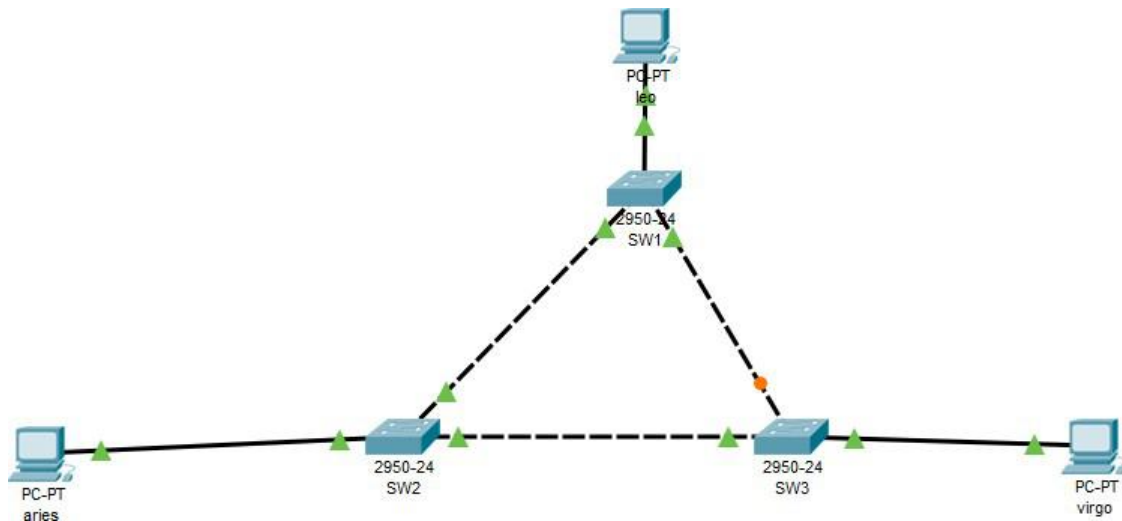


## **Modul 6** **Prak Jarkom**

### **Kegiatan 1. Topologi 1**



#### **Tugas 1A:**

Pertama kita beri 3 Switch 2950-24 lalu kita beri masing-masing PC per Switch dan sambungkan antar peripheral dengan media transmisi kabel

#### **Tugas 2A:**

##### **SW1**

Switch>en

Switch#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#hostname SW1

SW1(config)#end

##### **SW2**

Switch>en

Switch#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#hostname SW2

SW2(config)#end

### SW3

Switch>en

Switch#conf t

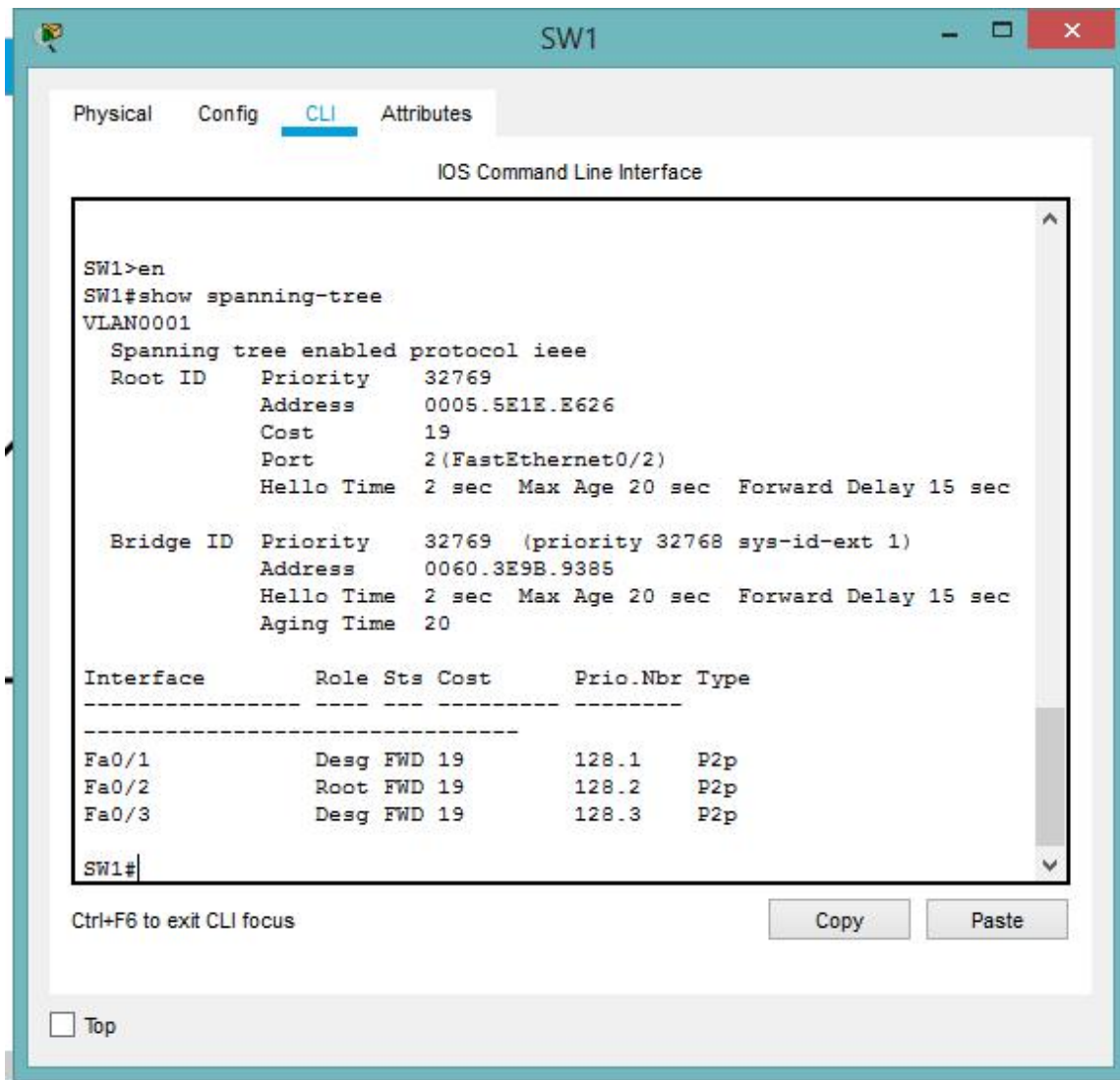
Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#hostname SW3

SW3(config)#end

### Tugas 4A:

### SW1



## SW2

The screenshot shows a network switch window titled 'SW2' with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the 'IOS Command Line Interface'. The terminal output shows the command 'show spanning-tree' for 'VLAN0001', indicating that the spanning tree is enabled and the switch is the root. Below this, a table lists the interfaces and their roles in the spanning tree.

```
changed state to up

SW2>en
SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0005.5E1E.E626
             This bridge is the root
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
             Address     0005.5E1E.E626
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/3          Desg FWD 19        128.3    P2p
Fa0/1          Desg FWD 19        128.1    P2p
Fa0/2          Desg FWD 19        128.2    P2p

SW2#
```

Ctrl+F6 to exit CLI focus

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## SW3

SW3

Physical Config **CLI** Attributes

IOS Command Line Interface

```
SW3>en
SW3#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0005.5E1E.E626
             Cost        19
             Port        2 (FastEthernet0/2)
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
             Address     0090.2BBC.D8B8
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/1          Desg FWD 19        128.1    P2p
Fa0/3          Altn BLK 19        128.3    P2p
Fa0/2          Root FWD 19        128.2    P2p

SW3#
```

Ctrl+F6 to exit CLI focus

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**Tugas 4B:****SW1**

No	Variabel	Nilai
1	Root ID	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0060.3E9B.9385
4	Bridge ID	0060.3E9B.9385
5	Cost(0/1;0/2;0/3)	19/19/19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

**SW2**

No	Variabel	Nilai
1	Root ID	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0005.5E1E.E626
4	Bridge ID	0005.5E1E.E626
5	Cost(0/1;0/2;0/3)	19/19/19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

**SW3**

No	Variabel	Nilai
1	Root ID	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0090.2BBC.D8B8
4	Bridge ID	0090.2BBC.D8B8
5	Cost(0/1;0/2;0/3)	19/19/19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

#### Tugas 4C:

**Root bridge :** SW2

**Designated bridge :** SW1

**Root port :** SW1 (Fa0/2), SW3(Fa0/2)

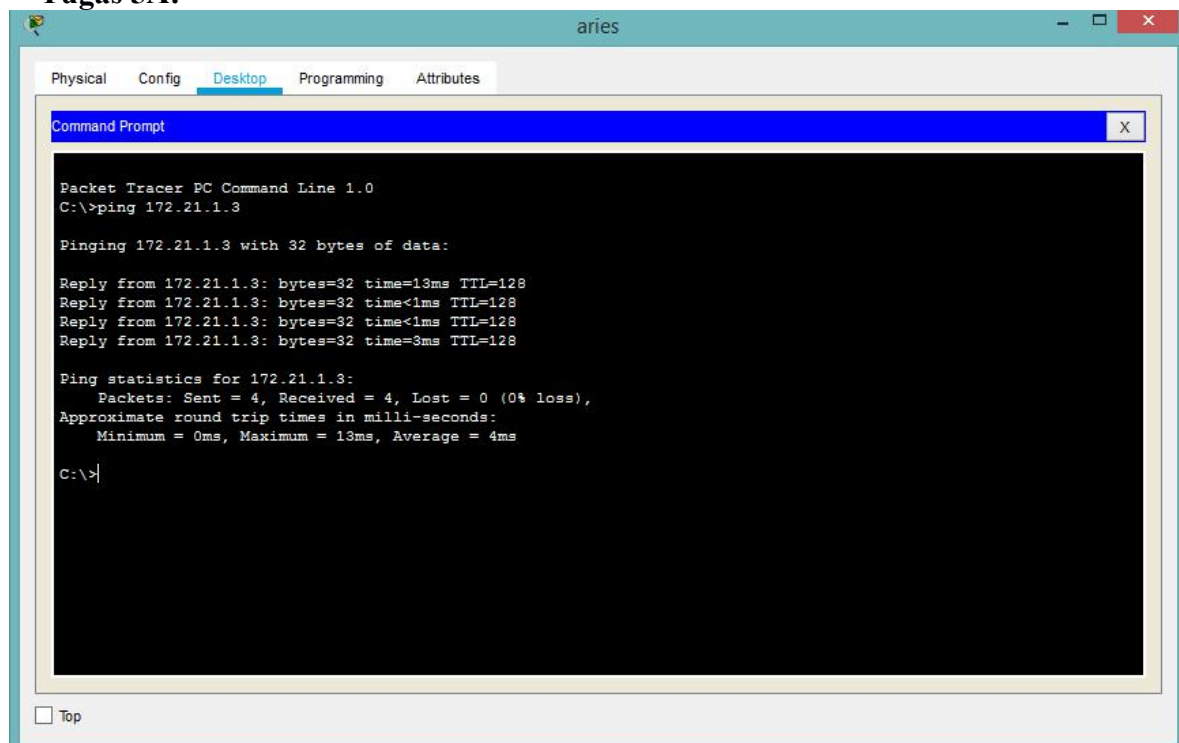
**Designated port :** SW1(Fa0/1;Fa0/3), SW2(Fa0/1,Fa0/2,Fa0/3), SW3(Fa0/1)

#### Tugas 4D:

**Forwarding :** SW1(Fa0/1;Fa0/2;Fa0/3), SW2(Fa0/1;Fa0/2;Fa0/3), SW3(Fa0/1;Fa0/2)

**Blocking :** SW3(Fa0/3)

#### Tugas 5A:



Masuk ke PC >> Desktop >> Command Prompt

Lalu ketik “ping 172.21.1.3”

### Tugas 6A:

Lakukan perintah dibawah untuk setiap switch :

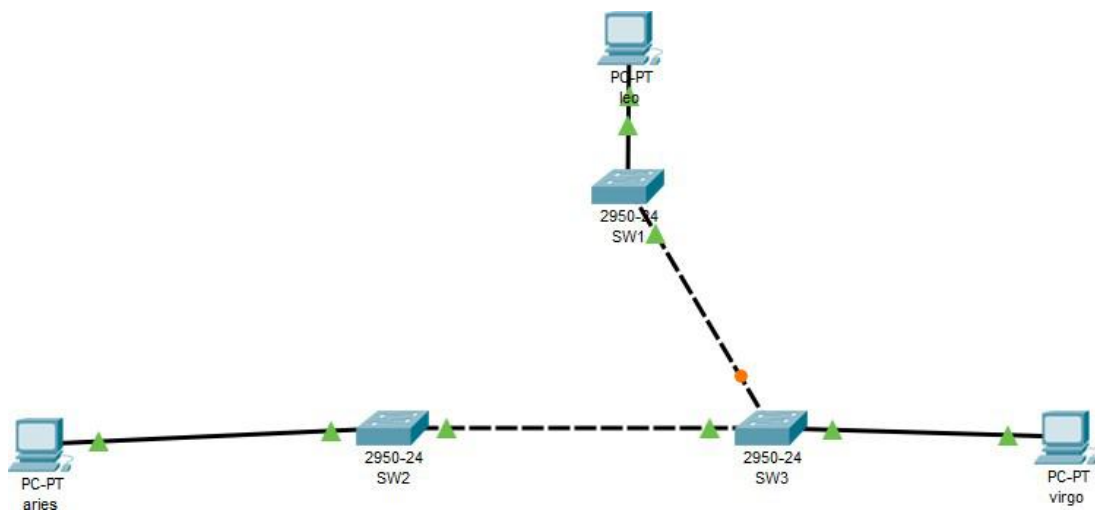
*SW1>en*

*SW1#write*

*Building configuration...*

*[OK]*

### Kegiatan 2. Topologi 2



## Tugas 9A:

### SW1

The screenshot shows the CLI interface of a switch named SW1. The 'CLI' tab is selected. The command 'show spanning-tree' has been executed, displaying the spanning tree configuration for VLAN0001. The output shows that the spanning tree is enabled with the IEEE protocol. The root bridge has a priority of 32769, address 0005.5E1E.E626, and is connected to port 3 (FastEthernet0/3). The bridge ID is 0060.3E9B.9385. The status table shows that Fa0/1 is the designated forwarder (Desg FWD) with a cost of 19, and Fa0/3 is the root forwarder (Root FWD) with a cost of 19. Both interfaces are P2P type.

```
changed state to down

SW1>en
SW1#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address      0005.5E1E.E626
              Cost        38
              Port        3 (FastEthernet0/3)
              Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

    Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
              Address      0060.3E9B.9385
              Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
              Aging Time  20

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

SW1#
```

Ctrl+F6 to exit CLI focus

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## SW2

Physical

Config

CLI

Attributes

SW2

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3,
changed state to down

SW2#en
SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0005.5E1E.E626
             This bridge is the root
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     0005.5E1E.E626
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/1          Desg FWD 19        128.1    P2p
Fa0/2          Desg FWD 19        128.2    P2p

SW2#
```

Ctrl+F6 to exit CLI focus

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## SW3

Physical

Config

CLI

Attributes

SW3

IOS Command Line Interface

```
SW3>en
SW3#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0005.5E1E.E626
             Cost        19
             Port        2(FastEthernet0/2)
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
             Address     0090.2BBC.D8B8
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/1          Desg FWD 19        128.1    P2p
Fa0/3          Desg FWD 19        128.3    P2p
Fa0/2          Root FWD 19        128.2    P2p

SW3#
```

Ctrl+F6 to exit CLI focus

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**SW1**

No	Variabel	Nilai
1	Root ID	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0060.3E9B.9385
4	Bridge ID	0060.3E9B.9385
5	Cost(0/2;0/3)	19/19/19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

**SW2**

No	Variabel	Nilai
1	Root ID	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0005.5E1E.E626
4	Bridge ID	0005.5E1E.E626
5	Cost(0/2;0/3)	19/19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

**SW3**

No	Variabel	Nilai
1	Root ID	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0090.2BBC.D8B8
4	Bridge ID	0090.2BBC.D8B8
5	Cost(0/1;0/2;0/3)	19/19/19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

***Root bridge :*** SW2

***Designated bridge :*** SW3

***Root port :*** SW1 (Fa0/3), SW3(Fa0/2)

***Designated port :*** SW1(Fa0/1), SW2(Fa0/1;Fa0/2), SW3(Fa0/1;Fa0/3)

***Forwarding :*** SW1(Fa0/1;Fa0/3), SW2(Fa0/1;Fa0/2),  
SW3(Fa0/1;Fa0/2;Fa0/3)

***Blocking :*** None