

TOPPAN SECURITY SOMA™ CHIP OPERATING SYSTEMS (COS)

The Smartest Choice for Secure Electronics IDs

TOPPAN Security Global's SOMA™ family of Chip Operating Systems (COS) provides the most sophisticated technologies, optimized to support a wide variety of e-document programs while complying to the highest international standards.



Certified security

The family of ready-to-use SOMA COS has been certified up to Common Criteria (CC) EAL 5+. Advanced cryptographic mechanisms ensure the highest data security, both at rest and in transit.

Flexible customization

For specific Government requirements,

TOPPAN Security's team of experts can develop customized chip operating systems, based on SOMA technology. Our team can also manage national certification processes, if required.

Broad functionality

SOMA is suitable for a wide variety of applications with either native or openplatform implementations, such as e-Driving Licenses, third-generation ICAO-compliant e-Passports or e-ID cards.

Standards compliant

SOMA conforms to the latest international standards. It provides a frictionless travel experience for citizens and a guarantee of the highest security and interoperability for Government agencies.

More than a chip operating system



15+ years experience
Development & certifications



60+ Million
e-IDs run SOMA



40+ in-house
software experts

Typical applications

- National e-ID Cards
- e-Passports
- Resident Permits
- Driving Licenses
- Governmental Cards
- Multi-application Cards
- Digital Signature





SOMA Powers E-Travel Documents



SOMA Powers E-ID Cards

The most suitable COS for electronic travel documents, such as e-Passports, seafarer IDs and passport cards, guaranteeing a smooth border crossing.

Reliable standardization for e-ID cards such as driver's licenses, national IDs and resident permits.

Standards

- ICAO 9303
- BSI TR-03105
- ISO 7816 & 14443
- MINEX II
- Global Platform

- ISO 18013
- ISO 7816 & 14443
- ISO 19794
- BSI TR-03110/03111
- MINEX II
- Global Platform
- EU Directive 1999/93/EC
- CEN TS15480

Protocols

- Basic Access Control (BAC)
- Extended Access Control (EAC)
- Supplemental Access Control (SAC)
- Logical Data Structure (LDS)

- Basic Access Control (BAC)
- Extended Access Control (EAC)
- Supplemental Access Control (SAC)
- PACE V1 & V2

Applications

- ICAO travel documents

- Match-on-card
- Digital signature (QSCD)
- Multiapplication

Certifications

- Common Criteria up to EAL 5+

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