Name_____   _____/20 pts.

Name_____

SE 4C03 Winter 2007

Lab Exercise 1

Instructor: William M. Farmer
Revised: 26 January 2007

Assigned: 26 January 2007
Lab report due: 26 January 2007

Working together, you and your assigned team member will configure, secure, and administer a VMware host on the virtual Little Internet. This exercise is the first step.

1. Start up the VMware Server Console on one of the computers in ITB 235. Using the account and machine name assigned to your group, connect to your assigned VMware host. The password will be given to you in the lab.

2. Install the Linux operating system on your host. Set the gateway (for now to be any IP address that is directly reachable from your host. Do not specify a DNS server.

3. Create two Unix groups named `team` and `guests`. Create password-protected user accounts for you and your partner with the group `team`. Use your MAC IDs for the names of these accounts. 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. Print the password of the account `instruct` here:

   _____   _____/4 pts.

4. From the Specification of the Little Internet, draw a picture of the 24 hosts and 17 physical networks that constitute the Little Internet. Show what IP addresses and subnet masks are assigned to the network interfaces.

   _____/6 pts.

5. Your host should have three network interfaces: `eth0`, `eth1`, and `lo`, the loopback interface. Use `ifconfig` 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.

_____/2 pts.

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

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

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_____   _____/4 pts.

For your team's lab report, hand in this sheet, your picture of the Little Internet, and a paper copy of each team member's log book (if it is more convenient, you may hand this in at the beginning of the next lecture). 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._