

LAPORAN PRAKTIKUM JARINGAN KOMPUTER

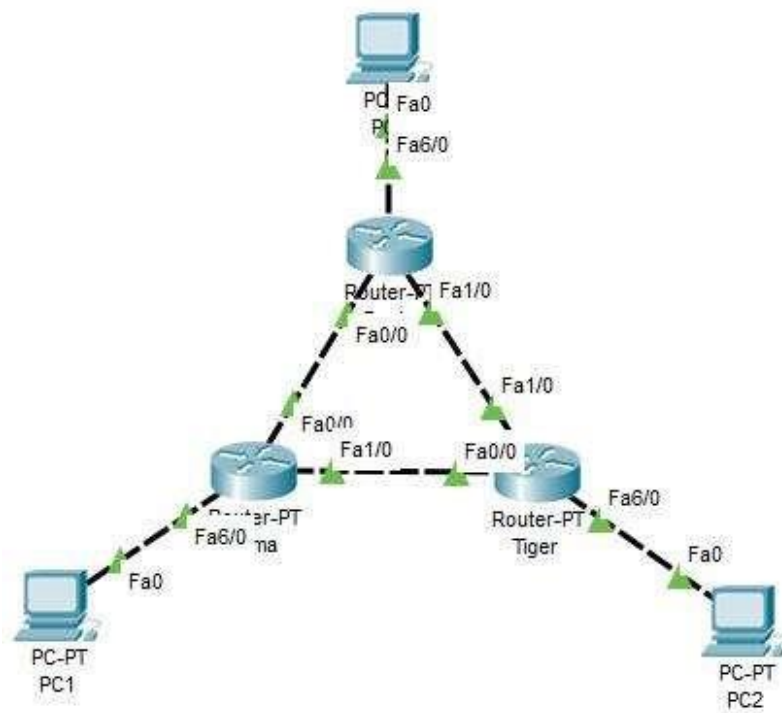
MODUL 7 : Static Route, RIP dan IGRP

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KELAS A

Kegiatan Praktikum

Kegiatan 1. Topologi 1 (Static Routing)

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

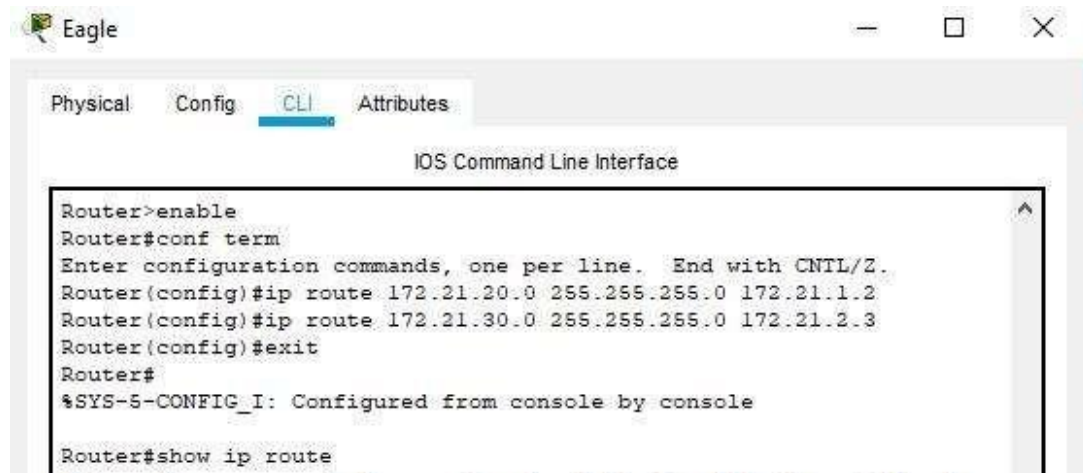


2. Beri nama masing-masing router dengan eagle (router 1), puma (router 2), dan tiger (router 3).
3. Konfigurasi masing-masing interface pada tiap Router dengan alamat IP berikut ini :
 - Eagle (ethernet 0) = 172.21.10.10/24
 - Eagle (serial 0) = 172.21.1.1/24
 - Eagle (serial 1) = 172.21.2.1/24
 - Puma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

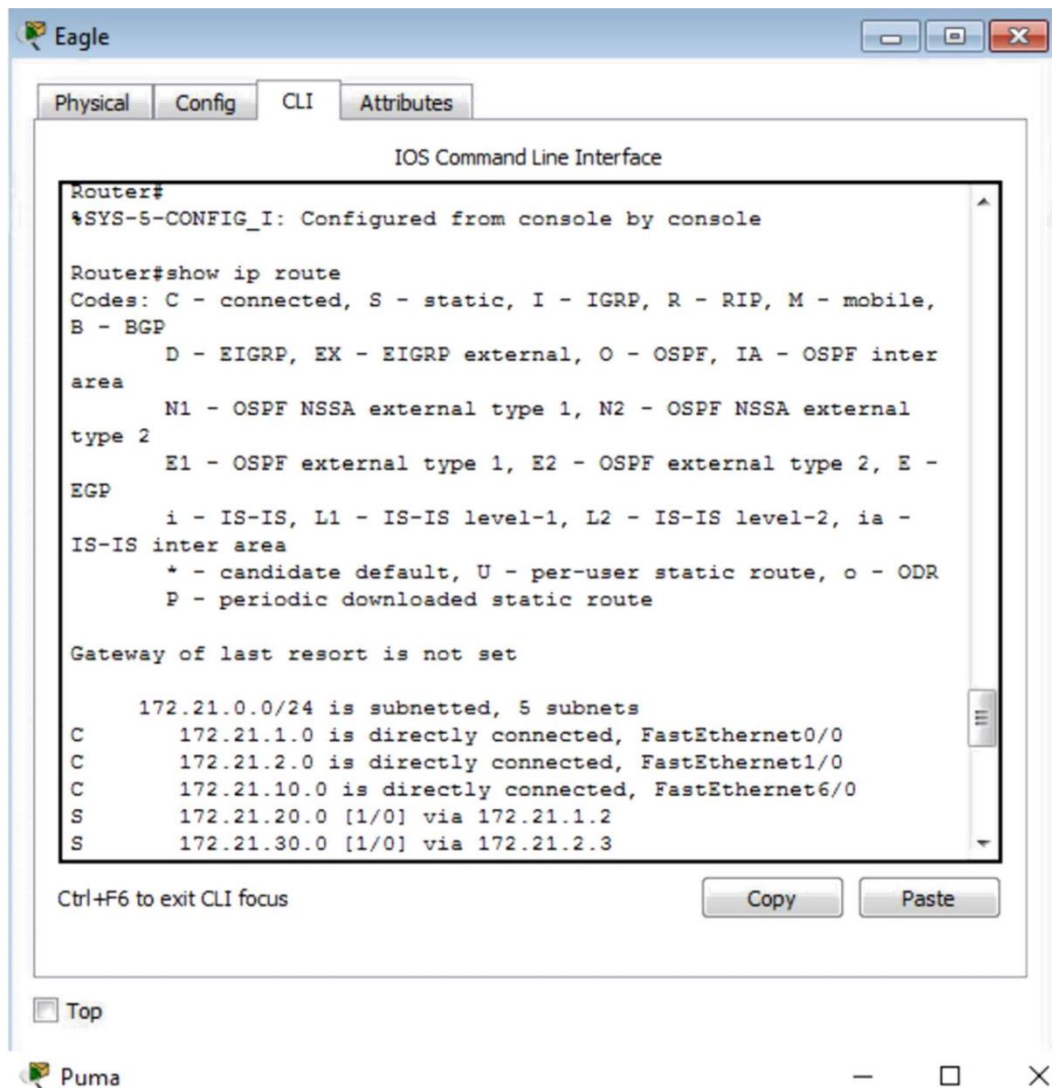
Langkah pengoperasian (hanya untuk router eagle), konfigurasi router lain menggunakan langkah yang sama dengan alamat jaringan yang berbeda)

- 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***



The screenshot shows the Eagle simulator window with the 'CLI' tab selected. The title bar reads 'Eagle'. Inside the window, there are tabs for 'Physical', 'Config', 'CLI', and 'Attributes'. The 'CLI' tab is active, displaying the 'IOS Command Line Interface'. The terminal shows the following commands and output:

```
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
```

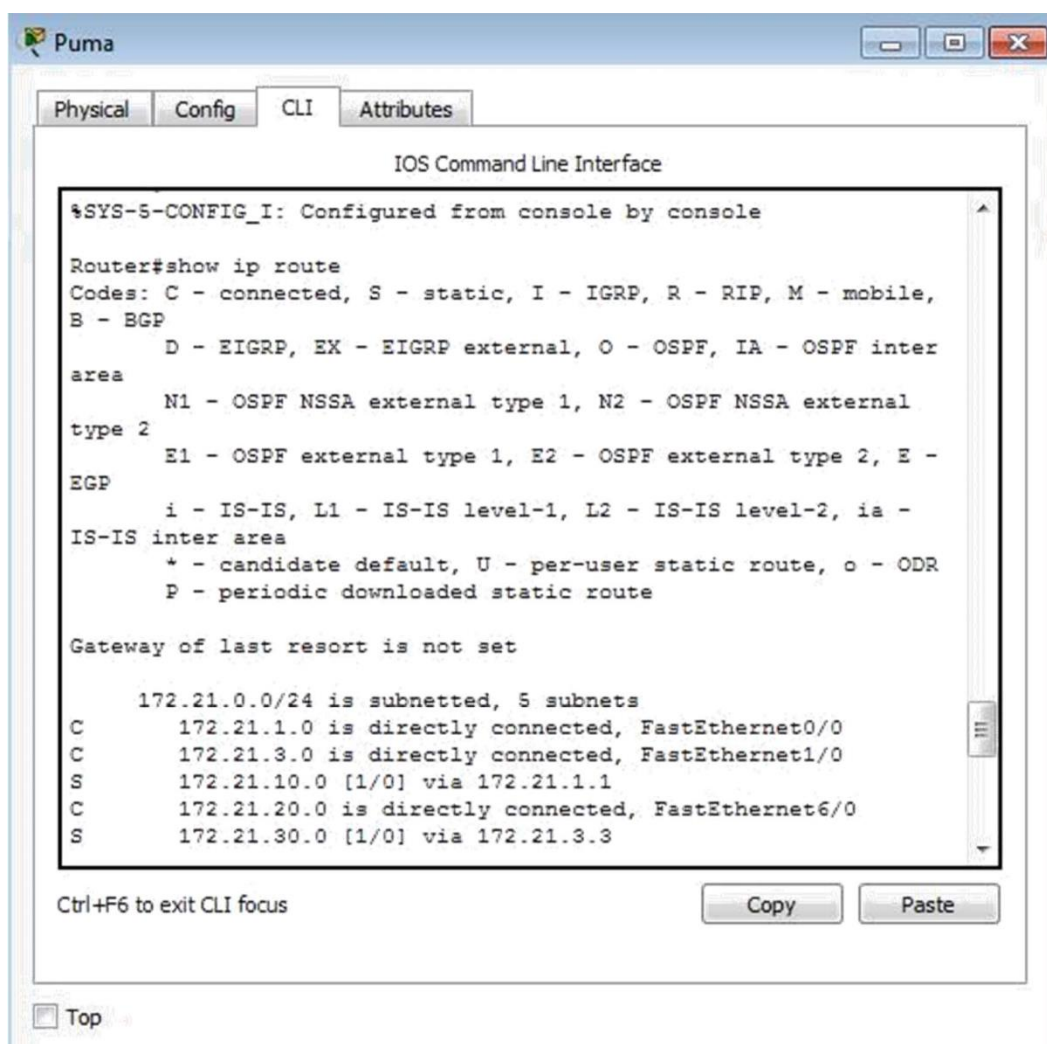


Physical Config CLI Attributes

IOS Command Line Interface

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#ip route 172.21.10.0 255.255.255.0 172.21.1.1
Router(config)#ip route 172.21.30.0 255.255.255.0 172.21.3.3
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#show ip route
```



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
```

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

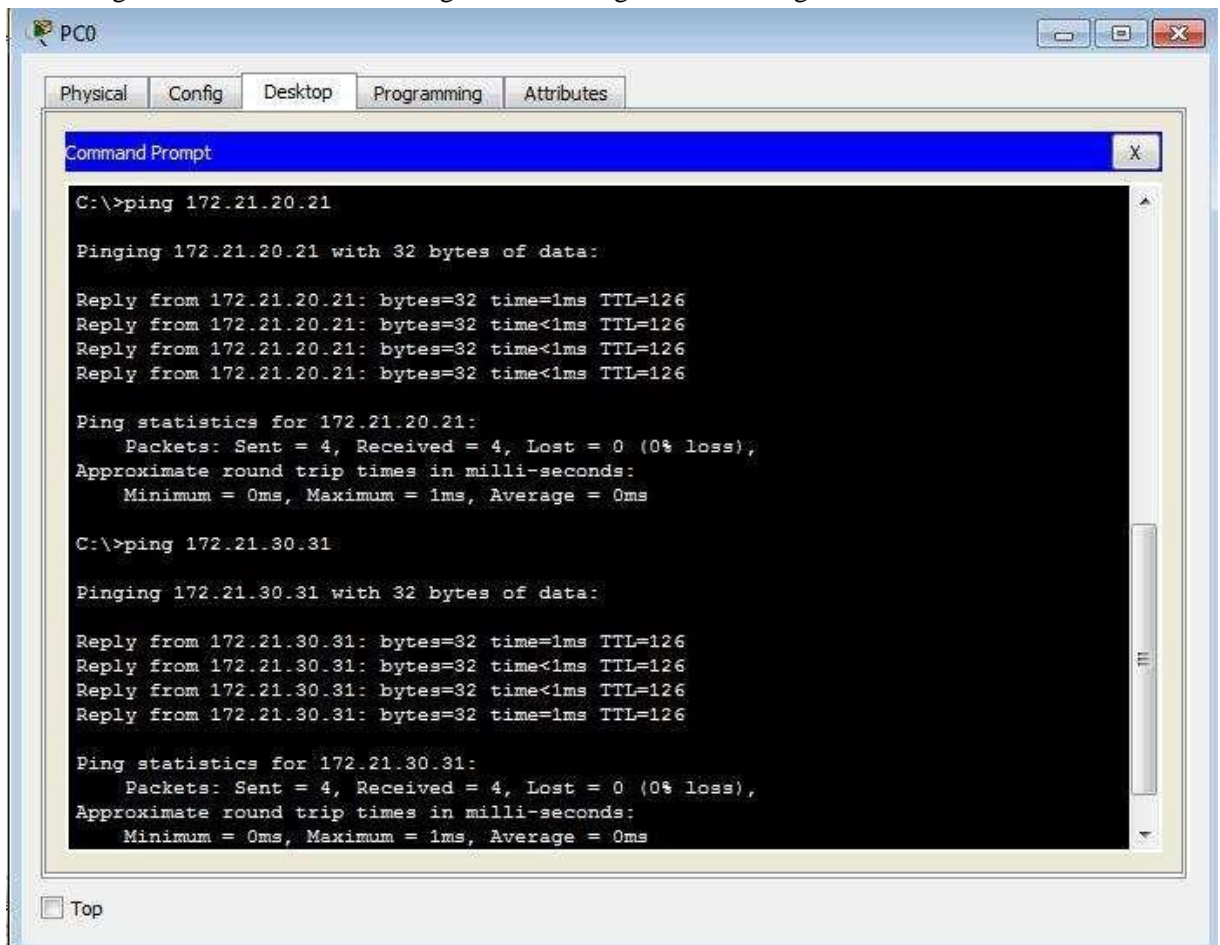
172.21.0.0/24 is subnetted, 5 subnets
C      172.21.2.0 is directly connected, FastEthernet1/0
C      172.21.3.0 is directly connected, FastEthernet0/0
S      172.21.10.0 [1/0] via 172.21.2.1
S      172.21.20.0 [1/0] via 172.21.2.1
               [1/0] via 172.21.3.2
C      172.21.30.0 is directly connected, 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 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 less than 1ms and having a TTL of 126. The statistics show 4 packets sent, 4 received, and 0% loss. 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 less than 1ms and having a TTL of 126. The statistics show 4 packets sent, 4 received, and 0% loss.

```
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

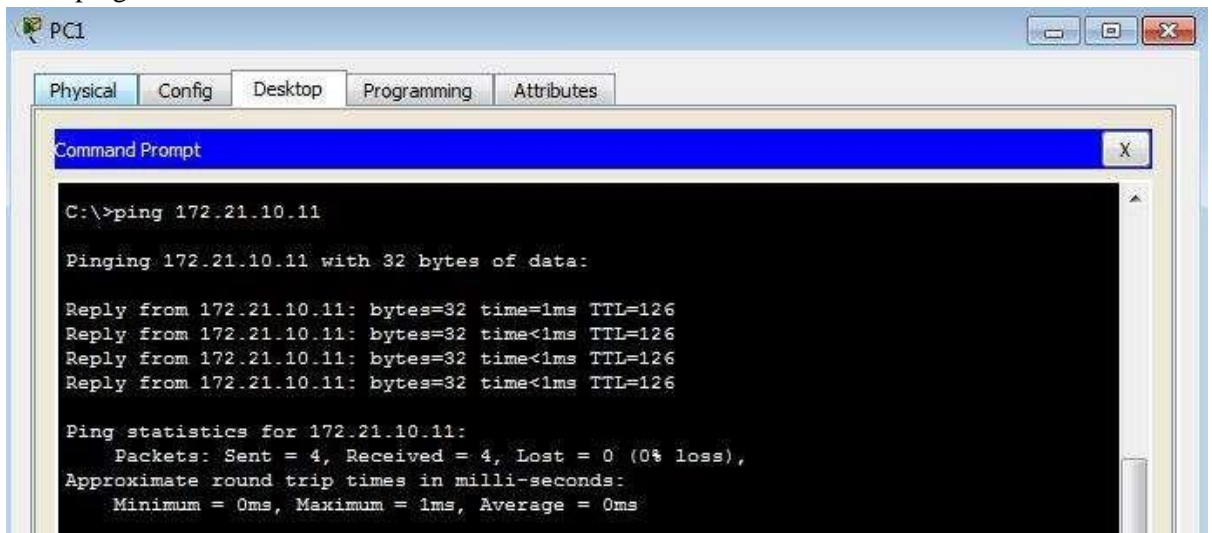
C:\>ping 172.21.30.31

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 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. The command is 'C:\>ping 172.21.10.11', which results in four successful replies from 172.21.10.11 with 32 bytes of data, each taking less than 1ms and having a TTL of 126. The statistics show 4 packets sent, 4 received, and 0% loss.

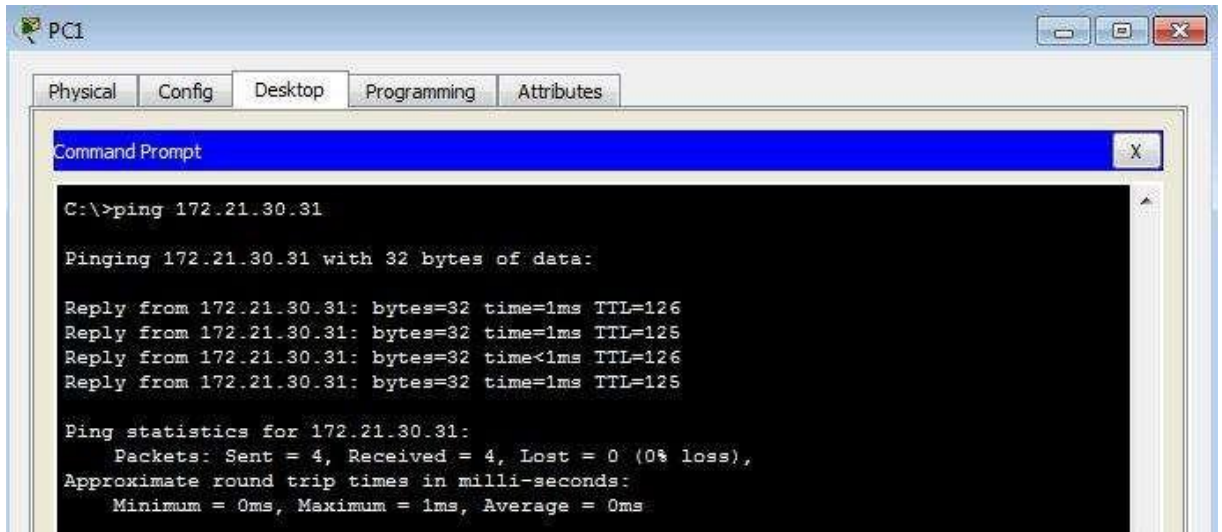
```
C:\>ping 172.21.10.11

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 a successful ping to 172.21.30.31 with 32 bytes of data. Four replies are shown, each with a time of 1ms and a TTL of 125 or 126. The ping statistics show 4 packets sent, 4 received, and 0% loss, with round trip times ranging from 0ms to 1ms.

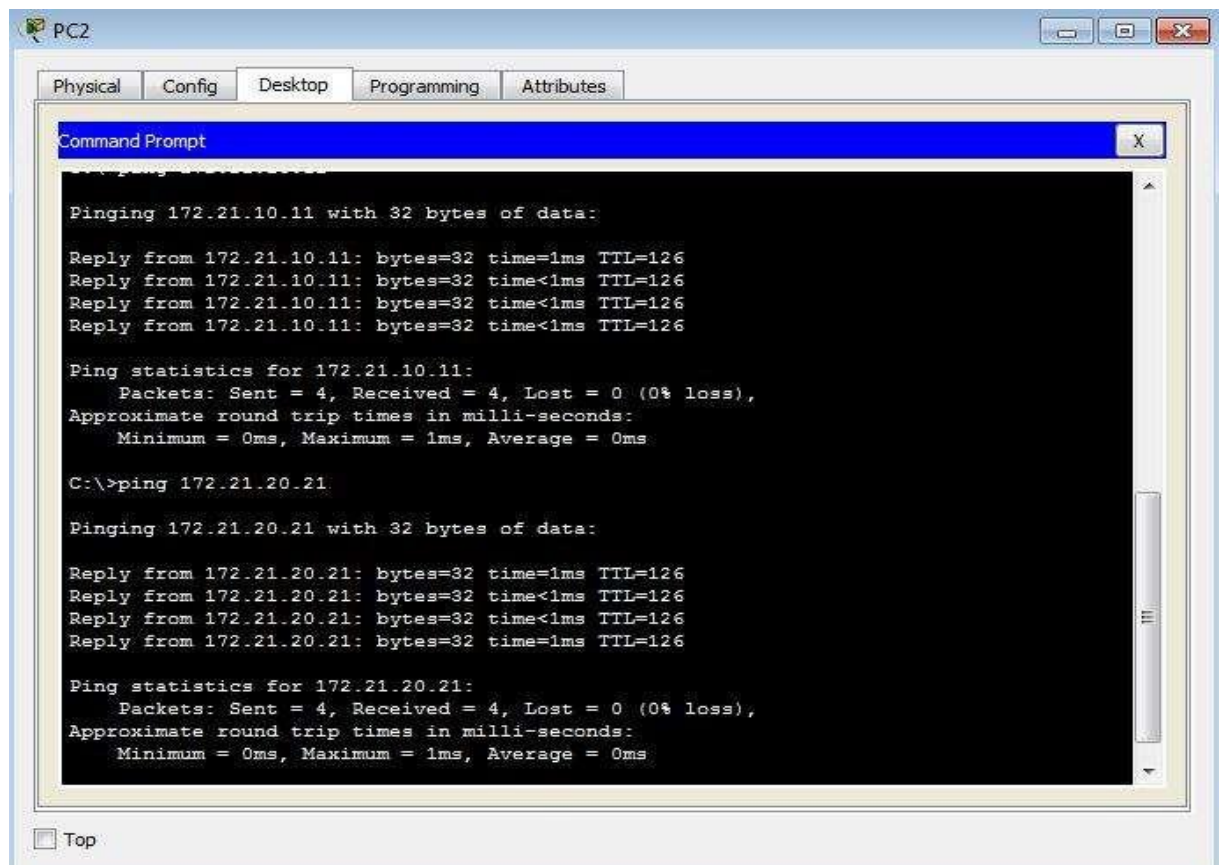
```
C:\>ping 172.21.30.31

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=125
Reply from 172.21.30.31: bytes=32 time<1ms TTL=126
Reply from 172.21.30.31: bytes=32 time=1ms TTL=125

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 pings are successful with 32 bytes of data. Four replies are shown for each, with times of 1ms and TTLs of 126. The ping statistics for both show 4 packets sent, 4 received, and 0% loss, with round trip times ranging from 0ms to 1ms.

```
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
```