11

Answers to Even-Numbered Exercises

2. How would you communicate each of the following messages?

   a. The system is coming down tomorrow at 6:00 in the evening for periodic maintenance.

   Use the **/etc/motd** file and/or email.

   b. The system is coming down in 5 minutes.

   Use wall.

   c. Jenny's jobs are slowing the system down drastically, and she should postpone them.

   Use write or talk.

   d. Alex's wife just had a baby girl.

   Use the **motd** file and/or email.

4. How would you allow a user to execute privileged commands without giving the user the Superuser password?

   You can create a setuid program that belongs to a group that only the user who is to execute it belongs to and that has no permissions for other users. Alternatively you can implement sudo to grant the user permission to execute the file (see the sudo and sudoers man pages).

6. How can you disable SELinux?

   Either use the SELinux tab of the Security Level Configuration window displayed by system-config-securitylevel to change the SELinux setting to **Disabled** or put the following line in **/etc/sysconfig/selinux**:

   ```
   SELINUX=disabled
   ```

   Then reboot the system.

8. Give the command

   ```
   $ /sbin/fuser –uv /
   ```

   What is this a list of? Why is it so long? Give the same command as **root** (or ask the system administrator to do so and email you the results). How does this list differ from the first? Why is it different?

   This command displays a list of processes using the root filesystem.

   The list is long because all files on the system are children of root, so all processes using any file or filesystem are listed.

   The first list shows only processes owned by the user who gave the command. When run as **root,** the output shows all processes. The lists are different because the system does not permit a non**root** to gather information about other users.

10. Take a look at **/usr/bin/lesspipe.sh**. Explain what it does and six ways it works.

    The **lesspipe.sh** script is a preprocessor for less. Search for **LESSOPEN** in the less man page to obtain more information on less preprocessors and postprocessors. This preprocessor allows you to view archived directories and compressed files on the fly, without creating intermediate files. For example, once you have set the **LESSOPEN** variable, you can view a compressed file with the command **less memo.gz** or an archived directory with the command **less myold.tar.** The **lesspipe.sh** script works with tar, tar and gzip, tar and bzip2, gzip, bzip2, zip, and cpio files. It also displays the change log when you ask less to display an **rpm** file.

12. When a user logs in, you would like the system to first check the local **/etc/passwd** file for a username and then check NIS. How do you implement this strategy?

    The **/etc/nsswitch.conf** file (page 435) controls the order in which sources are consulted to fulfill a request from the system. The following entry in this file causes the system to check first **/etc/passwd** and then NIS:

    ```
    passwd:      files nis
    ```