NAF Status Report

Untertitel der Präsentation

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NUC, 14.05.2020

HELMHOLTZ SPITZENFORSCHUNG FÜR GROSSE HERAUSFORDERUNGEN

DESY.

Grid UI on EL7 systems

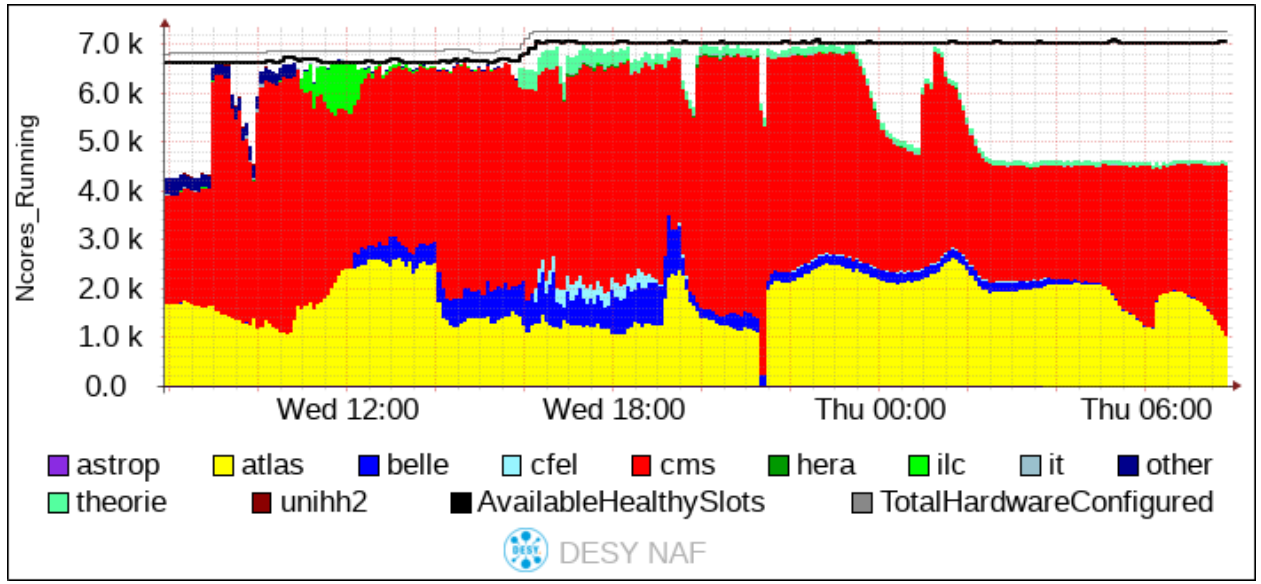
- History:
  - the Grid UI (voms-proxy-* etc) was set up from a CVMFS location at CERN
  - Problem: relying on a 2.7 Python
  - Conflicting with user setup of 3x Python
- Now:
  - Grid UI setup remains like this on SL6 (since Python 2.7 anyway, and will disappear in 6 month)
  - Grid UI setup has been **removed on EL7**
  - `Note: Grid commands can be set up via 'source /cvmfs/grid.desy.de/etc/profile.d/grid-ui-env.sh'`

NAF: Status of WGS: Case of the virtualized WGS

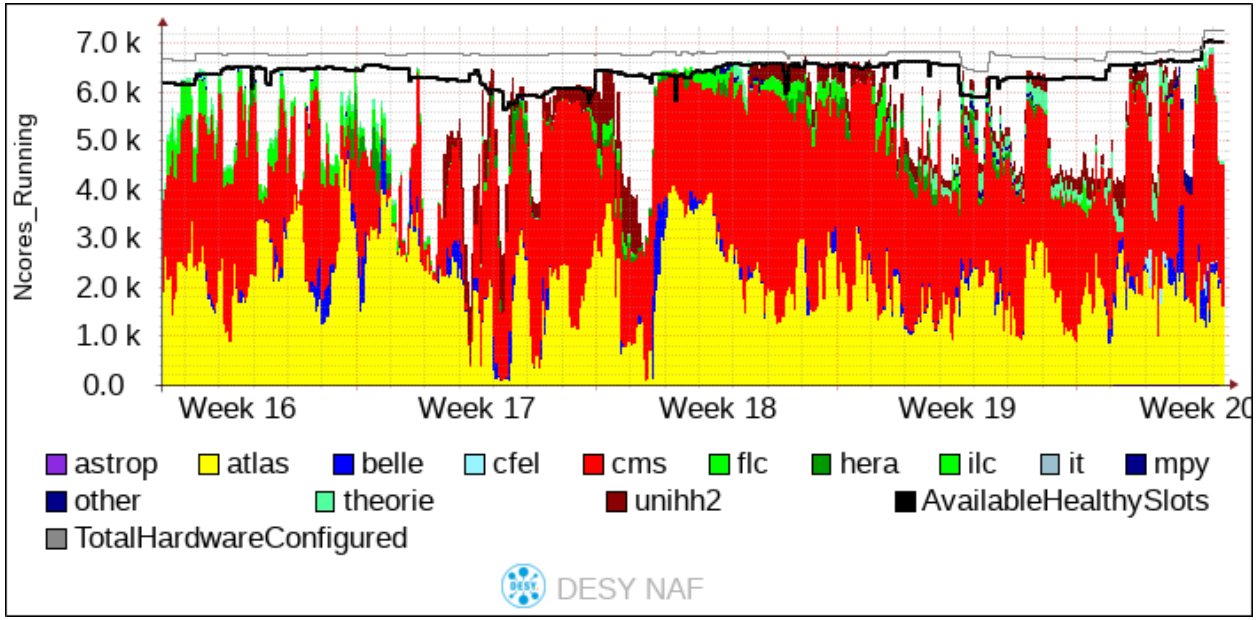
- Background: Systems becoming larger and larger (currently purchasing systems with 48 cores)
  - Way too big to assign even one for small to mid-scale groups (HERA, ...)
- Setup: Two large systems configured as hypervisors
  - two, because of redundancy (migrate some VMs in case of maintenance)
- Current status:
  - 4 VMs (zeus, theory, testing, H1 to come) ... more to come

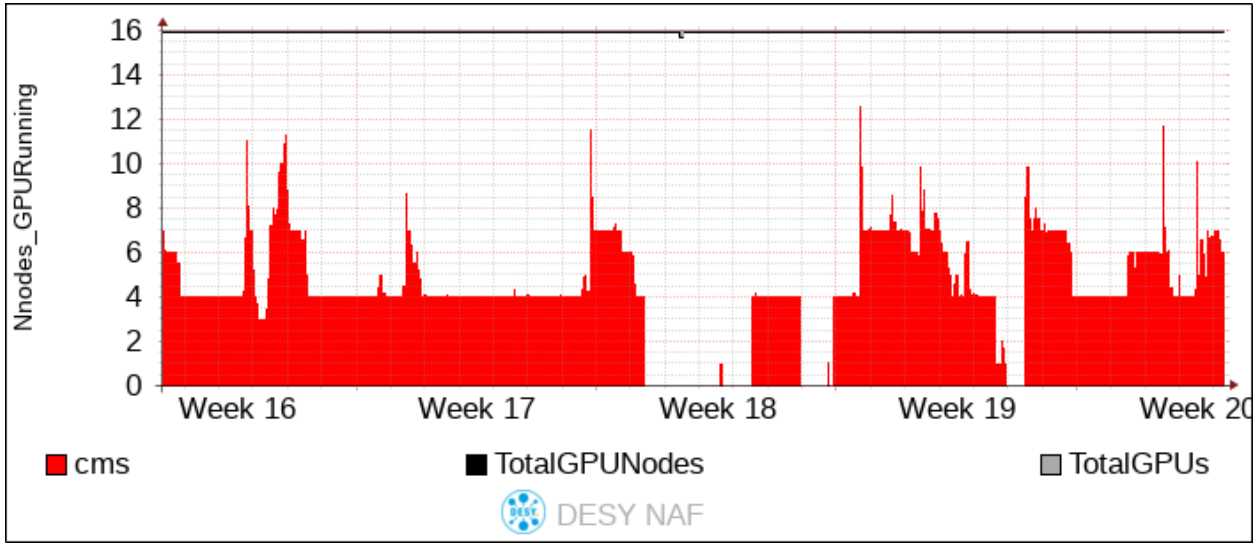
NAF: Status WN:

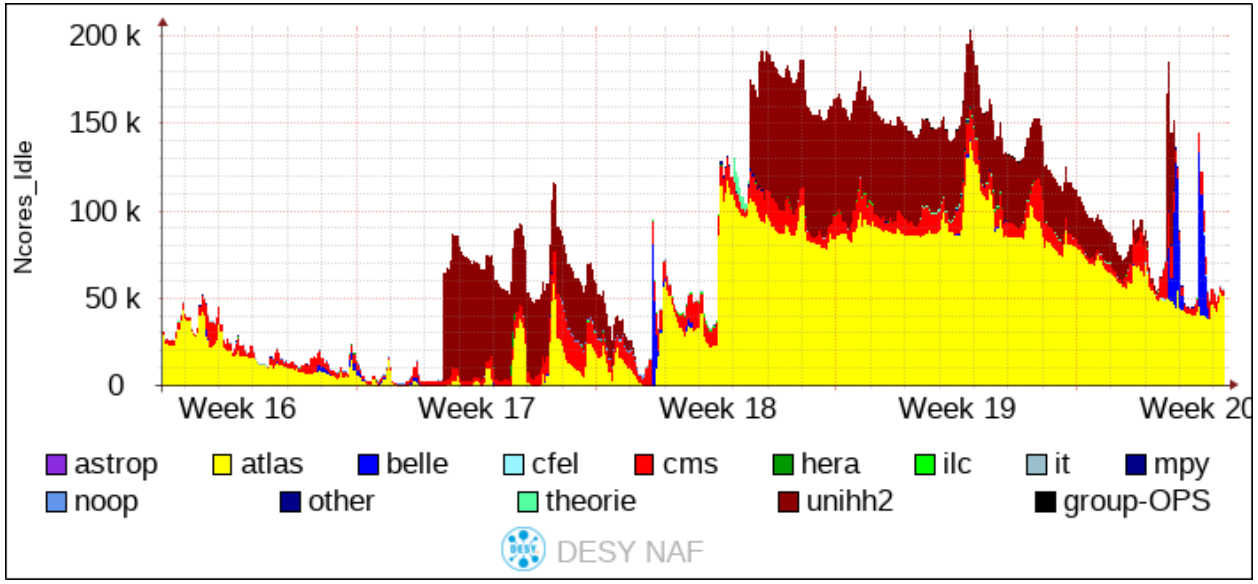
- Unfortunately, commissioning of new AMD WNs shows to be difficult ... and the Corona mode of operation does not really help
- ... first half of new NAF systems in operation since yesterday, other systems should follow soon



NAF utilization, past month







Storage: DUST

Tooling

- Command line tool to check DUST quota available: **my-dust-quota [-g]** (https://confluence.desy.de/x/B5DYBQ)
  - No SSH tunnel or VPN required, available on all work group servers
  - [sdietric@naf-ilc12]~% my-dust-quota
    Fileset Name Usage (TB) Limit (TB) Use (%) File Usage
    user.af-ilc.sdietric 0.043 0.4 10.76 80610
  - -g options shows quota for accessible DUST group directories
- Group directories with NFSv4 ACL support
  - Amfora supports creation of DUST group directories with NFSv4 ACLs
  - NFSv4 ACLs allow more fine grained control, e.g. inheritance
  - Evaluating with ATLAS group directories soon
  - Reminder: available in Amfora since ~2017, can be enabled on request

Storage: DUST

Ganesha

- Ganesha 2.3 -> 2.7 upgrade still ongoing
- Several issues fixed by IBM in the last months
- NFS servers dedicated for WGS nodes running stable with Ganesha 2.7 since ~3-4 weeks
  - Sporadic "Operation not permitted" errors reported by users seems to be solved in 2.7
- 2 of 4 NFS servers for BATCH nodes running with Ganesha 2.7
  - Still some new crashes due to higher/different workload from BATCH
  - IBM is working on fixes, stability seems to improve

Storage: dCache

- Basically everything OK
- Additions to atlas datadisk
  - no further additions planned
- Better NFS monitoring in place

Covid-19 computing, the general and the special case

- General:
  - DESY contributing via Folding@Home and Rosetta@Home, on its Grid ressources in HH and ZN, partly via the WLCG combined effort of ATLAS and CMS. In addition, F@H and R@H are run as backfil in the HPC clusters Maxwell/HH and PAX/ZN. Zeuthen also provides some backfill on GPUs
  - The Maxwell cluster also hosts analysis of Corona virus X-ray data from Petra-III
  - There is a news article in preparation to be published on www.desy.de
- Special case: the NAF
  - Since GPUs are much more efficient at the current computational tasks, the NAF GPUs will be made available
  - Status: Dedicated Arc-CE has been set up, and integrated into NAF/BIRD. Currently undergoing final tweaking