ePassports and Visas

Presenter: Mathias Detjen
mdetjen1@mmm.com

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Passport use in the travel process

- Passports are used for
  - *Personal identity*
  - *Nationality*
  - *Identify travellers status e.g. diplomatic*
  - *Hold travel visas, work permits etc.*
- Passports are used by
  - *Holder for identification*
  - *Airlines*
    - *Identification*
    - *Visa requirements checking*
  - *Control authorities*
    - *Border crossing eligibility*
    - *Travel history*

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ePassports

- ePassports
  - *Standards published*
  - *Further work required for next version of Logical Data Structure etc.*
  - *Field testing happening*
  - *ISO standards catching up*
    - *e.g. testing methodologies*
  - *Public Key Directory (PKD)*
    - *Working now, but take up slow*
  - *Interoperability Testing*
    - *EAC testing and recommendations coming from the Brussels Interoperability Group (BIG)*
- Minimum 41 countries issuing ePassports

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ePassport

- Four (5) elements
  1. *Biometric – Face with optional fingerprints and or Iris - EU has chosen face and two fingers*
  2. *Chip – Contact less with minimum 32K of usable memory*
  3. *Data File Structure – Logical Data Structure (LDS)*
  4. *No encryption, but protected with Private Key Infrastructure (PKI) - Data integrity protection*
     - *ICAO to manage Public Key Infrastructure Directory (PKID) for public keys*
- (5) Basic Access Control (BAC)
- www.icao.int/mrtd - specifications can be downloaded from this site

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Basic Access Control - BAC

9 digit passport number + checksum

6 digit DOB + checksum

6 digit date of expiry + checksum

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Biometric

- ICAO selected Face as globally interoperable Biometric
  - *Watch lists have Facial images*
  - *Facial image is required anyway*
  - *100 % enrollment*
  - *Only biometric that can be mailed in*
- Must be image so that it works with any vendors facial recognition software
- Must meet minimum standards
- Fingerprint and Iris are optional
- EU mandated fingerprint – Two index fingerprint images

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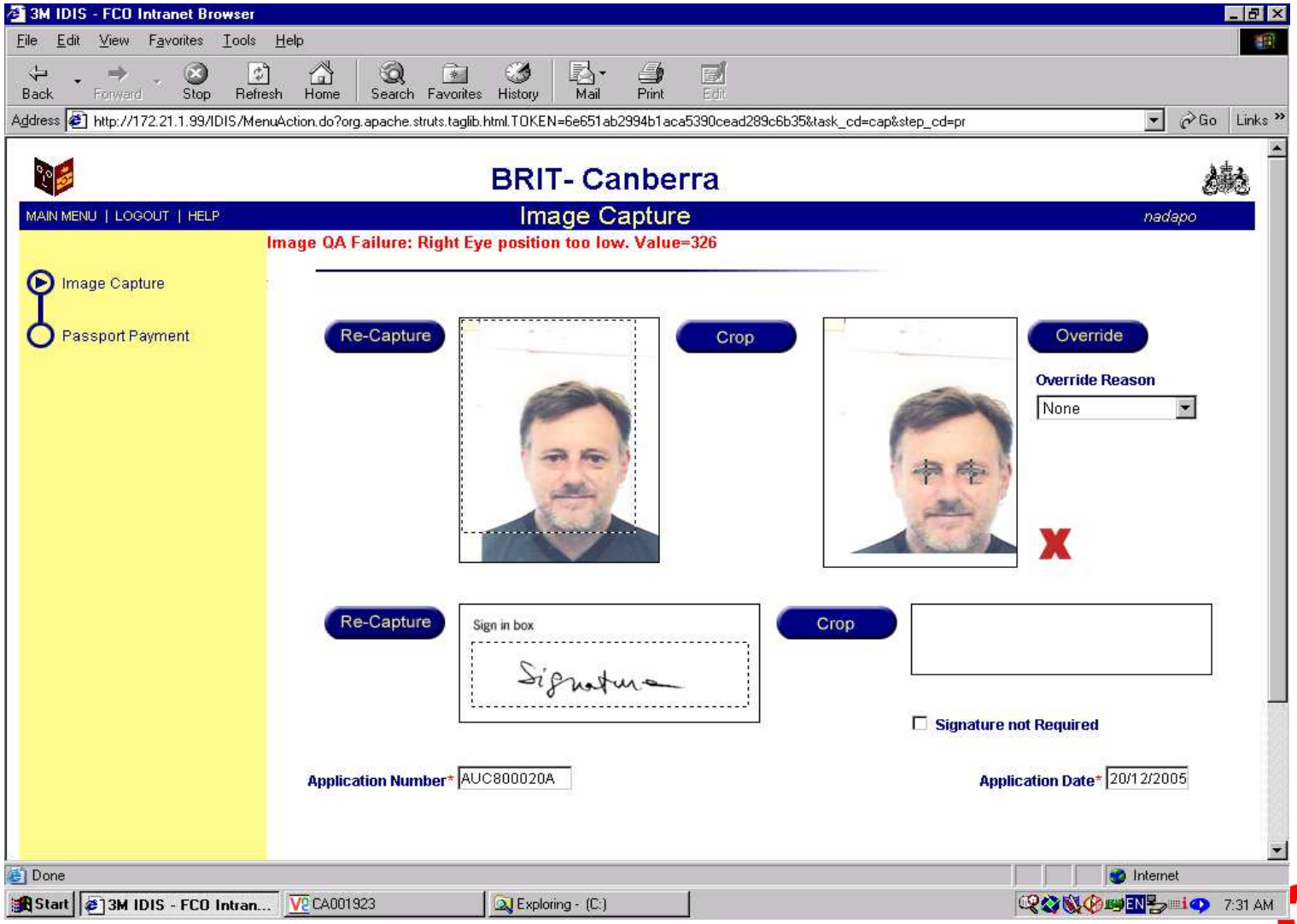
Facial Image Quality Assurance



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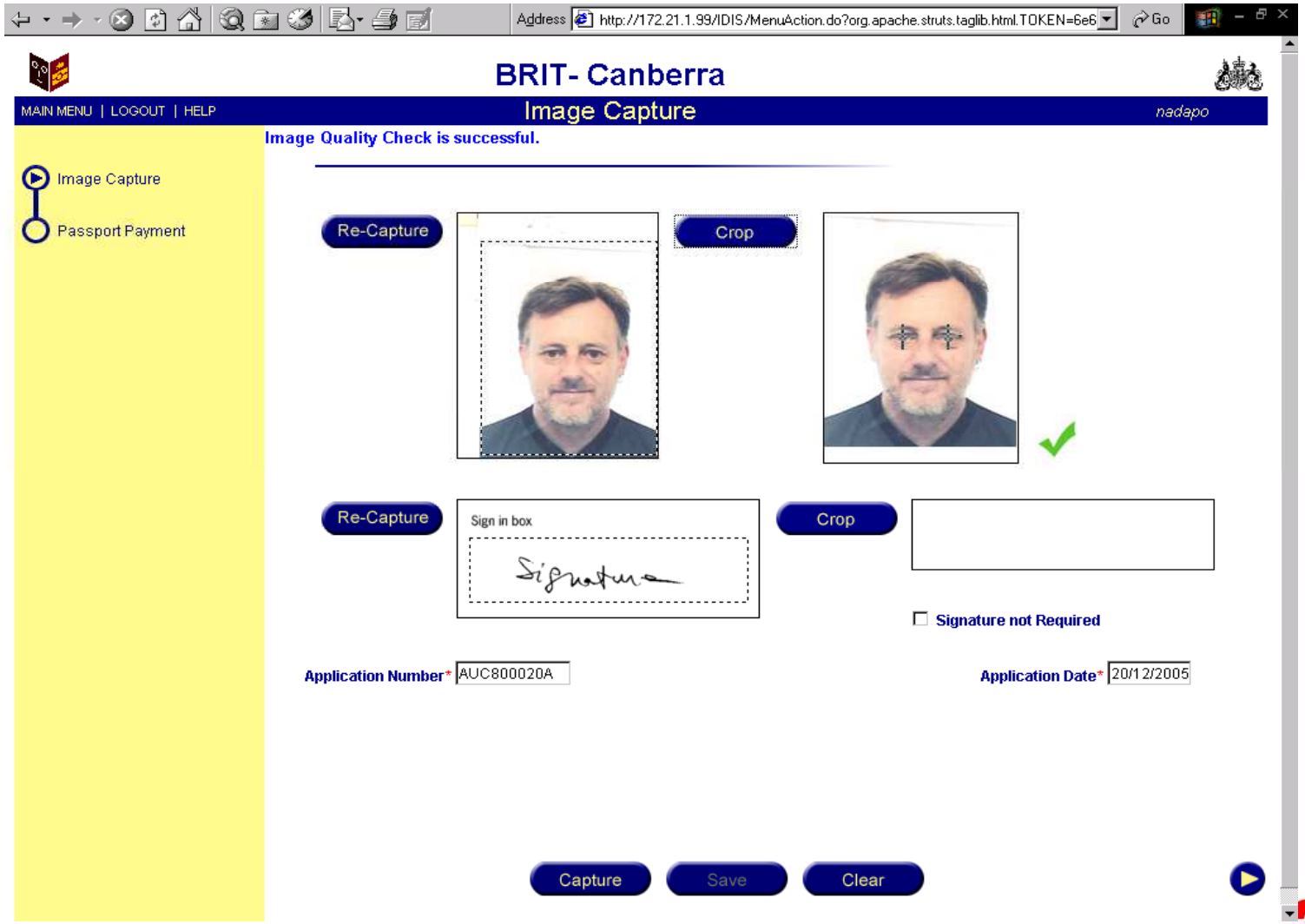
Facial Image Quality Assurance



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Biometrics Impact on Issuing Systems

- Biometric collection and storage :
  - *Adds system complexity*
  - *Longer application processing time*

- Can now make entitlement process more secure
  - *Watch list checking 1:N*
  - *Uniqueness checking 1:N*
    - *One document per identity*
  - *Verification at pick up 1:1*

- QA must now check chip content and match contents to document.
  - *MRZ printed quality even more important now due to Basic Access Control (BAC)*
  - *Overall data page quality very important because of cost of passport is $10 or more*
  - *Will tolerances widen because of cost of passport?*

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ePassport Quality Assurance

MAIN MENU | LOGOUT | HELP

Quality Assurance

stelioff

The document encoding is complete

Quality Assurance

* Passport No. 760000003 Retrieve

Application No. AUC800007A

Surname BURNS

P<GBRBURNS<<MR<<STELI<<<<<<<<<<<<<<<<<<<<<<<<
7600000030GBR2005191M1512203<<<<<<<<<<<<<<06

MRZ Line 1

from Database P<GBRBURNS<<MR<<STELI<<<<<<<<<<<<<<<<<<<<<<<<

from QA reader P<GBRBURNS<<MR<<STELI<<<<<<<<<<<<<<<<<<<<<<<<

MRZ Line 2

from Database 7600000030GBR2005191M1512203<<<<<<<<<<<<<<06

from QA reader 7600000030GBR2005191M1512203<<<<<<<<<<<<<<06

MRZ Status

PASS

Override Reason None Override Fail QA

Database Image

Encoded Image

Encode Status

VERIFIED

Encode

Encode Override

Manual Scan

Print Label

Cancel

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Thank You

- For contact information please send an email to:
- Mathias Detjen
  - *mdetjen1@mmm.com*

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