



leti



## SCIBE

Testing the security of communication protocols of physical and wireless interfaces

### What is SCIBE?

SCIBE (Secure communication interface bench) is a bench for testing the security compliance and vulnerability detection in communication interfaces for connected objects.

It conducts protocol security tests for wireless devices (Bluetooth, Wi-Fi, ZigBee) and physical interfaces (I2C, SPI, UART, JTAG, CAN).

It relies on a library of attacks published by field experts for testing campaigns. It also features an expert mode for more advanced scenarios such as sniffing, spying, spoofing, cloning, injecting, or jamming.

### Applications

SCIBE can be used on prototypes or products in many fields:

- Consumer electronics,
- Healthcare industry,
- Industry 4.0,
- Automotive.

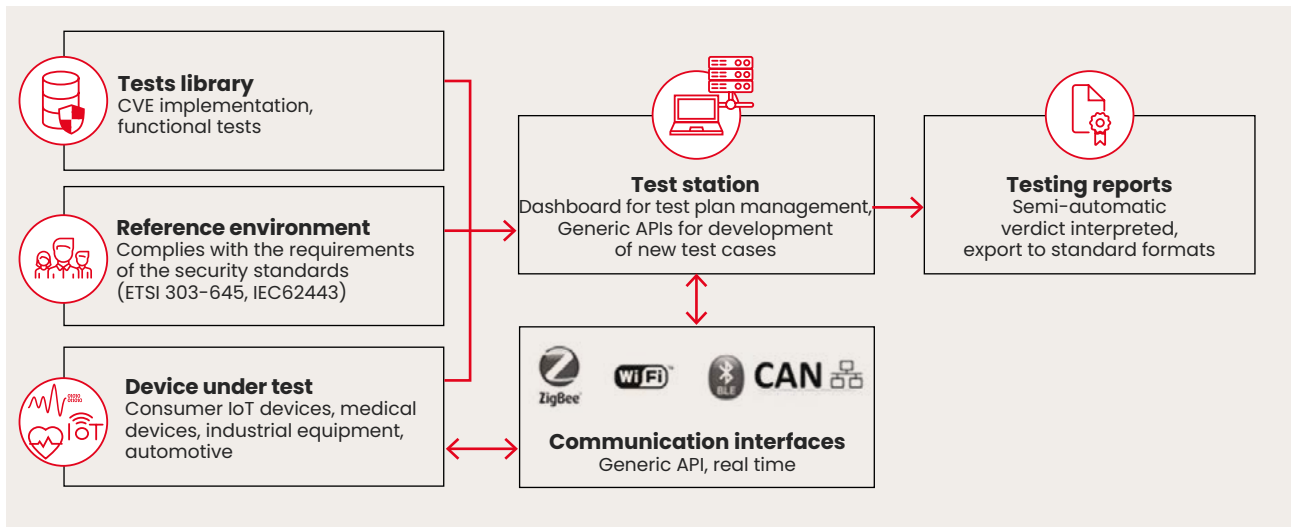
## What's new ?

SCIBE includes both a simple mode based on multiple test scenarios, and an advanced mode for experts. Materially, it includes a single computer which drives several access heads to test the security of several protocols. The simple, ergonomic user graphic interface makes it easy to use by all operator profiles.

SCIBE offers extensive tests for devices in master or slave mode for the Bluetooth interface, the most common one on the market. These tests are especially geared for advanced attacks such as identity theft and data manipulation.

## Publications

T. Maurin, L.F. Ducreux,  
G. Caraiman, P. Sissoko,  
"IoT Security Assessment through  
the Interfaces P-SCAN Test Bench  
Platform", DATE, Mars 2018.



## What's next?

CEA-Leti researchers are developing new features:

- LoRaWAN and NFC protocols, with associated safety tests
- RF fuzzing techniques: protocol stack and application layer
- Relay attack tool

## Interested in this technology?

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