Improving Teamwork with the InCommon Federation

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Teamwork and Digital Collaboration

• InCommon Federation and Context
• What’s up?
  – Increasing Security across the Community
  – Enhancing User Experience
  – Making it Easier to Connect
• Federation Futures
What does our world look like?

- Increased administrative efficiencies and cost containment
- Increased urgency for global collaboration
- More online learning and diversification of programs
- New(ish) open data requirements and sharing of federally-funded data sets
- Focus on Zero Trust and checking everyone at the door…
How can the InCommon Federation help?
Ann Drives Across The Country
Ann Buys a Flight...
What’s inside?

• Who issues the license and vouches for the person?

• What information do they share based on what I want to do?

• What risk does the provider of the service need to mitigate? How do they do that?

Enable access based on an individual’s role/attributes across technology platforms and policy spaces
Increasing Security Across the Community
Two Ways to Participate in the Federation

Identity Provider
Brings the People

Resource Provider
Delivers Services / Data
Hosts Collaborations
There are Many of Us

780 organizations | 586 Identity Providers | 6000+ Resource Providers
Interoperation across federations from 79 countries

How do we connect securely, protect user privacy, and streamline user access to collaborations?
Baseline Expectations Improves Security and Trust

An Identity Provider is..
Operated with organizational-level authority.
Trusted to access the organization’s own systems.

A Service Provider agrees to…
Implement security controls to ensure user privacy.
Store user information only when necessary.
Obtain permission before sharing information.

All parties agree to…
Adhere to the REFEDS Security Incident Response Trust Framework for Federated Identity.
Maintain accurate published contact, connection, and privacy policy information.
Secure connection endpoints with current and trustworthy transport layer encryption.
Baseline Expectations’ Impact on Encryption

Baseline Expectations is a By Community, For Community Policy. The community decides what is important, and the community rallies to enforce these policies.

When InCommon stepped up the encryption requirement in 2021, 55% of over 6,000 InCommon-registered services received an "A" in the SSL Lab’s SSL Server Test. Just a year later, over 80% of these 6000+ services had a score of A.

Security threats evolve. We are never going to be perfect, but we continue to strive for better. Ongoing instrumentations introduced 2023 prompts organizations to act when their scores falter. We want to be as close to 100% as we can.
Beyond Baseline: Building Trusted Bridges

**SIRTFI Exercise**
The SIRTFI Exercise Working Group conducted InCommon’s second annual community Cyber- security Cooperation Exercise, focusing on the SIRTFI framework. 14 organizations, including the Australian Access Federation and the Research and Education Advanced Network New Zealand (REANNZ), joined to fine tune security incident coordination procedures.

**MFA and Identity Assurance**
Working with international partners, InCommon updated multi-factor authentication and identity assurance frameworks for research and education (R&E) in 2023, making them clearer and easier to adopt.

**NIST 800-63 Digital Identity Guidelines**
The Community & Trust Assurance Board spearheaded a community review and crafted a response to the new NIST 800-63 rev 4 draft, aiming to foster ongoing interoperability between higher education (HE) and Federal identity practices.

**National Institutes of Health (NIH)**
InCommon continues to help NIH implement multi-factor authentication and identity proofing requirements for selected NIH services.
Enhancing User Experience
What (and why) do we care about UX in Federation?

Secure, Privacy-Preserving, Streamlined, Scaled User Access to collaborations across Research and Education.

As it turns out, it’s pretty hard to devise a universally intuitive user experience spanning dozens of countries, thousands of organizations / services, and millions of individuals.

… which makes it that much more important that we get it right.
Federated UX Challenges Illustrated

**Service:** Which organization is the user from?

**User:** What is this and why should I trust you?

**Federation:** How do we improve recognition and communicate trust?
Creating a global R&E Login Experience - SeamlessAccess

Joint effort between GÉANT, Internet2, NISO, and STM.

A service designed to help foster a more streamlined online access experience when using scholarly collaboration tools, information resources

InCommon to adopt as its default home organization discovery service in 2024.
Making it Easier to Connect to the World
Organizations need help

- Schools are seeing increased pressure to share resources, consolidate and collaborate

- Overwhelmed by constrained resources, some leaders are looking to simplify their support model and outsource IAM to companies like Microsoft

- Commercial off the Shelf (CotS) IAM solutions don’t natively support R&E federations like InCommon, leaving running your own open-source solution like Shibboleth as the only option

Let’s change that!
What’s the Solution?
The InCommon Catalysts

- Making access through InCommon Federation easier
  - InCommon connectors/solutions for campuses leveraging Okta and Microsoft Entra
  - Hosted, supported by InCommon Catalysts
  - Possible branding program to help you find companies and products doing the right InCommon thing

- Who are the InCommon Catalysts?
  - 12 great companies, many have roots in higher ed
  - R&E focused services and business
  - Work with the community to design and offer IAM-related tools, hosted services, consulting and software to help with your specific need.
What’s Next?
PROMOTING DIGITAL COLLABORATION
Executive Summary

Over the next 5 years, InCommon leads the collective endeavor to develop creative, sustainable IAM best practices for Higher Education & Research.

Through a four-step, repeatable process, InCommon will effectively engage the membership collective to achieve its strategic objectives.

STRATEGIC OBJECTIVES

1. AN EVOLVED, STRONG VALUE PROPOSITION
   TRUSTED COLLECTIVE FOR IAM INSTITUTIONS

2. CLEAR GUIDANCE & TECHNICAL RECOMMENDATIONS
   HOW TO:
   SELECT
   IMPLEMENT
   MAINTAIN

3. A SECURITY-FOCUSED INNOVATION GROUP
   FOR EMERGING PROTOCOLS IN IAM

4. IMPROVED PRODUCT IMPLEMENTATION & INTEGRATION
   TO INCREASE ENGAGEMENT WITH VARIETY OF ACCESS PLATFORMS

5. EASY TO NAVIGATE PRODUCT & SERVICE OFFERINGS
   FOR ALL AUDIENCES

ADRESSING AN EVOLVING IAM LANDSCAPE

INTEGRATING NEXT GEN SECURITY
NEW DIGITAL LEARNING MODALITIES
SKILLS GAP & KNOWLEDGE GAPS
PROLIFERATION OF COMMERCIAL OFFERINGS
UNIFICATION, AUTOMATION, INTEROPERABILITY
Happy 20th Birthday, InCommon Community!
Learn more about InCommon’s Future at the Community Exchange...

Wednesday
10:00 am - InCommon Futures2
11:10 am - Trust, Identity, and Access for Learning and Research Across Borders
1:30 pm - Microsoft Multilateral Federation Future
2:40 pm - Identity: Open Source Hosted & Managed
4:10 pm - Future-Proofing IAM Infrastructures

Thursday
- 8:30 am - Building InCommon Futures Together
What’s the Impact?

- The InCommon Collective raises the security bar, making itself better every year.
- Easier to federate than ever.
- Easier for your users too.

But wait there’s more
- InCommon Steering Committee completed strategic planning process called InCommon Futures2
- Learn where the InCommon Collective is going tomorrow at 10:00 am
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AVP, Trust and Identity