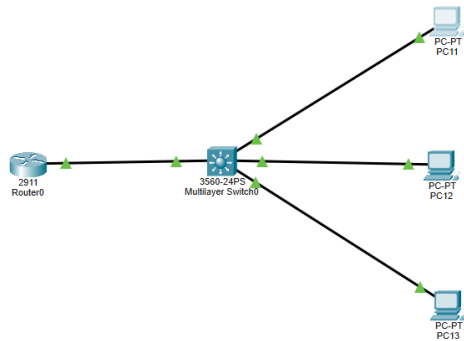


LAB SUBMITTED REMOTELY

Logical View



PC – PC ping

```
PC11
Physical Config Desktop Programming Attributes
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.21.12

Pinging 192.168.21.12 with 32 bytes of data:

Reply from 192.168.21.12: bytes=32 time=1ms TTL=128
Reply from 192.168.21.12: bytes=32 time=1ms TTL=128
Reply from 192.168.21.12: bytes=32 time=1ms TTL=128
Reply from 192.168.21.12: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.21.12:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.21.13

Pinging 192.168.21.13 with 32 bytes of data:

Reply from 192.168.21.13: bytes=32 time=1ms TTL=128
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Reply from 192.168.21.13: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.21.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Router to Pc ping

```
Router0
Physical Config CLI Attributes
IOS Command Line Interface

Building configuration...
[OK]
Router#

Router con0 is now available

Press RETURN to get started.

Router>ping 192.168.21.11

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.21.11, timeout is 2 seconds:
.....
Success rate is 80 percent (4/5), round-trip min/avg/max = 0/2/7 ms

Router>
```

Router Show Version

```
Router0
Physical Config CLI Attributes
IOS Command Line Interface

Router>ping 192.168.21.11

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.21.11, timeout is 2 seconds:
.....
Success rate is 80 percent (4/5), round-trip min/avg/max = 0/2/7 ms

Router>show version

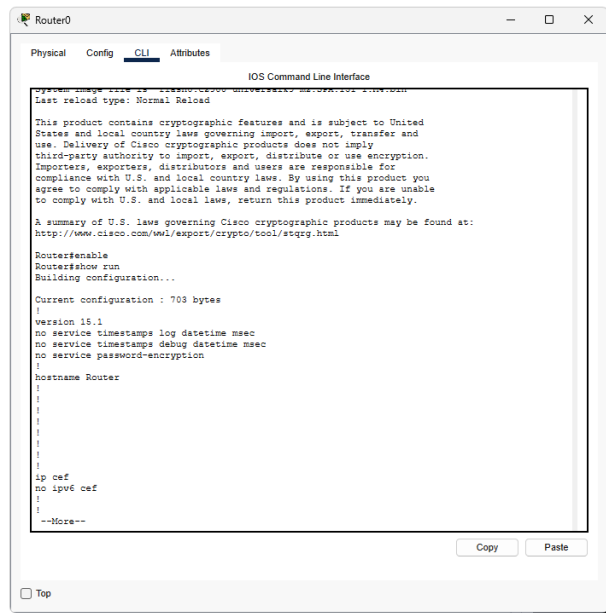
Cisco IOS Software, C2900 Software (C2900-UNIVERSALK9-M), Version 15.1(4)M4, RELEASE SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2012 by Cisco Systems, Inc.
Compiled Thurs 5-Jan-12 15:41 by pt_team

ROM: System Bootstrap, Version 15.1(4)M4, RELEASE SOFTWARE (fc1)
cisco2911 uptime is 15 minutes, 4 seconds
System returned to ROM by power-on
System image file is "flash0:c2900-universalk9-ms.SPA.151-1.M4.bin"
Last reload type: Normal Reload

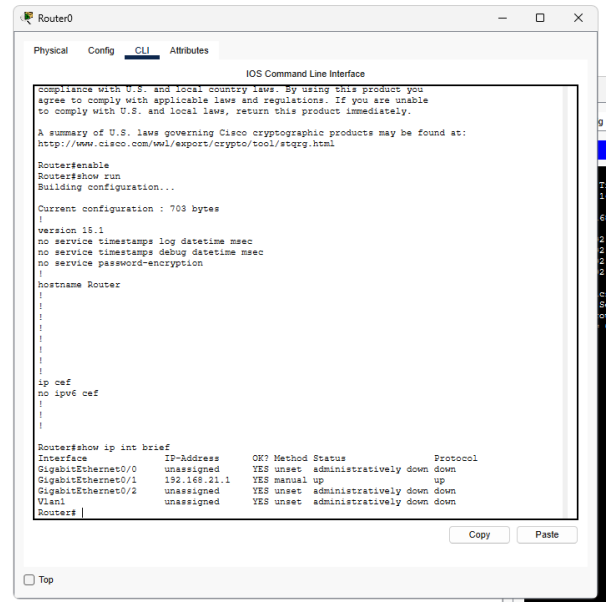
This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

A summary of U.S. laws governing Cisco cryptographic products may be found at:
http://www.cisco.com/wml/export/crypto/cool/stgqr.html

Router>
```



Router show run



Router Show IP int brief

LAB 3 Questions:

1) What Layer of the OSI Model does IP addressing take place?

Ip addressing takes place at Layer 3 (Network Layer)

2) What does DHCP stand for and how is DHCP different from static addressing?

DHCP stands for Dynamic Host Configuration Protocol. It automatically assigns IP addresses to devices on a network, while static addresses require manual configuration of IP addresses

3) What is the command to enter privileged mode on a CISCO router or switch?

The command is enabled

4) What command or set of commands did you use to configure the interfaces on the Router and Switch?

For the router:

```

interface GigabitEthernet0/1
ip address 192.168.21.1 255.255.255.0
no shutdown

```

For the switch:

```

interface range FastEthernet0/1-3

```

switchport mode access

5) Convert the subnet mask 255.255.255.0 to binary. a. How many hosts can be addressed in this subnet?

The subnet mask 255.255.255.0 in binary is 11111111.11111111.11111111.00000000.

This subnet can address 254 hosts (since $2^8 - 2 = 254$).