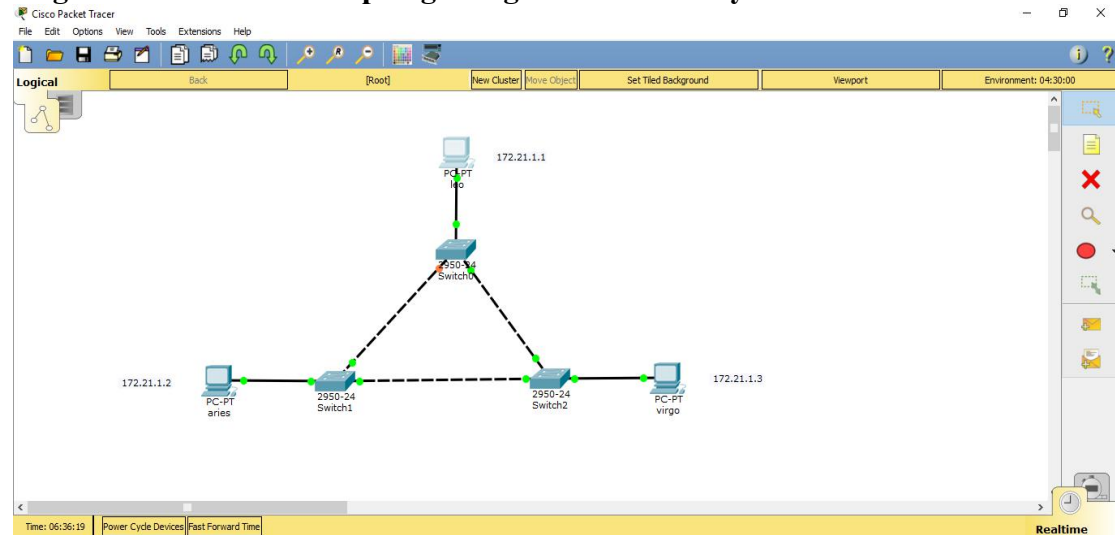


Nama : Rifqi Alwan P  
NIM : L200180008  
Kelas A

## MODUL 6

### Kegiatan 1. Topologi 1

#### Tugas 1A. Pembuatan Topologi dengan switch Catalyst 2950.



#### Tugas 2A. Memberi nama SW1

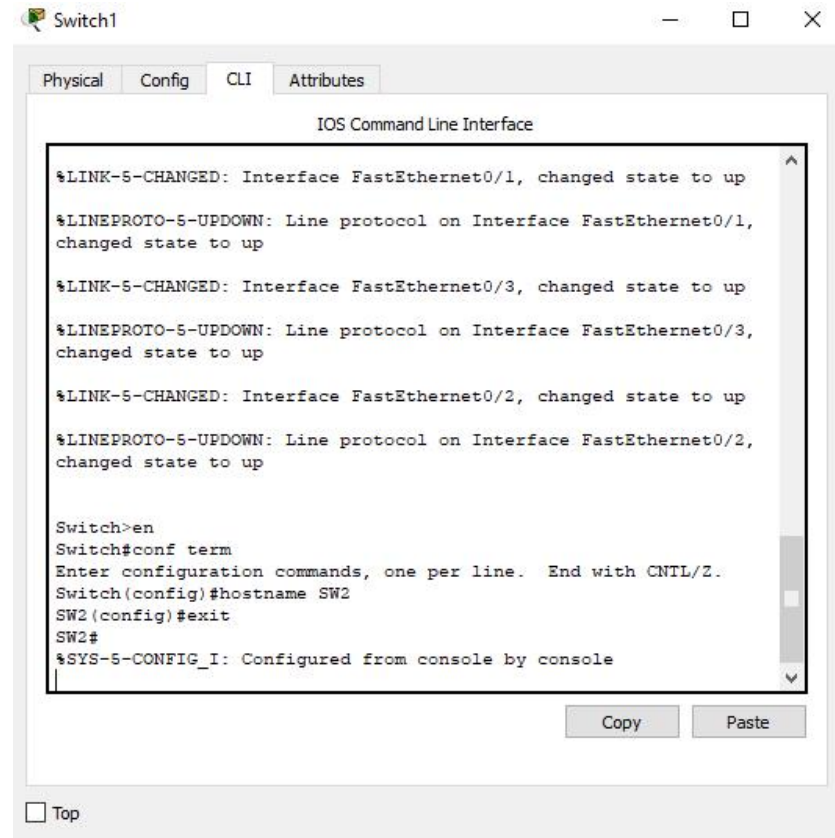
```
Switch0
Physical Config CLI Attributes
IOS Command Line Interface

Switch>en
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname SW1
SW1(config)#exit
SW1#
%SYS-5-CONFIG_I: Configured from console by console
SW1#exit
```

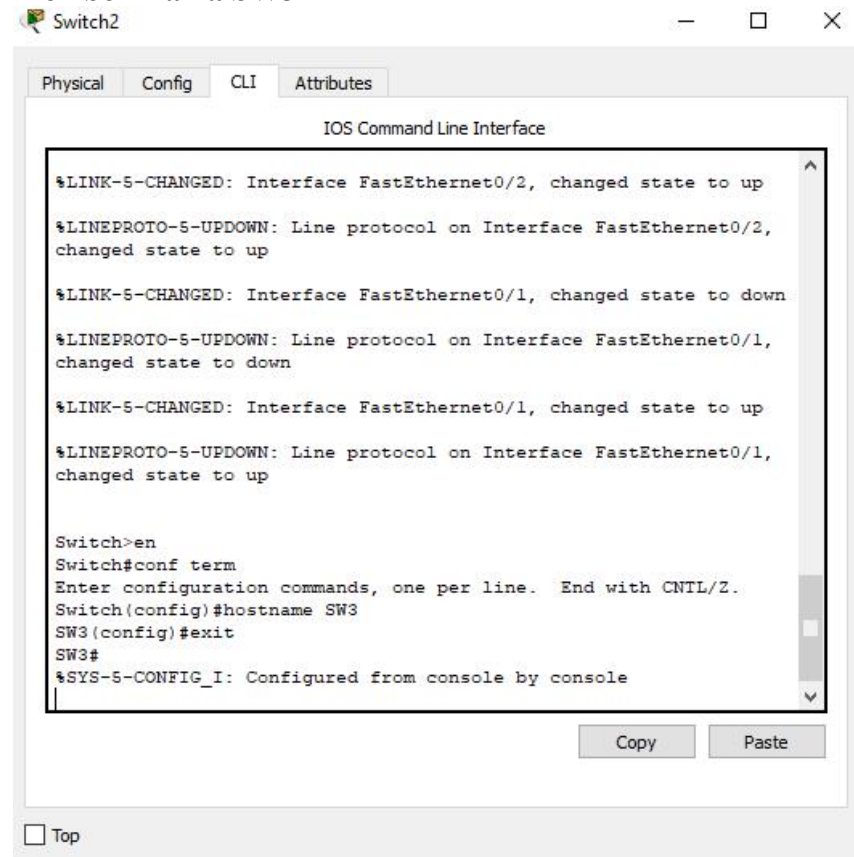
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☐ Top

## Memberi nama SW2



## Memberi nama SW3



### Tugas 3. Konfigurasi IP Konfigurasi IP pada Leo

leo

Physical Config Desktop Attributes Software/Services

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address 172.21.1.1

Subnet Mask 255.255.255.0

Default Gateway

DNS Server

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::202:16FF:FEA6:EE05

IPv6 Gateway

IPv6 DNS Server

Top

### Konfigurasi IP pada Aries

aries

Physical Config Desktop Attributes Software/Services

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address 172.21.1.2

Subnet Mask 255.255.255.0

Default Gateway

DNS Server

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

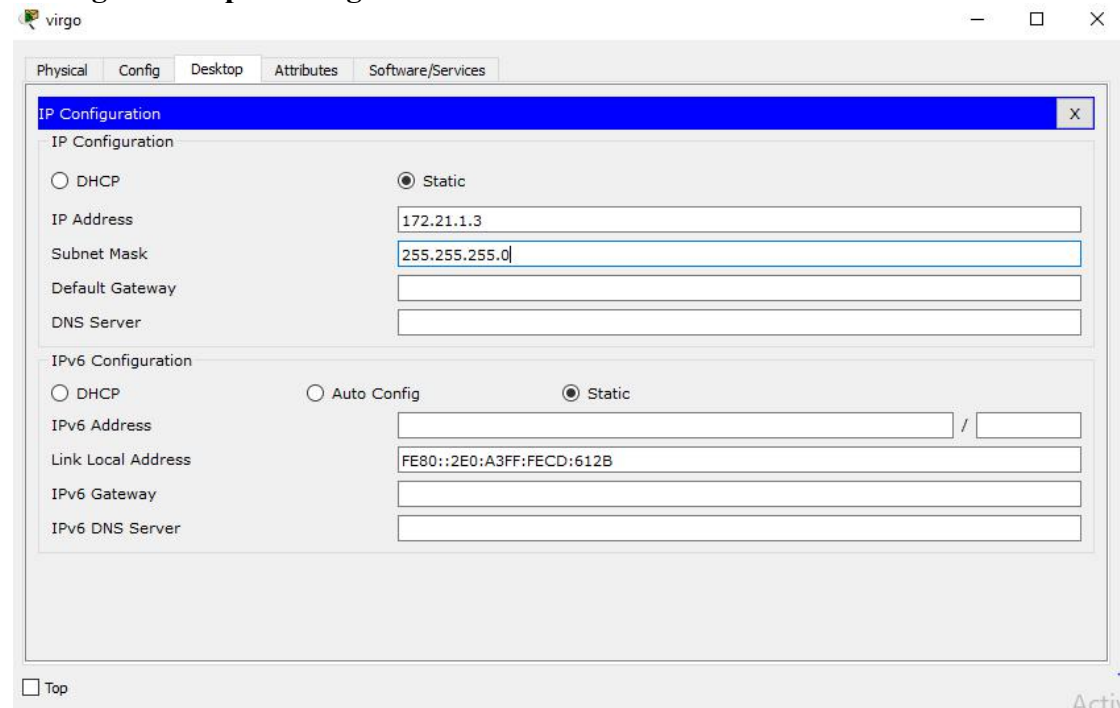
Link Local Address FE80::2D0:D3FF:FE64:B910

IPv6 Gateway

IPv6 DNS Server

Top

## Konfigurasi IP pada Virgo



The screenshot shows the 'IP Configuration' window in the Virgo application. The window has tabs for 'Physical', 'Config', 'Desktop', 'Attributes', and 'Software/Services'. The 'Config' tab is active, and the 'IP Configuration' sub-tab is selected. The 'IP Configuration' section has two radio buttons: 'DHCP' (unselected) and 'Static' (selected). Below the radio buttons are input fields for 'IP Address' (172.21.1.3), 'Subnet Mask' (255.255.255.0), 'Default Gateway', and 'DNS Server'. The 'IPv6 Configuration' section also has two radio buttons: 'DHCP' (unselected), 'Auto Config' (unselected), and 'Static' (selected). Below these are input fields for 'IPv6 Address', 'Link Local Address' (FE80::2E0:A3FF:FECD:612B), 'IPv6 Gateway', and 'IPv6 DNS Server'. A 'Top' button is located at the bottom left of the window.

IP Configuration

☐ DHCP ☒ Static

IP Address: 172.21.1.3

Subnet Mask: 255.255.255.0

Default Gateway:

DNS Server:

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

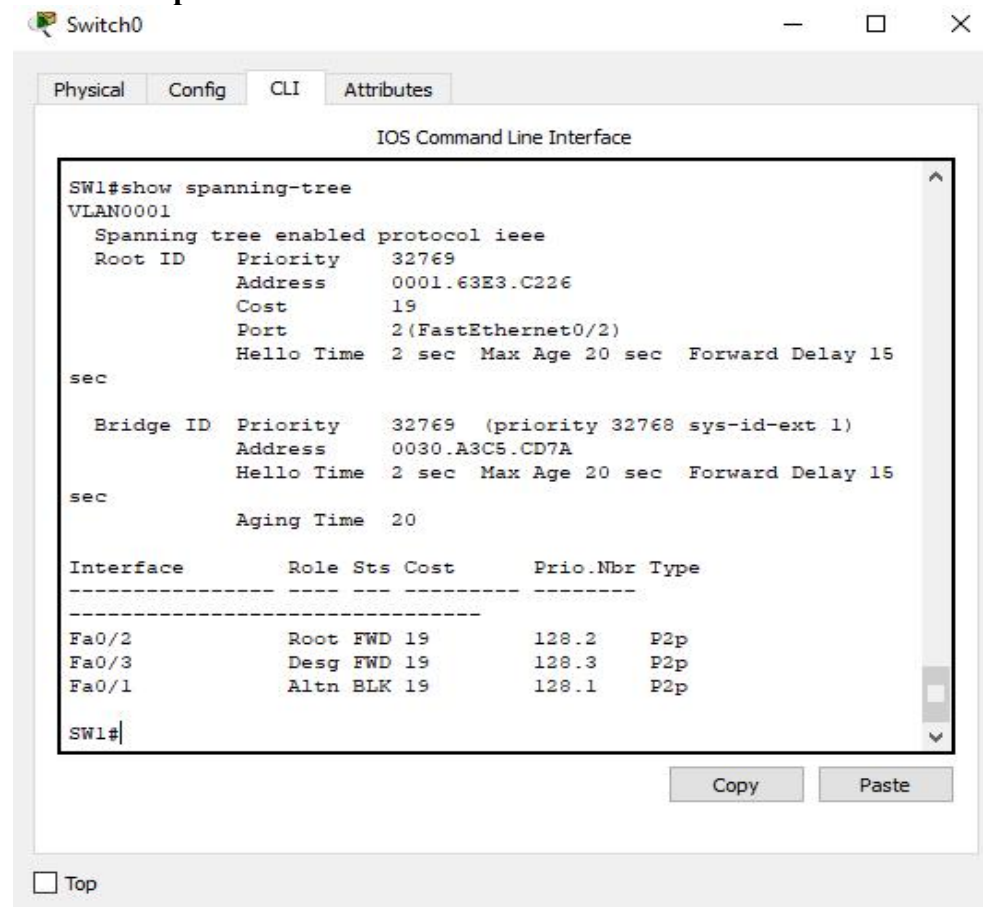
Link Local Address: FE80::2E0:A3FF:FECD:612B

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

## Tugas 4A. Status STP pada SW1



The screenshot shows the 'Switch0' window in the Virgo application. The window has tabs for 'Physical', 'Config', 'CLI', and 'Attributes'. The 'CLI' tab is active, and the 'IOS Command Line Interface' is displayed. The command 'SW1#show spanning-tree' has been entered, and the output is shown. The output displays the STP configuration for VLAN0001, including the root ID, priority, address, cost, port, hello time, max age, forward delay, and aging time. It also shows the status of the interfaces Fa0/2, Fa0/3, and Fa0/1.

SW1#show spanning-tree

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769

Address 0001.63E3.C226

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 0030.A3C5.CD7A

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
Fa0/1	Altn	BLK	19	128.1	P2p

SW1#

☐ Top

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## Status STP pada SW2

Switch1

Physical Config CLI Attributes

IOS Command Line Interface

```
SW2>en
SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address     0001.63E3.C226
              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     0002.175C.5628
              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
Fa0/1          Desg FWD 19        128.1    P2p

SW2#
```

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☐ Top

## Status STP pada SW3

Switch2

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     0001.63E3.C226
             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     0001.63E3.C226
             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
  
```

SW3#

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☐ Top

## Tugas 4B.

### SW1

No	Variable	Nilai
1	Root ID	32769.0001.63E3.C226
2	Priority	32769
3	MAC Address	0030.A3C5.CD7A
4	Bridge ID	32769.0030.A3C5.CD7A
5	Cost(0/1;0/2;0/3)	0/1 : 19 0/2 : 19 0/3 : 19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

### SW2

No	Variable	Nilai
1	Root ID	32769.0001.63E3.C226
2	Priority	32769

3	MAC Address	0002.175C.5628
4	Bridge ID	32769.0002.175C.5628
5	Cost(0/1;0/2;0/3)	0/1 : 19 0/2 : 19 0/3 : 19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

### SW3

No	Variable	Nilai
1	Root ID	32769.0001.63E3.C226
2	Priority	32769
3	MAC Address	0001.63E3.C226
4	Bridge ID	32769.0001.63E3.C226
5	Cost(0/1;0/2;0/3)	0/1 : 19 0/2 : 19 0/3 : 19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

### Tugas 4C.

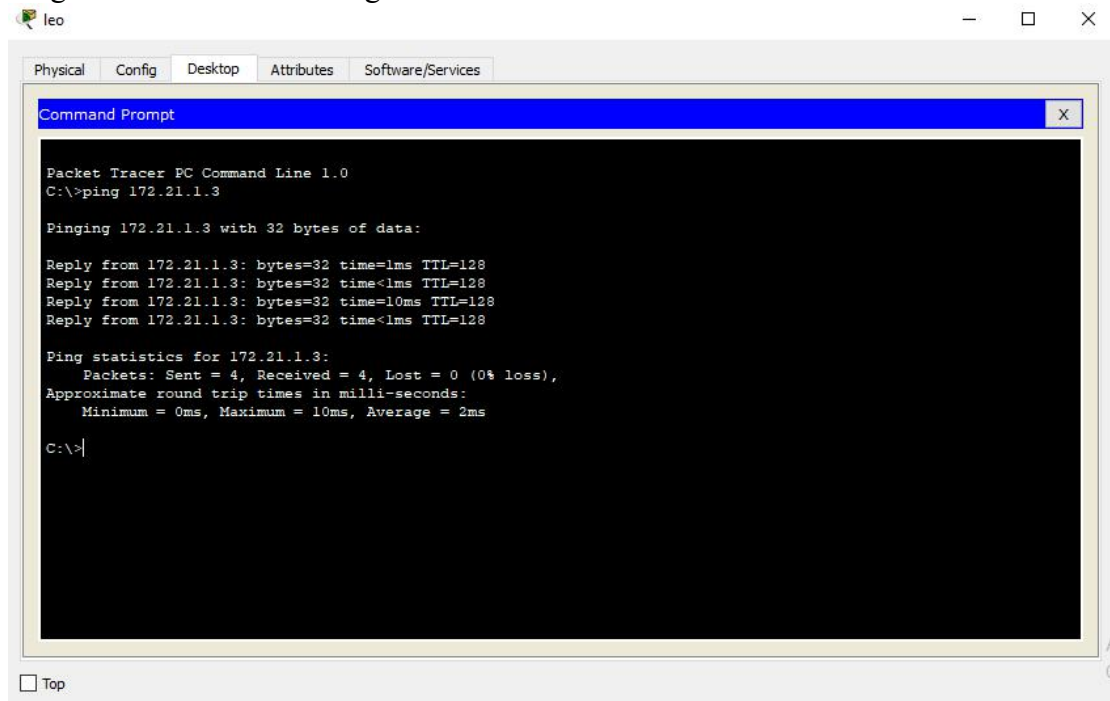
- *Root bridge* : SW3
- *Designated bridge* : SW2
- *Root port* : SW1 0/2 dan SW2 0/2
- *Designated port* : SW1 0/3, SW2 0/1 0/3, SW3 0/1 0/2 0/3

### Tugas 4D

- Keadaan *forwarding* : SW2 dan SW3
- Keadaan *blocking* : SW1

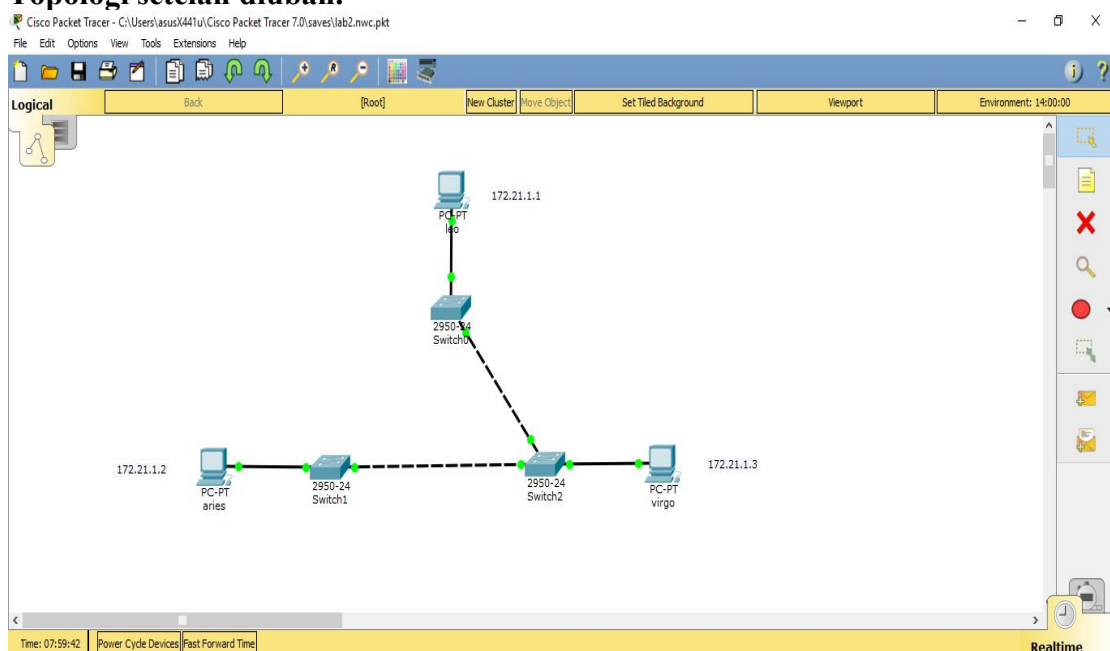
## Tugas 5A.

Ping dari PC Leo ke PC Virgo



## Kegiatan 2. Topologi 2

Topologi setelah diubah.





## Status STP pada SW1

Switch0

Physical Config CLI Attributes

IOS Command Line Interface

```
SW1>en
SW1#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.63E3.C226
             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     0030.A3C5.CD7A
             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

SW1#
```

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☐ Top

## Status STP pada SW2

Switch1

Physical Config CLI Attributes

IOS Command Line Interface

```
SW2>en
SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address     0001.63E3.C226
              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     0002.175C.5628
              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#
```

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☐ Top

## Status STP pada SW3

Switch2

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     0001.63E3.C226
              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     0001.63E3.C226
              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

SW3#
```

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☐ Top

**SW1**

No	Variable	Nilai
1	Root ID	32769.0001.63E3.C226
2	Priority	32769
3	MAC Address	0030.A3C5.CD7A
4	Bridge ID	32769.0030.A3C5.CD7A
5	Cost(0/1;0/2;0/3)	0/1 : - 0/2 : 19 0/3 : 19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

**SW2**

No	Variable	Nilai
1	Root ID	32769.0001.63E3.C226
2	Priority	32769
3	MAC Address	0002.175C.5628
4	Bridge ID	32769.0002.175C.5628
5	Cost(0/1;0/2;0/3)	0/1 : - 0/2 : 19 0/3 : 19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

**SW3**

No	Variable	Nilai
1	Root ID	32769.0001.63E3.C226
2	Priority	32769
3	MAC Address	0001.63E3.C226
4	Bridge ID	32769.0001.63E3.C226
5	Cost(0/1;0/2;0/3)	0/1 : 19 0/2 : 19 0/3 : 19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

**Tugas 4C.**

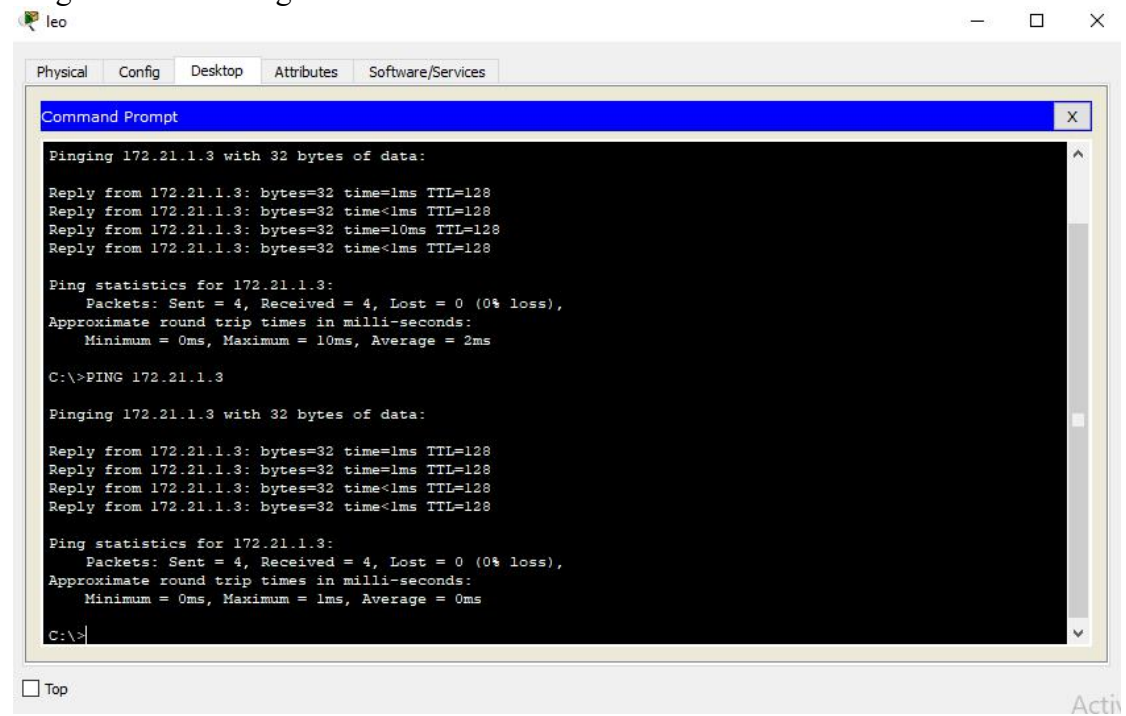
- Root bridge : SW1
- Designated bridge : SW2
- Root port : SW1 0/2 dan SW2 0/2
- Designated port : SW1 0/3, SW2 0/3, SW3 0/1 0/2 0/3

**Tugas 4D**

- Keadaan forwarding : SW2 dan SW3
- Keadaan blocking : SW1

## Tugas 5A.

### Ping dari Leo ke Virgo



The screenshot shows a Windows XP desktop environment. At the top, there is a taskbar with a single icon labeled 'leo'. Below the taskbar, a window titled 'Command Prompt' is open, displaying the results of a ping command. The window has tabs for 'Physical', 'Config', 'Desktop', 'Attributes', and 'Software/Services'. The Command Prompt window shows the following text:

```
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=10ms 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 = 10ms, Average = 2ms

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 = 1ms, Average = 0ms

C:\>
```

At the bottom left of the window, there is a checkbox labeled 'Top'. At the bottom right, the word 'Acti' is partially visible.