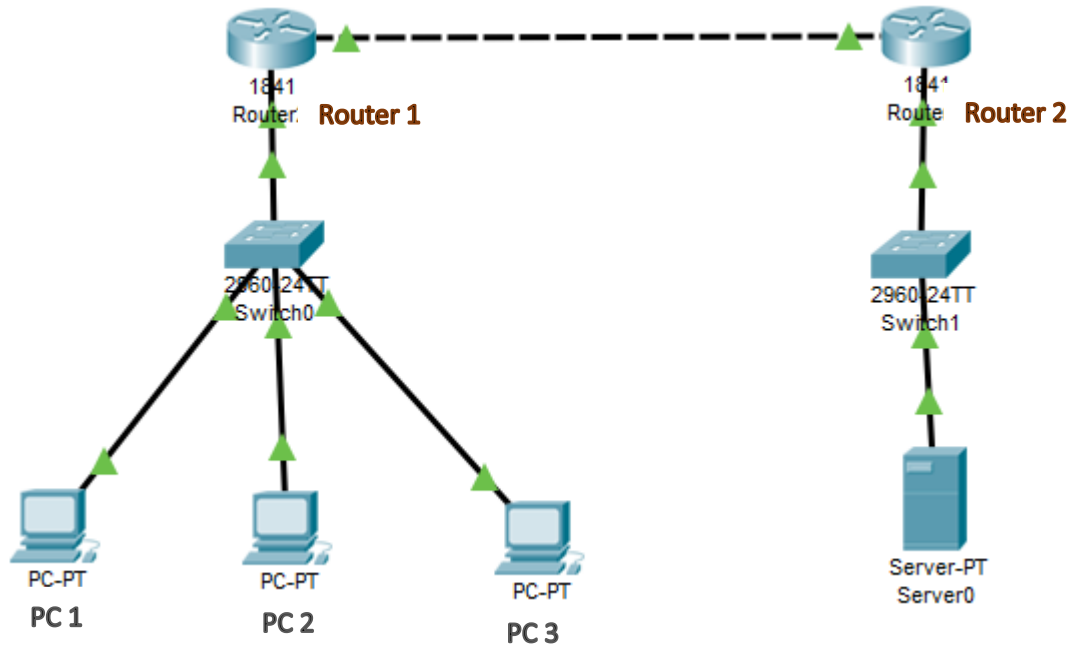


MODUL 5

ROUTER, DHCP

Wyne Habsari/L200160080

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	Tx Ring Limit 10
FastEthernet0/1	

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	Tx Ring Limit 10
FastEthernet0/1	

- Setting IP router 2

Yang mengarah ke Router 1

RIP	IP Configuration
SWITCHING	IP Address 10.10.10.2
VLAN Database	Subnet Mask 255.255.255.248
INTERFACE	
FastEthernet0/0	
FastEthernet0/1	Tx Ring Limit 10

Yang mengarah ke switch

RIP	IP Configuration
SWITCHING	IP Address 192.168.1.1
VLAN Database	Subnet Mask 255.255.255.0
INTERFACE	
FastEthernet0/0	
FastEthernet0/1	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

<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	192.168.1.2
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
DNS Server	0.0.0.0

- 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

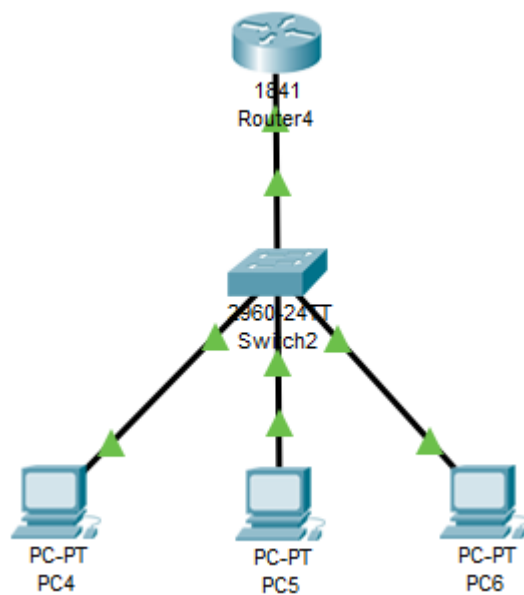
```
C:\>ping 192.168.1.2

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)

Physical Config **Desktop** Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ 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