
Linux Professional: Network Administration

Course Length: 5 Days

Software: Redhat_Linux

Course Description

Linux Professional: Network Administration is a hands-on instruction book. It will introduce students to the basics of configuring Linux servers for networking services. We organized each lesson into explanatory topics and step-by-step activities. Topics provide the theory you need to master the Linux operating system; activities allow you to apply this theory to practical hands-on examples.

Prerequisites: To ensure students' success with this course, we recommend that they first take the following courses or have equivalent knowledge:

- *Linux+ Certification*
- *Network+ Certification*
- *Linux Professional Series: Linux System Administration*

Delivery Method: Instructor led, group-paced, classroom-delivery learning model with structured hands-on activities.

Performance-Based Objectives

- Identify fundamental Linux and TCP/IP Internetworking concepts.
- Setup and configure the Dynamic Host Configuration Protocol.
- Setup and configure the Domain Name System (DNS).
- Discuss and configure the Network File System (NFS).
- Identify and use some basic remote administration services and tools.
- Configure and setup basic jobs using the cron daemon.
- Build and use a basic Samba server in a mixed environment.
- Explore and configure the Network Information Service (NIS) in an enterprise.
- Comprehend basic troubleshooting tools and techniques.

Course Content

Lesson 1: Networking and TCP/IP on Linux

- Topic 1A: Fundamentals of Linux Networking
- Topic 1B: Fundamentals of TCP/IP on the Linux Operating System
- Topic 1C: Advanced Linux TCP/IP Concepts
- Topic 1D: Introduction to Dial-up Technologies

Lesson 2: Dynamic Host Configuration Protocol

- Topic 2A: Introduction to BOOTP and DHCP
- Topic 2B: Installing and Examining a Linux DHCP Server
- Topic 2C: Examining Additional DHCP Options and Configurations

Lesson 3: Domain Name System

- Topic 3A: Introduction to the Domain Name System
- Topic 3B: Installing and Configuring DNS

Lesson 4: The Network File System

- Topic 4A: Introduction to the Network File System
- Topic 4B: Configuring NFS

Lesson 5: Linux Remote Administration

- Topic 5A: Introduction to Remote Administration
- Topic 5B: The Telnet Protocol
- Topic 5C: The Berkeley r Series of Commands
- Topic 5D: The Open Secure Shell Protocol

Lesson 6: The Cron Daemon

- Topic 6A: Introduction to Automation
- Topic 6B: Configuring the Cron Daemon

Lesson 7: Samba

- Topic 7A: Introduction to Samba
- Topic 7B: Cross-platform Connectivity
- Topic 7C: Installing and Configuring Samba

Lesson 8: Linux System-wide Logging

- Topic 8A: Introduction to System-wide Logging
- Topic 8B: Configuring System Logging

Lesson 9: The Network Information Service

- Topic 9A: Introduction to NIS
- Topic 9B: Setting Up and Configuring an NIS Server

Lesson 10: Common Network Troubleshooting on Linux

- Topic 10A: Troubleshooting Concepts and Techniques
- Topic 10B: Network Boot Disks and Single-User Mode Linux
- Topic 10C: Linux TCP/IP Troubleshooting
- Topic 10D: Troubleshooting Server Problems