Báo Cáo Đồ Án MMT-NC

Project 1 – Internet routing

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Bộ môn Mạng máy tính nâng cao

Khoa Công nghệ thông tin

Đại học Khoa học tự nhiên TP. HCM

I. Mục lục

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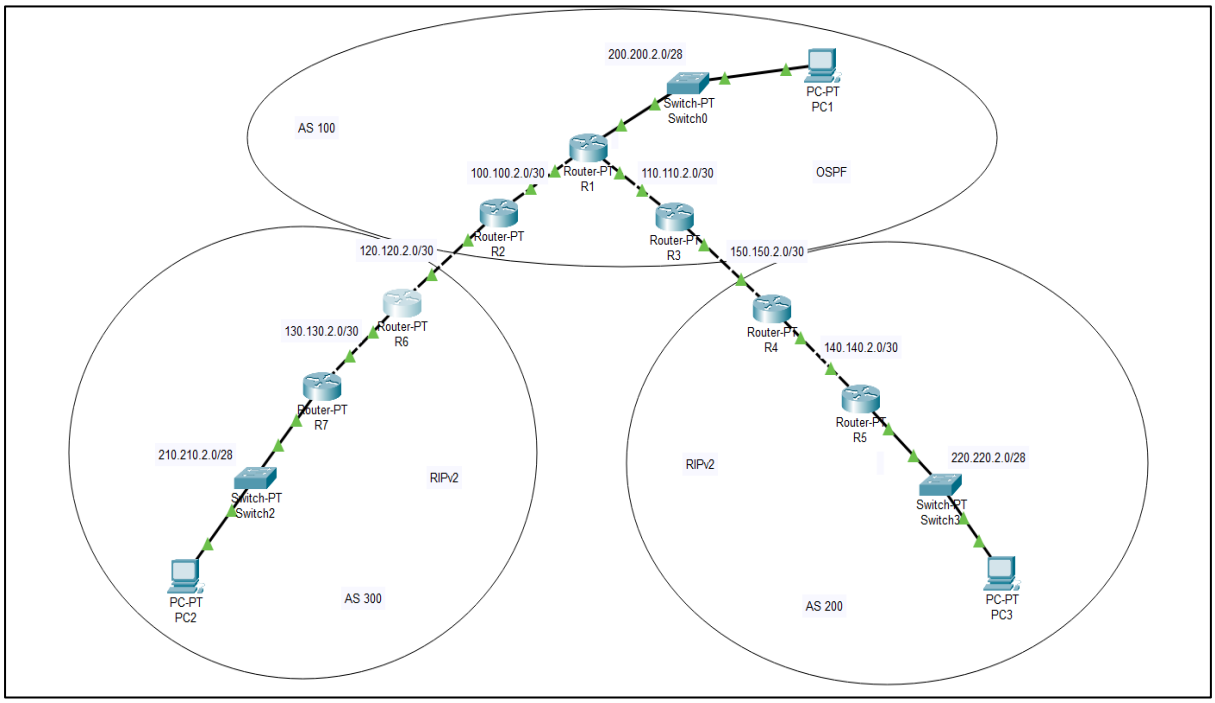
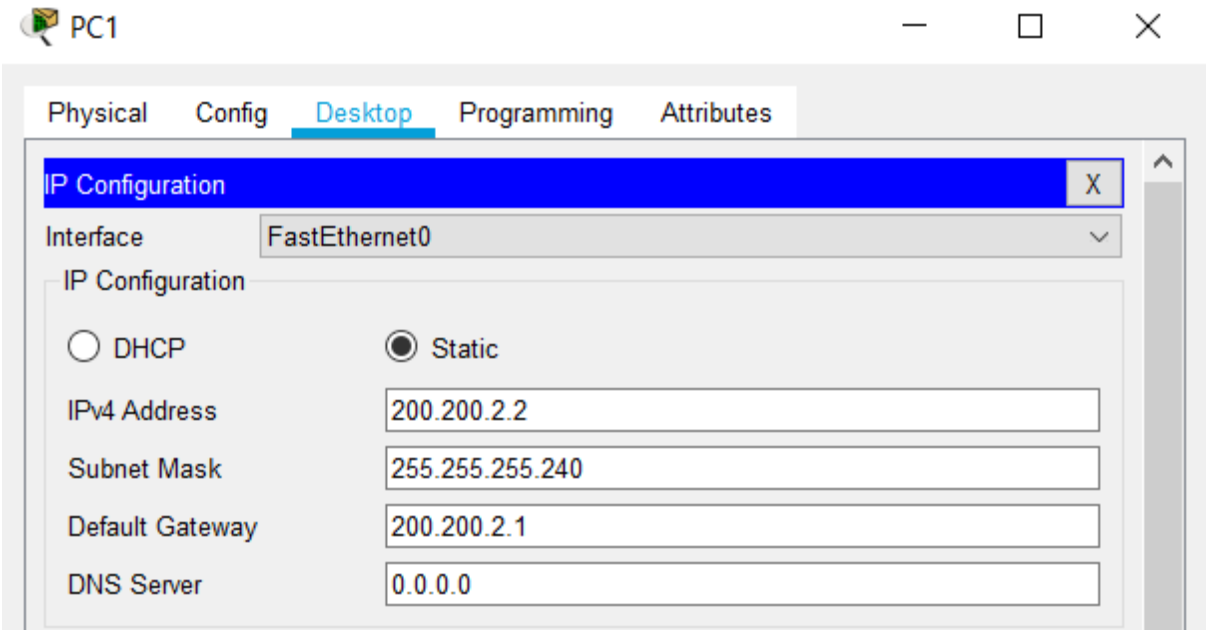
II. Trình bày

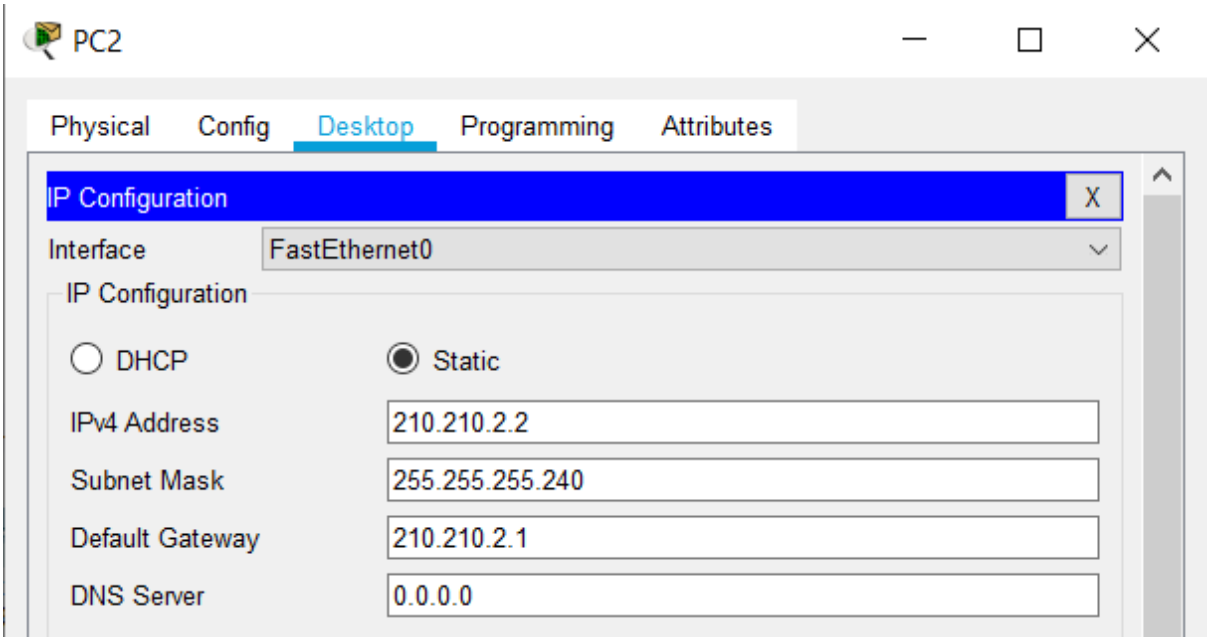
1. Các bước thực hiện

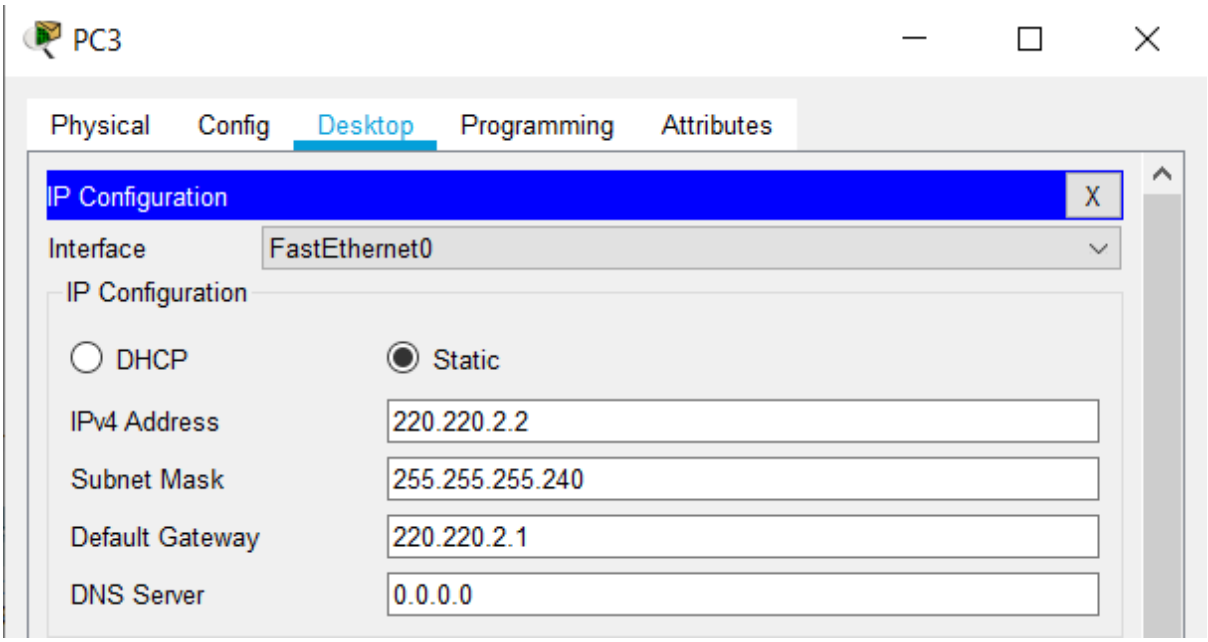


a. Cấu hình địa chỉ IP

- PC

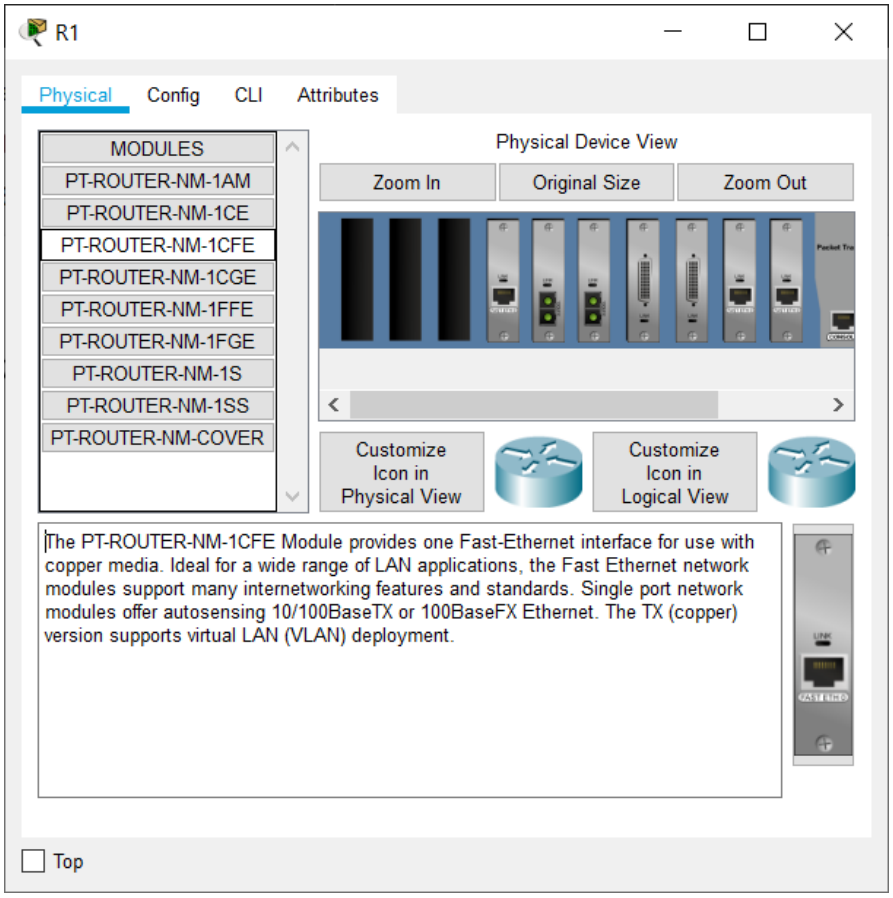


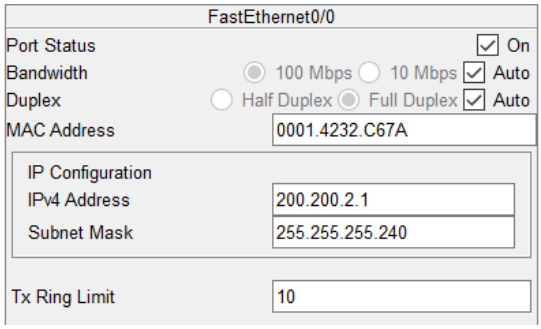

PC2
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
210.210.2.2
Subnet Mask
255.255.255.240
Default Gateway
210.210.2.1
DNS Server
0.0.0.0

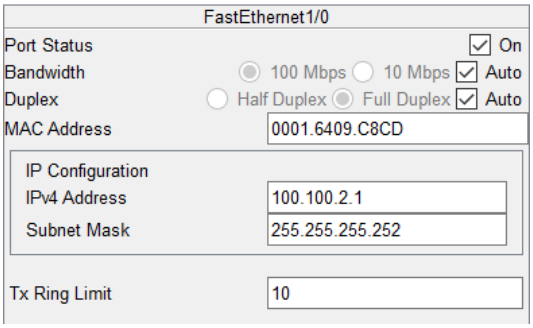

PC3
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
220.220.2.2
Subnet Mask
255.255.255.240
Default Gateway
220.220.2.1
DNS Server
0.0.0.0

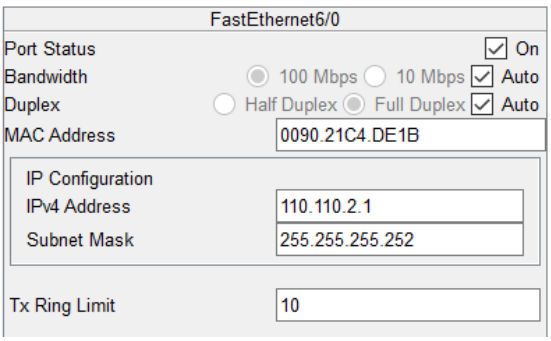
- Router
  - R1

Router 1 cần gắn thêm 1 cổng PT-ROUTER-NM-1CFE để có thêm 1 cổng kết nối

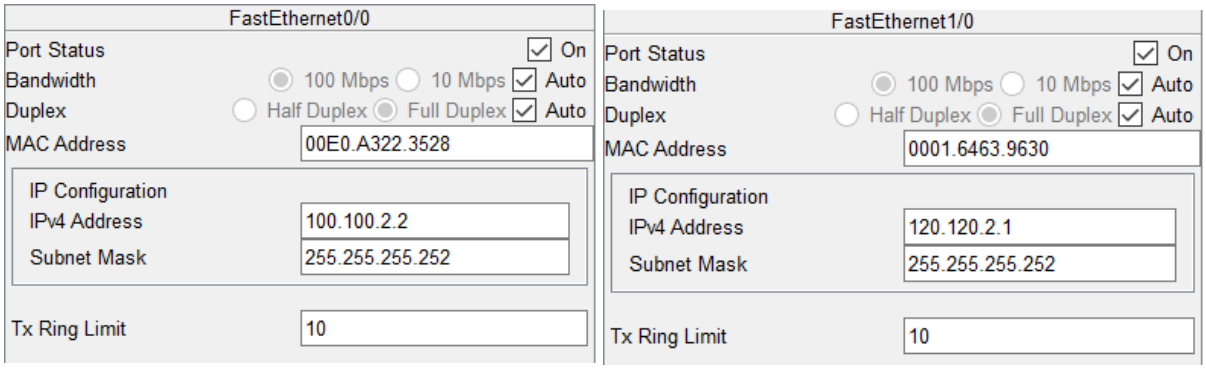




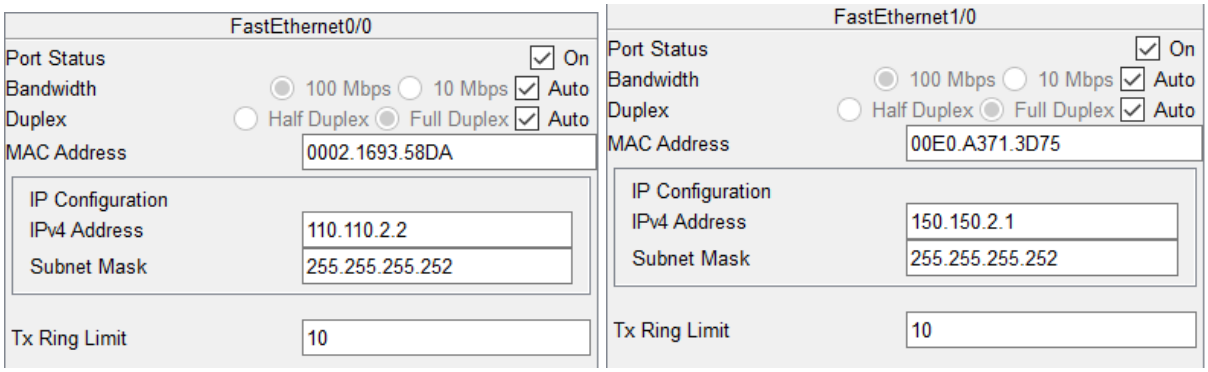




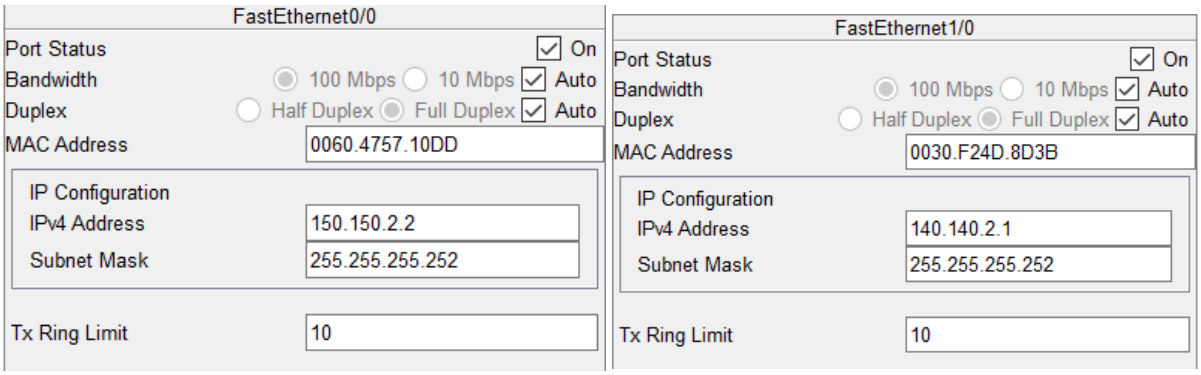
- R2


FastEthernet0/0
Port Status On
Bandwidth 100 Mbps 10 Mbps Auto
Duplex Half Duplex Full Duplex Auto
MAC Address 00E0.A322.3528
IP Configuration
IPv4 Address 100.100.2.2
Subnet Mask 255.255.255.252
Tx Ring Limit 10
FastEthernet1/0
Port Status On
Bandwidth 100 Mbps 10 Mbps Auto
Duplex Half Duplex Full Duplex Auto
MAC Address 0001.6463.9630
IP Configuration
IPv4 Address 120.120.2.1
Subnet Mask 255.255.255.252
Tx Ring Limit 10

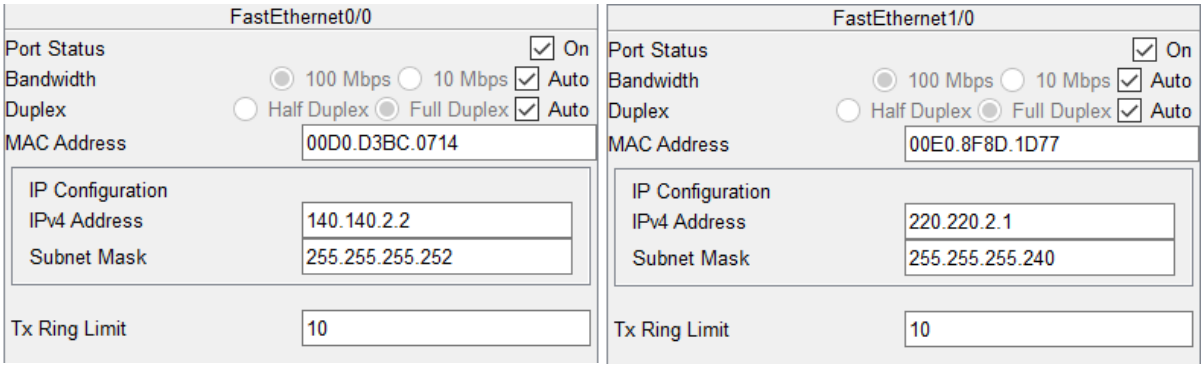
- R3


FastEthernet0/0
Port Status On
Bandwidth 100 Mbps 10 Mbps Auto
Duplex Half Duplex Full Duplex Auto
MAC Address 0002.1693.58DA
IP Configuration
IPv4 Address 110.110.2.2
Subnet Mask 255.255.255.252
Tx Ring Limit 10
FastEthernet1/0
Port Status On
Bandwidth 100 Mbps 10 Mbps Auto
Duplex Half Duplex Full Duplex Auto
MAC Address 00E0.A371.3D75
IP Configuration
IPv4 Address 150.150.2.1
Subnet Mask 255.255.255.252
Tx Ring Limit 10

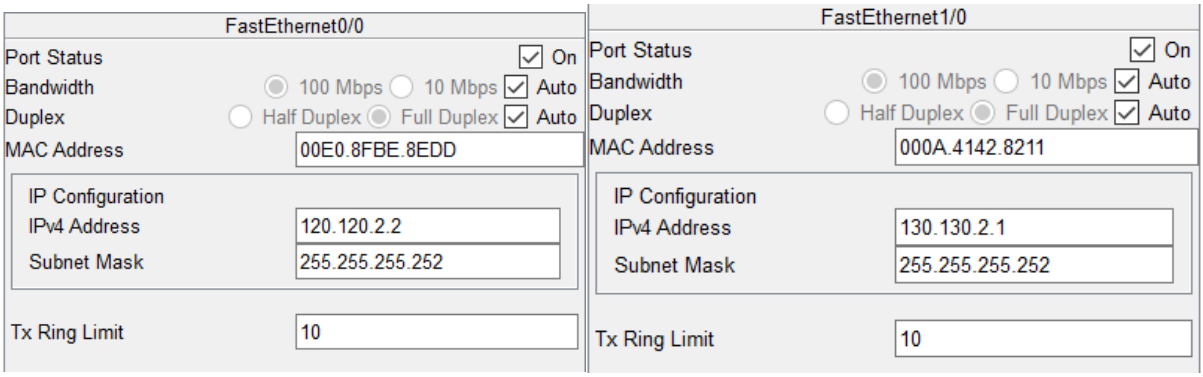
- R4


FastEthernet0/0
Port Status On
Bandwidth 100 Mbps 10 Mbps Auto
Duplex Half Duplex Full Duplex Auto
MAC Address 0060.4757.10DD
IP Configuration
IPv4 Address 150.150.2.2
Subnet Mask 255.255.255.252
Tx Ring Limit 10
FastEthernet1/0
Port Status On
Bandwidth 100 Mbps 10 Mbps Auto
Duplex Half Duplex Full Duplex Auto
MAC Address 0030.F24D.8D3B
IP Configuration
IPv4 Address 140.140.2.1
Subnet Mask 255.255.255.252
Tx Ring Limit 10

- R5


FastEthernet0/0
Port Status On
Bandwidth 100 Mbps 10 Mbps Auto
Duplex Half Duplex Full Duplex Auto
MAC Address 00D0.D3BC.0714
IP Configuration
IPv4 Address 140.140.2.2
Subnet Mask 255.255.255.252
Tx Ring Limit 10
FastEthernet1/0
Port Status On
Bandwidth 100 Mbps 10 Mbps Auto
Duplex Half Duplex Full Duplex Auto
MAC Address 00E0.8F8D.1D77
IP Configuration
IPv4 Address 220.220.2.1
Subnet Mask 255.255.255.240
Tx Ring Limit 10

- R6



b. Cấu hình định tuyến OSPF

Để tiến hành config router

```
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#
```

- R1

Router(config)#router ospf 1

Router(config-router)#network 100.100.2.0 0.0.0.3 area 0

Router(config-router)#network 110.110.2.0 0.0.0.3 area 0

Router(config-router)#network 200.200.2.0 0.0.0.15 area 0

Router(config-router)#default-information originate

Router(config-router)#redistribute connected subnets

- R2

Router(config)#router ospf 1

Router(config-router)#network 100.100.2.0 0.0.0.3 area 0

Router(config-router)#network 120.120.2.0 0.0.0.3 area 0

Router(config-router)#default-information originate

Router(config-router)#redistribute connected subnets

- R3

Router(config)#router ospf 1

Router(config-router)#network 110.110.2.0 0.0.0.3 area 0

Router(config-router)#network 150.150.2.0 0.0.0.3 area 0

Router(config-router)#default-information originate

Router(config-router)#redistribute connected subnets

c. Cấu hình định tuyến RIPv2 và Redistribute

Tiến hành cấu hình ospf và ripv2 trên R6 và R4

- ❖ AS 200
- R4

// RIPv2

Router(config)#router rip

Router(config-router)#version 2

Router(config-router)#network 150.150.2.0

Router(config-router)#network 140.140.2.0

Router(config-router)#no auto-summary

Router(config-router)#default-information originate

// Redistribute

Router(config-router)#redistribute ospf 1 metric 1

Router(config-router)#redistribute connected metric 1

// OSPF

Router(config-router)#ex

Router(config)#router ospf 1

Router(config-router)#network 150.150.2.0 0.0.0.3 area 0

Router(config-router)#default-information originate

Router(config-router)#redistribute connected subnets

Router(config-router)#redistribute rip subnets

- R5

//RIPv2

Router(config)#router rip

Router(config-router)#version 2

Router(config-router)#network 140.140.2.0

Router(config-router)#network 220.220.2.0

Router(config-router)#no auto-summary

Router(config-router)#default-information originate

// Redistribute

Router(config-router)#redistribute ospf 1 metric 1

Router(config-router)#redistribute connected metric 1

❖ AS 300

- R6

// RIPv2

Router(config)#router rip

Router(config-router)#version 2

Router(config-router)#network 120.120.2.0

Router(config-router)#network 130.130.2.0

Router(config-router)#no auto-summary

Router(config-router)#default-information originate

// Redistribute

Router(config-router)#redistribute ospf 1 metric 1

Router(config-router)#redistribute connected metric 1

// OSPF

Router(config-router)#ex

Router(config)#router ospf 1

Router(config-router)#network 120.120.2.0 0.0.0.3 area 0

Router(config-router)#default-information originate

Router(config-router)#redistribute connected subnets

Router(config-router)#redistribute rip subnets

- R7

// RIPv2

Router(config)#router rip

Router(config-router)#version 2

Router(config-router)#network 130.130.2.0

Router(config-router)#network 210.210.2.0

Router(config-router)#no auto-summary

Router(config-router)#default-information originate

// Redistribute

Router(config-router)#redistribute ospf 1 metric 1

Router(config-router)#redistribute connected metric 1

d. Cấu hình định tuyến BGP

- R2

Router(config)#int lo1

Router(config-if)#ip add 2.2.2.2 255.255.255.255

Router(config-if)#ex

Router(config)#router bgp 100

Router(config-router)#neighbor 6.6.6.6 remote-as 300

- R3

Router(config)#int lo2

Router(config-if)#ip add 3.3.3.3 255.255.255.255

Router(config-if)#ex

Router(config)#router bgp 100

Router(config-router)#neighbor 4.4.4.4 remote-as 200

- R6

Router(config)#int lo3

Router(config-if)#ip add 6.6.6.6 255.255.255.255

Router(config-if)#ex

Router(config)#router bgp 300

Router(config-router)#neighbor 2.2.2.2 remote-as 100

- R4

Router(config)#int lo4

Router(config-if)#ip add 4.4.4.4 255.255.255.255

Router(config-if)#ex

Router(config)#router bgp 200

Router(config-router)#neighbor 3.3.3.3 remote-as 100

- R1

Router(config)#router bgp 100

- R7

Router(config)#router bgp 300

- R5

Router(config)#router bgp 200

2. Kết quả

- R1

```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     2.0.0.0/32 is subnetted, 1 subnets
O E2    2.2.2.2 [110/20] via 100.100.2.2, 00:09:24, FastEthernet1/0
     3.0.0.0/32 is subnetted, 1 subnets
O E2    3.3.3.3 [110/20] via 110.110.2.2, 00:09:24, FastEthernet6/0
     4.0.0.0/32 is subnetted, 1 subnets
O E2    4.4.4.4 [110/20] via 110.110.2.2, 00:09:24, FastEthernet6/0
     6.0.0.0/32 is subnetted, 1 subnets
O E2    6.6.6.6 [110/20] via 100.100.2.2, 00:09:24, FastEthernet1/0
     100.0.0.0/30 is subnetted, 1 subnets
C       100.100.2.0 is directly connected, FastEthernet1/0
     110.0.0.0/30 is subnetted, 1 subnets
C       110.110.2.0 is directly connected, FastEthernet6/0
     120.0.0.0/30 is subnetted, 1 subnets
O       120.120.2.0 [110/2] via 100.100.2.2, 00:09:24, FastEthernet1/0
     130.130.0.0/30 is subnetted, 1 subnets
O E2    130.130.2.0 [110/20] via 100.100.2.2, 00:09:24, FastEthernet1/0
     140.140.0.0/30 is subnetted, 1 subnets
O E2    140.140.2.0 [110/20] via 110.110.2.2, 00:09:24, FastEthernet6/0
     150.150.0.0/30 is subnetted, 1 subnets
O       150.150.2.0 [110/2] via 110.110.2.2, 00:09:24, FastEthernet6/0
     200.200.2.0/28 is subnetted, 1 subnets
C       200.200.2.0 is directly connected, FastEthernet0/0
     210.210.2.0/28 is subnetted, 1 subnets
O E2    210.210.2.0 [110/20] via 100.100.2.2, 00:09:24, FastEthernet1/0
     220.220.2.0/28 is subnetted, 1 subnets
O E2    220.220.2.0 [110/20] via 110.110.2.2, 00:09:24, FastEthernet6/0
```

- R2

```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     2.0.0.0/32 is subnetted, 1 subnets
C       2.2.2.2 is directly connected, Loopback1
     3.0.0.0/32 is subnetted, 1 subnets
O E2    3.3.3.3 [110/20] via 100.100.2.1, 00:13:14, FastEthernet0/0
     4.0.0.0/32 is subnetted, 1 subnets
O E2    4.4.4.4 [110/20] via 100.100.2.1, 00:13:14, FastEthernet0/0
     6.0.0.0/32 is subnetted, 1 subnets
O E2    6.6.6.6 [110/20] via 120.120.2.2, 00:13:14, FastEthernet1/0
     100.0.0.0/30 is subnetted, 1 subnets
C       100.100.2.0 is directly connected, FastEthernet0/0
     110.0.0.0/30 is subnetted, 1 subnets
O       110.110.2.0 [110/2] via 100.100.2.1, 00:13:14, FastEthernet0/0
     120.0.0.0/30 is subnetted, 1 subnets
C       120.120.2.0 is directly connected, FastEthernet1/0
     130.130.0.0/30 is subnetted, 1 subnets
O E2    130.130.2.0 [110/20] via 120.120.2.2, 00:13:14, FastEthernet1/0
     140.140.0.0/30 is subnetted, 1 subnets
O E2    140.140.2.0 [110/20] via 100.100.2.1, 00:13:14, FastEthernet0/0
     150.150.0.0/30 is subnetted, 1 subnets
O       150.150.2.0 [110/3] via 100.100.2.1, 00:13:14, FastEthernet0/0
     200.200.2.0/28 is subnetted, 1 subnets
O       200.200.2.0 [110/2] via 100.100.2.1, 00:13:14, FastEthernet0/0
     210.210.2.0/28 is subnetted, 1 subnets
O E2    210.210.2.0 [110/20] via 120.120.2.2, 00:13:14, FastEthernet1/0
     220.220.2.0/28 is subnetted, 1 subnets
O E2    220.220.2.0 [110/20] via 100.100.2.1, 00:13:14, FastEthernet0/0
```

- R3

```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     2.0.0.0/32 is subnetted, 1 subnets
O E2    2.2.2.2 [110/20] via 110.110.2.1, 00:25:17, FastEthernet0/0
     3.0.0.0/32 is subnetted, 1 subnets
C       3.3.3.3 is directly connected, Loopback2
     4.0.0.0/32 is subnetted, 1 subnets
O E2    4.4.4.4 [110/20] via 150.150.2.2, 00:25:17, FastEthernet1/0
     6.0.0.0/32 is subnetted, 1 subnets
O E2    6.6.6.6 [110/20] via 110.110.2.1, 00:25:17, FastEthernet0/0
     100.0.0.0/30 is subnetted, 1 subnets
O       100.100.2.0 [110/2] via 110.110.2.1, 00:25:17, FastEthernet0/0
     110.0.0.0/30 is subnetted, 1 subnets
C       110.110.2.0 is directly connected, FastEthernet0/0
     120.0.0.0/30 is subnetted, 1 subnets
O       120.120.2.0 [110/3] via 110.110.2.1, 00:25:17, FastEthernet0/0
     130.130.0.0/30 is subnetted, 1 subnets
O E2    130.130.2.0 [110/20] via 110.110.2.1, 00:25:17, FastEthernet0/0
     140.140.0.0/30 is subnetted, 1 subnets
O E2    140.140.2.0 [110/20] via 150.150.2.2, 00:25:17, FastEthernet1/0
     150.150.0.0/30 is subnetted, 1 subnets
C       150.150.2.0 is directly connected, FastEthernet1/0
     200.200.2.0/28 is subnetted, 1 subnets
O       200.200.2.0 [110/2] via 110.110.2.1, 00:25:17, FastEthernet0/0
     210.210.2.0/28 is subnetted, 1 subnets
O E2    210.210.2.0 [110/20] via 110.110.2.1, 00:25:17, FastEthernet0/0
     220.220.2.0/28 is subnetted, 1 subnets
O E2    220.220.2.0 [110/20] via 150.150.2.2, 00:25:17, FastEthernet1/0
```

- R4

```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     2.0.0.0/32 is subnetted, 1 subnets
O E2    2.2.2.2 [110/20] via 150.150.2.1, 00:26:06, FastEthernet0/0
     3.0.0.0/32 is subnetted, 1 subnets
O E2    3.3.3.3 [110/20] via 150.150.2.1, 00:26:06, FastEthernet0/0
     4.0.0.0/32 is subnetted, 1 subnets
C       4.4.4.4 is directly connected, Loopback4
     6.0.0.0/32 is subnetted, 1 subnets
O E2    6.6.6.6 [110/20] via 150.150.2.1, 00:26:06, FastEthernet0/0
     100.0.0.0/30 is subnetted, 1 subnets
O       100.100.2.0 [110/3] via 150.150.2.1, 00:26:06, FastEthernet0/0
     110.0.0.0/30 is subnetted, 1 subnets
O       110.110.2.0 [110/2] via 150.150.2.1, 00:26:06, FastEthernet0/0
     120.0.0.0/30 is subnetted, 1 subnets
O       120.120.2.0 [110/4] via 150.150.2.1, 00:26:06, FastEthernet0/0
     130.130.0.0/30 is subnetted, 1 subnets
O E2    130.130.2.0 [110/20] via 150.150.2.1, 00:26:06, FastEthernet0/0
     140.140.0.0/30 is subnetted, 1 subnets
C       140.140.2.0 is directly connected, FastEthernet1/0
     150.150.0.0/30 is subnetted, 1 subnets
C       150.150.2.0 is directly connected, FastEthernet0/0
     200.200.2.0/28 is subnetted, 1 subnets
O       200.200.2.0 [110/3] via 150.150.2.1, 00:26:06, FastEthernet0/0
     210.210.2.0/28 is subnetted, 1 subnets
O E2    210.210.2.0 [110/20] via 150.150.2.1, 00:26:06, FastEthernet0/0
     220.220.2.0/28 is subnetted, 1 subnets
R       220.220.2.0 [120/1] via 140.140.2.2, 00:00:03, FastEthernet1/0
```

- R5

```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     2.0.0.0/32 is subnetted, 1 subnets
R       2.2.2.2 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     3.0.0.0/32 is subnetted, 1 subnets
R       3.3.3.3 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     4.0.0.0/32 is subnetted, 1 subnets
R       4.4.4.4 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     6.0.0.0/32 is subnetted, 1 subnets
R       6.6.6.6 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     100.0.0.0/30 is subnetted, 1 subnets
R       100.100.2.0 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     110.0.0.0/30 is subnetted, 1 subnets
R       110.110.2.0 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     120.0.0.0/30 is subnetted, 1 subnets
R       120.120.2.0 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     130.130.0.0/30 is subnetted, 1 subnets
R       130.130.2.0 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     140.140.0.0/30 is subnetted, 1 subnets
C       140.140.2.0 is directly connected, FastEthernet0/0
     150.150.0.0/30 is subnetted, 1 subnets
R       150.150.2.0 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     200.200.2.0/28 is subnetted, 1 subnets
R       200.200.2.0 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     210.210.2.0/28 is subnetted, 1 subnets
R       210.210.2.0 [120/1] via 140.140.2.1, 00:00:19, FastEthernet0/0
     220.220.2.0/28 is subnetted, 1 subnets
C       220.220.2.0 is directly connected, FastEthernet1/0
```

- R6

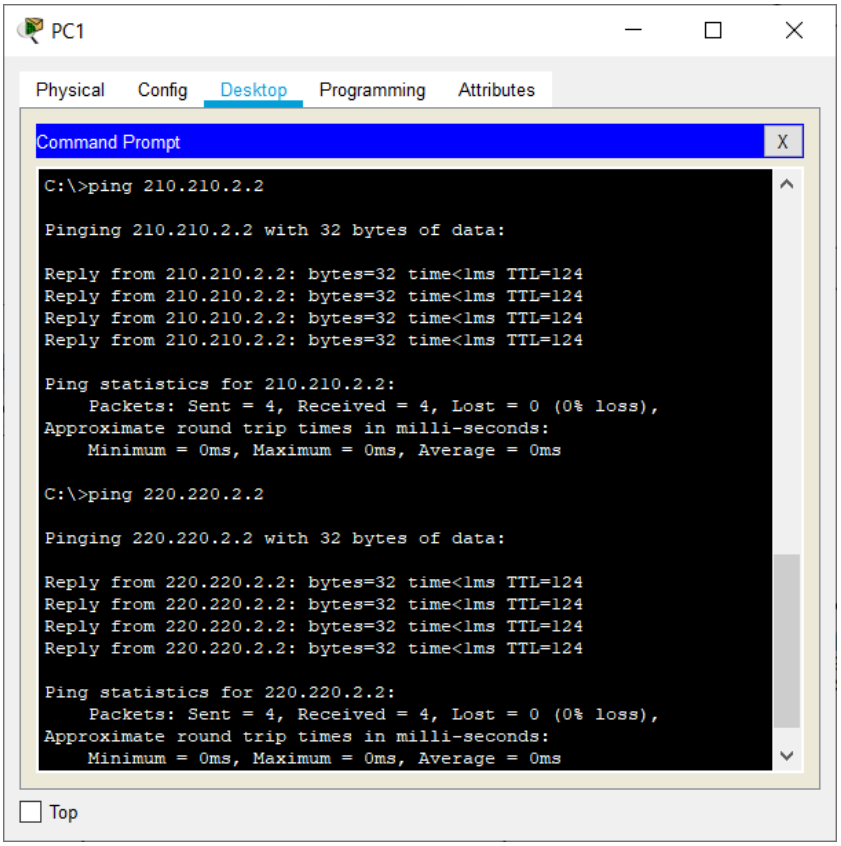
```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     2.0.0.0/32 is subnetted, 1 subnets
O E2    2.2.2.2 [110/20] via 120.120.2.1, 00:34:09, FastEthernet0/0
     3.0.0.0/32 is subnetted, 1 subnets
O E2    3.3.3.3 [110/20] via 120.120.2.1, 00:34:09, FastEthernet0/0
     4.0.0.0/32 is subnetted, 1 subnets
O E2    4.4.4.4 [110/20] via 120.120.2.1, 00:34:09, FastEthernet0/0
     6.0.0.0/32 is subnetted, 1 subnets
C       6.6.6.6 is directly connected, Loopback3
     100.0.0.0/30 is subnetted, 1 subnets
O       100.100.2.0 [110/2] via 120.120.2.1, 00:34:09, FastEthernet0/0
     110.0.0.0/30 is subnetted, 1 subnets
O       110.110.2.0 [110/3] via 120.120.2.1, 00:34:09, FastEthernet0/0
     120.0.0.0/30 is subnetted, 1 subnets
C       120.120.2.0 is directly connected, FastEthernet0/0
     130.130.0.0/30 is subnetted, 1 subnets
C       130.130.2.0 is directly connected, FastEthernet1/0
     140.140.0.0/30 is subnetted, 1 subnets
O E2    140.140.2.0 [110/20] via 120.120.2.1, 00:34:09, FastEthernet0/0
     150.150.0.0/30 is subnetted, 1 subnets
O       150.150.2.0 [110/4] via 120.120.2.1, 00:34:09, FastEthernet0/0
     200.200.2.0/28 is subnetted, 1 subnets
O       200.200.2.0 [110/3] via 120.120.2.1, 00:34:09, FastEthernet0/0
     210.210.2.0/28 is subnetted, 1 subnets
R       210.210.2.0 [120/1] via 130.130.2.2, 00:00:04, FastEthernet1/0
     220.220.2.0/28 is subnetted, 1 subnets
O E2    220.220.2.0 [110/20] via 120.120.2.1, 00:34:09, FastEthernet0/0
```

- R7

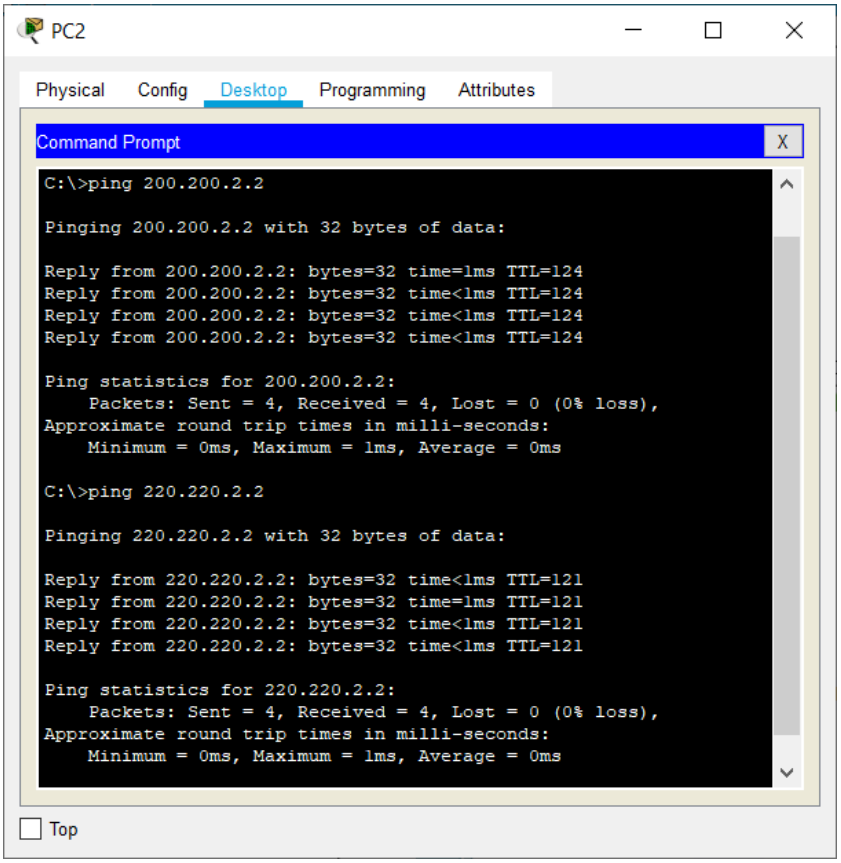
```
Router#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     2.0.0.0/32 is subnetted, 1 subnets
R       2.2.2.2 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
     3.0.0.0/32 is subnetted, 1 subnets
R       3.3.3.3 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
     4.0.0.0/32 is subnetted, 1 subnets
R       4.4.4.4 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
     6.0.0.0/32 is subnetted, 1 subnets
R       6.6.6.6 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
     100.0.0.0/30 is subnetted, 1 subnets
R       100.100.2.0 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
     110.0.0.0/30 is subnetted, 1 subnets
R       110.110.2.0 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
     120.0.0.0/30 is subnetted, 1 subnets
R       120.120.2.0 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
     130.130.0.0/30 is subnetted, 1 subnets
C       130.130.2.0 is directly connected, FastEthernet0/0
     140.140.0.0/30 is subnetted, 1 subnets
R       140.140.2.0 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
     150.150.0.0/30 is subnetted, 1 subnets
R       150.150.2.0 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
     200.200.2.0/28 is subnetted, 1 subnets
R       200.200.2.0 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
     210.210.2.0/28 is subnetted, 1 subnets
C       210.210.2.0 is directly connected, FastEthernet1/0
     220.220.2.0/28 is subnetted, 1 subnets
R       220.220.2.0 [120/1] via 130.130.2.1, 00:00:10, FastEthernet0/0
```

Lưu ý: khi gửi PDU giữa các router và PC đôi khi sẽ bị failed, chỉ cần fast forward time (Alt + D) vài lần rồi thử lại là được

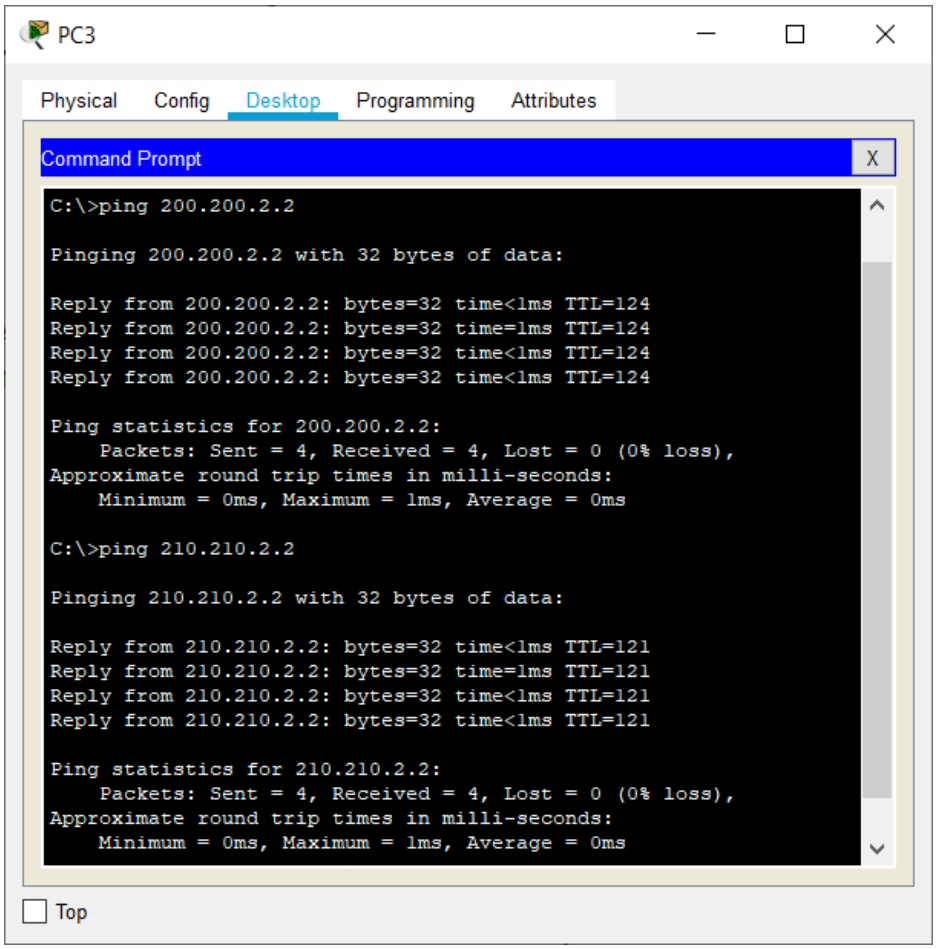
- PC1 ⇒ PC2 và PC3



- PC2 ⇒ PC1 và PC3



- PC3 ⇒ PC1 và PC2



3. Nguồn tham khảo

http://thietbibk.com/ccna-rs-ccna5-0-cau-lenh-cau-hinh-dinh-tuyen-ospf-tren-topo-ipv4/

https://www.daihockhonggiay.com/blogs/post/link-state-ospf

CCNA - [Lab 6] Cấu hình định tuyến RIPv2 cho Router Cisco | Lab Network System Security (securityzone.vn)

Lab 1.1 Redistribute | Lab Network System Security (securityzone.vn)

https://securityzone.vn/t/bgp-lab-01-cau-hinh-bgp-co-ban-part-1.1079/

https://www.daihockhonggiay.com/blogs/post/cau-hinh-tong-hop-3-giao-thuc-ripv2-ospf-eigrp