

PIV Life Cycle Management:
*Maintaining Assurance and
Enhancing Utility*

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Security is More Than Technology

- Policies and procedures play a key role in a secure PIV token – just like any other security system
- Things change – the system has to keep pace
 - People retire, change jobs, get fired
 - The environment changes – can the token change with it?

Policies and Procedures

- Policies and procedures must include
 - Token and certificate issuance
 - Token and certificate revocation
 - Notification and changes to token holder attributes
 - Re-authentication and Re-issuance

Implementing Policies and Procedures

- Personnel
 - Personnel in trusted roles must be trustworthy
 - Training
 - Auditing
- Verifying Policies and Procedures
 - Compliance audits
 - Common PKI tool for Policy compliance
 - Approved by FPKI Policy Authority
 - Certification and Accreditation
 - Agency DAA signs off on system

Emergency Notification

- Emergency notification procedures must be established for each agency
- Triggers:
 - Employee or contractor separation
 - Assurance decreased
 - Token lost or compromised

When are emergencies noticed?

- Separation
 - Usually known to government or the employer, but who tells the token issuer and certificate issuer?
- Loss or compromise
 - Do token holders know their responsibilities?

Emergency Response

- Token Revocation
- Token Status Registry Updates
- Certificate Management Issues

Directory Management

- Directory architecture reflects local versus global data
 - If all data is global
 - Then a single publicly accessible directory is sufficient
 - If some data is local, two solutions:
 - Internal and border directories
 - Authenticated access to controlled attributes

OCSP Responder

- Essentially, two configurations:
 - CRL driven
 - CA database driven
- For CRL driven responders, updating the LDAP directory is a complete solution
- Where the CA database drives the OCSP responder, secure connections between CA and OCSP responder are required

So, FIPS 201 Will Establish...

- Policy and procedural requirements to ensure token management and personnel management are tightly coupled
- Policy and mechanism requirements to ensure token status information is accurate and available
- C&A and training requirements to ensure procedures are implemented correctly

Adapting to Environment

- The PIV token needs to be adaptable to reflect changes in environment
 - Every agency is different
 - Every agency evolves
- FIPS 201 will specify a minimum set of functionality
 - Additional functions may be added to meet agency requirements