UAE National ID Card Program

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**AGENDA**
- Strategic Goals...
- Registration Process...
- Technology components...
- Ongoing projects...
- Lessons Learned...

**Project Goals**

**Security & Economical Objectives**

- **Security**
  - enhance homeland security
  - minimise identity theft
  - improve access/delivery of public service

- **Economical**
  - one card multi-uses
  - support strategic decision making
  - support e-Gov and e-Commerce

**Strategic Goals**

- Identity Management System
- Security
- Economical

**ID card scheme and IDentity theft**

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- Support strategic decision making
- Database unification
- One card multi-uses
- Integrated population database
- Government-trusted identity verification infrastructure
- Provide identity verification services to other government, banks, hospitals, etc.
- Verification of existing cards and reduce management & production cost (e.g., ID, labour, health)
- Timely, accurate statistical info. for planning e.g., education, healthcare, energy, etc.
- National e-authentication infrastructure

**Lessons Learned**

- Ensure the ID card is used for its intended purpose
- Provide accurate, timely information to the public
- Support the development of a national ID card system

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**• Ongoing projects**

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- Management
- Verification infrastructure provide
- Minimise identity theft
- Economical
- One card multi-uses

**Strategic Goals**

- Economical Security
- Minimise identity theft
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Identity Theft ...
Worldwide = $ 300 billion

VALUE IN US $ BILLIONS

YEAR


UAE and Identity theft ...

- No accurate figures of cases or cost.
- UAE iris system caught to date > 120,000 illegal attempts to re-enter the country after deportation.

GCC Survey 2006 ...

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Registration Process ...

Identity Theft/Fraud

GCC Survey 2006 ...

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Registration/Issuance Process

- Checking government issued credentials e.g., passports and visas
- Online verification of presented docs

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Registration/Issuance Process

- Capture photos
- Fingerprint
- Scan docs
- Biometrics
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**Registration/Issuance Process**

- Background checks, e.g., fingerprint, credit score...
- Centralized card production
- Pickup / home delivery

**Card, System & Security..**

- Chip data digitally signed & encrypted
- System Design
  - Security Measures:
    - 4-tier web-based architecture
    - High availability
  - Network level: SSL, SSH, IPSec, etc.
  - System level: firewall, DMZ, IDS, etc.

**Chip Information (Privacy?)**

<table>
<thead>
<tr>
<th>Public Data</th>
<th>Restricted data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name, Nationality, 2 x fingerprints, birth off card</td>
<td>Digital image fingerprints, watch on see, other pens, etc.</td>
</tr>
</tbody>
</table>

**Several anti-counterfeit physical features**

- Overt:
  - Holograms & Rainbow
  - Ghost image
  - Guilloches & Rainbow
  - Variable fine lines
  - Special Fiber
  - UV ink
  - Rainbow printing
- Covert:
  - Micro text
  - Hidden text
  - UV

**Architecture...**
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Technology components ...

Recognition
Identification Verification
Determining the identity of an individual by comparing a presented characteristic to all pre-enrolled in the database.

Authentication: identity of an individual by comparing a presented characteristic to a pre-enrolled characteristic.

WHO ARE YOU? ARE YOU WHO YOU SAY YOU ARE?

Project Primary Focus ...

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• •

a three factor authentication enabling technologies...

Trust Chain: Technology ...

* a three factor authentication enabling technologies...

Choice of authentication ...

(examples of transactions)

Choice of authentication ...

(examples of transactions)

Complexity

None

Pin/Password

Class I

Class II

Class III

Class IV

Biometrics with PKI

PKI/Digital Signature

something you know?

password

smart card

something you have?

something you are?

Trust Chain: Technology ...

Smart Card: Gemplus, Chipset: Infineon ISO 7810, 7816-1/2 compliant Java-based OS, 32/64 KB EEPROM, 136 K ROM compliant with Java Card 2.1.1 & GP card specs. V2.0.1 contains person’s data, portrait, certificates, and private keys.

Updatable chip

Authentication:

Assurance of identity (Digital Certificates)

Confidentiality (Data Privacy) protection of data (Encryption Algorithms)

Integrity (Authorship) data consistency and integrity (Data Hashing)

Non-Repudiation: ownership of document/transaction (Digital Signatures)

Confidentiality (Data Privacy)

Integrity (Authorship)

Non-Repudiation: ownership of document/transaction (Digital Signatures)

Biometrics

fingerprints (rolled prints, flat prints, writer)

... to improve FAR/FRR:

• facial recognition

• iris recognition

Complexity Risks

Class I

Class II

Class III

Class IV

None

Pin/Password

PKI/Digital Signature

Biometrics with PKI

Choice of authentication ...

(examples of transactions)

something you know?

something you have?

smart card

something you are?
Ongoing projects ..

Unification of cards ...

• Residency Permit Card
• Labour Card
• Health Card
• GCC Travel Passport
• e-Gette
• ATM Card
• e-Purse (e-Cash - eDirham)
• e-Pass (e-Sewa)

Collaborative Government Environment...

- Interoperability & integration with other systems

Some lessons learned ..

- Present process requires three offices for enrolment (building cost)
- Three workstations are required for one enrolment line (equipment cost)
- If a problem with the enrolment of one applicant is experienced, the total line becomes un-operational
Registration process

Enrolment Strategy

Target: to enrol total population of 5 million

| June 2006 | 9,000 enrolled | 60 Live |
| June 2006 | 140,000 total enrolment | 1/1/2006 |
| June 2006 | Full Enrolment | 1/1/2006 |

Scope Creep

Quality Acceptance Framework ...

ISO/IEC 9126

Functionality
Reliability
Usability
Efficiency
Portability
Motivability
Interoperability
Security
Thank you...

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