PRESS RELEASE

Trusted Objects brings advanced security features to STMicroelectronics' LoRa-enabled STM32WLE5 platform developers

Trusted Objects, experts in cybersecurity for the Industrial Internet of Things, announces the validation of its secure software solution for enhanced security in LoRaWAN nodes based on STM32WLE5 System-on-Chip from STMicroelectronics, which will provide advanced protection against logical and physical cyberattacks.

AIX EN PROVENCE, FRANCE, November 3, 2020 – Trusted Objects TO-Protect LoRaWAN, the company's secure software solution for enhanced security in LoRaWAN nodes is now validated on STMicroelectronics STM32WLE5 series. Thanks to a tight collaboration between Trusted Objects and STMicroelectronics, TO-Protect has been ported on the STM32WLE5 series demonstrating the ease of integration and the benefits of the solution in terms of security.

This TO-Protect LoRaWAN integration provides IoT developers with a way to significantly increase the security robustness of their LoRaWAN platform based on STM32WLE5 without adding complexity, while ensuring a short time to market.

TO-Protect LoRaWAN solution provides:

- Secure implementation of cryptography and security protocol (authentication, integrity, encryption & decryption applicative data),
- Secure LoRaWAN frame assembly and disassembly with secure frame counter management,
- Secure storage for keys and counters,

while remaining compatible with the standard LoRaWAN software stack.

The solution implements secure element functionalities with state-of-the art software countermeasures against the most advanced physical attacks on LoRaWAN nodes, including side channel attacks and fault injection.

Trusted Objects is now a member of ST Partner Program and is working with ST toward a full integration into the STM32Trust ecosystem. When complete, LoRaWAN module developers will find the most appropriate solution to implement LoRa Alliance® recommendations for advanced "physical security" as part of the STM32WL ecosystem.

Hakim Jaafar, STM32 Wireless Marketing Director, STMicroelectronics, said: "Building upon ST's innovative STM32WL architecture, Trusted Objects can now provide its innovative security solution to the market on wireless MCUs, which will increase overall network robustness and user trust on LoRaWAN technology."

Jean-Pierre Delesse, COO of Trusted Objects, adds: "We are proud to see our unique solution recognized by ST. Our expertise in embedded security and more generally in securing the Internet of Things is acknowledged and we will help the LoRaWAN developer community benefit from the latest advancements in terms of security."

The STM32WLE5 System-on-Chip is built on ST's best-in-class ultra-low-power technology and integrates a LoRa® transceiver and an MCU in a single die making it the world first LoRa SoC. It fits LoRaWAN developers' needs as it is based on an Arm® Cortex®-M4 core running at 48 MHz, and a sub-GHz LoRa-enabled radio. STM32WLE5 microcontrollers also support multiple modulations: LoRa, (G)FSK, (G)MSK and BPSK - to ensure flexibility in wireless applications using any other suitable protocol than LoRaWAN.

About Trusted Objects

Trusted Objects is a leading independent player in the Secure IoT market, providing innovative solutions including software and embedded firmware, to dramatically enhance the security of connected devices. Trusted Objects solutions are fully optimized, certified and are positioned as the root of trust to meet the end to end security needs of the IoT.

Trusted Objects also delivers a set of services and systems including security assessment, personalization engine, keys and certificates management, fast prototyping to accelerate the deployment of comprehensive solutions that meet the highest security requirements.

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