Name_____ _____/20 pts.

Name_____

SE 4C03 Winter 2006

Lab Exercise 1

Instructor: William M. Farmer
Revised: 23 January 2006

Assigned: 23 January 2006
Lab report due: 24 January 2006

Working together, you and your assigned team member will configure, secure, and administer a host on the virtual Little Internet running Unix (SunOS 5.10). This exercise is the first step.

1. Using your CAS Unix account name, log into a computer in the ITB 239 lab, ssh to `cnode7`, and then telnet to the root account on `host`n, where n is your team's assigned host number. The root password will be given to you when you are in the lab.

2. Change the root password to a good password that you will not forget. Do not use the root account except for administrative tasks that require root privileges.

3. Create two Unix groups named `team` and `guests`. Create password-protected user accounts for you and your partner with the group `team`. Also create a password-protected user account named `instruct` with the group `team`. This account will be used by the instructor and the TA for marking purposes. Finally, create a password-protected user account named `intruder` in the group `guests`. The `intruder` will be used by nonteam members to log into your host. Set the default shell for `instruct` and `intruder` to `tcsh`. The password of `intruder` should be `letmein`, but choose a good password for the `instruct` account. Write the password of the account `instruct` here:

   _____ _____/4 pts.

4. From the Specification of the Little Internet, draw a picture of the 28 hosts and 8 networks that constitute the Little Internet. Show what IP addresses and subnet masks are assigned to the network interfaces.
   _____/4 pts.

5. The configuration file for the ssh server on your host is at

`/etc/ssh/sshd_config`

Change this file to permit root logins using ssh. Restart the ssh server with the command

`svcadm refresh /network/ssh` _____/2 pts.

6. Your host has three network interfaces: `iprb0`, `e1000g1`, and `lo0`, the loopback interface. Use `ifconfig -a` to verify that your host has three active network interfaces with the correct IP addresses and subnet masks. Note any mistakes in the space below. Do not try to change the configuration of the interfaces if they are incorrect.

_____/2 pts.

7. Use `netstat -rn` to look at your host's routing table. How many direct routes does the table have? _____ How many nondefault, indirect routes does the table have? _____ How many default routes does the table have? _____ How many host routes does the table have? _____ _____/4 pts.

8. Use `ping` to find the IP addresses of four Little Internet interfaces that are reachable from your host:

   _____
   _____
   _____
   _____

   Use `ping` to find the IP addresses of four Little Internet interfaces that are *not* reachable from your host:

   _____
   _____
   _____
   _____ _____/4 pts.

For your team's lab report, hand in this sheet and your picture of the Little Internet. You must also turn in a paper copy of each team member's log book no later than the beginning of the lecture on January 26, 2006. If your log book is missing or incomplete, 4 points will be deducted from your mark. *You and your partner must hand the lab report in together before the end of the lab session. If you do not attend the lab session or leave the lab before handing in the lab report, you will receive a mark of 0 for the lab exercise.*