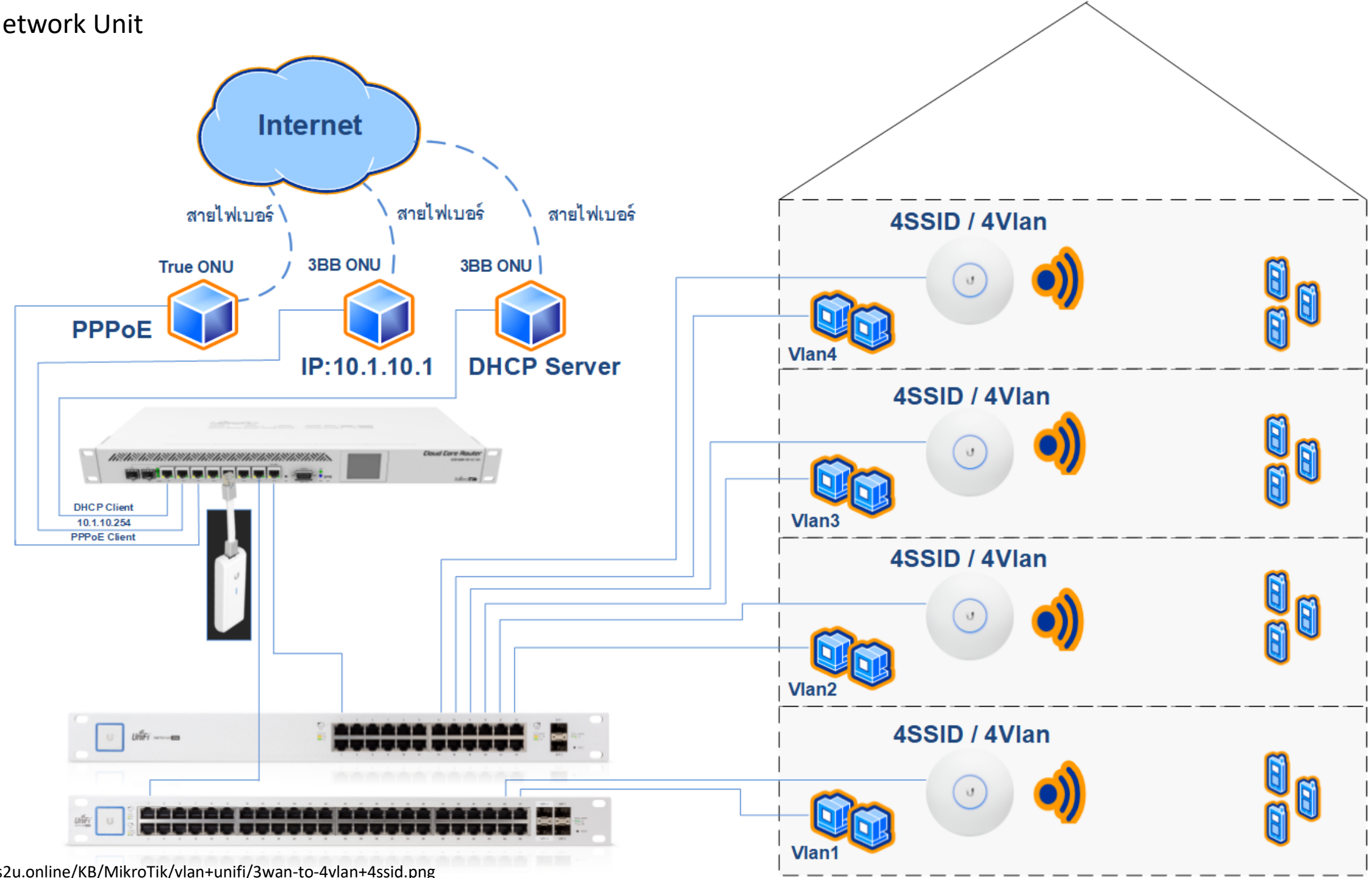
# VLAN

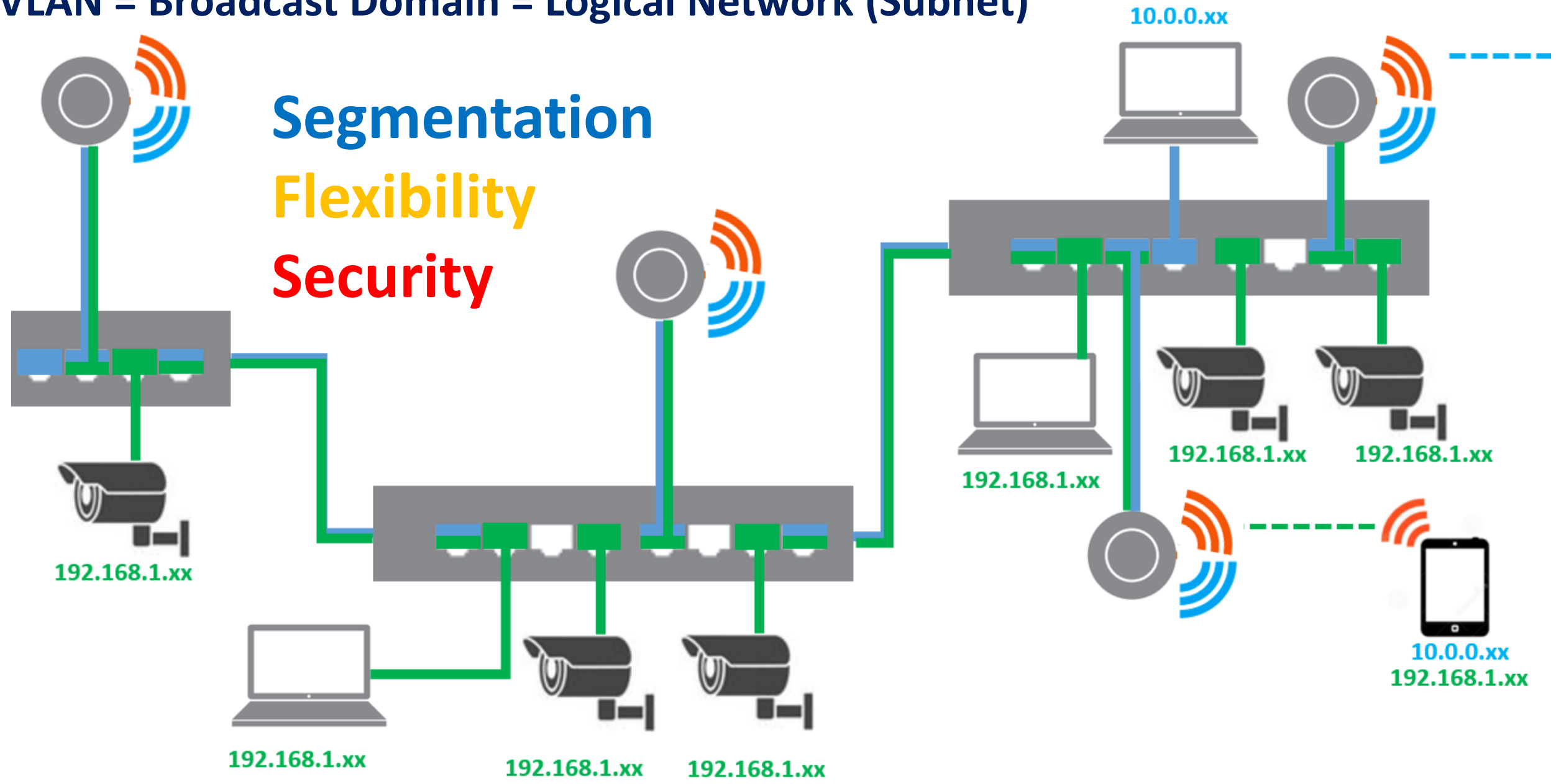
P. SuLAiMaN

Optical Network Unit



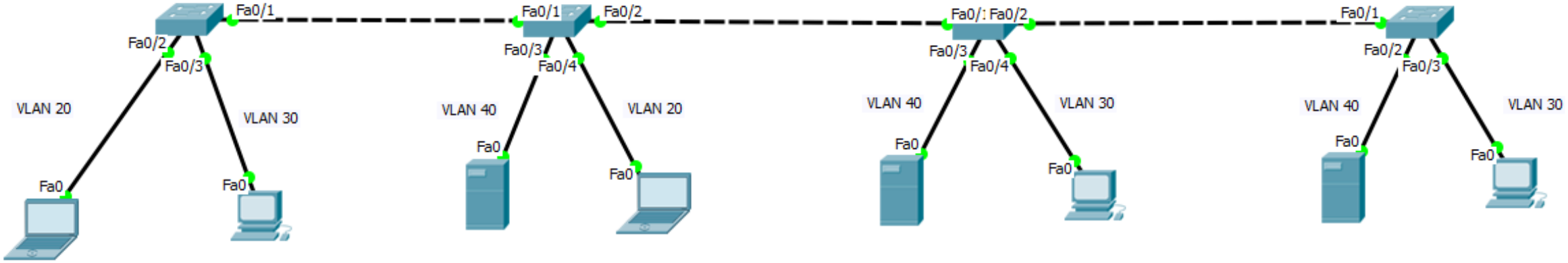

https://www.sys2u.online/KB/MikroTik/vlan+unifi/3wan-to-4vlan+4ssid.png

# VLAN = Broadcast Domain = Logical Network (Subnet)




https://www.nvk.co.th/uploads/article/VLAN/V005.PNG

# Network Diagram – Lab VLAN + VLSM




## 192.168.1.0/24

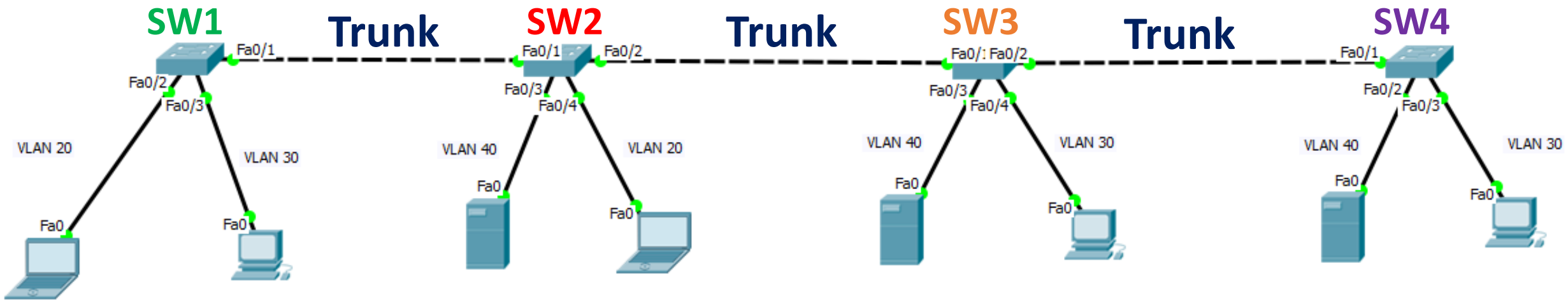
| | | | |
|---|---|---|---|
| VLAN 20 | Admin | 50 | Host |
| VLAN 30 | Officer | 125 | Host |
| VLAN 40 | Engineer | 5 | Host |

# IP-VLSM

# 192.168.1.0/24

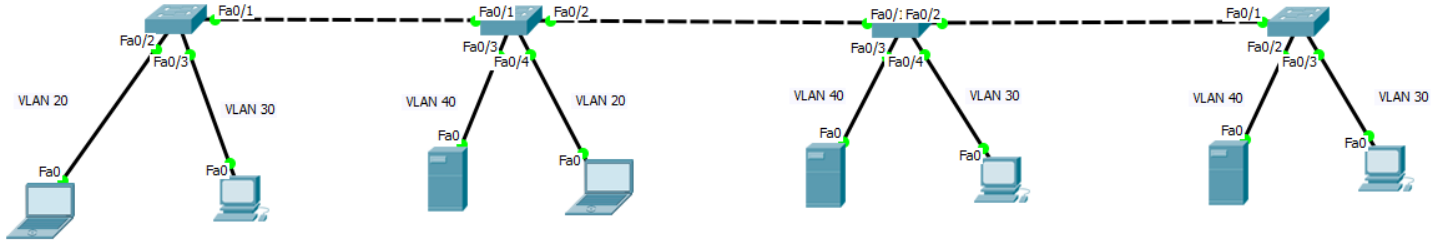
| | | | | |
|---|---|---|---|---|
| VLAN 20 | Admin | 50 | Host | /25 |
| VLAN 30 | Officer | 125 | Host | /26 |
| VLAN 40 | Engineer | 5 | Host | /29 |

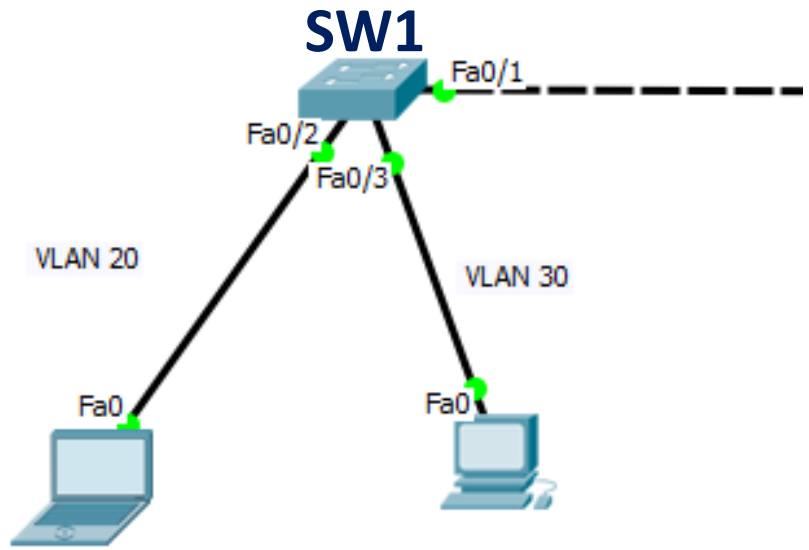
| | |
|---|---|
| VLAN 20 | 192.168.1.128/26 |
| VLAN 30 | 192.168.1.0/25 |
| VLAN 40 | 192.168.1.192/29 |


SW1
Trunk
SW2
Trunk
SW3
Trunk
SW4
Fa0/1
Fa0/2
Fa0/3
Fa0/4
Fa0/: Fa0/2
VLAN 20
VLAN 30
VLAN 40
Fa0

# VLAN

1. Config Trunk Port
2. Create VLAN
3. Add Port To VLAN



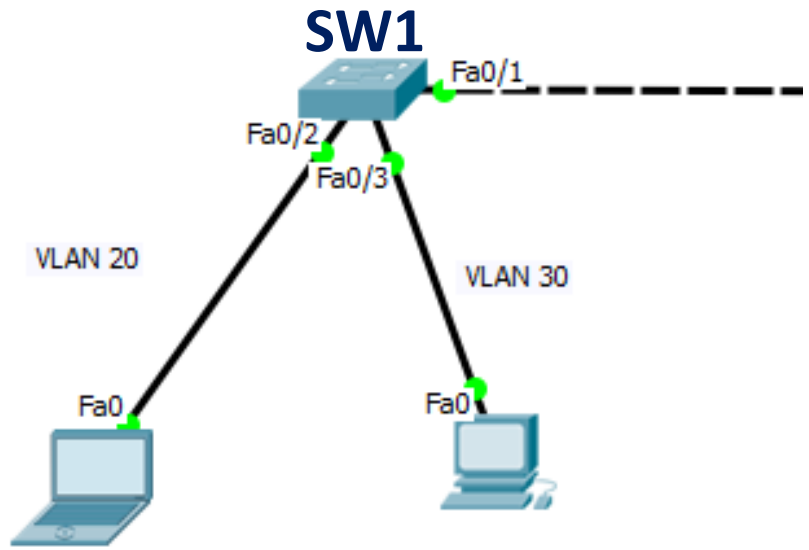



# 1. Config Trunk Port

sw1(config)#interface Fa0/1
sw1(config-if)#switchport trunk encapsulation dot1q
sw1(config-if)#switchport mode trunk

sw1#show interfaces trunk

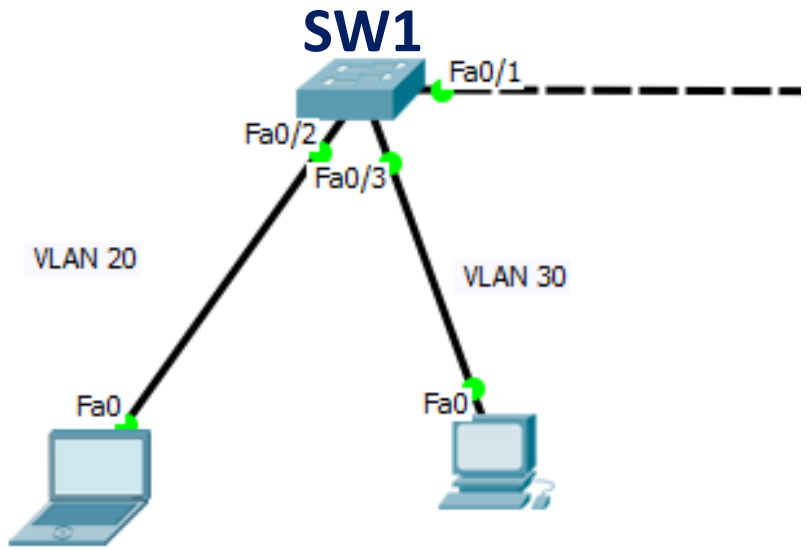
# 2. Create VLAN




```
sw1(config)#vlan 20
sw1(config-vlan)#name Admin
sw1(config-vlan)#vlan 30
sw1(config-vlan)#name Officer
sw1(config-vlan)#vlan 40
sw1(config-vlan)#name Engineer

sw1#show vlan
```

# 3. Add Port To VLAN




```
sw1(config)#interface Fa0/2
sw1(config-if)#switchport mode access
sw1(config-if)#switchport access vlan 20
sw1(config-if)#interface Fa0/3
sw1(config-if)#switchport mode access
sw1(config-if)#switchport access vlan 30

sw1#show vlan
```