



globus online



Integrating with Globus Online

Steve Tuecke

Computation Institute

University of Chicago and Argonne National Laboratory



Types of integration

- **Resource integration**
 - Connect campus, project, personal and cloud resources with Globus Online
- **Branded interface**
 - Make Globus Online Web site look like 3rd party site
- **Domestication**
 - Integrate 3rd party Web sites with Globus Online



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Resource Integration



Globus Connect

- **End user controlled resource integration**
 - Simple install in minutes
 - No admin privileges required
 - Works behind most NATs and firewalls
 - Mac, Windows, Linux binaries
- **Primary uses:**
 - Connecting your personal computer or laptop
 - Temporarily connecting your account on server
 - Embedded: Linux setup/shutdown can be scripted



Globus Connect Multi-User

- **What is GCMU?**
 - Make you server available as an endpoint for all your users
 - Packages a GridFTP server and MyProxy CA authentication server (OAuth soon), pre-configured for use with Globus Online
- **Why GCMU?**
 - Create transfer endpoints in minutes
 - Avoid complex GridFTP install
- **To download:** <https://www.globusonline.org/gcmu/>



"We used GCMU to form a campus-wide GSI authentication service spanning multiple servers. Now my users have a fast, easy way to get their data wherever it needs to go, and the setup process was trivial."

--University of Michigan



"As a resource admin, I've found GCMU an exceedingly useful tool.... With GCMU, setting up a GridFTP server and handling authentication for multiple users is easy."

--Oak Ridge National Lab



Firewall Friendly GridFTP (future)

- **Single port GridFTP**
 - Firewall no longer needs inbound ephemeral ports
 - TCP-based data channel
 - Connects on same port as control channel (2811)
- **NAT friendly GridFTP**
 - Allow Globus Connect to Globus Connect transfer
 - UDP-based data channel w/ STUN NAT traversal
- **Other changes (completed)**
 - MLSC: Directory listing over control channel
 - CKSM progress markers / heartbeats



Flight Control Endpoint Operations Console (soon)

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Manage Data | Support | karlito

start transfer | view transfer activity | manage endpoints | dashboard

Flight Control

Search By Task

Search By Endpoint

Active Jobs

Status	User	Req. (UTC)	Tasks	OK	Failed	BytesTX	Mbps	Retrying	Duration	Deadline	Faults	Source	Dest	Type	Sync	Task ID
OK	pseudotensor	04-03 19:09	290058	280224	0	5.414 TB	74.00	0	162:35:08	71:25:53	54	pseudotensor#ki-jmck (GC)	xsede#ranch	CLI	1	8e7e79da...

Job History

User	Completed (UTC)	Tasks	OK	Failed	BytesTX	Mbps	Duration	Faults	Source	Dest	Type	Sync	Task ID
marmar	2012-04-09 15:20:14	32	32	0	14.037 GB	154.46	00:12:07	0	tg#steele	xsede#ranch	Web	0	92665a24...
marmar	2012-04-09 15:10:07	29	0	29	0	0.00	00:03:44	8	tg#steele	xsede#ranch	Web	0	9a3ff1e8...
marmar	2012-04-09 15:02:05	29	29	0	4.444 GB	225.03	00:02:38	0	tg#steele	xsede#ranch	Web	0	ead7275a...
marmar	2012-04-09 14:51:55	36	36	0	16.561 GB	149.53	00:14:46	0	tg#steele	xsede#ranch	Web	0	079bce1e...
marmar	2012-04-09 14:42:12	1	1	0	2.314 GB	156.85	00:01:58	0	tg#steele	xsede#ranch	Web	0	7c8db1ec...
marmar	2012-04-09 14:40:25	43	43	0	6.594 GB	134.58	00:06:32	0	tg#steele	xsede#ranch	Web	0	c2a42acc...
bmse	2012-04-05 23:59:28	19466	19466	0	2.942 TB	85.26	76:40:58	2	umich#flux	xsede#ranch	Web		1486aea4...
pseudotensor	2012-04-05 03:51:26	468618	468618	0	573.569 GB	38.68	32:57:13	890	xsede#kraken	xsede#ranch	CLI	1	675308b4...
pseudotensor	2012-04-03 09:02:51	290058	290058	0	8.299 TB	199.33	92:30:58	42	pseudotensor#ki-jmck (GC)	xsede#ranch	CLI	1	53e49c32...
bmse	2012-04-02 19:19:02	77856	58141	19715	3.309 TB	71.53	102:48:11	720	xsede#ranger	xsede#ranch	Web		c56b3d68...



Globus Storage providers (future)

- **Storage providers can plug storage into the Globus Storage cloud**
 - Campuses, projects, commercial clouds
 - Provider determines usage policies and pricing
- **Globus Connect will be enhanced to make it easy to plug in storage from:**
 - Any file system
 - S3-style object stores
- **Planned: U.Chicago Isilon, S3, SDSC Cloud, Cornell RedCloud**



Globus Nexus providers

- **Identities: Allow your users to login to Globus services using your identities**
 - Currently support OpenID, MyProxy, MyProxy OAuth
 - InCommon via CILogon will be supported soon
 - Simple Web GUI for binding external identities to Globus identities
 - Pre-populate select profile attributes (future)
- **Groups: Mirror your group membership to Globus groups (future)**



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Branded interface



[SIGN IN](#) [SIGN UP](#)

Reliable, high-performance, secure file transfer by Globus Online.

Blue Waters has partnered with the Globus Online file transfer service.

You may access this service by entering your Blue Waters username and password.

NOTE - If you are accessing this file transfer service for the first time, you will be asked to link your Blue Waters account to a Globus Online account (if you don't have a Globus Online account you'll be able to create one).

Sign In

Use Your NCSA Blue Waters login [alternate login](#)

Username

Password

Sign In



BIRN Customized Web Presence

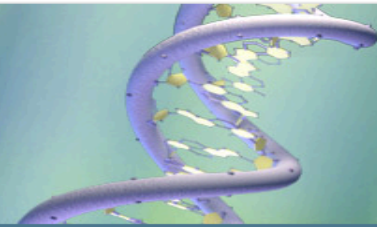
SignUp | BIRNCommunity

https://birndev.globuscs.info/SignUp

WebHome < E...t < CI Wiki Portecle: Home safari HPC in the Cloud: FreeConference BIRN JIRA GO User Services Globus Confluence Adobe Connect BIRN Wiki

BIRN
Biomedical Informatics
Research Network

ACCESS Group Management



[Browse Groups](#) | [Sign Up](#) | [Sign In](#)

Sign Up...

Already a member? [Sign-in.](#)

BIRN has partnered with Globus Online to provide us with our community platform and tools. If you already have a Globus Online account [click here.](#)

Full Name Rachana Ananthakrishnan

Email ranantha@mcs.anl.gov

Username rachanabirn4

Password Very Weak

Confirm Password

Terms of Service Last Updated: 10-Nov-2010

This is a legal agreement between you and Globus Consortium, Inc. ("Globus Online"); please read it carefully. By using or accessing this website or any website hosted at globusonline.org (the "Sites"), or by accessing or using any part of the Globus Online file transfer service (together with the Sites, the "Service"), you agree to be bound by these Terms of Service and by the Globus Online Privacy Policy, which are collectively referred to as the "Agreement". If you do not agree to these terms then you have no right to access or use the Service. The terms of this

I agree to the Globus Online Terms of use

Please email me updates about Globus Online

[Register](#)

BIRN is supported by NIH grants 1U24-RR025736, U24-RR021992, U24-RR021760 and by the Collaborative Tools Support Network Award 1U24-RR026057-01.





Features

- **Configure your headers, footers, logo, menus, sign-up text, login text**
- **Use your own domain name**
- **Single sign-on: Set the default identity provider for login**



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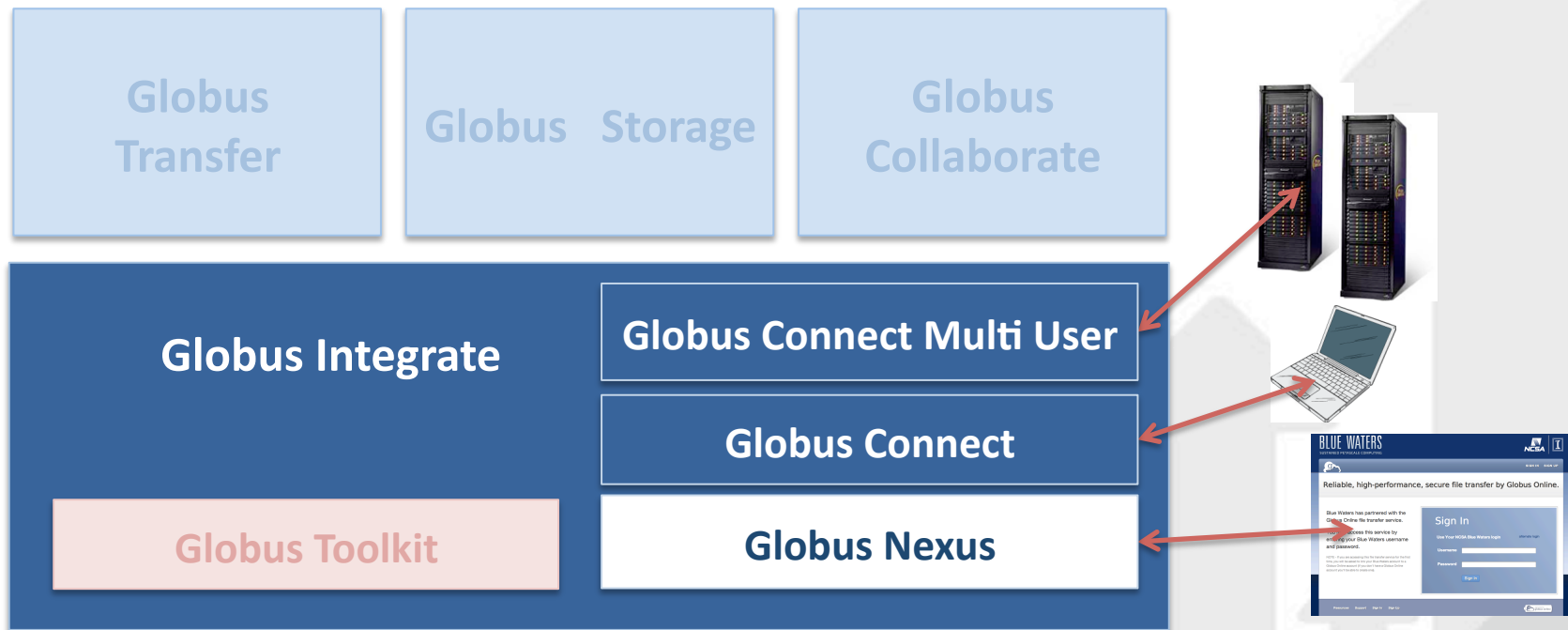


Domestication



Globus Integrate: For when you want to...

Write programs that access/manage user identities, profiles, groups, resources—and data ...



... via REST APIs and command line programs



ESGF – Portal integration

ESGF Earth System Grid Federation

OAK RIDGE National Laboratory

Home Search Browse Account Login Admin

Current Selections

(x) Institute:GFDL

Temporal Search
Geospatial Search
Turn on Distributed Search

Search

(press ESC to close suggestions) < 1 > displaying 1 to 1 of 1 search results

Search Categories

project (1)

institute (1)

model (1)

Results Data Cart

pcmdi.ipcc4.GFDL.gfdl_cm2_0.pictrf.mon.land.run1 Expand WGET Globus Online Remove

ESGF Earth System Grid Federation

Argonne NATIONAL LABORATORY

Home Search Account Logout

Globus Online Data Transfer

Globus Online Transfer: Step 2 of 3

Please choose where you'd like to move the data:

Destination Endpoint: neilm#ci-vm

Target Endpoint Path Location: neilm#go-esg

next

Model Params sent

DatasetName: anl.cssef.homme

GO Username: neilm

Source Myproxy Username: neilm

Source Myproxy Password: *****

User Certificate: /tmp/x509up_5108938099718227095.pem

Endpoints: neilm#ci-vm neilm#go-esg neilm#laptop neilm#pcmdi neilm#testep alcf#dtn alcf#dtn_test aps#clutch arm#bds2-vm1 ballen#oathabe ballen#oathathena ballen#oathbigred ballen#oathblacklight ballen#oathcondor ballen#oathdash ballen#oathdwan ballen#oathfrost ballen#oathgpfswan ballen#oathhpss ballen#oathkraken

- Outsource data transfer to Globus
 - Data download to user machine from search
 - Data transfer to another server by user
 - Replication of data between sites by administrator
- No ESGF client software needed

ESGF Earth System Grid Federation

Argonne NATIONAL LABORATORY

Home Search Account Logout

Globus Online Data Transfer

GlobusOnline Transfer Status

Your Globus Online Transfer has been started!

The transfer has been accepted and a task has been created and queued for execution.

Globus Online TaskID: f7e37822-fa70-11e0-bc85-1231381a212f

[View Globus Online Transfer](#)

Model Params sent

Error:



BIRN – Service provider



Secure access to documents

Secure access to data

Manage accounts and groups



Data Transfer
(Globus GridFTP/
Globus Transfer)

Provision accounts and groups

Globus Integrate

Globus Integrate

Wiki (Confluence)

Provision accounts and groups

BIRN Community Web Presence

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- **User facing service with Web GUI**
 - Manage my identity mappings
 - Create groups, manage membership and policies
 - Manage my profile attributes
- **Developer interfaces for using Globus as:**
 - Identity provider
 - OAuth, OpenID, REST, LDAP (restricted), SAML (soon)
 - Group provider
 - LDAP, REST, SAML assertions (future)
 - Profile provider
 - REST



REST APIs

- **Globus Nexus**
 - Graph of identities, groups, profiles, policies
- **Globus Transfer**
 - Transfer / synchronize files between endpoints
 - GridFTP and Globus Storage endpoints
 - Manage files: ls, mkdir, rm, etc.
 - Create and manage endpoints
- **Globus Storage**
 - Primary interface to a storage volume is Globus Transfer
 - Manage storage volumes
 - Access files via http(s)
- **Globus Collaborate**
 - Create and manage collaborative environments



Domesticating development frameworks

- **Simplify app creation by domesticating common app development frameworks**
 - Currently have Java and Python client libraries for the Globus Transfer REST API
- **Which development frameworks?**
 - Google App Engine, Force.com
 - Liferay, Django, Ruby on Rails
 - Drupal, Joomla
 - Others? Priority?