JCOP® ID 2 — ACCELERATING SECURE eID SOLUTIONS WITH BREAKTHROUGH FEATURES

The latest generation of NXP's proven security architecture offers fast transaction performance and supports multiple applets – all while delivering the confidence that comes from deploying high-security certification (CC EAL 6+).

TARGET APPLICATIONS

- Electronic ID Cards
- Electronic Passports
- Electronic Health / Social-Benefit Cards
- Electronic Driver's Licenses
- Electronic Vehicle Registration Card
- Electronic Residence Permit
- Consular Card
- Electronic Voting Card
- Tax Declaration Card
- Public Key Infrastructure (Authentication, Digital Signature, Encryption)
- Cross-Market Applications
  - Payment / Micropayment
  - Public Transport
  - Logical and Physical Access

JCOP ID 2 is optimized for performance, flexibility, and security. The ultra-fast ePP SAC transaction time (< 2s) combines with flexible flash up to 450 KB to support multi-applet operation. Advanced services, such as Secure Element Management Service (SEMS), CC EAL6+ certified match-on-card that's based on face and finger biometrics, and customer management of assets and loads, including anytime access to SecureBox, reduce risk and ensure peace of mind.

FEATURES

- Secure Element Management Service (SEMS) enables an extended document lifecycle while offering flexibility to issuing authorities
- Large user memory for multi-application and cross-market use cases
- Secure, biometric-based match-on-card authentication
- SecureBox implementation to upload content without sharing secure assets and/or IP with NXP
- Key security and large memory features help to comply with international regulations and standards
- Flexible for various configurations, with full range of certified applets available for loading into flash
- Ultra-fast ePP SAC transaction speed (< 2s)
- Optimized, high-performance OS initialization and personalization for excellent machine utilization and throughput
- Trusted Java Card OS Open Platform based on current NXP secure ICs with highest certification security level, ensuring future proof project deployment

NXP'S FIRST MATCH-ON-CARD (MOC) WITH CC EAL6+

Fingerprint/face-based authentication eliminates the need to remember a password

- First MOC to be CC EAL6+ certified
- Strong qualified digital signature (QSCD) based on biometrics
- Finger MOC 1:1 and 1:N support, MINEX III compliant
- Face MOC
- Optimized for Middleware developed by partners

SECURE ELEMENT MANAGEMENT SERVICE (SEMS)

Suitable to support the identity document lifecycle (10-15 years) with secure upgrades of the software stack, without re-enrolment and re-personalization, using a single script for all ICs deployed.

- Supporting the full lifespan of identity documents in the field by:
  - Responding to new security requirements
  - Upgrading functional scope
- Scalable deployment
  - Unique script broadcast allowing widespread easy deployment
  - Personal data preservation
  - Upgrade software stack
  - Optimized memory usage
- CC EAL6+ certified Secure Element Management Service (SEMS) mechanisms

LARGE USER MEMORY SUPPORTS THE LATEST TRENDS

Equipped with a large and versatile non-volatile memory, JCOP ID 2 enables a wide range of configurations for a variety of target applications, making it the go-to platform for eGovernment use cases that use multiple applets and deliver cross-market functionality. Expanded memory also supports addition of new services, such as payment, public transport, FIDO authentication, and other smart city services.

SECUREBOX

Develop, manage, and load assets on independently

- Custom cryptographic algorithms
- Native accelerator for non-standard protocols
- Extend Java Card™ / GlobalPlatform® APIs
- Retain full control of secure assets / IP
- Faster time-to-market for SecureBox library developers

EU REGULATION 2019/1157 CONFORMANCE FOR ID

- ICAO eMRTD in addition to the existing ones multi-app
- Mandatory data and citizen personal details to be stored on the chip, leading to a file structure of at least 130KB
- Guidelines relevant to other regions, including EAC, ECOWAS, CIS, MIDDLE EAST, LATAM where free movement of citizens is allowed

The JCOP ID 2 solution includes the JCOP 4.5 operating system running on top of a high-memory version of the SmartMX3 core and is available in two versions, both fully supported by middleware.

- Biometrics version: CC EAL6+ MOC plus SecureBox
- Updatable version: Post-issuance updates with optional package for peace of mind
- NXP supports both offerings by sharing its advanced network, extensive technical expertise, and deep know-how in secure eGov applications.

	JCOP ID 2	
	JCOP ID 2 Secure Biometrics	**JCOP ID 2 SEMS**
Description	Full platform with large memory for secure biometrics	Full platform with large memory for SEMS
ePassport	+	+
Driver's License	+	+
National ID Card	+	+
Health Card	+	+
Payment Option	+	+
MIFARE® Option	+	+
User Memory Size [Kbyte]	250 / 350 / 450	350 / 450
Standards	JC 3.0.5, GP2.3	JC 3.0.5, GP2.3
Certification	CC EAL6+, FIPS, EMVCo	CC EAL6+, FIPS, EMVCo
Secure Element Management Service	-	+
SecureBox	+	+
	updateable	updateable
Match-on-Card	CC EAL6+	CC EAL6+
Middleware	available	available
ChipDoc Suite	v4.0	v4.0
eDoc Suite	v4.0	v4.0
FIDO 2.0	v1.0	v1.0
MIFARE DESFire®	EV3	EV3
MIFARE Plus	EV2	EV2
White Labels	WLA Card v1.0	WLA Card v1.0
International Payment Schemes	M/Chip Advance v1.2.3,	M/Chip Advance v1.2.3,
	VSDC 2.9	VSDC 2.9

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