

Request to install a new Xrootd production version

Reason for change

This is a request to change the xrootd server version and have a minor update of the client tools.

Server version update

We would like to upgrade the xrootd server version for the Fermi xrootd cluster from 20080828-1632 to 20090202-1402. The main change between these two versions are:

1. Improved and fixed handling of checksum requests by the server. This fixes issues that could cause checksum request to hang and large cpu usage of the xrootd server.

Due to this issue the crawler is currently not using the production xrootd but the test xrootd that runs the new version.

Client version update

The first time a xrootd client connects to a cluster it tries *FirstConnectMaxCnt* times to connect before it will fail. The default for this number is 150 but for xrd.pl it is overwritten and set to 10. Therefore a client will fail after about 3.3 min (the wait between connection attempts is 20sec) whereas with the default setting the client will fail only after 50 min. This is import as for an outage which typically last from 5-30 min we stop the redirector to avoid clients from being redirected and with the short wait time xrd.pl might fail.

Testing

As every xrootd version basic tests were done reading from and writing to xrootd, and testing the client admin interface (rm, stat, checksum,...).

The new version has been installed as a test version on the Fermi xrootd cluster which allows access to the glast data. The production crawler is using this version for more than a month.

Also skimmer jobs were run successfully against this version.

The fix to the timeout for xrd.pl has been tested. It has been verified that it will wait the expected time if a xrootd server is not available.

Rollback

To switch the servers back to the old version the xrootd configuration has to be reverted to the old version followed by a restart of the old version.

The client version is rolled back by recreating the link to the old version.

CCB Request

<https://jira.slac.stanford.edu/browse/SSC-185>

Details

Server version upgrade

cmsd logfile name change

At the same time of the restart I would like to change the logfile name for the cmsd from olbdlg to cmsdlog this requires to change the name in StartXrd.cf. glast:

1. CMSLOGFN=cmsdlog

Restart of xrootd

1. Stop the redirector
2. Restart the data servers with the new version
3. Start the redirectors

The restart should take less then five minutes. Stopping the redirectors first prevents clients being redirected and the chance that a file is not found because a data server is being restarted. The clients will wait while the xrootds are down and reconnect once the data servers and redirectors are up.

Update the client

1. Change the link `/afs/slac.stanford.edu/g/glast/applications/xrootd/PROD` from `@sys/20080728-0933/` to `dist/20080728-0933v1/@sys`

This update will not change the xrootd client binaries it will only change the xrd.pl perl script.

The directory structure of the xrootd application changed. Instead of keeping releases in `afs-sysname/release-name` they are now in `dist/release-name/afs-sysname` (e.g.: `i386_rhel30/20080728-0933v1` to `dist/20080728-0933v1/i386_rhel30`).