Labs

During the Red Hat exams, the tasks will be presented electronically. Therefore, this book presents most of the labs electronically as well. For more information, see the "Lab Questions" section toward the end of Chapter 9. Most of the labs for this chapter are straightforward and require a very few commands or changes to one or two configuration files.

Lab 1

As the root user, create cron jobs that change the login message for users at the text console. To do so, you'll want to change the content of **/etc/motd**. Make sure that people who log in at different times get appropriate messages:

If users log in between 7 A.M. and 1 P.M., create the login message "Coffee time!"

If users log in between 1 P.M. and 6 P.M., create the login message "Want some ice cream?"

If users log in between 6 P.M. and 7 A.M., create the login message "Shouldn't you be doing something else?"

Lab 2

In this lab, you'll set up an at job as the root administrative user, to save a list of currently installed RPMs in the **/root/rpms.txt** file. This job will be run once, 24 hours from now. If you want to verify your work, set up a second at job with the same commands to start five minutes from now.

Lab 3

In this lab, you'll set up a cron job to back up the **/etc** directory every Saturday at 2:05 A.M. You should ensure that SELinux contexts are preserved. You are not allowed to edit the root crontab. The backup should be saved in a gzipped-tar archive format in the **/tmp** directory, using the filename **etc-backup-MMDD.tar.gz**. Extract one of the generated backup files, to confirm that SELinux contexts are preserved.

Lab 4

In this lab, you'll learn more about the value of several different log files. In preparation, use the wrong password to log in to a regular account. Then take the following steps:

1. Navigate to **/var/log** as the root user. All of the files listed in this lab are in that **/var/log** directory.
2. Explore the contents of the **anaconda.*** log files.
3. Run the **utmpdump btmp** command. Do you see the login attempt? Can you tell if it succeeded?
4. Review the contents of the cron log file. Scroll through it. If your computer has been on for a while, most of what you see will be based on the **run-parts /etc/cron.hourly** command. Alternatively, if you reboot on occasion, you'll see messages associated with the **anacron** service.
5. Review the contents of the **dmesg** log file. Compare the beginning of it with the start of the **anaconda/syslog** file. Which one includes the currently booted kernel?
6. Navigate toward the bottom of the **dmesg** file. Can you identify the amount of swap space? Can you identify one or more partitions with the default XFS filesystem?
7. Review the **maillog** log file. If that file is short, there may be an older **maillog-*** file; if so, review that as well. Do you see any logs associated with mail messages?
8. Review the secure log file. Navigate to the bottom of the file. Do you see a message associated with the failed login?
9. Review the **Xorg.0.log** file in the /var/log directory. Do you see any messages related to the graphical screen in the file? How does that work when you didn't configure a GUI during the installation process?