

# **1) NAF Operations: Status**

## **2) dc-Tools for /pnfs replacement**

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**DESY**

**NUC 8.10.08**

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# Status NAF: Issues and News



- **General comment:**
  - Only few problems / issues
- **Lustre:**
  - Still running old Kernel/Client
  - Reboot needed (see “maintenance window”)
  - Improves reliability
- **Grid Batch**
  - DESY-ZN now also supports German subgroups and has dedicated fairshare according to NAF resources
  - One more reason to use VOMS!!!
- **SGE local batch: Queue reconfiguration**
  - 1h: For testing purpose: Oversubscription: Always free slot
  - 12h: One slot/core. Allows better realization of fairshare
  - 48h: #core-1 slot/machine: Allow shorter jobs to bypass long ones

# Issues and News (2)



- **User AFS Quota:**
  - NAF operators cannot decide: Experiment duty
  - 200 GB AFS private space for users not foreseen
    - Can Lustre or dCache be used as alternative?
- **Resources:**
  - New worker nodes (both interactive and Grid-part)
  - New storage hardware to come in next week(s)
  - Lustre in Zeuthen approaching completion
- **Monitoring: See Life-Demo by Kai**
- **Login from Mac-Leopard possible (with AFS client)**
  - `source /afs/desy.de/group/grid/UI/VDT/setup.sh`
  - **Loads minimal set of needed commands**

# Questions from Ops to NUC

- **Handling of maintenance work**
  - **Proposal: Monthly maintenance windows (e.g. first Thursday of a month). Actual planned work announced one week in advance, with detail of affected systems. Announcement to [naf-announce@desy.de](mailto:naf-announce@desy.de) and NUC**
- **Removal of alias**
  - **<experiment>-wgsNN.naf.desy.de**
  - **<experiment>-wgs.naf.desy.de**
  - **Overview of available WGS: /usr/bin/wgsinfo**
  - **Is this OK, and can we remove the aliases?**



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# **dc-Tools for /pnfs replacement**



# Problems with /pnfs

- /pnfs export has lead to performance issues affecting a whole SE
- Security issues: As “secure” as a NFS v.2 mount (I.e. relying on UID/GID)
  - Anyone can fake that one
  - Problem of the underlying dcap protocol
- Experiments want a fast namespace browser
- Solutions:
  - Implement something “like /pnfs”, but without an NFS mount and GSI security
  - Replace dcap with gsidcap

# Phase 1: the dc-Tools

- **Can be found under (still in beta phase)**
  - `/afs/desy.de/group/it/services/dcache/bin`
- **Consists of a set of client tools and a client configuration**
- **And a server which gathers information about the status of the SE**
- **All a user should need is a valid proxy**
- **Programming done by summer student Malte Nuhn, bug reports to Yves Kemp**

# Phase 2: dcap → gsidcap

## ■ Proposal

- Use the dc-Tools (still in beta phase) until NUC 10.12.08 → Evaluate there
- Switch off /pnfs if dc-Tools are valid replacement
- Evaluate the possibility of switching off the dcap doors
  - Test gsidcap in the mean-time
  - Status of integration in experiment frameworks



# Screenshots: “ls” command

Bugreport filed

Filesize

DESY-HH Atlas path

```
kemp@tcx040]~% /afs/desy.de/group/it/services/dcache/bin/dcls /pnfs/desy.de/atlas
d? (usr) (grp) 512 (date) analysis
d?? (usr) (grp) 512 (date) archive
d?? (usr) (grp) 512 (date) atlasdisk
d?? (usr) (grp) 512 (date) atlasproddisk
d?? (usr) (grp) 512 (date) dq2
d?? (usr) (grp) 512 (date) generated
d?? (usr) (grp) 512 (date) other
d?? (usr) (grp) 512 (date) tier2
d?? (usr) (grp) 512 (date) users
-rw (usr) (grp) 1722 (date) test
-r- (usr) (grp) 257322906 (date) dump-atlas.syncat
-r- (usr) (grp) 257322906 (date) dump-atlas.syncat-20080930
-rw (usr) (grp) 209577590 (date) dump-atlas.syncat-20080909
-rw (usr) (grp) 209709195 (date) dump-atlas.syncat-20080911
-rw (usr) (grp) 6717799 (date) dump-atlas.syncat-20080917
kemp@tcx040]~%
```

Only meaningful info

Information not meaningful  
With certificates and VOMS

Request for enhancement  
For dCache gridftp server

# More screenshots”



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```
Terminal — gsissh — 65x16
[ykemp@tcx030]~% ls -l /afs/desy.de/group/it/services/dcache/bin
total 25
-rw-r--r-- 1 16352 1000 2211 Oct  8 11:40 config.xml
-rwxr-xr-x 1 16352 1000  816 Sep 29 12:42 dcCheckProxy
-rwxr-xr-x 1 16352 1000  769 Sep 29 12:44 dcDcapLibs
-rwxr-xr-x 1 16352 1000 1457 Sep 29 12:19 dcdel
-rwxr-xr-x 1 16352 1000 1560 Sep 29 12:23 dcget
-rwxr-xr-x 1 16352 1000 1337 Sep 29 12:20 dcIs
-rwxr-xr-x 1 16352 1000 1539 Sep 29 12:47 dcmkdir
-rwxr-xr-x 1 16352 1000 1693 Sep 29 12:44 dcPrepare
-rwxr-xr-x 1 16352 1000 1572 Sep 29 12:25 dcput
-rwxr-xr-x 1 16352 1000 1542 Sep 29 12:48 dcrmDir
-rwxr-xr-x 1 16352 1000 1300 Sep 29 12:19 dcurl
drwxr-xr-x 4 16352 1000 2048 Sep 28 21:43 inc
drwxr-xr-x 2 16352 1000 2048 Oct  1 15:25 postprocess
[ykemp@tcx030]~% █
```

```
Terminal — gsissh — 69x9
[ykemp@tcx030]~% /afs/desy.de/group/it/services/dcache/bin/dcls /
The following regular expressions are configured:
^(/pnfs/desy.de/atlas)
^(/pnfs/desy.de/cms)
^(/pnfs/desy.de/ilc)
^(/pnfs/ihf.de/acs/grid/atlas)
^(/tb005)
ERROR: No directories matching! stopping.
[ykemp@tcx030]~% █
```