

Name: \_\_\_\_\_

## ECE 455 Mid Term 2

30 Nov 2006

### Laboratory Test

**Note: Allow at least 10 minutes to send your email to me. No email, no points!!!!!!!**

1. Start Netscape web browser to load. (Do not wait for it to start.)
2. Bring up a blank editor window. Save as yourname.txt
3. Bring up two terminal windows, one for each of your routers.
4. Clear the current router configurations and reboot your router.
5. Look at the vlan configuration for your switch. No configuration of the switch should be required, but locate two ports that can be used for connections to vlan 1. Ports 23 and 24 are already connected, do not move these cables! I have not changed the configuration of any of the switches in Pods 1-5, but I fixed the switch in Pod 6.
6. Look at the network diagram. Connect the Ethernet cables indicated to implement your half of the diagram. No discussion in the Router Room!!!! (The serial cables between R1 and R2 and the frame relay connections above R1 and R2 have already been made and do not have to be modified.)
7. General router configuration for each of your two routers.
  - a. Give the routers the name: yournamePxR1, yournamePxR2,...etc.
  - b. Implement passwords for enable, console login and telnet login.
  - c. Turn off DNS and provide for synchronous logging.
  - d. Configure telnet.
8. Ethernet interface configuration.
  - a. Configure all router Fast Ethernet interfaces
  - b. Enable telnet for the routers
9. Configure the serial connection for R3 (or R4) to use Cisco HDLC, 64KBits per sec.
10. Enable OSPF for all networks on the drawing, single area.
11. Add appropriate default routes to all routers to ultimately send all default traffic to Jordan.
12. Configure the frame relay connections to BBR1 and to your neighbor's router that is in your pod.
  - a. Clock speed 64KBits per sec.
  - b. Use the DLCI's indicated on the drawing.
  - c. Use a single multipoint subinterface.
  - d. Use the indicated IP address for the subinterface.
  - e. Explicitly configure the OSPF mode on this subinterface to be NBMA (don't just rely on the default mode).
  - f. Tell OSPF about any neighbors that it cannot discover automatically.
13. Tell me that you have completed your configuration.
14. Save your running configuration to the startup configuration.
15. Copy the configuration of your two routers to the editor window.
16. Copy a listing of the IP router table to your editor window.
17. Copy the results of the "show frame-relay map" command to your editor window.
18. Save your editor file and email it to me and to yourself. Make sure you receive your copy!!
19. Quit the editor and delete the file you saved.
20. Exit all telnet connections and log off.

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21. Leave, do not discuss the test with the next group.

Some useful commands that you may need for this exam:

**ip address** ip-address mask

**network** ip-address wildcard **area** area-number

**frame-relay map ip** ip-address dlcid **broadcast**

**ip nat** {**inside**|**outside**}

**router ospf** process-number

**access-list** nnn {**permit**|**deny**} protocol source-address source-wildcard [operator port] destination-address destination-wildcard [operator port]

**area** area-number **stub no-summary**

**ip access-group** access-list-number {**in**|**out**}

**access-class** access-list-number {**in**|**out**}

**interface** interface-number **multipoint**

**ip nat pool** name start-ip end-ip {**netmask** netmask | **prefix-length** prefix-length}

**bandwidth** speed

**ip nat inside source list** access-list-number {**pool** name | **interface** interface-id} **overload**

**no service password-encryption**

**ip ospf network non-broadcast**

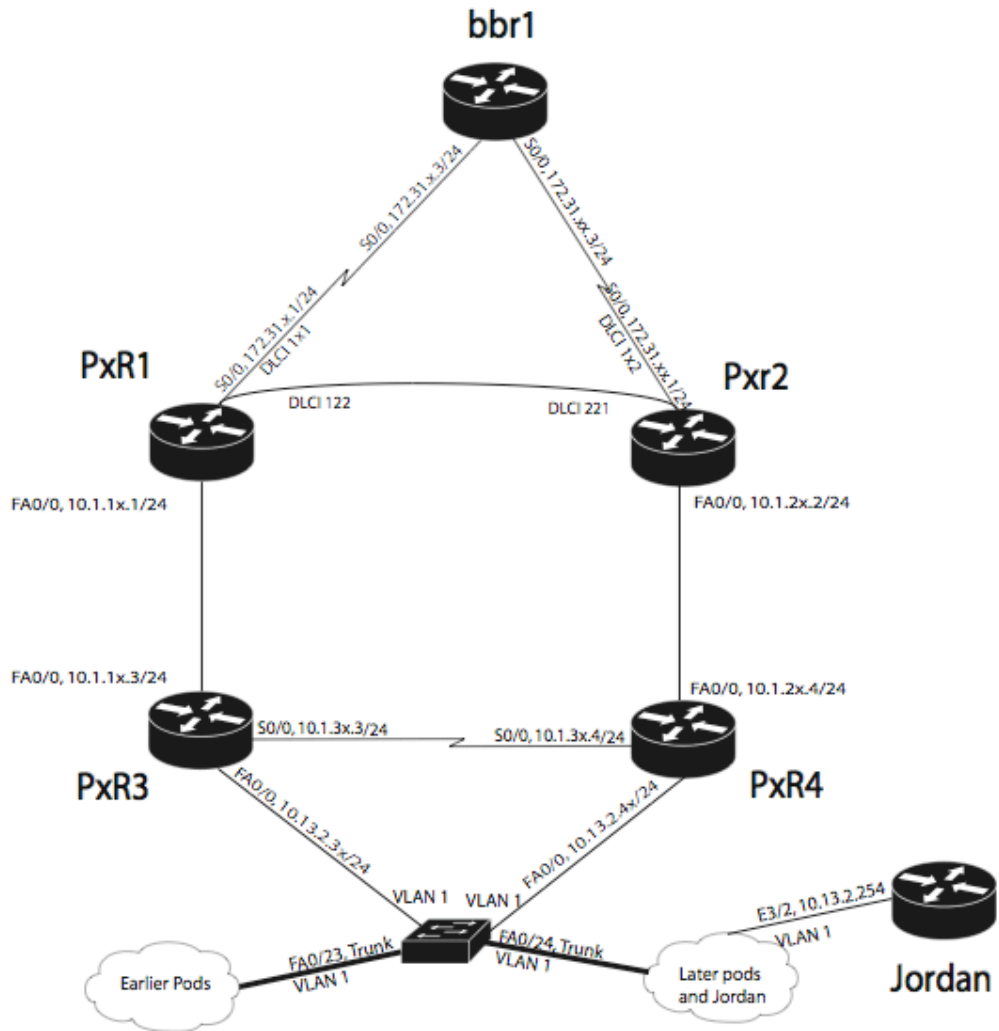


Fig. 1: Configuration For Pod 1