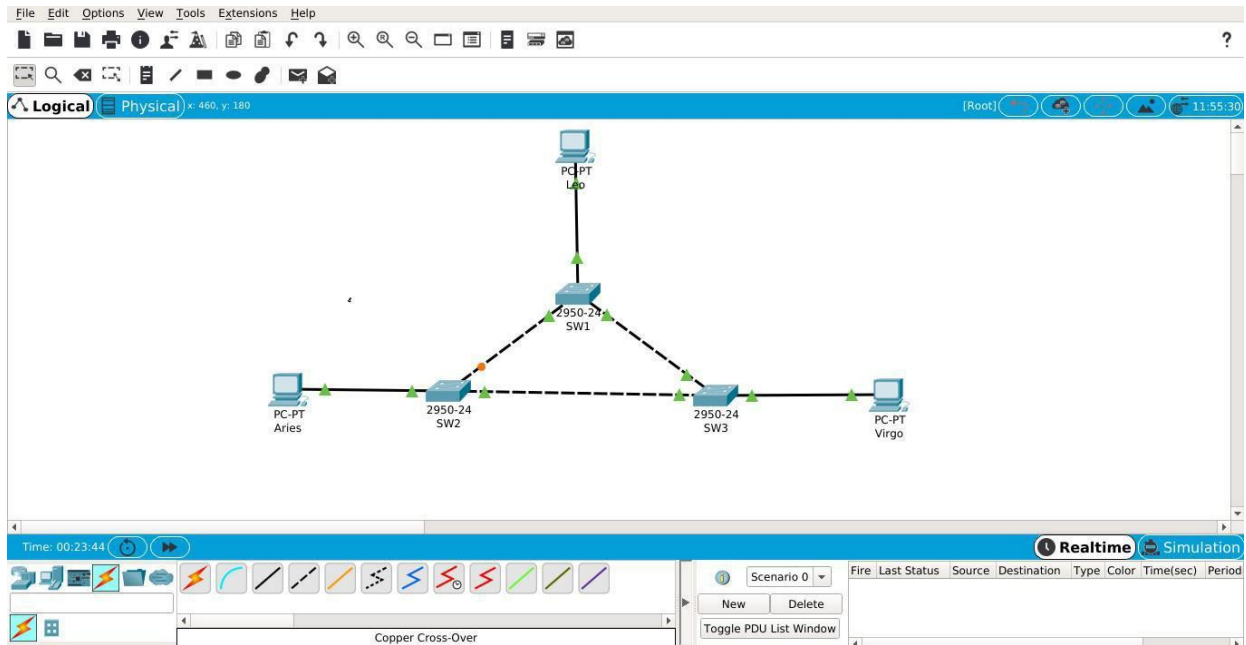


Nama : Tino Arif Priyanto
NIM : L200170131
Kelas : C
Modul : 6 **Kegiatan&Tugas**

Kegiatan1.Topologi1

1.A.Berikutadalahstrukturtopologi.



2.A.daristrukturjaringandiatasterdapat3Switchdan3Workstation,dengan namaSwitchyaituSW1,SW2,danSW3.SedangkanWorkstationialahLeo,Aries, danVirgo.

3.SetelahitukonfigurasisetiapWorkstationdenganIPAddress:

◦ Leo =172.21.1.1/24

Leo

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address

Subnet Mask

Default Gateway

DNS Server

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

☐ Top

◦ Aries = 172.21.1.2/24

Aries

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address

Subnet Mask

Default Gateway

DNS Server

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

☐ Top

◦ Virgo = 172.21.1.3/24

Virgo

Physical Config **Desktop** Programming Attributes

☐ 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::20C:85FF:FEA0:B38B

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

☐ Top

4.A. Tampilan masing-masing status STP (Spanning Tree Protocol) pada Switch.

SW1

Physical Config **CLI** Attributes

IOS Command Line Interface

```

APPLY completed.
Exiting....
Switch#
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0005.5EAA.02D5
             Cost        19
             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     000D.BDAD.A092
             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        Root FWD 19        128.3    P2p
Switch#
  
```

Ctrl+F6 to exit CLI focus

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☐ Top

SW2

PhysicalConfigCLIAttributes

IOS Command Line Interface

Switch>en
Switch#show spanning-tree
VLAN0001
Spanning tree enabled protocol ieee
Root ID Priority 32769
 Address 0005.5EAA.02D5
 Cost 19
 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 0060.7004.B00A
 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
 Aging Time 20

Interface Role Sts Cost Prio.Nbr Type

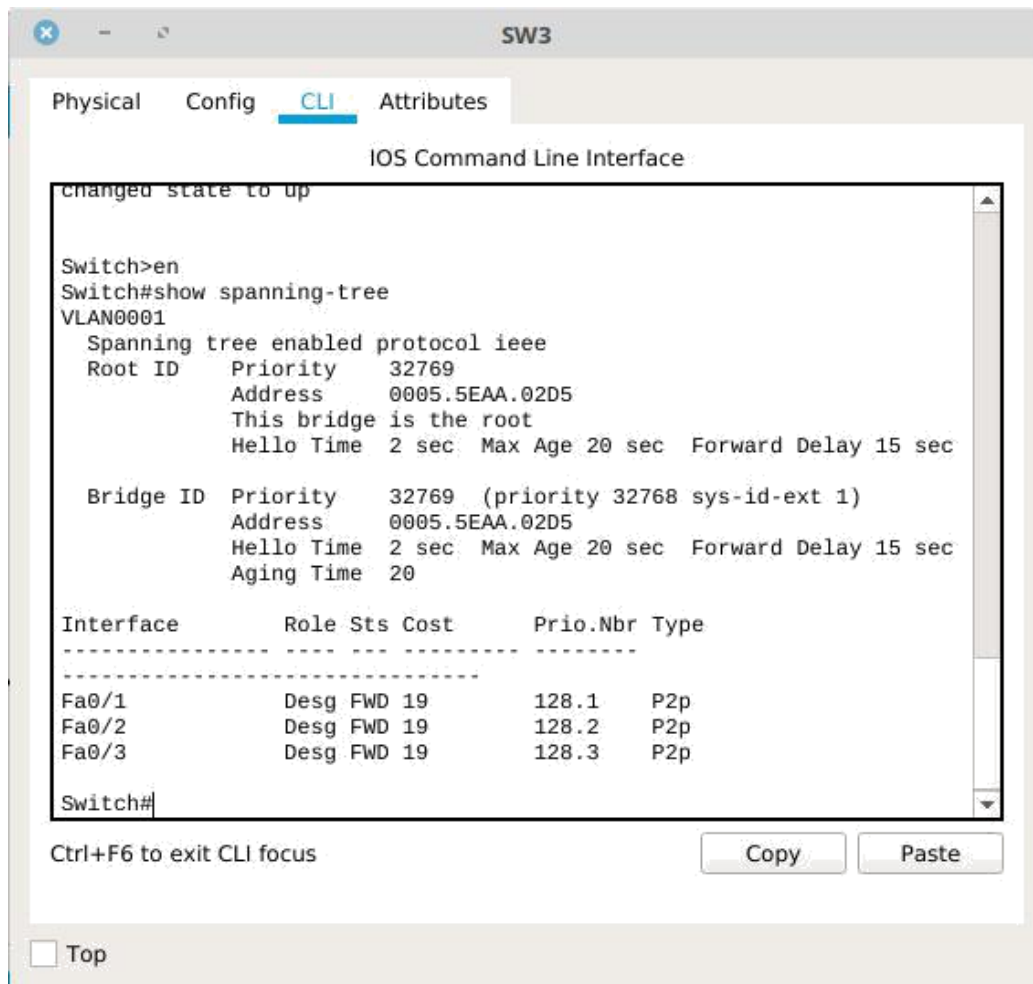
Fa0/1 Desg FWD 19 128.1 P2p
Fa0/2 Altn BLK 19 128.2 P2p
Fa0/3 Root FWD 19 128.3 P2p

Switch#

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☐ Top



B.informasipadamasing-masing
switch.◦SW1

No	Variable	Nilai
	RootID	
1	Priority	32769
2	MACAddress	0005.5EAA.02D5
	BridgeID	
3	Cost(0/1;0/2;0/3)	19
4	HeloTime	2Sec
5	MaxAge	20Sec
6	ForwardDelay	15Sec

◦SW2

No	Variable	Nilai
	RootID	
1	Priority	32769
2	MACAddress	0005.5EAA.02D5
	BridgeID	

3	Cost(0/1;0/2;0/3)	19
4	HeloTime	2Sec
5	MaxAge	20Sec
6	ForwardDelay	15Sec

◦SW3

No	Variable	Nilai
	RootID	
1	Priority	32769
2	MACAddress	0005.5EAA.02D5
	BridgeID	
3	Cost(0/1;0/2;0/3)	19
4	HeloTime	2Sec
5	MaxAge	20Sec
6	ForwardDelay	15Sec

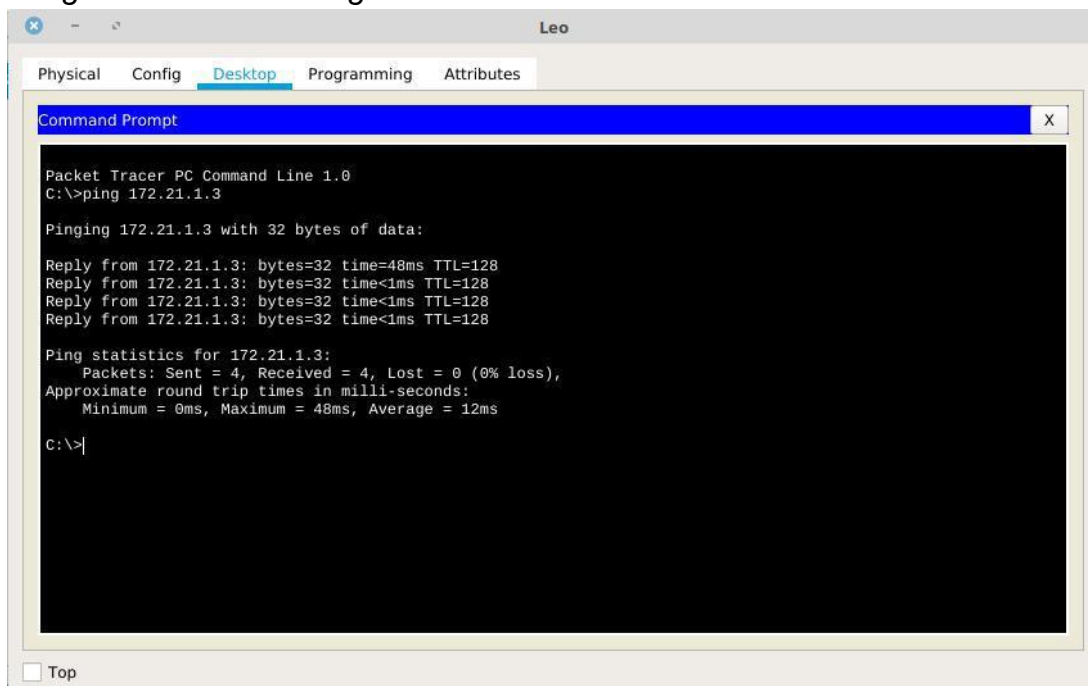
C. Pada kondisi default Switch dan Port yang menjadi:

- Root Bridge ialah **Switch SW3**
- Designated Bridge ialah **Switch SW1**
- Root Port ialah **Fa0/3** pada **SW1** dan **Fa0/3** pada **SW2**
- Designated Port ialah **Fa0/1** dan **Fa0/2**

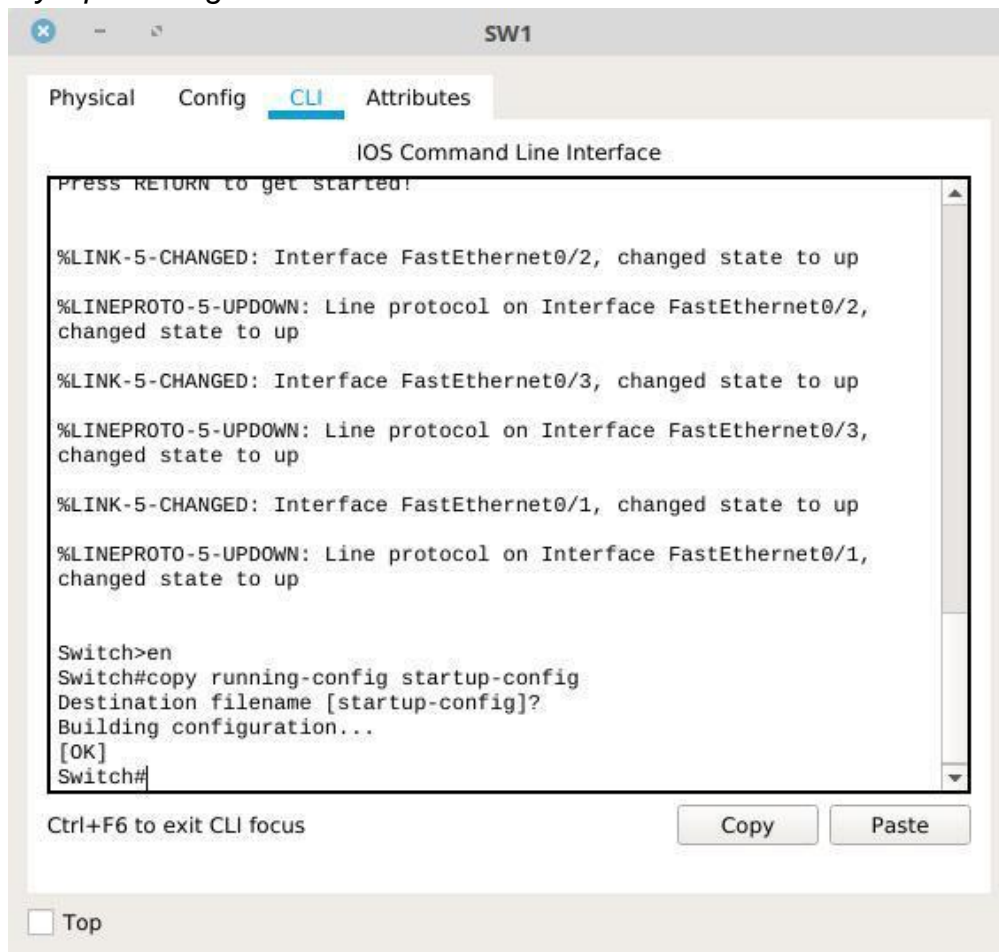
D. Pada kondisi default port yang:

- Berada pada keadaan forwarding pada **SW1 (Fa0/1, Fa0/2, dan Fa0/3)**, **SW2 (Fa0/1 dan Fa0/3)**, dan **SW3 (Fa0/1, Fa0/2, dan Fa0/3)**.
- Berada pada keadaan blocking pada **SW2 (Fa0/2)**.

5.A. Ping dari PC Leo ke PC Virgo:

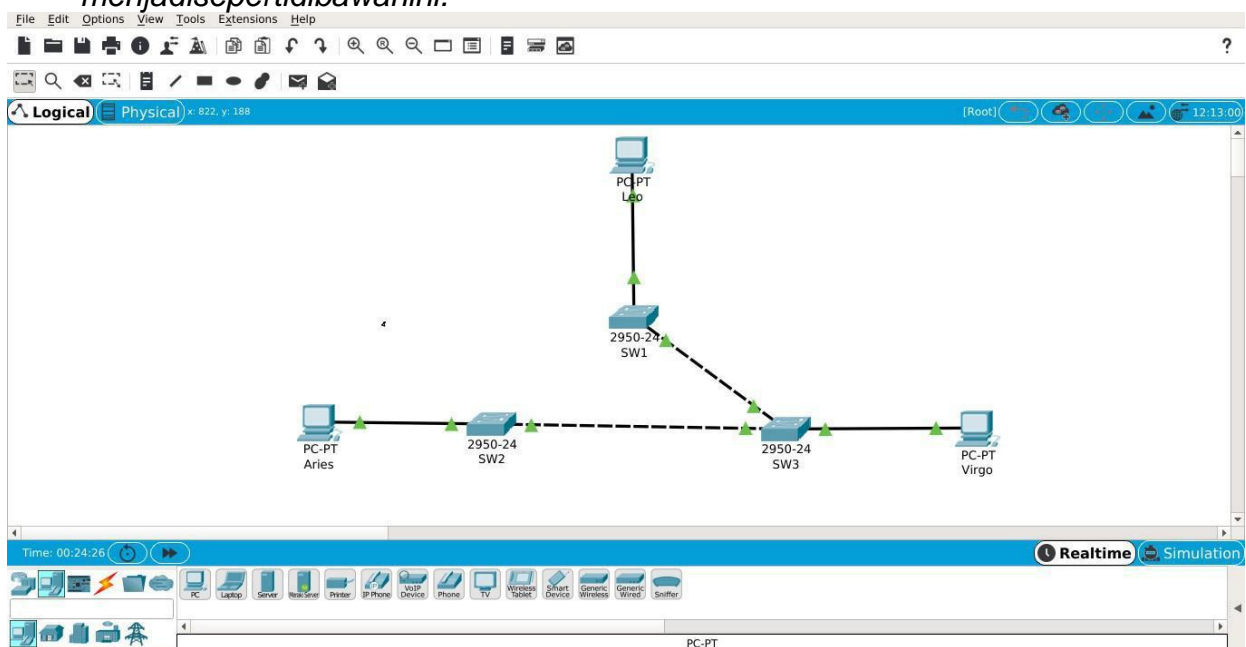


6.A.Menyimpan konfigurasi Switch.



Kegiatan2.Topologi2

1.menggunakan PacketTracermengubah strukturjaringan sebelumnya menjadisepertidibawahini.



9.A. Setelah mengubah struktur topologi jaringan selanjutnya lakukan seperti pada kegiatan 1 No 4 menentukan kondisi default tersebut, switch dan port dengan mengetik **show spanning-tree** pada masing-masing Switch.

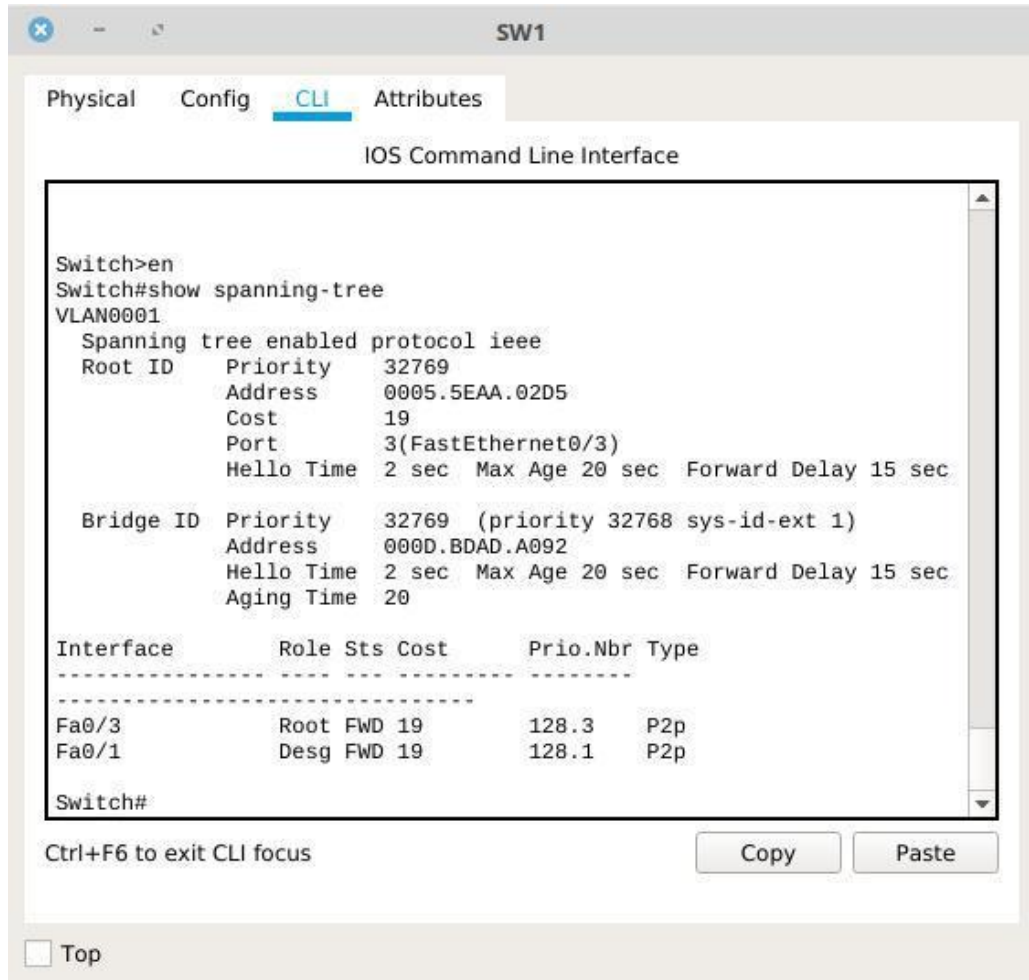
-Menjadi root bridge adalah **SW3**

-Menjadi designated bridge adalah tidak ada yang memiliki jalur terblok.

-Menjadi root port adalah **SW1(Fa0/3)** dan **SW2(Fa0/3)**.

-Menjadi designated port adalah tidak ada designated port karena pada designated bridge tidak ada jalur yang terblok.

Pada semua switch semua port pada keadaan Forwarding, tidak ada port yang ter Blocking.



The screenshot shows a network switch window titled 'SW1' with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the 'IOS Command Line Interface'. The user has entered the command 'show spanning-tree' in VLAN 0001. The output shows that the spanning tree is enabled with the IEEE protocol. The root bridge has ID 32769, priority 32769, address 0005.5EAA.02D5, cost 19, port 3 (FastEthernet0/3), hello time 2 sec, max age 20 sec, and forward delay 15 sec. The bridge ID is 32769 (priority 32768 sys-id-ext 1), address 000D.BDAD.A092, hello time 2 sec, max age 20 sec, forward delay 15 sec, and aging time 20. A table at the bottom shows the role of each interface: Fa0/3 is the Root (FWD) with a cost of 19, priority 128.3, and P2p type; Fa0/1 is the Designated (FWD) with a cost of 19, priority 128.1, and P2p type.

```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address     0005.5EAA.02D5
              Cost        19
              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     000D.BDAD.A092
              Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
              Aging Time  20

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

Switch#
```

Ctrl+F6 to exit CLI focus

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☐ Top

SW2

PhysicalConfigCLIAttributes

IOS Command Line Interface

Switch>en
Switch#show spanning-tree
VLAN0001
Spanning tree enabled protocol ieee
Root ID Priority 32769
 Address 0005.5EAA.02D5
 Cost 19
 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 0060.7004.B00A
 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
 Aging Time 20

Interface Role Sts Cost Prio.Nbr Type

Fa0/3 Root FWD 19 128.3 P2p
Fa0/1 Desg FWD 19 128.1 P2p

Switch#

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☐ Top

SW3

PhysicalConfigCLIAttributes

IOS Command Line Interface

Switch>en
Switch#show spanning-tree
VLAN0001
Spanning tree enabled protocol ieee
Root ID Priority 32769
 Address 0005.5EAA.02D5
 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 0005.5EAA.02D5
 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

Switch#

Ctrl+F6 to exit CLI focus

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☐ Top