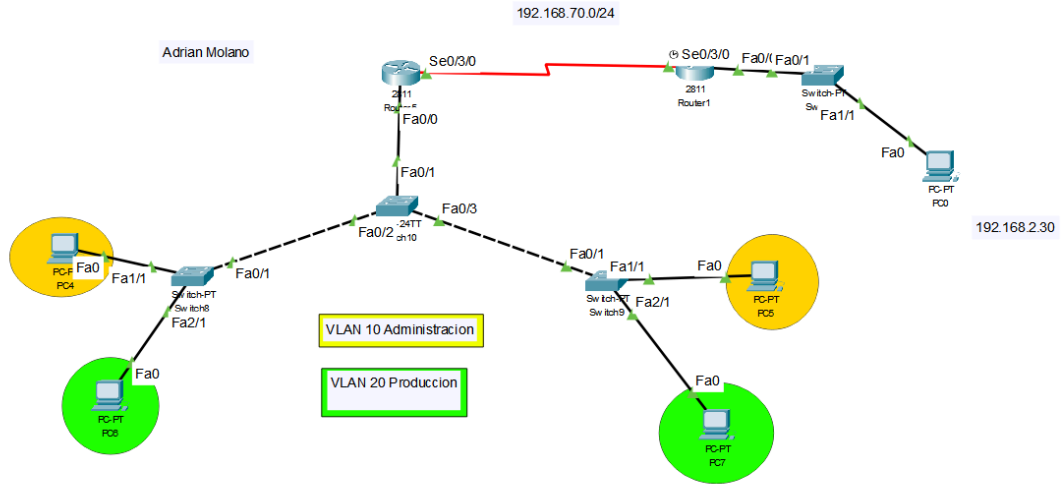


Topología usada para este laboratorio:



## 1. Configuración de VLANs en los switches

```
enable
configure terminal
```

```
vlan 10
 name VLAN10
 exit
```

```
vlan 20
 name VLAN20
 exit
```

```
! Asignar puertos a VLAN 10
interface range fa0/1-10
switchport mode access
switchport access vlan 10
exit
```

```
! Asignar puertos a VLAN 20
interface range fa0/11-20
switchport mode access
switchport access vlan 20
exit
```

```
end
write memory
```

VLAN Name	Status	Ports
1 default	active	Fa3/1, Fa4/1, Fa5/1
10 administracion	active	Fa1/1
20 produccion	active	Fa2/1
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

Switch(config)#

Switch8

Physical

Config

CLI

Attributes

IOS Command Line Interface

Press RETURN to get started!

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

%LINK-5-CHANGED: Interface FastEthernet1/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/1, changed state to up

%LINK-5-CHANGED: Interface FastEthernet2/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet2/1, changed state to up

Switch>do sho

Switch>do show vlan brief

^

% Invalid input detected at '^' marker.

Switch>en

Switch#conf t

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

Switch(config)#do show vlan brief

VLAN Name	Status	Ports
1 default	active	Fa3/1, Fa4/1, Fa5/1
10 Administracion	active	Fa1/1
20 produccion	active	Fa2/1
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

Switch(config)#

Copy

Paste

☐ Top

Esta configuración crea las VLANs y asigna los puertos.

2. Configuración del puerto trunk entre los switches y hacia el router  
enable  
configure terminal

! Configurar el puerto que conecta con el router  
interface fa0/24  
switchport mode trunk  
exit  
  
end  
write memory

Esto permite que el puerto **fa0/24** lleve el tráfico etiquetado (VLAN 10 y 20) entre switches y hacia el router.

3. Configuración del router (Router on a Stick)  
enable  
configure terminal

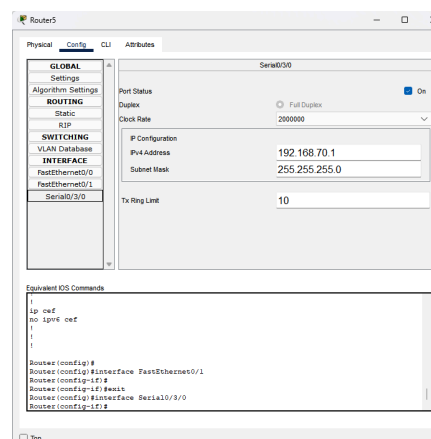
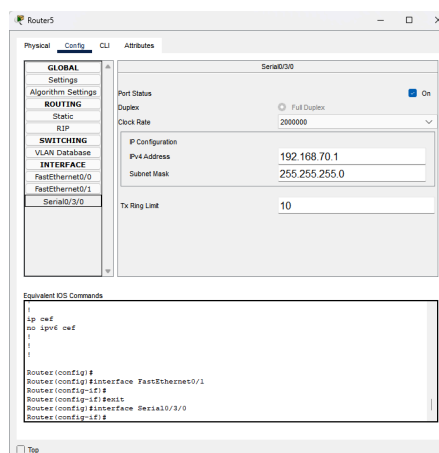
! Subinterfaz para VLAN 10  
interface fa0/0.10  
description VLAN 10  
encapsulation dot1Q 10  
ip address 192.168.10.1 255.255.255.0

! Subinterfaz para VLAN 20  
interface fa0/0.20  
description VLAN 20  
encapsulation dot1Q 20  
ip address 192.168.20.1 255.255.255.0

! Activar la interfaz física  
interface fa0/0  
no shutdown

end  
write memory

Esta configuración asigna una IP para cada subinterfaz y etiqueta el tráfico correctamente.



#### 4. Bloquear Telnet en el router

Comandos en el Router para filtrar el puerto 23  
enable  
configure terminal

```
ip access-list extended block_telnet  
deny tcp any any eq 23  
permit ip any any  
exit
```

```
interface se0/3/0  
ip access-group block_telnet in
```

```
end  
write memory
```

Esta ACL impide cualquier intento de conexión Telnet entrante en esa interfaz.

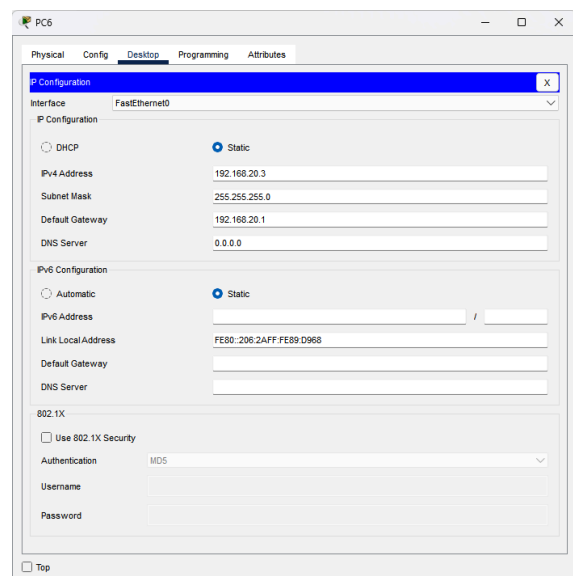
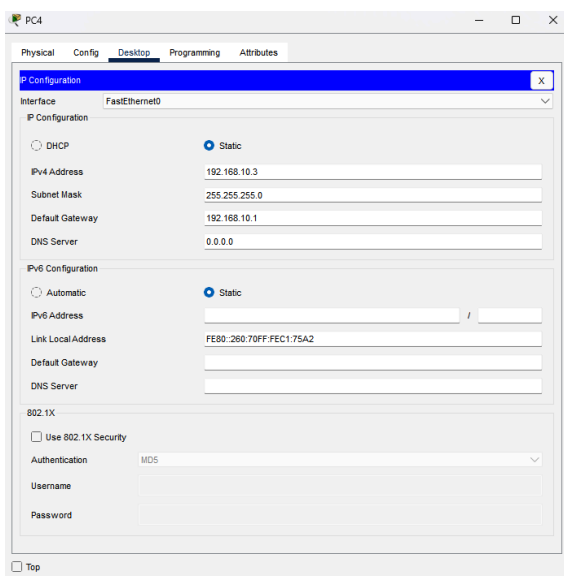
#### 5. Configuración básica de ACL para filtrar por IP específica

enable  
configure terminal

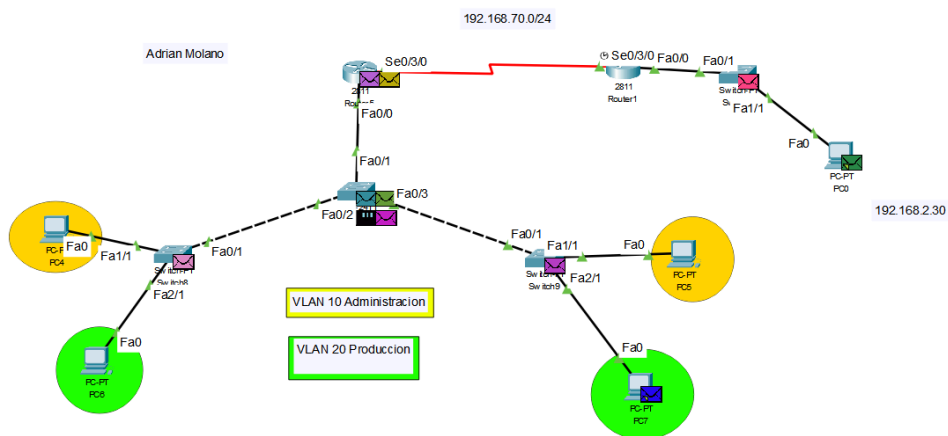
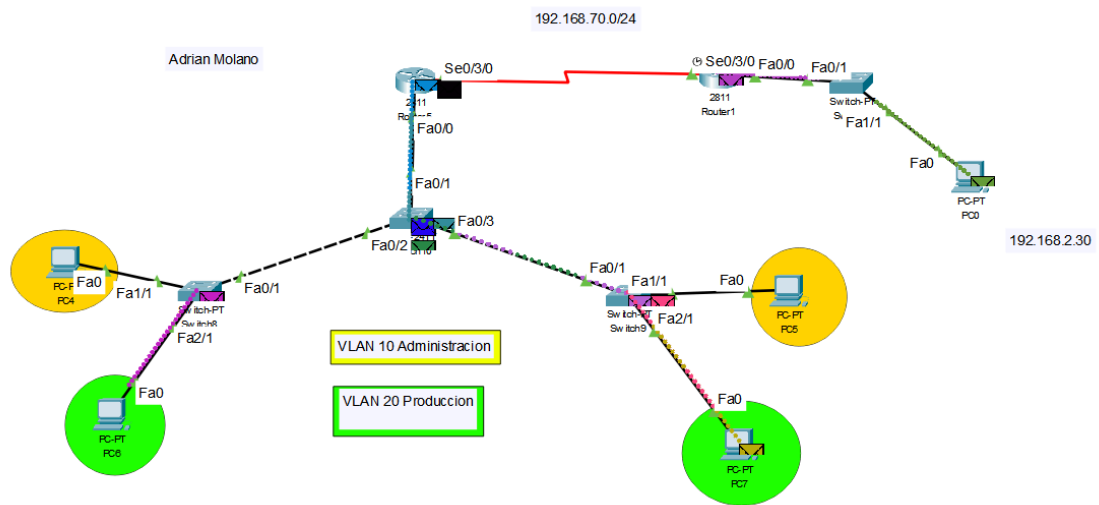
```
ip access-list extended allow_single_host  
permit ip host 192.168.10.50 any  
deny ip any any
```

```
interface se0/3/0  
ip access-group allow_single_host in
```

```
end  
write memory  
Configuración de los equipos
```



## Resultados



PLAY CONTROLS

⏮

⏪

⏩

⏭

4331

4321

1941

2901

2911

81910X

819K9W

829

1240

PT640W

PT640W

1841

2602

1641

Scenario 0

New

Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC5	ICMP		0.000	N	0	(edit)	
	Successful	PC0	PC7	ICMP		0.000	N	1	(edit)	
	Successful	PC7	PC5	ICMP		0.000	N	2	(edit)	
	In Progress	PC0	PC7	ICMP		0.000	N	3	(edit)	

