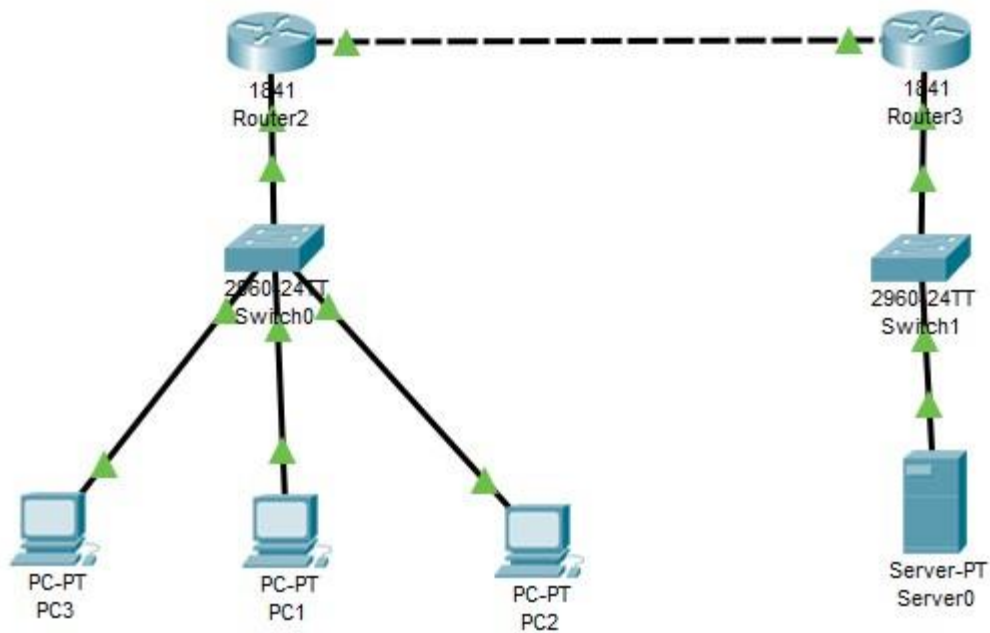


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MODUL 5

1. ROUTING



- Setting IP router 1

Yang mengarah ke switch

RIP	IP Configuration
SWITCHING	IP Address 192.168.0.1
VLAN Database	Subnet Mask 255.255.255.0
INTERFACE	
FastEthernet0/0	
FastEthernet0/1	
	Tx Ring Limit 10

Yang mengarah ke Router 2

RIP	IP Configuration
SWITCHING	IP Address 10.10.10.1
VLAN Database	Subnet Mask 255.255.255.248
INTERFACE	
FastEthernet0/0	
FastEthernet0/1	
	Tx Ring Limit 10

- Setting IP router 2

Yang mengarah ke Router 1

RIP		
SWITCHING		
VLAN Database		
INTERFACE		
FastEthernet0/0		
FastEthernet0/1		

IP Configuration	
IP Address	10.10.10.2
Subnet Mask	255.255.255.248
Tx Ring Limit	
	10

Yang mengarah ke switch

RIP		
SWITCHING		
VLAN Database		
INTERFACE		
FastEthernet0/0		
FastEthernet0/1		

IP Configuration	
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Tx Ring Limit	
	10

- Pemberian IP Address pada masing-masing PC

PC 1

<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	192.168.0.2
Subnet Mask	255.255.255.248
Default Gateway	192.168.0.1
DNS Server	0.0.0.0

PC 2

<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	192.168.0.3
Subnet Mask	255.255.255.248
Default Gateway	192.168.0.1
DNS Server	0.0.0.0

PC 3

<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	192.168.0.4
Subnet Mask	255.255.255.248
Default Gateway	192.168.0.1
DNS Server	0.0.0.0

- Pemberian IP pada server

IP Address	192.168.1.2
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1

- Routing di Router 1

```
Router(config)#ip route 10.10.10.0 255.255.255.248 192.168.1.1
Router(config)#ip route 192.168.1.0 255.255.255.0 10.10.10.2
```

- Routing di Router 2

```
Router(config)#ip route 10.10.10.0 255.255.255.248 192.168.0.1
Router(config)#ip route 192.168.0.0 255.255.255.0 10.10.10.1
```

- Tes Ping PC 1 ke PC 2 dan PC 3

```
C:\>ping 192.168.0.3

Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time=81ms TTL=128
Reply from 192.168.0.3: bytes=32 time<1ms TTL=128
Reply from 192.168.0.3: bytes=32 time<1ms TTL=128
Reply from 192.168.0.3: bytes=32 time=3ms TTL=128

Ping statistics for 192.168.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 81ms, Average = 21ms

C:\>ping 192.168.0.4

Pinging 192.168.0.4 with 32 bytes of data:

Reply from 192.168.0.4: bytes=32 time=1ms TTL=128
Reply from 192.168.0.4: bytes=32 time<1ms TTL=128
Reply from 192.168.0.4: bytes=32 time=1ms TTL=128
Reply from 192.168.0.4: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

- Tes Ping dari PC 1 ke 192.168.0.1 dan 10.10.10.1

```
C:\>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time=98ms TTL=255
Reply from 192.168.0.1: bytes=32 time<1ms TTL=255
Reply from 192.168.0.1: bytes=32 time<1ms TTL=255
Reply from 192.168.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 98ms, Average = 24ms

C:\>ping 10.10.10.1

Pinging 10.10.10.1 with 32 bytes of data:

Reply from 10.10.10.1: bytes=32 time<1ms TTL=255
Reply from 10.10.10.1: bytes=32 time=4ms TTL=255
Reply from 10.10.10.1: bytes=32 time<1ms TTL=255
Reply from 10.10.10.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.10.10.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 4ms, Average = 1ms
```

- Tes Ping dari PC 1 ke server

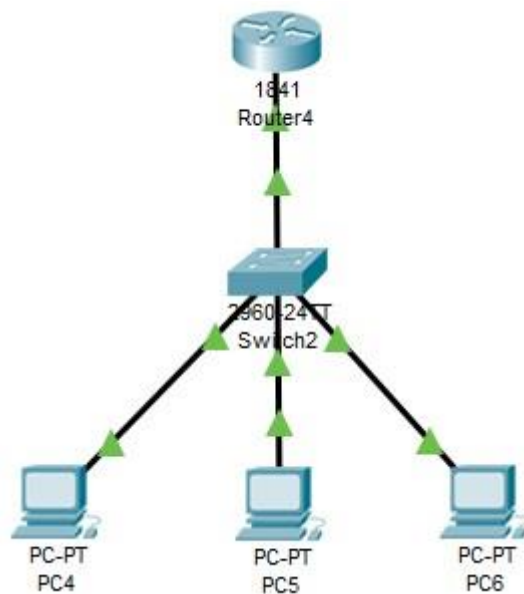
```
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time<1ms TTL=126
Reply from 192.168.1.2: bytes=32 time=12ms TTL=126
Reply from 192.168.1.2: bytes=32 time=12ms TTL=126
Reply from 192.168.1.2: bytes=32 time=10ms TTL=126

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 12ms, Average = 8ms
```

2. DHCP



- Mengaktifkan DHCP server pada router

```
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.0.1 255.255.255.0
Router(config-if)#ip address 192.168.0.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#ex
Router(config)#router rip
Router(config-router)#network 192.168.0.0
Router(config-router)#ex
Router(config)#ip dhcp pool fki
Router(dhcp-config)#network 192.168.0.0 255.255.255.0
Router(dhcp-config)#%DHCPD-4-PING_CONFLICT: DHCP address conflict:
server pinged 192.168.0.1.
```

- Cek PC client (sudah dapat IP address otomatis)

The screenshot shows a network configuration window with tabs for Physical, Config, Desktop, Programming, and Attributes. The Desktop tab is active, and the IP Configuration section is highlighted in blue. Below this, the interface is set to FastEthernet0. The IP Configuration section shows two options: DHCP (selected with a radio button) and Static (unselected). Below these options are four input fields: IP Address (192.168.0.2), Subnet Mask (255.255.255.0), Default Gateway (0.0.0.0), and DNS Server (0.0.0.0).

IP Configuration	
Interface	FastEthernet0
IP Configuration	
<input checked="" type="radio"/> DHCP	<input type="radio"/> Static
IP Address	192.168.0.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0