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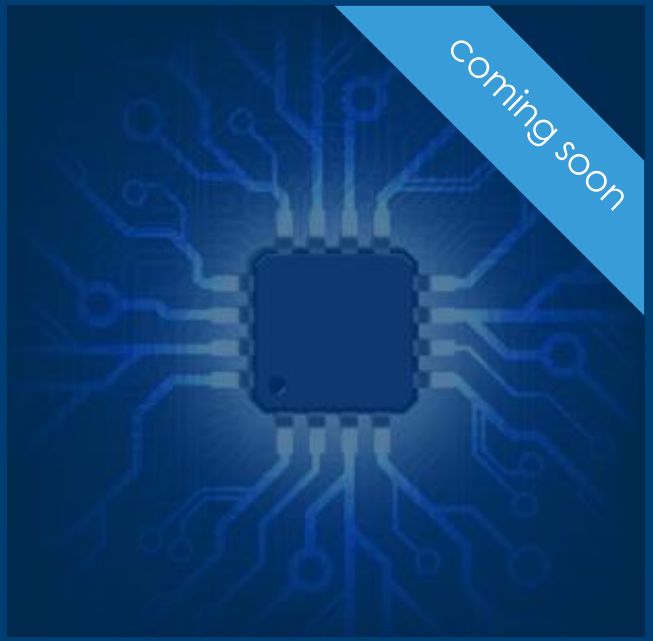
New LEGIC Security Chipset SC-6410

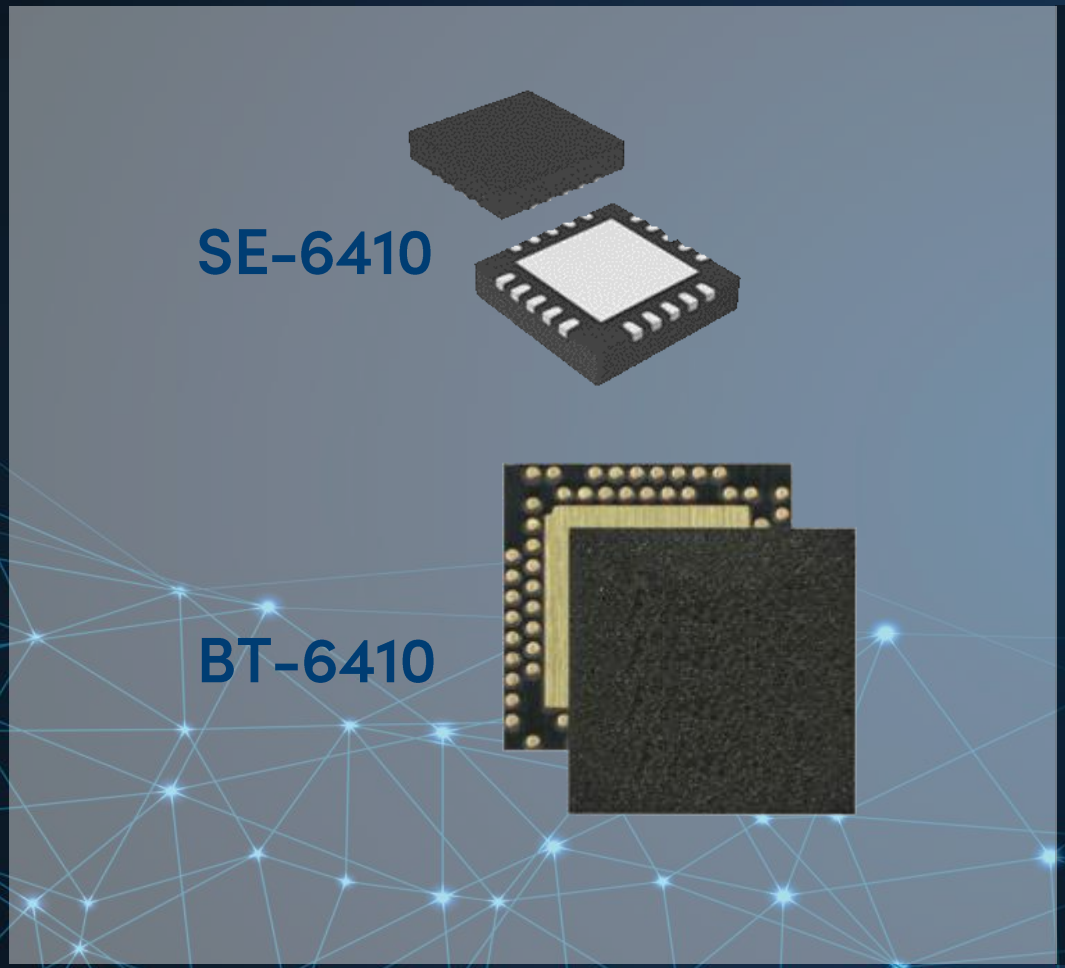


Martin Buck

connect23

Secure Chipset with Bluetooth® and Secure Element

coming soon



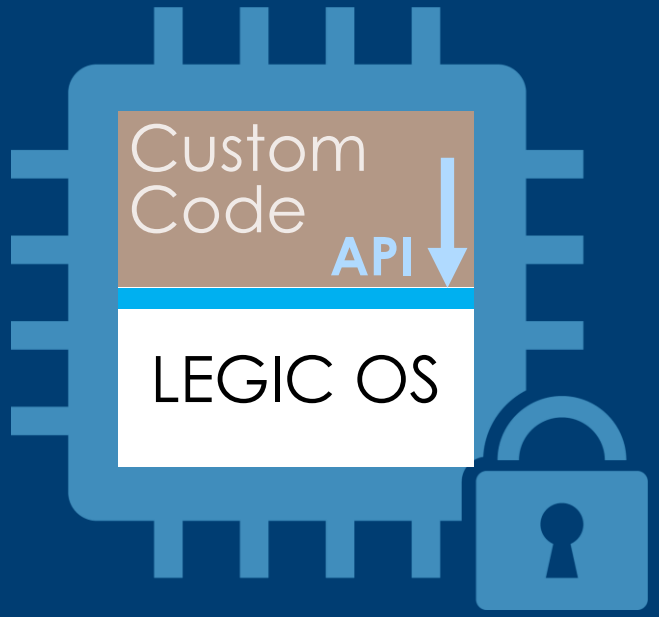
For applications requiring

- Secure BLE connectivity
- BLE mobile credentialing
- Secure configuration

Compatible with:

- LEGIC Connect
- LEGIC neon credentials
- LEGIC Orbit key and configuration management

Custom Code in Secure Element SE-6410



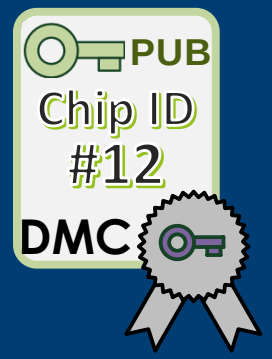
SE-6410
Common Criteria EAL5+
Secure Element

Features:

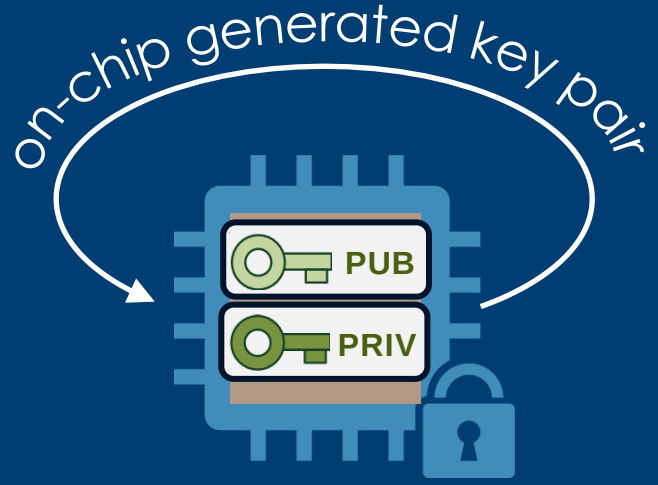
- ARM 32-bit RISC processor, 50 MHz
- 128 KB programmable flash – for your application code
- 5 KB RAM
- 250 KB flash – for Custom Code data
- Hardware-accelerated crypto functions

Hardware Root of Trust

Device Manufacturer Certificate (DMC) as a base for PKI applications



X.509 v3 Public Key Certificate



Chip ID #12

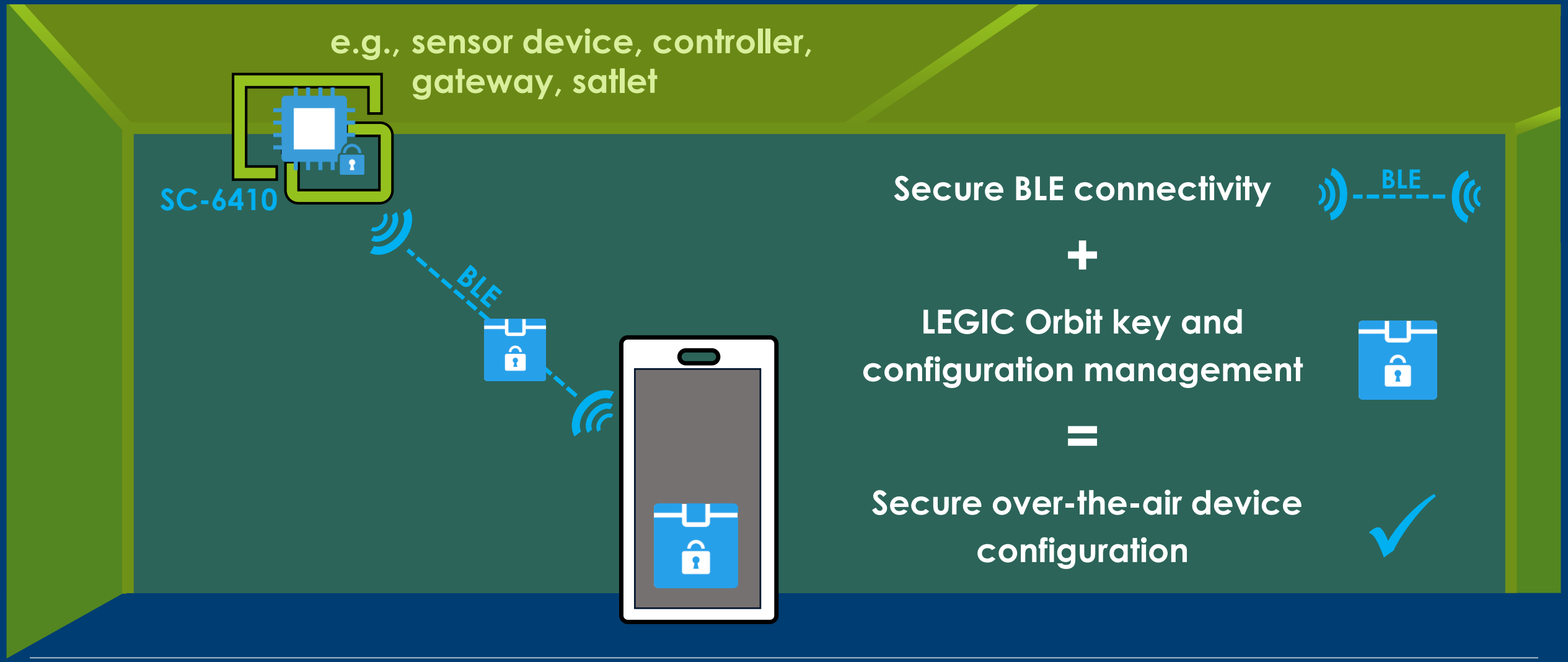
- ⇨ DMC enables authentication of LEGIC SE-6410 with chip ID #12
- ⇨ DMC enables secure device registration
- ⇨ DMC enables mutual TLS between device and public or private cloud

Comparison of SC-6410 with SM-6310

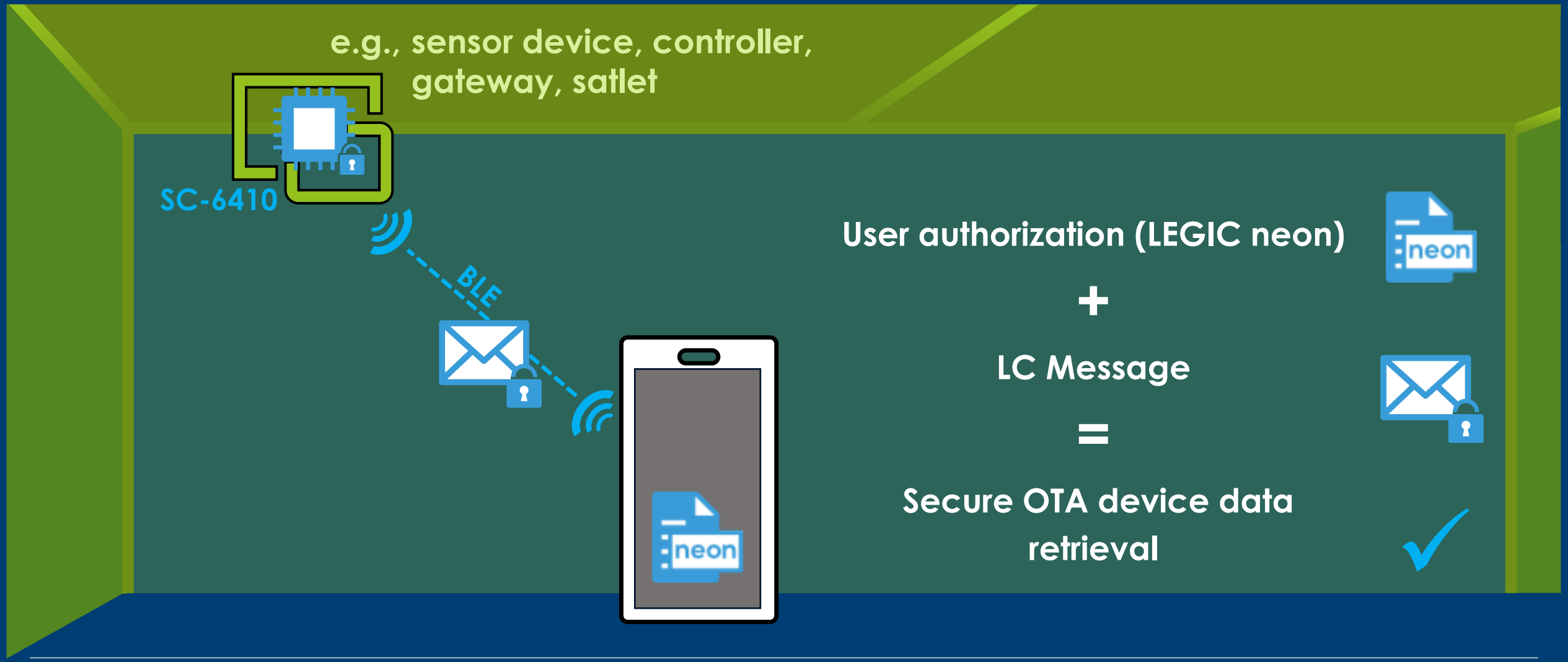
	SC-6410	SM-6310
BLE reader for LEGIC neon mobile credentials	yes	yes
BLE communication to other reader or 3rd-party BLE device	yes	yes
RFID reader	no	yes
Custom Code in SE	128 KB flash, 5 KB RAM	128 KB flash, 5 KB RAM
Device Manufacturer Certificate (DMC)	yes	no
GPIOs (inputs, outputs, I²C, SPI, 12-bit ADC)	20 GPIOs	8 GPIOs
Host Interface	UART, SPI, I²C, USB 2.0 12 Mbit/s	UART, SPI, I²C
Sleep mode current, inductive sensing (OIF)	n.a.	21.0 µA
Sleep mode current, BLE wake-up, 1 s advertising interval	15.6 µA (13.0 µA with external 32.768 kHz crystal)	15.6 µA (option with crystal planned)
Operating temperature	-40°C to +105°C	-40°C to +85°C

BLE use cases

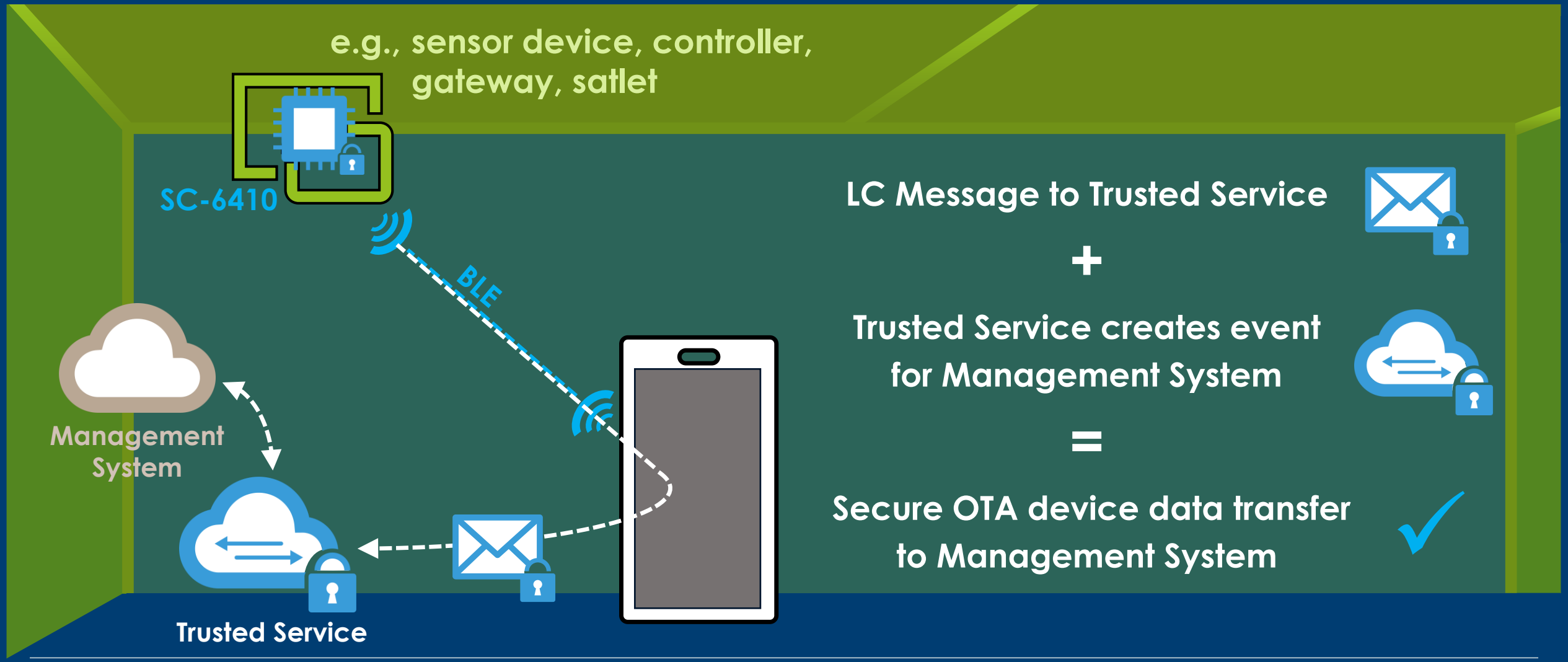
Secure Over-the-Air Device Configuration



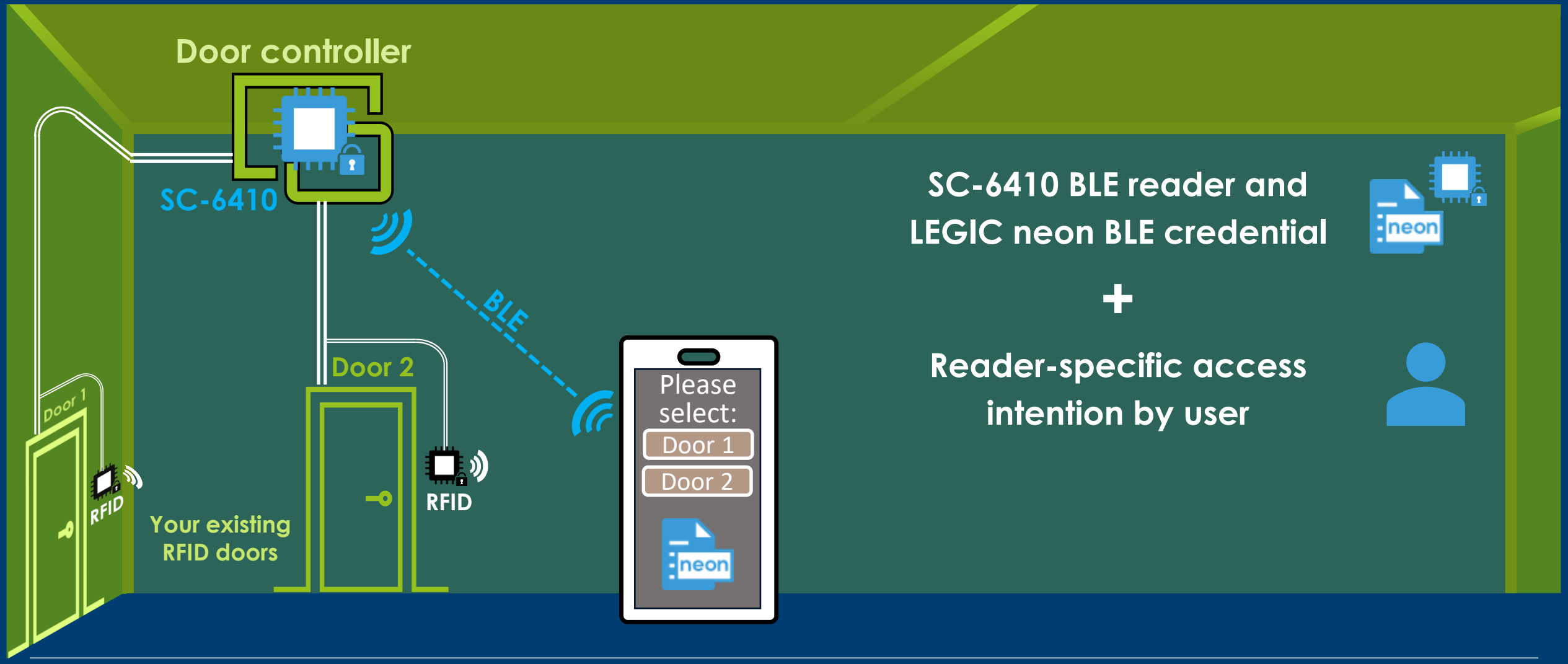
User Authorization for Secure OTA Device Data Retrieval



Secure OTA Device Data Transfer to Management System



Add BLE Mobile Access to Your Existing RFID Solution



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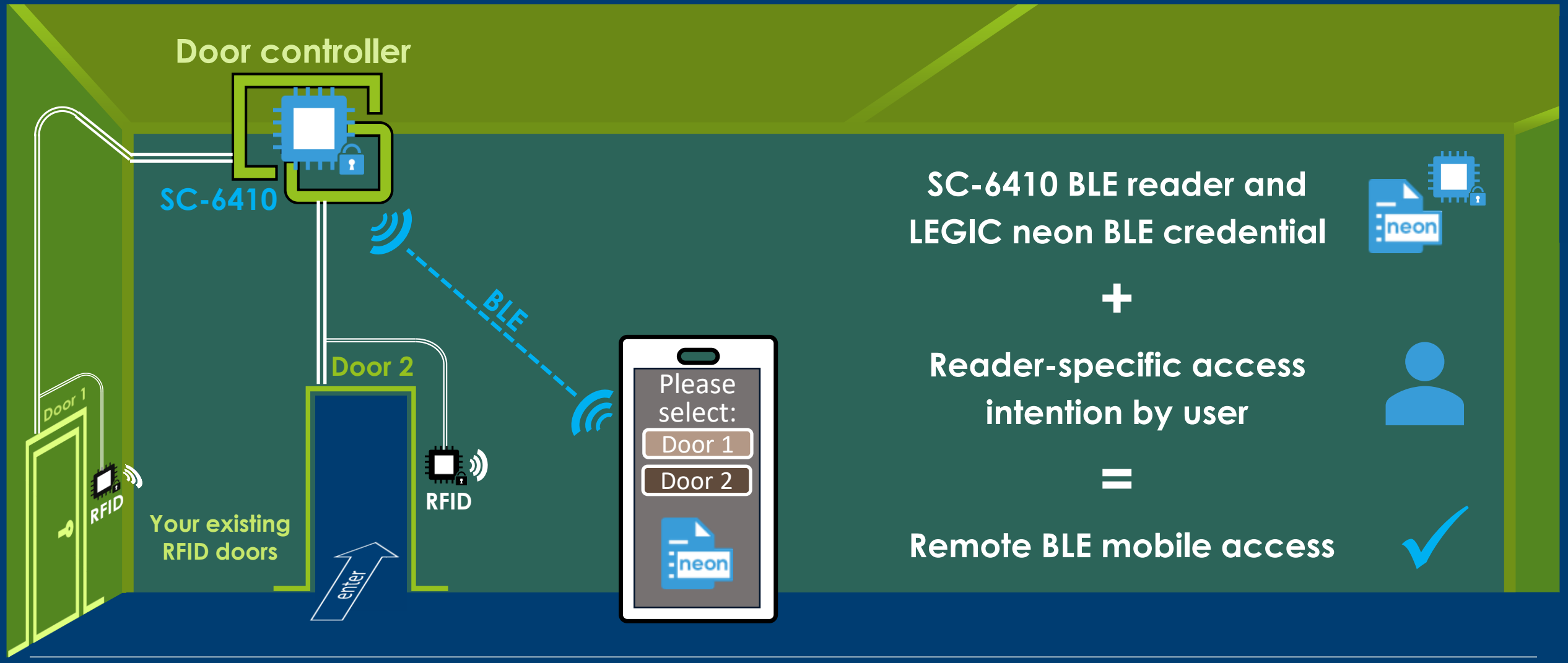
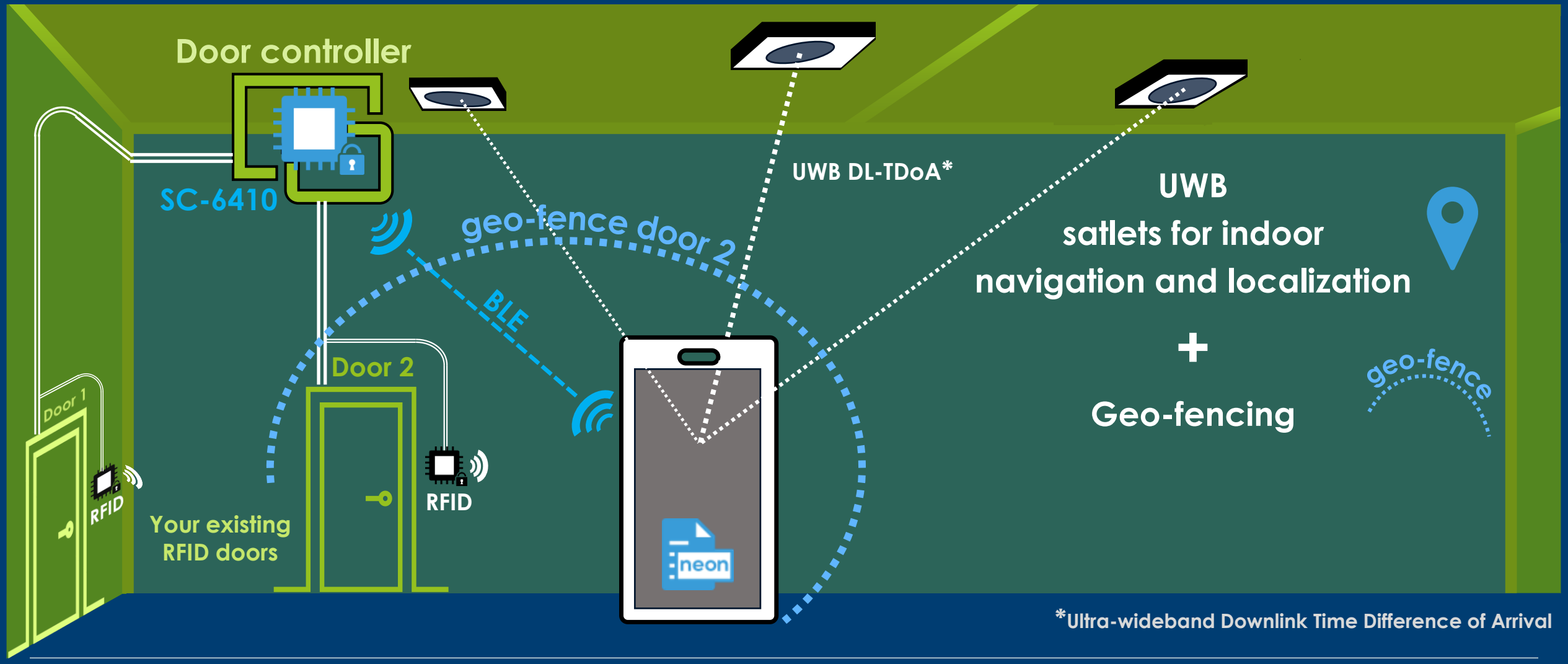


Add UWB Indoor Localization to Your Existing BLE Mobile Access



*Ultra-wideband Downlink Time Difference of Arrival

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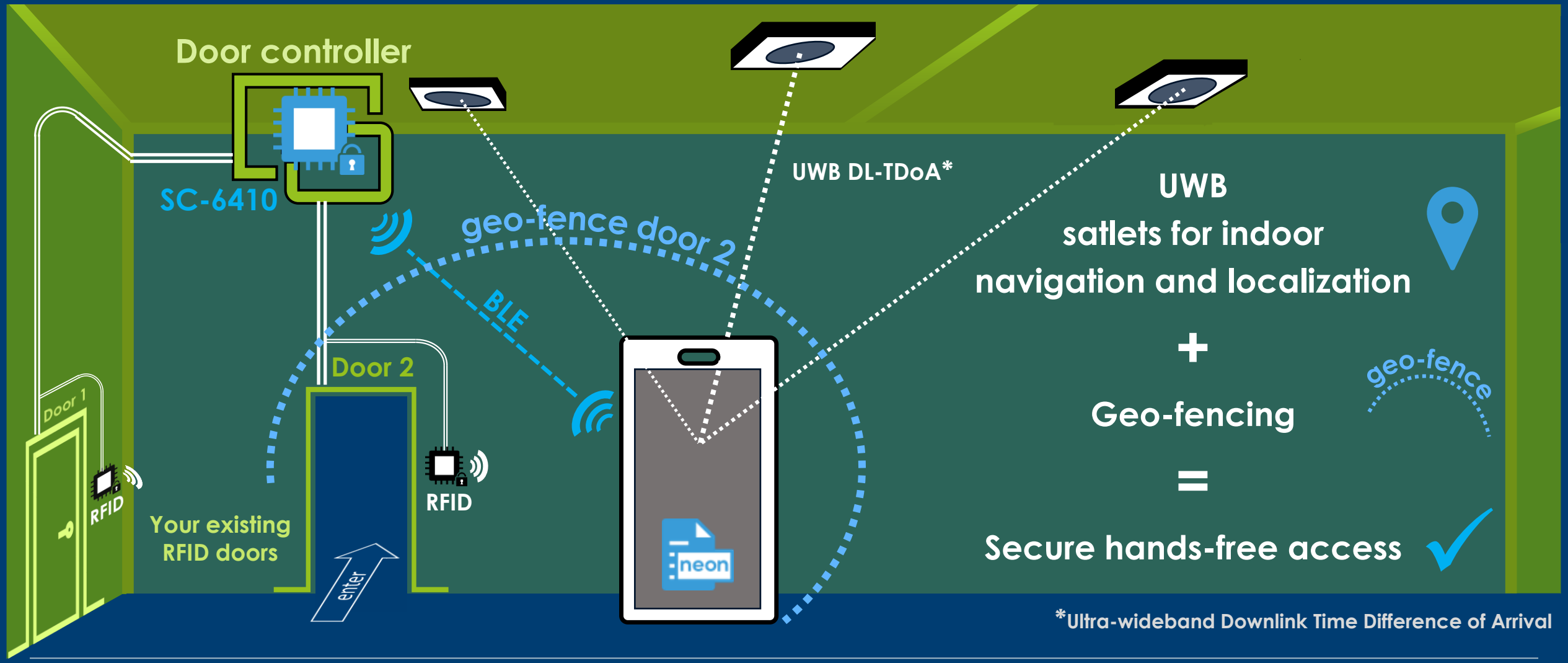

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Thank you for your attention

For more information,
please visit us at the LEGIC booth