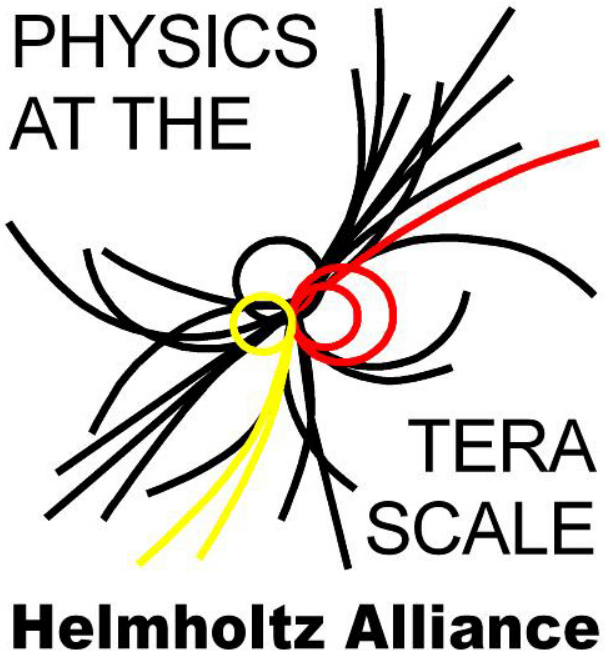
NAF Status Report



Andreas Haupt, Yves Kemp
NUC, 11.12.2013

HELMHOLTZ ASSOCIATION

DESY

Problems last month

- NAF 1.0: One user requesting 15 GB RAM per job
- SGE reserves the RAM – resulting in ~950 jobs on ~1600 cores
  - Users observing “low job throughput” or similar, suspecting malfunctioning
- Lessons:
  - Users should control their RAM usage (~8 GB effectively needed)
  - Can happen again at any time
  - #cores is not the only metric how to measure the size/performance of a cluster

Problems last month

- CVMFS
- Problem at CERN, affected ATLAS and CMS clients on NAF 1.0 and NAF 2.0
- Reload helped
- Only native CVMFS clients seemed to have been affected

- On other occasion, one CVMFS-over-NFS was troubled – wrong (old) file was served
- Needed a hard remount of another server

- CVMFS seems easy, but problems have a much wider impact when they occur

Problems last month

- NAF 1.0: Login VM troubled
- Running currently with one login VM per experiment
- Sometimes memory limits are hit – connections unstable

Problems last month

- NAF 1.0: Login from Ubuntu Laptop to NAF 1.0 not working
- Problem: Grid-UI not supported on NAF 1.0

- Solution: Either pass through DESY-PAL or
- Move to NAF 2.0

Problems last month

- /nfs/dust/… not visible
- We use the automounter for mounting
- “Tab”bing to the directory will not work – you must explicitly access the directory or files in it

Problems last month

- NAF 2.0: ILC WGS unresponsive – needed reboot because of memory leak by one user
- Reboot
- Deployed configuration to help the OOM killer in such circumstances to earlier kill the process running wild

- NAF 2.0: CMS WGS unresponsive – configuration process running wild, filling /tmp completely, no login possible

Monte Carlo School

- Monte Carlo school in Munich hosted on NAF 2.0

- ~90 generic school accounts
- AFS group directory
- 5 WGS for interactive login

- Worked well
- Easy setup

- NAF 2.0 much better suited for schools than NAF 1.0
- If you plan schools/tutorials/workshops – contact us!

Belle:

- BELLE reading data via NFS v4.1 from dCache since some months
- Since 3.12. dCache is mounted on BIRD/NAF 2.0 on all SL6 nodes

- No disturbances of batch nodes or dCache server observed
- However, not all jobs ran through
  - Under investigation
  - Could also be application “feature”

- … but first real-world large-scale user analysis is promising

LHCb

- Discontinue support in NAF 1.0 on Zeuthen site with end 2013
  - WGS, Compute-Farm, Lustre, dCache to be shut down
- LHCb to use NAF 2.0 in Hamburg
- Starting with SL6 WGS in Hamburg and batch (since yesterday)
- Storage setup currently under discussion
- Grid in DESY-HH basically also ready for LHCb. Eventually start with Zeuthen-dCache as default SE for some transition period?

NAF 2.0 batch monitoring

- Have been testing Splunk – will drop this option
- Currently investigating Logstash/ElasticSearch/Kibana
- No fast result though

- Use http://bird.desy.de/status/ in the meantime

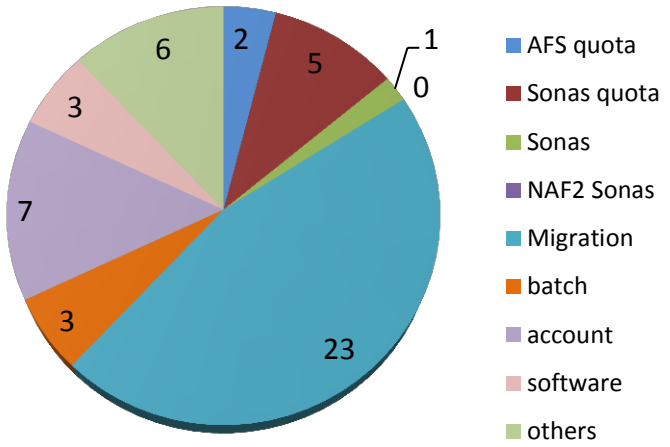
WN batch migration

- Stick to plan presented in last NUC

- … have not yet started migrating the “december bunch” … will start on Friday

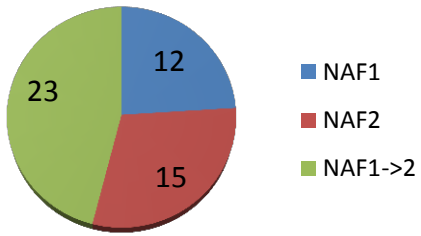
Naf-helpdesk@desy.de (Nov 1st- Nov 30th 2013)

Category of Requests

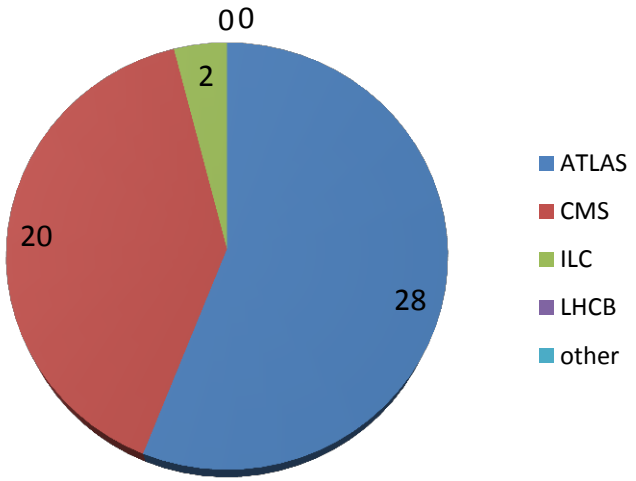
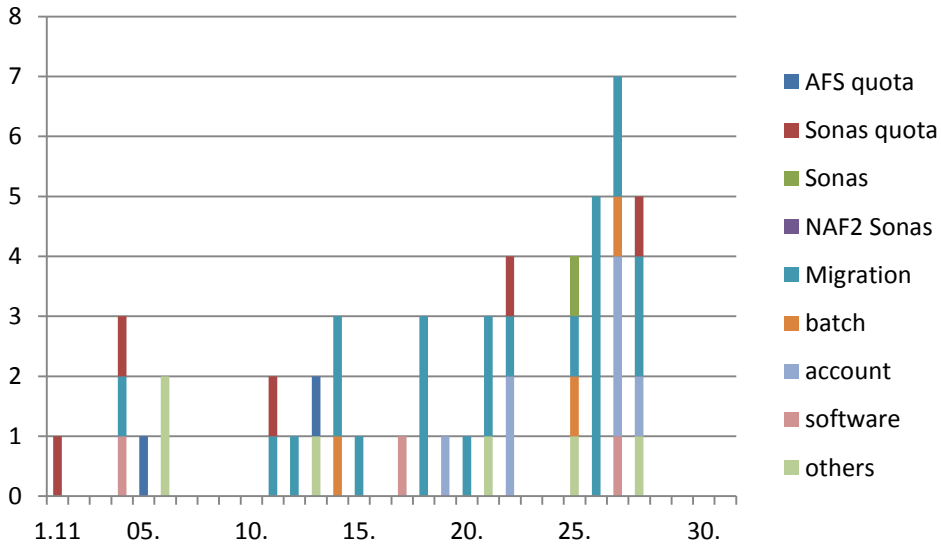


50 tickets in total

Many Accounts migrated NAF1 -> NAF2



Requests by Experiment



Date/Category of Requests