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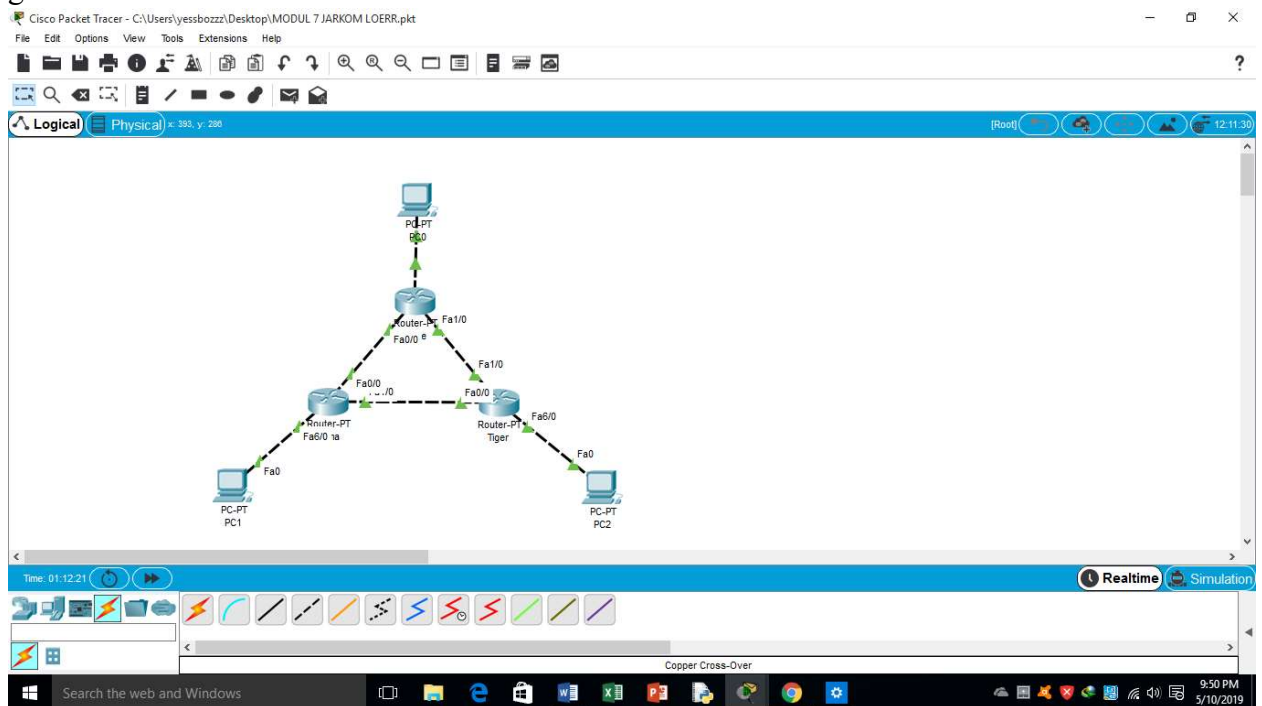
MODUL 7

STATIC ROUTE, RIP DAN IGRP

Kegiatan Praktikum

Kegiatan 1. Topologi 1 (Static Routing)

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



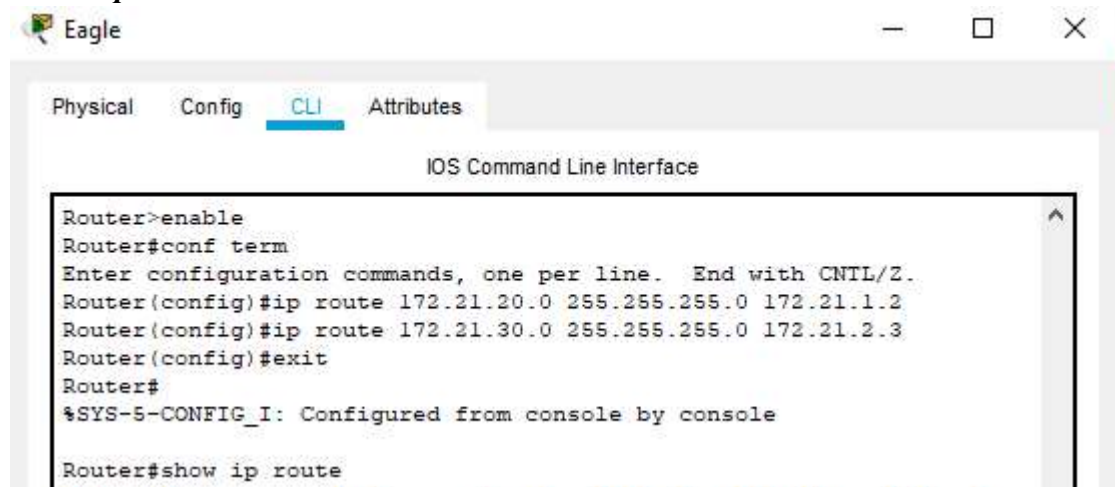
2. Beri nama masing-masing router dengan eagle (router 1), puma (router 2), dan tiger (router 3).
3. Konfigurasi masing-masing interface pada tiap Router dengan alamat IP berikut ini :
 - Eagle (ethernet 0) = 172.21.10.10/24
 - Eagle (serial 0) = 172.21.1.1/24
 - Eagle (serial 1) = 172.21.2.1/24
 - Puma (ethernet 0) = 172.21.20.20/24
 - Puma (serial 0) = 172.21.1.2/24
 - Puma (serial 1) = 172.21.3.2/24
 - Tiger (ethernet 0) = 172.21.30.30/24

- Tiger (serial 0) = 172.21.2.3/24
- 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.

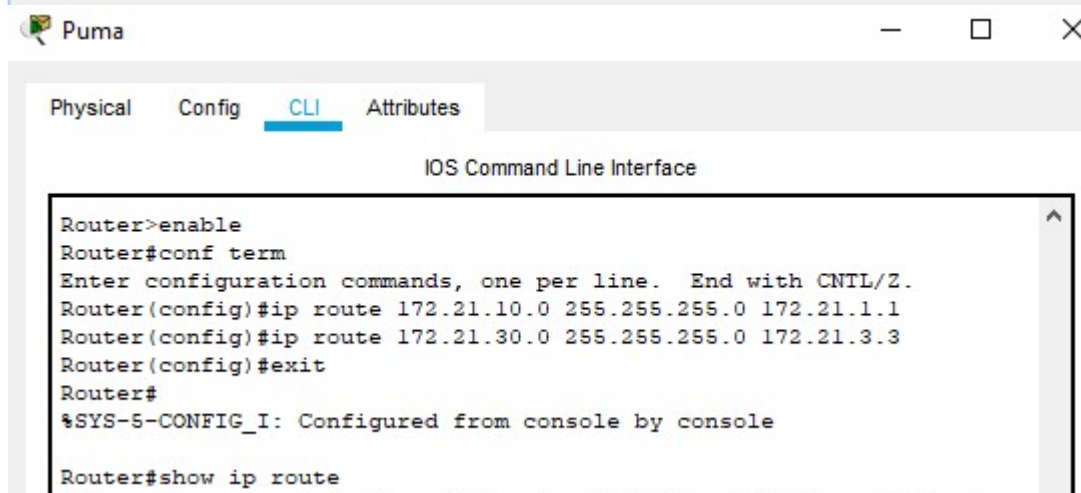
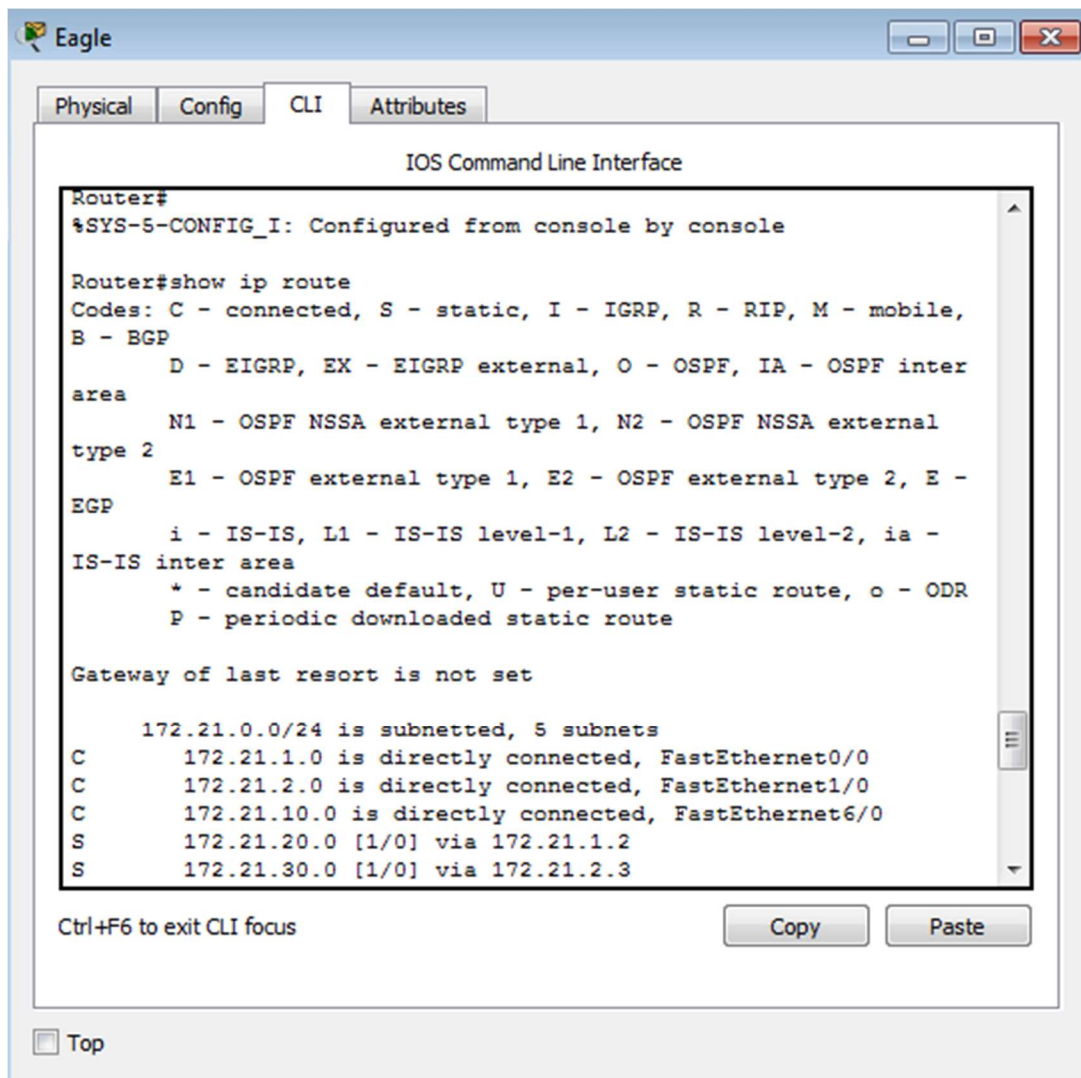
Langkah pengoperasian (hanya untuk router eagle), konfigurasi router lain menggunakan langkah yang sama dengan alamat jaringan yang berbeda)

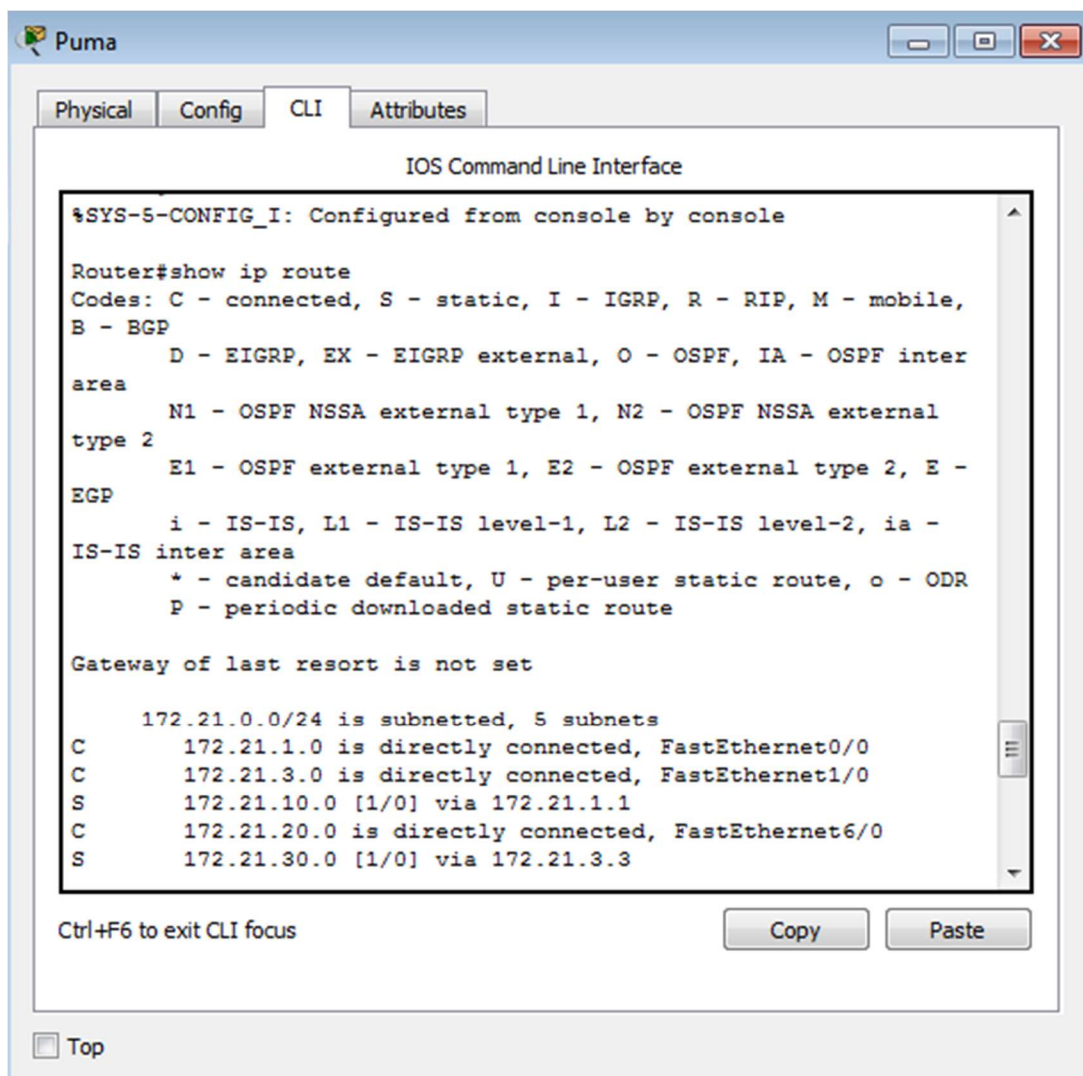
- Masuk mode configuration
- Ketik ***ip route 172.21.20.0 255.255.255.0 172.21.1.2***
- Ketik ***ip route 172.21.30.0 255.255.255.0 172.21.2.3***



```
Router>enable
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 172.21.30.0 255.255.255.0 172.21.2.3
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#show ip route
```





Physical Config **CLI** Attributes

IOS Command Line Interface

```
Router>enable
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)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#show ip route
```

Physical Config **CLI** Attributes

IOS Command Line Interface

```
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

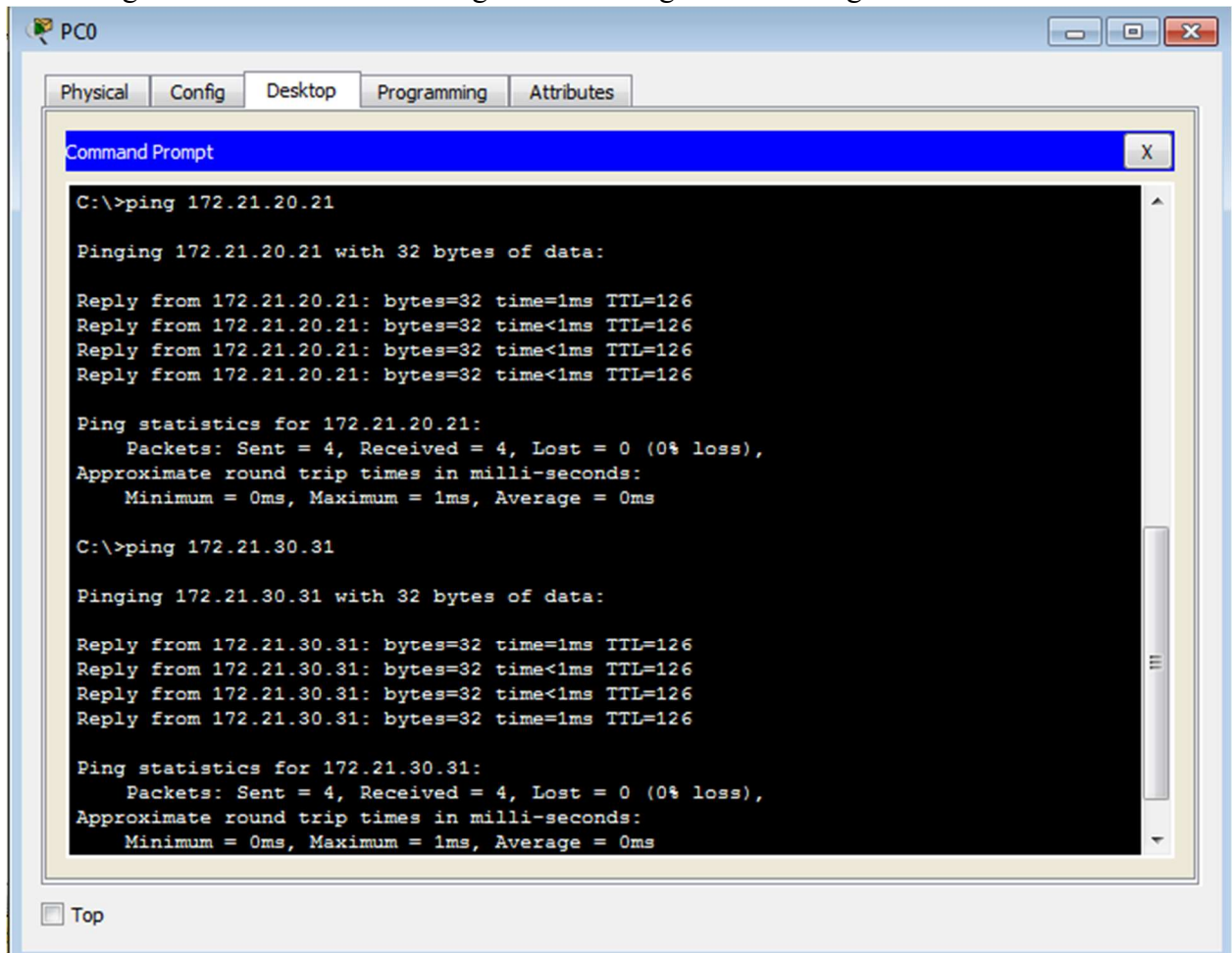
    172.21.0.0/24 is subnetted, 5 subnets
C      172.21.2.0 is directly connected, FastEthernet1/0
C      172.21.3.0 is directly connected, FastEthernet0/0
S      172.21.10.0 [1/0] via 172.21.2.1
S      172.21.20.0 [1/0] via 172.21.2.1
               [1/0] via 172.21.3.2
C      172.21.30.0 is directly connected, FastEthernet6/0
```

Ctrl+F6 to exit CLI focus

Copy

Paste

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



The screenshot shows a Windows-style window titled "PC0" with tabs for "Physical", "Config", "Desktop", "Programming", and "Attributes". The "Desktop" tab is active, displaying a "Command Prompt" window. The command prompt shows the execution of two ping commands. The first command is "C:\>ping 172.21.20.21", which results in four successful replies from 172.21.20.21 with 32 bytes of data, each taking 1ms and having a TTL of 126. The ping statistics for 172.21.20.21 show 4 packets sent, 4 received, 0 lost (0% loss), and approximate round trip times of 0ms minimum, 1ms maximum, and 0ms average. The second command is "C:\>ping 172.21.30.31", which also results in four successful replies from 172.21.30.31 with 32 bytes of data, each taking 1ms and having a TTL of 126. The ping statistics for 172.21.30.31 show 4 packets sent, 4 received, 0 lost (0% loss), and approximate round trip times of 0ms minimum, 1ms maximum, and 0ms average.

```
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 = 1ms, Average = 0ms

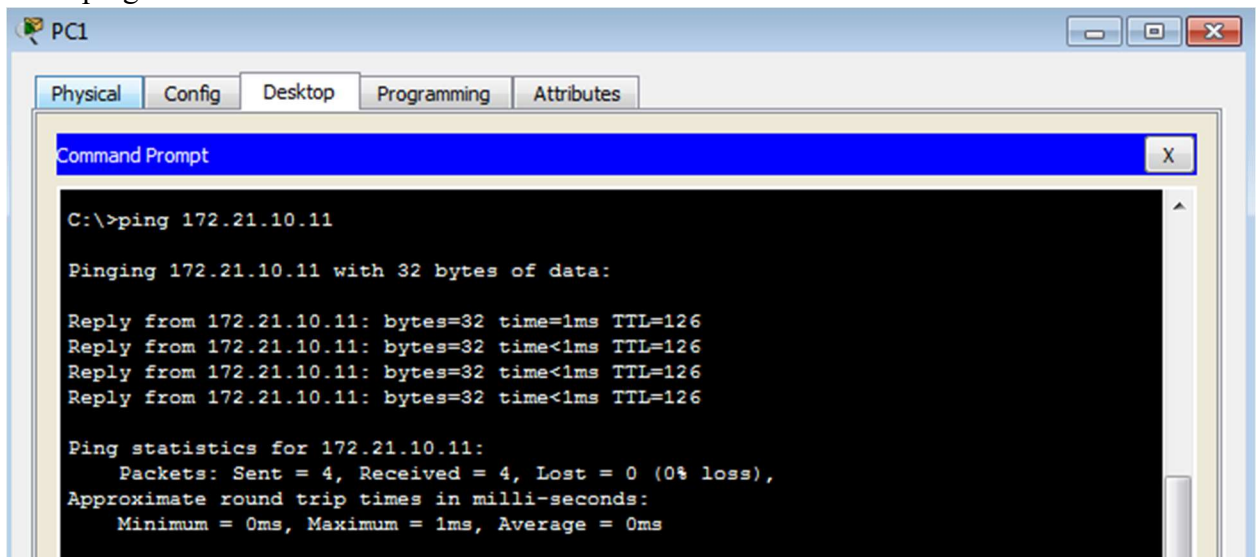
C:\>ping 172.21.30.31

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 = 1ms, Average = 0ms
```

Hasil ping dari PC leo ke router Puma.



The screenshot shows a Windows-style window titled "PC1" with tabs for "Physical", "Config", "Desktop", "Programming", and "Attributes". The "Desktop" tab is active, displaying a "Command Prompt" window. The command prompt shows the execution of a ping command: "C:\>ping 172.21.10.11". This results in four successful replies from 172.21.10.11 with 32 bytes of data, each taking 1ms and having a TTL of 126. The ping statistics for 172.21.10.11 show 4 packets sent, 4 received, 0 lost (0% loss), and approximate round trip times of 0ms minimum, 1ms maximum, and 0ms average.

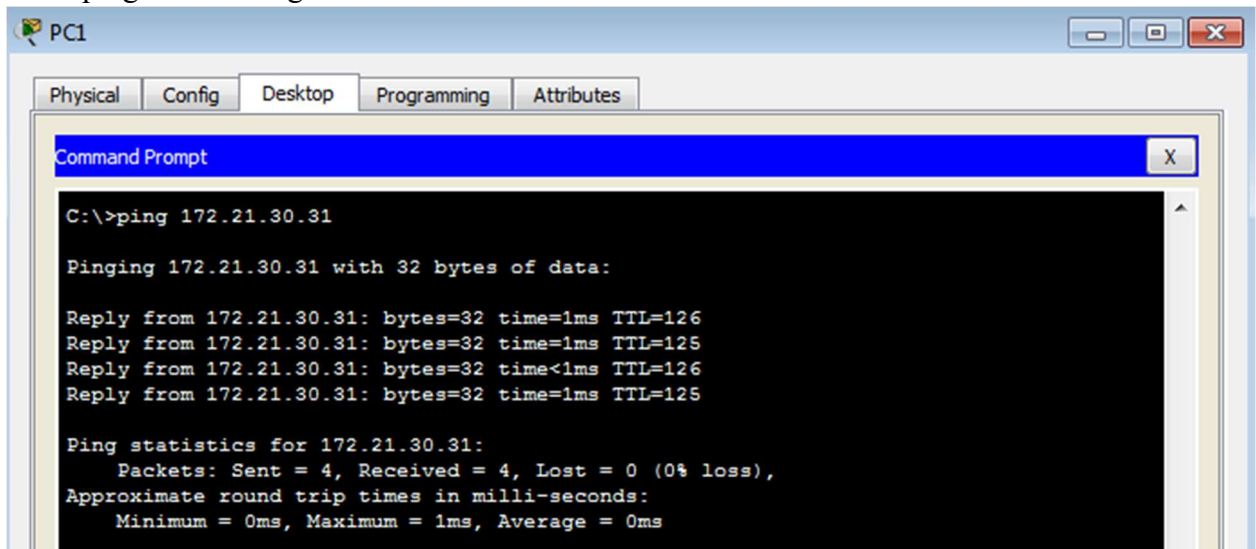
```
C:\>ping 172.21.10.11

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 = 1ms, Average = 0ms
```


Hasil ping dari PC virgo ke router Puma.



The screenshot shows a window titled 'PC1' with tabs for Physical, Config, Desktop, Programming, and Attributes. The 'Desktop' tab is active, displaying a 'Command Prompt' window. The command prompt shows the execution of the command 'C:\>ping 172.21.30.31'. The output indicates that four ping attempts were successful, each with a 32-byte reply from 172.21.30.31, a time of 1ms, and a TTL of 126. The ping statistics show 4 packets sent, 4 received, and 0% loss, with round trip times of 0ms, 1ms, and 0ms average.

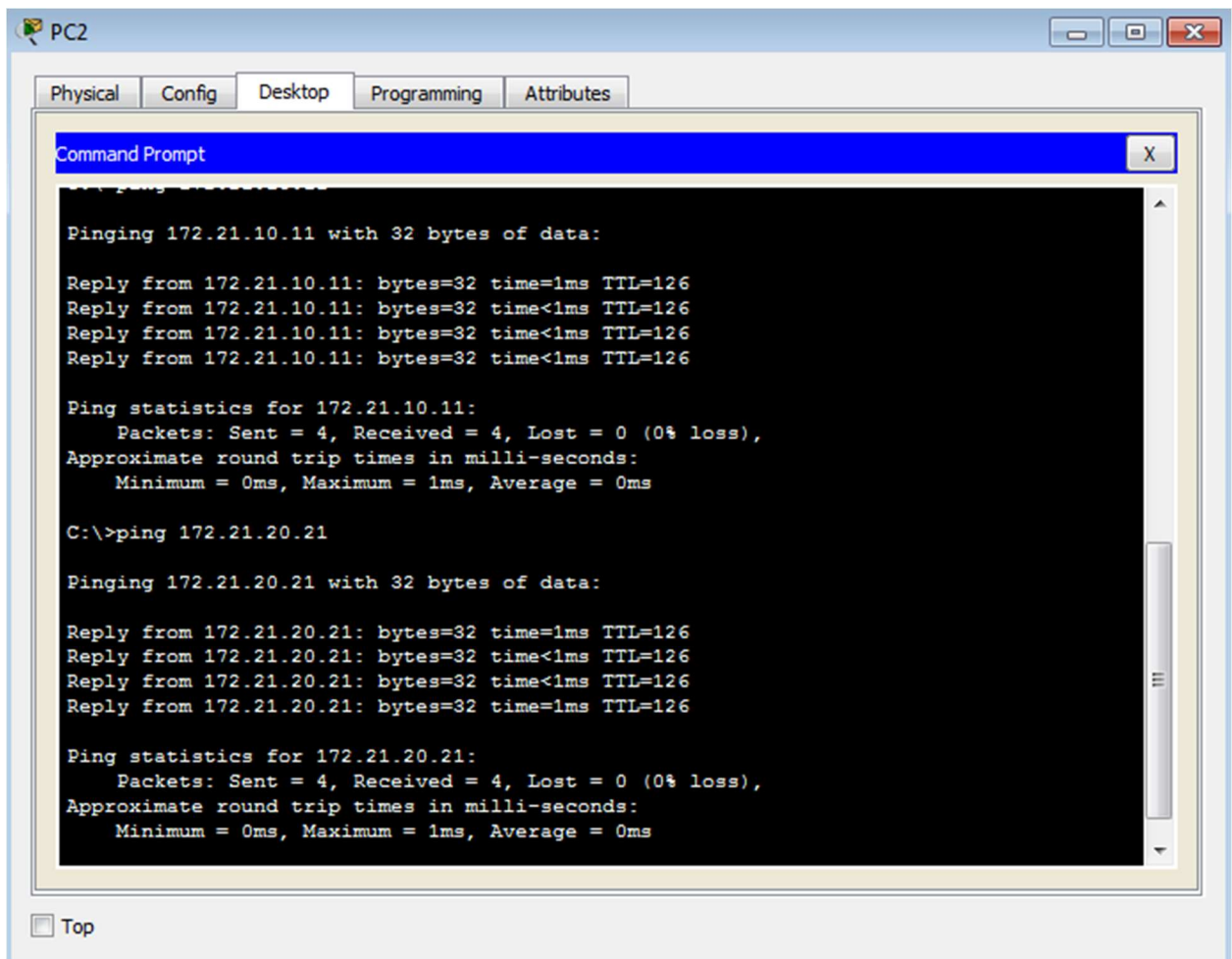
```
C:\>ping 172.21.30.31

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
```

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



The screenshot shows a window titled 'PC2' with tabs for Physical, Config, Desktop, Programming, and Attributes. The 'Desktop' tab is active, displaying a 'Command Prompt' window. The command prompt shows the execution of two ping commands: 'C:\>ping 172.21.10.11' and 'C:\>ping 172.21.20.21'. Both commands resulted in four successful ping attempts, each with a 32-byte reply, a time of 1ms, and a TTL of 126. The ping statistics for both destinations show 4 packets sent, 4 received, and 0% loss, with round trip times of 0ms, 1ms, and 0ms average.

```
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 = 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 = 1ms, Average = 0ms
```