UNIVERSIDAD AUTONOMA DE CHIAPAS

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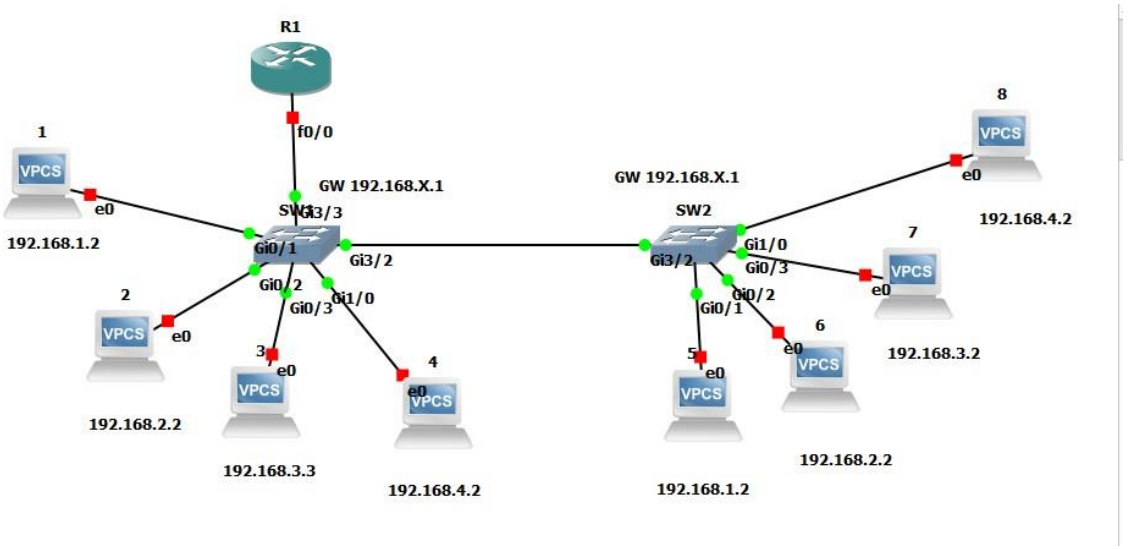
CONMUTADORES Y REDES INALAMBBRICAS

7 M



Configurar switch 1 y asignar vlans

```
SW1(config-vlan)#
SW1(config-vlan)#name vlan1.1
SW1(config-vlan)#exit
SW1(config)#vlan 20
SW1(config-vlan)#name vlan2.1
SW1(config-vlan)#exit
SW1(config)#vlan 30
SW1(config-vlan)#name vlan3.1
SW1(config-vlan)#exit
SW1(config)#vlan 40
SW1(config-vlan)#name vlan 4.1
SW1(config-vlan)#
```

ahora asignamos el switch 1 como server vtp, esto no ayudara a compartir la informacion de los vlans con otros dispositivos para que sea mas facil

```
SW1(config)#vtp mode server
Device mode already VTP Server for VLANS.
SW1(config)#vtp domain vlan
Changing VTP domain name from NULL to vlan
SW1(config)#
*Sep 19 16:32:51.916: %SW_VLAN-6-VTP_DOMAIN_NAME_CHG: VTP domain name changed to vlan.
SW1(config)#vtp password vlan
Setting device VTP password to vlan
SW1(config)#
```

ahora vamos a ver nuestra configuracion en nuestro switch 1

```
SW1#sh vlan

VLAN Name                              Status    Ports
---- --------------------------------- --------- -------------------------------
1    default                           active    Gi0/0, Gi1/1, Gi1/2, Gi1/3
                                                 Gi2/0, Gi2/1, Gi2/2, Gi2/3
                                                 Gi3/0, Gi3/1, Gi3/2, Gi3/3
10   vlan1.1                           active    Gi0/1
20   vlan2.1                           active    Gi0/2
30   vlan3.1                           active    Gi0/3
40   vlan 4.1                          active    Gi1/0
1002 fddi-default                      act/unsup
1003 token-ring-default                act/unsup
1004 fddinet-default                   act/unsup
1005 trnet-default                     act/unsup

VLAN Type  SAID       MTU   Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ ------
1    enet  100001     1500  -      -      -        -    -        0      0
10   enet  100010     1500  -      -      -        -    -        0      0
20   enet  100020     1500  -      -      -        -    -        0      0
30   enet  100030     1500  -      -      -        -    -        0      0
40   enet  100040     1500  -      -      -        -    -        0      0
1002 fddi  101002     1500  -      -      -        -    -        0      0
 --More--
*Sep 19 16:34:15.576: %SYS-5-CONFIG_I: Configured from console by console
```

son 4 pc’s gig 0/1, 0/2, 0/3 y gig 1/0

si vamos al switch 2, podemos ver que no tiene ningun vlan aun

```
Switch(config)#hostname SW2
SW2(config)#exit
SW2#
SW2#sh vla
*Sep 19 16:38:27.332: %SYS-5-CONFIG_I: Configured from console by consolen

VLAN Name                              Status    Ports
---- --------------------------------- --------- -------------------------------
1    default                           active    Gi0/0, Gi0/1, Gi0/2, Gi0/3
                                                 Gi1/0, Gi1/1, Gi1/2, Gi1/3
                                                 Gi2/0, Gi2/1, Gi2/2, Gi2/3
                                                 Gi3/0, Gi3/1, Gi3/2, Gi3/3
1002 fddi-default                      act/unsup
1003 token-ring-default                act/unsup
1004 fddinet-default                   act/unsup
1005 trnet-default                     act/unsup

VLAN Type  SAID       MTU   Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ ------
1    enet  100001     1500  -      -      -        -    -        0      0
1002 fddi  101002     1500  -      -      -        -    -        0      0
1003 tr    101003     1500  -      -      -        -    -        0      0
1004 fdnet 101004     1500  -      -      -        ieee -        0      0
1005 trnet 101005     1500  -      -      -        ibm  -        0      0

Remote SPAN VLANs
------------------------------------------------------------------------------
```

activamos el vtp

```
SW2(config)#vtp mode client
Setting device to VTP Client mode for VLANS.
SW2(config)#vtp domain vlan
Changing VTP domain name from NULL to vlan
SW2(config)#
*Sep 19 17:04:03.852: %SW_VLAN-6-VTP_DOMAIN_NAME_CHG: VTP domain name changed to vlan.
SW2(config)#vtp password vlan
Setting device VTP password to vlan
SW2(config)#
```

```
SW2(config-if)#switchport trunk encapsulation dot1q
SW2(config-if)#switchport mode trunk
```

hacemos un enlace troncal y ahora vemos si tenemos los vlan del switch 1
ahora tenemos los vlans, pero no estan los puertos asi que los voy a asignar

```
SW2(config-if)#switchport mode access
SW2(config-if)#switchport access vlan 20
SW2(config-if)#exit
SW2(config)#inter g0/3
SW2(config-if)#switchport mode access
SW2(config-if)#switchport access vlan 30
SW2(config-if)#exit
SW2(config)#inter g1/0
SW2(config-if)#switchport mode access
SW2(config-if)#switchport access vlan 40
SW2(config-if)#exit
SW2(config)#exit
SW2#sh vlan
*Sep 19 17:17:04.614: %SYS-5-CONFIG_I: Configured from console by console

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Gi0/0, Gi1/1, Gi1/2, Gi1/3
                                                Gi2/0, Gi2/1, Gi2/2, Gi2/3
                                                Gi3/0, Gi3/1, Gi3/3
10   vlan1.1                          active    Gi0/1
20   vlan2.1                          active    Gi0/2
30   vlan3.1                          active    Gi0/3
40   vlan 4.1                         active    Gi1/0
1002 fddi-default                     act/unsup
1003 token-ring-default               act/unsup
1004 fddinet-default                  act/unsup
1005 trnet-default                    act/unsup

VLAN Type  SAID       MTU   Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ ------
1    enet  100001     1500  -      -      -        -    -        0      0
10   enet  100010     1500  -      -      -        -    -        0      0
20   enet  100020     1500  -      -      -        -    -        0      0
30   enet  100030     1500  -      -      -        -    -        0      0
40   enet  100040     1500  -      -      -        -    -        0      0
1002 fddi  101002     1500  -      -      -        -    -        0      0
 --More--
```

Ahora vamos al router a configurar los pools para el dhcp

```
R1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#ip dhcp pool v1
R1(dhcp-config)#default-router 192.168.1.1
R1(dhcp-config)#network 192.168.1.0 255.255.255.0
```

```
R1(config)#ip dhcp pool v2
R1(dhcp-config)#default-router 192.168.2.1
R1(dhcp-config)#network 192.168.2.0 255.255.255.0
R1(dhcp-config)#exit
R1(config)#ip dhcp pool v3
R1(dhcp-config)#default-router 192.168.3.1
R1(dhcp-config)#network 192.168.3.0 255.255.255.0
R1(dhcp-config)#exit
R1(config)#ip dhcp pool v4
R1(dhcp-config)#default-router 192.168.4.1
R1(dhcp-config)#network 192.168.4.0 255.255.255.0
R1(dhcp-config)#exit
R1(config)#
```

ahora agregamos ip’s en las sub interfaces vlan del router

```
R2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#inter fa0/0
R2(config-if)#exit
R2(config)#inter fa0/0.10
R2(config-subif)#enca
R2(config-subif)#encapsulation dot1q 10
R2(config-subif)#ip address 192.168.1.1 255.255.255.0
R2(config-subif)#no sh
R2(config-subif)#exit
R2(config)#inter fa0/0.20
R2(config-subif)#encapsulation dot1q 20
R2(config-subif)#ip address 192.168.2.1 255.255.255.0
R2(config-subif)#no sh
R2(config-subif)#exit
R2(config)#inter fa0/0.30
R2(config-subif)#encapsulation dot1q 30
R2(config-subif)#ip address 192.168.3.1 255.255.255.0
R2(config-subif)#no sh
R2(config-subif)#exit
R2(config)#inter fa0/0.40
R2(config-subif)#encapsulation dot1q 40
R2(config-subif)#ip address 192.168.4.1 255.255.255.0
R2(config-subif)#no sh
R2(config-subif)#exit
R2(config)#inter fa0/0
R2(config-if)#no sh
R2(config-if)#
*Sep 19 12:28:15.551: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up
*Sep 19 12:28:16.551: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
R2(config-if)#
```

por último hacemos un enlace troncal en el switch hacia el router y eso debería de ser todo

```
SW1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
SW1(config)#inter g0/0
SW1(config-if)#switchport mode trunk
SW1(config-if)#exit
```

En la pc 1 deberia de dar 1.2. Porque el 1 es el gateway el default router

```
1> sh ip

NAME         : 1[1]
IP/MASK      : 0.0.0.0/0
GATEWAY      : 0.0.0.0
DNS          :
MAC          : 00:50:79:66:68:03
LPORT        : 10011
RHOST:PORT   : 127.0.0.1:10012
MTU:         : 1500

1> ip dhcp
DDORA IP 192.168.1.2/24 GW 192.168.1.1

1> sh ip

NAME         : 1[1]
IP/MASK      : 192.168.1.2/24
GATEWAY      : 192.168.1.1
DNS          :
DHCP SERVER  : 192.168.1.1
DHCP LEASE   : 86385, 86400/43200/75600
MAC          : 00:50:79:66:68:03
LPORT        : 10011
RHOST:PORT   : 127.0.0.1:10012
MTU:         : 1500
```

si vamos a la pc 4 no deberia de dar la 4.2

```
4> sh ip

NAME         : 4[1]
IP/MASK      : 0.0.0.0/0
GATEWAY      : 0.0.0.0
DNS          :
MAC          : 00:50:79:66:68:02
LPORT        : 10013
RHOST:PORT   : 127.0.0.1:10014
MTU:         : 1500

4> ip dhcp
DDORA IP 192.168.4.2/24 GW 192.168.4.1
```

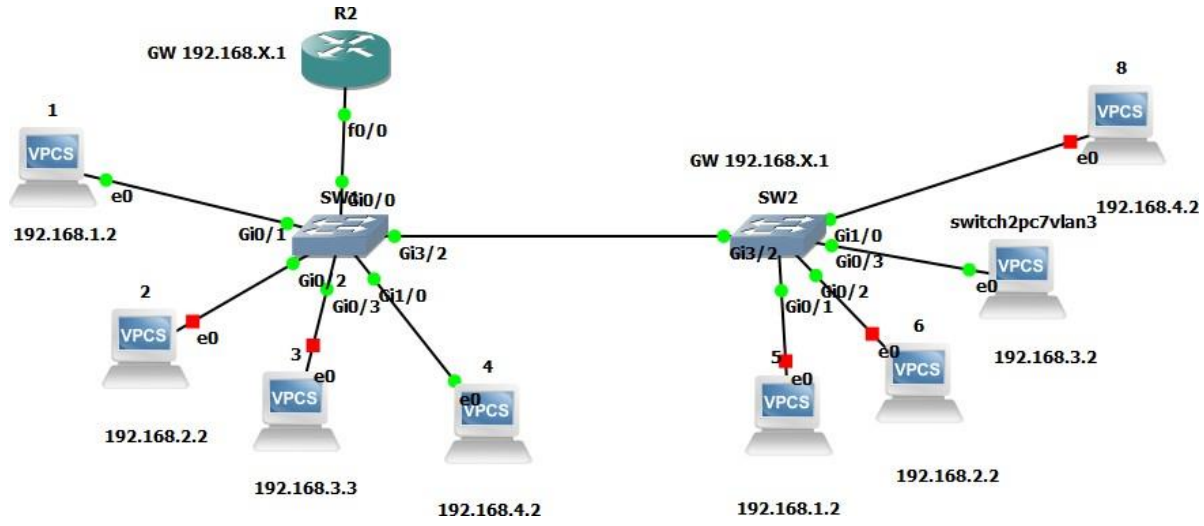
y ahora si vamos al switch 2, en la pc 7 de vlan 3 nos deberia de dar 3.2

```
7> sh ip

NAME        : 7[1]
IP/MASK     : 0.0.0.0/0
GATEWAY     : 0.0.0.0
DNS         :
MAC         : 00:50:79:66:68:06
LPORT       : 10015
RHOST:PORT  : 127.0.0.1:10016
MTU:        : 1500

7> ip dhcp
DDORA IP 192.168.3.2/24 GW 192.168.3.1

7>
```



con eso podemos concluir que el server dhcp si se logra conectar a los dos switches gracias a los enlaces troncales y el vtp que hace mas facil compartir las vlans