



# Manual de configuración

## Práctica 1

Redes de  
computadoras 2



Selvin Lisandro Aragón Pérez

201701133

Erwin Alejandro García Barrera

201700801

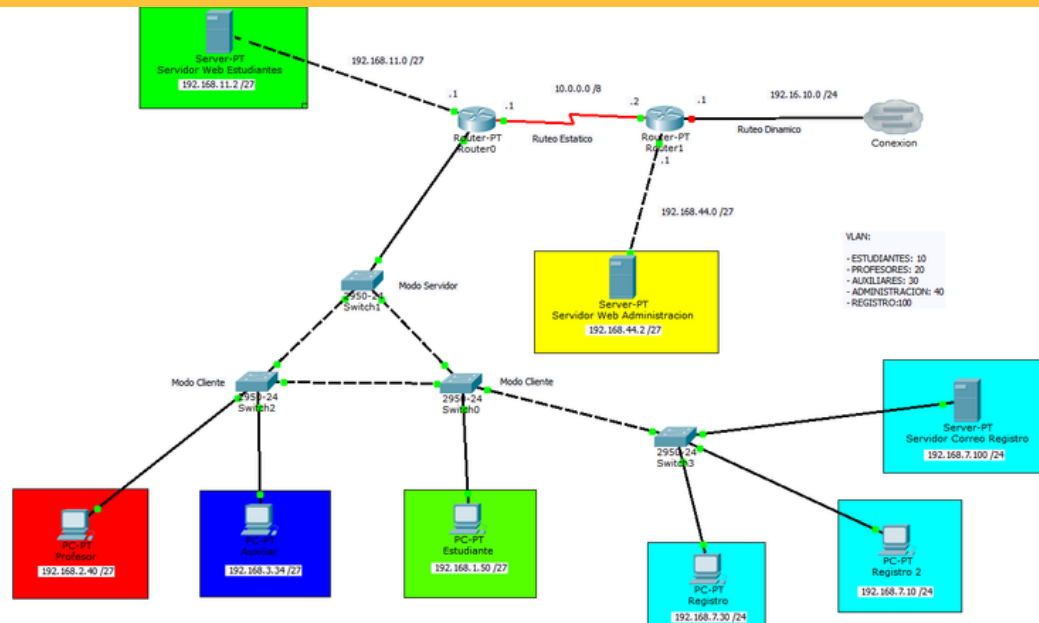
María Andrea Duarte Saenz

201503484

Lester Fernando Mazariegos Navarro

201403610

# Topología 1



## Configuración de Vlan

Switch 0

```
conf t
int f0/1
switchport mode trunk
switchport trunk allowed vlan
1,22,32,42,52,99,112,999,1002-
1005
end
show int trunk
```

```
conf t
int f0/2
switchport mode trunk
switchport trunk allowed vlan
1,22,32,42,52,99,112,999,1002-
1005
end
show int trunk
```

```
conf t
int f0/3
switchport mode trunk
switchport trunk allowed vlan
1,22,32,42,52,99,112,999,1002-
1005
end
show int trunk
```

Switch 1

```
conf t
vlan 22
name Estudiantes
vlan 32
name Auxiliares
vlan 42
name Profesores
vlan 52
name Administracion
vlan 999
name Blackhole
vlan 99
name native
end
show vlan-sw
```

.....

Switch 2

```
conf t
int f0/1
switchport mode trunk
switchport trunk allowed vlan
1,22,32,42,52,99,112,999,1002-
1005
end
show int trunk
```

```
conf t
int f0/2
switchport mode trunk
switchport trunk allowed
vlan
1,22,32,42,52,99,112,999,10
02-1005
end
show int trunk
```

## Configuración de VTP

Switch 0

```
enable
conf t
hostname S0
(Habilitar VTP modo servidor:
dominio y password Grupo12)
vtp domain Grupo12
vtp password Grupo12
vtp mode client
end
show vtp status
```

```
conf t
int f0/4
switchport mode access
switchport access vlan 22
end
```

```
conf t
interface range
fastethernet 0/5-24
switchport mode access
switchport access vlan 999
end
```

```
conf t
interface range
gigabitethernet 0/1-2
switchport mode access
switchport access vlan 999
end
```

.....

Switch 1

```
enable
conf t
hostname S1
(Habilitar VTP modo servidor:
dominio y password Grupo12)
vtp domain Grupo12
vtp password Grupo12
vtp mode server
end
show vtp status
```

```
conf t
int f0/1
switchport mode trunk
switchport trunk allowed vlan
1,22,32,42,52,99,112,999,1002-
1005
end
show int trunk
```

```
econf t
int f0/2
switchport mode trunk
switchport trunk allowed vlan
1,22,32,42,52,99,112,999,1002-
1005
end
show int trunk
```

```
conf t
int f0/3
switchport mode trunk
switchport trunk allowed vlan
1,22,32,42,52,99,112,999,1002-
1005
end
show int trunk
```

```
conf t
interface range
fastethernet 0/3-24
switchport mode access
switchport access vlan 999
end
```

```
conf t
interface range
gigabitethernet 0/1-2
switchport mode access
switchport access vlan 999
end
```

.....

## Switch 2

```
enable
conf t
hostname S2
(Habilitar VTP modo servidor:
dominio y password Grupo12)
vtp domain Grupo12
vtp password Grupo12
vtp mode client
end
show vtp status
```

```
conf t
int f0/3
switchport mode access
switchport access vlan 42
end
```

```
conf t
int f0/4
switchport mode access
switchport access vlan 32
end
```

```

conf t
interface range fastethernet
0/5-24
switchport mode access
switchport access vlan 999
end

```

```

conf t
interface range
gigabitethernet 0/1-2
switchport mode access
switchport access vlan 999
end

```

.....

### Switch 3

```

enable
conf t
hostname S3
(Habilitar VTP modo servidor:
dominio y password Grupo12)
vtp domain Grupo12
vtp password Grupo12
vtp mode transparent
end
show vtp status

```

```

vlan 112
name Registro
vlan 999
name Blackhole

```

```

conf t
int f0/1
switchport mode trunk
switchport trunk allowed vlan
1,22,32,42,52,99,112,999,1002-
1005
end
show int trunk

```

```

conf t
interface range
fastethernet 0/4-24
switchport mode access
switchport access vlan 999
end

```

```

conf t
interface range
gigabitethernet 0/1-2
switchport mode access
switchport access vlan 999
end

```

```

conf t
int f0/2
switchport mode access
switchport access vlan 112
end

```

```

conf t
int f0/3
switchport mode access
switchport access vlan 112
end

```

## Configuración de Access List

Router 0

```
eaccess-list 1 deny  
192.168.42.0 0.0.0.255  
access-list 1 deny  
192.168.32.0 0.0.0.255  
access-list 1 deny  
192.168.112.0 0.0.0.255  
access-list 1 permit any  
interface fastethernet0/0  
ip access-group 1 outa
```

.....

Router 1

```
access-list 1 deny 192.168.42.0  
0.0.0.255  
access-list 1 deny  
192.168.32.0 0.0.0.255  
access-list 1 deny  
192.168.112.0 0.0.0.255  
access-list 1 deny  
192.168.22.0 0.0.0.255  
access-list 1 permit any  
interface fastethernet1/0  
ip access-group 1 out
```

## Configuración de Ruteo estático

Router 0

```
ena
hostname R0
conf t
interface Serial2/0
ip address 10.0.0.1
255.255.255.252
ip route 192.168.0.1
255.255.255.240 10.0.0.2
```

.....

Router 1

```
ena
hostname R1
conf t
interface Serial2/0
ip address 10.0.0.2
255.255.255.252
ip route 192.0.0.0
255.255.255.240 10.0.0.1
```



## Configuración de Router on Stick

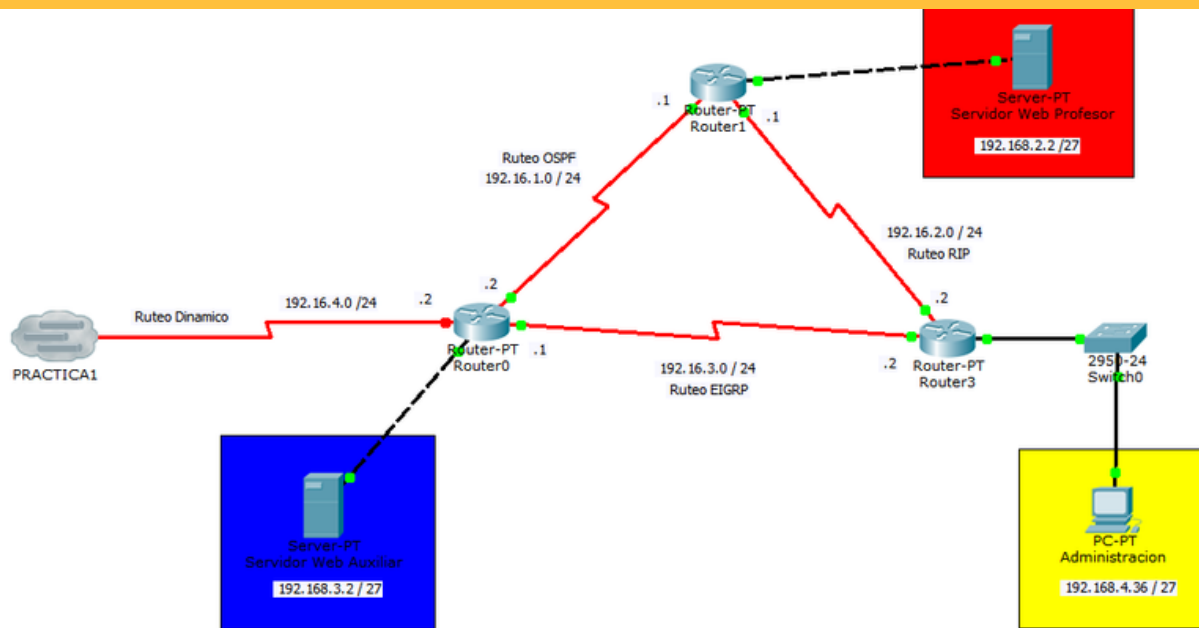
### Router 0

```
conf t
int f0/0
no ip address 192.168.1.50
255.255.255.240
no shut
exit
int f1/0.22
encapsulation dot1Q 22
ip address 192.168.22.1
255.255.255.000
exit
int f1/0.32
encapsulation dot1Q 32
ip address 192.168.32.1
255.255.255.000
exit
int f1/0.42
encapsulation dot1Q 42
ip address 192.168.42.1
255.255.255.000
exit
int f1/0.52
encapsulation dot1Q 52
ip address 192.168.52.1
255.255.255.000
exit
int f1/0.112
encapsulation dot1Q 112
ip address 192.168.200.1
255.255.255.000
exit
```

### Router 1

```
int f0/0.22
encapsulation dot1Q 22
ip address 192.168.22.1
255.255.255.000
exit
int f0/0.32
encapsulation dot1Q 32
ip address 192.168.32.1
255.255.255.000
exit
int f0/0.42
encapsulation dot1Q 42
ip address 192.168.42.1
255.255.255.000
exit
int f0/0.52
encapsulation dot1Q 52
ip address 192.168.52.1
255.255.255.000
exit
int f0/0.112
encapsulation dot1Q 112
ip address 192.168.200.1
255.255.255.000
exit
```

## Topología 2



## Configuración de Vlans

Switch 0

enable

config t

vlan 32

name Auxiliares

exit

vlan 42

name Profesores

exit

vlan 52

name Administracion

exit

vlan 99

name Native

exit

vlan 999

name Blackhole

exit

```
int range f0/3-24
switchport mode access
switchport access vlan 999
exit
```

```
int f0/1
switchport mode access
switchport access vlan 52
exit
```

```
int f0/2
switchport mode access
switchport access vlan 52
exit
```

.....

### Routing RIP

Router 3

```
conf t
router rip
network 192.16.2.0
exit
```

Router 1

```
conf t
router rip
network 192.16.2.0
exit
```

## Routing EIGRP

Router 3

```
conf t
router eigrp 1
network 192.16.3.0
255.255.255.0
exit
```

Router 0

```
conf t
router eigrp 1
network 192.16.3.0
255.255.255.0
exit
```

## Routing OSPF

Router 1

```
conf t
router ospf 1
network 192.16.1.0
0.0.0.255 area 0
exit
```

Router 0

```
conf t
router ospf 1
network 192.16.1.0
0.0.0.255 area 0
exit
```

## Configuración de interfaces

Router 0

```
interface Serial0/1/1
ip address 192.16.1.2 255.255.255.0
exit
```

```
interface Serial0/1/0
ip address 192.16.3.1 255.255.255.0
exit
```

```
interface GigabitEthernet0/0/0
ip address 192.168.3.1 255.255.255.0
exit
```

.....

Router 1

```
interface Serial0/1/1
ip address 192.16.1.1 255.255.255.0
exit
```

```
interface Serial0/1/0
ip address 192.16.2.1 255.255.255.0
exit
```

```
interface GigabitEthernet0/0/0.52
 encapsulation dot1Q 52
ip address 192.168.2.5 255.255.255.0
exit
```

### Router 3

```
interface Serial0/1/1  
ip address 192.16.2.2 255.255.255.0  
exit
```

```
interface Serial0/1/0  
ip address 192.16.3.2 255.255.255.0  
exit
```

```
interface GigabitEthernet0/0/0.52  
encapsulation dot1Q 52  
ip address 192.168.4.2 255.255.255.0  
exit
```

### IPS Asignadas

#### Topología 1

PC - Profesor	•	192.168.42.4
PC - Auxiliar	•	192.168.32.4
PC - Estudiante	•	192.168.22.4
PC - Registro 1	•	192.168.112.4
PC - Registro 2	•	192.168.112.5
Servidor Registro	•	192.168.112.6
Servidor aministracion	•	192.168.2.51
Servidor Estudiantes	•	192.168.1.51

## IPS Asignadas

### Topología 2

PC - Administracion	•	192.168.52.4
	•	
	•	
Servidor Profesor	•	192.168.4.51
	•	
	•	
Servidor Auxiliar	•	192.168.3.51
	•	
	•	

## VLANS Creadas

Estudiantes	•	22
	•	
	•	
Auxiliares	•	32
	•	
	•	
Profesores	•	42
	•	
	•	
Administracion	•	52
	•	
	•	
Registro	•	112
	•	
	•	
Blackhole	•	999
	•	
	•	
Native	•	99
	•	
	•	