# InCommon® Backgrounder

1. What InCommon does: Governance and Services

InCommon creates a "trust fabric" for campus identity management systems and partners' online protected resources, building a networked identity layer that allows an university's IdM system to control the authentication of its members while also allowing a third-party service provider to control the authorization of users to its protected resources.

This "**trust fabric**" consists of policies and technologies that allow for secure and privacy-enhanced transactions to occur:

1.1. Self-Governance structures (see *Governance* document for greater detail)

InCommon Governance
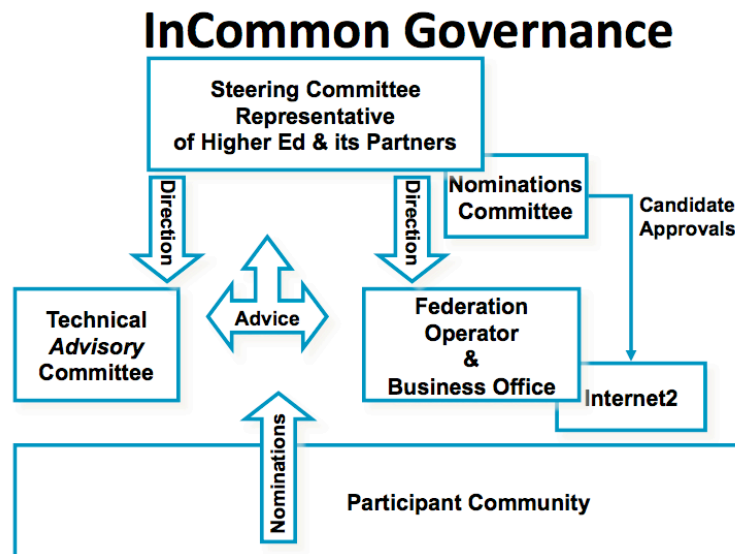
1.2. Standards of information exchange:
- Security Assertion Mark Up Language (SAML)
- EduPerson directory schema for identity attributes

1.3. Secure channels of communication
- Secure participant-to-Federation interaction system
- Signed metadata file of registered participant systems
- X.509 certificate authority for participant servers

1.4. Technical interoperability
- Software systems: Shibboleth is currently the only sanctioned software system that integrates SAML attribute exchange with federated SAML metadata.

1.5. Community Operating Standards
- Self-declared statements of operating policies and procedures ("The InCommon POP") that all participants are required to post publicly. Trust is based on each participant's ability to examine another participant's POP before entering into a federated partnership.

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InCommon supports this trust fabric most actively with **two basic services**: Identity proofing of Organizations (and their designated Executives and Site Administrators) and publishing a signed metadata file that contains the *InCommon-approved* URLs, x.509 certificates, and other data for each participating organization.
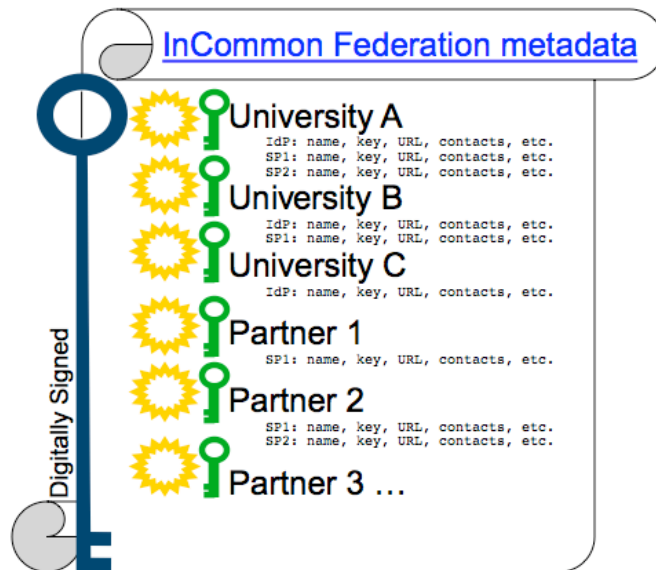
InCommon's services were priced by the original Steering Committee for adoption among universities and colleges large and small:

- One-time $700 Registration fee for I.D. proofing

- $1,000 Annual Fee for ongoing support of metadata services

- Additional $1,000 Fee if participant exceeds the base package of registering either 1 Identity Management System or 20 Services.

2. Relationship and Success with Internet2

The Internet2 Middleware community created InCommon out of its efforts in the identity management space. Shibboleth was opened up to the world and InCommon to any U.S. university and its partners with the belief that the greater the adoption of Shibboleth and InCommon, the more Internet2 members benefit.

Shibboleth has gained worldwide adoption, and InCommon continues on a steady, even aggressive growth trajectory, realizing exponential growth since 2004.

Growth

2004: **10** (pilot)
2005: **12**
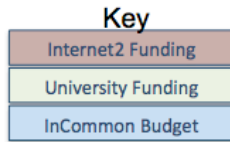2006: **41**
2007: **72**
2008: **124**
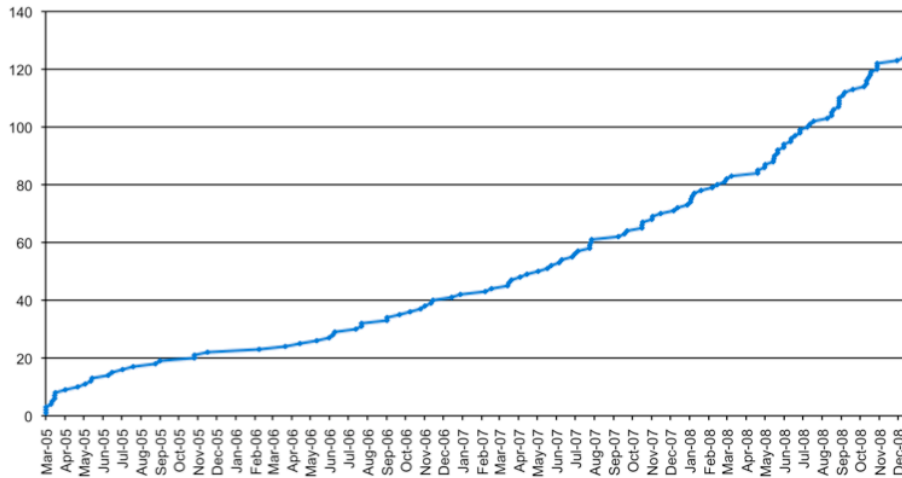
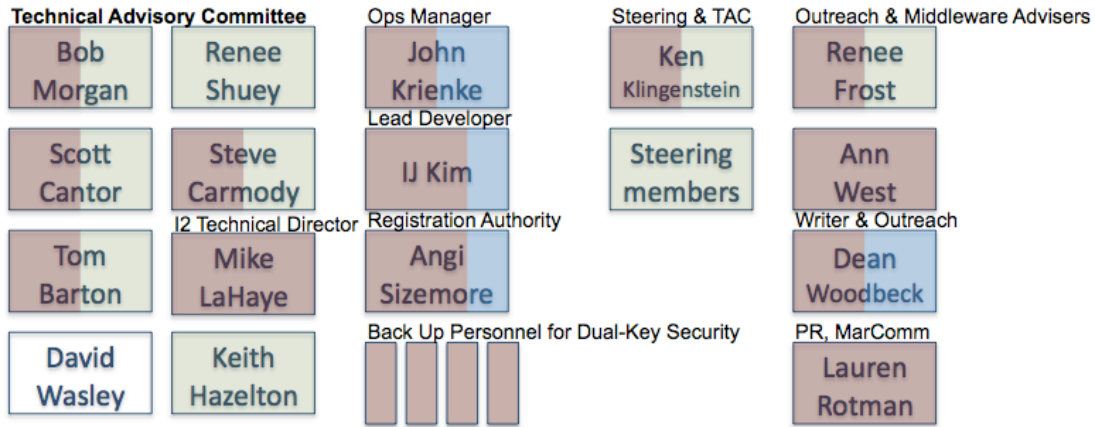*Dates are plotted by execution of legal agreement*

InCommon was conceived under a separate limited liability company structure in order to protect Internet2's network resources from unknown risks and legal actions. The LLC is a single-member LLC, where Internet2 is the single member and the universities and partner organizations that join are considered participants. The Internet2 *member* appoints a Steering Committee to govern the business of the federation and also appoints an operations manager who is the InCommon chief executive officer and must be an Internet2 employee. There must always be one Internet2 staff member on the Steering Committee as well.

In addition to InCommon's services, there is a tremendous amount of value gained in outreach and community-building synergies with the Internet2 Middleware effort. InCommon's technical advisory committee and outreach efforts are heavily dependent on the talents and resources of the community, funded directly by universities and indirectly by universities through Internet2. InCommon's budget captures a small amount of this and many more volunteer efforts not included in the schematic below. Internet2 benefits by additional brand equity in the success of InCommon and in fulfilling its mission as a significant technology transfer to the community and beyond.

InCommon Contributions

Key
- Internet2 Funding
- University Funding
- InCommon Budget

Technical Advisory Committee

Bob Morgan	Renee Shuey
Scott Cantor	Steve Carmody
Tom Barton	Mike LaHaye
David Wasley	Keith Hazelton

I2 Technical Director (Mike LaHaye)

Ops Manager
John Krienke

Lead Developer
IJ Kim

Registration Authority
Angi Sizemore

Back Up Personnel for Dual-Key Security

Steering & TAC
Ken Klingenstein

Steering members

Outreach & Middleware Advisers
Renee Frost

Ann West

Writer & Outreach
Dean Woodbeck

PR, MarComm
Lauren Rotman

Note: Funding splits are simplified and are not necessarily 50/50 as drawn. The main purpose of this schematic is to highlight the relationships between Internet2 & InCommon.

Of the 119 participants on InCommon's /participants/ page, 61% are Internet2 members. The inclusion of non-Internet2 members can be seen as both strength and weakness. The weakness argues that Internet2 membership dues support a service from which non-members gain value. The strength argues that participating Internet2 members gain value from the network affect of the increasing adoption of its middleware strategy. Most of the Sponsored Participants who are corporate organizations have scholarly or administrative service functions but no high-performance networking needs.

3. Final Issues

While financials will be covered in a separate document it is worth noting one final tension in operations. The growth of InCommon has strained resources and the ability of InCommon Operations to mature and develop. Additional resource allocation will be critical this year to keep up with demand for growth (legal negotiations, identity proofing, technical support) and the need to develop Shib 2.0 migration & interoperability support, x.509 certificate flexibility for inter-federation, testing services, Bronze & Silver services, among other operational stress points.

As a backgrounder, this document intends to highlight the key points of describing InCommon, its value, structure, and relationship with Internet2 without reaching premature conclusions. It is our hope that the engaged Internet2 council members, staff, and InCommon Steering Committee will draw on this information for analysis, discussion, and strategic direction.