

Modul 4

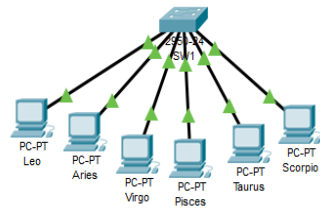
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Kelas : C

Topologi 1

1. Rancangan jaringan



2. Vlan 10

```
SW1
Physical Config CLI Attributes
IOS Command Line Interface

10 zodiak1 active Fa0/1, Fa0/4

VLAN Type SAID MTU Parent RingNo BridgeNo Stp BrdgMode Transl Trans2
-----
10 enet 100010 1500 - - - - - 0 0

Switch#conf
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa 0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#int fa 0/5
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#int fa 0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#int fa 0/6
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show vlan id 10

VLAN Name Status Ports
-----
10 zodiak1 active Fa0/1, Fa0/4

VLAN Type SAID MTU Parent RingNo BridgeNo Stp BrdgMode Transl Trans2
-----
10 enet 100010 1500 - - - - - 0 0

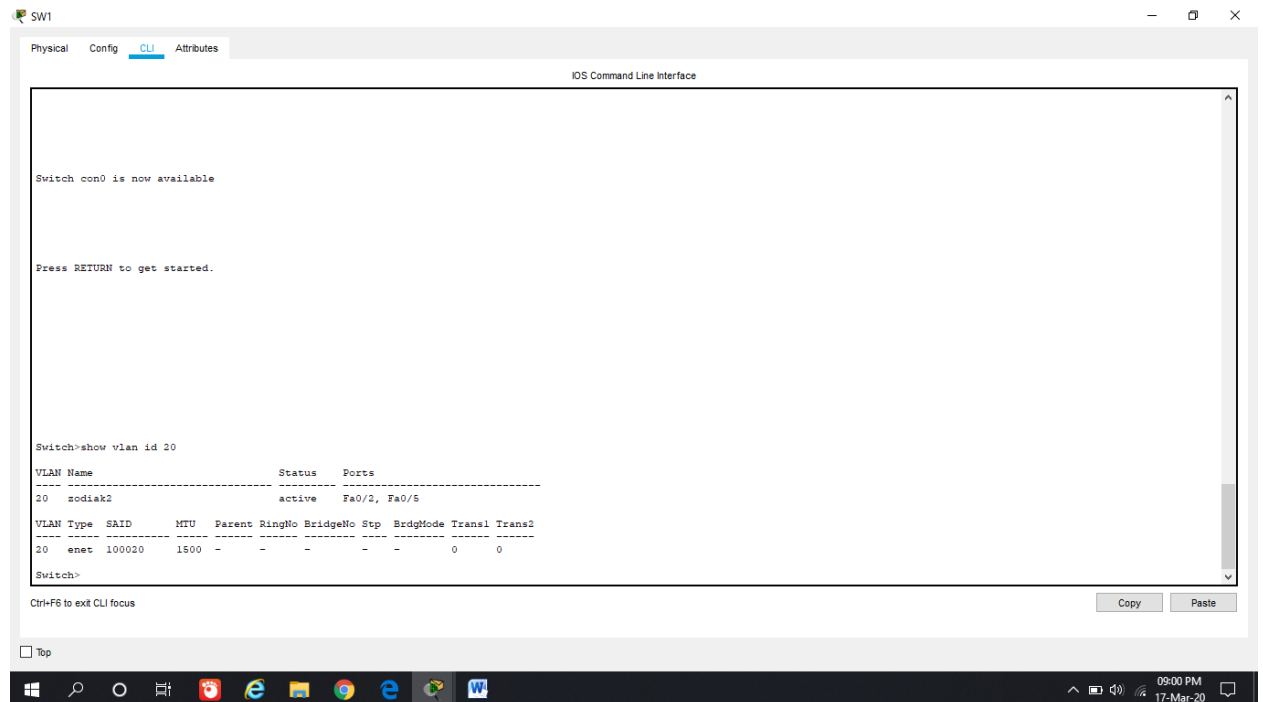
Switch#

Ctrl+F6 to exit CLI focus
```

No	Variabel	Nilai
1	Nomor VLAN	10
2	Nama Vlan	Zodiak1
3	Port	Fa 0/1, Fa 0/4
4	Status	active

Vlan 10 dengan nama zodiak1 dan memiliki port Fa 0/1 dan Fa0/4 yang merupakan anggota dari zodiak1 yaitu Leo dan Libra, dan berstatus active

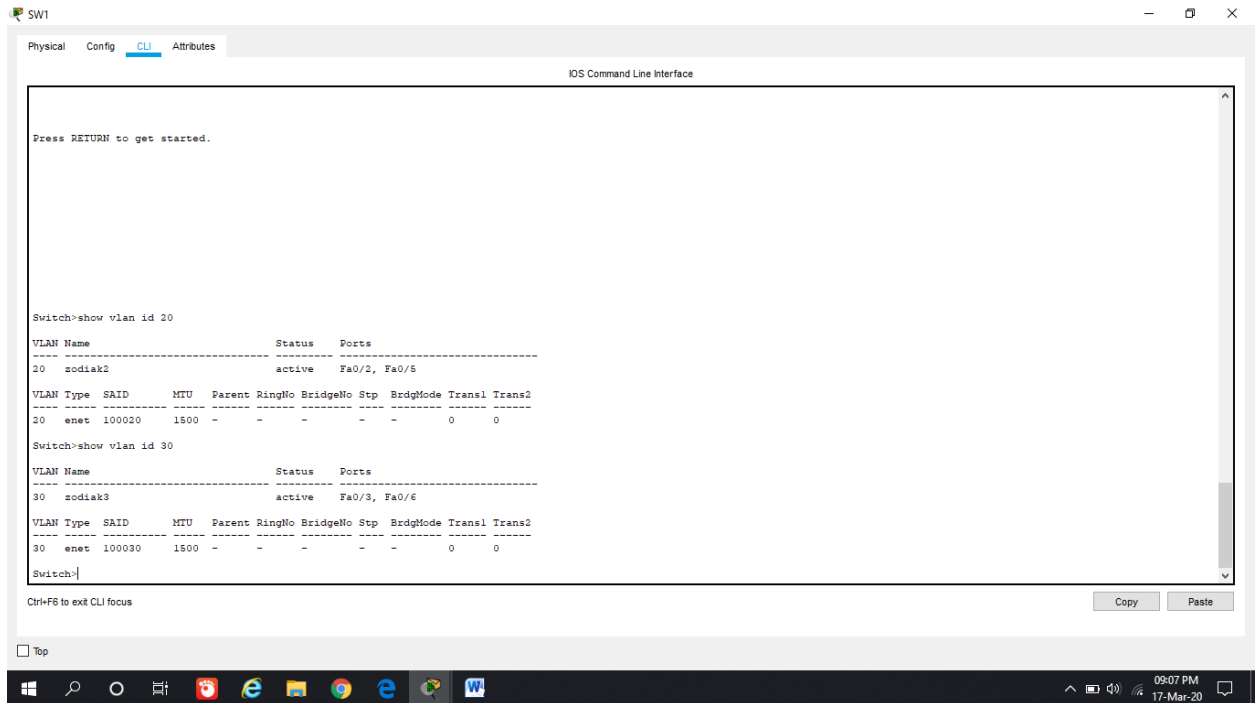
3. Vlan 20



No	Variabel	Nilai
1	Nomor VLAN	20
2	Nama Vlan	Zodiak2
3	Port	Fa 0/2, Fa 0/5
4	Status	active

Vlan 20 dengan nama zodiak2 dan memiliki port Fa 0/2 dan Fa 0/5 yang merupakan anggota dari zodiak2 yaitu Aries dan Taurus, dan berstatus active

4. Vlan 30

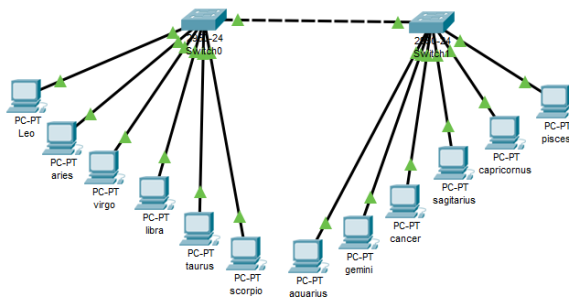


No	Variabel	Nilai
1	Nomor VLAN	30
2	Nama Vlan	Zodiak3
3	Port	Fa 0/3, Fa 0/6
4	Status	Active

Vlan 30 dengan nama zodiak3 dan memiliki port Fa 0/3 dan Fa 0/6 yang merupakan anggota dari zodiak3 yaitu Virgo dan Scorpio, dan berstatus active

Topologi 2

1. Rancangan Jaringan



2. Trunk pada switch 1

```
Physical Config CLI Attributes
IOS Command Line Interface

Switch#show interface fastethernet 0/7 switchport
Name: Fa0/7
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Voice VLAN: none
Administrative private-vlan host-association: none
Administrative private-vlan mapping: none
Administrative private-vlan trunk native VLAN: none
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk private VLANs: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL
Protected: false
Appliance trust: none

Switch#show interface trunk
Port      Mode      Encapsulation  Status      Native vlan
Fa0/7     on        802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/7     1-1005

Port      Vlans allowed and active in management domain
Fa0/7     1,10,20,30

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/7     1,10,20,30

Ctrl+F6 to exit CLI focus
```

```
Physical Config CLI Attributes
IOS Command Line Interface

Fa0/7 1,10,20,30
Switch#show vlan
VLAN Name                Status    Ports
-----
1    default                active    Fa0/8, Fa0/9, Fa0/10, Fa0/11,
    Fa0/12, Fa0/13, Fa0/14, Fa0/15,
    Fa0/16, Fa0/17, Fa0/18, Fa0/19,
    Fa0/20, Fa0/21, Fa0/22, Fa0/23,
    Fa0/24
10   sodiak1                 active    Fa0/1, Fa0/4
20   sodiak2                 active    Fa0/2, Fa0/5
30   sodiak3                 active    Fa0/3, Fa0/6
1002 fddi-default            act/unsup
1003 token-ring-default    act/unsup
1004 fddinet-default        act/unsup
1005 trnet-default          act/unsup

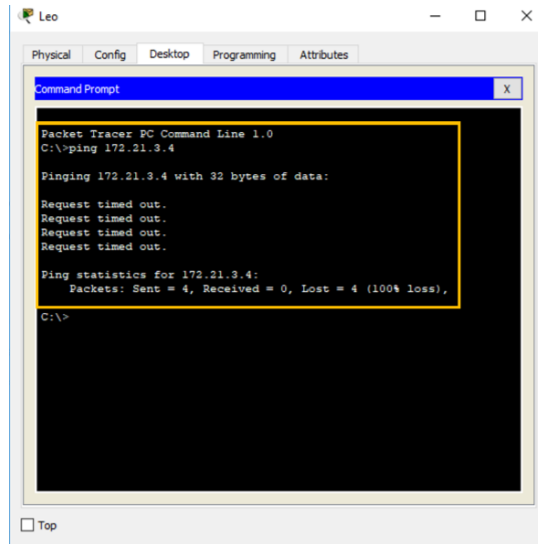
VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp    BrdgMode Trans1 Trans2
-----
1    enet  100001    1500    -      -      -      -      -      0      0
10   enet  100010    1500    -      -      -      -      -      0      0
20   enet  100020    1500    -      -      -      -      -      0      0
30   enet  100030    1500    -      -      -      -      -      0      0
1002 fddi  101002    1500    -      -      -      -      -      0      0
1003 tr  101003    1500    -      -      -      -      -      0      0
1004 fdnet 101004    1500    -      -      -      ieee  -      0      0
1005 trnet 101005    1500    -      -      -      ibm    -      0      0

VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp    BrdgMode Trans1 Trans2
-----
Remote SPAN VLANs
-----
Primary Secondary Type      Ports
-----
Switch#

Ctrl+F6 to exit CLI focus
```

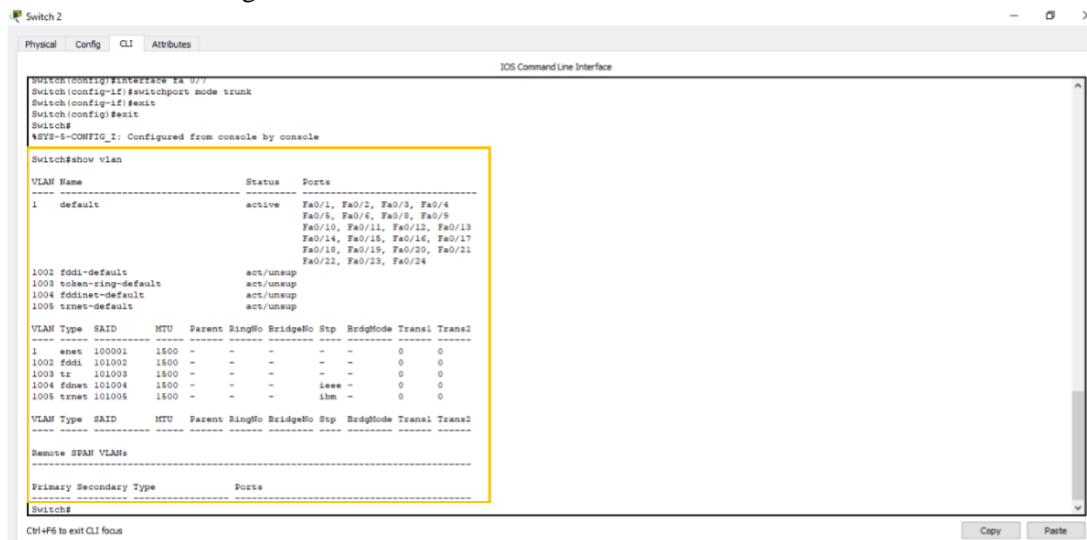
Pada langkah ini port yang sudah terkonfigurasi ke dalam vlan yaitu port 0/1 sampai port 0/6, sedangkan port 0/7 untuk trunking antar switch.

3. Melakukan ping dari pc leo ke pc pisces



Hasil ping dari PC leo ke PC pisces “Request timed out” karena PC leo dan PC pisces tidak berada dalam satu VLAN dan memiliki network access yang berbeda.

4. Untuk melihat konfigurasi



Pada langkah ini port port fastethernet belum terkonfigurasi ke dalam VLAN, bahkan VLAN nya belum dibuat

5. Melakukan ping dari pc leo ke pc aries

```
C:\>ping 172.21.1.2

Pinging 172.21.1.2 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.21.1.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

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=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
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 = 3ms, Average = 0ms

C:\>ping 172.21.3.4
```

Hasil ping dari PC leo ke PC aries “Request timed out” karena PC leo dan PC aries tidak berada dalam satu VLAN meskipun memiliki network access yang sama.

6. Melakukan ping dari pc leo ke pc aquarius

```
C:\>ping 172.21.1.2

Pinging 172.21.1.2 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.21.1.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 172.21.1.3

Pinging 172.21.1.3 with 32 bytes of data:

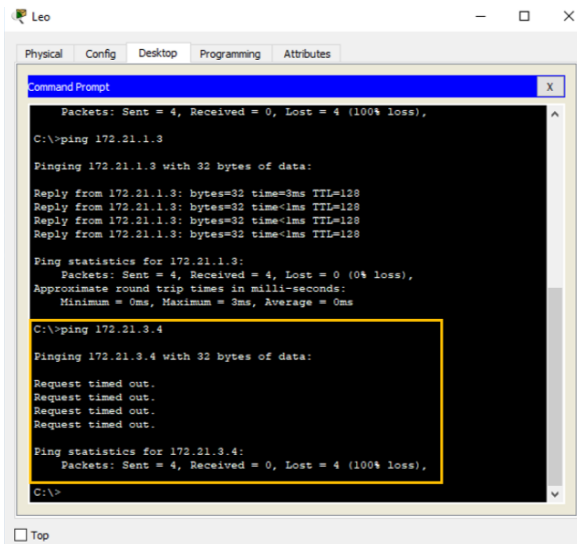
Reply from 172.21.1.3: bytes=32 time=3ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128

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 = 3ms, Average = 0ms

C:\>ping 172.21.3.4
```

Hasil ping dari PC leo ke PC aquarius “Reply” karena PC leo dan PC aquarius berada dalam satu VLAN dan memiliki network access yang sama.

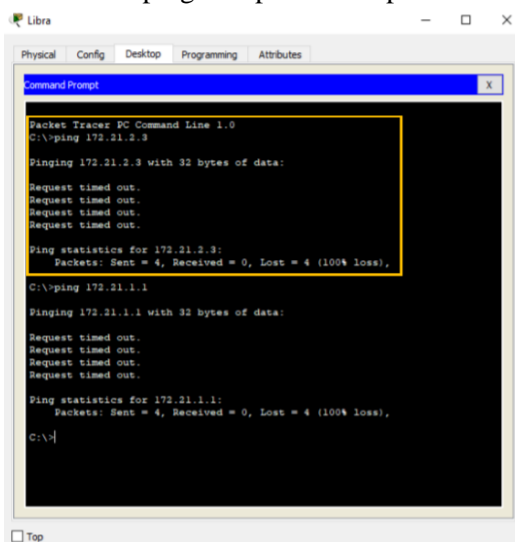
7. Melakukan ping dari pc leo ke pc pisces



```
Leo
Physical Config Desktop Programming Attributes
Command Prompt
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
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=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
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 = 3ms, Average = 0ms
C:\>ping 172.21.3.4
Pinging 172.21.3.4 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 172.21.3.4:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>
```

Hasil ping dari PC leo ke PC pisces “Request timed out” karena PC leo dan PC pisces tidak berada dalam satu VLAN dan memiliki network access yang berbeda.

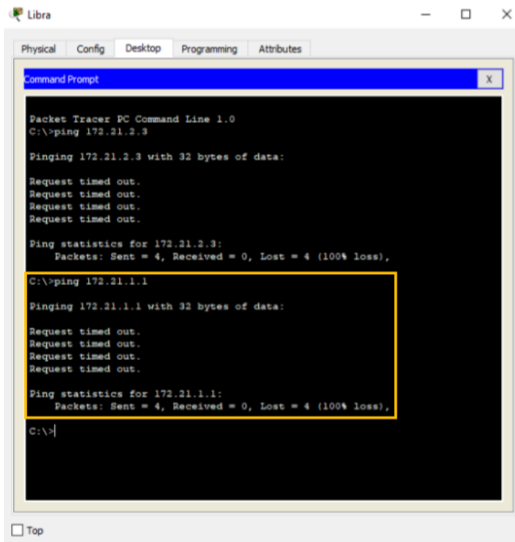
8. Melakukan ping dari pc libra ke pc cancer



```
Libra
Physical Config Desktop Programming Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.2.3
Pinging 172.21.2.3 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 172.21.2.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 172.21.1.1
Pinging 172.21.1.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 172.21.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>
```

Hasil ping dari PC libra ke PC cancer “Request timed out” karena PC libra dan PC cancer tidak berada dalam satu VLAN meskipun memiliki network access yang sama

9. Melakukan ping dari pc libra ke pc leo



```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.2.3

Pinging 172.21.2.3 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.21.2.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 172.21.1.1

Pinging 172.21.1.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.21.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>|
```

Hasil ping dari PC libra ke PC leo “Request timed out” karena PC libra dan PC leo tidak berada dalam satu VLAN meskipun memiliki network access yang sama.