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Digital key system for secure NFC car access



ST's ecosystem for an end-to-end digital key system

ST is everywhere to ensure Secure NFC Car Access



ST54 combines an eSE and an NFC Controller in a Mobile Phone



ST31 eSE enables NFC-A card emulation and energy harvesting

In the digital key



ST25R3920B Automotive NFC Reader detects and communicates with the key

Information is transmitted to Automotive MCU

In the door handle



SPC5



ST25



SPC58 Automotive MCU receives information from the door-handle

STSAFE-VJ100-CCC Secure Solution authenticates the user

ST25R3920B communicates with the key in the center console

In the car

A mobile phone or a smartcard as digital key

A complete offer for digital keys



a mobile phone based on **ST54**



an NFC card based on **ST31**

ST54 NFC/eSE (+eSIM) for multiple application and devices

- A reference solution in Android ecosystem
- #1 Felica, MIFARE® integration in Android framework
- Best-in-class RF performances, reduced bill of material & power consumption

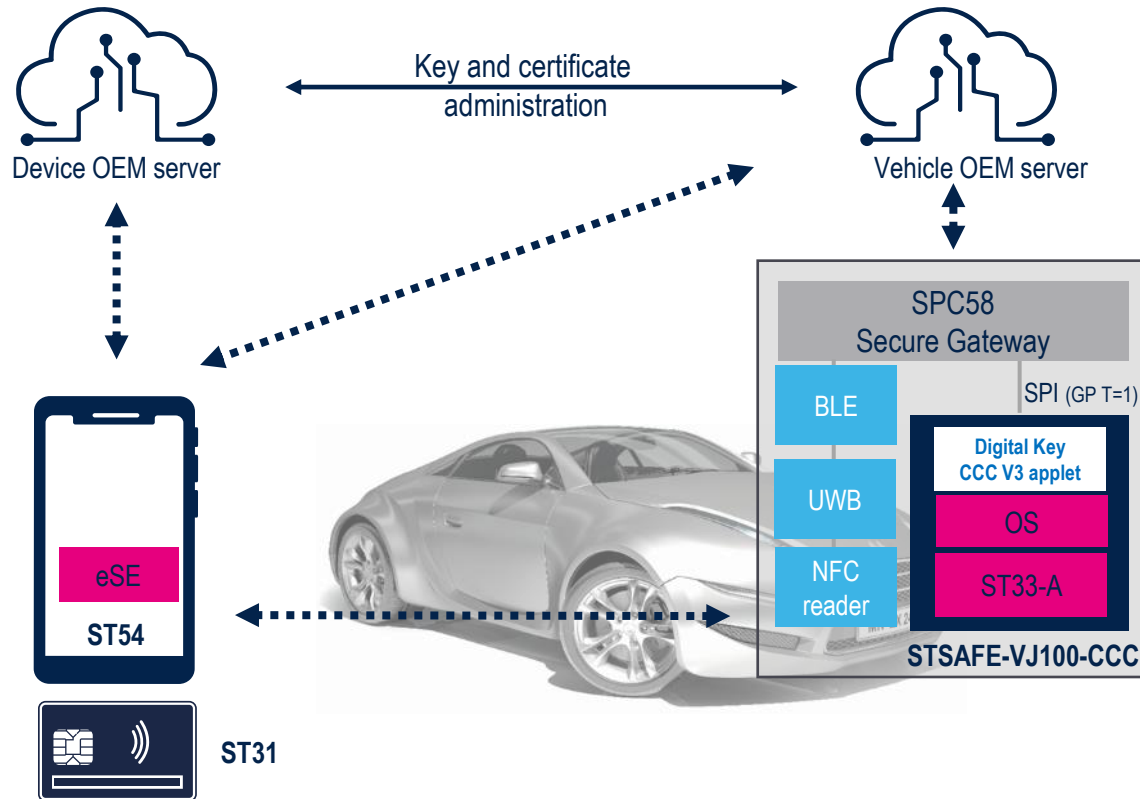
ST31 eSE enables NFC-A card emulation

- Common criteria, EMVCo, CUP, FIPS security certified
- Low power design and energy harvesting enabled
- An enhanced performance and fully interoperable with market readers



STSAFE-VJ100-CCC secure solution

Digital Key "In-Vehicle"



System on chip solution

- Javacard OS v 3.0.5, GP 2.3
- Based on ST33-A AEC-Q100 Grade 2, CC EAL5+ certified
- CCC V3.0 specification compliant
- SPI Global Platform (GP T=1)

Trusted partners delivering

- Digital Key Applet (CCC implementation)
- Full Ecosystem & Services

Over The Air software update capable
Drive pairing between phone and vehicle



ST25R3920B NFC reader

High NFC performance for an improved user experience



Low-Power Consumption

- Inductive low-power wakeup for key detection

Large Key Detection Range

- High output Power for large communication range
- Dynamic Power Output
- Highest sensitivity in the market

Fast Time-to-market

- MISRA-C:2012-compliant SW library
- Low-noise output drivers
- Excellent noise immunity to pass injection tests
- CR13 compliance (required by CCC)
- Development kit available



SPC58 automotive microcontroller

The ideal MCU for keyless access solutions



Unprecedented Scalability

- From Single core 64Mhz up to Triple core 200MHz
- 512KFlash up to 10MFlash
- QFN48 and QFP64 up to BGA386

Isolated Hardware Security Module

- Secure boot
- Crypto accelerator (sym and asym algo)
- Evita Medium and Full

Full support Ecosystem

- Dedicated SW packages for security

Our technology starts with You

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