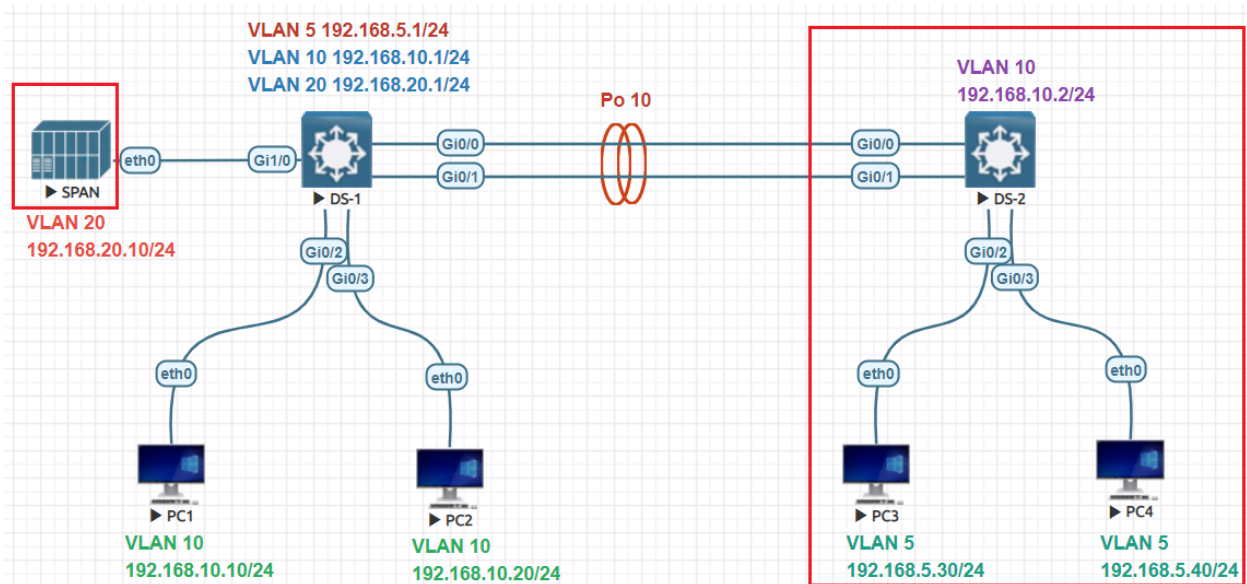


RSPAN Lab:



Switch Images	vios_l2-adventerprisek9-m.ssa.high_iron_20190423
Client PCs	Linux-Slax-9.11.0 or VPCS
SPAN	EVE-Wireshark Or Wireshark
VLANs	VLAN5, VLAN10, and VLAN20
VLAN5 PCs	PC3 and PC4
VLAN10 PCs	PC1 and PC2
VLAN20 PC	SPAN/Wireshark
VLAN5 IP Address	192.168.5.1
VLAN10 IP Address	192.168.10.1
VLAN20 IP Address	192.168.20.1
Layer 2 LACP Port Channel	Po10
Layer 2 LACP DS-1 Ports	G0/0 and G0/1
Layer 2 LACP DS-2 Ports	G0/0 and G0/1
Layer 2 LACP DS-1 Mode	Active
Layer 2 LACP DS-2 Mode	Passive
SPAN Wireshark IP Address	192.168.20.10 /24
PC1 IP Address	192.168.10.10
PC2 IP Address	192.168.10.20
PC3 IP address	192.168.5.30
PC4 IP Address	192.168.5.40
RSPAN Switches	DS-1 and DS-2
RSPAN PCs	PC3 and PC4
RSPAN Devices	DS-1, DS-2, PC3, PC4 and Wireshark

DS-1 Basic Configuration

```
DS-1(config)#hostname DS-1
DS-1(config)#no ip domain lookup
DS-1(config)#ip routing
DS-1(config)#vtp mode transparent
DS-1(config)#spanning-tree mode rapid-pvst
DS-1(config)#line con 0
DS-1(config-line)#exec-timeout 0 0
DS-1(config-line)#exit
DS-1(config-if-range)#interface range g1/1-3
DS-1(config-if-range)#shutdown
```

DS-1 VLAN and SVI Configuration

```
DS-1(config)#vlan 5
DS-1(config)#interface vlan 5
DS-1(config-if)#ip address 192.168.5.1 255.255.255.0
DS-1(config-if)#no shutdown
DS-1(config)#vlan 10
DS-1(config)#interface vlan 10
DS-1(config-if)#ip address 192.168.10.1 255.255.255.0
DS-1(config-if)#no shutdown
DS-1(config)#vlan 20
DS-1(config)#interface vlan 20
DS-1(config-if)#ip address 192.168.20.1 255.255.255.0
DS-1(config-if)#no shutdown
```

DS-1 Etherchannel Configuration

```
DS-1(config)#interface range g0/0-1
DS-1(config-if-range)#switchport trunk encapsulation dot1q
DS-1(config-if-range)#switchport mode trunk
DS-1(config-if-range)#channel-group 10 mode active
```

DS-1 Interfaces Configuration

```
DS-1(config)#interface range g0/2-3
DS-1(config-if-range)#spanning-tree portfast
DS-1(config-if-range)#switchport mode access
DS-1(config-if-range)#switchport access vlan 10
DS-1(config-if-range)#exit
DS-1(config)#interface GigabitEthernet1/0
DS-1(config-if)#switchport mode access
DS-1(config-if)#spanning-tree portfast
DS-1(config-if)#switchport access vlan 20
```

DS-2 Basic Configuration

```
DS-2(config)#hostname DS-2
DS-2(config)#no ip domain lookup
DS-2(config)#ip routing
DS-2(config)#vtp mode transparent
DS-2(config)#spanning-tree mode rapid-pvst
DS-2(config)#line con 0
DS-2(config-line)#exec-timeout 0 0
DS-2(config-line)#logging synchronous
DS-2(config-line)#exit
DS-2(config)#interface range g1/0-3
DS-2(config-if-range)#shutdown
DS-2(config-if-range)#exit
```

DS-2 VLAN and SVI Configuration

```
DS-2(config)#vlan 5
DS-2(config-vlan)#exit
DS-2(config)#vlan 10
DS-2(config-vlan)#exit
DS-2(config)#interface vlan 10
DS-2(config-if)#ip address 192.168.10.2 255.255.255.0
DS-2(config-if)#no shutdown
DS-2(config-if)#exit
```

DS-2 Etherchannel Configuration

```
DS-2(config)#interface range g0/0-1
DS-2(config-if-range)#switchport trunk encapsulation dot1q
DS-2(config-if-range)#switchport mode trunk
DS-2(config-if-range)#channel-group 10 mode active
DS-2(config-if-range)#exit
```

DS-2 Interfaces Configuration

```
DS-2(config)#interface range g0/2-3
DS-2(config-if-range)#spanning-tree portfast
DS-2(config-if-range)#switchport mode access
DS-2(config-if-range)#switchport access vlan 5
DS-2(config-if-range)#exit
```

PC1 Configuration

```
VPCS> set pname PC1  
PC1> ip 192.168.10.10 /24 192.168.10.1  
PC1> save
```

PC2 Configuration

```
VPCS> set pname PC2  
PC2> ip 192.168.10.20/24 192.168.10.1  
PC2> save
```

PC3 Configuration

```
VPCS> set pname PC3  
PC3> ip 192.168.5.30 /24  
PC3> save
```

PC4 Configuration

```
VPCS> set pname PC4  
PC4> ip 192.168.5.40/24  
PC4> save
```

DS-1 Remote SPAN VLAN Configuration

```
DS-1(config)#vlan 500  
DS-1(config-vlan)#name RSPAN  
DS-1(config-vlan)#remote-span  
DS-1(config-vlan)#exit
```

DS-2 Remote SPAN VLAN Configuration

```
DS-2(config)#vlan 500  
DS-2(config-vlan)#name RSPAN  
DS-2(config-vlan)#remote-span  
DS-2(config-vlan)#exit
```

DS-2 Remote SPAN Configuration

```
DS-2(config)#monitor session 2 source vlan 5  
DS-2(config)#monitor session 2 destination remote vlan 500
```

DS-1 Remote SPAN Configuration

```
DS-1(config)#no monitor session 1 destination interface g1/0  
DS-1(config)#monitor session 2 source remote vlan 500  
DS-1(config)#monitor session 2 destination interface g1/0
```

Testing and Verification:

Try to ping PC4 from PC3 one copy will be send to SPAN Wireshark

```
PC3
PC3> ping 192.168.5.40

84 bytes from 192.168.5.40 icmp_seq=1 ttl=64 time=25.583 ms
84 bytes from 192.168.5.40 icmp_seq=2 ttl=64 time=15.925 ms
84 bytes from 192.168.5.40 icmp_seq=3 ttl=64 time=9.250 ms
84 bytes from 192.168.5.40 icmp_seq=4 ttl=64 time=12.401 ms
84 bytes from 192.168.5.40 icmp_seq=5 ttl=64 time=17.020 ms
```

```
SPAN
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
Apply a display filter ... <Ctrl-/>
No. Time Source Destination Protocol Length Info
11 2.079576018 192.168.5.40 192.168.5.30 ICMP 98 Echo (ping) reply id=0x94c6, seq=3/768, ttl=64 (r
12 2.081987061 192.168.5.40 192.168.5.30 ICMP 98 Echo (ping) reply id=0x94c6, seq=3/768, ttl=64
13 3.091360757 192.168.5.30 192.168.5.40 ICMP 98 Echo (ping) request id=0x95c6, seq=4/1024, ttl=64 (
14 3.094632771 192.168.5.30 192.168.5.40 ICMP 98 Echo (ping) request id=0x95c6, seq=4/1024, ttl=64 (
15 3.104321137 192.168.5.40 192.168.5.30 ICMP 98 Echo (ping) reply id=0x95c6, seq=4/1024, ttl=64 (
16 3.107123515 192.168.5.40 192.168.5.30 ICMP 98 Echo (ping) reply id=0x95c6, seq=4/1024, ttl=64
17 4.118350054 192.168.5.30 192.168.5.40 ICMP 98 Echo (ping) request id=0x96c6, seq=5/1280, ttl=64 (
18 4.121580907 192.168.5.30 192.168.5.40 ICMP 98 Echo (ping) request id=0x96c6, seq=5/1280, ttl=64 (
19 4.135396057 192.168.5.40 192.168.5.30 ICMP 98 Echo (ping) reply id=0x96c6, seq=5/1280, ttl=64 (
20 4.138960401 192.168.5.40 192.168.5.30 ICMP 98 Echo (ping) reply id=0x96c6, seq=5/1280, ttl=64

Frame 1: 98 bytes on wire (784 bits), 98 bytes captured (784 bits) on interface eth0, id 0
Ethernet II, Src: Private_66:68:05 (00:50:79:66:68:05), Dst: Private_66:68:06 (00:50:79:66:68:06)
Internet Protocol Version 4, Src: 192.168.5.30, Dst: 192.168.5.40
Internet Control Message Protocol
```

```
DS-2
DS-2#show monitor session all
Session 2
-----
Type : Remote Source Session
Source VLANs :
Both : 5
Dest RSPAN VLAN : 500
```

```
DS-1
DS-1#show monitor session 2
Session 2
-----
Type : Remote Destination Session
Source RSPAN VLAN : 500
Destination Ports : Gi1/0
Encapsulation : Native
```