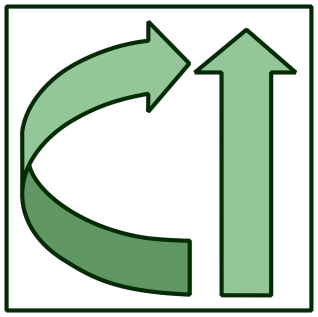

CILogon

Bridges between Campus and National Cyberinfrastructure

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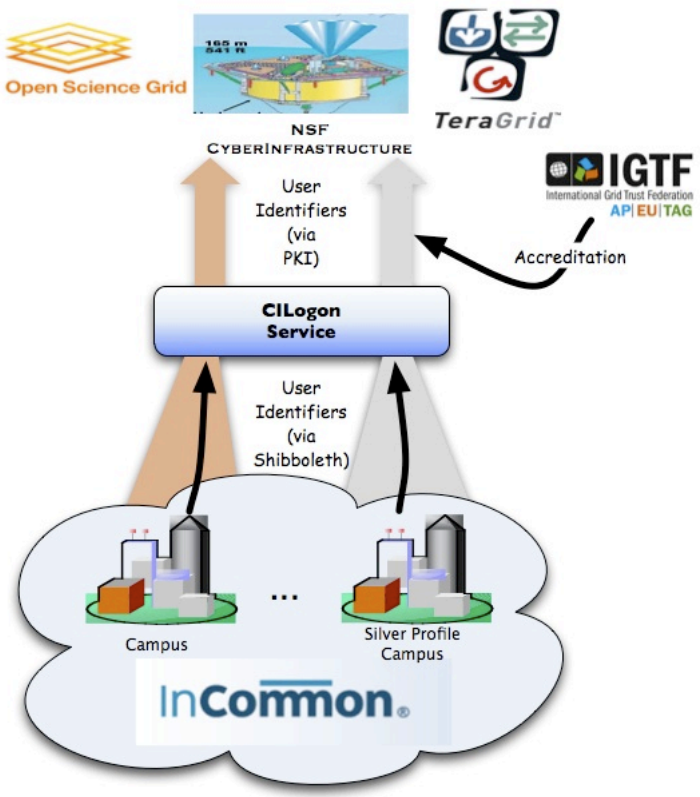
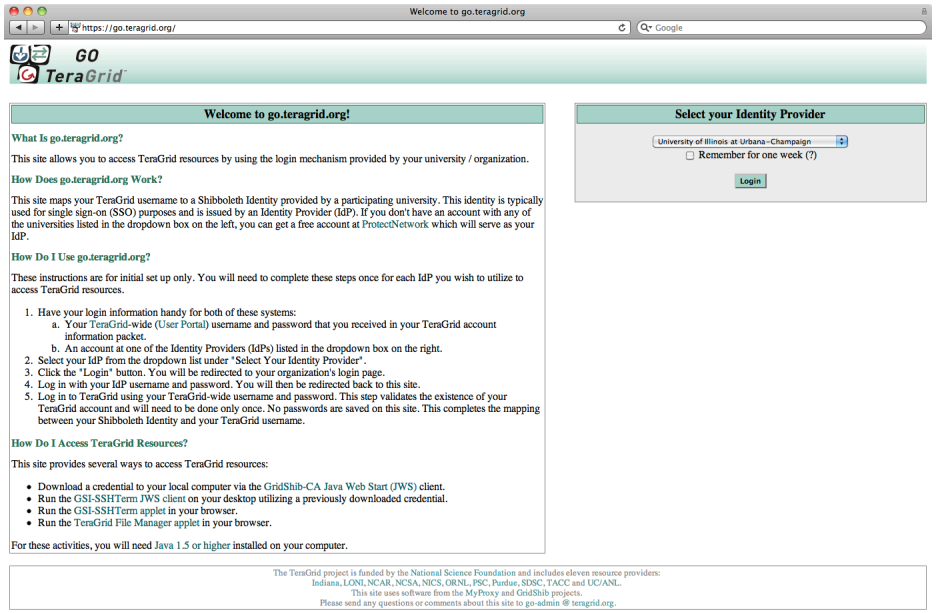
CILogon Goal

- Facilitate campus logon to CI
  - Leverage researchers' existing credentials at their home institution
  - Ease credential management for researchers and CI providers
- Bridge from:
  - Credentials issued by InCommon Federation members using SAML web browser single sign-on
- Bridge to:
  - X.509 certificates that satisfy the requirements of CI projects



Initial Success: go.teragrid.org

- Campus login to TeraGrid
- 31 campuses so far (including all CIC schools)
- In production since September 2009
- 1000+ certificates issued so far to 65+ users
- 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
- Delivers certificates to desktop or browser
- Available certificate lifetimes: from 1 hour to 13 months
- 3 Certification Authorities:
  - Silver: InCommon Silver IDs
  - Basic: any InCommon IDs
  - OpenID: any OpenIDs
- Available now!

Why certificates?

- Command-line interfaces, non-web apps
- Multi-stage, unattended batch workflows
- Significant worldwide CI investment in PKI
  - Software, operations, standards, etc.

International Grid Trust Federation

- Worldwide accreditation of grid CAs
  - Relying Parties: TeraGrid, Open Science Grid, European Grid Infrastructure, Worldwide LHC Computing Grid, and others
  - Standards: CA operations, key management, subscriber identity vetting, certificate profiles

www.igft.net

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

Challenges

- Identity Assurance:
  IGTF and InCommon Silver
- Identifiers
- Attribute Release

Identifiers

- We require globally-unique, persistent, non-reassigned identifiers
  - Ensure that each certificate subject is assigned to a unique individual
    - Also: issue multiple certificates with a consistent certificate subject to the same individual
  - Opaque identifiers are OK
  - Options:
    - eduPersonTargetedID (ePTID)
    - eduPersonPrincipalName (ePPN)
      - But ePPN may be reassigned

Attribute Release

- The “boarding process” challenge:
  - CI users are spread across many campuses
  - Often few CI users on each campus
- Each campus must approve release of attributes to cilogon.org / go.teragrid.org
  - CILogon needs ePTID/ePPN, mail, givenName and surname
  - Self-service sign-up: https://cilogon.org/secure/testidp/
- Excellent application for user consent based attribute release (uApprove)

Conclusions

- We're leveraging campus credentials for access to cyberinfrastructure
  - SAML to PKI bridges: go.teragrid.org & cilogon.org
- Improvements underway
  - InCommon Identity Assurance
  - Consent-based attribute release (uApprove)

Thanks

For more information:

www.cilogon.org

info@cilogon.org