

Cisco Router Experimentation

1600 Series Router

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For the first test, I wanted to learn how to connect to the router. The first step in this was getting the software that is needed to connect to it. All of the Cisco documents say that they use HyperTerminal. This program costs \$60 to purchase, however I was able to get a free 30 day trial. This should be enough time to at least get me through the semester.

After downloading the software, I hooked up the router and worked on setting everything up so I was ready to use it. I did this by using the following tutorials I found online:

http://www.petri.co.il/csc_how_to_use_hyperterminal_with_cisco_routers_and_switches.htm
and

http://www-tss.cisco.com/eservice/compass/common/tasks/task_console_port_connect.htm

After several failed attempts, I realized that I did not have the right cable to make the connection. The routers require the use of a rollover Ethernet cable in order to connect to the console. A rollover cable is where the 1st wire and the 8th are flipped from the beginning to ending side. In order to continue with my work and get this router to work, I will need to find a rollover cable which I can use. This will be my task for tomorrow.

Test 2 - Make Rollover Cable, Sync with HyperTerminal

After getting the materials and tools to make a rollover cable on Friday, I was able to continue working with the router. The first thing I needed to accomplish was to create a rollover cable so I could actually connect to the device. A rollover cable is when the leads in an ethernet cable are the opposite on the different ends, meaning pin 1 becomes 8, 2 becomes 7, 3 becomes 6 and so on. To do this, I snipped one end of a standard ethernet cable off and left the other end in tact. Next, I cut the coating on the snipped end down so that the eight wires were exposed. Then the trick was to get all of the wires aligned in the new order and attempt to slide them into a new ethernet plug so I could crimp them down. Eventually I managed to do this then used the VDV MultiMedia tester to ensure it was wired in the correct manner.

Now that I have the necessary cable to connect to the router, I can continue on with the experiments I was originally planning on. The first test I wanted to do was to attempt to connect the router with HyperTerminal on my machine. This is the software that will allow me to do all of the necessary configuration and complete the rest of the labs.

The next trouble I encountered occurred when trying to get my machine with HyperTerminal to recognize and connect to the router. For some reason I am not able to see or connect to the router at all. I am not sure what is causing this. It could be a problem with the rollover cable, the router, the software, or my machine. I will continue experimenting with this in order to get it to work.

TASKS:

Look into other HyperTerminal options - especially on Linux (ex. Minicom or Seyon). Try to find the best, most well documented option.

Try to meet again on Wednesday to continue working with Router

Look into serial (COM) port emulators

Contact Miguel and ask him how he connects and configures (what cables, machines, programs, websites, routers he uses)

Meet with SLIC Network Admin this week and interview regarding the local network, Cisco gear ...

Overview of Cisco Cabeling Connections and Techniques

<http://www.conserver.com/consoles/Cisco/ciscocons.html>

Cisco Documentation for Console Cabeling

http://www.cisco.com/en/US/products/hw/routers/ps332/products_tech_note09186a0080094ce6.shtml

Cisco Documentation for 1600 Router Console Connection

http://www.cisco.com/en/US/products/hw/routers/ps214/products_tech_note09186a00801f5d85.shtml?referring_site=smartnavRD

Wiki Page on Crossover Cables

http://en.wikipedia.org/wiki/Ethernet_crossover_cable

Wiki Page on Rollover Cables

http://en.wikipedia.org/wiki/Rollover_cable

Youtube Video on Cisco Console Cables

<http://www.youtube.com/watch?v=VIKB4tn6yXc>

