COBaID & Tardis in Bonn

Opportunistic usage of ATLAS Tier3 Resources

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BAF2 cluster (since Q1/2018)

- 40 worker nodes with 1120 logical cores (Xeon® E5-2680v4)
- ≈ 4,6 GB RAM per physical core, some with double memory
- CentOS 7.6 with Singularity 3.2.1
- All local users' jobs in containers provided by us *(Ubuntu 18.04, SL 6 and CentOS 7)* with local CVMFS
- Workload manager: HTCondor
- CephFS with ≈ 700 TB (erasure coding & compression), Grid-enabled via XRootD (xroot & WebDAV)
- GPUs: 4 × GeForce GTX 1080 Ti *(not commissioned yet)*

Now: used fully locally — about 100 users!

- HEP (ATLAS, Belle II)
- Hadron Physics @ ELSA
- Theory (HEP, Condensed Matter, numerics)
- Photonics & Detector development

⇒ **Often fully loaded, but at times we could backfill!**

Project in ErUM Data

- All services around the new cluster & desktops fully puppetized
- ⇒ Proposal *'Compute Site in a Box'*:
  - Reduce workload on Tier3 managers by providing automation
  - Expose resources via COBalD / Tardis without a site-local CE
  - Distribute knowledge via documentation & schools

⇒ *COBalD & Tardis at Bonn is the 'pilot'!*

Open Questions

- authentication via Kerberos & LDAP of Uni Bonn,
  alternatively SSL via Puppet PKI —
  What to use for COBalD / Tardis (submit user)?
- Which 'knobs' exist?

Already prepared...

- site-local VM for COBalD and Tardis (*VirtualEnv via Puppet*)
- VM has a Kerberos host principal

Thank you

for your attention!

BAF2 network overview