HPC working seminar for physicists

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Today’s Topics

- Status of planned power savings
- TBit-Link: status / repair
- HDD failures -> backup possibilities
- Lustre: Data on Meta data
- Your requests

- compact in time (15mins + user questions/discussion).
- bring people together tackling the same problems
- minutes: https://www.hi-mainz.de/research/computing/hpc-working-seminar/

Power savings / TBit-Link

- Status of planned power savings

  -> currently no restrictions in pipline

- TBit-Link: status

  -> ongoing repair of lustre system at GSI site

HDD failures

- 3 HDD à 14 TB fail within 2 days in a single RAID 6 array
  - RAID 6: 2 discs may fail without data loss
  - 3 fail + no(!) data loss: hot spare affected plus restore of data was possible

Remember:

- Home directory: source code, backed-up.
- Lustre file system: large data, like measurements, NO backup!

- Further possibilities available eg tape drive https://www.zdv.uni-mainz.de/archivierung-von-forschungsdaten-mit-irods/

Lustre: Data on Meta Data

- Currently: 32GB node local cache for lustre
- Useful for random access pattern with large files (eg BES3 trigger files)
- 2GB file per process -> 16 jobs per node possible.
  - Respect that limit -> otherwise no caching effects and limited by bandwidth

- Test in future: How much could an SSD storage system help? Test in future possible as soon as new storage system from Mogon 3 is active.

your questions / discussion / requests to the maintainers?