Establishing Trusted Identities

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30 May 2012
Outline

• Challenges

• Current Projects and Solutions
  ➡ PRIME, IdeMix, EST e-ID, EU MRTD, ...

• Recommendations
Challenges

- Trusted identities
  - Governmental applications
    (e-voting, taxes, driving licenses, ...)
  - Banking sector
  - Social networks
  - Education (library, student pass, ...)
  - Health care, ...
Challenges

• Diverse security level requirements
  - Authenticity
  - Anonymity
  - Privacy
    (limit revealed information to service providers)
  - ID-theft protection and countermeasures
Challenges

• Multiple identities management
  - How many identities do you have?
  - Different requirements for each identity
Challenges

• Storage and protection if ID material
  - National debate
  - What to store and for how long?
  - What intent will the database be used for?
Current projects and solutions

- PrimeLife, EU research project
  - Privacy and identity management for Europe
  - Initially PRIME 2006
  - Aim: protect and maintain life-long privacy
  - Consortium
    (universities, private companies, W3C)
Current projects and solutions

- IdeMix, IBM solution
  - Enable privacy in identity management
  - Theoretical results
  - Prototype implemented
  - Pilot phase (universities, government, banks, telecom companies)
Current projects and solutions

- Estonian eID
  - Online banking
  - Public services (health data, pensions, ticketing, ...)
  - Governmental services (e-Tax, e-voting, ...)
  - Company services (telecom, electricity, gas, water, pharmacies, ...)
  - Universities, forums, ...
Current projects and solutions

- EU MRTD
  (Machine Readable Travel Documents)
  - EAC: Extended Access Control
  - Biometric passports & eID
  - Based on a network of CVCAs
    (Country Verifying Certificate Authorities)
Current projects and solutions

- Swiss database of identities
  - Following May 2009 voting
  - National debate (political not technical)
  - ISA: Informationssystem Ausweisschriften (Information system for identity documents)
  - Advantages and disadvantages
Recommendations

• National PKI is a pre-requisite
  - AICTO (and ITU?) should provide help
    (information and trainings for members)
  - Global arab/african authority to reduce costs
    (CVCA expensive, cross-certification issue)
  - Legal framework might be needed first
  - Tunisian example (but no global solution for all)
Recommendations

- National debate on ID storage
  - Political not technical
  - If needed then extra cost and extra security needed
Recommendations

• Deployment of MRTD
  - Bio-passports (optional) & eID cards
  - Be patient and learn from others’ mistakes
Recommendations

• Adopt applications on top of trusted eID
Questions?