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Topics

- **Assurance levels, “frameworks“, interparty liability**
- **Tokens: mobile; smartcards; browser, etc.**
  - PKI, non-PKI

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

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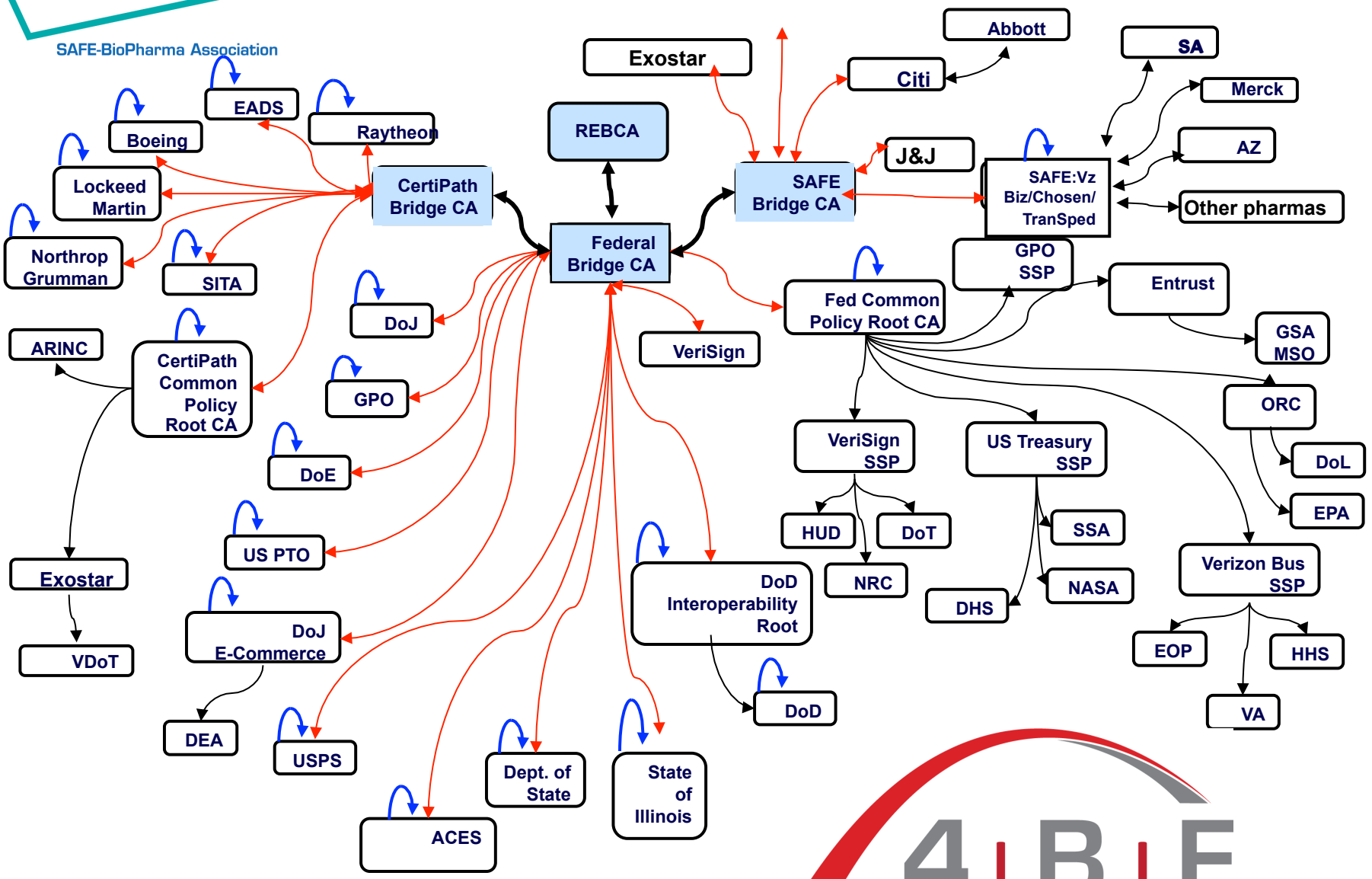
4BF – Interlinked PKI Network of Trusted Cyber-Communities



Non-PKI TFPs

- **FICAM certified**
  - LOA 1 – OIX
  - LOA 1-2 – InCommon
  - LOA 1-3 – Kantara
    - Certification program for IdP/CSP in place and operating
    - At least one IdP in process
    - TFP Only
- **In process**
  - LOA 2-3 – SAFE-BioPharma Assn
  - In TFET review
  - Certification program defined and will be operational upon FICAM certification
  - Also issues both PKI and non-PKI level 2 and 3 credentials

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  - Issue – currently approved version dates to 2006 and is technically out of date and does not recognize non-PKI multi-factor tokens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

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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)