

CO1507 Introduction to Networking

Lab 13 - Practice Assessment

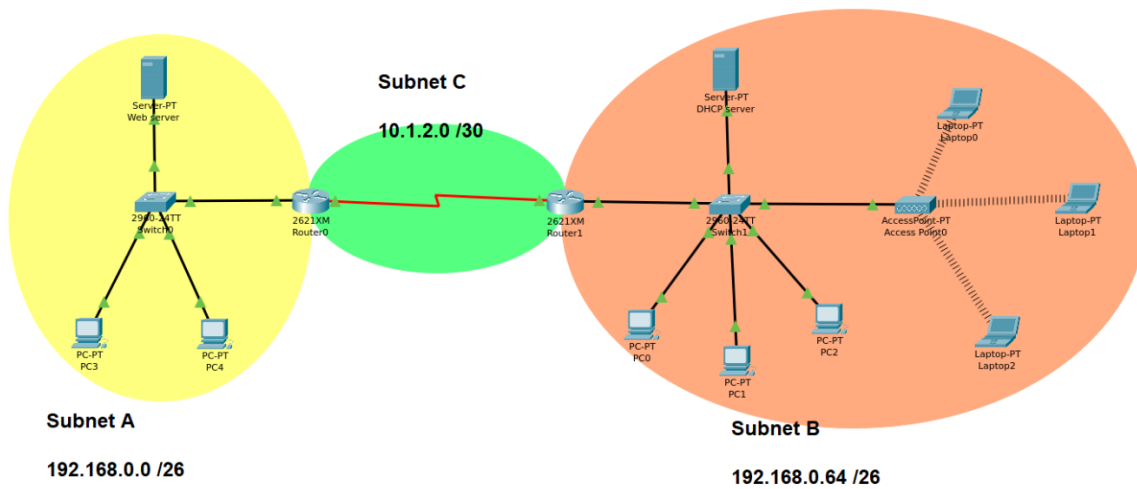


Figure 1 Topology for practice assessment

Equipment needed:

1. 2 x 2621XM router with WIC2T eHWIC expansion card fitted.
2. 2 x 2960-24TT switch
3. 2 x Server-PT
4. 5 x PC-PT
5. 3 x Laptop-PT fitted with WPC300N wireless modules.
6. 1 x AccessPoint-PT

Task 1

Construct the topology seen in figure 1.1.

Task 2: Subnet A

1. Assign the router f0/0 interface the first valid host IP address in the subnet.
2. Assign the server the last valid host IP address in the subnet.
3. Configure PCs with appropriate IP addresses within the subnet.
4. For all devices ensure the correct default gateway and subnet mask is specified

Task 3: Subnet B

1. Statically assign the router f0/0 interface the first valid host IP address in the subnet
2. Statically assign the server the last valid host IP address in the subnet
3. Configure the server to act as a DHCP service allocating addresses from a suitable pool within the subnet without overlapping any of the statically assigned addresses.
4. Fit each laptop with the wireless module WPC300N.

5. Configure the wireless access point with a SSID and password using WPA2-PSK (Both SSID and password can be your name)
6. Ensure that all devices have the correct default gateway and subnet mask, and that the DHCP server is including this information when allocating addresses.

Task 4: Subnet C

1. Assign the correct static IP addresses to the serial interfaces.
2. Configure static routes using recursive static route (next hop route) on each router to allow the network to function correctly.

Task 5

For the (Routers and Switches), configure basic settings and prevent unauthorised access by:

1. Applying hostnames.
2. Prevent unwanted DNS lookups.
3. Set a login MOTD banner to warn about unauthorized access by adding the message "Unauthorized people are not allowed to access `your name here` 's network".
4. Set passwords for console connection and privileged EXEC mode to your name.

Task 6

Complete the multi-choice test on Blackboard under assignments named 'Practice Test 2024'.

IMPORTANT: When you have completed the work you must show your tutor.