CS 430/594 Routing Spring, 2003 straight

Lab1: due: Jan 28th

Your task for lab 1 will be to set up a simple IP interface with VRNET. Look at our provided dummy IP layer--not the source code, which you don't have, but what the executable does. You should be producing something similar.

You will have a config setup file. Char Bauer, the TA for the course, will be setting up a web page and readme files. We will need to know who is in your group. Initially, we'll assign unique port numbers for each group, thus allowing 2 groups to both use, say, cetus1 at the same time.

You can have up to 4 hosts on your LAN--let's say that you're delta, so your hosts might be cetus1, 4, 13, and 21, aliased with delta1, 2, 3, and 4, "IP" address 10.10.5.0 as the subnet, with delta1 as 10.10.5.1, etc, and port 5099 as the VRNET port for all 4 hosts. Typically, you'll open windows to these hosts by rshing, etc. You fire up VRNET on all the hosts. Then, for the cetus4 (=delta2) host, you should be able to type in a message and a destination--and your "IP" layer on cetus1b then calls VRNET with the address of the message buffer, the size of the message, and the next hop--i.e. where the message should be delivered.

You need not worry about IP protocols--e.g. source and destination IP address fields in the packet--not yet. When we get to lab 2 and beyond, we will require the IP protocols for the packet.

Thus you'll need a minimum of 2 threads--one to watch for keyboard input, the other to watch for input coming up from VRNET. (note that VRNET also has multiple threads.

This first lab is just to get you going, and get you used to the basic operation of VNET/VRNET and to remind you about threads, etc

web page for VNET: www.cs.utk.edu/~cs594np