

Glasgow Site Report

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for Scotgrid Glasgow

UKI-SCOTGRID-GLASGOW

- 4600 cores online in the cluster
 - Intel E5420, Westmere, Interlagos, Sandybridge, Ivybridge
- 2.6 PB Storage
 - 47 disk servers
 - 24 bay 2TB, 36 bay 2TB, 12 bay 2TB, 36 bay 3TB, 36 bay 4TB
- Network: Extreme stack
 - 6 Gb/s current maximum share of WAN

Storage

- New tranche purchase, 10x4TB Clustervision Supermicro 36 bay servers now installed and working
- MegaRAID cards, better behaved than previous 3ware cards
- Largest set of SL5 machines are DPM pool nodes, to be evaluated in the medium term

Recent incidents

- 2 weeks ago
 - Power cut: upstream drop, rooms behaved as discussed yesterday, recovered through the day
 - Lingering issues being resolved
- Sunday morning
 - Fire alarm in early morning led to partial A/C failure overnight, some WNs temporarily taken down until resolution

Status updates

- IPv6 progressing, held up by provisioning of campus production DNS
- Multicore in place and working
- ARC/HTCondor in place (see next side)
- Cloud
 - Openstack
 - Rack installation in progress - controller, dedicated 12 TB storage, ~128 compute cores
- SL5 → SL6 in progress as services refactored and upgraded
- ARGUS most recent service to move as part of hardware upgrade and following power cut

CREAM/Torque → ARC/HTCondor

- We had 5 CREAM CEs
- Now have 3 ARC CEs with one CREAM remaining
- 1 CREAM “retired” following power cut
- 3700 cores under Condor and counting
- Some MPI usage giving us a slight pause and finalising cluster publishing

Projects

- Completion of conversion to puppet
- Refactoring of cluster management suite
- Investigation of Ceph
- Cloud
 - Glasgow Urban Big Data Centre + potential outside collaboration
 - Traceability
- HTCondor monitoring
- Infrastructure

Staffing

- Andrew Pickford left local group PPE/Tier 3 Support role as of 1st June
- Scotgrid team stepping in to cover role until Consolidated Grant rolls over Sept/Oct
- No other changes

Local PPE

- 50 Desktops/50 laptops - ~ 50 active users
- Local batch cluster
 - 120 cores
 - 300 TB
- Local services: File servers, User management, Network services, etc.
- Many of these are VM based on two VM hosts
- Mixed Extreme/DELL/HP network fabric
- 10 Gpbs to campus
- Cfengine 3/Torque & Maui/NFS & AFS (AFS home areas)

Local batch/Tier 3 going forward

- Evaluate options for bringing Tier 2/Tier 3 closer
 - Moving Tier 3 to HTCondor + flocking
 - Big Panda
 - Direct ARC submission

Projects

- Local ATLAS user using MPI
- Submission methods
- Storage solutions
 - OwnCloud?
- Bringing ourselves up to speed