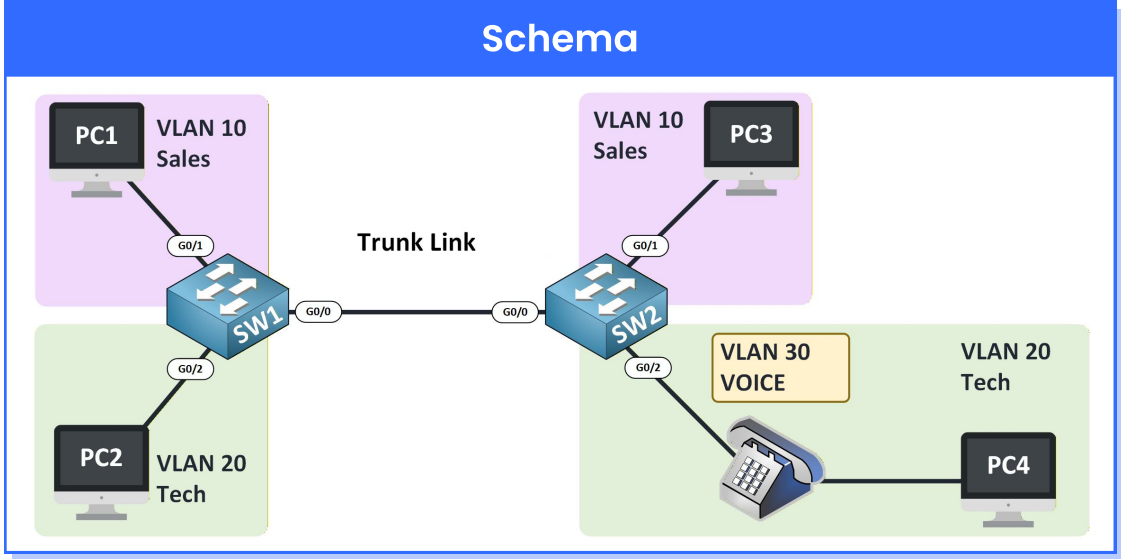




Some information

Default VLAN	1
VLAN ID range	1 – 4094

VLAN default configuration

```
! On SW1 and SW2
SW1# configure terminal
SW1(config)# vlan 10
SW1(config-vlan)# name Sales
SW1(config-vlan)# exit

SW1(config)# vlan 20
SW1(config-vlan)# name Tech
SW1(config-vlan)# exit

SW1(config)# interface G0/1
SW1(config-if-range)# switchport mode access
SW1(config-if-range)# switchport access vlan 10
SW1(config-if-range)# exit

SW1(config)# interface G0/2
SW1(config-if-range)# switchport mode access
SW1(config-if-range)# switchport access vlan 20
```

Native VLAN

```
! Change Native VLAN is a security best practice
! On SW1 and SW2
SW1# configure terminal
SW1(config)# interface G0/0
SW1(config-if)# switchport trunk native vlan 99
```

802.1Q Trunking configuration

```
! On SW1 and SW2
SW1# configure terminal
SW1(config)# interface G0/0
SW1(config-if)# switchport trunk encapsulation dot1q
SW1(config-if)# switchport mode trunk
SW1(config-if)# switchport trunk allowed vlan 10,20,30
```

Voice VLAN

```
! Only on SW2
SW2(config)# vlan 30
SW2(config-vlan)# name VOICE
SW2(config-vlan)# exit

SW2(config)# interface G0/2
SW2(config-if)# switchport voice vlan 30
SW2(config-if)# exit

! The switch announces the voice VLAN via CDP.
SW2(config)# cdp run
```

DTP configuration

```
! On SW1 and SW2
SW1# configure terminal
SW1(config)# interface G0/0
SW1(config-if)# switchport trunk encapsulation dot1q
SW1(config-if)# switchport mode trunk
SW1(config-if)# switchport trunk allowed vlan 10,20
```

Management & Troubleshooting

```
! Display all VLANs on the switch.
SW1# show vlan brief

! Reset VLANs
SW1# delete flash:vlan.dat
SW1# reload

! Verify trunking status and mode
SW1# show interfaces trunk

! Show port status (Trunking, VLANs, ...)
SW1#show interfaces G0/1 switchport
```

DTP modes interactions

	Dynamic Auto	Dynamic Desirable	Trunk	Access
Dynamic Auto	Access	Trunk	Trunk	Access
Dynamic Desirable	Trunk	Trunk	Trunk	Access
Trunk	Trunk	Trunk	Trunk	?
Access	Access	Access	?	Access

VTP Modes

Mode	Job
Server	It's the only type of switch allowed to create, modify or delete VLANs.
Client	Simply receives updates from the VTP server and applies them.
Transparent	Keeps its own local VLAN configuration but still forwards VTP advertisements to other switches.