FRANÇAIS ENGLISH

cea leti

SecIoT

Ultra-secure device for critical IoT

What is SecIoT?

SecIoT integrates an enhanced arsenal of hardware and software security features. It simultaneously ensures object authentication and protection of sensitive data in terms of confidentiality and integrity. Implemented security functions leverage both local capacities and off-the-shelves hardware security components to maximize security and performance.
Along with encryption keys management, automatic recovery and quantum threat protection, SecIoT automatically detects when the case is opened to prevent reverse engineering.

Applications

- Industry 4.0
- Health and well-being
- Smart energy
- Smart cities

Work performed in the frame of the IRT Nanoelec consortium.

NANOELEC.

What's new?

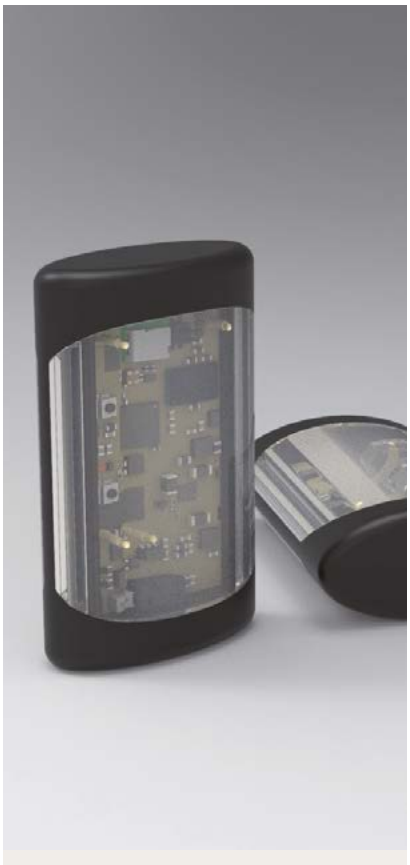
SecIoT offers an arsenal of hardware and software security for connected objects:

- Secure case with opening or degradation detection
- Secure software update
- Management of encryption keys and cryptographic certificates
- Integration of a certified secure element
- Protection of code and data using ARM TrustZone technology
- Secure wireless communication interface (BLE)
- Attack recovery strategy

What's next?

CEA-Leti researchers will integrate the below security features in 2022:

- Dynamic intrusion detection
- Automatic recovery after an attack detection
- Optimal management of remote IoT fleets to secure data
- Optimization of power consumption
- Protection against quantum threat using implementation of post-quantum cryptographic algorithms



Interested in this technology?

Contact:
Marie-Sophie Masselot
marie-sophie.masselot@cea.fr
+33 438 783 830

CEA-Leti, technology research institute
17 avenue des Martyrs, 38054 Grenoble Cedex 9, France
cea-leti.com

@CEA-Leti

Research for industrial innovation