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 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 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.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
Thanks!