

# Globus Tools for Transferring Data at the APS

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# Outline

Globus Online (GO)

GO - How to download data from the APS

GO - Demo

GO - How it works

Ownership and access

LDRD - Ownership and access

Progress



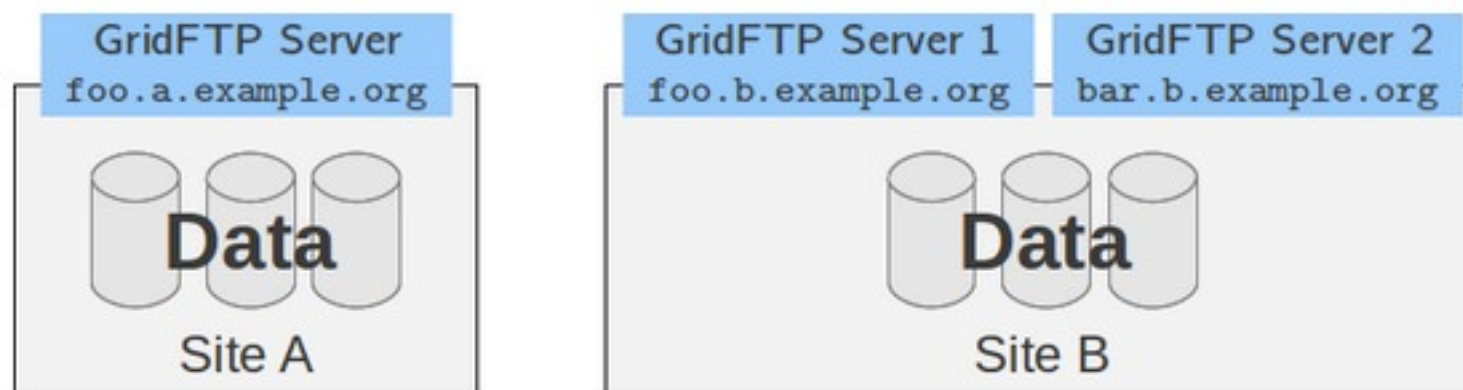


# Steps

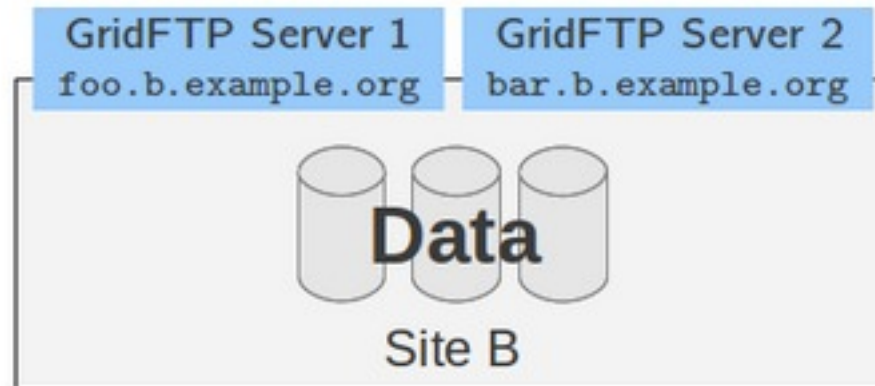
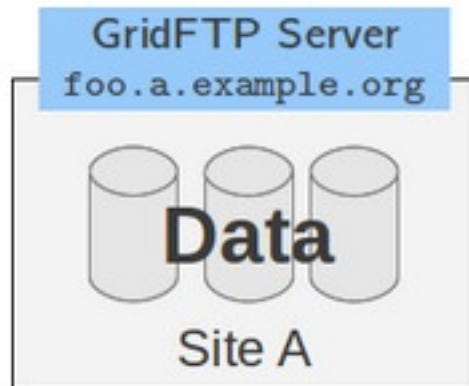
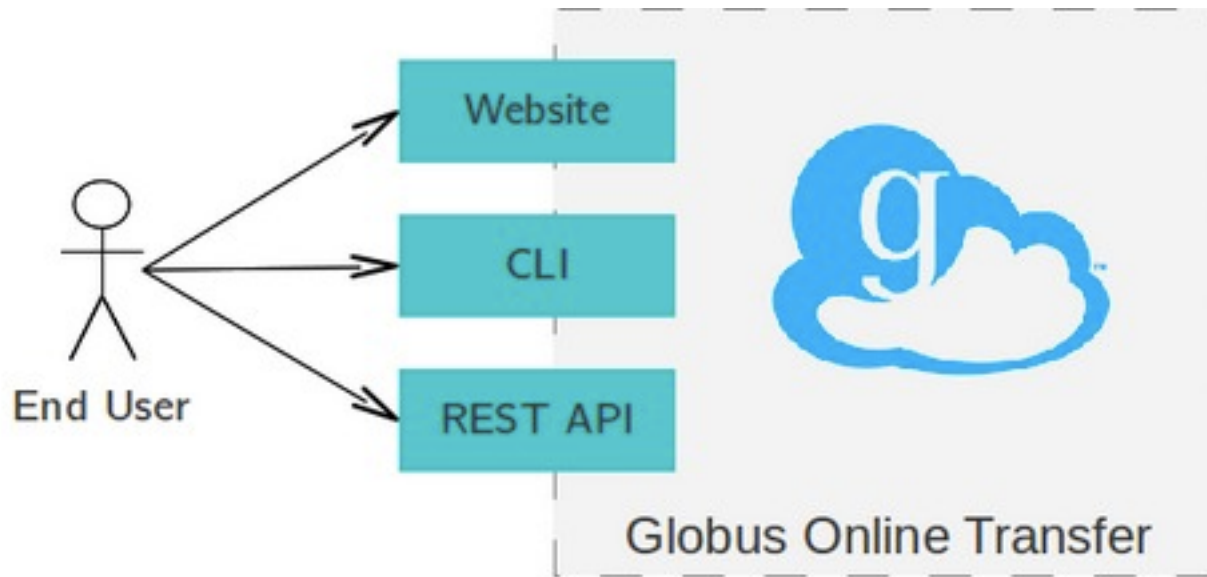
1. Create an account on [GlobusOnline.org](http://GlobusOnline.org)
2. Download and install Globus connect for your desktop.
3. Setup a Globus connect endpoint for your desktop
3. Go to [GlobusOnline.org](http://GlobusOnline.org) and click 'start transfer'
4. In the source 'endpoint', pick 'aps#clutch'
5. For the destination 'endpoint' pick the end-point name from step 3.



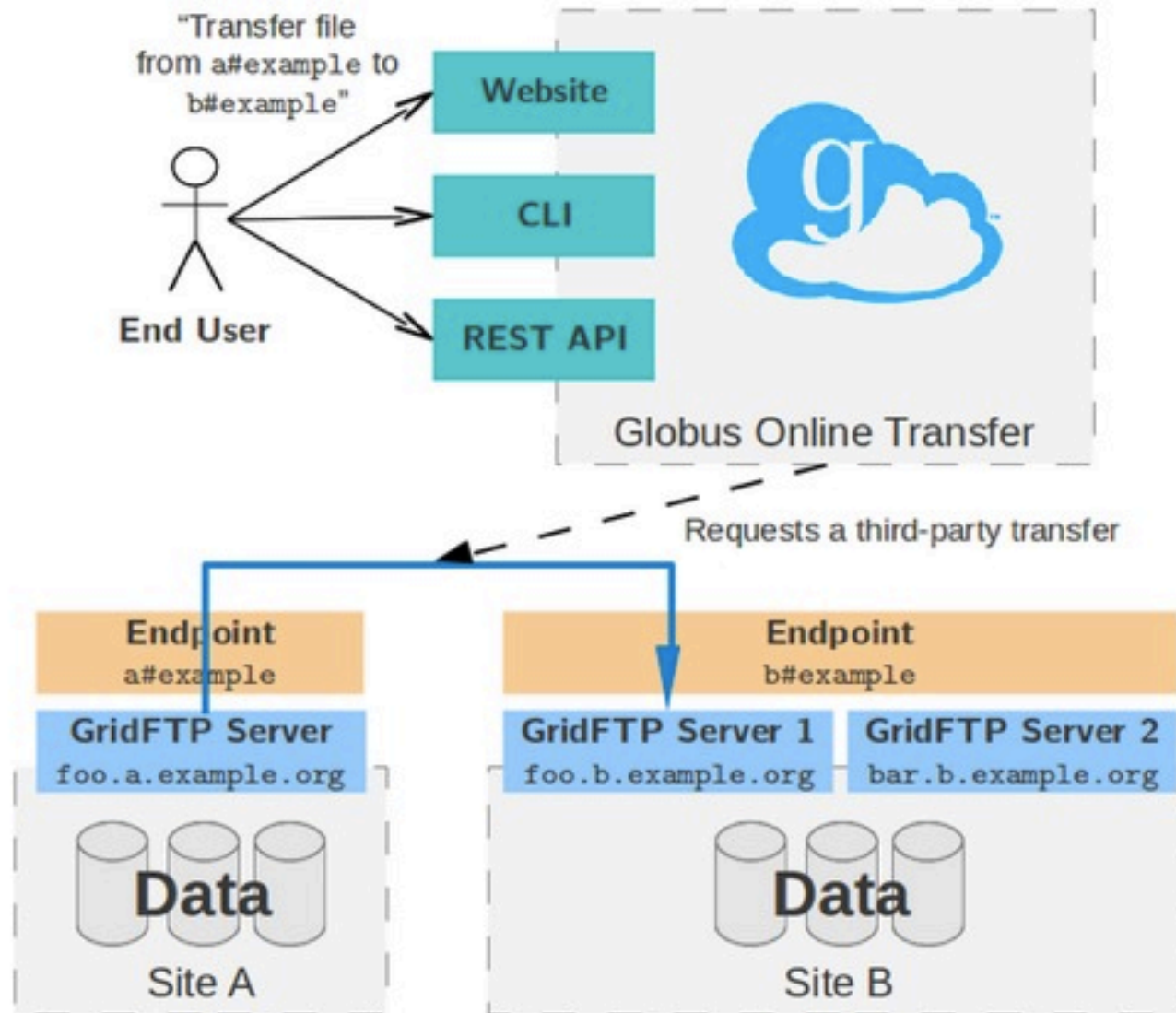
# GridFTP transfer



# Globus Online (SaS)



# GO Transfer



# Endpoints

Endpoint is logical address

A user friendly name for the underlying GridFTP server address

## Types of Endpoints

Personal - For single user, the one we setup in the demo.

Server - For multiple users, the one setup by the APS-IT





# aps#clutch

Orthros\* Cluster

43 Compute nodes

3 GPU Nodes

200TB (Fiber Channel) mounted on /data Lustre Filesystems, 2 MDS, 6 OSSes

/clhome 4 disks in a RAID 10, 997GB of space, currently 344GB available.

\*[https://wiki.aps.anl.gov/hpcu/index.php/Main\\_Page](https://wiki.aps.anl.gov/hpcu/index.php/Main_Page)



# New Hardware

**\$102K** High density storage system (plus **\$36K** from APS IT for blade chassis) **\$253/TB, 37TB/U**

HP BLc7000 chassis (10U, 16 blades)

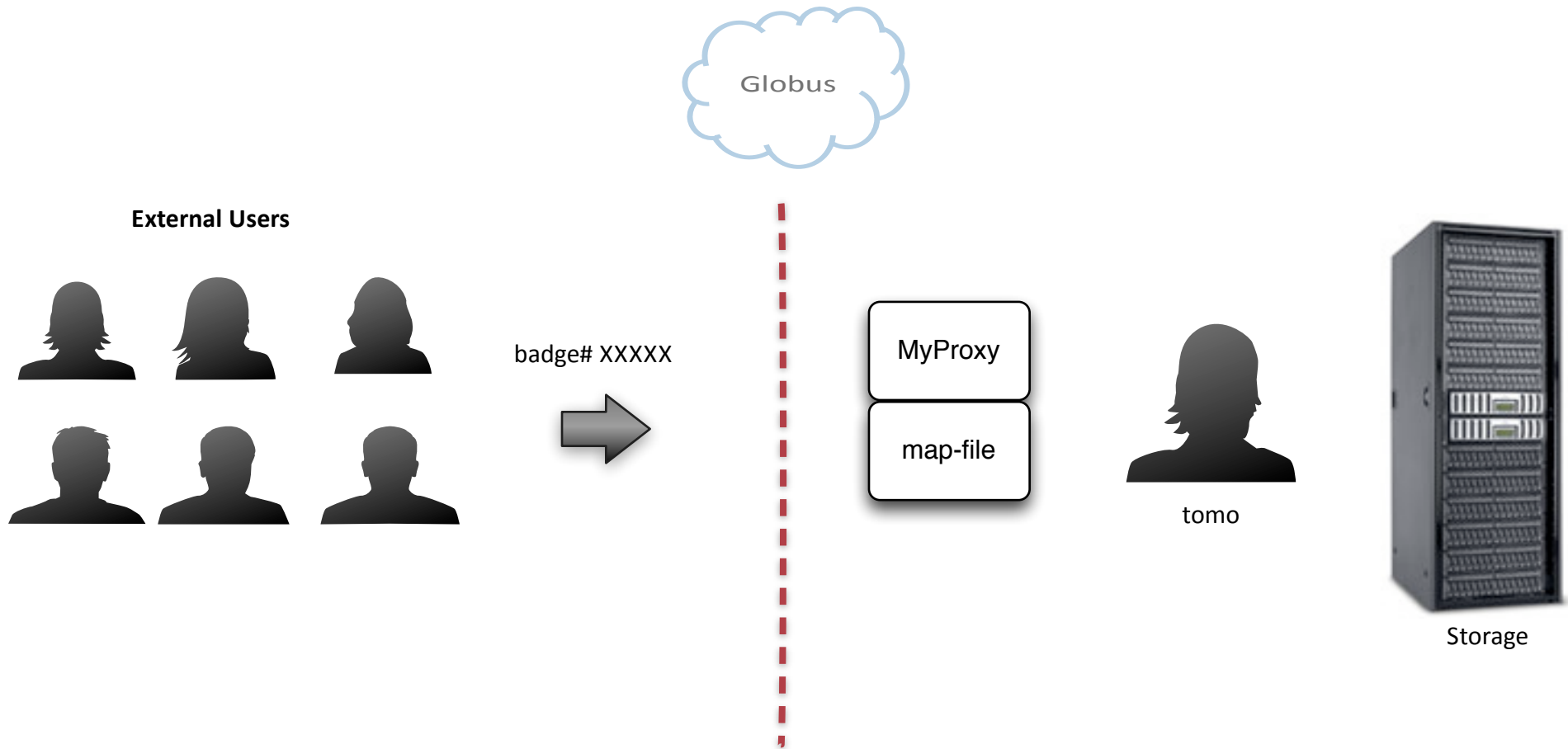
2x HP BL460c blade

2x HP D6000 storage array (70 x3 TB 7.5K RPM SAS)

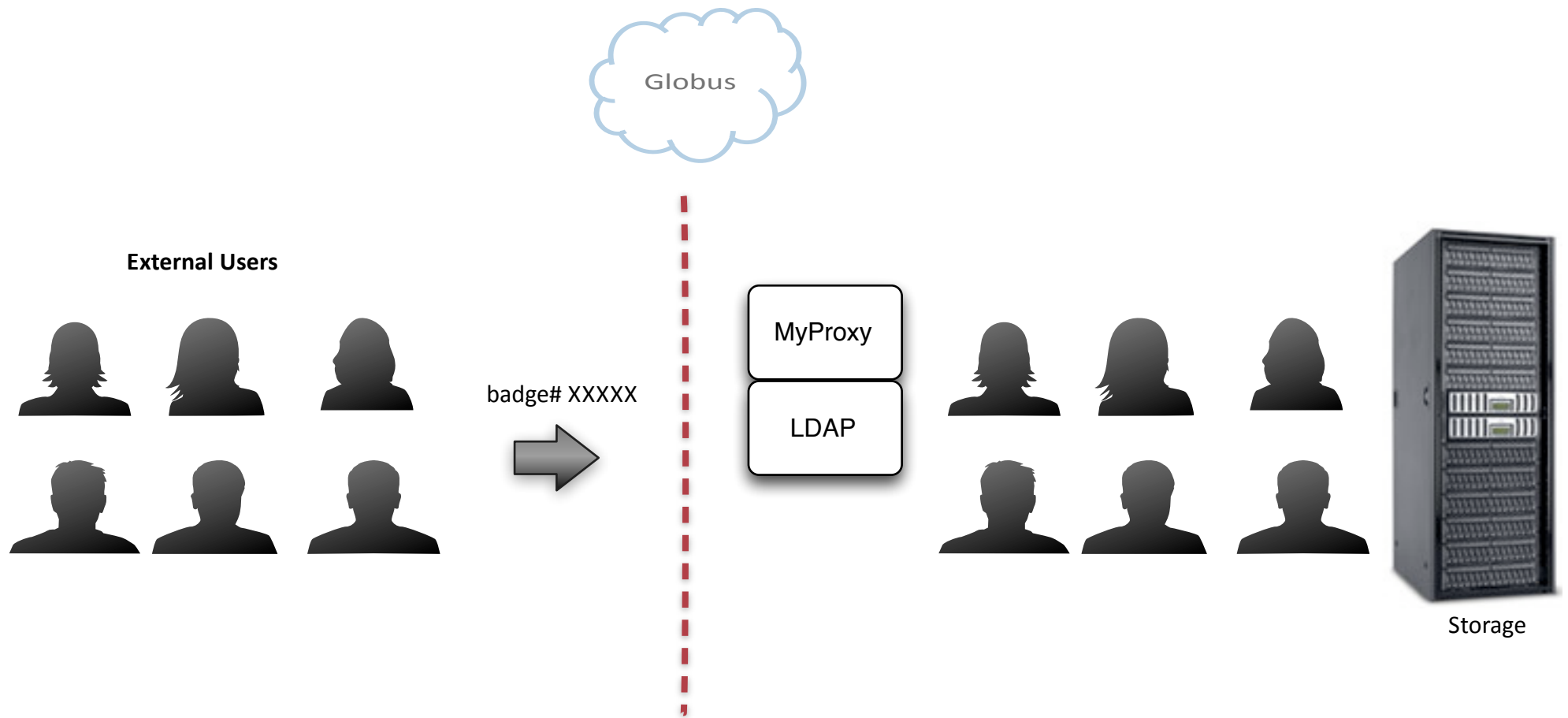
**420 TB** raw storage



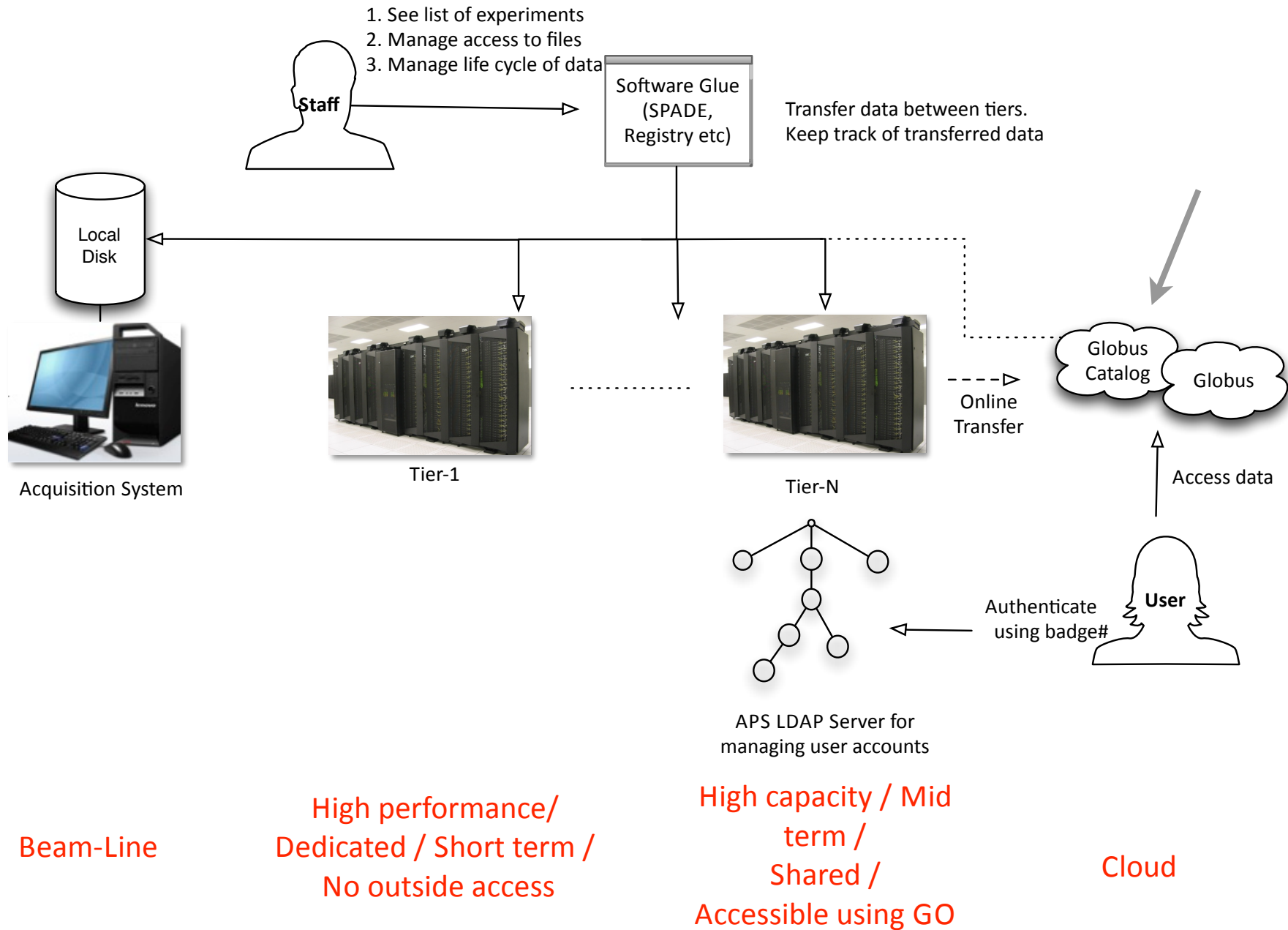
# User accounts - Current



# User accounts - Planned



# Prototype System



# LDRD Progress

<https://confluence.aps.anl.gov/display/TAO/User+accounts+-+Deliverables>



# Thanks!

