CERN

SITE REPORT

HEPiX

SACLAY – OCTOBER 94

Overview

- System Support for
  - IBM RS6000 (AIX)
  - HP Systems (Series 700 and Apollo)
  - SUN Systems (SunOS and Solaris)
  - DEC Systems (ULTRIX and OSF/1)
  - SGI Systems (IRIX)
- AFS Services
- X Terminal Support
- Support for Printing
- SUE – Standard UNIX Environment

Overview (cont)

- **Work Group Server Support**
- **UNIX Environment Developments**
- **ASIS Services**
- **CORE Services**

Customer Base

Apollo Systems		200	↓
HP Systems		390	↑
DEC ULTRIX Systems		200	↓ (↓)
DEC Alpha OSF/1 Systems		80	↑
IBM RS6000 Systems		70	↑ (↑)
SUN Systems		460	↑
SGI Systems		30	↔
Xterminals	NCD	540	↑
	HP	190	↑
	Other	80	↔

AFS Services

- There are currently 4 servers installed. Two more have been delivered.
- All servers are IBM RS6000s equipped with DEC StorageWorks or IBM disc arrays.
- Today there is 130 GB of disc space of which approximately half is used. With the introduction of the two new servers this will increase to more than 200 GB.
- Useage is increasing rapidly – Today there are more than 700 registered users and more than 280 client machines.
- The home directories are currently mirrored and the use of RAID is being investigated.
- Backup is done using the standard AFS backup to DLT.
- ADSM is being investigated as an alternative backup service.

Print Services

- Two central print servers (both DECstation 5000s)
- More than 500 printers, mostly Appletalk
- More than 1900 client systems
- Approximately 19000 jobs (75000 pages) per week

Xterminal Support

- Xterminals are becoming very popular.
- Until recently NCD Xterminals were recommended but support for HP Xterminals is being set up as these are becoming more popular.
- An order will soon be placed for three Boot/Font servers, two for a central service and one for a remote site. More servers for remote sites are planned for the future.
- A suitable management strategy needs to be devised and implemented.

Work Group Server

- HP and AIX Work Group Servers continue as before, numbers are increasing.
- The Sun Work Group Server for CMS has been delivered.
- The integration between Work Group servers and AFS based batch services is continuing, notably for ATLAS.
- A public login service (PLUS) will be implemented on the SP2 with future installations on other platforms.

UNIX Environment

- The HEPiX login scripts will soon be the default for all new AFS accounts.
- Load balancing across Work Group servers has been implemented using IBM's ISS product. This is a part of LoadLeveller.
- Zephyr is now a supported service at CERN with a growing user base and we are starting to see it used by experiments for communicating urgent messages. Other sites have made enquiries on how to install Zephyr.

ASIS Services

- AFS, NFS and ftp services have been separated and reorganised (asisftp, asisnfs).

- New procedures to put packages into production –

    * Changes are atomic
    * Announced in news group cern.asis

- Upgrade to make_asis (ASISUpdate)

    * AFS + NFS Support
    * Version Control (InProduction, Specific, Latest)
    * Links by default but can have local copies
    * Beta: Mid October – Release: Mid November

- Ongoing work on automated generation of packages.

CORE Services

Collaboration	Equipment	Disc Capacity GBytes Aug 93	Disc Capacity GBytes Aug 94	Nominal CPU capacity Aug 93	Nominal CPU capacity Aug 94
ALEPH	8 CPU SGI Challenge XL	40	200	60	176
ALEPH (Saga)	7 x DEC AXP 3000/400	0	10	0	126
DELPHI	3 x HP 735/99	50	200	52	149
	2 x HP 735/125				
L3	12 CPU SGI Challenge XL	0	262	0	264
	8 CPUs on order				(+176)
OPAL	2 x 8 CPU SGI Challenge XL	210	674	210	378
	4 CPU SGI 340S				
ATLAS	HP 735/99, HP 735/125	15	56	26	61
CMS	HP 735/99, 2 x HP 735/125	15	12	26	95
CHORUS	IBM RS/6000–370	0	38	0	17
CPLEAR	2 x DEC AXP 3000/300	4	6	10	48
	DEC AXP 3000/400				
NA49	2 x HP 735/125	0	30	0	68
NOMAD	DEC AXP 3000/500	0	10	0	20
SMC	SUN 630–MP, SPARCstn 10	4	3	22	22