



## Middleware And Grid Interagency Coordination (MAGIC) at SC13


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# CILogon – <https://cilogon.org/>

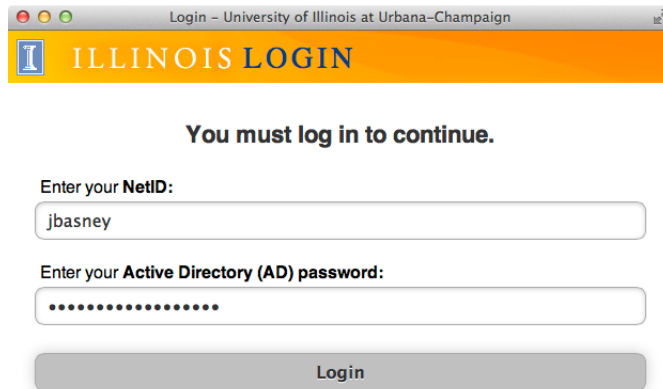
- Provides personal digital certificates for access to cyberinfrastructure
- Uses federated authentication for user identification



The screenshot shows a web browser window titled "Welcome To The CILogon Service". The page has a green header with the CILogon logo (a green square with a white 'C' and an upward arrow) and the text "CILogon Service". Below the header, there is a "Show Help" button in the top right corner. The main content area is titled "Select An Identity Provider:" and contains a list box with the following options: "University of Hawaii", "University of Illinois at Chicago", "University of Illinois At Springfield", and "University of Illinois at Urbana-Champaign". Below the list box is a "Search:" label followed by a text input field. Underneath the search field is a "Remember this selection:" label with an unchecked checkbox. A green "Log On" button is positioned below the checkbox. At the bottom of the main content area, a small text line reads: "By selecting 'Log On', you agree to [CILogon's privacy policy](#)." The footer of the page contains a text block: "For questions about this site, please see the [FAQs](#) or send email to [help@cilogon.org](mailto:help@cilogon.org). Know your responsibilities for using the CILogon Service. See acknowledgements of support for this site." and a blue circular help icon with a question mark on the right.

# Federated Authentication

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



Login – University of Illinois at Urbana-Champaign

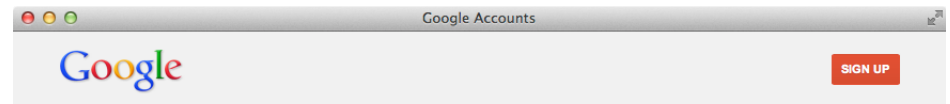
**ILLINOIS LOGIN**

**You must log in to continue.**

Enter your **NetID**:

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

Login



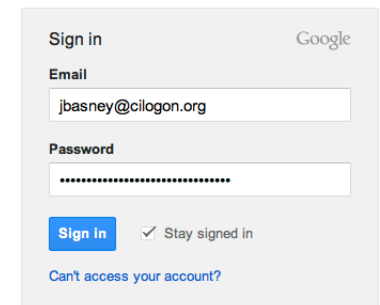
Google Accounts

Google

[SIGN UP](#)

## 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

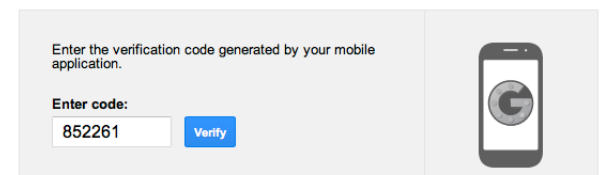
Email

Password

[Sign in](#) ☒ Stay signed in

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

## 2-step verification



Enter the verification code generated by your mobile application.

Enter code:

 [Verify](#)

# Bridging InCommon and IGTF

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

InCommon is operated by Internet2

## InCommon

About Participants Join InCommon

Home Federation Certificates Assurance Multifactor

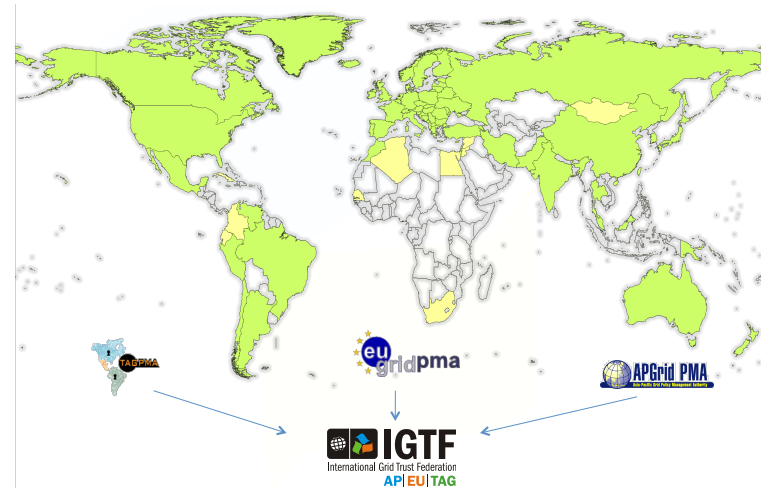
### Current InCommon Participants

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 href="#">A. T. Still University</a> <a href="#">Allegheny College</a> <a href="#">American University</a> <a href="#">Amherst College</a> <a href="#">Arizona State University</a> <a href="#">Arkansas State University</a> <a href="#">Auburn University</a> <a href="#">Augsburg College</a> <a href="#">Azusa Pacific University</a> <a href="#">Ball State University</a> <a href="#">Barry University</a> <a href="#">Bates College</a> <a href="#">Bay De Noc Community College</a> <a href="#">Baylor College of Medicine</a>	<a href="#">Ames Laboratory</a> <a href="#">Argonne National Laboratory</a> <a href="#">Brookhaven National Laboratory</a> <a href="#">ESnet</a> <a href="#">Fermilab</a> <a href="#">GENI Project Office</a> <a href="#">Idaho National Laboratory</a> <a href="#">Internet2</a> <a href="#">Jefferson Lab</a> <a href="#">Lawrence Berkeley National Laboratory</a> <a href="#">LIGO Scientific Collaboration</a> <a href="#">LTERN (Long Term Ecological Research Network)</a>	<a href="#">9STAR</a> <a href="#">Academic Works, Inc.</a> <a href="#">Acatar</a> <a href="#">Accessible Information Management, LLC</a> <a href="#">Advantage Connect Pro Inc.</a> <a href="#">ALEKS Corporation</a> <a href="#">Alexander Street Press</a> <a href="#">American Psychological Association</a> <a href="#">Apple - iTunes U</a> <a href="#">AppointmentLink Portal Solutions, Inc.</a> <a href="#">ARTstor</a> <a href="#">Association for Computing Machinery</a> <a href="#">AT&amp;T Services</a> <a href="#">AthenaOnline.com</a>



# Multiple Levels of Assurance

- CILogon Silver CA is accredited by IGTF
  - Using InCommon Silver (Level 2) identities
- IGTF IOTA profile for CILogon Basic under development
- Google Authenticator support for second authentication factor

A screenshot of a web browser window titled "Google Authenticator Login". The page has a green header with the CILogon Service logo and name. Below the header, the text "Google Authenticator Login" is displayed. A message states: "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." A form box contains the text "Account: A534@cilogon.org" and "Passcode:" followed by a text input field containing "177799". Below the input field is a green "Enter" button. At the bottom of the page, there is a link that says "Don't have your phone with you?".

## Identifier-Only Trust Assurance with Secured Infrastructure Authentication Profile

- ↓ [Identifier-Only Trust Assurance with Secured Infrastructure Authentication Profile](#)
- ↓ [Abstract](#)
- ↓ [General Architecture](#)
- ↓ [Identification](#)
  - ↓ [Persistency of name binding](#)
  - ↓ [Naming](#)
  - ↓ [Renewal and re-keying](#)
  - ↓ [Retention of records](#)
  - ↓ [Traceability Requirements](#)
- ↓ [Operational Requirements](#)
  - ↓ [Policy and practice statement](#)
  - ↓ [Certificate and CRL profile](#)
  - ↓ [Revocation](#)
- ↓ [Security Requirements](#)
  - ↓ [Third parties involved in identity management](#)
- ↓ [Publication and Repository responsibilities](#)
- ↓ [Audits](#)
- ↓ [Privacy and confidentiality](#)
- ↓ [Compromise and disaster recovery](#)
  - ↓ [Due diligence for subscribers](#)

## Abstract

This is an Authentication Profile of the IGTF describing the minimum requirements on X.509 PKI authorities where the identity vetting is adequate to ensure unique, non-re-assigned identities, and generated by authorities using secured and trusted infrastructure. Such authorities are not required to collect more data than are necessary for fulfilling the uniqueness requirements, and credentials issued by authorities under this profile may not provide sufficient information to independently trace individual subscribers, and should be used in conjunction with complementary identification and vetting processes.

This Authentication Profile is managed by the [EUGridPMA](#).

# Integrated with CyberInfrastructure

Welcome To The CILogon Delegation Service

Ocean Observatories Initiative

Powered By CILogon

Show Help

Get Your Certificate

Open Science Grid

Welcome To The CILogon Service

globus online

Welcome To The CILogon Service

Powered By CILogon

Show Help

Welcome To The CILogon Service

LIGO

CardioVascular Research Grid

Select An Identity Provider:

University of Hawaii  
University of Illinois at Chicago  
University of Illinois At Springfield  
University of Illinois at Urbana-Champaign

Search:

Remember this selection: ☐

Continue

By selecting "Continue", you agree to CILogon's privacy policy.

For questions about this site, please see the [FAQs](#) or send email to [help](#).  
Know [your responsibilities](#) for using the CILogon Service.  
See [acknowledgements](#) of support for this site.

Welcome To The CILogon Service

DataONE

Powered By CILogon

Show Help

Select An Identity Provider:

University of Hawaii  
University of Illinois at Chicago  
University of Illinois At Springfield  
University of Illinois at Urbana-Champaign

Search:

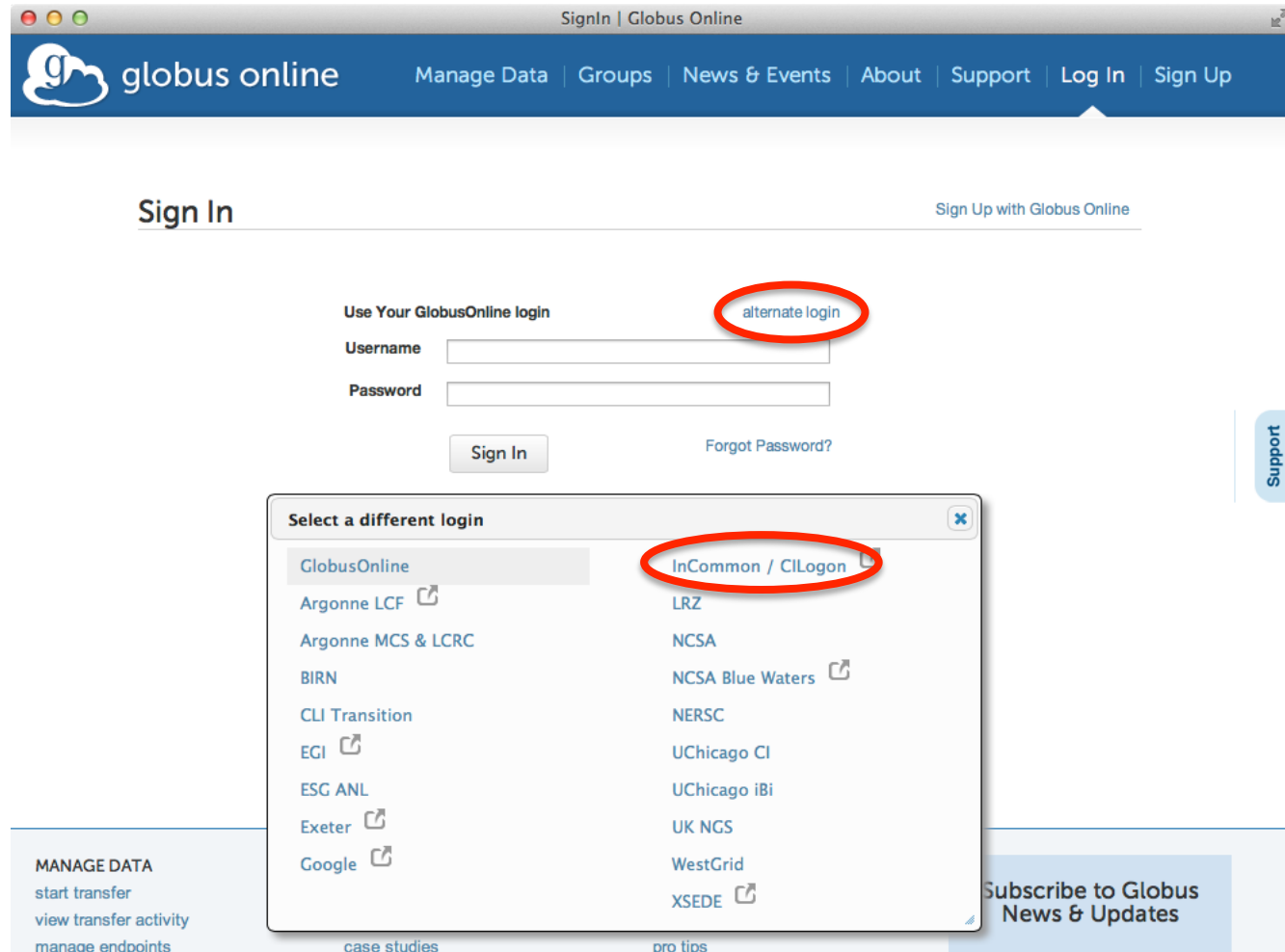
Remember this selection: ☐

LOG ON

By selecting "Log On", you agree to CILogon's privacy policy.

For questions about this site, please see the [FAQs](#) or send email to [help @ cilogon.org](#).  
Know [your responsibilities](#) for using the CILogon Service.  
See [acknowledgements](#) of support for this site.

# Integrated with Globus Online



The screenshot shows the Globus Online Sign In page. The header includes the Globus Online logo and navigation links: Manage Data, Groups, News & Events, About, Support, Log In, and Sign Up. The main heading is "Sign In" with a link to "Sign Up with Globus Online". Below this, there are two options: "Use Your GlobusOnline login" and "alternate login" (circled in red). The "Use Your GlobusOnline login" section has fields for "Username" and "Password", a "Sign In" button, and a "Forgot Password?" link. A modal titled "Select a different login" is open, showing a list of login providers. "InCommon / CILogon" is circled in red. Other providers listed include GlobusOnline, 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 footer contains links for "MANAGE DATA" (start transfer, view transfer activity, manage endpoints), "case studies", "pro tips", and a "Subscribe to Globus News & Updates" button.

Sign In | Globus Online

globus online Manage Data Groups News & Events About Support Log In Sign Up

Sign In Sign Up with Globus Online

Use Your GlobusOnline login alternate login

Username Password

Sign In Forgot Password?

Support

Select a different login

GlobusOnline InCommon / CILogon

Argonne LCF LRZ

Argonne MCS & LCRC NCSA

BIRN NCSA Blue Waters

CLI Transition NERSC

EGI UChicago CI

ESG ANL UChicago iBi

Exeter UK NGS

Google WestGrid

XSEDE

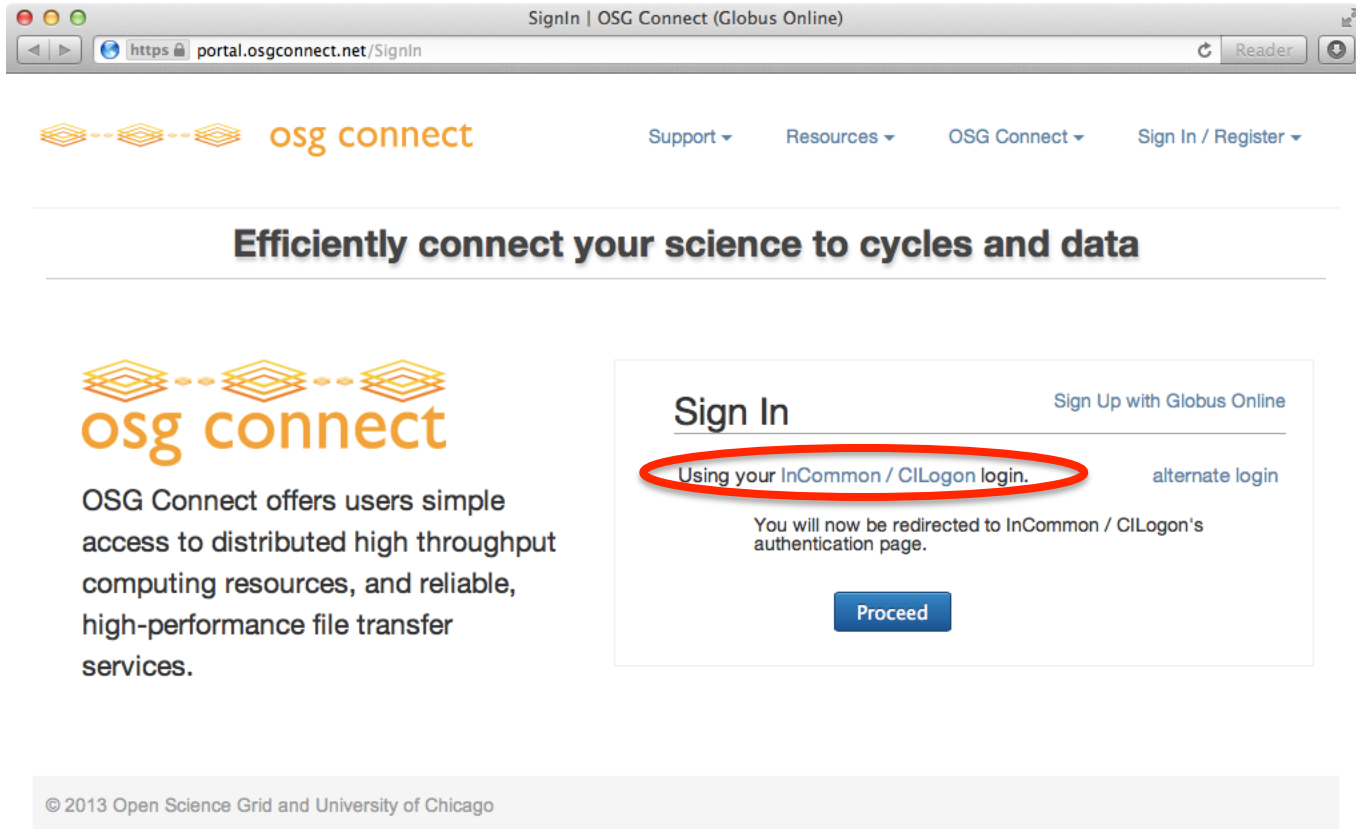
MANAGE DATA start transfer view transfer activity manage endpoints

case studies pro tips

Subscribe to Globus News & Updates



# Used by OSG Connect



The screenshot shows a web browser window with the address bar displaying `https://portal.osgconnect.net/SignIn`. The page title is "SignIn | OSG Connect (Globus Online)". The navigation bar includes the "osg connect" logo, "Support", "Resources", "OSG Connect", and "Sign In / Register". The main heading is "Efficiently connect your science to cycles and data". On the left, the "osg connect" logo is followed by the text: "OSG Connect offers users simple access to distributed high throughput computing resources, and reliable, high-performance file transfer services." On the right, the "Sign In" section features a link "Sign Up with Globus Online" and a red circle around the text "Using your InCommon / CILogon login.", with an "alternate login" link nearby. Below this, a message states "You will now be redirected to InCommon / CILogon's authentication page." and a "Proceed" button is visible. The footer contains the copyright notice: "© 2013 Open Science Grid and University of Chicago".

Sign In | OSG Connect (Globus Online)

https://portal.osgconnect.net/SignIn

osg connect

Support ▾ Resources ▾ OSG Connect ▾ Sign In / Register ▾

**Efficiently connect your science to cycles and data**

**osg connect**

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

**Sign In** [Sign Up with Globus Online](#)

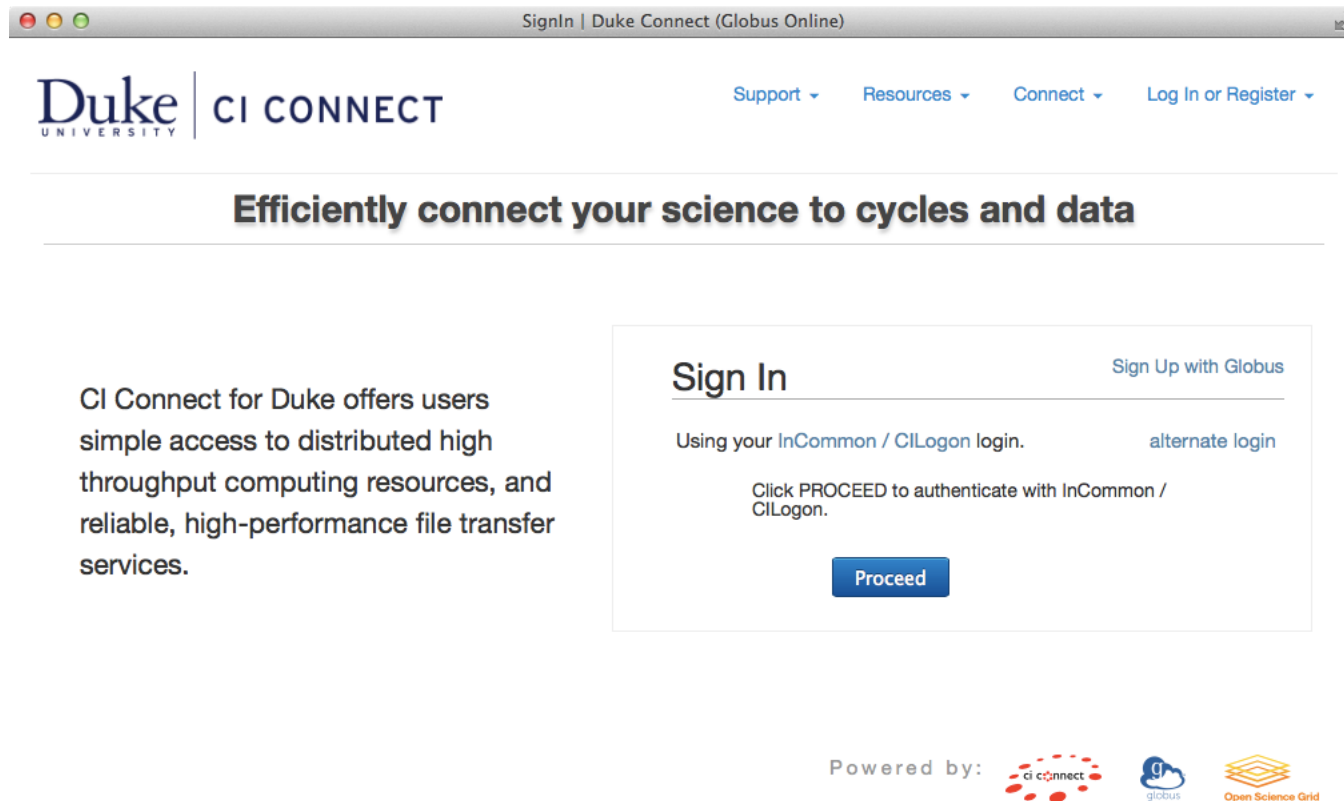
**Using your InCommon / CILogon login.** [alternate login](#)

You will now be redirected to InCommon / CILogon's authentication page.

[Proceed](#)

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# Used by CI Connect for Duke



The screenshot shows a web browser window with the title "SignIn | Duke Connect (Globus Online)". The page features the Duke University logo and "CI CONNECT" header. Navigation links include "Support", "Resources", "Connect", and "Log In or Register". A main heading reads "Efficiently connect your science to cycles and data".




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

**Sign In** [Sign Up with Globus](#)

Using your [InCommon / CILogon](#) login. [alternate login](#)

Click PROCEED to authenticate with InCommon / CILogon.

[Proceed](#)

Powered by:   

# Integrated with DOE KBase

Sign In | KBase

**KBase**  
PREDICTIVE BIOLOGY  
DOE Systems Biology Knowledgebase

Log In Sign Up

Sign In [Sign Up with Globus](#)

Using your [Globus](#) login. [alternate login](#)

Select Identity Provider

<b>Globus</b>	<b>InCommon / CILogon</b>
Argonne LCF	LRZ
Argonne MCS & LCRC	NCSA
BIRN	NCSA Blue Waters
CLI Transition	NERSC
EGI	UChicago CI
ESG ANL	UChicago iBi
Exeter	UK NGS
Google	WestGrid
	XSEDE

**DOE ENERGY** Science

KBase is sponsored by the U.S. Department of Energy's  
Office of Biological and Environmental Research.

[Privacy and Security Notice](#)

[powered by globus online](#)

# ligo-proxy-init using CILogon 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
```

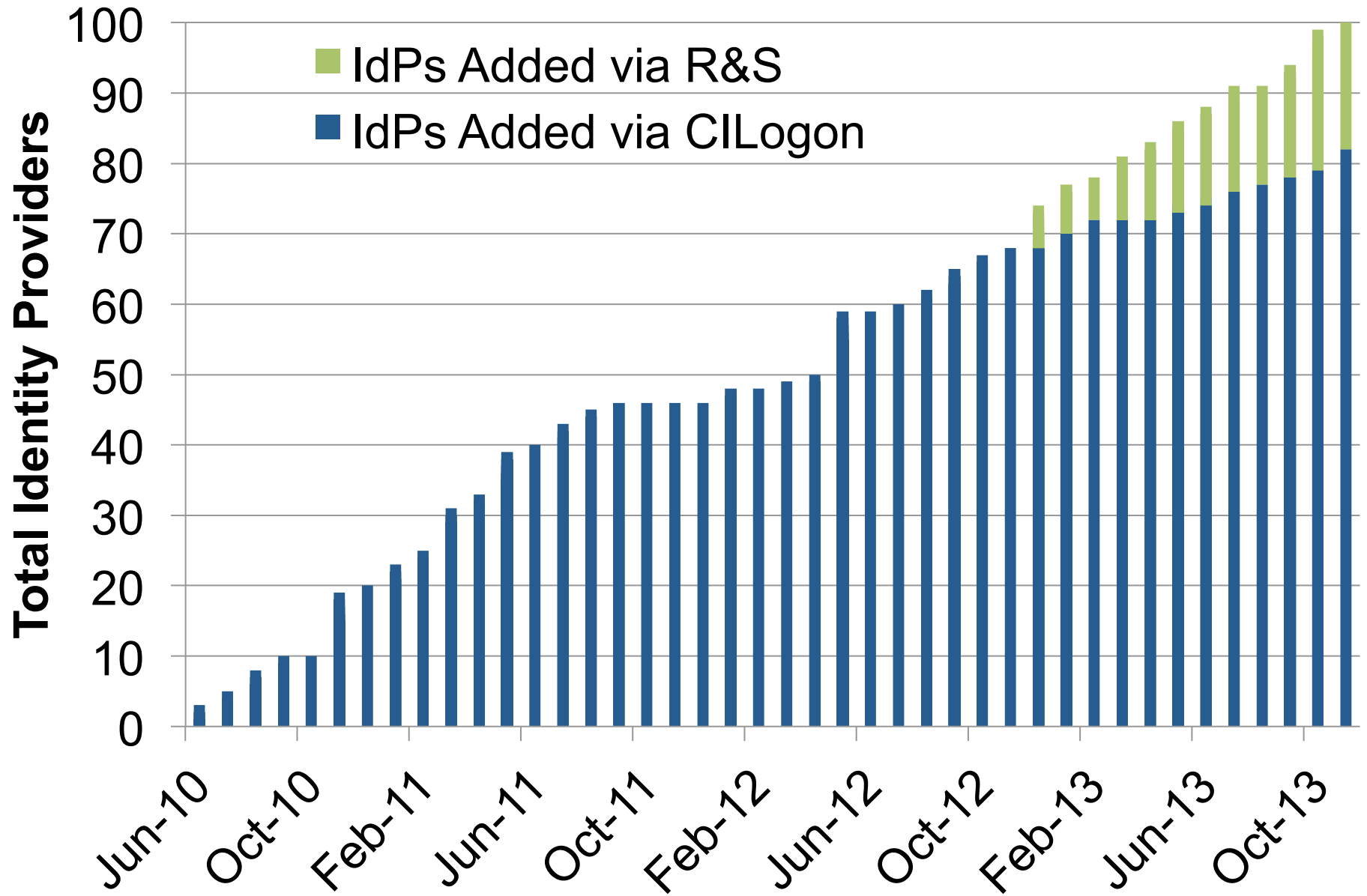
```
path     : /tmp/x509up_u1000
```

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

# *CILogon* and XSEDE

Extreme Science and Engineering  
Discovery Environment

- CILogon is
  - a component in the XSEDE architecture
  - entering the XSEDE engineering process:  
architecture, design, and security reviews and  
operational acceptance tests
- XSEDE can provide sustained operational support to CILogon users (DataONE, OOI, OSG, LIGO, etc.)



# Adding an IdP to CILogon

- Use self-service web application or contact us for assistance

<https://cilogon.org/requestidp/>

**Contact Information**  
Your Name:   
Email Address:

**Home Organization**  
Select an Organization:   
Don't See It? Enter Here:

**Additional Information (Optional)**  
Please tell us more about yourself and your interest in the CILogon Service:

<https://cilogon.org/testidp/>

**Verify SAML Attribute Release Policy**  
Thank you for your interest in the CILogon Service. This page allows the administrator of an Identity Provider (IdP) to verify that all necessary SAML attributes have been released to the CILogon Service Provider (SP). Below you will see the various attributes required by the CILogon Service and their values as released by your IdP. If all required attributes are present, you can add your IdP to the list of organizations available to the CILogon Service (assuming it has not already been added).

**Summary**  
✔ All required attributes have been released by your IdP. For details of the various attributes utilized by the CILogon Service and their current values, see the sections below.

**SAML Attributes**

**Metadata Attributes**



Federation Info: [About](#) [Organizations](#) [Entities](#)

Federation entities provide services to InCommon participants at their discretion and collaboration opportunities among InCommon participants. Our value as a community is...

## InCommon Service Categories

IdPs

SPs

The following service providers belong to the indicated service category:

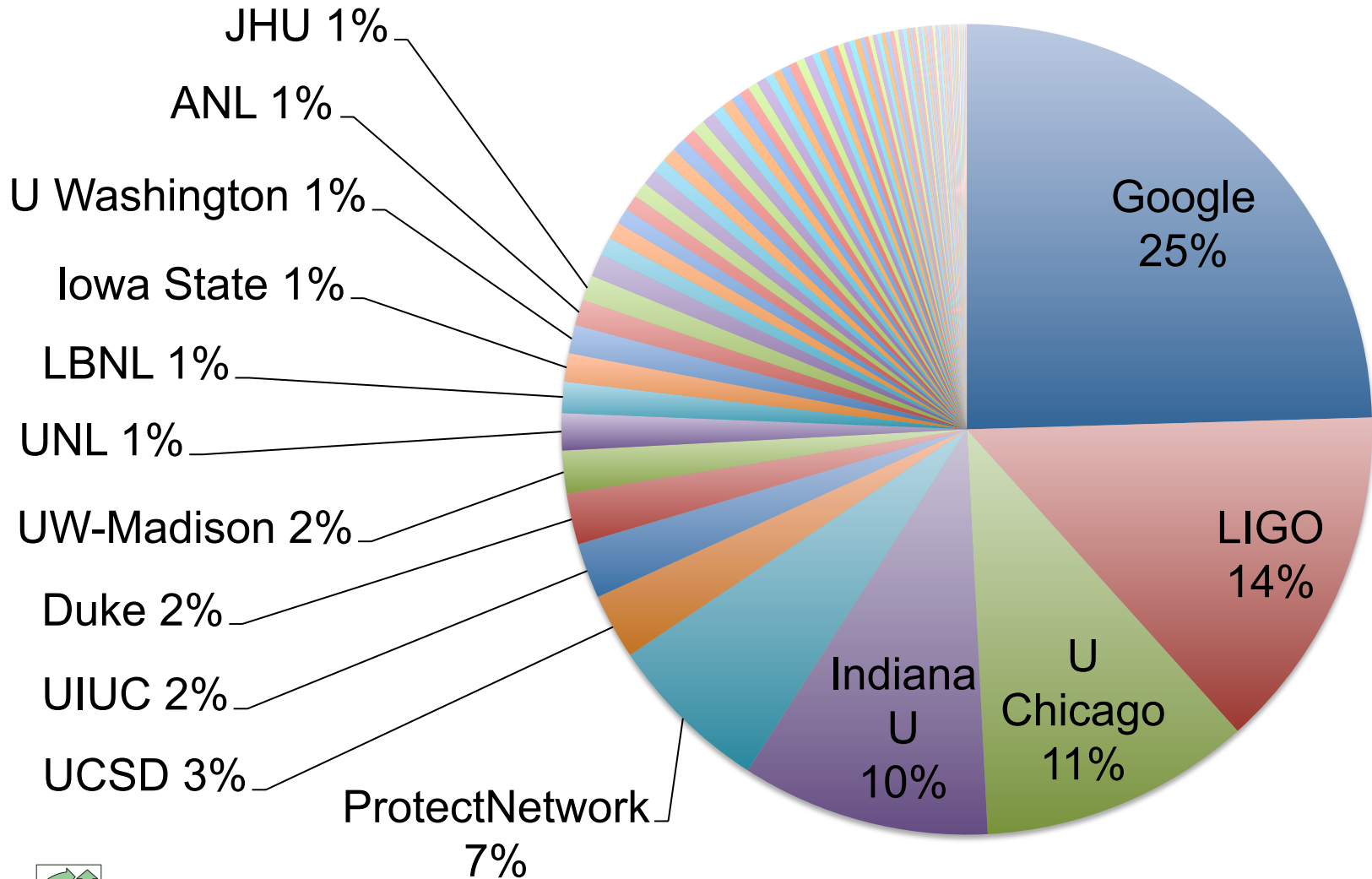
Service Provider Name	Service Category
<a href="#">CarmenWiki</a>	research-and-scholarship
<a href="#">CILogon</a>	research-and-scholarship
<a href="#">Collaboration Wiki Spaces at Internet2</a>	research-and-scholarship
<a href="#">FileSender</a>	research-and-scholarship
<a href="#">GENI Experimenter Portal</a>	research-and-scholarship
<a href="#">GPN/UM Dropoff Services</a>	research-and-scholarship
<a href="#">Indiana CTSI HUB</a>	research-and-scholarship
<a href="#">LIGO CBC Wiki</a>	research-and-scholarship
<a href="#">LIGO Wiki</a>	research-and-scholarship
<a href="#">Multi-Factor Authentication (MFA) Cohortium Registry</a>	research-and-scholarship
<a href="#">Multi-Factor Authentication (MFA) Cohortium Wiki</a>	research-and-scholarship
<a href="#">Narada Metrics</a>	research-and-scholarship
<a href="#">Open Science Data Cloud Console</a>	research-and-scholarship

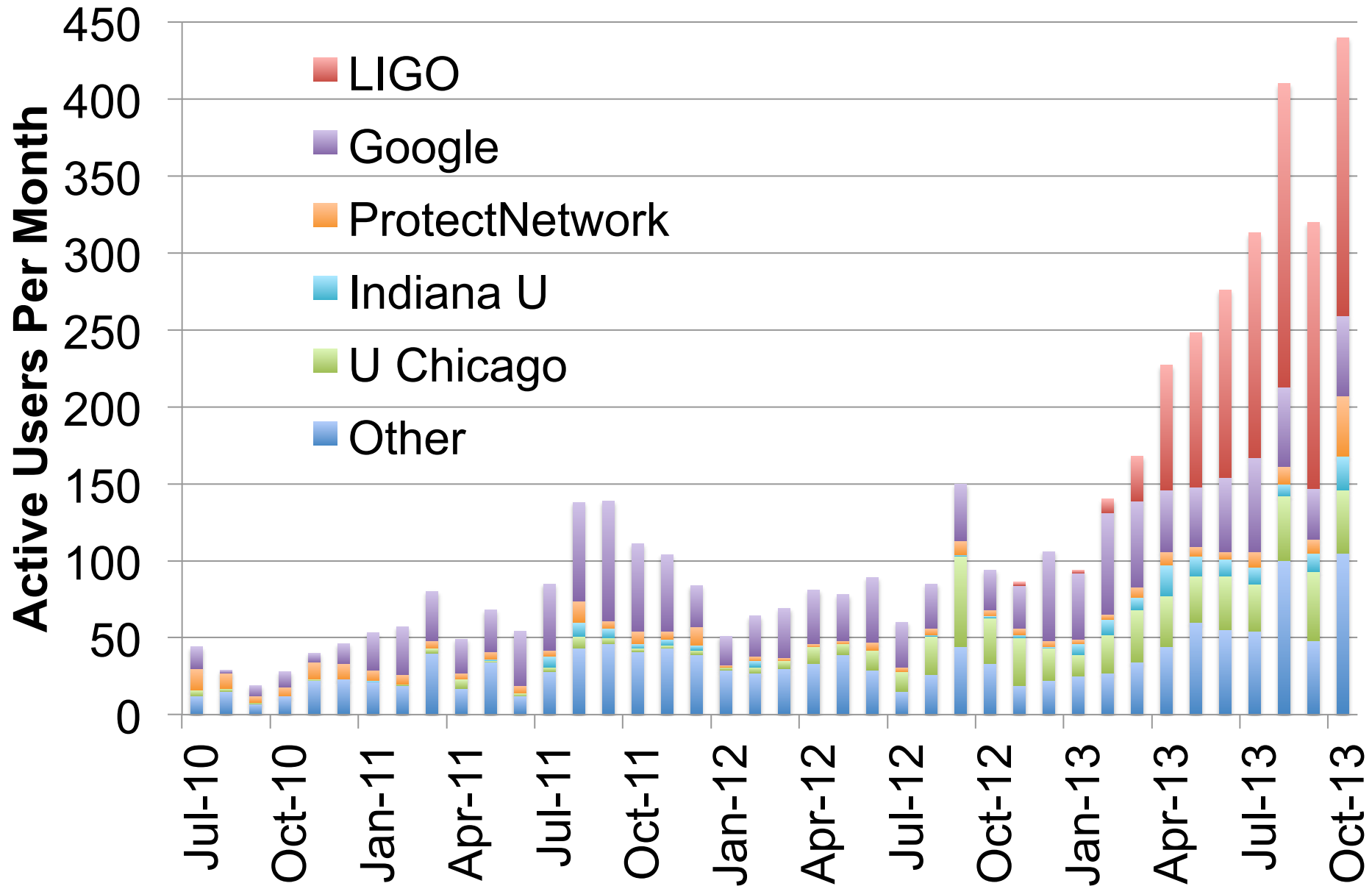
InCommon Research and Scholarship program helps services connect with identity providers.

Service Category	# of SPs	# of IdPs
<a href="#">research-and-scholarship</a>	15	60

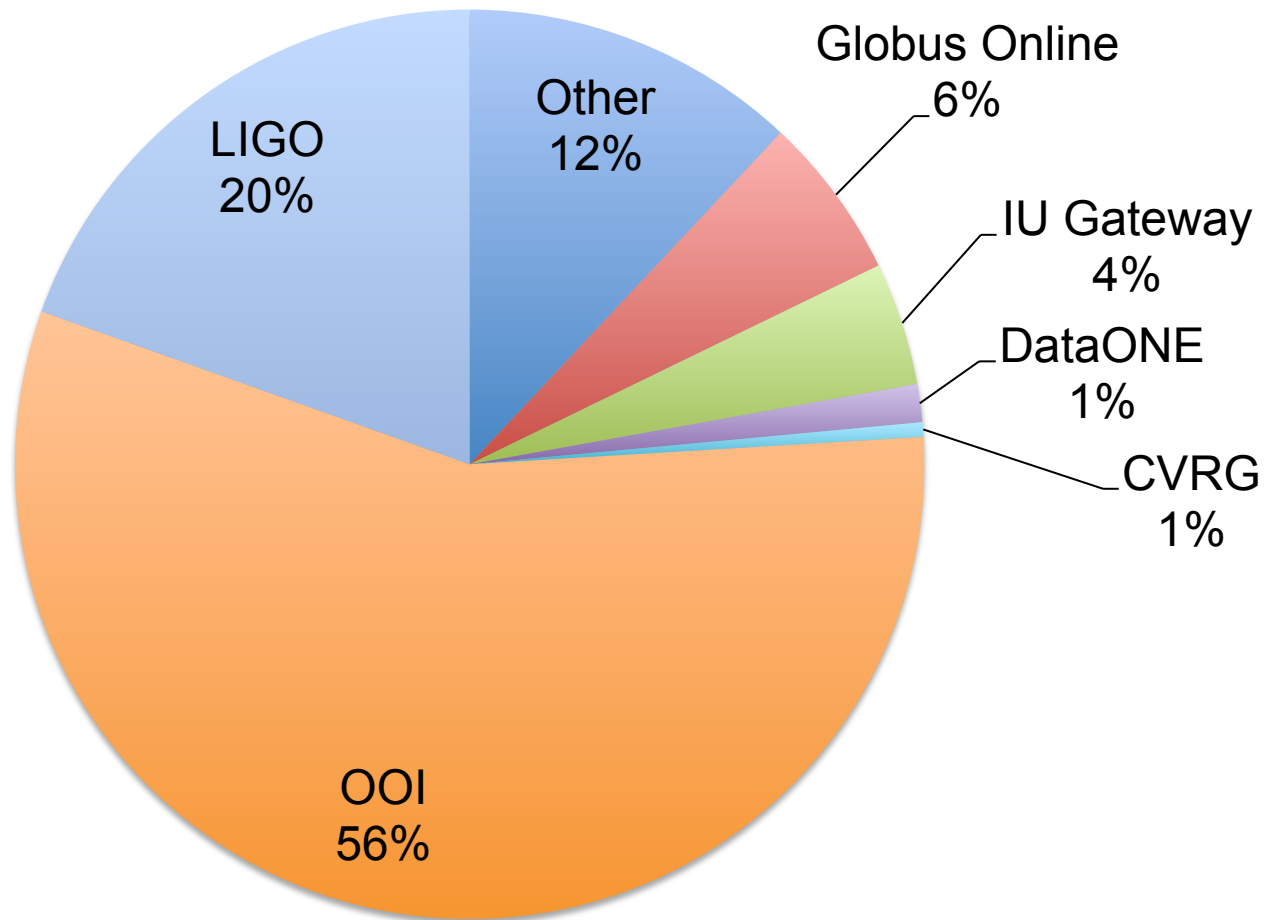


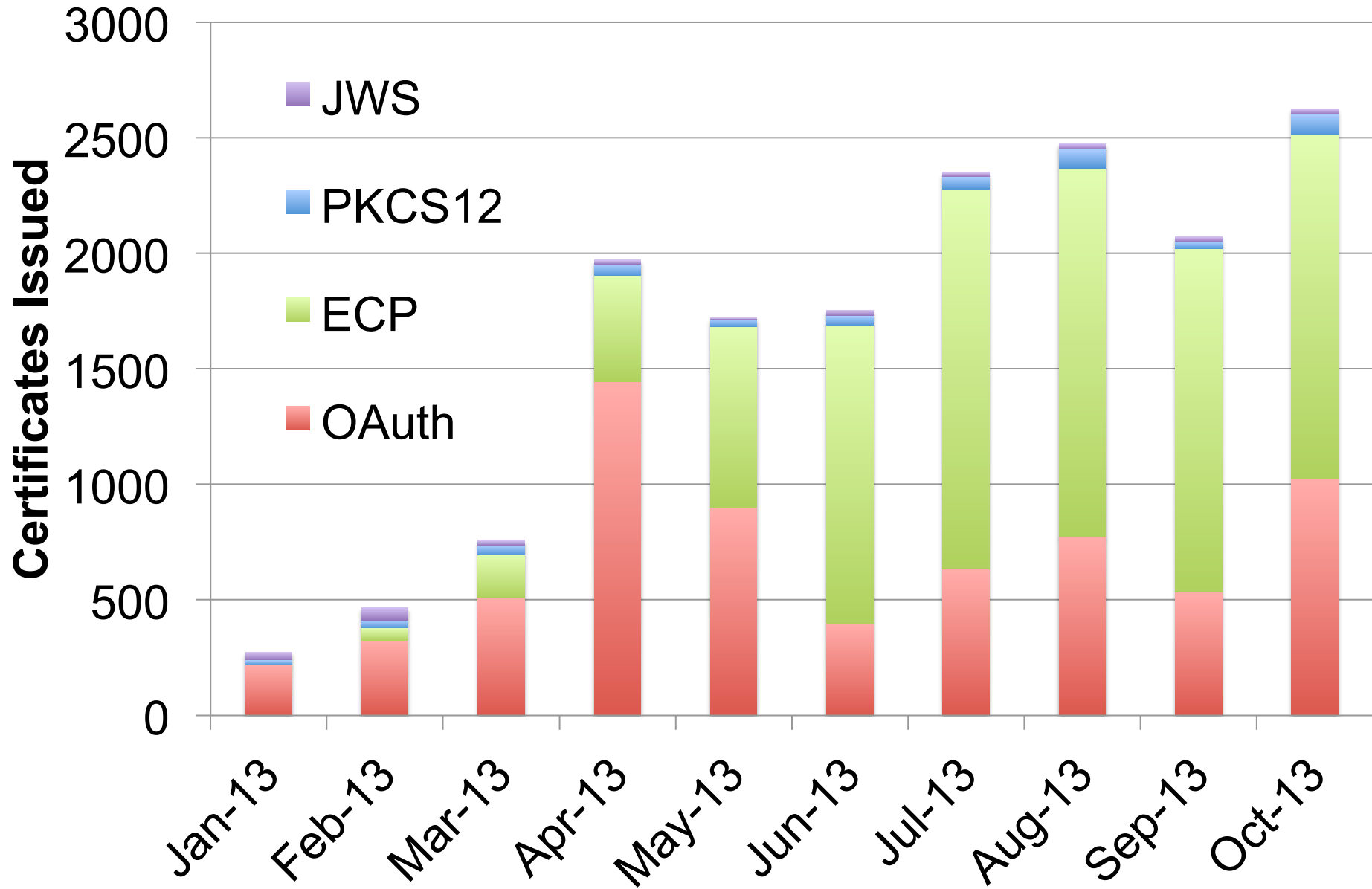
# Registered Users Per IdP





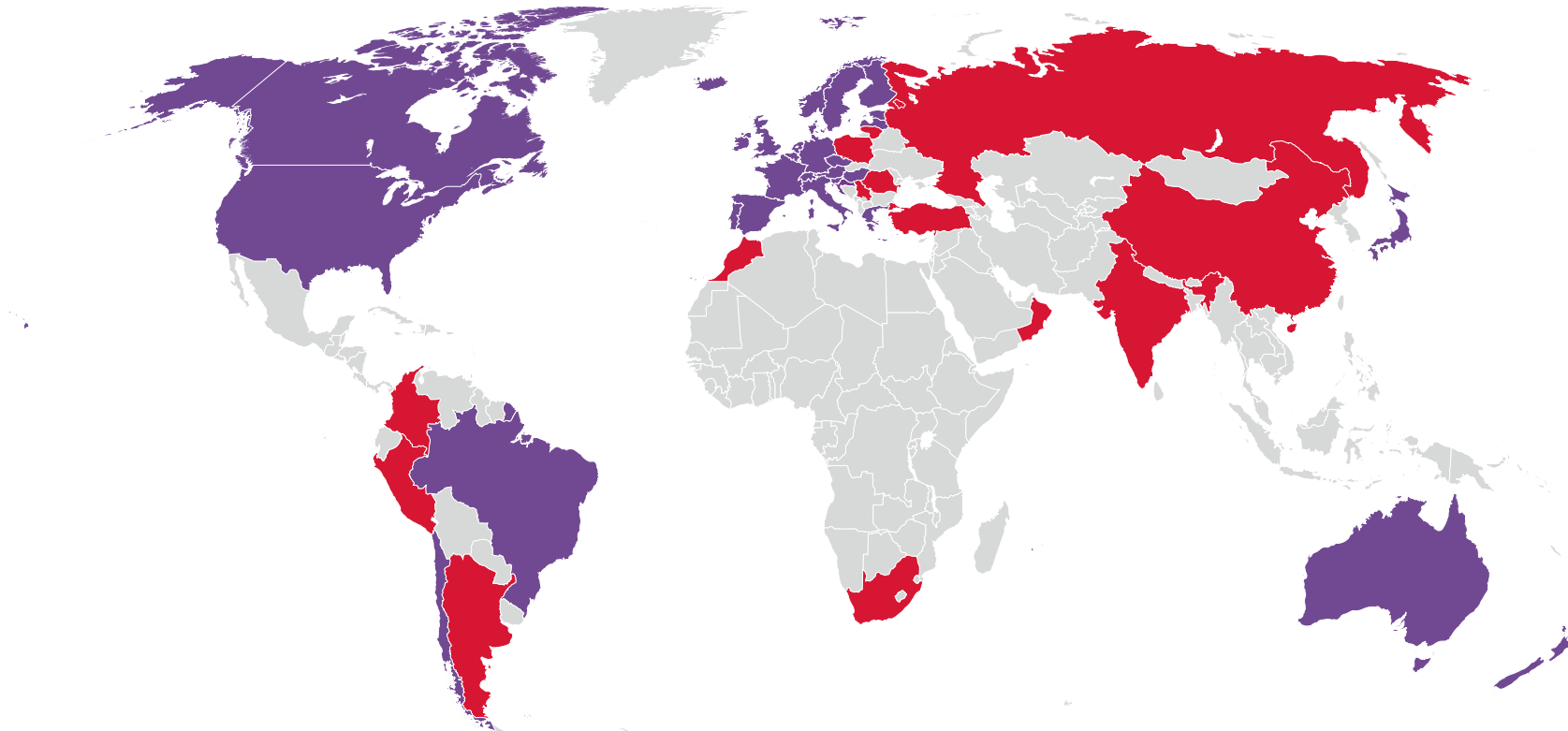
# % of Total Certificates Issued





# What's Next

- SAML interfederation
  - InCommon joining eduGAIN this year
  - International attribute release
- Growth of federated online CAs
  - <http://redmine.ogf.org/projects/idel-wg>
- Level of Assurance (continued)
  - IGTF IOTA profile
  - Int'l adoption of Kantara standards
  - Security incident handling
  - Multi-factor authentication



## Identity Federations in production

AT	ACOnet Identity Federation	ES	SIR
AU	Australian Access Federation AAF	FI	Haka
BE	Belnet R&E Federation	FR	Fédération Éducation-Recherche
BR	CAFe	GR	GRNET
CA	Canadian Access Federation CAF	HR	AAI@EduHr
CH	SWITCHaaI	HU	edulD.hu
CL	COFRE	IE	Edugate
CZ	edulD.cz	IT	IDEM
DE	DFN-AAI	JP	GakuNin
DK	WAYF	LV	LAIFE
EE	TAAT		

NL	SURFconext
NO	FEIDE
NZ	Tuakiri New Zealand Access Federation
PT	RCTSaai
SE	SWAMID
SI	ArnesAAI Slovenska
UK	UK Access Management Federation for Education and Research
US	InCommon
int	IGTF

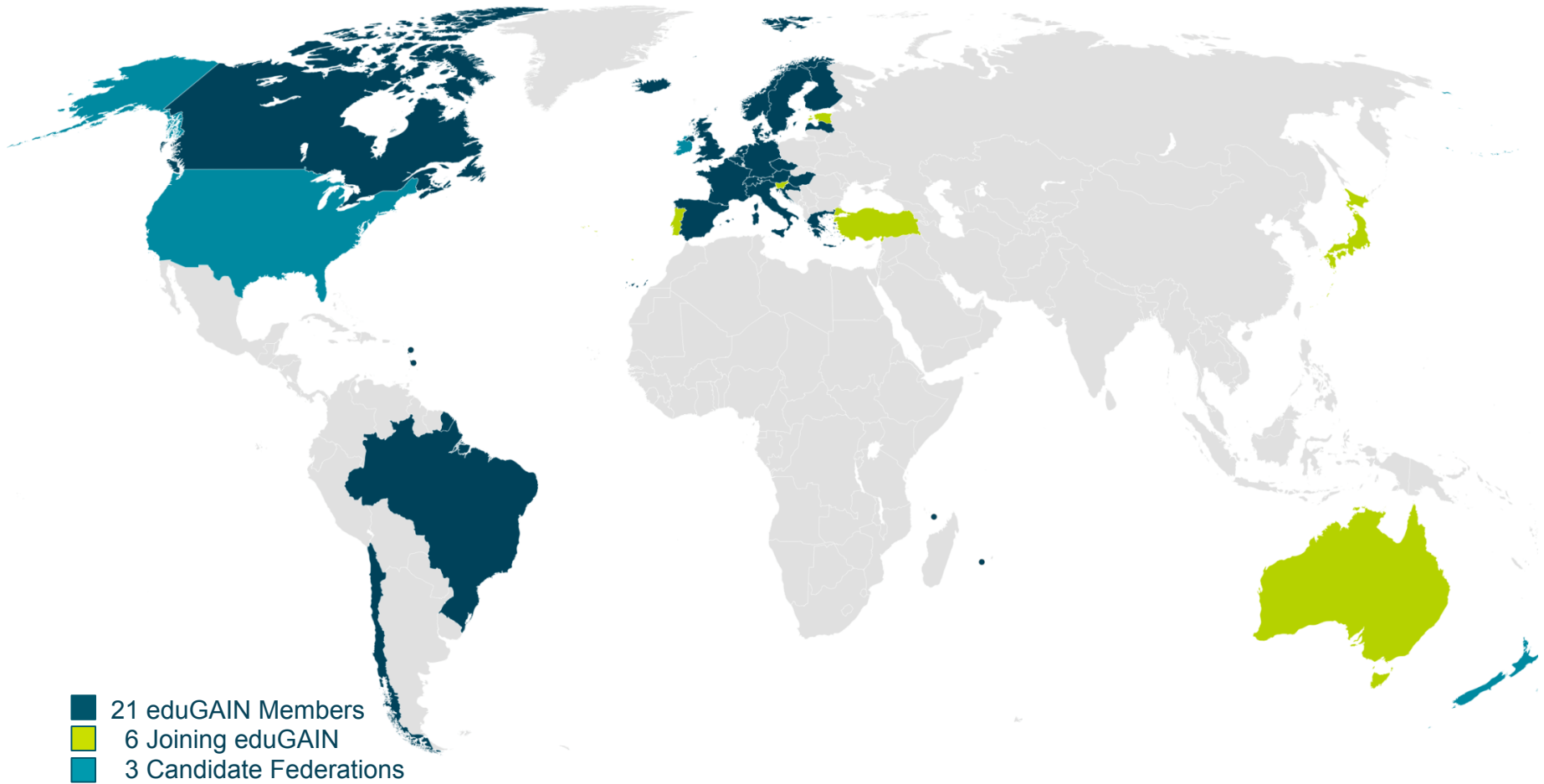
## Identity Federations in pilot

AR	MATE	PL	PIONIERid
CN	CARSI	RO	RoEduNet Federation
COL	COLFIRE	RS	iAMRES
IN	INFED	RU	ΦEDUrus AAI
LT	LEFT	TR	YETKIM
PE	INCA	ZA	SAIF
MA	edulDM		
OM	Oman Knowledge ID Federation		

This map is intended to provide a high-level overview of countries with identity federations.

Last update: 14 October 2013

# eduGAIN Interfederation Participants



[edugain.org](http://edugain.org)

# Thanks!

info@cilogon.org  
jbasney@ncsa.illinois.edu

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

[dx.doi.org/10.1145/2484762.2484791](https://dx.doi.org/10.1145/2484762.2484791)