Regional Seminar on MRTDs and Traveller Identification Management
Madrid, Spain, 25 to 27 June 2014

ICAO MRTD and eMRTD Standards and Specification

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Introduction

• Historical overview
• Doc 9303
  – Current Structure
  – Future Structure
• ePassport
Historical Overview

• Standardization in the early 1980s
• Goal: Global Interoperability
• Consists of 3 Parts
  – Passports, Visas, Identity cards
• Technical Reports, Supplements
Part 1: Machine Readable Passports

Part 2: Machine Readable Visas
(3rd edition, 2005)

Part 3: Machine Readable Official Travel Documents
(3rd edition, 2008)
Doc 9303

• Part 1, Volume 1
• Passport Specification
  – Visual Inspection Zone
  – Machine-Readable Zone
ePassport

- Part 1, Volume 2
- ePassport Specification
  - is at the discretion of the issuing state
- Biometric identification:
  - Facial recognition (mandatory)
  - Fingerprint (optional) or Iris scan (optional)
- Data to include: facial image, MRZ data plus any relevant info at the discretion of the State
ePassport Security

• Data in a chip is meant to be scanned and read
• Basic Access Control
  – Ensures information on the chip cannot be skimmed
• Public Key Infrastructure
  – Ensures information on the chip has not been altered
• PKI is implemented through the Public Key Directory (PKD) developed and provided by ICAO
• PKD:
• **PKD must be an integral part of every eMRP**
Part 2 - Visas

- Format A Visa (MRV-A) fits in ID-3 travel document
  - Most common format, standard within the EU
- Format B Visa (MRV-B) is an ID-2 size
Part 3, Volume 1: ID Cards

- Two formats:
  - TD1 (ID1-sized card)
  - TD2 (ID2-sized card)
Part 3, Volume 2: eID Cards

• Identical approach to eMRTDs
  – Embedded contactless chip

• Must comply with Part 1, Volume 2 (ePassports)
Future Doc 9303

- Complete review is well advanced
- Reformatted into several volumes
- Easier to use
- Up to date

http://www.icao.int/Security/mrtfd/Pages/default.aspx
ePassport

• Do I want an ePassport system?
• Do I need an ePassport system?
• Am I prepared to USE an ePassport system?
• Is the integrity of my current process consistent with and complementary to the technological advances of an ePassport program?
• “Make everything as simple as possible, but not simpler.” – Albert Einstein
Do You Want an ePassport System?

• Have you done a comprehensive risk identification and management analysis of your present system?
• Are you confident that your vulnerabilities will be identified and corrected to take advantage of the ePassport?
• Why is an ePassport useful to your country?
Do You Need an ePassport System?

• What will the “e” do that a traditional MRP will not?
• Are you prepared to take advantage of the extensive economies of scale (centralization) often accompanying ePassport implementation?
• Have you considered the impact on overseas issuance?
• Is your border management procedure and process equipped to deal with inspecting ePassports?
Are You Prepared to USE an ePassport System?

- Are your inspection processes ready to use the cryptographic keys in ePassport?
- Are you going to join the PKD prior to ePassport implementation; have you taken appropriate budgeting precautions?
- Have you prepared your traveling public for the changes that biometric capture and use will bring about?
Overall System Integrity: Is Yours Enough?

- Is the integrity of the current issuance and handling process consistent with and complementary to the technological advances of an ePassport program?
- Are evidence of identity procedures and safeguards as strong as the document that you issue that alleges identity?
- Have you effected changes to insure to respect personal privacy of biometric and other data?
- Have your human resource issues been thoroughly addressed?
- Do you comply with both the letter as well as the spirit of 9303?
- Have you examined overseas issuance considering inherent differences of culture, infrastructure, external pressures?
Measures of Integrity

- Human systems-zero tolerance
- Work atmosphere and environment
- Evidence of identification
- Spoiled document handling
- Blank document controls
- In-house auditing
- Penalties-legal/judicial system as well as administrative
Application and Entitlement Processes: Evidence of Identification

- **Evidence that the claimed identity is valid**, i.e. that the person was in fact born and, if so, that the owner of that identity is still alive.
- **Evidence that the presenter links to the claimed identity** – i.e. that the person claiming the identity is who they say they are and that they are the only claimant of the identity.
- **Evidence that the presenter uses the claimed identity** – i.e. that the claimant is operating under this identity within the community; Social Footprint
- Standards of performance and indices of variances-expectations and a framework so employees know the rules
- Breeder documents
- Online database linkages of a wide nature with real time access; civil registries, systems of birth, death, marriage, tax, real estate, and related commercial services
Thank You!

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