



CERN Site Report

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- Phase IV started
 - All Phase III partners continue: Intel, Oracle, HP, Siemens
 - At least same level of contribution as in phase III
 - New contributor: Huawei
 - Another company expected to decide about involvement (full partnership) soon
- CTO (Sverre Jarpe) and technical experts working together with Intel moved to IT-CF

- Ongoing efforts to increase energy efficiency of machine room and building
 - Low-hanging fruits picked already
- Some procurement (and repair) issues due to floods in Thailand seriously impacting hard drive supply
- Internal repair service started, gradually being expanded
- Usual fun with deliveries: wrong settings, downlevel/inconsistent/buggy firmware, wrongly placed stickers, memory ECC errors, ...

- Vidyo widely rolled out as a replacement for EVO
 - EVO still available for a good part of 2012 as a fallback
 - Only few technical issues about Vidyo
 - Communication, training, general conference room issues

- Router re-juvenation completed
 - Almost 50 Force10 replaced by Brocade
 - Interconnects of LCG routers migrated to 100GE – total non-blocking routing capacity ~6 Tbps
- Investigating virtualised networks
 - Moving VMs around easily, keeping their IP address
- Fighting private access points, in particular in building 40
- Links to remote hosting centre in Geneva area being re-tendered
 - Dark fibres to be replaced by multiple 10Gbps
- IPv6 activities going on
 - New schema of LanDB deployed

- Oracle: Migration to 11g going on successfully (also for Tier 1s)
 - Starting to exploit Active DataGuard to allow read access to standby database copies, partially replacing Streams
- Consolidating on NAS hardware
 - Progressively being integrated into CF repair service
 - No new investment into Fibre Channel for database purposes
- Disk buffer for database backups
 - Disentangles Oracle RMAN from TSM
- Database-On-Demand service
 - Includes limited service for MySQL
- Single Sign-on integration for AIS and APEX

- Progressively using standard hardware building blocks
- Harmonisation of service levels between AFS and DFS
 - Self-service work space launched successfully

- Retirement of Windows XP/Office 2003/7 by end of 2012 (except online teams for XP)
- SLC 6.2 and 5.8 certified, SLC4 (mostly) phased out
 - HEPiX scripts simplified
- New IT web site based on Drupal launched
- Success of CVI (virtualisation services based on Hyper-V and SCVMM) continues
 - Major migration of servers used by CERN-BE
 - Now about 2'500 VMs, more than half under Linux
- Procurements brought in-line with standard IT practices and workflows, including repairs
- Licensing
 - Migrated from Exceed to X-win32 for Windows X emulation
 - Microsoft Campus agreement renewed, now includes server and selected server products
 - Bulk licence for Parallels purchased

- Federated identification and Smartcard tests underway for strong authentication (Windows, Mac, Linux and SSO)
- Testing replacement of lightweight accounts by 'facebook'/'google' IDs
- OCS inventory client made available for Macs
- Windows Terminal Services to be migrated to Windows Server 2008 RC2

- VoIP Softphones enhancing standard phone system
 - Phone calls!, global Address Book, **presence**, voice mail, **mobility**, easily **manage forwarding**/simultaneous ringing
 - Full desktop and **applications integration** (click on any number to make the call)
 - Microsoft Lync, supported on **Windows and Mac**, solutions for Linux being investigated
 - Available also on **iOS, Android, Windows Phone**
 - Integrated with **Exchange**, Active Directory, phone system, billing system etc.
 - **Cost reduction** and improved access to the information
- Unified Messaging on Exchange
 - Unanswered calls delivered as an E-Mail
 - Audio file attached if a message was recorded
 - Automatic text preview of the audio message embedded
 - Archive communications logs in your mailbox
 - Access to your mailbox and calendar by calling a phone number

- Services introduced recently
 - CVMFS: Fully migrated production services (stratum-0, stratum-1) from PH-SFT to IT-PES
 - Messaging: ActiveMQ production, looking into Apollo and other systems
- Batch services: Running on about 35'000 cores
 - Some hiccups leading to temporary unavailability
 - Mostly related with high query loads
 - Preparing for a renewal of the contract for LSF
 - In parallel, investigations about potential alternatives
- Engineering services
 - Upgraded Catia to V5R20, no further upgrade this year
 - Considerations about longer-term future: Catia V6?

- Licensing
 - Matlab: very difficult and long negotiations, not much movement on the part of supplier
 - Atlassian: For JIRA etc. we would have preferred a (affordable) site-wide licence
 - Dassault: Move of contract to VAR took very long time and significant effort to make Dassault agree
 - StarCD replaced by alternative products due to significantly increased prices

- Data classification policy taking shape
- Use of non-CERN e-mail accounts for professional CERN use deprecated
- Campaign to use https only for all data exchange with Web servers, and not to store any credentials on Web servers in clear text
- Linux systems: netlog: facility to track network traffic per process; rpmverify: SHA-256 hash on installed RPMs, cross-checked with hash in software repository
- Controlled destruction (shredding) of media containing confidential information
- Software vulnerabilities
 - PHP security saga
 - BIND DNS vulnerability caused DoS attack

**THANK YOU
QUESTIONS?**