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## SE 4C03 Winter 2003

### Lab Exercise 1

Instructor: William M. Farmer

Revised: 22 January 2003

Assigned: 24-JAN-2003

Lab report due: 31-JAN-2003

Working together, you and your assigned team members will configure, secure, and administer a host on the Little Internet running Redhat Linux. This exercise is the first step.

1. The password for the root account will be `se4c03.n` where *n* is your host number. Change this password to a good password that you will not forget. Do not use the root account except for administrative tasks that require root privileges.
2. Create password-protected user accounts for you and your partner(s) using `linuxconf`. Also create password-protected user accounts named `intruder` and `instructor`. The `intruder` will be used by nonteam members to log into your host, while the `instructor` will be used for marking by the instructor and the TAs. Set the default shell for both accounts to `tcsh`. The password of `intruder` should be `letmein`, but choose a good password for the `instructor` account. Write the password of the account `instructor` here:

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\_\_\_\_\_/5 pts.

3. From the Specification of the Little Internet, draw a picture of the 36 computers, 6 hubs, 36 host-to-hub cables, and 18 host-to-host cables that constitute the Little Internet. Show what IP addresses are assigned to the network interfaces.  
\_\_\_\_\_/5 pts.
4. Turn on IP forwarding (“Enable routing”) on your host using `linuxconf`.  
\_\_\_\_\_/2 pts.
5. Set the hostname of your host to `hostn.mcmaster.ca` using `linuxconf` where  $n$  is your host number.  
\_\_\_\_\_/2 pts.
6. Set the IP address and subnet mask for both Ethernet network interfaces using `ifconfig`. Do not use `linuxconf` to do this. Put a copy of the `ifconfig` commands you used in the `/etc/rc.local` file so that they are executed when your host is rebooted. Make sure that the `/etc/rc.local` file is readable by `instructor`. When you are done, use `ifconfig` to verify that your workstation has three active, correctly configured network interfaces, one loopback and two Ethernet.  
\_\_\_\_\_/6 pts.

For your team’s lab report, hand in this sheet, your picture of the Little Internet, and a copy of each team member’s log book.