LAPORAN PRAKTIKUM JARINGAN KOMPUTER
MODUL 7

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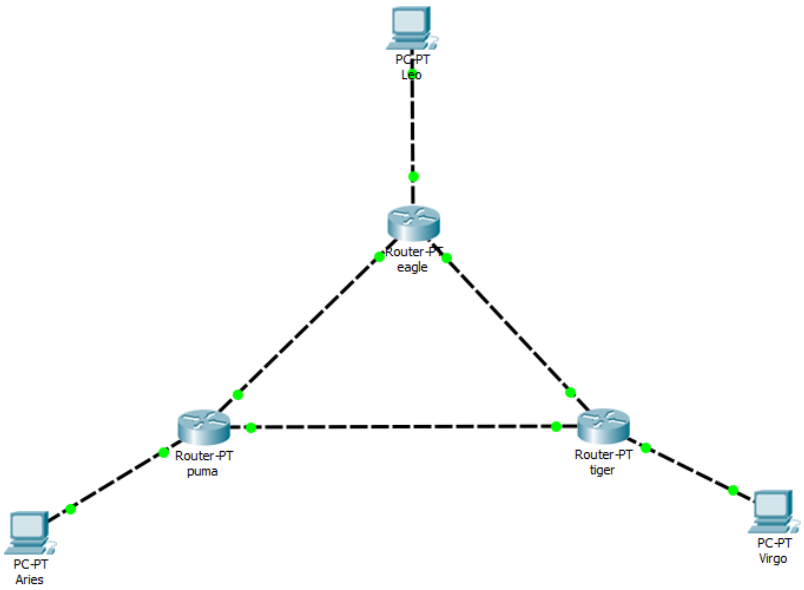
Kelas : A

Nim : L200170024

Kegiatan Praktikum

Kegiatan 1. Topologi 1 (Static Routing)

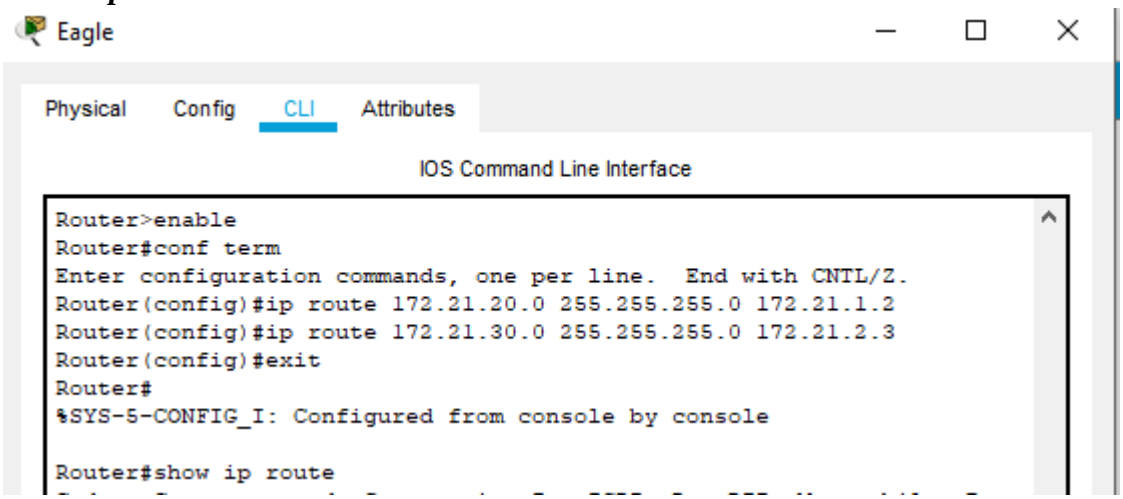
1. Menggunakan Packet Tracer buat topologi berikut ini dengan menggunakan Router generic.

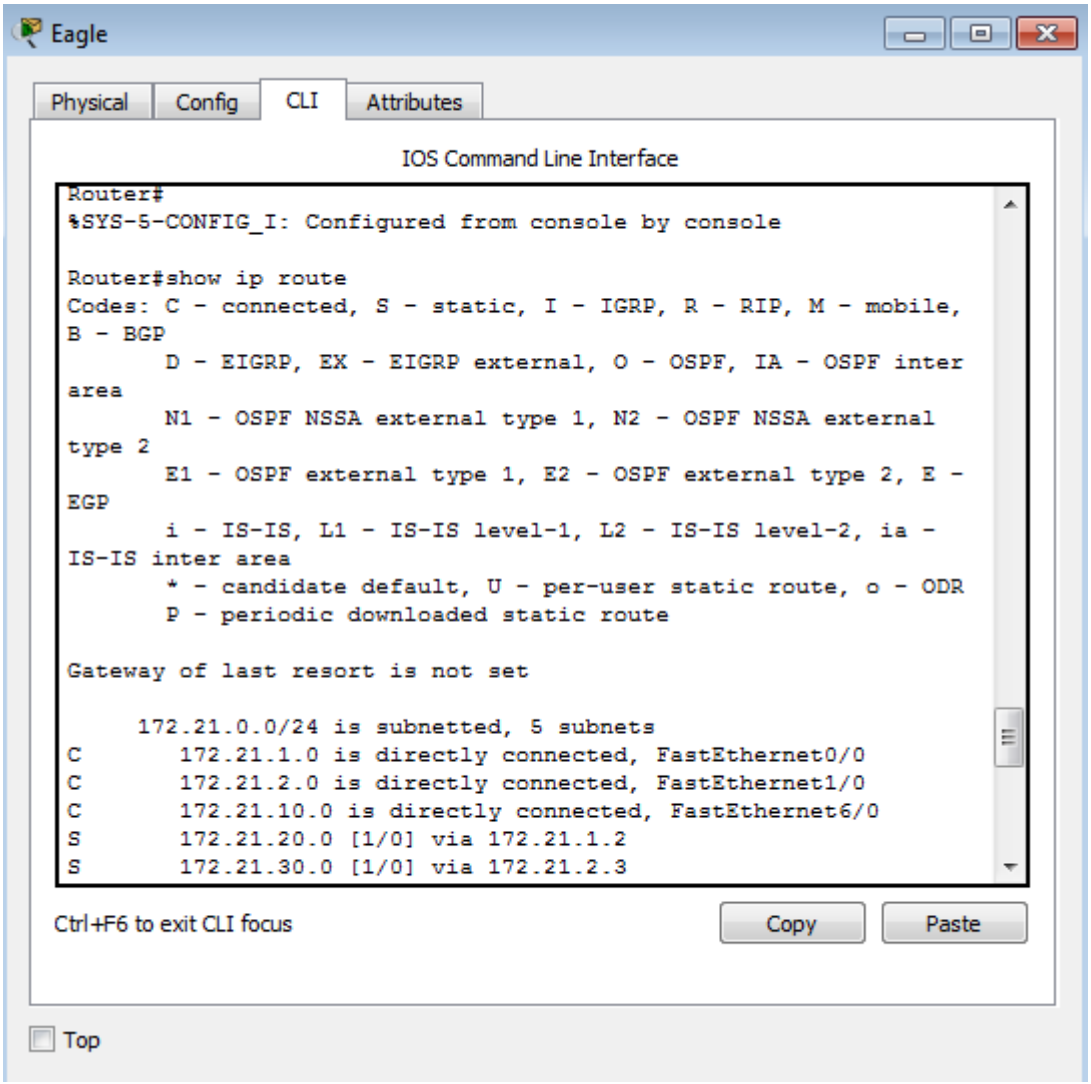


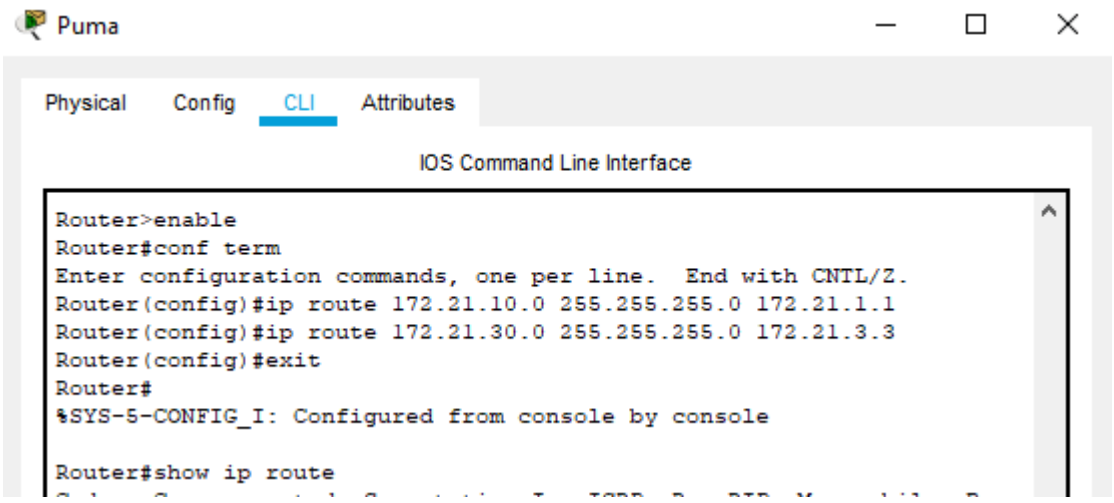
2. Beri nama masing-masing router dengan eagle (router 1), puma (router 2), dan tiger (router 3).
3. Konfigurasi masing-masing interface pada tiap Router dengan alamat IP berikut ini :
   - Eagle (ethernet 0) = 172.21.10.10/24
   - Eagle (serial 0) = 172.21.1.1/24
   - Eagle (serial 1) = 172.21.2.1/24

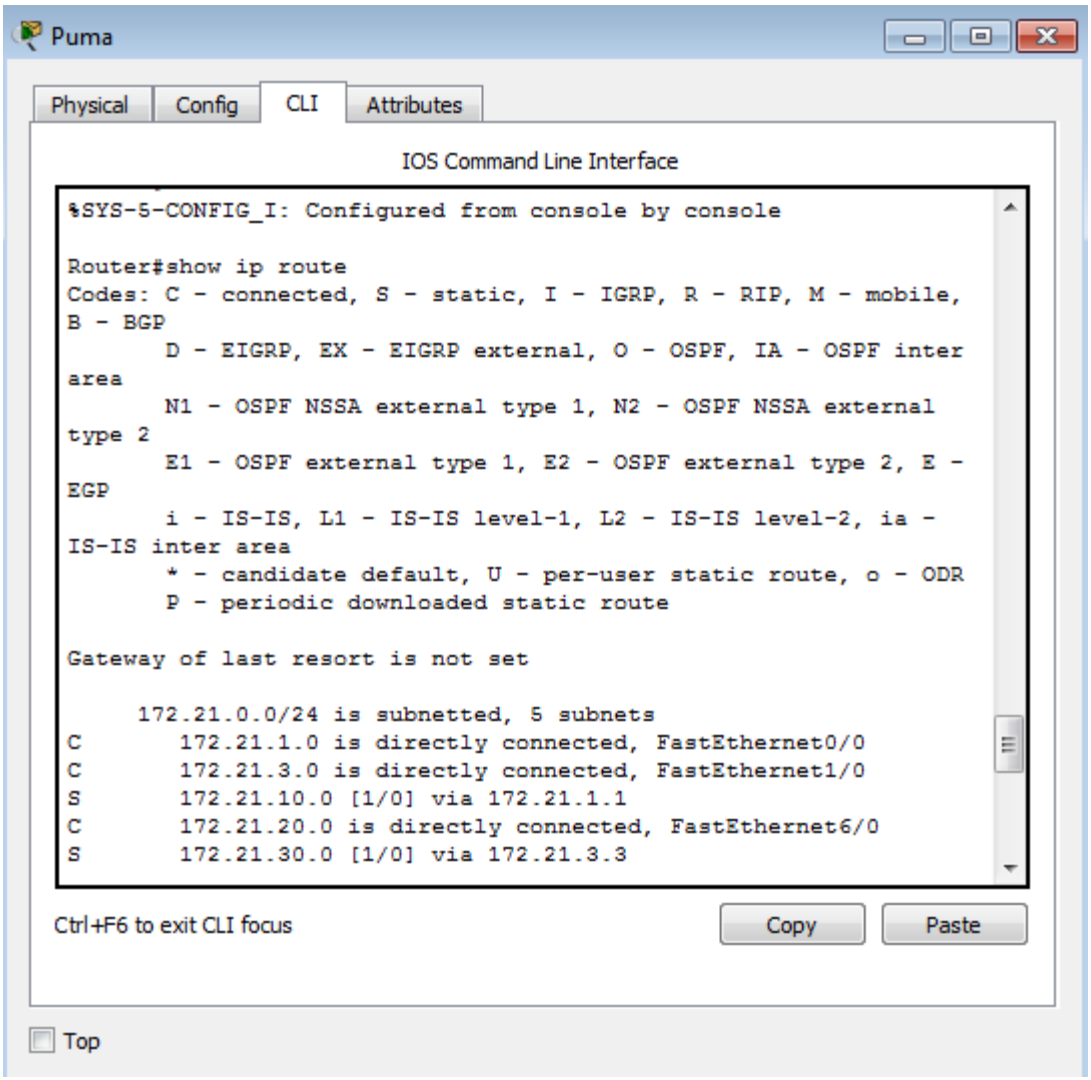
- Puma (ethernet 0) = 172.21.20.20/24
- Puma (serial 0) = 172.21.1.2/24
- Puma (serial 1) = 172.21.3.2/24
- Tiger (ethernet 0) = 172.21.30.30/24
- Tiger (serial 0) = 172.21.2.3/24
- Tiger (serial 1) = 172.21.3.3/24

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***




Eagle
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router#
%SYS-5-CONFIG_I: Configured from console by console
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
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Puma
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


Puma
Physical
Config
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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
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C 172.21.20.0 is directly connected, FastEthernet6/0
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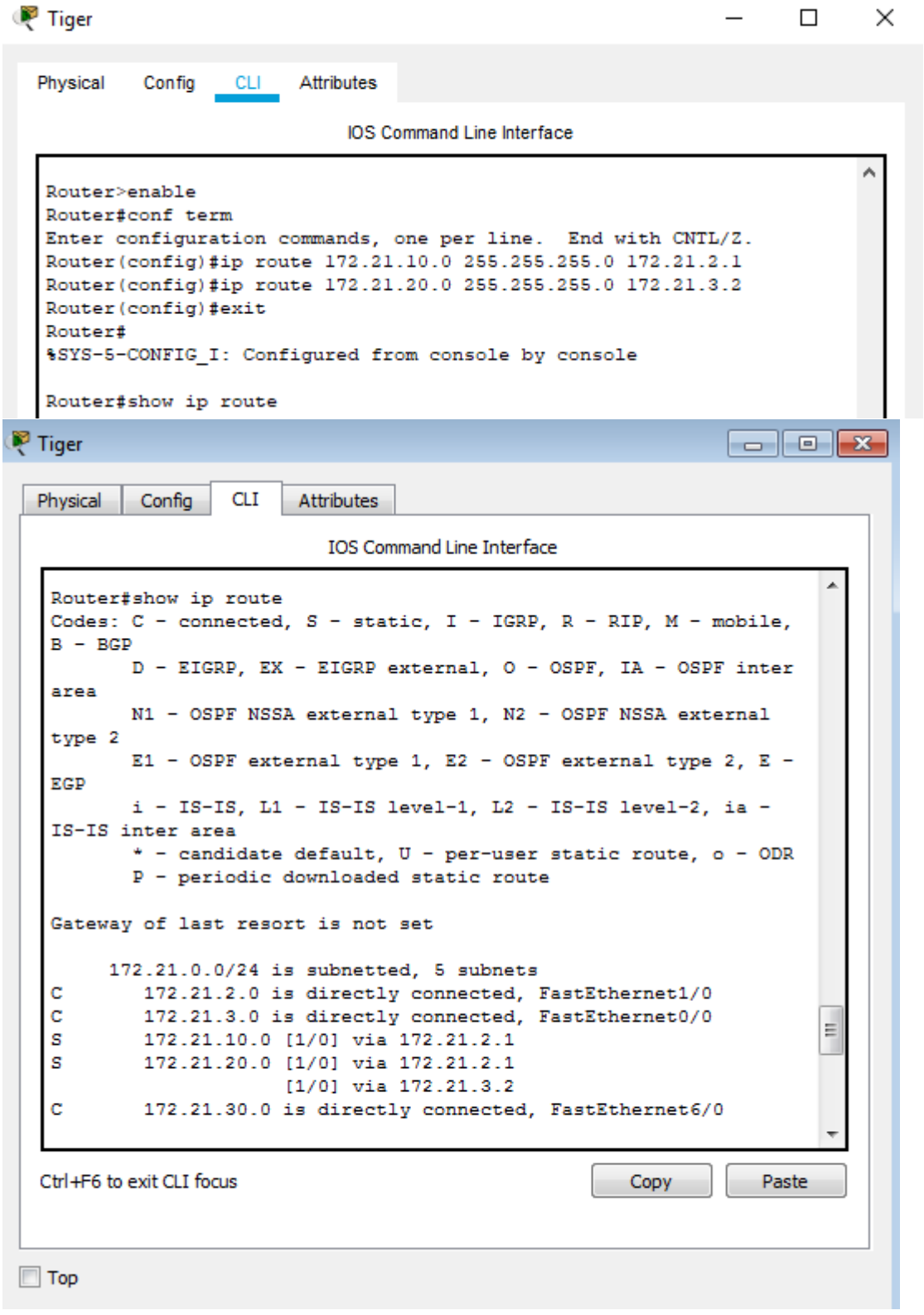
Ctrl+F6 to exit CLI focus
Copy
Paste
Top


Tiger
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
Tiger
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
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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
Top

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

```
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.

```
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.

```
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.

```
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
```