



globus online



Reliable, high-performance file transfer ...as a service

Steve Tuecke

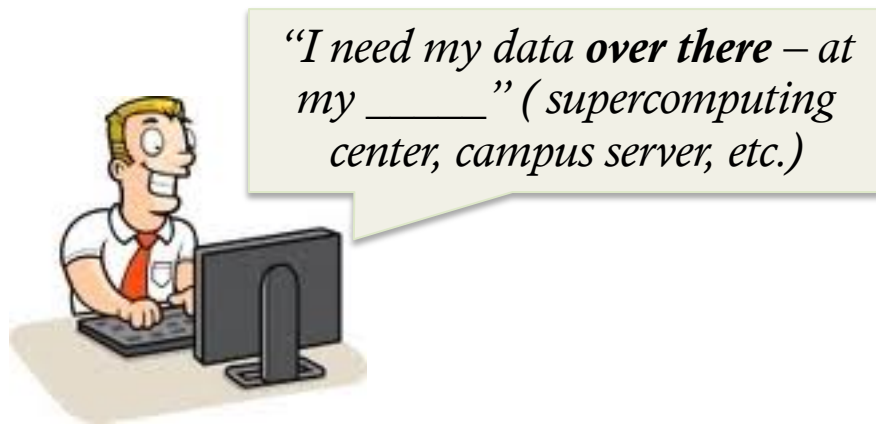
Computation Institute

University of Chicago and Argonne National Laboratory



The Challenge: Moving Big Data *Easily*

- What should be trivial...



- ... can be painfully tedious and time-consuming





What is Globus Online?

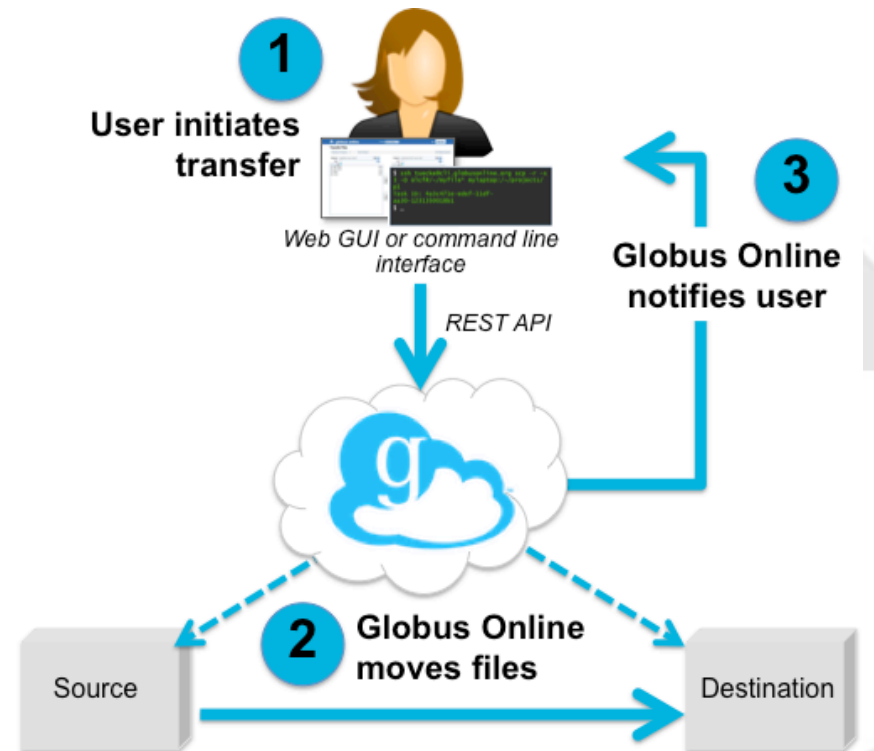
- **Reliable file transfer.**

- Easy “fire-and-forget” transfers
- Automatic fault recovery
- High performance
- Across multiple security domains

- **No IT required.**

- Software as a Service (SaaS)
 - No client software installation
 - New features automatically available
- Consolidated support & troubleshooting
- Works with existing GridFTP servers
- Globus Connect solves “last mile problem”

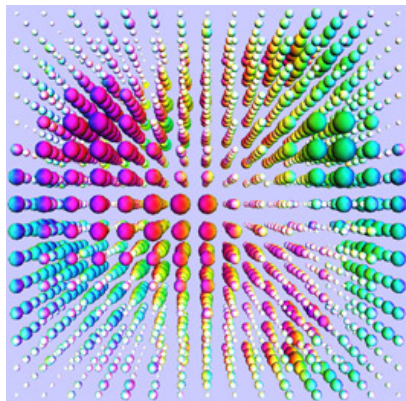
- **Supports NERSC, ALCF, ESnet, XSEDE, UCLA, U Michigan, U Miami, U Colorado, U Washington, Indiana U, ...**





Case Study: Lattice QCD

NICS



- **Fast:** Reduced transfer times
- **Easy:** Fire-and-forget transfers
 - Automated retry
 - No file pre-staging
 - No complex infrastructure
 - Convenient CLI and GUI interfaces

Indiana University researcher moved ~6 TB from Oak Ridge to TACC in 2 days

TACC



“Globus Online frees up my time to do more creative work than typing scp commands or devising scripts to initiate and monitor progress to move many files.”

“I moved 100 7.3 GB files tonight in about 1.5 hours. I am very impressed. I also like the new commands and help system.”



Case Study: Enabling Users @ NERSC

- **Challenge**
 - *“We need to provide web-based ways to accomplish computing tasks – it’s what our scientists expect. And it will make them more productive.”*
- **Solution**
 - Globus Online endpoints maintained by NERSC
 - GO = recommended transfer method
- **Benefits for NERSC users**
 - Drag and drop archiving
 - Easy to use
 - Users can focus on their research (not on IT)
- **Benefits for NERSC**
 - Operations and support outsourced to GO
 - Fast and easy to make endpoints available
 - Automated authentication
 - Reliable performance and support



“Fantastic! I have already started using Globus Connect to transfer data, and it only took me 5 minutes to set up. Thank you!” – NERSC user



Hopper, Franklin and HPSS are among the NERSC resources leveraged by Globus Online.



What they're saying...

From **Researchers**



"Globus Online frees up my time to do more creative work than typing scp commands or devising scripts to move files."

– QCD Physicist, Indiana University



"I moved terabytes of data between Kraken and XSEDE in hours, compared to the days if not weeks it would have taken!"

– Fluid dynamics researcher, Cornell University



"20 minutes instead of 61 hours – amazing! Thank you for developing this tool and making it available for XSEDE users."

– Atmospheric research scientist, University of Miami



"The service is reliable and easy to use, and I look forward to continuing to use it with XSEDE."

-- NCSA user



"We moved 22TB in a few days and got great rates."

– Argonne National Lab



"We have been using Globus Online to move tens of terabytes of data among XSEDE resources."

-- University of Washington user

Move data faster. Save time and effort. Be more productive.



"We've never seen such high transfer rates, and the service was trivial to install and use."

– IT Chief Engineer, Los Alamos National Lab



"It just makes sense to enable this for our users. With Globus Online we can offer a much simpler and faster method for moving data."

– Software Group Leader, NERSC



"GridFTP has become a critical service for us, practically overnight. Globus Online is an awesome tool."

– Senior HPC Analyst, University of Colorado

From **Resource Providers**



globus online



Globus Online Demo



Logging into the CLI

Interactive login to command line interface:

```
$ ssh tuecke@cli.globusonline.org
```

Running commands remotely:

```
$ ssh tuecke@cli.globusonline.org <command>
```

```
$ ssh tuecke@cli.globusonline.org scp -r -s 3 -D \  
  nersc#dtn:~/myfile* mylaptop:~/projects/p1  
Task ID: 4a3c471e-edef-11df-aa30-1231350018b1  
$ _
```

Using CLI with gsissh:

```
$ gsissh tuecke@cli.globusonline.org <command>
```




Globus Connect Multi-User

- **What is GCMU?**
 - Globus Connect version for easily creating shared endpoints
 - Packages a GridFTP server and MyProxy CA authentication server, 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



For More Information

- **Visit <https://www.globusonline.org/signup> to:**
 - Get a free account and start moving files
- **Visit www.globusonline.org for:**
 - Tutorials, FAQs, Pro Tips, Troubleshooting
 - Papers
 - Case Studies
- **Contact support@globusonline.org for:**
 - Help getting started
 - Help using the service
- **Follow us at [@globusonline](https://twitter.com/globusonline) on Twitter and [Globus Online](https://www.facebook.com/globusonline) on Facebook**