GlobusWORLD 2011:
Globus Toolkit Updates

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Outline

- CILogon Project
- Core Globus Toolkit Components:
  - MyProxy
  - GSI-OpenSSH
- GridShib
- CILogon Service and InCommon

CILogon   *www.cilogon.org*

CILogon Project Goals

- Foster secure, usable authentication for cyberinfrastructure (CI)

- Provide community-driven **software** support:
  - MyProxy (http://myproxy.ncsa.uiuc.edu)
  - GSI-OpenSSH (http://grid.ncsa.uiuc.edu/ssh)
  - GridShib (http://gridshib.globus.org)

- Provide a new **service** (https://cilogon.org/) that issues certificates to researchers for authentication to cyberinfrastructure

Core GT Components

- MyProxy
  - Certificate Authority and Credential Repository
  - Authentication methods: password, certificate, PAM, OTP, LDAP, SASL, Kerberos, VOMS
  - Client APIs: Java, Python, Perl, PHP, JAAS
  - http://myproxy.ncsa.uiuc.edu
- GSI-OpenSSH
  - GSI support for OpenSSH
  - Single sign-on remote login and file transfer
  - High Performance Networking (HPN) updates (PSC)
  - Java GSI-SSHTerm client
  - http://grid.ncsa.uiuc.edu/ssh

MyProxy News

- New releases (bug fixes, minor features)
  - GT 5.0.3 contains MyProxy 5.3 (latest release)
  - http://myproxy.ncsa.uiuc.edu/dl/VERSION
- Updates for jGlobus 2.0
  - MyProxy jGlobus API unchanged
  - http://myproxy.ncsa.uiuc.edu/jglobus
- Fedora/EPEL RPMs available
  - Thanks to Steve Traylen (CERN)
  - https://admin.fedoraproject.org/updates/myproxy
- GT 5.2 RPMs in preparation

GSI-OpenSSH News

- GSI-OpenSSH 5.2 (latest release)
  - Included in GT 5.0.3
  - OpenSSH 5.6p1 and HPN13v6
- GSI-OpenSSH 5.3 (coming soon)
  - OpenSSH 5.8p1 and HPN13v11
- Fedora/EPEL RPMs in preparation
  - Thanks to Mattias Ellert
    - https://bugzilla.redhat.com/show_bug.cgi?id=683587
- GT 5.2 RPMs in preparation

GridShib

- GridShib-CA
  - Online CA supporting SAML/Shibboleth and OpenID authentication
  - Used by CILogon Service (https://cilogon.org)
  - http://gridshibca.cilogon.org/
- GridShib SAML Tools
  - For using SAML assertions with certificates
  - Compatible with GRAM5
  - Used by TeraGrid Science Gateways
    - https://www.teragrid.org/web/science-gateways/security
  - Updated for jGlobus 2.0
  - http://gridshib.globus.org/

CILogon   *www.cilogon.org*
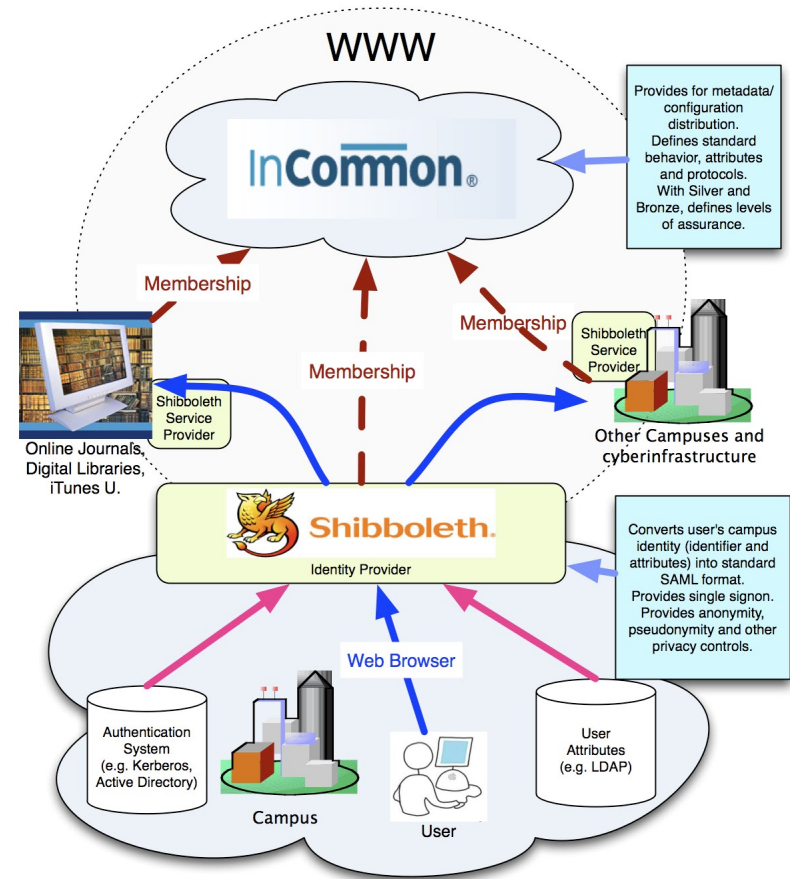
CILogon Service

- Facilitate campus logon to CI
  - Use researchers' existing security 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:
  - Certificates that satisfy the requirements of CI projects
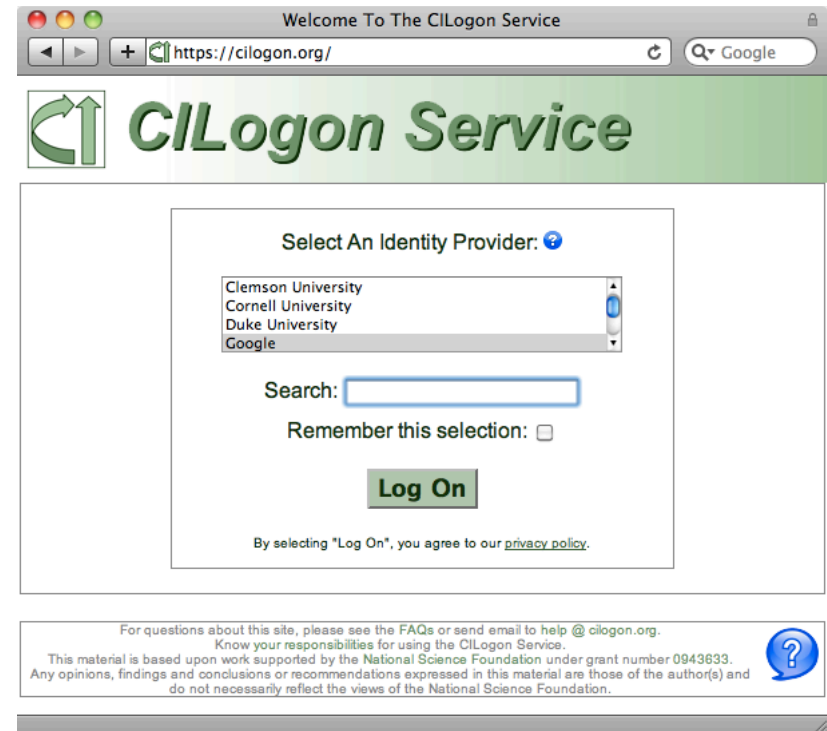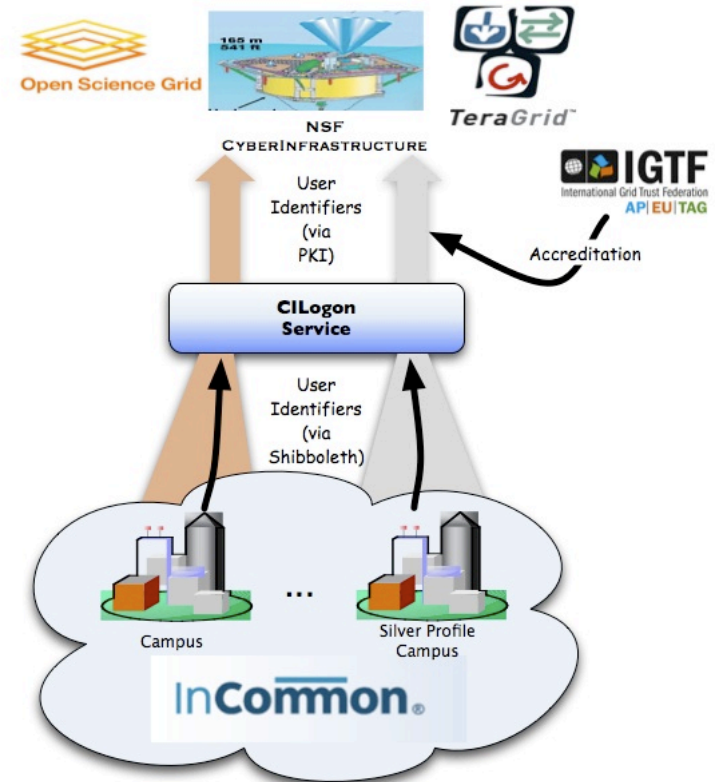
InCommon Federation

- Facilitates use of campus identity with external service providers
  - Supports adoption of standard mechanisms and policies
  - Distributes SAML metadata that identifies members
- Uses SAML Web Browser Single Sign-On protocols
  - Shibboleth implementation from Internet2
  - Works well for browser-based applications
- InCommon represents >200 institutions (>4m users)

www

InCommon.

Provides for metadata/configuration distribution. Defines standard behavior, attributes and protocols. With Silver and Bronze, defines levels of assurance.

Membership

Membership

Membership

Shibboleth Service Provider

Online Journals, Digital Libraries, iTunes U.

Shibboleth Service Provider

Other Campuses and cyberinfrastructure

Shibboleth.

Identity Provider

Converts user's campus identity (identifier and attributes) into standard SAML format. Provides single signon. Provides anonymity, pseudonymity and other privacy controls.

Web Browser

Authentication System (e.g. Kerberos, Active Directory)

User Attributes (e.g. LDAP)

Campus

User

www.incommon.org

CILogon

www.cilogon.org

CILogon Service

- Delivers certificates to desktop, browser, & portals
- Available certificate lifetimes: from 1 hour to 13 months
- InCommon and OpenID authentication
- Custom appearance and behavior via "skins"
- Available now at https://cilogon.org
- More details at http://www.cilogon.org/faq

CILogon

www.cilogon.org

Thanks!