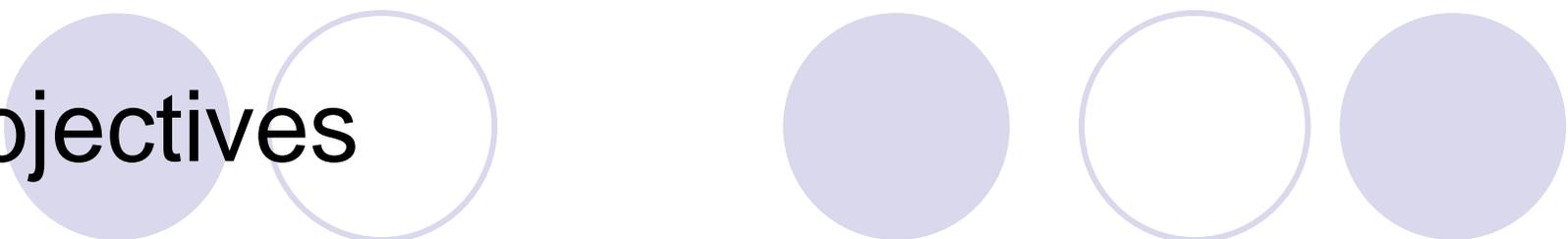


Identification Standards and relationship to ISO/IEC 24727

An Overview on Smart Card Standards
and some Interoperability concepts



Objectives

- Consider the impetus for standards for token-based IAS systems
- Consider the processes used to develop such standards
- Examine the overlapping standards that form the foundation of ISO/IEC 24727
- Examine the needs for Interoperability



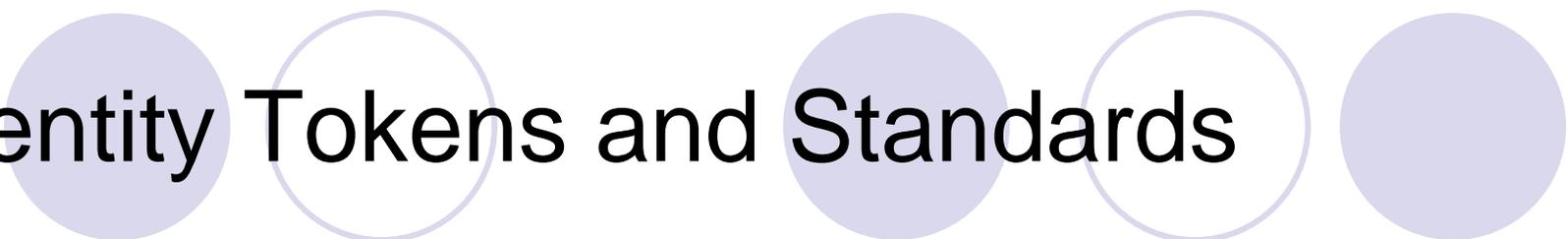
What drives standardization?

- System architectural based threats
- Industry needs for stable interfaces
- Consumer needs for access to cost-effective solutions to problems



How are standards defined?

- By proprietary solutions to architecture based threats behind standard interfaces
- By *de facto* means enforced by conformance testing (e.g. by industry *consortia*)
- By *de jure* means, also enforced by conformance testing (e.g. by open standards bodies such as ISO)



Identity Tokens and Standards

At the beginning it was a “proprietary” world...

...has it really changed since then?



Smart Card related standards

- Basic Smartcard Standard
 - ISO 7816 (and ISO 7810, ISO 14443, etc.)
- Cross-Industry Smart Card Operating System
 - Java Card
 - MULTOS
- Middleware and Terminal/Reader Standards
 - Global Platform
 - PC/SC
 - PKCS

Smart Card related standards (cont.)

- Telecommunication Standards for Smart Cards
 - ETSI GSM
 - The 3rd Generation Partnership Project - 3GPP
- Financial Standards for Smart Cards
 - EMV
- ePassport, eGov and Citizen ID
 - FIPS 201/PIV, TWIC, RT, etc.
 - CEN/TS 15480: Identification card systems ECC
 - IAS-ECC (GIXEL)
 - ePassport and ICAO

Smart Card related standards (cont.)

- Privacy and Governance

- HIPAA

- SOX

- PCI

- Security Certifications and evaluation

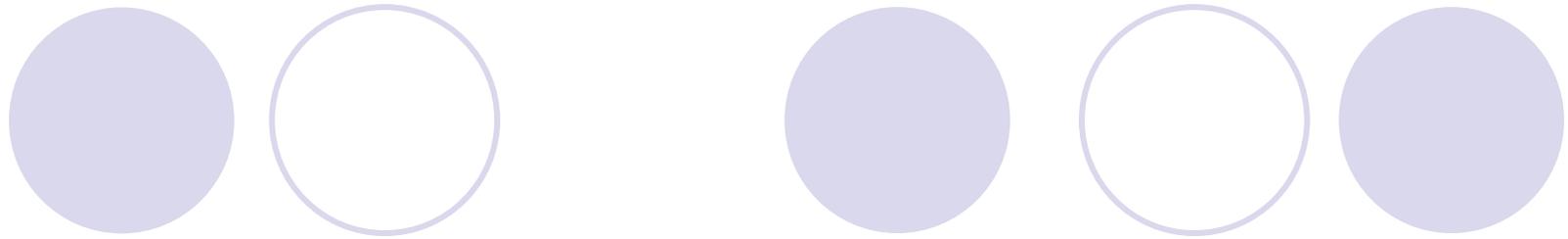
- Common Criteria

- FIPS 140



But there is still a need: Interoperability

- We already own several tokens...
...and use them in different applications
- We travel and work in a global “village”...
...and we are virtually connected to multiple entities
- We commonly use PCs, Smart phones, PDAs to perform several kind of secure transactions



QUESTIONS?

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