



**The African Advanced Level Telecommunications Institute
(AFRALTI)**

Digital Technologies and Management of Information Systems Department
(DT-MIS)

.....

Linux System Administration
Advanced Level Linux Professional

.....

Course Overview:

This is a hands-on **Advanced** course designed for Linux System Administrators responsible for the Design, Installation, Configuration and Support of Linux Servers in a networked business environment. The Course addresses major Linux System Administration Domains like the Linux Kernel, Maintenance, Filesystems, Hardware Configuration, Network Services Configuration, System Optimization and Improvement and many other mission critical skills a Linux System Administrator need s.

On successful completion of the course participants receive a Certificate of Course Completion from AFRALTI and are prepared for the LPIC Level 2 Certification (Linux Professional Institute Certification - Advanced Level Linux Professional)

Prerequisites : In order to successfully complete this course, participants should at least be Basic Linux users

Structure : This is a 30-hour Instructor led Hands-on course conducted in a computer lab environment, with short lecture sessions.

Duration: 30 Hours (2 Weeks part time)
Morning : 9am-12noon

Afternoon : 2pm-5pm.
Evening : 5:30pm - 8:30pm

Course Fees: Ksh 20,000

Course Details

Week 1

Main Objectives:

- **Linux Kernel**
- **System Startup**
- **Filesystems**
- **Hardware**
- **System Maintenance**
- **System Customization and Automation**
- **Troubleshooting**

Detailed Objectives

Linux Kernel

- Kernel Components
- Compiling a kernel
- Patching a kernel
- Customising a kernel

System Startup

- Customising system startup and boot processes
- System recovery

Filesystem

- Operating the Linux filesystem
- Maintaining a Linux filesystem
- Creating and configuring filesystem options

Hardware

- Configuring RAID
- Adding new hardware
- Software and kernel configuration
- Configuring PCMCIA devices
-

File and Service Sharing

- Configuring a Samba server
- Configuring an NFS server

System Maintenance

- System logging
- Packaging software
- Backup operations

System Customization and Automation

- Automating tasks using scripts

Troubleshooting

- Creating recovery disks
- Identifying boot stages
- Troubleshooting bootloaders
- General troubleshooting
- Troubleshooting system resources
- Troubleshooting environment configurations

.....

Week 2

Main Objectives

- **Networking Configuration**
- **Mail & News**
- **DNS**
- **Web Services**
- **Network Client Management**
- **System Security**
- **Network Troubleshooting**

Detailed Objectives

Networking Configuration

- Basic networking configuration
- Advanced Network Configuration and Troubleshooting

Mail & News

- Configuring mailing lists
- Using email servers
- Managing Mail Traffic
- Serving news

DNS

- Basic DNS server configuration
- Create and maintain DNS zones
- Securing a DNS server

Web Services

- Implementing a web server
- Maintaining a web server
- Implementing a proxy server

Network Client Management

- DHCP configuration
- NIS configuration
- LDAP configuration
- PAM authentication

System Security

- Configuring a router
- Securing FTP servers
- Secure shell (SSH)
- TCP_wrappers
- Security tasks

Network Troubleshooting

- Troubleshooting network issues

[Register Now!!](#)