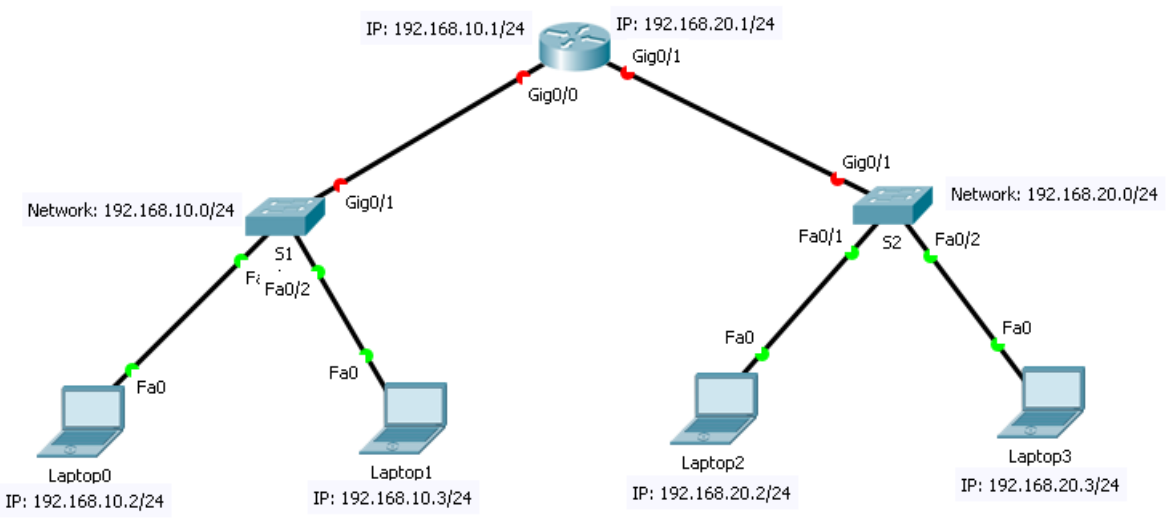
CCNA Sem01 Lab#04

Lab04 Topology



Setup topology

Step 1: Connect topology devices as shown in figure.

1- Select straight-through Cable from connections in Cisco Packet Tracer.

Step 2: Configure Laptops

1- Set IP for Laptop0(Desktop -> IP configuration)
   a. IP address: 192.168.10.2
   b. Subnet Mask: 255.255.255.0
   c. Default Gateway: 192.168.10.1
2- Set IP for Laptop1(Desktop -> IP configuration)
   a. IP address: 192.168.10.3
   b. Subnet Mask: 255.255.255.0
   c. Default Gateway: 192.168.10.1
3- Set IP for Laptop2(Desktop -> IP configuration)
   a. IP address: 192.168.20.2
   b. Subnet Mask: 255.255.255.0
   c. Default Gateway: 192.168.20.1
4- Set IP for Laptop3(Desktop -> IP configuration)
   a. IP address: 192.168.20.3
   b. Subnet Mask: 255.255.255.0
   c. Default Gateway: 192.168.20.1

CCNA Sem01 Lab#04

Step 3: Configure Router R1.

1- Open router R1
2- Select CLI tab.
3- Type “no” and Enter.

Step 4: Enter privileged EXEC mode of R1.

You can access all `Router` commands in privileged EXEC mode.
Enter privileged EXEC mode by entering the **enable** command.

```
1. Router> enable
2. Router#
```

The prompt changed from `Router` **>** to `Router`**#** which indicates privileged EXEC mode.

Step 5: Enter configuration mode of R1.

Use the **configuration terminal** command to enter configuration mode.

```
1. Router# configure terminal
2. Router(config)#
```

The prompt changed to reflect global configuration mode.

Step 6: Set a password on the privileged EXEC mode of the R1

```
Encrypted, limits access to the privileged EXEC mode of the Router
1. Router(config)# enable secret cisco
```

Step 7: Set IPs for the interfaces of the R1.

```
1. Router(config)# interface G0/0
2. Router(config-if)# ip address 192.168.10.1 255.255.255.0
3. Router(config-if)# no shutdown
4. Router(config-if)# exit
5. Router(config)# interface G0/1
6. Router(config-if)# ip address 192.168.20.1 255.255.255.0
7. Router(config-if)# no shutdown
8. Router(config-if)# exit
9. Router(config)# exit
```

Show interfaces status:

```
1. Router# show ip interface brief
```

Step 8: Test Connectivity of laptops

1- Open Laptop0(Desktop ->CMD)
   a. Ping 192.168.20.2
   b. Ping 192.168.20.3
2- Open Laptop3(Desktop ->CMD)
   a. Ping 192.168.10.2
   b. Ping 192.168.10.3

Step 9: Enable SSH on router R1.

```
1. Change router hostname
   a. Router(config)# hostname R1
2. Add domain name to R1
   a. R1(config)# ip domain-name bfci.com
3. Generate RSA encryption
```

a. R1(config)# **crypto key generate rsa**
b. How many bits in the modulus [512]: **1024**

4. **Create local database on R1**
   a. R1(config)# **username** Ahmed **secret** cisco
5. **Enable VTY inbound SSH session**
   a. R1(config)# **line vty 0 4**
   b. R1(config-line)# **login local**
   c. R1(config-line)# **transport input SSH**
   d. R1(config-line)# **exit**

Access R1 via SSH from Laptops:

1- Open CMD of the Laptop0 (Desktop -> Command prompt)
   a. **SSH -l Ahmed** 192.168.10.1
      Open
      Password: cisco
      R1>
2- Open CMD of the Laptop2 (Desktop -> Command prompt)
   a. **SSH -l Ahmed** 192.168.20.1
      Open
      Password: cisco
      R1>

Step 10: Encrypting Password Display

1. R1(config)# **service password-encryption**
2. R1(config)# **exit**

Step 11: Save running configuration

1. R1# **copy running-config startup-config.**