

HEPiX Fall 2012 @ IHEP / Beijing

中国科学院高能物理研究所北京

2012年10月15-19日



Report from the HEPiX Workshop Fall 2012



Two individual views

Thomas Finnern
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Computing Seminar
DESY-IT
2012-10-29

The Meeting, People and Miscellaneous

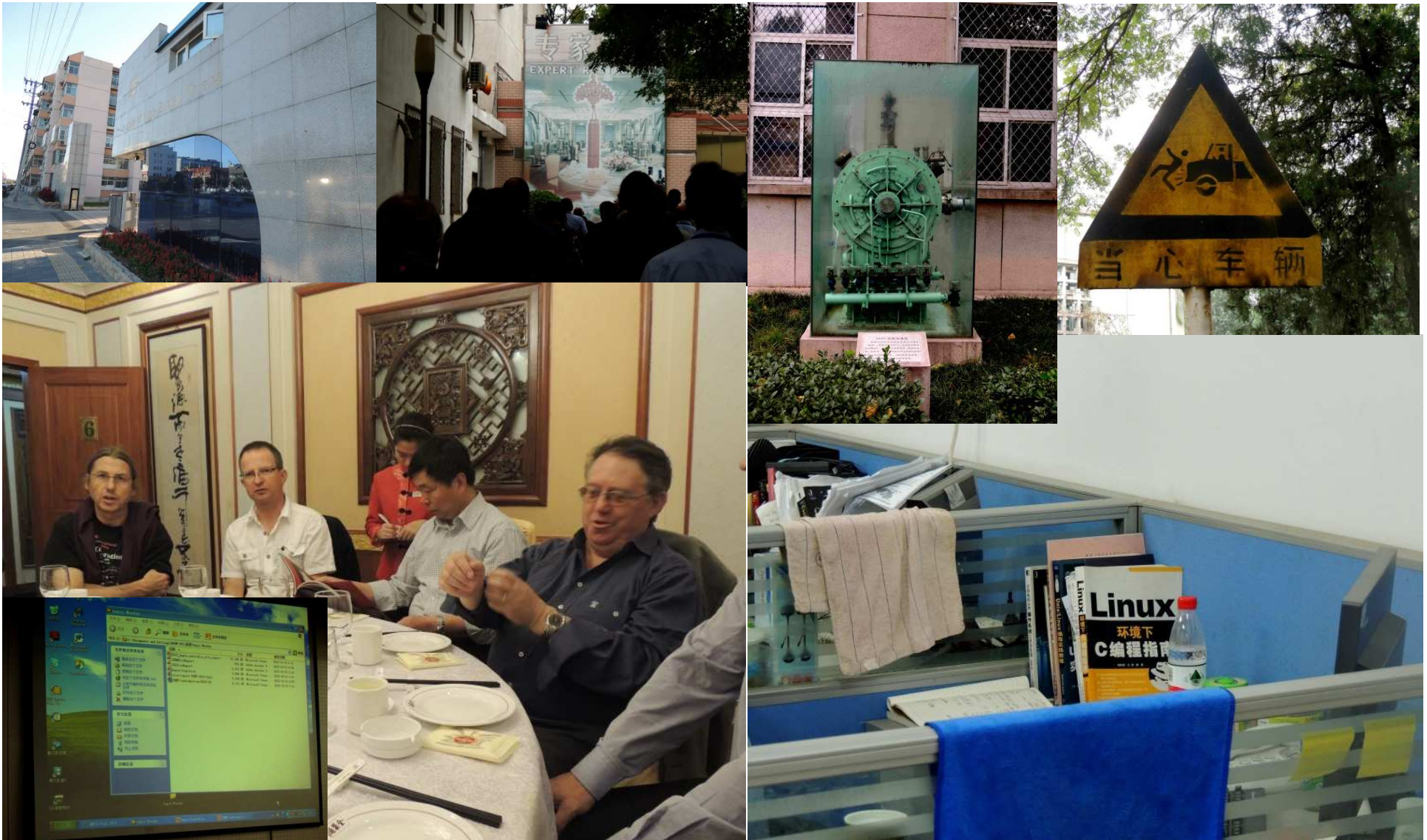


- > HEPiX Fall 2012 Workshop/Meeting/Conference
- > High Energy Physics Information eXchange
- > We had 77 attendees from 27 countries
- > More Asians, Less North Americans
(Australia,China,India,Mongolia,Nepal,Korea,Taiwan)



IHEP Impressions

In Chinese letters the child of electricity is an electron: 电子



IHEP Impressions



> The meeting contained all usual HEPiX tracks

- 60 contributions
- Scheduled total duration: 27 hours 10 min
- Rich and very interesting program
- Excellent quality of presentations
 - Including those who are not that used to give presentations in English!
- 4 presentations by teleconferencing
 - Good quality, no hiccups of technical infrastructure,

> 4 DESY Talks

- Peter VAN DER REEST: DESY Site Report
- Dirk JAHNKE-ZUMBUSCH: Selecting a Business-Process-Management-System in conjunction with an Identity-and-Access-Management-System
- Wolfgang FRIEBEL: Networking Tools for Sysadmins
- Andreas HAUPT: Setting up the CSP mode in a Gridengine production cluster

> Helge Meinhard: Wrap Up

- > Site Reports
- > Security & Networking
 - This track covers issues related to networking technologies and associated monitoring tools, including the planning for and the use of IPv6, as well as network, system, Grid and cloud security.
- > Storage & File Systems
 - This track discusses every thing related to storage technologies and hardware and to file systems, in particular distributed file systems.
- > Grid, Cloud and Virtualization
 - This track is about grid services, cloud technologies and experiences and virtualization as an underlying technology for dynamic resource provisioning.
- > IT Infrastructure, Services, Business Continuity
 - This track covers topics related to IT infrastructure and services. This includes : data center infrastructure, monitoring, email & web, virtualization for infrastructure consolidation. It also includes topics related to business continuity and energy efficiency.
- > Computing & Batch Services
 - This track is about computing technology evaluation, eg. benchmarking activities, GPU experiences, batch services ...
- > Miscellaneous
 - If you have something that doesn't fit in any other track ...
- > Vendor Presentations
 - Technical (non-marketing) presentations by vendors/sponsors
- > 1 BoF session on batch systems

- > Computing: 8 talks, all on batch systems
 - Evolving 'hot' topic
 - Need more exchange of information and experience
- > Networking: 11 talks
 - Two main themes: IPv6, network monitoring
- > Computing infrastructure: 12 talks
 - puppet
- > Grids, clouds, virtualisation: 7 talks
 - Common theme: IaaS etc.

> BoF Session

- Evolving 'hot' topic
- No working group, but need more exchange of information and experience
- Mailing list

> Different Batch Systems Coexist

- Torque/Maui (Std/Grid small – medium size)
- Grid Engine (2 free and 2 Vendor Versions, medium+ Sizes)
- Condor/LSF (cloud and vm extensions)
- SLURM (free, cloud, large and/or distributed systems)

- > Running out of IPv4 Adresses
- > Working Group
 - Kars Ohrenberg and Thomas Finnern
 - Questionnaire
 - List of Unsupported Software
 - Driving Grid Support, Testbed
- > IPv6
 - Driving: US Federals and Asian Sites
 - Web and E-Mail
 - Mostly Dual Stack
 - User Training and Interfaces
 - DHCP6 “no next server”
 - 1st “IPv6 only” in Jan. 2014 ?

Identity management – mostly in terms of “accounts”



- > username/password, X.509, ...
- > Identity provider (typically: employer) → AuthN, little AuthZ
- > Service provider consumes attributes for access control
- > Attribute authority: AuthZ provider
- > originally directed to web applications
 - using also as a mean of login is necessary
- > which attributes must be known and may be shared across national borders?
- > level of trust?
 - self-registration-alike (Facebook, Google)
 - using a GRID-CA
 - employer

Security – see S. Lopinski's slides



> vulnerabilities evenly distributed over Oss

- Windows: IE 6-9, W8 1st root kit, ...
- OS X: Java patches late, Flashback, ...
- Linux / Android: mobile malware

> weak link(s): kidnapping/destroying digital identity

- digital assets of a “wired” destroyed:

1. call Amazon and add a new credit card
→ needed: name, billing address, e-mail address
2. call Amazon again for a lost password and a new e-mail address
→ needed: name, billing address, current credit card number (see Step 1)
3. reset password which is sent to the new e-mail address from Step 2
4. login and see all credit cards' last 4 digits
5. call Apple for getting a temporary password → needed: name, billing address, 4 digits...
6. reset Google password → sent to Apple e-mail address; erase Apple devices...
7. reset Twitter password → linked to Google == password sent to Google

make off-line backups of your valuable data

Site Reports – my (djz) highlights



> CERN

- p-p run until 2012-12-18, heavy ions will start 2013-01-16 for three weeks
- tape rate: 1PB/week, 30PB expected for 2012
- Wigner site linked with 2x 100Gb/s
- no SLC4 servers any longer
- eduroam being prepared
- TETRA: radio for fire brigade → they had an intensive look at DESY's digital radio
- OS X: anti-virus (also for Linux), CERN password (possible), best effort
- security: data classification policy, also contact with DESY

> RAL

- in-row cooling → need for load balancing (sic!)
- fire suppression considerations for enclosed aisles

> Business continuity

- in general: colocation
- AGLT2: virtualization: vSphere Replication w/o common backend storage

... and other exciting things



- > High Numbers
 - 320 000 Batch Cores
 - 1 Million Users
- > Splunk
- > Version Control
 - CVS -> SVN -> GIT
- > Scientific Linux
 - SL6: RPMDB, New Compilers parallel
 - SL7: in 2013
- > Clouds
 - OpenStack and OpenNebula
- > ...

- > Current meeting
- > Next meeting
 - About same tracks
 - Batch systems; Windows 8?
- > Working groups
 - IPv6, storage, virtualisation: see reports
 - Virtualisation: terminated – thanks to all involved incl. Owen Synge
 - Benchmarking: Manfred Alef and Michele Michelotto jointly replacing Helge as convener
 - Batch: endorsement of BoF conclusion, Wolfgang Friebel volunteered to take some coordination role, to be rediscussed in spring
- > New Web page in preparation
 - <https://www.hepix.org>

Special thanks



John Gordon and Philippe Olivero

Both will have retired by the next meeting

Thank you and...
see you soon instead of good bye!
au revoir au lieu d'adieu!

Next meetings



- > Spring 2013: CNAF, Bologna, Italy
 - April 15 – 19
- > Fall 2013: U Michigan, Ann Arbor, MI, USA
 - October 28 – November 1
- > Spring 2014: to be decided
 - France (tbc)

Proposals are always welcome...

谢谢



问题

答案

Thank you



questions

answers