

Xrootd status and ongoing/future work

(1 week status report)

Pavel Jakl

STAR data distributed meeting
30th of May 2006

Outline

1 Summary of done work

2 Ongoing/future work

Summary of my done work

- setup **purging threshold** limits on development cluster
 - select $\geq 250\text{MB}$, $\text{purge} \leq 750\text{MB}$
 - don't want to touch production cluster
- DNS round robin is **not working** in current version
 - Each server (whether supervisor or data olbd) will try to connect to every one of the available redirectors. **Max is 64**
 - Once the max is reached, any new connections are directed to known supervisors
 - Supervisors have precedence is that they will displace a data olbd
 - each data olbd server should connect just one-time to supervisor (supervisor has guarantee to be connected to managers)
 - data olbd can be also connected to redirector than they must be connected **twice**

Continuing ...

- how xrootd recognizes **not working node** in terms of load balancing
 - there are two possible reasons: server is not responding or didn't give requested load report
 - server is removed out of available servers
 - link to redirector is closed and when dataserver connects again, it is requested to give a load
 - my plot shows as 100% loaded server
- **XFN** and **JFN** check is done twice
 - first each olbd server is trying to stat a file with XFN and JFN by request from redirector node
 - if none of them does have the file -> node is selected and client redirected
 - client tries open file again, first check XFN and JFN and then MSS staging in case of previous failures

Ongoing/future work

- **ACTION ITEM:** finish automatic generation of load plots
 - working on generating HTML pages
 - next step is produce 3D plot (use ROOT to draw this plot)
- plot that shows **HPSS staging**
 - will be generated automatically on website
- plot shows **server restarting** in time
 - don't know too much how to detect it
 - reading of StartXrd.log and read lines ?
- automatic saving of **ganglia plots**
 - not sure which all of them to save
 - xrootd/olbd cpu/mem and network I/O ?
 - all nodes ? or just few of them
 - using static url and wget