



INTERNATIONAL CIVIL AVIATION ORGANIZATION



CASA DA MOEDA  
DO BRASIL



# **ePassport Standards and Specifications**

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# Overview

## ➤ Goals

- Improve Document Security
- Improve Facilitation
- Use of Biometrics
  - Create a link between the document and the bearer
- Global Interoperability

# ePassports

- Doc 9303, Part 1 Volume 2 + Supplement
- Standard passport booklet with:
  - Embedded contactless chip
  - Data in accordance with the Logical Data Structure (LDS)
  - Secured using the modified PKI approach outlined in the specification

# Interoperability

- Four Pillars of Interoperability
  - Common Data Structure
  - Common Biometrics
  - Common Data Storage
  - Common Security (Encryption/PKI)

# Testing

- Extensive testing
  - Functionality
  - Reliability
  - Interoperability

# Common Data Structure

- Logical Data Structure (LDS)
- Specifies Mandatory and Optional data groups
- Mandatory data focuses on the information on the data page

# Common Biometrics

- Facial Recognition selected as the biometric for global Interoperability
  - Iris and Fingerprint are optional second biometrics

# Common Data Storage

- Contactless IC Chip
  - ISO 14443 standard
- 32K technical minimum
  - 64K has become the de facto standard
- Chip location is not specified

# Common Security

- Public Key Infrastructure (PKI) to prevent data tampering
- Public Key Directory (PKD) to distribute keys
- Basic Access Control
  - Prevents skimming

# Current Status

- 100 countries issuing ePassports
- Approximately 400 million in circulation
  - Approximately 65 million per year
- Approximately 20 countries now using automated kiosks at ports of entry
  - Most are using facial recognition

# eID Card

- Doc 9303, Part 3 Volume 2
- Specifications are identical to those for ePassports

**Doc 9303 and other documents are available  
at:**

<http://www.icao.int/Security/mrtd/Pages/default.aspx>

**THANK YOU**

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