



**ICAO Ninth Symposium and Exhibition on MRTDs,
Biometrics and Border Security 22-24 October 2013**



PKD: A Crucial Component of the Border Control Architecture

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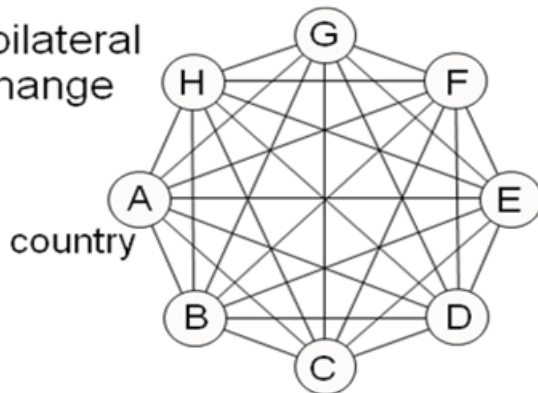


What is the PKD?

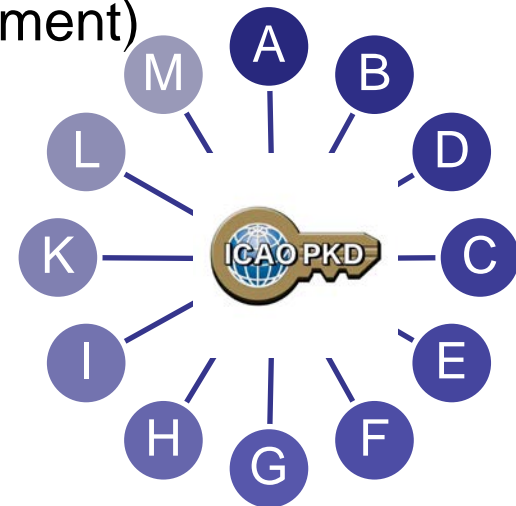
A repository for:

- Document Signer Certificates (conformity validated – non conformant certificates are also made available)
- Revocation Lists
- Master Lists
- CSCA Certificate (possible future development)

via bilateral
exchange



Conformity
validated
certificates





Vision on the horizon



All ICAO Member States can uniquely identify individuals – **Part of TRIP Strategy**

- Secure identification is essential when crossing borders.
- Facilitation level must be maintained or be improved.
- This identifications must guarantee the highest possible degree of certainty, security and efficiency
= Trust.





Role / Importance of travel documents



Today's annual airtravel: 3 billion

Expected airtravel 2030: 6 billion

(Source: ICAO 198th Council Session WP 13926)

- To support this growth the necessary infrastructure must be put into place.
- To guarantee security and deny unwanted individuals to cross borders with anonymity a robust travel document scheme is a must.



Expectations

- **Shortening of time required for border controls – efficient, fast and secure reading and verification of MRTDs**

Land Borders and



„Air“ Borders





Ways to improve speed, reliability and security of border controls

- Manpower – Increase the personal used in border controls
- Improve technology applied (fast readers – fast applications)
- Separate the passenger flows – separate the passenger groups based on nationality, previous assessment; registered traveller programs (mostly with a separate token)

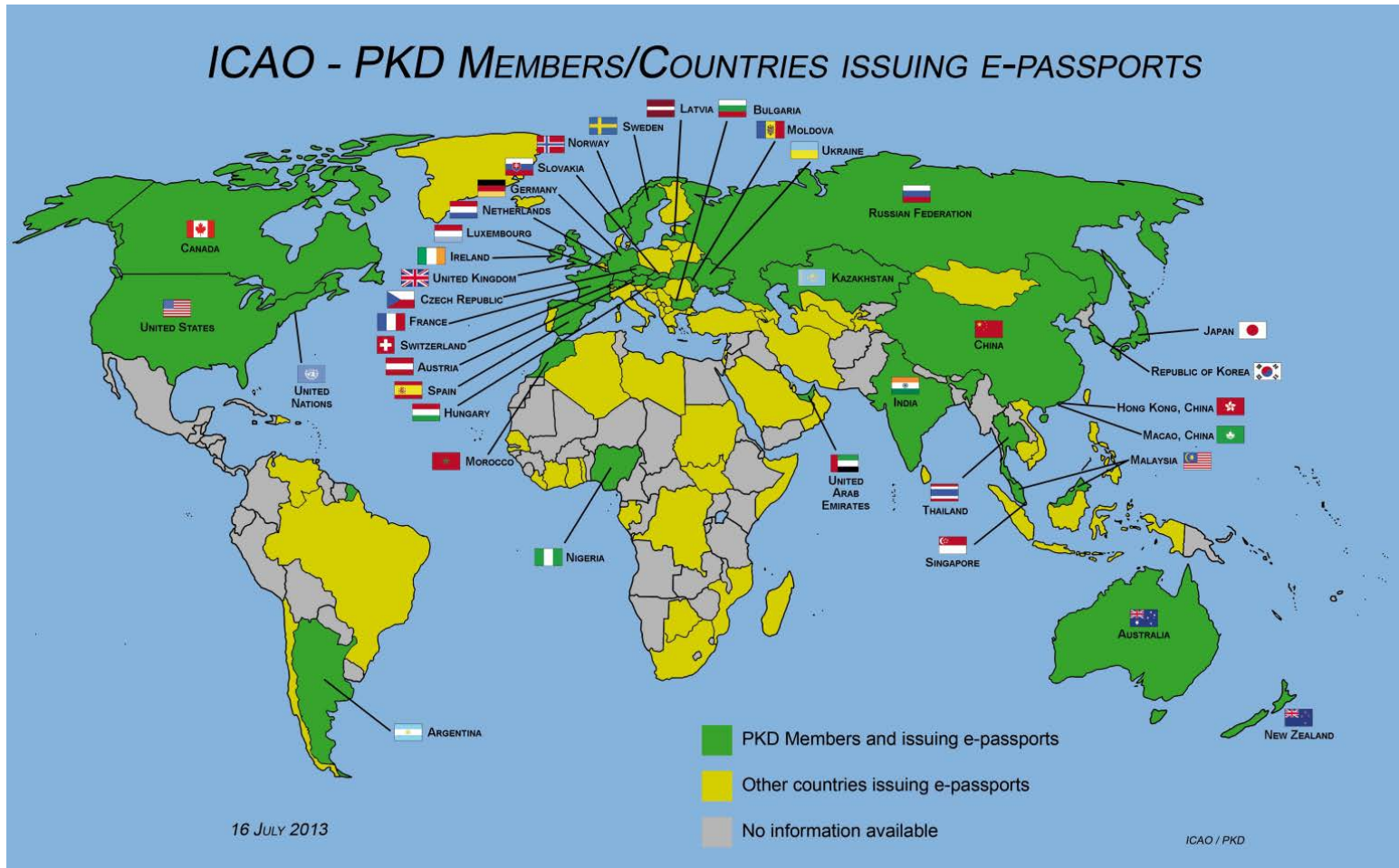


Alternative: eMRTD





PKD State of play – 38 participants

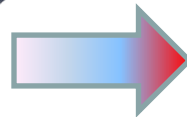




Which part of the “e” have Border Control Authorities to check ?



- Some may require only CSCAs (**minimum requirement**, trust chain)
- Some require CSCA and CRL
- Some require CSCA, DSC and CRL



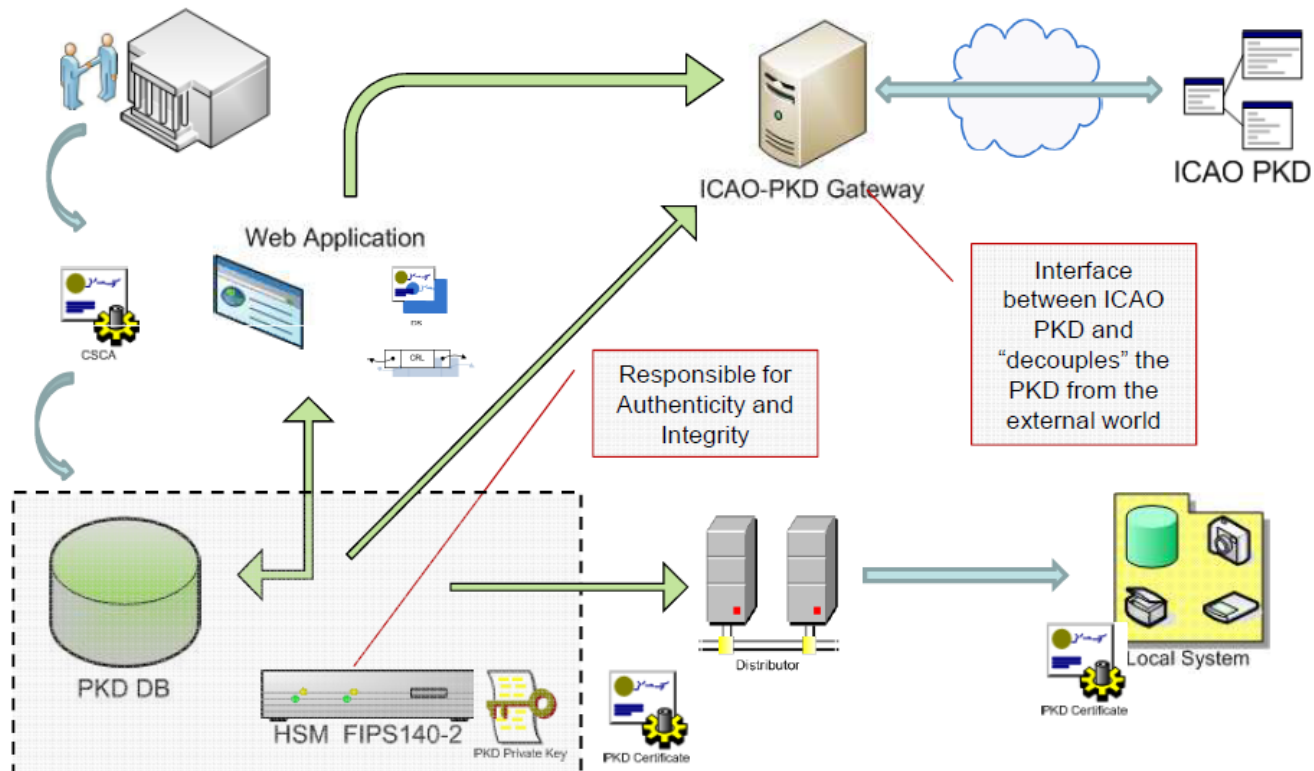
Make all three available and let the responsible authorities use what they want.

Join the ICAO PKD



Best practises – Switzerland's General set-up

The PKD Infrastructure ... Details





The PKD management application ...

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Eidgenössisches Justiz- und Polizeidepartement EJPD

Zertifikatserver

Deutsch | Französisch | Italienisch | Englisch

Aktuell | **CSCA** | CVCA | Audit

Anzeige

CSCA/DS-Zertifikate

CRL

CA-Instanzen

CSCA Master Lists

Import

CSCA/DS-Zertifikat

CRL

CSCA Master List

Aktionen

Volständige ICAO PKD Sync

Export der CSCA Master List

DS Certificate Exporter starten

CSCA- und DS-Zertifikate suchen

Als CSV herunterladen | Als ZIP herunterladen | Zurücksetzen | Suchen

CH: CHE-csca-switzerland-2

NotBefore: (dd.mm.yyyy)

NotAfter: (dd.mm.yyyy)

Status: (dropdown)

Auf eigener CSCA Master List: (dropdown)

Typ: CSCA DS

Es wurden 4 Einträge gefunden:

	Subject-DN	Typ	NotBefore	NotAfter	Status	Konformität	Auf ML
	CN=ds-Passport,OU=PP,OU=Signature-Server,OU=Services,O=Admin,C=CH	DS	18.02.2010 12:04	29.03.2021 13:04	Aktiv	Konform	Nein
	CN=ds-Passport,OU=PP,OU=Signature-Server,OU=Services,O=Admin,C=CH	DS	18.02.2010 12:05	29.03.2021 13:05	Aktiv	Konform	Nein
	CN=ds-Passport,OU=PP,OU=Signature-Server,OU=Services,O=Admin,C=CH	DS	28.05.2010 16:34	04.07.2021 16:34	Aktiv	Konform	Nein
	CN=csca-switzerland-2,OU=Certification Authorities,OU=Services,O=Admin,C=CH	CSCA	18.02.2010 13:15	29.04.2024 14:15	Aktiv	Konform	Nein

Statusanzeige

Id	sysp-certbrv-intg
Version	1.2.2.0
Benutzer	iso-cra
Vorname	Arnaldo
Nachname	Cremisini
Page-Name	Link

Full ICAO PKD synchronisation

Volständige ICAO PKD Sync



Key elements of the application



- Decide on **one** responsible authority – one application that handles all aspects
- Import, activation, deactivation of CSCA, DS, CRLs
- Import and create Master Lists
- Synchronize regularly with the ICAO PKD (daily)
- Distribute the enabled certificates to the users (Borders, Police etc.)
- Apply caution – implement and live security (access control, 4 eyes principle, secure data storage (HSM FIPS 140-02))



Operational recommendation I

- Check PKD for updates at least once every 24 hours (Doc 9303 recommendation).
- Check the validity of your own entries in the PKD after upload.
- Upload CRLs before the previous one expires. CRLs can still take up to 7 hours to publish. Countries that download may download only once every 24 hours.
- Use delta LDIFs as much as possible for downloads as this will reduce download time and bandwidth usage.



Operational recommendation II

- CSCA – Master List as a work around if CSCA not available
- Three master lists available so far
- (Australia, Germany and Switzerland)



81 CSCAs are available through the Master List from Switzerland.



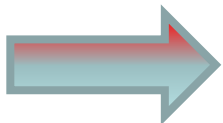
Create Master Lists and make them public



Facts & Figures(April 2013)



- Number of PKD Participants: 38
- Number of ePassports in circulation: over 484'000'000
- Number of ePassports issued by PKD Participants: 370'000'000



76 % of ePassports are issued by PKD Participants
= very high benefit for border control authorities.



Finances

Registration fee (one time):	USD 56'000
Operator fee 2013:	USD 43'000
ICAO fee 2013:	USD 16'000
Participation Fee 2013	USD 59'000

**Operator fee reduction as of 1.1.2014:
USD 34'000 (21 % reduction, compared to 2013)**





In the best national interest

➔ **Border Control Authorities interests in the PKD**

Protecting the borders in a reliable, cost effective and fast way
living up to the citizens

expectations for facilitation & security.

It's not required, that a country already
issues MRTDs – Border Control Agency
may join



➔ **Issuing Authorities interests in the PKD (may also join)**

world wide recognition of a nation's eMRTD, allowing it's
citizens to cross borders as easily as possible.



One more reason to join – easy access to the experts





Federal Office of Police

Chief Division Identity Documents
and Special Tasks –
PKD Board Chairman

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Information on the PKD

<http://www.icao.int/Security/mrtd/Pages/PKD-HowtoPartici.aspx>

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