

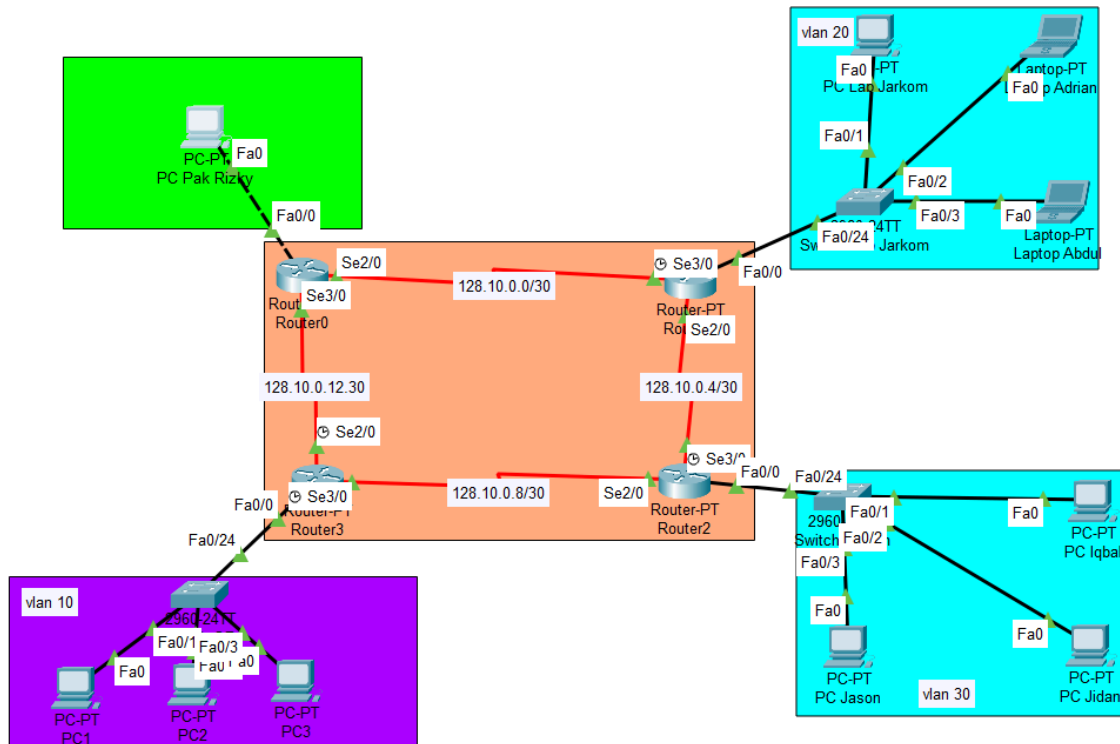
## TP 8 Routing Dinamis 2024

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Kelas : C2

### Topologi



### 1. Membuat VLAN, switchport mode access, dan melakukan trunk

```
Switch(config)#vlan 10
Switch(config-vlan)#name VLAN10
Switch(config-vlan)#ex
Switch(config)#int ra fa0/1-3
Switch(config-if-range)#sw mod acc
Switch(config-if-range)#sw acc vlan 10
Switch(config-if-range)#ex
Switch(config)#int fa0/24
Switch(config-if)#sw mod trunk
Switch(config-if)#sw tru allowed vlan 10
Switch(config-if)#ex
```

```
Switch(config)#vlan 20
Switch(config-vlan)#name VLAN20
Switch(config-vlan)#ex
Switch(config)#int ra fa0/1-3
Switch(config-if-range)#sw mod acc
Switch(config-if-range)#sw acc vlan 20
Switch(config-if-range)#ex
Switch(config)#int fa0/24
Switch(config-if)#sw mod trunk
Switch(config-if)#sw tru allowed vlan 20
Switch(config-if)#ex
```

```
Switch(config)#vlan 30
Switch(config-vlan)#name VLAN30
Switch(config-vlan)#ex
Switch(config)#int ra fa0/1-3
Switch(config-if-range)#sw mod acc
Switch(config-if-range)#sw acc vlan 30
Switch(config-if-range)#ex
Switch(config)#int fa0/24
Switch(config-if)#sw mod trunk
Switch(config-if)#sw tru allowed vlan 30
Switch(config-if)#ex
```

## 2. Intervlan/ Encapsulation

```
Router(config)#int fa0/0.10
Router(config-subif)#encap dot1q 10
Router(config-subif)#ex
```

```
Router(config)#int fa0/0.20
Router(config-subif)#encap dot1q 20
Router(config-subif)#ex
```

```
Router(config)#int fa0/0.30
Router(config-subif)#encap dot1q 30
Router(config-subif)#ex
```

## 3. Assign IP Address pada setiap router

-Router yang terhubung dengan Switch-VLAN10

```
Router(config)#int se2/0
Router(config-if)#ip add 128.10.0.13 255.255.255.252
Router(config-if)#ex
Router(config)#int se3/0
Router(config-if)#ip add 128.10.0.9 255.255.255.252
Router(config-if)#ex
```

-Router yang terhubung dengan Switch-VLAN20

```
Router(config)#int se2/0
Router(config-if)#ip add 128.10.0.6 255.255.255.252
Router(config-if)#ex
Router(config)#int se3/0
Router(config-if)#
08:05:43: %OSPF-5-ADJCHG: Process 10, Nbr 192.168.30.1 on Serial2/0 from LOADING to FULL, Loading Done

Router(config-if)#ip add 128.10.0.1 255.255.255.252
Router(config-if)#ex
```

-Router yang terhubung dengan Switch-VLAN30

```
Router(config)#int se2/0
Router(config-if)#ip add 128.10.0.10 255.255.255.252
Router(config-if)#ex
Router(config)#int se3/0
Router(config-if)#ip add 128.10.0.10 255.255.255.252
08:12:24: %OSPF-5-ADJCHG: Process 10, Nbr 192.168.10.1 on Serial2/0 f
Router(config-if)#ip add 128.10.0.5 255.255.255.252
Router(config-if)#ex
```

-Router yang terhubung dengan PC Pak Rizky

```
Router(config)#int se2/0
Router(config-if)#ip add 128.10.0.2 255.255.255.252
Router(config-if)#ex
Router(config)#int se3/0
Router(config-if)#ip add 128.10.0.14 255.255.255.252
Router(config-if)#ex
Router(config)#int fa0/0
Router(config-if)#ip add 192.168.1.1 255.255.255.252
Router(config-if)#ex
```

#### 4. Routing Dinamis dengan OSPF pada setiap Router

-Router yang terhubung dengan Switch-VLAN10

```
Router(config)#router ospf 10
Router(config-router)#net 128.10.0.8 0.0.0.3 area 1
Router(config-router)#net 128.10.0.12 0.0.0.3 area 1
Router(config-router)#net 192.168.10.0 0.0.0.31 area 1
Router(config-router)#ex
```

-Router yang terhubung dengan Switch-VLAN20

```
Router(config)#router ospf 10
Router(config-router)#net 128.10.0.0 0.0.0.3 area 1
Router(config-router)#net 128.10.0.4 0.0.0.3 area 1
Router(config-router)#net 192.168.20.0 0.0.0.31 area 1
Router(config-router)#ex
```

-Router yang terhubung dengan Switch-VLAN30

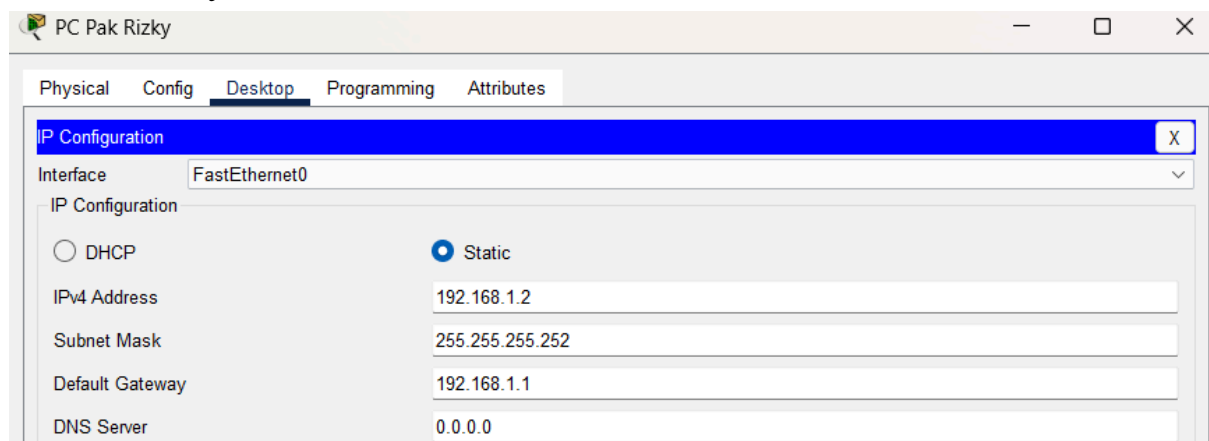
```
Router(config)#router ospf 10
Router(config-router)#net 128.10.0.8 0.0.0.3 area 1
Router(config-router)#net 128.10.0.4 0.0.0.3 area 1
Router(config-router)#net 192.168.30.0 0.0.0.31 area 1
Router(config-router)#ex
```

-Router yang terhubung dengan PC Pak Rizky

```
Router(config)#router ospf 10
Router(config-router)#net 128.10.0.0 0.0.0.3 area 1
Router(config-router)#net 128.10.0.12 0.0.0.3 area 1
Router(config-router)#net 192.168.1.0 0.0.0.3 area 1
Router(config-router)#ex
```

## 5. Assign IP Address untuk End Devices

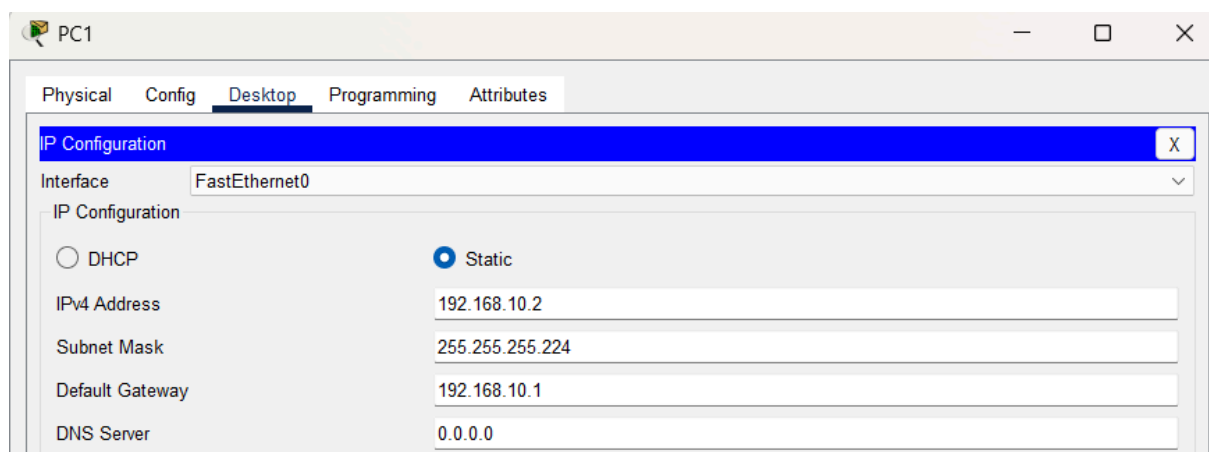
-PC Pak Rizky



The screenshot shows the configuration window for 'PC Pak Rizky'. The 'Desktop' tab is selected. Under 'IP Configuration', the 'Interface' is set to 'FastEthernet0'. The 'Static' radio button is selected for IP configuration. The fields are filled with: IPv4 Address: 192.168.1.2, Subnet Mask: 255.255.255.252, Default Gateway: 192.168.1.1, and DNS Server: 0.0.0.0.

Interface	FastEthernet0
IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IPv4 Address	192.168.1.2
Subnet Mask	255.255.255.252
Default Gateway	192.168.1.1
DNS Server	0.0.0.0

-Vlan 10



The screenshot shows the configuration window for 'PC1'. The 'Desktop' tab is selected. Under 'IP Configuration', the 'Interface' is set to 'FastEthernet0'. The 'Static' radio button is selected for IP configuration. The fields are filled with: IPv4 Address: 192.168.10.2, Subnet Mask: 255.255.255.224, Default Gateway: 192.168.10.1, and DNS Server: 0.0.0.0.

Interface	FastEthernet0
IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IPv4 Address	192.168.10.2
Subnet Mask	255.255.255.224
Default Gateway	192.168.10.1
DNS Server	0.0.0.0

PC2

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.10.3

Subnet Mask 255.255.255.224

Default Gateway 192.168.10.1

DNS Server 0.0.0.0

PC3

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.10.4

Subnet Mask 255.255.255.224

Default Gateway 192.168.10.1

DNS Server 0.0.0.0

## -Vlan 20

PC Lab Jarkom

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.20.2

Subnet Mask 255.255.255.224

Default Gateway 192.168.20.1

DNS Server 0.0.0.0

Laptop Adrian

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.20.3

Subnet Mask 255.255.255.224

Default Gateway 192.168.20.1

DNS Server 0.0.0.0

Laptop Abdul

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.20.4

Subnet Mask 255.255.255.224

Default Gateway 192.168.20.1

DNS Server 0.0.0.0

## -Vlan 30

PC Iqbal

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

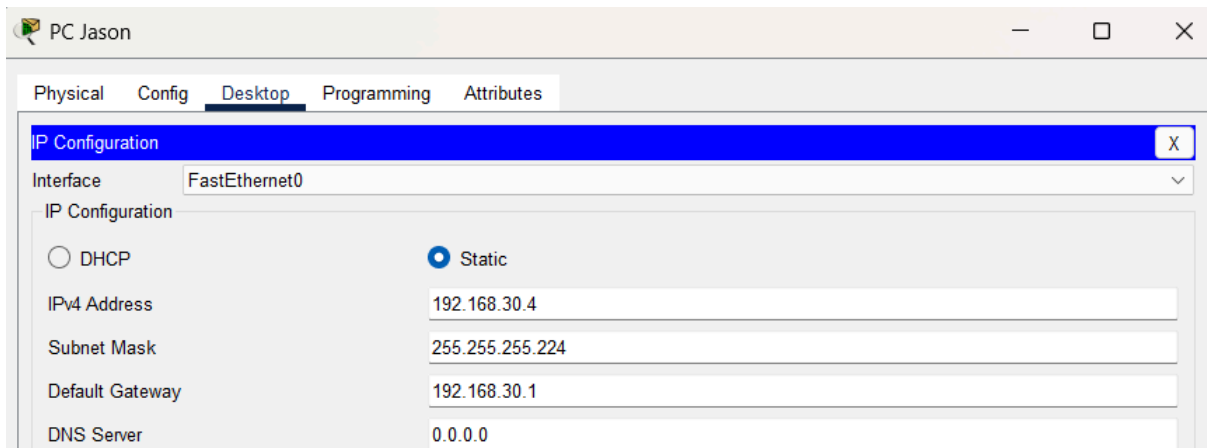
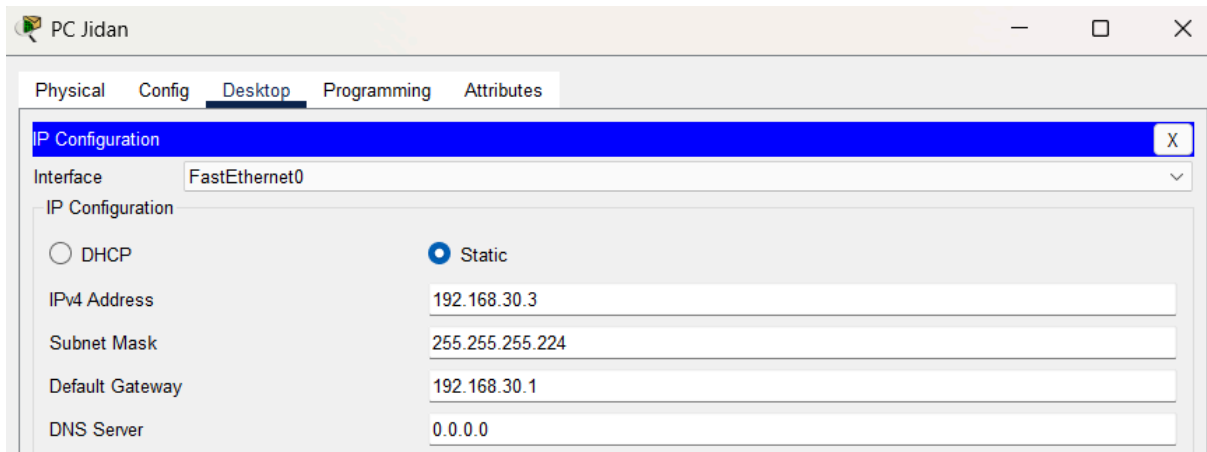
☐ DHCP ☒ Static

IPv4 Address 192.168.30.2

Subnet Mask 255.255.255.224

Default Gateway 192.168.30.1

DNS Server 0.0.0.0



## 6. Bukti Successful

PDU List Window										
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC Pa...	PC Iqbal	ICMP		0.000	N	0	(edit)	
	Successful	PC1	PC2	ICMP		0.000	N	1	(edit)	
	Successful	PC1	PC Jason	ICMP		0.000	N	2	(edit)	
	Successful	PC1	Laptop Abdul	ICMP		0.000	N	3	(edit)	
	Successful	PC1	PC Pak Rizky	ICMP		0.000	N	4	(edit)	
	Successful	PC Pa...	PC Jidan	ICMP		0.000	N	5	(edit)	
	Successful	PC3	PC Lab Jarkom	ICMP		0.000	N	6	(edit)	