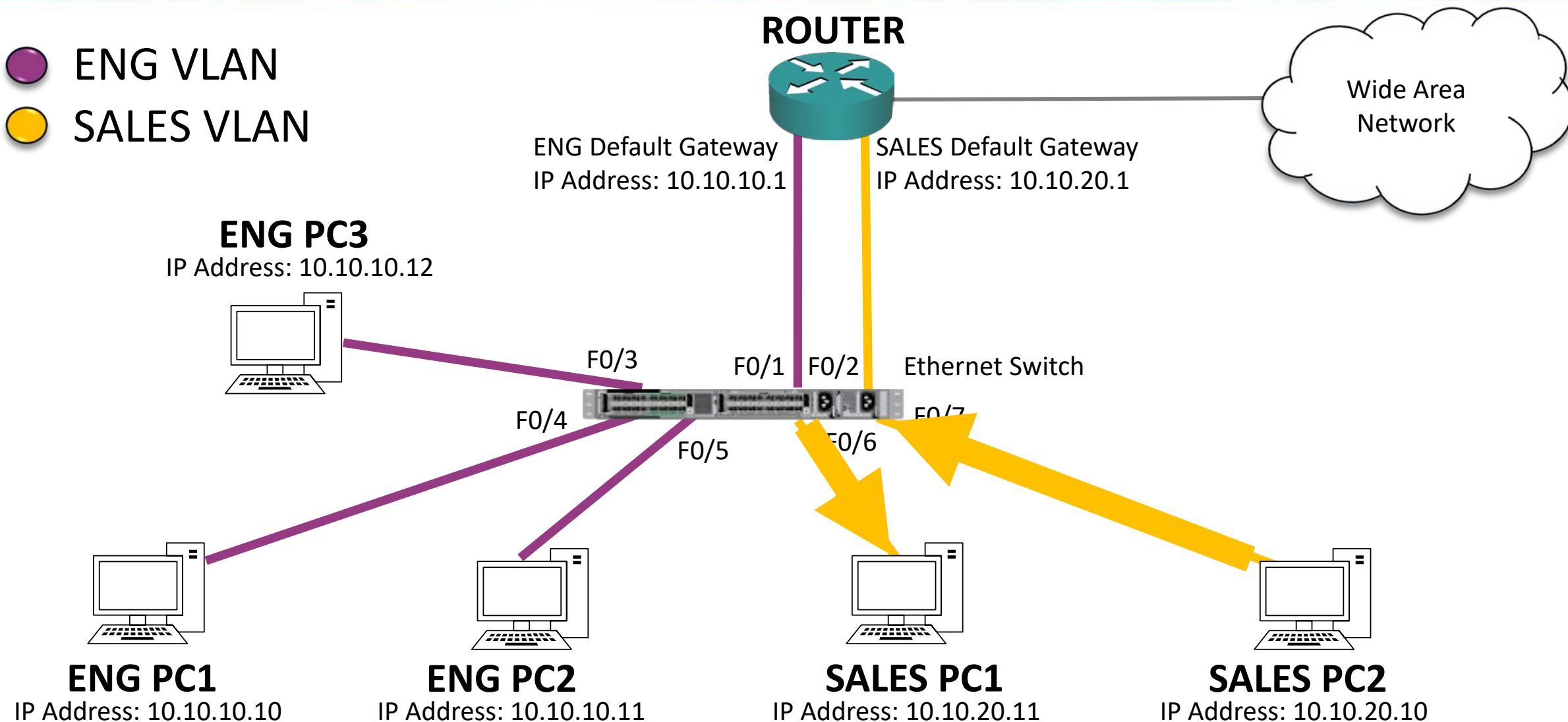# VLAN Access Ports

- VLAN access ports are configured on switch interfaces where end hosts are plugged in

- Access ports are configured with one specific VLAN

- The configuration is all on the switch, the end host is not VLAN aware

- Switches only allow traffic within the same VLAN
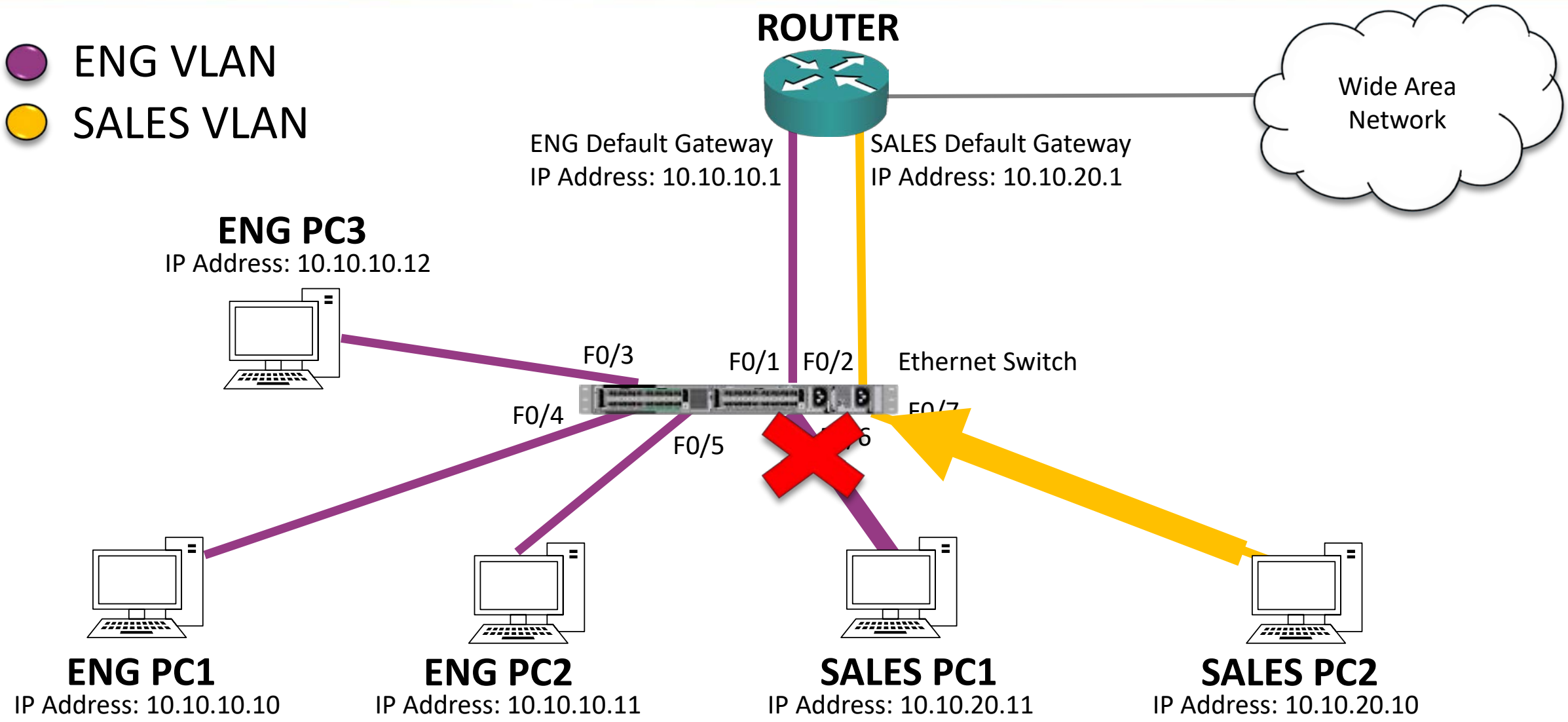
Unicast Traffic within same IP subnet

● ENG VLAN
● SALES VLAN

ROUTER

Wide Area Network

ENG Default Gateway
IP Address: 10.10.10.1

SALES Default Gateway
IP Address: 10.10.20.1

ENG PC3
IP Address: 10.10.10.12

F0/3
F0/1 F0/2
Ethernet Switch
F0/4
F0/7
F0/5
F0/6

ENG PC1
IP Address: 10.10.10.10

ENG PC2
IP Address: 10.10.10.11

SALES PC1
IP Address: 10.10.20.11

SALES PC2
IP Address: 10.10.20.10

The Default VLAN - VLAN 1

All ports are in VLAN 1 by default

ROUTER

Wide Area Network

ENG Default Gateway
IP Address: 10.10.10.1

SALES Default Gateway
IP Address: 10.10.20.1

ENG PC3
IP Address: 10.10.10.12

Ethernet Switch

ENG PC1
IP Address: 10.10.10.10

ENG PC2
IP Address: 10.10.10.11

SALES PC1
IP Address: 10.10.20.11

SALES PC2
IP Address: 10.10.20.10
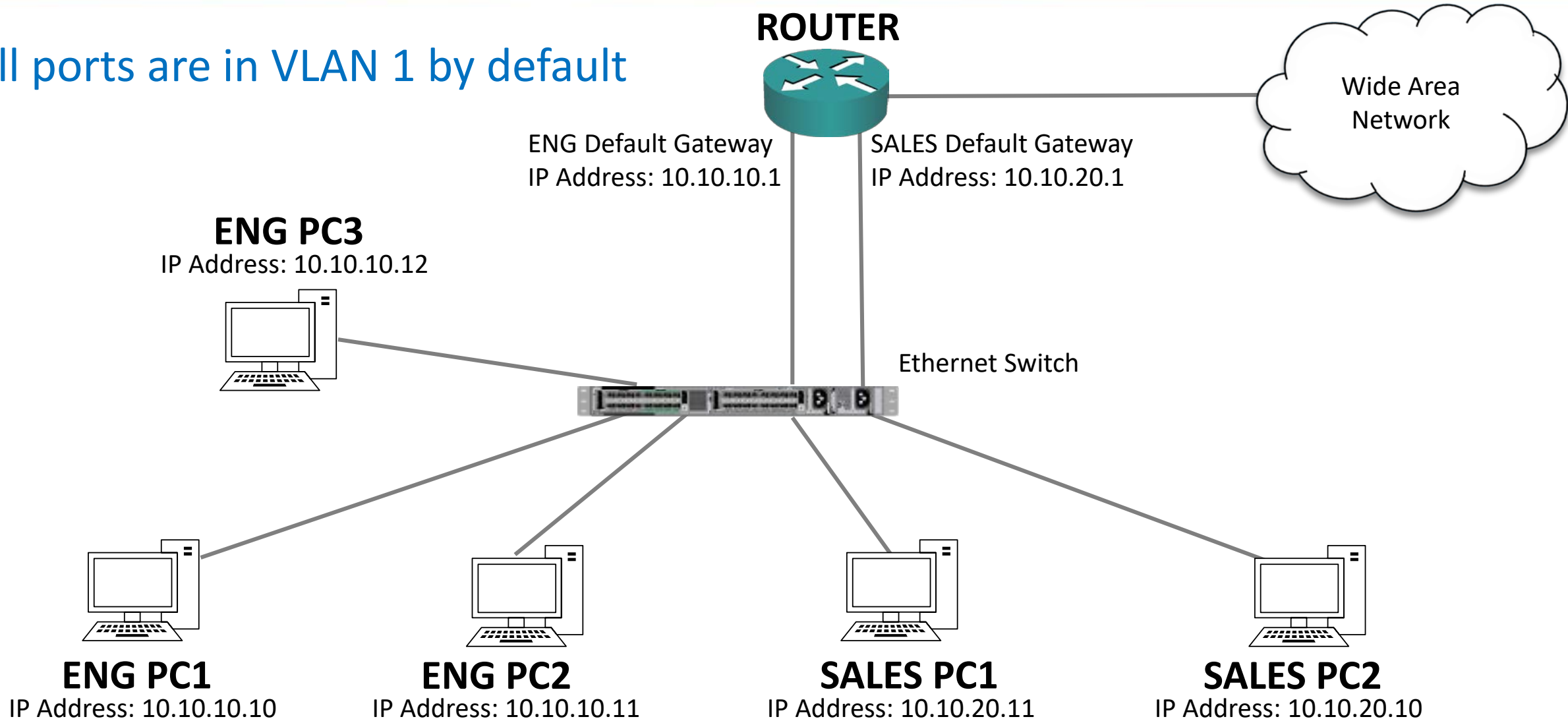
Access Port Configuration – Eng VLAN

```
SW1(config)#vlan 10
SW1(config-vlan)#name Eng

SW1(config)#interface FastEthernet 0/1
SW1(config-if)#switchport mode access
SW1(config-if)#switchport access vlan 10
SW1(config)#interface range FastEthernet 0/3 - 5
SW1(config-if)#switchport mode access
SW1(config-if)#switchport access vlan 10
```

Access Port Configuration – Sales VLAN

```
SW1(config)#vlan 20
SW1(config-vlan)#name Sales

SW1(config)#interface FastEthernet 0/2
SW1(config-if)#switchport mode access
SW1(config-if)#switchport access vlan 20
SW1(config)#interface range FastEthernet 0/6 - 7
SW1(config-if)#switchport mode access
SW1(config-if)#switchport access vlan 20
```

Verification – show vlan brief

```
SW1#show vlan brief


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, Gig0/1, Gig0/2
10        Eng             active      Fa0/1, Fa0/3, Fa0/4, Fa0/5
20        Sales           active      Fa0/2, Fa0/6, Fa0/7
1002      fddi-default active
1003      token-ring-default active
1004      fddinet-default active
1005      trnet-default active
```

```
SW1#show interface FastEthernet 0/1 switchport
Name: Fa0/1
Switchport: Enabled
Administrative Mode: static access
Operational Mode: static access
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: native
Negotiation of Trunking: Off
Access Mode VLAN: 10 (Eng)
Trunking Native Mode VLAN: 1 (default)
! truncated
```

FLACKBOX
www.flackbox.com

VLAN Lab

SALES3
10.10.20.12

SW1
F0/3
F0/1
F0/2

ENG1
10.10.10.10

ENG2
10.10.10.11