

Laporan Praktikum Jaringan Komputer

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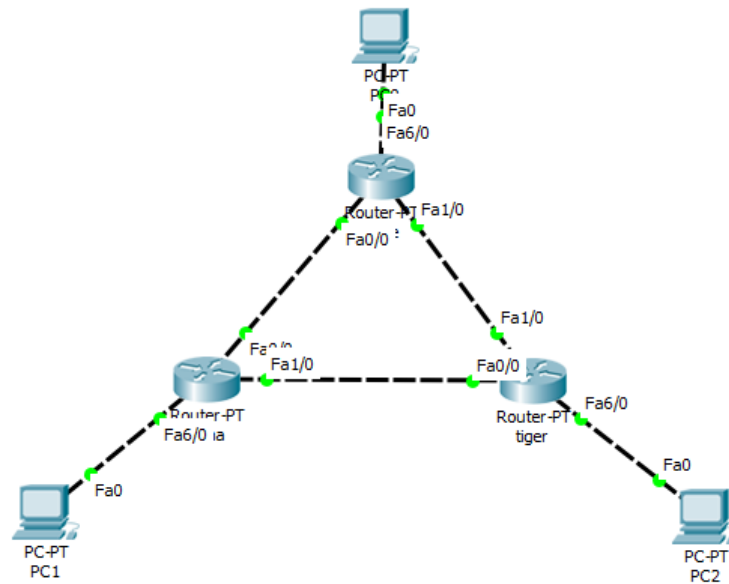
Kelas : A

MODUL 7

C. Kegiatan Praktikum

Kegiatan 1. Topologi 1 (Static Routing)

1. Menggunakan Packet Tracer buat topologi berikut ini dengan menggunakan Router generic



2. Konfigurasi masing-masing interface pada tiap router dengan alamat IP berikut :

- eagle

The screenshot shows the configuration window for the 'eagle' router. The 'Config' tab is active, and the 'INTERFACE' section is selected. The 'FastEthernet0/0' interface is highlighted in the left sidebar. The main configuration area shows the following settings:

- Port Status: ☒ On
- Bandwidth: ☒ 100 Mbps ☐ 10 Mbps ☒ Auto
- Duplex: ☒ Half Duplex ☐ Full Duplex ☒ Auto
- MAC Address: 000C.CF95.A23C
- IP Configuration:
 - IP Address: 172.21.10.10
 - Subnet Mask: 255.255.255.0
- Tx Ring Limit: 10

Below the configuration fields, the 'Equivalent IOS Commands' section displays the following commands:

```
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
```

A 'Top' button is located at the bottom left of the window.

- puma

The screenshot shows the configuration window for the 'puma' router. The 'Config' tab is active, and the 'INTERFACE' section is selected. The 'FastEthernet0/0' interface is highlighted in the left sidebar. The main configuration area shows the following settings:

- Port Status: ☒ On
- Bandwidth: ☒ 100 Mbps ☐ 10 Mbps ☒ Auto
- Duplex: ☐ Half Duplex ☒ Full Duplex ☒ Auto
- MAC Address: 000D.BD69.ACDA
- IP Configuration:
 - IP Address: 172.21.20.20
 - Subnet Mask: 255.255.255.0
- Tx Ring Limit: 10

Below the configuration fields, the 'Equivalent IOS Commands' section displays the following commands:

```
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 172.21.20.20 255.255.255.0
Router(config-if)#ip address 172.21.20.20 255.255.255.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

A 'Top' button is located at the bottom left of the window.

- tiger

Physical Config CLI Attributes

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 0004.9AB2.D23B

IP Configuration

IP Address 172.21.30.30

Subnet Mask 255.255.255.0

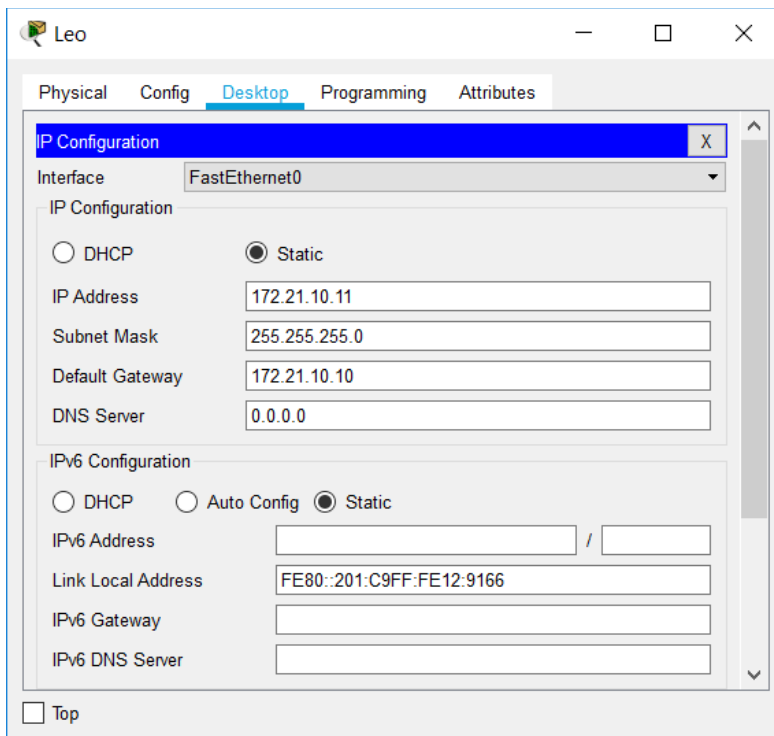
Tx Ring Limit 10

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

☐ Top

3. konfigurasi masing-masing PC dengan nama dan alamat IP berikut :



The screenshot shows the configuration window for a PC named 'Leo'. The 'Desktop' tab is selected. Under 'IP Configuration', the 'Static' radio button is chosen. The IP Address is set to 172.21.10.11, Subnet Mask to 255.255.255.0, Default Gateway to 172.21.10.10, and DNS Server to 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is also chosen. The IPv6 Address field is empty, the Link Local Address is FE80::201:C9FF:FE12:9166, and the IPv6 Gateway and DNS Server fields are empty. A 'Top' button is at the bottom left.

Leo

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 172.21.10.11

Subnet Mask 255.255.255.0

Default Gateway 172.21.10.10

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

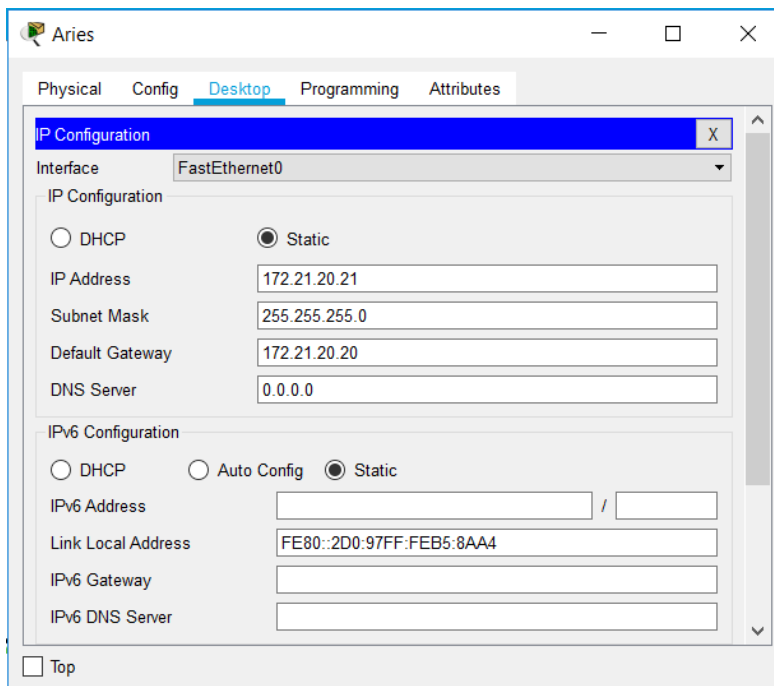
IPv6 Address /

Link Local Address FE80::201:C9FF:FE12:9166

IPv6 Gateway

IPv6 DNS Server

☐ Top



The screenshot shows the configuration window for a PC named 'Aries'. The 'Desktop' tab is selected. Under 'IP Configuration', the 'Static' radio button is chosen. The IP Address is set to 172.21.20.21, Subnet Mask to 255.255.255.0, Default Gateway to 172.21.20.20, and DNS Server to 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is also chosen. The IPv6 Address field is empty, the Link Local Address is FE80::2D0:97FF:FEB5:8AA4, and the IPv6 Gateway and DNS Server fields are empty. A 'Top' button is at the bottom left.

Aries

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 172.21.20.21

Subnet Mask 255.255.255.0

Default Gateway 172.21.20.20

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

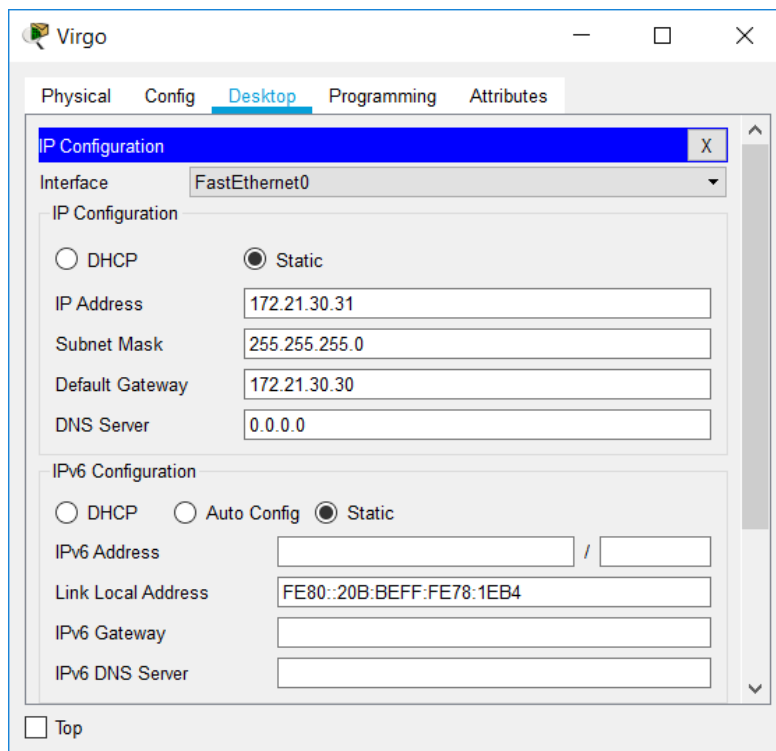
IPv6 Address /

Link Local Address FE80::2D0:97FF:FEB5:8AA4

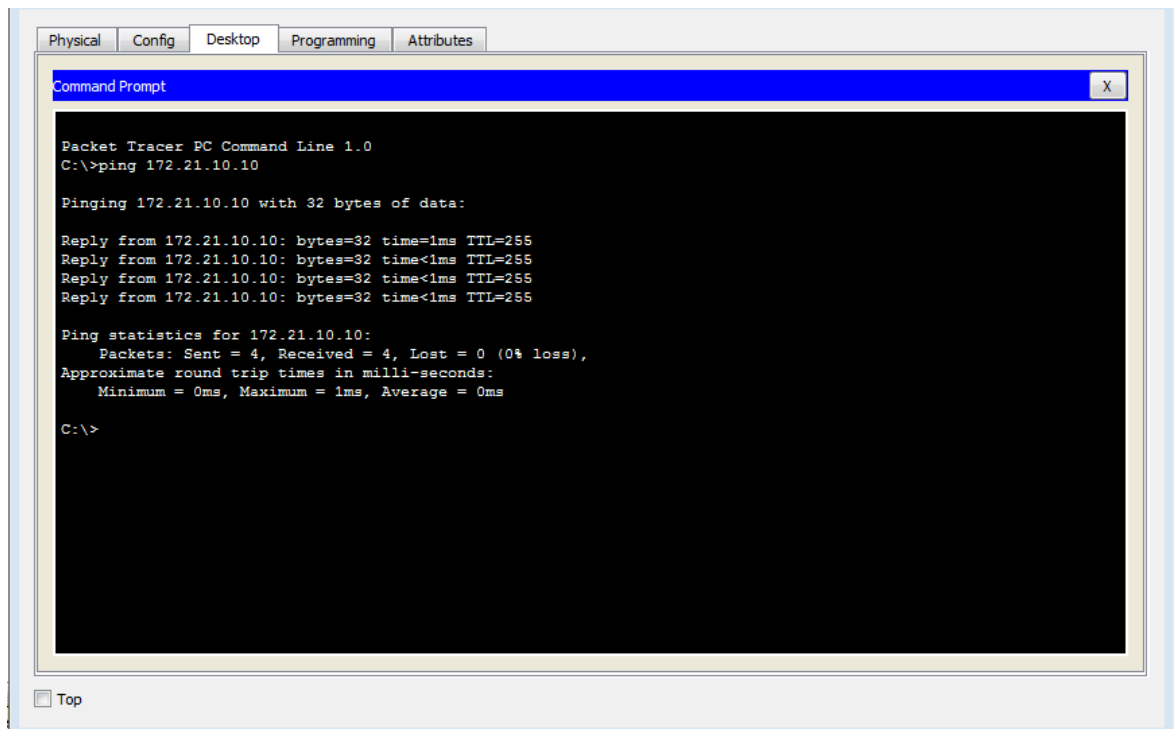
IPv6 Gateway

IPv6 DNS Server

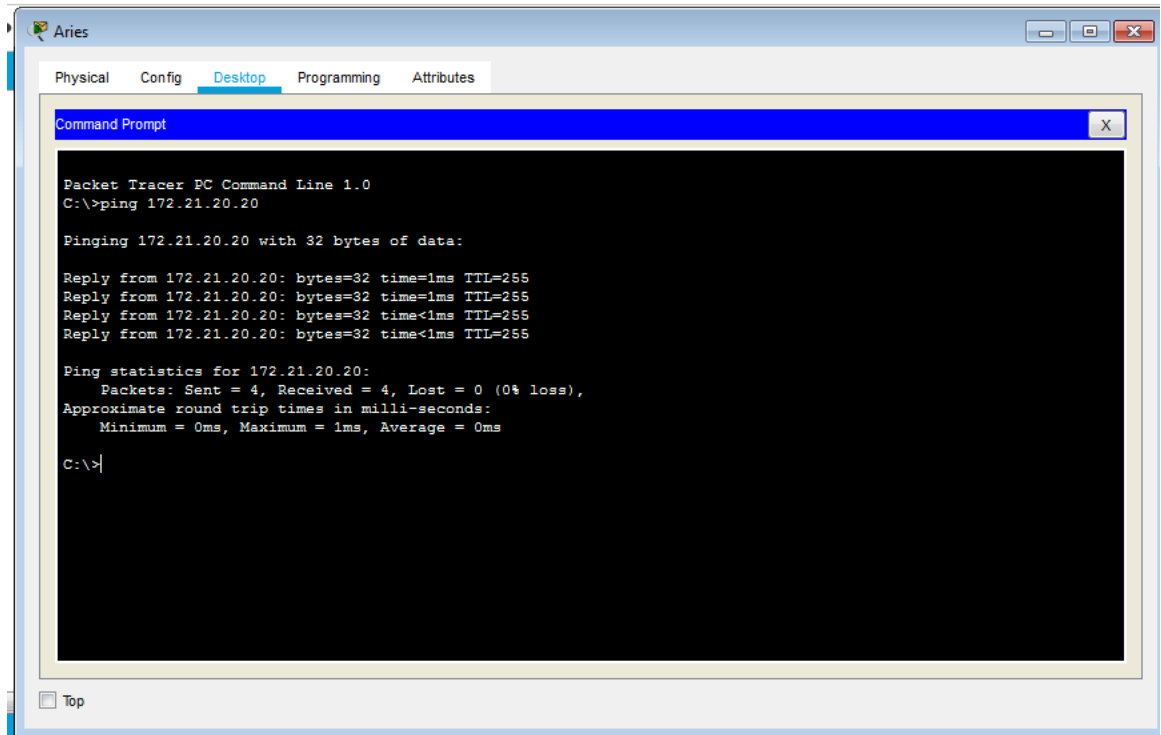
☐ Top



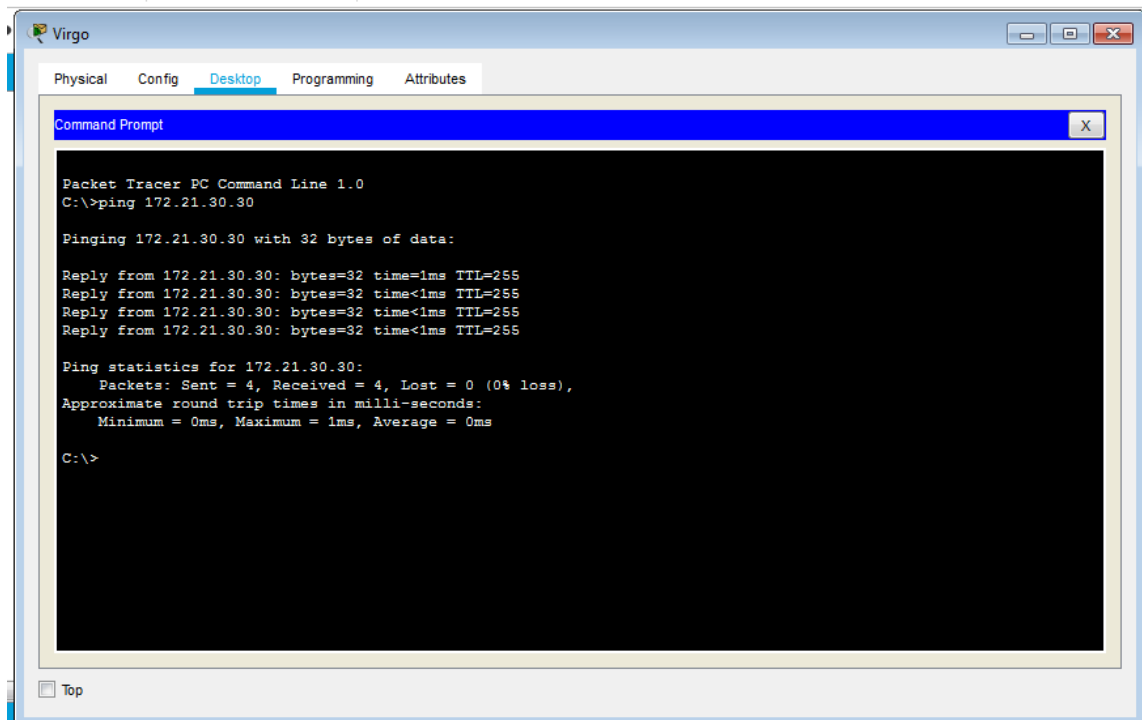
4. Pengujian :
- ping PC Leo ke router eagle



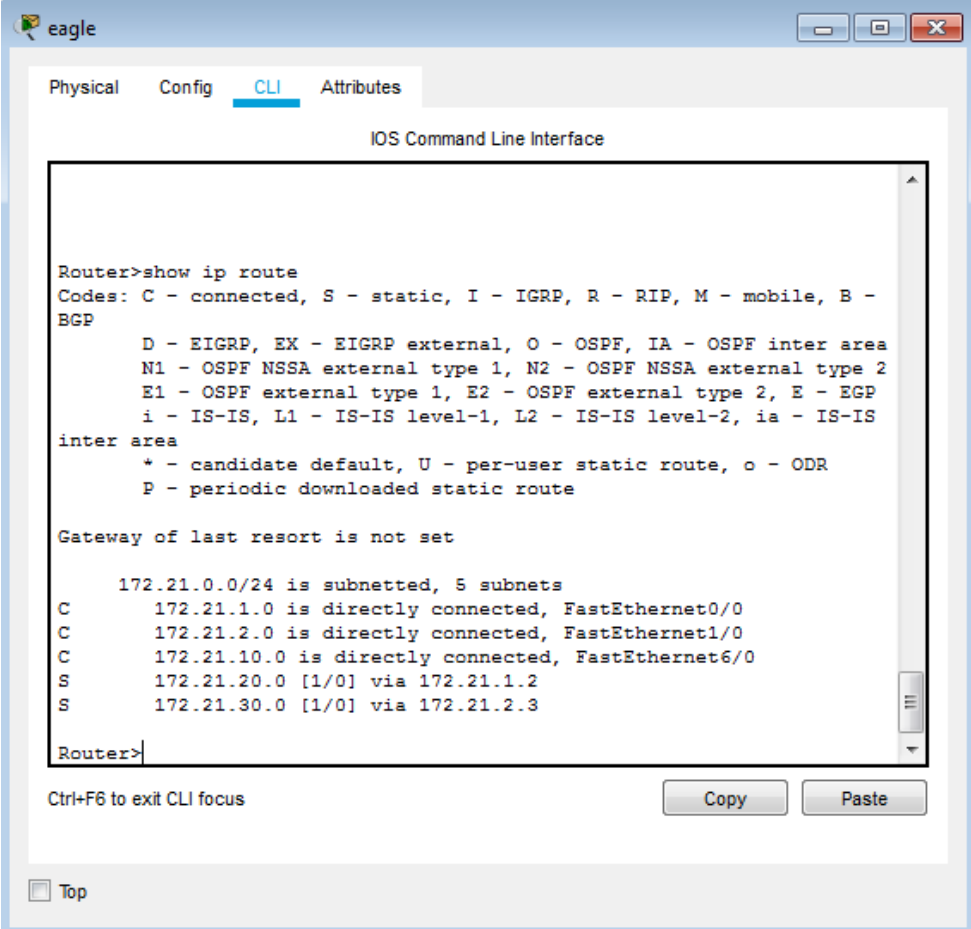
- ping PC Aries ke router puma



- ping PC Virgo ke router tiger



5. Pada mode user atau mode privileged lihat route table pada masing-masing router
- Eagle



```
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, 5 subnets
C       172.21.1.0 is directly connected, FastEthernet0/0
C       172.21.2.0 is directly connected, FastEthernet1/0
C       172.21.10.0 is directly connected, FastEthernet6/0
S       172.21.20.0 [1/0] via 172.21.1.2
S       172.21.30.0 [1/0] via 172.21.2.3

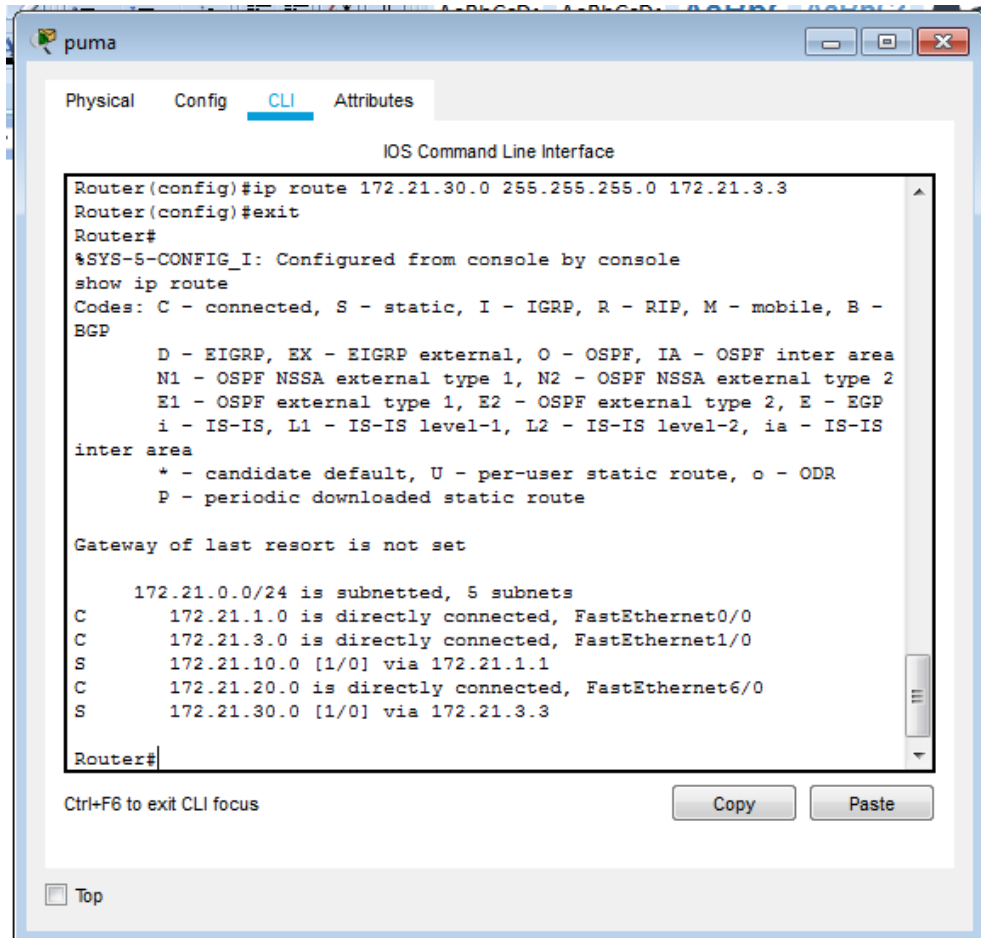
Router>
```

Ctrl+F6 to exit CLI focus

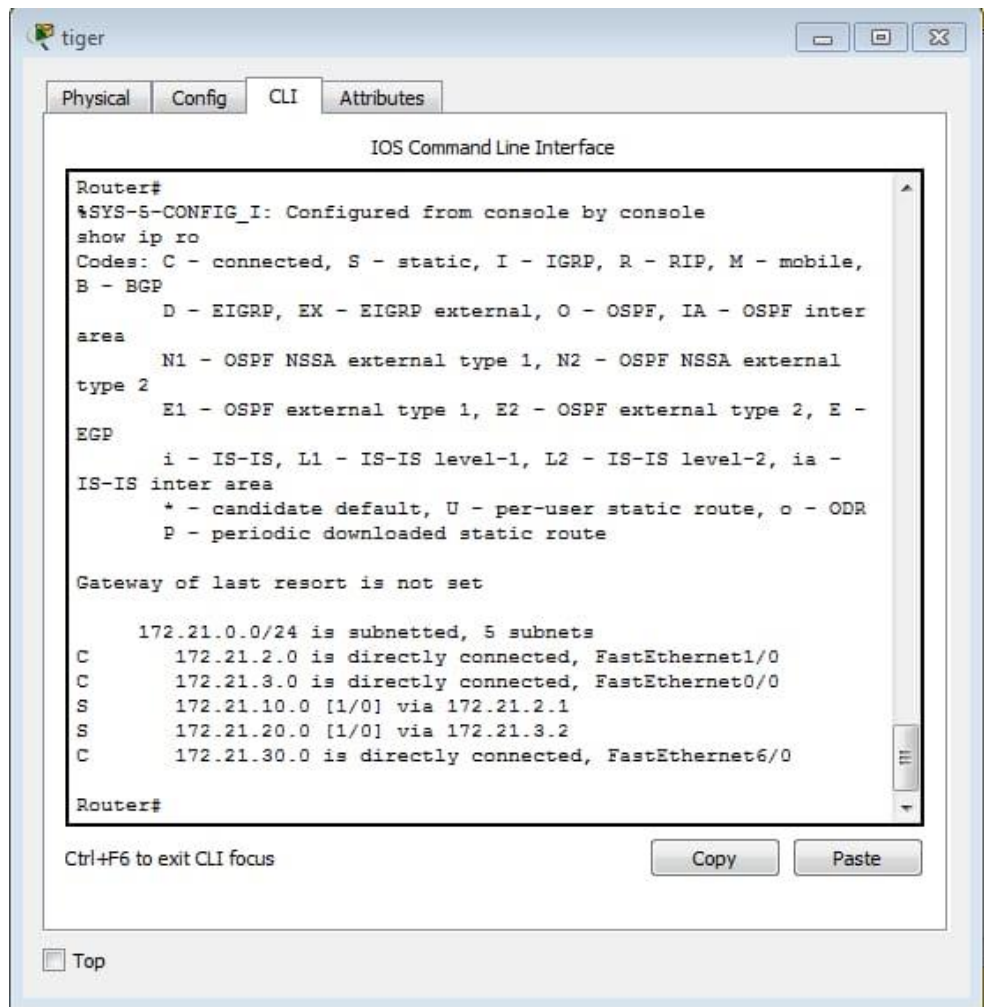
Copy Paste

Top

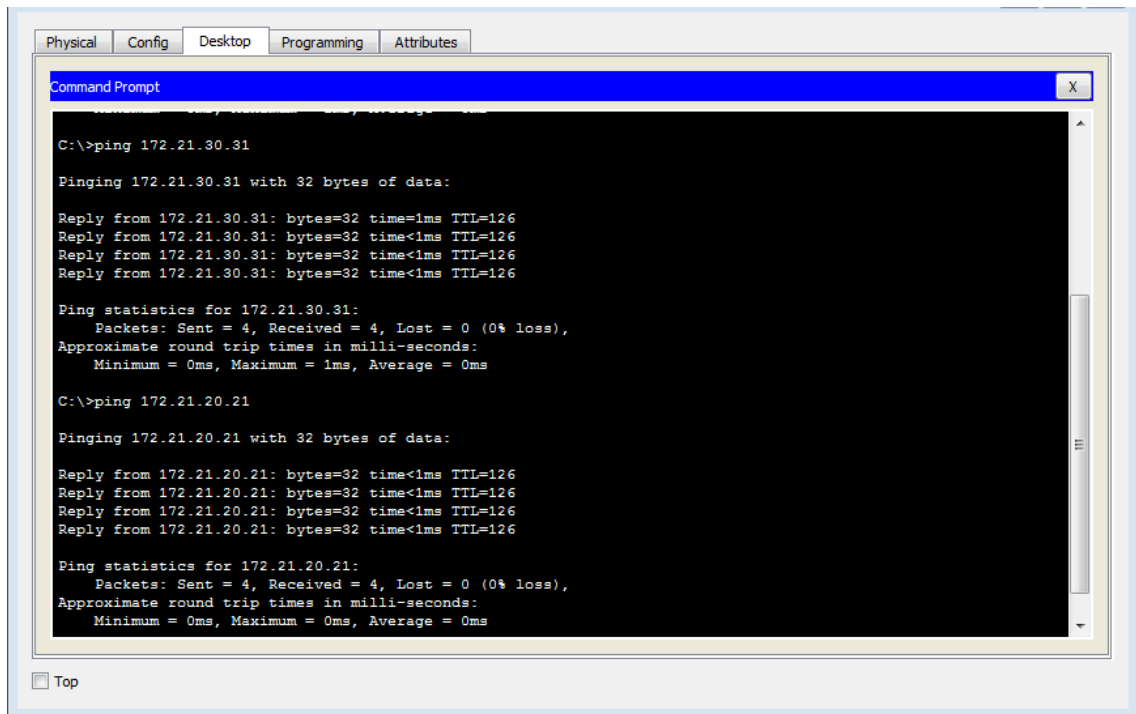
- Puma



- Tiger



6. Ping antara PC leo ke puma dan tiger



The screenshot shows a Command Prompt window with the following text:

```
C:\>ping 172.21.30.31

Pinging 172.21.30.31 with 32 bytes of data:

Reply from 172.21.30.31: bytes=32 time=1ms TTL=126
Reply from 172.21.30.31: bytes=32 time<1ms TTL=126
Reply from 172.21.30.31: bytes=32 time<1ms TTL=126
Reply from 172.21.30.31: bytes=32 time<1ms TTL=126

Ping statistics for 172.21.30.31:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

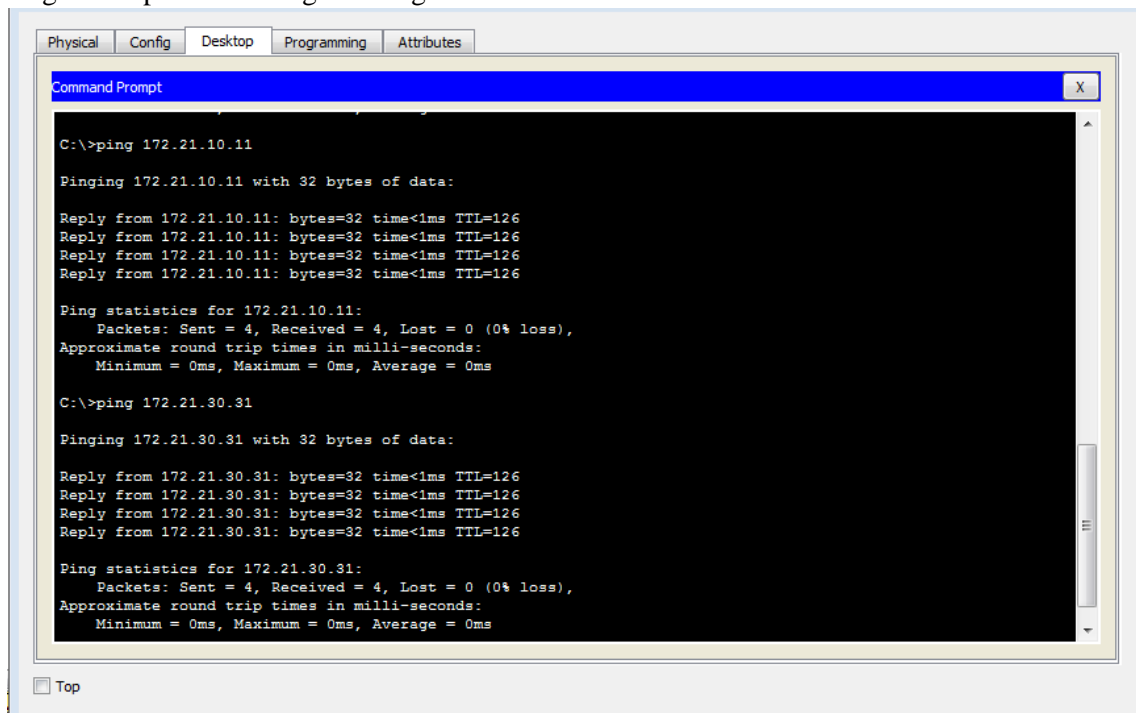
C:\>ping 172.21.20.21

Pinging 172.21.20.21 with 32 bytes of data:

Reply from 172.21.20.21: bytes=32 time<1ms TTL=126
Reply from 172.21.20.21: bytes=32 time<1ms TTL=126
Reply from 172.21.20.21: bytes=32 time<1ms TTL=126
Reply from 172.21.20.21: bytes=32 time<1ms TTL=126

Ping statistics for 172.21.20.21:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Ping antara pc aries ke eagle dan tiger



The screenshot shows a Command Prompt window with the following text:

```
C:\>ping 172.21.10.11

Pinging 172.21.10.11 with 32 bytes of data:

Reply from 172.21.10.11: bytes=32 time<1ms TTL=126
Reply from 172.21.10.11: bytes=32 time<1ms TTL=126
Reply from 172.21.10.11: bytes=32 time<1ms TTL=126
Reply from 172.21.10.11: bytes=32 time<1ms TTL=126

Ping statistics for 172.21.10.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 172.21.30.31

Pinging 172.21.30.31 with 32 bytes of data:

Reply from 172.21.30.31: bytes=32 time<1ms TTL=126
Reply from 172.21.30.31: bytes=32 time<1ms TTL=126
Reply from 172.21.30.31: bytes=32 time<1ms TTL=126
Reply from 172.21.30.31: bytes=32 time<1ms TTL=126

Ping statistics for 172.21.30.31:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Ping antara pc virgo ke eagle dan puma

```
C:\>ping 172.21.10.11

Pinging 172.21.10.11 with 32 bytes of data:

Reply from 172.21.10.11: bytes=32 time=1ms TTL=126
Reply from 172.21.10.11: bytes=32 time<1ms TTL=126
Reply from 172.21.10.11: bytes=32 time=2ms TTL=126
Reply from 172.21.10.11: bytes=32 time<1ms TTL=126

Ping statistics for 172.21.10.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms

C:\>
```

☐ Top

```
C:\>ping 172.21.20.21

Pinging 172.21.20.21 with 32 bytes of data:

Reply from 172.21.20.21: bytes=32 time<1ms TTL=126
Reply from 172.21.20.21: bytes=32 time<1ms TTL=126
Reply from 172.21.20.21: bytes=32 time<1ms TTL=126
Reply from 172.21.20.21: bytes=32 time<1ms TTL=126

Ping statistics for 172.21.20.21:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

☐ Top