

## Manage File Systems

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- Describe the purpose, features, and functions of root subdirectories, file components, file types, and hard links in the Solaris OS directory hierarchy.
- Explain how to create and remove hard links in a Solaris OS directory.
- Describe the basic architecture of a local disk and the naming conventions for disk devices as used in the Solaris OS.
- Explain when and how to list devices, reconfigure devices, perform disk partitioning, and relabel a disk in a Solaris OS using the appropriate files, commands, options, and menus or tables or both.
- Describe the purpose, features, and functions of disk-based, distributed, and pseudo file systems in a Solaris OS, and explain the differences among these file system types.
- Explain when and how to create a new ufs file system using the newfs command, check the file system using fsck, resolve file system inconsistencies, and monitor file system usage using associated commands.
- Explain the purpose and function of the vfstab file in mounting ufs file systems, and the function of the mnttab file in tracking current mounts.
- Explain how to perform mounts and unmounts, and either access or restrict access to mounted diskettes and CD-ROMs.

## Install Software

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- Explain how to install the Solaris OS from CD/DVD, including installation and upgrade options, hardware requirements, Solaris OS software components (software packages, clusters, and groups).
- Explain the purpose of the the /var/sadm/install/contents file, and how to administer packages (how to display, add, check, and remove a package, and add a package into the spool directory) using the command-line interface.
- Explain how to obtain, install, and remove patches, and patch clusters using either the command-line interface or the Solaris Management Console.

## Perform System Boot Procedures

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Explain how to execute boot PROM commands to:

- Identify the systems boot PROM version

- Boot the system; access detailed information
- List, change and restore default NVRAM parameters
- Display devices connected to the bus
- Identify the systems boot device
- Create and remove custom device aliases
- View and change NVRAM parameters from the shell
- Interrupt a hung system
- Given a scenario involving a hung system, troubleshoot problems and deduce resolutions.
- Explain how to perform a system boot, control boot processes, and complete a system shutdown, using associated directories, scripts, and commands.

## **Perform User and Security Administration**

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- Identify the main components of a user account, identify the system files that store account information, and explain what information is stored in each file.
- Explain how to manage user accounts, and describe system-wide initialization files.
- Identify the procedures and commands, variables, or permissions to monitor and control system access, switch users on a system, and restrict access to data in files.

## **Manage Network Printers and System Processes**

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- Describe the purpose, features, and functionality of printer fundamentals, including print management tools, printer configuration types, Solaris LP print service, LP print service directory structure, and the Solaris OS printing process.
- Explain how to configure printer classes, set the default printer, change the default printer class, remove a printers configuration, start the LP print service, and stop the LP print service using the appropriate commands.
- Given a scenario, identify the appropriate commands to specify a destination printer, accept and reject print jobs, enable and disable printers, and move print jobs.
- Explain how to view system processes, clear hung processes, schedule an automatic one-time execution of a command, and the automatic recurring execution of a command.

## Perform System Backups and Restores

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- Given a backup requirement, develop a backup strategy that includes scheduled backups, number of tapes required, naming conventions, command protocols, and backup frequency/levels.
- Explain how to perform incremental, full, and remote backups to tape for an unmounted file system using the `ufsdump` command or explain how to backup a mounted file system using `ufs snapshot`.
- Explain how to perform `ufs` file system restores and special case recoveries.