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Prospects for IDIUM successor

Proposed research areas

Further Plans at Goettingen

Proposed research areas

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1. Developments and scaling tests of CPU of encapsulated virtual jobs
2. Performance testing of NHR HPC system: Production of important performance numbers for plotting, analysis, and optimization

3. (load and scaling) tests of data mass storage, access and transfer and performance test and optimization of caching

4. In the context of increasing usage of heterogenous/opportunistic resources, e.g. HPC, a feedback of current resource usage, e.g. bandwidth to data lake, to the job submission could help to optimize the balancing of job types and resource needs. Development of corresponding tools/algorithms and implementation for ATLAS, possibly at level of pilots of harvester or even Panda.

Backup Slides

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Activities and Achievements of Goe

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- Work at UniGoe focused on research area I (development of tools for heterogeneous resources integration):
  - Integration the local NHR cluster Emmy to GoeGrid as opportunistic resource
  - Installation of needed hardware to guarantee connection between two clusters
  - Ongoing: Installation and test of software in order to process high-bandwidth and fast ATLAS production jobs

Sources

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- [2] F. Megino et al., EPJ Web of Conferences 245, 03010 (2020), Managing the ATLAS Grid through Harvester
- [3] T. Maeno et al., Harvester-An edge service harvesting heterogeneous resources for ATLAS, https://cds.cern.ch/record/2625435/files/ATL-SOFT-SLIDE-2018-400.pdf