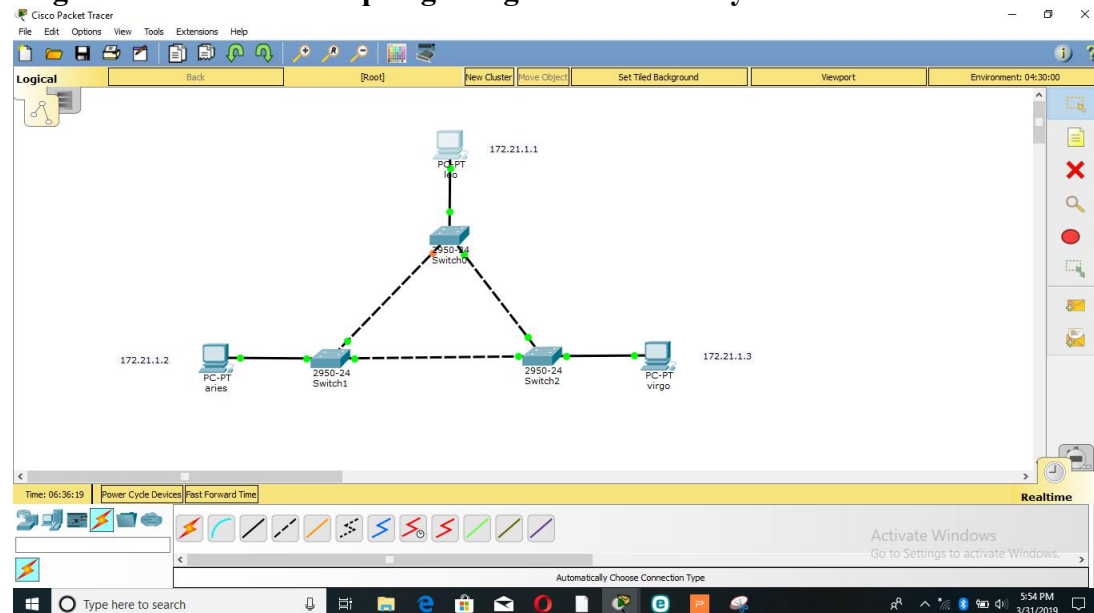


Nama : Lail Nur Rachman
NIM : L200170137
Kelas C

MODUL 6

Kegiatan 1. Topologi 1

Tugas 1A. Pembuatan Topologi dengan switch Catalyst 2950.



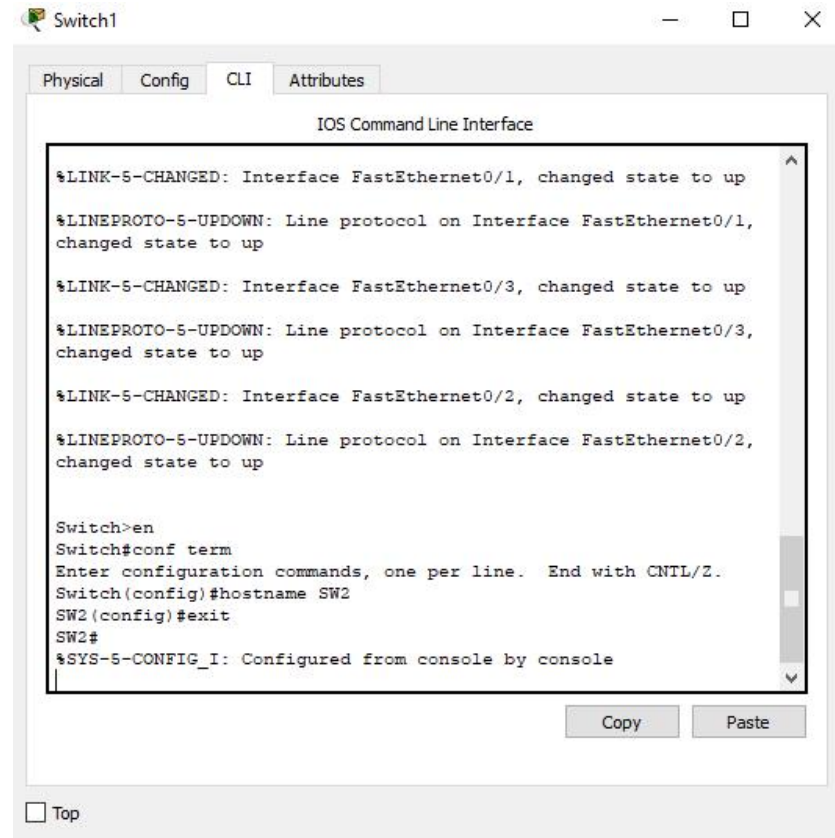
Tugas 2A. Memberi nama SW1

The screenshot shows the CLI window for Switch0. The tabs are Physical, Config, CLI, and Attributes. The CLI window displays the following commands and output:

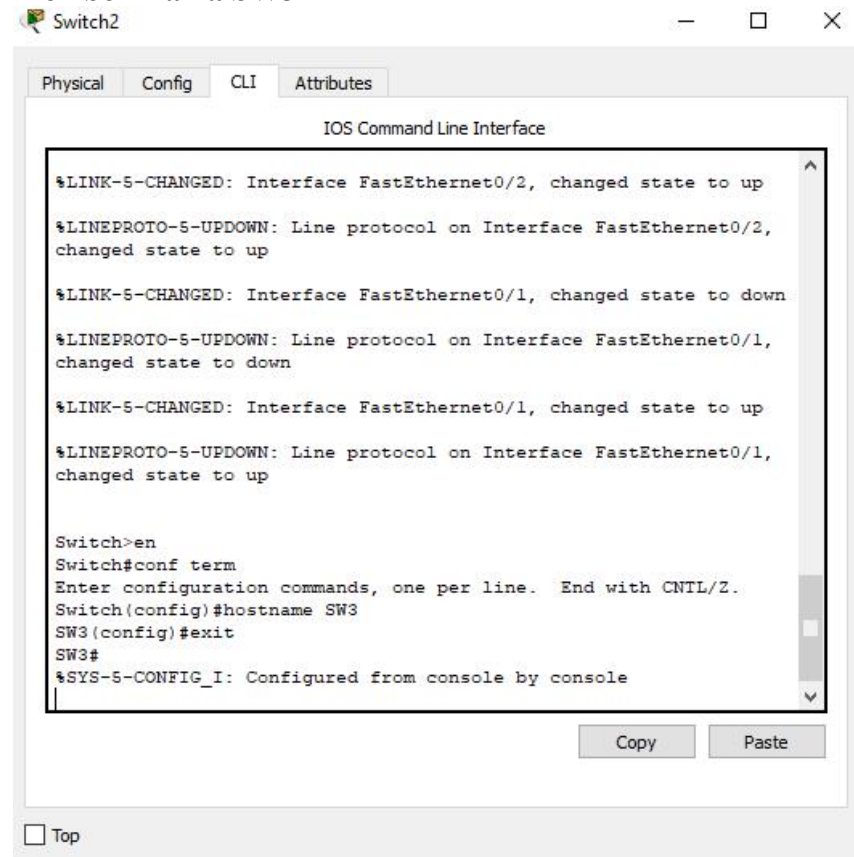
```
Switch>en
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname SW1
SW1(config)#exit
SW1#
%SYS-5-CONFIG_I: Configured from console by console
SW1#exit
```

At the bottom of the CLI window, there are 'Copy' and 'Paste' buttons. A 'Top' button is also visible at the bottom left of the window.

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: /

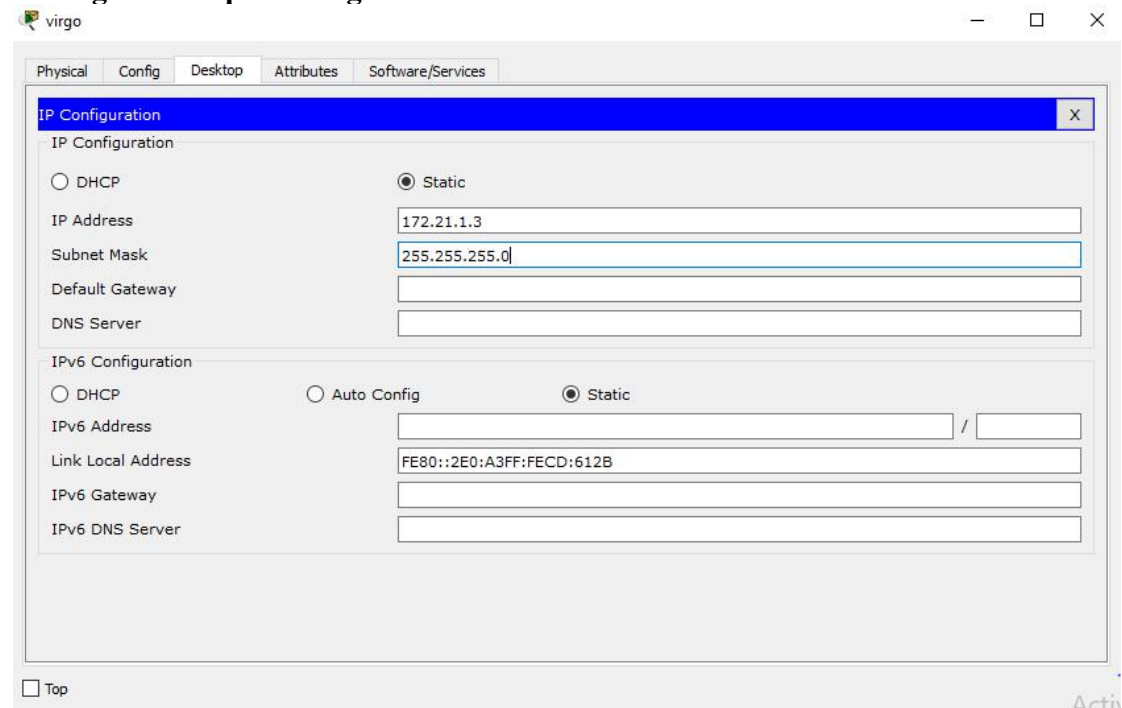
Link Local Address: FE80::2D0:D3FF:FE64:B910

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' and 'Static'. The 'Static' radio button is 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', 'Auto Config', and 'Static'. The 'Static' radio button is selected. Below the radio buttons are input fields for 'IPv6 Address', 'Link Local Address' (FE80::2E0:A3FF:FECD:612B), 'IPv6 Gateway', and 'IPv6 DNS Server'. At the bottom left, there is a 'Top' button. At the bottom right, there is a 'Acti' button.

Physical Config Desktop Attributes Software/Services

IP Configuration

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

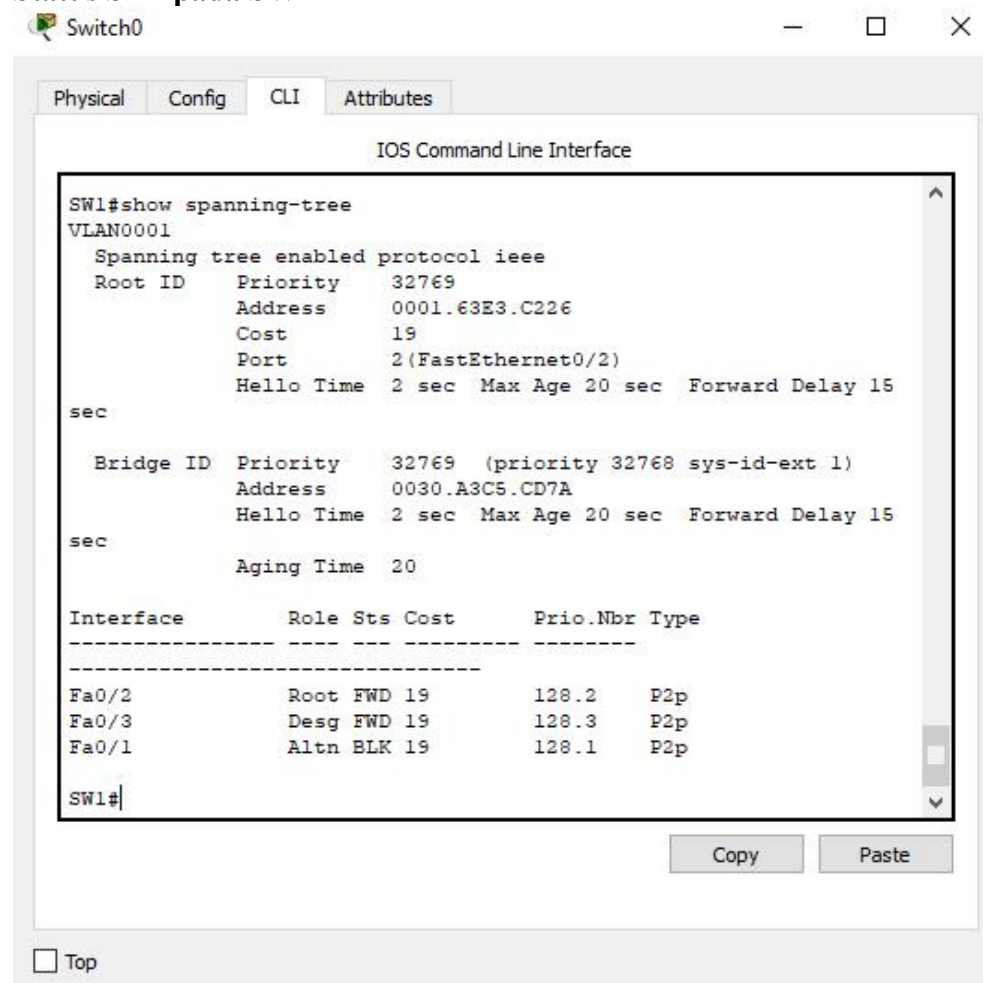
IPv6 Gateway

IPv6 DNS Server

Top

Acti

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 status for VLAN0001, including the Root ID, Priority, Address, Cost, Port, Hello Time, Max Age, Forward Delay, Bridge ID, and Aging Time. Below the output, there is a table showing the STP status for the interfaces Fa0/2, Fa0/3, and Fa0/1.

Physical Config CLI Attributes

IOS Command Line Interface

```
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#
```

Copy Paste

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

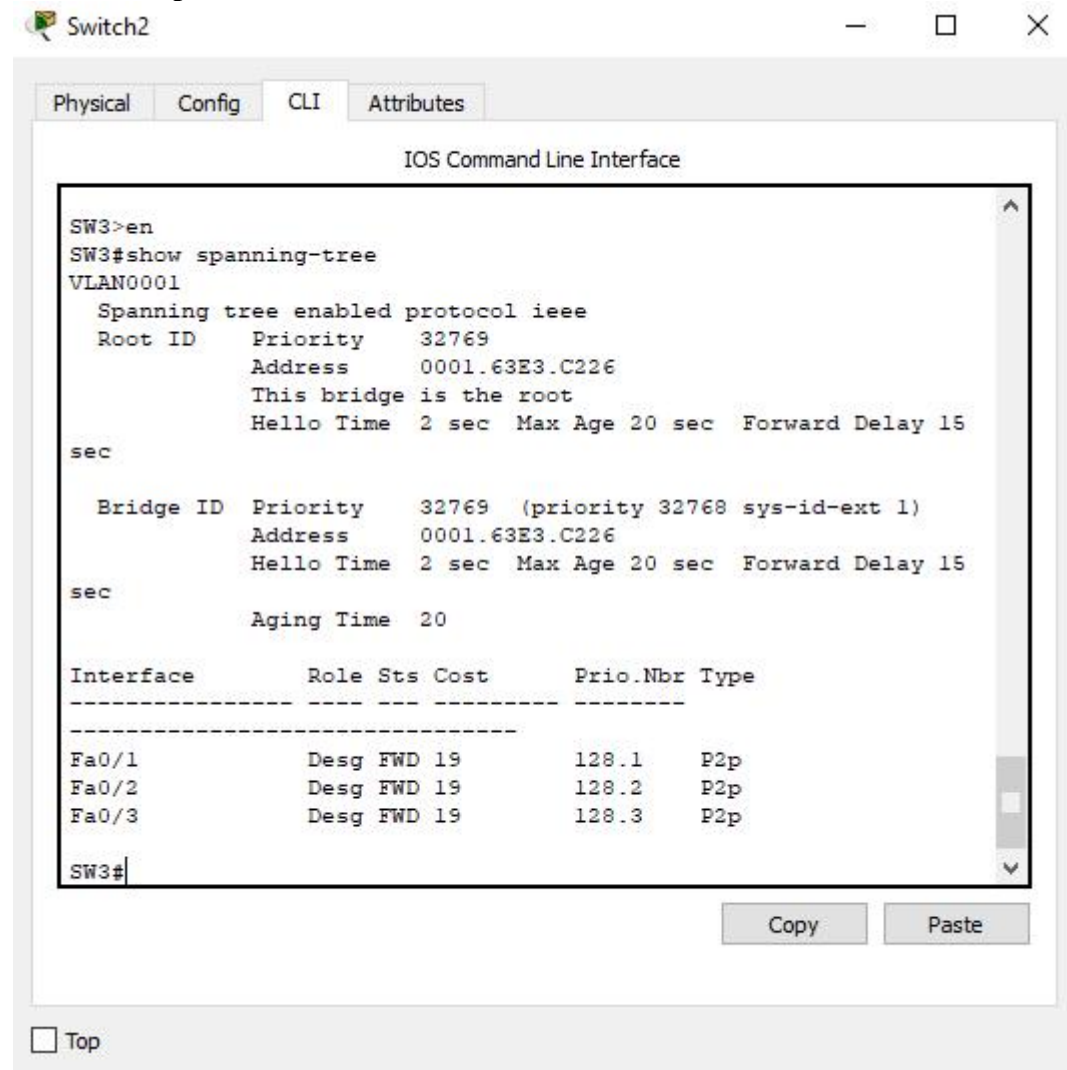
Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/2          Root FWD 19        128.2    P2p
Fa0/3          Desg FWD 19        128.3    P2p
Fa0/1          Desg FWD 19        128.1    P2p

SW2#
```

Copy Paste

☐ Top

Status STP pada SW3



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.

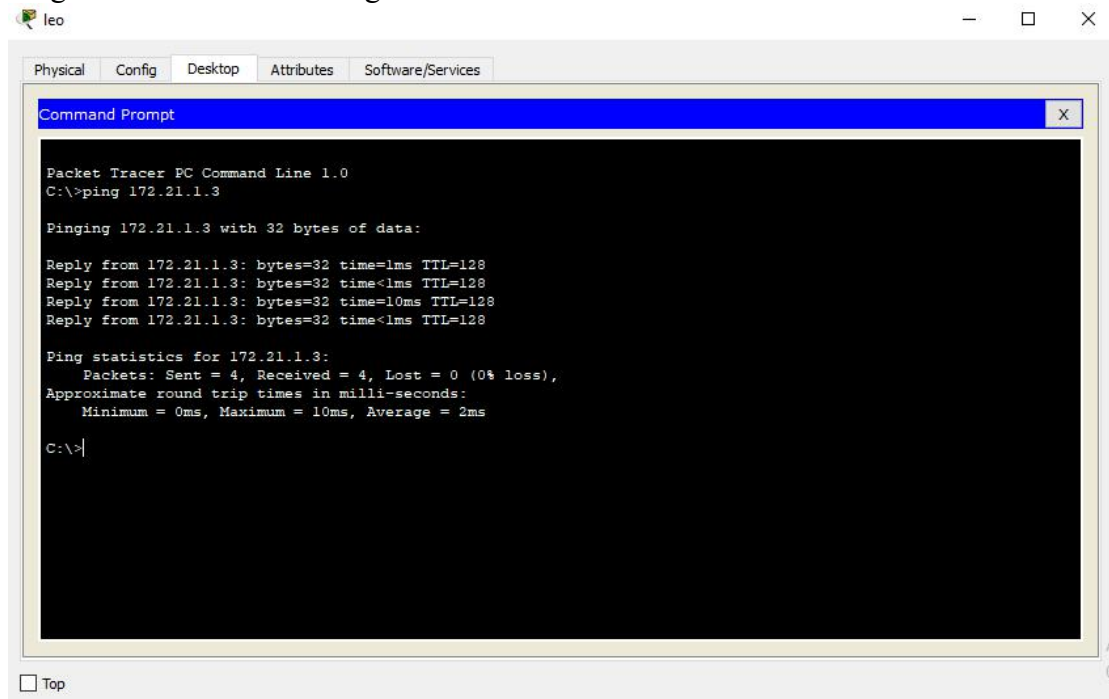
- *Root bridge* : SW3
- *Designated bridge* : SW2
- *Root port* : SW1 0/2 dan SW2 0/2
- *Designated port* : SW1 0/3, SW2 0/1 0/3, SW3 0/1 0/2 0/3

Tugas 4D

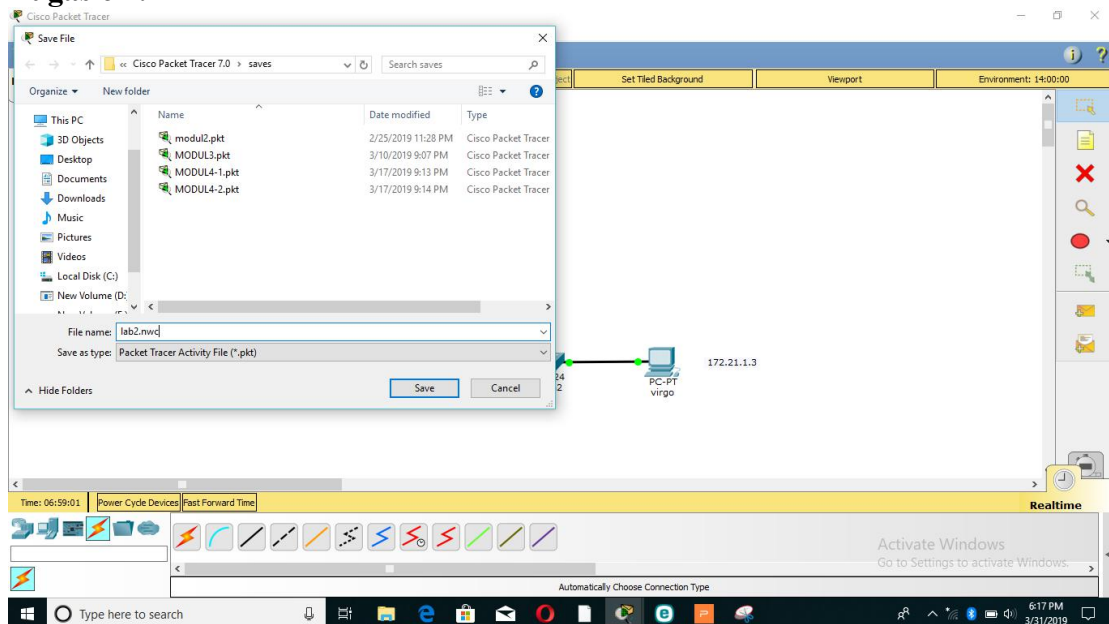
- Keadaan *forwarding* : SW2 dan SW3
- Keadaan *blocking* : SW1

Tugas 5A.

Ping dari PC Leo ke PC Virgo

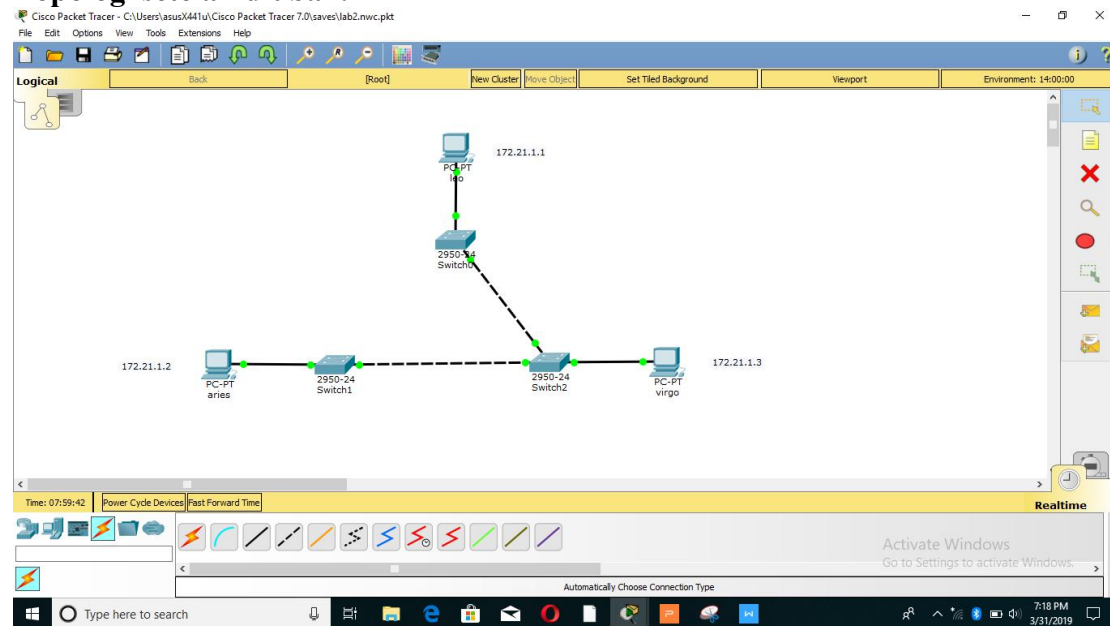


Tugas 6A.



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#
```

Copy Paste

☐ 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#
```

Copy Paste

☐ 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#
```

Copy Paste

☐ 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.

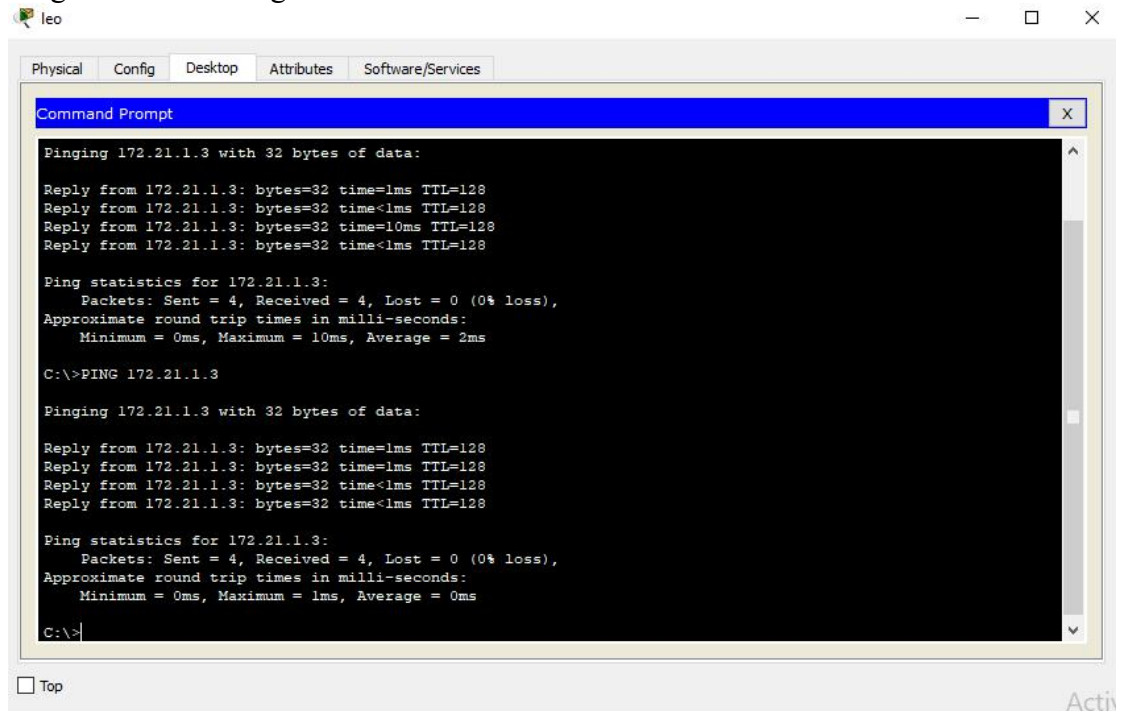
- Root bridge : SW1
- Designated bridge : SW2
- Root port : SW1 0/2 dan SW2 0/2
- Designated port : SW1 0/3, SW2 0/3, SW3 0/1 0/2 0/3

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 are tabs for 'Physical', 'Config', 'Desktop', 'Attributes', and 'Software/Services'. Below these is a 'Command Prompt' window. The window has a title bar with a close button (X) and a scroll bar on the right. The text inside the window shows two ping commands being executed from a command prompt (C:\>) to the IP address 172.21.1.3. The first ping shows a 10ms round trip time, while the second shows a 0ms round trip time. The desktop background is a light gray, and there is a 'leo' icon in the top left corner. A 'Top' button is visible in the bottom left corner of the desktop area, and the word 'Action' is partially visible in the bottom right corner.

```
leo
Physical Config Desktop Attributes Software/Services
Command Prompt
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:\>
```

☐ Top

Action