Updates from
Edinburgh Computing

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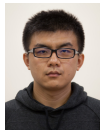
GridPP Computing

Who are we?

Andy Washbrook (GridPP, ATLAS)

Rob Currie (GridPP, LHCb)

Teng Li (GridPP, LSST) - *new member!*

Where are we?

- Rm 5412, (By the *noisy* printer)

Computing Support

For help with any general computing issues:

- Computing Support Helpdesk Room 4210
- Email: sopa-helpdesk@ed.ac.uk
- Web:
  https://www.wiki.ed.ac.uk/display/PandAIntranet/Computing+Services

For PPE-specific computing issues and help with procurement:

- Room 5412
- Email: ppe-computing@ed.ac.uk

  (This goes to both Andy and myself)

Desktop PCs

A quick review of the local machines which are supported:

- Managed machines running Centos7

- Support LHCb/ATLAS CVMFS repos on desktops

- Cloud printing working better.
  (If your job fails to print turn printer off&on again... *I know...*)

- Not aware of any legacy applications requiring SL6.

School Computing Committee

There is a new committee pulling together a few people from different areas of physics.

- Provided input for upcoming school computing strategic plan submission.
  Goal is to translate academic goals into coherent computing support practices

- First draft before Christmas but any last minute input is welcome

Site Compute Resources

Batch compute resources:

- Local school batch system is underutilised
  $\approx$ 140 cores available

- Some RFC in place to improve experiences of people using this system

- Many thanks to Michele for providing a guide to using the school computing cluster
  https://www.wiki.ed.ac.uk/display/PPE/How+to+use+Morar

- Any specific input welcome.

Local Storage Resources

- Datastore capacity creep is a concern

- New use cases such as lab data-backups need storage

- The per annum cost of 30TB is unsustainable

- Currently hosting at least 10TB of data from people who have long since left

- Undertaking a cleanup exercise to get this down to a reasonable level

- Expect emails at the start of next year to request clean-up of old data

Local Storage Resources Cont

Future storage options being considered:

- Dedicated PPE storage server to host transient data sets

- Repurposed (and reduced capacity!) datastore area to store research data with long lifetime

- Use small portion of Tier-2 Grid storage to host our archived data

- Also exploring use of university data archiving service (and costs)

Notable Dates

- School running a software carpentry workshop 19th/20th Feb

  We are providing training platform for git and CI tutorials

  Feel free to attend if you are here
  - or if you want to be a tutor!

Alternatives to AFS & lxplus

Last year I stood up and said AFS was going away.
...Why hasn't it?!?!😠

People in the group are using different workflows to AFS/lxplus for different (often very good) reasons.

Containers/Docker/Singularity/CernVM/OpenStack/etc...
There is a lot of potentially duplicated work in setting up local environments for HEP based workflows.

Can we as a group benefit from people working together on this?

What GridPP work do we do at Edinburgh?

Broadly:

- 50% Storage Activities

- 50% Other Stuff
  (Providing/Developing computing resources)

GridPP Storage Activities

Edinburgh is currently involved in several HEP storage activities:

- Atlas XCache (aka remote data access for grid jobs)

- RDF deployment
  (providing new storage from Edinburgh University to the grid)

- Automated deployment/testing of new software

- Putting ZFS everywhere (Industry grade filesystem solution)

Other GridPP Activities

Other Computing Activities in Edinburgh:

- Migrating our Tier2 to Elanor, the new OpenStack alternative to EDDIE at Edinburgh.

- Working with HPC for HEP.
  ATLAS workloads on Edinburgh's Archer supercomputer and on the new HPC Tier-2 (Cirrus).

- Contributing to software Development on ATLAS, LHCb and LSST experiments.

- GPU developments/use on ATLAS and LHCb.

Thanks for listening

Bonus Slide

Because sometimes, you need a rainbow butterfly unicorn kitten.