MODUL 7
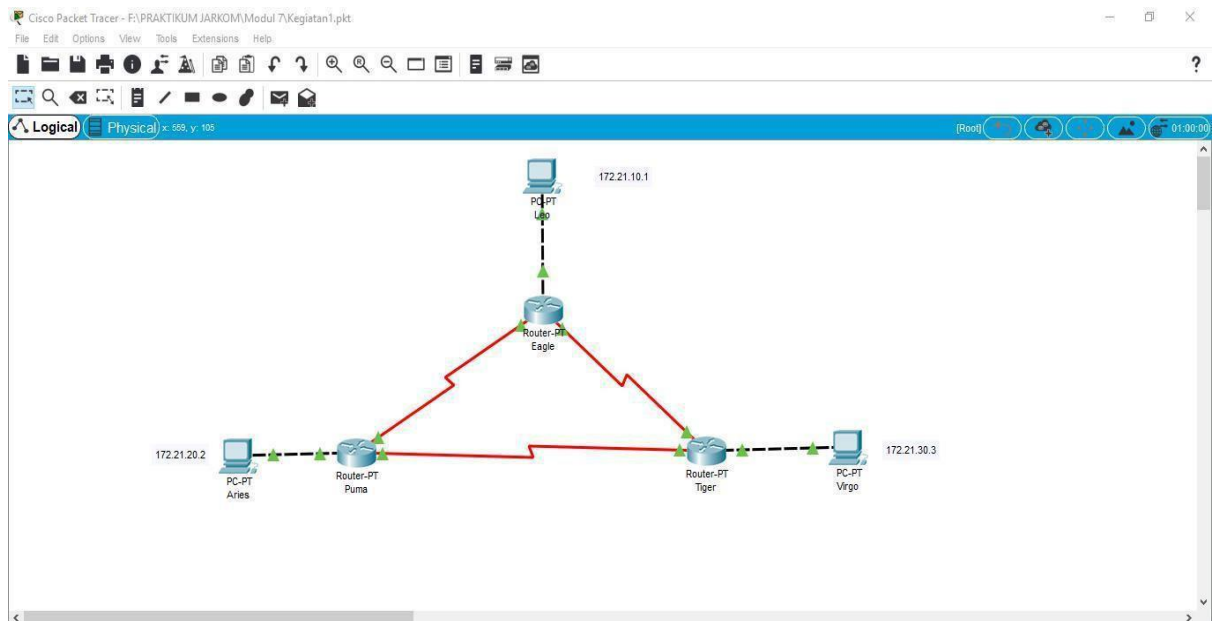
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NIM   : L200170063
Kelas   : B

1. Konfigurasi masing masing interface pada tiap Router

```
           --- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no


Press RETURN to get started!



Router>en
Router#config
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa 0/0
Router(config-if)#ip address 172.21.20.20 255.255.255.0
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

Router(config-if)#int se 2/0
Router(config-if)#ip address 172.21.1.2 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

Router(config-if)#int se 3/0
Router(config-if)#clo
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to
Router(config-if)#int se 3/0
Router(config-if)#clock rate 2000000
Router(config-if)#ip address 172.21.3.2 255.255.255.0
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial3/0, changed state to down
Router(config-if)#
```

Ctrl+F6 to exit CLI focus

Physical   Config   CLI   Attributes

```
Press RETURN to get started!


Router>en
Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int fa 0/0
Router(config-if)#ip address 172.21.30.30 255.255.255.0
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

Router(config-if)#int se 3/0
Router(config-if)#ip address 172.21.3.3 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up

Router(config-if)#ip address 172.21.3.3 255.255.255.0
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to up

Router(config-if)#int se 2/0
Router(config-if)#clock rate 2000000
Router(config-if)#ip address 172.21.2.3 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config-if)#
```

Ctrl+F6 to exit CLI focus

2. Konfigurasi ip PC

Leo — □ ×

Physical | Config | Desktop | Programming | Attributes

○ DHCP   ● Static
IP Address   172.21.10.1
Subnet Mask   255.255.255.0
Default Gateway   172.21.10.10
DNS Server   0.0.0.0

IPv6 Configuration
○ DHCP   ○ Auto Config   ● Static
IPv6 Address   /
Link Local Address   FE80::207:ECFF:FE5B:7596
IPv6 Gateway
IPv6 DNS Server

802.1X
☐ Use 802.1X Security
Authentication   MD5
Username
Password

☐ Top

Aries — □ ×

Physical | Config | Desktop | Programming | Attributes

○ DHCP   ● Static
IP Address   172.21.20.2
Subnet Mask   255.255.255.0
Default Gateway   172.21.20.20
DNS Server   0.0.0.0

IPv6 Configuration
○ DHCP   ○ Auto Config   ● Static
IPv6 Address   /
Link Local Address   FE80::203:E4FF:FE08:BB97
IPv6 Gateway
IPv6 DNS Server

802.1X
☐ Use 802.1X Security
Authentication   MD5
Username
Password

☐ Top

3. Pengujian kesesuain konfigurasi

Packet Tracer PC Command Line 1.0
C:\>ping 172.21.1.2

Pinging 172.21.1.2 with 32 bytes of data:

Reply from 172.21.1.2: bytes=32 time<1ms TTL=255
Reply from 172.21.1.2: bytes=32 time<1ms TTL=255
Reply from 172.21.1.2: bytes=32 time<1ms TTL=255
Reply from 172.21.1.2: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>

Packet Tracer PC Command Line 1.0
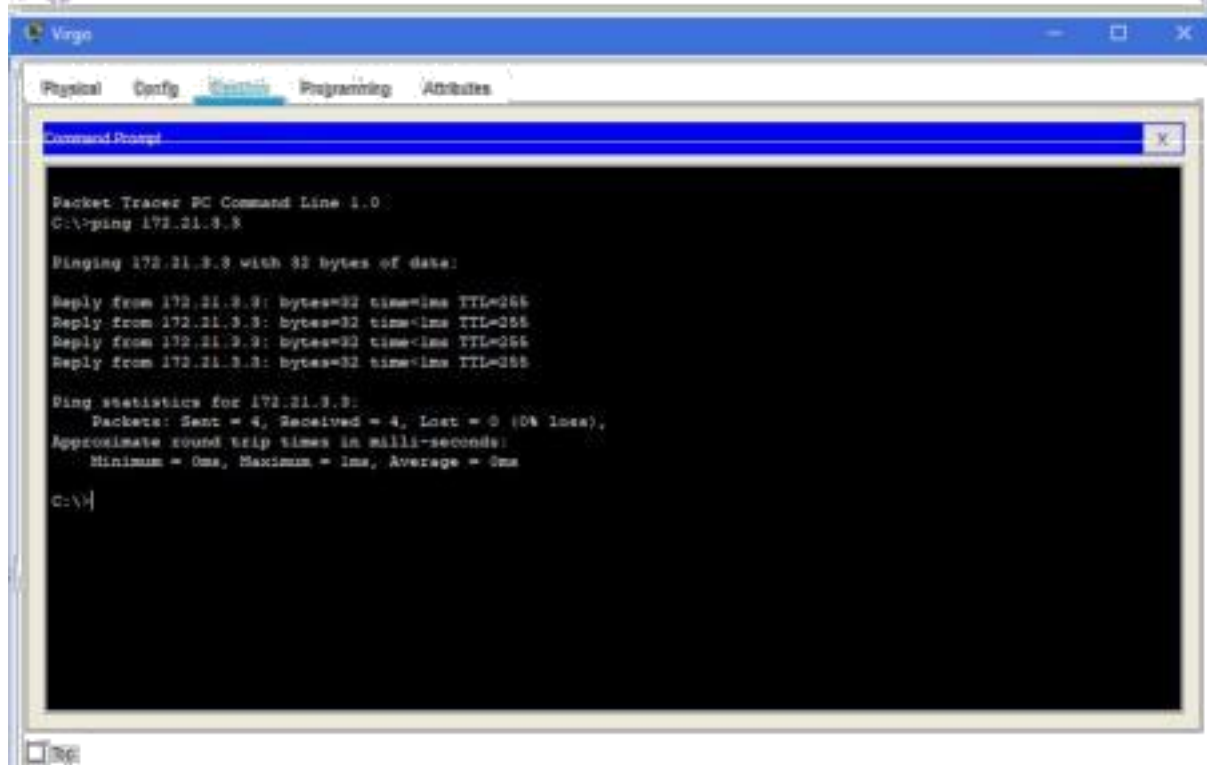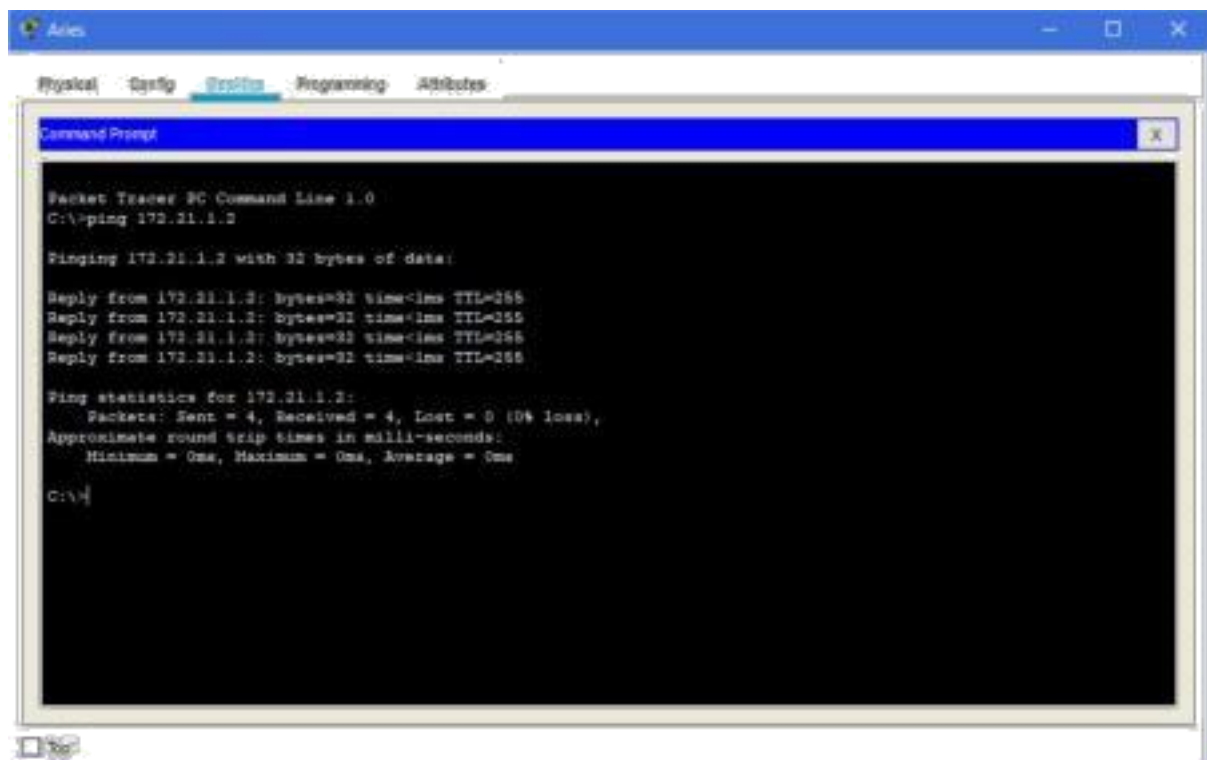C:\>ping 172.21.3.3

Pinging 172.21.3.3 with 32 bytes of data:

Reply from 172.21.3.3: bytes=32 time=1ms TTL=255
Reply from 172.21.3.3: bytes=32 time=1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255
Reply from 172.21.3.3: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.3.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Router>en
Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ping 172.21.1.2
                         ^
% Invalid input detected at '^' marker.

Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#ping 172.21.1.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.1.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/6 ms

Router#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

```
Router#ping 172.21.2.3

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.2.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/1/6 ms

Router#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Press RETURN to get started.




















Router>en
Router#ping 172.21.3.3

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.3.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/3/8 ms

Router#
```
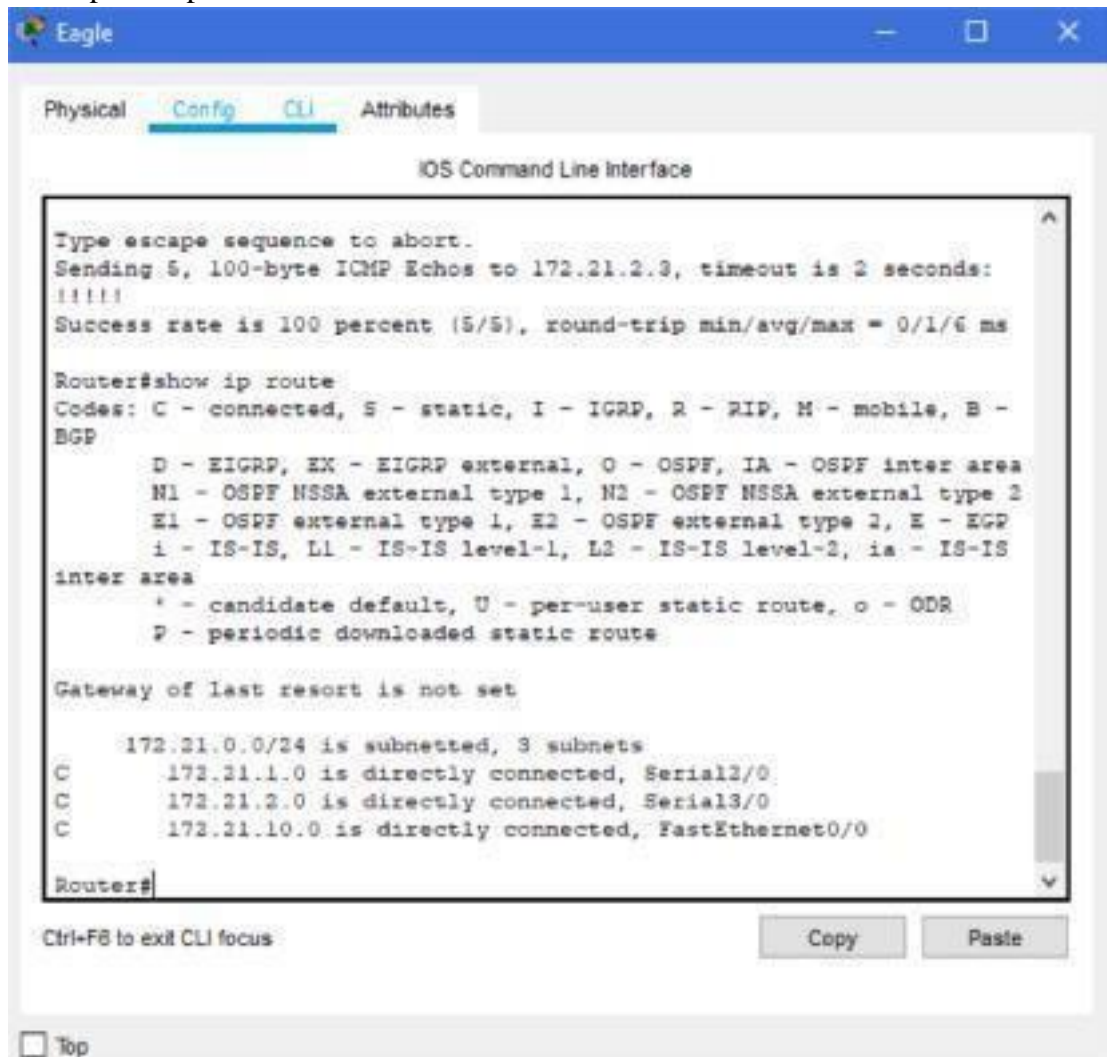
Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

4. Menampilkan ip route

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.2.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/1/6 ms

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

     172.21.0.0/24 is subnetted, 3 subnets
C   172.21.1.0 is directly connected, Serial2/0
C   172.21.2.0 is directly connected, Serial3/0
C   172.21.10.0 is directly connected, FastEthernet0/0

Router#

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.3.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/3/8 ms

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

     172.21.0.0/24 is subnetted, 3 subnets
C       172.21.1.0 is directly connected, Serial2/0
C       172.21.3.0 is directly connected, Serial3/0
C       172.21.20.0 is directly connected, FastEthernet0/0

Router#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Router>en
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

     172.21.0.0/24 is subnetted, 3 subnets
C       172.21.2.0 is directly connected, Serial2/0
C       172.21.3.0 is directly connected, Serial3/0
C       172.21.30.0 is directly connected, FastEthernet0/0

Router#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

5. Melakukan ping dari router eagle ke interface puma (172.21.20.20)

```
Router#ping 172.21.20.20

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.21.20.20, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)

Router#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

6. Trace PC leo ke PC aries

```
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

  1   131 ms     0 ms      0 ms      172.21.10.10
  2     0 ms     *        52 ms      172.21.10.10
  3     *         0 ms     *         Request timed out.
  4     0 ms     *        13 ms      172.21.10.10
  5     *         0 ms     *         Request timed out.
  6     0 ms     *         0 ms      172.21.10.10
  7
Control-C
^C
C:\>
```

☐ Top

7. Trace dari PC leo ke router eagle (172.21.1.1)

```
C:\>tracert 172.21.1.1

Tracing route to 172.21.1.1 over a maximum of 30 hops:

  1    0 ms      0 ms      0 ms      172.21.1.1

Trace complete.

C:\>
```

8. Melakukan ip route pada masing masing router

```
Router>en
Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip route 172.21.20.0 255.255.255.0 172.21.1.2
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.2.3
Router(config)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

```
Router>en
Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip route 172.21.10.0 255.255.255.0 172.21.1.1
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.3.3
Router(config)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

```
Router>en
Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip route 172.21.10.0 255.255.255.0 172.21.2.1
Router(config)#ip route 172.21.20.0 255.255.255.0 172.21.3.2
Router(config)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

9. Ping PC leo ke PC aries dan tracer PC leo ke PC aries

```
C:\>ping 172.21.20.2

Pinging 172.21.20.2 with 32 bytes of data:

Request timed out.
Reply from 172.21.20.2: bytes=32 time=130ms TTL=126
Reply from 172.21.20.2: bytes=32 time=15ms TTL=126
Reply from 172.21.20.2: bytes=32 time=1ms TTL=126

Ping statistics for 172.21.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 130ms, Average = 48ms

C:\>
```

☐ Top

```
C:\>tracert 172.21.20.2

Tracing route to 172.21.20.2 over a maximum of 30 hops:

  1    0 ms      0 ms      0 ms       172.21.10.10
  2    1 ms      1 ms      4 ms       172.21.1.2
  3    0 ms     13 ms      0 ms       172.21.20.2

Trace complete.

C:\>
```

☐ Top

10. Mengubah alamat jaringan pada Leo menjadi 172.21.100.0/24

11. Konfigurasi ip baru pada router eagle

12. Menambahkan konfigurasi ip route baru pada router puma dan tiger

```
Router>en
Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip route 172.21.100.0 255.255.255.0 172.21.1.1
Router(config)#
```
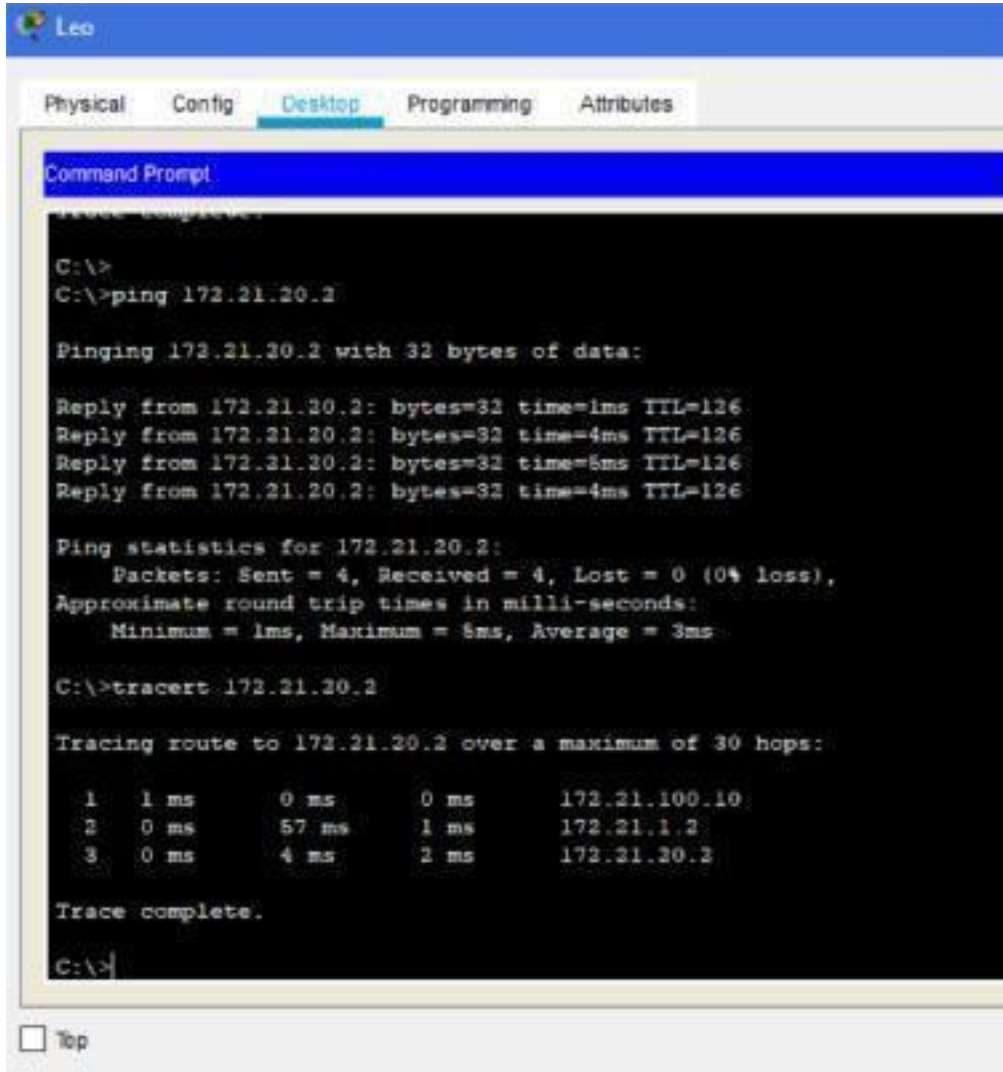
Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

```
Router>en
Router#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip route 172.21.100.0 255.255.255.0 172.21.2.1
Router(config)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

13. Melakukan ping dan tracer dari Leo ke Aries dan Virgo

Leo

Physical   Config   Desktop   Programming   Attributes

Command Prompt

```
Trace complete.

C:\>ping 172.21.30.3

Pinging 172.21.30.3 with 32 bytes of data:

Reply from 172.21.30.3: bytes=32 time=2ms TTL=126
Reply from 172.21.30.3: bytes=32 time=1ms TTL=126
Reply from 172.21.30.3: bytes=32 time=1ms TTL=126
Reply from 172.21.30.3: bytes=32 time=1ms TTL=126

Ping statistics for 172.21.30.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>tracert 172.21.30.3

Tracing route to 172.21.30.3 over a maximum of 30 hops:

  1    0 ms      56 ms      0 ms       172.21.100.10
  2    1 ms       1 ms      0 ms       172.21.2.3
  3   12 ms       3 ms      2 ms       172.21.30.3

Trace complete.

C:\>
```

☐ Top