

# Engendering Global Trust

A Joint Presentation by CertiPath and SAFE-BioPharma

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# CertiPath: Who We Are



- ▶ An identity policy hub: the CertiPath Bridge
  - ▶ Certified once, trusted by many
  - ▶ Secure and efficient information exchange
  - ▶ Interoperability
- ▶ Founded by the Aerospace-Defense community
  - ▶ Facilitating the use of digital certificates on a global basis
  - ▶ Jointly contributing to the trust environment via the Policy Management Authority, providing a mission-critical trust mechanism
- ▶ Maintaining a relationship with the U.S. Federal government for industry to government mutual trust

# SAFE-BioPharma: Who We Are



SAFE-BioPharma®

- ▶ An identity standards body
  - ▶ Maintain specifications for digital signatures and other identity related product categories
  - ▶ Policy and identity infrastructure: SAFE Bridge Certification Authority
  - ▶ Promoting digital transactions across the globe
  - ▶ Services to make relying on the infrastructure easy and ubiquitous
- ▶ Founded by the Biopharmaceutical Industry
  - ▶ Electronic Submissions Gateway (ESG) submissions to the FDA and EMA using eCTD data format
  - ▶ Drug Enforcement Agency (DEA) Electronic Prescription for Controlled Substances (EPCS) compliant
  - ▶ Infrastructure for collaborating digitally throughout the health industry
- ▶ Maintaining a relationship with the U.S. Federal government for industry to government mutual trust

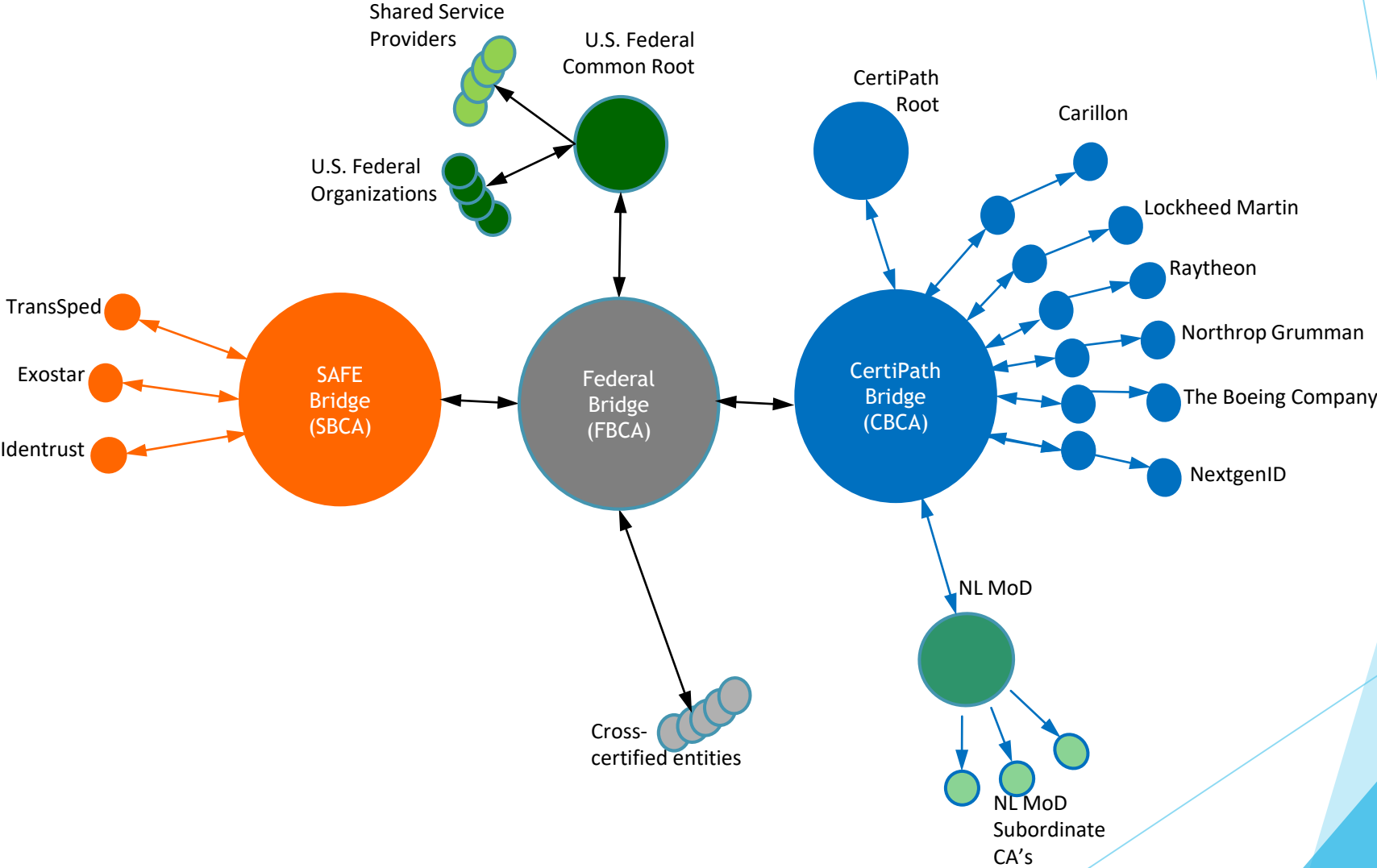
# Bridged Identity Infrastructure

- ▶ Bridges serve as the cryptographically bound hub between asserting parties (enterprise organizations) in a community
- ▶ High-assurance hardware and software credentials for physical and logical security
- ▶ Trusted by the other members of the community
- ▶ Identities are verified using RFC 5280 path building and validation
- ▶ Can rapidly scale to include new members
- ▶ Maintain capability of revoking members if the need arises



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# Bridged PKI



# Relying Party Trust

- ▶ PKI bridges, Trust lists and Hierarchies all represent technical communications of trust
- ▶ The technical mechanism is less relevant than the policy that governs it
  - ▶ It is up to the relying party to decide what technical mechanism to use for verifying digital identities



# So What's Our Goal?



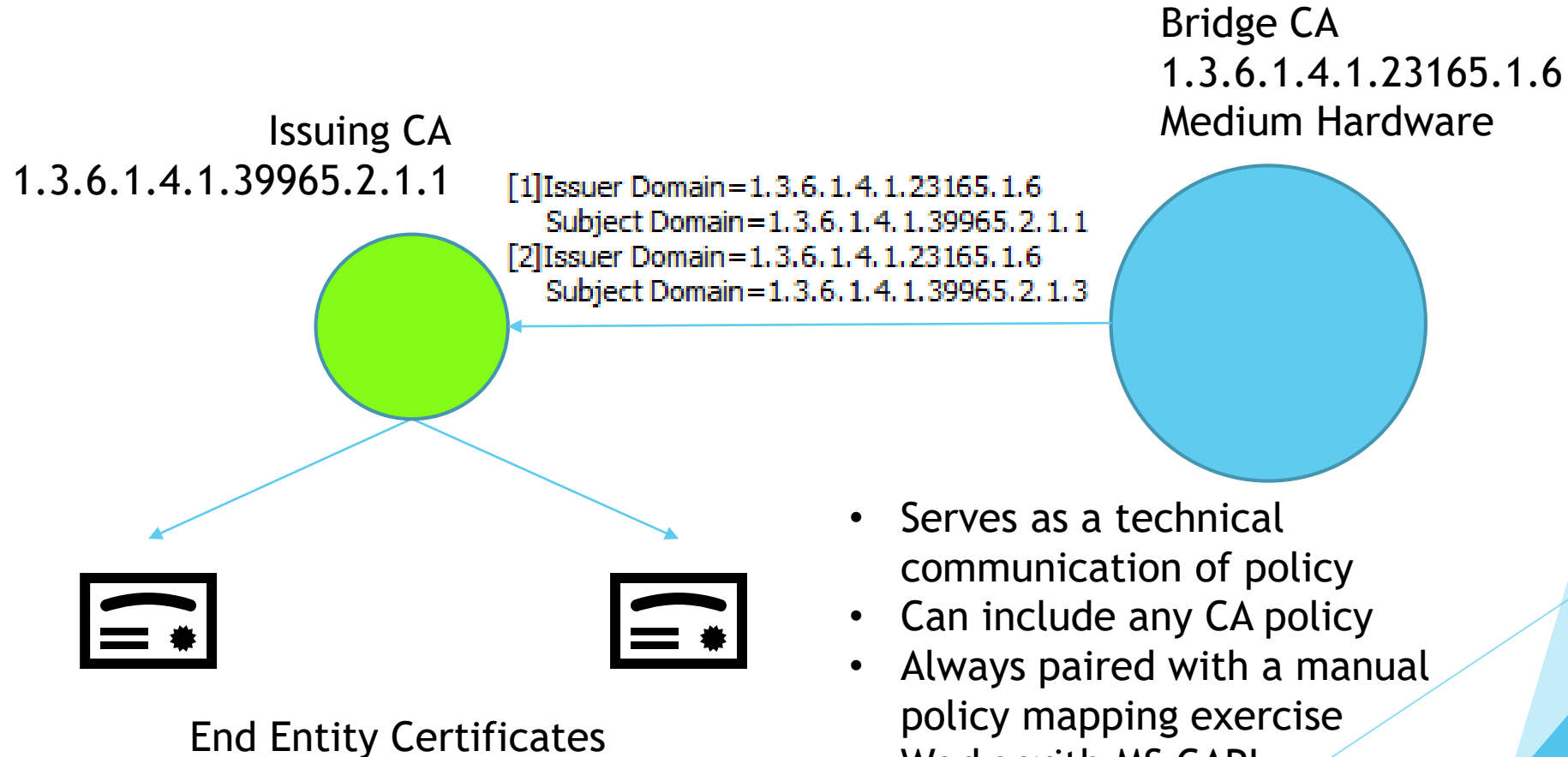
- ▶ Trust without borders
  - ▶ Mutual recognition between disparate trust communities
  - ▶ Inclusion in multiple trust mechanisms

# How Do Bridged PKIs Build Trust?

- ▶ The Bridge acts as a trusted neutral policy hub for its members.
  - ▶ Members trust the policy hub, therefore they trust each other
  - ▶ Bridge PMA provides inclusion for all members on policy decisions
- ▶ Policy Mapping - discrete CA domain certificate policies are compared to the Bridge certificate policy to establish comparability
  - ▶ Geographic flexibility on where the CA is hosted
- ▶ Peer-to-peer cross-certification to establish trust paths.
- ▶ Policy OID mapping provides increased granularity for certificate trust
- ▶ Bridge-to-Bridge cross certification expands the trust fabric



# Policy Mapping





# Our Understanding of the EU Model

## ▶ Certifying Bodies

- ▶ Each member state establishes a Trust Framework that certifies CAs within its country's boundaries and establishes a Trust List.
- ▶ These Trust Lists are aggregated in the EU Trust List that is essentially a List of Lists

## ▶ Hurdles

- ▶ The only “Trust Frameworks” permitted to participate in the List of Lists are EU member states
- ▶ There is (apparently) no way for a Trust Framework outside of the EU to participate in the EU ecosystem

## ▶ Proposal

- ▶ Create a new policy OID that allows a Trust Framework existing outside of the EU to join the Trust List infrastructure.
  - ▶ Same policy obligations, practice obligations, ID proofing etc...
  - ▶ But the Trust Framework exists outside of the EU

# Summary

- ▶ PKI Bridges, Trust Lists and hierarchical CAs are technical manifestations of Trust Frameworks
- ▶ The policy must support the goal of global trust by allowing CAs or Trust Frameworks to participate without regard to geographic location
- ▶ Suggesting a change to EU policy that allows Trust Frameworks located outside of the EU to participate in the EU Trust List infrastructure.

# Questions?

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