CompTIA® Linux+

Duration: 5 days; Instructor-led(ILT) | Virtual Instructor-led Training (VILT)

OVERVIEW

The new CompTIA Linux+ is for the IT pro who will use Linux to manage everything from cars and smartphones to servers and supercomputers, as a vast number of enterprises use Linux in cloud, cybersecurity, mobile and web administration applications.

CompTIA Linux+ covers common tasks in major distributions of Linux, including the Linux command line, basic maintenance, installing and configuring workstations, and networking.

AUDIENCE

This course is intended for entry-level computer support professionals with basic knowledge of computer hardware, software, and operating systems, who wish to increase their knowledge and understanding of Linux concepts and skills to prepare for a career in Linux support or administration, or to prepare for the CompTIA® Linux+® certification examination. A typical student in this course should have at least 6 to 12 months of Linux experience.

PREREQUISITES

REQUIRED PREREQUISITES:

To ensure your success, CompTIA® A+®: A Comprehensive Approach (Exams 220-801 and 220-802) is helpful but not required.

Note that the prerequisites for this course might differ significantly from the prerequisites for the CompTIA certification exams.

METHODOLOGY

This program will be conducted with interactive lectures, PowerPoint presentation, discussions and practical exercise.

COURSE OBJECTIVES

In this course, you will administer Linux.
You will:
- Identify basic Linux concepts and perform basic Linux tasks.
- Manage user and group accounts.
- Manage partitions and the Linux filesystem.
- Manage various files in Linux.
- Work with Linux permissions and ownership.
- Print files.
- Manage packages.
- Manage kernel services.
- Work with the Bash shell and shell scripts.
- Manage jobs and processes.
- Manage system services.
- Configure network services.
- Configure basic Internet services.
- Implement measures to secure a Linux system.
- Manage hardware associated with Linux systems.
- Troubleshoot Linux system issues.
- Install the Linux operating system.
- Configure the GUI.

Course Contents

Module 1: Network Theory
- Network Types
- Network Standards and the OSI Model
- Data Transmission Methods

Module 2: Bounded Network Media
- Copper Media
- Fiber Optic Media
- Bounded Network Media Installation

Module 3: Unbounded Network Media
- Wireless Networking
- Wireless Network Devices and Components
- Implement Wireless Technology
- Internet of Things

Module 4: Network Implementations
- Physical Network Topologies
- Logical Network Topologies
- Ethernet Networks
- Network Devices

Module 5: TCP/IP Addressing and Data Delivery
- The TCP/IP Protocol Suite
- IPv4 Addressing
- Default IP Addressing Schemes
- Create Custom IP Addressing Schemes
- IPv6 Addressing

Module 6: Routing and Switching
- Switching
- Network Packet Routing
- Static and Dynamic IP Routing
- VLANs

Module 7: TCP/IP Implementation
- Configure IP Addresses
- Naming Services
- TC;P/IP Utilities
- Common TCP/IP Protocols

Module 8: TCP/IP Implementation
- Introduction to Network Security
- Network Security Policies
- Physical Security
- Common Network Attacks

Module 9: Network Security Implementation
- Authentication
- Access Control
- Port, Service, and Protocol Security
- Wireless Network Security
- Patches and Updates
- Mitigation Techniques

Module 10: WAN Infrastructure
- WAN Basics
- WAN Connectivity Methods
- WAN Transmission Technologies
- VoIP

Module 11: Cloud and Virtualization Techniques
- Virtualization Technologies
- Network Storage Technologies
- Cloud Computing

Module 12: Remote Networking
- Remote Network Architectures
- Remote Access Network Implementations
- Virtual Private Networking

Module 13: Network Management
- Monitor Networks
- Document the Network
- Establish Baselines
- Optimize Network Performance
- Ensure Business Continuity

Module 14: Troubleshooting Network Issues
- Network Troubleshooting Methodology
- Network Troubleshooting Tools
- Troubleshoot Wired Connectivity and Performance Issues
- Troubleshoot Wireless Connectivity and Performance Issues
- Troubleshoot Network Service Issues