



HAMBURG • ZEUTHEN

DESY Site Report

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DESY – IT – Systems Group

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Outline



- People
- Statistics
- Platforms
- Mass Storage
- Networking
- Projects

People



- Klaus Tietgen, Christine Prehm left DESY, Stefan König left IT
- Wolfgang Friebel, Michael Ernst temporarily join other HEP labs
- Volker Gülzow, Silke Lehmann join IT, as well as
- one new central NT support admin
- one new network admin
- two new operators
- three new Windows project members
- five new Unix admins/senior system managers
- two posts in scientific software and Windows support &
- another two in joint PR-IT WebOffice project to be filled

Statistics



- ~4000 + ~500 active users in the central user registry
- ~2800 user accounts in the DESYNT domain
- ~3000 + ~500 users in AFS / central NIS
- number of PC-based systems is still rising,
but also the number of Solaris systems
- steadily decreasing are X-Terms, SGI and HP
- incoming network traffic at 4 TB/month and growing

Windows



- NT daily management is being handed over to IT
- Project Group Windows (R. Baltrusch) started in late March
 - ⇒ transition to XP Professional for desktops and notebooks
 - ⇒ W2k/.NET for servers
- single Windows domain for DESY remains the objective
- integration of common infrastructure is important focus point
 - ⇒ what services can be 'shared' remains to be seen

Linux



- DESY Linux 4 is being rolled out
 - (SuSe 7.2 with 2.4.17 kernel, glibc 2.2.2, OpenAFS 1.2.2)
 - ⇒ Zeuthen is ahead – Hamburg is catching up
- 2 Myrinet based clusters are running for the theory groups
- DELFI Fileservers have overcome initial problems
 - ⇒ broad acceptance in the research groups for data staging
 - ⇒ some groups are deliberating 'real' fileserving

Batch Systems



- SUN Grid Engine Enterprise Edition has been deployed

⇒ includes AFS token prolongation

⇒ running on three clusters in Zeuthen:

Linux (100 nodes), HP (7 nodes), APE (1 parallel node)

- system allows the dynamic configuration of resources/prios
- also running LSF, PBS in Hamburg

Mass Storage



- deployment of 2 new STK Powderhorn robots with 9940 tapes
- sgi Origin3400 is online as high throughput front end
2 Gb FibreChannel switched infrastructure
- supported by an old faithful O2000 as HIPPI bridge and
- two Sun Fire880 servers for dCache
- preparations for a second data centre are progressing
- dCache has entered production earlier this year...
and our users are still talking to us

Networking



- successfully deployed VLAN technology
 - ⇒ decoupling of network topology and organisational structures is now possible
- deployment of DHCP is ongoing
 - ⇒ 'guest network' already functional
 - ⇒ 'registered network' in test phase
- wireless LANs are popping up
 - ⇒ lecture halls, seminar rooms are in production
 - ⇒ support for both registered and unregist'd (guest) clients
- integrated solution for DNS, DHCP and dVLAN in use

Networking (cont'd)



- IT internal testing of VPN functionality is underway
 - ⇒ on this machine I am at DESY
- site wide multicast will be available sometime this year
 - ⇒ on request of machine control groups for status exchange
- installed video conferencing equipment can use IP now
 - ⇒ on broadband networks we can save some money
- preparation of LAN-to-LAN VPNs using IPsec

AFS cluster upgrade

- extensive system tests were done late summer/autumn 2001
- decision was made to go for
 - ⇒ SUN Fire280R servers
 - ⇒ LSI hardware RAID
 - ⇒ switched 2 Gb FibreChannel fabric
- capacity grows by 1.5 TB of useable file space to 2.2 TB total
- server software will shortly be converted to OpenAFS
- possible deployment of MR-AFS in the future
- backup systems remains ADSM/TSM
- probable deployment of Heimdal K5 server for AFS

Infrastructure services



- introduction of low cost Netra X1 servers for central services
 - ⇒ known OS, 1U rack size, unplug and replace
- consolidation of NIS service – eradication of parasites
- central network calendar
- Samba Gateway
- DNS, LDAP, Kerberos secondaries
- boot and font services
- license services
- ISS load balancing
- ...

Registry



- new core registry as primary data source for
 - accounts
 - groups
 - access to resources
- delegation of administration
- open system, both in usage and in development
- extra systems management functionality under the same GUI
 - e.g. disk space quota

Project website: <http://www.desy.de/rgypro>

eMail filtering



- reducing –hopefully eliminating– spam
- MAILsweeper (Baltimore, ex: Content Technologies)
- spam filter offers account based opt–out functionality
- virus checking on all incoming and outgoing email
- F–Secure
- both running on Windows2000

Calendaring



- tests started in summer 2001
- iPlanet did not deliver its promises
- IT has adopted Corporate Time (fka Netscape Calendar)
- native clients for Windows, Linux, Solaris
- web interface for InternetCafe use, as well as WAP for mobiles
- adapter for Exchange is available – some problems detected
- integration of reminders via mobile is forthcoming

Ongoing and future projects



- redesign of DESY mail infrastructure
- scalability of systems
- large NFS filestore
- ssh central key management
- monitoring – logsurf (www.dfn.de) , netsaint, patrol etc.
- standardisation of install procedure on all platforms
- delegation of systems management into operations group



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Any Questions ?

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