InCommon Futures

What’s next for InCommon?

Marc Wallman, CIO and Vice President Information Technology, North Dakota State University
Kevin Morooney, VP Internet2, Trust and Identity Services & NET+ Cloud Services
We’re here to answer the hard questions today
● Why “Futures2”?

● “The” presentation
  ○ Why this matters
  ○ A way to think about the project

● Our approach to action
  ○ Early action areas
What is “InCommon Futures2”
InCommon Futures2...

...is a project being undertaken by the InCommon Steering Committee to help guide a vibrant future for InCommon.
InCommon Future Report and Recommendation

Presented to the Internet2 Board of Trustees, July 2009, for discussion

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INTERNET2 2004
COMMUNITY EXCHANGE
CHICAGO
Brand recognition and confusion for InCommon, Internet2, and transitioning projects

11. The InCommon Future Group

Amy Phillipson, Pacific NW Gigapop, (Internet2 AMSAC)
Chris Shillum, Elsevier, (InCommon Steering)
Clair Goldsmith, UT System, (InCommon Steering)
Cliff Lynch, CNI, (Internet2 RAC)
Doug Van Houweling, Internet2 CEO
Jack Suess, UMBC, (InCommon Steering, Internet2 AMSAC)
John Krienke, Internet2, InCommon
Ken Klingenstein, Internet2, U Colorado, (InCommon Steering)
Kevin Morooney, Penn State, (InCommon Steering)
Lois Brooks, Stanford, (InCommon Steering)
Richard Katz, EDUCAUSE
Rosio Alvarez, Lawrence Berkeley Labs, (Internet2 RAC)
Ray Ford, U Montana, (Internet2 AMSAC)
RL 'Bob' Morgan, U Washington, (MACE, InCommon TAC – Technical Advisory Committee)
Rick Summerhill, Internet2 CTO
Sally Jackson, U Illinois, (Internet2 AMSAC)

Note:
This document should be considered a recommended path and set of principles rather than a final plan and end state. This group acknowledges that detailed and evolving plans are required to ensure the success of this set of recommendations. Continued oversight should be provided by the current Internet2 and InCommon governance mechanisms to ensure long-term success and viability.
InCommon Participants Year-by-Year

- 2004: 0
- 2005: 23
- 2006: 39
- 2007: 65
- 2008: 107
- 2009: 171
### Recommendation

**Structure:** A trust services platform

**Structure:** Foundation establishment

**Governance:** establish InCommon Board of Directors

**Membership:** NSF

**Membership:** NIH

**Membership:** DoE

**Membership:** State-based, K-12

**Membership:** Service provider companies and orgs

By Q2 2010, InCommon should develop a clear mission statement and a funding plan to ensure the continued success of core federation services and core middleware research and development.

Internet2 commits to continued funding, organizational development, and growth of InCommon services and foundation for the next three years. Concurrently, InCommon should work toward financial cost-recovery of the InCommon Identity Federation by Q4 2012 and should seek out additional investment partners, particularly those interested in the foundation's research and development.

Internet2 remains committed to the success of this activity and to the growth and stability of InCommon, and should fund additional staff beginning September 2009 as outlined in the Staffing section of this document, with the understanding that all investments should continue to be repaid, as has historically been the case between Internet2 and InCommon.

For the duration of this plan, Internet2 should continue to provide operational and administrative staff and services, including secure metadata registry, registration authority support, accounting, grant administration, technical and meeting support, human resources, and office infrastructure at a rate commensurate with costs.

Internet2 should strive to bring at least 75% of its members into the InCommon Identity Federation by the end of 2010.

InCommon should analyze additional service opportunities that relate to or increase the value of its core services. Examples are a server certificate service, core identity federation services for states or regional consortia. Investment and business plans for any new opportunities in 2010 should be articulated by Q3 2009.

InCommon should, with additional staff support, develop a training and adoption program (either internally or through community and commercial partnerships) in Q2 2010.

InCommon should, with additional staff support, develop a plan by Q1 2010 for engagement and outreach work to build partnerships with agencies, companies, and volunteers to build support for federated partnerships and distributed campus services.

InCommon should launch the Bronze and Silver assurance profiles by Q4 2009, with a demonstration pilot ready in September of 2009 and presented at the Internet2 Fall member meeting.

InCommon should develop a new pricing plan for the InCommon Identity Federation service that accounts for all actual costs of operating the federation via a price increase in 2010 and a tiered pricing model by calendar year 2011.
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Context for the 2009 Report

- **Audience:** Internet2 and the Internet2 Board of Trustees
- **Motivation:** It wasn’t entirely clear if InCommon was going to “make it”.
- **Authors:** Community leaders that strongly believed in its importance and wanted to weigh in on what was going to be necessary to scale “pilot success”
- **Objective:** A critical mass of community leaders and Internet2 decision makers was necessary to create and allocate the resources necessary for success
Also...
end of why and a little bit of what
A story in three acts
Prologue
Why is digital identity important?

1. It is the most important service higher education operates.
2. All other services presuppose identity management.
3. The non-electronic parts of our institutions are founded on identity.
4. The identity in electronic parts of our institutions needs to function at least as well as the non-electronic parts and, where it can, it should function better.
5. Today it does not.
Our Job: Make digital identity real

Identity Based Decision to Create, Modify, Remove IT Services

Actions

IT Service  IT Service  IT Service  IT Service
Making it real

Legend:
- Manual Action
- Automated Action

IDM Activities:
- Provisioning / deprovisioning
- Name Changes
- Some bulk permissions
- Granular permissions based on identity
- Software defined networking
- Cross-institution provisioning / deprovisioning
Act 1

The Present
We do tools development, operations, training, sharing, support, convening.
Your campus
Commericially provided cloud services

University and research org provided cloud services

Your campus
examples of cloud services

Commercial cloud

Your CMS
Your HRIS
Your SIS
turnitin.com
...

R&E cloud

a research wiki at another institution
a research portal at another institution
a collection of repositories
a data repository at your own institution
trust federations

infrastructure

tools

policies

contracts

Commercial

R&E
Why the two connections?
Your commercial federation solution determines what is in this cloud.

R&E cloud services are of no interest to commercial cloud connector providers. There’s no $ and the scale is different, large and complex.
Act 2

What is happening to us?
“Now that everything is digital, what is IT?”
I and T and IT.
“The History of Higher Education IT”
or
“The Changing Role of the University CIO”
I and T and IT.

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Thankless, orchestrated dial tone

Extracting value from IT, T
Getting relevant information to decision makers

Today
keeping your job

doing your job
Part 3
The Report
PROMOTING DIGITAL COLLABORATION

Executive Summary

Over the next five years, InCommon leads as the collective authority in devising creative, sustainable IAM best practices for research & education.

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

STRATEGIC OBJECTIVES

AN EVOLVED, STRONG VALUE PROPOSITION
TRUSTED COLLECTIVE WHERE IAM MATTERS

CLEAR GUIDANCE & TECHNICAL RECOMMENDATIONS
HOW TO:
SELECT IMPLEMENT MONITOR
IAM INTEGRATION

IMPROVED TOOLS & SERVICES IMPLEMENTATION & INTEGRATION
IMPLEMENTATION
TO INCREASE ENGAGEMENT WITH INTEGRATION & ACCESS PLATFORM

EASY TO NAVIGATE TOOL & SERVICE OFFERINGS
FOR ALL AUDIENCE GROUPS

ADDRESSING AN EVOLVING IAM LANDSCAPE
INTEGRATING NEXT GEN SECURITY
NEW DIGITAL LEARNING MODALITIES
SKILLS GAP & KNOWLEDGE LOSS
METHORIZATION OF COMMERCIAL OFFERINGS
UNIFICATION, AUTOMATION, INTEROPERABILITY
how
what
contexts
STRATEGIC OBJECTIVES

AN EVOLVED, STRONG VALUE PROPOSITION
TRUSTED COLLECTIVE FOR IAM WITHIN R&E

CLEAR GUIDANCE & TECHNICAL RECOMMENDATIONS
HOW TO:
SELECT  IMPLEMENT  MAINTAIN
IAM INFRASTRUCTURE

A SECURITY-FOCUSED INNOVATION GROUP
FOR EMERGING PROTOCOLS IN IAM

IMPROVED PRODUCT IMPLEMENTATION & INTEGRATION
IMPLEMENTATION
INTEGRATION
TO INCREASE ENGAGEMENT WITH FEDERATION & TRUSTED ACCESS PLATFORM

EASY TO NAVIGATE PRODUCT & SERVICE OFFERINGS
FOR ALL AUDIENCE GROUPS

NEEDS
CONRAINTS
TAILORED PATHWAY INTO FEDERATION
knowledge

- insight
- synthesis
- wisdom
- guidance
- (architectural, practitioner) expertise
communication

- reference materials
- trends
- provocation
- best practices
- advocacy
- story telling
knowledge

communication
Tying it together
Take what we do... 

...extract, create new and different value... 

...like this.
Not this… …this.
One example
A story in three acts
Our approach to action
We Bring
COMMUNITIES TOGETHER
TO BUILD ECONOMIES THAT BENEFIT PEOPLE
AND PROTECT THE PLANET

- We Bring Communities Together To Build Economies
- Vital Learnings From Our Work in Building Inclusive Plastic Waste Systems in South and Southeast Asia
- SecondMuse Releases Scale For ClimateTech 2023 Impact Report
Our planning principles

- Our work together must stand up to the lens of the broader community. We must assume that we operate in transparency by default. It is essential to foster confidence and inclusion in our activities and messaging.
- The process we design to engage the community and develop the additional artifacts will be as important as the final document we produce. The process of producing this document has value in and of itself. This process is a community-engagement exercise with expected goodness and “bounce.”
- We want individuals to see themselves (or someone like them) as contributing to the process in some way.
- Our decisions, strategies and recommendations can be traced to community or research-driven data or citations.
- The actors guiding this process are the community and Internet2. All decisions are driven by consensus by the Steering Futures2 Working Group.
- We will respect the opinions, business needs, and time of all members. We are advocates for each other.
- We will facilitate preparation with clear communication and the timely dissemination of information to the Steering Committee and the Community at-large. The likelihood of an impact will be higher if we communicate and tell the story as it unfolds.
● Facilitated sessions with target community groups
● Broad community and InCommon Customer survey
● Key stakeholder interviews
● Stakeholder input sessions
● R&E landscape trends and opportunities analysis

June  October
THE FELLOWSHIP OF THE THINGS
Key

- Y.A.H - You are here
- W.Y.B. - Where you’ll be
- W.Y.W.T.B. - Where you want to be

Do nothing
Key
- Y.A.H - You are here
- W.Y.B. - Where you’ll be
- W.Y.W.T. - Where you want to be
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- Y.A.H - You are here
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The Five Objectives, in one place

1. The newly communicated proposition communicates that InCommon is the trusted collective for R&E institutions looking to build trusted, cost-effective, up-to-date IAM systems.

2. InCommon members feel supported by the guidance Internet2 offers them. Technical recommendations and guidelines address a variety of common needs and critical challenges specific to the audience groups that the InCommon community is composed of. This level of targeted support and leadership distinguishes Internet2 and, by extension, InCommon as the authority on IAM for R&E. Members can better identify their level of IAM maturity, and InCommon can better measure how well solutions are meeting specific needs within the membership.

3. IAM experts within R&E should know that one of the valuable benefits of InCommon membership is knowing how to quickly and efficiently learn about emerging protocols and requirements in order to integrate them into their IAM system. With targeted guidance, members shift from taking a reactive to a proactive approach with regard to enhancing their security approaches within their IAM infrastructure. Membership engagement and retention increases. New community members join Federation due to enhanced security offerings.

4. InCommon takes the lead in upleveling the community to better address the integration challenges that were expressed in the consultation process. These challenges speak to the experience that industry providers have in supporting InCommon products: existing restrictions on admin accounts that are difficult to work around, and the manual, labor-intensive processes required to integrate with InCommon.

5. Each of the key audience groups that compose the InCommon membership identified aspects of IAM system management that need improvement. While themes exist across the needs of these groups, institutions must be able to see their needs being anticipated by the solutions Internet2 presents moving forward.
PROMOTING DIGITAL COLLABORATION

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AN EVOLVED, STRONG VALUE PROPOSITION

CLEAR GUIDANCE & TECHNICAL RECOMMENDATIONS

A SECURITY-FOCUSED INNOVATION GROUP

IMPROVED TOOLS & SERVICES IMPLEMENTATION & INTEGRATION

EASY TO NAVIGATE TOOL & SERVICE OFFERINGS

ADDRESSING AN EVOLVING IAM LANDSCAPE

INTEGRATING NEXT GENERATION SECURITY

FILLING DIGITAL LEARNING HICHILITIES

PROLIFERATION OF COMMERCIAL OFFERINGS

UNIFICATION, AUTOMATION, INTEROPERABILITY

Download the full report:
Download the 2023 Year in Review
PROMOTING DIGITAL COLLABORATION

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STRATEGIC OBJECTIVES

AN EVOLVED, STRONG VALUE PROPOSITION
TRUSTED COLLECTIVE FOR LAW IN THE DIGITAL AGE

CLEAR GUIDANCE & TECHNICAL RECOMMENDATIONS
HOW TO:
SECURITY IMPLEMENTATION

A SECURITY-FOCUSED INNOVATION GROUP
FOR EMERGING PROTOCOLS IN IAM

IMPROVED TOOLS & SERVICES
IMPLEMENTATION & INTEGRATION

EASY TO NAVIGATE TOOL & SERVICE OFFERINGS
FOR ALL AUDIENCE GROUPS

ADDRESSING AN EVOLVING IAM LANDSCAPE

INTEGRATION INTO NEXT GENERATION SECURITY

MINIMIZE \& MANAGE IDENTITY LIFECYCLE

RESOLVE GAP & KNOWLEDGE LOSS

PROLIFERATION OF COMMERCIAL OEP解决方案

UNIFICATION, AUTOMATION, INTEROPERABILITY

Download the full report:
InCommon Futures

What's next for InCommon?

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IAM as a Practice in Higher Education

Commonalities with Commercial IAM
- Identity Governance
- Certification and Compliance
- Mostly cost and risk avoidance

Drivers Unique to Higher Education
- Fuzzy borders
- Distributed Constituencies
- Cross-institutional Collaborations
- Mission-focused activities
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