

Highlights of the Autumn HEPiX/HEPNT 2003 Meeting

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Technology Meeting
November 3, 2003

Meeting Overview

- Held at TRIUMF in Vancouver, BC
- October 20-22: HEPiX
- October 23-24: Large System Sig and Security Workshop
- October 24: HEPNT
- 75 Participants with 25 from US
- First meeting with vendors

Site Reports

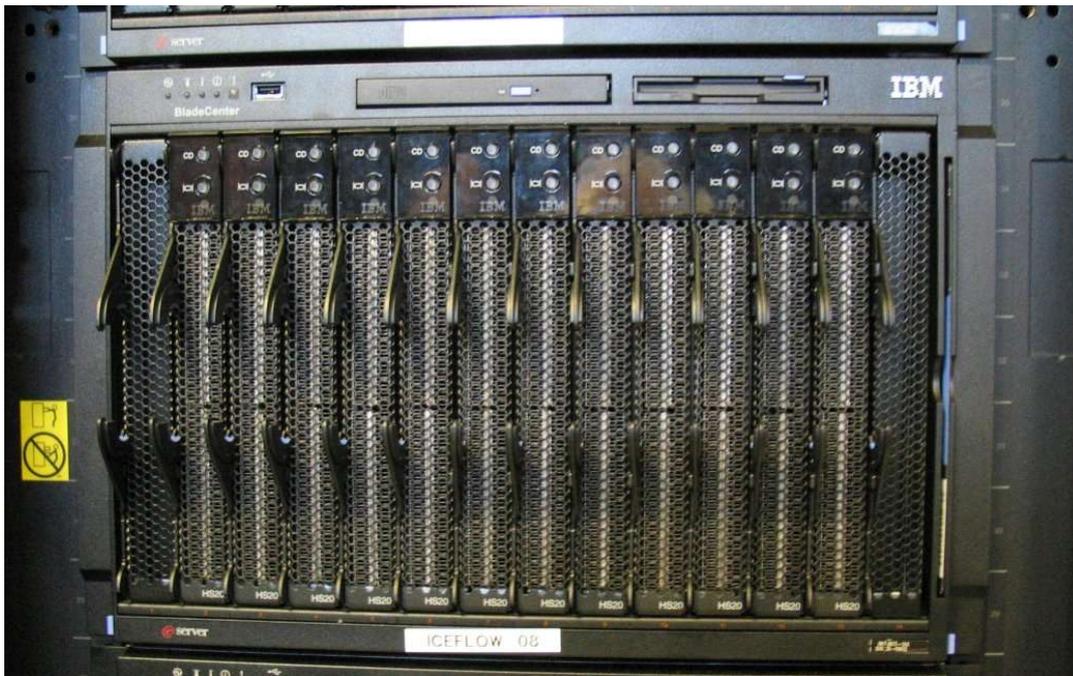
- SLAC
 - BaBar undergoing conversion to new computing model
 - Root based output instead of Objectivity (but still some Objectivity)
 - File servers to use XROOTD, load balancing
 - HPSS
 - Recently migrated from AIX to Solaris
 - Upgrading from 30 9940a to 40 9940b
 - Tape thrashing when data set exceeds disk pool (cache)

Site Reports (Cont.)

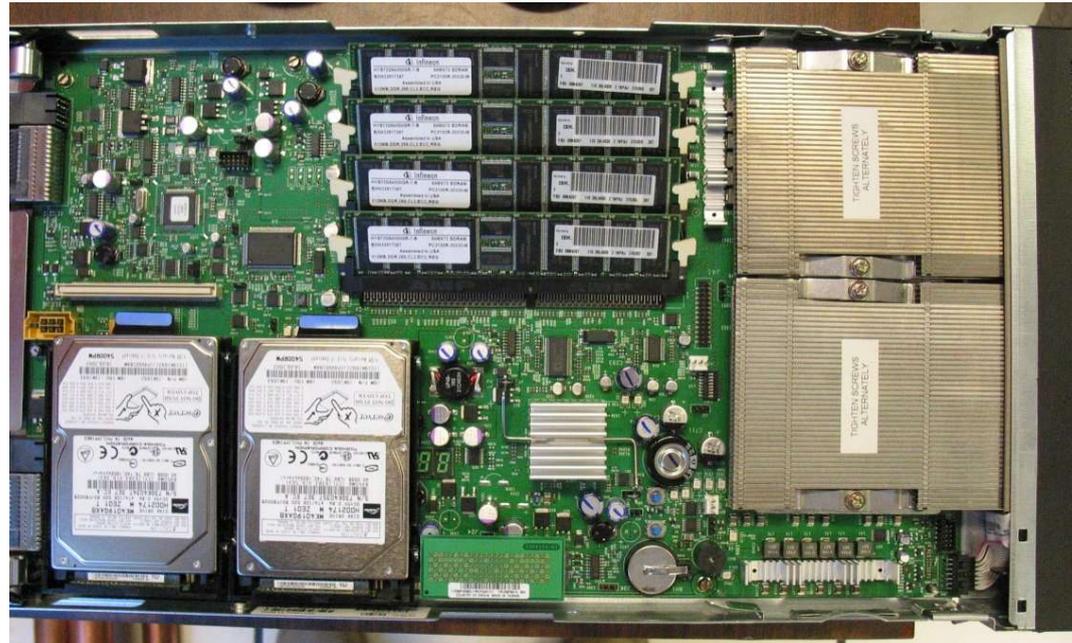
- SLAC (cont.)
 - AFS
 - File and database servers running OpenAFS 1.2.9 – will go to 1.2.10 since key changing fixed
 - Clients at 1.2.10
 - No problems seen in transition
 - Have written bos and vos perl modules, soon in CPAN
 - AFS Best Practices Workshop – Feb 4-6, 2004

Site Reports (Cont.)

- SLAC (cont.)
 - Kerberos
 - Separate UNIX and Windows realms
 - Working on synchronizing passwords
 - Use Active Directory under Windows
- TRIUMF
 - Recent installation of 504 dual 3.06 GHz Xenon IBM blades
 - Initially had power consumption problem



**14 dual-cpu
blades in
7U Chassis**

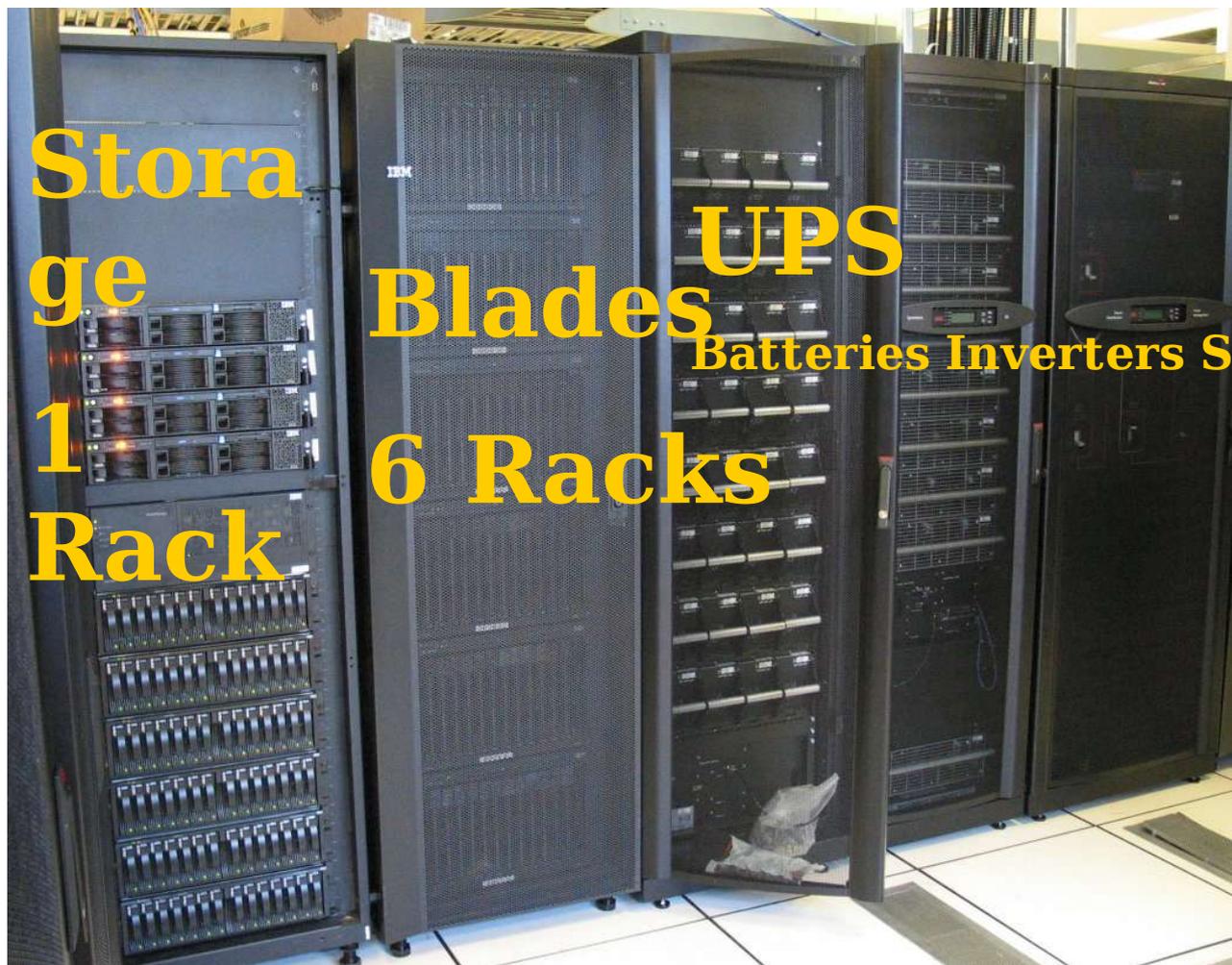


**Side view
of a blade**

TRIUMF Site Report for HEPiX/HEPNT, Vancouver, Oct20-24/2003 – Corrie Kost



TRIUMF Site Report for HEPiX/HEPNT, Vancouver, Oct20-24/2003 – Carrie Kost



**Storage
Blades
1
Rack**

**UPS
Blades
6 Racks**

Batteries Inverters Switch Gear

Site Reports (Cont.)

- NERSC
 - PDSF: 96 dual Athlon, 8 storage nodes with ~18 TB, gigabit network
 - Evaluating SUN GridEngine as replacement of LSF
 - Writing a Grid certificate kernel module
 - HPSS: testing version 5.1, new DataDirect disk cache, Web interface to HPSS
 - Jumbo support to ESNET

Site Reports (Cont.)

- NERSC (cont.)
 - Distributed Systems
 - Kernel modifications to allow OS to dynamically respond to network conditions
 - Working on application-to-application monitoring project
 - pyGlobus – python interface to Globus toolkit
- CERN
 - Replacing ASIS with SPMA (Quattor)

Site Reports (Cont.)

- General
 - Several sites seeing NFS problems on Linux, feel client problem fixed by proper kernel
 - European sites using EDG WP4 tools
 - Quattor – configuration and installation
 - Lemon – monitoring and fault tolerance
 - Many sites using Active Directory
 - All consider patching a major problem

Other Reports

- Several talks on patching methods
 - Windows:
 - Many sites using SUS
 - Often difficult to get users to run Update
 - Linux
 - Small number using RHN
 - APT for RPM (addresses dependencies better)
 - EDG tools (Quattor)
 - YUMIT based on YUM from Yellow Dog
 - Some home grown systems

System Administration

- Console management (SLAC, CERN)
 - Similar to system on old VA machines
- Host Database Project at NERSC
 - Track large amount of info on nodes
- Web based file system (WebDAV)
- Distributed NIS group administration
- Mail systems, anti-virus, spam

Red Hat

- Presentation from Don Langley (RH)
- No new information
- Did not present a solution to problem
- Follow-up discussion without RH
 - Switch to SuSE or Debian – most want RH
 - Build self supported release from source
 - CERN, SLAC and Fermilab will approach RH for a HEP (LCG) wide solution

Security

- Lots of discussion of blaster worm and response
- Infection vectors:
 - VPN, DHCP (laptops), vacation
- Root kit discussion
 - Detecting
 - Protecting systems (St. Michael)
- SPAM and anti-virus

Summary

- Slides from most talks available
 - <http://www.triumf.ca/hepix2003/>
- Summary by Alan Silverman from CERN also available
- Next meeting in Edinburgh, Scotland
May 24-28, 2004
- Following meeting at BNL