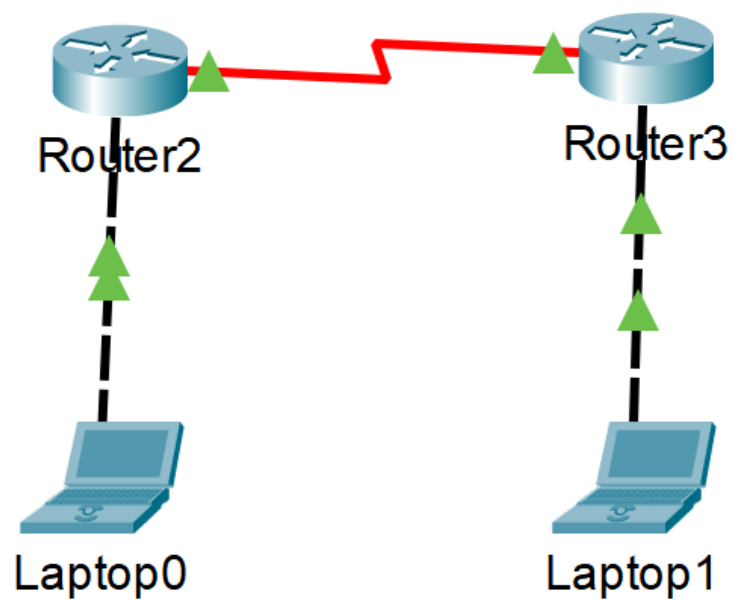


Налаштування RIP, OSPF, BGP, EIGRP

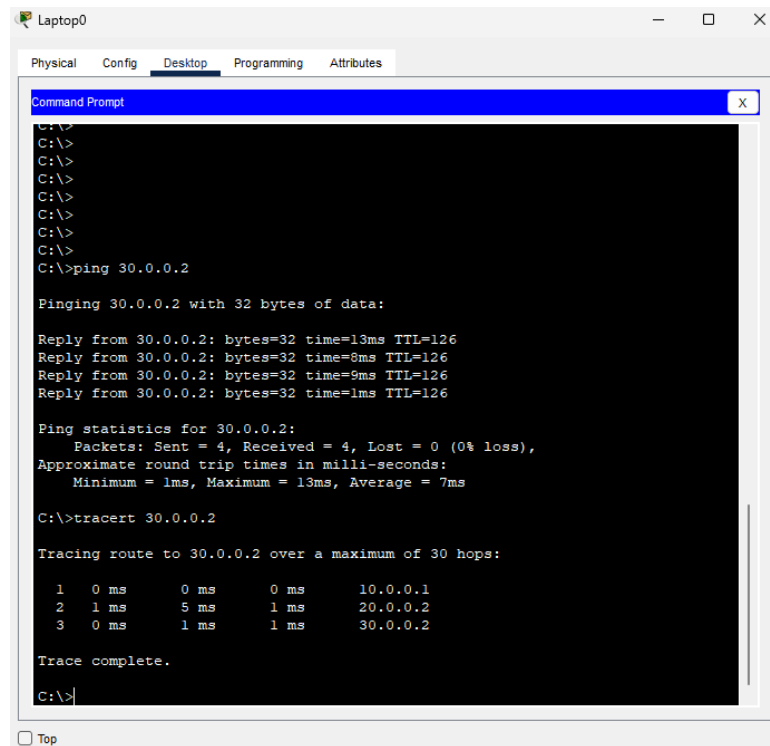
Виконав: Коробчук Артем 05_10

Налаштування RIP

Топологія мережі



Перевірка



```
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>ping 30.0.0.2

Pinging 30.0.0.2 with 32 bytes of data:

Reply from 30.0.0.2: bytes=32 time=13ms TTL=126
Reply from 30.0.0.2: bytes=32 time=8ms TTL=126
Reply from 30.0.0.2: bytes=32 time=9ms TTL=126
Reply from 30.0.0.2: bytes=32 time=1ms TTL=126

Ping statistics for 30.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 13ms, Average = 7ms

C:\>tracert 30.0.0.2

Tracing route to 30.0.0.2 over a maximum of 30 hops:

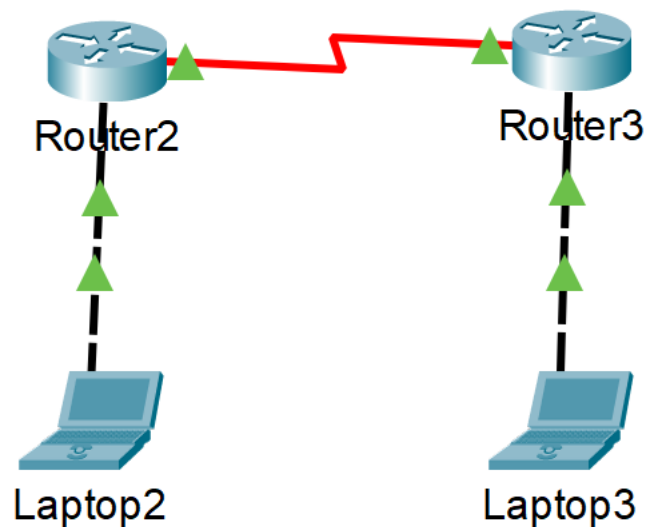
  1  0 ms    0 ms    0 ms    10.0.0.1
  2  1 ms    5 ms    1 ms    20.0.0.2
  3  0 ms    1 ms    1 ms    30.0.0.2

Trace complete.

C:\>
```

Налаштування OSPF

Топологія мережі



Конфігурація роутера 2

```
Router#show ip ospf neighbor
```

Neighbor ID	Pri	State	Dead Time	Address	Interface
30.0.0.1	0	FULL/ -	00:00:30	20.0.0.2	Serial2/0

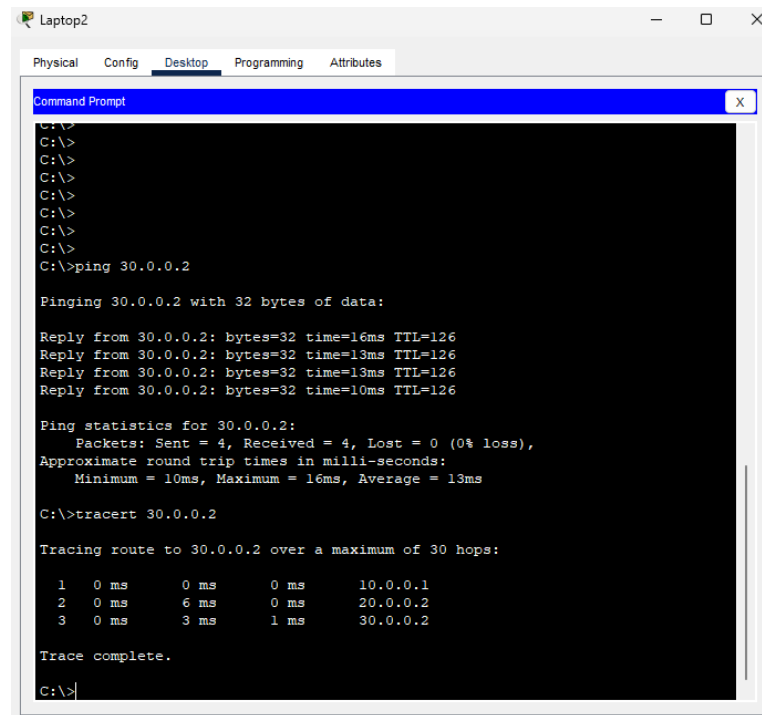
```
Router#show ip rou
```

```
Router#show ip route os
```

```
Router#show ip route ospf
```

```
O    30.0.0.0 [110/65] via 20.0.0.2, 00:00:41, Serial2/0
```

Перевірка



The screenshot shows a Windows Command Prompt window titled 'Laptop2'. The 'Desktop' tab is selected. The user has entered several commands to verify network connectivity:

```
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>ping 30.0.0.2

Pinging 30.0.0.2 with 32 bytes of data:

Reply from 30.0.0.2: bytes=32 time=16ms TTL=126
Reply from 30.0.0.2: bytes=32 time=13ms TTL=126
Reply from 30.0.0.2: bytes=32 time=13ms TTL=126
Reply from 30.0.0.2: bytes=32 time=10ms TTL=126

Ping statistics for 30.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 10ms, Maximum = 16ms, Average = 13ms

C:\>tracert 30.0.0.2

Tracing route to 30.0.0.2 over a maximum of 30 hops:

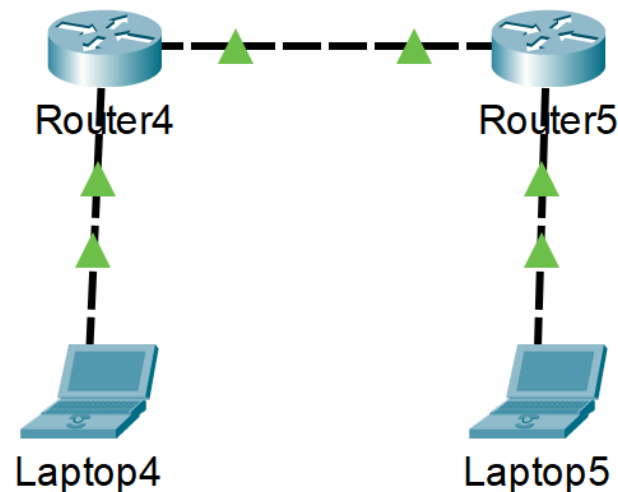
  1  0 ms    0 ms    0 ms    10.0.0.1
  2  0 ms    6 ms    0 ms    20.0.0.2
  3  0 ms    3 ms    1 ms    30.0.0.2

Trace complete.

C:\>
```

Налаштування EIGRP

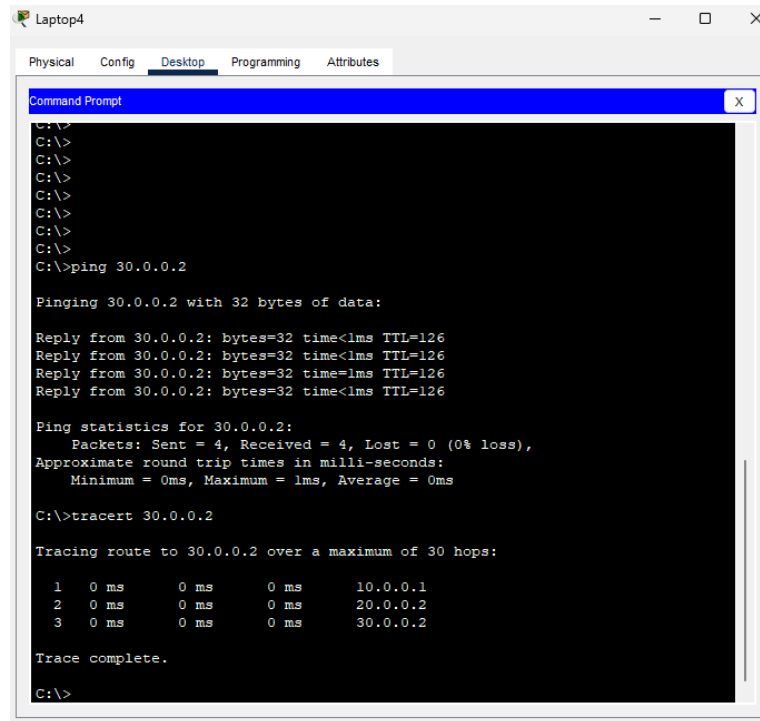
Топологія мережі



Конфігурація роутера 4

```
Router#show ip eigrp neighbors
IP-EIGRP neighbors for process 1
H   Address          Interface    Hold Uptime    SRTT    RTO    Q    Seq
  (sec)              (ms)                1000    0
0   20.0.0.2          Fa1/0        14   00:00:41   40
Router#show ip ro
Router#show ip route *e
Router#show ip route e
Router#show ip route eigrp
D    30.0.0.0/8 [90/30720] via 20.0.0.2, 00:00:43, FastEthernet1/0
```

Перевірка



```
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>ping 30.0.0.2

Pinging 30.0.0.2 with 32 bytes of data:

Reply from 30.0.0.2: bytes=32 time<1ms TTL=126
Reply from 30.0.0.2: bytes=32 time<1ms TTL=126
Reply from 30.0.0.2: bytes=32 time<1ms TTL=126
Reply from 30.0.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 30.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>tracert 30.0.0.2

Tracing route to 30.0.0.2 over a maximum of 30 hops:

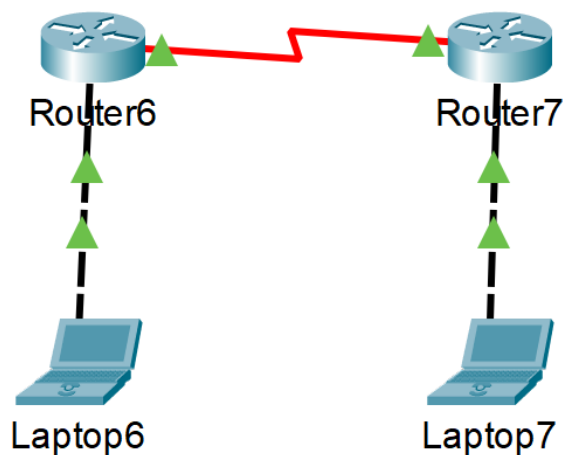
  0  0 ms    0 ms    0 ms    10.0.0.1
  1  0 ms    0 ms    0 ms    20.0.0.2
  2  0 ms    0 ms    0 ms    30.0.0.2

Trace complete.

C:\>
```

Налаштування BGP

Топологія мережі



Конфігурація роутера 6

```
Router#show ip bgp summary
BGP router identifier 192.168.1.254, local AS number 65001
BGP table version is 3, main routing table version 6
2 network entries using 264 bytes of memory
2 path entries using 104 bytes of memory
1/1 BGP path/bestpath attribute entries using 184 bytes of memory
2 BGP AS-PATH entries using 48 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
Bitfield cache entries: current 1 (at peak 1) using 32 bytes of memory
BGP using 632 total bytes of memory
BGP activity 2/0 prefixes, 2/0 paths, scan interval 60 secs

Neighbor      V    AS MsgRcvd MsgSent  TblVer  InQ OutQ Up/Down  State/
PfxRcd
10.0.0.2       4 65002      8      7        3   0   0 00:05:12    4

Router#show ip bgp
BGP table version is 3, local router ID is 192.168.1.254
Status codes: s suppressed, d damped, h history, * valid, > best, i -
internal,
              r RIB-failure, S Stale
Origin codes: i - IGP, e - EGP, ? - incomplete

    Network          Next Hop           Metric LocPrf Weight Path
*> 192.168.1.0/24     0.0.0.0              0      0 32768 i
*> 192.168.2.0/24     10.0.0.2             0      0   0 65002 i
```

Конфігурація роутера 7

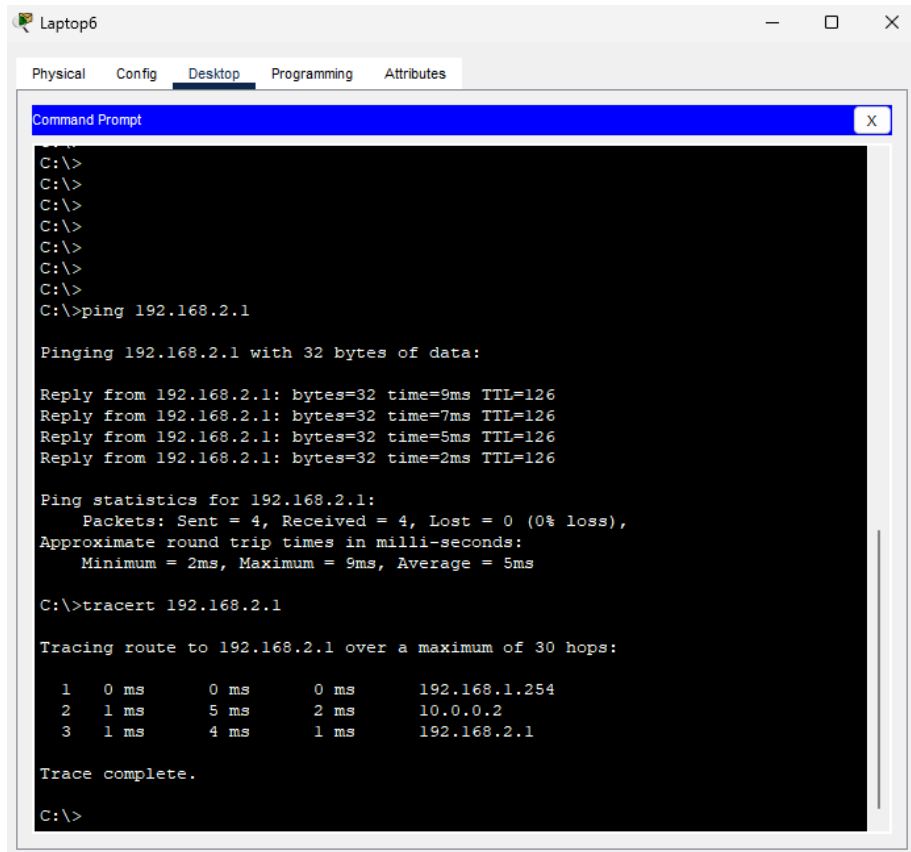
```
Router#show ip bgp summary
BGP router identifier 192.168.2.254, local AS number 65002
BGP table version is 3, main routing table version 6
2 network entries using 264 bytes of memory
2 path entries using 104 bytes of memory
1/1 BGP path/bestpath attribute entries using 184 bytes of memory
2 BGP AS-PATH entries using 48 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
Bitfield cache entries: current 1 (at peak 1) using 32 bytes of memory
BGP using 632 total bytes of memory
BGP activity 2/0 prefixes, 2/0 paths, scan interval 60 secs

Neighbor      V    AS MsgRcvd MsgSent  TblVer  InQ OutQ Up/Down  State/
PfxRcd
10.0.0.1       4 65001      5      4        3   0   0 00:02:15    4

Router#show ip bgp
BGP table version is 3, local router ID is 192.168.2.254
Status codes: s suppressed, d damped, h history, * valid, > best, i -
internal,
              r RIB-failure, S Stale
Origin codes: i - IGP, e - EGP, ? - incomplete

    Network          Next Hop           Metric LocPrf Weight Path
*> 192.168.1.0/24     10.0.0.1              0      0   0 65001 i
*> 192.168.2.0/24     0.0.0.0              0      0 32768 i
```

Перевірка



The screenshot shows a Windows Command Prompt window titled "Command Prompt" with a blue title bar. The window is open on the "Desktop" tab of a multi-tabbed interface, with other tabs labeled "Physical", "Config", "Programming", and "Attributes". The command prompt shows the following sequence of commands and output:

```
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>
C:\>ping 192.168.2.1

Pinging 192.168.2.1 with 32 bytes of data:

Reply from 192.168.2.1: bytes=32 time=9ms TTL=126
Reply from 192.168.2.1: bytes=32 time=7ms TTL=126
Reply from 192.168.2.1: bytes=32 time=5ms TTL=126
Reply from 192.168.2.1: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.2.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 9ms, Average = 5ms

C:\>tracert 192.168.2.1

Tracing route to 192.168.2.1 over a maximum of 30 hops:

  1  0 ms    0 ms    0 ms    192.168.1.254
  2  1 ms    5 ms    2 ms    10.0.0.2
  3  1 ms    4 ms    1 ms    192.168.2.1

Trace complete.

C:\>
```