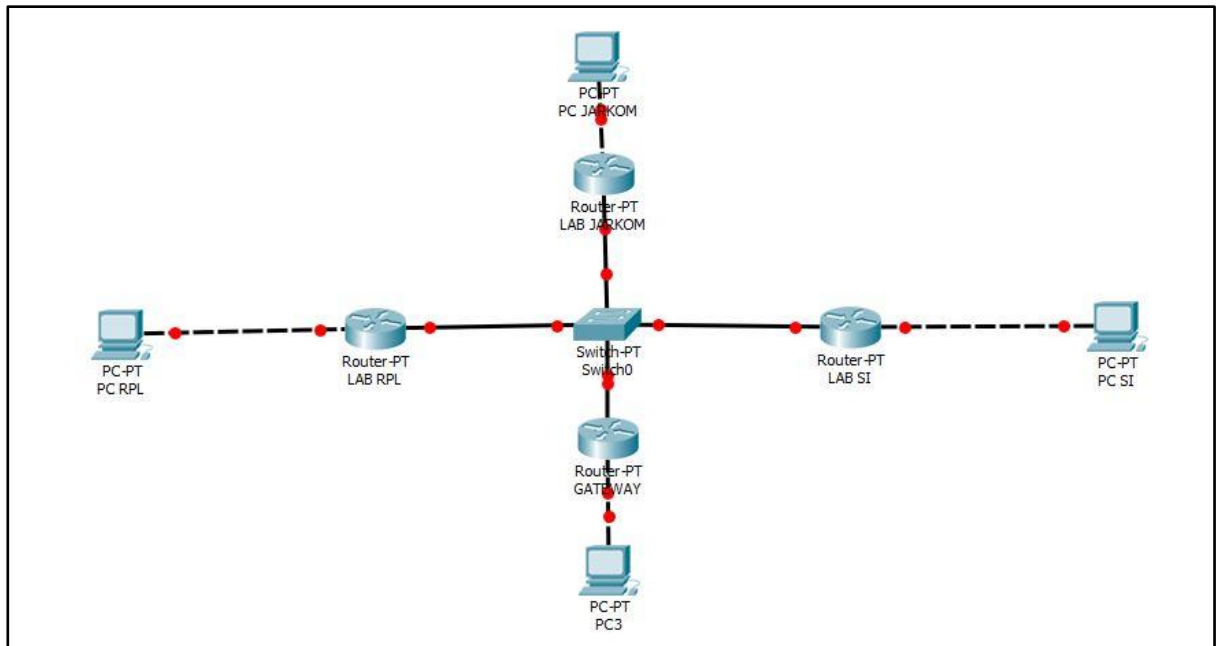


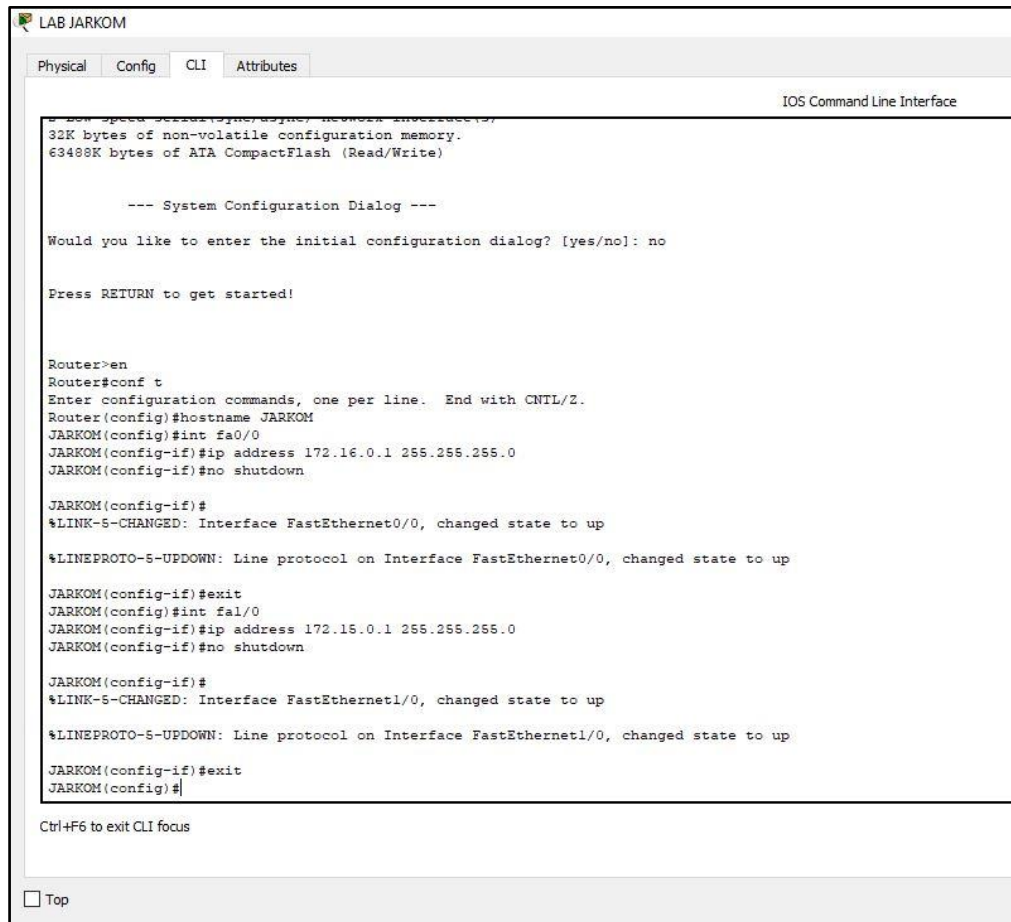
Laporan Praktikum Jarkom
Modul 11
Perancangan Jaringan Laboratorium Sederhana
Menggunakan Packet Tracer

1. Buat topologi seperti pada gambar.



2. Konfigurasi semua router
 - a. Router Jarkom

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L200170156
D
Jarkom



```
LAB JARKOM
Physical Config CLI Attributes
IOS Command Line Interface

32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname JARKOM
JARKOM(config)#int fa0/0
JARKOM(config-if)#ip address 172.16.0.1 255.255.255.0
JARKOM(config-if)#no shutdown

JARKOM(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

JARKOM(config-if)#exit
JARKOM(config)#int fa1/0
JARKOM(config-if)#ip address 172.15.0.1 255.255.255.0
JARKOM(config-if)#no shutdown

JARKOM(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

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

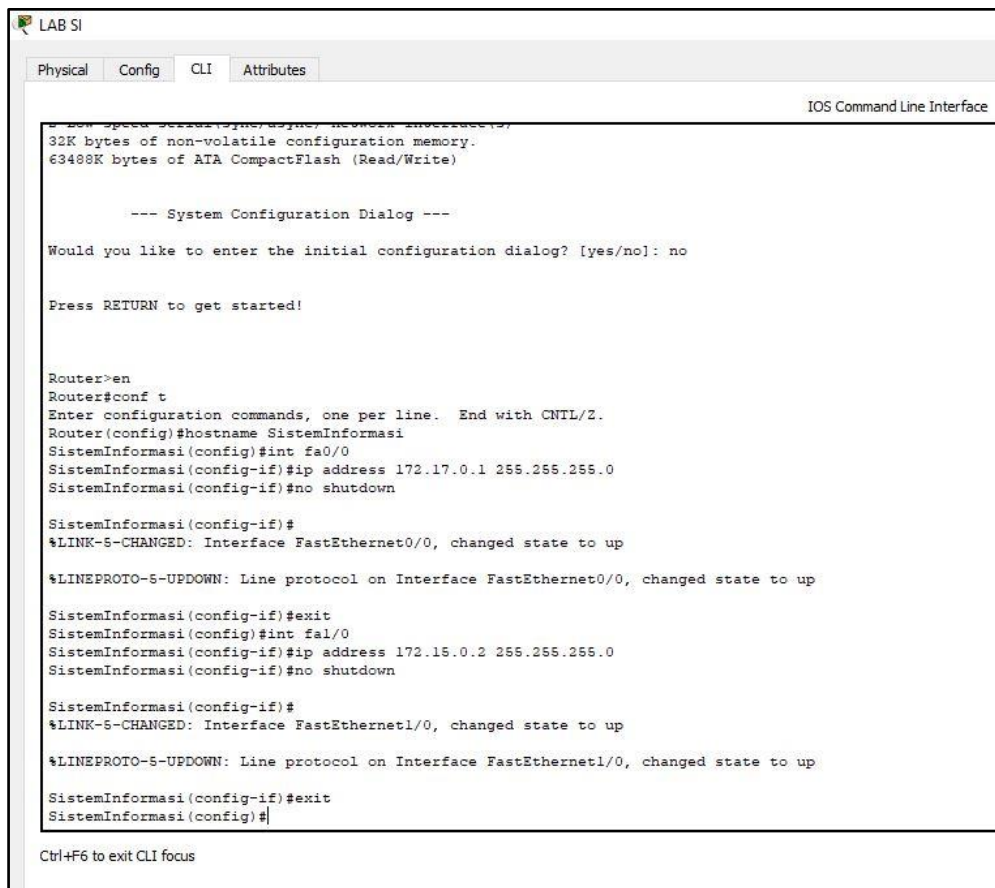
JARKOM(config-if)#exit
JARKOM(config)#

Ctrl+F6 to exit CLI focus

☐ Top
```

b. Router SI

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```
LAB SI
Physical Config CLI Attributes
IOS Command Line Interface

-- Low Speed Serial (Sync/Async) Network Interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname SistemInformasi
SistemInformasi(config)#int fa0/0
SistemInformasi(config-if)#ip address 172.17.0.1 255.255.255.0
SistemInformasi(config-if)#no shutdown

SistemInformasi(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

SistemInformasi(config-if)#exit
SistemInformasi(config)#int fa1/0
SistemInformasi(config-if)#ip address 172.15.0.2 255.255.255.0
SistemInformasi(config-if)#no shutdown

SistemInformasi(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

SistemInformasi(config-if)#exit
SistemInformasi(config)#

Ctrl+F6 to exit CLI focus
```

c. Router RPL

Muhibah Fata Tika
L200170156
D
Jarkom

```
LAB RPL
Physical Config CLI Attributes
IOS Command Line Interface

32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname RPL
RPL(config)#int fa0/0
RPL(config-if)#ip address 172.18.0.1 255.255.255.0
RPL(config-if)#no shutdown

RPL(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

RPL(config-if)#exit
RPL(config)#int fa1/0
RPL(config-if)#ip address 172.15.0.3 255.255.255.0
RPL(config-if)#no shutdown

RPL(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

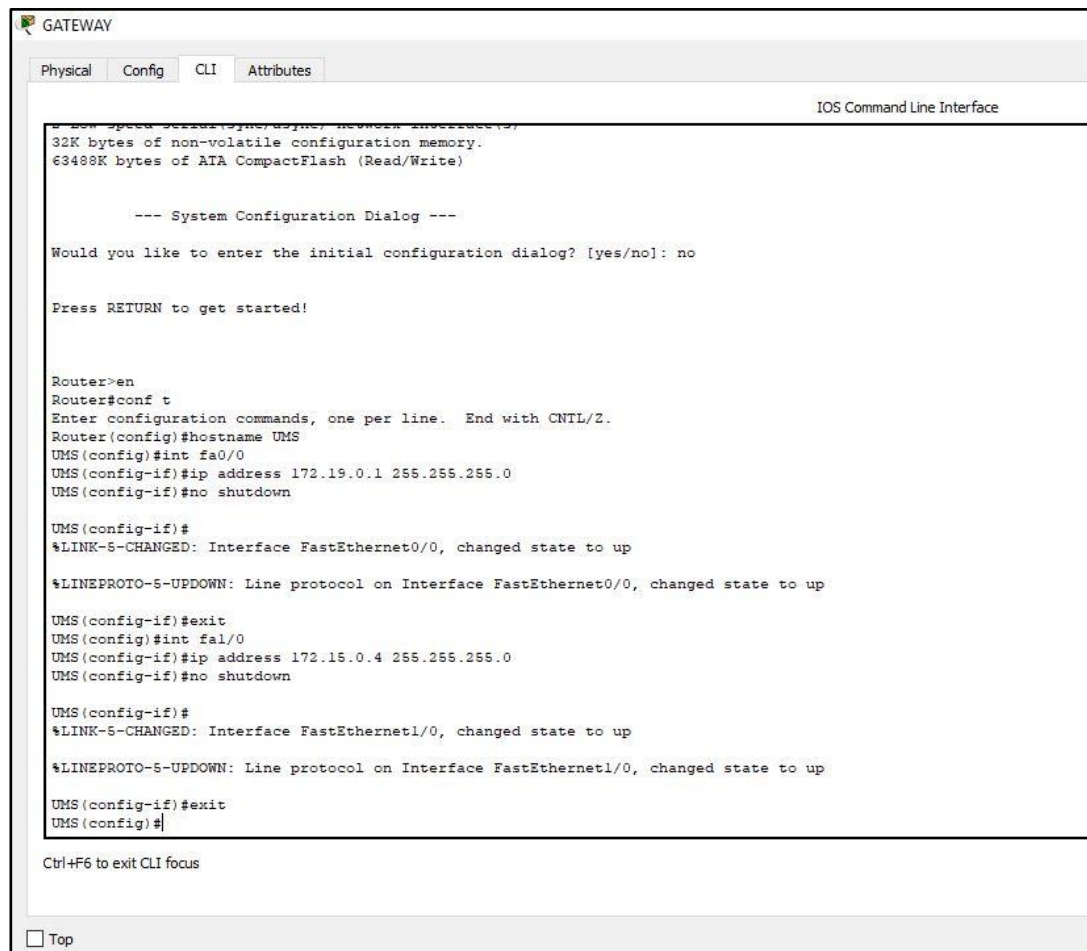
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

RPL(config-if)#exit
RPL(config)#

Ctrl+F6 to exit CLI focus
```

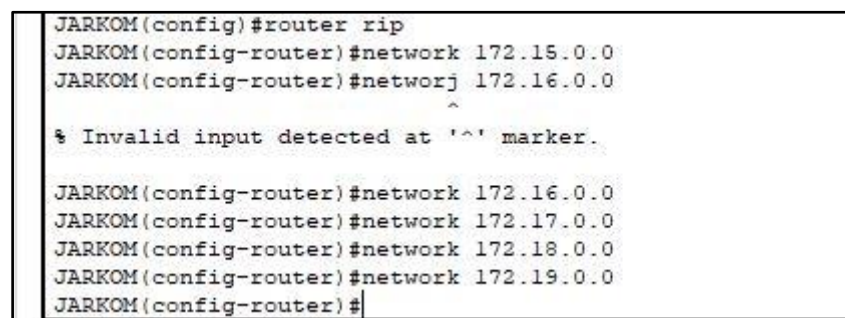
d. Router UMS

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D
Jarkom

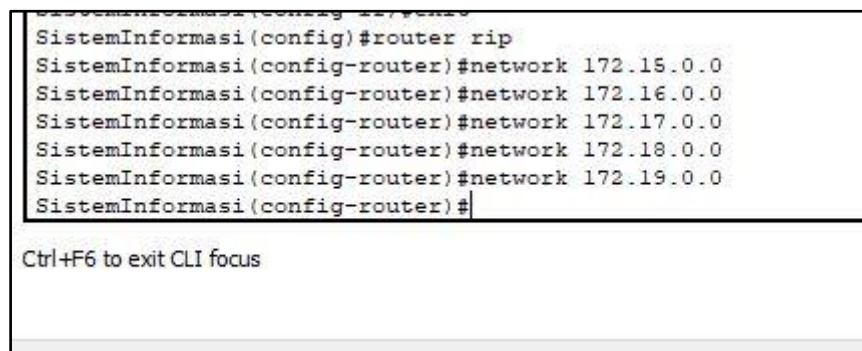


3. Konfigurasi routing table pada 4 router

a. Router Jarkom



b. Router SI



c. Router RPL

```
RPL(config)#router rip
RPL(config-router)#network 172.15.0.0
RPL(config-router)#network 172.16.0.0
RPL(config-router)#network 172.17.0.0
RPL(config-router)#network 172.18.0.0
RPL(config-router)#network 172.19.0.0
RPL(config-router)#
```

Ctrl+F6 to exit CLI focus

d. Router UMS

```
UMS(config)#router rip
UMS(config-router)#network 172.15.0.0
UMS(config-router)#network 172.16.0.0
UMS(config-router)#network 172.17.0.0
UMS(config-router)#network 172.18.0.0
UMS(config-router)#network 172.19.0.0
UMS(config-router)#
```

4. Konfigurasi IP pada masing-masing PC

a. PC Jarkom

The screenshot shows the 'PC JARKOM' configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, showing the following settings:

Field	Value
IP Address	172.16.0.2
Subnet Mask	255.255.255.0
Default Gateway	172.16.0.1
DNS Server	0.0.0.0

The 'IPv6 Configuration' section is also visible, with the following settings:

Field	Value
IPv6 Address	
Link Local Address	FE80::2D0:D3FF:FE30:5C09
IPv6 Gateway	
IPv6 DNS Server	

At the bottom left, there is a 'Top' button.

b. PC SI

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D
Jarkom

The screenshot shows the 'PC SI' configuration window with the 'Config' tab selected. The 'IP Configuration' section has 'Static' selected, with fields for IP Address (172.17.0.2), Subnet Mask (255.255.255.0), Default Gateway (172.17.0.1), and DNS Server (0.0.0.0). The 'IPv6 Configuration' section has 'Static' selected, with fields for IPv6 Address, Link Local Address (FE80::201:C9FF:FE82:A4C1), IPv6 Gateway, and IPv6 DNS Server. A 'Top' button is at the bottom left.

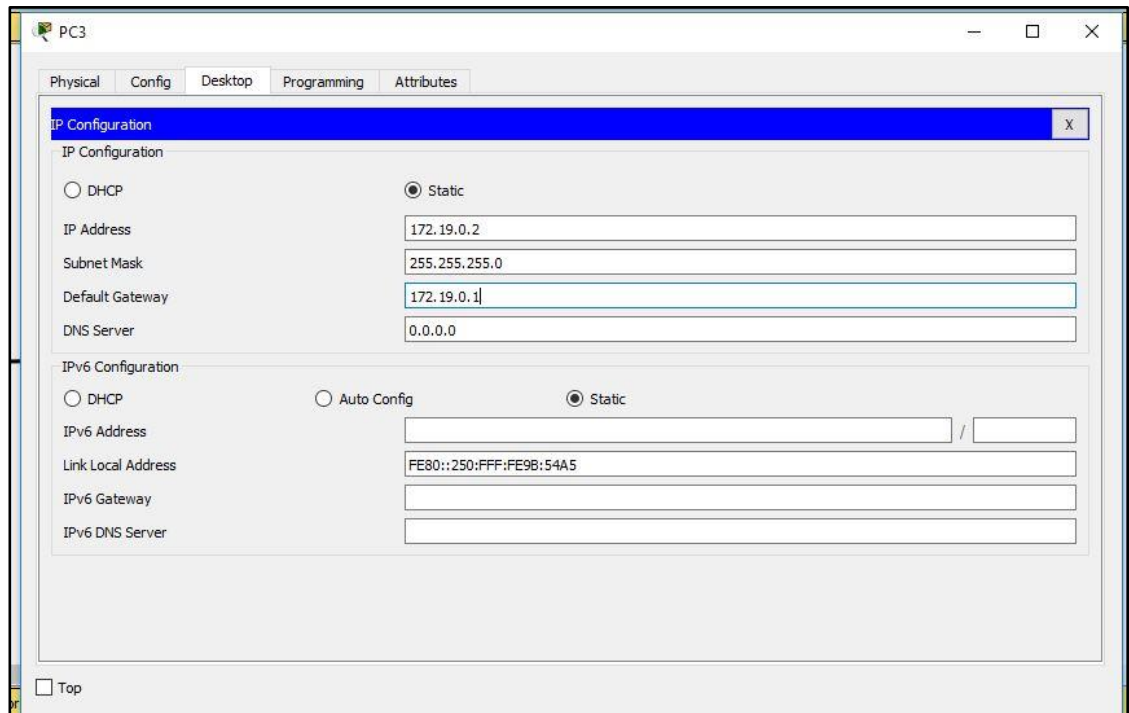
Configuration Type	Option	Field	Value
IP Configuration	<input checked="" type="radio"/> Static	IP Address	172.17.0.2
		Subnet Mask	255.255.255.0
		Default Gateway	172.17.0.1
		DNS Server	0.0.0.0
IPv6 Configuration	<input checked="" type="radio"/> Static	IPv6 Address	
		Link Local Address	FE80::201:C9FF:FE82:A4C1
		IPv6 Gateway	
		IPv6 DNS Server	
		Auto Config	<input type="radio"/>

c. PC RPL

The screenshot shows the 'PC RPL' configuration window with the 'Config' tab selected. The 'IP Configuration' section has 'Static' selected, with fields for IP Address (172.18.0.2), Subnet Mask (255.255.255.0), Default Gateway (172.18.0.1), and DNS Server (0.0.0.0). The 'IPv6 Configuration' section has 'Static' selected, with fields for IPv6 Address, Link Local Address (FE80::260:3EFF:FE4C:A785), IPv6 Gateway, and IPv6 DNS Server. A 'Top' button is at the bottom left.

Configuration Type	Option	Field	Value
IP Configuration	<input checked="" type="radio"/> Static	IP Address	172.18.0.2
		Subnet Mask	255.255.255.0
		Default Gateway	172.18.0.1
		DNS Server	0.0.0.0
IPv6 Configuration	<input checked="" type="radio"/> Static	IPv6 Address	
		Link Local Address	FE80::260:3EFF:FE4C:A785
		IPv6 Gateway	
		IPv6 DNS Server	
		Auto Config	<input type="radio"/>

d. PC UMS



5. Lakukan pengujian ICMP request(ping) untuk test koneksi
a. PC UMS ke PC Jarkom

```
C:\>ping 172.16.0.2

Pinging 172.16.0.2 with 32 bytes of data:

Reply from 172.16.0.2: bytes=32 time=1ms TTL=126
Reply from 172.16.0.2: bytes=32 time=12ms TTL=126
Reply from 172.16.0.2: bytes=32 time=12ms TTL=126
Reply from 172.16.0.2: bytes=32 time=12ms TTL=126

Ping statistics for 172.16.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 12ms, Average = 9ms
```

- b. PC UMS ke PC SI

```
C:\>ping 172.18.0.2

Pinging 172.18.0.2 with 32 bytes of data:

Reply from 172.18.0.2: bytes=32 time<1ms TTL=126
Reply from 172.18.0.2: bytes=32 time=15ms TTL=126
Reply from 172.18.0.2: bytes=32 time=19ms TTL=126
Reply from 172.18.0.2: bytes=32 time=12ms TTL=126

Ping statistics for 172.18.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 19ms, Average = 11ms

C:\>
```

- c. PC UMS ke PC RPL

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D
Jarkom

```
C:\>ping 172.17.0.2

Pinging 172.17.0.2 with 32 bytes of data:

Reply from 172.17.0.2: bytes=32 time<1ms TTL=126
Reply from 172.17.0.2: bytes=32 time=19ms TTL=126
Reply from 172.17.0.2: bytes=32 time=10ms TTL=126
Reply from 172.17.0.2: bytes=32 time=12ms TTL=126

Ping statistics for 172.17.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 19ms, Average = 10ms
```