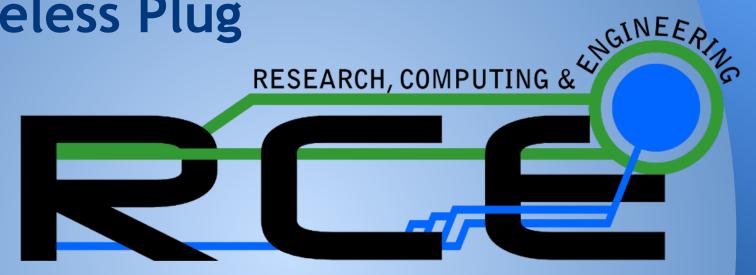
Wishing on Wavelengths

Dreams and desires of a centralized research storage provider

Brock Palen brockp@umich.edu Globus World 2013

Shameless Plug



www.RCE-Cast.com

- @brockpalen
- @jsquyres

cac.engin.umich.edu

Problems

- Scale
 - Speed/Performance
 - Management
 - Low Cost First Bit
- Security
 - HIPPA/PHI/PII/Etc

Scale - Flux

http://www.engin.umich.edu/caen/hpc/

- Supports over 100 Unique Research
 Projects
- Less than 3 years old
- Scaleable

Scale for Research Storage

- Capacity Growth
- Speed Growth
- Management Growth/Auditing
- NFSv3,NFSv4.1,CIFS,GridFTP,HDFS

Security for Research Storage

- Will get worse over time
- Encryption over the wire/Encryption at rest
- Policy needs enforcement on a per project tenant basis

Additional Problems

- Deep Archive
- Migration for upgrades