

Nama : Riska Putri Damayanti

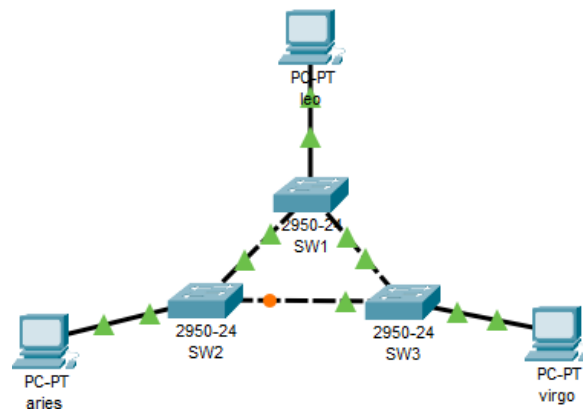
NIM : L200180209

Kelas : E

MODUL 6

1. Kegiatan 1. Topologi

1 Tugas 1A:



Tugas 2A:

PC Leo

leo

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ 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

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::2D0:BAFF:FEC9:8135

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

☐ Top

PC Aries

aries

Physical

Config

Desktop

Programming

Attributes

IP Configuration

X

Interface

FastEthernet0

IP Configuration

☐ DHCP

☒ 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

☐ DHCP

☐ Auto Config

☒ Static

IPv6 Address /

Link Local Address

FE80::201:97FF:FE6E:C918

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

☐ Top

PC Virgo

virgo

Physical

Config

Desktop

Programming

Attributes

IP Configuration

X

Interface

FastEthernet0

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::260:47FF:FE77:8E03

IPv6 Gateway

IPv6 DNS Server

802.1X

Use 802.1X Security

Top

Tugas 4A:

Status STP SW1

SW1

Physical

Config

CLI

Attributes

IOS Command Line Interface

% Invalid input detected at '^' marker.

Switch>en

Switch#show spanning-tree

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769

Address 0002.1609.C816

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 0002.1609.C816

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

Fa0/3 Desg FWD 19 128.3 P2p

Fa0/2 Desg FWD 19 128.2 P2p

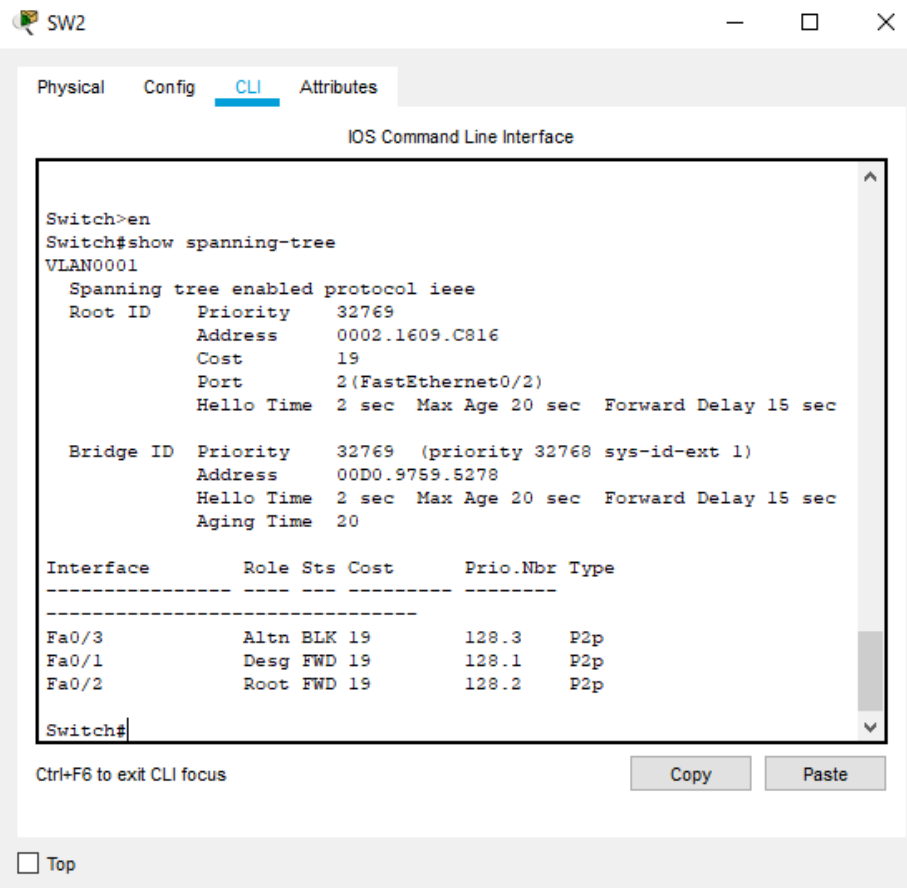
Switch#

Ctrl+F6 to exit CLI focus

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☐ Top



The screenshot shows a network switch (SW2) in CLI mode. The user has entered the command `show spanning-tree` in VLAN0001. The output displays the spanning tree protocol status, including the root ID, priority, address, cost, port, and hello time. It also shows the bridge ID, priority, address, hello time, and aging time. A table lists the interfaces and their roles in the spanning tree.

SW2

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0002.1609.C816
             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     00D0.9759.5278
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20
```

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

Switch#

Ctrl+F6 to exit CLI focus

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☐ Top

Status STP SW3

```

Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0002.1609.C816
             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     0060.5CD9.2774
             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
Fa0/1                    Root FWD 19        128.1    P2p
Fa0/3                    Desg FWD 19        128.3    P2p

Switch#
  
```

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☐ Top

Tugas 4B:

SW1

No	Variable	Nilai
1	Root ID	
2	Priority	32769
3	MAC Address	0002.1609.C816
4	Bridge ID	
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

SW2

No	Variable	Nilai
1	Root ID	
2	Priority	32769
3	MAC Address	0002.1609.C816
4	Bridge ID	
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

SW3

No	Variable	Nilai
1	Root ID	
2	Priority	32769
3	MAC Address	0002.1609.C816
4	Bridge ID	
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

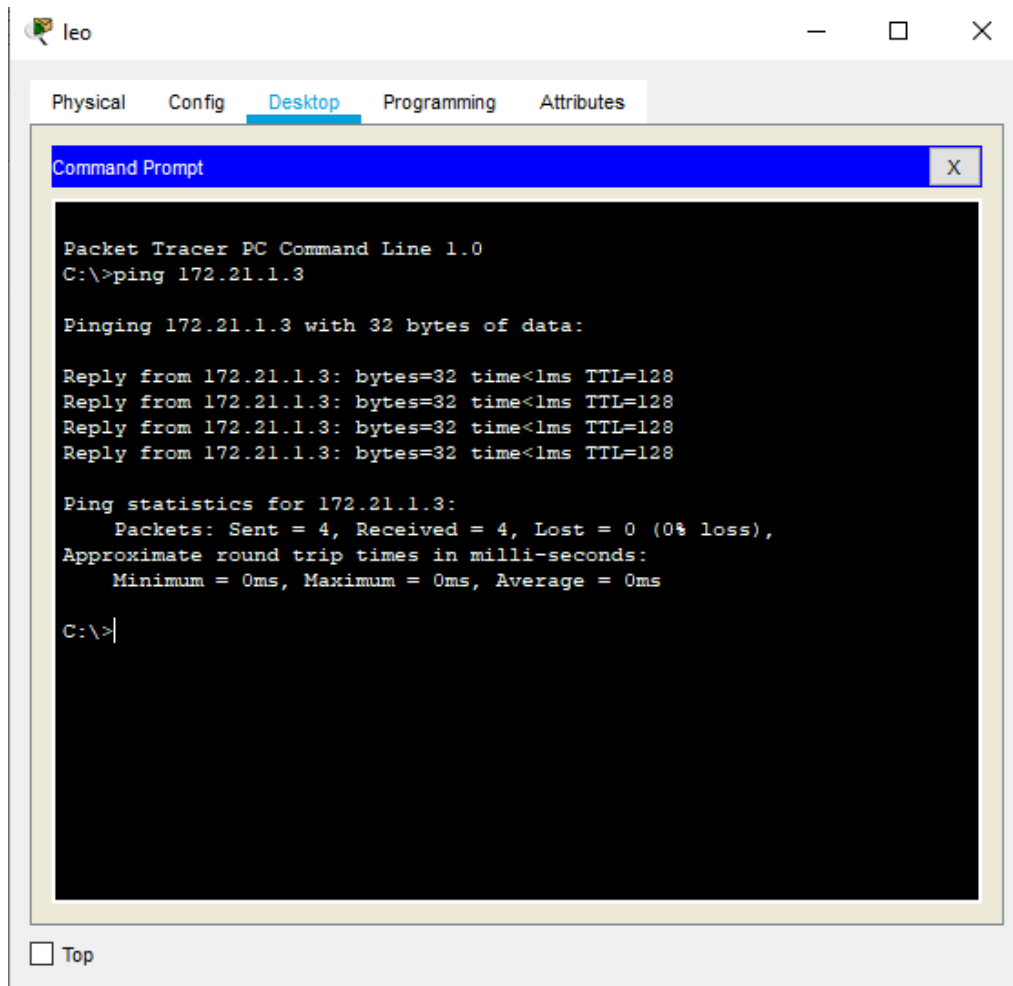
Tugas 4C:

- *Root Bridge* = **SW3**
- *Designated Bridge* = **SW1**
- *Root Port* = **Fa0/3** pada **SW1** dan **Fa0/3** pada **SW2**
- *Designated Port* = **Fa0/1** dan

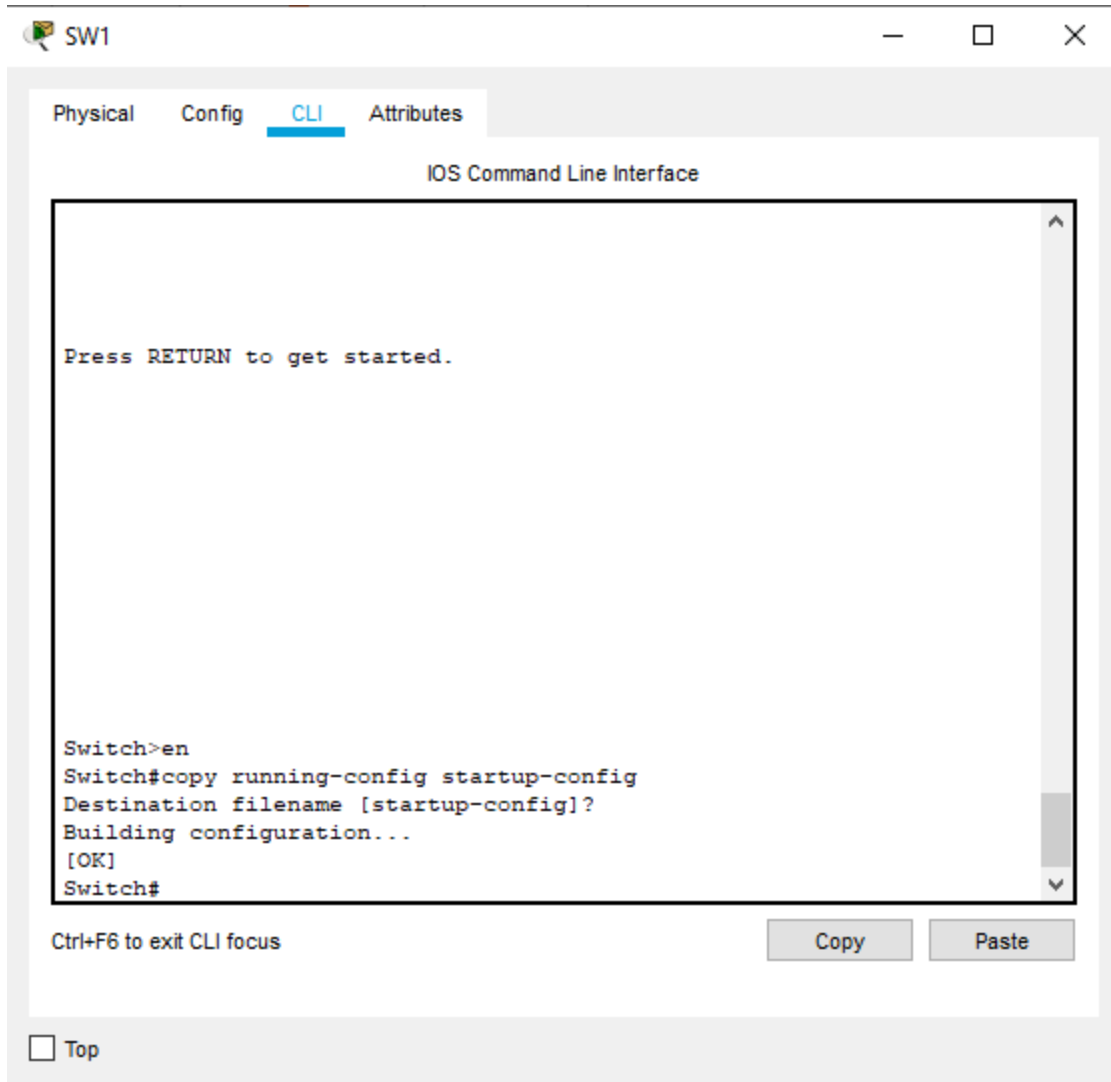
Fa0/2 Tugas 4D:

- 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).

Tugas 5A:

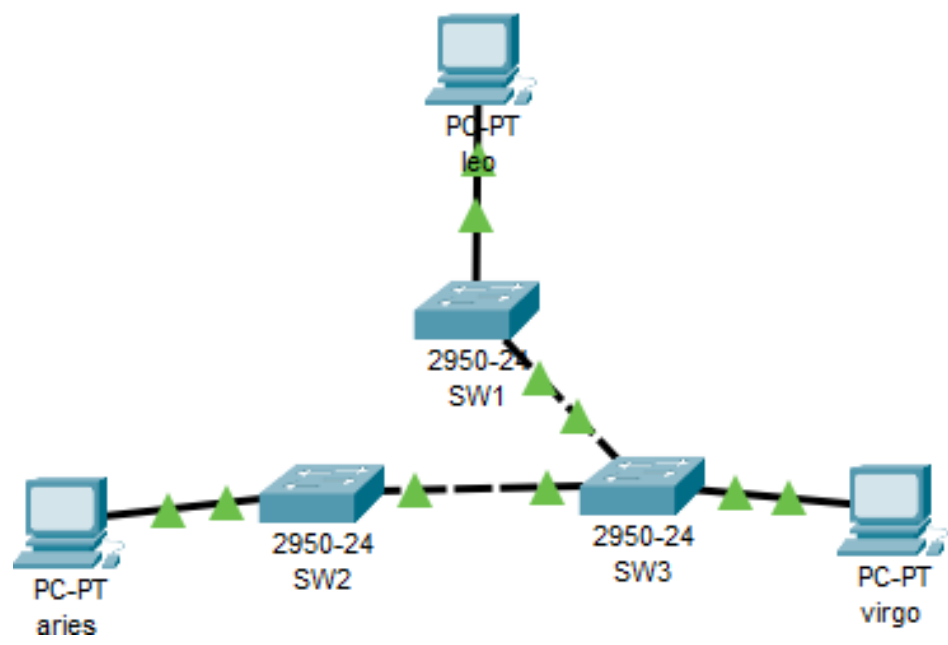


Tugas 6A:



2. Kegiatan 2. Topologi 2

- Menggunakan Packet Tracer ubah topologi menjadi seperti topologi berikut ini

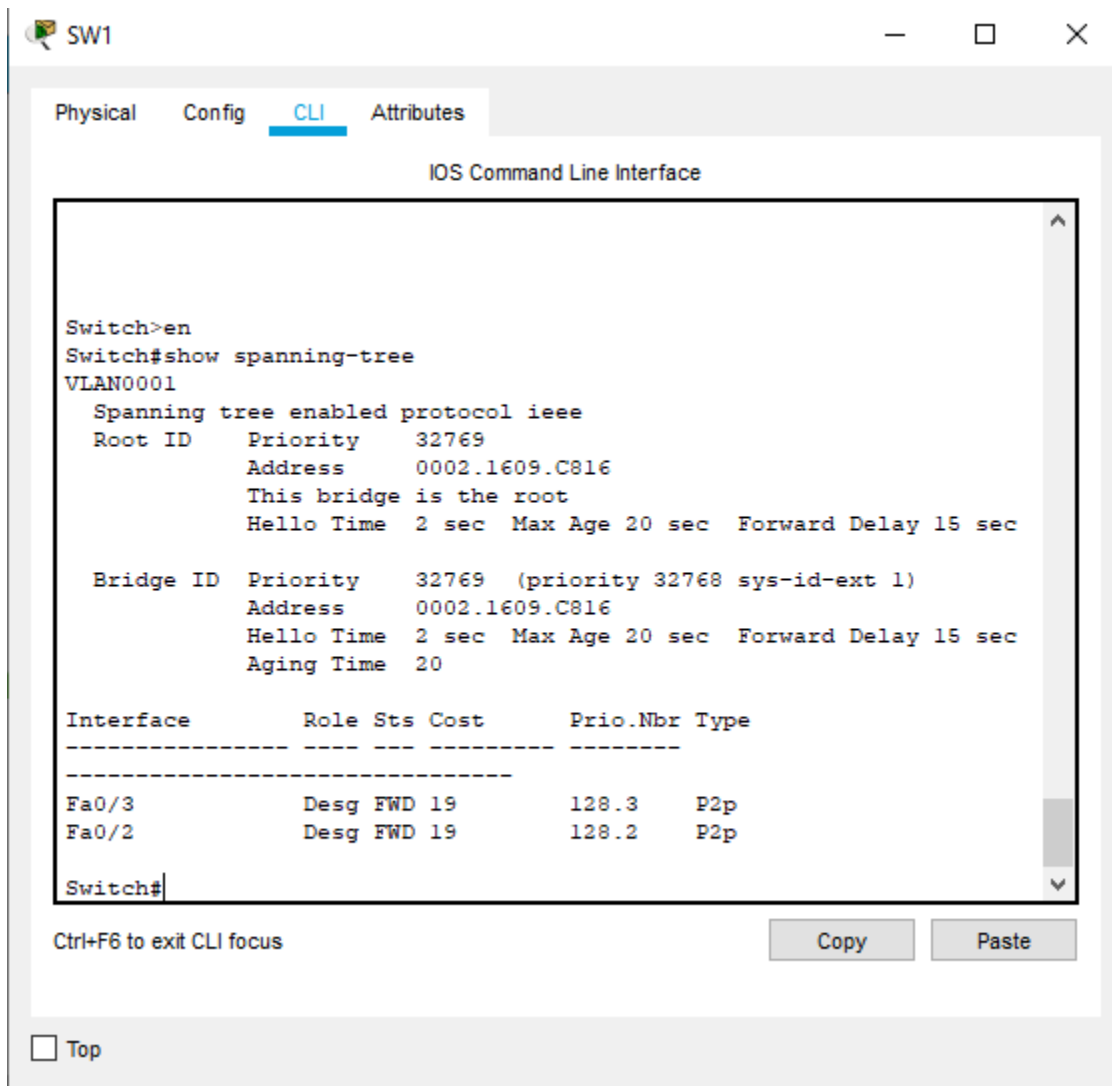


Tugas 9A:

Setelah mengubah struktur topologi jaringan selanjutnya lakukan seperti pada lab.4 dan lab.5 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 the CLI of Switch SW1. The user has entered the command 'show spanning-tree' in user EXEC mode. The output displays the spanning tree configuration for VLAN0001, indicating that the switch is the root of the tree. It also shows the roles and costs for the interfaces Fa0/3 and Fa0/2.

```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address     0002.1609.C816
            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     0002.1609.C816
            Hello Time 2 sec  Max Age 20 sec  Forward Delay 15 sec
            Aging Time  20

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

Switch#
```

Below the CLI window, there is a 'Top' button and a 'Ctrl+F6 to exit CLI focus' message.

Physical CDnfig CLI Attributes

0 S Command Line Interface

changed state to down

Switch>en

Swi1ch#shon spanning-tree

Spanning tree enabled protocol

ieee Bool ID Priority

027fS

Address

0002.If0S.C8I

f Cosc 38

Port 3IfastBthernet0/3)

Hello Time 2 see Hax Age 20 see Forward Delay IS see

Bridge ID Priority 327fS lpriority 327f8 sys-id-ext 1)

Address OODO.S7SS.5278

Hello Time 2 sec Hax Age 20 sec Forward Delay IS sec

Aging Time 20

Interface Prio.Nbr Type

Fa0/3 Root-FWD IS 128.3 P2p

Fa0fl Desg FND IS 128.1 P2p

Switch#

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TDp

OS Comrt+and Line Interface

```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Boot ID    Priority    327f8
  Address    0002.1f05.c81f
  Cost       18
  Port       11FastEthernet0/1)
  Hello Time 2 sec Max Age 20 sec Forward Delay 18 sec

  Bridge ID  Priority    327f8 1priority 327f8 sys-id-ex1 1)
  Address    00f0.5c5d.2774
  Hello Time 2 sec Max Age 20 sec Forward Delay 18 sec
  Aging Time 20

Interface      Role Sts Cost      Prio.Wbr Type
Fa0/2          Desg FWD 18      128.2    P2p
Fa0/1          Rnt. FWD 18      128.1    P2p
Fa0/3          Desg FWD 18      128.3    P2p

Switch#
```

Ctrl+F6 to exit CLI focus

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