

# Verification of ID using biometrics

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*Foto: Per-Einar Dahlen - 2001*



# Minifacts about Norway

- Constitutional Kingdom
- Head of state: King Harald V
- Parliament (Stortinget) 169 representatives
- Government (cabinet) with members from Labour Party, Socialist Left Party and Centre Party
- Head of government: Jens Stoltenberg, Labour Party

# Minifacts II -

- Population : 4.800.000
- Area : 385.200 sq.km
- Borders, international: 2.562 km
- Coastline: 25.000 km
- Passport holders 3.5 – 4.0 million
- Annually 600.000 passports issued



# Backdrop

- EU/Schengen has implemented ePassports
- In June 2009 fingerprints will be added as a mandatory biometric identifier in the chip
- EU/Schengen countries have or prepare for national ID-card
  - with biometric identifiers á la ePP + eID

# The rationale for the use of biometrics

- More secure method of ID verification
- Cost-effective verification process
- The verification process is user friendly
- Verification can be linked to external databases.

THE ULTIMATE SOLUTION FOR  
BORDER CONTROL ?

# The future

- Increasing amount of travellers
- Increasing amount of biometric travel documents
  - to secure an effective verification of Ids at border crossing points,
  - and where the biometric info is encoded to ensure data security and privacy.
- **But: the public key is available only for border control authorities**

# Trends in the use of pp & ID-cards

- Responsibilities for ID checks transferred from border authorities to private actors
- Private enterprises will not have access to the use of biometrics in passports with lower quality on id checks
- And increased risk of id-theft
- Some private enterprises are considering biometric solutions to facilitate the verification process

# Consequenses

- Lower quality on the ID checks carried out of other actors than public border control
- Delays for travellers
- Low cost-effectiveness for the system owners
- Need of new investments
- The travellers will have to relate to several systems, enrolment processes and cards
- And more id-thefts?

# The challenge: Reusing the pp biometrics?

- Can the passport biometrics be reused by private enterprises for id verification? --
  - without confronting the restriction from the authorities or disturbing the privacy concerns?
  - but in a way which can exploit its advantages?: (1) secure (2) costeffective (3) userfriendly

# And the options are

**STARTING POINT:** The use of the encrypted file in the chip is only open to public authorities!

1. Can biometrics (fingerprints) be stored outside the encrypted file in the chip?
2. Instead of creating another card/system for the ID checks carried out by private entities?
3. Or relying on the old fashioned system with visual comparison, cardholder face against photo in the PP?

# Advantages with option 1

- Exploit one ( for 'all purposes' ) enrollment
- The traveller has only one card/system to relate to
- Simplifying the systems by using fewer technologies, adding cost-effectiveness
- Reducing the number systems and reducing privacy risks
- BUT THEN: HOW DO WE CREATE A PRIVACY FRIENDLY SYSTEM?

# Preconditions for the use of biometrics by private entities

- Biometrics must be stored outside the encrypted files
- Copying the biometrics must be prohibited
- Verification must be carried out without disclosing biometric data in the process
- The biometric must be stored during the enrollment process
- Enrollment and verification processes must be fully transparent

# Possible use of passport in air travels:

- Check-in - pp & finger
- Security- ticket/admission control  
- finger
- Taxfree - finger
- Passport control - pp + finger
- Frequent traveller - finger
- Boarding - finger

# And how?

- Generating a public key from the fingerprint?
- Which will demand developments and competition?
- The need of partners/stakeholders in the issuing process?
- The need of standards and interoperability?

# The next steps

If we know WHY, then:

- Who should take the initiative?
- How to share costs between different users/stakeholders?
- The need of competition and tenders?
- And what about the need of international standards?

Thank you for your attention!

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