HEPIX Oct2014

University of Nebraska, Lincoln.

http://indico.cern.ch/event/320819/timetable/#all.detailed

Themes

- *Site Reports*
- *IT End User and Operating Systems*
- *Computing and Batch Systems*
- *Networking and Security*
- *IT Facilities and Business Continuity*
- *Storage and Filesystems*
- *Grids, Clouds, Virtualisation*
- *Basic IT services*

93 registrants from 45 international sites

Good quality talks plus the interaction at the coffee breaks.

Reports from working groups,

- especially IPv6,
- Config management migration towards puppet from yaim.
- Benchmarking waiting for new SPECCPU, but interest in a quick benchmark. An interesting talk on a CMS short job was given and is possibly a candidate for this. (http://indico.cern.ch/event/320819/session/3/contribution/16/material/slides/0.pdf)
- Note much progress in the Batch WG but not trend towards HT Condor.

Good talk from the Condor team which seems very responsive to change requests.

http://indico.cern.ch/event/320819/session/3/contribution/56

Scientific Linux Updates from Fermi and CERN. Working independently but will be binary compatible.

Several site report featured network plots of sustained 10Gbit traffic.

Quite a lot of talk about 100Gbit networking coming from larger US sites (eg Wisconsin) and interconnects across the Atlantic.

Some debate over the increased performance gained from Intel Haswell.

One site said 50% compared with Sandybridge/Ivy Bridge, which is vaugue and also I suspect OS improvements also .

Talk from Michele Michelotto

http://indico.cern.ch/event/320819/session/3/contribution/30

showed more modest improvements.

Good talk about working with Wigner institute from Wayne Salter at CERN.

http://indico.cern.ch/event/320819/session/5/contribution/8/material/slides/1.pdf

23ms away, two 100Gbit links some teething problems.

Interesting talk on using XRootD to minimize Hadoop replication.

(This of course relies on other sites doing the duplication for you, may not scale well!!)

http://indico.cern.ch/event/320819/session/6/contribution/50/material/slides/0.pdf

Talk on addressing VM IO bottleneck at CERN by Arne Wiebeck

Lxplus problem (erratic login times on SLC6 VMs)

http://indico.cern.ch/event/320819/session/8/contribution/6/material/slides/1.pdf

Use of SSDs , balance of IOPS vs latency. IO scheduling VMs used 'deadline' elevator set by virtual-guest profile. Favours reads and can delay writes by 5 sec

Changed to Completely Fair Queuing (CFQ) helped a lot for interactive VMS.

ZFS talk surprisingly interesting. Enormous file systems 55PB and 1.5M cores at Lawrence Livermore National Lab.

http://indico.cern.ch/event/320819/session/6/contribution/42/material/slides/0.pdf

SSD Benchmarking talk very large number of slides but interesting work.

One of the main conclusions seemed to be that Samsung SSDs perform better at the same price point than Intel drives.
https://lvalsan.web.cern.ch/lvalsan/ssd_benchmarking/presentation/index.html#/sustained_4k_mixed_70_30

Good puppet talk:

Puppet lint and Geppetto to force style guide.

Conext based help available in Geppetto

http://puppet-lint.com/

https://docs.puppetlabs.com/geppetto/latest/

https://indico.cern.ch/event/320819/session/7/contribution/51/material/slides/0.pdf