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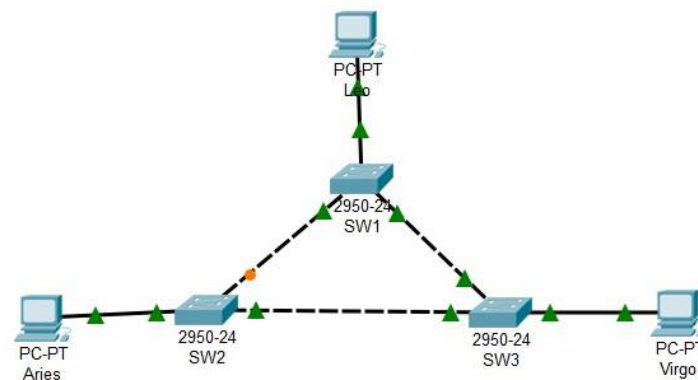
Kelas : D

Laporan Kegiatan Praktikum Jaringan Komputer

Modul 6

Kegiatan 1

1. Topologi Jaringan



- Tugas 1A : Tulis langkah pembuatan topologi 1) Pilih Switch 2950 sebanyak 3 buah.
- 2) Pilih PC sebanyak 3 buah.
- 3) Gunakan kabel yang auto untuk mempermudah.
- 4) Rangkai Rangkaian seperti gambar diatas.

2. Beri nama masing-masing switch dengan SW1, SW2 dan SW3

- Tugas 2A : Tulis langkah pemberian nama switch mulai dari mode user
- 1) Klik Switch yang dipilih
- 2) Klik Config
- 3) Pada pilihan display name ganti dengan nama switch yang diinginkan

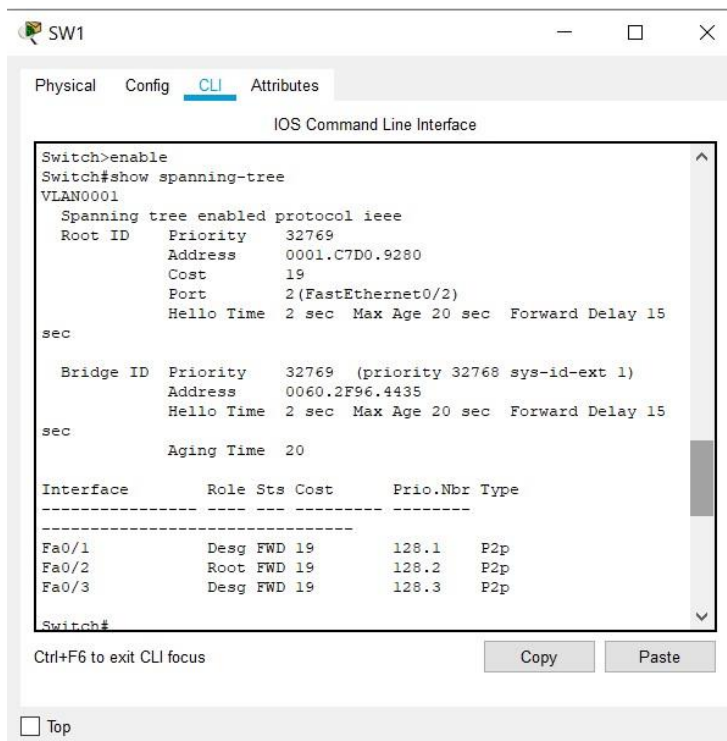
3. Konfigurasi masing-masing PC dengan alamat IP

- Leo = 172.21.1.1/24
- Aries = 172.21.1.2/24
- Virgo = 172.21.1.3/24

4. Melihat spanning-tree masing-masing switch

Tugas 4A : Pada kondisi default, capture masing-masing tampilan status STP switch (SW1, SW2 dan SW3)

SW1



The screenshot shows the CLI of switch SW1. The user has entered the command 'show spanning-tree' in the configuration mode. The output displays the spanning tree configuration for VLAN0001, including the root ID, priority, address, cost, port, and hello time. It also shows the bridge ID, priority, address, and hello time. At the bottom, there is a table showing the status of the interfaces Fa0/1, Fa0/2, and Fa0/3.

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.C7D0.9280
             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     0060.2F96.4435
             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          Root FWD 19        128.2    P2p
Fa0/3          Desg FWD 19        128.3    P2p

Switch#
```

Ctrl+F6 to exit CLI focus

Copy Paste

Top

SW2

SW2

Physical Config **CLI** Attributes

IOS Command Line Interface

```

Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address     0001.C7D0.9280
            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     00E0.8F66.1832
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
            Aging Time  20

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

```

Ctrl+F6 to exit CLI focus

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SW3

SW3

Physical Config **CLI** Attributes

IOS Command Line Interface

```

Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address     0001.C7D0.9280
            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     0001.C7D0.9280
            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

Copy Paste

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Tugas 4B : Untuk tiap-tiap switch, isikan table berikut:

SW1

No	Variabel	Nilai
1	Root ID	32769, 0001.C7DO.9280
2	Priority	32769
3	MAC Address	0001.C7DO.9280
4	Bridge ID	32769, 0060.2F96.4435
5	Cost(0/1;0/2;0/3	0/1;Desg,FWD,19 0/2;Root,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

SW2

No	Variabel	Nilai
1	Root ID	32769, 0001.C7DO.9280
2	Priority	32769
3	MAC Address	0001.C7DO.9280
4	Bridge ID	32769, 00E0.8F66.1832
5	Cost(0/1;0/2;0/3	0/1; Altn,BLK,19 0/2;Root,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Dela	15 sec

SW3

No	Variabel	Nilai
1	Root ID	32769, 0001.C7DO.9280
2	Priority	32769

3	MAC Address	0001.C7D0.9280
4	Bridge ID	32769, 0001.C7D0.9280
5	Cost(0/1;0/2;0/3	0/1;Desg,FWD,19 0/2;Desg,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

- Tugas 4C : Pada Kondisi default, switch dan port mana saja yang:
 - ❖ Menjadi root bridge : SW3
 - ❖ Menjadi designated bridge : SW3
 - ❖ Menjadi root port : SW1(Fa0/2) dan SW2(Fa0/2)
 - ❖ Menjadi designated port : SW1(Fa0/1, Fa0/3), SW2(Fa0/3) dan SW3(Fa0/1, Fa0/2, Fa0/3)
- Tugas 4D : Pada Kondisi default, switch dan port mana saja yang:
 - ❖ Berada pada keadaan forwarding : SW1(Fa0/1, Fa0/2, Fa0/3), SW2(Fa0/3, Fa0/2) dan SW3(Fa0/1, Fa0/2, Fa0/3) ❖
 - Berada pada keadaan blocking : SW2(Fa0/1)

5. Dari PC Leo lakukan ping ke PC Virgo

```

Leo
Physical Config Desktop Programming Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ping
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=1ms TTL=128
Reply from 172.21.1.3: bytes=32 time=12ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128
Reply from 172.21.1.3: bytes=32 time=7ms 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 = 12ms, Average = 5ms

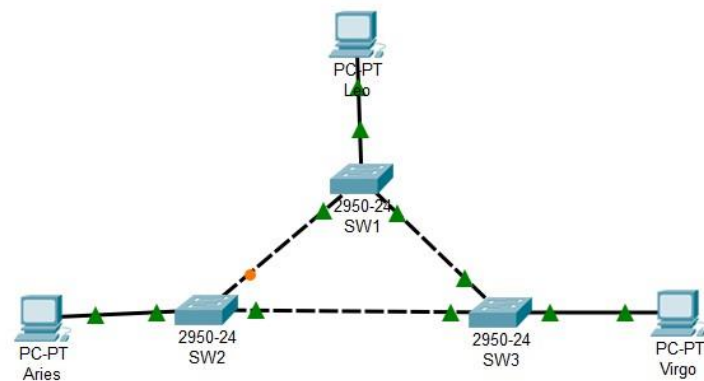
C:\>
  
```

- Tugas 5A : Tulis langkah untuk menyimpan perintah ping
 - ❖ Klik pada PC Leo
 - ❖ Klik Desktop

- ❖ Klik Command Prompt
 - ❖ ketik Ping IP PC Virgo (172.21.1.3)
- Tugas 6A: Tulislah langkah untuk menyimpan konfigurasi jaringan.
 - ❖ Klik "File"
 - ❖ Pilih "Save as"
 - ❖ Pilih direktori
 - ❖ Ketikkan nama file "lab2.nwc"
 - ❖ Klik "save"

Kegiatan 2

1. Topologi Jaringan



- Tugas 1A : Tulis langkah pembuatan topologi 1) Pilih Switch 2950 sebanyak 3 buah.
- 2) Pilih PC sebanyak 3 buah.

- 3) Gunakan kabel yang auto untuk mempermudah.
- 4) Rangkai Rangkaian seperti gambar diatas.

2. Beri nama masing-masing switch dengan SW1, SW2 dan SW3

- Tugas 2A : Tulis langkah pemberian nama switch mulai dari mode user
- 1) Klik Switch yang dipilih
 - 2) Klik Config
 - 3) Pada pilihan display name ganti dengan nama switch yang diinginkan

3. Konfigurasi masing-masing PC dengan alamat IP

- Leo = 172.21.1.1/24
- Aries = 172.21.1.2/24
- Virgo = 172.21.1.3/24

4. Melihat spanning-tree masing-masing switch

Tugas 4A : Pada kondisi default, capture masing-masing tampilan status STP switch (SW1, SW2 dan SW3)

SW1

The screenshot shows a network switch configuration window titled 'SW3'. It has tabs for 'Physical', 'Config', 'CLI', and 'Attributes'. The 'CLI' tab is active, displaying the 'IOS Command Line Interface'. The command sequence entered is:

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address     0001.C7D0.9280
            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     0001.C7D0.9280
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
            Aging Time  20
```

Below the command output, there is a table showing the status of interfaces:

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

The CLI prompt is 'Switch#'. At the bottom of the window, there is a 'Top' button and a 'Copy' button.

Tugas 4B : Untuk tiap-tiap switch, isikan table berikut:
SW1

No	Variabel	Nilai
1	Root ID	32769, 0001.C7D0.9280
2	Priority	32769
3	MAC Address	0001.C7D0.9280
4	Bridge ID	32769, 0060.2F96.4435
5	Cost(0/1;0/2;0/3	0/2;Root,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

SW2

No	Variabel	Nilai
1	Root ID	32769, 0001.C7DO.9280
2	Priority	32769
3	MAC Address	0001.C7DO.9280
4	Bridge ID	32769, 00E0.8F66.1832
5	Cost(0/1;0/2;0/3	0/2;Root,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Dela	15 sec

SW3

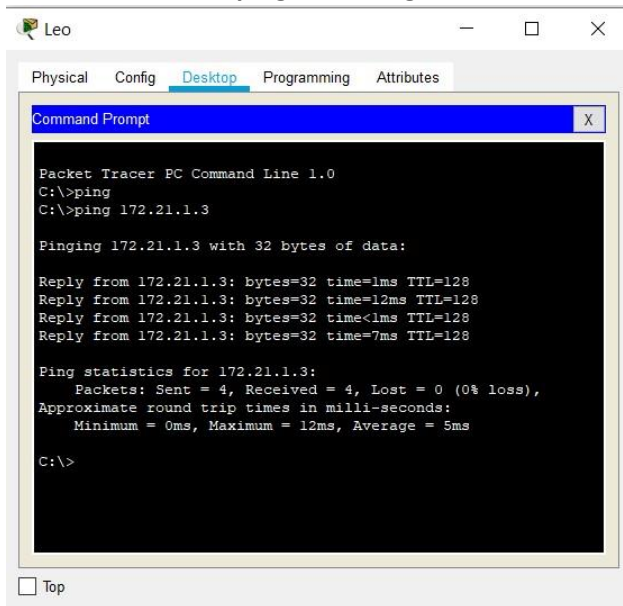
No	Variabel	Nilai
1	Root ID	32769, 0001.C7DO.9280
2	Priority	32769
3	MAC Address	0001.C7DO.9280
4	Bridge ID	32769, 0001.C7DO.9280
5	Cost(0/1;0/2;0/3	0/1;Desg,FWD,19 0/2;Desg,FWD,19 0/3;Desg,FWD,19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

- Tugas 4C : Pada Kondisi default, switch dan port mana saja yang:
 - ❖ Menjadi root bridge : SW3
 - ❖ Menjadi designated bridge : SW3
 - ❖ Menjadi root port : SW1(Fa0/2) dan SW2(Fa0/2)
 - ❖ Menjadi designated port : SW1(Fa0/3),
SW2(Fa0/3) dan
SW3(Fa0/1, Fa0/2,
Fa0/3)
- Tugas 4D : Pada Kondisi default, switch dan port mana saja yang:

- ❖ Berada pada keadaan forwarding : SW1(Fa0/1, Fa0/2, Fa0/3), SW2(Fa0/3, Fa0/2) dan SW3(Fa0/1, Fa0/2, Fa0/3) ❖

Berada pada keadaan blocking : -

5. Dari PC Leo lakukan ping ke PC Virgo



- Tugas 5A : Tulis langkah untuk menyimpan perintah ping
 - ❖ Klik pada PC Leo
 - ❖ Klik Desktop
 - ❖ Klik Command Prompt
 - ❖ ketik Ping IP PC Virgo (172.21.1.3)
- Tugas 6A: Tulislah langkah untuk menyimpan konfigurasi jaringan.
 - ❖ Klik "File"
 - ❖ Pilih "Save as"
 - ❖ Pilih direktori
 - ❖ Ketikkan nama file "lab2.nwc"
 - ❖ Klik "save"