ENetwork Basic Configuration PT Practice SBA

A few things to keep in mind while completing this activity:

- 1. Do not use the browser **Back** button or close or reload any exam windows during the exam.
- 2. Do not close Packet Tracer when you are done. It will close automatically.
- 3. Click the Submit Assessment button to submit your work.

Introduction

In this practice Packet Tracer Skills Exam, you will:

- · design and implement an addressing scheme to meet stated requirements
- configure, verify, and troubleshoot connectivity between all devices in the network

Addressing Table

Device	Interface	Address	Subnet Mask	Default Gateway
Doutor1	Fa0/0	172.16.1.1	255.255.255.224	n/a
Rouler	Fa0/1	172.16.1.33	255.255.255.240	n/a
Switch1	VLAN1	172.16.1.2	255.255.255.224	172.16.1.1
PC1	NIC	172.16.1.30	255.255.255.224	172.16.1.1
PC2	NIC	Preconfigured	Preconfigured	Preconfigured

NOTE: The initial network has some errors. To aid in configuring and verifying the devices, as well as in troubleshooting the existing errors, use a printed version of these instructions to fill in the missing address information in the table during Step 1.

Step 1: Determine the IP Addressing Scheme.

Design an addressing scheme and fill in the Addressing Table based on the following requirements:

- a. Subnet the address space 172.16.1.0/24 to provide 30 host addresses for LAN 1 while wasting the least amount of address space.
- b. Assign the first available subnet to LAN 1.
- c. Assign the lowest (first) host address in this subnet to the Fa0/0 interface on Router1.
- d. Assign the second address in this subnet to the VLAN 1 interface on Switch1.
- e. Assign the highest (last) host IP address in this subnet to PC1.

LAN 1	30 30	172.16.1.0	/27	255.255.255.224	172.16.1.1 - 172.16.1.30	172.16.1.31
LAN 2	10 14	172.16.1.32	/28	255.255.255.240	172.16.1.33 - 172.16.1.46	172.16.1.47

Step 2: Configure Router1.

- a. Configure Router1 with these basic parameters:
- Use Router1 as the router name.
- Use **class** as the encrypted password for privileged EXEC mode.
- Require password-protected logins for the console line. Use **cisco** as the password.
- Require password-protected logins for the vty lines. Use cisco as the password.
- Configure the banner message-of-the-day as Authorized access only!
- b. Configure the two Fast Ethernet interfaces.
- Configure the router interfaces according to your completed addressing table.
- Configure each interface with a description.
- c. Close the terminal window after completing the router configuration.

Router> Router>en Router#config t Router(config)#hostname Router1 Router1(config)#enable secret class Router1(config)#line con 0 Router1(config-line)#password cisco Router1(config-line)#login Router1(config)#line vty 0 4 Router1(config-line)#password cisco Router1(config-line)#login Router1(config)#line vty 1 15 Router1(config-line)#password cisco Router1(config-line)#login Router1(config-line)#exit Router1(config)#banner motd # Authorized access only! # Router1(config)#int fa 0/0 Router1(config-if)#ip address 172.16.1.1 255.255.255.224 Router1(config-if)#description LAN1 Router1(config-if)#no shutdown Router1(config-if)#exit Router1(config)#int fa 0/1 Router1(config-if)#ip address 172.16.1.33 255.255.255.240 Router1(config-if)#description LAN2 Router1(config-if)#no shutdown Router1(config)#service password-encryption Router1(config-if)#exit Router1# Router1#copy run start Destination filename [startup-config]? Building configuration...

Step 3: Configure Switch1 and Verify Connectivity.

- a. Remove the console connection between PC1 and Router1.
- b. Connect PC1 to the Switch1 console port.
- c. Configure Switch1 with these basic parameters:
- Use Switch1 for the switch name.
- Use class as the encrypted password for privileged EXEC mode.
- Require password-protected logins for the console line. Use cisco as the password.
- Require password-protected logins for the vty lines. Use cisco as the password.
- Configure the banner message-of-the-day as Authorized access only!
- d. Configure interface VLAN 1.
- e. Configure the default gateway.
- f. Test that Switch1 is able to ping the default gateway.

Switch>en Switch#confia t Switch(config)#hostname Switch1 Switch1(config)#enable secret class Switch1(config)#line con 0 Switch1(config-line)#password cisco Switch1(config-line)#login Switch1(config-line)#exit Switch1(config)#line vty 0 4 Switch1(config-line)#password cisco Switch1(config-line)#login Switch1(config-line)#exit Switch1(config)#line vty 5 15 Switch1(config-line)#password cisco Switch1(config-line)#login Switch1(config-line)#exit Switch1(config)#service password-encryption Switch1(config)#banner motd # Authorized access only! # Switch1(config)#int vlan 1 Switch1(config-if)#ip address 172.16.1.2 255.255.255.224 Switch1(config-if)#no shutdown Switch1(config-if)#exit Switch1(config)#ip default-gateway 172.16.1.1 Switch1#copy run start Destination filename [startup-config]? Building configuration...

Step 4: Configure and Verify PC1 Addressing.

- a. Use the IP addressing you determined in Step 1 and configures PC1 with the correct addressing.
- b. Test that PC1 is able to ping the default gateway.

172.16.1.30	255.255.255.224	172.16.1.1
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CHECKED!

Step 5: Verify and Troubleshoot End-to-End Connectivity.

Verify that PC1 is able to ping PC2. If the ping fails, locate and correct any errors. For example, make sure PC2 is configured correctly with appropriate addressing for the subnet it belongs to.

Replace the cross-over cable with straight-through. Config ip address and default gateway correctly ip address: 172.16.1.46 net mask: 255.255.255.240 gateway should be Router 1 Fa0/1 (ip address) (172.16.1.33)

LAN 2



HQ and S2 are accessed through a console connection. Access to S1 is disabled.

Fa0/1 /1841 Fa0/0 HQ Fa0/0

Network to Subnet 10.10.10.0/24

LAN 1 40 Hosts

2960/24TT

PC-PT NetAdmin