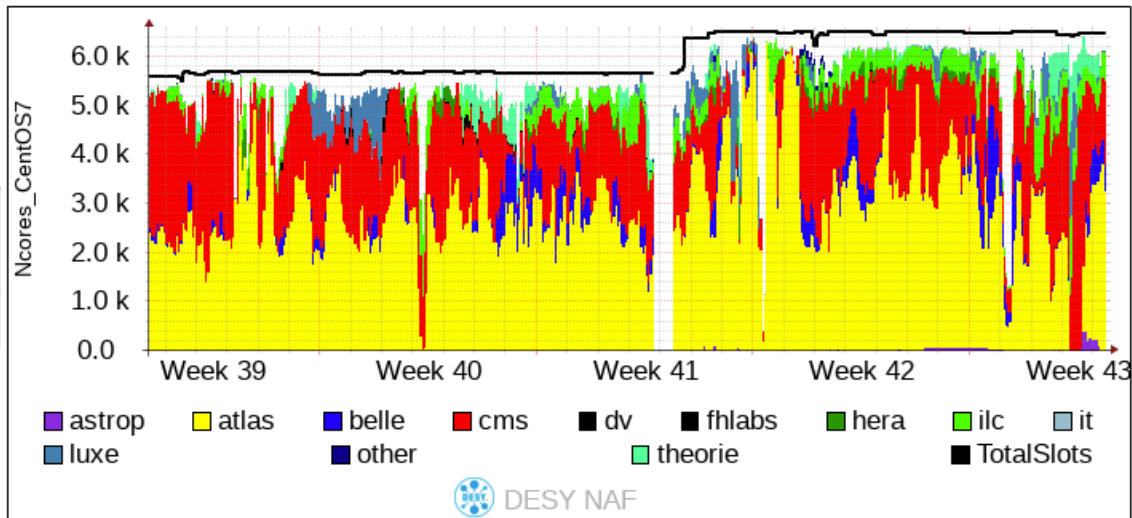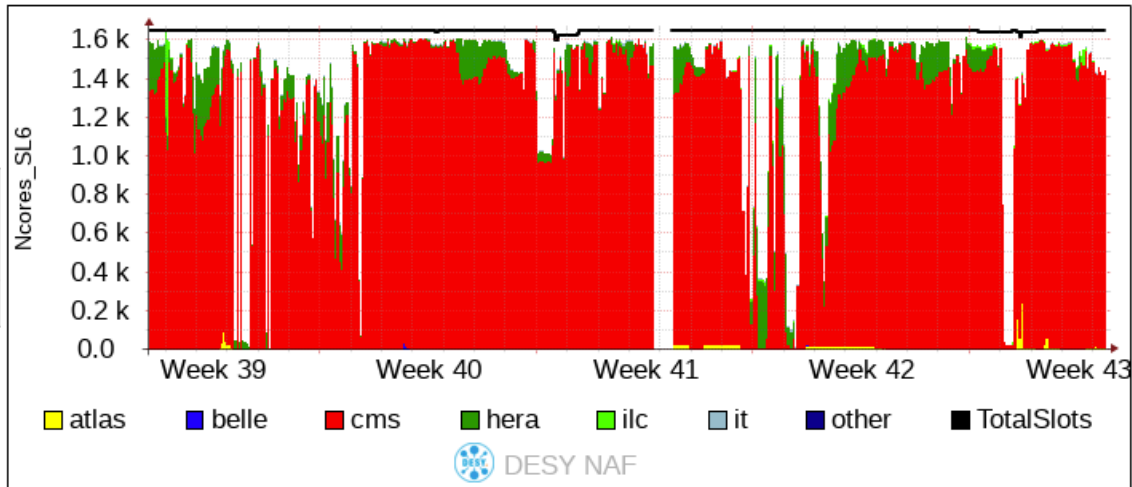# NUC: NAF Status

Yves Kemp, Christoph Beyer, for DESY IT

22.10.2020

Old and new hardware / SL6 & EL7

- SL6:
  - ~1600 cores
  - Mainly old hardware
  - Will be thrashed on 1.12.2020
- EL7:
  - See the increase two weeks ago? ~1000 cores of AMD CPU
  - Some old hardware, will be thrashed end of 2020

Hardware, the detail (CPU only)

- Now:
  - ~400 server
  - ~8500 CPU cores
  - ~180 kHS06
- After 1.12.2020
  - ~280 server
  - ~6900 CPU cores
  - ~155 kHS06
- Some machines purchased by HH university /CMS in 2012/2013 → will be switches off

SL6 / EL7 / (EL8)

- Batch: SL 6 on batch nodes will go away on 30.11.2020
  - Use singularity if you need SL6 on the batch nodes
- WGS:
  - List of SL6 WGS:
    - naf-atlas11 naf-atlas12 naf-cms11 naf-cms12 naf-cms13 naf-cms20 naf-cms21 naf-cms22 nafhh-lhcb01 nafhh-x1 nafhh-zeus01 naf-hone12 naf-ilc12 naf-juno11 naf-uhhcms01 naf-uhhcms02 naf-uhhcms11 naf-uhhcms12 naf-zeus11
  - All (but juno) have at least one EL7 pendant
  - Shutdown/Migration on 30.11.2020
- Planning for EL8 (CentOS8) on batch nodes
  - Need to think about a broader usage of containers under the hood

DUST Status

- Currently ~2.6 PB available, ~1.5 PB used
  - Assigned quota more, but overcommitment is ok (so far ☺)
- May 2021: First half of DUST will go out of warranty, other half to follow one year later
- IT is in the process of planning replacement. Current status:
  - GPFS + NFS based (basically same as now). Vendor open
  - Discussing synergies with Maxwell $HOME/software (and potentially other areas)
  - Feedback from experiments so far: IOPS more important than space (under the assumption, that there is enough space probably)
- https://www.desy.de/~hannappj/dustUsage/

New experiments

- IAXO & LUXE
  - WGS, access to batch, some DUST space
  - Have internal and external users

ATLAS dCache maintenance this week

- Batch-wise, went well: Draining nodes for ATLAS, releasing jobs after maintenance.

- ~200 TB are still offline because of defective hardware. Vendor involved

News from HTCondor configuration

- Raise default memory from 1.5 → 2 GB

- Testing python bindings/htmap in new HTCondor version, works, further tests are needed. Will announce when ready.

- DASK/SPARK: We see the need, but different approach than classical batch. Intensive exchange within IT on how to best move forward