CREWES computer systems: an update

Kevin W. Hall and Rolf Maier

ABSTRACT

Since last year's report, CREWES has acquired new computer hardware for the use of students and project employees. Six 3 GHz Windows XP Pro desktop systems have been distributed to new CREWES students. In addition, two 3 GHz Fedora Core 2 Linux servers, each with 1.2 TB of storage, have recently been set up for data processing.

COMPUTER HARDWARE

Fedora Core 2 servers

As reported last year (Maier et al., 2003), the old SUN workstations at CREWES are gradually being replaced by newer, faster Linux machines. Two 3 GHz (Intel P4 CPU) Linux servers (Figure 1) have recently been made available to CREWES students and employees. Each machine has 2 GB of RAM and eight SATA hard drives. Two 120 GB drives have been configured as a mirrored hardware RAID (Level 1) for the operating system and local software. Six 250 GB hard drives have been set up as a RAID 5 array, providing two 600 GB partitions for data storage on each machine. Various SCSI and USB devices have been successfully connected to these servers.

Since these machines are primarily intended for data processing, and due to licensing restrictions, software has thus far been limited to ProMAX, Matlab, Claritas, and Seismic Un*x.

FIG. 1. Two new Linux servers with two 600 GB partitions each provide a total of 2.4 TB of data storage space.

Windows XP Pro desktops

Six 3 GHz (AMD 3400+ CPU) desktop PCs with 512 MB of RAM have been acquired in the last month. Microsoft Windows XP Pro, Microsoft Office 2003 and cygwin were installed before the computers were distributed to new full-time CREWES students. Experience has shown that Seismic Un*x can be successfully compiled and run under cygwin, giving students a way to work with seismic data on their own machine. In addition an X-server running under cygwin enables local displays of Linux and Solaris software running on remote servers.

Printers

Two colour Xerox Phaser 6100 laser printers are recent additions to our hardware inventory. These printers have already been heavily used in preparation for the annual meeting. In general, the ability to print multiple sheets on a double-sided page will significantly reduce the amount of paper used in the office.

PUBLISHING

A CREWES LaTeX style was written for this years report. The existing SQL database and web-browser interface did not have to be modified in order to allow the inclusion of reports written in LaTeX in the digital authoring flow.

SUMMARY

Thanks to the continuing support of our sponsors, NSERC and software donors, we are able to provide our staff and students with geophysical software and upgraded hardware to run it on.

REFERENCES

Maier, R., Hall, K.W., and Bland, H., 2003, CREWES computer systems: CREWES Research Report, **15**.