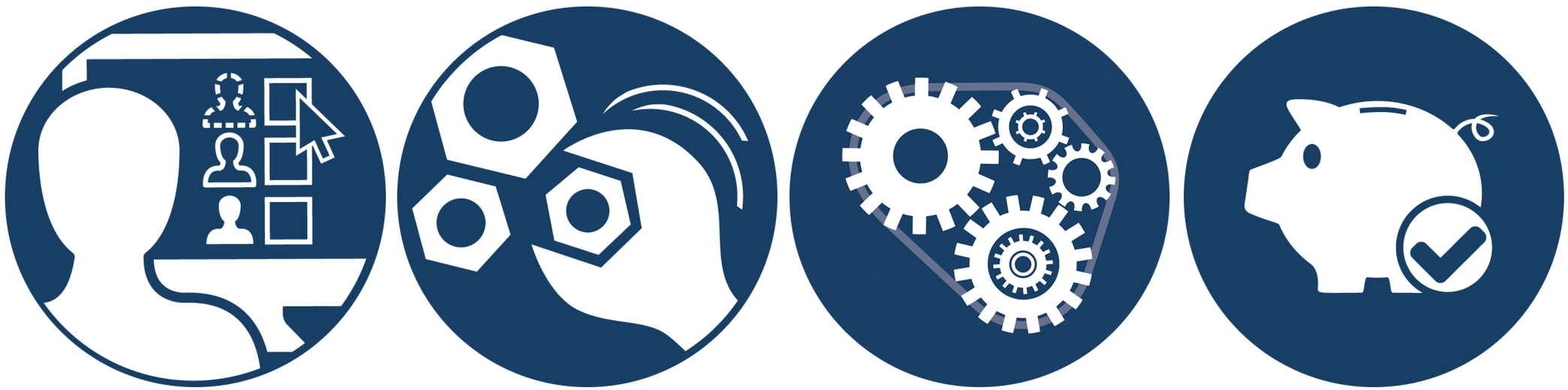


Trusted Identities Group

mike garcia | lead

11 september 2017

National Institute of Standards and Technology
U.S. Department of Commerce

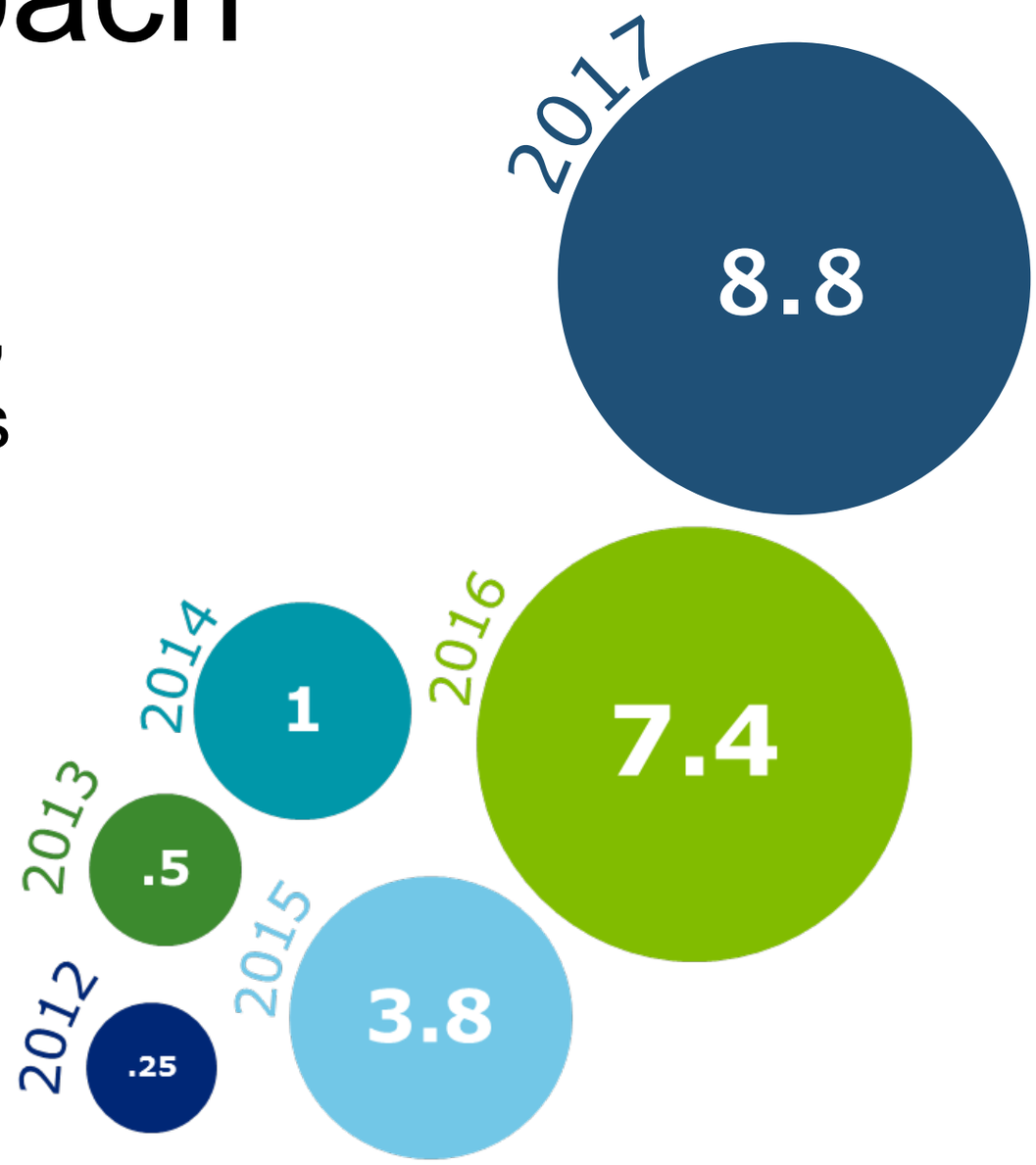
Vision

> “Individuals and organizations employ secure, efficient, easy-to-use, and interoperable identity solutions to access online services in a manner that promotes confidence, privacy, choice, and innovation.”

National Institute of Standards and Technology
U.S. Department of Commerce

A Partnership Approach

- **24 pilots** impacting over 8.8 million individuals, >190 partners, 12 sectors, and 16 MFA solutions
- **Identity Ecosystem Framework**: privately-led, multi-sector, consensus-based approach to establishing baseline requirements for digital identity
- **Open, collaborative development** of projects and guidance



millions of individuals impacted by pilots

National Institute of Standards and Technology
U.S. Department of Commerce

yubico

OhioDAS
Service · Support · Solutions

confyrm

PA pennsylvania

ID.me

CEDARS-SINAI

PRIVO®
Privacy & Permission=TRUST

MDHHS
Michigan Department of Health & Human Services

Daon

resilient
network systems

INTERNET 2

SAFRAN
MorphoTrust USA

TSCP
TRANSGLOBAL SECURE COLLABORATION PROGRAM

CRITERION systems

AAMVA

Georgia Tech Research Institute

hydrantid™

| g |

FLORIDA
Department of Revenue

gemalto
security to be free

GSMA™

NIST
National Institute of Standards and Technology
U.S. Department of Commerce

Interim Benchmarks

- Benchmark 1 | Subjects have the ability to choose trusted digital identities: for personal or business use; between at least two identity credential and media types; and that are usable across multiple sectors.
- Benchmark 3 | Trustmarked attribute providers are available to assert validated attributes. Services available include the ability to assert validated attributes without providing uniquely identifiable information.

  - Ramping up.
  - The NSTIC pilots are collecting fewer attributes, but industry-wide attributes are still often over-collected

National Institute of Standards and Technology
U.S. Department of Commerce

Interim Benchmarks

- Benchmark 1 & Benchmark 3
  - ID.me is one example of an attribute verifier that shares claims in a privacy-enhancing way for first responders, teachers, veterans, and students.
  - PRIVO serves as an attribute verifier, enabling parents to more easily provide or revoke permissions and manage their children's access to applications and websites.
  - Criterion Systems. Inc., deployed a solution to more securely allow online services to bind verified identity attributes to credentials of a user's choice.

Interim Benchmarks

- Benchmark 4 | The number of enrolled identities in the Identity Ecosystem is growing at a significant rate, and the number of authentication transactions in the Identity Ecosystem is growing at least at the same rate.
  - Significant progress.
  - Millions of individuals are using NSTIC-aligned credentials, and federated identity use is on the rise. Currently, credentials are often only usable in one sector, indicating the need for greater interoperability.

National Institute of Standards and Technology
U.S. Department of Commerce

Interim Benchmarks

- Benchmark 4
  - The pilots have impacted over 8.8 million individuals across 12 sectors.
  - In 2015, 41% of respondents wanted to – and were already able to – manage their organization's two-factor authentication centrally for all applications (cloud apps, on premises apps, VDI, enterprise apps, etc.).
  - UCAID developed an open source, simplified MFA enablement of IdPs, catalyzing MFA adoption in the research and education communities; over 140 universities have begun to deploy MFA technology, with the potential to grow to over 30 million individuals impacted.

Interim Benchmarks

- Benchmark 5 | Building upon FICAM, all online Federal Executive Branch services are aligned appropriately with the Identity Ecosystem and, where appropriate, accept identities and credentials from at least one of the trustmarked private-sector identity providers.
  - Ramping up.
  - There is still significant work to be done on this benchmark, especially increasing adoption of NSTIC-aligned credentials, including from private-sector CSPs, in federal government. This was the most ambitious interim benchmark, calling on all federal agencies to engage.

Interim Benchmarks

- Benchmark 5
  - In the BuySecure Initiative (based on Executive Order 34681), the federal government has supplied over 2.5 million more secure Chip-and-PIN payment cards.
  - The Cyber Security National Action Plan indicates that the federal government “is accelerating adoption of strong multi-factor authentication and identity proofing for citizen-facing federal government digital services.”
  - There are eight service providers approved by Trust Framework Solutions

Future TIG Program Priorities

Pilots	Focus on targeted impediments to the market rather than broad challenges
Standards/ Guidelines	Develop documents with focus on early & continual stakeholder engagement | Make implementation guidance as important as the requirements
Digital Identity Services	Establish a digital identity lab, hosted at the NCCoE | Put TIG 'in the field' with real agency use cases/pain points

National Institute of Standards and Technology
U.S. Department of Commerce

Future TIG Program Priorities

Metrology	Put the NIST in digital identity by improving our ability to measure the quality of solutions | Risk-based model for agency selection
Market Intelligence	Provide an honest assessment of the market for our own decisions and to help others understand the realities

National Institute of Standards and Technology
U.S. Department of Commerce

Standards and Guidance

Focuses on **international consensus standards**; NIST IR/SP where necessary (non-PIV)

Leads **USG participation in the FIDO Alliance**; NIST membership available USG-wide

Co-chairs **iGov profile (OpenID Connect)** development for all USG use cases

Leads international ‘consortium’ standardizing on **one digital identity framework**

NIST
National Institute of Standards and Technology
U.S. Department of Commerce

Digital Identity Services

- All about **implementation**
- Hosted at NCCoE, but not under NCCoE processes
- **Partnership-based**: Agency and NIST working together in technical environment
- Based on **agency need** and their identity technical environment
- Continuous feedback loop to/from **NIST guidance and other standards** so other agencies can benefit
- Not a ‘PIV Helpdesk’

National Institute of Standards and Technology
U.S. Department of Commerce

Metrology

Strength of Function for Authenticators – Biometrics

effort to produce a framework to **evaluate & compare the strength of authentication** solutions beginning with biometrics

https://pages.nist.gov/SOFA

---

defines a schema for metadata that describe a subject's attributes; intended to give RPs **greater insight** into methods attributes are determined, assist in making **risk-based business decisions**

https://pages.nist.gov/NISTIR-8112/

Attribute Metadata

National Institute of Standards and Technology
U.S. Department of Commerce

Call for a steering group

> “A steering group will administer the process for policy and standards development for the Identity Ecosystem Framework in accordance with the Guiding Principles in this Strategy. The steering group will also ensure that accreditation authorities validate participants’ adherence to the requirements of the Identity Ecosystem Framework . ”

National Institute of Standards and Technology
U.S. Department of Commerce

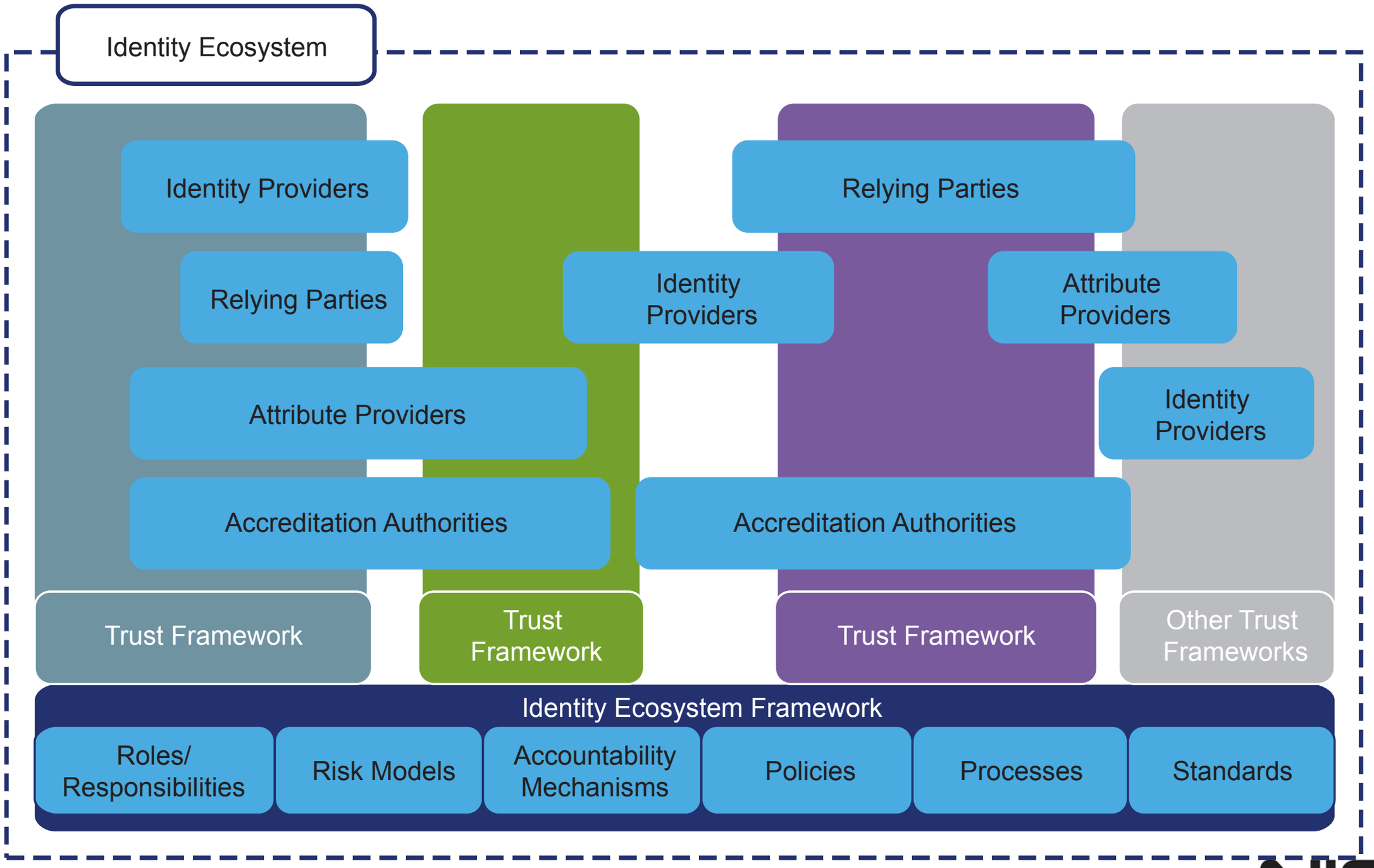
Goals and Objectives

Goal 1: Develop a comprehensive Identity Ecosystem Framework

- *Objective 1.4: Establish a steering group to administer the standards development and accreditation process for the Identity Ecosystem Framework.*

National Institute of
Standards and Technology
U.S. Department of Commerce

The NSTIC on the IDEF



National Institute of Standards and Technology
U.S. Department of Commerce

Oh, the places you'll go

National Institute of
Standards and Technology
U.S. Department of Commerce

Questions?

trustedidentities.blogs.govdelivery.com

@TrustedIDsNIST @veritablymikeg

trustedidentities@nist.gov

nist.gov/itl/tig

National Institute of Standards and Technology
U.S. Department of Commerce