

Course Specifications

Linux Professional Series: Enterprise Administration

Course number: 077805

Course length: 5 days

Software:
Linux 7.2

Registration:

Micro Market Business Centre
700 Progress Avenue
Kingston, Ontario, K7M 4W9

Toll Free: 1-877-996-6622
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Linux Professional Series: Enterprise Administration

Course Description

Linux Professional Series: Enterprise Administration is a hands-on instruction book. It will introduce students to the basics of configuring Linux servers for Enterprise networks and organizations. 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 Element K 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.

Hardware/Software Requirements

You will need:

- One computer per student plus one computer for the instructor. Each machine should meet the following minimum requirements:
 - Pentium processor at 300 MHz.
 - 128 MB of RAM.
 - 5.0 GB hard disk.
 - CD-ROM drive.
 - Network interface card.
 - Mouse.
 - Keyboard.
 - Color monitor. (Video adapter and monitor should be compatible with the current X Windows specifications, which can be found at <http://xfree86.org>.)
 - Hardware manuals with specifications should be available for students.
- Red Hat Linux 7.2 software on CD-ROM for each student.

Performance-Based Objectives

- Comprehend and review the essential concepts associated with enterprise Linux server and system administration.
- Install, configure, and secure an enterprise Linux FTP server and use

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- FTP-based clients.
- Set up an enterprise Web server on Linux using the Apache Web server software package.
- Establish an enterprise email infrastructure using the Sendmail software on Linux and various Linux email clients.
- Configure and optimize network services through the use of the xinetd Superserver and TCP Wrappers on a Linux enterprise server.
- Discuss and explore security concepts and components critical to an enterprise network using the Linux software.
- Build an enterprise Linux firewall using the IpTables firewall program.
- Enhance the Web performance on an enterprise network by implementing the Squid Proxy server software.
- Implement a strong authentication scheme with Kerberos and OPIE to enhance enterprise network security on your Linux servers.
- Examine additional Linux enterprise concepts such as Virtual Private Networks and Intrusion Detection Systems.

Course Content

Lesson 1: Examining the Essential Concepts of Enterprise Network Administration

- Topic 1A: Examining Enterprise Network Components
- Topic 1B: Exploring Elements of the Design Foundation
- Topic 1C: The Installation and Configuration Foundation
- Topic 1D: The Security Core Foundation
- Topic 1E: Management and Troubleshooting

Lesson 2: Installing and Configuring an Enterprise Linux FTP Server

- Topic 2A: The File Transfer Protocol
- Topic 2B: Installing and Configuring FTP on Linux
- Topic 2C: Using FTP Client Software

Lesson 3: Using Linux as a World Wide Web Server with the Apache Software

- Topic 3A: Examining Web Servers and the Hypertext Transfer Protocol
- Topic 3B: Installing the Apache Software
- Topic 3C: Configuring the Apache Software
- Topic 3D: Reviewing Additional Apache Concepts

Lesson 4: Configuring an Enterprise Mail Server on Linux Using Sendmail

- Topic 4A: Exploring Email and Email Servers
- Topic 4B: Using Linux-based Email Clients
- Topic 4C: Introducing Sendmail
- Topic 4D: Configuring Sendmail

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Lesson 5: The xinetd Superserver

Topic 5A: Introduction to the xinetd Superserver
Topic 5B: Configuring the xinetd Superserver Daemon
Topic 5C: Increasing Security with TCP Wrappers

Lesson 6: Examining Essential Enterprise Security Concepts and Techniques

Topic 6A: Introduction to Enterprise Network Security
Topic 6B: Linux Security
Topic 6C: Security Methodologies

Lesson 7: Building an Enterprise Linux Firewall

Topic 7A: Introduction to Firewalls
Topic 7B: Introduction to IpTables
Topic 7C: Additional Linux Firewall Considerations

Lesson 8: Configuring an Enterprise Linux Proxy Server

Topic 8A: Examining Proxy Servers
Topic 8B: The Squid Proxy Server
Topic 8C: Proxy Server Clients

Lesson 9: Enhancing Enterprise Security Using Secure Authentication

Topic 9A: Introduction to the Kerberos Security Protocol
Topic 9B: Installing and Configuring the Kerberos Security Protocol
Topic 9C: Introducing One-time Passwords in Everything (OPIE)
Topic 9D: Installing and Configuring OPIE

Lesson 10: Managing Advanced Enterprise Linux Concepts

Topic 10A: Introduction to Virtual Private Networking
Topic 10B: Introduction to Intrusion Detection Systems
Topic 10C: Implementing an Intrusion Detection System with Tripwire
Topic 10D: Controlling Passwords on an Enterprise Linux Server

Appendix A: Mapping LPI's Exam Objectives to Element K's Courses

Topic