

Solaris 10 Advanced System Administration

Course Summary

Description

This course is designed to cover the more technically complex and difficult tasks confronting the Solaris/UNIX system and network administrator. All topics will be accompanied by extensive hands-on, with a minimum ratio of three fully equipped Sun workstations between two students. There will be ample time to put forward your own topics for discussion and analysis.

Topics

- Solaris Management Console
- Swap Management And Configuration
- Crash Dumps And Core Files
- Disk Quotas
- Solaris Volume Manager (SVM) And Raid Disks
- Access Control Lists (ACL)
- Role-Based Access Control (RBAC)
- X Windows Technology Explained
- Introduction To Zones
- System Messaging And Log Management
- DHCP (Dynamic Host Configuration Protocol)
- Accounting Mechanisms
- Automatic Solaris Installation (Jumpstart)
- Flash Installs
- Kernel Configuration Parameters

Audience

This course is designed for Solaris/UNIX system and network administrators.

Prerequisites

Students must have experience of Solaris administration and networking up to the level taught in the Solaris10 System Administration (Part 1) and Solaris10 System Administration (Part 1) courses.

Duration

Three days

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Course Outline

I. Solaris Management Console

- A. Installation
- B. Configuration of extra toolboxes for use with multiple servers using the toolbox editor

II. Swap Management and Configuration

- A. Virtual memory
- B. Examining a machine's current swap allocation
- C. Creating new swap slices and files
- D. Adding swap details to /etc/vfstab

III. Crash dumps and core files

- A. What are they?
- B. How to manage and restrict

IV. Disk quotas

- A. Enabling quotas
- B. Setting quota limits and time limits; Quota reporting
- C. Remote server quotas

V. Solaris Volume Manager (SVM) and RAID disks

- A. Describe RAID levels.
- B. Describe the features of SVM.
- C. Implement SVM on a Solaris system.
- D. The metadevice state databases
- E. Creating concatenated and striped metadevices
- F. Creating and adding mirrors. removing mirrors
- G. Taking mirrors off-line
- H. UFS logging
- I. Hot Spares
- J. Expanding file systems with growfs. Summary of files and commands
- K. Using the GUI to perform SVM tasks and monitor SVM status

VI. Access Control Lists (ACL)

- A. What are ACLs?
- B. Applying ACL settings to files and directories
- C. Displaying current ACL settings
- D. Using the command line and File Manager GUI for ACLs
- E. Setting up default ACLs

VII. Role-based Access Control (RBAC)

- A. RBAC facilities
- B. Applying rights and roles to users
- C. Using the GUI smc to manage RBAC
- D. RBAC files and directories

VIII. X Windows Technology Explained

- A. X Windows background and constituent parts
- B. X windows and the network
- C. Adding an X login capability to the network (xdm and setup files) CDE and dtlogin
- D. Configuring a Chooser

IX. Introduction to Zones

- A. Features of Solaris zones
- B. The uses for zone partitioning
- C. Configure, install and boot zones
- D. Pre-configuring zone installation information
- E. Adding additional directories to an existing zone
- F. Controlling zone resource limitations
- G. Zone FAQ

X. System Messaging and Log Management

- A. System logging (syslogd) operation
- B. The syslog.conf configuration file directives
- C. Using the logger command to add messages to logs
- D. Using the smc log viewer
- E. Log file management with crontab

XI. DHCP (Dynamic Host Configuration Protocol)

- A. Installing a DHCP server and Relay agent
- B. Installing DHCP clients under Solaris
- C. DHCP data formats
- D. Using the dhcpmgr GUI

XII. Accounting Mechanisms

- A. Login accounting - viewing data, analysis utilities
- B. Process accounting - enabling, examining and analyzing data

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Course Outline (cont'd)

XIII. Automatic Solaris Installation (Jumpstart)

- A. Jump Start Overview
- B. Build servers
- C. Copying Solaris to disk
- D. Creating rules and profiles for automatic build
- E. Booting and building from the network interactively and automatically
- F. Includes a full practical automatic build

XIV. Flash Installs

- A. Overview
- B. Creating a Flash archive
- C. Modify the JumpStart files to use a flash archive for installation
- D. Modifying flash installs
- E. Performing a flash install

XV. Kernel Configuration Parameters

- A. What parameters are available to configure
- B. Examining current kernel parameters
- C. Enforce new values
- D. Using utilities such as vmstat, sar, etc to monitor and analyze system activity