Identity-To-Go – Secure & Convenient Authentication for eID Cards and Smartphones

Laurent Muller, Regional Marketing & Sales Senior Director Identification EMEA
NXP Provides Secure Connections for a Smarter World

- Enhanced security
- Mesh connectivity
- Sensors
- Smart LED lighting
- Gateway & cyber security
- Access

- Car entertainment
- In-vehicle networking
- Car access
- Car2X and Radar

- Secure bank cards
- Mobile transactions
- Loyalty-reward
- RFID tags - labels
- Supply chain monitoring
- NFC readers

- e-passport
- Smart eID
- Health card
- Driving license

- Contactless transport card
- Access solutions
- Micro-payments
# eGovernment Challenges

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Response</th>
</tr>
</thead>
</table>
| **Fraud - identity theft - document forging** | • Secure authentication on the road and in governmental offices  
• Secure validation, authenticate holders, high hurdle to forgery  
• Electronic governmental documents based on secure IC solutions |
| **Budget pressure for public administration** | • Internet-based online eGov service  
• 24x7 availability, no office staff required  
• Secure authentication as prerequisite |
| **Secure internet transactions as base for a thriving economy** | • From real world to online shops/offices  
• Secure access from any computer  
• Secure authentication & digital signature  
• Most secure and convenient authentication/digital signing through secure smart cards  
• E.g. EU “Digital Single Market” Horizon2020 (70bn EUR), STORK, … |
Why target mobile devices for citizen authentication?

Use the Card @ Point-of-Service to Provide On-Line Services and Enabling Derived Credentials

Anchoring in trusted mobile devices makes access to services easier and creates add revenue opportunities

Mobile Phone HW/SW enable orders of magnitude more processing and storage than Secure Elements on chip cards

Roadmap to enable future services which are anchored by the card

Consumer habits increasingly shifting to mobile. Forecast for >400M mobile payment users by 2016.
Alternative cost effective eID inspection systems

1. Police officer authenticates self with police badge to smartphone

2. Citizen authenticates self to police officer’s smart phone via eGov app

3. Offline validation

4. Online validation
   - eServices
   - Secure authentication/communication through Secure Element
   - TEE (Trusted Execution Environment)

Easy to hook-on additional services like
- emergency location
- online tracking
Mobile phone as a secure reader …

• ... cost-effective complement to inspection systems
• ... attractive variant under budget constraints
• ... use of existing infrastructure
• ... very convenient form factor
• ... network availability in remote areas
• ... more frequent checks = higher security
• ... little training and rollout costs
Beyond the eID card

- Is THE national eID credential
- Highest security including printed security features
- Mandatory for law enforcement scenarios

- Complementary eID credential (not replacement of eID)
- Not sufficient for law-enforcement scenarios
- Convenient credential for various identification purposes
- Possible usage scenarios: Commercial transaction, age verification

- But … legislative framework still undefined
Mobile phone as a secure credential …

• … complementary governmental ID

• … most citizens more likely to carry than ID

• … hooks on growing smart phone use

• … allows additional eServices, e.g.
  • Commercial transactions (QES)
  • Age verification
  • 24x7 eGov service points
• Smart phones to gain significance in complementary eGovernment solutions

• Drivers
  • Reduced cost & higher security for governments
  • Convenience and additional services for citizens

• Crucial technology factors
  • NFC support
  • Secure Element
  • Secure eID microprocessor Ics
  • Contactless or Dual Interface ID Cards
What can NXP bring you?
NXP Smart Identification Solutions
unique synergies across our portfolio

1. Banking RMS 3.5*
   - >1B chips shipped in 2013
   - SmartMX turns market toward DIF
   - >70% market share in Banking

2. eGovernment RMS 2.5*
   - >460M chips shipped in 2012-13
   - Growth coming from NeID with system solution

3. Tags RMS 3.6*
   - >2 Billion ICs shipped in 2013
   - >90% market share in libraries

SECURE CONNECTIONS FOR A SMARTER WORLD

Interoperability ensured by NXP

*2013 RMS
Ecosystem relies on NXP – a Trusted Advisor for Governments

- Multitude of partnerships & connections along complete ecosystem
- Ability to consult on every aspect of the business
- Bring relevant partners to the project to ensure successful execution
NXP - the global leader in eGovernment

- 109 out of 136 countries that introduced eGovernment solutions use NXP
- 261 out of 393 projects worldwide are based on NXP Secure ICs

- #1 in eGovernment (*)
- Shipped >1Bln Secure ICs for eGov

IMS Research - Electronic Government & Healthcare ID Cards - Nov. 2014
NXP – Solution offering

OS and Applications

AFC

Java OS solutions for Banking, SecID and AFC

SecID

ePP (SAC, EAC, BAC)

MoC

PKI

IDL, eVR

eID (NID, EuCC, GeID)

eHC

MIFARE Emulations

Classic DESFire Plus

MIFARE

SmartMX2

Jewelry

P5, P60, P71

Partners OS

Banking

CPA

MoC biometry

Banking convergence

CPA

Java

GLOBALPLATFORM

System Services

Applet approval support for CC, EMVCo & FIPS

Reference card with partners

Standard inlays with partners

ISO, ICAO & EMVCo measurement service

Extended warranty

Pre-perso tools and services for SID+BK

CC certified card pre-personalization

Partners OS

SecID

Banking

AFC

MIFARE

CPA

MoC

Banking convergence

Java

GLOBALPLATFORM

System Services

Applet approval support for CC, EMVCo & FIPS

Reference card with partners

Standard inlays with partners

ISO, ICAO & EMVCo measurement service

Extended warranty

Pre-perso tools and services for SID+BK

CC certified card pre-personalization

Partners OS

SecID
THANK YOU FOR YOUR ATTENTION

SECURE CONNECTIONS
FOR A SMARTER WORLD

You can contact me at laurent.muller@nxp.com and visit our booth

WWW.NXP.COM