NAF Status

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NAF Status Report
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DESY

Issues since last NUC

> Scheduler issues

- Each job writes a script file to one AFS directory

- An AFS directory can contain a maximum of ~64k files

- … not accepting any more jobs

- Solution: Put the directory to a local storage

- Consequence: Cannot use failover batch master easily

> Currently ongoing:

- Maintenance work on power circuits ("Not-Aus") in CC4

- … hope everything goes well

> Have found some systems with erroneous RAID-0 disk configuration

- One by one reinstallation … unfortunately also some WGS

> gLite UI for SL5 from DESY in AFS is history

Issues since last NUC

> Questions about #job of different VOs

  - Could be explained by higher memory needs from one VO
  - Some users explicity asked lonq.q@sld5 … but only few resources available

> Long-running / high-mem script malfunctionning

  - Typo in the script … fixed
  - BTW: Now responsible naf-VO-support email list is CCed

> SONAS issues:

  - Sometimes SONAS hangs for some time (some minutes)
  - Was finally tracked down to a bug
  - First half is fixed in the code of minor version introduced Friday last week
  - Second half of the fix only with next major version

> Login/AFS troubles Monday evening: FibreChannel work with unexpected side effects

Batch migration to SL6/Puppet

> … was announced for last week

> We postpone this upgrade until SL 6.6 is out and some mayhem has settled down

> … probably next week of Nov. 23rd

> Will announce this shortly before we begin

  ▪ … but decommissioning of ~60 SL5 nodes has started already to make space for new hardware

> We will introduce a switch –l puppet=false for the legacy configuration

> -l puppet=true will be the default

> We will reinstall SL6 machines as soon as possible, in the meantime, the legacy nodes can be used

dCache news

> End of October: CMS SE

  - New hardware for head nodes

  - New golden dCache release 2.10.9

  - Testing NFS v4.1 access from Grid, currently starting small

> Today: ATLAS SE

  - New hardware for head nodes

  - New golden dCache release 2.10.9

  - No NFS v4.1 tests planned

> DESY SE: No date planned, beginning December possible

  - Belle and DPHEP: Some additional space to be commissioned within next days

> ATLAS and CMS: Currently no space issues observed

DESY

Infrastructure for CMS CUPS School this week

> Created ~50 school accounts

> Created 6 WGS

> SONAS File Set

Some technicalities about Linux-Groups and NFS

> You know the UNIX ACLs: User/Group/Others

> You know that there is a primary group, and people can have secondary groups

> Sharing data within a subset of people can be done using a special secondary group

  - E.g. af-atltop, …

> Caveat: Cannot be extended indefinitely!

  - The NFS client tells the server which secondary groups a user is in

  - The NFS server decides upon this whether access is granted

  - However: The client only transmits a maximum of 16 secondary groups

  - … if the 17th would be the first match: Bad luck

> Currently not a problem … but be warned!

  - Do not plan to create fine-grained ACLs with secondary groups and NFS

  - Alternatives to NFS v3 exist, but are not within reach for us

Some technicalities about shells and environments

> Problem: Depending on exact job configuration, the command "module" might not be available on Puppet SL6 nodes

> Why? Several mechanisms to source user and system profile files, not all run in all configurations

> "module" is a shell function, and needs to be sourced

> This can/should be done explicitly within the job in the job script file, then it will work in any case:

- BASH/ZSH: . /etc/profile.d/modules.sh

- (T)CSH: . /etc/profile.d/modules.csh

- … somewhere in the first lines of the script