

SEGGER announces emBoot-Secure for secure, CRA-compliant firmware updates

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SEGGER announces the release of [emBoot-Secure](#) — a new, Cyber Resilience Act (CRA)-minded solution for secure and verifiable firmware updates on embedded devices. emBoot-Secure uses modern cryptographic mechanisms and a controlled update workflow to ensure that only authentic, manufacturer-approved firmware can be installed.

The product is based on an asymmetric cryptography security architecture that ensures data authenticity and integrity. The private signing key remains stored on a dedicated signature server at a secure location of choice, while devices to be updated contain the corresponding public key to verify the signature. Firmware updates are prepared as compact, protected packages that are digitally signed, encrypted, and compressed before being delivered to a target system.

“The ability to carry out updates securely is no longer optional for products with embedded systems but, luckily, it has never been easier,” says Rolf Segger, founder of SEGGER. “SEGGER provides a complete package containing all of the tools required to be safe, secure, and compliant right away. Security should never be seen as a do-it-yourself project. It has always been risky to gamble with product security, in terms of both expense and reputation. With the new CRA regulations, there is now also significant legal risk. SEGGER has decades of experience with this technology, and it has been using this solution to securely update its own [J-Links](#) and [Flashers](#) for years. Don’t take chances with security!”

emBoot-Secure code is optimized to be small, portable, and fast, keeping boot time to a minimum. Update delivery is handled by customer application software and can use any supported means of data transportation, including Ethernet, Wi-Fi, USB, SD card, CAN, Bluetooth, LoRa, or Zigbee. On restarting after an update, the emBoot-Secure bootloader verifies the update and installs it only if all integrity and authenticity checks succeed.

emBoot-Secure integrates smoothly into existing development and production workflows and is suitable for a wide range of applications, from connected devices to industrial systems operating in closed or restricted networks.

For more information, visit the [emBoot-Secure page](#).



About SEGGER

Founded in 1992, SEGGER Microcontroller GmbH has over three decades of experience in embedded systems, producing cutting-edge [RTOS and software libraries](#), J-Link and J-Trace [debug and trace probes](#), a line of [Flasher ISPs](#), and [software development tools](#).

SEGGER's all-in-one solution [emPower OS](#) provides an RTOS and a complete spectrum of software libraries for, among other things, communication, security, data compression and storage, user-interface software, and more. emPower OS gives developers a head start, allowing them to benefit from decades of experience in the embedded industry.

SEGGER's professional embedded-development software and tools are simple in design, optimized for embedded systems, and support the entire embedded-system development process with their affordability, high quality, flexibility, and ease of use.

SEGGER, with headquarters in Monheim am Rhein, Germany, also has an office in Boston, Massachusetts, United States, and branch operations in Silicon Valley, California, United States; Shanghai, China; and the United Kingdom. With distributors on most continents, SEGGER's full product range is available worldwide.

For more information on SEGGER, visit www.segger.com.

Why SEGGER?

In short, SEGGER has a full set of tools for embedded systems, offers support throughout the entire development process, and has decades of experience. We are The Embedded Experts.

Furthermore, SEGGER software has no open-source or attribution licenses, and it can be integrated into any commercial or proprietary product — with no obligation to disclose the combined source. SEGGER offers stability in an often-volatile industry, making it a highly reliable partner for long-term business relationships.

For additional information, visit www.segger.com.

Contact information:

Dirk Akemann

Marketing Manager

Tel: +49-2173-99312-0

E-mail: info@segger.com

Issued on behalf of:

SEGGER

Microcontroller GmbH

Ecolab-Allee 5

40789 Monheim am Rhein

Germany

www.segger.com

SEGGER

Microcontroller Systems

LLC

Boston area

101 Suffolk Lane

Gardner, MA 01440

United States of America

SEGGER

Microcontroller China Co., Ltd.

Room 218, Block A, Dahongqiaoguoji

No. 133 Xiulian Road

Minhang District, Shanghai 201199

China

www.segger.cn

Silicon Valley

Milpitas, CA 95035, USA

United States of America

www.segger.com

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