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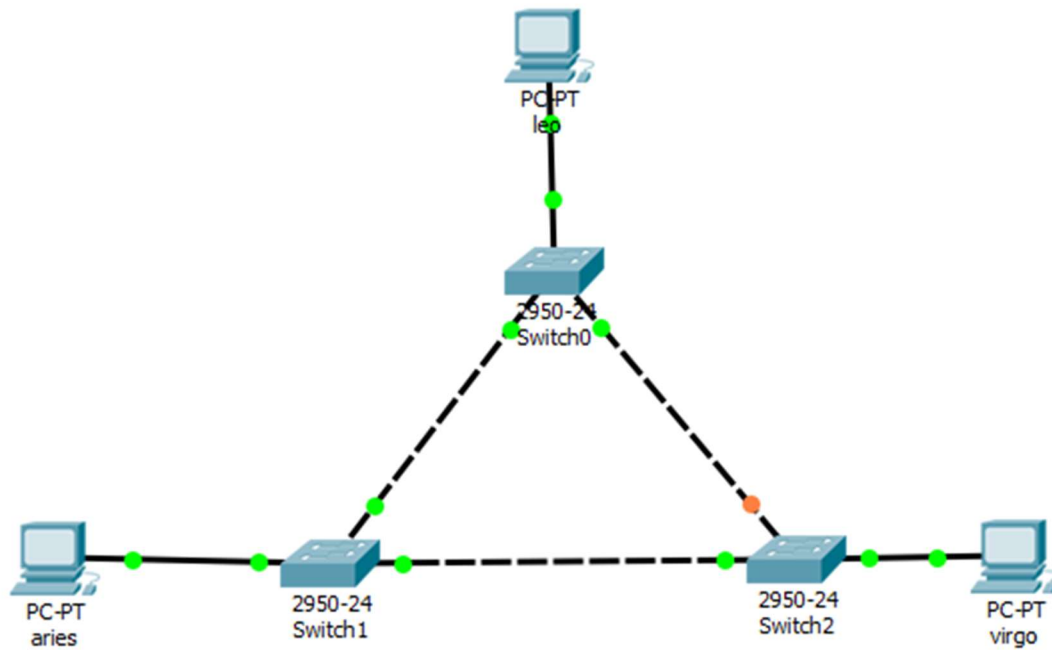
Kelas : A

MODUL 6

SPANNING TREE PROTOCOL

A. Kegiatan Praktikum

Kegiatan 1. Topologi 1



- a. Memberi nama dan IP pada masing-masing computer.

The screenshot shows the 'IP Configuration' window for a device named 'leo'. The window has tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes'. The 'Config' tab is selected. Under 'IP Configuration', the 'Static' radio button is selected. The fields are filled with: IP Address: 172.21.1.1, Subnet Mask: 255.255.255.0, Default Gateway: 0.0.0.0, and DNS Server: 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is selected. The fields are filled with: IPv6 Address: (empty), Link Local Address: FE80::260:70FF:FE5B:97A7, IPv6 Gateway: (empty), and IPv6 DNS Server: (empty). A 'Top' button is at the bottom left.

IP Configuration	
<input type="radio"/> DHCP <input checked="" type="radio"/> 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	
<input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static	
IPv6 Address	/
Link Local Address	FE80::260:70FF:FE5B:97A7
IPv6 Gateway	
IPv6 DNS Server	

Top

The screenshot shows the 'IP Configuration' window for a device named 'aries'. The window has tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes'. The 'Config' tab is selected. Under 'IP Configuration', the 'Static' radio button is selected. The fields are filled with: IP Address: 172.21.1.2, Subnet Mask: 255.255.255.0, Default Gateway: 0.0.0.0, and DNS Server: 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is selected. The fields are filled with: IPv6 Address: (empty), Link Local Address: FE80::260:3EFF:FE21:D6D3, IPv6 Gateway: (empty), and IPv6 DNS Server: (empty). A 'Top' button is at the bottom left.

IP Configuration	
<input type="radio"/> DHCP <input checked="" type="radio"/> 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	
<input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static	
IPv6 Address	/
Link Local Address	FE80::260:3EFF:FE21:D6D3
IPv6 Gateway	
IPv6 DNS Server	

Top

virgo

Physical Config Desktop Programming Attributes

IP Configuration

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: /

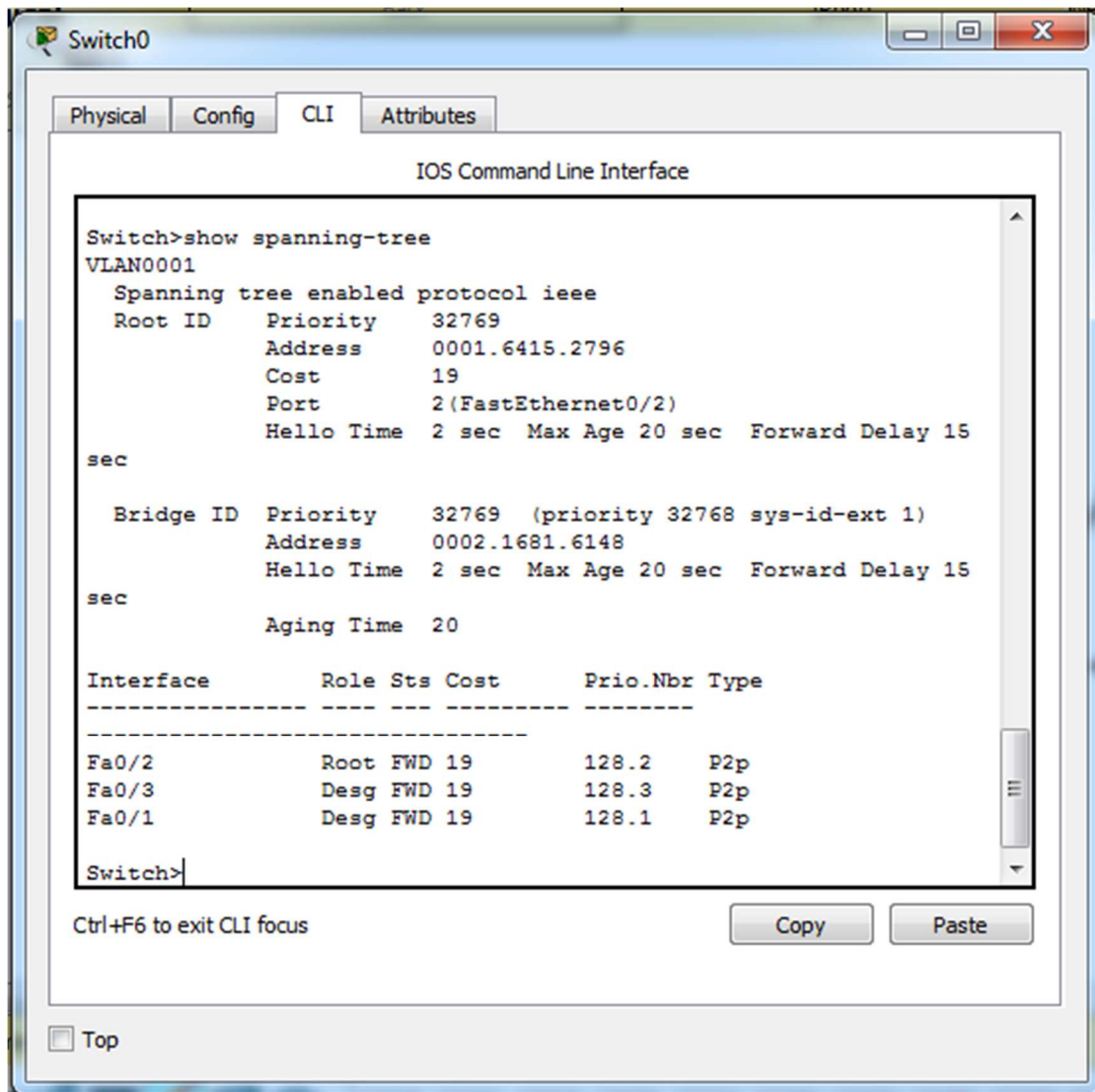
Link Local Address: FE80::260:3EFF:FE14:446C

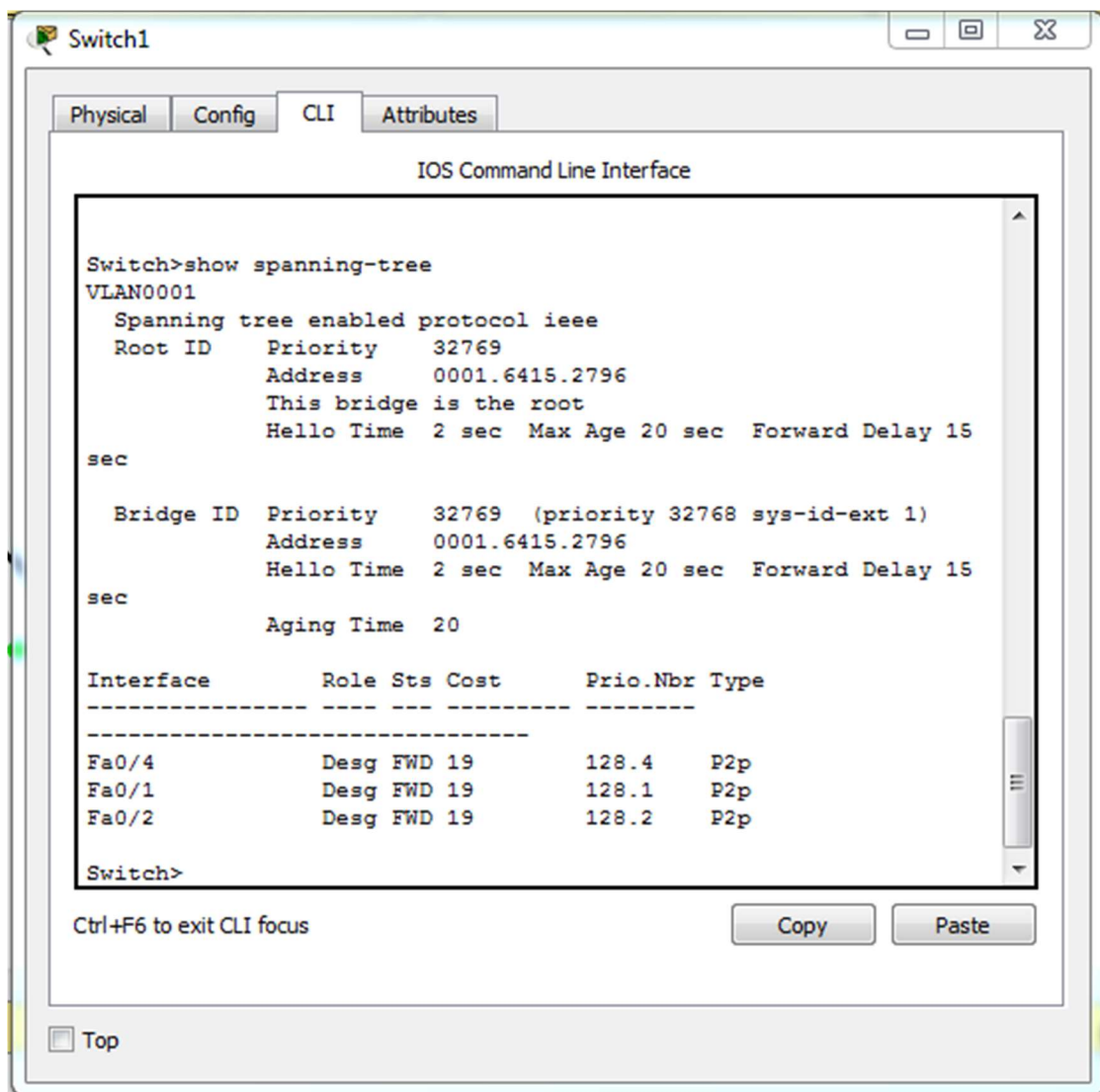
IPv6 Gateway:

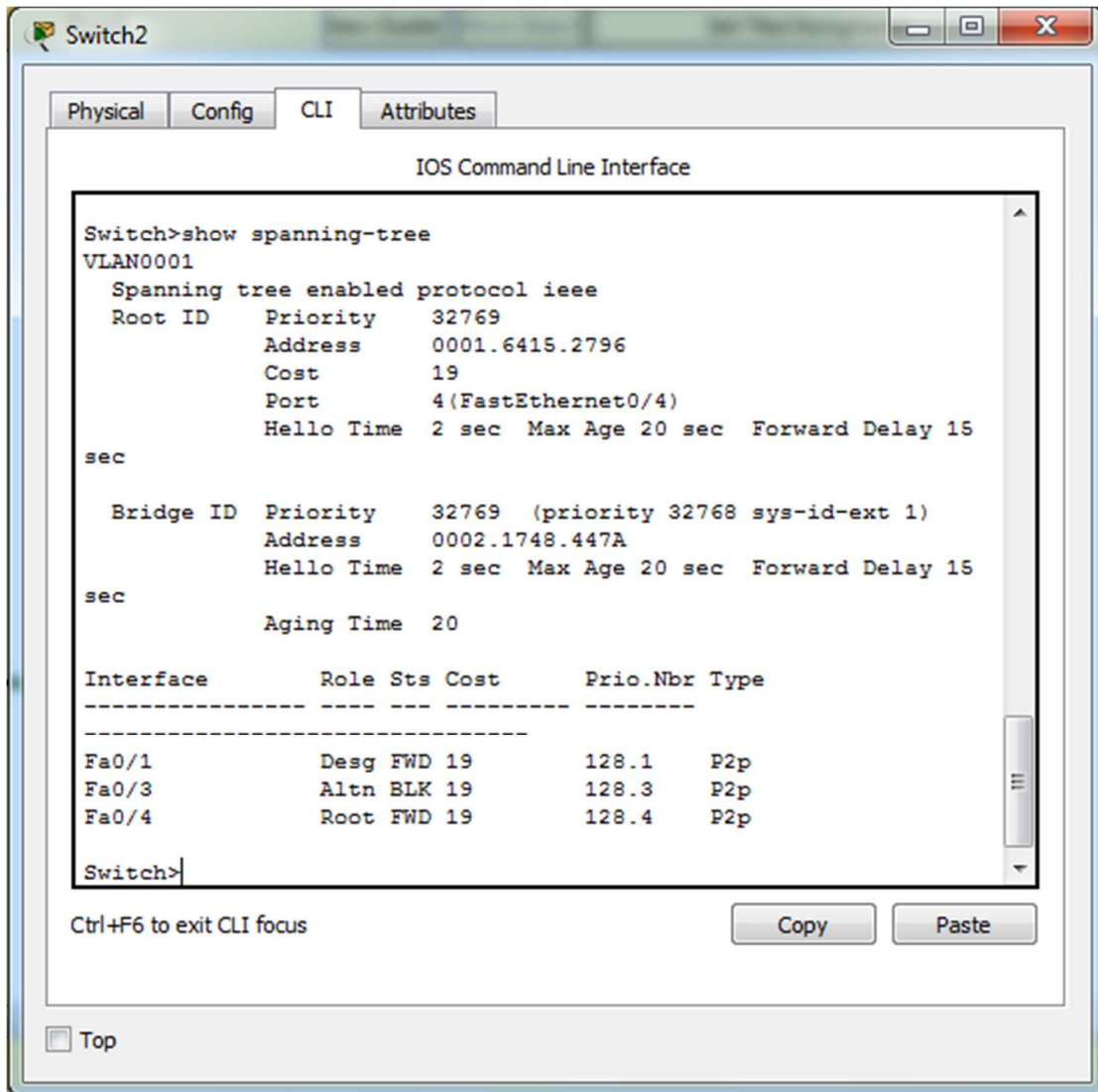
IPv6 DNS Server:

☐ Top

- b. Melihat spanning-tree pada masing-masing server.







c. Tabel status STP pada masing-masing Switch :

- Switch0

No	Variable	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.6415.2796
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 Sec
7	Max Age	20 Sec
8	Forward Delay	15 Sec

- Switch1

No	Variable	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.6415.2796
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	-
6	Hello Time	2 Sec
7	Max Age	20 Sec
8	Forward Delay	15 Sec

- Switch2

No	Variable	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.6415.2796
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 Sec
7	Max Age	20 Sec
8	Forward Delay	15 Sec

d. Dalam kondisi default :

- Root Bridge => Fa 0/2 (switch0) dengan Fa 0/4 (switch2)
- Designated Bridge => Fa 0/3 (switch0) dengan Fa 0/3 (switch2)
=> Fa 0/4 (switch1) dengan Fa 0/4 (switch2)
- Root Port => Fa 0/2 (switch0)
=> Fa 0/4 (switch2)
- Designated Port => Fa 0/3 (switch0)
=> Fa 0/1 (switch0)
=> Fa 0/4 (switch1)
=> Fa 0/1 (switch1)
=> Fa 0/2 (switch1)
=> Fa 0/1 (switch2)

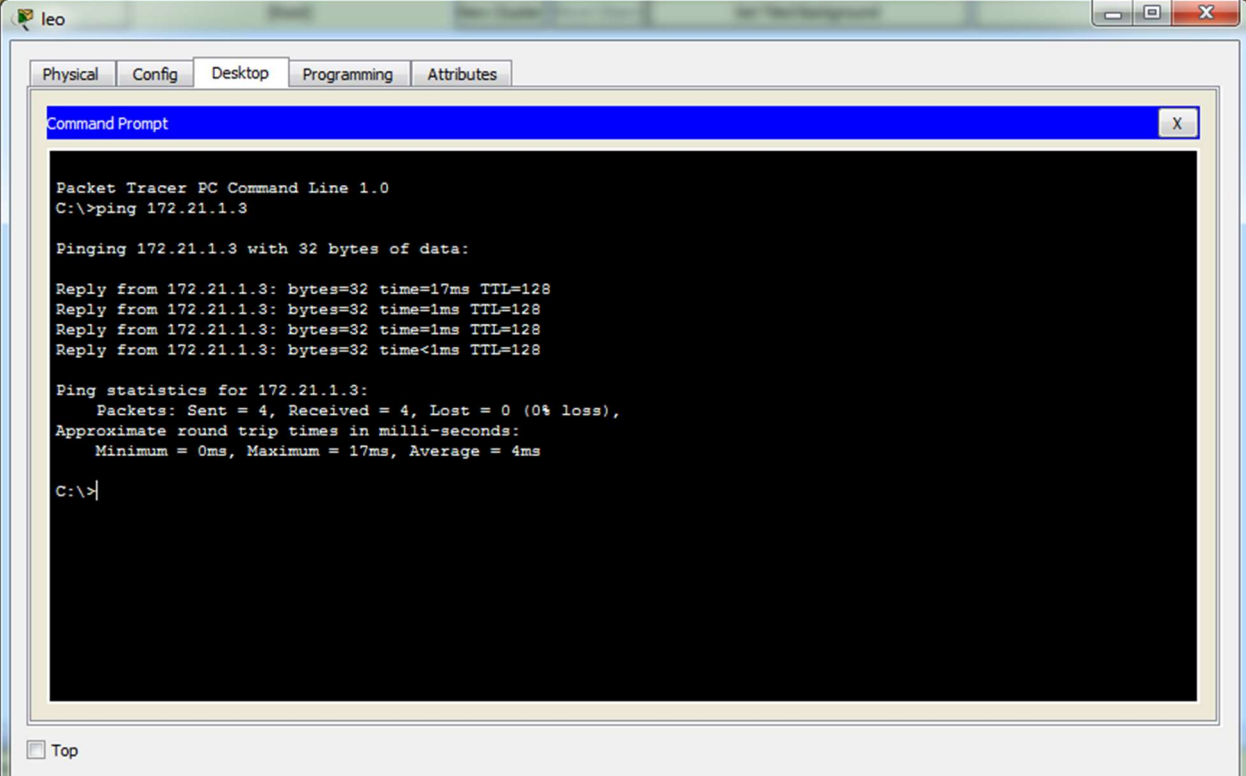
e. Dalam kondisi default :

- Port dalam kondisi Forwarding => Fa 0/2 (switch0)
=> Fa 0/3 (switch0)
=> Fa 0/1 (switch0)

=> Fa 0/4 (switch1)
=> Fa 0/1 (switch1)
=> Fa 0/2 (switch1)
=> Fa 0/1 (switch2)
=> Fa 0/4 (switch2)

- Port dalam kondisi Blocking => Fa 0/3 (switch2)

f. Hasil dari ping pada PC Leo dengan PC Virgo.



```
leo
Physical Config Desktop Programming Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.1.3

Pinging 172.21.1.3 with 32 bytes of data:

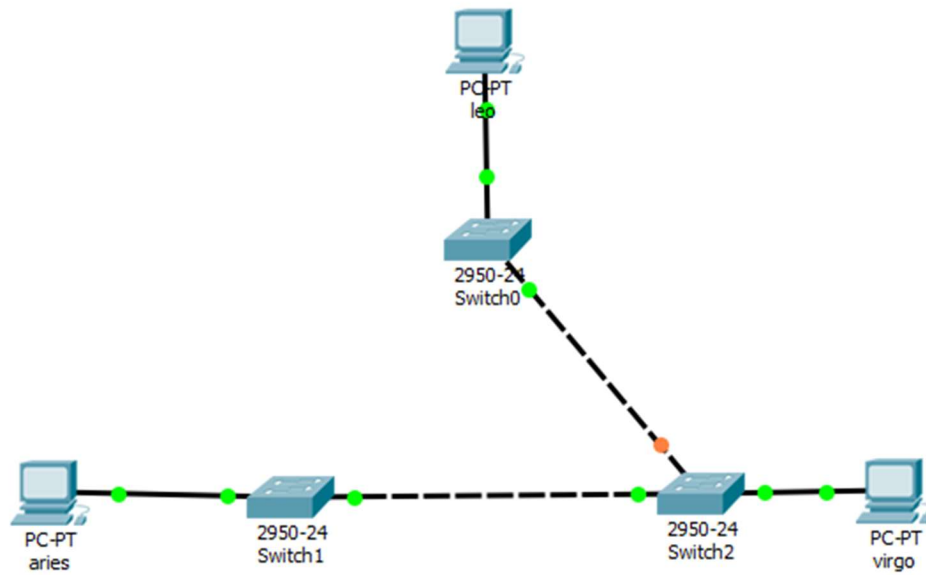
Reply from 172.21.1.3: bytes=32 time=17ms TTL=128
Reply from 172.21.1.3: bytes=32 time=1ms TTL=128
Reply from 172.21.1.3: bytes=32 time=1ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128

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 = 17ms, Average = 4ms

C:\>|
```

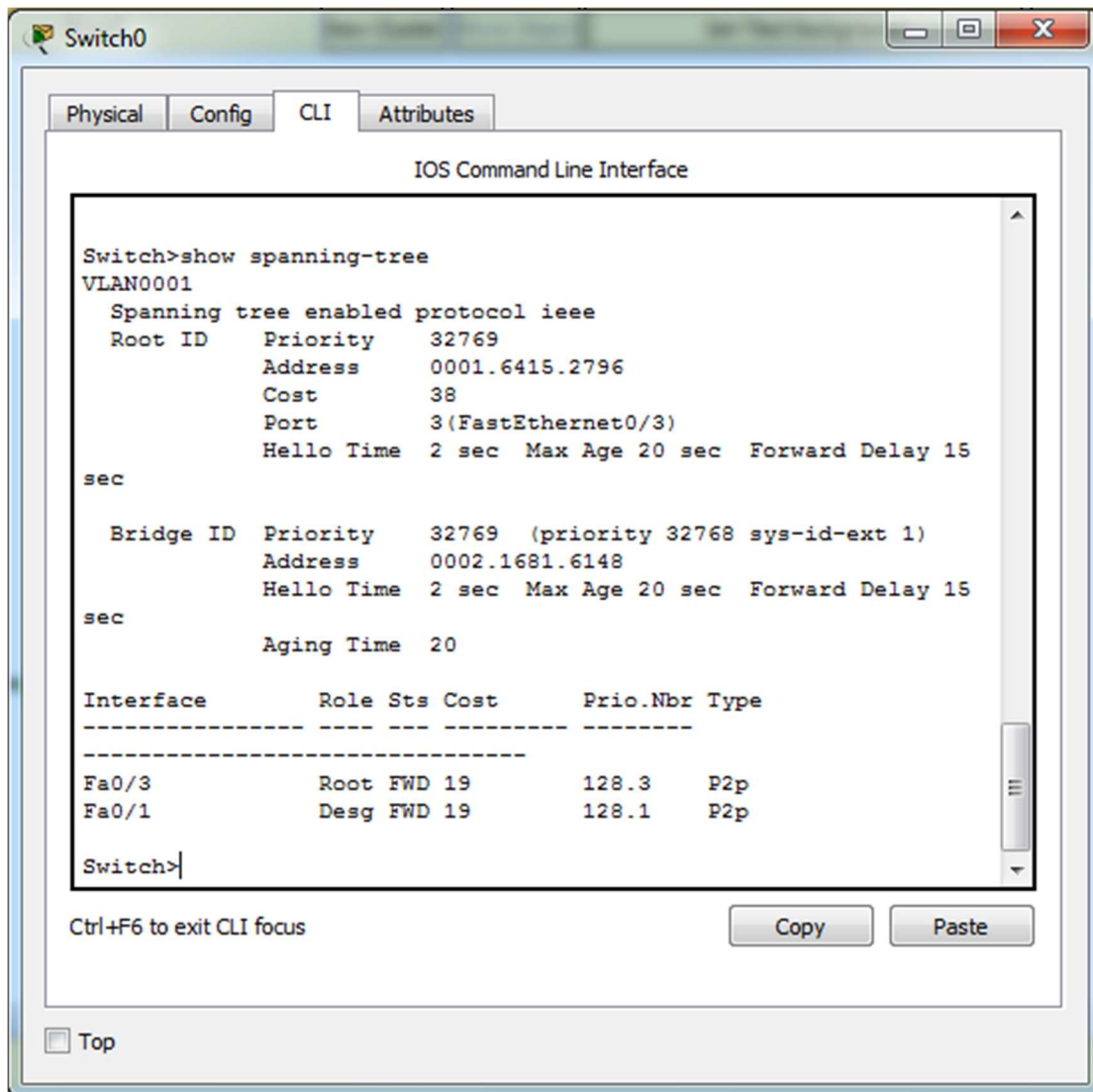
Top

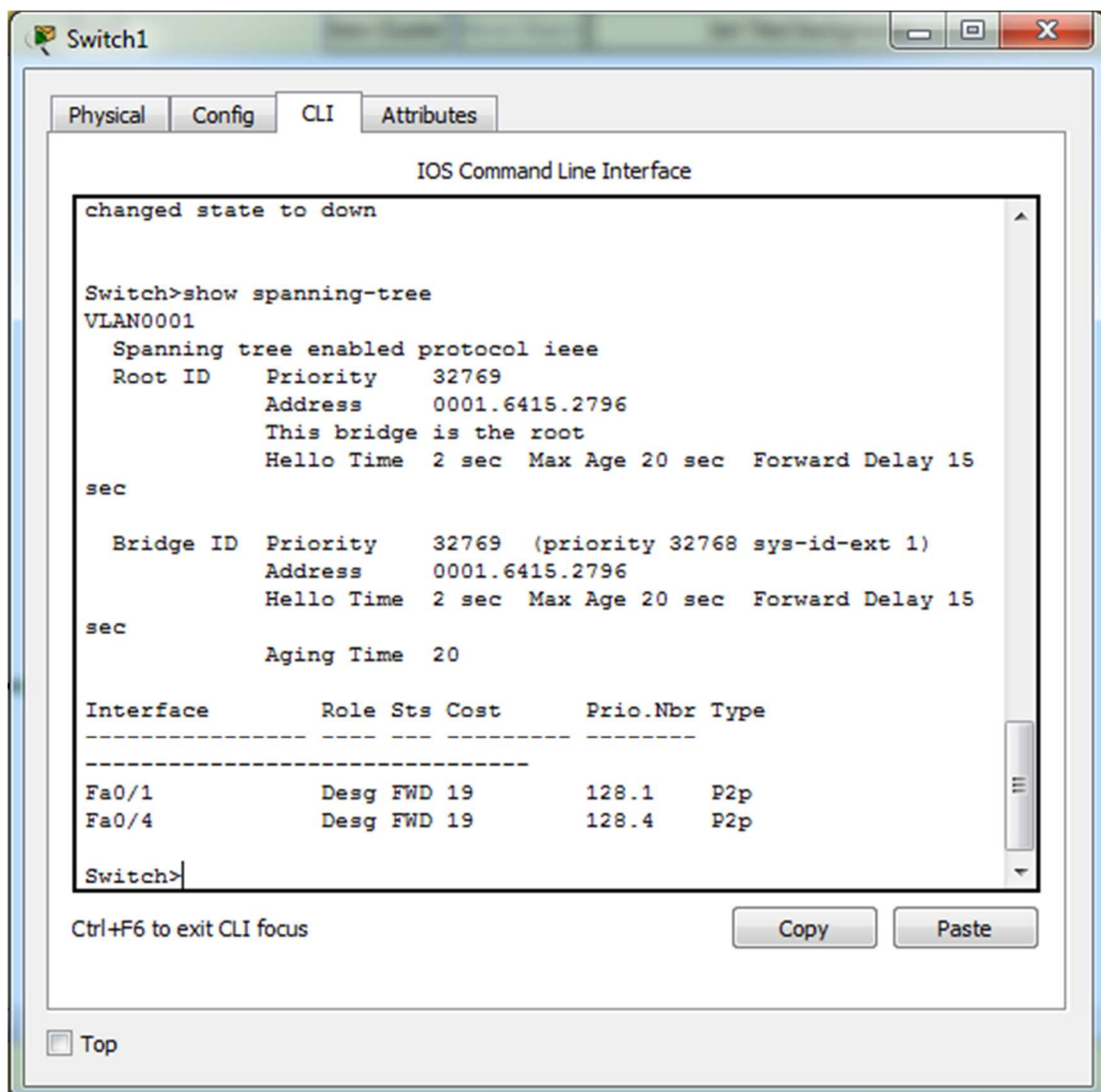
Kegiatan 2. Topologi 2

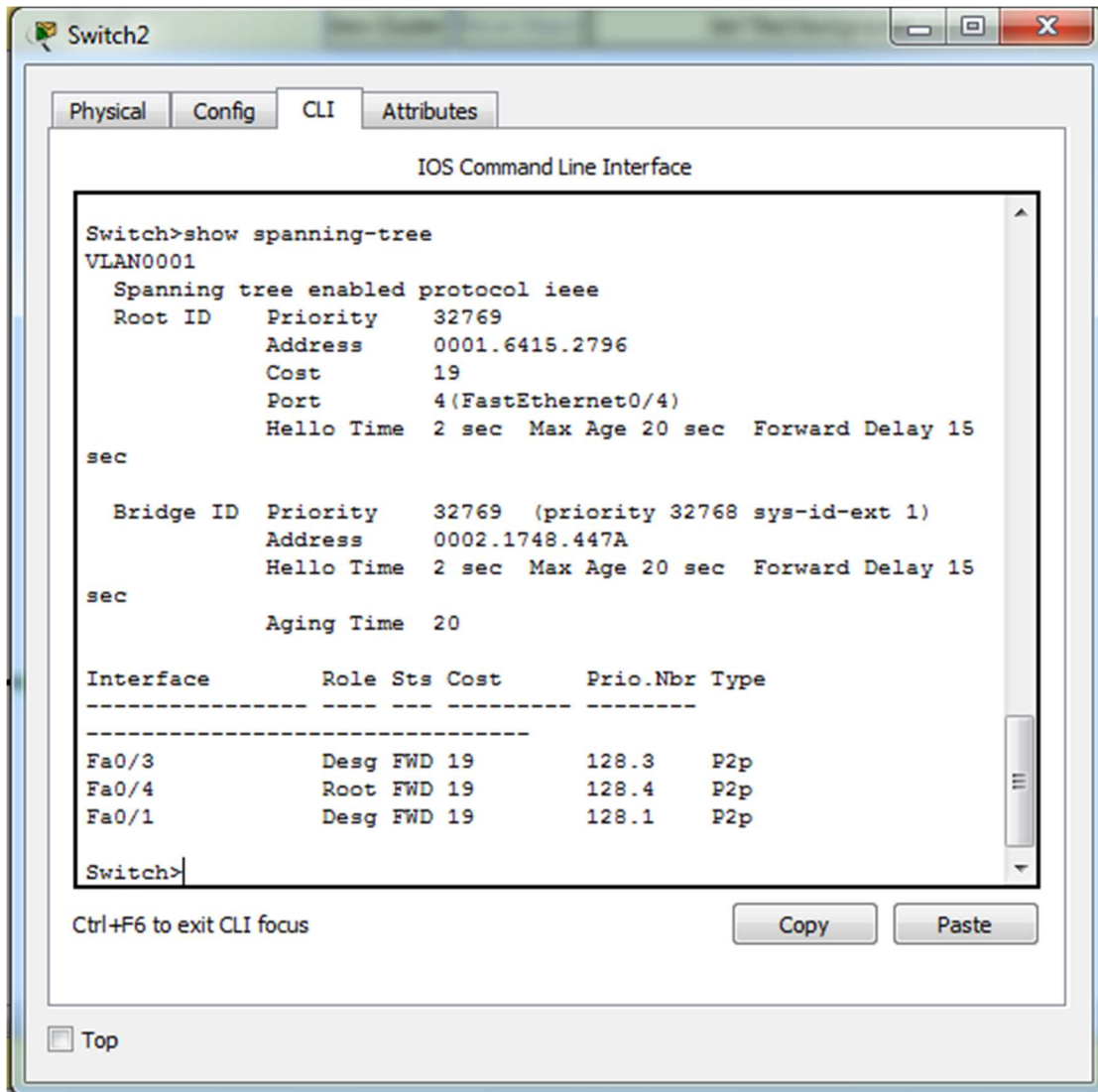


- a. Karena rangkaian sebelumnya hanya diberikan sedikit perubahan, berupa penghapusan kabel dari switch0 dengan switch1.

- b. Melihat spanning-tree pada masing-masing server.







d. Tabel status STP pada masing-masing Switch :

- Switch0

No	Variable	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.6415.2796
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	38
6	Hello Time	2 Sec
7	Max Age	20 Sec
8	Forward Delay	15 Sec

- Switch1

No	Variable	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.6415.2796
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	-
6	Hello Time	2 Sec
7	Max Age	20 Sec
8	Forward Delay	15 Sec

- Switch2

No	Variable	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.6415.2796
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 Sec
7	Max Age	20 Sec
8	Forward Delay	15 Sec

g. Dalam kondisi default :

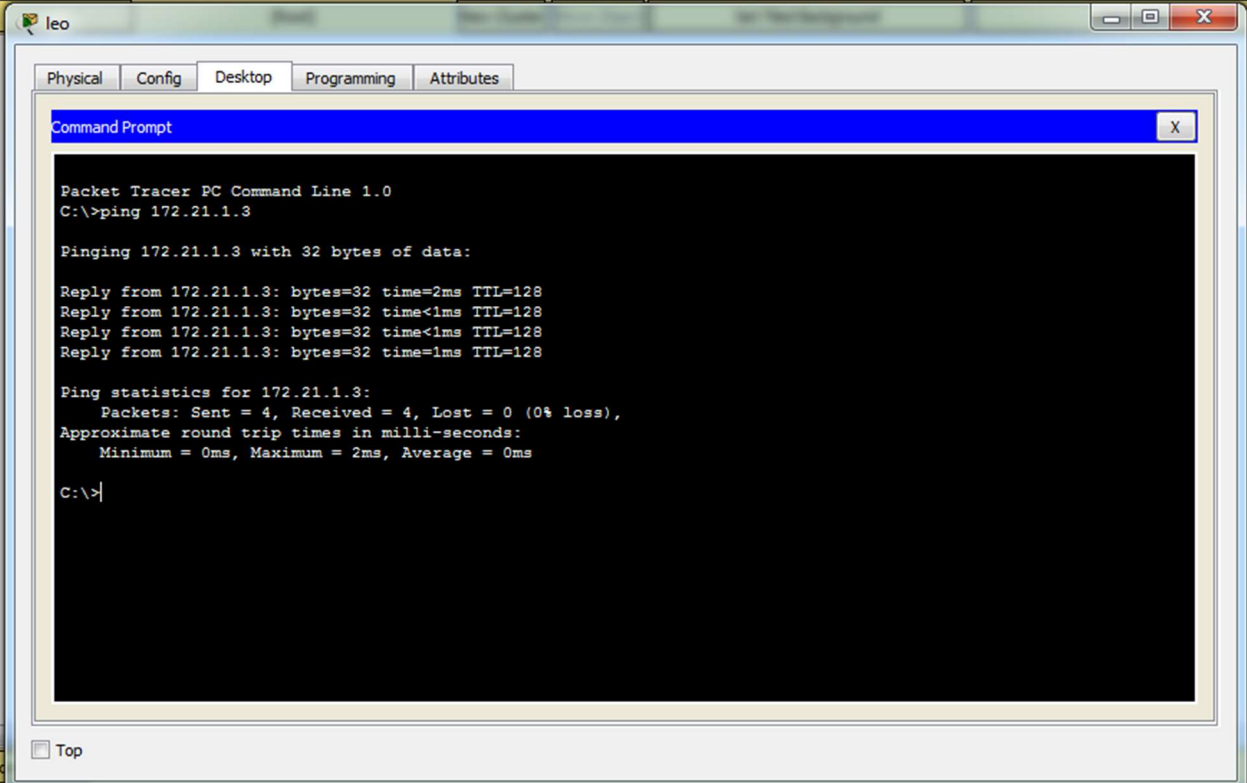
- Root Bridge => Fa 0/3 (switch0) dengan Fa 0/4 (switch2)
- Designated Bridge => Fa 0/4 (switch1) dengan Fa 0/3 (switch2)
- Root Port => Fa 0/3 (switch0)
=> Fa 0/4 (switch2)
- Designated Port => Fa 0/1 (switch0)
=> Fa 0/4 (switch1)
=> Fa 0/1 (switch1)
=> Fa 0/1 (switch2)
=> Fa 0/3 (switch2)

h. Dalam kondisi default :

- Port dalam kondisi Forwarding => Fa 0/3 (switch0)
=> Fa 0/1 (switch0)
=> Fa 0/4 (switch1)
=> Fa 0/1 (switch1)
=> Fa 0/1 (switch2)
=> Fa 0/4 (switch2)
=> Fa 0/3 (switch2)

- Port dalam kondisi Blocking => -

c. Hasil dari ping pada PC Leo dengan PC Virgo



The screenshot shows a Packet Tracer PC Command Line window for PC Leo. The window has tabs for Physical, Config, Desktop, Programming, and Attributes. The Command Prompt window is open, displaying the results of a ping command to 172.21.1.3. The output shows four successful replies with 32 bytes of data, a time of 2ms, and a TTL of 128. The ping statistics indicate that all four packets were sent and received, with 0% loss. The approximate round trip times are 0ms, 2ms, and 0ms.

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

C:\>|
```

