

Bridging the divide between DOE facility users and their remote data

"Using GridFTP, we moved about 1.5 TB of data from University of Wisconsin, Milwaukee to Hannover, Germany at a sustained rate of 80 MB/s."

Scott Koranda, LIGO Project

Enhanced GridFTP:

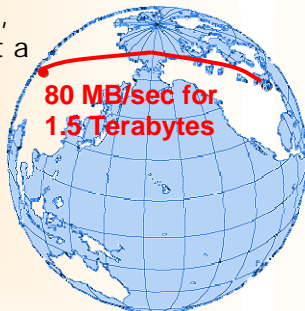
Resource management: space allocation, connection management

GridFTP over UDT

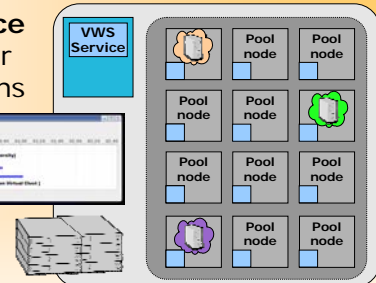
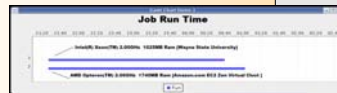
SSH security for GridFTP

Multicast and overlay routing

Pipelining for small file transfers



Workspace Service
cloud computing for scientific applications



Dynamic instantiation of STAR Images on clusters and Amazon EC2
Run your own: <http://workspace.globus.org/clouds>

"Deliver this 100 Terabytes to locations A, B, C by 9am tomorrow"

**Bridging the Divide (1):
Move Data to Users
When & Where Needed**

Policy-Driven Data Placement:

Tools to simplify data replication

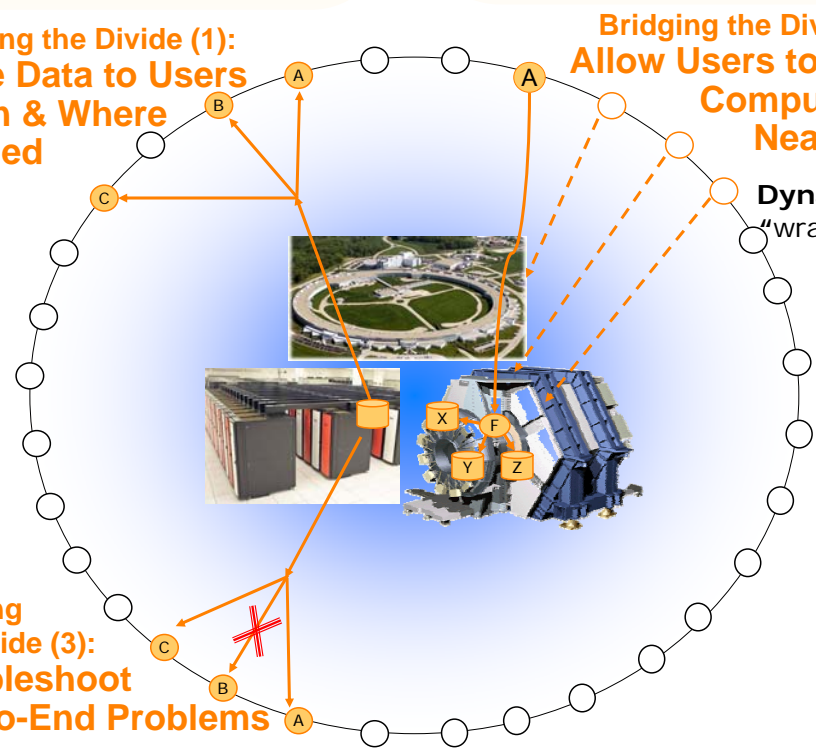
Data placement strategies that improve performance of scientific workflows in distributed environments

"Why did my data transfer (or remote operation) fail?"

**Bridging the Divide (3):
Troubleshoot
End-to-End Problems**

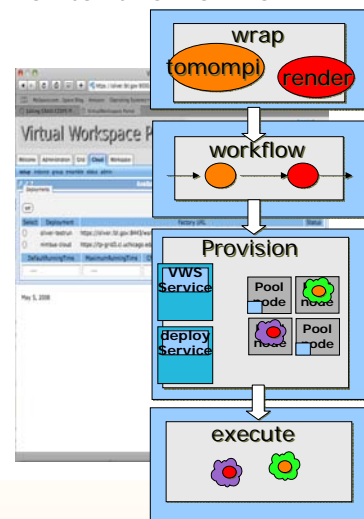
**Bridging the Divide (2):
Allow Users to Move
Computation
Near Data**

"Perform my computation F on datasets X, Y, Z"

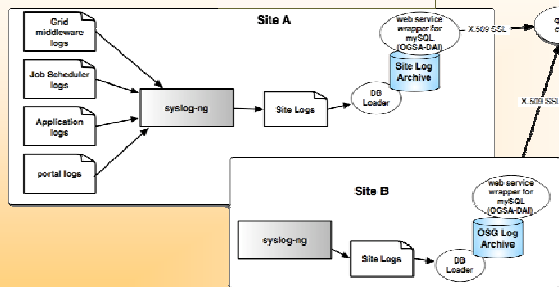


Dynamic Service Deployment

"wrap scientific apps, execute & monitor this workflow"



Log Collection Architecture



CEDPS Best Practices, Globus Toolkit logs, and syslog-ng collector answer query:
"Show me all my site's GridFTP transfers that failed or hung this week"

CEDPS Participants

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