



Spring 2015 HEPiX meeting Oxford University, UK

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Grid Deployment Board
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HEPiX

- Global organisation of service managers and support staff providing computing facilities for HEP community
- Most WLCG sites, including WLCG Tier-0, Tier-1 and many Tier-2, represented
- Meetings are held twice per year
 - Usually: spring in Europe, autumn in North America or Asia
- Reports on status and recent work, work in progress & future plans
 - Usually no showing-off, honest exchange of experiences

HEPiX Spring 2015

- Held 23 – 27 March at Oxford University, UK
- Sponsors: Viglen/Boston, Western Digital, DDN, Amazon Web Services
- 134 registered participants (record!)
 - Many first timers again
 - 75% from Europe, ~20 from 8 companies
 - 45 different affiliations
- 83 contributions (+30%)
 - - slots cut down to 25 mins
 - - Ceph BoF, IPv6 tutorial
- Full details: <http://indico.cern.ch/event/346931/>

Tracks and Trends... (1)

- Security and networking: 9 contributions
 - *Threats continue to evolve*
 - *Preventing security incidents more important than ever*
 - *Appropriate monitoring and traceability vital for handling incidents*
 - *TCP performance on high-speed wide-area links*
 - *Lots of activity moving towards production dual-stack (IPv6/IPv4) storage services for WLCG*
 - *IPv6 Tutorial popular (~45 people)*

Tracks and Trends... (2)

- Storage and file systems: 8 contributions
 - *CEPH as an interesting building block of many newer services; CEPH FS*
 - *CEPH BoF session with experts much appreciated*
 - *BeeGFS (ex-FhGFS) at DESY*
 - *AFS does not seem to have a long-term future in HEP*
 - *Data taking for photon science*
 - *Care of long term storage by intensive monitoring tape environment*
 - *Ethernet drives*
 - *Things are not simplifying, storage remains a hot topic for all in IT*

Tracks and Trends... (3)

- Grids/clouds: 8 contributions
 - *Clouds increasingly used for workloads*
 - *Public clouds used in production*
 - *Containers: Docker*
 - *Looking beyond PaaS*
- IT facilities and business continuity: 2 contributions
 - *Murphy's law confirmed*
 - *How to protect tapes*

Tracks and Trends... (4)

- Computing: 17 contributions, 9 on batch systems
 - *CPU benchmarking – new SPECcpu, fast benchmark*
 - *Alternative CPU architectures: SoC (ARM, Atom), OpenPower*
 - *Tendency away from PBS family, OSS very popular (in particular Condor)*
 - *UGE okay, other GE variants disappearing*
 - *Cgroups: support maturing, increasingly used*

Tracks and Trends... (5)

- End-user IT services and operating systems: 10 contributions
 - *Scientific Linux and CentOS status*
 - *Diversity is not an issue at all*
 - *HEP Software Foundation*
 - *SciDB and farm usage efficiency tips*
 - *Social and interactive - conferencing services, search and social for the web, Zimbra email, software collaboration*
 - *Volunteer computing, collaborative services*

Tracks and Trends... (6)

- Basic IT services: 7 contributions
 - *ElasticSearch, Logstash, Kibana; integrating audio and visual tools*
 - *Puppet, Mcollective maturing (scalability, automation, etc), linked with continuous integration (Jenkins)*
 - *Quattor alive and doing well*
 - *VoIP on the rise everywhere, unified communication (Lync)*
- Site reports – 19 contributions
 - *OpenStack; GPFS; Graphite/Grafana; Webdav*

Next meetings

- Autumn 2015: Brookhaven National Lab, Upton (NY), USA
 - 12 – 16 October 2015
 - Same tracks as in Oxford
 - Grids, clouds, virtualisation track to be held jointly with WLCG Grid Deployment Board
 - First public announcement imminent
- Spring 2016: DESY Zeuthen, DE
 - 18 – 22 April 2016
- Proposals received for subsequent meetings
- May need to swap European/N-American meeting every now and then

Expressions of interest and proposals are always welcome

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Questions?

