Edinburgh HEP Computing

Particle Physics Experiments Group:

- manpower: 3 staff, 3 RAs, 5 PhD students, . . .
- collaborations: BaBar, NA48, LHCb, Atlas
- 1 sysman, 1 deputy (presently vacant)

Departmental Structure:

- (6+1) research groups, 1 physman each (part-time)
  & administration & CP lab for students
  with different computing needs/platforms/strategies
- computing support (full-time):
  - ◇ 1 general admin (head, UNIX-minded . . .)
  - ◇ 1 UNIX admin
  - ◇ 1 Wxx admin
  - ◇ 1 CP lab admin (UNIX based)

Departmental Support:

- central services:

  Ethernet, DNS, YP, mail, backup, www server, security monitoring

- centralization under the way:

  printing, standarised basic setup scripts (UNIX) & group specific extensions

  $\Longrightarrow$ reduction of workload on physman, unified security setup, fast new/re- build of machines

PPE Peculiarities:

- inhomogeneous cluster

  other groups at most 2 platforms

- most complex setup

  PPE only features: AFS, ASIS, hepix, central home directories (UNIX)

PPE Hardware / OS:

driven by collaborations

At Edinburgh:

- 6 DEC Alpha stations (Digital UNIX 4.0) 3–6 years
  newest Alpha is workgroup server
- 7 PCs (RedHat 5.2 $\longrightarrow$ 6.0) 0.5–5 years
- 1 SUN (disk) server (SunOS 5.6) 0.5 years
- 2 Win NT (samba connection to UNIX) 1–4 years
- 3 Win 95/98 3–6 years
- 3 Macs (OS 7.0–8.6) 3–6 years

Portables:

- 2 Macs (G3) 2 years
- 2 PCs (RedHat 5.2 / W98) 1–1.5 years

At SLAC/CERN offices:

- 6 PCs (RedHat 5.2) 1–4 years

Network:

- locally: 100 Mbit/s, remotely: 10 Mbit/s
- CERN: 0.1-100 kbyte/s ('Leeds' effect)

Disk Space:

- 200 Gbyte (distributed to UNIX machines)
- 40 Gbyte (distributed to Wxx machines)
- 0.5 Tbyte RAID array (SUN served, BaBar related)

Usage:

- desktop, data analysis, laser print: Alpha, Linux
- BaBar data analysis: SUN, (Linux)
- travel, 2nd desktop OS: Portables
- Lab DAQ: W95/98 (NT), Mac
- special applications (CAD, PowerPoint, Photoshop, Excel, . . .): NT, Mac
- CDRW, scanner, fax, inkjet: Wxx

Strategy:

- phase out Alphas over the next few years
- Linux is base OS (the only OS supported by all our collaborations) & SUN as BaBar OS
- keep few NT (or successor) machines for commercial applications
- move workgroup server from Alpha to SUN (or Linux) this year (SUN preferred for maintainence reasons)

Future Purchases:

- applied for a SUN server in grant & BaBar-UK JIF bit
- replace PCs (Alphas) with a 5 years turn-over
- 2 more a portables
- general disk space is a ‘consumable’

(• Edinburgh/Glasgow Tier2 initiative)