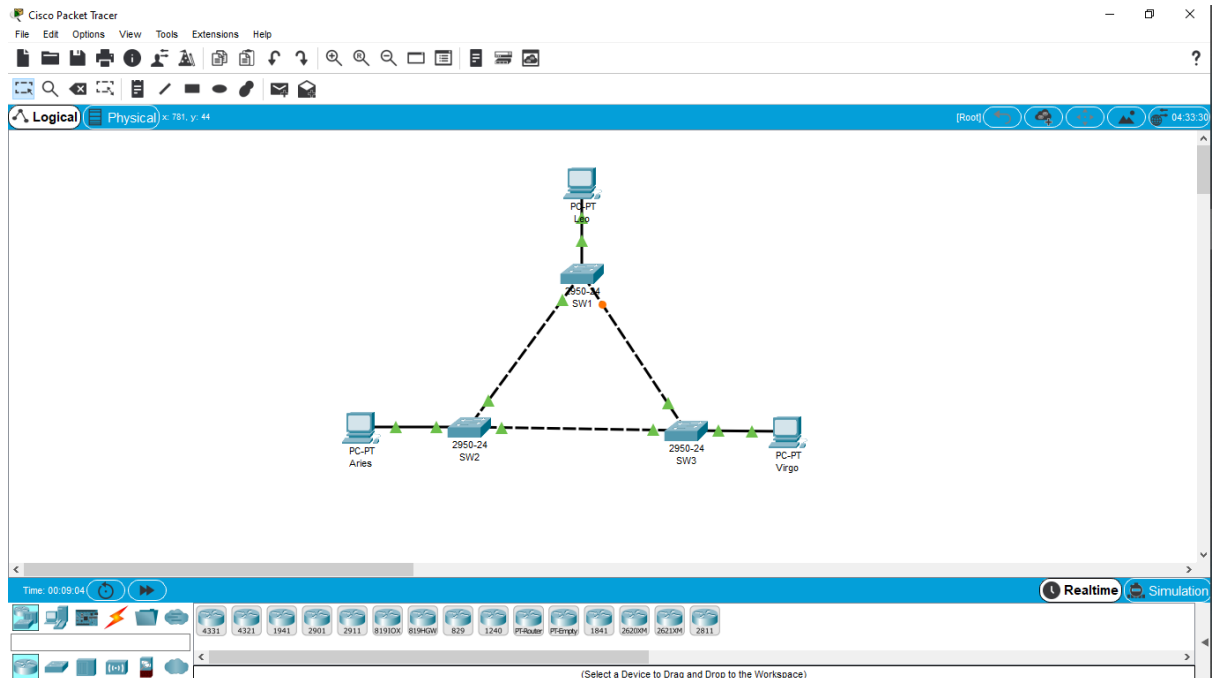


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## Jarkom Modul 6

### Kegiatan 1. Topologi 1

1. A :



2. A:

The image displays two network switch configuration windows, SW1 and SW2, side-by-side. Both windows have a 'Config' tab selected, showing 'Global Settings'.

**SW1 Configuration:**

- Global Settings:**
  - Display Name: SW1
  - Hostname: Switch
  - Serial Number: Serial Number
  - NVRAM: Erase, Save
  - Startup Config: Load..., Export...
  - Running Config: Export..., Merge...
- Equivalent IOS Commands:**
  - %LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
  - %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,

**SW2 Configuration:**

- Global Settings:**
  - Display Name: SW2
  - Hostname: Switch
  - Serial Number: Serial Number
  - NVRAM: Erase, Save
  - Startup Config: Load..., Export...
  - Running Config: Export..., Merge...
- Equivalent IOS Commands:**
  - %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
  - %LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up

SW3

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/1

FastEthernet0/2

FastEthernet0/3

FastEthernet0/4

FastEthernet0/5

FastEthernet0/6

FastEthernet0/7

FastEthernet0/8

FastEthernet0/9

Global Settings

Display Name

SW3

Hostname

Switch

Serial Number

Serial Number

NVRAM

Erase

Save

Startup Config

Load...

Export...

Running Config

Export...

Merge...

Equivalent IOS Commands

%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up

Top

3.

The image displays two screenshots of the Cisco Packet Tracer configuration interface for two routers, Leo and Aries. Both screenshots show the 'Desktop' tab with the 'IP Configuration' window open for the 'FastEthernet0' interface.

**Leo Router Configuration:**

- 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: [Empty]
  - Link Local Address: FE80::290:CFF:FE56:8965
  - IPv6 Gateway: [Empty]
  - IPv6 DNS Server: [Empty]
- 802.1X:
  - ☐ Use 802.1X Security

**Aries Router Configuration:**

- 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: [Empty]
  - Link Local Address: FE80::230:A3FF:FEEA:C3E2
  - IPv6 Gateway: [Empty]
  - IPv6 DNS Server: [Empty]
- 802.1X:
  - ☐ Use 802.1X Security

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::202:4AFF:FE3B:BCD0

IPv6 Gateway

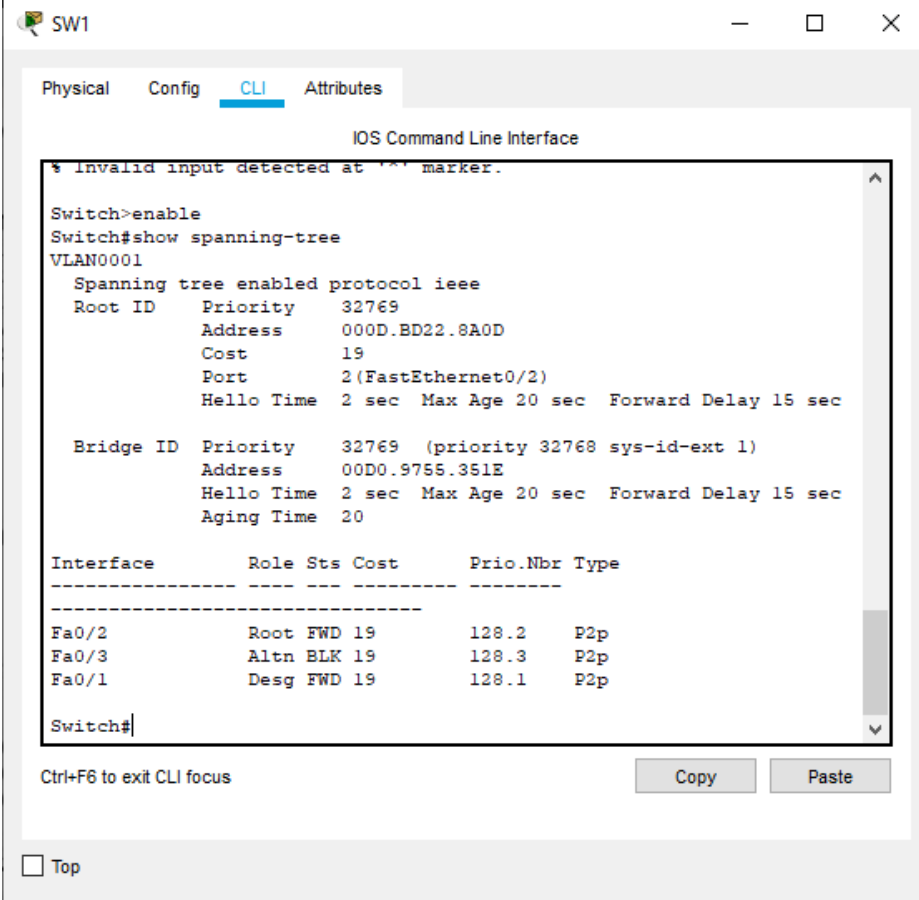
IPv6 DNS Server

802.1X

☐ Use 802.1X Security

☐ Top

4. A:



SW1

Physical Config **CLI** Attributes

IOS Command Line Interface

```
* Invalid input detected at '^' marker.

Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address    000D.BD22.8A0D
            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    00D0.9755.351E
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
            Aging Time  20

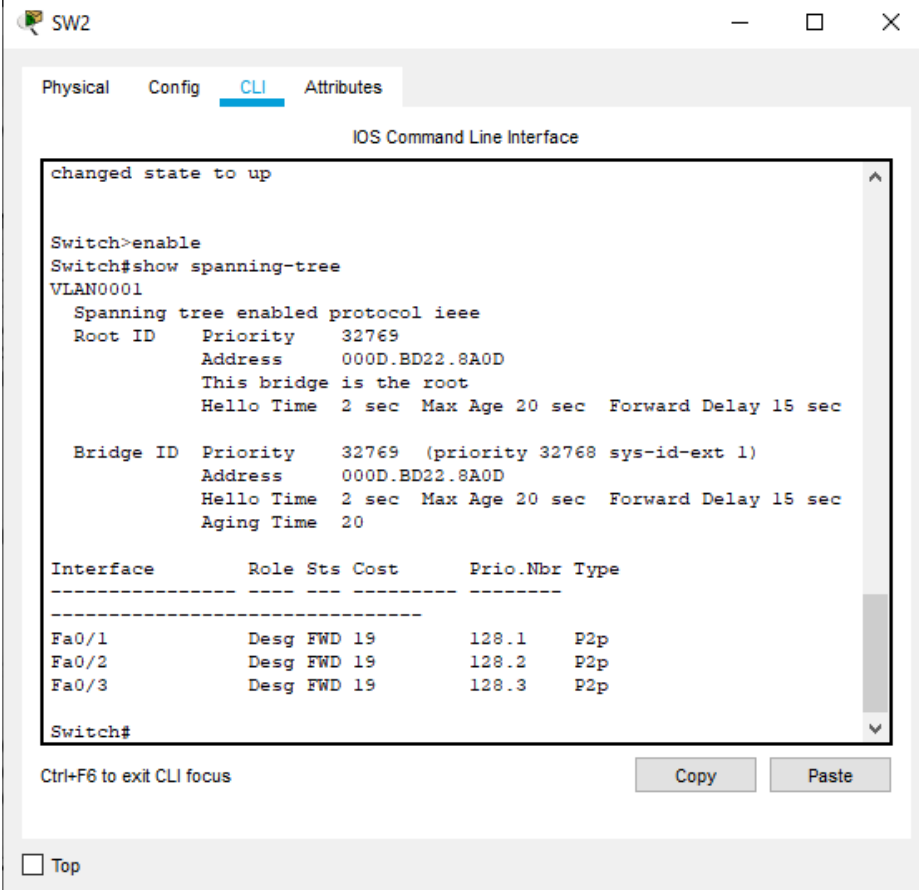
Interface    Role Sts Cost      Prio.Nbr Type
-----
Fa0/2        Root FWD 19        128.2    P2p
Fa0/3        Altn BLK 19        128.3    P2p
Fa0/1        Desg FWD 19        128.1    P2p

Switch#
```

Ctrl+F6 to exit CLI focus

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☐ Top



SW2

Physical Config **CLI** Attributes

IOS Command Line Interface

```
changed state to up

Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address    000D.BD22.8A0D
            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    000D.BD22.8A0D
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
            Aging Time  20

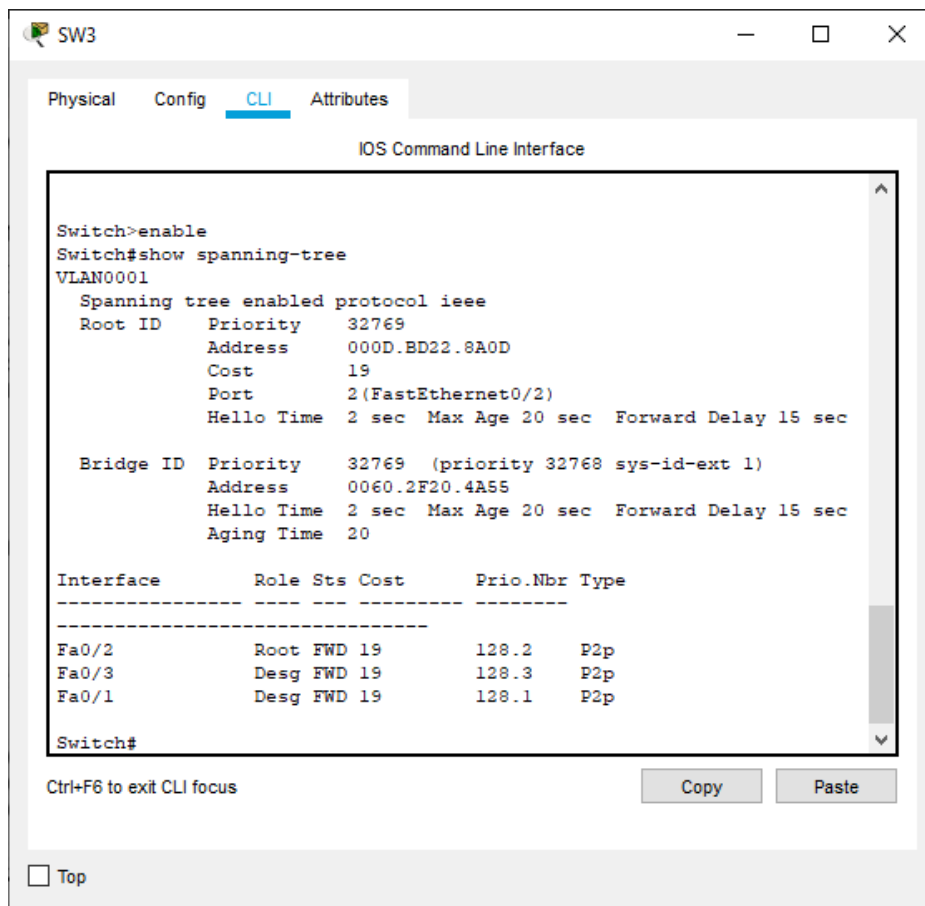
Interface    Role Sts Cost      Prio.Nbr Type
-----
Fa0/1        Desg FWD 19        128.1    P2p
Fa0/2        Desg FWD 19        128.2    P2p
Fa0/3        Desg FWD 19        128.3    P2p

Switch#
```

Ctrl+F6 to exit CLI focus

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☐ Top



B :

SW1

No	Variabel	Nilai
<b>Root ID</b>		
1	Priority	32769
2	MAC Address	000D.BD22.8A0D
<b>Bridge ID</b>		
3	Cost (0/1;0/2;0/3)	19; 19; 19
4	Hello Time	2 sec
5	Max Age	20 sec
6	Forward Delay	15 sec

SW2

No	Variabel	Nilai
<b>Root ID</b>		
1	Priority	32769
2	MAC Address	000D.BD22.8A0D
<b>Bridge ID</b>		
3	Cost (0/1;0/2;0/3)	19; 19; 19
4	Hello Time	2 sec
5	Max Age	20 sec
6	Forward Delay	15 sec

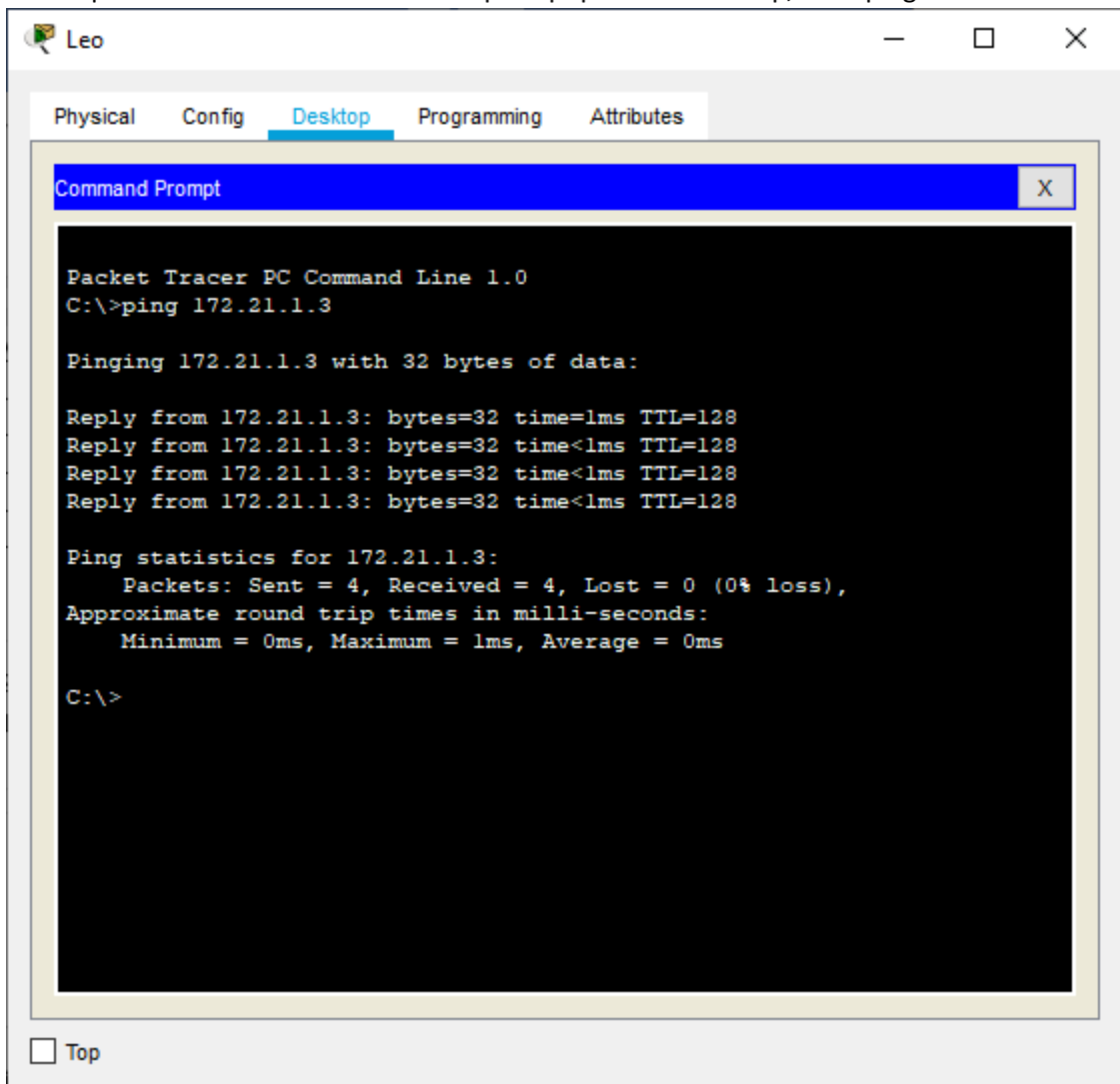
SW3

No	Variabel	Nilai
<b>Root ID</b>		
1	Priority	32769
2	MAC Address	000D.BD22.8A0D
<b>Bridge ID</b>		
3	Cost (0/1;0/2;0/3)	19; 19; 19
4	Hello Time	2 sec
5	Max Age	20 sec
6	Forward Delay	15 sec

C :     root bridge                 = Switch SW2  
         designated bridge         = Switch SW1 dan Switch SW3  
         root port                 = 2(FastEthernet0/2)  
         designated port           = 1(FastEthernet0/1) dan 3(FastEthernet0/3)

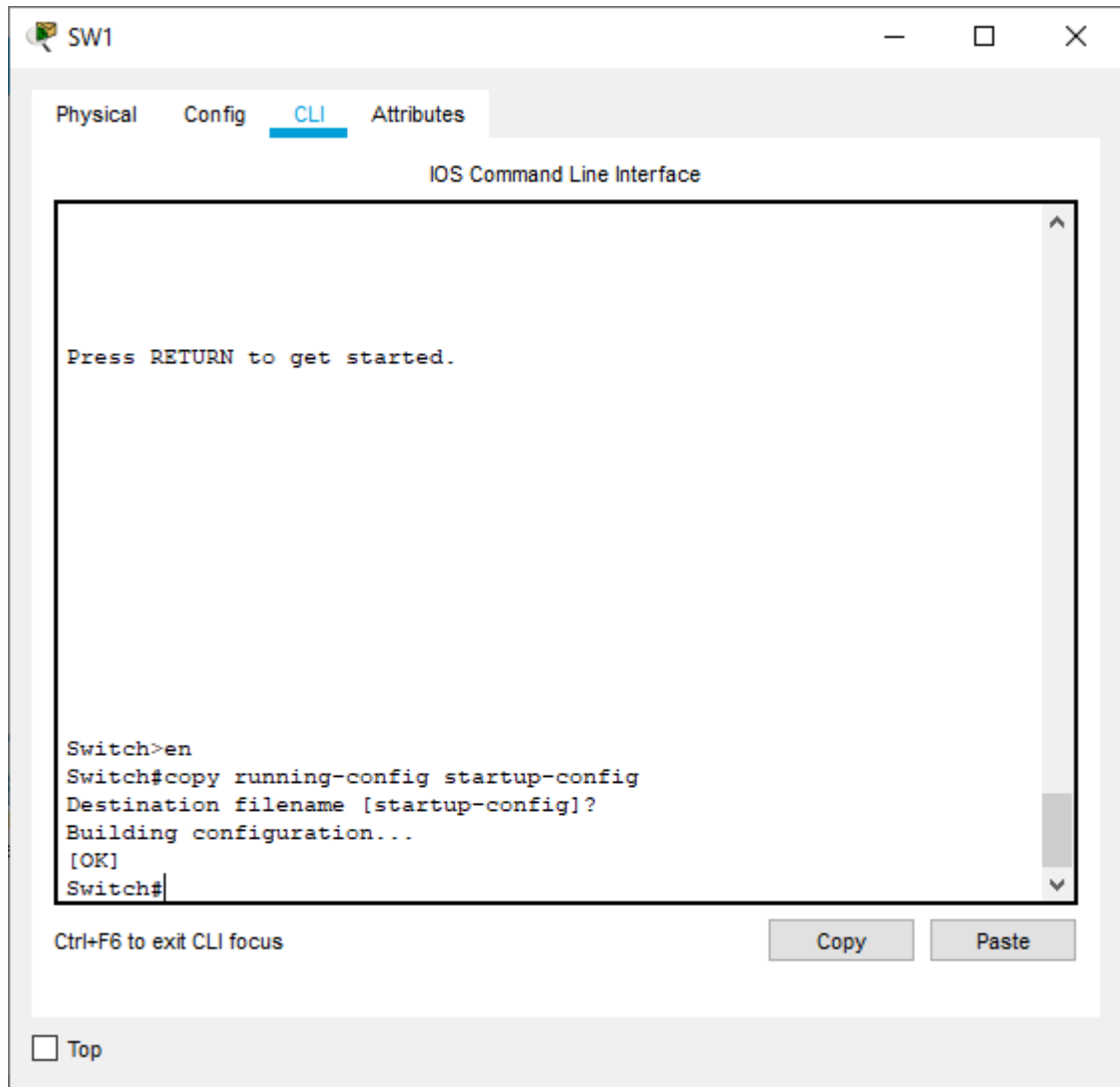
D :     forwarding         = 1(FastEthernet0/1) dan 2(FastEthernet0/2)  
         Blocking           = 3(FastEthernet0/3)

5. A : klik pada PC Leo lalo buka command prompt pada tab desktop, ketik ping 172.21.1.3.



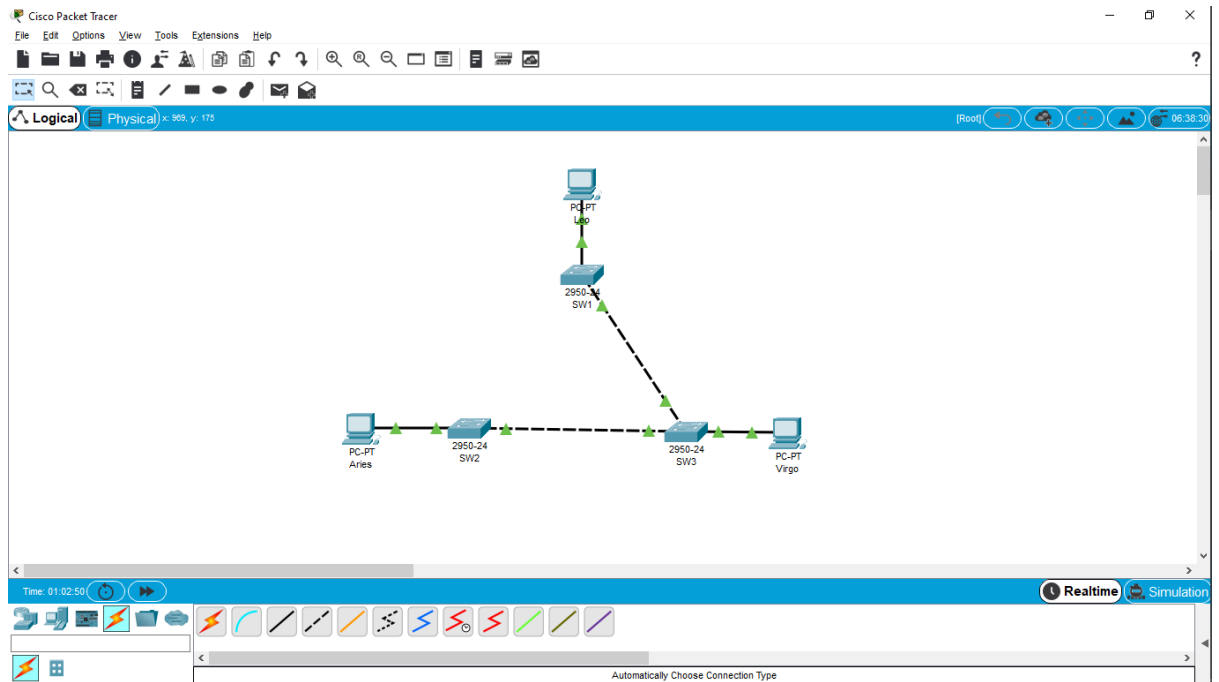


6. A:



## Kegiatan 2. Topologi 2

a.



SW1

Physical Config **CLI** Attributes

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2,
changed state to down

Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address     000D.BD22.8A0D
            Cost        38
            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     00D0.9755.351E
            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

Physical Config **CLI** Attributes

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2,
changed state to down

Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address     000D.BD22.8A0D
            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     000D.BD22.8A0D
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
            Aging Time  20

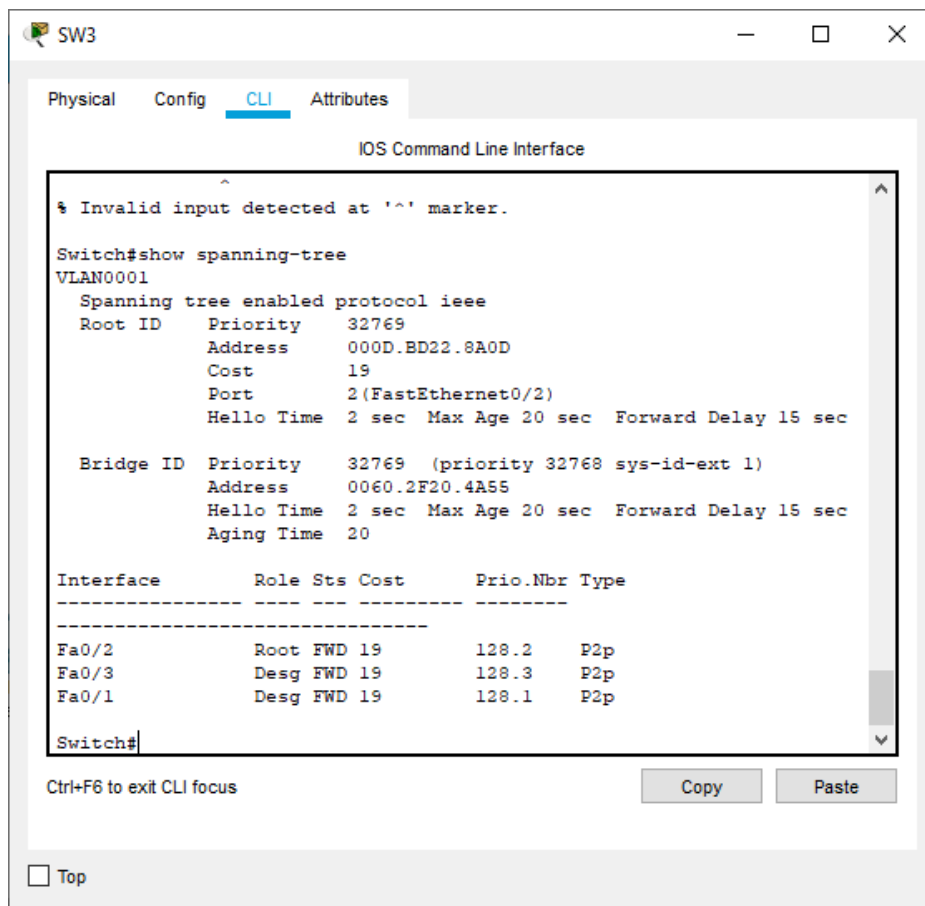
Interface                Role Sts Cost      Prio.Nbr Type
-----
Fa0/1                    Desg FWD 19        128.1    P2p
Fa0/3                    Desg FWD 19        128.3    P2p

Switch#
```

Ctrl+F6 to exit CLI focus

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☐ Top



#### SW1

No	Variabel	Nilai
<b>Root ID</b>		
1	Priority	32769
2	MAC Address	000D.BD22.8A0D
<b>Bridge ID</b>		
3	Cost (0/1;0/2;0/3)	19; -; 19
4	Hello Time	2 sec
5	Max Age	20 sec
6	Forward Delay	15 sec

#### SW2

No	Variabel	Nilai
<b>Root ID</b>		
1	Priority	32769
2	MAC Address	000D.BD22.8A0D
<b>Bridge ID</b>		
3	Cost (0/1;0/2;0/3)	19; -; 19
4	Hello Time	2 sec
5	Max Age	20 sec
6	Forward Delay	15 sec

### SW3

No	Variabel	Nilai
<b>Root ID</b>		
1	Priority	32769
2	MAC Address	000D.BD22.8A0D
<b>Bridge ID</b>		
3	Cost (0/1;0/2;0/3)	19; 19; 19
4	Hello Time	2 sec
5	Max Age	20 sec
6	Forward Delay	15 sec

root bridge = Switch SW2

designated bridge = Switch SW1 dan Switch SW3

root port = SW1: Fa0/3, SW3: Fa0/2

designated port = SW1: Fa0/1, SW2 & SW3: Fa0/1, Fa0/3

forwarding = 1(FastEthernet0/1), 2(FastEthernet0/2), 3(FastEthernet0/3)

Blocking = -