ilifu Online Training – Advanced

Dr Jordan Collier

ilifu Support Astronomer, IDIA, Department of Astronomy, University of Cape Town
Adjunct Fellow, Western Sydney University

Data Transfers

- http://docs.ilifu.ac.za/#/data/data_transfer

- **Do not use login node!**

- transfer.ilifu.ac.za
  - For cp, wget, scp, rsync (internal ilifu transfers / external transfers) – e.g.
    - `$ cp -ra /users/$USER/scripts/ /idia/users/$USER/`
    - `$ scp /path/to/file/<filename> <username>@transfer.ilifu.ac.za:/idia/users/$USER/scripts/`

- Globus
  - Much faster than scp and rsync
    - A few to 10 Gbps locally (e.g. SARAO archive, CHPC, local server)
    - 1.2 Gbps to Perth, 5 Gbps to Netherlands (compared to 10s Mbps)
  - Uses dedicated data transfer node (DTN)
  - Checks file integrity and includes similar functionality to rsync

Data Transfers: Globus

- http://docs.ilifu.ac.za/#/data/data_transfer?id=transfer-using-globus-online (two authentication steps)

- User-friendly globus connect built on top of GridFTP
  - GUI/web app or CLI

- Can connect any arbitrary end points
  - Server (DTN), desktop, etc for Mac OS X, Windows & Linux
  - Offers user-friendly but computationally efficient transfer service

globus connect **personal**
For researchers and
other end users

globus
connect

globus connect **server**
For network and
system administrators

Data Transfers: Globus

- Globus recommended for larger or more frequent transfers
  - Run background job from user-friend web app with file browser
  - Avoids fiddling with scp, keeping active connection, and long wait times

- Symbolic links (symlinks) aren't included
  - http://docs.ilifu.ac.za/#/data/data_transfer?id=configuring-a-transfer
  - e.g. CASA Multi-MS (MMS)
  - Can be repaired with rsync and "preserve source file modification times"

- Demo!

globus connect **personal**
For researchers and other end users

globus connect

globus connect **server**
For network and system administrators

IDIA · University of Cape Town · iDyunivesithi yaseKapa · Universiteit van Kaapstad · ilifu · WESTERN SYDNEY UNIVERSITY

THANK YOU

Dr Jordan Collier

ilifu Support Astronomer, IDIA
Department of Astronomy,
University of Cape Town

Adjunct Fellow, School of Science,
Western Sydney University

Jordan@idia.ac.za