

# Sun Certified System Administrator for the Solaris 9 Operating System, Part I of II

## ***Product Description***

The Sun Certified System Administrator I for Solaris 9 Operating System, Part I exam is geared towards those candidates with a minimum of six months experience working as a system administrator. This exam presumes the test candidate has an indepth knowledge of basic UNIX and Solaris Operating System (Solaris OS) commands, such as those commands covered in the SA-239 courseware. The examination will include multiple choice scenario-based questions, drag and drop and fill-in questions. It is a prerequisite to the Sun Certified System Administrator for Solaris 9 Operating System, Part II exam. Test candidates must pass this exam before proceeding to the Sun Certified System Administrator for Solaris 9 Operating System, Part II exam. Reseller exam to not apply as prerequisites.

## ***Exam Objectives***

### **1. Manage File Systems**

- 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.

### **2. Install Software**

- 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.

### **3. Perform System Boot Procedures**

- 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.

### **4. Perform User and Security Administration**

- 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.

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

- 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.

# Sun Certified System Administrator for the Solaris 9 Operating System, Part II of II

## *Product Description*

The Sun Certified System Administrator for Solaris 9 Operating System, Part II exam is geared toward those candidates with one or more years of experience working as a system administrator. This exam will test the candidate on the new features of the Solaris 9 Operating System (Solaris 9 OS) and on the more advanced system administration skills. The examination will include multiple choice scenario-based questions and fill-in questions. The Sun Certified System Administrator for Solaris 9 Exam, Part I (310-014) is a prerequisite to this examination. Reseller exam to not apply as prerequisites.

## *Exam Objectives*

### **6. Describe Network Basics**

- Explain how to use network files to configure and test the IPV4 interfaces.
- Explain how to start server processes within a client-server model.

### **7. Manage Virtual File Systems and Core Dumps**

- Explain when and how to add and remove swap space.
- Given a crash dump scenario, change the crash dump and core file configuration.
- Identify the appropriate commands and procedures to manage files; list, start and stop daemons; and manage utilities on NFS servers and clients.
- Explain how to enable NFS server logging, and how to configure nfslogd behavior.
- Given a problem scenario and resulting NFS error message, infer causes and select an appropriate course of action to resolve the problem.
- Explain how to configure AutoFS using automount maps.

### **8. Manage Storage Volumes**

- Explain the purpose, features, and functionalities of RAID, and identify the guidelines to follow when using RAID 0, RAID 1, and RAID 5, including hardware considerations.
- Define key SVM concepts, including volumes and state databases.

## 9. Control Access and Configure System Messaging

- Explain how to display and set Access Control Lists (ACLs) using the command line and create default ACLs.
- Explain fundamental concepts of role-based access control (RBAC), including rights, roles, profiles, authorizations, administrator profile shells, and RBAC databases.
- Explain how to build user accounts, rights profiles, and their role when managing RBAC.
- Describe the fundamentals of the syslog function including the etc/syslog.conf file and the relationship between syslogd and m4 macro processor.
- Explain how to configure system messaging , including configuring the /etc/syslog.conf file, modifying the inetd process and using the logger command.

## 10. Set Up Naming Services

- Describe naming service concepts, and explain how to use the naming service switch file, the Name Service Cache Daemon (NSCD), and the getent command to get naming service information.
- Given a description of a naming service client, identify the steps and commands to configure the DNS client and set up the LDAP client.
- Explain the purpose, features, and functions of NIS namespace information, domains, and daemons.
- Explain how to configure the name service switch for different lookups, and configure a NIS domain using the required maps, files, commands, and scripts.
- Explain how to build custom NIS maps.

## 11. Perform Advanced Installation Procedures

- Explain the purpose, features, and functionality of the Jumpstart software, including boot services, identification services, configuration services, and installation services.
- Given a scenario, explain the procedures, scripts, and commands to implement a Jumpstart server.
- Given a scenario describing Jumpstart software configuration alternatives, explain how to establish a boot-only server, identification service alternatives, configuration service alternatives, and installation service alternatives.
- Given scenarios involving Jumpstart software problems with booting, identification, configuration, install, or begin/finish scripts, analyze and select a course of action to resolve the problem.
- Explain how to use the Flash installation feature, and describe the requirements and limitations of this feature.
- Explain how to create and use a Flash archive and how to use a Flash archive for installation with Webstart, interactive install, and the Jumpstart software.