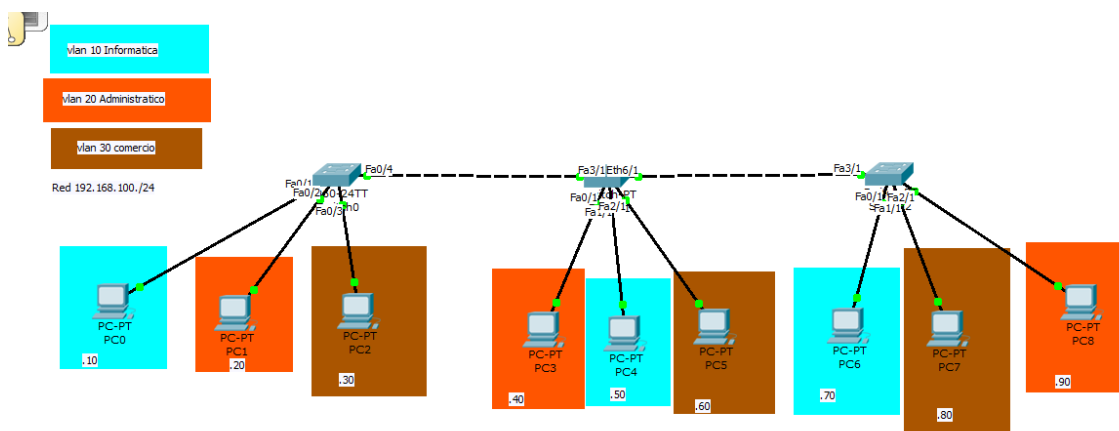


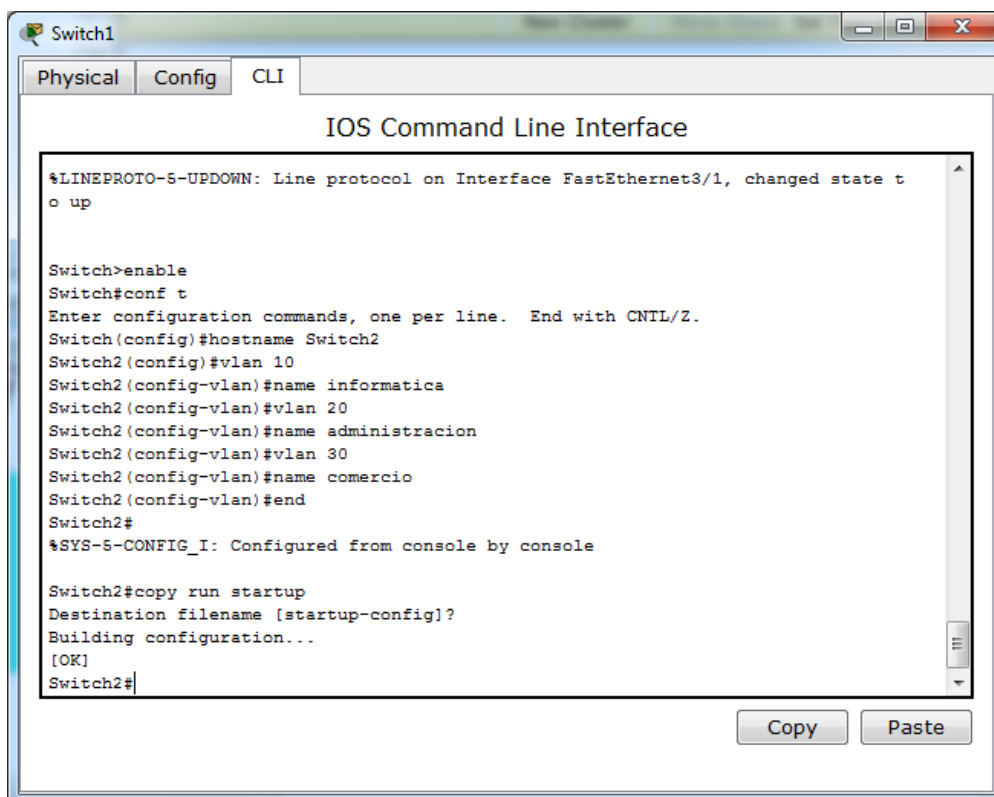
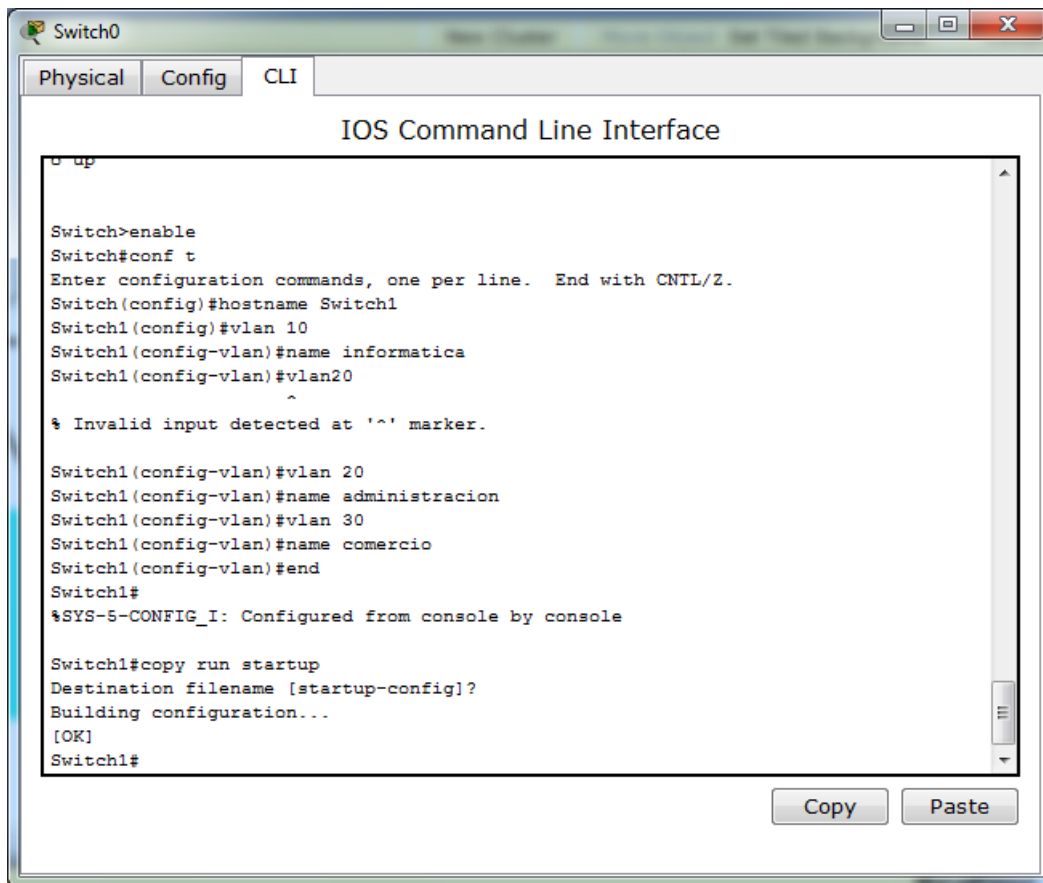
José Carlos Roncero Blanco

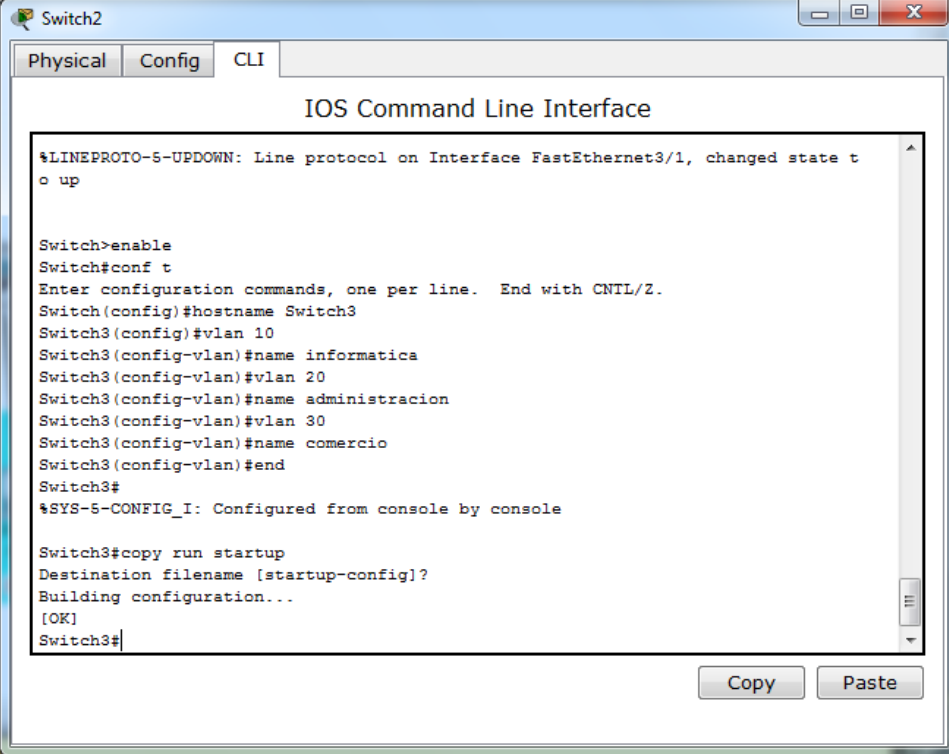
Ejercicio sobre los 3 Switch

En este supuesto práctico estaremos en una empresa donde contaremos con 3 switch para realizar una red local donde tendremos 3 departamentos y cada departamento tiene que verse con sus propios equipos de cada departamento. La red será la 192.168.100.0/24 y tendremos las ip distribuidas por los diferentes equipos



Lo primero que tendremos que realizar será crear las vlan y darle un nombre a la vlan. Vamos a empezar por el Switch uno (el de la izquierda) y continuaremos en orden.





The image shows a window titled "Switch2" with three tabs: "Physical", "Config", and "CLI". The "CLI" tab is active, displaying the "IOS Command Line Interface". The terminal output shows the following sequence of commands and responses:

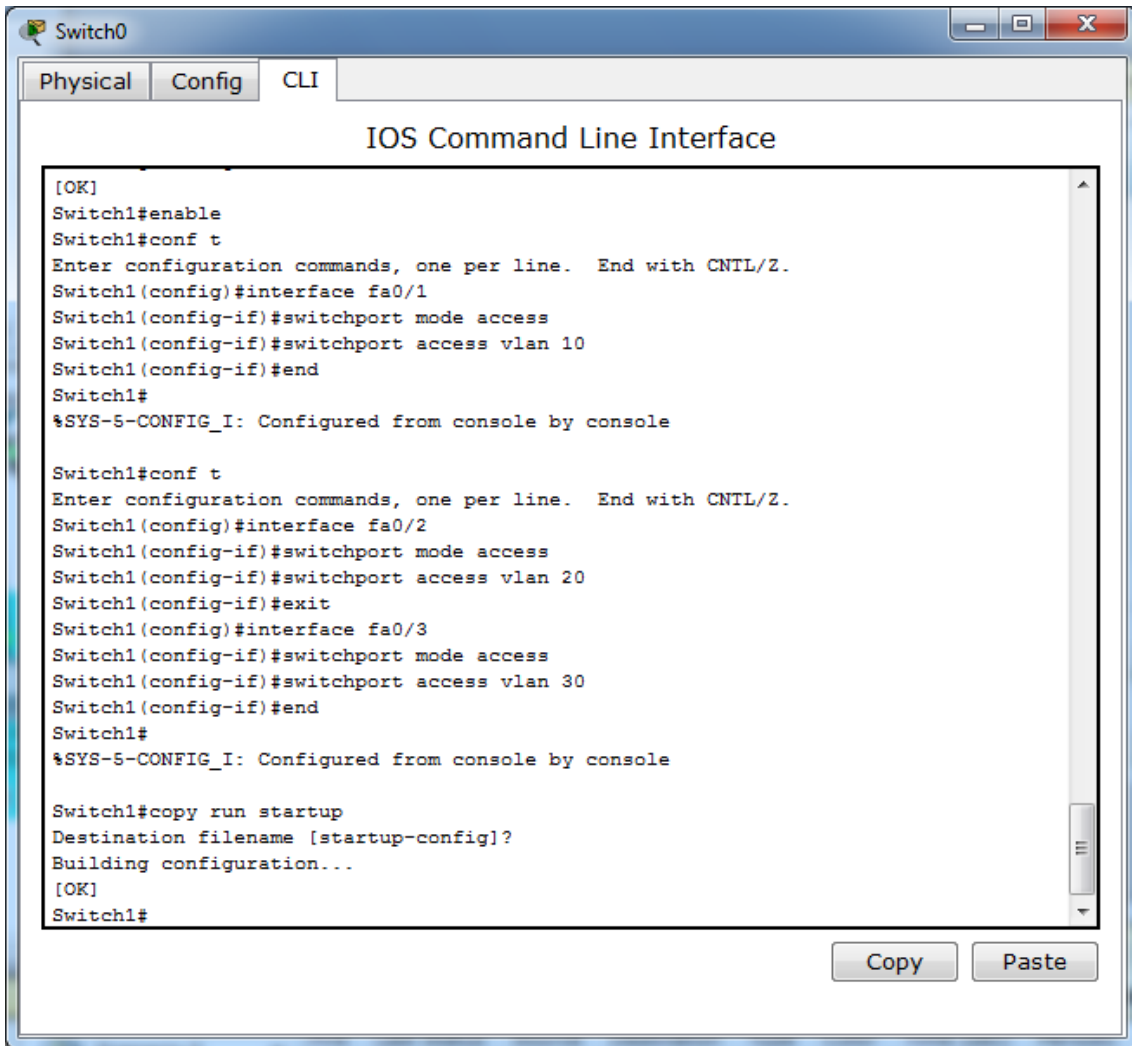
```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet3/1, changed state to up

Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch3(config)#hostname Switch3
Switch3(config)#vlan 10
Switch3(config-vlan)#name informatica
Switch3(config-vlan)#vlan 20
Switch3(config-vlan)#name administracion
Switch3(config-vlan)#vlan 30
Switch3(config-vlan)#name comercio
Switch3(config-vlan)#end
Switch3#
%SYS-5-CONFIG_I: Configured from console by console

Switch3#copy run startup
Destination filename [startup-config]?
Building configuration...
[OK]
Switch3#
```

At the bottom right of the window, there are two buttons: "Copy" and "Paste".

Ahora lo que realizaremos será asignar los puertos a cada vlan. Se quedaría así:



Switch1

Physical Config CLI

IOS Command Line Interface

```
Switch2#copy run startup
Destination filename [startup-config]?
Building configuration...
[OK]
Switch2#enable
Switch2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch2(config)#interface fa0/1
Switch2(config-if)#switchport mode access
Switch2(config-if)#switchport mode access vlan 20
^
% Invalid input detected at '^' marker.

Switch2(config-if)#switchport access vlan 20
Switch2(config-if)#exit
Switch2(config)#interface fa1/1
Switch2(config-if)#switchport mode access
Switch2(config-if)#switchport access vlan 10
Switch2(config-if)#exit
Switch2(config)#interface fa2/1
Switch2(config-if)#switchport mode access
Switch2(config-if)#switchport access vlan 30
Switch2(config-if)#end
Switch2#
%SYS-5-CONFIG_I: Configured from console by console

Switch2#copy run startup
Destination filename [startup-config]?
Building configuration...
[OK]
Switch2#
```

Copy

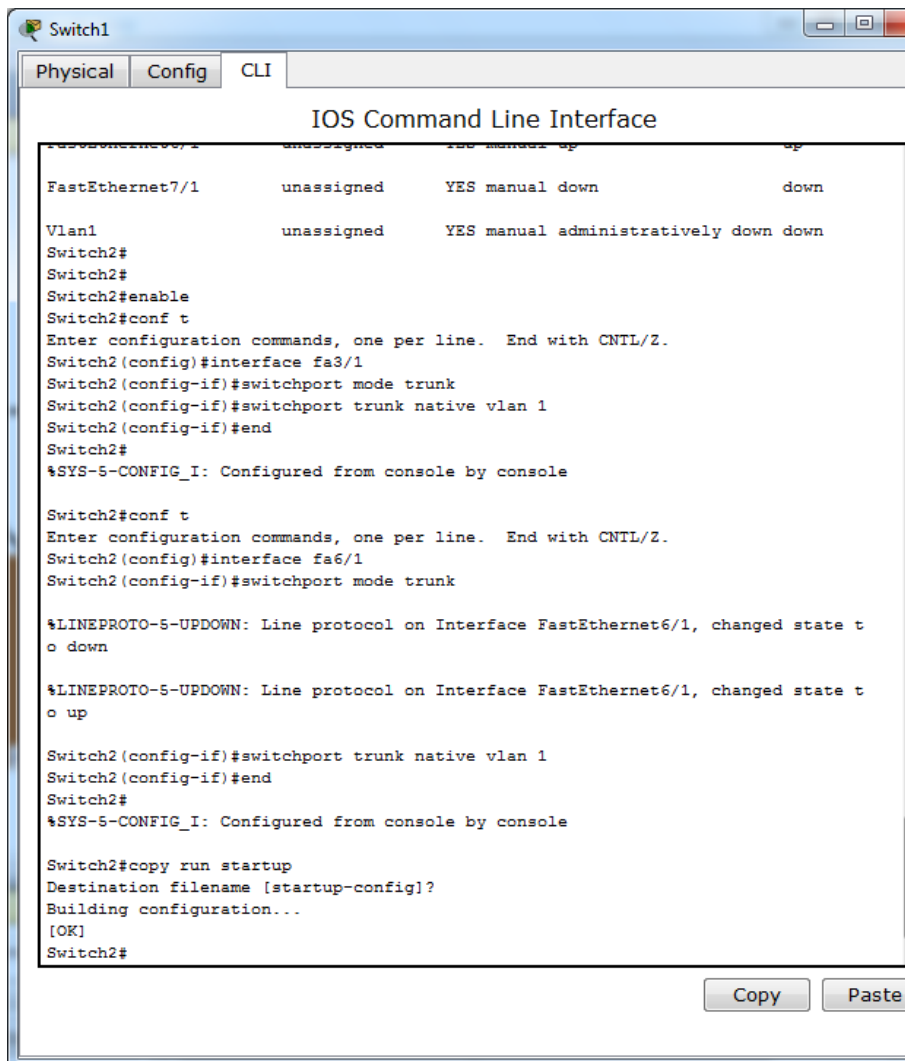
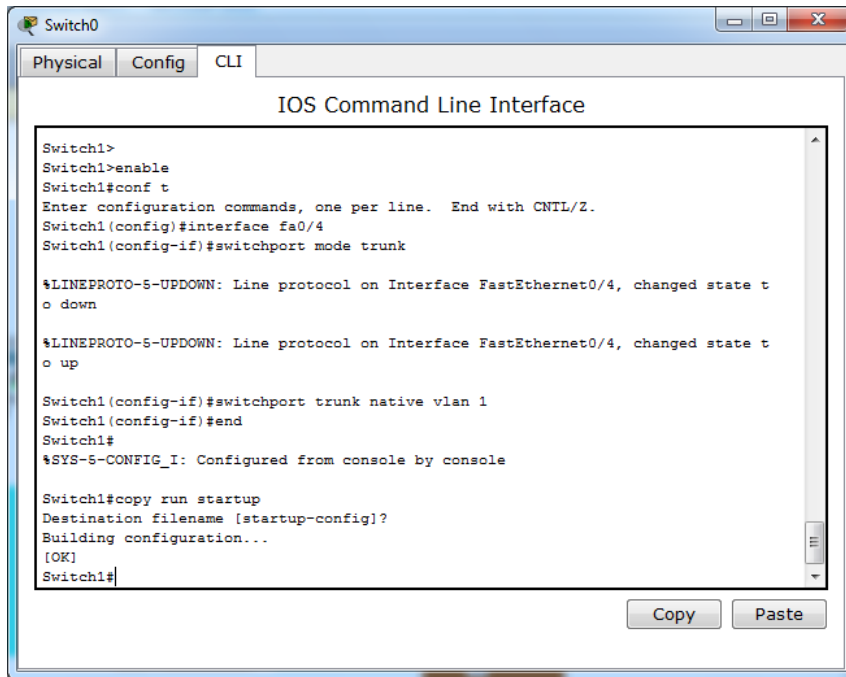
The screenshot shows a window titled "Switch2" with tabs for "Physical", "Config", and "CLI". The main area is titled "IOS Command Line Interface" and contains a terminal window with the following text:

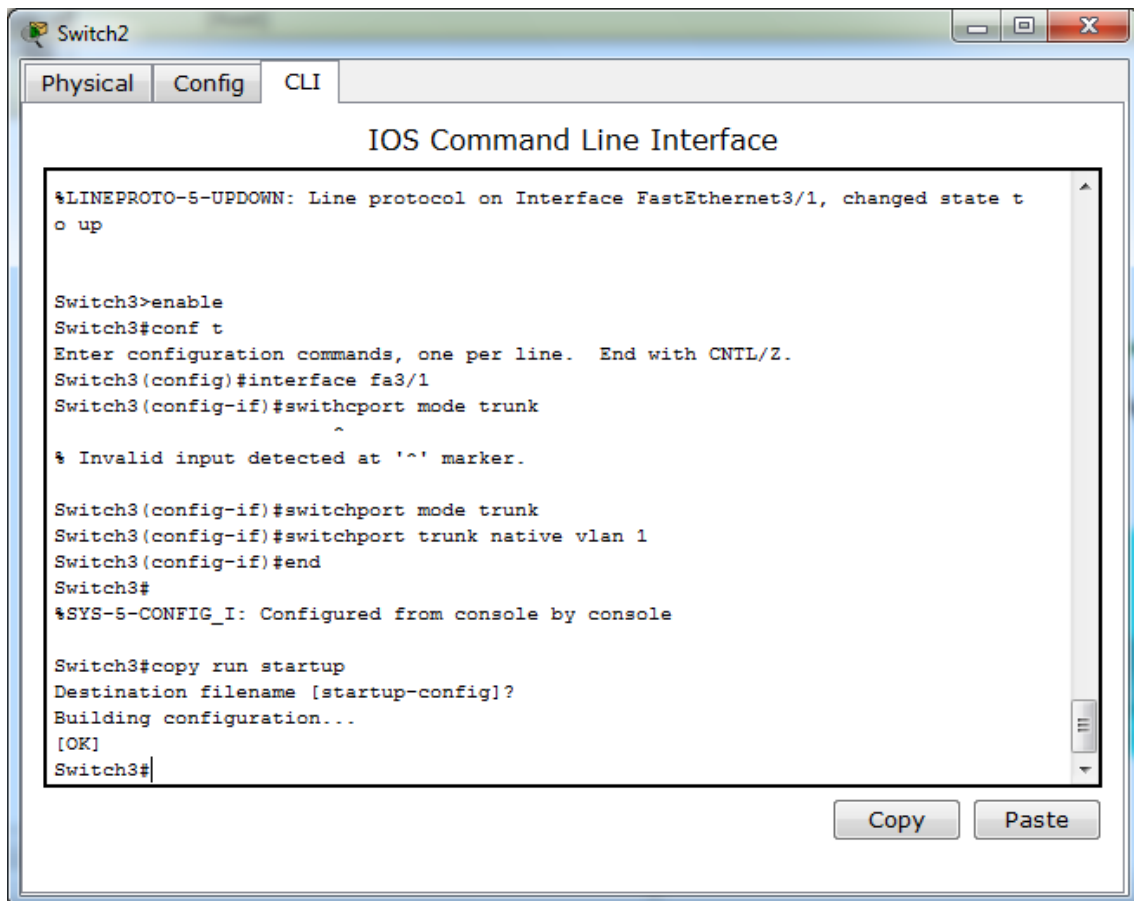
```
Primary Secondary Type          Ports
-----
Switch3#
Switch3#enable
Switch3#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch3(config)#interface fa0/1
Switch3(config-if)#switchport mode access
Switch3(config-if)#switchport access vlan 10
Switch3(config-if)#exit
Switch3(config)#interface fa1/1
Switch3(config-if)#switchport mode access
Switch3(config-if)#switchport access vlan 30
Switch3(config-if)#exit
Switch3(config)#interface fa2/1
Switch3(config-if)#switchport mode access
Switch3(config-if)#switchport access vlan 20
Switch3(config-if)#end
Switch3#
%SYS-5-CONFIG_I: Configured from console by console

Switch3#copy run startup
Destination filename [startup-config]? +
%Error copying nvram:+ (Invalid argument)
Switch3#copy run startup
Destination filename [startup-config]?
Building configuration...
[OK]
Switch3#
```

At the bottom right of the terminal window, there are "Copy" and "Paste" buttons.

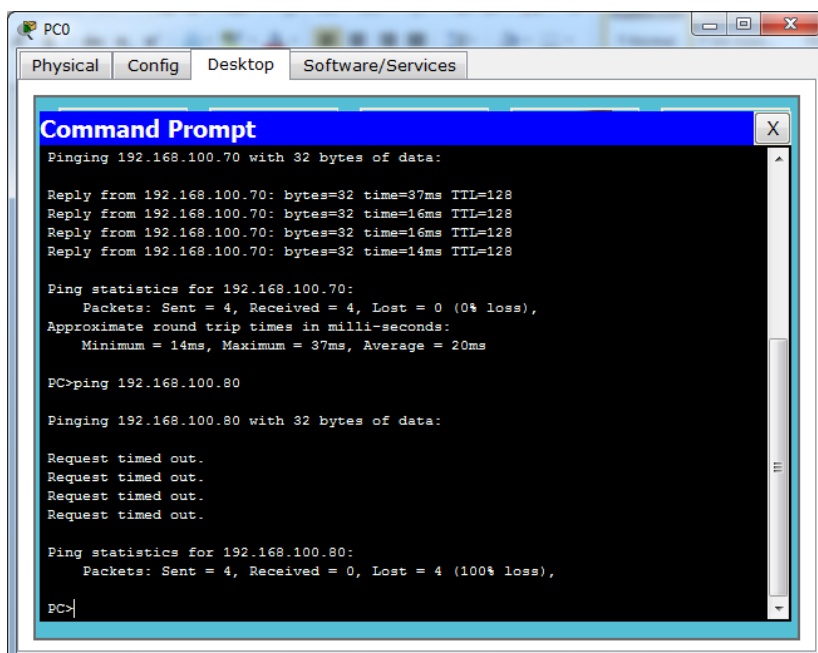
Ahora lo que vamos a realizar será el enlace troncal.



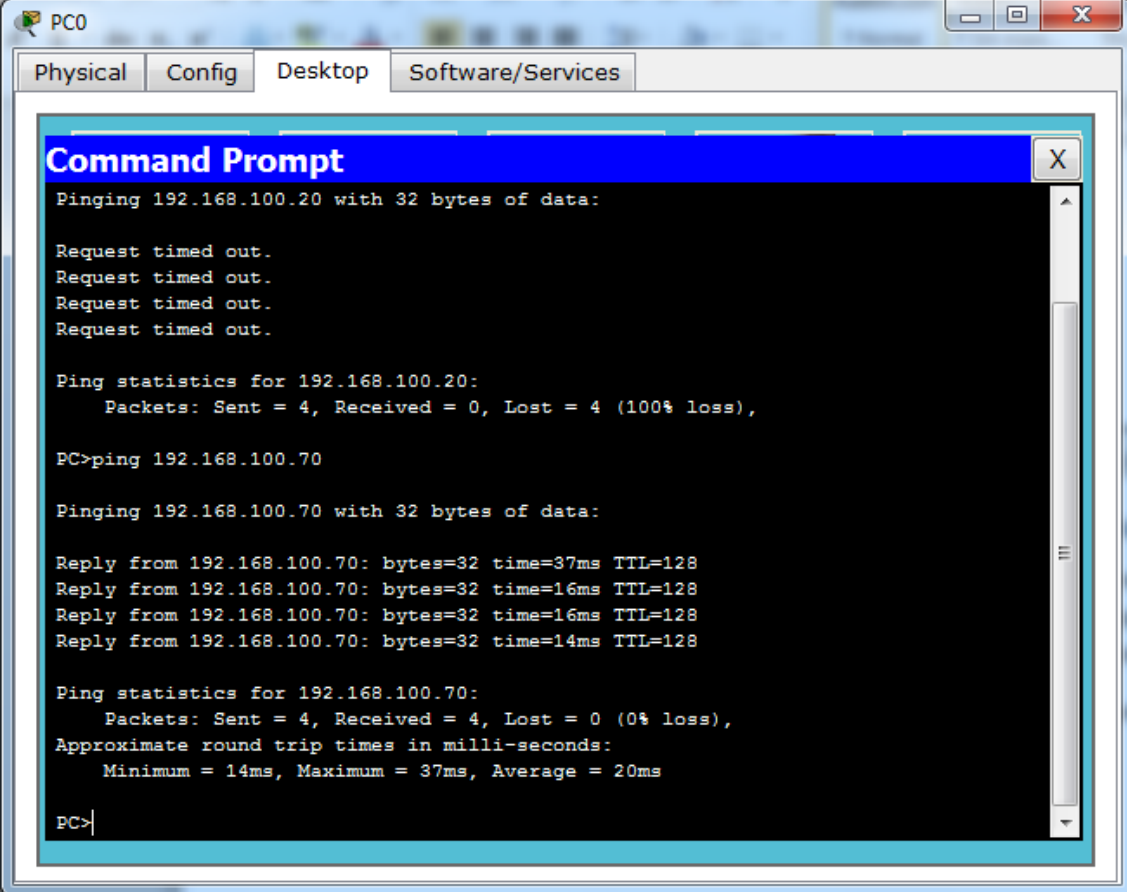


Ya tenemos los switch unidos mediante el modo troncal . Ahora simplemente realizaremos unos pings para ver si lo hemos realizado bien. Realizaremos ping a los que son de nuestro departamento para ver que llegan y aremos ping a otro departamento para ver que no llega

En la siguiente foto veremos un ping realizado de el equipo 1 a otro departamento de otro switch y no llegan los paquetes



En esta foto hemos realizado un ping desde el pc 1 al 7 y veremos que pasando por los diferentes switch podemos comunicarnos entre ellos.



The image shows a screenshot of a PC0 Command Prompt window. The window has a title bar with 'PC0' and standard minimize, maximize, and close buttons. Below the title bar are four tabs: 'Physical', 'Config', 'Desktop', and 'Software/Services'. The 'Command Prompt' window is open, displaying the following text:

```
Command Prompt
Pinging 192.168.100.20 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.100.20:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

PC>ping 192.168.100.70

Pinging 192.168.100.70 with 32 bytes of data:

Reply from 192.168.100.70: bytes=32 time=37ms TTL=128
Reply from 192.168.100.70: bytes=32 time=16ms TTL=128
Reply from 192.168.100.70: bytes=32 time=16ms TTL=128
Reply from 192.168.100.70: bytes=32 time=14ms TTL=128

Ping statistics for 192.168.100.70:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 14ms, Maximum = 37ms, Average = 20ms

PC>
```