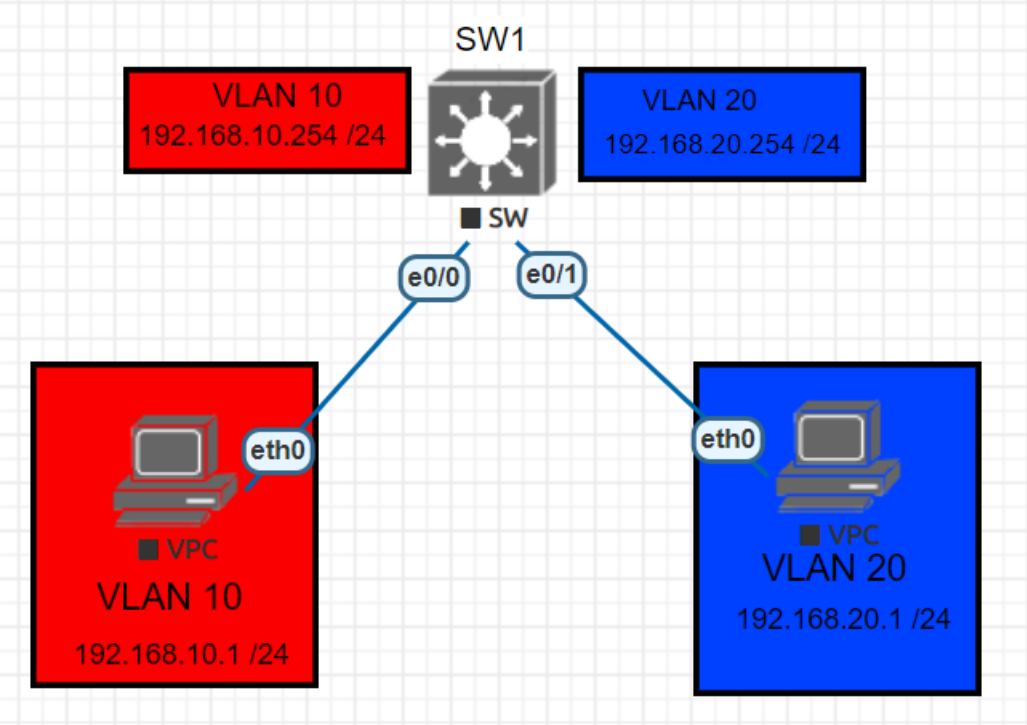
Creating SVIs

In this How To we will cover creating an SVI on a Distro switch and using the SVI as the default gateway for our users.



- For this **How To** we will need to create two **SVIs** for VLAN 10, and VLAN 20. It already assumed that you have created VLANs and assigned them to the correct interface.

Configuration

`SW1#configure terminal` # This command puts us in Global Config mode

`SW1(config)#interface vlan 10` # This command will create our logical Switched Virtual Interface, and put us into the SVI sub-configuration mode

`SW1(config-if)#description SALES VLAN 10 DEFAULT GATEWAY` # This command will give a description for the interface

`SW1(config-if)#ip address 192.168.10.254 255.255.255.0` # This command will assign an IP address to the interface

`SW1(config-if)#no shut` # This command will turn on the interface and put it into an "**up**" state.

- The full configuration for SW1 is shown below

```
SW1#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
SW1(config)#interface vlan 10
SW1(config-if)#description
*Nov 30 15:03:08.178: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan10, ch
anged state to down
SW1(config-if)#description ///SALES VLAN 10\\\
SW1(config-if)#ip address 192.168.10.254 255.255.255.0
SW1(config-if)#no shut
SW1(config-if)#exit
```

```
SW1(config)#interface vlan 20
SW1(config-if)#de
*Nov 30 15:04:26.057: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan20, ch
anged state to down
SW1(config-if)#description ///MARKETING VLAN 20\\\
SW1(config-if)#ip address 192.168.20.254 255.255.255.0
SW1(config-if)#no shut
SW1(config-if)#
```

Testing

- Not seen is assigning the IP addresses to the computers. But in this demonstration we can see the computers on different VLANs have IP reach-ability.

```
SW1#ping 192.168.20.1 source vlan 10
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.20.1, timeout is 2 seconds:
Packet sent with a source address of 192.168.10.254
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/5 ms
SW1#
```

- This wireshark capture shows the ping test between the subnets.

```
> Frame 42: 114 bytes on wire (912 bits), 114 bytes captured (912 bits) on interface 0
> Ethernet II, Src: aa:bb:cc:80:10:00 (aa:bb:cc:80:10:00), Dst: Private_66:68:02 (00:50:79:66:68:02)
> Internet Protocol Version 4, Src: 192.168.10.254, Dst: 192.168.20.1
> Internet Control Message Protocol
```

Verification

- The following show commands verify that the SVI's are created and that they are in a UP/UP state.

`SW1#show ip interface brief | include Vlan` # The initial command will show a brief output of all the interfaces on the device. The "pipe" command uses REGEX to filter the output to just the SVI's

```
SW1#show ip interface brief | in Vlan
Vlan10                 192.168.10.254  YES manual up                    up
Vlan20                 192.168.20.254  YES manual up                    up
SW1#
```