

Silicon Labs Simplifies IoT Connectivity with Best-in-Class Thread Solution

Market Leader in Mesh Networking Delivers Breakthrough Technology with Thread Protocol Stack and Powerful Development Tools

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AUSTIN, Texas--([BUSINESS WIRE](#))--[Silicon Labs](#) (NASDAQ: SLAB), a leading provider of microcontroller, wireless connectivity, analog and sensor solutions for the [Internet of Things](#) (IoT), today introduced its highly anticipated [Thread](#) networking solution, delivering a software stack built upon years of mesh networking expertise and the industry’s most advanced mesh networking software development tools. Silicon Labs’ Thread solution offers developers the fastest path to developing Thread-compliant products for the IoT including thermostats, wireless sensor networks, smoke/carbon monoxide detectors, connected lighting devices, control panels, wireless access points and gateways.

Thread technology fills a critical gap in the IoT ecosystem by providing the industry’s first standards-based, low-power mesh networking solution based on Internet Protocol (IP), enabling reliable, secure and scalable Internet connectivity for battery-powered devices in the connected home. As a founding member of the Thread Group and the chair of the Group’s technical committee, Silicon Labs has been instrumental in defining and developing the Thread specification introduced today.

“Thread is poised to become one of the leading mesh networking technologies for the connected home, with many device manufacturers aligning with Thread technology this year and planning to roll out Thread-enabled products in 2016,” said Mareca Hatler, director of research at [ON World Inc.](#) “As a primary architect of both ZigBee and Thread software and an industry leader in standards-based mesh networking, Silicon Labs is positioned to play a prominent role in advancing Thread technology throughout the connected home ecosystem.”

Silicon Labs is working closely with leading manufacturers of Thread-enabled connected home products, and the company’s Thread stack is powering mesh networking deployments at key customers today. Silicon Labs offers the industry’s broadest portfolio of mesh networking SoCs and a common development platform for both [ZigBee](#) and Thread solutions. The combination of Silicon Labs’ Thread stack, [EM35xx wireless SoC platform](#), and hardware and software tools provides developers with a seamless migration path from ZigBee to Thread via over-the-air (OTA) upgrades. Silicon Labs’ hardware and software roadmap will enable multi-protocol, multi-band 2.4 GHz and sub-GHz wireless connectivity for the IoT.

“As the market leader in mesh networking, Silicon Labs offers more than a decade of experience in developing, certifying and shipping standards-based mesh networking solutions,” said Skip Ashton, vice president of software engineering at Silicon Labs and vice president of technology for the Thread Group. “We have a deep understanding of not only mesh networking technology, but also the certification process. In cooperation with our customers and ecosystem partners, we have successfully certified thousands of mesh networking products and software implementations using our industry-leading EM35xx wireless SoCs.”

“We welcome the introduction of the Thread specification and Silicon Labs’ Thread protocol and development tools, bringing leading-edge wireless mesh networking technology to the connected home market,” said Kwikset’s Keith Brandon, vice president of sales and marketing. “Silicon Labs’ standards-based Thread solution enables us to simplify and accelerate the development of Thread-connected lock products that can communicate seamlessly with other connected home devices while protecting consumers with banking-class security features.”

Silicon Labs’ Thread solution offers a simple, secure and scalable way to wirelessly interconnect hundreds of connected home devices and to seamlessly bridge those devices to the Internet. Thread software provides a self-healing, IPv6-based mesh network capable of scaling to 250+ nodes with no single point of failure. The protocol provides extensive support for “sleepy” end nodes to enable years of low-energy operation using a single battery as well as simplified commissioning. Users can easily add nodes to a network using a smartphone or browser. Silicon Labs’ Thread stack uses banking-class, end-to-end security to join nodes to the network and

proven AES-128 cryptography to secure all networking transactions.

“We are pleased to be working with Silicon Labs as we develop products leveraging Thread technology to enhance and secure wireless communication within the home,” said Tim Myers, director of intrusion product management, Tyco Security Products.

Simplifying Thread Development

Silicon Labs offers a comprehensive suite of development and debugging tools to accelerate the introduction of Thread-compliant products. Silicon Labs' AppBuilder tool simplifies and accelerates the development of IP-based mesh networking applications. AppBuilder enables developers to easily configure mesh networking applications for Thread protocol using Silicon Labs' application framework, which isolates application code with a set of easy-to-use call backs and plugins, making the customer's software portable and reusable across supported wireless SoCs in Silicon Labs' portfolio. Silicon Labs also offers a powerful Desktop Network Analyzer tool that, unlike traditional wireless sniffers, provides complete visibility of all wireless networking activity by using the unique packet trace port available in Silicon Labs' mesh networking SoCs.

Pricing and Availability

Silicon Labs' Thread software stack and sample application are available at no charge to customers with registered EM35x-DEV development kits. EM35x-DEV kits provide a common platform for both ZigBee and Thread development, allowing customers to address multiple markets. Thread modules are available now from Silicon Labs' ecosystem partners including California Eastern Labs (CEL) and Telegesis. Silicon Labs' new RD-004-0201 Thread border router reference design is planned for release at the end of July. The initial software release for the border router will showcase end-to-end IPv6 connectivity and include application sample code to accelerate development. For more information about Silicon Labs' Thread software stack, hardware platforms and development tools, visit www.silabs.com/thread.

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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