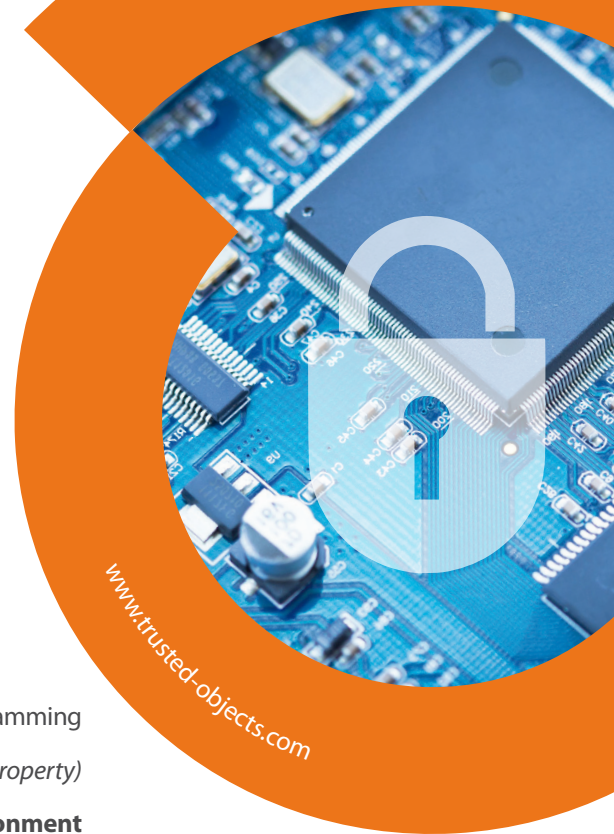


Secure Programming Services for *MCU-based systems

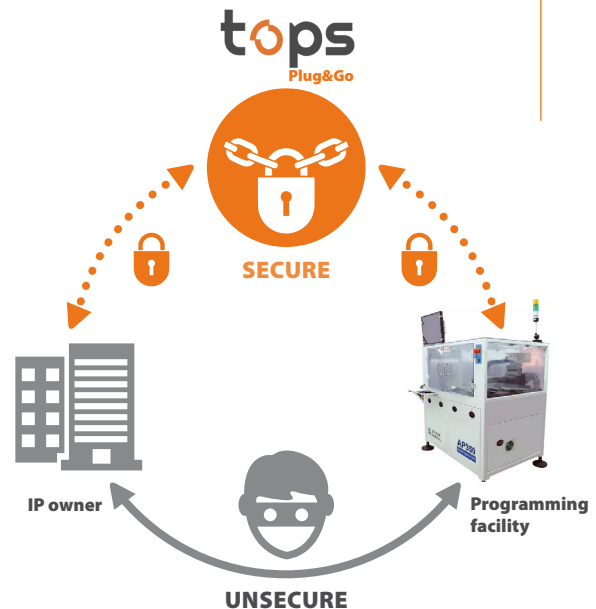
- ▶ **Data protection: a critical issue** when outsourcing embedded systems programming
 - ▶ **Secure programming services** to protect software IP (*Intellectual Property*)
 - ▶ Solution for manufacturing in **uncontrolled environment**



tops
Plug&Go

for secure programming services

- Enable software IP protection against illegal copies, cloning and overproduction
- Integral control of software IP during manufacturing operations
- Already qualified on all **System General** programmers
- Compatible with most programmable microcontroller



SERVICE BENEFITS

- **One stop shop solution** System General & Trusted Objects
- **Secure control** between IP owner and programming equipment
- **Adapted for each project** (programmer, MCU) by Trusted Objects
- **No internet connexion** needed during production operations
- **Signed batch report to control** the number of programmed devices

tops Plug&Go service enablers



- Secure box with a display screen
- User software to exchange data **between IP owner and TOPS box**
 - Preset number of programming operations
- Technical support for adaptation and installation
- Full set of documentation, including user manual



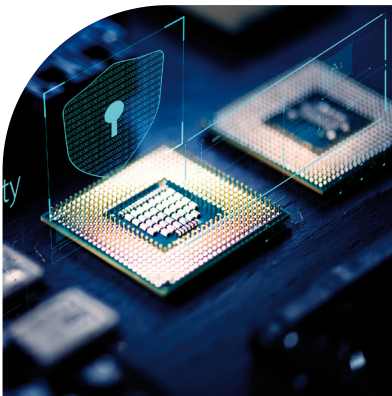
Secure box with a display screen

Secure box hardware:

- Portable computer
- 240 GB SSD
- Hardware security module (*HSM*)
- Connected to the MCU programmer

Secure box software:

- System services
- Application server with User Interface (*UI*)



Customer experience

- 1 IP owner use case description**
Software size, programmer, MCU...
- 2 TOPS adaptation**
By Trusted Objects
- 3 Installation of the secure box and validation**
Full support from System General

Pay-per-use business model

Licensing model based on the number of secure programming operations