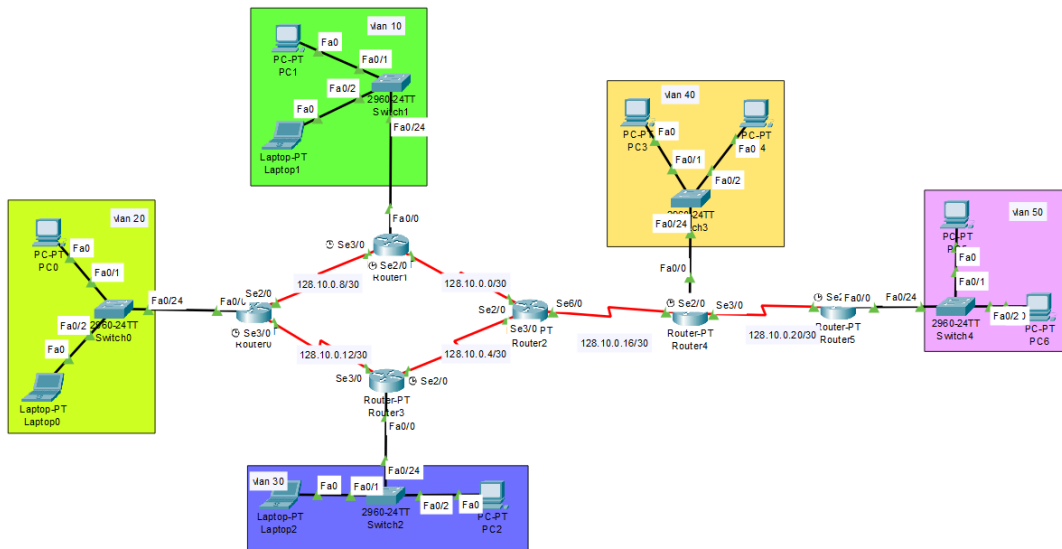


## TP 8 Routing Statis 2024

Nama : Muhammad 'Azmi Salam  
NIM : 2406010  
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 fa0/1-2
Switch(config-if-range)#sw mod sccess
Switch(config-if-range)#sw mod access
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)#int ra fa0/1-2
Switch(config-if-range)#sw mod access
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 trunk allowed vlan 20
Switch(config-if)#ex
```

```
Switch(config)#vlan 30
Switch(config-vlan)#name vlan30
Switch(config-vlan)#ex
Switch(config)#int ra fa0/1-2
Switch(config-if-range)#sw mod access
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 trunk allowed vlan 30
Switch(config-if)#
```

```
Switch(config)#vlan 40
Switch(config-vlan)#name vlan40
Switch(config-vlan)#ex
Switch(config)#int ra fa0/1-2
Switch(config-if-range)#sw mod acc
Switch(config-if-range)#sw acc vlan 40
Switch(config-if-range)#ex
Switch(config)#int fa0/24
Switch(config-if)#sw mod trunk
Switch(config-if)#sw trunk allowed vlan 40
Switch(config-if)#
```

```
Switch(config)#vlan 50
Switch(config-vlan)#name vlan50
Switch(config-vlan)#ex
Switch(config)#int ra fa0/1-2
Switch(config-if-range)#sw mod acc
Switch(config-if-range)#sw acc vlan 50
Switch(config-if-range)#ex
Switch(config)#int fa0/24
Switch(config-if)#sw mod trunk
Switch(config-if)#sw trunk allowed vlan 50
Switch(config-if)#
```

## 2. Intervlan/ Encapsulation

-Router yang terhubung dengan Switch-VLAN10

```
Router(config)#int fa0/0.10
Router(config-subif)#encap dot1q 10
Router(config-subif)#ip add 192.168.26.30 255.255.255.224
Router(config-subif)#ex
```

-Router yang terhubung dengan Switch-VLAN20

```
Router(config)#int fa0/0.20
Router(config-subif)#encap dot1q 20
Router(config-subif)#ip add 192.168.26.62 255.255.255.224
Router(config-subif)#ex
```

-Router yang terhubung dengan Switch-VLAN30

```
Router(config)#int fa0/0.30
Router(config-subif)#encap dot1q 30
Router(config-subif)#ip add 192.168.26.94 255.255.255.224
Router(config-subif)#ex
```

-Router yang terhubung dengan Switch-VLAN40

```
Router(config)#int fa0/0.40
Router(config-subif)#encap dot1q 40
Router(config-subif)#ip add 192.168.26.126 255.255.255.224
Router(config-subif)#ex
```

-Router yang terhubung dengan Switch-VLAN50

```
Router(config)#int fa0/0.50
Router(config-subif)#encap dot1q 50
Router(config-subif)#ip add 192.168.26.158 255.255.255.224
Router(config-subif)#ex
```

## 3. Assign IP Address pada setiap router

-Router yang terhubung dengan Switch-VLAN10

```
Router(config)#int se3/0
Router(config-if)#ip add 128.10.0.9 255.255.255.252
Router(config-if)#ex
Router(config)#int se2/0
Router(config-if)#ip add 128.10.0.1 255.255.255.252
Router(config-if)#ex
```

-Router yang terhubung dengan Switch-VLAN20

```
Router(config)#int se2/0
Router(config-if)#ip add 128.10.0.10 255.255.255.252
Router(config-if)#ex
Router(config)#int se3/0
Router(config-if)#ip add 128.10.0.13 255.255.255.252
Router(config-if)#ex
```

-Router yang terhubung dengan Switch-VLAN30

```
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 se2/0
Router(config-if)#ip add 128.10.0.5 255.255.255.252
Router(config-if)#ex
```

-Router tengah/ Router2

```
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 128.10.0.6 255.255.255.252
Router(config-if)#ex
Router(config)#int se6/0
Router(config-if)#ip add 128.10.0.17 255.255.255.252
Router(config-if)#ex
```

-Router yang terhubung dengan Switch-VLAN40

```
Router(config)#int se2/0
Router(config-if)#ip add 128.10.0.18 255.255.255.252
Router(config-if)#ex
Router(config)#int se3/0
Router(config-if)#ip add 128.10.0.21 255.255.255.252
Router(config-if)#ex
```

-Router yang terhubung dengan Switch-VLAN50

```
Router(config)#int se2/0
Router(config-if)#ip add 128.10.0.22 255.255.255.252
Router(config-if)#ex
```

#### 4. Routing Statis pada setiap Router

-Router yang terhubung dengan Switch-VLAN10

```
Router(config)#ip route 192.168.26.32 255.255.255.224 128.10.0.10
Router(config)#ip route 192.168.26.64 255.255.255.224 128.10.0.2
Router(config)#ip route 192.168.26.96 255.255.255.224 128.10.0.2
Router(config)#ip route 192.168.26.128 255.255.255.224 128.10.0.2
Router(config)#ip route 128.10.0.4 255.255.255.252 128.10.0.2
Router(config)#ip route 128.10.0.16 255.255.255.252 128.10.0.2
Router(config)#ip route 128.10.0.20 255.255.255.252 128.10.0.2
Router(config)#ip route 128.10.0.12 255.255.255.252 128.10.0.10
Router(config)#ex
```

-Router yang terhubung dengan Switch-VLAN20

```
Router(config)#ip route 192.168.26.0 255.255.255.224 128.10.0.9
Router(config)#ip route 192.168.26.64 255.255.255.224 128.10.0.14
Router(config)#ip route 192.168.26.96 255.255.255.224 128.10.0.9
Router(config)#ip route 192.168.26.128 255.255.255.224 128.10.0.9
Router(config)#ip route 128.10.0.0 255.255.255.252 128.10.0.9
Router(config)#ip route 128.10.0.4 255.255.255.252 128.10.0.14
Router(config)#ip route 128.10.0.16 255.255.255.252 128.10.0.9
Router(config)#ip route 128.10.0.20 255.255.255.252 128.10.0.9
Router(config)#ex
```

-Router yang terhubung dengan Switch-VLAN30

```
Router(config)#ip route 192.168.26.0 255.255.255.224 128.10.0.6
Router(config)#ip route 192.168.26.32 255.255.255.224 128.10.0.13
Router(config)#ip route 192.168.26.96 255.255.255.224 128.10.0.6
Router(config)#ip route 192.168.26.128 255.255.255.224 128.10.0.6
Router(config)#ip route 128.10.0.8 255.255.255.224 128.10.0.13
%Inconsistent address and mask
Router(config)#ip route 128.10.0.8 255.255.255.252 128.10.0.13
Router(config)#ip route 128.10.0.0 255.255.255.252 128.10.0.6
Router(config)#ip route 128.10.0.16 255.255.255.252 128.10.0.6
Router(config)#ip route 128.10.0.20 255.255.255.252 128.10.0.6
Router(config)#ex
```

-Router tengah/ Router2

```
Router(config)#ip route 192.168.26.0 255.255.255.224 128.10.0.1
Router(config)#ip route 192.168.26.32 255.255.255.224 128.10.0.1
Router(config)#ip route 192.168.26.64 255.255.255.224 128.10.0.5
Router(config)#ip route 192.168.26.96 255.255.255.224 128.10.0.18
Router(config)#ip route 192.168.26.128 255.255.255.224 128.10.0.18
Router(config)#ip route 128.10.0.8 255.255.255.252 128.10.0.1
Router(config)#ip route 128.10.0.12 255.255.255.252 128.10.0.5
Router(config)#ip route 128.10.0.20 255.255.255.252 128.10.0.18
Router(config)#ex
```

-Router yang terhubung dengan Switch-VLAN40

```
Router(config)#ip route 192.168.26.128 255.255.255.224 128.10.0.22
Router(config)#ip route 192.168.26.0 255.255.255.224 128.10.0.17
Router(config)#ip route 192.168.26.32 255.255.255.224 128.10.0.17
Router(config)#ip route 192.168.26.64 255.255.255.224 128.10.0.17
Router(config)#ip route 128.10.0.0 255.255.255.252 128.10.0.17
Router(config)#ip route 128.10.0.4 255.255.255.252 128.10.0.17
Router(config)#ip route 128.10.0.8 255.255.255.252 128.10.0.17
Router(config)#ip route 128.10.0.12 255.255.255.252 128.10.0.17
Router(config)#ex
```

-Router yang terhubung dengan Switch-VLAN50

```
Router(config)#ip route 192.168.26.96 255.255.255.224 128.10.0.21
Router(config)#ip route 192.168.26.0 255.255.255.224 128.10.0.21
Router(config)#ip route 192.168.26.32 255.255.255.224 128.10.0.21
Router(config)#ip route 192.168.26.64 255.255.255.224 128.10.0.21
Router(config)#ip route 128.10.0.16 255.255.255.252 128.10.0.21
Router(config)#ip route 128.10.0.0 255.255.255.252 128.10.0.21
Router(config)#ip route 128.10.0.4 255.255.255.252 128.10.0.21
Router(config)#ip route 128.10.0.8 255.255.255.252 128.10.0.21
Router(config)#ip route 128.10.0.12 255.255.255.252 128.10.0.21
Router(config)#ex
```

## 5. Memasukan IP Address pada setiap di masing-masing VLAN

-Vlan 10

The image shows two screenshots of network device configuration windows. The top window is for 'PC1' and the bottom window is for 'Laptop1'. Both windows have tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes', with 'Desktop' selected. In both, the 'IP Configuration' tab is active, showing a configuration for 'FastEthernet0'. The configuration is set to 'Static' (indicated by a blue dot). The fields are as follows:

Field	PC1 Value	Laptop1 Value
Interface	FastEthernet0	FastEthernet0
IP Configuration	Static	Static
IPv4 Address	192.168.26.1	192.168.26.2
Subnet Mask	255.255.255.224	255.255.255.224
Default Gateway	192.168.26.30	192.168.26.30
DNS Server	0.0.0.0	0.0.0.0

## -Vlan 20

PC0

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.26.33

Subnet Mask 255.255.255.224

Default Gateway 192.168.26.62

DNS Server 0.0.0.0

Laptop0

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.26.34

Subnet Mask 255.255.255.224

Default Gateway 192.168.26.62

DNS Server 0.0.0.0

## -Vlan 30

Laptop2

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.26.65

Subnet Mask 255.255.255.224

Default Gateway 192.168.26.94

DNS Server 0.0.0.0

PC2

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.26.66

Subnet Mask 255.255.255.224

Default Gateway 192.168.26.94

DNS Server 0.0.0.0

-Vlan 40

PC3

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.26.97

Subnet Mask 255.255.255.224

Default Gateway 192.168.26.126

DNS Server 0.0.0.0

PC4

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.26.98

Subnet Mask 255.255.255.224

Default Gateway 192.168.26.126

DNS Server 0.0.0.0



## -Vlan 50

PC5

Physical Config Desktop Programming Attributes

IP Configuration

InterfaceFastEthernet0

IP Configuration

☐ DHCP
☒ Static

IPv4 Address192.168.26.129

Subnet Mask255.255.255.224

Default Gateway192.168.26.158

DNS Server0.0.0.0

PC6

Physical Config Desktop Programming Attributes

IP Configuration

InterfaceFastEthernet0

IP Configuration

☐ DHCP
☒ Static















IPv4 Address192.168.26.130

Subnet Mask255.255.255.224

Default Gateway192.168.26.158

DNS Server0.0.0.0

## 6. Bukti Successful

PDU List Window										
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC5	PC2	ICMP		0.000	N	58	(edit)	
	Successful	PC3	PC6	ICMP		0.000	N	59	(edit)	
	Successful	PC1	Laptop1	ICMP		0.000	N	60	(edit)	
	Successful	PC1	PC0	ICMP		0.000	N	61	(edit)	
	Successful	PC1	Laptop2	ICMP		0.000	N	62	(edit)	
	Successful	PC1	PC3	ICMP		0.000	N	63	(edit)	
	Successful	PC1	PC5	ICMP		0.000	N	64	(edit)	