

# LINUX

This course will cover all aspects of Linux Certification. At the end of the course delegates will have the skills required to administer a Linux System. The course will also cover Internet application server configuration on live registered domain name with valid public IP addresses. The training will be given by Senior System / Network engineers with several years of industry experience.

## Course Outline

- ☞ Introduction to Unix, Installation of Linux
- ☞ User, Group Administration, ACL
- ☞ Automation of Jobs, Disk Partitions
- ☞ Mounting File Systems
- ☞ Backup and recovery, Printer Configuration
- ☞ Basics of NFS, AutoFS
- ☞ Quotas
- ☞ DHCP, DNS, Mail, Web, VSFTP

**LINUX**  
*Linux Essentials*  
*System Administration*  
*Network*  
*Administration*

# Course Curriculum

## Introduction to UNIX & LINUX

- History of UNIX and LINUX
- Basic concepts of Operating System, Kernel, Shell & File System structure
- Basic concepts of Linux
- Differences between CentOS, Red Hat Enterprise Linux & Fedora
- Basic commands of Linux
- Advanced Linux Commands

## Installation of Linux

- Interactive Installation
- Network Based Installation

## Introduction to Graphical Environment

- Use and customize the GNOME interface
- Perform command tasks using the GNOME GUI
- Launch applications from command line & GNOME interface
- Customize X Window System

## Software Package Administration

- Installing and deleting software packages
- Querying and updating software packages

## User and Group Administration

- Creating and deleting users from the systems
- Modifying users profile
- Creating and deleting groups
- Important system files related to user administration

## Advanced File Permissions

- Assigning advanced files permissions i.e. chmod, chown, chgrp & Sticky bit
- Creating, modifying and deleting ACL's

## Disk Partitioning and Mounting File System

- Using fdisk, disk druid utilities for disk partitioning
- Using mkfs, commands to create file systems
- Mounting various file systems
- Auto mounting of file system

## Disk Quotas

- Enabling Quotas on partitions
- Creating Quotas for users
- Auditing Quotas limit

## Backup and Recovery

- Introduction to various types of backup media
- Backup and restoring using tar and cpio commands

## NFS

- Configuring NFS server
- Mounting NFS exports on NFS clients

## Dynamic Host Configuration Protocol (DHCP)

- Configuring Linux as DHCP Server
- Configuring various clients for DHCP Server (Windows & Linux)

## DNS Server

- Configuration of DNS server
- Configuration of primary DNS server
- Configuration of forward lookup zone
- Configuration of reverse lookup zone
- Testing tool of DNS zones
- Adding services in DNS

## Mail Server (SMTP, POP3, IMAP)

- Basics of Mail Servers
- Configuring SMTP service using Postfix
- Configuring POP3 / IMAP service on Linux

## Web Server (Apache)

- Basics of Web Service
- Introduction to Apache
- Configuring Apache for main site
- Configuring Apache for multiple sites using IP-based, port-based and name-based virtual hosting

## FTP Server (vsftpd daemon)

- Basics of File Transfer Protocol
- Configuring vsftpd for anonymous ftp service

## RAID (Redundant Array of InExpensive Disks) & Logical Volume Manager

- Implementing RAID on Linux
- RAID levels (0, 1 and 5) configuration using RAID tools
- Resizing the Partition using LVM

## Web based Administration

- Installing Webmin on Linux
- Administrating Linux machine remotely
- Using Webmin as a tool for configuring various services on Linux

## Difference between Unix and Linux Flavors

Live Setup - Demo by Faculty

## Designing, Implementing & Maintaining of Corporate Network