Name_____ _____/20 pts.

Name_____

SE 4C03 Winter 2006

Lab Exercise 2

Instructor: William M. Farmer
Revised: 7 February 2006

Assigned: 3 February 2006
Lab report due: 7 February 2006

Do this lab exercise with your assigned team member.

Configure your host's routing table so that the specification below is satisfied. You may not use a default route nor any host-specific routes. Your routing table should include exactly nine routes, one for each of the eight SPNs and the loopback network.

Log into your host. Create a shell script that contains the `route add` and `route delete` commands needed to build your host's routing table. The syntax for these commands is below. Name the file `route-script`, set the permissions to `rwxrwx---`, and put a copy of it in the directory named `/etc` on your host.

For your team's lab report, hand in this sheet. You must also turn in a paper copy of each team member's log book no later than the beginning of the lecture on February 9, 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.*

Little Internet Routing Specification. If the number of your host is x and the destination address of an IP datagram is the address of an interface belonging to a host with number y, then:

1. If $x = y$, the packet should be immediately delivered to host y.
2. If $x < y$, the packet should be forwarded to a host with number z directly connected to your host such that that $x < z \leq y$.
3. If $y < x$, the packet should be forwarded to a host with number z directly connected to your host such that that $y \leq z < x$.

Syntax for Route Commands.

`route add` *destination* `-netmask` *mask gateway* `-ifp` *interface*

`route delete` *destination* `-netmask` *mask gateway* `-ifp` *interface*

destination is the subnet address of the destination subnet. *gateway* is the address of the interface for direct routes and is the address of the next hop for indirect routes.