UXS-103: Solaris™ 11 Administration Part 1

Course Details

Course Code: UXS-103

Duration: 5 days

Notes:

- This course syllabus should be used to determine whether the course is appropriate for the students, based on their current skills and technical training needs.
- Course content, prices, and availability are subject to change without notice.
- Terms and Conditions apply

About this course

This five-day course is designed to cover the essential administration tasks confronting today's Sun systems administrators. It covers all basic workstation administration functions, with full hands-on experience at all stages. The Solaris 11 Visual Administration Solaris Management Console (SMC) is also covered. For network administrators, this course should be followed by the Solaris 11 System Administration (Part 2) course.

Course Objective

To attain a level of competence performing Solaris administration tasks to that defined in the Solaris 11 Certified Administrator Part 1 exam. This involves mainly essential local administration tasks.

Prerequisites

Knowledge of Solaris up to a level taught in the Introduction to Solaris course is important, and some previous administration experience is helpful.

System Administration Overview

Sun Hardware types. Solaris Operating Environment configurations. Review of administration functions.

File System Structure

File system structure and slicing. The Solaris directory hierarchy; identification of files and file types; using symbolic and hard links.

Disk Storage Management for local disk drives.

Disk concepts and structure; slices (partitions) and Solaris device naming conventions. Physical disk connection. listing and reconfiguring the systems devices. Slicing and labelling disks with the format utility and the Solaris Management Console (smc). Creating a Solaris file system with newfs. Deciding how to mount the new files system; updating /etc/vfstab for permanent mounts. Using fsck to perform file system integrity checks. Monitoring disk usage and directory sizes.

File System Maintenance and Security

The mount command. Mount options. The cachefs and LOFS file systems. Handling CD and floppy disks. Making room on the file system. . File system security. SMC file system functions. Utilities for file system monitoring.

System Build (Installing Solaris)

Planning disk layout. Booting from CD, DVD or network to build. Building Solaris from scratch; selecting software options, disk slicing, etc. Post-installation procedures. Overview of automatic installation. Upgrading from a previous Solaris release.

Patch Administration

Obtaining and installing the latest patches, including clusters and individual patches. Examining the current patch level of a machine. Removing patches.

Software Configuration and Package Administration

How to set up and customise a variety of tools, including shells, Common Desktop Environment, manual pages and AnswerBook. Examining, Installing and removing software packages using command line utilities, including Solaris distribution options. Using the Webstart installer mechanism to install software. Using the Solaris Product Registry. (prodreg)

Boot PROM

Monitor prompt commands (boot, probe-scsi, probe-ide, test-net, devalias etc.) Identifying system settings such as the default boot device. Using the eeprom command to view and change settings. Troubleshooting boot failure.

Start-up and Shutdown

In-depth explanation of the new Service Management Facility (SMF). Using SMF utilities to monitor and control boot processes. Adding your own scripts at system boot. Understanding and changing run levels. Shutting down, suspending and powering off the system. Power management. Additional information for previous Solaris versions.

Adding and Maintaining Users

Concepts. Ownership of files, directories and processes. Classes of user. Adding a user manually, via command line tools and graphically. User initialisation file management. Password control. Real and effective id. Using SMC for user management. Introduction to Role Based Access Control (RBAC) facilities.

Solaris Groups

Overview. The group file. Group identification of files and directories. The newgrp, groups and chgrp commands. Complete example of creating and using a group. Using SMC with groups.

System Security

Monitoring access to the system. Using the su (Switch User) command, and monitoring its use. Restricting file and directory access using protection mechanisms, including access modes, s and t bits, umask, chown and chmod. Introduction to Access Control Lists (ACLs).

Adding a Printer

Overview. Printer types and connection methods, including network printers. Software modifications. Spooling system commands. Administrator control commands. Remote printer facilities. Printer classes. Using the Solaris GUIs for printer management. Specifying both system and user default printer destinations.

System Processes

Examining and controlling processes using ps, kill, and the Process Manager. Automating commands with crontab and at, for one-off and regular command execution.

Back-Up and Restore Utilities, including snapshots

Overview and Preparation. Tape types and capacities. Sample ufsdump commands. Backup strategies. Taking a complete backup with ufsdump Summary of ufsdump command options. Using fssnap to snapshot the file system and take a clean backup. Restoring individual files and directories. Restoring an entire system. Considerations for disaster recovery. The tar, cpio and mt utilities. Backups versus archives.