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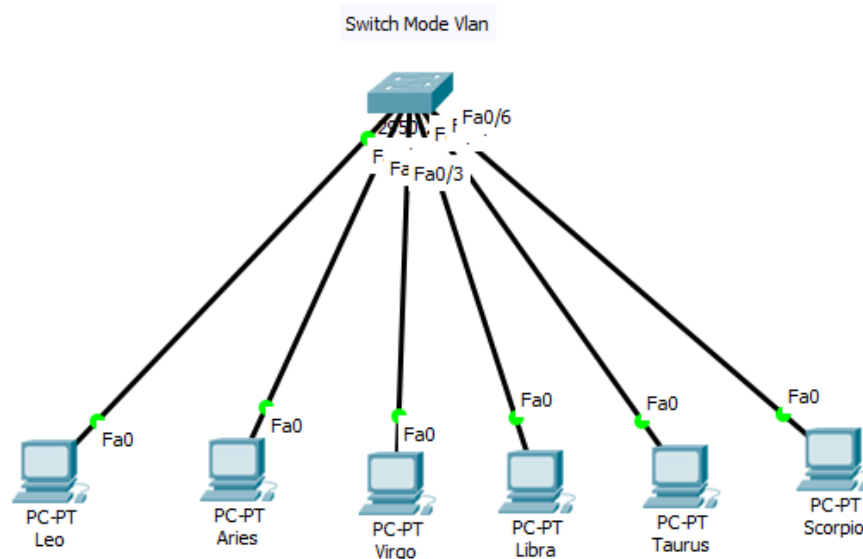
NIM : L200170141

Kelas : C

Modul : Ke-4

## • Tugas praktikum modul ke-4

1. Merancang topologi jaringan yang akan dibangun dan dikonfigurasi dengan simulasi cisco packet tracer.



2. Konfigurasi IP pada setiap Host (PC)

Konfigurasi IP dari keseluruhan PC pada diatas menggunakan subnet mask 24 atau 255.255.255.0

NO	NAMA PC	IP
1	Leo	= 172.21.1.1/24
2	Aries	= 172.21.1.2/24
3	Virgo	= 172.21.1.3/24
4	Libra	= 172.21.1.4/24
5	Taurus	= 172.21.1.5/24
6	Scorpio	= 172.21.1.6/24

3. Melakukan konfigurasi VLAN pada switch

Melakukan konfigurasi sesuai dengan contoh dalam lembar modul praktikum

Dengan detail konfigurasi sebagai berikut :

NO	VLAN ID	NAMA VLAN	DAFTAR HOST
1	VLAN 10	ZODIAK1	LEO, LIBRA
2	VLAN 20	ZODIAK2	ARIES, TAURUS
3	VLAN 30	ZODIAK3	VIRGO, SCORPIO

Gambar setelah dilakukan konfig vlan:

```
Switch#
%SYS-5-CONFIG_I: Configured from console by console

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#
```

Gambar show vlan id 10, vlan id 20, vlan id 30

```
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#
```

```
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

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

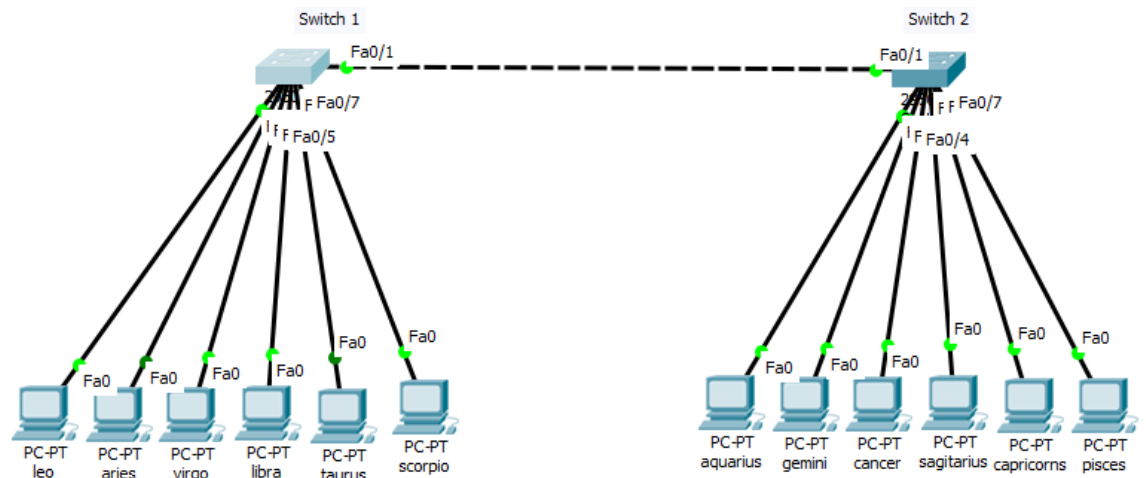
VLAN Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode
Trans1	Trans2						
30	enet	100030	1500	-	-	-	-
0	0						

Switch#

---

## • Topologi 2

1. Merancang topologi jaringan yang akan dibangun dan dikonfigurasi dengan simulasi cisco packet tracer.



2. Konfigurasi IP pada setiap Host (PC)

Konfigurasi IP dari keseluruhan PC pada diatas menggunakan subnet mask 24 atau 255.255.255.0

NO	NAMA PC	IP
1	Leo	= 172.21.1.1/24
2	Aries	= 172.21.1.2/24
3	Virgo	= 172.21.2.1/24
4	Libra	= 172.21.2.2/24
5	Taurus	= 172.21.3.1/24
6	Scorpio	= 172.21.3.2/24
7	Aquarius	= 172.21.1.3/24
8	Gemini	= 172.21.1.4/24
9	Cancer	= 172.21.2.3/24
10	Sagitarius	= 172.21.2.4/24
11	Capricorn	= 172.21.3.3/24
12	Pisces	= 172.21.3.4/24

3. Melakukan konfigurasi VLAN dan Trunk

- a. Pada segmen switch 1

NO	VLAN ID	NAMA VLAN	DAFTAR HOST
1	VLAN 10	ZODIAK1	LEO, LIBRA
2	VLAN 20	ZODIAK2	ARIES, TAURUS
3	VLAN 30	ZODIAK3	VIRGO, SCORPIO

Hasilnya adalah sebagai berikut :

```
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show vlan brief

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

Gambar Show Vlan Brief segmen switch 1

- Menambahkan konfigurasi Trunking pada segmen switch 1
- Menentukan port yang akan dilakukan konfigurasi Trunk pada switch
- Melakukan setting konfigurasi sesuai modul praktikum

```
Switch#show int fa 0/1 switchport
Name: Fa0/1
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
--More--
```

Gambar status trunk pada segmen switch 1

```

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

Port      Vlans allowed on trunk
Fa0/1     1-1005

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

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

Switch#

```

Gambar detail interfaces trunk switch 1

b. Pada segmen switch 2

NO	VLAN ID	NAMA VLAN	DAFTAR HOST
1	VLAN 10	ZODIAK1	AQUARIUS, GEMINI
2	VLAN 20	ZODIAK2	CANCER, SAGITARIUS
3	VLAN 30	ZODIAK3	CAPRICORN, PISCES

Hasilnya adalah sebagai berikut :

```

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

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#

```

Gambar Show Vlan Brief segmen switch 1

- Menambahkan konfigurasi Trunking pada segmen switch 2
- Menentukan port yang akan dilakukan konfigurasi Trunk pada switch
- Melakukan setting konfigurasi sesuai seperti switch 1

```
Switch#show int fa 0/1 switchport
Name: Fa0/1
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
```

Gambar status trunk pada segmen switch 2

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

Port      Vlans allowed on trunk
Fa0/1     1-1005

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

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

Gambar detail interfaces trunk switch 2

4. Melakukan uji kenoksi dengan “PING”

a. PC LEO ke 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),
```

b. PC LEO ke 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=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
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 = 1ms, Average = 0ms
```

c. PC LEO ke PISCES

```
Packet Tracer PC Command Line 1.0
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:\>|
```

d. PC LIBRA ke 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),
```



e. PC LIBRA ke 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),
```