

60 people
organization in physics
some services he needs

Prague Site Report

HEPIX, October '94, Saclay

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- ❖ HEP Institutes
- ❖ Physical Projects
- ❖ Past
- ❖ Networking
- ❖ Startup Scripts
- ❖ nqs, nqs++
- ❖ X-Windows
- ❖ WWW, Usenet News, Mailing Lists
- ❖ DTP
- ❖ Backup
- ❖ Zephyr
- ❖ Software Servers
- ❖ PC
- ❖ Future Plans

(mainly Institute of Physics)

<http://www-hep.fzu.cz/computing/SiteReport.html>



HEP Institutes

- ❖ **Institute of Physics, Academy of Sciences of the Czech Republic**
- ❖ **Faculty of Mathematics and Physics, Charles' University**
- ❖ **Nuclear Physics Institute, Academy of Sciences of the Czech Republic**
- ❖ **Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University**

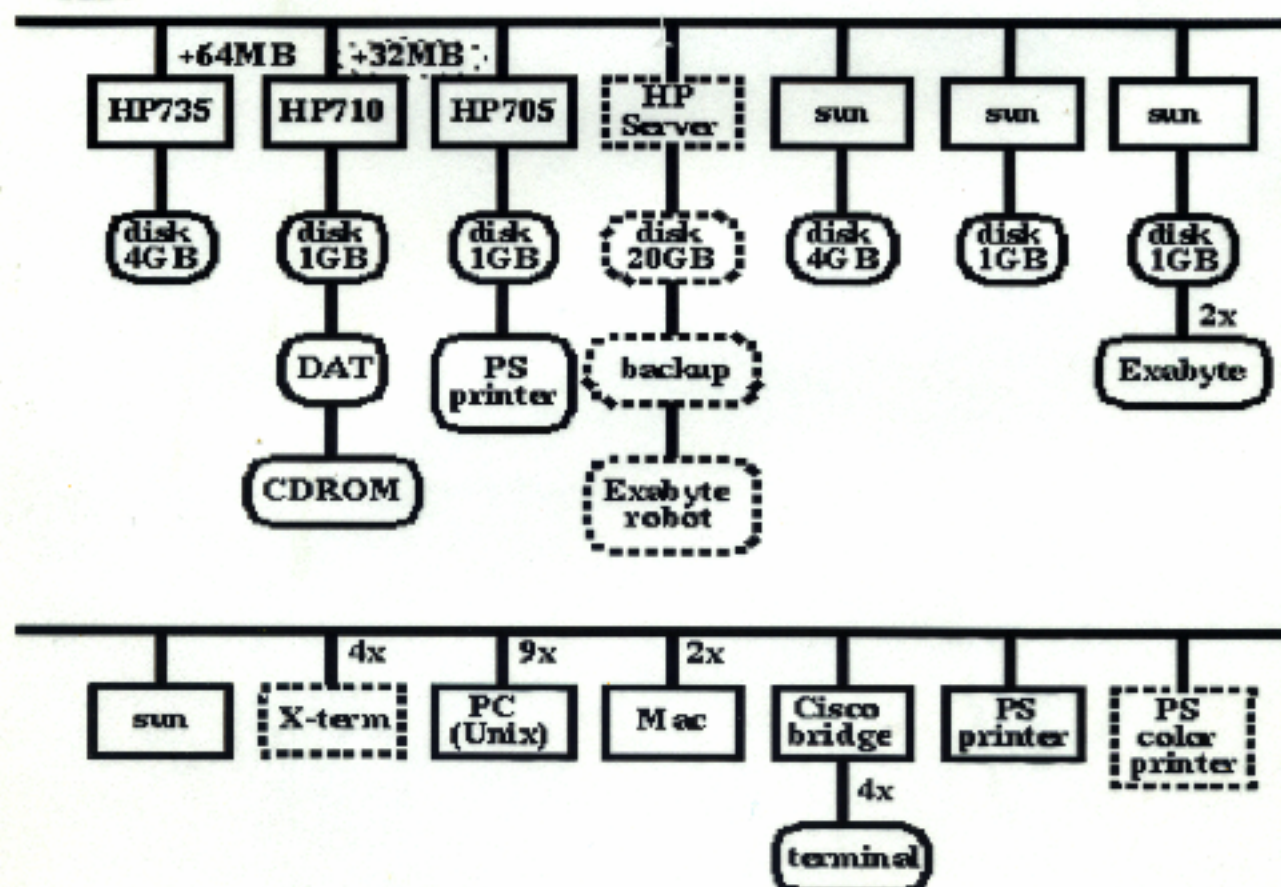


Institute of Physics

Academy of Sciences of the Czech Republic

- ❖ HP 735, HP 710, HP 705
- ❖ SUN LX, 2x SUN IPX, SUN SLC
- ❖ Cray YMP EL

FzU:



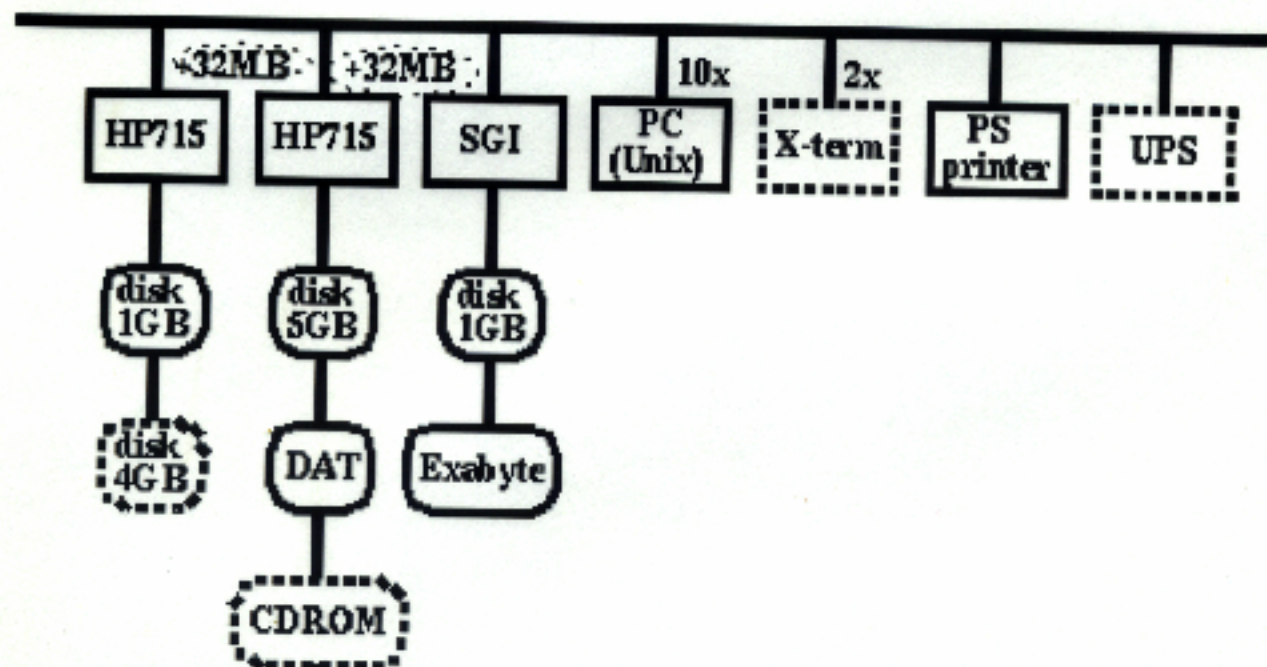
Faculty of Mathematics and Physics

Charles' University

❖ 2x HP 715

❖ SG

MFF:



soon HP 715
dellat: lab, data
two displays for 2 people
8-10 min

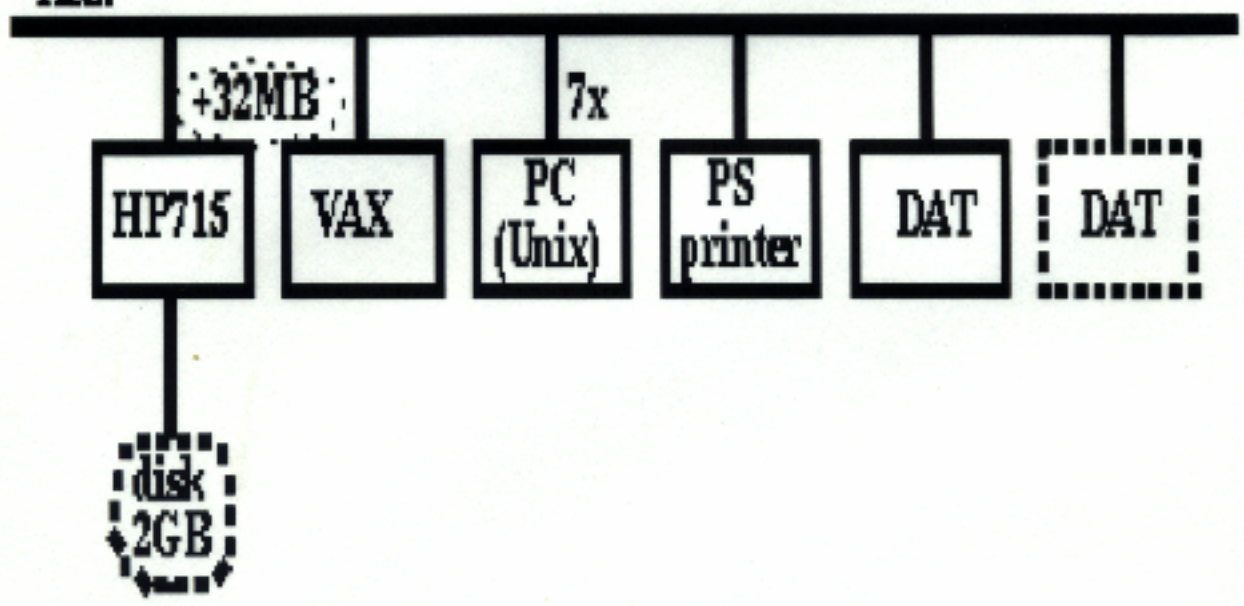


Nuclear Physics Institute

Academy of Sciences of the Czech Republic

- ❖ HP 715
- ❖ VAX

Rez:



not just copy/paste; delete for sure

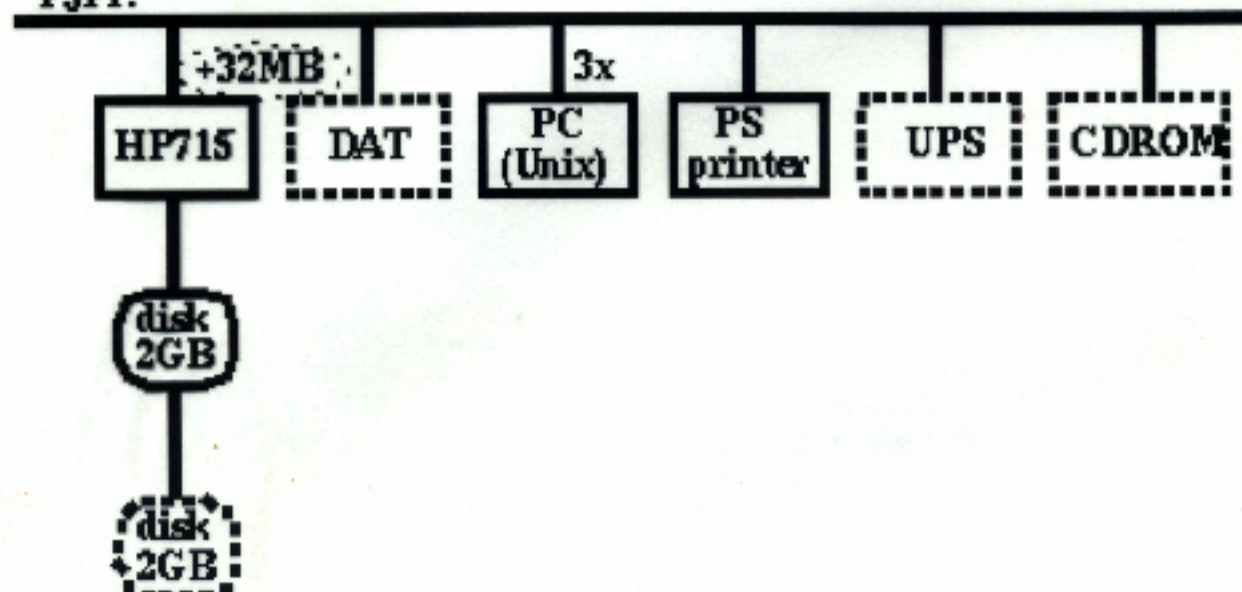


Faculty of Nuclear and Physical Engineering

Czech Technical University

❖ HP 715

FJFI:





Physical Projects

❖ Alice

- simulation

❖ Atlas

- software development (Slug/Dice/Atrecon)
- Moose (RD41)
- simulation

❖ Delphi

- analysis

❖ H1

- analysis

❖ Omega

- analysis

❖ R&D

❖ Theory

- numerical methods (Minuit)
- symbolic methods (Mathematica)



- ❖ IBM (VM/CMS)
- ❖ Siemens (BS 2000)
- ❖ ICL
- ❖ EC1040 (=IBM370)



Networking

- ❖ **question of reliability**
- ❖ **internal lines**
 - 64 kbps
 - radio wave transmissions
- ❖ **external lines**
 - 512 kbps to Amsterdam
 - 128 kbps to Vienna
 - 64 kbps to Banska Bystrica



Startup Scripts

- ❖ Mixture of the institute-level scripts and local customisations.

future:

- ❖ HEPiX Scripts



nqs, nqs++

- ❖ distributed farm
- ❖ mainly used HP-735
- ❖ job submission to/from CERN
- ❖ queues:
 - cpqX (20 s)
 - cpqS (200 s)
 - cpqM (10000 s)
 - cpqL (1000000 s)
- ❖ NQShunter on HP

future:

- ❖ instalation in other institutes

X11 from Osis
choose for implementation
not happy, want for CUSE



X-Windows

- ❖ HP
 - HP-VUE
- ❖ SUN
 - X11R5
 - xdm
- ❖ PC
 - X-Appeal

future:

- ❖ COSE
- ❖ chooser
- ❖ ? HEPiX environment ?

updates news via www
3rd or 4th time signed
about HEP News Server vs. Project
low low-mid 1994

WWW Usenet News Mailing Lists

❖ WWW Server:

- <http://www-hep.fzu.cz/Welcome.html>
- the first Server in East Europe
- many cgi scripts
- access authorisation

❖ NNTP Server:

- nntp-hep.fzu.cz
- feed general groups from national server
and HEP groups from CERN
- local groups

- ❖ Interconnected: One may send news from WWW, Usenet or mail to everywhere.
- ❖ In case of crash of a Server, several other Servers may do the job.

future:

Majordomo



❖ **LaTeX everywhere**

❖ **HTML**

– latex2html

– HotMetal, ATK ez

❖ **W4W on PCs**

future:

❖ **? FrameMaker ?**



Backup

- ❖ **HP: Omniback**
- ❖ **SUN: manualy**

future:

- ❖ **centralised system**
- ❖ **backup of PC-directories**



Zephyr

- ❖ as default
- ❖ uses CERN Servers



Software Servers

- ❖ **nsf-mounted**
- ❖ **Asis - transported from CERN via DAT or Exabyte**
- ❖ **Local software - similar structure as Asis**
- ❖ **Special software for:**
 - Atlas
 - Delphi
 - Omega



algorithm (parallel) from Unix
OS
pc-tcp & Pos or MS-Windows

- ❖ **Centrally organized authorisation.**
- ❖ **After login one may choose a configuration:**
 - pc-tcp
 - ◆ Unix disks nfs-mounted to PCs
 - ◆ central Server of PC software
 - X-Appeal

ARS = f(legitimacy of network)
Determine depends on what system
CERN choose
HP side worse for Police HBP
industry - call back service



Future Plans

- ❖ **AFS client**
 - CERN-home
 - CERN-Asis
- ❖ **Exabyte robot for simulation and analysis**
- ❖ **20GB disk pool for staging**
- ❖ **optical disks for backup**
- ❖ **more memory**
- ❖ **X-terminals**
- ❖ **teleconferencing (mbone)**
- ❖ **Color PS printer**
- ❖ **HP software Site Licence**
- ❖ **faster and more reliable networking**
- ❖ **modems for access from home**
- ❖ **common project with HP**