
Lustre-WAN Update

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Lustre User Group
April 18 - 20, 2006



Teragrid



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➤ 2005:

- Installed & Configured dedicated hardware at PSC
 - 2 servers and 3TB of disk on IA32
 - small number of clients to test local and NCSA servers
- Installed and Configured dedicated hardware at NCSA
 - 2 servers and 20TB of disk on IA64
 - Discovered IA32 could not mount IA64 server environment
 - Research to how IA32 could mount; no workaround was found
 - small number of clients (IA64) to test local and PSC servers
- ORNL Installed and Configured dedicated hardware for clients of NCSA and PSC
- Initial Network Latency tests completed
- PSC servers mounted at NCSA and ORNL
- Discussion email list: lustrewan@teragrid.org with 37 current subscribers
- Access Grid meeting to get work started



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➤ 2006 (Jan & Feb) :

- NCSA reinstalled and configured on dedicated hardware - IA32 this time
- 2 servers and 20TB of disk on IA32
- IA32 and IA64 clients to test local and PSC servers
- Indiana University added as collaboration site
- Testing of data access across all 4 sites on going (IU, PSC, NCSA, ORNL)
- A second AG meeting held with all sites to work on next set of goals
- Next AG meeting in May (meet 4 times/year on AG, other contact on email list and ad-hoc)



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➤ Current Status:

- Environment:
 - Lustre Servers at NCSA, PSC with ~23 TB of disk
 - Clients at NCSA, PSC, ORNL and IU
- Security:
 - Impending CFS Kerberos - beta due in June with release for GA possibly in the fall
 - Intend to be beta tester with early release access.
 - Certificates Research - NCSA/PSC might have to do something with MyProxy
- Performance
 - 111 MB/sec (IU -> PSC), improved from 5 MB/sec
 - Goal to fill ETF link. (We believe that this is possible)
 - Plan to add more servers to achieve higher data rate.



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➤ Futures:

- Upgrade to lustre - 1.4.6 - Done March 2006
 - PSC already done; NCSA in progress.
 - Need IA64 Client from CFS.
- Enabling TG-wide access to local/lustre server pools.
- Presentation at Lustre Users Group meeting in April.
- Demo for TeraGrid '06 Conference in June.
- More hardware for servers at PSC 2Q2006
- Invited consulting and data specialist at each site to test out environment
- Begin search for Science Application Driver
 - Identifying candidates now
 - Start with user after Security is implemented (Summer 2006)
- Fall 2006 - add servers at NCSA
- 1Q2007 Friendly user



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