An image containing a map, diagram, line, text

Auto-generated description

**Step 1:** Configure IP addresses on workstations and servers using static addresses ***(1 point)***

**Step 2:** Configure the interfaces of the four routers. ***(2 points)***

Specify the commands for one of the interfaces on router1 (R1):

Router1> enable

Router1# configure terminal

Router1(config)# interface GigabitEthernet0/0

Router1(config-if)# ip address 10.1.1.1 255.255.255.0

Router1(config-if)# no shutdown

Router1(config-if)# exit

**Step 3:** Configure a static routing protocol between R0, R1 and R2 to join the different networks including the 20.21.22.2/30 network ***(3 points)***

Specify the commands for the router (R2):

Router2> enable

Router2# configure terminal

Router2(config)# ip route 10.1.1.0 255.255.255.0 192.168.2.1

Router2(config)# ip route 10.1.2.0 255.255.255.0 192.168.2.1

Router2(config)# ip route 20.21.22.0 255.255.255.252 192.168.2.1

Router2(config)# exit

An image containing text, font, line, diagram

Auto-generated description

**Step 4:** Add a serial link between router1 and router2, Configure interfaces using the 192.168.3.0/30 network ***(2 points)***

Specify the commands for one of the routers:

Router1> enable

Router1# configure terminal

Router1(config)# interface Serial0/0/1

Router1(config-if)# ip address 192.168.3.1 255.255.255.252

Router1(config-if)# clock rate 64000

Router1(config-if)# no shutdown

Router1(config-if)# exit

Note: Don't forget to save your packet tracer file after each step.

**Step 5:** Configure a floating static route allowing the 10.1.3.0/24 network to join the 10.1.2.0/24 network using the 192.168.3.0/30 network as the backup path ***(2 points)***

Indicate the commands:

Router1> enable

Router1# configure terminal

Router1(config)# ip route 10.1.3.0 255.255.255.0 192.168.2.2

Router1(config)# ip route 10.1.3.0 255.255.255.0 192.168.3.2 5

Router1(config)# exit

**Step 6:** Disable the link between Router0 and Router1 and explain whether PC1 can join PC0 and the georges.com server ***(2 points)***

Indicate the commands:

Router0> enable

Router0# configure terminal

Router0(config)# interface Serial0/0/0

Router0(config-if)# shutdown

Router0(config-if)# exit

An image containing line, text, diagram, screenshot

Auto-generated description

**Step 7:** Connect the switches2 with the switches3 using 3 cables and activate the EtherChannel ***(2 points)***

Indicate the commands:

Switch2> enable

Switch2# configure terminal

Switch2(config)# interface range FastEthernet0/1 - 3

Switch2(config-if-range)# channel-group 1 mode active

Switch2(config-if-range)# exit

Switch2(config)# interface Port-channel 1

Switch2(config-if)# switchport mode trunk

Switch2(config-if)# exit

Switch3> enable

Switch3# configure terminal

Switch3(config)# interface range FastEthernet0/1 - 3

Switch3(config-if-range)# channel-group 1 mode active

Switch3(config-if-range)# exit

Switch3(config)# interface Port-channel 1

Switch3(config-if)# switchport mode trunk

Switch3(config-if)# exit

An image containing text, screenshot, diagram, font

Auto-generated description

**Step 8:** Manually configure the MAC address of the NTP server on the switch0 using port security. ***(2 points)***

Indicate the commands:

Switch0> enable

Switch0# configure terminal

Switch0(config)# interface FastEthernet0/1

Switch0(config-if)# switchport port-security

Switch0(config-if)# switchport port-security mac-address <MAC\_ADDRESS>

Switch0(config-if)# switchport port-security maximum 1

Switch0(config-if)# switchport port-security violation shutdown

Switch0(config-if)# exit

**Step 9:** Configure the active ports of the switch0 to allow learning of a maximum of one MAC address on the ports and disable the port when overflowing. ***(4 points)***

Indicate the commands:

Switch0> enable

Switch0# configure terminal

Switch0(config)# interface range FastEthernet0/2 - 24

Switch0(config-if-range)# switchport mode access

Switch0(config-if-range)# switchport port-security

Switch0(config-if-range)# switchport port-security maximum 1

Switch0(config-if-range)# switchport port-security violation shutdown

Switch0(config-if-range)# exit

Note: Don't forget to save your packet tracer file after each step.

An image containing text, screenshot, diagram, font

Auto-generated description

**Step 10:** Set up the wireless router:

* An addressing range for customers from 150 to 200. ***(2 points)***
* ***Change SSID: bdeb and Pwd: Almost2024Done***

An image containing diagram, line, text, map

Auto-generated description

**The discount;**

* Copy the sh run of the 4 routers and the switch0 at the end of this word document (identify the file name with your DA number)
* Test connections between different computers (ping)
* Test the security of the switch0 by replacing the pC0
* Copy test results to word document