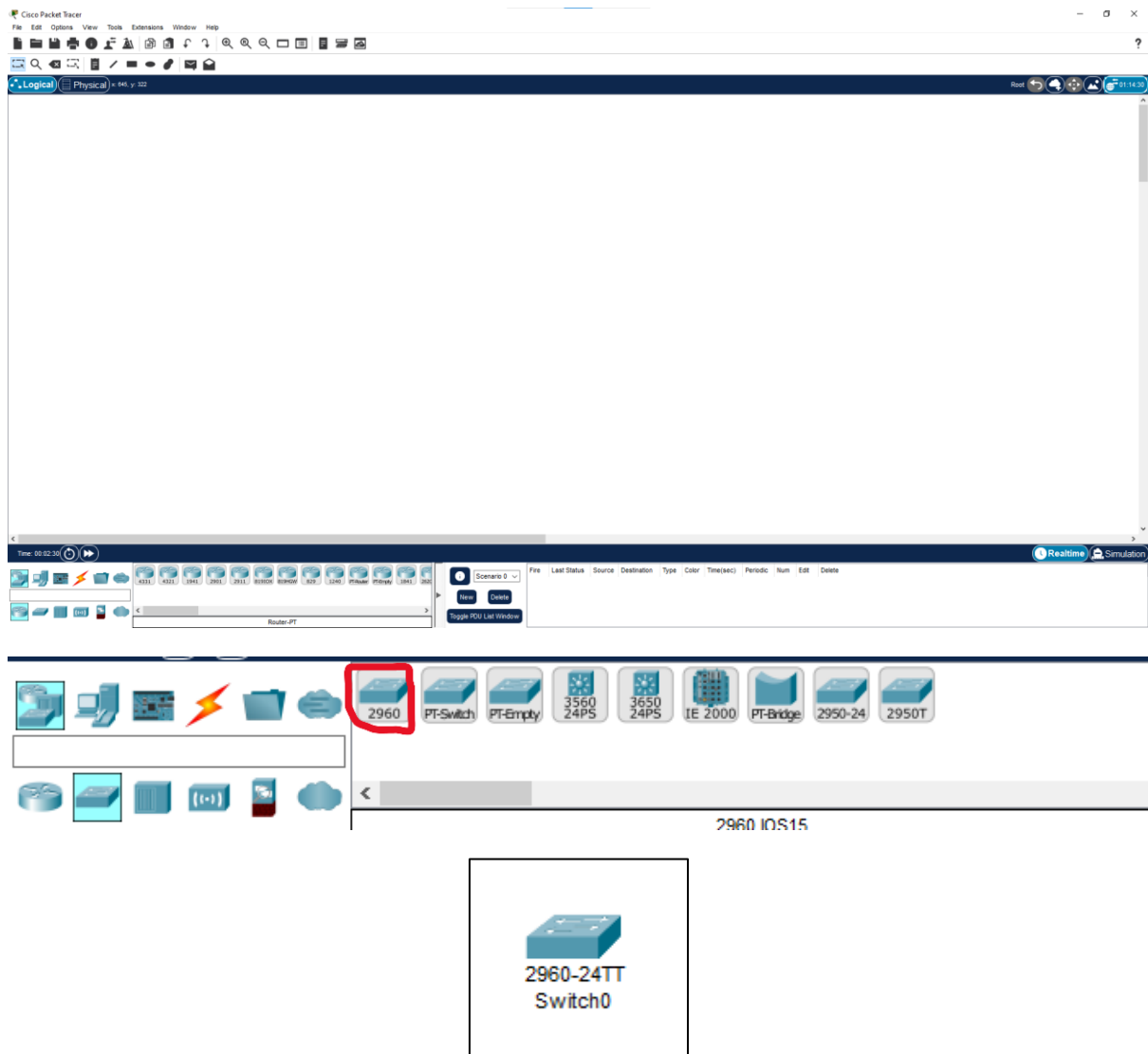
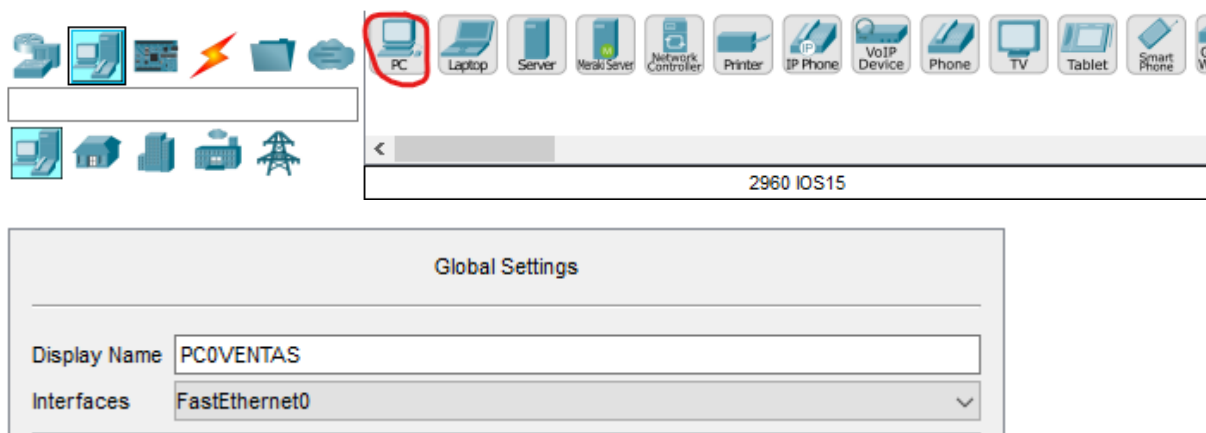


## Laboratorio 22-23



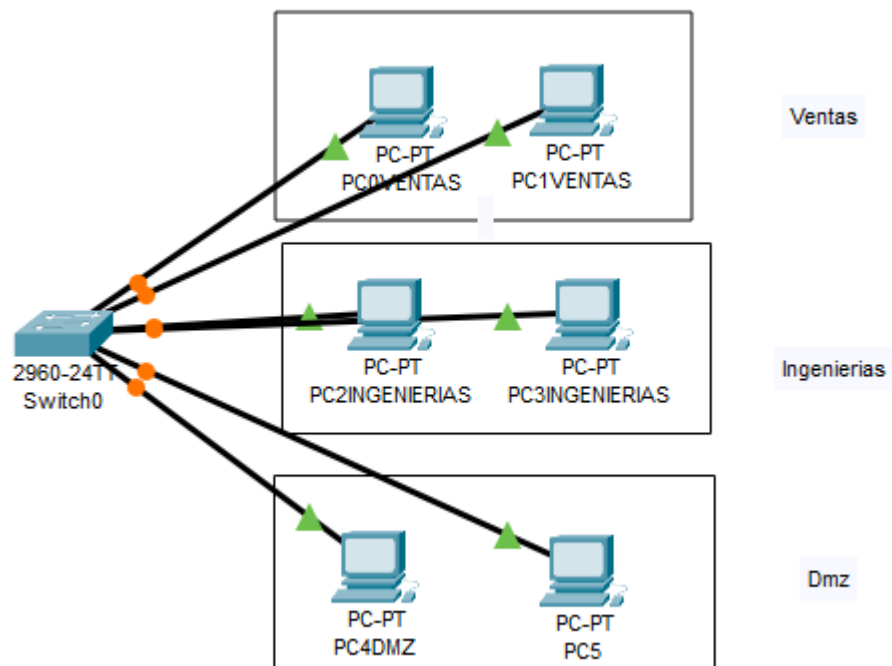
Se colocan 6 computadores



Global Settings	
Display Name	<input type="text" value="PC2INGENIERIAS"/>
Interfaces	<input type="text" value="FastEthernet0"/>

Global Settings	
Display Name	<input type="text" value="PC4DMZ"/>
Interfaces	<input type="text" value="FastEthernet0"/>





Entramos al CLI de Switch y realizamos las siguientes acciones:

Switch0

Physical Config **CLI** Attributes

IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up

Switch>show vlan
```

VLAN	Name	Status	Ports
1	default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20 Fa0/21, Fa0/22, Fa0/23, Fa0/24 Gig0/1, Gig0/2
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

```
--More--
```

Copy Paste

☐ Top

```
Switch>
Switch>show vlan brief
```

VLAN	Name	Status	Ports
1	default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20 Fa0/21, Fa0/22, Fa0/23, Fa0/24 Gig0/1, Gig0/2
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

```
Switch>enable
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name ventas
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name ingenierias
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name dmz
Switch(config-vlan)#exit
Switch(config)#
```

```
Switch#show vlan brief
```

VLAN	Name	Status	Ports
1	default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4 Fa0/5, Fa0/6, Fa0/7, Fa0/8 Fa0/9, Fa0/10, Fa0/11, Fa0/12 Fa0/13, Fa0/14, Fa0/15, Fa0/16 Fa0/17, Fa0/18, Fa0/19, Fa0/20 Fa0/21, Fa0/22, Fa0/23, Fa0/24 Gig0/1, Gig0/2
10	ventas	active	
20	ingenierias	active	
30	dmz	active	
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

```
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface range f0/1 - f0/2
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 10
Switch(config-if-range)#exit
Switch(config)#interface range f0/3 - f0/4
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 20
Switch(config-if-range)#exit
Switch(config)#interface range f0/5 - f0/6
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 30
Switch(config-if-range)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
show vlan brief
```

VLAN	Name	Status	Ports
1	default	active	Fa0/7, Fa0/8, Fa0/9, Fa0/10 Fa0/11, Fa0/12, Fa0/13, Fa0/14 Fa0/15, Fa0/16, Fa0/17, Fa0/18 Fa0/19, Fa0/20, Fa0/21, Fa0/22 Fa0/23, Fa0/24, Gig0/1, Gig0/2
10	ventas	active	Fa0/1, Fa0/2
20	ingenierias	active	Fa0/3, Fa0/4
30	dmz	active	Fa0/5, Fa0/6
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

Ahora colocamos las direcciones ip de los computadores

PC0VENTAS: 192.168.10.2  
PC1VENTAS: 192.168.10.3  
PC2INGENIERIAS: 192.168.20.2  
PC3INGENIERIAS: 192.168.20.3  
PC4DMZ: 192.168.30.2  
PC5DMZ: 192.168.30.3

The screenshot shows the configuration window for PC1VENTAS. The window has a title bar with the text "PC1VENTAS" and standard window controls. Below the title bar is a tabbed interface with four tabs: "Physical", "Config", "Desktop", and "Attributes". The "Config" tab is selected. On the left side of the "Config" tab is a sidebar with a tree view. Under the "GLOBAL" section, there are "Settings" and "Algorithm Settings". Under the "INTERFACE" section, there are "FastEthernet0" (which is selected and highlighted in blue) and "Bluetooth". The main area of the window displays the configuration for the "FastEthernet0" interface. It includes fields for "Port Status" (checked "On"), "Bandwidth" (radio buttons for "100 Mbps" and "10 Mbps", with "Auto" checked), "Duplex" (radio buttons for "Half Duplex" and "Full Duplex", with "Auto" checked), and "MAC Address" (text field containing "0090.2B9B.C3C8"). Below these are two sections for IP configuration. The "IP Configuration" section has radio buttons for "DHCP" and "Static" (selected), with fields for "IPv4 Address" (192.168.10.3) and "Subnet Mask" (255.255.255.0). The "IPv6 Configuration" section has radio buttons for "Automatic" and "Static" (selected), with fields for "IPv6 Address" (empty) and "Link Local Address" (FE80::290:2BFF:FE9B:C3C8). At the bottom left of the window is a "Top" button with a small square icon.

PC1VENTAS

Physical **Config** Desktop Programming Attributes

**GLOBAL**

- Settings
- Algorithm Settings

**INTERFACE**

- FastEthernet0**
- Bluetooth

**FastEthernet0**

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0090.2B9B.C3C8

IP Configuration

☐ DHCP

☒ Static

IPv4 Address 192.168.10.3

Subnet Mask 255.255.255.0

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

Link Local Address FE80::290:2BFF:FE9B:C3C8

☐ Top

PC2INGENIERIAS

Physical

Config

Desktop

Programming

Attributes

GLOBAL

Settings

Algorithm Settings

INTERFACE

FastEthernet0

Bluetooth

FastEthernet0

Port Status

☒ On

Bandwidth

☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex

☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address

00D0.BC2C.6718

IP Configuration

☐ DHCP

☒ Static

IPv4 Address

192.168.20.2

Subnet Mask

255.255.255.0

IPv6 Configuration

☐ Automatic

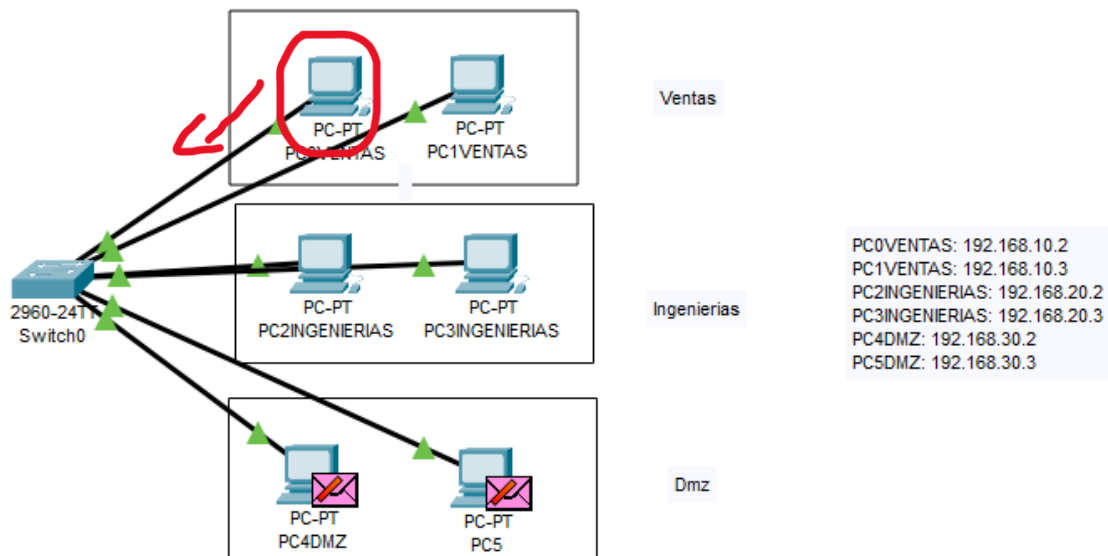
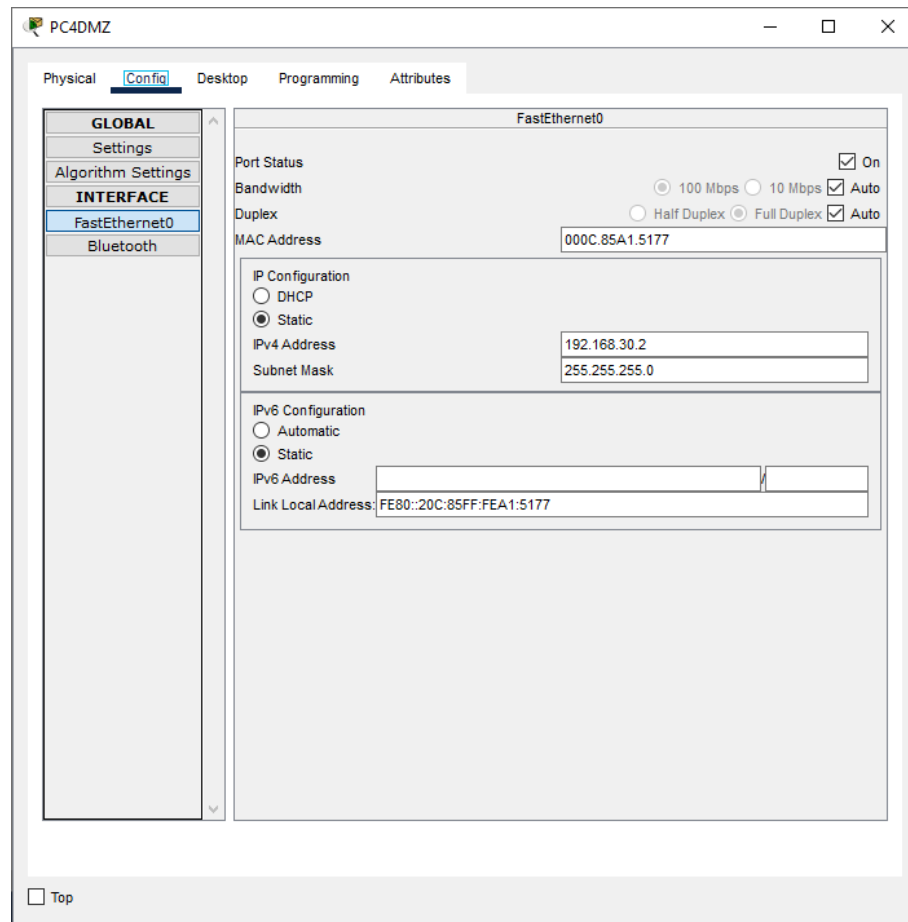
☒ Static

IPv6 Address

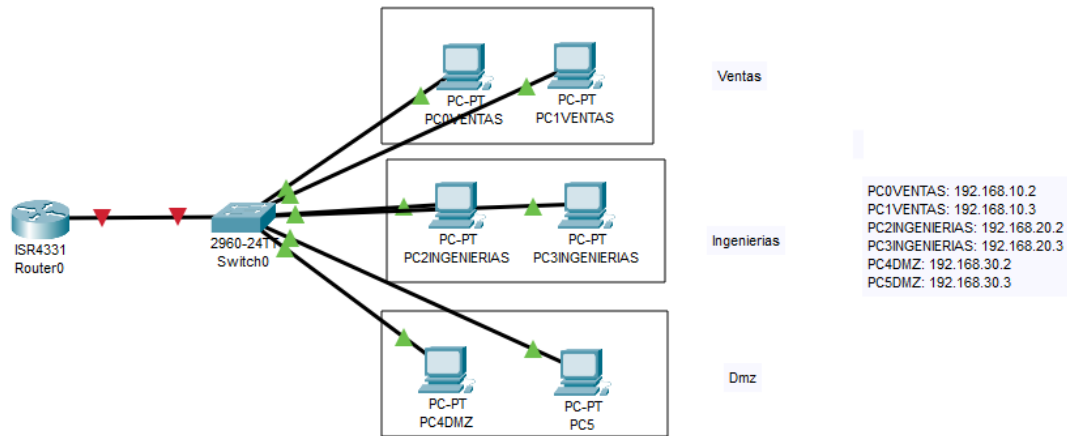
Link Local Address

FE80::2D0:BCFF:FE2C:6718

☐ Top







Volvemos al CLI del Switch

```
Switch>enable
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface f0/24
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk allowed vlan 10,20,30
Switch(config-if)#exit
```

Ahora vamos al CLI del Router

```
Router>enable
Router#config t
^
% Invalid input detected at '^' marker.

Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0/0.10
Router(config-subif)#encapsulation dot1q 10
Router(config-subif)#ip address 192.168.10.1 255.255.255.0
Router(config-subif)#exit
Router(config)#interface GigabitEthernet0/0/0.20
Router(config-subif)#encapsulation dot1q 20
Router(config-subif)#ip address 192.168.20.1 255.255.255.0
Router(config-subif)#exit
Router(config)#interface GigabitEthernet0/0/0.30
Router(config-subif)#encapsulation dot1q 30
Router(config-subif)#ip address 192.168.30.1 255.255.255.0
Router(config-subif)#exit
Router(config)#
```

```
Router(config-subif)#exit
Router(config)#interface Gi
Router(config)#interface GigabitEthernet0/0/0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0, changed state to up

%LINK-5-CHANGED: Interface GigabitEthernet0/0/0.10, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0.10, changed state to up

%LINK-5-CHANGED: Interface GigabitEthernet0/0/0.20, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0.20, changed state to up

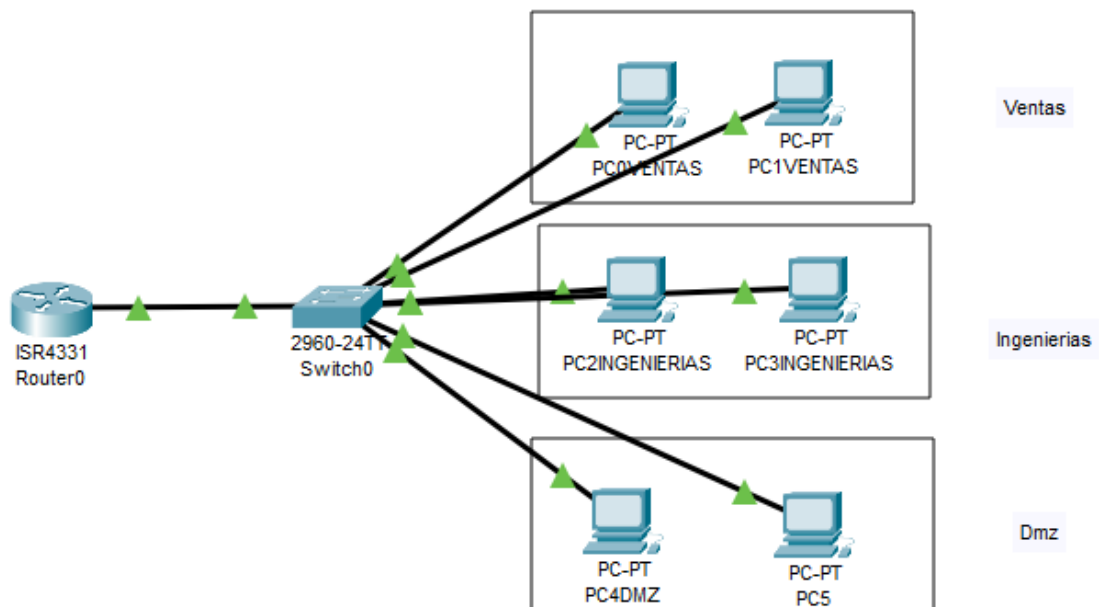
%LINK-5-CHANGED: Interface GigabitEthernet0/0/0.30, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0.30, changed state to up

Router(config-if)#
```

```
Router(config-if)#exit
Router(config)#end
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#write memory
Building configuration...
[OK]
Router#
```



Se colocan las direcciones Gateway a los computadores para completar la conexión.