

SLE301

SUSE Linux Enterprise Server Advanced Administration

Description:

This 4 day course builds upon the SUSE Linux Enterprise Server Administration course and teaches advanced system administration tasks on SLES. This course helps prepare students for the SUSE Certified Engineer (SCE) in Enterprise Linux (2017 Update) certification exam.

Students will be able to:

- Manage system through systemd
- Configure booting in GRUB2
- Manage GPT partitions
- Understand scripting in Bash
- Set up network and networked storage

Course requirements:

- 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 [SLE201: SUSE Linux Enterprise Administration Course](../../en/courses/detail/SLE201).

This course is intended for:

- 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, those who have completed the [SLE201: SUSE Linux Enterprise Server Administration](../../en/courses/detail/SLE201) course and those preparing to take the SUSE Certified Engineer (SCE) in Enterprise Linux (2017 Update) certification exam.

Literature:

All participants will get original SUSE materials.

Hardware:

Classrooms are equipped with high-performance computers with Internet access and the possibility of wireless connection.

Syllabus:

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

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

<h3>Hardware</h3>

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

<h3>Advanced Networking</h3>

- Bridges
- Virtual Ethernet Devices
- VLANs
- Network Namespaces
- Understand Linux Network Namespaces
- Work with Linux Network Namespaces

<h3>IPv6</h3>

- Understand IPv6
- Configure IPv6

<h3>iSCSI</h3>

- Understand iSCSI Concepts
- Configure and Manage the LIO iSCSI Target
- Configure and Manage the iSCSI Initiator

<h3>MPIO</h3>

- Understand MPIO
- Configure and Manage Device Mapper Multipath I/O

<h3>PAM</h3>

- Understand PAM
- Configure PAM

<h3>SSSD</h3>

- Understand SSSD
- Deploy SSSD

<h3>RPM</h3>

- Manage RPM Packages
- Build RPM Packages
- Understand the RPM spec file
- Sign RPM Packages with GPG

<h3>Repositories</h3>

Understand Software Repository Concepts

Create a Software Repository with creatrepo

Sign RPM-MD Software Repositories

Manage Software Repositories with libzypp

<h3>RMT</h3>

Understand the Repository Mirroring Tool (RMT)

Install and Configure an RMT Server

Mirror Software Repositories with RMT

Configure SMT Clients

<h3>Salt Overview</h3>

Install and Configure Salt

Understand Execution Modules

Understand the Salt State System

