

Data Communication, Data Acquisition and Computational facilities

Our duty is to support and develop the Physics Department computer network (hardware and general facilities like mail, print, file and web servers and common applications) and the links with the other networks within CNEA and the Internet.

During 2000 we made improvements in the network, added new equipment and kept the available equipment in working conditions. This work was done within a frame of limited funding available.

Data Communication

This is the main area for our efforts, to keep the network working and improve the services it provides. There are currently 165 hosts on the network, with about 135 operating daily.

On Sep 2nd, 2000 we replaced the old SUN Sparc-10 server with a new SUN Ultra-10 multipurpose server, with updated software.

Another SUN Ultra-10 belonging to the Theoretical Physics group was also commissioned.

We took steps towards monitoring our Internet link, using tools originated in the PingER Project (<http://www-iepm.slac.stanford.edu/pinger/>). These tools were installed and operate in our site. Though PingER has limitations, it helped us to detect and characterize an atypical link failure during August 2000.

We added hubs and cabling for network access in the new laboratories in Building "B" and other sites both in Buildings "A" and "B". Coaxial cabling remaining elsewhere is being replaced by UTP.

As a first step, we installed an UPS for partial support of our network center.

Data acquisition and Computational facilities

The XSYS multiparameter data acquisition system supported on a microVAX 3300 and the microVAX 3100 are still in use.

The research groups within the Department kept buying new PCs and we put them to work. The older PCs were reassigned and reconfigured to suit the needs of their new users. We provided at least a first level of diagnostic and service (hardware and software). E-mail PC viruses are becoming a growing plague.

General support

Installation of "ispell", a multilingual typographical correction system for the UNIX environment.

Update and debugging for a facility to generate software packages to be installed on Solaris, Linux/SlackWare y Linus/RedHat platforms, starting with source code available in the public domain.

Development of an automated procedure in "perl" language to generate listings in HTML format. Specific implementation to keep track of the software available in our local repository.

Refurbishing and update of the Department's web page structure. Development of procedures to easy information publishing ('permanently updated report' for the Department's activities).

Everyday support duties, taking a sensible portion of available manpower, include:

- operating system maintenance ('patches' for SunOS, Solaris, Linux, etc.) and backups
- legacy systems maintenance (mainly PCs), with special efforts to obtain spare parts
- advice to users in network issues, data processing, maintenance procedures, equipment purchase, etc.

NOTE: This report does not include additional work in computing and data acquisition done by other groups in the Physics Department.