OTHER - SUSE Linux Enterprise Server 12 Advanced Administration

Code:	SLE301
Length:	5 days
URL:	View Online

The course SUSE Linux Enterprise Server 12 Advanced Administration builds upon the SUSE Linux Enterprise Server 12 Administration course and teaches advanced system administration tasks on SLES 12. 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 12 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 12 (2018 Update) certification exam.

Skills Gained

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
- Advanced system deployment
- Configuration Management using Salt

Who Can Benefit

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 12, those who have completed the SUSE Linux Enterprise Server 12 Administration (SLE201) course and those preparing to take the SUSE Certified Engineer in Enterprise Linux 12 (2018 Update) certification exam.

Prerequisites

Before attending this course, it is highly recommended that students have a good working knowledge of Linux and should be able to (this knowledge can be gained through the SUSE Linux Enterprise Server 12 Administration (SLE201) class.):

- 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

Course Details

Outline: SUSE Linux Enterprise Server 12 Advanced Administration (SLE301)

Section 1: 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

Section 02: Encryption

- SSL/TLS
- Understand SSL/TLS Concepts
- Create a Certificate Authority
- Generate and Use Certificates
- openSSL
- GPG
- Understand GPG Concepts
- Perform GPG Key Creation and Management
- Perform GPG Key Distribution

Section 03: Shell Scripting

- Use Basic Script Elements
- Use Control Structures
- Read User Input

- Use Arrays
- Use Functions
- Use Command Options in Scripts
- Test File Types and Compare Values

Section 04: Hardware

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

Section 05: Advanced Networking

- Network Namespaces
- Understand Linux Network Namespaces
- Work with Linux Network Namespaces
- Openvswitch
- Understand Openvswitch Concepts
- Install and Configure Openvswitch
- IPv6
- Understand IPv6
- Configure IPv6

Section 06: Storage Administration

- iSCSI
- Understand iSCSI Concepts
- Configure and Manage the LIO Daemon
- MPIO
- Understand Mutipath I/O
- Configure and Manage Device Mapper Multipath I/O

Section 07: Centralized Authentication

- PAM
- Understand PAM
- Configure PAM
- SSSD
- Understand SSSD
- Deploy SSSD

Section 08: Packaging and Updates

- RPM
- Manage RPM Packages
- Build RPM Packages
- Understand the RPM spec file
- Sign RPM Packages with GPG
- Repositories
- Understand Software Repository Concepts
- Create a Software Repository with creatrepo
- Sign RPM-MD Software Repositories
- Manage Software Repositories with libzypp
- SMT
- Understand the Subscription Management Tool (SMT)
- Install and Configure an SMT Server
- Manage Software Repositories with SMT
- Use Repository Staging with SMT
- Configure SMT Clients

Section 09: Advanced Deployment

- AutoYaST
- Introduction to AutoYaST
- Prepare for an AutoYaST Installation
- Configure and Installation Server
- Configure PXE
- Kiwi
- Overview of KIWI
- Installing KIWI
- Basic Workflow
- Building Images
- Customizing the Boot Process
- The KIWI Image Description File
- Advanced Configuration Options
- Image Maintenance
- System Analysis
- Machinery
- Overview of Machinery
- Installation
- Using Machinery

Section 10: Configuration Management with Salt

- Salt Overview
- Install and Configure Salt

- Understand Execution Modules
- Understand the Salt State System

Schedule (as of 4)

Date	Location

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