

Proposal: A Model for Future Analysis Sites of the Tier3 Scale

ErUM Collaboration Meeting

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Motivation

- Increasing resource needs in upcoming years that can not be accomodated with 'flat budget'
 - Tier3 computing resources are factors larger than pledged Tier2 resources, and resources are never 100 % in use
 - Can't convert each single Tier 3 to a Grid analysis site:
 - Maintenance burden at sites (many Grid services)
 - Maintenance burden for central computing operations (communication with many small sites)
 - Need automation to reduce workload on Tier3 managers
 - Need different, well documented approaches to make storage resources usable
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- All services in Bonn taken into operation by us fully puppetized (HTCondor cluster, XRootD-enabled storage, Desktops, . . .)
 - We are the only Tier3 in ErUM

Proposal / Action plan (1 FTE)

Computing

- 1 Automated deployment of HTCondor-CE with Puppet @GridKa
- 2 Automation and optimization of COBalD & TARDIS (KIT), submission to HTCondor @Uni Bonn
- 3 Uni Bonn compute resources fed by GridKa CE
⇒ Single Point of Entry for central computing operations

Storage

- 1 Classic data management: Copy data to shared file system
 - 1 Read from shared file system
 - 2 Use RedirPlugin (RedirectLocal) from GSI (Packaging)
 - 3 Compare to access from XRootD via LAN
- 2 Use XCache
 - 1 Cache on shared file system
 - 2 Cache on local disks of worker nodes
- 3 Coordinated caching using NaviX (KIT) — join development

Knowledge/Technology Transfer

- 1 Spread knowledge via schools
- 2 Replicate optimized setup to other tier 3 sites

Thank you
for your attention!

