



Federal CIO Council

**Federal Public Key
Infrastructure
Steering Committee**

Federal Approach to Electronic Credentials

Information Assurance in an E-World

Judith Spencer
Chair of the Federal PKI Steering Committee
judith.spencer@gsa.gov
<http://www.cio.gov/fpkisc>



Privacy Act of 1974



- 4 Basic Objectives
 - To restrict disclosures of personally identifiable records
 - To grant individuals more rights to access records agencies maintain on them
 - To grant individuals the right to seek amendments to agency records maintained on themselves
 - To establish a code of "fair information practices" which requires agencies to comply with statutory norms for collection, maintenance, and dissemination of records

Identity Credentials



- Driver's License
- Employee Identification Card
- Passport
- Birth Certificate
- Physical Presence
- Signature

Trust

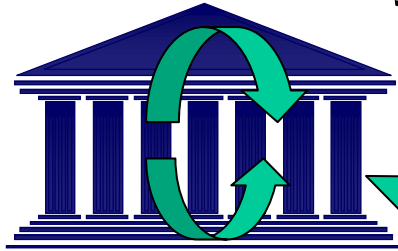


Legislative Mandate

- Government Paperwork Elimination Act, October 1998
 - Commitment to on-line government
 - Public electronic access by October 2003
- Electronic Signatures in Global and National Commerce Act, June 2000
 - *“A signature may not be denied legal effect simply because it is electronic”*



Internal
Effectiveness
and Efficiency



E-Transaction Landscape

Government to
Business



Government to
Government



Government
to Citizen



E-Gov Initiatives



Government to Citizen

- USA Service GSA
- EZ Tax Filing Treas
- Online Access (Loans) DoEd
- Recreation One-Stop DOI
- Eligibility Assist Online Labor

Government to Government

- e-Vital (business case) SSA
- e-Grants HHS
- Disaster Assistance and Crisis Response FEMA
- Geo-spatial Information One-Stop DOI
- Wireless Networks DOJ
- Enterprise Legal Case Management DOJ

Government to Business

- Federal Asset Sales GSA
- Online Rulemaking DOT
- Simplified and Unified Tax and Wage Reporting Treas
- Consolidated Health Informatics HHS
- Business Compliance One-Stop SBA
- Int'l Trade Process Streamlining DOC

Internal Effectiveness and Efficiency

- E-Training OPM
- Recruitment One-stop OPM
- Enterprise HR Integration including e-Travel OPM
- Integrated Acquisition GSA
- E-Records Management NARA



A Few Facts

- Internet is perceived as inherently anonymous
- In order to protect privacy, government must know with whom it is dealing
- Knowledge must be within reasonable risk limits
- Electronic credentials provide the means to link identity in the electronic medium

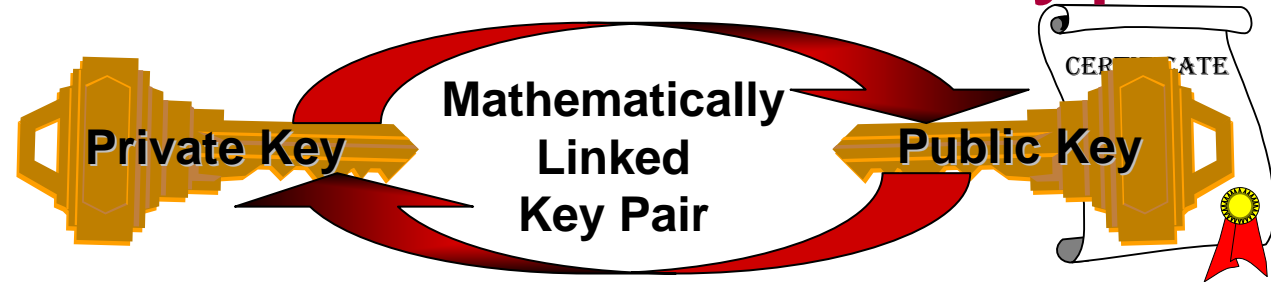


What is Security on the Internet?

- User Authentication
 - Knowing who your correspondent is
- Transaction Integrity
 - Ensuring the message sent is the message received
- Non-Repudiation
 - Correspondent cannot deny conducting transaction
- Confidentiality
 - Only authorized persons can read the message



Asymmetric Key Encryption



- Protected by Owner
- Used as Identity Credential
- Used to Sign Messages
- Used to Decrypt
- Distributed Openly
- Used to Authenticate Identity
- Used to Verify Signatures
- Used to Encrypt

Identity Credentials



- Driver's License
- Employee Identification Card
- Passport
- Birth Certificate
- Physical Presence
- Signature
- **Electronic Credentials (PKI Certificates)**

Trust

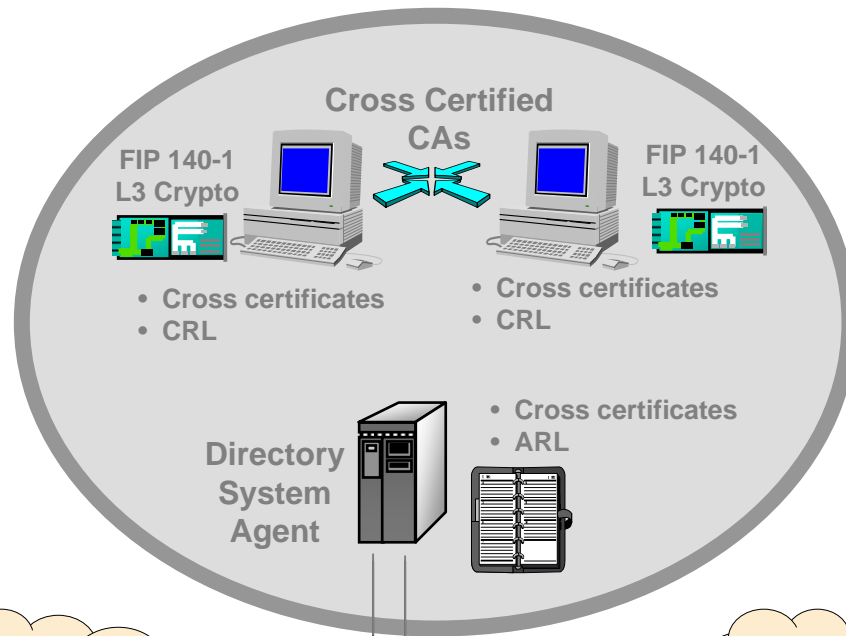


The Way Forward

Simplify and Unify

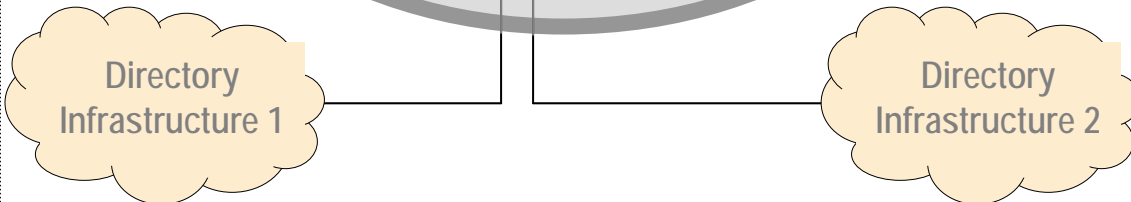
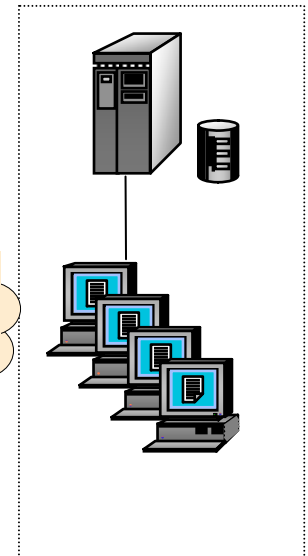
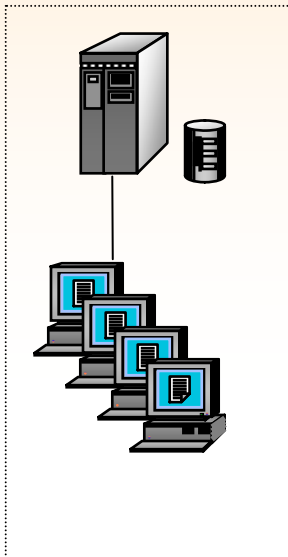
- Promote Quicksilver e-Authentication Initiative
- Assist other initiatives in defining their identity authentication needs
- Develop applications for cross-governmental use
- Coordinate consolidated buy of authentication products and services
- Promote interoperability with other entities through FBCA

Federal Bridge Certification Authority



Trust Domain 1

Trust Domain 2



S/MIME EMAIL





Federal PKI Policy Authority

- Voluntary interagency group - NOT “agency”
- Governing body for FBCA interoperability
- Oversees operation of FBCA, authorizes issuance of FBCA certificates
- Answers to Federal CIO Council
- Six Charter Members:
 - GSA, Justice, DoC, NSA, OMB, Treasury

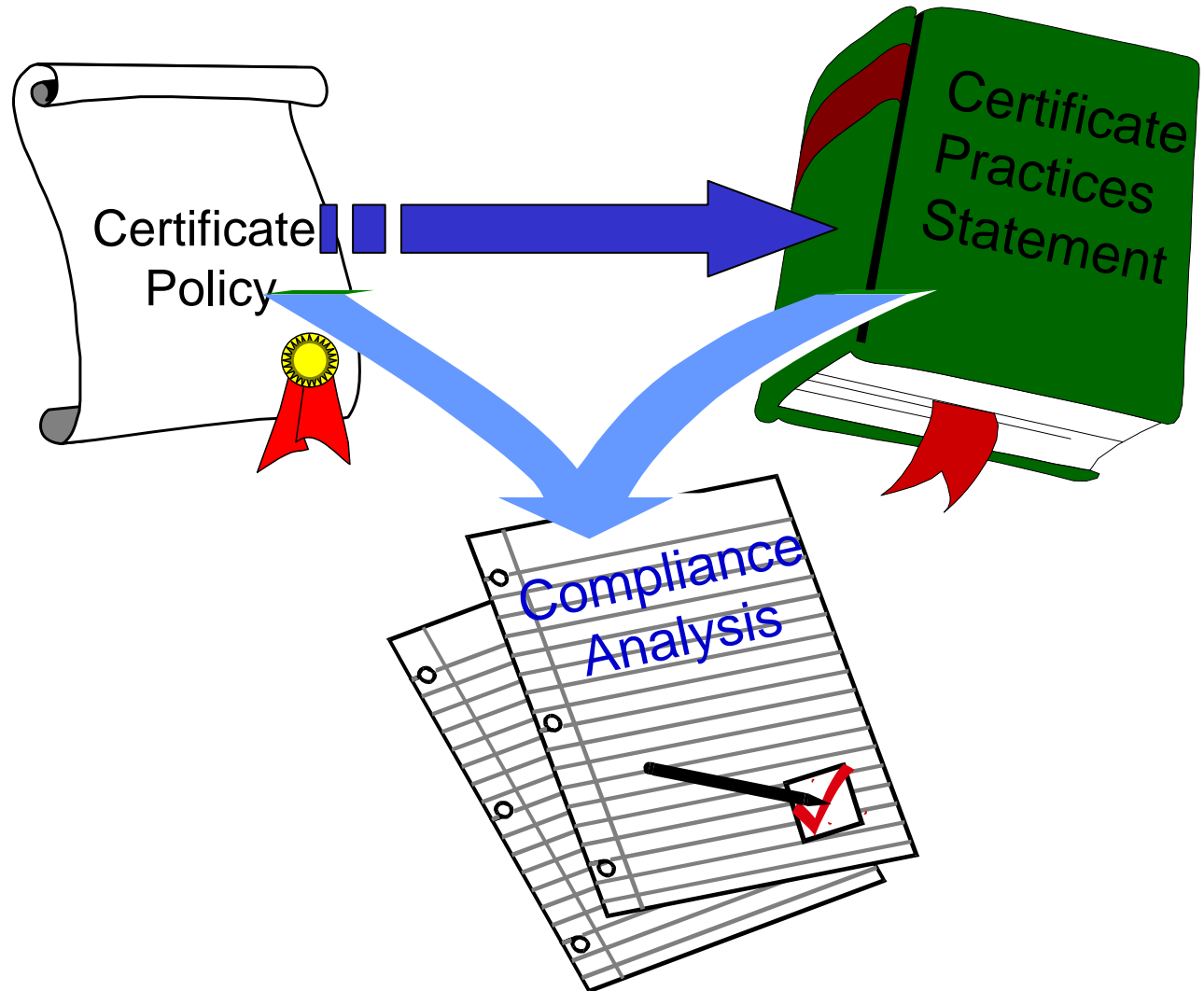


Policy Mapping

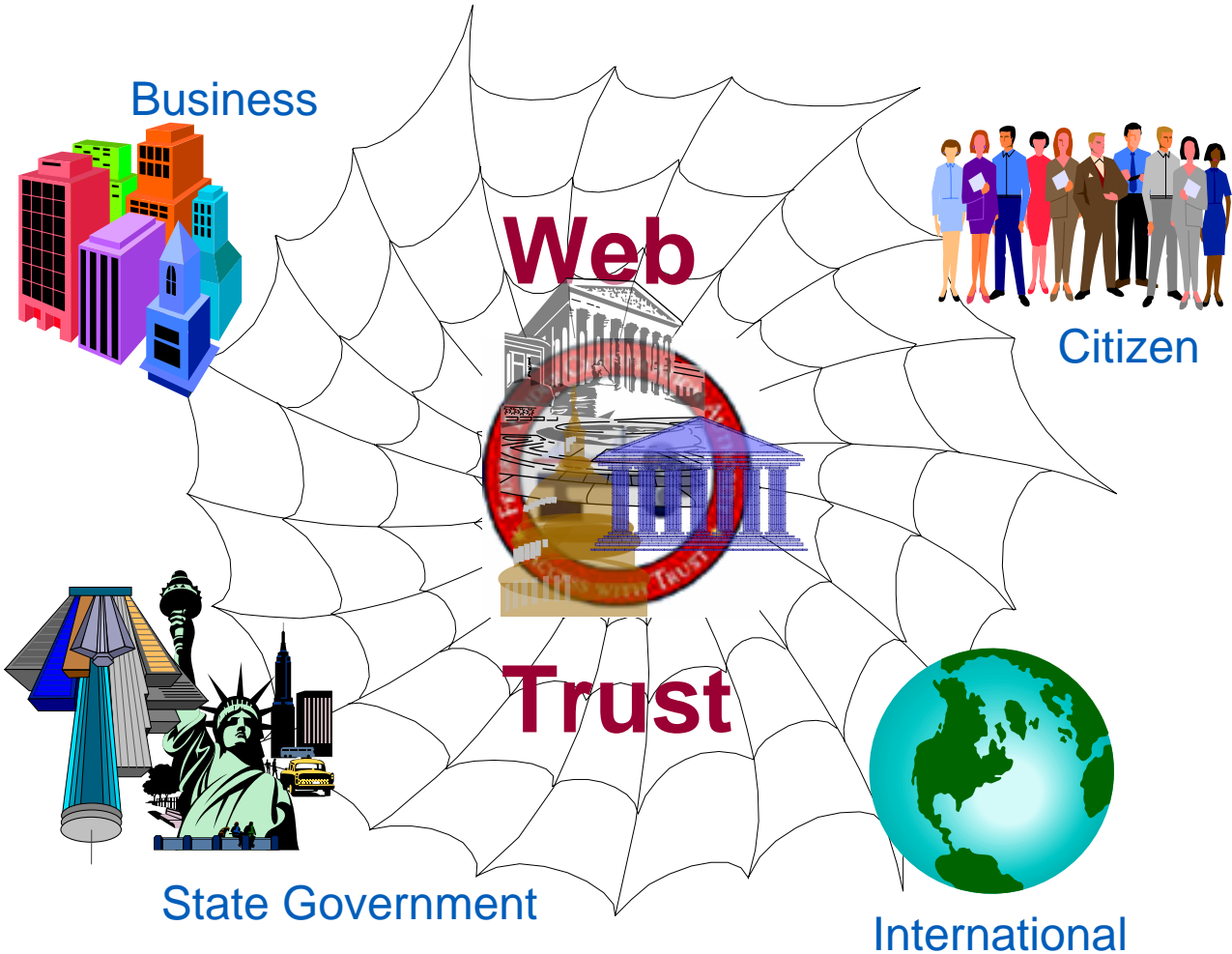
- Organization is mapped to one of 4 levels spelled out in Bridge Certificate Policy
 - Rudimentary
 - Basic
 - Medium
 - High
- Only applies to Organization relationship with Bridge for purposes of interoperability



Required Documentation



A Vision for the Future





Closing Words

- Our Vision - Enable e-government through:
 - A cross-governmental, ubiquitous, interoperable Public Key Infrastructure.
 - The development and use of applications which employ that PKI in support of Agency business processes.
- Government-wide initiatives include:
 - Federal PKI Steering Committee
 - Federal PKI Policy Authority
 - Federal Bridge Certification Authority
 - Access Certificates for Electronic Services