

SUSE Linux Enterprise Server 15 Operations (SLE201v15)

Course Duration: 40 Hours

Course code: SLE201v15

1. Course Overview

This five-day course focuses on the day-to-day operations and administration of SUSE Linux Enterprise Server (SLES) 15 in enterprise environments. It equips learners with the essential skills required to manage users, configure storage, handle networking, perform system monitoring, and maintain system security. The course emphasizes practical, hands-on experience to efficiently operate and maintain SLES systems in production environments.

2. What you'll learn?

By the end of the course, you will be able to:

- Perform essential system administration tasks on SLES 15
- Manage users, groups, and permissions effectively
- Configure and manage storage and file systems
- Set up and troubleshoot networking configurations
- Monitor system performance and processes
- Manage software packages and updates
- Implement basic security and access controls
- Automate routine administrative tasks

3. Target Audience

- Linux system administrators (entry to intermediate level)
- IT support professionals
- DevOps engineers and infrastructure engineers
- Cloud and data center administrators

4. Pre-Requisites

Before taking this course, you should have:

- Basic understanding of Linux operating systems
- Familiarity with command-line interface (CLI)
- Basic knowledge of computer networking (recommended)

5. Course content

Module 1: Course Introduction

- Introduction and course logistics
- Overview of SLES 15 features
- Course objectives and lab setup

Module 2: Introduction to SUSE Linux Enterprise Server

- Overview of SLES architecture
- Installation and system initialization
- Understanding system directories and structure
- Introduction to command-line tools

Module 3: User and Group Management

- Creating and managing users and groups
- Password policies and account security
- Managing user environments
- File ownership and permissions

Module 4: Software Management

- Managing packages with Zypper
- Installing, updating, and removing software
- Repository management
- Patch management basics

Module 5: Process and Service Management

- Understanding systemd and services
- Managing system services
- Monitoring running processes
- Scheduling tasks using cron and at

Module 6: File Systems and Storage Management

- Disk partitioning basics
- File system types (XFS, Btrfs)
- Mounting and unmounting file systems
- Managing storage devices

Module 7: Networking Fundamentals

- Configuring network interfaces
- IP addressing and routing
- DNS configuration
- Basic network troubleshooting

Module 8: System Monitoring and Performance

- Monitoring CPU, memory, and disk usage
- Using tools like top, htop, and vmstat
- Analyzing system performance
- Identifying bottlenecks

Module 9: Security and Access Control

- Basic firewall configuration
- Managing SSH access
- File and system security practices
- Introduction to AppArmor

Module 10: Logging and Troubleshooting

- Understanding system logs
- Using journald and log files
- Troubleshooting common system issues
- Debugging tools and techniques

Module 11: Backup and Recovery

- Backup strategies and tools
- File and system recovery
- Snapshot basics using Btrfs
- Data protection practices

Module 12: Introduction to Shell Scripting

- Basics of Bash scripting
- Writing simple scripts
- Automating routine tasks
- Script debugging techniques

Module 13: Remote Management

- Remote access using SSH
- File transfer tools (scp, rsync)
- Managing remote systems
- Secure remote operations

Module 14: System Updates and Maintenance

- Managing system updates
- Patch scheduling
- System maintenance best practices
- Ensuring system stability

Module 15: Capstone Lab and Real-World Scenarios

- Performing end-to-end system administration tasks
- Troubleshooting real-world issues
- Implementing security and monitoring
- Final project and assessment

