

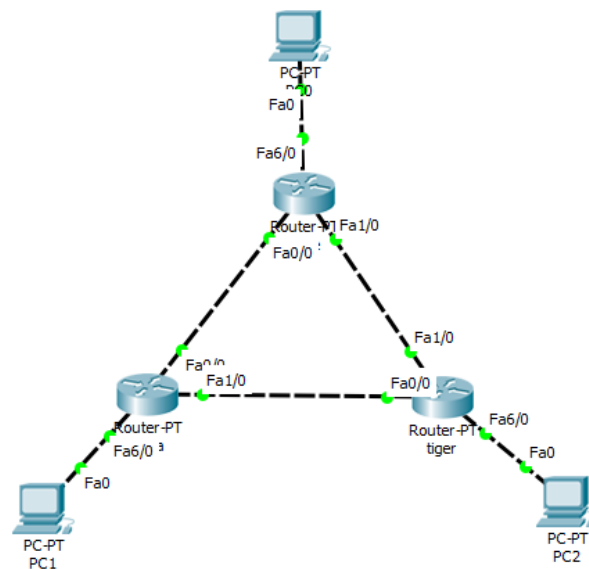
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KELAS : A

MODUL 7

STATIC ROUTE, RIP DAN IGRP

Kegiatan 1. Topologi 1 (Static Routing)

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

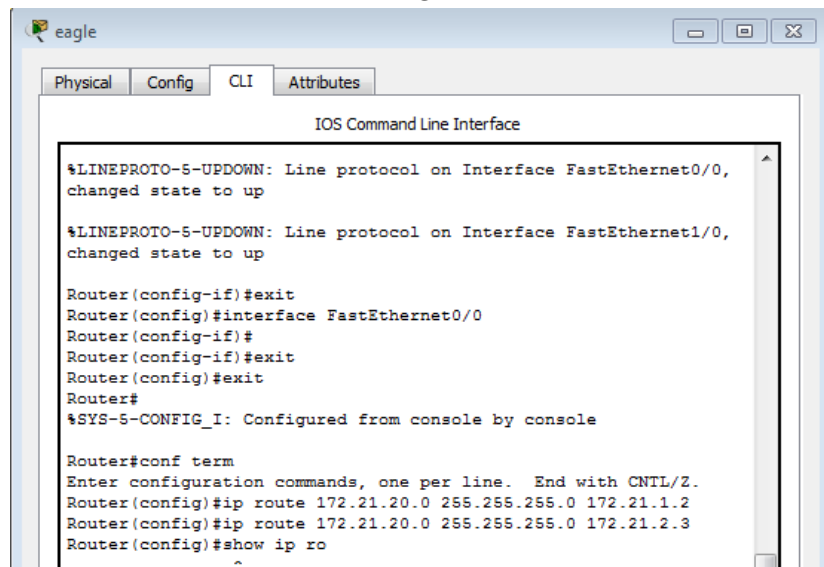


2. Beri nama masing-masing router dengan eagle (router 1), puma (router 2), dan tiger (router 3)
3. Konfigurasi masing-masing interface pada tiap Router dengan alamat IP berikut ini :
 - Eagle (ethernet 0) = 172.21.10.10/24
 - Eagle (serial 0) = 172.21.1.1/24
 - Eagle (serial 1) = 172.21.2.1/24
 - Puma (ethernet 0) = 172.21.20.20/24
 - Puma (serial 0) = 172.21.1.2/24
 - Tiger (serial 1) = 172.21.3.3/24
 - Tiger (serial 1) = 172.21.3.3/24
4. Pada mode user atau ode privileged, tambahkan route table pada masing-masing router untuk setiap alamat jaringan yang tidak terhubung secara langsung dengan interface router.

Langkah pengoperasian (hanya untuk router eagle), konfigurasi router lain menggunakan langkah yang sama dengan alamat jaringan yang berbeda)

- Masuk mode configuration
- Ketik ***ip route 172.21.20.0 255.255.255.0 172.21.1.2***
- Ketik ***ip route 172.21.30.0 255.255.255.0 172.21.2.3***

EAGLE



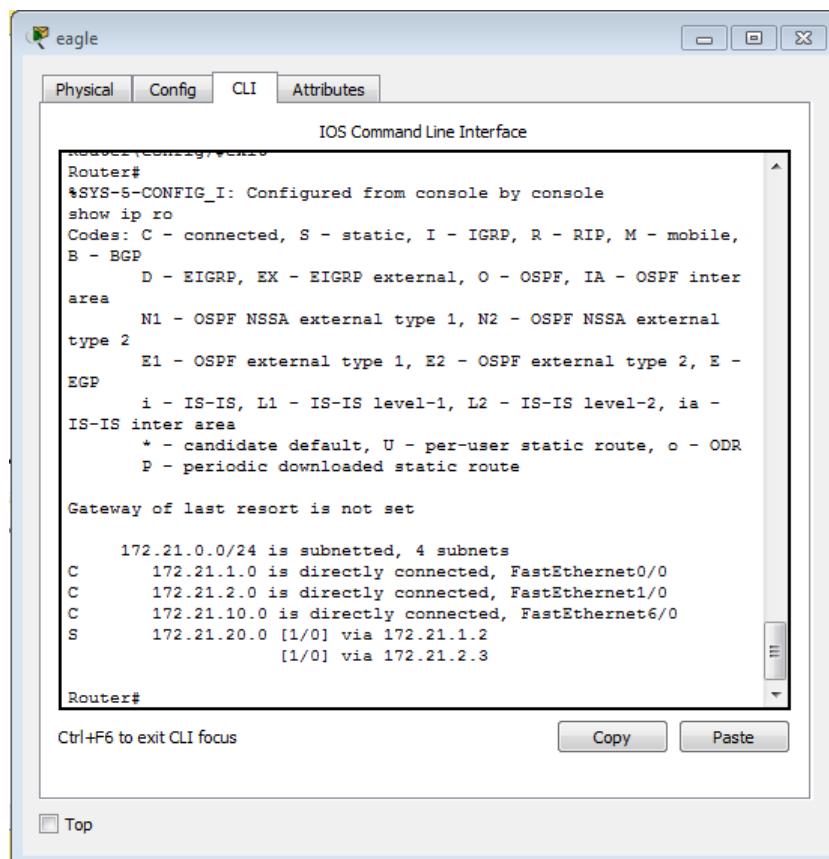
The screenshot shows the EAGLE software window with the 'CLI' tab selected. The 'IOS Command Line Interface' window displays the following text:

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

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0,
changed state to up

Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#conf term
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 172.21.20.0 255.255.255.0 172.21.2.3
Router(config)#show ip ro
^
```



The screenshot shows the EAGLE software window with the 'CLI' tab selected. The 'IOS Command Line Interface' window displays the output of the 'show ip route' command:

```
Router#
%SYS-5-CONFIG_I: Configured from console by console
show ip ro
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

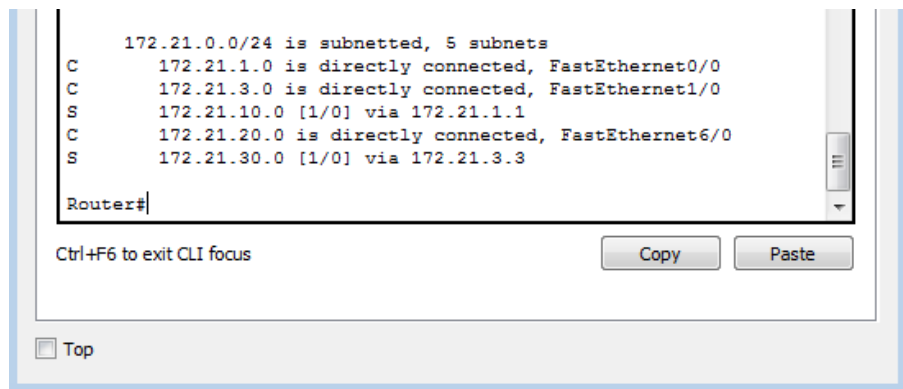
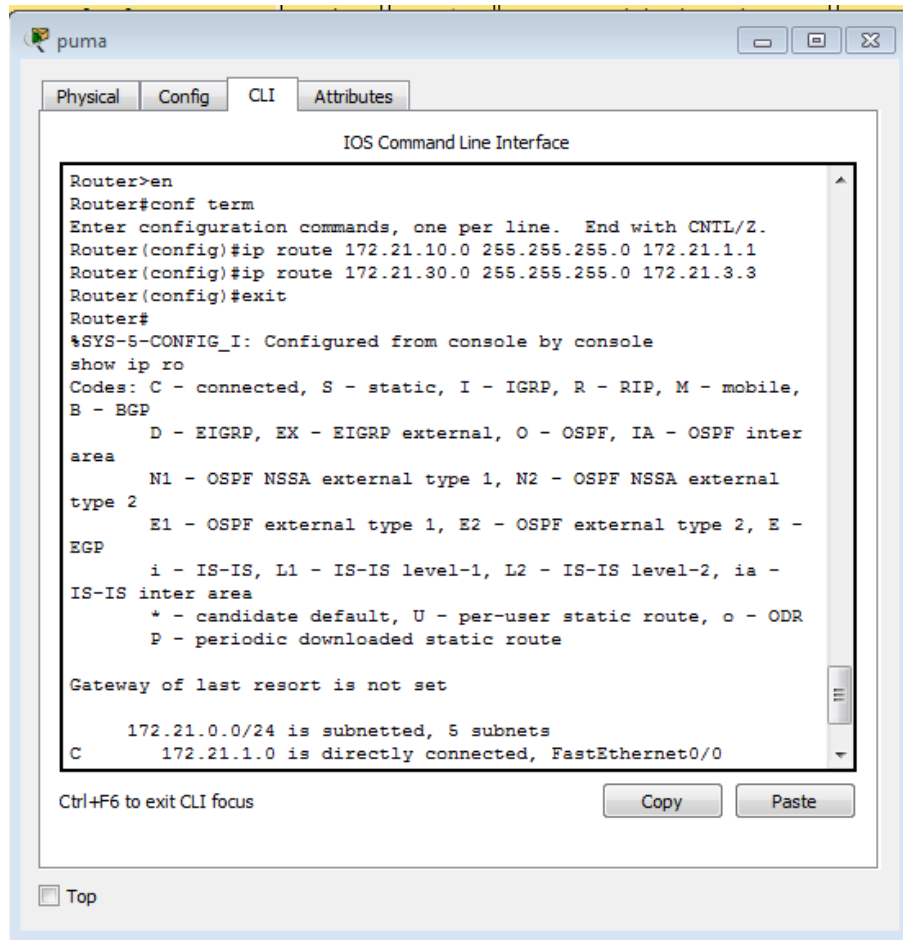
Gateway of last resort is not set

      172.21.0.0/24 is subnetted, 4 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
                [1/0] via 172.21.2.3

Router#
```

Below the CLI window, there are buttons for 'Copy' and 'Paste', and a 'Top' button at the bottom left.

PUMA



TIGER

```
Router>en
Router#conf term
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)#show ip ro
      ^
% Invalid input detected at '^' marker.

Router(config)#exit
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

tiger

Physical Config CLI Attributes

IOS Command Line Interface

```
Router#
%SYS-5-CONFIG_I: Configured from console by console
show ip ro
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    172.21.2.0 is directly connected, FastEthernet1/0
C    172.21.3.0 is directly connected, FastEthernet0/0
S    172.21.10.0 [1/0] via 172.21.2.1
S    172.21.20.0 [1/0] via 172.21.3.2
C    172.21.30.0 is directly connected, FastEthernet6/0

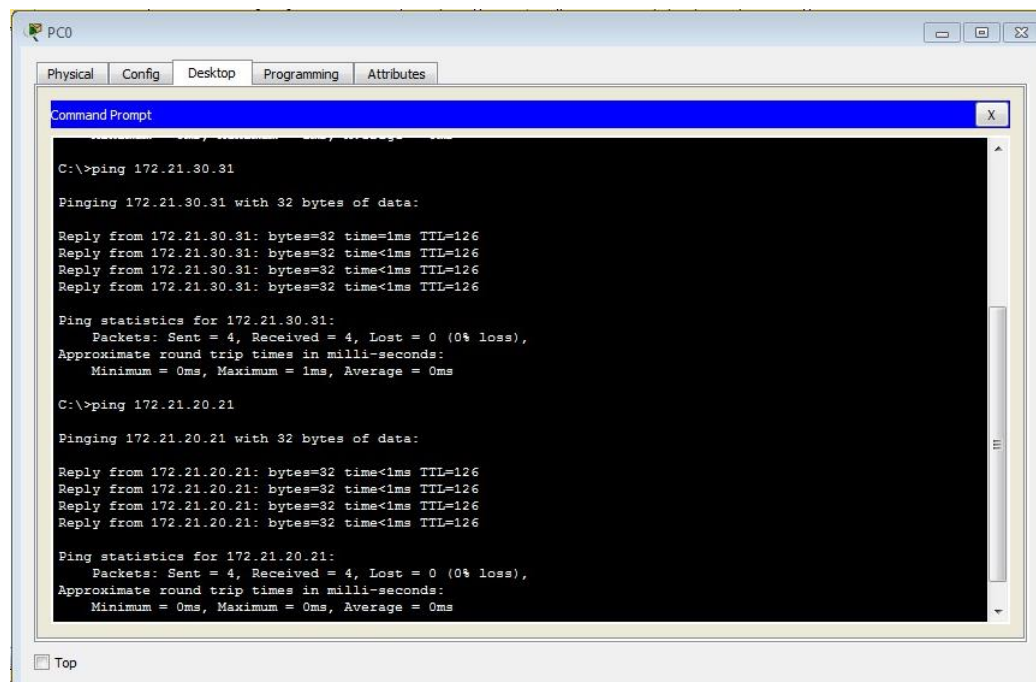
Router#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

5. Hasil Ping dari PC Aries ke router eagle dan PC Virgo ke router eagle



The screenshot shows a Packet Tracer PC window for PC0. The 'Command Prompt' tab is active, displaying the results of two ping commands. The first command is 'ping 172.21.30.31', which shows four successful replies with 32 bytes of data, a time of 1ms, and a TTL of 126. The statistics indicate 4 packets sent, 4 received, and 0% loss. The second command is 'ping 172.21.20.21', which also shows four successful replies with 32 bytes of data, a time of 1ms, and a TTL of 126. The statistics indicate 4 packets sent, 4 received, and 0% loss.

```
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

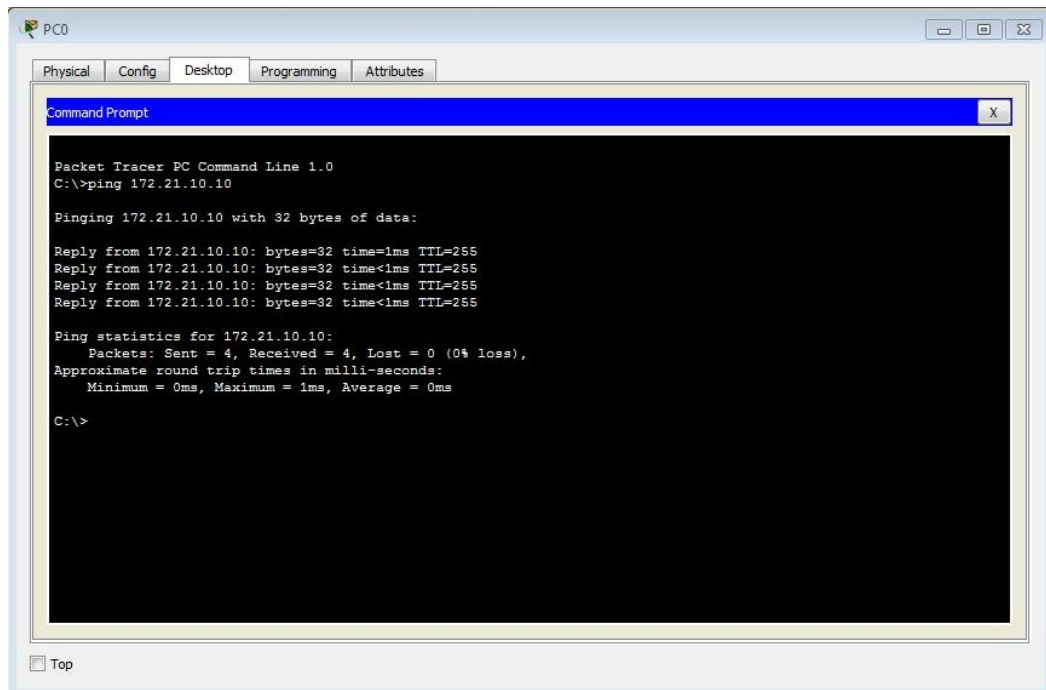
Ping statistics for 172.21.30.31:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

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
```



The screenshot shows a Packet Tracer PC window for PC0. The 'Command Prompt' tab is active, displaying the results of a ping command to 172.21.10.10. The output shows four successful replies with 32 bytes of data, a time of 1ms, and a TTL of 255. The statistics indicate 4 packets sent, 4 received, and 0% loss.

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.10.10

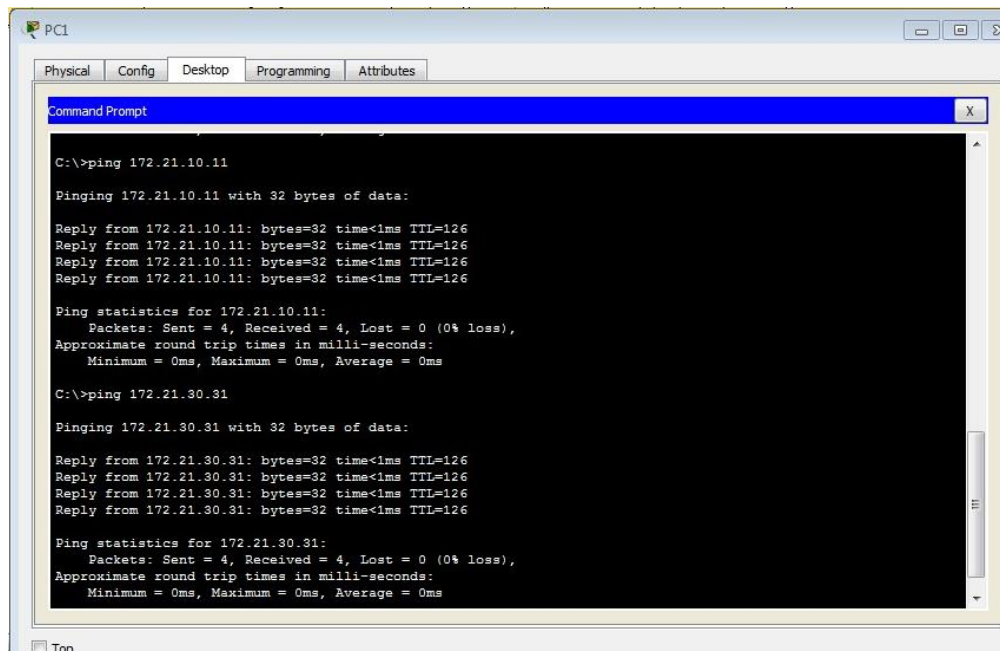
Pinging 172.21.10.10 with 32 bytes of data:

Reply from 172.21.10.10: bytes=32 time=1ms TTL=255
Reply from 172.21.10.10: bytes=32 time<1ms TTL=255
Reply from 172.21.10.10: bytes=32 time<1ms TTL=255
Reply from 172.21.10.10: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.10.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

Hasil ping dari PC virgo ke router Puma



PC1

Physical Config Desktop Programming Attributes

Command Prompt

```
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

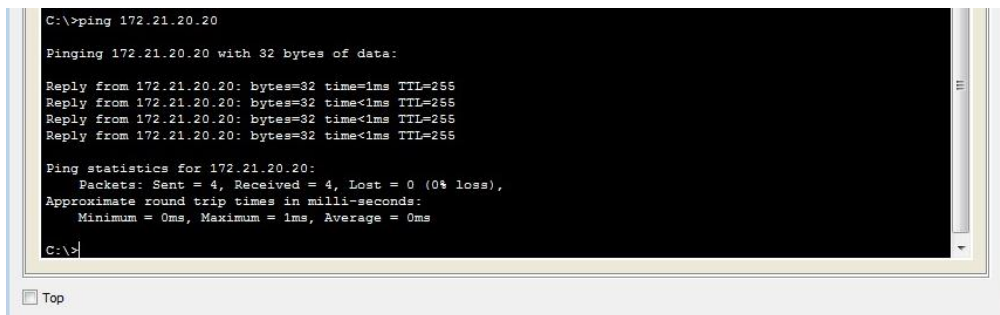
C:\>ping 172.21.30.31

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
```

Top



```
C:\>ping 172.21.20.20

Pinging 172.21.20.20 with 32 bytes of data:

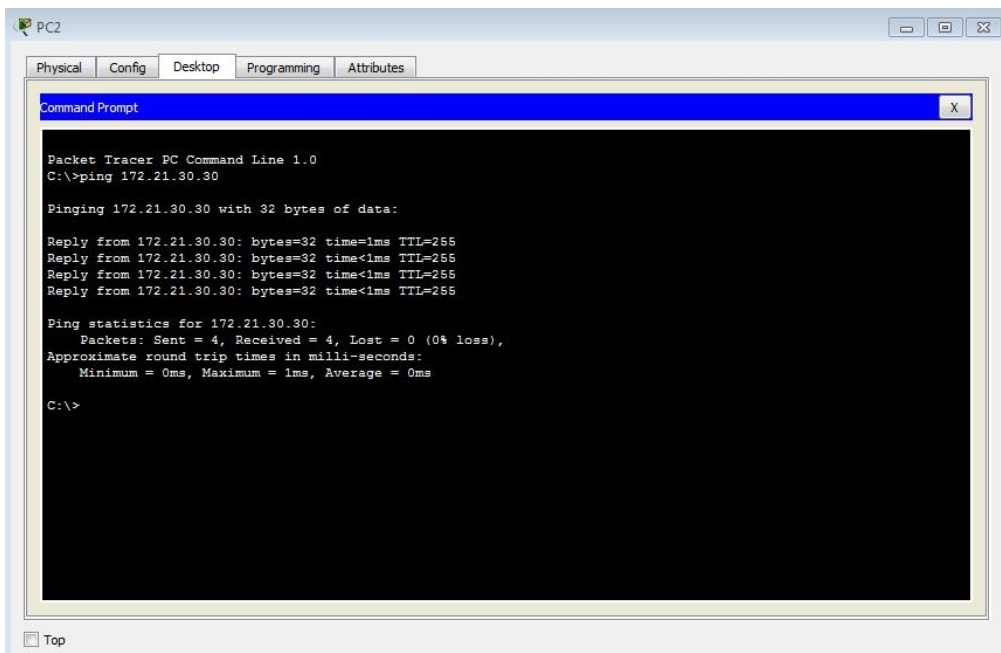
Reply from 172.21.20.20: bytes=32 time=1ms TTL=255
Reply from 172.21.20.20: bytes=32 time<1ms TTL=255
Reply from 172.21.20.20: bytes=32 time<1ms TTL=255
Reply from 172.21.20.20: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.20.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

Top

Hasil ping dari PC leo ke router Tiger dan PC Aries ke router Tiger



PC2

Physical Config Desktop Programming Attributes

Packet Tracer PC Command Line 1.0

Command Prompt

```
C:\>ping 172.21.30.30

Pinging 172.21.30.30 with 32 bytes of data:

Reply from 172.21.30.30: bytes=32 time=1ms TTL=255
Reply from 172.21.30.30: bytes=32 time<1ms TTL=255
Reply from 172.21.30.30: bytes=32 time<1ms TTL=255
Reply from 172.21.30.30: bytes=32 time<1ms TTL=255

Ping statistics for 172.21.30.30:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

Top

