

This is a comprehensive hands-on course on SUSE Linux Administration.

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## Audience

- Linux administrators
- Anyone needing to know more about Linux

## Prerequisites

- Some experience with Linux

## Course Length

- Four days

## Teaching Methods

- Lecture with examples
- Supplemental written exercises

## Learning Objectives

- Introduction to SUSE Linux
- Boot, Initialization, Run Levels, and Shutdown
- Understanding Kernels
- Disk Storage
- Storage Systems
- Backup and Recovery
- Hot Plug and Peripherals
- Client Side Networking Infrastructure
- Managing Users and Groups
- House Keeping
- Watching the System
- Introduction to System Security
- Installing a SUSE Distribution

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## Course Outline

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### Introduction to SUSE Linux

- Understanding distributions
- Hardware primer
- Software availability
- Documentation support

### Boot, Initialization, Run Levels, and Shutdown

- Tracing the booting process
- Setting up GRUB
- Setting up Lilo
- Linux Boot Loaders
- Kernel initialization
- Run levels, Daemons, and init
- Managing Daemons
- Shutdown

### Understanding Kernels

- Updating the kernel
- Patching the kernel
- Kernel configuration
- Managing modules
- Rebuilding the kernel

### Disk Storage

- The file system standard
- File system design
- Dynamic device nodes
- File system types: ext2, ext3
- File system integrity, security and mounting
- Repairing file systems
- File system management: Space and quota

### Storage Systems

- RAID
- LVM
- NFS
- Automounting
- iSCSI

### Backup and Recovery

- Management considerations
- Using traditional tools
- Non-traditional tools (LVM snapshots)
- File recovery techniques
- Disk recovery techniques

### Hot Plug and Peripherals

- How Hot Plug operates
- Possible configuration items
- Examples

### Client Side Networking Infrastructure

- Overview of TCP/IP: Address
- DNS
- Network configuration: Static and DHCP
- LDAP Directory Services
- NIS Directory Services

### Managing Users and Groups

- Adding an user
- Deleting an user
- User setup
- Adding to LDAP
- Historical NIS

### House Keeping

- Software maintenance
- User and system documentation
- Tools to help the user
- Printer setup
- Setting up mail
- Automating tasks with at, cron, and anacron

### Watching the System

- Working with syslogd
- Other log files
- Using log files
- Managing log files
- System monitoring utilities
- /proc

### Introduction to System Security

- Encrypted file systems
- PAM
- CA Management
- ssh
- Kerberos
- VPNs
- Firewalls

### Installing a SUSE Distribution

- Before you begin
- Installing options
- RAID and LVM at installation
- Network and Firewall at Installation
- Doing an install
- Multiple Installations using AutoYast