CIlogon-HA:
Higher Assurance Federated Identities for DOE Science

September 2014 Update

Jim Basney
jbasney@ncsa.illinois.edu

This material is based upon work supported by the Department of Energy under award number DE-SC0008597. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the United States Government or any agency thereof.
CILogon – https://cilogon.org/

- Provides personal digital certificates for access to cyberinfrastructure
- Uses federated authentication for user identification
Federated Authentication

- Log on to CILogon using your campus (InCommon) or Google (OpenID) account
Bridging InCommon and IGTF

- Translating mechanism and policy across higher education and grid trust federations
Multiple Levels of Assurance

- **CILogon Silver CA**
  - InCommon Silver IDs
  - IGTF accredited February 2011

- **CILogon Basic CA**
  - “Basic” InCommon IDs
  - IGTF accredited June 2014

- **Google Authenticator provides second authentication factor**
Integrated with CyberInfrastructure
Integrated with Globus Nexus
Used by DOE KBase
Used by OSG Connect

Efficiently connect your science to cycles and data

OSG Connect offers users simple access to distributed high throughput computing resources, and reliable, high-performance file transfer services.

© 2013 Open Science Grid and University of Chicago
Used by ATLAS Connect
CILogon and XSEDE

• CILogon is
  – a component in the XSEDE architecture
  – following the XSEDE engineering process: architecture, design, and security reviews and operational acceptance tests

• XSEDE provides sustained operational support to CILogon users (ATLAS, DataONE, OOI, OSG, KBASE, LIGO, etc.)

• Including backup CILogon instance at NICS
Total Identity Providers

IdPs Added via R&S

IdPs Added via CILogon


0  20  40  60  80  100  120  140
Our Journal Article

“What question does your research motivate you to now ask?”

• What models are effective for exchange of user information in distributed systems?
  – need user info for authentication, authorization, accounting, incident response, troubleshooting
  – models: virtual organization, gateways/hubs, user consent/control, certification (InCommon R&S, IGTF), self-asserted compliance (InCommon Bronze, REFEDS CoC)
  – challenges: regulatory, scaling, information quality/timeliness, misaligned goals
  – Who owns/controls the data?
Thanks!

jbasney@ncsa.illinois.edu

www.cilogon.org