

# **Linux for System Engineers (LFS311)**

#### Introduction

- Linux Foundation
- Linux Foundation Training
- Linux Foundation Certifications
- Laboratory Exercises, Solutions and Resources
- E-Learning Course: LFS211
- Distribution Details
- Labs

### Linux Networking Concepts and Review

- OSI Model Introduction and Upper Layers
- OSI Model Transport Layer
- OSI Model Network Layer
- OSI Model Lower Layers
- Network Topology
- Domain Name System
- System Services
- Managing System Services
- Labs

### **Network Configuration**

- Runtime Network Configuration
- Boot Time Network Configuration
- DNS Client
- Intro to OpenVPN
- Labs

#### **Network Troubleshooting and Monitoring**

- Network Troubleshooting
- Client-Side Troubleshooting

- Server-Side Troubleshooting
- Network Monitoring
- Labs

#### Remote Access

- Remote Access History
- Intro to Cryptography
- Secure Remote Access
- Remote Graphics
- Labs

#### **Domain Name Service**

- Overview Of DNS
- BIND (named) Server
- BIND Zone Configuration
- Labs

#### **HTTP Servers**

- Apache
- Apache Configuration
- Apache Virtual Hosts
- Apache Security
- Labs

#### Advanced HTTP Servers

- Mod Rewrite
- Mod Alias
- Mod Status
- Mod Include
- Mod Perl
- Performance Considerations
- Labs

# **Email Servers**

- Email Overview
- Postfix

- Dovecot
- Labs

### File Sharing

- FTP
- vsftpd
- rsync
- SSH Based Protocols
- Other Protocols
- Labs

# **Advanced Networking**

- Routing
- VLANs
- DHCP
- NTP
- Labs

### **HTTP Caching**

- Overview
- Squid Configuration
- Labs

### **Network File Systems**

- NFS
- SMB/CIFS
- Other Network File Systems
- Mounting Network File Systems
- Labs

# Introduction to Network Security

- Security Concepts
- Security Practices
- Security Tools
- Labs

#### Firewalls

- TCP Wrappers
- netfilter Concepts
- Iptables Command
- Managing IPtables
- Advanced Firewalls
- Network Address Translation
- Labs

### High Availability

- Overview
- DRBD
- Labs

#### Database

- Introduction
- Database Management Systems
- Structured Query Language (SQL)
- Labs

### System log

- Overview
- Remote Logging: Client
- Remote Logging: Server
- Labs

### Package Management

- Installing from Source
- Package Management
- Packaging System Benefits
- Main Package Management Systems
- Role of Linux Distributions
- Building RPM Packages
- RPM Spec File Sections
- RPM Spec File Example
- Building Debian Packages

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