Network Instructions

Steps labeled LAPTOP are relevant only if you bought your own board. Steps labeled 'UNM SERVER' are relevant only to the UNM SERVER machine. Unlabeled are relevant to both.

1) LAPTOP: Connect a twisted pair cable between ethernet ports on your laptop and Zedboard. Be sure to disable the wireless network.

2) Type 'ifconfig' to make sure 'eth0' shows up.
   UNM SERVER: On the UNM server, the network cards are labeled
   p2p1: 192.168.1.20 (currently /dev/ttyUSB1)
   p2p2: 192.168.2.20 (currently /dev/ttyUSB3)
   p2p3: 192.168.3.20 (currently /dev/ttyUSB5)
   p2p4: 192.168.4.20 (currently /dev/ttyUSB8)
   p1p4: 192.168.5.20 (currently /dev/ttyUSB4)
   p1p3: 192.168.6.20 (currently /dev/ttyUSB2)

3) LAPTOP (optional): do this ONLY if 'ifconfig' does NOT show eth0 on your laptop.
   In an xterm on your laptop, type
   insmod /lib/modules/2.6.xx-xx.elf6.x86_64/kernel/drivers/net/xxx
   Substitute xx-xx with the linux kernel you are using and xxx with the driver for your card.

4) In the minicom window (which connects to the FPGA through a serial channel), type
   minicom -s
   Ctrl-A and then Shift-Z to bring up configuration menu
   type 'O'
   Scroll to 'Serial port setup'
   Type 'A'
   Set ttyUSBx to the appropriate x as indicated above under your assigned IP number
   ifconfig eth0 192.168.1.10 netmask 255.255.255.0
   UNM SERVER: Substitute .1. with the number that has been assigned to you
   Then type 'ifconfig' by itself to make sure 'eth0' is configured with the IP you just specified.

5) LABTOP: In an xterm, type
   ifconfig eth0 192.168.1.20 netmask 255.255.255.0

6) LAPTOP: type 'route' to make sure 192.168.1.0 shows up. If not, repeat 5) above.

7) LAPTOP, type
   route add default gw 192.168.1.1 eth0

8) LAPTOP, type 'route' again to make sure 'default 192.168.1.1' shows up as a second entry in the routing table.

9) At this point, you should be able to type
   ssh root@192.168.1.10
   UNM SERVER: Substitute .1. with the number that has been assigned to you.
   To logon to the linux system, use 'root' as the password.