

# Globus Toolkit

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globus



# Globus Platform-as-a-Service



Globus APIs



...

Sharing Service

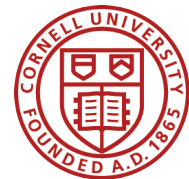
Transfer Service

Identity, Group, Profile  
Management Services



Globus Toolkit

Globus Connect





# Globus Toolkit

- **GT is an open source software toolkit for building grids**
- **GridFTP - high performance file xfer**
- **MyProxy - cred management service**
- **GSISSH - secure login / SSO SSH**
- **GRAM - remote job management**
- **Globus Connect Server - Simplified Endpoint Install**
- **Security (GSI) and Common APIs**



# How is Globus Toolkit used by the Globus service?

- **Endpoint Activation (MyProxy)**
- **Identity Providers / InCommon (MyProxy)**
- **Globus transfer (GridFTP client)**
  - xfer, ls, checksum, perf markers, ...
- **Globus Connect \* (GridFTP server, GSISSH)**



# GridFTP Highlights

- **UDT**
  - for wide area lossy networks
- **UDT and NAT traversal**
  - Globus Connect Personal peer2peer transfers
- **S3/HTTP support**
  - Support transfer to/from AWS S3
- **Improved reliability**
  - Fix for hanging server processes
- **Improved HPSS interface**



# Otherwise Maintenance improvement

- **MyProxy**
  - Minor bug fixes
- **GSISSH**
  - Minor bug fixes
- **GRAM**
  - OSG bug fixes



# Globus Connect Server

- **New component added in GT5.2 as an update (as GCMU in Feb, GCS in Oct)**
- **Simplified, coordinated endpoint setup for GridFTP, MyProxy, OAuth**
  - Can install each on separate machines
  - Globus.org endpoint definition setup
- **Meta package**
  - Setup with deps to GT components



# GT6

- **Build system overhaul**
- **Release process cleanup**
- **Alpha 1 – April/May**
- **Final – June**





# GT6 Build System Overhaul

- **Source code moved to GitHub**
- **Removed the proprietary build system (GPT), flavored libraries/headers, nonstandard source installer package**
- **Streamlined build and test process**
  - Jenkins and AWS instances
  - parallel and VPATH builds supported (including for tests)
  - many more tests are automated
  - Add support for Windows (32- and 64-bit) (cygwin and native binary zip)
- **Add support for Mac OS X (binary installer package)**
- **Add support for UDT on platforms which do not have native prerequisites**
- **Linux libraries remain compatible with 5.2.x**



# GT6 Release Process Cleanup

- **Toolkit releases / versions**
  - Focus more on individual package updates. Toolkit versions only relevant to source installer and binaries for win & mac
  - We'll create new source installers periodically
    - Roll up of new features and bug fixes
- **Simplify download choices**
  - Download yum or deb package which configures appropriate package repository for your OS
- **3 Levels of Package Support:**
  - Stable - tested, changes noted in documentation
  - Testing - tested, adds a new feature or resolves an issue, see info in the issue tracker
  - Unstable - pulled out of our build system



# Outstanding Developers!

- **Joe Bester**
- **Mike Link**
- **Jim Basney**