

# ***IN2P3dCachesetup***

*for the Tier II dCache workshop, June 2006  
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## **1. Head node setup**

Right now all head node services are located on a single machine which is a (V20Z bi-opteron 2GHz, 2GB RAM). There are plans to separate the pnfs server and its DB to another host, same hardware. The backup is done once a day with pg\_dump and saved to our TSM backup system.

## **2. Pool Nodes**

We have 13 disk servers in dCache serving about 35TB. We use various disk configuration (direct attached disk/disk array) on various hardware (Transtec bi-Xeon 4GB RAM/V40Z quad-pro 8GB RAM...). All nodes are installed under SL3. We plan to install nodes under SL4 and Solaris10 in the future. All nodes have 2 1Gb interface, 1 on the outside and 1 on the inside (workers and HPSS connection), so that GridFTP traffic does not mix with migration/stage.

## **3. Installation**

All installations/upgrades are done manually. We plan to use some automatic tools like yaim in the future.

## **4. VO's**

Nearly all pools are dedicated to VOs, only a few are shared. We use the multi queue feature to allow more client for dCap than GridFTP (for example 300 clients/pool for dCap while never more than 15-20 for GridFTP). For CMS, we have setup different pool groups for the same endpoint (pnfs directory): 1 group for incoming data (buffer for HPSS) and 1 big read-only group for analysis jobs. I think this is good configuration and we will probably do the same for other VOs.

## **5. Issues**

- x The big main issue is that dCache allows powerful configuration in the Pool-Manager but this is impossible to publish this in the LCG schema.
- x The other issue is the difficulty to maintain and upgrade a big number of disk servers (configuration files, pools...)