

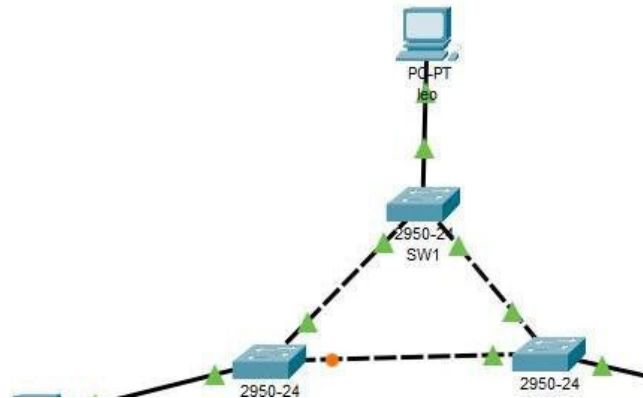
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NIM : L200180180

Praktikum Jaringan Komputer

Modul 6

Kegiatan 1. Topologi 1 Tugas 1A:



Tugas 2A:

PC leo

leo

Physical Config Desktop Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 172.21.1.1

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::2D0:BAFF:FEC9:8135

IPv6 Gateway

IPv6 DNS Server

PC Aries

aries

Physical Config **Desktop** Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 172.21.1.2

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::201:97FF:FE6E:C918

IPv6 Gateway

IPv6 DNS Server

PC Virgo

virgo

Physical Config **Desktop** Programming Attributes

IP Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 172.21.1.3

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 /

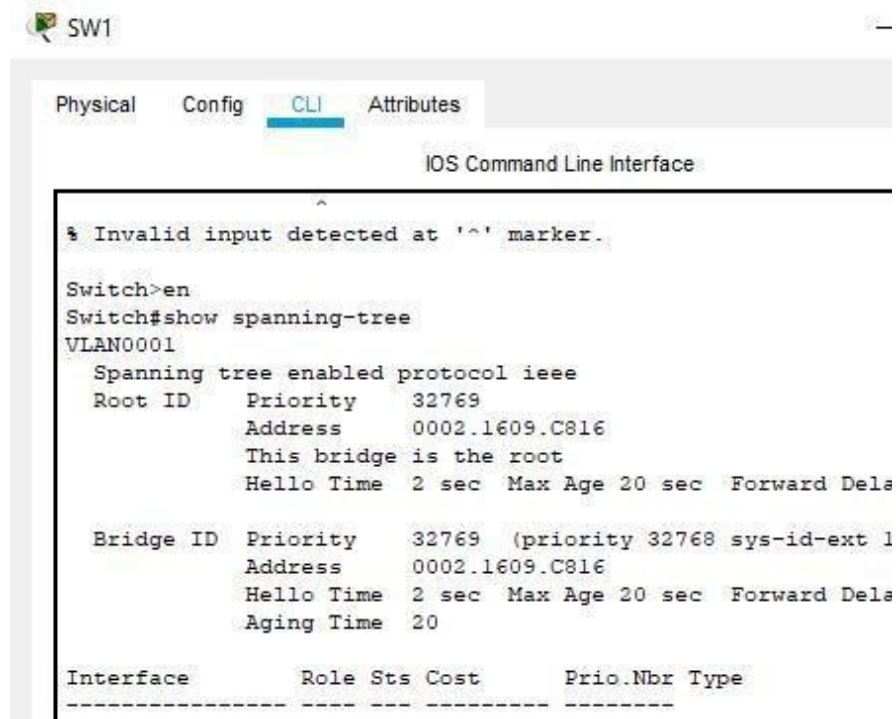
Link Local Address FE80::260:47FF:FE77:8E03

IPv6 Gateway

IPv6 DNS Server

Tugas 4A:

Status STP SW1



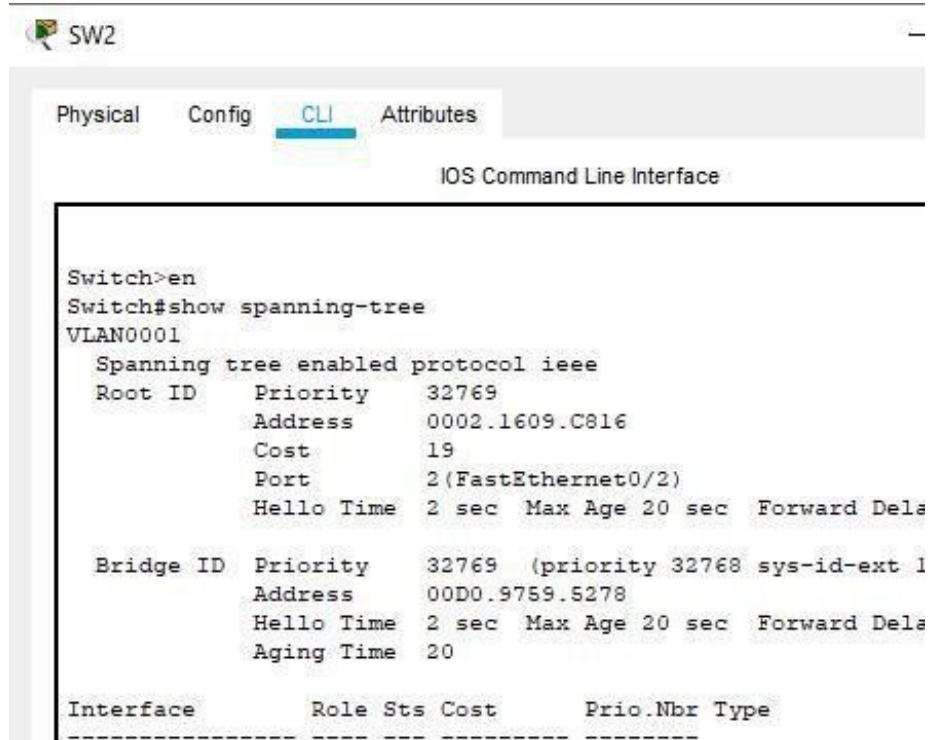
SW1

Physical Config **CLI** Attributes

IOS Command Line Interface

```
% Invalid input detected at '^' marker.  
Switch>en  
Switch#show spanning-tree  
VLAN0001  
  Spanning tree enabled protocol ieee  
  Root ID    Priority    32769  
            Address     0002.1609.C816  
            This bridge is the root  
            Hello Time 2 sec  Max Age 20 sec  Forward Dela  
  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1  
            Address     0002.1609.C816  
            Hello Time 2 sec  Max Age 20 sec  Forward Dela  
            Aging Time 20  
  
Interface      Role Sts Cost      Prio.Nbr Type  
-----
```

Status STP SW2



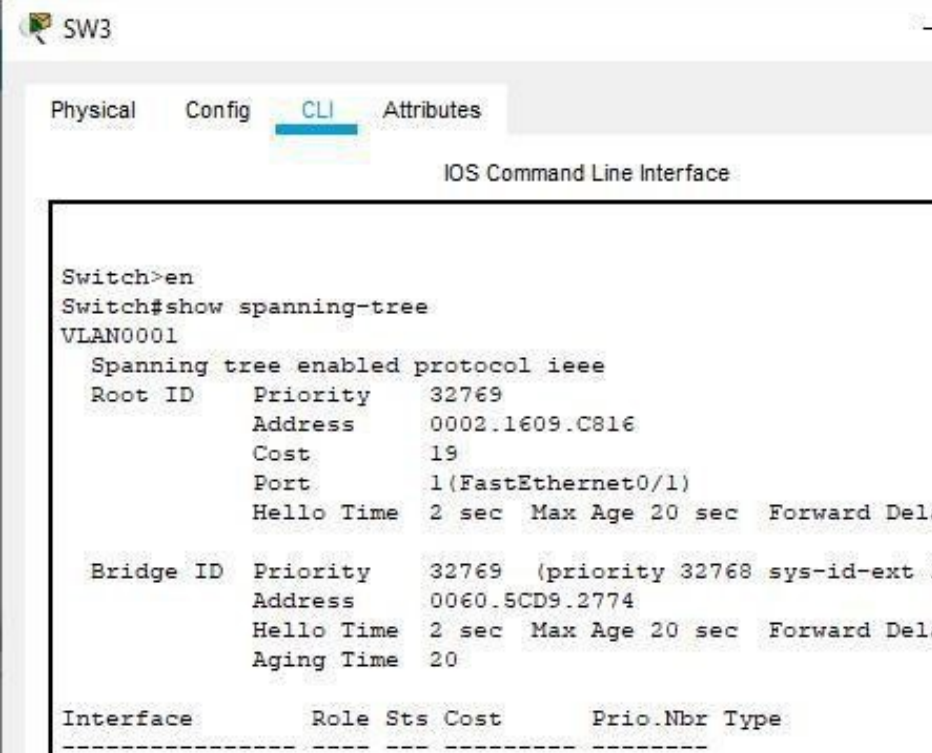
SW2

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>en  
Switch#show spanning-tree  
VLAN0001  
  Spanning tree enabled protocol ieee  
  Root ID    Priority    32769  
            Address     0002.1609.C816  
            Cost         19  
            Port         2 (FastEthernet0/2)  
            Hello Time 2 sec  Max Age 20 sec  Forward Dela  
  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1  
            Address     00D0.9759.5278  
            Hello Time 2 sec  Max Age 20 sec  Forward Dela  
            Aging Time 20  
  
Interface      Role Sts Cost      Prio.Nbr Type  
-----
```

Status STP SW3



```

SW3
Physical Config CLI Attributes
IOS Command Line Interface

Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address    0002.1609.C816
             Cost      19
             Port      1(FastEthernet0/1)
             Hello Time 2 sec  Max Age 20 sec  Forward Dela
  Bridge ID   Priority    32769  (priority 32768 sys-id-ext 1)
             Address    0060.5CD9.2774
             Hello Time 2 sec  Max Age 20 sec  Forward Dela
             Aging Time 20

Interface      Role Sts Cost      Prio.Nbr Type
-----

```

Tugas 4B:

SW1

No	Variable	Nilai
1	Root ID	
2	Priority	32769
3	MAC Address	0002.1609.C816
4	Bridge ID	
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

SW2

No	Variable	Nilai
1	Root ID	
2	Priority	32769
3	MAC Address	0002.1609.C816
4	Bridge ID	
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

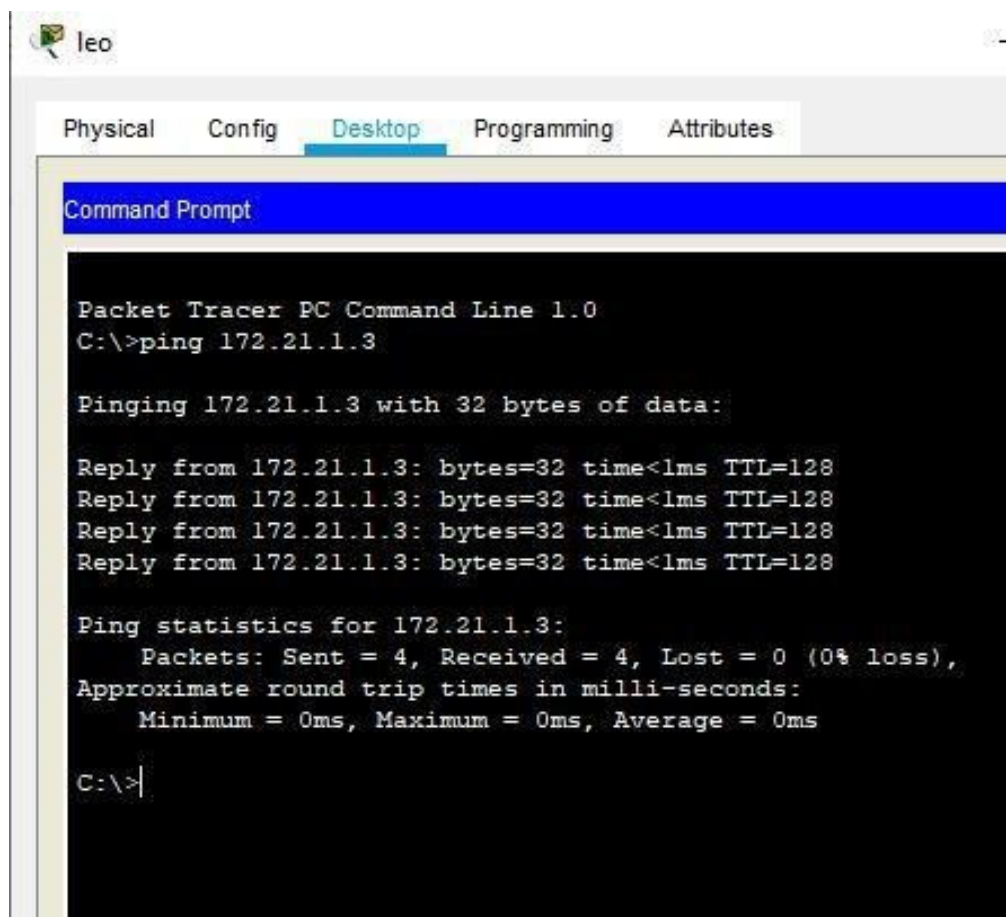
No	Variable	Nilai
1	Root ID	
2	Priority	32769
3	MAC Address	0002.1609.C816
4	Bridge ID	
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

Tugas 4C:

- *Root Bridge* = SW3
- *Designated Bridge* = SW1
- *Root Port* = Fa0/3 pada SW1 dan Fa0/3 pada SW2
- *Designated Port* = Fa0/1 dan Fa0/2

Tugas 4D:

- Berada pada keadaan *forwarding* pada SW1(Fa0/1, Fa0/2, dan Fa0/3), SW2(Fa0/1 dan Fa0/3), dan SW3(Fa0/1, Fa0/2, dan Fa0/3).
- Berada pada keadaan *blocking* pada SW2(Fa0/2).

Tugas 5A:


The screenshot shows the Packet Tracer interface with the 'Desktop' tab selected. A 'Command Prompt' window is open, displaying the output of a ping command from a PC to the IP address 172.21.1.3. The output shows four successful replies with 0% loss and 0ms round trip times.

```

Packet Tracer PC Command Line 1.0
C:\>ping 172.21.1.3

Pinging 172.21.1.3 with 32 bytes of data:

Reply from 172.21.1.3: bytes=32 time<1ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128

Ping statistics for 172.21.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>

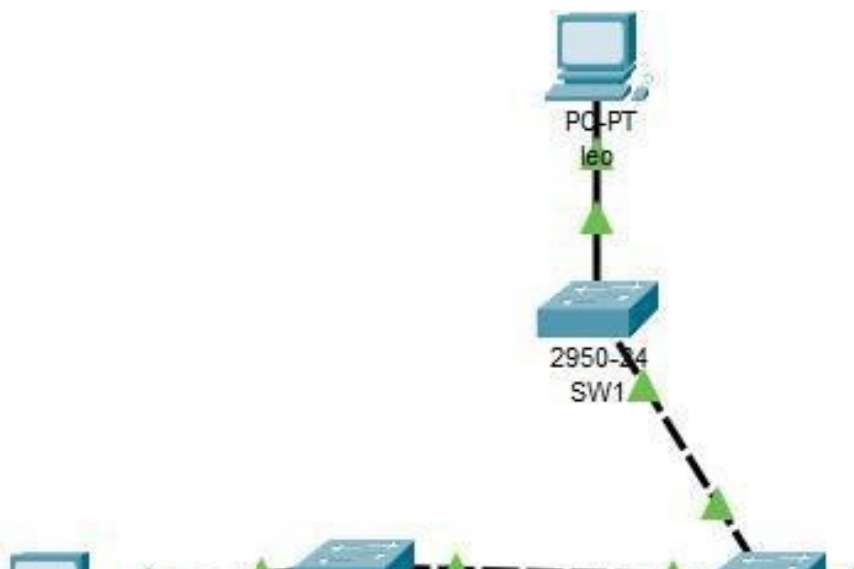
```

Tugas 6A:



2. Kegiatan 2. Topologi 2

a. Menggunakan Packet Tracer ubah topologi menjadi seperti topologi berikut ini

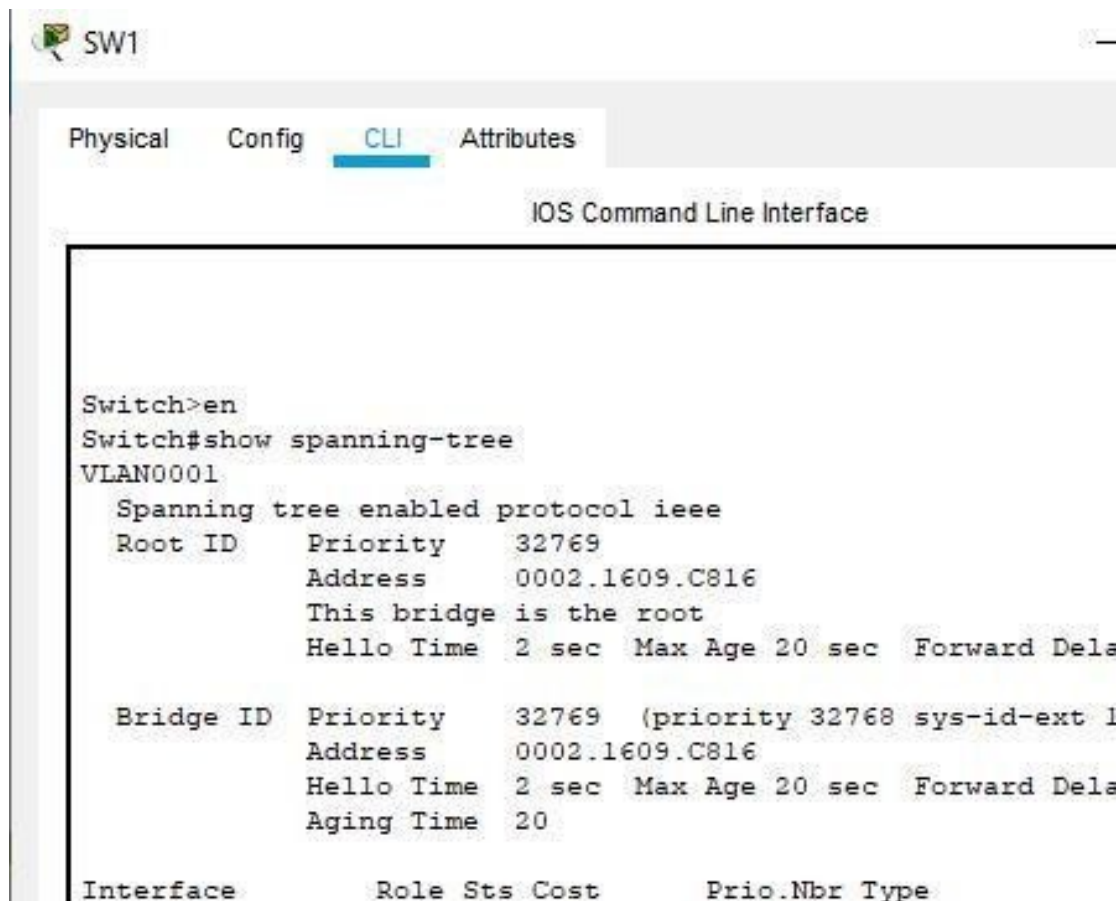


Tugas 9A:

Setelah mengubah struktur topologi jaringan selanjutnya lakukan seperti pada lab.4 dan lab.5 menentukan kondisi *default* tersebut, *switch* dan *port* dengan mengetik *show spanning-tree* pada masing-masing Switch.

- Menjadi *root bridge* adalah SW3
- Menjadi *designated bridge* adalah tidak ada yang memiliki jalur terblok.
- Menjadi *root port* adalah SW1(Fa0/3) dan SW2(Fa0/3).
- Menjadi *designated port* adalah tidak ada *designated port* karena pada *designated bridge* tidak ada jalur yang terblok.

Pada semua *switch* semua *port* pada keadaan *Forwarding*, tidak ada *port* yang ter *Blocking*.



The screenshot shows the CLI of a switch named SW1. The 'CLI' tab is selected in the top navigation bar. The command 'show spanning-tree' has been executed, displaying the following output:

```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0002.1609.C816
             This bridge is the root
             Hello Time 2 sec  Max Age 20 sec  Forward Dela
  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1
             Address     0002.1609.C816
             Hello Time 2 sec  Max Age 20 sec  Forward Dela
             Aging Time  20

Interface    Role Sts Cost      Prio.Nbr Type
```


IOS Command Line Interface

changed state to down

Switch>en

Switch#show spanning-tree

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769
 Address 0002.1609.C816
 Cost 38
 Port 3(FastEthernet0/3)
 Hello Time 2 sec Max Age 20 sec Forward Dela

Bridge ID Priority 32769 (priority 32768 sys-id-ext 1
 Address 00D0.9759.5278
 Hello Time 2 sec Max Age 20 sec Forward Dela
 Aging Time 20

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa0/3	Root	FWD	19	128.3	P2p
Fa0/1	Desg	FWD	19	128.1	P2p

Switch#

Ctrl+F6 to exit CLI focus

Copy

☐ Top

IOS Command Line Interface

Switch>en

Switch#show spanning-tree

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769
 Address 0002.1609.C816
 Cost 19
 Port 1(FastEthernet0/1)
 Hello Time 2 sec Max Age 20 sec Forward Dela

Bridge ID Priority 32769 (priority 32768 sys-id-ext 1
 Address 0060.5CD9.2774
 Hello Time 2 sec Max Age 20 sec Forward Dela
 Aging Time 20