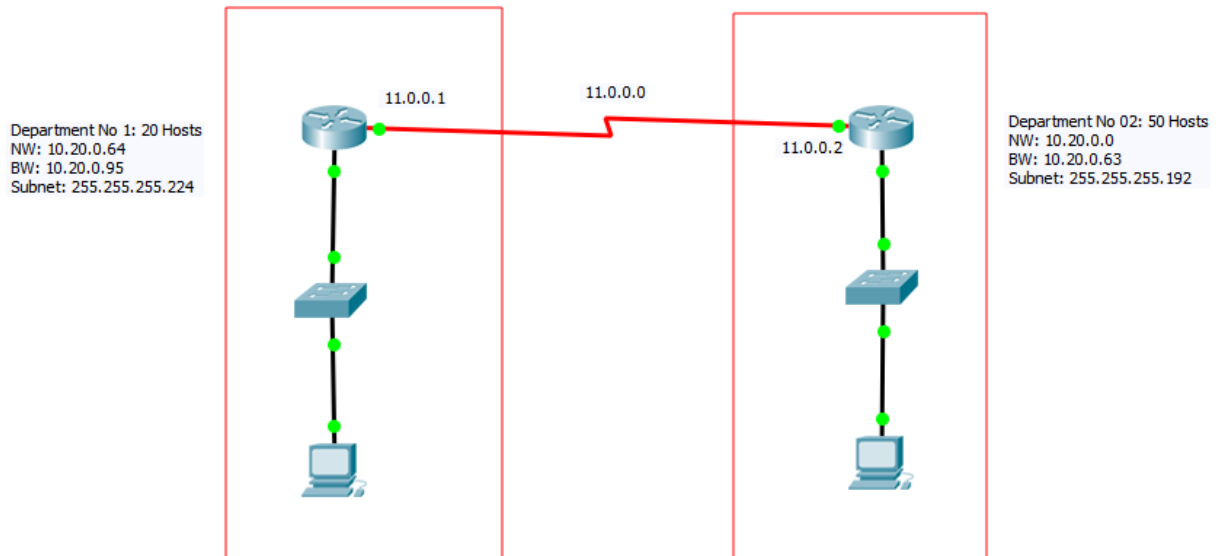


QUESTION NO 01

TOPOLOGY

Given IP: 10.20.0.0/24.



NETWORK CONFIGURATION AND PC

PC0 Configuration:

- IP Configuration: Static
- IP Address: 10.20.0.66
- Subnet Mask: 255.255.255.224
- Default Gateway: 10.20.0.65
- DNS Server:

Router0 Configuration:

- FastEthernet0/0: On, 100 Mbps, Full Duplex, Auto
- MAC Address: 00E0.F922.B239
- IP Configuration: IP Address 10.20.0.65, Subnet Mask 255.255.255.224
- Tx Ring Limit: 10

Equivalent IOS Commands:

```
Router(config)#interface Serial12/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial12/0, changed state to up
Router(config-if)#exit
Router(config)#ip route 10.20.0.0 255.255.255.192 11.0.0.2
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

Router1

PhysicalConfigCLI

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Global Settings

Display NameRouter1

HostnameRouter

NVRAM

Erase

Save

Startup Config

Load...

Export...

Running Config

Merge...

Export...

Equivalent IOS Commands

Router(config-if)#
%LINK-S-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-S-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config-if)#exit
Router(config)#ip route 10.20.0.64 255.255.255.224 11.0.0.1
Router(config)#

PC1

PhysicalConfigDesktopCustom Interface

IP Configuration

IP Configuration

DHCP

Static

IP Address10.20.0.2

Subnet Mask255.255.255.192

Default Gateway10.20.0.1

DNS Server

IPv6 Configuration

DHCP

Auto Config

Static

IPv6 Address

Link Local AddressFE80::2E0:A3FF:FEAC:184A

IPv6 Gateway

IPv6 DNS Server

STATIC ROUTING

Router0

PhysicalConfigCLI

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

Static Routes

Network

Mask

Next Hop

Add

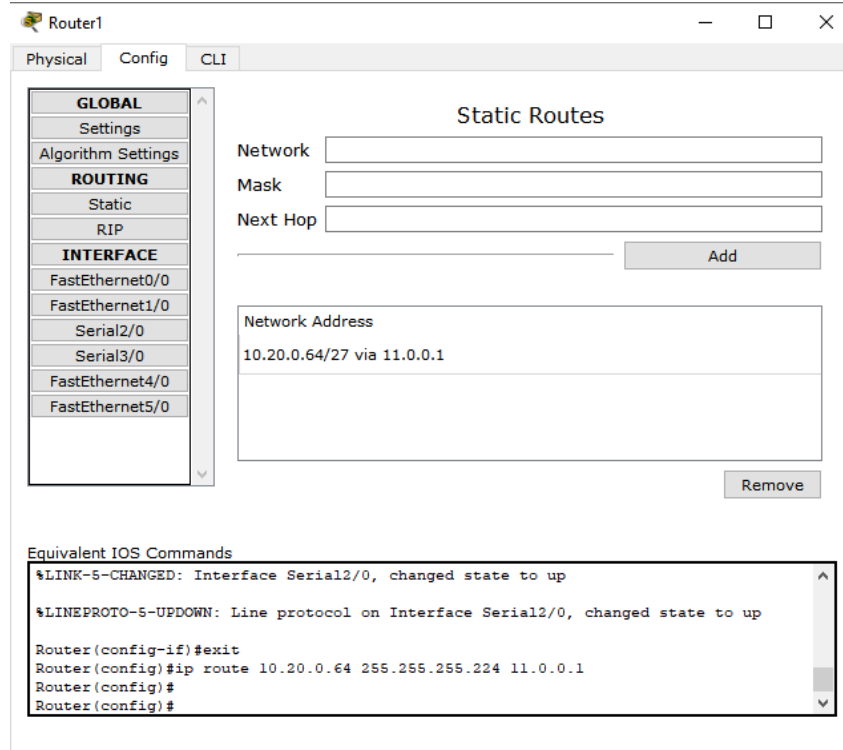
Network Address

10.20.0.0/26 via 11.0.0.2

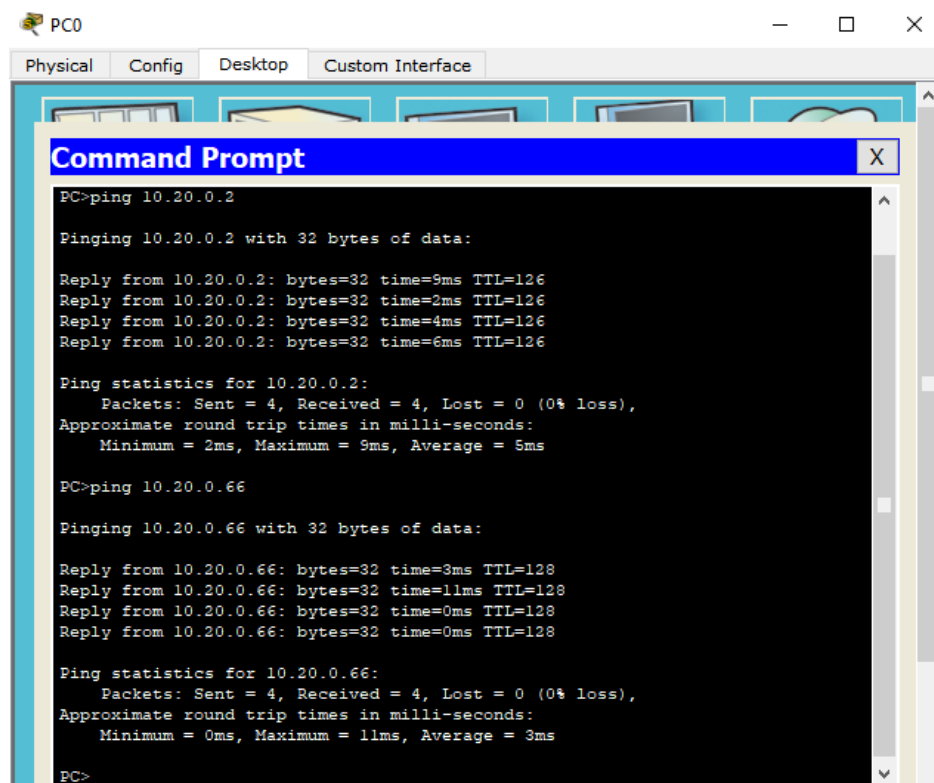
Remove

Equivalent IOS Commands

Router(config-if)#exit
Router(config)#ip route 10.20.0.0 255.255.255.192 11.0.0.2
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#

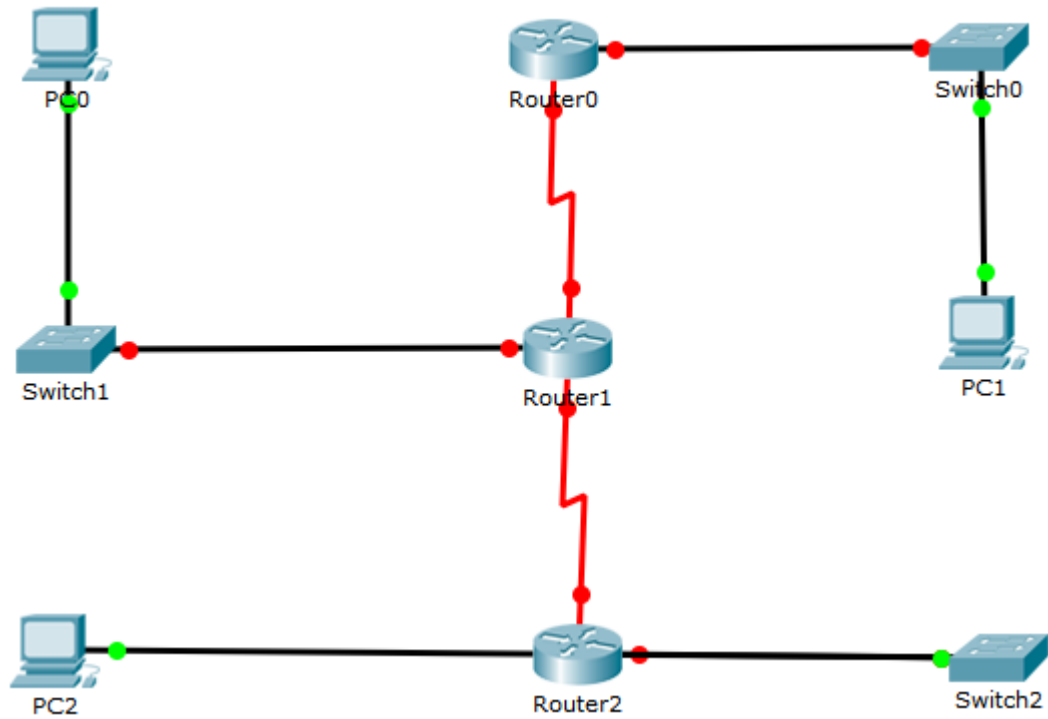


CONNECTION SUCCESSFUL

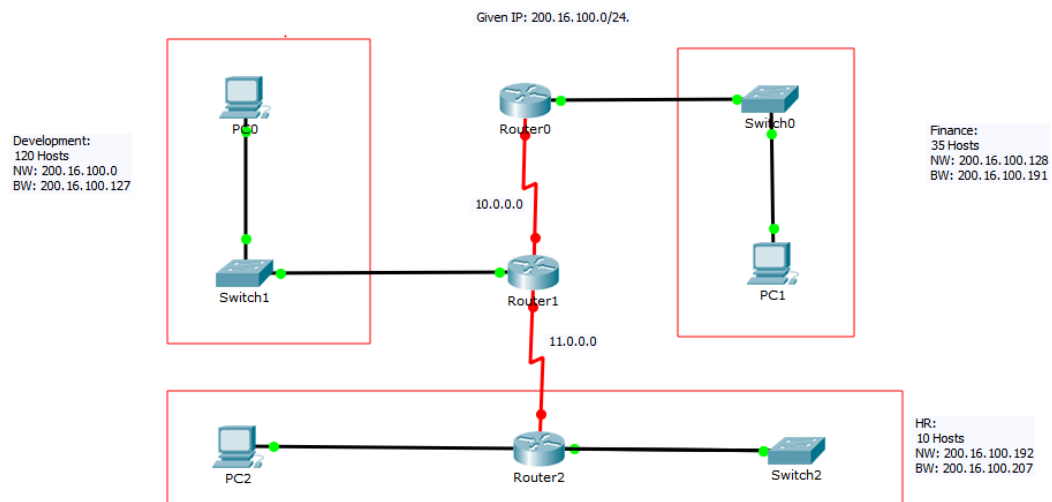


QUESTION NO 02

TOPOLOGY



QUESTION REQUIREMENTS



CONFIGURING REQUIRED NETWORKS

Cisco Packet Tracer Student - C:\Users\Amman Soomro\Cisco Packet Tracer 6.2sv\saves\Lab 09\Question_02.pkt

File Edit Options View Tools Extensions Help

Logical [Root] New Router1

Physical Config CLI

GLOBAL Settings Algorithm Settings ROUTING Static RIP INTERFACE FastEthernet0/0 FastEthernet1/0 Serial2/0 Serial3/0 FastEthernet4/0 FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☐ Full Duplex ☒ Auto

MAC Address 0090.2BC6.A9C1

IP Configuration

IP Address 200.16.100.1

Subnet Mask 255.255.255.128

Tx Ring Limit 10

Equivalent IOS Commands

```
Router(config-if)#ip address 200.16.100.1 255.255.255.128
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
```

Time: 00:09:23 Power Cycle Devices Fast Forward Time

Connections

Automatically Choose Connection Type

Scenario 1

New Delete

Toggle PDU List Window

Realtime

Color Time(sec) Periodic Num

PC0

Physical Config Desktop Custom Interface

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address 200.16.100.2

Subnet Mask 255.255.255.128

Default Gateway 200.16.100.1

DNS Server

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80::207:ECFF:FE1E:42D0

IPv6 Gateway

IPv6 DNS Server

Router0

Physical Config CLI

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☐ Full Duplex ☒ Auto

MAC Address 00E0.F9AD.A66C

IP Configuration

IP Address 200.16.100.129

Subnet Mask 255.255.255.192

Tx Ring Limit 10

Equivalent IOS Commands

```
Router(config-if)#ip address 200.16.100.129 255.255.255.192
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
```

Move Object Set Tiled Background Viewport

0/24.

Fa0/1

Switch Fa0/2

Fa0

PC1

Finance:
35 Hosts
NW: 200.16.100.128
BW: 200.16.100.191

Fa0/1

Fa0/2

Switch2

Real

PC1

Physical Config Desktop Custom Interface

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address 200.16.100.130

Subnet Mask 255.255.255.192

Default Gateway 200.16.100.129

DNS Server

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::2E0:B0FF:FEDD:ECD7

IPv6 Gateway

IPv6 DNS Server

Router2

Physical Config CLI

FastEthernet0/0

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00D0.9790.D862

IP Configuration

IP Address 200.16.100.193

Subnet Mask 255.255.255.240

Tx Ring Limit 10

Equivalent IOS Commands

```
Router(config-if)#  
Router(config-if)#exit  
Router(config)#interface FastEthernet0/0  
Router(config-if)#ip address 200.16.100.193 255.255.255.0  
Router(config-if)#ip address 200.16.100.193 255.255.255.240  
Router(config-if)#  
Router(config-if)#exit  
Router(config)#interface FastEthernet0/0  
Router(config-if)#
```

Finance:
35 Hosts
NW: 200.16.100.128
BW: 200.16.100.191

HR:
10 Hosts
NW: 200.16.100.192
BW: 200.16.100.207

Source	Destination	Type
--------	-------------	------

PC2

Physical Config Desktop Custom Interface

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address 200.16.100.194

Subnet Mask 255.255.255.240

Default Gateway 200.16.100.193

DNS Server

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80::2E0:B0FF:FE8B:9D64

IPv6 Gateway

IPv6 DNS Server

STATIC ROUTING ON ROUTERS

Static Routes

Network: 10.0.0.0
Mask: 255.0.0.0
Next Hop: 11.0.0.1

Add

Remove

Equivalent IOS Commands

```

r(config-if)#exit
r(config)#interface FastEthernet0/0
r(config-if)#
r(config-if)#exit
r(config)#ip route 200.16.100.128 255.255.255.240 10.0.0.1
r(config)#ip route 200.16.100.0 255.255.255.128 11.0.0.1
r(config)#ip route 10.0.0.0 255.0.0.0 11.0.0.1
r(config)#
    
```

Realtime

Static Routes

Network: 10.0.0.0
Mask: 255.0.0.0
Next Hop: 11.0.0.1

Equivalent IOS Commands

```

Router(config)#ip route 200.16.100.128 255.255.255.240 10.0.0.1
Router(config)#ip route 200.16.100.0 255.255.255.128 11.0.0.1
Router(config)#ip route 10.0.0.0 255.0.0.0 11.0.0.1
Router(config)#
    
```

Static Routes

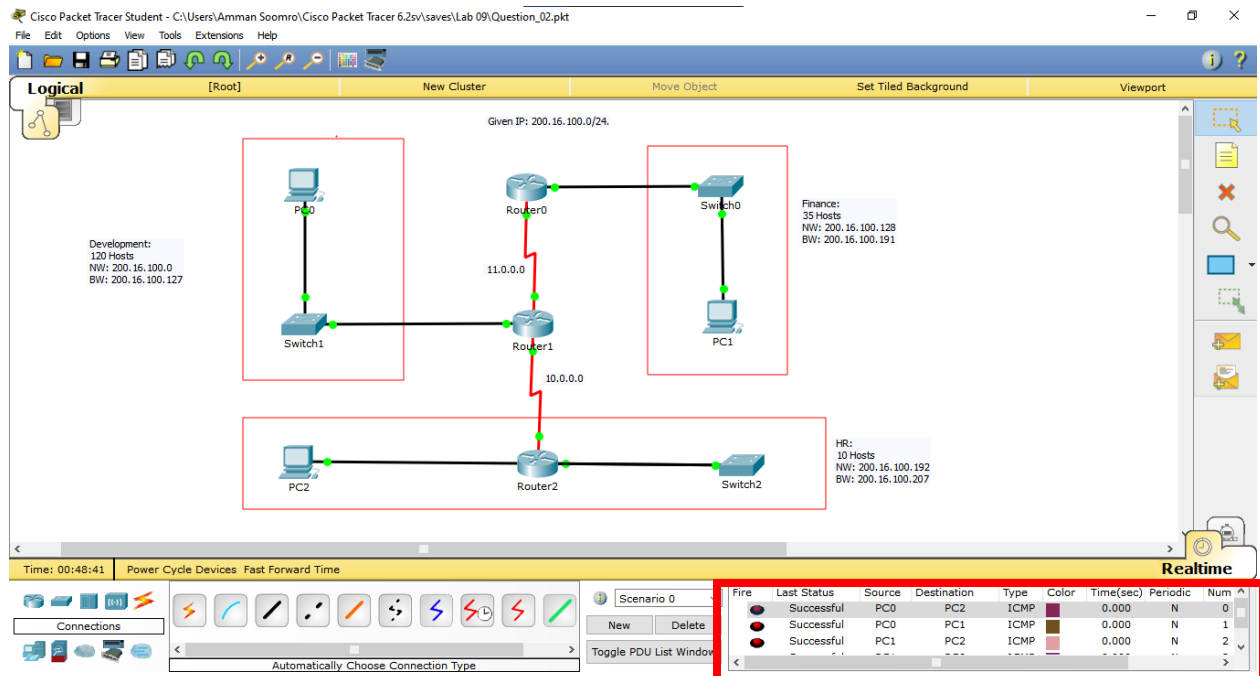
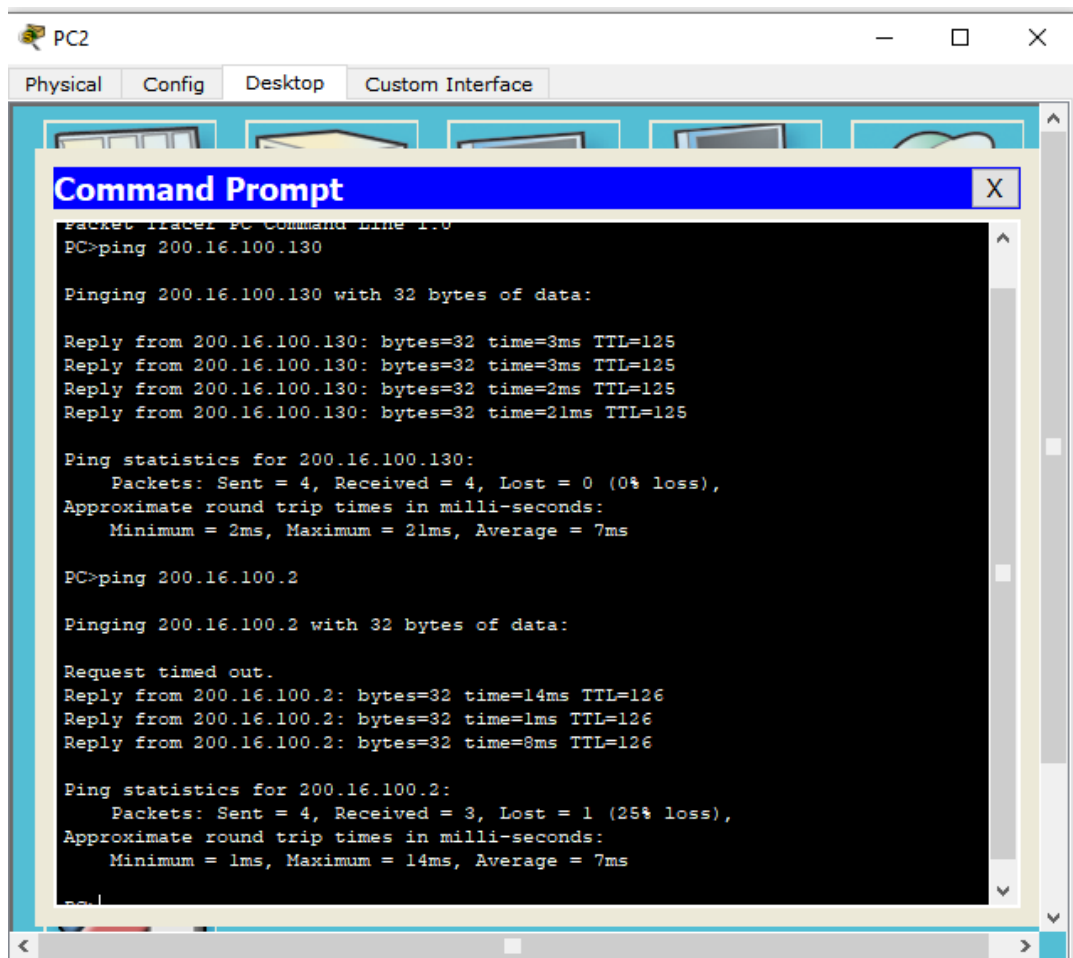
Network: 10.0.0.0
Mask: 255.0.0.0
Next Hop: 11.0.0.1

Equivalent IOS Commands

```

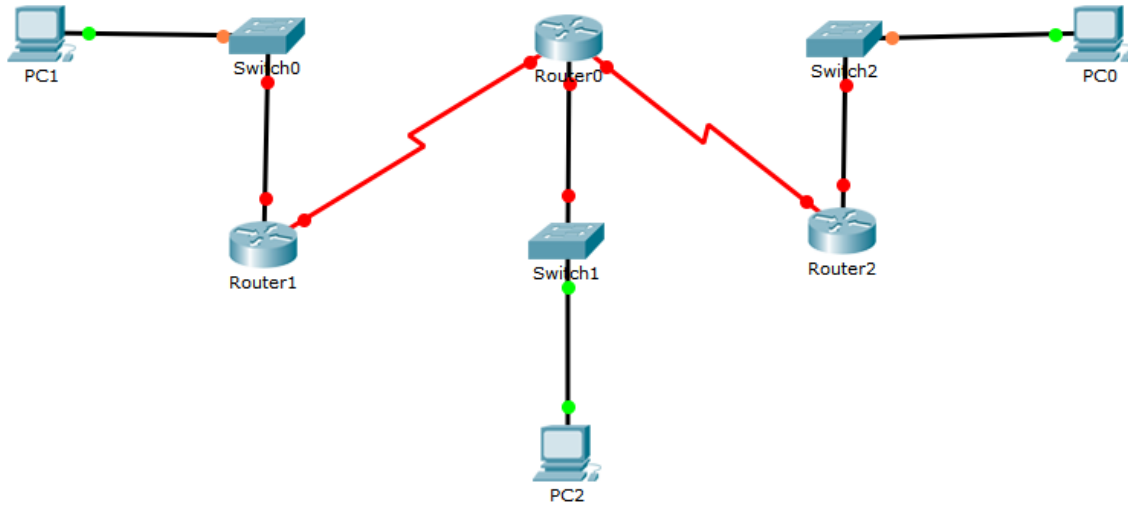
Router(config)#ip route 200.16.100.128 255.255.255.240 10.0.0.1
Router(config)#ip route 200.16.100.0 255.255.255.128 11.0.0.1
Router(config)#ip route 10.0.0.0 255.0.0.0 11.0.0.1
Router(config)#
    
```


CONNECTION SUCCESSFUL



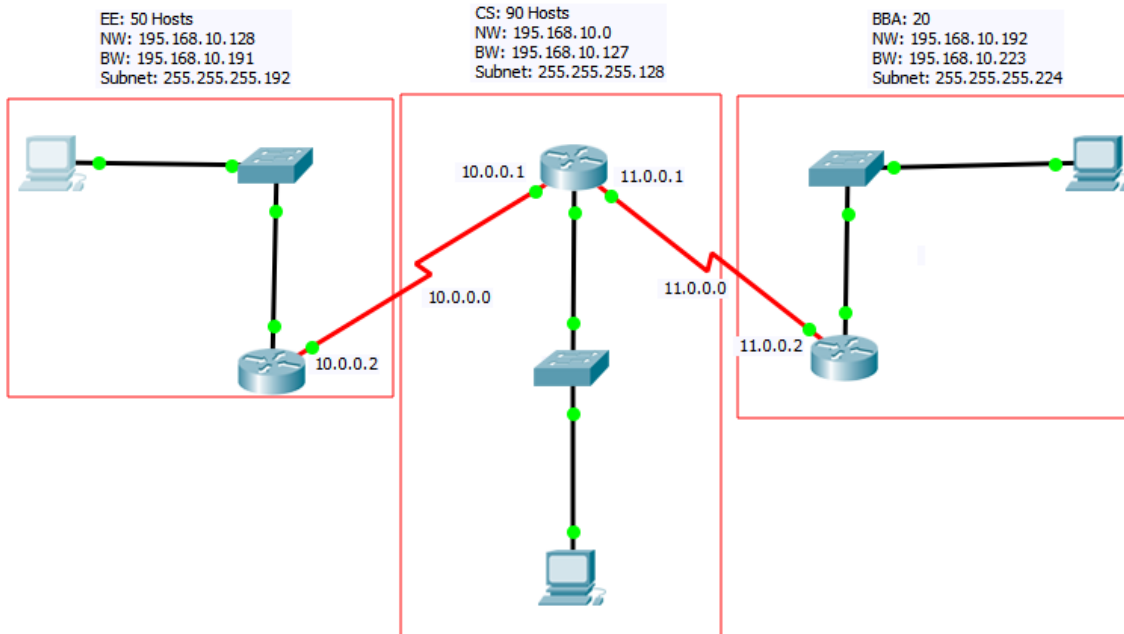
QUESTION NO 03

TOPOLOGY



QUESTION REQUIREMENTS

Given IP: 195.168.10.0/24.



CONFIGURING REQUIRED NETWORKS

Given IP: 195.168.10.0/24.

EE: 50 Hosts
NW: 195.168.10.128
BW: 195.168.10.191
Subnet: 255.255.255.192

CS: 90 Hosts
NW: 195.168.10.0
BW: 195.168.10.127
Subnet: 255.255.255.128

BBA: 20
NW: 195.168.10.192
BW: 195.168.10.223
Subnet: 255.255.255.224

Router0

Physical Config CLI

GLOBAL

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP
- INTERFACE**
- FastEthernet0/0
- FastEthernet1/0
- Serial2/0
- Serial3/0
- FastEthernet4/0
- FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 00E0.F7B0.D21A

IP Configuration

IP Address 195.168.10.1

Subnet Mask 255.255.255.128

Tx Ring Limit 10

Automatically Choose Connection

Given IP: 195.168.10.0/24.

EE: 50 Hosts
NW: 195.168.10.128
BW: 195.168.10.191
Subnet: 255.255.255.192

CS: 90 Hosts
NW: 195.168.10.0
BW: 195.168.10.127
Subnet: 255.255.255.128

BBA: 20
NW: 195.168.10.192
BW: 195.168.10.223
Subnet: 255.255.255.224

Router1

Physical Config CLI

GLOBAL

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP
- INTERFACE**
- FastEthernet0/0
- FastEthernet1/0
- Serial2/0
- Serial3/0
- FastEthernet4/0
- FastEthernet5/0

FastEthernet0/0

Port Status ☒ On

Bandwidth ☐ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 000C.CF86.D040

IP Configuration

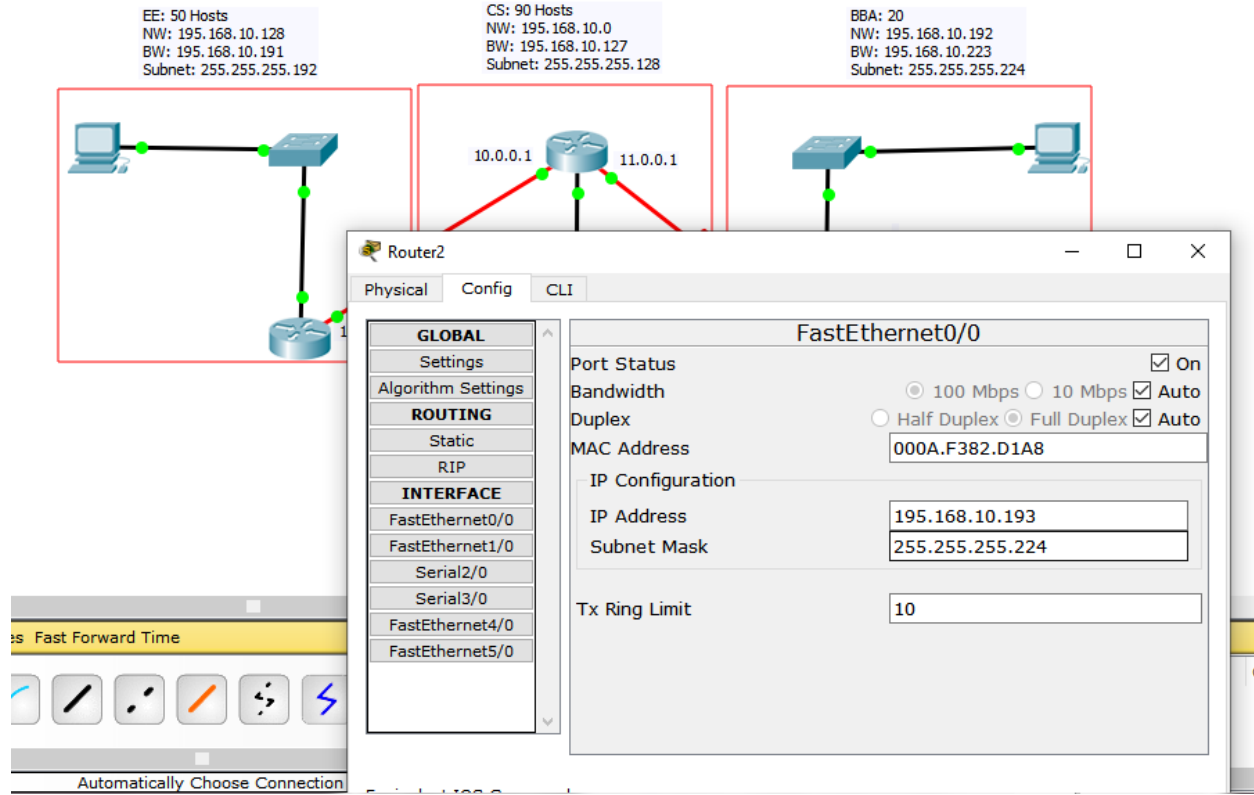
IP Address 195.168.10.129

Subnet Mask 255.255.255.192

Tx Ring Limit 10

Automatically Choose Connection

Given IP: 195.168.10.0/24.



PC0

Physical Config Desktop Custom Interface

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address 195.168.10.194

Subnet Mask 255.255.255.224

Default Gateway 195.168.10.193

DNS Server

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80::20C:CFFF:FE8B:DA5A

IPv6 Gateway

IPv6 DNS Server

PC1

Physical Config Desktop Custom Interface

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address: 195.168.10.130

Subnet Mask: 255.255.255.192

Default Gateway: 195.168.10.129

DNS Server:

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::260:3EFF:FE2E:51AE

IPv6 Gateway:

IPv6 DNS Server:

PC2

Physical Config Desktop Custom Interface

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address: 195.168.10.2

Subnet Mask: 255.255.255.128

Default Gateway: 195.168.10.1

DNS Server:

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

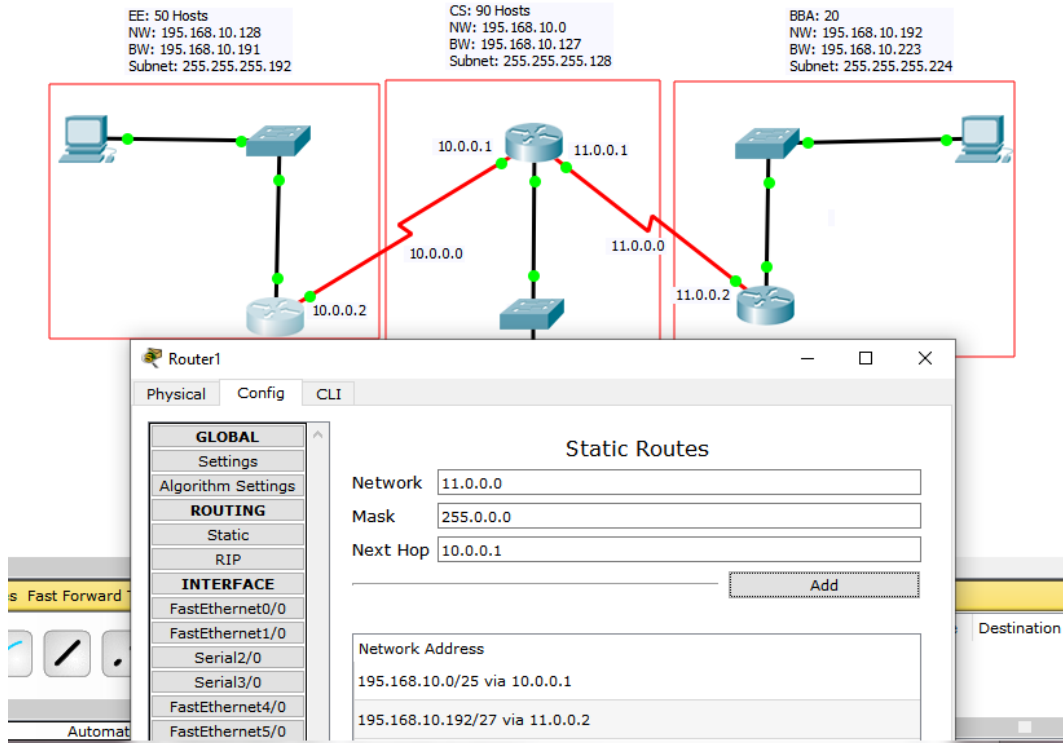
Link Local Address: FE80::200:CFF:FEDE:89D4

IPv6 Gateway:

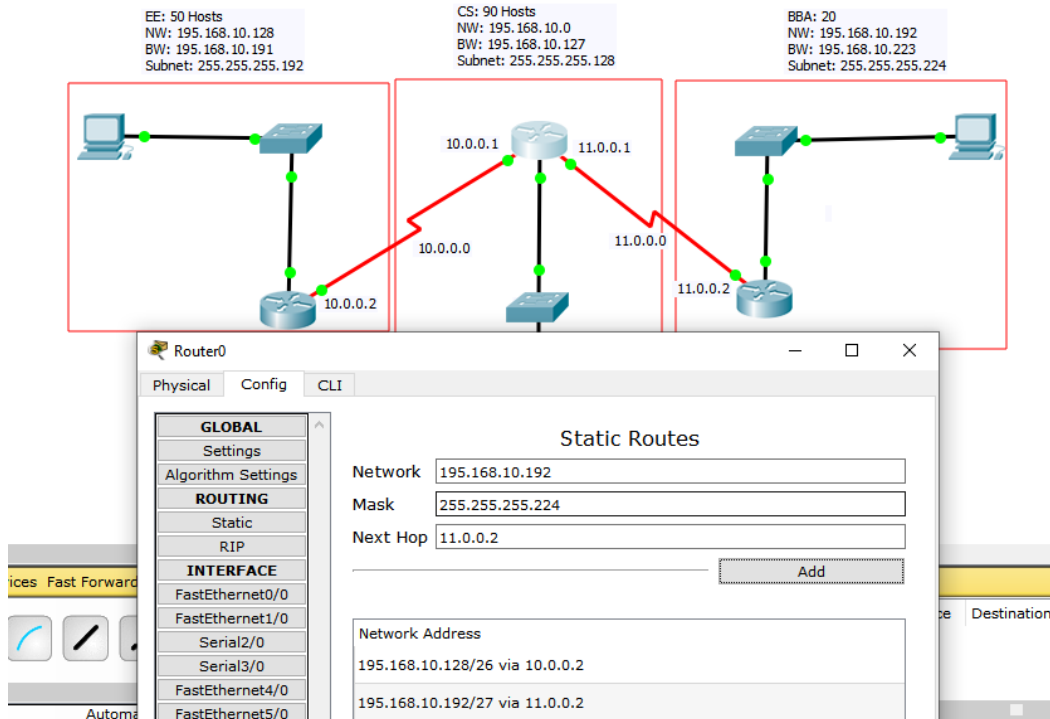
IPv6 DNS Server:

STATIC ROUTING

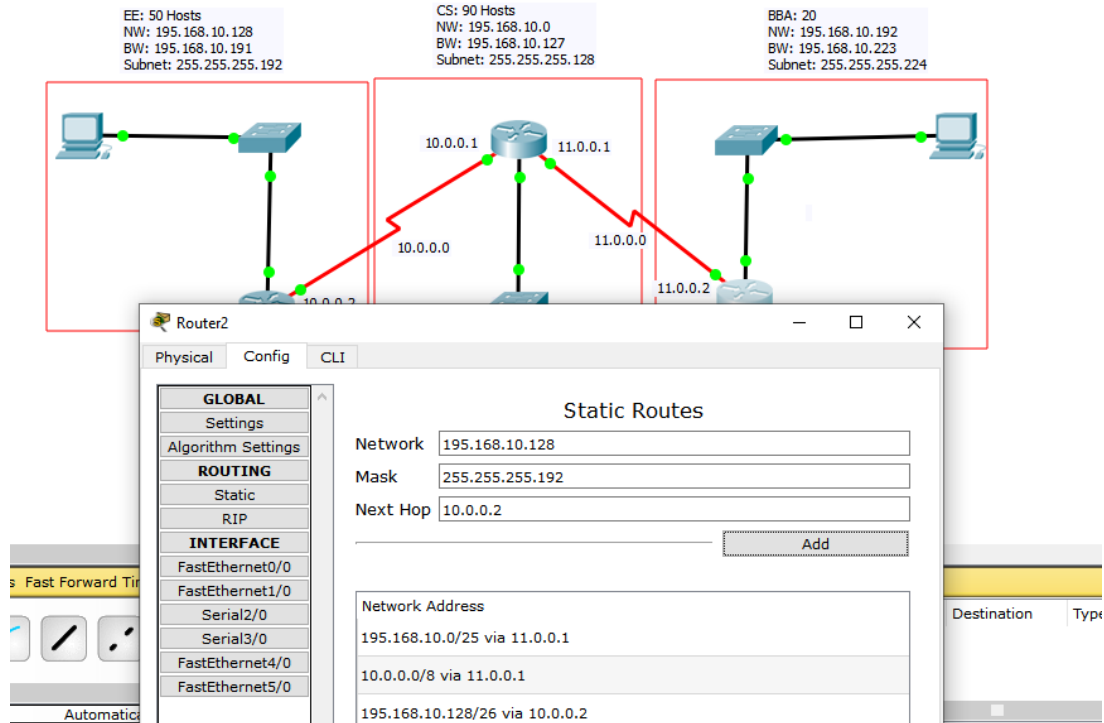
Given IP: 195.168.10.0/24.



Given IP: 195.168.10.0/24.



Given IP: 195.168.10.0/24.



CONNECTION SUCCESSFUL

