

**Blackbox**



**Secure remote control of device programming in production**

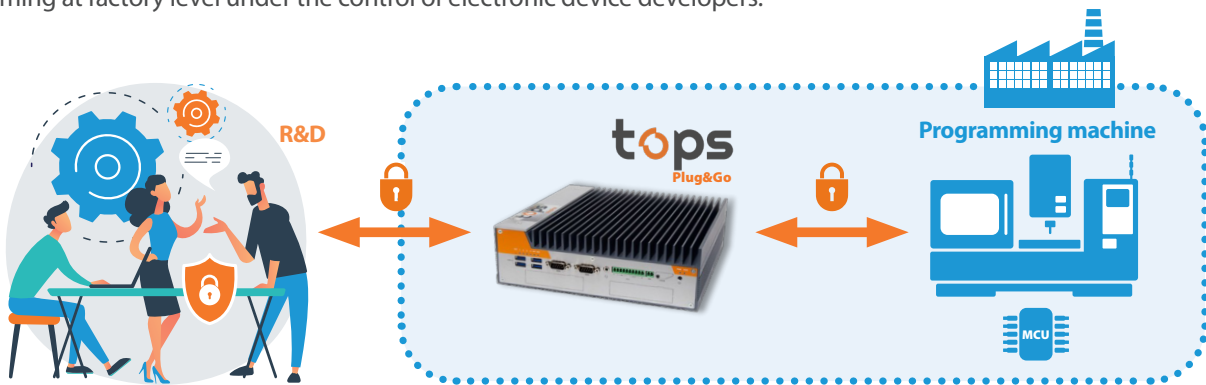
- **Address the programming** remote control needs of manufacturers and integrators (OEM, ODM, EMS...) for device firmware/software.
- **Target connected devices** based on programmable components (MPU, MCU, FPGA...).

**OVERVIEW**

For products developers, firmware/software protection is a critical issue when outsourcing embedded systems programming:

- **how to protect** the assets during transit ?
- **how to keep** a full control of the firmware/software at any stage of the manufacturing process ?
- **how many products** have been programmed ?

Trusted Objects provides **tops Plug&Go-Blackbox** to protect high value embedded firmware/software and to enable secure programming at factory level under the control of electronic device developers.



**TOPS PLUG&GO BLACKBOX SERVICE BENEFITS**

**1** **Increase security**  
**Reduce complexity and cost**

- **Secure** and **simplify** the programming process
- **Remove room** for human errors
- **Ensure trust** in the manufacturing operations

**2** **Automate and scale**

- **Fully automate** the programming operation
- **Fit** with volume increase in production

**3** **Flexibility**

- **Can be used** with any device or chipset
- **Easily integrated** with most of programming equipments and test benches

## Product features and services

### Services

- **Firmware protection** in production against illegal copies and cloning
- **Secure remote control** in production
- **Remote preparation** of the production profile
- **Secure channel** between R&D and factory
- **Firmware encryption** during transport
- **Secure storage** in the programming facility
- **Overproduction control**: signed whitelist and blacklist, signed batch report



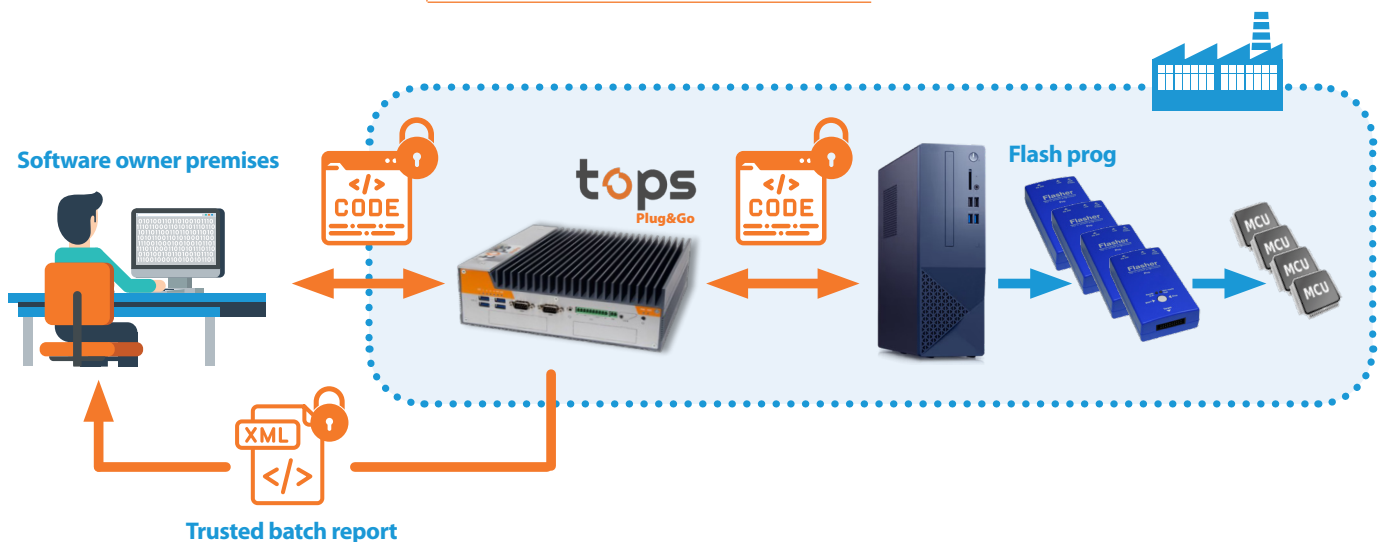
### Ressources

- **Credits** for a preset number of secure programming
- **Technical** support for installation
- **Full set** of documentation



### Secure computer

- Portable **industrial computer**
- **256 GB SSD**
- **TPM 2.0 / HSM**
- **Secure OS** and SW update
- **Secure connection** to the device programmer
- **Application server** with User interface (UI)



## Pay-per-use business model

Initial setup fee + Licensing based on the number of secure programming operations

## Who are we ?

**Trusted Objects** is a leading player in cybersecurity technologies for embedded systems.

**Trusted Objects** products and services for constrained devices are positioned to create trust all along the value chain including edge devices, networks, clouds and manufacturing.