solutions for the Internet of Things, Internet infrastructure, industrial automation, consumer and automotive markets. We solve the electronics industry’s toughest problems, providing customers with significant advantages in performance, energy savings, connectivity and design simplicity. Backed by

our world-class engineering teams with unsurpassed software and mixed-signal design expertise, Silicon Labs empowers developers with the tools and technologies they need to advance quickly and easily from initial idea to final product. www.silabs.com

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