SAFE-BioPharma®

SAFE-BioPharma Association

NSTIC Day

How does industry drive forward

SAFE-BioPharma Association

Topics

- **Topic C: Assurance levels, “frameworks“, interparty liability**
- **Topic D: Device-specific methods: mobile; smartcards; browser DNT, etc.**
  - PKI, non-PKI

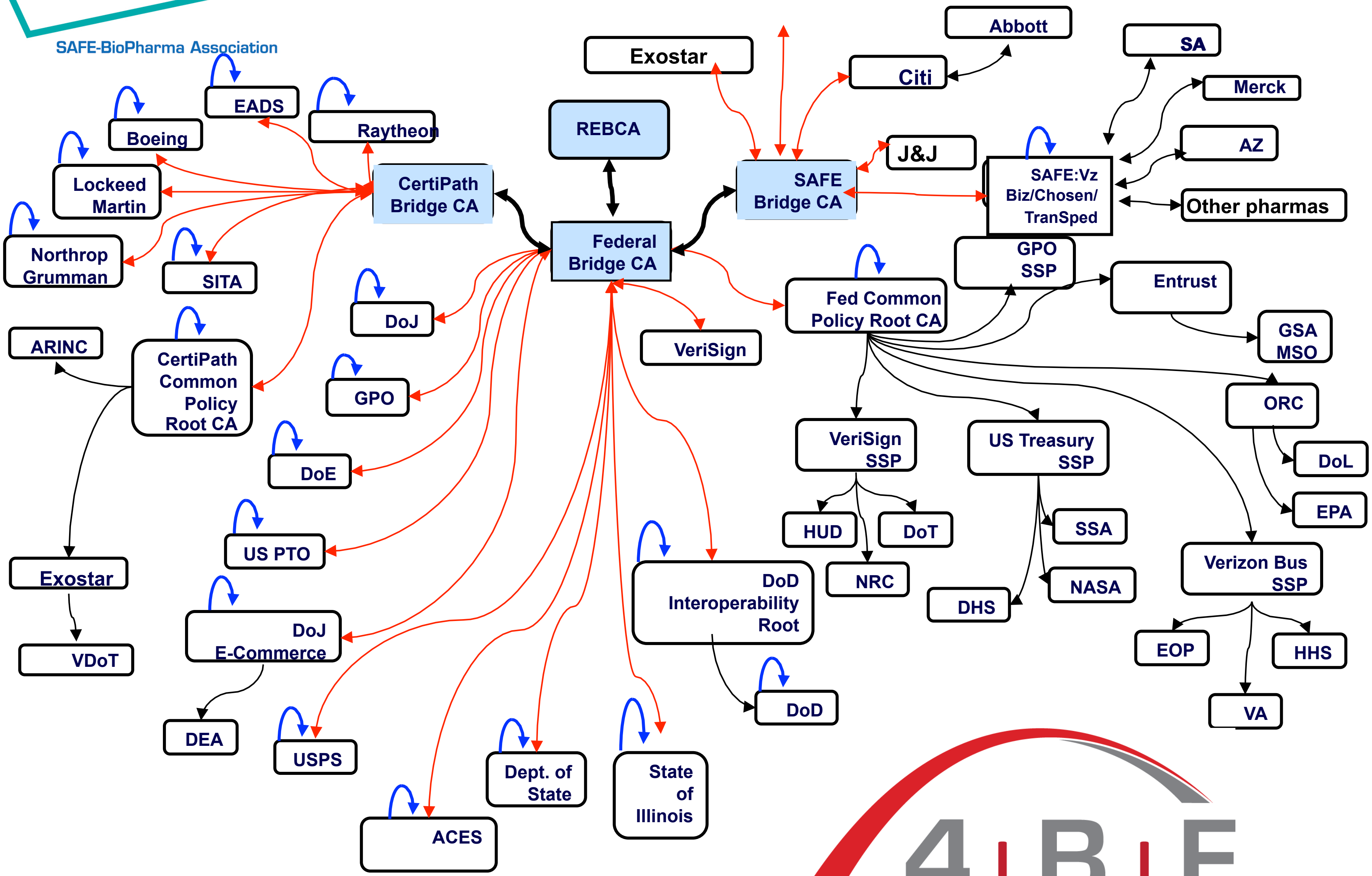
Assurance levels, “frameworks“, interparty liability

- **OMB 04-04**
  - Level 1: Little or no confidence in the asserted identity’s validity
  - Level 2: Some confidence in the asserted identity’s validity
  - Level 3: High confidence in the asserted identity’s validity
  - Level 4: Very high confidence in the asserted identity’s validity
- **NIST SP 800-63 provides additional guidance per level**
  - Registration and identity proofing
  - Tokens
  - Token and credential management mechanisms
  - Protocols used to support the authentication mechanism between the Claimant and the Verifier
  - Assertion mechanisms

Assurance levels, “frameworks“, interparty liability

- **PKI**
  - FBCA
    - Six increasing, qualitative levels of assurance: Rudimentary, Basic, Medium, PIV-I Card Authentication, Medium Hardware, and High.
  - Also Medium Hardware Commercial Best Practices (CBP) Assurance Requirements
- **Non-PKI**
  - FICAM
    - Levels 1-3

4BF – Interlinked PKI Network of Trusted Cyber-Communities



Non-PKI TFPs

- **FICAM certified**
  - LOA 1 – OIX
  - LOA 1-2 – InCommon
  - LOA 1-3 – Kantara
- **In process**
  - LOA 2-3 – SAFE-BioPharma Assn
  - Under TFET review

Interparty Liability

- **SAFE-BioPharma**
  - Closed membership association
  - Dispute resolution process governs adjudication
    - Agree not to sue but rather arbitrate
  - Liability covered under Operating Policies and Member/Issuer Agreements
    - Specific caps related to credential management only
    - Does not cover use of credentials
- **Other TFPs**
  - Part of why we are here

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Authentication and credentials

- **PKI is covered by the FBCA CP and CPS**
  - Multiple certificate types
  - Hardware, software and roaming
    - Roaming currently classed as software by the FBCA
    - Moving to cloud-based solutions – SAFE-BioPharma/Verizon offering cloud-based HSM protected certificates
- **Non-PKI**
  - NIST SP 800-63
  - Issue – currently approved version dates to 2006 and is technically out of date and does not recognize non-PKI multi-factor tokens
  - Much of industry working with the Dec 2008 (now Jun 2011 draft)
    - Includes much broader definitions of acceptable tokens at various LOAs

Token types

- **Who is doing what and how?**
- **PKI**
  - Smartcards, USB hardware tokens, software tokens on machines/ mobile devices, cloud HSMs
- **Non-PKI**
  - LOA 1&2 – memorized secrets, pre-registered knowledge tokens
  - LOA 2 - look up secret, out of band, SF one-time password device, SF crypto device
  - LOA 3 – multiple tokens (NIST SP 800-63 (June 2011 draft), Table 7)