



Biometrics and ID

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Biometrics and ID

Background – Identity Documents

- Been around a long time
- Proliferated throughout Europe / EU
- Recently (last 10 yrs) in other countries
- Primarily based on secure card with no electronic storage

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Biometrics and ID

Purpose – Identity Documents

- Voluntary identification
- Mandatory identification
- Travel within EU and other participating countries
- Laterly e-commerce / e-government initiatives (usually requires electronic data)

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Biometrics and ID

Biometrics Explained

- Measurement and subsequent electronic comparison of certain physical or biological characteristics of an individual.
- Examples include: Fingerprint, Facial features, Voice, Signature, Iris, Hand or Finger geometry, etc.

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Biometrics Explained

Three basic processes

- Enrolment or registration
 - Adding a biometric template to a database or card
- Verification (1 : 1)
 - Matching against a single record
 - Answers “Am I whom I claim to be?”
- Identification (1 : N)
 - Matching against all the records in a database
 - Answers “Who am I?”

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Biometrics and ID

Background – Biometrics

- Been around a long time
- Large scale applications usually for government (AFIS and 1-1 verification)
- Medium scale Recently (last 10 yrs) in other countries
- Primarily based on secure card with no electronic storage

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Biometrics and ID

Purpose – Biometrics

- Voluntary identification
- Mandatory identification
- Travel within EU and other participating countries
- Latterly e-commerce / e-government initiatives (usually requires electronic data)

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Biometrics and ID Why now?

- E-Government initiatives
- Improvement in government services
- Reduction in benefit fraud
- September 11th

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Biometrics and ID – Is it that easy

- In short --- NO!
- Biometrics need
 - Secure electronic storage
 - Lots of it (template sizes 256 – 2000bytes)
 - Need for more than one template?
 - Need standards to facilitate international interoperability

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Biometrics and ID – Is it that easy

- Practical issues
 - Deployment of reader equipment
- First time enrolment (ID check)
 - Who does it
 - What safety checks are required
 - In what environment

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Biometrics and ID – Is it that easy

- Acceptability issues
 - Public perceptions
 - Public acceptability
- Privacy and DPA issues
 - Templates, Images
 - Biographical data
 - Private data

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Biometrics and ID - UK Today

- UK – Passports, Drivers Licence, etc (voluntary)
- Passport
 - Paper / laminate based
 - Human biometric (face)
 - Machine readable zone (2 x 44 characters)
- Drivers Licence
 - Card based
 - Human biometric (face)

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Biometrics and ID – Standards

- ISO (SC17, SC37, etc)
- ANSI (89F4, etc)
 - BioApi, CBEFF, etc.)
 - INCIST – M1
- ICAO (9303 Part 3, etc)
 - Book and cards specs for travel docs
 - LDS & MRZ specifications
 - Biometric recommendations

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Biometrics and ID – Conclusion

Whatever happens will:

- Not be overnight
- Will require private sector partnerships
- Will require public acceptance
- Must provide multi-functionality
- Will almost certainly be smart card based

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Biometrics and ID – Conclusion

Thank you.

Any Questions ?

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