



GridPP

UK Computing for Particle Physics

ScotGrid Status Report

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- **Management Status**
 - ScotGrid Management Board is defined
 - Represented: Glasgow, Edinburgh, Durham, NeSC
 - Meeting quarterly
- **ScotGrid MoU**
 - GridPP T2 MoU signed by Edinburgh on behalf of ScotGrid



- **Glasgow**
 - Now providing 2Tb via LCG2
 - Additional 2Tb available in future
 - 254 CPUs operational
 - Not yet through LCG2
 - Difficulty of cleanly installing LCG2 on shared WNs
 - Delivered 520448.37 hours of a possible 697853.06 (75% utilisation)
 - Mostly to LHCb through local means
 - Also supporting ZEUS VO



- Problems encountered at Glasgow
 - Backend is already using IBM xCat to install OS
 - Can't use LCFGng
 - Our plan was to install one WN via LCFGng
 - Share its /opt to the rest
 - Relocate LCG on WNs to /lcg for separation
 - Apparently problematic
 - But..not all LCG2 RPMs on a WN install to /opt
 - Separate what must be installed locally from RPMs that install entirely into /opt



- **Lessons:**
 - How tightly do we couple our cluster to LCG?
 - Bioinformatics funds the majority of our CPU power
 - Manual WN install is time consuming
 - Large number of config files to edit
 - How to upgrade as new tags come along?
 - Need a tool which does not assume total ownership of machine
 - IBM's xCat may not provide all we need



- **Edinburgh**
 - Now in TestZone
 - 1Tb of disk available now
 - 17.5Tb remain in RAID
 - Problems with unsuitable partitioning scheme (17 * 1Tb)
 - 10Tb available from EPCC SAN once commissioned.
 - Initially hindered by lack of front end machines
 - LCFGng-based installation
 - Questions over the future of fabric management
 - Not so difficult as Glasgow due to fewer WNs



- Durham
 - Currently not in TestZone
 - Delayed due to lack of staff time
 - Situation recently improved with new funding
 - An LCFGng-based install is planned for next week.
 - Will provide:
 - 10 CPUs
 - 5Tb Disk



- Operating System
 - Mixture of RH7.3, RH9 and CERN 7.3 at Glasgow
 - Others using 7.3 as provided by LCFGng
 - Moving towards Scientific Linux
 - Following agreement from other stakeholders
 - Bioinformatics
 - Computing Science
 - Glasgow upgrade in planning now



- Fabric Management
 - Manual install is feasible for CE and SE
 - Not at all feasible for Worker Nodes
 - Too many of them
 - May be shared with other stakeholders
 - Do LCG2 dependencies conflict with those of others?
 - ‘Scripted’ manual install will still require local sysadmin to completely understand what is being done to their machine
 - Need to understand changes in each release



- How are we progressing?
 - Using LCFGng for now
 - Assuming nothing will be provided beyond manual install
 - Researching solutions
 - Quattor, xCat, homebrew scripts
- The question is whether Quattor will scale down to sites with little staff support
 - Durham: 0.16 FTE