

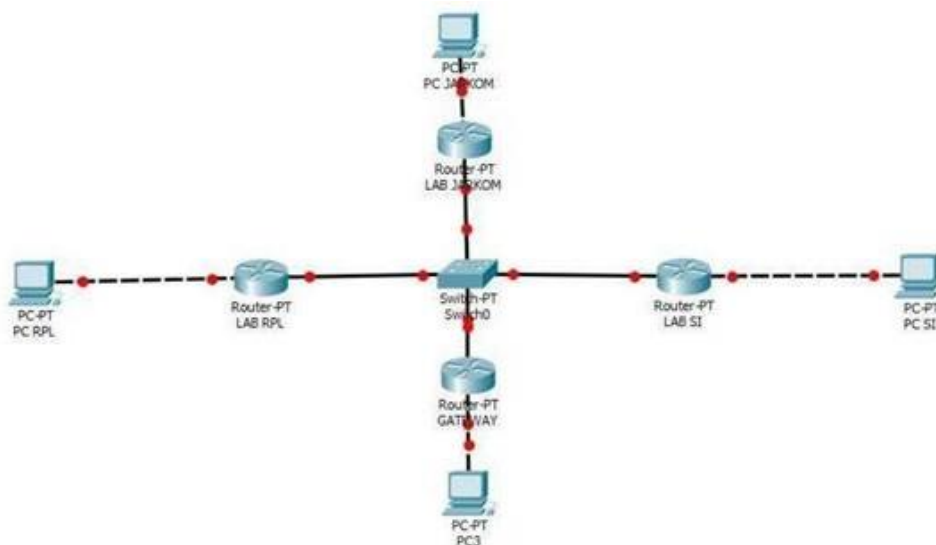
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Kelas : D

Kegiatan Praktikum Jaringan Komputer modul 11

1. Membuat apologi 4 pc, 4 router dan 1 switch



2. Konfigurasi router

```
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-3-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-3-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 172.16.0.1 255.255.255.0
JARKOM(config-if)#no shutdown

JARKOM(config-if)#
%LINK-3-CHANGED: Interface FastEthernet1/0, changed state to up
%LINEPROTO-3-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up
JARKOM(config-if)#exit
JARKOM(config)#

Ctrl+F6 to exit CLI focus

Top
```

LAB SI

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 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
```

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

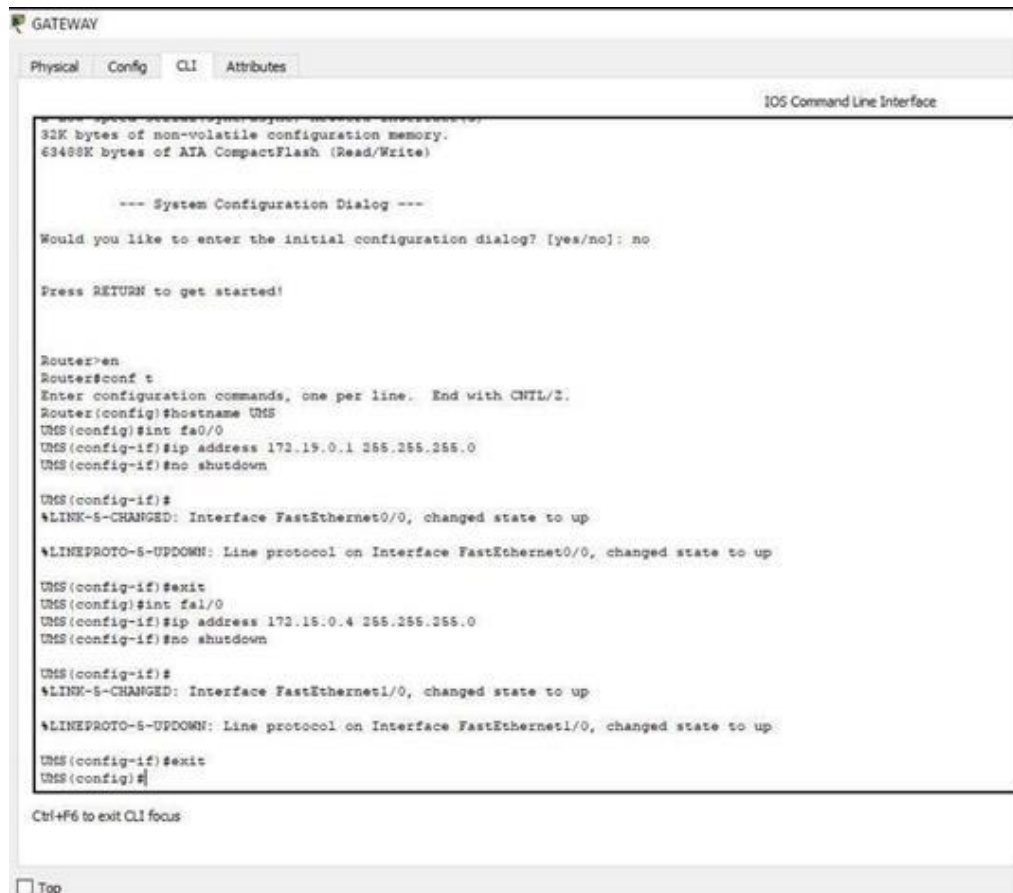
RPL(config-if)#exit
RPL(config)#int fa1/0
RPL(config-if)#ip address 172.15.0.3 255.255.255.0
RPL(config-if)#no shutdown

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
```



3. Konfigurasi routing

a. Membuat Routing Table pada router jarkom

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

b. Membuat Routing Table pada router SI

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

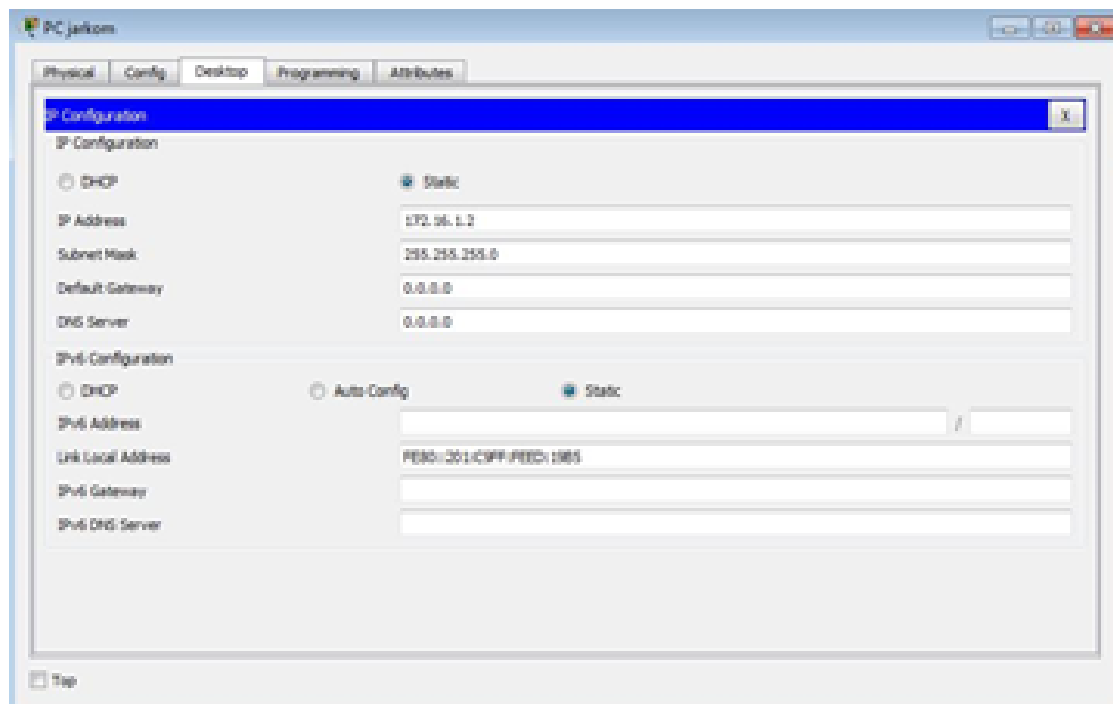
c. Membuat Routing Table pada RPL

```
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)#
```

d. Membuat Routing Table pada gateway

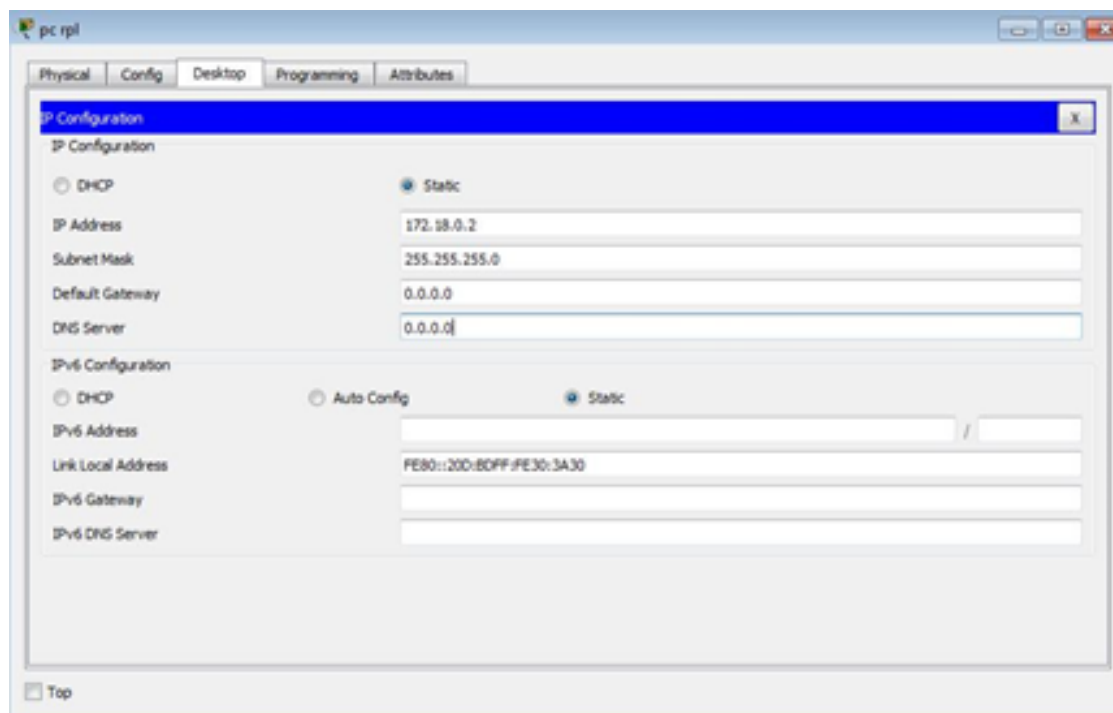
```
UMS(config)#router rip
UMS(config-router)#network 172.15.0.0
UMS(config-router)#network 172.16.0.0
UMS(config-router)#network 172.17.0.0
UMS(config-router)#network 172.18.0.0
UMS(config-router)#network 172.19.0.0
UMS(config-router)#
```

4. Konfigurasi IP



The screenshot shows the 'IP Configuration' window in the 'PC jtkom' application. The 'Config' tab is selected. Under 'IP Configuration', the 'Static' radio button is chosen. The fields are filled with: IP Address: 172.16.1.2, Subnet Mask: 255.255.255.0, Default Gateway: 0.0.0.0, and DNS Server: 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is also chosen. The fields are filled with: IPv6 Address: (empty), Link Local Address: FE80::301:C9FF:FEED::1005, IPv6 Gateway: (empty), and IPv6 DNS Server: (empty). A 'Top' button is at the bottom left.

IP Configuration	
<input type="radio"/> DHCP <input checked="" type="radio"/> Static	
IP Address	172.16.1.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
<input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static	
IPv6 Address	/
Link Local Address	FE80::301:C9FF:FEED::1005
IPv6 Gateway	
IPv6 DNS Server	



The screenshot shows the 'IP Configuration' window in the 'pc rpl' application. The 'Config' tab is selected. Under 'IP Configuration', the 'Static' radio button is chosen. The fields are filled with: IP Address: 172.16.0.2, Subnet Mask: 255.255.255.0, Default Gateway: 0.0.0.0, and DNS Server: 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is also chosen. The fields are filled with: IPv6 Address: (empty), Link Local Address: FE80::20D:B0FF:FE3D:3A3D, IPv6 Gateway: (empty), and IPv6 DNS Server: (empty). A 'Top' button is at the bottom left.

IP Configuration	
<input type="radio"/> DHCP <input checked="" type="radio"/> Static	
IP Address	172.16.0.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
<input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static	
IPv6 Address	/
Link Local Address	FE80::20D:B0FF:FE3D:3A3D
IPv6 Gateway	
IPv6 DNS Server	

pc si

Physical Config Desktop Programming Attributes

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address: 172.17.0.2

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::206:2AFF:FEEC:A849

IPv6 Gateway:

IPv6 DNS Server:

Top

PC3

Physical Config Desktop Programming Attributes

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address: 172.19.0.2

Subnet Mask: 255.255.255.0

Default Gateway: 172.19.0.1

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::250:FFF:FE9B:54A5

IPv6 Gateway:

IPv6 DNS Server:

Top

5. Lakukan pengujian ICMP request(ping) untuk test koneksi

```
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<1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms 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 = 0ms, Maximum = 1ms, Average = 0ms

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<1ms TTL=126
Reply from 172.17.0.2: bytes=32 time<1ms TTL=126
Reply from 172.17.0.2: bytes=32 time<1ms 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 = 1ms, Average = 0ms

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=1ms TTL=126
Reply from 172.18.0.2: bytes=32 time<1ms TTL=126
Reply from 172.18.0.2: bytes=32 time<1ms 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 = 1ms, Average = 0ms
```