THE UNIVERSITY OF ZAMBIA
COMPUTER CENTRE
CONSULTANCY AND TRAINING UNIT

Course: Linux System Administration Training

Duration: 10 working days

Start Date: 31/01/2011

Timings: 17:00 – 20:00

Fees: K2, 000,000.00 per participant
NB. Registration on the course will only be done after you pay a commitment fee of **K1,000, 000** or you send us an **Order**.

Prerequisites: Basic Computer Knowledge

Course Description

System Administration covers all the things that you have to do to keep a computer system in usable order. It includes things like backing up and/or restoring files, installing new programs, creating and/or deleting accounts for users of users, making certain that the file system is not corrupt, etc.

Course Outline

Lesson 1: What is Linux?

1. origins of Linux
2. GPL
3. Linux kernel
4. Linux distributions

5. Installing Linux
6. Determining Desktop and Server specification.
7. Step by step installing
8. Gnome and command line environment.

Lesson 2: Multi-user Concepts

1. Log in to LINUX
2. Switching user sessions
3. Gathering system information
4. Getting help

Lesson 3: The Linux File System

1. Linux file system features
2. Disk usage and quotas
3. File ownership and permissions

Lesson 4: Manipulating Files

1. Directory and file manipulation
2. File creation and removal
3. Physical file structure
4. Searching the file system

Lesson 5: Archiving and Compression

1. Directory archive with tar

2. The compress utility using gzip uzip
3. Text Editing
4. GNU Nano
5. Basic vi
6. Advanced vi

Lesson 6: Process Management and Job Control

1. What is a process?
2. Process creation and states
3. Viewing processes
4. Job control basics

Lesson 7: The Secure Shell (SSH)

- Secure shell
- Remote shells
- Transferring files

Lesson 8: Managing Software

- Downloading software
- FTP, yum and other utilities
- Installing software
- Using rpm
- Compiling and installing from source
- Installing RPM packages

Lesson 9: Printing

Linux printer subsystems and standard print commands

Lesson 10: Mounting File Systems

- File system concepts
- Mounting file systems, NFS and SMB
- File system table and automating mounts
- Removable media.

Lesson 11: Linux networking and security

- Managing the network service
- Configuring the network interface
- Adding and maintaining network routes
- Configuring security using SELINUX and Iptables

Lesson 12: Building and maintainig servers

- Building DHCP server
- Building Mail server (SMTP using postfix)
- Building Ftp server
- Building Webserver (apache)