Federated Access to US CyberInfrastructure

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CILogon Project Goal

• Enable campus logon to CyberInfrastructure (CI)
  – Use researchers’ existing security credentials at their home institution
  – Ease credential management for researchers and CI providers
InCommon is the federation for U.S. research and education, providing higher education and their commercial and non-profit partners with a common trust framework for access to online resources.

264 InCommon Participants

Almost 5 million end-users (faculty, staff, students)
Prior Work: go.teragrid.org

- Campus login to TeraGrid
- 35 campuses so far
- Relies on TeraGrid identity vetting
- In production since September 2009
- 1000+ certificates issued so far to 65+ users
- IGTF accredited
- Integration with portal.teragrid.org underway
- IDtrust 2010 paper: “Federated Login to TeraGrid” (http://middleware.internet2.edu/idtrust/2010/)
New Service: cilogon.org

- No TeraGrid account required
- Supports InCommon and OpenID authentication
- Delivers certificates to desktop, browser, and portals
- Available certificate lifetimes: from 1 hour to 13 months
- Supports close integration with CI projects
- Available now!
- FAQ: www.cilogon.org/faq
CILogon Portal Delegation

- Grid Portals and Science Gateways provide web interfaces to CI
  - Portals/Gateways need certificates to access CI on researchers’ behalf
- CILogon Delegation Service allows researchers to approve certificate issuance to portals (via OAuth)
- www.cilogon.org/portal-delegation
Levels of Assurance

• LOA requirements differ across scientific collaborations
  – 2-factor authentication
  – IGTF accreditation
  – Open access with usage statistics

• CILogon LOA options:
  – InCommon Silver: US Gov’t ICAM Level 2
  – OpenID OIX: US Gov’t ICAM Level 1
  – InCommon “Basic”
CILogon and IGTF

- CILogon CA operations, key management, and certificate profiles meet IGTF standards
- Issue: subscriber ID vetting & authentication
  - Goal: rely on campuses for this
  - Need minimum standards for campus practices
  - Approach: rely on InCommon Identity Assurance
- Status:
  - CILogon Silver CA accredited October 2010
  - Now waiting for InCommon Silver campuses…
  - CILogon Basic & OpenID CAs operating w/o IGTF accreditation
Non-Browser Use Cases

• Currently CILogon requires browser-based authentication (SAML, OpenID)
  – With certificate retrieval & use supported outside the browser

• CILogon support for SAML Enhanced Client or Proxy (ECP) coming soon
  – For end-to-end command-line certificate issuance
  – ECP adoption by InCommon campuses beginning

• Also watching Project Moonshot
  – US eduroam (RADIUS) adoption growing
Thanks

For more information:

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