



CERN Site Report

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- Very smooth, successful LHC running
 - Record intensities, record luminosities
 - Pile-up is a problem...
 - Confirmation to run until end 2012 at 2 x 3.5 TeV
 - Shutdown in 2013
- Very smooth LCG operations
 - Peaks of more than 6 GB/s to tape
- ITIL
 - Attempt to follow best practices
 - Introduced service desk and new ticketing system
 - Initially covering IT and GS departments
 - See dedicated talk

- Monitoring: IT workshop to review situation
 - Plenty of monitoring done, plenty of information gathered and stored
 - Demands on integrating different systems, and on providing ad-hoc queries, mining, analysis, trends
 - Working group being formed
- Community support
 - IT recommended / IT supported / community supported / unsupported / IT prohibits
 - Applies to smartphones, tablets, browsers, mail clients, ...
 - Infrastructure created

- Interesting times with EGI and EMI
- No major structural or personnel changes with respect to autumn meeting
 - But one important change upcoming... Alan Silverman will retire in summer
 - He has swapped with Christian Isnard roles of DPO and deputy DPO

- External hosting: Part of our 'critical machines' are now run in hosting centre 15 km away from CERN
- B513 upgrade progressing, as well as preparations for a tender for Tier 0 services hosting
 - See dedicated talk
- Procurement fun points
 - 7'000 drives (2 TB) swapped out, manufacturer needed several attempts
 - Finally got a batch of CPU servers to work
 - Bad or late (or both) repair interventions by vendor agents
 - Discussing alternative schemes for warranty services

- Router infrastructure being migrated to new supplier
- IP telephony used wherever appropriate

- Some surprises migrating from Oracle 10.2.0.4 to 10.2.0.5
- LCG Tier1s: increased tendency to use Frontier rather than local databases
- Storage consolidation for Oracle services: will use NAS in future
 - Previously SAN/FC for physics, NAS for administrative DBs

- Commissioning new Oracle tape drives (5 TB/cartridge)
- Tape marks now buffered
 - Given small average file size, effective write speed up from 30 MB/s to 50 MB/s
- After successful tests by Atlas and CMS, EOS moving into production
- Quite some trouble with OpenAFS 1.4.12, okay with 1.4.14
 - Lxplus, lxbatch unstable for weeks
- Campaign to sanitize AFS access privileges in user home directories

- Identity management
 - Moved from CRA (home-grown) to Microsoft Forefront Identity Manager
 - Most teething problems solved
 - Change of default shell (bash instead of tcsh) for new accounts
 - Investigating strong authentication using Yubikeys and other techniques for critical services
 - Investigating identify federation including test bench with BNL
 - Now supporting (and recommending) same account for several computing groups
- Single sign-on
 - Improved support for Safari browser
 - Improved support for Oracle APEX applications
- Kerberos migration to single realm at CERN (AD) mostly completed

- **Web services**
 - Upgrading to IIS 7 on Windows Server 2008R2
 - Moving storage to DFS
 - Dynamic content: Python, Perl, PHP, ASP, ASP.NET (Frontpage server extensions not supported any more)
 - Pilot service based on Drupal 7 (see dedicated talk)
 - Search engine improved, in particular for protected pages
- **Mail services**
 - Exchange 2010 migration completed
 - Alpine problem solved
 - Default quota increased to 2 GB, user-selectable upgrade to 5 or 10 GB
- **Linux**
 - SLC4 support ended (but security fixes still provided)
 - SLC5 is recommended
 - SLC6 certification has started (Ixplus-like setup soon)
 - Install server streamlined with Windows install server

- Windows
 - Vista being phased out (except Catia/SmarTeam users)
 - XP phase-out scheduled for early 2014
 - No XP offered on new PCs any more
 - Standard desktops purchased before late 2006 will need to be replaced
- Office
 - 2003 to be phased out later this year
 - Machines with less than 1 GB not supported
- Browsers
 - Recommendations unchanged (IE, Safari, Firefox on Linux)
 - Firefox supported on Windows and Mac, too
 - Application support only, no automatic installations
- Inventory
 - Information about installed packages and configured hardware collected via OCS on Windows, Linux, Mac desktops

- Virtualisation: service consolidation, batch virtualisation (see dedicated talk)
 - Service consolidation: 30 new machines / month
 - OpenNebula in production, evaluating OpenStack
- Migration off SLC4 far advanced
- CVMFS
 - Read-only access to data requiring high replication levels
 - Service being built up in three phases
 - Client deployment on lxplus and lxbatch, proxy deployment (done)
 - ‘Stratum 1’ server: mirror of PH-SFT server (done)
 - ‘Stratum 0’ server to replace PH-SFT server (ongoing)

- ActiveMQ messaging service
 - Set up, Atlas DDM starting to use it
- Version control services
 - LCGCVS being phased out (see dedicated talk)
- Service hardening
 - Improved batch monitoring (see dedicated talk)
 - Command logging on Ixplus
- Mathematics tools (Mathematica, Matlab, Mathcad) in high demand
 - Applications that depend on them without us knowing
 - Some companies unwilling to offer acceptable (academic) conditions to CERN
 - Answer: community support for free tools, purchase of few additional licences

- Tests continue with Vidyo as alternative videoconferencing tool
 - Linux client problems solved
 - Testing involves large numbers of people from experiments now
- More UDS news in dedicated talks

- (see dedicated talk)
- Obligatory web-based security course (with test)
 - New account holders: within five days of registration
 - Existing account holders: once every three years
 - Non-compliant accounts get blocked