

Futures2 Research Synthesis

Internet2, InCommon, SecondMuse

Appendix

Consultation summary to date

Activity	Date	Objective	No. Participants	Audience(s)
3 x 1-hr Facilitated Sessions	Aug 29 - Sep 13	To generate input on trends and challenges within IAM, where the gaps lie within InCommon's service offerings and community, and any opportunities for growth	90	Internet2 Staff (40) Catalysts (30) Advisory Board (20)
Needs Assessment Survey	Sep 12 - Oct 13	To get feedback on InCommon's IAM service offerings, and how it should evolve to best serve the Higher Education and Research community	126 responses (distributed to ~2k members)	Broader InCommon membership
Stakeholder Interviews	Sep 12 - Oct 13	To gather nuanced, detailed accounts of how different roles and organization types experience IAM from InCommon's service offerings as well as from other vendors	8	Higher Education: Tracey Futhy, Duke University Jack Suess, UMBC Kim Milford, University of Illinois

				<p>Al Anderson, Salish Kootenai College</p> <p>Research: Jeff Erickson, NIH Warren Anderson, LIGO</p> <p>Partners: Jeremy Perkins, Instructure Dedra Chamberlin, Cirrus Identity</p>
Stakeholder Roundtable	Oct 18	For experts to provide feedback on how IAM within InCommon should evolve to best serve the Higher Education and Research community		

Roundtable Emerging Themes

To be presented in stakeholder roundtable on 10/18

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1. Providing more clearly defined technical recommendations to the community

- a. Desire is for InCommon to lay out recommended approaches to a multi-platform as well as multi-federated environments
 - i. Achieving interoperability & enabling multi-platform approaches
 1. Communicating the commonly used IdP vendors and SAML providers within the community

2. Support campuses integrating InCommon's solutions with commercial solutions
3. Recommended schemes - E.g. "If you're a Microsoft campus, here is the most effective way to combine Microsoft platforms with a federated approach"
- ii. Managing multi-federated access
 1. Standards around role-based authentication, especially for external collaborators
 2. Managing exceptions, and LDAP vs AD when high volumes of users
 3. Known software that works with Federation
- iii. User lifecycle management (provisioning & deprovisioning) and role-based authentication
- iv. Creating a unifying IAM infrastructure while managing legacy systems
- v. Cost effective solutions that aid with modernization, implementation, creating a simplified user experience that upholds security objectives
- b. Providing these clearly defined recommendations can help combat the growing resistance to federated approaches by commercial offerings and vendors

2. Addressing the growing skills gaps and resourcing needs within the community

- a. Facilitating knowledge sharing and channels of communication across the community is an existing area of strength and value for InCommon.
- b. However, there is a need to continue evolving the way InCommon addresses skills gaps and the lack of resources many institutions have when it comes to implementing IAM solutions.
- c. There is a clear shortage of IAM experts in the ecosystem
 - i. Aging workforce, early retirements, knowledge loss
- d. Areas of need
 - i. Educating audiences on IAM principles in order to meet campus and community needs
 - ii. Supporting and staffing all IAM functions (eg: developer resources that empower systems-level maintenance)
 - iii. Shared approaches & best practices
 1. Assurance evaluations
 2. Device security standards
 3. Strategy around when to engage third parties
 4. Cloud-first approaches
 - iv. Audience-specific training

1. Vendor specific engagement
2. Small school specific training
- v. Training, documentation, mentorship

3. Facilitating a pathway for small colleges to establish a federated IAM approach

- a. Many stakeholders, across both small and large institutions, highlighted the need to support small schools in establishing federated IAM infrastructure
- b. For large universities, this will better allow them to share resources and form working relationships with smaller colleges in their region
 - i. This work could leverage anchor institutions as a support resource and vehicle to get small institutions into the InCommon landscape
- c. For small colleges, this will help them access opportunities for their researchers and mature their IAM infrastructure and security
- d. What does an acceptable solution look like?
 - i. Affordability, perhaps grant-funded
 - ii. Easy to deploy
 - iii. In an ideal world, it would be a “turnkey” solution
 - iv. Appropriate training pathways

4. Stewarding collective approaches to emerging IAM trends

- a. Creating a container to have conversations about emerging trends so that groups can proactively address emergent needs and standards
- b. Enable InCommon to move quickly and keep up with commercial competitors’ ability to provide universities with cutting-edge solutions
 - i. As trends emerge, developing recommendations to share back with the broader community (See Opportunity #1)
- c. There may be an opportunity to leverage industry expertise and subject matter experts within the community as advisors
- d. **Emerging areas to explore**
 - i. More fluid identities & credentialing (online/remote learning, continued education)
 - ii. Zero Trust
 - iii. AI-enablement

5. Crafting straightforward, compelling messaging to bring more R&E institutions into a federated mindset

- a. There is a clear priority felt within the community to explain and understand InCommon’s value proposition

- i. More straightforward messaging could help bring more advocates for federation into the fold
- ii. This messaging could also make it easier for CIOs to make the case for retaining InCommon platforms at their organizations
- b. Staff in particular expressed a need for more outreach and proactive collaboration efforts to expand the InCommon community
- c. Establishing a clear and compelling way to describe the value of InCommon and federation will help enable success across InCommon's initiatives
 - i. This messaging could be leveraged across activities to create a more cohesive community and set of offerings
- d. Making our language easy to understand is an important ingredient to providing easy onramps to more deeply engage in InCommon

6. Advocating for industry support of federated solutions

- a. One of the major, growing challenges expressed by the community is an increasing resistance toward supporting federated solutions from the commercial side
- b. Many third party vendors and industry providers consider federation to be a difficult and unnecessary functionality to support, and are actively encouraging R&E to abandon these platforms in favor of commercial solutions
- c. This suggests that there may be value in an initiative to directly influence industry
 - i. This could be achieved through collective action: Leverage the community through collective action and shared advocacy for the importance of federation to increasingly resistant vendors and commercial providers
 - ii. This could also be achieved through more robust industry engagement, such as
 1. Identifying and engaging contacts within industry that are primed to be ideologically-aligned with a federated, open-source approach
 2. Designing specific training or engagement pathways for industry professionals
 3. Making it easier for industry participants to send multiple stakeholders to InCommon trainings and convenings
 4. Leveraging industry expertise to make InCommon platforms more interoperable with commercial offerings

Audience metrics

Table A

Group 1	Group 2	Group 3
Users in Research & Education	Partners	Internet2 Staff
Large research universities Medium-sized universities/colleges Small colleges Community Colleges K-12 Research Federal Agencies Cultural orgs (museums, libraries, etc.)	Industry Service Providers InCommon Catalysts International Partners Advisory Groups	Any staff member of Internet2

Figure A

Audience Breakdown by Group Type

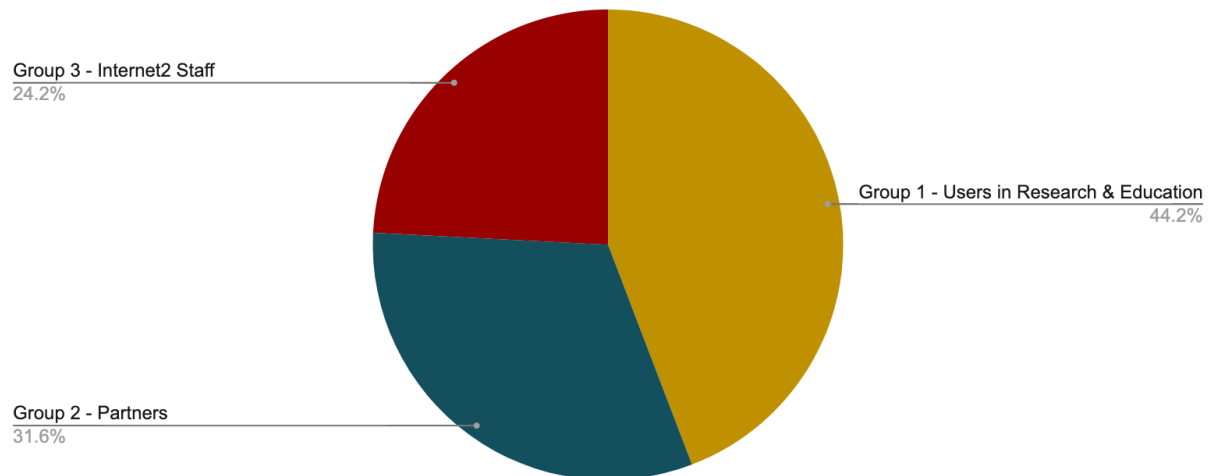


Table B

ROLE TYPES ACROSS GROUPS	
Area	Role
Administrator or General Management	Regional Network Administrator Management Community management Training & Education

	I2 staff in a Finance or HR role
Business (Independent Contributor, or “IC”)	Business analyst Business owner Business development expert
C-Suite	CIO CISO CTO CEO
Software Developer	Software Developer
IAM (IC)	IAM Architect IAM Practitioner
IT (IC)	Other IT Contributor Network Operation and Telecommunications IT manager
Leadership	IAM Director/Leadership Other IT Senior Leadership IDM for OCLC services
Library	Library professional
Product & Program Operations	Project/Program Management Product Manager Project Management Program Management Product Manager and Compliance Lead
Research computing	Research computing Research Data Community Facilitator
Security & Privacy	Security Analyst Privacy & Security

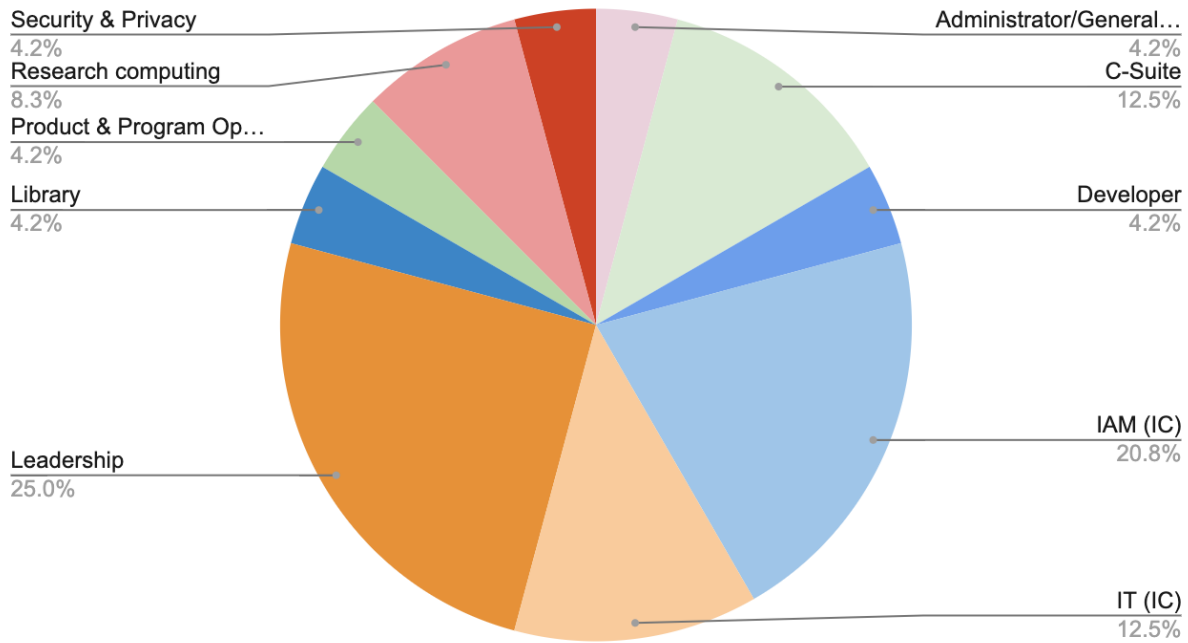
Group 1

Education: Universities, colleges, K-12, Research, Federal Agencies, Cultural orgs

Audience breakdown:

95 total respondents (44% of total respondents)

Group 1 role types (Survey)



Group 2

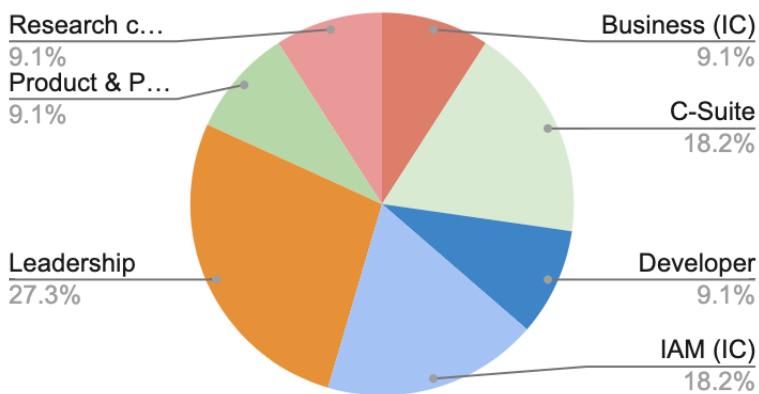
Partners: Industry Service Providers, InCommon Catalysts, International Partners, Advisory Groups

Audience breakdown:

68 responses (32% of total respondents)

- 50 representatives from Facilitated Sessions (Advisors & Catalysts)
- 18 responses from Needs Assessment Survey:

Group 2 role types (Survey)



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Group 3

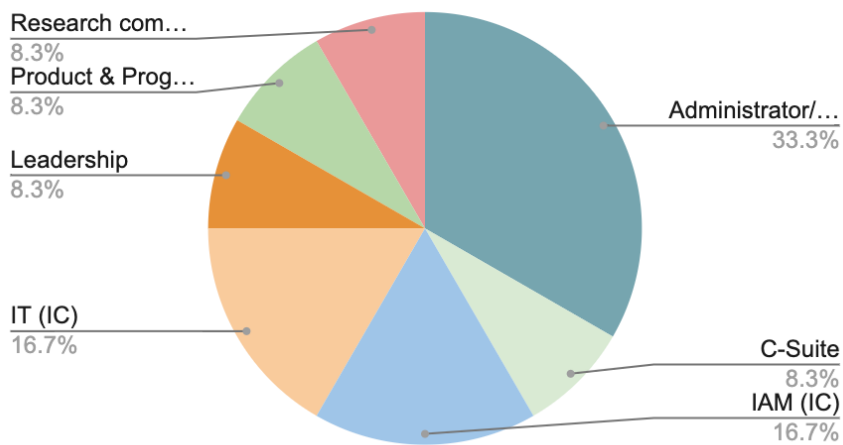
Internet2 Staff

Audience breakdown:

52 responses (24% of total respondents)

- 40 representatives from Facilitated Session
- 12 responses from Needs Assessment Survey

Group 3 role types (Survey)



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