

COURSE TITLE:

SO113 - Solaris 10 OE System Administration II

LENGTH:

5 Days

DESCRIPTION:

This course provides information and hands-on exercise for performing Solaris OE advanced system administration tasks. Attendees will learn how to use the Solaris Management console, manage software, perform hard drive management, set up auto mounting filesystems, set up and use Role Based Access Control, configure the system logging facility, identify methods of securing a Solaris system, and perform system troubleshooting and correct problems.

This course is applicable to Solaris 10 Operating Environment.

AUDIENCE

This course is designed for system administrators who will be performing advanced system administration procedures on a Solaris 10 OE.

COURSE OBJECTIVES:

Upon completion of this course the student will be able to:

1. Set up and use the Solaris Management Console
2. Install and update software packages
3. Install patches on the operating system and installed applications
4. Set up Network File System Shares
5. Set up the Auto Mounting facility
6. Install new hard drives
7. Partition hard drives
8. Create new filesystems on new or existing hard drives
9. Manage swap space
10. Set up and use Role Based Access Control
11. Set up and use the System Logging Facility
12. Identify Solaris Security Issues
13. Determine if a system has been compromised
14. Implement system security recommendations
15. Troubleshoot and correct system problems

PREREQUISITES:

Before attending this course, the attendee should:

1. have completed the **SO112 - Solaris 10 OE System Administration I** course
or
2. have 6-months experience as a Solaris system administrator

FOLLOW-ON TRAINING

After completing this course it is suggested that the student attend:

1. SO114 - Solaris 10 OE Network Administration

COURSE CONTENT:

Unit 1 - The Solaris Management Console

1. The Solaris Management Console Overview
2. Why Use the Solaris Management Console?
3. Solaris Management Console Organization
 - a. Changing the Solaris Management Console Window
 - b. Solaris Management Console Documentation
4. Adding Tools to the Solaris Management Console
 - a. How to Add a Legacy Tool to a Toolbox
5. Troubleshooting the Solaris Management Console

Unit 2 - Software Management

1. Overview of Software Packages
2. The Software Installation Database
3. Signed Packages and Patches
4. Tools for Managing Software Packages
5. Guidelines for Adding Software Packages
 - a. Key Points About Adding Software Packages
6. Guidelines for Removing Packages
7. Using an Administration File
 - a. Administrative File Example
 - b. Using a Response File
8. Package Tools
9. Installing A Package Using The **pkgadd** Command
 - a. Alternate Installation Methods
10. Obtaining Package Information Using The **pkginfo** Command
11. Obtaining Package Information Using The **pkgparam** Command
12. Checking A Package Using The **pkgchk** Command
13. Removing A Package Using The **pkgrm** Command
14. Package Administration Using **admintool**
15. Package Administration Using **prodreg**
16. Package Installation Using Web Start
17. Patch Management
 - a. What Is a Patch?
 - b. What Is a Signed Patch?
18. Accessing Solaris Patches
19. Patch Management Tools
 - a. Features of Solaris Patch Manager Tool:
20. Selecting the Best Method for Adding Signed Patches
21. Patch Pro Patch Manager
 - a. How to Download the Patch Management Tools From SunSolve Online
 - b. How to Install and Configure the Patch Management Tool
22. Installing Patches Using the SMC
 - a. Analyzing and Adding Patches
 - b. List of Recommended Patches
 - c. Download Patches
 - d. Specifying a Backout Directory
 - e. List of Patches

- f. Installing Patches

Unit 3 - Network File System

1. NFS - Network File System
2. NFS Terminology
3. NFS Daemons
 - a. Controlling NFS Daemons
4. File System Sharing and Exporting
5. NFS Commands and Files
6. The **/usr/sbin/share** Command
7. Additional Resource Sharing Related Commands
 - a. The **/etc/dfs/dfstab** File
8. The **/etc/mount** Command
 - a. Notes on NFS File System Options
9. Configuring NFS
10. Setting Up the NFS Server
11. Setting Up A NFS Client
12. Removing a NFS Resource

Unit 4 - Auto Mounting File Systems

1. What is Automounting Filesystems?
2. How AutoFs Works
3. The Navigation Process
 - a. The **/etc/auto_master** File
 - b. The **/etc/auto_home** File
 - c. Notes About NIS
4. Automounting User Home Directories
 - a. Exporting the Users Home Directories
5. Changing the Users Home Directory
6. Setting up The Automount Maps

Unit 5 - Hard Drive Management

1. Hard Drive Management
2. Installing the Drive
 - a. Installing a Hard Drive - General
 - b. IDE Drive Installation Notes
 - c. SCSI Drive Installation Notes
 - d. Post Installation
3. Partitions and Slices
 - a. Slice Naming
4. Slice Assignments
 - a. SPARC Slices
 - b. x86 Slices
5. Determining Slice Information
 - a. Creating Slices
 - b. Creating Slices Using **fmthard**
6. Creating the Filesystems
 - a. Labeling A Filesystem

- b. Checking the New Filesystem
- 7. Mounting the New Filesystem
 - a. Verifying the Mount
- 8. Notes About New Filesystems
 - a. The lost+found Directory
 - b. Filesystem Permissions
 - c. The */etc/vfstab* and */etc/mnttab* Files
- 9. The */etc/vfstab* File
- 10. Unmounting a Filesystem
- 11. Logical Volumes
 - a. Concatenation and Striping
- 12. Installing Solstice DiskSuite 4.2.1
 - a. Getting Solstice DiskSuite 4.2.1
 - b. Installing Solstice DiskSuite 4.2.1
 - c. Post-Installation Procedures
- 13. Creating Logical Volumes
- 14. Managing Pseudo Filesystems
 - a. The Cache File System
 - b. The Temporary File System
 - c. The Loopback File System
 - d. The Process File System
- 15. Swap Space
 - a. Swap Space and Virtual Memory
 - b. Swap Space and the TMPFS File System
 - c. Determining if More Swap Space is Needed
 - d. How Swap Space Is Allocated
 - e. The */etc/vfstab* File
 - f. Planning for Swap Space
 - g. Monitoring Swap Resources
- 16. Adding More Swap Space
 - a. Creating a Swap File
 - b. Activating the Swap File.
 - c. Updating */dev/vfstab*
 - d. Removing Extra Swap Space

Unit 6 - Role Based Access Control

- 1. Overview of Role-Based Access Control
 - a. The Extended User Attributes Database
 - b. The Authorizations Database
 - c. The Execution Profiles Database
 - d. The Execution Attributes Database
- 2. How to Assume Role-Based Access Control
 - a. Tools for Managing Role-Based Access Control
- 3. Managing Roles
 - a. Modifying a Role
 - b. Deleting a Role

Unit 7 - System Logging

1. The **syslogd** Facility
2. The */etc/syslog.conf* File
 - a. **syslogd** Functions
 - b. **syslogd** Actions
3. Log Messages Security
4. Message Storage Policy
5. Prepare Files To Store Log Messages
6. Configuring **syslogd**
7. Marking Messages
8. Starting, Stopping, and Restarting the **syslogd** Facility
9. Testing the **syslogd** Configuration
10. Additional **syslogd** Information

Unit 8 - Creating Custom JumpStart Configurations

1. Describe the JumpStart configurations
2. Implement a basic JumpStart server
3. Set up JumpStart software configuration alternatives
4. Configuring JumpStart servers to support PXE installations
5. Troubleshoot the JumpStart configurations
6. Configure a naming service to support JumpStart

Unit 9 - Performing a Flash Installation

1. Describe the Flash installation feature
2. Manipulate a Flash archive
3. Use a Flash archive for installation

Unit 10 - System Troubleshooting

1. System Efficiency
2. System Troubleshooting
3. Recovering From System Problems
4. Troubleshooting a System Crash
 - a. What to Do if the System Crashes
 - b. Gathering Troubleshooting Data
 - c. System Crash Checklist
 - d. Viewing System Messages
 - e. How to View System Messages
5. Troubleshooting Miscellaneous Software Problems
 - a. What to Do If Booting/Rebooting Fails
 - b. What to Do if a System Hangs
 - c. What to Do if a File System Fills Up
 - d. Troubleshooting Backup Problems
 - e. Troubleshooting File Access Problems
 - f. Solving File Access Problems
 - g. Forgotten Root Password or Corrupted Password File(s)
6. Recovering from a Corrupted Root Filesystem

Unit 11 - Architecture Differences between SPARC and X86 Solaris

1. Virtual File Systems and Core Dumps Differences
2. Storage Volumes Differences
3. Controlling Access and Configuring System Messaging Differences
4. Performing Advanced Installation Procedures Differences