

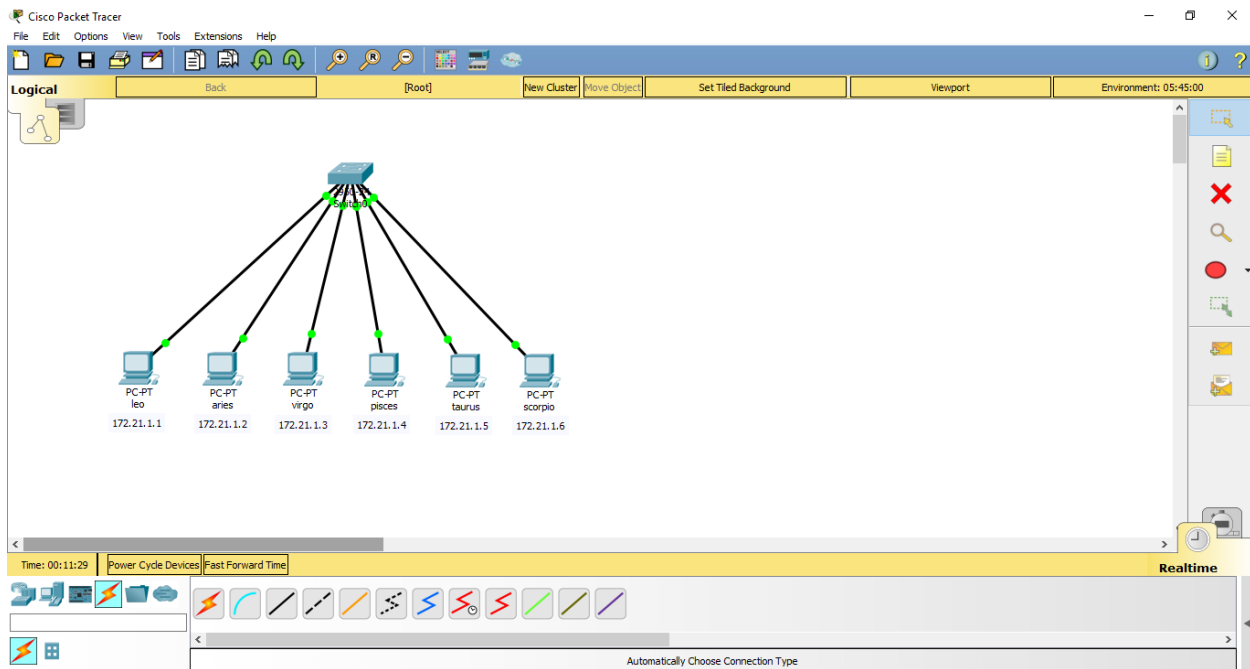
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## Kegiatan 1. Topologi 1

### a. Topology dengan menggunakan switch



### b. Konfigurasi VLAN pada switch dengan *mode user* atau *mode privileged*.

```
Switch>enable
Switch#conf term
^
% Invalid input detected at '^' marker.

Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name zodiak1
Switch(config-vlan)#ex
Switch(config)#vlan 20
Switch(config-vlan)#name zodiak2
Switch(config-vlan)#ex
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#ex
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

- c. Konfigurasi port-port switch ke dalam VLAN zodiak1, zodiak2, dan zodiak3 pada *mode configuration*.

```
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa 0/1
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/3
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#int fa 0/6
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

- d. Melihan konfigurasi VLAN yang telah dibuat pada *mode user* atau *mode privileged*.

```
Switch#show vlan brief

VLAN Name                Status    Ports
-----
1    default                active    Fa0/7, 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   zodiak1                 active    Fa0/1, Fa0/4
20   zodiak2                 active    Fa0/2, Fa0/5
30   zodiak3                 active    Fa0/3, Fa0/6
1002 fddi-default           active
1003 token-ring-default    active
1004 fddinet-default       active
1005 trnet-default         active

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 Trans1 Trans2
-----
10   enet  100010  1500  -      -      -      -      -      0      0
```

```
Switch#show vlan id 20
```

```
VLAN Name                Status    Ports
-----
20   zodiak2                 active    Fa0/2, Fa0/5

VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
-----
20   enet  100020  1500  -      -      -      -      -      0      0
```

```
Switch#show vlan id 30
```

```
Switch#show vlan id 30

VLAN Name                Status    Ports
-----
30   zodiak3                 active    Fa0/3, Fa0/6

VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
-----
30   enet  100030  1500  -      -      -      -      -      0      0

Switch#
```

e. Tugas 6A.

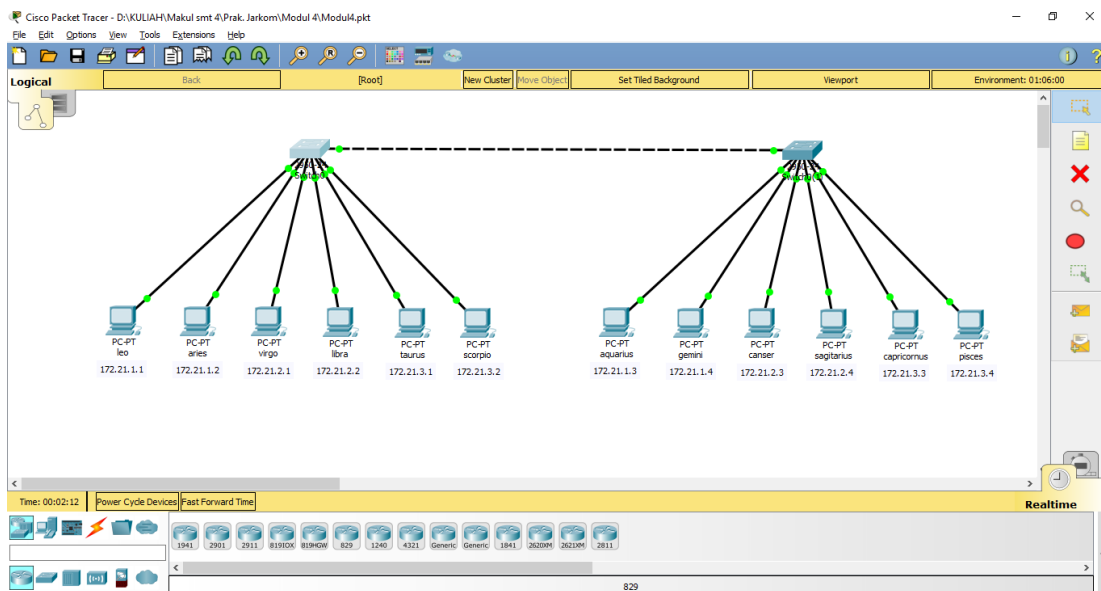
No	Variabel	Nilai		
1	Nomor VLAN	10	20	30
2	Nama VLAN	zodiak1	zodiak2	zodiak3
3	Port	Fa0/1, Fa0/4	Fa0/2, Fa0/5	Fa0/3, Fa0/6
4	Status	active	active	active

f. Tugas 6B.

Berdasarkan hasil percobaan tersebut, didapati bahwa pc satu dengan yang lain hanya bisa terhubung jika berada pada nomor VLAN yang sama, sedangkan jika berada pada nomor VLAN yang berbeda pengiriman pesan mengalami kegagalan.

## Kegiatan 2. Topologi 2

a. Topologi menggunakan switch Catalyst 2950.



b. Konfigurasi VLAN pada switch dengan *mode user* atau *mode privileged* Serta konfigurasi port-port switch ke dalam VLAN zodiak1, zodiak2, dan zodiak3 pada switch 1.

```

Switch>enable
Switch#conf term
      ^
% Invalid input detected at '^' marker.

Switch#conf term
Enter configuration commands, one per line. End with CNIL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name zodiak1
Switch(config-vlan)#ex
Switch(config)#vlan 20
Switch(config-vlan)#name zodiak2
Switch(config-vlan)#ex
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#ex
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

```

```

Switch#conf term
Enter configuration commands, one per line. End with CNIL/Z.
Switch(config)#int fa 0/1
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/3
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#int fa 0/6
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

```

c. Konfigurasi VLAN trunking pada switch 1.

```

Switch(config-if)#int fa 0/24
Switch(config-if)#sw mode trunk
Switch(config-if)#ex
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#

```

d. Melihat konfigurasi trunk yang telah dibuat.

```

Switch#show int 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

```

```
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   zodiak1                 active    Fa0/1, Fa0/4
20   zodiak2                 active    Fa0/2, Fa0/5
30   zodiak3                 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

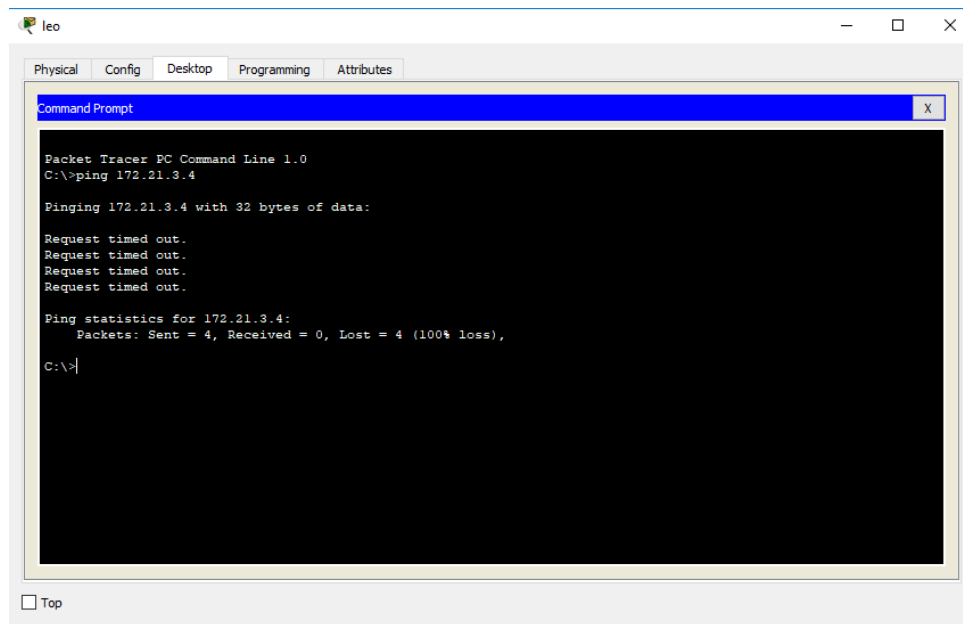
VLAN Type  SAID      MTU   Parent  RingNo BridgeNo Stp   BrdgMode Trans1 Trans2
-----
1    enet  100001   1500   -       -       -       -       0       0
10   enet  100010   1500   -       -       -       -       0       0
20   enet  100020   1500   -       -       -       -       0       0
30   enet  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#
Switch#
```

e. Ping dari PC leo ke PC pisces.



f. Konfigurasi VLAN trunking pada switch 2.

```
Switch>enable
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa 0/24
Switch(config-if)#sw mode trunk
Switch(config-if)#ex
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

g. Melihat konfigurasi VLAN pada switch 2.

```
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   zodiak1                 active    Fa0/1, Fa0/4
20   zodiak2                 active    Fa0/2, Fa0/5
30   zodiak3                 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  BrgdMode Transl 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  BrgdMode Transl Trans2
-----

Remote SPAN VLANs
-----

Primary Secondary Type      Ports
-----
Switch#
Switch#
```

h. Konfigurasi port-port switch ke dalam VLAN zodiak1, zodiak2, dan zodiak3 pada switch 2.

```
Switch#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name zodiak1
Switch(config-vlan)#ex
Switch(config)#vlan 20
Switch(config-vlan)#name zodiak2
Switch(config-vlan)#ex
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#ex
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

```
Switch#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#int fa 0/1
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/3
Switch(config-if)#sw access mode
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#int fa 0/6
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#ex
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#
```

- i. 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:\>
```

- j. Ping dari PC leo ke PC aquarius.

```
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=2ms 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 = 2ms, Average = 0ms
C:\>
```

- k. Ping dari PC leo ke PC pisces.

```
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:\>
```

- l. Ping dari PC libra ke PC cancer.

```
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:\>
```

m. Ping dari PC libra ke PC leo.

```
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:\>
```