Secure authentication solutions for consumer & industrial

Consumer & Industrial market segments
Security hardening

Consumer

- Consumables, printers
- Various consumer goods and accessories
- Batteries
- Qi wireless chargers
- EV chargers
- Connected objects

Industrial & Infrastructure

- Factory automation
- Environmental sensors, actuators
- Gateway (Matter-ready), base station
- Utilities

A scalable secure solution for consumer & industrial devices

- Developed to ensure devices authentication, platform integrity, data confidentiality and availability

- Scalable STSAFE family from tuned to flexible and standardized TPM solutions

- Provided within a complete ecosystem

- With in-house pre-provisioned secrets and certificates

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STSAFE market segments

Consumables & Peripherals	Consumers goods	Industrial	Infrastructure

Tuned (STSAFE-L)

Tuned for peripherals and accessories

Optimized (STSAFE-A)

Tuned for brand protection and secure connection

Flexible (STSAFE-J)

Flexible Java™ platform

Standardized (STSAFE-TPM)

TCG-standardized platform

STSAFE family

Dedicated security solutions

Certified security solutions from nodes to infrastructure

STSAFE-L
Tuned

- Fixed feature set:
  - Authentication
  - Secure counters
  - Secure data storage
- Provisioning services
- Seamless integration with STM32 ODE package

STSAFE-A
Optimized

- Fixed features set:
  - Authentication
  - Secure connection establishment
  - Secure storage
- Provisioning services
- Seamless integration with STM32 ODE package
- HW CC EAL5+ certified

STSAFE-J
Flexible

- JavaCard^{TM}-based OS
- Applet specific features set:
  - Authentication
  - Secure connection establishment
  - Secure storage
- Provisioning services
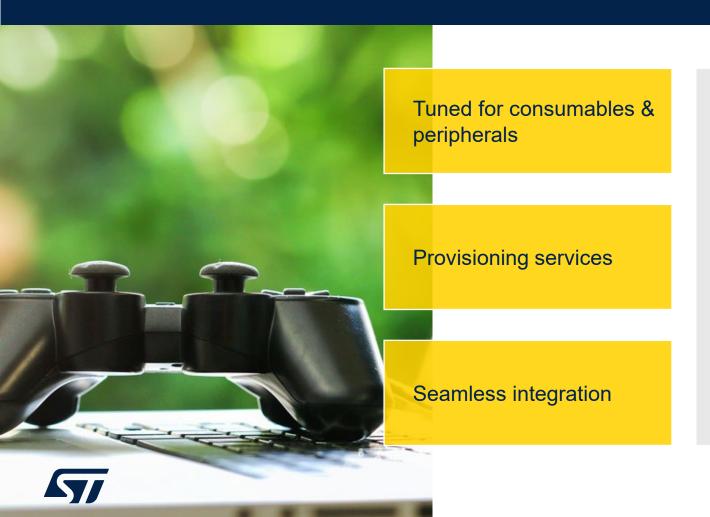- HW CC EAL5+ certified

STSAFE-TPM
Standardized

- Platform identity & integrity
- Cryptographic services & Secure storage
- Windows & Linux ecosystems
- Firmware upgradable
- Factory Provisioning
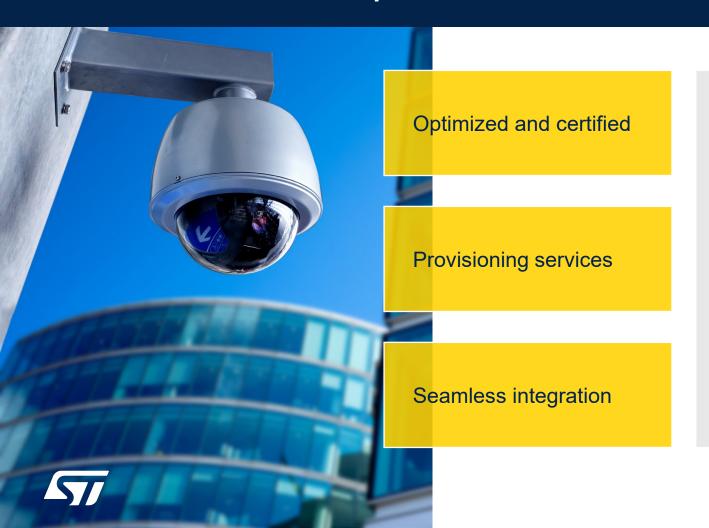- HW & FW CC EAL4+, TCG 2.0, FIPS140-2 & -3 certified

STSAFE-L overview

Entry-level authentication and anti-cloning solution

Tuned for consumables & peripherals

Provisioning services

Seamless integration

- Authentication
- Product usage monitoring with secure counters (recycling possible)
- Secure data storage

Secure solution for brand protection & connected devices
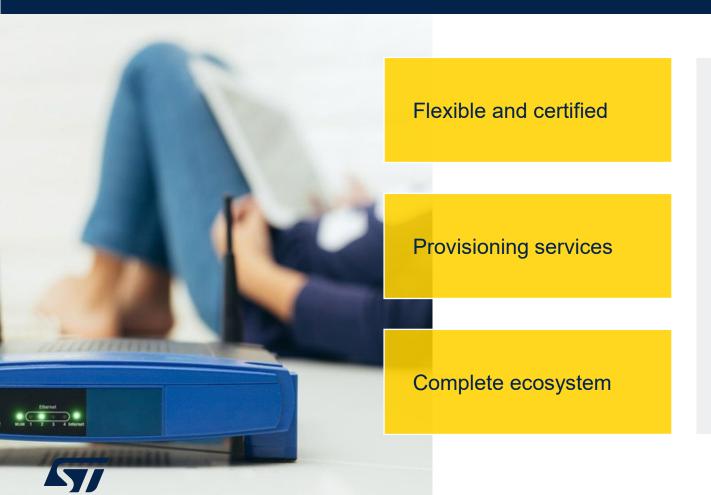
Optimized and certified

Provisioning services

Seamless integration

- Strong authentication
- Secure channel establishment (TLS)
- Signature verification
- Decrement counter
- Secure data storage
- Amazon AWS JIT and Microsoft Azure DPS device enrollment
- WPC Qi2 authentication compliant
- Matter authentication compliant
- Based on CC EAL5+ platform

STSAFE-J overview

A secure platform for industrial devices and infrastructure

Flexible and certified

Provisioning services

Complete ecosystem

- Java based platform Java 3.0.4, GP 2.1.1, HW CC EAL5+ certified

- A Java Card™ applet for
  - Authentication
  - Secure connection
  - Secure data storage
  - Provisioning service

- Customer specific applet

- Arduino-compliant expansion board

- PKCS11 Software package (driver and code examples)

Expanding standardized trust from personal computing to connected devices

Standardized & certified

Provisioning

Complete ecosystem

- Ensure platform integrity
- Secure connected devices
- TPM 2.0 revision 1.59
- Available in consumer, automotive and industrial qualifications
- Quantum-resistant firmware update with LMS signature
- Linux Open source ecosystem (driver, Software stacks, Linux open source)
- Provisioning service
- Common criteria EAL4+
- FIPS 140-3 certified

STSAFE solutions takeaways

Product family covering end-to-end security

STSAFE-L/-A/-J & STSAFE-TPM comprehensive ecosystem

Factory provisioning services

Learn more: st.com/stsafe

Our technology starts with You

🌐 Find out more at www.st.com/stsafe