



NAF Status

- **Where are we?**
- **An update**

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The CVMFS story ... update

- > Now all SL6 clients with native local client
- > SL5 clients still using CVMFS-over-NFS
 - Caveat: CVMFS-over-NFS now is deprecated at DESY, and running on unsupported hardware
 - Until now, no major problem observed with native CVMFS



SL5 issues

Applications Places System Mon Jun 20, 12:11 PM Ladislav Bodnar

Accessories >
Graphics >
Internet >
Office >
Sound & Video >
System Tools >



- > SL5 is still around
 - some WGS (majority is on SL6)
 - WNs (majority is on SL6 ... and increasing)
- > No support for Grid User Interface
- > SL6 has many compatibility libraries
 - ... and if some are missing, we might be able to install them, ask us
- > There should not be a need for SL5 anymore
- > **Addendum 2015: RedHat does not fix all vulnerabilities anymore! REALLY move away from SL5!**



And more modern RHEL derivatives?

- > Now all SL 6 machines are streamlined, and Puppet configurations
- > RedHat Enterprise Linux 7
 - Recompilation is there. We call it EL 7 ... to mask the (extremely small) difference between ScientificLinux and CentOS 7
 - Try pal-el7.desy.de



Supporting schools and workshops

- > NAF 2.0: Normal account+password
 - Easy: DESY has school accounts
- > Futher infrastructure:
 - Easy to deploy handful WGS dedicated to school (have done for up to 6)
 - Configure special share and priority in batch if needed
 - Temporary space on AFS or SONAS
- > Take-home-message: Ask us if you plan a school in the Terascale context and need a computing infrastructure
- > ... and please: Once you have sucessfully managed to use school infrastructure, please get a *real* NAF Account



- > Last year we said: “We plan for renovating batch system in 2015”
 - Must-haves: AFS&Kerberos support, fairshare and priorities, single&multi-core jobs, parallel jobs, eventually something like array jobs,...
 - Will differ from current setup in some points ... will present a “translation table”
- > This year we say: We are actively planning to migrate to HTCondor
 - Plan: Start with a pilot system for Grid (integrated with ARC CE) ... now
 - Migrate as we learn how to operate Grid HTCondor environment
 - Once AFS and Kerberos integration in HTCondor is done: BIRD pilot (~mid 2016)
 - Evaluate whether BIRD and GRID cluster can be combined with HTCondor
- > ... and the usual “we always exchange hardware and add more power”



Monitoring & Documentation

- > Batch: <http://bird.desy.de/status/>
 - Further work on batch monitoring once “the new batch setup” is clear
- > WGS:
 - Long-running jobs: Users are alerted as well as group responsables
- > General: ~~Ganglia~~ Recently upgraded general IT monitoring to ICINGA.
 - Will investigate how to use this product for monitoring
- > NAF: Now has a wiki: <http://naf-wiki.desy.de/>
 - Users are invited to add what they think is missing



- > SONAS hardware and software will run out of warranty, and getting tight in space
- > Do not want to renew and enlarge, but want to change the product
- > Currently focussing on two alternatives
 - Internal decision probably end 2015/early 2016
 - Procurement and start of replacement ~2016Q2
- > Migration plan:
 - We currently plan to migrate one large experiment, and allocate the rest in SONAS to the other large experiment
 - After one year, extend the new system to host the other large experiment
 - Smaller experiments will be migrated when appropriate
 - We plan to migrate „transparently“ ... We will migrate data from users
 - ... Or should we think about „only copy stuff accessed within last N month?“



SONAS unused files

Experiment	Total size in TB	fraction <6 month	fraction 6 month < 12 month	fraction >12 month
<u>atlas</u>	323.963	40.5633	20.6675	38.7692
<u>belle1</u>	11.9711	26.7941	28.3244	44.8815
<u>belle2</u>	2.48826	74.8121	9.17163	16.0162
<u>cms</u>	245.155	37.1555	25.113	37.7315
<u>h1</u>	9.74006	58.0521	27.879	14.0689
<u>ilc</u>	84.8662	34.4354	8.31249	57.2521
<u>lhcb</u>	1.57558	56.7446	43.2554	0
<u>zeus</u>	4.35147	11.654	50.2019	38.1441
Total	683.336	38.6418	21.1866	40.1716

<http://www.desy.de/~kemp/sonasusage/overview.html>

... Some month old, but has anyone reacted?

IT is asked by external reviewers to clean up ☺





- That was a status update
- Future?
- What do you want from the NAF in 2016?
- How would you like to see the NAF in 2021?
- ... We listen to you!

User comments / discussion (live notes during meeting)

> SONAS migration

- Contact users with significant „old, unused“ data before migration and ask them to clean up

> Financing secured?

> NAF prepared for more data-intensive jobs?

- Performance numbers on per-job basis
- Datasets will grow

> Disturbance: Memory limits on nodes

- 4 Gbyte is a nuisance
- Rethink memory

> Core/Htcore

- Watch CPU/WALL Time ratio

> Think about integrating external Cloud resources for MC

