

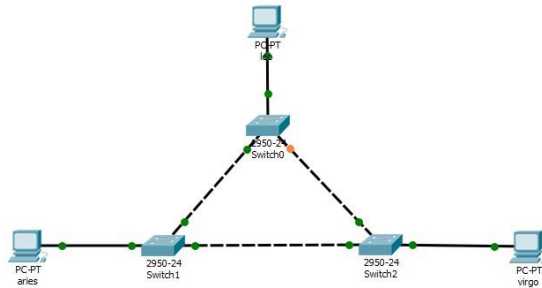
Nama : Tito Andika Wahyu Purwa

NIM : L200180007

Kelas : A

## Kegiatan 1. Topologi 1

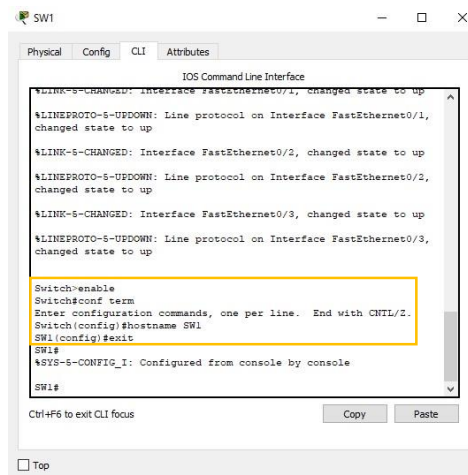
### 1. Rancangan Jaringan



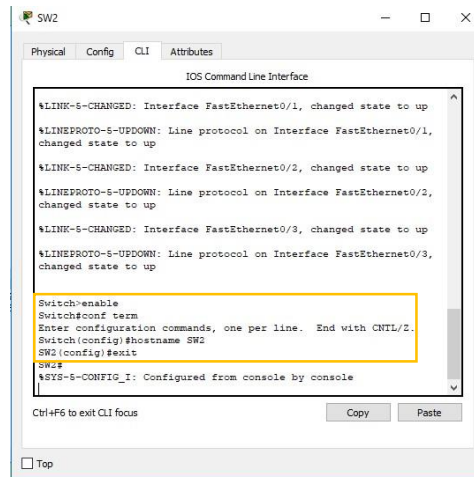
Drag 3 switch catalyst 2950 yang diambil dari network devices dan drop ke lembar kerja. Lalu drag 3 PC yang di ambil di end devices dan drop ke lembar kerja. Lalu hubungkan switch dengan switch dan switch dengan PC dengan connections.

### 2. Pemberian nama switch dari mode user

SW1



## SW2

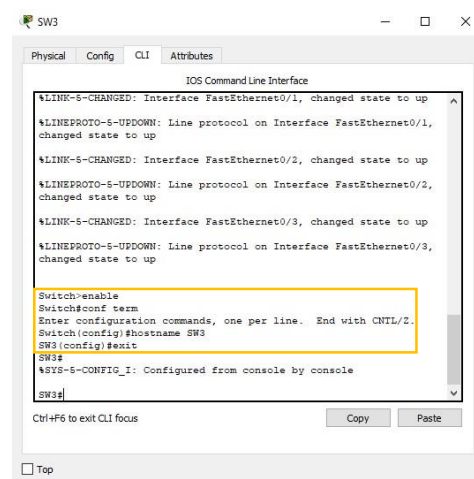


```
Switch>enable
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname SW2
SW2(config)#exit
SW2#
$SYS-S-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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```
Switch>enable
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname SW3
SW3(config)#exit
SW3#
$SYS-S-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

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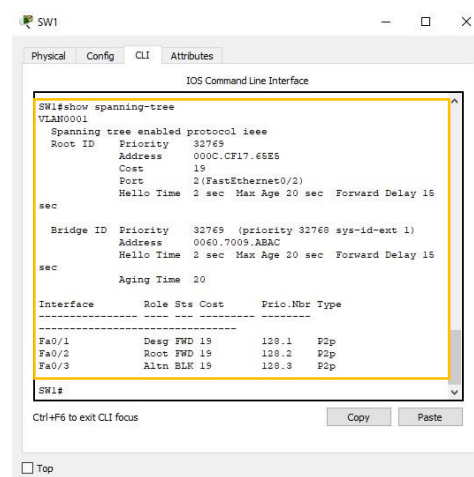
Top

## SW3

Pemberian nama masing-masing switch dengan SW1, SW2, dan SW3 dengan cara ketik **enable** lalu ketik **conf term** lalu ketik **hostname SW1**(sesuai dengan nama switch nya)

### 3. Spanning-tree pada masing-masing switch

## SW1



```
SW1#show spanning-tree
VLAN0001
Spanning tree enabled protocol ieee
Root ID    Priority    32769
           Address    000C.CF17.65E5
           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    0060.7009.ABAC
           Hello Time 2 sec Max Age 20 sec Forward Delay 15
sec
           Aging Time 20
Interface   Role Sts Cost      Prio.Mbr Type
-----
Fa0/1       Desg FWD 19        128.1   P2p
Fa0/2       Root FWD 19        128.2   P2p
Fa0/3       Altn BLK 19        128.3   P2p
SW1#
```

Ctrl+F6 to exit CLI focus

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Top

| No | Variabel          | Nilai          |
|----|-------------------|----------------|
| 1  | Root ID           | 32769          |
| 2  | Priority          | -              |
| 3  | MAC Address       | 0060.7009.ABAC |
| 4  | Bridge ID         | 32769          |
| 5  | Cost(0/1;0/2;0/3) | 19             |
| 6  | Hello Time        | 2 sec          |
| 7  | MaxAge            | 20 sec         |
| 8  | Forward Delay     | 15 sec         |

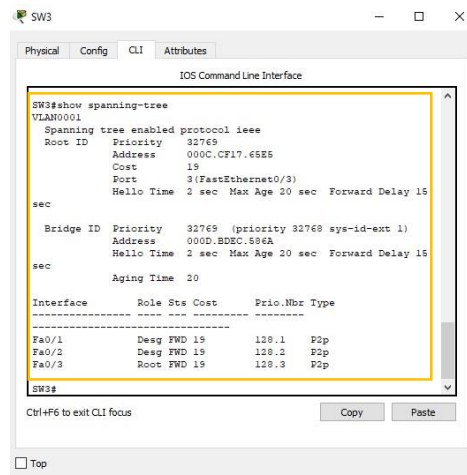
## SW2

```

IOS Command Line Interface
$SYS-S-CONFIG_1: Configured from console by console
SW2#show spanning-tree
VLAN0001
Spanning tree enabled protocol ieee
Root ID    Priority    32769
           Address    000C.CF17.65E5
           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    000C.CF17.65E5
           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
Fa0/1      Desg FWD 19      128.1    P2p
Fa0/2      Desg FWD 19      128.2    P2p
SW2#
  
```

| No | Variabel          | Nilai          |
|----|-------------------|----------------|
| 1  | Root ID           | 32769          |
| 2  | Priority          | -              |
| 3  | MAC Address       | 000C.CF17.65E5 |
| 4  | Bridge ID         | 32769          |
| 5  | Cost(0/1;0/2;0/3) | 19             |
| 6  | Hello Time        | 2 sec          |
| 7  | MaxAge            | 20 sec         |
| 8  | Forward Delay     | 15 sec         |

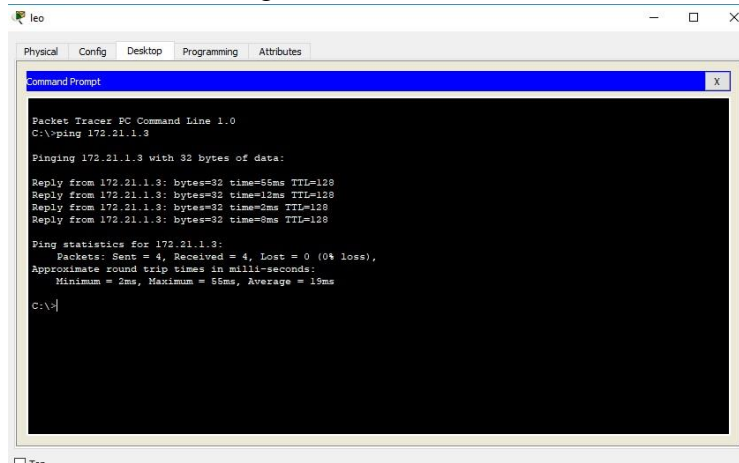
## SW3



| No | Variabel          | Nilai          |
|----|-------------------|----------------|
| 1  | Root ID           | 32769          |
| 2  | Priority          | -              |
| 3  | MAC Address       | 000D.BDEC.586A |
| 4  | Bridge ID         | 32769          |
| 5  | Cost(0/1;0/2;0/3) | 19             |
| 6  | Hello Time        | 2 sec          |
| 7  | MaxAge            | 20 sec         |
| 8  | Forward Delay     | 15 sec         |

- ☐ Root bridge : SW2
- ☐ Designated bridge : SW3
- ☐ Root port : SW1(0/2), SW3(0/3)
- ☐ Designated port : SW3(0/3)
- Port keadaan forwarding : SW1(0/1, 0/2), SW2(0/1, 0/2, 0/3), dan SW3(0/1, 0/2, 0/3)
- Port keadaan blocking : SW1(0/3)

#### 4. Lakukan ping dari PC leo ke 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=55ms TTL=128
Reply from 172.21.1.3: bytes=32 time=12ms TTL=128
Reply from 172.21.1.3: bytes=32 time=2ms TTL=128
Reply from 172.21.1.3: bytes=32 time=8ms TTL=128

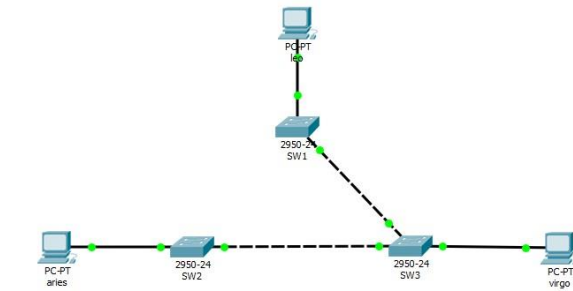
Ping statistics for 172.21.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 55ms, Average = 19ms

C:\>
```

Tap 2 kali pada PC leo lalu pilih dekstop lalu pilih command prompt. Ketikkan **ping 172.21.1.3** lalu enter dan akan keluar hasilnya. Bahwa PC leo dan PC virgo saling berhubungan.

## Kegiatan 2. Topologi 2

### 1. Rancangan Jaringan



### 2. Spanning-tree pada masing-masing switch

SW1

```
SW1#show spanning-tree
VLAN0001
Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address    000C.CF17.65E5
             Cost        38
             Port        2 (FastEthernet0/3)
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
  Bridge ID   Priority    32768 (priority 32768 sys-id-ext 1)
             Address    0060.7009.ABAC
             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
```

| No | Variabel          | Nilai          |
|----|-------------------|----------------|
| 1  | Root ID           | 32769          |
| 2  | Priority          | -              |
| 3  | MAC Address       | 0060.7009.ABAC |
| 4  | Bridge ID         | 32769          |
| 5  | Cost(0/1;0/2;0/3) | 38             |
| 6  | Hello Time        | 2 sec          |
| 7  | MaxAge            | 20 sec         |
| 8  | Forward Delay     | 15 sec         |

## SW2

```

SW2#enable
SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     000C.CF17.65E5
             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     000C.CF17.65E5
             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
  
```

| No | Variabel          | Nilai          |
|----|-------------------|----------------|
| 1  | Root ID           | 32769          |
| 2  | Priority          | -              |
| 3  | MAC Address       | 000C.CF17.65E5 |
| 4  | Bridge ID         | 32769          |
| 5  | Cost(0/1;0/2;0/3) | 19             |
| 6  | Hello Time        | 2 sec          |
| 7  | MaxAge            | 20 sec         |
| 8  | Forward Delay     | 15 sec         |

## SW3

```

SW3#enable
SW3#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     000C.CF17.65E5
             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.BD5C.586A
             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
  
```

| No | Variabel | Nilai |
|----|----------|-------|
| 1  | Root ID  | 32769 |
| 2  | Priority | -     |

|   |                   |                |
|---|-------------------|----------------|
| 3 | MAC Address       | 000D.BDEC.586A |
| 4 | Bridge ID         | 32769          |
| 5 | Cost(0/1;0/2;0/3) | 19             |
| 6 | Hello Time        | 2 sec          |
| 7 | MaxAge            | 20 sec         |
| 8 | Forward Delay     | 15 sec         |

- ☐ Root bridge : SW2
- ☐ Designated bridge : SW3
- ☐ Root port : SW1(0/3), SW3(0/3)
- ☐ Designated port : SW3(0/3)
- Port keadaan forwarding : SW1(0/1, 0/3), SW2(0/1, 0/3), dan SW3(0/1, 0/2, 0/3)
- Port keadaan blocking : -

3. Lakukan ping dari PC leo ke PC virgo

```

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=3ms 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 = 5ms

C:\>

```

Tap 2 kali pada PC leo lalu pilih dekstop lalu pilih command prompt. Ketikkan **ping 172.21.1.3** lalu enter dan akan keluar hasilnya. Bahwa PC leo dan PC virgo saling berhubungan.