Featured "Single Sign-In" interface enabling Grid, Cloud and local resources

Max Fischer, Günter Quast, Marian Zvada
CHEP 2013, Amsterdam, Netherlands

Pilot Overlays unify the WLCG

- Pilots form virtual clusters in the WLCG
- Fragmentation is concealed and absorbed
- National resources vary strongly in capacity, administration, availability
- Usage is governed by user habits and affiliation
- Pilots are suitable candidates for national non-disruptive pooling and balancing

National Resources are fragmented

National GlideinWMS instance for dCMS

Service Scope
- Supporting dedicated German Grid resources
- More than 6,000 slots available to users
- Employing gLExec to forward user identities

User Access
- Compatible to main CMS job managers
- Instant portability of existing Grid workflows
- Resources appear as uniform pool to users

- Dedicated hardware deployed at KIT/EKP
- User Portal at DESY comming soon

KIT eWMS Node
- 2x Intel Xeon X5650
- 48GB RAM
- 900GB HDD (RAID 1)

- User authentication via ssh credentials
- Authentication via gsissh comming soon
- Legacy support for HTCondor methods

Service Development Outlook

Expansion
- Static addition of HTC Tier3 resources
- Flexible acquiring of batch resources
- Use-case tailored glideins in the Cloud

Evolution
- Scope: joining with central CMS service
- Capacity: dynamic & static resources
- Features: flocking, caching, dynamic slots

Monitoring
- HTCondor based dCMS monitoring
- Sites via HappyFace meta-monitoring system
- User centered usage analysis and monitoring

Status Summary
- Core service established, functional and robust
- Additional resource types implemented gradually
- Secondary features under consideration/development

Further Information
- Contact: dcm.e.glidein-project@kit.edu
- This project is based on software developed by the HTCondor and GlideinWMS projects.
- HTCondor: http://research.cs.wisc.edu/htcondor/
- GlideinWMS: http://www.usenix.org/software/computing/grid/wms/glideinwms/
- The Happyface meta-monitoring system is developed as part of the Happyface project.
- Happyface: http://hpf/face.physik.uni-tuebingen.de/dicio/ https://hpf/rec.physik.uni-karlsruhe.de/hpc/HappyFace

www.kit.edu