



Performance Testing Overview

Chen Jian
jian.chen@sun.com
March, 2008

Contents

- Release performance testing
- Feature performance testing
- Performance tools
- Issues and improvement

Release performance testings

- **What tests:**
 - > I/O: IOR(LLNL), PIOS(ours bug#11810/#13624)
 - > METADATA: Metabench (Cray)
 - > Compile: Compilebench (Oracle)
 - > Lnet: Selflnet(ours)
 - Binary file located in Its-head, export as NFS directory
- **What test scenarios:**
 - > Single file, share file, multi-single file and multi-share file with quotas on/off, using MPI
 - IOR
 - > Lustre
 - > NFSv3 over Lustre
 - > NFSv4 over Lustre
 - PIOS, Metabench, Compilebench
 - > Lnet: Selftest bug#14916

Release performance testings

- Test environment:
 - > Small configuration: 1MDS,2OSS(1OST),1Lustre_client(NFS server), 1NFS_client
 - > Network: TCP/IB/Elan
 - > Test steps: scripts
 - Setup nodes
 - Configure MDS and OSSs
 - Mount Lustre(NFS client), disable Inet debug, set stripes: lfs setstripe \$options
 - Run tests with sub-scenarios
 - Gather test data into .ods
 - Graphs
 - Upload .ods file upon release track, example

Feature performance testings

- I/O team:
 - > DARPA.HPCS.IO testing, improvement of PIOS
- Engineer:
 - > Oleg: NFS testing, RHEL4/RHEL5 blocked bug#13371, #15179, Oops issue
 - > Matt: pCIFS (support windows client)
 - > Test plan, discuss with engineers
- Test Automation:
 - > Ongoing by Minh

Test tools maintenance:

- Located in Its-head:/testsuite/tests/
 - > i686, x86_64, ia64
 - > Export as NFS
- Test tools:
 - > lozone
 - > dbench
 - > bonnie++
 - > cascading_rw
 - > MPI
 - > Others needed by type2 and acc-sm testing

Issues and Improvement

- Equipments
- Compare performance test results by Buffalo(accepted by me)
- Performance test report referring to some standard template



Thank You!
jian.chen@sun.com