

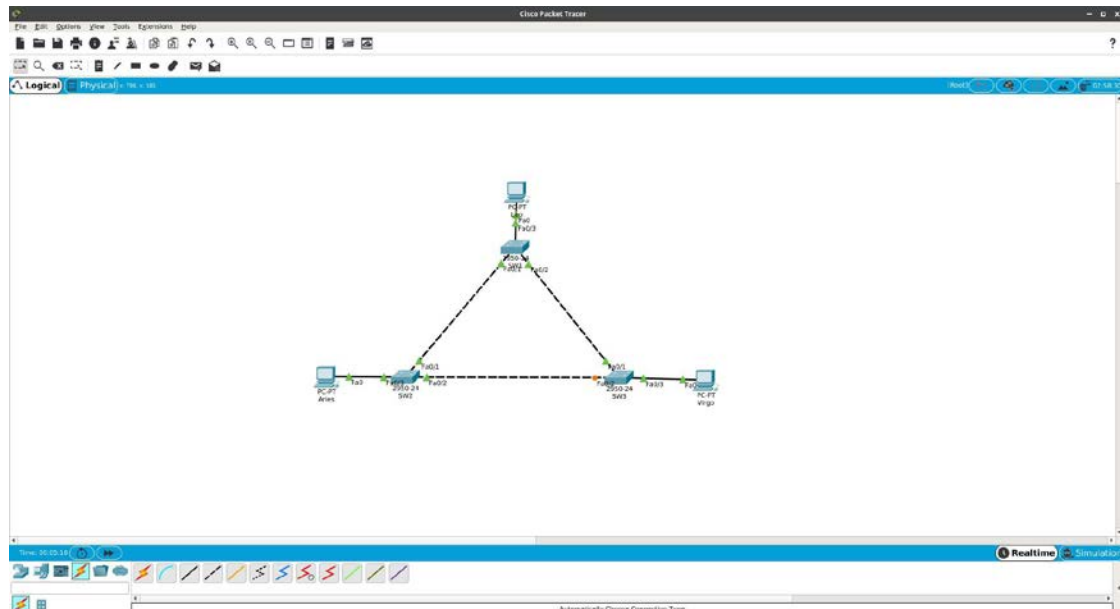
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Kelas : C

Praktikum Jarkom Modul 6

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

The screenshot shows the CLI of switch SW1. The 'CLI' tab is selected in the top navigation bar. The main window displays the output of the 'show spanning-tree' command for VLAN0001. Below this, a table shows the status of interfaces Fa0/1, Fa0/2, and Fa0/3.

```
SW1>en
SW1#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.9633.4035
             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     0001.9633.4035
             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
Fa0/3	Desg	FWD	19	128.3	P2p

SW1#

Ctrl+F6 to exit CLI focus

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☐ Top

SW2

Physical

Config

CLI

Attributes

SW2

IOS Command Line Interface

```
SW2>en
SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.9633.4035
             Cost        19
             Port        1(FastEthernet0/1)
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     0003.E4C0.6B85
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/1          Root FWD 19        128.1    P2p
Fa0/2          Desg FWD 19        128.2    P2p
Fa0/3          Desg FWD 19        128.3    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     0001.9633.4035
             Cost        19
             Port        1(FastEthernet0/1)
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     00E0.8F44.52D6
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

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

SW3#
```

Ctrl+F6 to exit CLI focus

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Tugas 4B:**SW1**

No	Variabel	Nilai
1	Root ID	0001.9633.4035
2	Priority	32769
3	Mac Address	0001.9633.4035
4	Bridge ID	0001.9633.4035
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	0001.9633.4035
2	Priority	32769
3	Mac Address	0003.E4C0.6B85
4	Bridge ID	0003.E4C0.6B85
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	0001.9633.4035
2	Priority	32769
3	Mac Address	00E0.8F44.52D6
4	Bridge ID	00E0.8F44.52D6
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 : SW1

Designated bridge : SW2

Root port : SW2 (Fa0/1), SW3(Fa0/1)

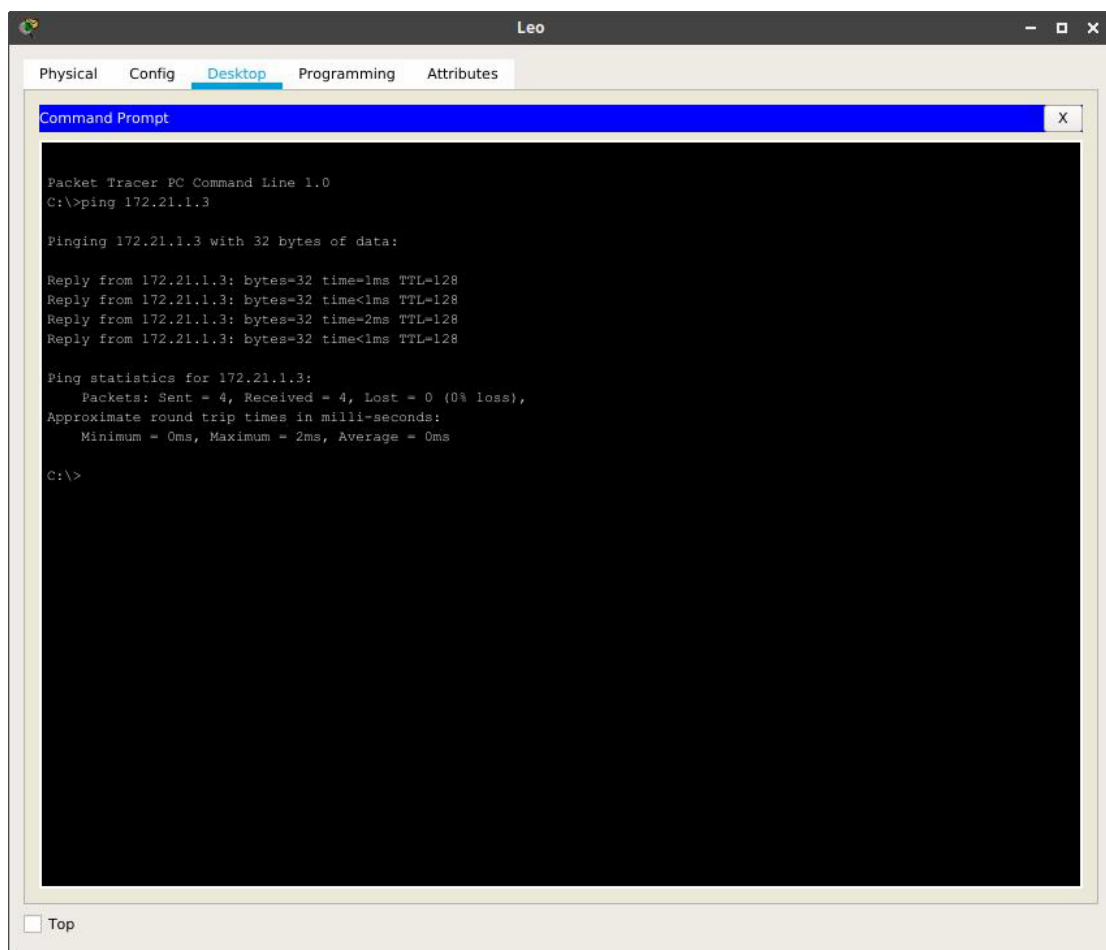
Designated port : SW1(Fa0/1;Fa0/2;Fa0/3), SW2(Fa0/2;Fa0/3), SW3(Fa0/3)

Tugas 4D:

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

Blocking : SW3(Fa0/3)

Tugas 5A:



The screenshot shows a Packet Tracer PC Command Line window titled "Leo". The window has tabs for "Physical", "Config", "Desktop", "Programming", and "Attributes", with "Desktop" selected. Inside the window is a "Command Prompt" window with a blue title bar. The command prompt shows the following text:

```
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=2ms 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 = 2ms, Average = 0ms

C:\>
```

At the bottom left of the Command Prompt window, there is a checkbox labeled "Top" which is currently unchecked.

Masuk ke PC >> Desktop >> Command Prompt

Lalu ketik “ping 172.21.1.3”

Tugas 6A:

Lakukan perintah dibawah untuk setiap switch :

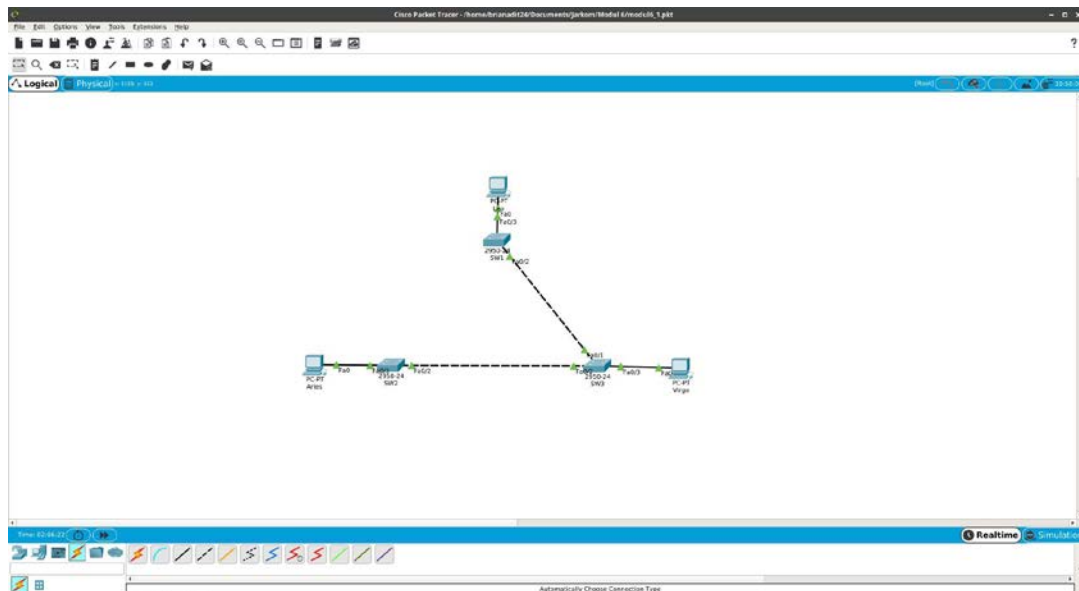
SW1>en

SW1#write

Building configuration...

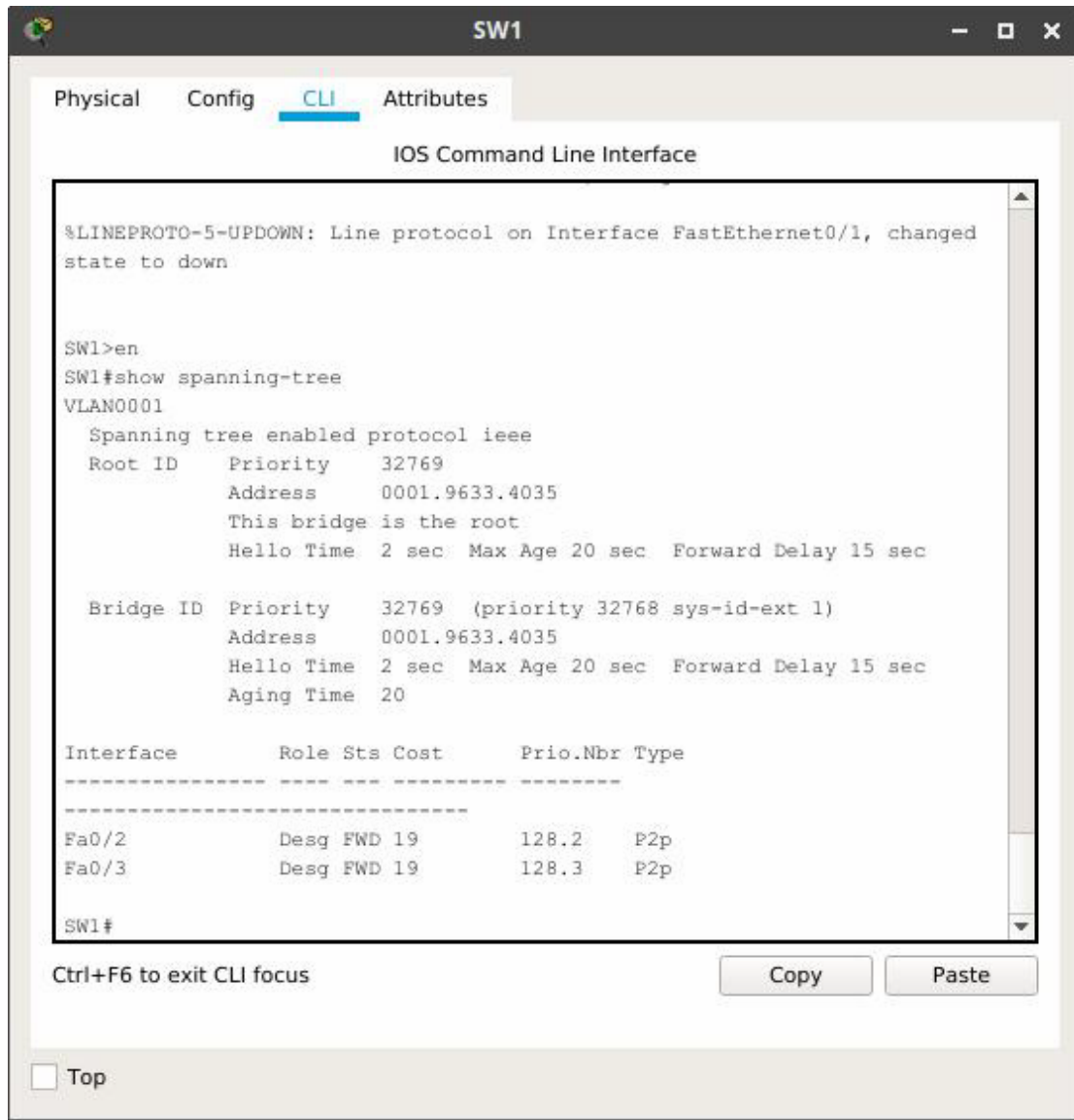
[OK]

Kegiatan 2. Topologi 2



Tugas 9A:

SW1



The screenshot shows the CLI of a switch named SW1. The 'CLI' tab is selected. The output of the 'show spanning-tree' command for VLAN0001 is displayed. It shows that the spanning tree is enabled with the IEEE protocol. The root bridge is SW1 itself, with a priority of 32769 and MAC address 0001.9633.4035. The bridge is the root of the tree. The hello time is 2 seconds, max age is 20 seconds, and forward delay is 15 seconds. The aging time is 20 seconds. Below this, a table shows the status of interfaces Fa0/2 and Fa0/3. Both are in the 'Desg FWD' state with a cost of 19. Fa0/2 has a priority of 128.2 and is a P2p interface. Fa0/3 has a priority of 128.3 and is a P2p interface. The prompt 'SW1#' is visible at the bottom of the CLI window.

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed
state to down

SW1>en
SW1#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address     0001.9633.4035
              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     0001.9633.4035
              Hello Time 2 sec  Max Age 20 sec  Forward Delay 15 sec
              Aging Time  20

Interface                Role Sts Cost      Prio.Nbr Type
-----
Fa0/2                    Desg FWD 19       128.2    P2p
Fa0/3                    Desg 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 FastEthernet0/1, changed
state to down

SW2>en
SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address      0001.9633.4035
              Cost        38
              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      0003.E4C0.6B85
              Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
              Aging Time  20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/2          Root FWD 19        128.2    P2p
Fa0/3          Desg FWD 19        128.3    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     0001.9633.4035
            Cost        19
            Port        1(FastEthernet0/1)
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
            Address     00E0.8F44.52D6
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
            Aging Time  20

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

SW3#
```

Ctrl+F6 to exit CLI focus

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SW1

No	Variabel	Nilai
1	Root ID	0001.9633.4035
2	Priority	32769
3	Mac Address	0001.9633.4035
4	Bridge ID	0001.9633.4035
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	0001.9633.4035
2	Priority	32769
3	Mac Address	0003.E4C0.6B85
4	Bridge ID	0003.E4C0.6B85
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	0001.9633.4035
2	Priority	32769
3	Mac Address	00E0.8F44.52D6
4	Bridge ID	00E0.8F44.52D6
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 : SW1

Designated bridge : SW3

Root port : SW2 (Fa0/1), SW3(Fa0/2)

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

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

Blocking : None