

EVIDEN

cryptovision ePasslet Suite

Java Card Framework for eID documents

Cryptovision ePasslet Suite is a Java Card framework that contains a complete set of applications for implementing electronic identity cards, travel documents, driver's licenses and other similar electronic documents. It supports many international standards.

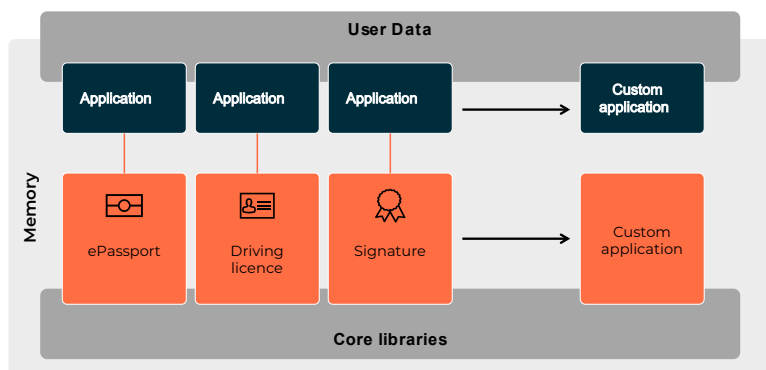
Powerful eID design and operation

ID cards, passports, driving licences and other identification documents can be equipped with a computer chip. The result is called an electronic identity document (eID). The embedded chip increases security and can be used for computer login, automated age verification, proof of identity on the internet and many other applications. Over 120 states issue ePassports, while over a billion of these documents are in circulation. Many countries issue electronic identity cards.

Cryptovision ePasslet Suite by Eviden Digital Identity is a marketleading framework for realizing electronic identity documents. It provides a large collection of JavaCard applets, each of which implements an eID functionality. Cryptovision ePasslet Suite is the ideal solution for government agencies looking to add functionality to their eID documents. It is used by over 100 million users in more than 30 projects in 25 countries worldwide.

Based on Java Card

Cryptovision ePasslet Suite is based on the Java Card technology. The applets provided by this solution are executable on NXP JCOP, Infineon SECORA ID X and Veridos Sm@rtcafé Expert, which means that all market-leading Java Card operating systems are supported. These options offer the customer great flexibility. The operator of an eID system can even work with several suppliers of Java Card solutions at the same time, which enables a second-source policy. Among the eID document applications cryptovision ePasslet Suite supports are electronic passports, eIDAS compliant signatures, ISO 18013 electronic driver's licenses, electronic health cards, and custom national eID cards. Each of these functions is realized with a separate Java Card applet, with sharing resources being possible. New applets with other functionality can easily be developed. Cryptovision ePasslet Suite also allows for post-issuance applet activation, which provides the customer additional flexibility.



Cryptovision ePasslet Suite is based on the Java Card standard. It offers a large collection of Java Card applications for all common requirements and enables multiapplication documents.

What is an electronic identity document?

An electronic document (eID) is a passport, identity card or similar item that is equipped with a smart card chip. This chip can be contact-only or contactless. Today, virtually all countries worldwide issue machine-readable travel documents (MRTD), as required by the International Civil Aviation Organization (ICAO). States such as Austria, Belgium, France, Germany, Malaysia, Spain and the UAE have introduced multi-purpose electronic identity cards, while dozens more are planning to deploy these in the near future. Several countries have introduced electronic health cards.

Since electronic identity documents generally have a long validity period, it is essential to plan applications thoroughly and to establish adaptable solutions. In addition, electronic identity documents require an infrastructure, which includes secure production facilities and decentral registration authorities. A Public Key Infrastructure (PKI) needs to be deployed in order to certify the keys used by the cards and infrastructure components. The use of biometry, especially fingerprint and face recognition, is an interesting option and even required on ICAO-compliant MRTDs.

Six reasons for cryptovision ePasslet Suite



Java Card

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Vendor independence

Cryptovision ePasslet Suite runs on NXP JCOP, Infineon SECORA ID X and Veridos Sm@rtcafé Expert and thus on all major Java Card platforms. The operator of an eID system is thus independent and can change providers without much effort if necessary.



Certified security

Two versions of ePasslet Suite have been certified to Common Criteria (ISO 15408) at EAL 4+, each with four configurations and corresponding protection profiles. The latest product version has been certified multiple times to CC EAL5+. The FIDO2 authenticator application is certified by FIDO Alliance at Level 3+ (on some platforms only).



Electronic identity cards

Cryptovision ePasslet Suite offers applets for eIDAS compliant eID cards with various profiles being supported. This includes the profile used in Germany. In addition, cryptovision ePasslet Suite makes it easy to put proprietary national identity cards into practice.



ICAO

With cryptovision ePasslet Suite, the operator of an eID system can easily fully implement a Machine Readable Travel Document (MRTD) according to the International Civil Aviation Organization (ICAO) specification.



Further applications

Cryptovision ePasslet Suite enables, among other applications, both the International Driving Licence (IDL) and a European Health Insurance Card (eHIC). Further applications can be instantiated, and new applets can be developed and even loaded on already issued cards.

Who uses cryptovision ePasslet Suite?

The eID solution of Ghana (Ghana Card) is realized with cryptovision ePasslet Suite. The African country's National Identification Authority (NIA) and its private partner Identity Management Systems Ltd II (IMS II) are currently issuing over 16 million documents. The Ghana Card is the primary means for connecting citizens and foreign residents to government ministry services. Both the citizen card and the foreign resident card are based on cryptovision ePasslet Suite, with applications ranging from a national eID function over an ICAO function valid for travel within the ECOWAS subregion to digital signatures and fingerprint authentication.

Other cryptovision ePasslet Suite customers include the German security printing company, Bundesdruckerei, which uses this solution to expand its eID portfolio. In addition, a South-American country with more than 10 million inhabitants has adopted cryptovision ePasslet Suite for both electronic passports and a national electronic ID document. In general, cryptovision ePasslet Suite is used for ePassports, eID cards, eHealth cards, eVoting cards, driver's licenses and many other applications for over 100 million users in more than 30 projects in 25 countries.

Standards and technical specifications

Editions

Edition 1

- » ICAO MRTD with AA, BAC, and PACE
- » ISO File System
- » ISO/IEC 18013 Driving License with BAC/BAP

Edition 2

Edition 1 plus the following applications:

- » ICAO MRTD with EACv1 (includes BAC/PACE)
- » ICAO MRTD with LDS 2.0 for Travel Records, Visa Records, and Additional Biometrics
- » Driving License EAC/EAP
- » PKI/electronic signature application (Secure Signature Creation Device, SSCD) with fingerprint Match-on-Card* and key import (starting from version 3.5)
- » FIDO2 authenticator application

*based on an ISO/IEC 19794-2 compliant 3rd party native fingerprint matching package

Edition 3

Edition 2 plus the following applications:

- » EU Residence Permit
- » European Citizen Card / German eID
- » LDS 2.0 for eID documents

Supported standards

- » Java Card 3.1
- » ISO/IEC 7816-4/5/6/8/9/15, PKCS#15
- » BSI TR03110 v1.11/v2.21
- » ICAO Doc 9303
- » ISO/IEC 18013
- » ISO/IEC 19794-2
- » ISO/IEC 24787
- » ICAO MRTD with EACv1, BAC/PACE
- » ISO Driving License EAC/EAP (includes BAC/BAP/PACE)
- » eHIC Type 1, Type 1.alt and Type 2 according to CWA 15974

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