

# NPKD PKI by PrimeKey

## A complete solution for NPKD

The PrimeKey NPKD is a Complete NPKD solution, developed by engineers with extensive experience of ePassport solutions. With PrimeKey NPKD you can download to, and upload from, ICAO PKD. Store, inspect and publish to an NPKD LDAP server



# PrimeKey NPKD

The PrimeKey NPKD solution comes with unsurpassed security and saves a large amount of work during the certificate exchange process within or outside the Public Key Directory programme. Passive Authentication has been introduced by the International Civil Aviation Organization (ICAO) to prove authenticity of passport chip data and has been used worldwide in ePassport control since then.

ICAO Public Key Directory programme is responsible for interchanging security data that is necessary for Passive Authentication between countries. To be part of this programme, each country needs its own (National) Public Key Directory solution that can establish connection with ICAO, which can be implemented in a few days.

The PrimeKey NPKD solution is a server application with GUI interface that can connect to ICAO PKD and upload, download and store all Passive Authentication security data (certificates, CRLs, Master Lists and Deviation Lists) and make them available for inspection systems. Additionally, all security data can be inspected in detail and checked against ICAO standards. Security data may be stored in a protected database and published to a local NPKD LDAP server either automatically or after user confirmation.

#### **Fully ICAO PKD compliant**

All NPKD operations that require remote connection to ICAO PKD have been successfully tested against ICAO PKD Test Bench v3.0.

#### **Rich GUI**

PrimeKey NPKD solution is fully operated through a rich graphical interface. Users can search through ICAO PKD, download, inspect, store and publish security data to a local NPKD LDAP server, depending on the users' access rights. All security data is checked for ICAO conformance and the test results are visible to the user. Auditors can easily search and filter through all audit logs.

#### **Security Features**

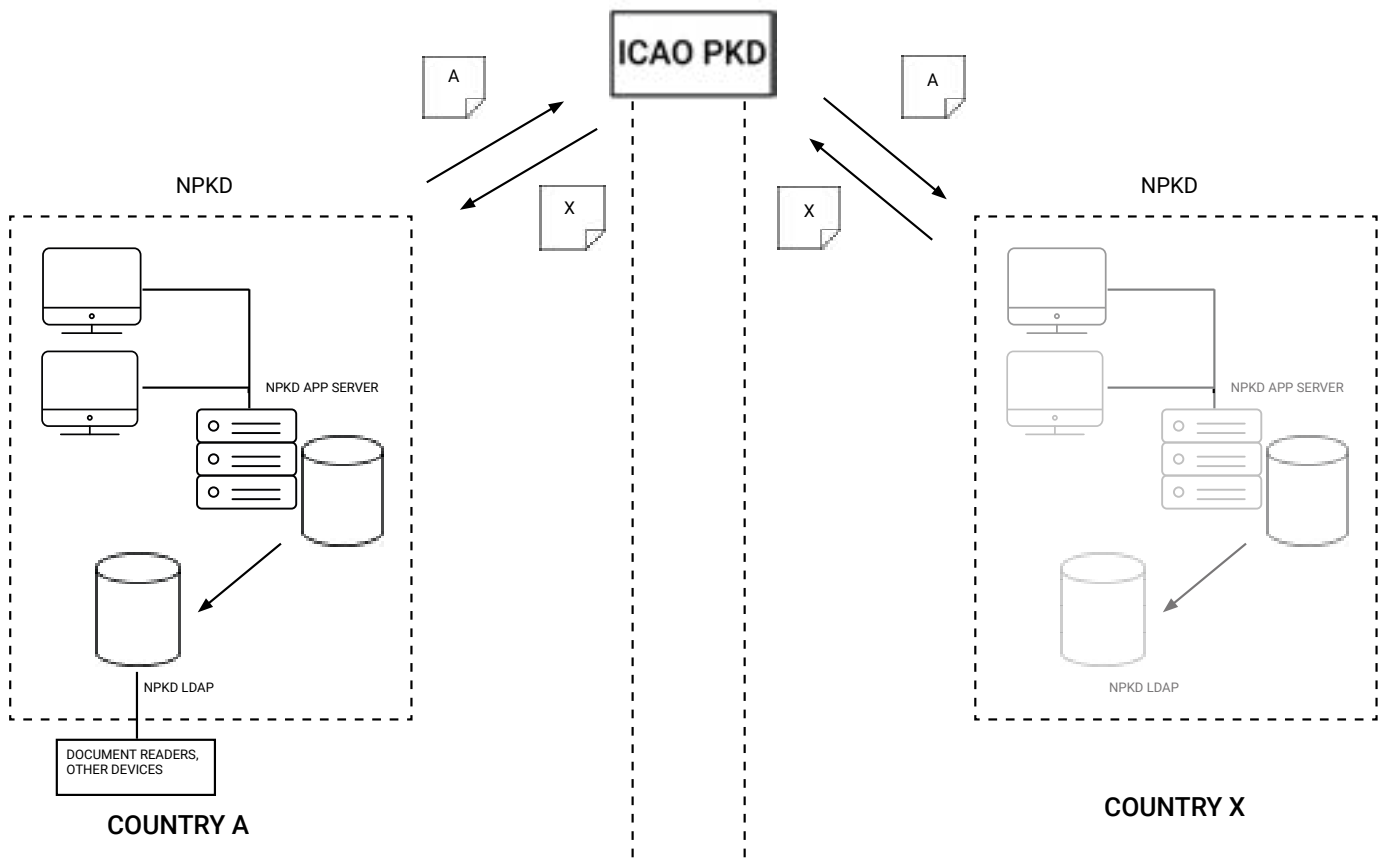
PrimeKey NPKD is secured through the PrimeKey developed CESeCore library. CESeCore has been Common Criteria certified and provides solid security application features such as user access control, secure audit logging and database rows authenticity protection.

#### **Detailed ICAO conformance checks**

All ICAO conformance checks are performed against the most recent ICAO document "ICAO 9303 7th Edition" (2015). PrimeKey NPKD may be used just for checking ICAO conformance and the validity of all Passive Authentication security data.

## Highlights

- Complete NPKD solution. Download from and upload to ICAO PKD. Store, inspect and publish to a local NPKD LDAP server
- Users are able to run detailed ICAO conformance checks and easily detect nonconformant CSCA certificates
- Product developed by engineers involved in the development of EJBCA, SignServer, SPOC and other ePassport solutions
- Possibility to automate all routine tasks
- Regular backup of the database



"Country A" represents a country using PrimeKey NPDK and "Country X" represents all other countries either using PrimeKey NPDK or another solution.

## Included Use-cases

- Download security data (Master List, Deviation Lists, DS certificates and CRL) of a specific country
- Download all security data (Master List, Deviation Lists, DS certificates and CRL) of all countries
- Extract Master Lists and inspecting their certificates
- Run ICAO checks on security data and store them in a database for later use
- Construct a Master List
- Construct a Deviation List
- Publish CSCA certificates and other security data to a local NPDK LDAP server and make them available for inspection systems
- Upload security data to ICAO PKD
- Automate all routine tasks such as download from and upload to ICAO, publish to a local NPDK LDAP, revocation check of all certificates and create database backups
- Find the CSCA that has signed a DS certificate
- Find Master Lists that contain a CSCA certificate
- Audit all access control and integrity-change logs
- Keep and update a record of all registry contact information

## About PrimeKey

PrimeKey is one of the world's leading companies for PKI solutions and has developed successful solutions, such as EJBCA Enterprise, SignServer Enterprise, PKI Appliance and PrimeKey SEE. As a pioneer in open source security software, PrimeKey provides businesses and organizations around the world with the ability to implement security solutions, such as e-ID, e-Passports, authentication, digital signatures, unified digital identities and validation. Our products are Common Criteria and FIPS certified. We have numerous Webtrust/ ETSI and eIDAS audited installations, and our internal processes are ISO 9001, 14001, and 27001 certified.

PrimeKey has offices in Stockholm, Sweden; Aachen, Germany; San Mateo, USA; and Melbourne, Australia. Together with our global network of technology and reselling partners, we are proud to count many of the industry leading

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