Context, Gaps and Challenges

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Topics

• InCommon
• International R&E Feds
• Gaps
  • Attribute infrastructure
  • Privacy infrastructure
  • VO IdM
  • Interfederation
InCommon today

• 290+ universities, 450+ total participants, growth continues rapid
• > 10 M users
• Traditional uses continue to grow:
  • Outsourced services, government applications, access to software, access to licensed content, etc.
• New uses bloom:
  • Access to wikis, shared services, cloud services, calendaring, command line apps, medical, etc.
• FICAM certified at LOA 1 and 2 (Bronze and Silver).
• Certificate services bind the InCommon trust policies to new applications, including signing, encryption, etc.
Growth

InCommon Entities, 2005-2012

- IdP
- SP
- Total

09/02/05 08/02/06 07/02/07 06/02/08 05/02/09 04/02/10 03/02/11
Types of services connected by InCommon

- R&E Centric
  - 300+ Universities providing services to students, staff, alumni, external users, K-12, etc.
  - NSF, NIH, National Supercomputing and DataBases, National Labs, GSA, Education, etc.

- With outsourced service providers
  - Travel management, Testing Services, HR systems, Loan providers, Parking management, NBCLearn, Elsevier, IEEE, ATT, Box, etc.

- With related business partners
  - Particularly health care – NIH, Mayo Clinic, UHC, VA

- With markets selling to students, etc.
  - Student Universe, UniversityTickets, National Student Clearinghouse, SAT’s
A typical enterprise-InCommon use profile

• All staff use it to get to the cloud and do their employee/payroll entry
• All students use it to take on-line class tests at the outsourced test service
• All academics use it to get to Elsevier journals, OCLC holdings, IEEE, etc
• Researchers use it to get to Grants.gov and Fastlane
• Researchers use it to get to Cllogon and use the Teragrid, Open Science grid, etc.
• Many researchers use it to get to the Clinical Trial wikis at NIH, PubMed, etc.
• Many collaborators and administrators use it to get shared wiki space at Internet2, Educause, the CIC, the UC system, the UT system…
• All students are using it for student tickets, software at Microsoft, etc
International R&E federations

• > 100M users across >30 countries
• Coverage in several countries is 100%, and extensive in many others.
• Generally part of the NREN but associated with another org or independent in a few
• Frequently linked to several government activities, in research, education, governance, health, etc.
• Some interfederation activities, including the Kalmar2 union and eduGAIN.
• www.refeds.org
R&E federations

Research and Education Identity Federations

Identity Federations in production:
- AU: Australian Access Federation
- BE: Belgium Fédération
- CA: Canada Access Federation
- CH: SwissFEDMED
- DE: DHM
- ES: I2I
- FI: HiLOR
- GR: GREEKnet
- HR: HAKA
- IE: Educate
- IT: I2I
- JP: Gakugei
- LA: LALI
- NL: SURF
- NO: Shibboleth
- NZ: Tiki
- PT: RECON
- SE: SIMBAD
- SI: AccessAIS
- UK: UK Access Management Federation
- US: 1Comm
- RU: RITE

Identity Federations in pilot:
- AT: AUSTRIA
- CN: CASI
- DK: DENMARK
- IE: Fidar
- IS: ISAFED
- SE: VULAN

This map is intended to provide a high-level overview of membership within identity federations.
Last update: 15 April 2011
Gap: Attribute Infrastructure

- Attribute registries
- Name space registries
- Good attribute design principles
- Attributes of attributes
- Attributes of things
- Quality of attributes
- Managing the marketplace
- UI
Gap: Privacy Infrastructure

• Small spanning set of attributes
  • Extensible but end-user manageable
  • Use of bundles to minimize complexity
• Rich metadata for trusted dialogue
  • Defaults, learning to minimize dialogues
• End user tools, some out of band
• Policies
  • App code of conduct, FOPP, InterfedOPP
VO IdM

- R&E calls them Virtual Organizations, corporations call them cross-industry project teams, governments call them multi-agency collaborations, non-profits call them home
- Do lots of authorization, largely by groups, and welcome federated authentication
- Represent an extremely important part of the ecosystem – pulsars of interrealm attributes
- Engineering them into the ecosystem solves a billion use cases…