cryptovision eID Solutions

Key Components for eID Projects

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**Headquarters:**
Gelsenkirchen, Germany

**Subsidiary:**
New York City, USA

**Sales Offices:**
Silicon Valley, USA; Vienna, Austria; Mexico City, Mexico

**Founded:**
1999 by Markus & Andreas Hoffmeister

**Focus:**
IT Security, Cryptography, PKI

**Customer Base:**
hundreds of customers worldwide
eID Documents

Identity documents are no longer simply printed on paper but now incorporate modern electronics.
eID Technology Chain

Documents → Terminal → Clients → Server

Card Applications → Distributed Middleware → PKI Middleware → Certificate Infrastructure

Cryptographic Development Kit
cryptovision eID Product Stack

ePasslet
SCalibur
sc/interface
CAmelot

documents
Terminal
Clients
Server

cv act library
Why choose cryptovision?

• **Experienced** with more than 15 years in business, and over 30 national eID projects alone in the past 36 months, cryptovision will share it's experience and ensure knowledge transfer for local agency staff

• **Open** modular and card agnostic software based on international standards avoids vendor lock-in situation

• **Flexible** ePasslet architecture enables agencies to combine proven European and international standards with the required local content

• **Extensible** universal middleware offered by cryptovision can simultaneously support different 3rd party card products which is essential for migration and multi-source strategies

• **Customizable** with the SCalibur Java SDK proposed by cryptovision, agencies will be enabled to offer eGovernment use cases which strengthen their business model

• **Scalable** and modular CAmelot PKI acts as the national security backend serving Certificate Authority, Document Signer, and OCSP services for eID
Global eID References

- **Angola**: Electronic passport based on ePasslet Suite
- **Armenia**: National eID card based on ePasslet Suite
- **Colombia**: Electronic passport based on ePasslet Suite
- **Croatia**: Electronic passport based on ePasslet Suite
- **Ecuador**: ePassport and eID card based on ePasslet Suite, middleware, PKI and development environment
- **Germany**: Prototyping for machine-readable travel documents with EACv2; crypto libraries for German eID card terminals
- **Ghana**: National eID residence permit card based on ePasslet Suite, SCalibur middleware components, and CAmelot based eID PKI
- **Guatemala**: eID card based on ePasslet Suite
- **Macao**: eHealth card based on ePasslet Suite Security components
- **Malaysia**: Electronic passport based on ePasslet Suite
- **Malawi**: electronic ID based on ePasslet Suite
- **Mexico**: electronic consular card based on ePasslet Suite
- **Moldova**: Electronic passport based on ePasslet Suite
- **Nigeria**: National eID card based on ePasslet Suite, card profile, SCalibur and sc/interface middleware, and CAmelot based eID PKI
- **Peru**: Voter’s card and middleware SDK for voting infrastructure
- **Rwanda**: eID card based on ePasslet Suite with option for EAC migration; PKI components
- **Thailand**: Electronic passport based on ePasslet Suite
eID card solution

ePasslet Suite

Java Card Applet Suite for eID Documents
ePasslet Suite provides a powerful, standards-based eID framework with pre-configured profiles.
Editions

- Custom eID
- ISO Filesystem
- ICAO MRTD
- ISO Driving License
- ePKI/ Secure Signature Creation Device
- European Citizen Card
- EU Residence Permit
- German eID
- Health Insurance
- Vehicle Registration
Editions

**Edition 1**
- ICAO MRTD with BAC/SAC
- ISO File System
- ISO Driving License with BAP

**Edition 2**
- ISO Driving License with EACv1 or EAP includes BAP
- ePKI / Secure Signature Creation Device
- Vehicle Registration
- Health Insurance

**Edition 3**
- ICAO MRTD with EACv2
- EU Residence Permit
- European Citizen Card Identification Authentication Signature
- Custom eID
Use cases that can be showcased

**ePKI / signature use cases**

- Windows logon
- PDF signing
- Secure web access
Use cases that can be showcased

Online eID use cases

eID read-out, age & address verification and pseudonym authentication (as used in the German eID card)
Use cases that can be showcased

ICAO read-out with BAC/EACv1
Use cases that can be showcased

Driving License read-out
Use cases that can be showcased

Health card demo

Data read-out and update based on authentication with EACv2 access certificates
Sample card generation & reference perso flow
eID Eco-System

Data Collection

Data Preparation
Personalization

Credential Issuance (PKI)

Document Issuance

Identification
Border Control

Government and Citizen Use Cases
CAmelot

Certificate Lifecycle Management for enterprise and government
Government environment

Card production system

- Document signer (CAmelot)
- CVCA (CAmelot)
- CSCA (CAmelot)
- End user CA (CAmelot)

National identity data base

- CVCA (CAmelot)
- CSCA (CAmelot)
- End user CA (CAmelot)

Registration office

- DVCA (CAmelot)

Inspection system

- DVCA (CAmelot)

Certificate repository

- CVCA (CAmelot)
- CSCA (CAmelot)
- End user CA (CAmelot)
PKI Middleware
eID Eco-System

- Data Collection
- John Doe
- Data Preparation
- Personalization
- Credential Issuance (PKI)
- Document Issuance
- Identification
- Border Control
- Government
- and Citizen
- Use Cases
Standalone usage allows to store the access credentials on a Trusted Device.
eID Eco-System

- Data Collection
- Data Preparation
- Personalization
- Credential Issuance (PKI)
- Document Issuance
- Identification Border Control
- Government and Citizen Use Cases
eID Eco-System

- Data Collection
- Data Preparation
- Personalization
- Credential Issuance (PKI)
- Document Issuance
- Identification Boundary Control
- Government and Citizen Use Cases

sc/interface
sc/interface Environment

Host

crypto interface

card interface

application

reader

smart card
Applications

Signature  Browser  E-Mail  SSO-Client

Admin Tool  User Tool  Register Tool

tokend  PKCS#11  CSP  Mini Driver

Secure Token Interface

Operating Systems

eID Card
Thank You!

End

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