### PAIIWG at ASIS

Tim Baldridge September 16, 2008

# Topics

- Trust Anchor
- Cryptographic Soundness
- Card Authentication Key
- PIV Identifier Model

# **Trust Anchor**

- What is it?
  - A self-signed root certificate that a relying party accepts as authoritative
- PIV Cards
  - Common Policy (Root CA)
- PIV Interoperable Cards
  - Federal Bridge (Root CA)
- PIV Compatible Cards
  - ?? (Root CA)

## **Example PIV Trust Chain**

Certificate ?X	Certificate ? 🔀
General Details Certification Path	General Details Certification Path
View Certificate	View Certificate
Certificate <u>s</u> tatus: This certificate is OK.	Certificate <u>s</u> tatus: This certificate is OK.

# Cryptographic Soundness

- A Qualitative Description of Business and Technical Practices Which Insure Integrity And Confidentiality
- Keying materials
  - What is the Key Use
  - Chain of Custody in Key Distribution
  - Who has control
  - How many entities possess a key

# Card Authentication Key

- Asymmetric
  - PKI Based Infrastructure Exists
  - Uncommon in PACS Applications
  - Policy Enforced Unique Key per Card
- Symmetric
  - Faster algorithm
  - No Enterprise Key Management Infrastructure
  - Typical Deployment Uses Only a Few System-wide Keys Across a Card Population

## **PIV Identifier Model**

#### ISSUE

- How to Extend Numbering to Non-Federal PIV
  Interoperable Card Issuers
- Both Legacy And New PACS Must Enroll Cards to Enable Efficient Recognition at Pointof-Access
- In The CHUID the GUID is Intended for this Purpose but Remains Inadequately Defined