Exercise – Building TarHeel Linux and Installing Applications

Test Machine: Lenovo ThinkCentre M58 7479-UN3
Intel Core 2 E8400 @ 3GHz Processor
250 GB SATA II Hard Drive
2 GB DDR3 Memory
Integrated 10/100/1000 Ethernet
Distributed between February 2009 and May 2010 Under CCI

1. Register MAC address for DHCP of the machine at http://onyen.unc.edu. This step has been done for you already.
2. Download 19MB TarHeel Linux NetInstall 5.5 Iso image from http://linux.unc.edu and burn to a CDROM. Get this CDROM from the class instructor.
3. Think of a very strong root password.
   - 8-12 characters
   - mixed case alpha, numeric, and special characters
   - no dictionary words 4 characters or greater
   - leading capital and trailing digit don't count
4. What is the ONYEN of the root user?
5. What is the ONYEN of the primary user if any?
6. Power up the machine.
7. Put the TarHeel Linux NetInstall Disc into the CDROM drive.
8. Hit F12 to select booting from CDROM.
9. Wait to see the "boot:" prompt, hit Enter to take the standard desktop installation.
10. Wait patiently for 30 minutes for the build to complete.
11. System rebuilds automatically. Enter the ONYEN of the root user, hit Enter, the installer will pause for a minute, read the on-screen information.
12. Enter root password and enter the same password again to confirm.
13. If the ONYEN of the primary user is available, hit "n" and enter the ONYEN.
14. System will start patching up the OS and reboot automatically.
15. Once you see the TarHeel Linux login screen, login using ONYEN with ONYEN password.

Installing OpenAFS

16. Right click of the mouse on the desktop background, select "Open Terminal".
17. On the Terminal window, type "su -" and enter root password to become superuser.
18. Type the following command to look for the packages with keyword "openafs".
    ```
    yum search openafs
    ```
19. Type the following command to install OpenAFS client package. This package is customized to work with the UNC AFS Isis cell. The installation includes building a kernel module and therefore it will take a couple of minutes to finish.
    ```
    yum install openafs-client
    ```
20. We will need to start up OpenAFS client with this command.
    ```
    service openafs-client start
    ```
21. Type "exit" to exit from being superuser, make sure that you are the user of the terminal. Check with this command.
    ```
    whoami
    ```
22. At this point, you do not have token to access AFS Isis cell yet, to obtain a token, type the

following command.
`aklog`
Use this command to confirm and availability of token to access AFS Isis cell.
`tokens`

23. Now, you can browse AFS Isis cell. Change directory to your AFS home directory and browse around.

Installing Matlab Environment

24. Login in as root again.
25. Run the following command to install the Matlab environment package.
`yum install matlab-env`
26. Open up a new terminal window, type the following command to invoke Matlab.
`matlab`
27. Exit Matlab

Installing KompoZer

28. Go back to the window you have root access, type the following command to install KompoZer.
`yum install kompozer`
29. Use the pull down menu, Applications → Programming → KompoZer to invoke KompoZer.
30. Open up a html file to see how it works. HTML sample files are stored in the following directory.
`/usr/lib64/kompozer/res/samples`
31. One can always use the command line to invoke KompoZer and open up a HTML file. Open up a terminal window, type the following command to open test2.html.
`Kompozer /usr/lib64/kompozer/res/samples/test2.html`
32. Exit KompoZer.