Training: SUSE
SLE301 SUSE Linux Enterprise Server Advanced Administration

TRAINING GOALS:

The course SUSE Linux Enterprise Server 15 Advanced Administration builds upon the SUSE Linux Enterprise Server 15 Administration (SLE201v15) course and teaches advanced system administration tasks on SLES 15.

Attending students should have a good working knowledge of general system configuration and working with the Linux command line. After attending the course, the student should be capable of administering SLES 15 and be able to deal with specialized networking and storage configuration. They should also have a solid understanding of basic Bash scripting.

This course helps prepare students for the SUSE Certified Engineer in Enterprise Linux 15 certification exam

During this course you will learn:

- System Optimization
- Control Groups
- Manage encryption
- Use the Shell efficiently and create Shell scripts
- Manage Hardware and Drivers
- Advanced Networking configuration
- iSCSI and Multipath IO
- Centralized Authentication
- Packaging software and managing system updates
- Configuration Management using Salt

Audience

The course is designed for those who already have experience with Linux, including general system configuration and using the command line. The course is ideal for those seeking advanced administration skills on SUSE Linux Enterprise Server 15, those who have completed the SUSE Linux Enterprise Server 15 Administration (SLE201v15) course and those preparing to take the SUSE Certified Engineer in Enterprise Linux 15 certification exam.

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CONSPECT:

- Advanced System Administration
  - YaST Security Module
    - Understand and use the YaST Security Module
  - Backup and Recovery
    - Understand and Use Snapper
  - Software Libraries
    - Understand Software Libraries in Linux
  - General Server Health
    - Gather Server Health and Performance Information
  - Monitoring Overview
    - Monitoring Methodology
    - What are Optimization Tools?
    - The Optimization Process
    - System Optimization Tools
  - Control Groups
    - Understand Linux Control Groups
- Encryption
  - SSL/TLS
    - Understand SSL/TLS Concepts
    - openSSL
  - GPG
    - Understand GPG Concepts
    - Perform GPG Key Creation and Management
    - Perform GPG Key Distribution
- Shell Scripting
  - Use Basic Script Elements
  - Use Control Structures
  - Read User Input
  - Use Arrays
  - Use Shell Functions
  - Use Command Options in Scripts
  - Test File Types and Compare Values
- Hardware
  - Hardware Info

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- Display Hardware Information
- Drivers
  - Understand Linux Drivers
  - Use Driver Management Utilities

- Advanced Networking
  - Advanced Network Interface Types
    - Bridges
    - Virtual Ethernet Devices
    - VLANs
  - Network Namespaces
    - Understand Linux Network Namespaces
    - Work with Linux Network Namespaces
  - IPv6
    - Understand IPv6
    - Configure IPv6

- Advanced Storage Administration
  - iSCSI
    - Understand iSCSI Concepts
    - Configure and Manage the LIO iSCSI Target
    - Configure and Manage the iSCSI Initiator
  - MPIO
    - Understand MPIO
    - Configure and Manage Device Mapper Multipath I/O

- Centralized Authentication
  - PAM
    - Understand PAM
    - Configure PAM
  - SSSD
    - Understand SSSD
    - Deploy SSSD

- Advanced Software Management
  - RPM
    - Mange RPM Packages
    - Build RPM Packages
    - Understand the RPM spec file
    - Sign RPM Packages with GPG

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- Repositories
  - Understand Software Repository Concepts
  - Create a Software Repository with creatrepo
  - Sign RPM-MD Software Repositories
  - Manage Software Repositories with libzypp
- RMT
  - Understand the Repository Mirroring Tool (RMT)
  - Install and Configure an RMT Server
  - Mirror Software Repositories with RMT
  - Configure SMT Clients

- Configuration Management with Salt
  - Salt Overview
  - Install and Configure Salt
  - Understand Execution Modules
  - Understand the Salt State System
  - .

REQUIREMENTS:

Before attending this course, it is highly recommended that students have a good working knowledge of Linux and should be able to:

- Perform partitioning and file system setup and maintenance
- Perform system configuration including network setup and user management
- Manage software packages
- Work on the command line including file management and text editing
- This knowledge can be gained through the SUSE Linux Enterprise 15 Administration Course (SLE201v15).

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by SUSE.

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TRAINER:

Certified SUSE Trainer.

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