LEGIC

LEGIC Custom Code

Rolf Lanz

connect23

My Presentation

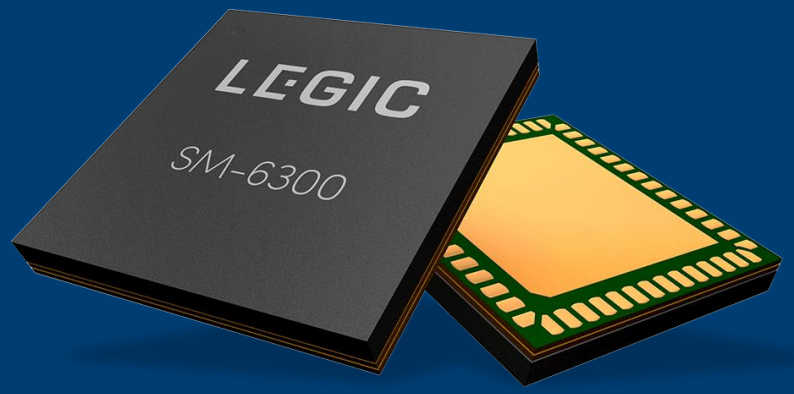
SM-6310 with Custom Code

Main Usage

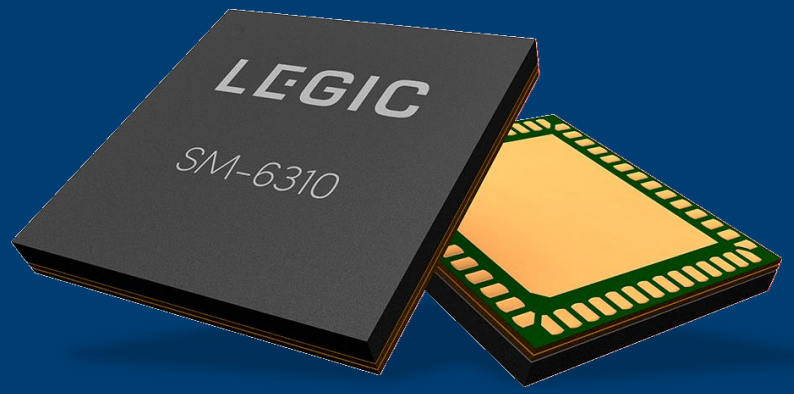
Development with DK-6310

Success Story InTallyCom

The 6000 Series Family Members

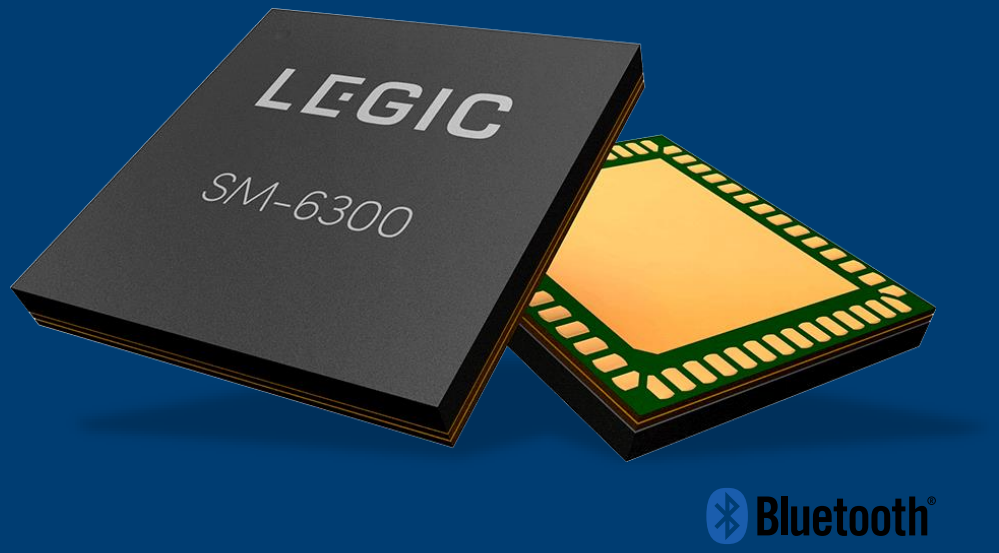


SM-6300 Security Module



SM-6310 Security Module
with Custom Code functionality

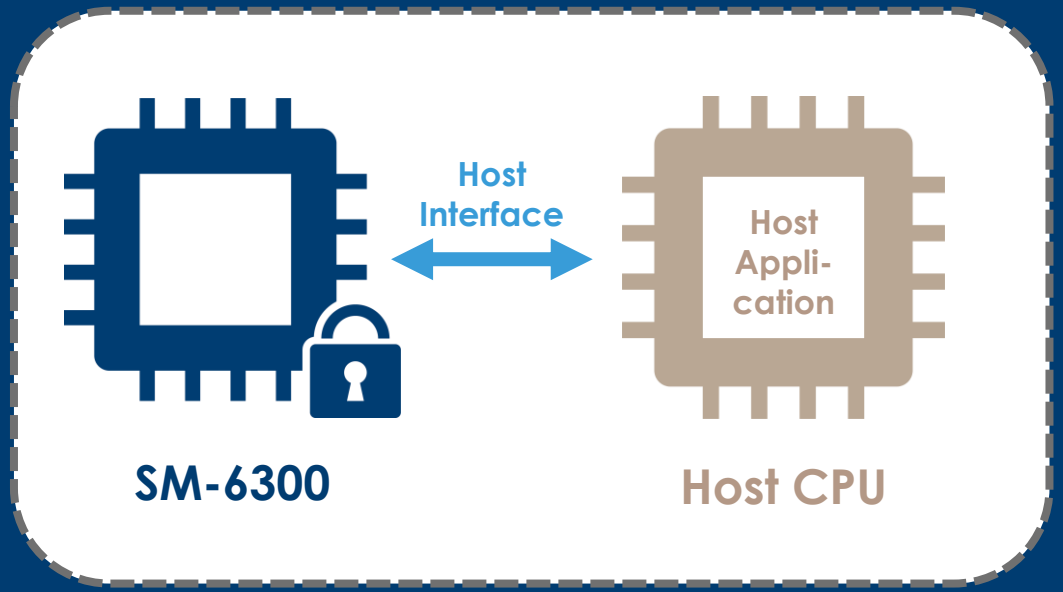
SM-63x0 – RFID, Bluetooth and Secure Element in one Module

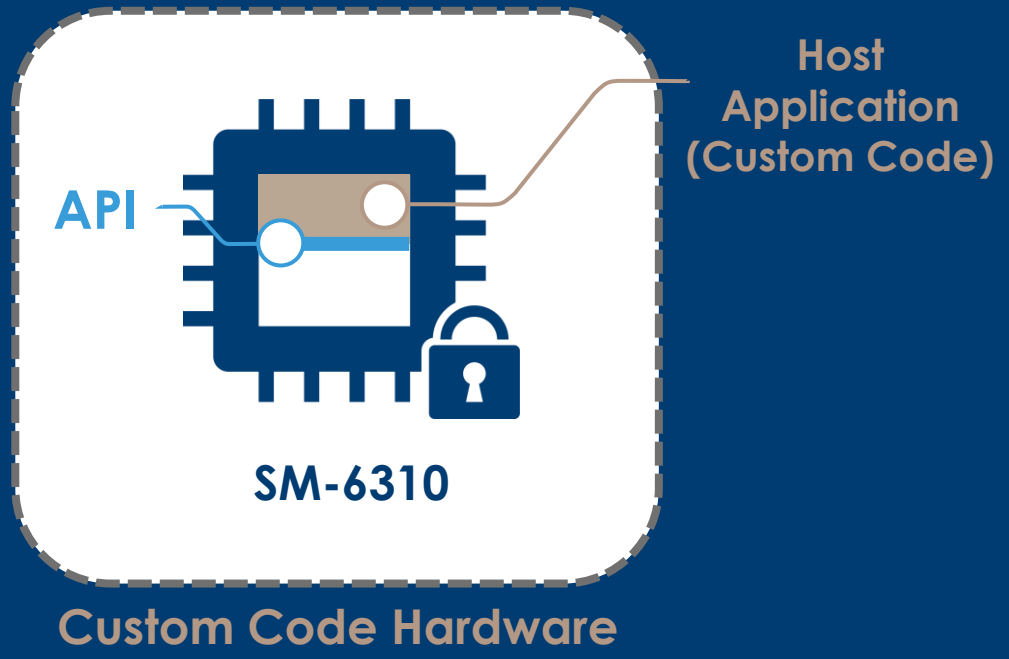


- **Reads all globally relevant RFID standards**
- **Compatible with LEGIC prime, advant and neon as well as MTSC and LEGIC Orbit**
- **Fulfills the highest security requirements due to the Secure Element**

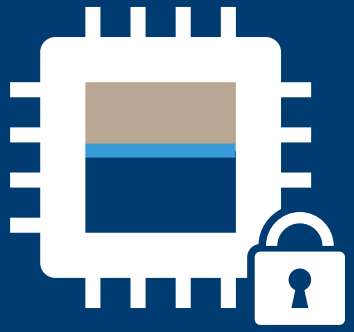
Makes the world of ID and IoT more secure

CC = Replacing Host Interface (HW) with API (SW)





When to Prefer the SM-6310 over the SM-6300



Limited physical space available

Minimal power consumption needed

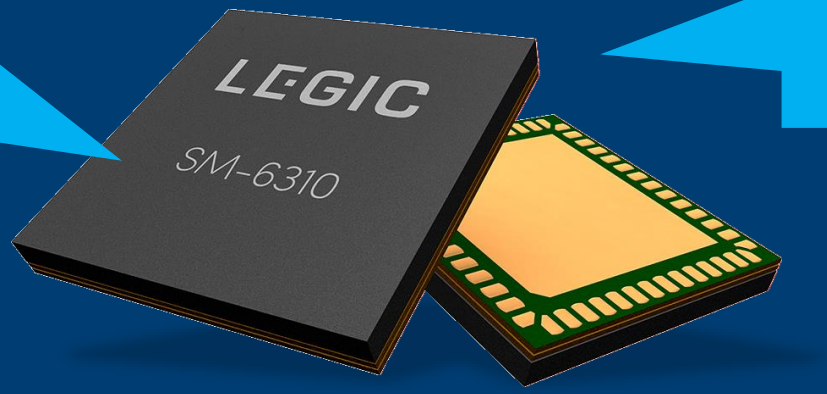
Cryptographic functions

Latest Updates for Custom Code Functionality

new

Memory for Data

512 kB flash for data in download area
&
128 kB flash for code



Bluetooth wake-up

→ 15.6 µA consumption in sleep mode

DK-6310

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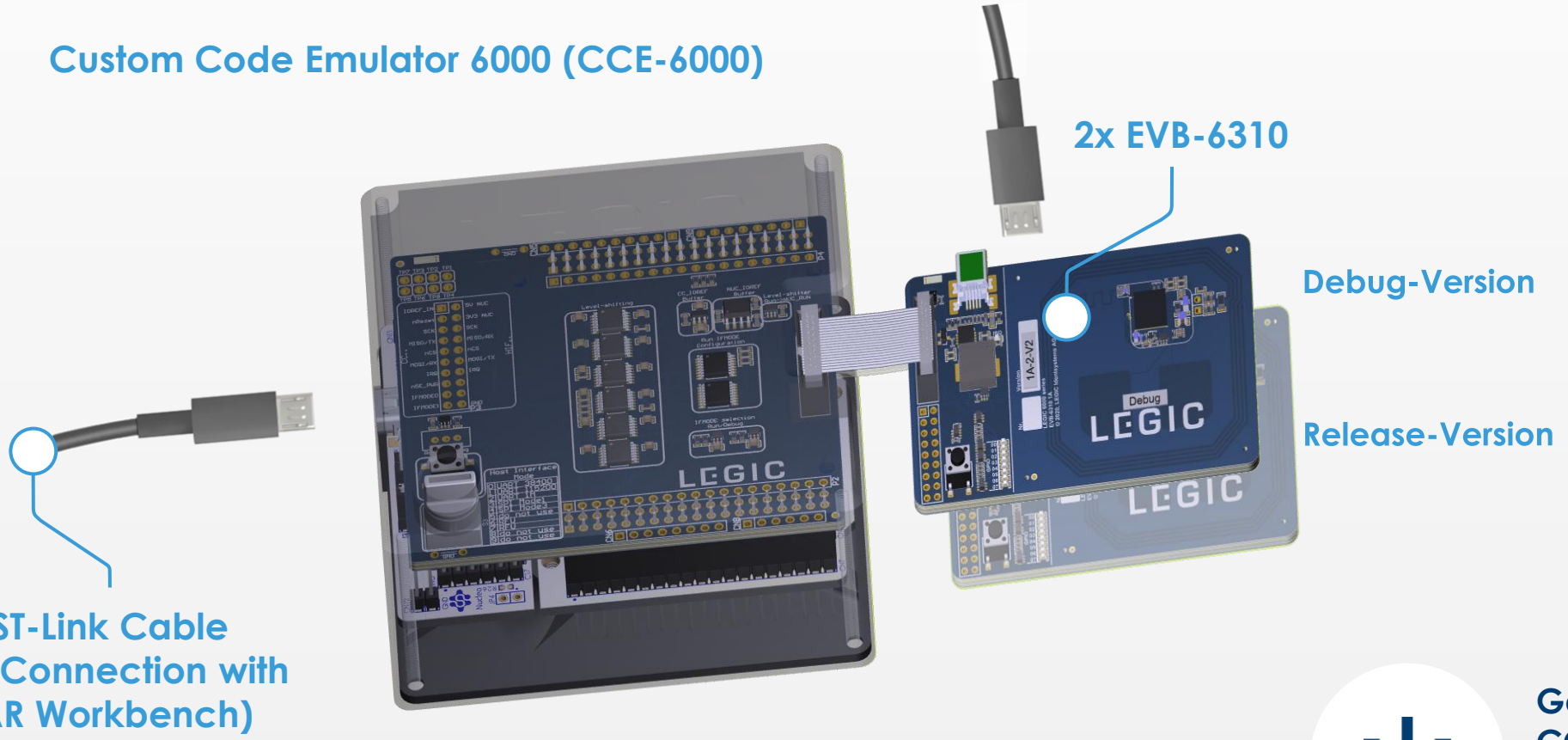
Custom Code Development Kit DK-6310

Custom Code Emulator 6000 (CCE-6000)

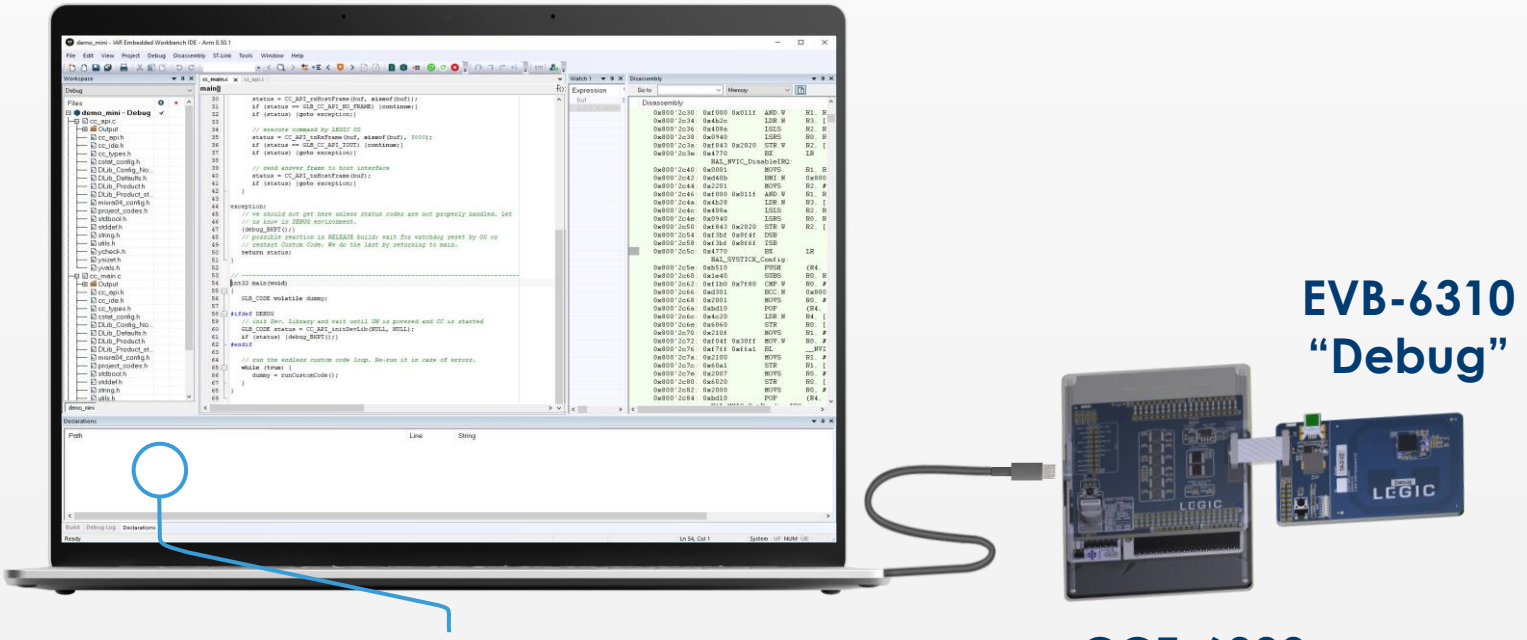


Getting Started
CC Demo Projects
USB-Drivers
etc.

Custom Code – Development Cycle

1

Develop and Debug Custom Code



IAR Embedded Workbench for ARM version 8.50 *

EVB-6310 “Debug”

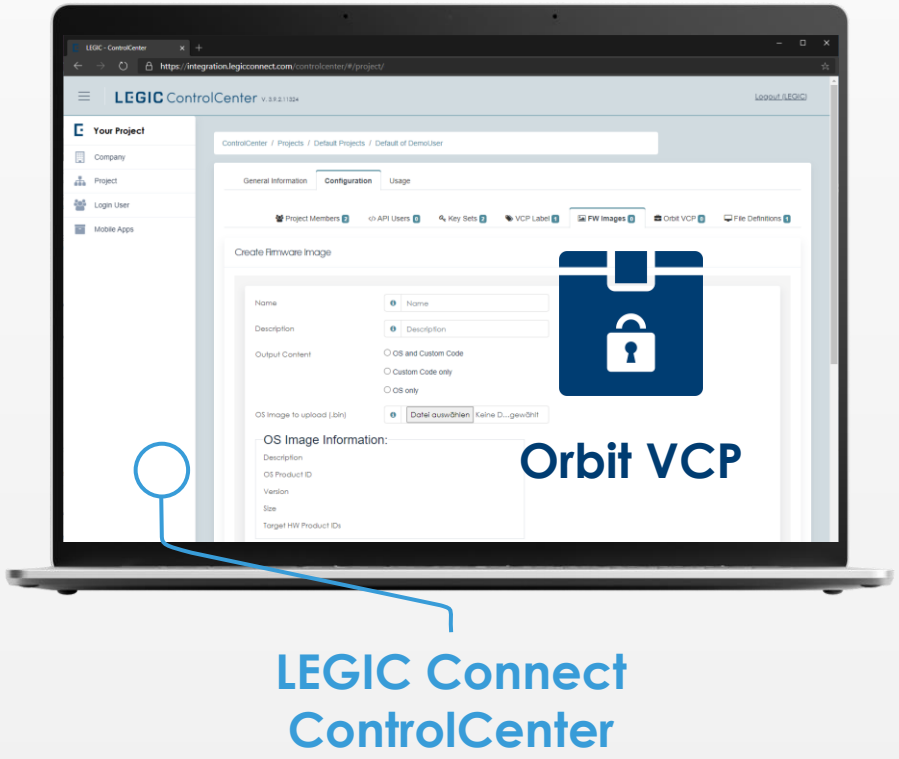
CCE-6000

* For the provided demo projects, the free trial license can be used

Custom Code – Development Cycle

2

Generate Custom Code Image

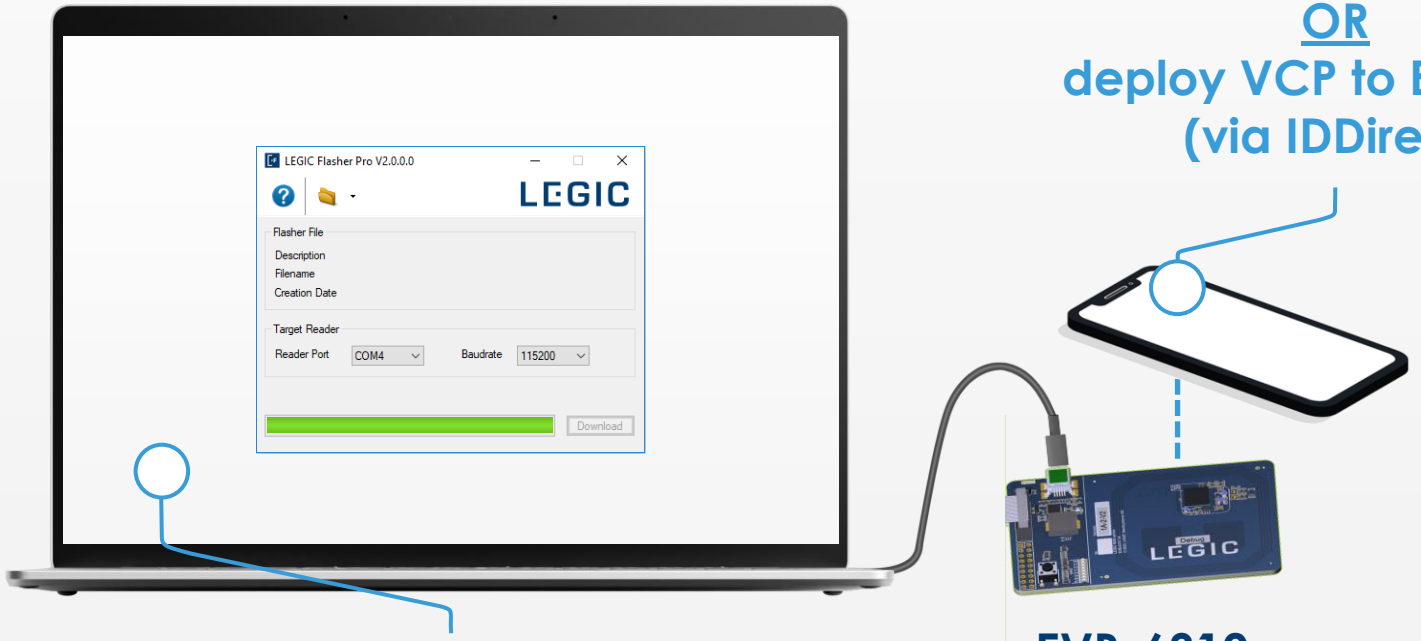


Custom Code

Custom Code – Development Cycle

3

Download and Run Custom Code



Success Story with InTallyCom

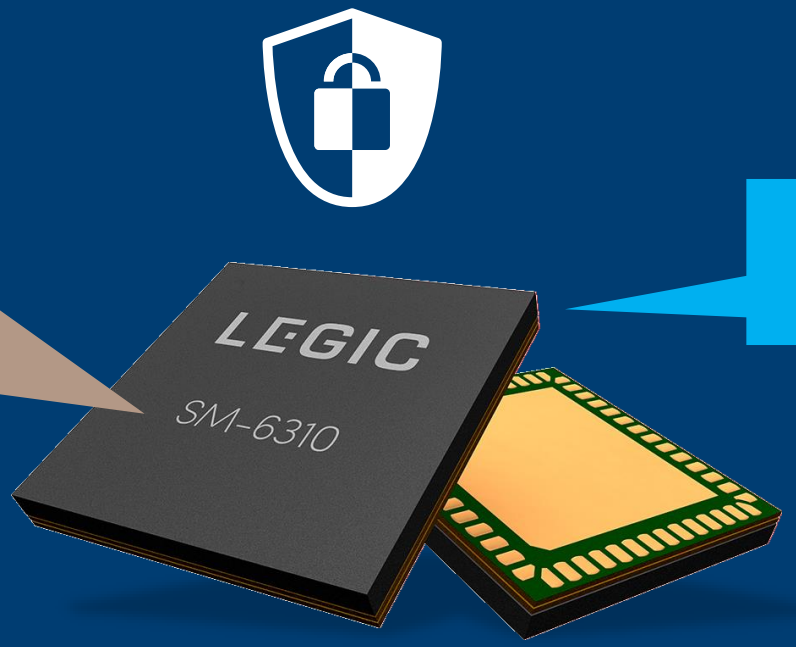
1. **New requirement for electro mobility:**
   - VDE-AR-E 2532-100 → Elliptic Curve ‘Brainpool 256r1’ needed
   - Creation and sign of the German „Eichrecht“ data set for up to 4 metering devices in one charging station
2. **New OS50 Release V2.2.1.0**

other projects & OEM solutions

Cryptographic Functions with Custom Code

new

- **AES**-128/256 (ECB or CBC modes)
- **Elliptic-curve** NISTP-256 and P-384,
- **Hashing**: SHA1-160, SHA2-256/384
- Message authentication via **CMAC**



Brainpool 256r1 & 384r1

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Another product using Custom Code - Skyra

Running with Custom Code

Thank you