



LINUX TRAINING

Lfs211 Linux Networking Course

Dive into LFS211 Linux Networking to expertly configure services, firewalls, and troubleshoot network issues.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

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- Globally Recognized Certification
 - Expert-Led Hands-On Training
 - Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | www.computer-pride.co.ke

COURSE OVERVIEW

The LFS211 Linux Networking Course is meticulously designed to equip IT professionals with the essential skills to confidently configure, manage, and troubleshoot networking services within a Linux environment. This intermediate-level course dives deep into the core concepts of TCP/IP, enabling participants to master network interface configuration, understand and manipulate routing tables, and implement robust firewall rules. You will gain extensive hands-on experience with critical Linux networking utilities and learn industry best practices for ensuring robust, secure, and efficient network communication across various Linux distributions.

By mastering the topics covered, including advanced IP addressing schemes, DNS resolution, network bonding for high availability, and in-depth network security principles, you will significantly enhance your ability to manage complex Linux-based systems and infrastructure. This course is ideal for system administrators, DevOps engineers, and anyone looking to solidify their understanding of Linux networking. Completing this course will not only boost your professional value but also unlock specialized roles in network-centric IT environments, allowing you to build, maintain, and secure highly available network services with expert proficiency.

Duration	2 hours
Level	Intermediate
Vendor	Linux

COURSE CURRICULUM

01 Module 1: Linux Networking Fundamentals

- Introduction to TCP/IP and Network Models (OSI, TCP/IP)
- Core Linux Networking Tools (ip, netstat, ss, ping, traceroute)
- Understanding Network Interface Naming Conventions (eth, enp, ens)
- Essential Network Configuration Files and Directories

02 Module 2: Network Interface Configuration

- Configuring Static and Dynamic IP Addresses
- Managing Network Interfaces with 'ip' and 'nmcli'
- Network Bonding and Teaming for High Availability and Load Balancing
- VLAN Configuration for Network Segmentation

03 Module 3: Routing and IP Forwarding

- Understanding the Linux Routing Table and Default Gateways
- Configuring Static Routes and Persistent Routes
- Enabling IP Forwarding and Network Address Translation (NAT)
- Introduction to Network Namespaces and their Applications

04 Module 4: DNS and Hostname Resolution

- Principles of Domain Name System (DNS)
- Configuring DNS Client Settings ('/etc/resolv.conf')
- Managing Hostnames and the '/etc/hosts' file
- Introduction to DNS Server Concepts and Local Caching

05 Module 5: Network Security and Troubleshooting

- Configuring Linux Firewalls with 'firewalld' and 'iptables'
- Securing Network Services (SSH best practices, port management)
- Packet Capture and Analysis with 'tcpdump'
- Diagnosing Common Network Issues (connectivity, latency, name resolution, firewall blocks)

06 Module 6: Advanced Topics and Network Services

- Configuring Network Time Protocol (NTP) Clients and Servers
- Setting Up Network File Systems (NFS, Samba - client configuration)
- IPv6 Fundamentals and Basic Configuration
- Introduction to Network Performance Tuning and Monitoring

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Linux Network Administrator**
- > **Cloud Infrastructure Engineer (Linux Focus)**
- > **DevOps Specialist with Networking Expertise**

FREQUENTLY ASKED QUESTIONS

Q: What are the recommended prerequisites for taking the LFS211 Linux Networking Course, given its intermediate level?

Participants should have a solid foundational understanding of Linux command-line operations, basic system administration tasks (like managing users, permissions, and services), and general IT networking concepts (e.g., what an IP address, subnet mask, and gateway are). Familiarity with basic text editors and file system navigation in a Linux environment is also highly beneficial to get the most out of this course.

Q: How will the LFS211 course specifically enhance my ability to troubleshoot complex network issues in a production Linux environment?

This course focuses heavily on practical tools and methodologies for diagnosing network problems. You will gain hands-on expertise in effectively using utilities like 'ip', 'ss', 'netstat', 'ping', 'traceroute', 'tcpdump', and 'nmap' to identify connectivity issues, routing problems, firewall blocks, and name resolution failures. This will equip you with a systematic and efficient approach to network troubleshooting, minimizing downtime in critical systems.

Q: Beyond basic configuration, what advanced Linux networking skills will I acquire that are applicable to modern cloud or containerized environments?

The LFS211 course covers advanced topics such as implementing network bonding for redundancy and increased bandwidth, configuring VLANs for network segmentation, and an introduction to network namespaces. These concepts are fundamental building blocks in modern cloud infrastructure, containerization technologies (like Docker and Kubernetes), and software-defined networking, enabling you to design and manage more resilient, secure, and scalable network architectures.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

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Take the next step in your technology career.

Location

1st Flr, ICEA Building
Kenyatta Ave, Nairobi

Email

info@computer-pride.co.ke

Phone

+254 705 900 900

www.computer-pride.co.ke