

The **Globus Nexus** identity and group management hub

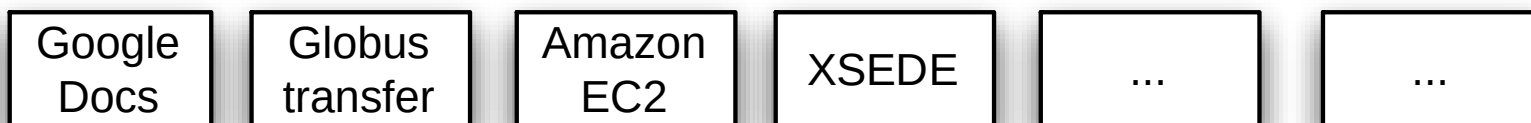
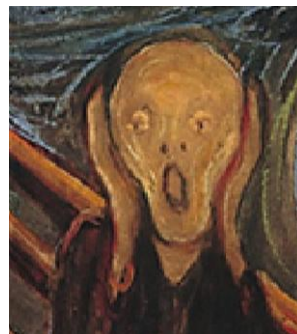
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Argonne National Laboratory & The University of Chicago

MAGIC at SC'12, November 14, 2012

We live in a heterogeneous world



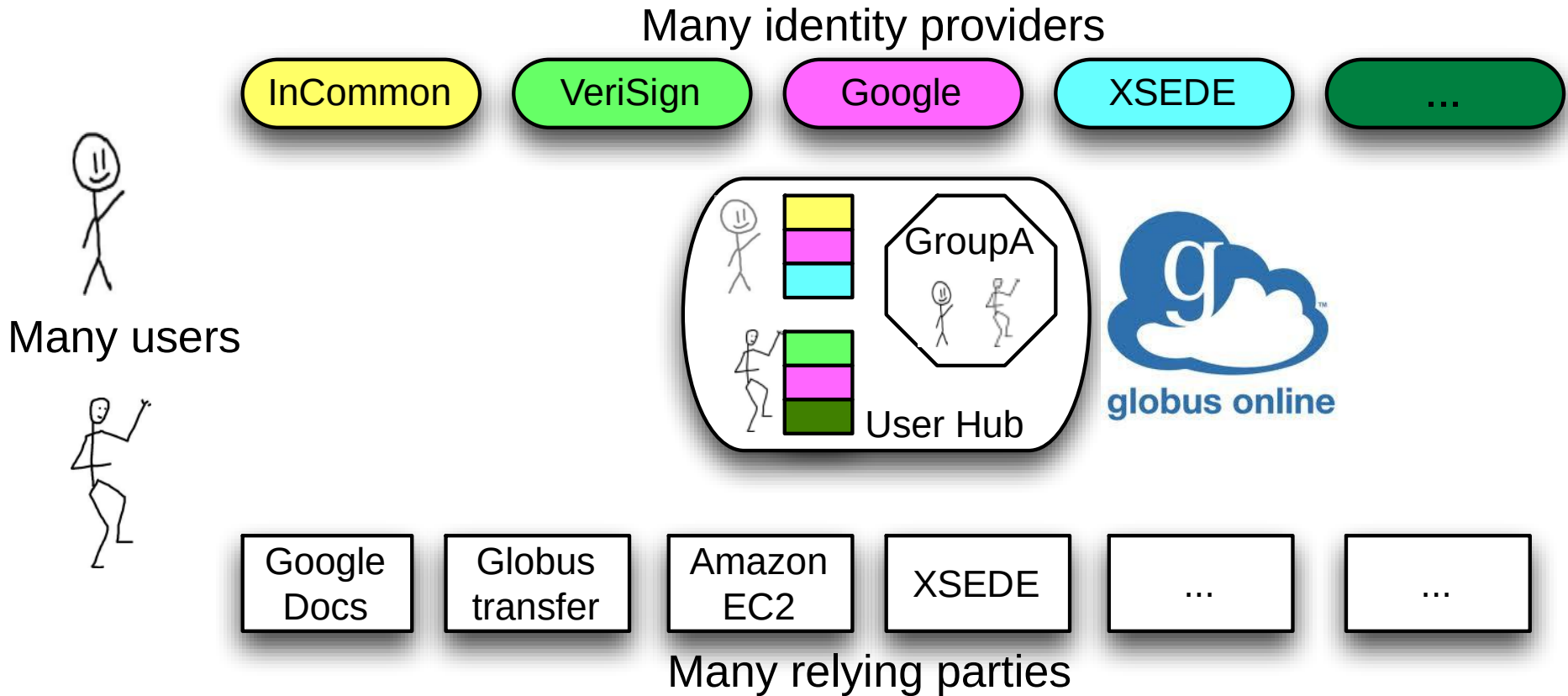
Many identity providers



Many relying parties

Multiplicity of credentials of different types and from different providers
Multiplicity of relying parties using different federated identity protocols

An identity hub as a solution



Reliable hosted service that maintains user-identity mappings
Speaks multiple protocols to simplify integration of IdPs, relying parties

- Allows user to create Globus Online identity and **link with identities** from other federated IdPs
 - E.g., InCommon (SAML), Google (OpenID), XSEDE (OAuth MyProxy), ...
- Acts as **federated IdP** to third-party services
 - E.g., Web sites, Jira, Zendesk, Drupal, Confluence
 - Via various protocols: e.g., SAML, OAuth, OpenID
- Acts as **native IdP** for third party services
 - E.g., kBase uses Globus credential as its native credential
- Caches **delegated credentials** for unattended operation
 - From, e.g., linked IdPs (e.g., XSEDE), CILogon, resource provider MyProxy server

Sign In

[Sign Up with Globus Online](#)

Use Your GlobusOnline login

[alternate login](#)

Username

ian

Password

.....

Sign In

[Forgot Password?](#)

Use Your GlobusOnline login

[alternate login](#)

Select a different login



GlobusOnline

LRZ

ARCS

NCSA

Argonne LCF 

NCSA Blue Waters 

Argonne MCS & LCRC

NERSC

BIRN

UChicago CI

CLI Transition

UChicago iBi

ESG ANL

UK NGS

Google 

WestGrid

InCommon / CILogon 

XSEDE 

Transfer Summary

Requested Today

0 active transfers.

0 transfers completed successfully.

0 inactive transfers.

0 transfers failed.

Requested This Week

0 active transfers.

0 transfers completed successfully.

0 inactive transfers.

0 transfers failed.

Lifetime

0 active transfers.

131 transfers completed successfully.

0 inactive transfers.

49 transfers failed.



File Transfer

Use your browser to move data securely and reliably.

[Start Transfer](#)

[View Transfers](#)

[Manage Endpoints](#)



My Profile

View and change your account settings, including contact information and security credentials



Globus Connect

Use Globus Connect to transfer files between your computer and any Globus Online endpoint.



SC12 – Visit us in booth 4048

(Nov. 12 – 16): Join us for a first look at new capabilities that make large-scale research data management even easier!

[Details...](#)

8 Petabytes moved using Globus Transfer as of October 30th!
Thank you to all our users for your continued support.

Manage Identities

[Add External Identity](#) ⓘ [Add X.509 Certificate](#) ⓘ [Add SSH Public Key](#) ⓘ

Alias	Type	Authentication Provider			
system-generated openid alias	openid	google.com	View Details	Update	Delete
CI	myproxy	grid.ci.uchicago.edu	View Details	Update	Delete
	myproxy	dev.esg.anl.gov:7512	View Details	Update	Delete
MBook	ssh2	SSH Public Key	View Details	Update	Delete
galaxy-climate	x509	/O=Grid/OU=DemoG...	View Details	Update	Delete
InCommon / CILogon Sign In	oauth	cilogon.org	View Details	Update	Delete

[Add External Identity](#) ⓘ [Add X.509 Certificate](#) ⓘ [Add SSH Public Key](#) ⓘ

Transfer Files

[Get Globus Connect](#)

Turn your computer into an endpoint.

Endpoint 

Go

Path

Go

Endpoint 

Go

Path

Go

Activate Endpoint: xsede#trestles



The administrator of this endpoint, **xsede#trestles**, requires that you authenticate using their MyProxy OAuth server to activate the endpoint. When you click 'Continue' you will be redirected to their website.

Please select an endpoint

Select an endpoint above.

Continue

Cancel





Extreme Science and Engineering
Discovery Environment

Welcome to the XSEDE User Portal Authorization Page

Science Gateway Access

The XSEDE Science Gateway or Service below is requesting access to your XSEDE account. If you approve, please sign in with your XSEDE username and password.

Note: Only members of active XSEDE project allocations will be able to sign in on this page.

SCIENCE GATEWAY INFORMATION

The XSEDE Science Gateway listed below is requesting access to your XSEDE account. If you approve, please sign in.

Name: Globus Online

URL: <https://www.globusonline.org/>

SIGN IN

Username

Password



Please send any questions or comments about this site to help@xsede.org.

Transfer Files

[Get Globus Connect](#)

Turn your computer into an endpoint.

Endpoint ▼ Path Endpoint ▼ Path

Please select an endpoint above.

Please select an endpoint above.

Activate Endpoint: mcs#home

Please Enter Your Credentials

*MyProxy Server *Username *Passphrase Server DN Credential Lifetime
(hours)

* Required

[more options](#)

Label This Transfer

Transfer Files

[Get Globus Connect](#)

Turn your computer into an endpoint.

Endpoint ▼

Path

select [all](#) | [none](#)

[up one folder](#)

[refresh list](#)

 ▼

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Endpoint ▼

Path

select [all](#) | [none](#)

[up one folder](#)

[refresh list](#)

 ▼

 A Folder

 ACTS_Proposal Folder

 AW Folder

 Agencies Folder

 Applications Folder

 BACKUPS Folder

 Backups Folder

 Benchmarks Folder

 Book Folder

 CCST Folder

 CRPC Folder

 Chapters Folder

 Chemistry Folder

 Chicago Folder

 ChicagoProposal Folder

 Climate Folder

 ClimatePictures Folder

 Code Folder

 DBPP_Slides Folder

 Desktop Folder

- A group links a set of Globus Online identities
 - Can then project into different linked identity spaces, if/when needed
- Allow users to **self-manage** groups
 - Naming, admission policies, membership, visibility
- Query and update via REST API
- Import and publish via LDAP
- Example uses
 - Basis for authorization in kBase
 - Manage sharing of Globus Online endpoints

Endpoint



Go

Path

Go



[select all](#) | [none](#)

[up one folder](#)

[refresh list](#)



 VG.pdf

kB

- [new folder](#)
- [show hidden files](#)
- [delete selected files](#)
- [share](#)



Manage Permissions For `ian#share`Source: `karlito#scdemo:/~/`

name

read

write

delegate

Path: /

ian Foster



start typing a user account name or UUID to add to the list above

Add

Path

/

☒ read ☐ write ☐ delegate

search for users and groups »»

Close



Find Users & Groups

cvrg



- ☐ **cvrg**
 ▶ managers ▶ members
- ☐ **BIRNCommunity**
 ▶ managers ▶ members

[« Back to Permissions List](#)[Share Endpoint With Selected](#)☒ read ☐ write ☐ delegate

Find Users & Groups

cvrg

☒ **cvrg**

▶ managers

▼ members

- ☐ Josh Bryan
- ☐ Steve Tuecke
- ☐ Lisa Childers
- ☐ Daniel Morgan

☐ **BIRNCommunity**

▶ managers

▶ members

[« Back to Permissions List](#)[Share Endpoint With Selected](#)☒ read ☐ write ☐ delegate

Find Users & Groups

cvrg

**cvrg**

managers

members

- ☐ Josh Bryan
- ☐ Steve Tuecke
- ☐ Lisa Childers
- ☐ Daniel Morgan

**BIRNCommunity**

managers

members

[« Back to Permissions List](#)[Share Endpoint With Selected](#)

read



write



delegate

Manage Permissions For `ian#share`Source: `karlito#scdemo:/~/`

name	read	write	delegate
Path: /			
Ian Foster	☒	☒	☒
 cvrg	☒	☐	☐

✔ cvrg added successfully.

start typing a user account name or UUID to add to the list above

Add

Path

/

☒ read ☐ write ☐ delegate

search for users and groups »»

- Operated as high-availability, professionally operated service
 - Runs on multiple Amazon availability zones
 - >99.9% availability
- Other services can outsource identity and group management to Globus Nexus, e.g.:
 - DOE systems biology knowledge base (kBase)
 - NIH Biomedical Informatics Research Network (BIRN)
 - Globus Online data management services

What Globus Nexus hub does not do



- Authorization (but groups and attributes provide a basis for authorization decisions)
- Provide interfaces to support extensible user attributes (but Nexus supports them)
- Support HIPAA data (but we want to)

Thank you!

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