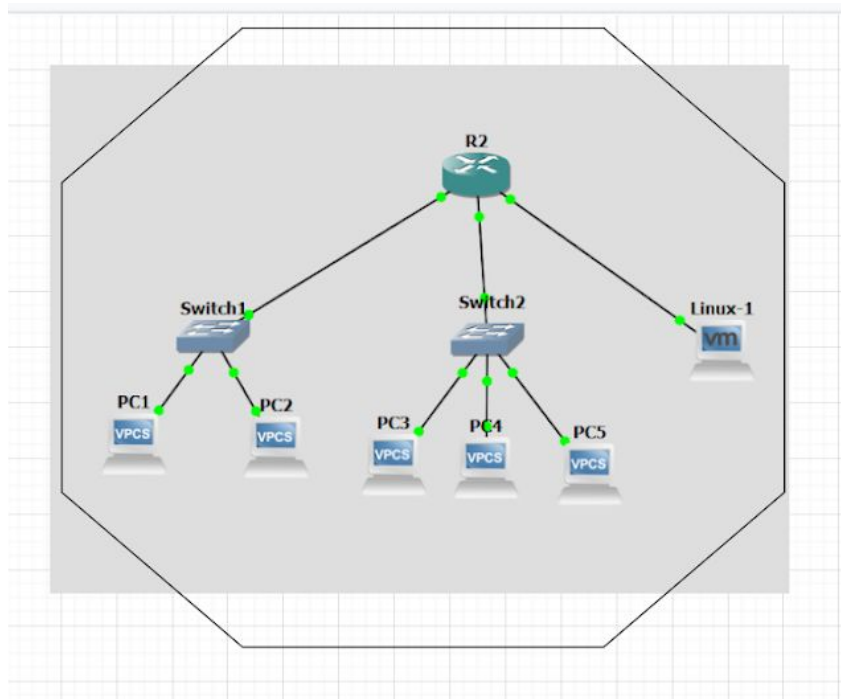


Cálculo de Las Redes

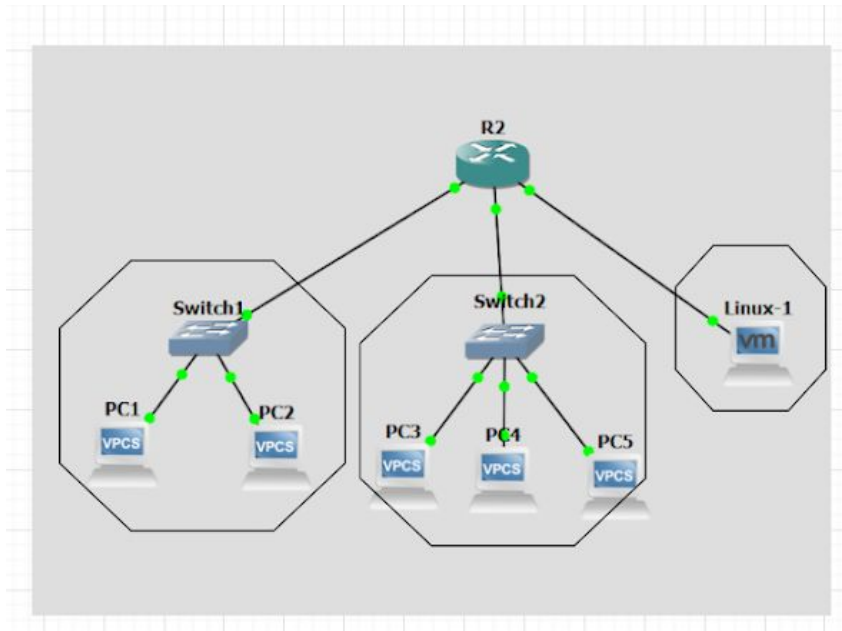
Dispositivo	Mascara de Red	Gateway	Direccion IP
PC1	255.255.255.192	192.168.10.1	192.168.10.2
PC2	255.255.255.192	192.168.10.1	198.168.10.3
PC3	255.255.255.192	192.168.10.65	192.168.10.66
PC4	255.255.255.192	192.168.10.65	192.168.10.67
PC5	255.255.255.192	192.168.10.65	192.168.10.68
PC6	255.255.255.192	192.168.10.129	192.168.10.130

Dominio de Colisión

Dado que el switch y el router no propagan colisiones, toda la topología se encuentra en el mismo dominio de colisión.



Dominio de Broadcast



Dado que el router nos interrumpe el flujo de broadcast nos encontramos con 3 distintos dominios de broadcast en toda la topologia

Capturando Paquetes con Wireshark en un ping entre pc2 y tinylinuxcore

The screenshot shows a Solar-PuTTY terminal window with the following output:

```
PC2> ping 192.168.10.68
84 bytes from 192.168.10.68 icmp_seq=1 ttl=63 time=20.442 ms
84 bytes from 192.168.10.68 icmp_seq=2 ttl=63 time=18.411 ms
84 bytes from 192.168.10.68 icmp_seq=3 ttl=63 time=19.397 ms
84 bytes from 192.168.10.68 icmp_seq=4 ttl=63 time=18.391 ms
84 bytes from 192.168.10.68 icmp_seq=5 ttl=63 time=17.373 ms

PC2> ping 192.168.10.130
84 bytes from 192.168.10.130 icmp_seq=1 ttl=63 time=20.348 ms
84 bytes from 192.168.10.130 icmp_seq=2 ttl=63 time=19.395 ms
84 bytes from 192.168.10.130 icmp_seq=3 ttl=63 time=15.395 ms
84 bytes from 192.168.10.130 icmp_seq=4 ttl=63 time=18.390 ms
84 bytes from 192.168.10.130 icmp_seq=5 ttl=63 time=16.218 ms

PC2> ping 192.168.10.130
84 bytes from 192.168.10.130 icmp_seq=1 ttl=63 time=20.544 ms
84 bytes from 192.168.10.130 icmp_seq=2 ttl=63 time=18.466 ms
84 bytes from 192.168.10.130 icmp_seq=3 ttl=63 time=18.516 ms
84 bytes from 192.168.10.130 icmp_seq=4 ttl=63 time=17.455 ms
84 bytes from 192.168.10.130 icmp_seq=5 ttl=63 time=17.489 ms

PC2> ping 192.168.10.130
84 bytes from 192.168.10.130 icmp_seq=1 ttl=63 time=16.388 ms
84 bytes from 192.168.10.130 icmp_seq=2 ttl=63 time=17.465 ms
84 bytes from 192.168.10.130 icmp_seq=3 ttl=63 time=16.398 ms
84 bytes from 192.168.10.130 icmp_seq=4 ttl=63 time=18.283 ms
84 bytes from 192.168.10.130 icmp_seq=5 ttl=63 time=15.364 ms

PC2> ping 192.168.10.130
84 bytes from 192.168.10.130 icmp_seq=1 ttl=63 time=20.498 ms
84 bytes from 192.168.10.130 icmp_seq=2 ttl=63 time=16.434 ms
84 bytes from 192.168.10.130 icmp_seq=3 ttl=63 time=20.501 ms
84 bytes from 192.168.10.130 icmp_seq=4 ttl=63 time=19.412 ms
84 bytes from 192.168.10.130 icmp_seq=5 ttl=63 time=18.480 ms

PC2>
```

The Wireshark packet capture window shows the following packets:

No.	Time	Source	Destination	Protocol	Length	Info
11	69.352462	c2:02:2d:8c:00:20	Private_66:68:01	ARP	60	192.168.10.1 is at c2:02:2d:8c:00:20
12	69.353463	192.168.10.3	192.168.10.130	ICMP	98	Echo (ping) request id=0xfefad, seq=1/256, ttl=64
13	69.373449	192.168.10.3	192.168.10.3	ICMP	98	Echo (ping) reply id=0xfefad, seq=1/256, ttl=63
14	70.374828	192.168.10.3	192.168.10.130	ICMP	98	Echo (ping) request id=0xf0ad, seq=2/512, ttl=64
15	70.390818	192.168.10.130	192.168.10.3	ICMP	98	Echo (ping) reply id=0xf0ad, seq=2/512, ttl=63
16	71.392199	192.168.10.3	192.168.10.130	ICMP	98	Echo (ping) request id=0xf1ad, seq=3/768, ttl=64
17	71.412190	192.168.10.130	192.168.10.3	ICMP	98	Echo (ping) reply id=0xf1ad, seq=3/768, ttl=63
18	72.413567	192.168.10.3	192.168.10.130	ICMP	98	Echo (ping) request id=0xf2ad, seq=4/1024, ttl=64

The packet details pane shows the first packet (Frame 1) as an Ethernet II, Src: c2:02:2d:8c:00:20 (c2:02:2d:8c:00:20), Dst: c2:02:2d:8c:00:20 (c2:02:2d:8c:00:20), Configuration Test Protocol (loopback), Data (40 bytes).

The packet bytes pane shows the raw data of the first packet:

```
0000 c2 02 2d 8c 00 20 c2 02 2d 8c 00 20 90 00 00 00 .....
0010 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
0020 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
0030 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
```