

# CILogon

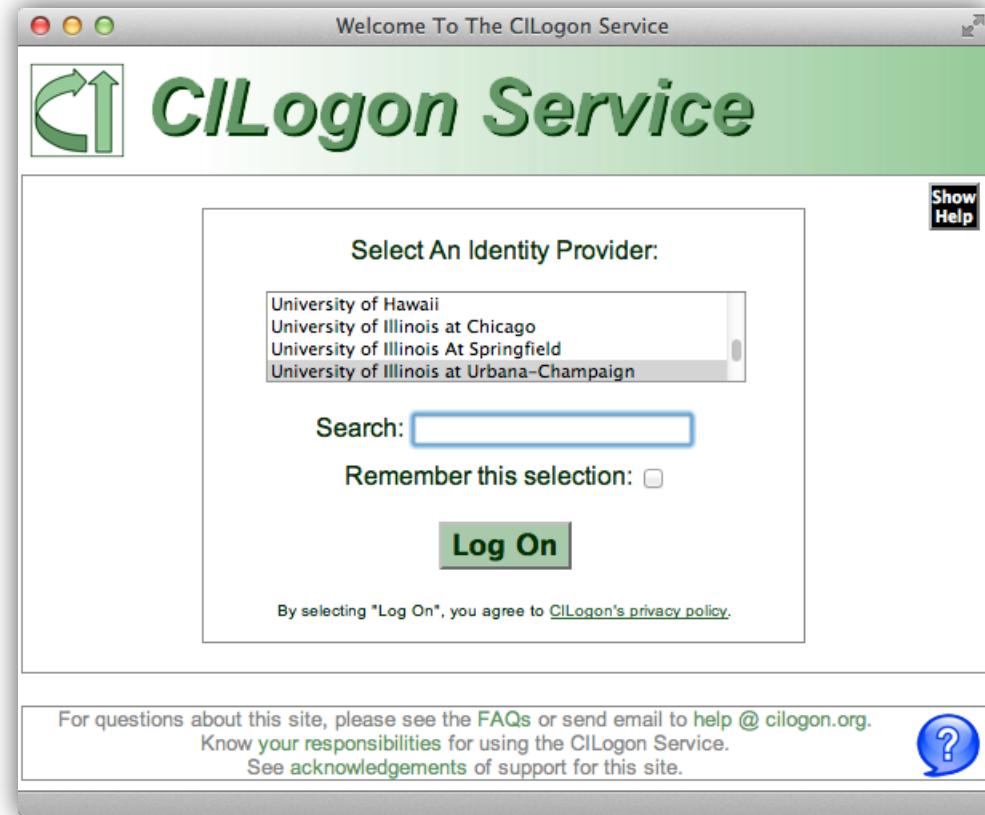
## Case Studies in Identity Management for Scientific Collaboration 2014 Technology Exchange

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# 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

Login – University of Illinois at Urbana-Champaign

**ILLINOIS LOGIN**

You must log in to continue.

Enter your **NetID:**  
jbasney

Enter your **Active Directory (AD) password:**  
.....

**Login**

Google Accounts

**Accounts**

Cilogon.org is asking for some information from your Google Account. To see and approve the request, sign in. [Learn more](#)

**Sign in** Google

Email: jbasney@cilogon.org

Password: .....

Stay signed in

[Can't access your account?](#)

**2-step verification**

Enter the verification code generated by your mobile application.

Enter code: 852261



# Bridging InCommon and IGTF

- Translating mechanism and policy across higher education and grid trust federations

InCommon is operated by Internet2

INTERNET<sup>2</sup>

**InCommon.**<sup>®</sup>

About Participants Join InCommon

Search

Home Federation Certificates Assurance Multifactor

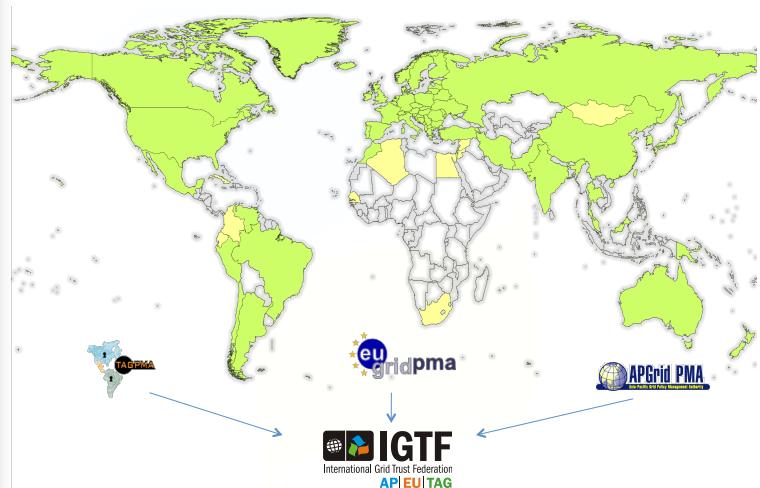
### Current InCommon Participants

Below is a complete list of InCommon Participants. There are also lists available for:

- Identity and Service Providers deployed in the federation (and other metadata-driven pages)
- Certificate Service subscribers

The IdP and SP pages include links to more-detailed information on each entity—just go to the IdP or SP list and click on the name of the IdP or SP you are interested in. InCommon serves almost 6 million end-users through federated identity management.

Higher Education Participants (372)	Government and Nonprofit Laboratories, Research Centers, and Agencies (28)	Sponsored Partners (148)
A. T. Still University Allegheny College American University Amherst College Arizona State University Arkansas State University Auburn University Augsburg College Azusa Pacific University Ball State University Barry University Bates College Bay De Noc Community College Baylor College of Medicine	Ames Laboratory Argonne National Laboratory Brookhaven National Laboratory ESnet Fermilab GENI Project Office Idaho National Laboratory Internet2 Jefferson Lab Lawrence Berkeley National Laboratory LIGO Scientific Collaboration LTERN (Long Term Ecological Research Network)	9STAR Academic Works, Inc. Acatar Accessible Information Management, LLC Advantage Connect Pro Inc. ALEKS Corporation Alexander Street Press American Psychological Association Apple - iTunes U AppointLink Portal Solutions, Inc. ARTstor Association for Computing Machinery AT&T Services AthenaOnline.com



# 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



A screenshot of a web browser window titled 'Google Authenticator Login'. The header features the 'CILogon Service' logo. The main content area is titled 'Google Authenticator Login' and contains instructions: 'Your account has been configured to use Google Authenticator as a second authentication factor. Enter a one-time passcode as generated by the app below.' Below this, there is a form with fields for 'Account' (set to 'A534@cilogon.org') and 'Passcode' (containing '177799'), along with a green 'Enter' button. At the bottom of the form, there is a link 'Don't have your phone with you?'.

# Multiple Interfaces

- SAML/OpenID Web Browser SSO
  - PKCS12 certificate download
  - Certificate issuance via OAuth
  - Coming Soon:
    - OpenID Connect token issuance
- SAML ECP
  - Command-line certificate issuance

# ligo-proxy-init using SAML ECP

```
$ ligo-proxy-init scott.koranda
```

```
Your identity: scott.koranda@LIGO.ORG
```

```
Enter pass phrase for this identity:
```

```
Creating proxy ..... Done
```

```
Your proxy is valid until: Mar 5 13:45:16 2013 GMT
```

```
$ grid-proxy-info -all
```

```
subject : /DC=org/DC=cilogon/C=US/O=LIGO/CN=Scott Koranda scott.koranda@ligo.org
```

```
issuer : /DC=org/DC=cilogon/C=US/O=CILogon/CN=CILogon Basic CA 1
```

```
identity : /DC=org/DC=cilogon/C=US/O=LIGO/CN=Scott Koranda scott.koranda@ligo.org
```

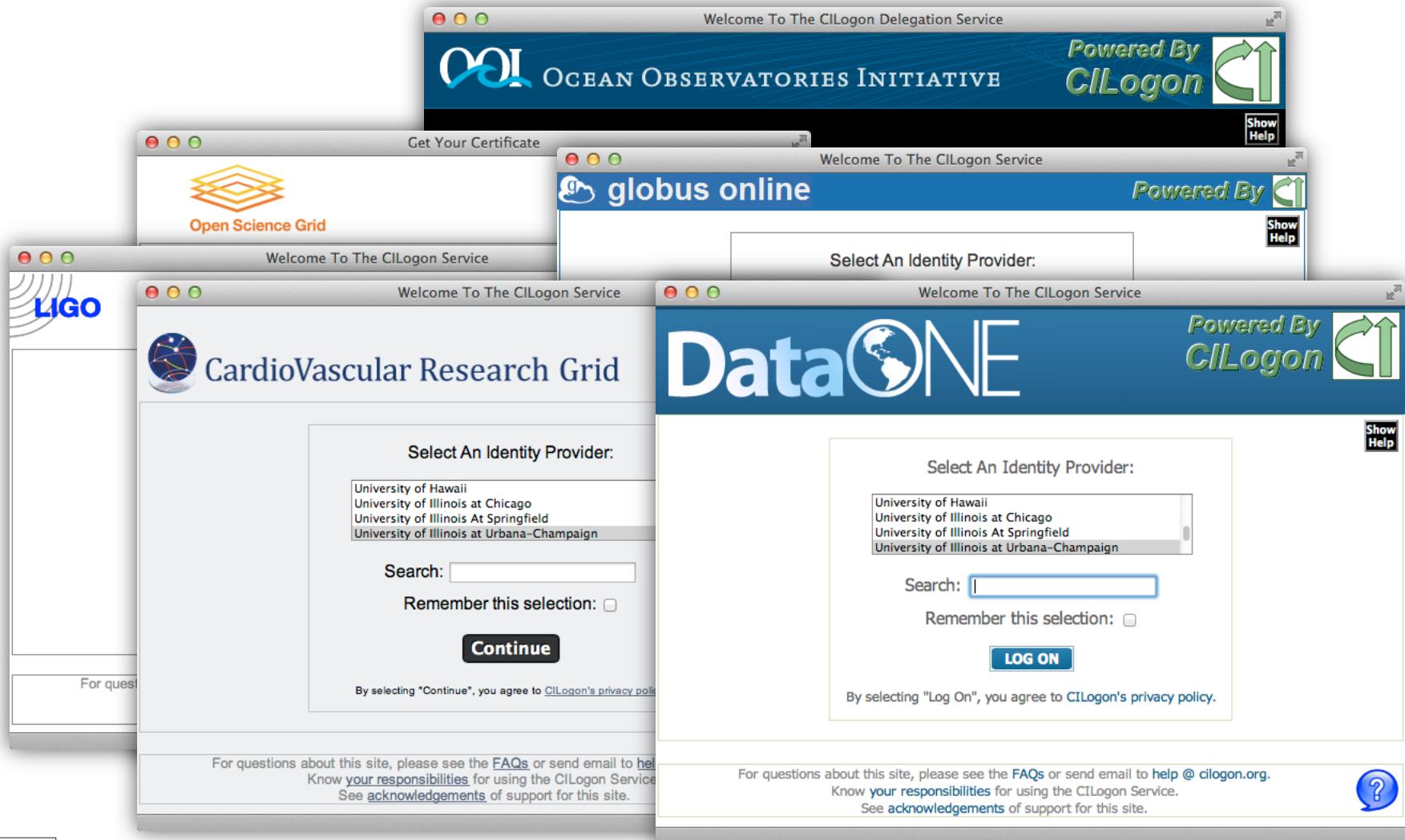
```
type : end entity credential
```

```
strength : 2048 bits
```

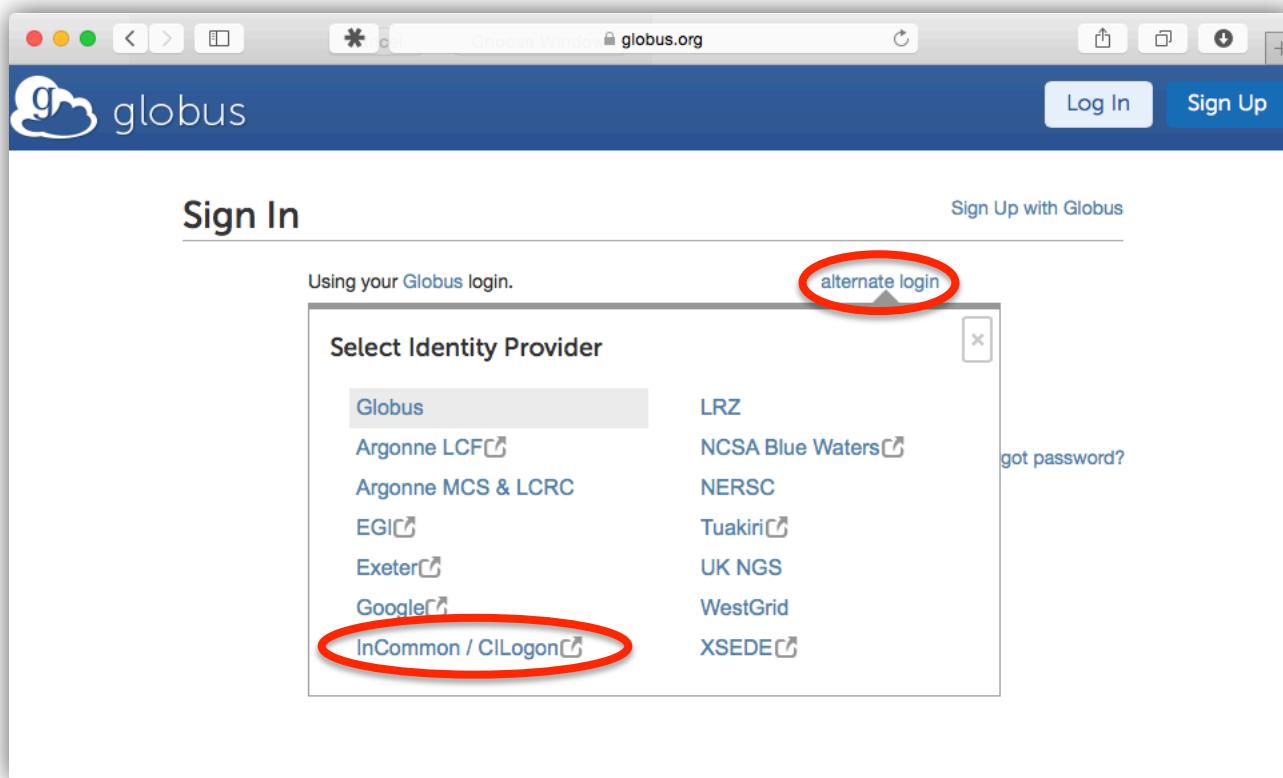
```
path : /tmp/x509up_u1000
```

```
timeleft : 71:59:52 (3.0 days)
```

# Integrated with CyberInfrastructure



# Integrated with Globus



# Used by DOE KBase

The screenshot shows the KBase sign-in interface. At the top, there is a logo for "KBase PREDICTIVE BIOLOGY" and a subtext "DOE Systems Biology Knowledgebase". Below the logo are "Log In" and "Sign Up" buttons. A "Sign In" button is prominently displayed. To the right of the "Sign In" button is a "Sign Up with Globus" link. A modal window titled "Select Identity Provider" is open, listing various identity providers. The "Globus" provider is selected and highlighted. Other providers listed include Argonne LCF, Argonne MCS & LCRC, BIRN, CLI Transition, EGI, ESG ANL, Exeter, Google, LRZ, NCSA, NCSA Blue Waters, NERSC, UChicago CI, UChicago iBi, UK NGS, WestGrid, and XSEDE. The "InCommon / CILogon" provider is circled in red. The "alternate login" link at the top of the modal is also circled in red. At the bottom of the modal, there is a "powered by globus online" logo. The footer of the page includes the U.S. Department of Energy logo and the text "KBase is sponsored by the U.S. Department of Energy's Office of Biological and Environmental Research.", along with links for "Privacy and Security Notice".

# Used by OSG Connect

The screenshot shows a web browser window for the OSG Connect sign-in page at <https://portal.osgconnect.net/SignIn>. The page features the OSG Connect logo and a tagline: "Efficiently connect your science to cycles and data". On the right, there's a "Sign In" section with options for "Sign In / Register", "Sign Up with Globus Online", and "alternate login". A red oval highlights the link "Using your InCommon / CILogon login.". Below it, a note says: "You will now be redirected to InCommon / CILogon's authentication page." A "Proceed" button is at the bottom of this section. At the bottom left, there's a copyright notice: "© 2013 Open Science Grid and University of Chicago".

# Used by ATLAS Connect

The screenshot shows a web browser window titled "OAuth Sign In | Atlas Connect". The URL in the address bar is [https://portal.usatlas.org/OAuth#response\\_type=code&redirect\\_uri=https%3A%2F%2Fconnect.usatlas.org%2Foauth&client\\_id=...](https://portal.usatlas.org/OAuth#response_type=code&redirect_uri=https%3A%2F%2Fconnect.usatlas.org%2Foauth&client_id=...). The page displays the ATLAS Connect logo and navigation links for Support, Resources, Connect, and Log In or Register. A "Sign In" button is prominently displayed. Below it, a message states: "This client is requesting access to your account: Site: https://connect.usatlas.org/oauth If you approve, please sign in." A red circle highlights the link "Using your InCommon / CILogon login." To the right of this link is a "alternate login" link. Below these options, a button says "Click PROCEED to authenticate with InCommon / CILogon." At the bottom of the page, there is a "Proceed" button, and logos for "Powered by: US ATLAS Computing Facility", "globus", and "ci connect".

# Integrated with Campus

The image displays three separate web browser windows side-by-side, each showing a different campus portal or service integrated with CILogon.

- Top Window:** A screenshot of the Indiana University Cyberinfrastructure Gateway ([cybergateway.uits.iu.edu](https://cybergateway.uits.iu.edu)). The "Login" button in the top right corner is circled in red.
- Middle Window:** A screenshot of the Purdue Research Computing (RCAC) login page ([transfer.rcac.purdue.edu](https://transfer.rcac.purdue.edu)). The "Sign In" section features a link "Using your InCommon / CILogon login." which is circled in red.
- Bottom Window:** A screenshot of the Duke CI Connect sign-in page ([portal.duke.ci-connect.net](https://portal.duke.ci-connect.net)). It shows a message from the client requesting access, and below it is another link "Using your InCommon / CILogon login." which is also circled in red.

In all three cases, the CILogon integration allows users to log in using their existing InCommon or CILogon credentials.

# **CILogon** and **XSEDE**

Extreme Science and Engineering  
Discovery Environment

- 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

# InCommon R&S SP

The screenshot shows a web browser window with the URL [incommon.org](https://incommon.org) in the address bar. The main content is the metadata for the service provider **CILogon**. The page includes the CILogon logo, a table of metadata fields, and footer information about InCommon participation.

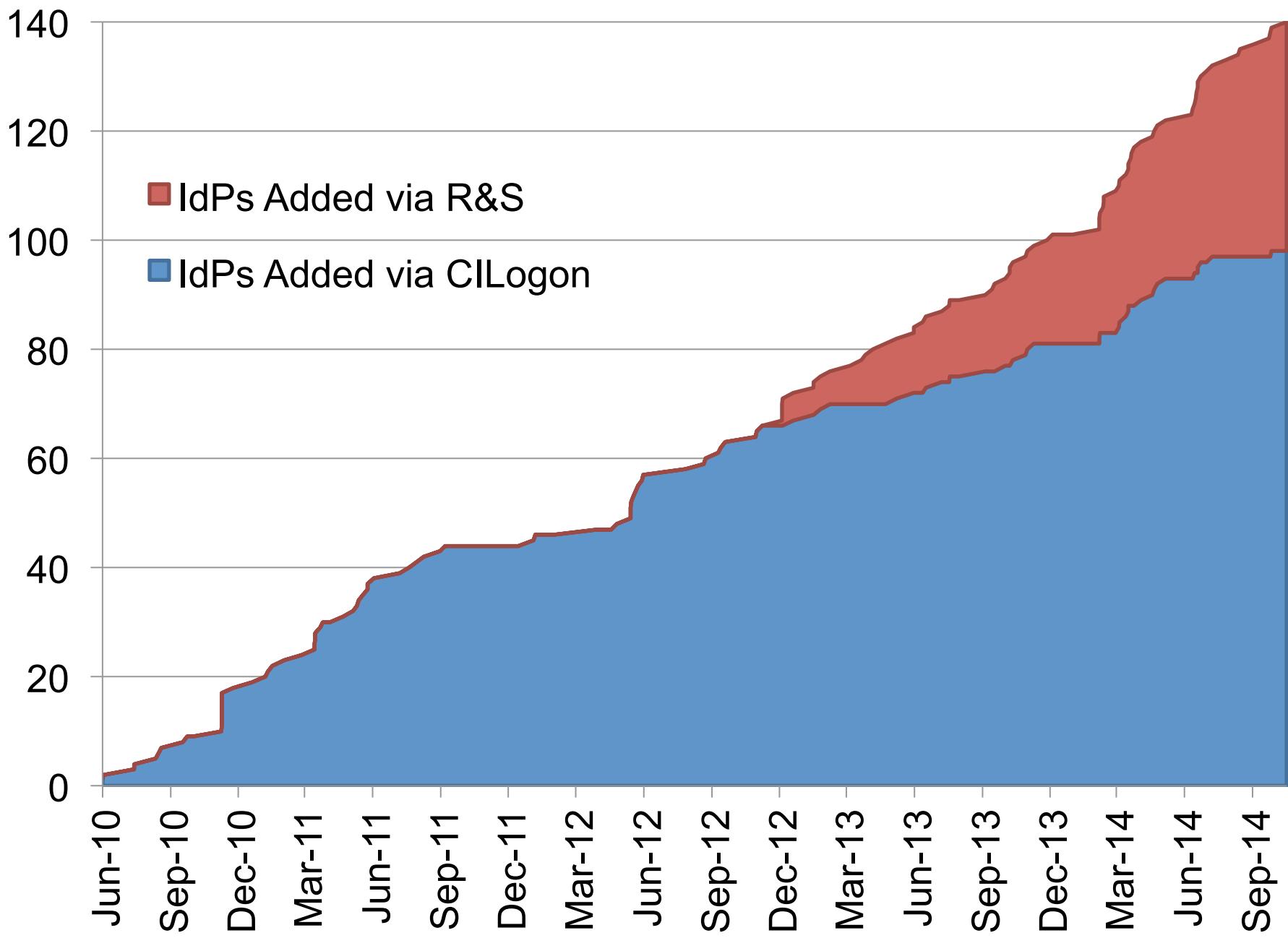
<b>Service Provider:</b> <a href="#">CILogon</a>	<a href="#">less technical info</a>
<b>Entity ID:</b> <a href="https://cilogon.org/shibboleth">https://cilogon.org/shibboleth</a>	
<b>Entity Attributes:</b> <a href="http://macedir.org/entity-category">http://macedir.org/entity-category</a> : [ <a href="http://id.incommon.org/category/research-and-scholarship">http://id.incommon.org/category/research-and-scholarship</a> ]	
<b>Description:</b> <i>CILogon facilitates secure access to CyberInfrastructure (CI).</i>	
<b>Information URL:</b> <a href="http://www.cilogon.org/faq">http://www.cilogon.org/faq</a>	
<b>Privacy Statement URL:</b> <a href="http://ca.cilogon.org/policy/privacy">http://ca.cilogon.org/policy/privacy</a>	
<b>Requested Attributes:</b>	displayName (SAML1, SAML2) eduPersonPrincipalName (SAML1, SAML2) eduPersonTargetedID (SAML1, SAML2) givenName (SAML1, SAML2) mail (SAML1, SAML2) sn (SAML1, SAML2)
<b>Technical Contacts:</b>	"CILogon Support" < <a href="mailto:help@cilogon.org">help@cilogon.org</a> >
<b>Administrative Contacts:</b>	"CILogon Support" < <a href="mailto:help@cilogon.org">help@cilogon.org</a> >
<b>Support Contacts:</b>	"CILogon Support" < <a href="mailto:help@cilogon.org">help@cilogon.org</a> >

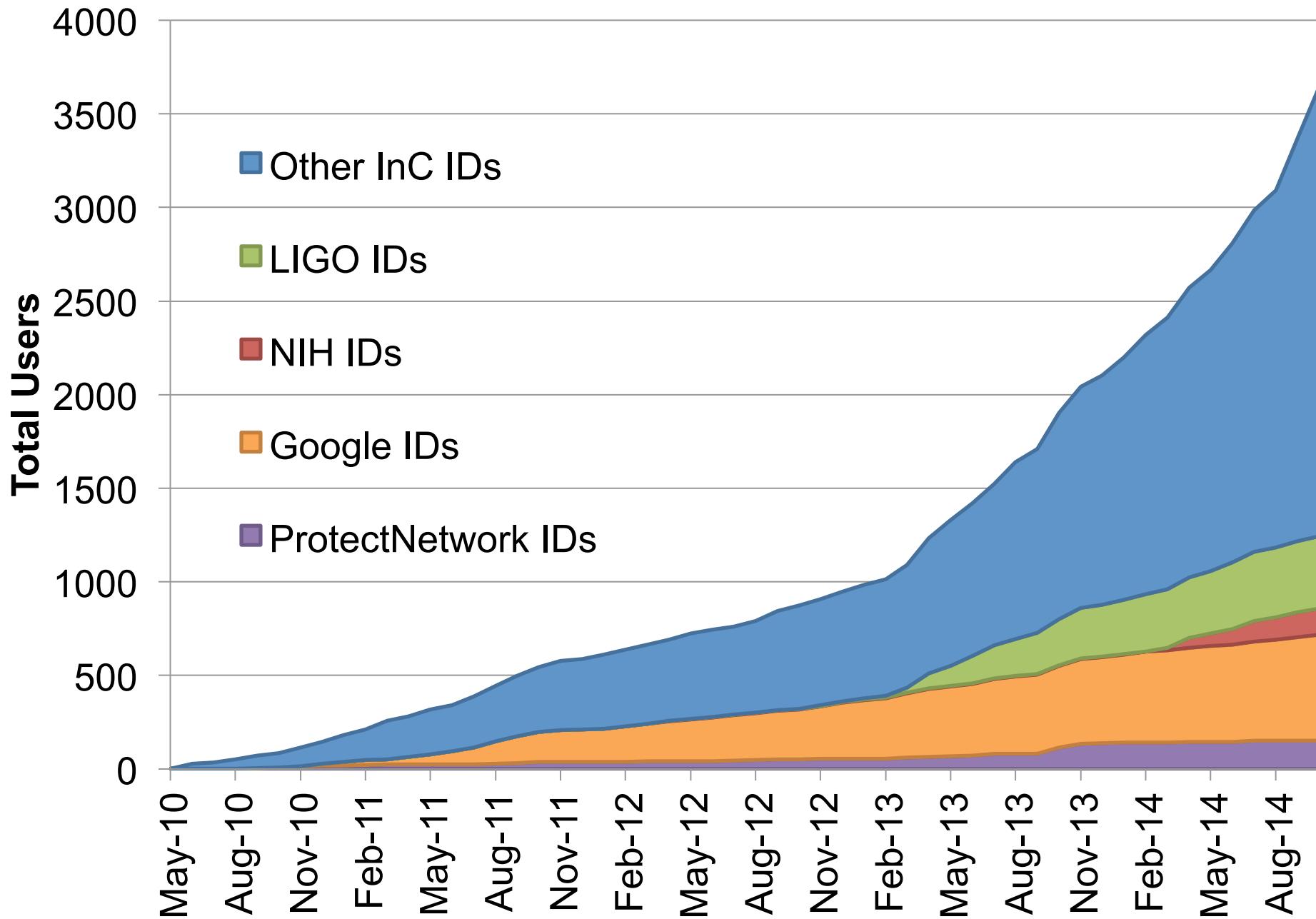
**Site Administrators:** Visit the wiki for documentation regarding [MDUI elements](#), [requested attributes](#), and [contacts](#) in SP metadata.

This InCommon registered service is owned by:  
[University of Illinois at Urbana-Champaign](#)

Questions? Visit our [FAQ](#) or contact  
<[info@incommon.org](mailto:info@incommon.org)>

# Total Identity Providers





# Replicating CILogon Internationally

The image displays two web browser windows side-by-side, illustrating the process of replicating the CILogon service internationally.

**Left Window (Globus Sign In):**

- Address bar: globus.org
- Logo: globus
- Buttons: Log In, Sign Up
- Section: Sign In
- Text: Using your Globus login.
- Section: Select Identity Provider
- List of providers:
  - Globus (selected)
  - Argonne LCF
  - Argonne MCS & LCRC
  - EGI
  - Exeter
  - Google
  - InCommon / CILogon
  - LRZ
  - NCSA Blue Waters
  - NERSC
  - Tuakiri (circled in red)
  - UK NGS
  - WestGrid
  - XSEDE

**Right Window (Tuakiri Home Organisation Selection):**

- Address bar: directory.tuakiri.ac.nz
- Logo: Tuakiri NEW ZEALAND ACCESS FEDERATION
- Navigation: Home, About, Support
- Section: Select your Home Organisation
- Text: The service 'NeSI MyProxy+ Server' at host 'myproxyplus.nesi.org.nz' you are trying to access requires that you authenticate with your home organisation.
- Section: Select from the list:
- Table:

Federation	Organisation
Tuakiri New Zealand Access Federation All Sites	AgResearch AUT University CPIT ESR Landcare Research Lincoln University Massey University NIWA Plant and Food Research Scion
- Checkboxes:
  - Remember for a month
  - Redirect me in the future without asking me again.
- Button: Select

# Thanks!

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[www.cilogon.org](http://www.cilogon.org)