



International Civil Aviation Organization

Seventh Symposium and Exhibition
on ICAO MRTDs, Biometrics
and Security Standards

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HOW TO BECOME AN ACTIVE PKD PARTICIPANT: A GUIDED TOUR



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Introduction

- The ICAO PKD was created at the request of ICAO Contracting States by the ICAO Council.
- The ICAO Recommended Practice in Annex 9:
“ICAO Contracting States issuing, or intending to issue ePassports and/or; implementing at border control automated checks on ePassports; should join the ICAO Public Key Directory (PKD).”
- Today, 27 States have joined the PKD, and many more are on their way.



Overview

- How to join the PKD: Pertinent Documents to be filled.
- What is effective Participation: Fees payment.
- What is Active Participation: PKD testing, Integration and Up/download.



The steps to join the PKD

In order to become a Participant in the ICAO PKD, it is required to do the following:

1. Deposit a Notice of Participation with the Secretary General of ICAO.
2. Deposit a Notice of Registration with the Secretary General of ICAO.
3. Effect payment of the Registration Fee and Annual Fee to ICAO.
4. When ready, securely submit to ICAO and all Participants, the Country Signing CA Certificate (CCSCA).



STEP 1

Fill the Notice of Participation

**Complete and send to the ICAO Secretary General
the Notice of Participation to the PKD
Memorandum of Understanding (MoU) with ICAO**

1. The official start of the Process of joining the PKD.
2. The Notice of Participation can be found in: Attachment A of the PKD MoU.
3. A Model of the Notice of Participation is available for download at the MRTD Web site.
<http://www2.icao.int/en/MRTD/Pages/icaoPKD.aspx>
4. The Notice of Participation should be filled by the authority in charge of ePassport or identity documents.



<http://www2.icao.int/en/MRTD/Pages/Downloads.aspx>

1. Select PKD documents and Resources

**MEMORANDUM OF UNDERSTANDING (MoU)
REGARDING PARTICIPATION AND COST SHARING IN THE
ELECTRONIC MACHINE READABLE TRAVEL DOCUMENTS
ICAO PUBLIC KEY DIRECTORY (PKD)**

NOTICE OF PARTICIPATION

The Ministry of Interior
(name of the Authority designated by the Participant concerned as its authorized organ)

of Republic of Utopia
(name of Participant)

hereby gives the Secretary General of the International Civil Aviation Organization (ICAO)
notice of participation of _____

Identity and Passport Service Authority
Moon Street no. 123, 54321 Utopia City, Republic of Utopia
(name and address of the Participant)

in the *Memorandum of Understanding (MoU) Regarding Participation and Cost Sharing in the Electronic Machine Readable Travel Documents ICAO Public Key Directory (ICAO PKD)*.

NOTE: Participation by a non-State entity in the ICAO PKD (the functions of which are technical and operational) will not afford such non-State entities the rights or privileges accorded to ICAO Contracting States under the Chicago Convention.

Signed at Utopia City on 13 July 2010
(place) *(date)*

On behalf of _____
Republic of Utopia

Name of Authority _____
Ministry of Interior

Name, title _____
Mr. Dolittle, Head of Division for Documents Law

Signature _____




STEP 2

Fill the Notice of Registration

Complete and send to the ICAO Secretary General the Notice of Registration

1. The Notice of Registration can be found in: Attachment B of the Procedures of the ICAO PKD.
2. A Model of the Notice of Registration is available for download at the MRTD Website.
<http://www2.icao.int/en/MRTD/Pages/icaoPKD.aspx>
3. The Notice of Registration is important to establish the State Representative contact details: the eMRTD Authority (EMA).
4. The Notice of Registration permits the State to register with the Operator.



<http://www2.icao.int/en/MRTD/Pages/Downloads.aspx>

1. Select PKD documents and Resources

MODEL NOTICE OF REGISTRATION

REGISTRATION FOR PARTICIPATION IN ICAO PKD	
PASSPORT DATA	
Estimated number of Document Signer Certificates that will be issued each year:	12
Estimated number of Certificate Revocation Lists that will be issued each year:	8
Number of expired and valid Country Signing CA Certificates:	3
Number of expired and valid Country Signing CA Link Certificates:	2
Average validity period for Country Signing CA (Link) Certificates:	10 years
Estimated number of Master Lists issued each year:	12
Estimated number of entries per Master List:	50
eMRTD AUTHORITY (EMA) DETAILS	
Name:	Mr. Dolittle, Ministry of Interior
Title:	Head of Division for Documents Law
Address:	Moon Street no. 111, 55555 Utopia City, Republic of Utopia
Telephone:	+333-222-1111 9999
Fax:	+333-222-1111 8888
E-Mail:	Doc@Mol.gov.uto
Designation (eMRTD System):	chief ePassports and ID-cards adviser
Senior Officer (eMRTD System):	Mr. Domuch, Ministry of Interior, CIO
eMRTD COUNTRY SIGNING CERTIFICATE AUTHORITY (CSCA)	
Name:	Mr. Dosomething, Identity and Passport Service Authority
Title:	Senior PKI Officer
Address:	Moon Street no. 123, 54321 Utopia City, Republic of Utopia
Telephone:	+333-222-2222 9999
Fax:	+333-222-2222 7777
E-Mail:	CSCA@ema.gov.uto
Designation (eMRTD System):	Head of N-PKD



STEP 3

Payment of Fees: Registration Fee

1. A Onetime fee : **US \$56,000.**
2. To prepare activity in the PKD and the technical integration of a new PKD Participant.
3. Is payable to ICAO upon filing of the Notice of Participation.
4. Full payment is mandatory for participation in the PKD to become effective.
5. Once Registration Fee is paid and the participation is effective, the Participant receives **the Interface Specifications** and the **Test Bench procedures.**



STEP 3

Payment of Fees: Annual Fee

1. On the first year of participation calculated on a pro-rata basis from the day when PKD participation becomes effective.
2. Recurring Fee to cover running costs of participation.
3. For an active Participant the Annual Fee = **US \$54,433**:
 - a) ICAO Fees: **US \$11,433/year** (2011 based upon 27 participants).
 - b) The Operator Fees: **US \$43,000/year**
4. ICAO Fees has decreased by 50% since 2009.
5. Not paying the Annual Fee: withdrawal of services.



Step 4

CSCA IMPORT

1. The eMRTD Authority (EMA) sends the CSCA to Netrust for validation.
2. Once validated, the EMA communicates with ICAO PKD Office to schedule a date for the Import Ceremony.
3. The EMA sends the thumbprint of the CSCA by email to the PKD officer.
4. Send the credentials of the Representative attending the Import ceremony: Passport/Identity Details.
5. In the presence of the State Representative and ICAO Security Officers, the CSCA is imported in the High Secure Module (HSM):
the anchor of trust for the PKD.



Step 4

CSCA IMPORT


Conformance with Doc 9303

Import Results

Certificate Profile Check (ICAO Doc 9303, Volume 2, Section IV, Normative Appendix 1)

1. Version	✓	7. SubjectPublicKeyInfo	✓
2. SerialNumber	✓	8. IssuerUniqueID	✓
3. Signature	✓	9. SubjectUniqueID	✓
4. Issuer	✓	10. Extension	✓
5. Validity	✓	OVERALL	✓
6. Subject	✓		

Certificate Import Results

 The following Country Signing CA Certificate was imported successfully:

Issuer Name: OU=Identity Services Passport CA,OU=Passports,O=Government of New Zealand,C=NZ

Subject Name: OU=Identity Services Passport CA,OU=Passports,O=Government of New Zealand,C=NZ

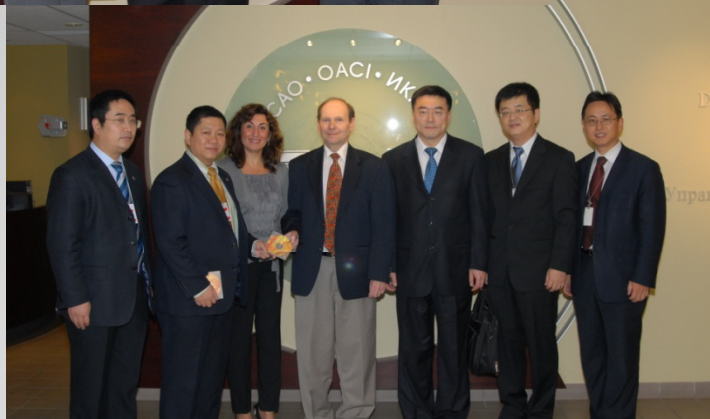
Validity: Thu Jun 30 03:30:23 BST 2011 to Thu Jan 30 03:00:23 GMT 2020

Imported in the Presence of: Peter Campbell

OK Copy Result



Step 4 CSCA IMPORT



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Active Participation PKD Integration / Upload

1. A PKD Participant should start active Participation (PKD Upload) at the latest 15 months after paying The Registration Fee and becoming Effective participants.
2. Participant are required to be familiar with the PKD Test Bench Procedures and the PKD Interface Specifications before starting the PKD testing and Integration.
3. The PKI Infrastructure between National and Central PKD should be implemented.
4. Full conformity to Doc 9303 is required.



Summary

1. Establish who will be the authority responsible for PKD.
2. Establish a permanent budgetary line.
3. Conformance with Doc 9303 is essential.
4. Follow the steps described.
5. Contact ICAO, the PKD Board Chairman or any PKD Board member for additional questions.



Come and Join!!!



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*Thank you
for your attention*

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Secretary of the PKD Board
cdermarkar@icao.int

<http://www2.icao.int/en/MRTD/Pages/icaoPKD.aspx>