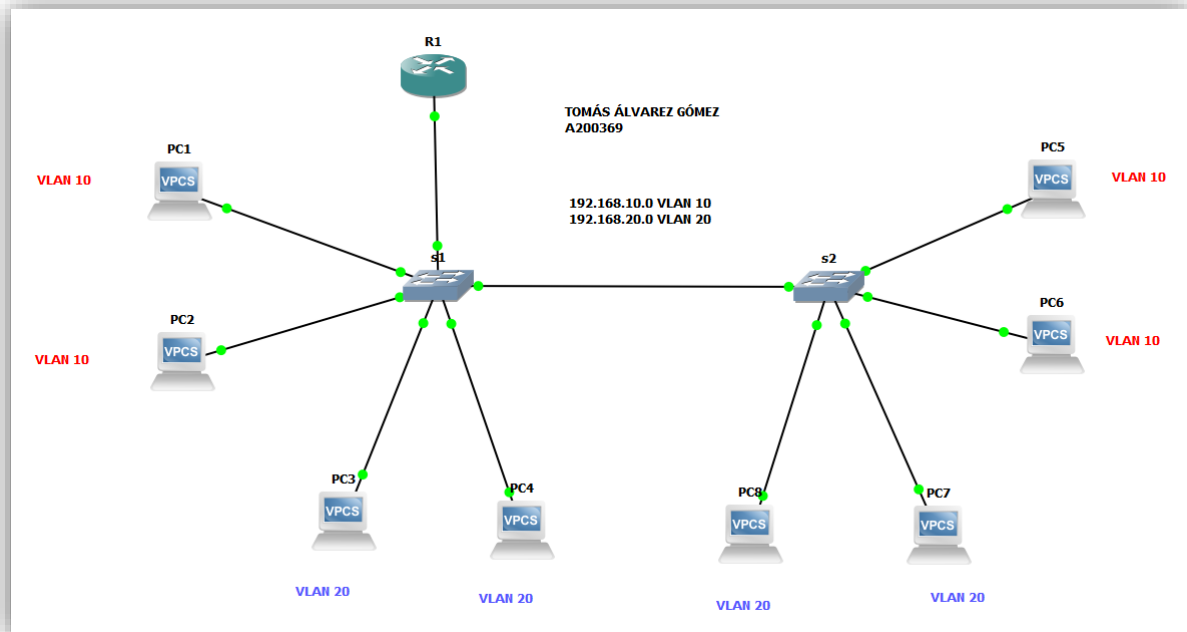


Act. 3.3 Configurar un Router con GNS3 con DHCP con 2 segmentos VLANS VTP



CONFIGURAMOS EL SWITCH **S2** CON VTP MODE CLIENT

```
Switch>ena
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname s2
s2(config)#vtp mode client
Setting device to VTP Client mode for VLANs.
s2(config)#vtp domain tomas-01
Changing VTP domain name from NULL to tomas-01
s2(config)#
*Sep 20 15:15:49.567: %SW_VLAN-6-VTP_DOMAIN_NAME_CHG: VTP domain name
changed to tomas-01.
s2(config)#vtp password tomas
Setting device VTP password to tomas
s2(config)#end
```

CONFIGURAMOS EL SWITCH **S1** CON VTP MODE SERVER

```
Switch>ena
Switch#conf t
```

Enter configuration commands, one per line. End with CNTL/Z.

```
Switch(config)#hostname s1
```

```
s1(config)#vtp mode server
```

Device mode already VTP Server for VLANs.

```
s1(config)#vtp domain tomas-01
```

Changing VTP domain name from NULL to tomas-01

```
s1(config)#
```

*Sep 20 15:18:36.357: %SW_VLAN-6-VTP_DOMAIN_NAME_CHG: VTP domain name changed to tomas-01.

```
s1(config)#vtp password tomas
```

Setting device VTP password to tomas

```
s1(config)#exit
```

TRUNCAMOS LAS INTERFACES DEL SWITCH S2 CON UN INTER RANGE Y SELECCIONAMOS EL RANGO DE INTERFACES QUE QUEREMOS TRUNCAR

S2

```
s2#ena
```

```
s2#conf t
```

Enter configuration commands, one per line. End with CNTL/Z.

```
s2(config)#inter range g0/0-3
```

```
s2(config-if-range)#switchport trunk encapsulation dot1q
```

```
s2(config-if-range)#switchport mode trunk
```

```
s2(config-if-range)#switchport trunk native vlan 99
```

```
s2(config-if-range)#exit
```

TRUNCAMOS EN EL MISMO SWITCH LA INTERFAZ G1/0 PERO ESTA AL INICIAR EN 1 NO PUEDE SER TRUNCADA CON LAS DEMAS

```
s2#ena
```

```
s2#conf t
```

Enter configuration commands, one per line. End with CNTL/Z.

```
s2(config)#inter g1/0
```

```
s2(config-if)#switchport trunk encapsulation dot1q
```

```
s2(config-if)#switchport mode trunk
```

```
s2(config-if)#switchport trunk native vlan 99
```

```
s2(config-if)#end
```

TRUNCAMOS LAS INTERFACES 0/0-3 DEL SWITCH S1

```
s1>ena
```

```
s1#conf t
```

Enter configuration commands, one per line. End with CNTL/Z.

```
s1(config)#inter range g0/0-3
```

```
s1(config-if-range)#switchport trunk encapsulation dot1q
s1(config-if-range)#switchport mode trunk
s1(config-if-range)#switchport trunk native vlan 99
s1(config-if-range)#end
```

DE IGUAL FORMA LA INTERFAZ G1/0 LA TRUNCAMOS

```
s1#ena
s1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
s1(config)#inter g1/0
s1(config-if)#switchport trunk encapsulation dot1q
s1(config-if)#switchport mode trunk
s1(config-if)#switchport trunk native vlan 99
s1(config-if)#
*Sep 20 15:36:00.462: %CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch
discovered on GigabitEthernet1/0 (1), with s2 GigabitEthernet1/0 (99).
s1(config-if)#end
```

CREAMOS LAS VLAS EN EL SWITCH S1 QUE ES EL VTP SERVER

```
s1#ena
s1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
s1(config)#vlan 10
s1(config-vlan)#name tomas
s1(config-vlan)#exit
s1(config)#vlan 20
s1(config-vlan)#name rubi
s1(config-vlan)#exit
s1(config)#end
```

CREAMOS LAS SUB-INTERFAZES EN EL ROUTER R1

```
R1(config)#inter fa1/0
R1(config-if)#no ip add
R1(config-if)#no sh
R1(config-if)#exit
R1(config)#i
*Mar 1 00:49:39.724: %LINK-3-UPDOWN: Interface FastEthernet1/0, changed state to up
*Mar 1 00:49:40.726: %LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet1/0, changed state to up
R1(config)#inter fa1/0
R1(config-if)#inter fa1/0.10
R1(config-subif)#encapsulation dot1q 10
```

```
R1(config-subif)#ip address 192.168.10.1 255.255.255.0
R1(config-subif)#exit
R1(config)#
R1(config)#inter fa1/0
R1(config-if)#inter fa1/0.20
R1(config-subif)#encapsulation dot1q 20
R1(config-subif)#ip address 192.168.20.1 255.255.255.0
R1(config-subif)#exit
R1(config)#end
```

LE DAMOS ACCESO A LAS INTERFAEZ A SU RESPECTIVA VLAN EN EL SWITCH

S2

```
s2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
s2(config)#inter range g0/0-1
s2(config-if-range)#switchport mode access
s2(config-if-range)#switchport access vlan 10
s2(config-if-range)#exit
s2(config)#inter range g0/2-3
s2(config-if-range)#switchport mode access
s2(config-if-range)#switchport access vlan 20
s2(config-if-range)#exit
s2(config)#end
s2#
```

LE DAMOS ACCESO A LAS INTERFAEZ A SU RESPECTIVA VLAN EN EL SWITCH

S1

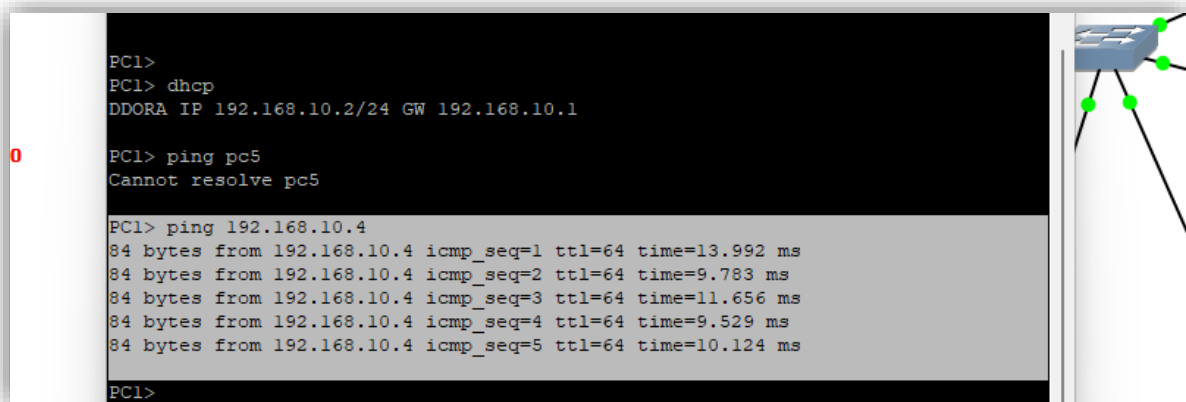
```
s1>ena
s1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
s1(config)#inter range g0/0-1
s1(config-if-range)#switchport mode access
s1(config-if-range)#switchport access vlan 10
s1(config-if-range)#exit
s1(config)#inter range g0/2-3
s1(config-if-range)#switchport mode access
s1(config-if-range)#switchport access vlan 20
s1(config-if-range)#exit
s1(config)#end
```

CONFIGURACIÓN DEL DHCP

```
R1#ena
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#ip dhcp pool vlan10
R1(dhcp-config)#network 192.168.10.0 255.255.255.0
R1(dhcp-config)#default-router 192.168.10.1
R1(dhcp-config)#dns-server 192.168.10.1
R1(dhcp-config)#exit
R1(config)#ip dhcp pool vlan20
R1(dhcp-config)#network 192.168.20.0 255.255.255.0
R1(dhcp-config)#default-router 192.168.20.1
R1(dhcp-config)#dns-server 192.168.20.1
R1(dhcp-config)#exit
R1(config)#end
```

ANEXOS

la pc1 le está haciendo ping a la pc5 exitosamente estas son parte de la vlan 10



The screenshot shows a terminal window for PC1. The user enters 'dhcp' and 'DDORA IP 192.168.10.2/24 GW 192.168.10.1'. Then, they enter 'ping pc5', which results in 'Cannot resolve pc5'. Finally, they enter 'ping 192.168.10.4', which shows five successful ping results with varying times.

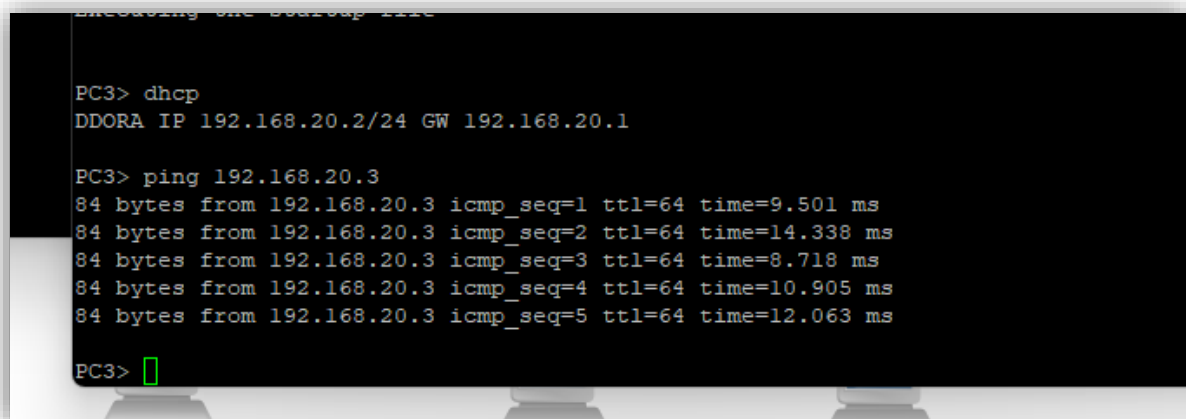
```
PC1>
PC1> dhcp
DDORA IP 192.168.10.2/24 GW 192.168.10.1

PC1> ping pc5
Cannot resolve pc5

PC1> ping 192.168.10.4
84 bytes from 192.168.10.4 icmp_seq=1 ttl=64 time=13.992 ms
84 bytes from 192.168.10.4 icmp_seq=2 ttl=64 time=9.783 ms
84 bytes from 192.168.10.4 icmp_seq=3 ttl=64 time=11.656 ms
84 bytes from 192.168.10.4 icmp_seq=4 ttl=64 time=9.529 ms
84 bytes from 192.168.10.4 icmp_seq=5 ttl=64 time=10.124 ms

PC1>
```

La pc3 le está haciendo ping a la pc8 exitosamente estas son parte de la vlan 20



The screenshot shows a terminal window for PC3. The user enters 'dhcp' and 'DDORA IP 192.168.20.2/24 GW 192.168.20.1'. Then, they enter 'ping 192.168.20.3', which shows five successful ping results with varying times.

```
PC3> dhcp
DDORA IP 192.168.20.2/24 GW 192.168.20.1

PC3> ping 192.168.20.3
84 bytes from 192.168.20.3 icmp_seq=1 ttl=64 time=9.501 ms
84 bytes from 192.168.20.3 icmp_seq=2 ttl=64 time=14.338 ms
84 bytes from 192.168.20.3 icmp_seq=3 ttl=64 time=8.718 ms
84 bytes from 192.168.20.3 icmp_seq=4 ttl=64 time=10.905 ms
84 bytes from 192.168.20.3 icmp_seq=5 ttl=64 time=12.063 ms

PC3>
```