

Evaluación – Prueba de habilidades prácticas CCNA

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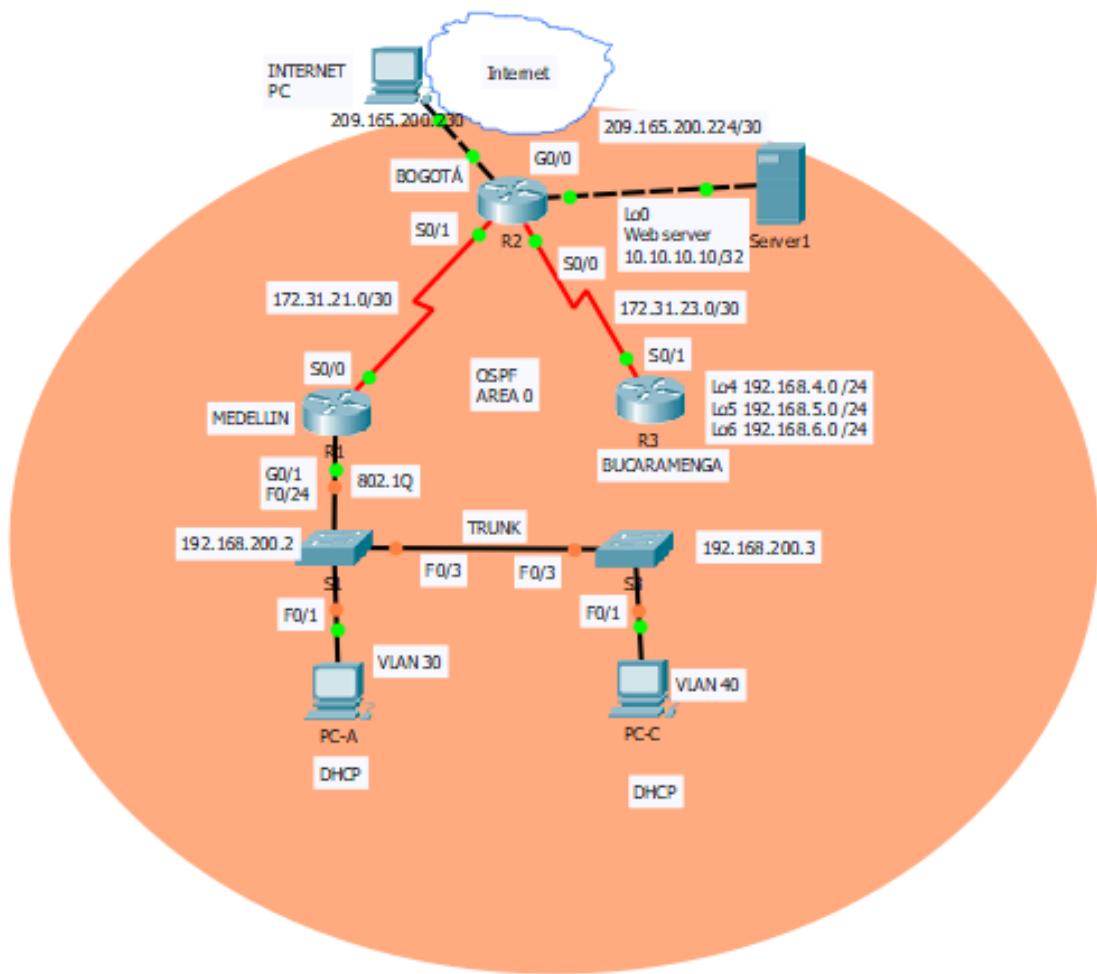
Introducción

En el presente trabajo de habilidades prácticas encontrara, una serie de imágenes que son las evidencias de la configuración de la topología propuesta por la guía, en ella encontrara la configuración de cada uno de los dispositivos que la componen, encontrara los dispositivos conectados con los diferentes medios Físicos Utilizados para el buen funcionamiento de conectividad, encontrara los pantallazos de los comandos utilizados para la configuración de los diferentes Switch y Router, las VLAN utilizadas, el protocolo OSPF configurado y las diferentes interfaces de los dispositivos debidamente Configurados.

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Topología



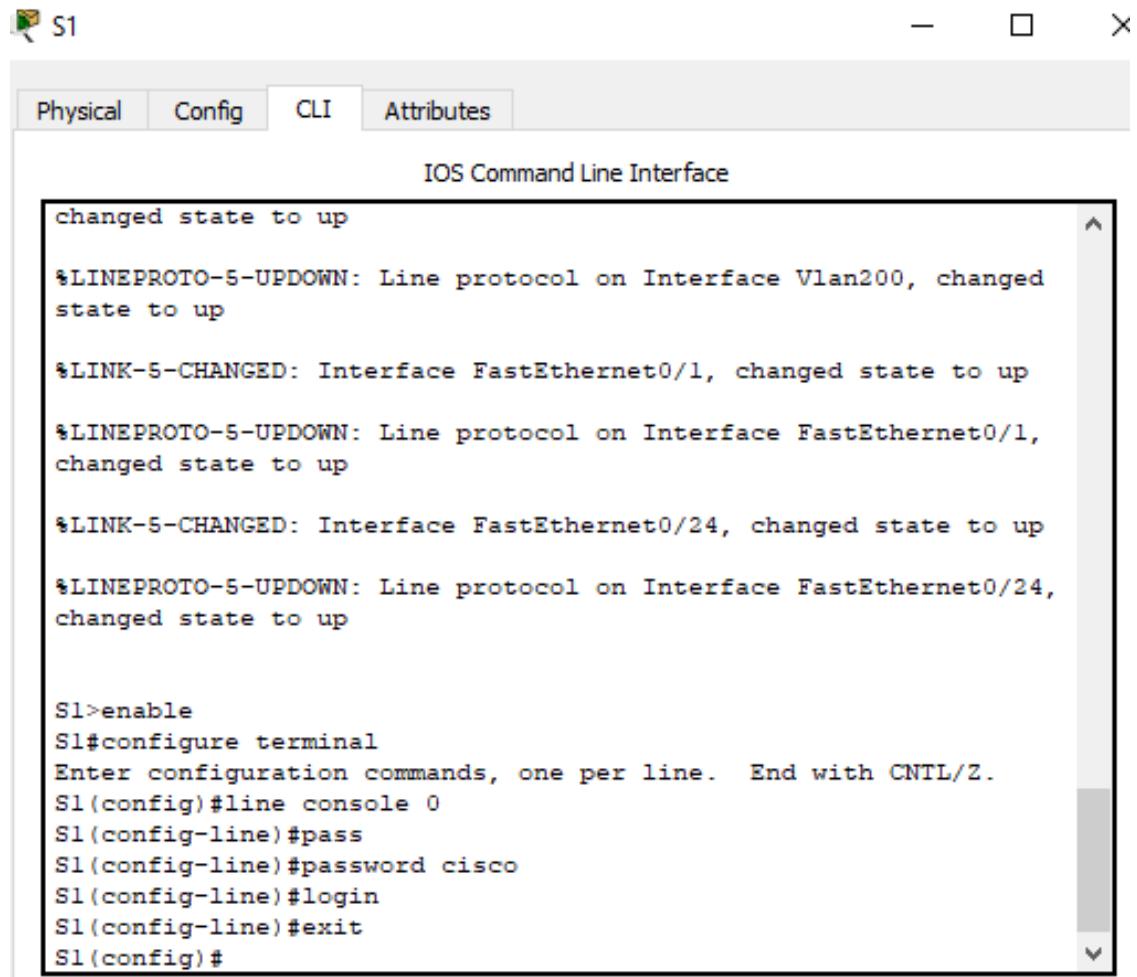
Evidencias

Configurar el direccionamiento IP acorde con la topología de red para cada uno de los dispositivos que forman parte del escenario

Seguridad en Dispositivos:

Password line console 0: cisco

Password enable: class



The screenshot shows a window titled "S1" with tabs for Physical, Config, CLI, and Attributes. The CLI tab is selected, displaying the IOS Command Line Interface. The interface shows the following configuration commands:

```
IOS Command Line Interface
changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan200, changed
state to up

%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 FastEthernet0/24, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24,
changed state to up

S1>enable
S1#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
S1(config)#line console 0
S1(config-line)#pass
S1(config-line)#password cisco
S1(config-line)#login
S1(config-line)#exit
S1(config)#

```



S3

Physical Config CLI Attributes

IOS Command Line Interface

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

S3>enable
S3#conf
S3#configure t
Enter configuration commands, one per line. End with CNTL/Z.
S3(config)#line console 0
S3(config-line)#pass
S3(config-line)#password cisco
S3(config-line)#login
S3(config-line)#enable pass
S3(config-line)#enable password class
S3(config)#enable secret itsasecret
S3(config)#service password-encryption
S3(config)#banner motd $se Prohibe el ingreso No Autorizado$#
S3(config)#exit
S3#
%SYS-5-CONFIG_I: Configured from console by console
}
Translating "}...domain server (255.255.255.255)
% Unknown command or computer name, or unable to find computer
```

Configuración pc de internet:



209.165.200.230

Physical Config Desktop Programming Attributes

IP Configuration

<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	209.165.200.230
Subnet Mask	255.255.255.248
Default Gateway	209.165.200.225
DNS Server	0.0.0.0

IPv6 Configuration

<input type="radio"/> DHCP	<input type="radio"/> Auto Config	<input checked="" type="radio"/> Static
IPv6 Address	/	
Link Local Address	FE80::290:21FF:FECC:3404	
IPv6 Gateway		
IPv6 DNS Server		

Configuración de R1:

R1

Physical Config CLI Attributes

IOS Command Line Interface

```
Router>enable
Router#configure t
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#no ip doma
Router(config)#no ip domain-l
Router(config)#no ip domain-lookup
Router(config)#hostname R1
R1(config)#inteface s0/0/0
^
% Invalid input detected at '^' marker.

R1(config)#interface s0/0/0
R1(config-if)#ip address
R1(config-if)#ip address 172.31.21.1 255.255.255.252
R1(config-if)#clock ra
R1(config-if)#clock rate 128000
This command applies only to DCE interfaces
R1(config-if)#no shut
R1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
R1(config-if)#

```

R1

Physical Config CLI Attributes

IOS Command Line Interface

```
R1(config-router)#network 172.16.21.0 0.0.0.3 area 0
R1(config-router)#network 192.168.30.0 0.0.0.255 area 0
R1(config-router)#network 192.168.40.0 0.0.0.255 area 0
R1(config-router)#network 192.168.200.0 0.0.0.255 area 0
R1(config-router)#pass
R1(config-router)#passive-interface g0/1 30
^
% Invalid input detected at '^' marker.

R1(config-router)#passive-interface g0/1 30
^
% Invalid input detected at '^' marker.

R1(config-router)#passive-interface g0/1.30
R1(config-router)#passive-interface g0/1.40
R1(config-router)#passive-interface g0/1.200
R1(config-router)#exit
R1(config)#interface s
R1(config)#interface serial 0/0/0
R1(config-if)#ban
R1(config-if)#bandwidth 128
R1(config-if)#ip osp
R1(config-if)#ip ospf co
R1(config-if)#ip ospf cost 7500
R1(config-if)#

```

R1

Physical Config CLI Attributes

IOS Command Line Interface

```
R1>enable
R1#shw
R1#sh
R1#show ip osp
R1#show ip ospf ne
R1#show ip ospf neighbor

Neighbor ID      Pri   State          Dead Time    Address
Interface
2.2.2.2          0     FULL/ -        00:00:32     172.31.21.2
Serial0/0/0
R1#
```

R1

Physical Config CLI Attributes

IOS Command Line Interface

```
R1(dhcp-config)#domain-name ccna-unad.com
^
* Invalid input detected at '^' marker.

R1(dhcp-config)#de
R1(dhcp-config)#default-router 192.168.30.1
R1(dhcp-config)#net
R1(dhcp-config)#network 192.168.30.0 255.255.255.0
R1(dhcp-config)#ip dhcp pool MERCADERO
R1(dhcp-config)#dns-server 10.10.10.11
R1(dhcp-config)#default-router 192.168.40.1
R1(dhcp-config)#network 192.168.40.0 255.255.255.0
R1(dhcp-config)#exit
R1(config)#exit
R1#copy run
R1#copy running-config st
R1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R1#
*SYS-5-CONFIG_I: Configured from console by console
*SYS-5-CONFIG_I: Configured from console by console
```

Configuración R2:

R2

Physical Config CLI Attributes

IOS Command Line Interface

```
Router(config)#hostname R2
R2(config)#no ip doma
R2(config)#no ip domain-1o
R2(config)#no ip domain-lookup
R2(config)#interface s0/0/1
R2(config-if)#ip add
R2(config-if)#ip address 172.31.21.2 255.255.255.252
R2(config-if)#no shu
R2(config-if)#no shutdown

R2(config-if)#
%LINK-5-CHANGED: Interface Serial0/0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1,
changed state to up

R2(config-if)#interface s0/0/0
R2(config-if)#ip add
R2(config-if)#ip address 172.31.23.1 252.255.255.252
Bad mask 0xFCFFFFFF for address 172.31.23.1
R2(config-if)#clock
R2(config-if)#clock ra
R2(config-if)#clock rate 128000
R2(config-if)#no shut
R2(config-if)#no shutdown
```

R2

Physical Config CLI Attributes

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1,
changed state to up

R2(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1,
changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1,
changed state to up

R2(config-if)#interface g0/1
R2(config-if)#ip add
R2(config-if)#ip address 10.10.10.1 255.255.255.0
R2(config-if)#no s
R2(config-if)#no shut
R2(config-if)#no shutdown

R2(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to
up

%LINEPROTO-5-UPDOWN: Line protocol on Interface
GigabitEthernet0/1, changed state to up

R2(config-if)#

```

R2

Physical Config CLI Attributes

IOS Command Line Interface

```
R2(config)#rou
R2(config)#router isp
R2(config)#router os
R2(config)#router ospf 1
R2(config-router)#rou
R2(config-router)#router-id 2.2.2.2
R2(config-router)#net
R2(config-router)#network 172.31.21.0 0.0.0.3 area 0
R2(config-router)#network 172.31.23.0 0.0.0.3 area 0
R2(config-router)#network 10.10.10.0 0.0.0.255 area 0
R2(config-router)#pas
R2(config-router)#passive-interface g0/1
R2(config-router)#interface s
R2(config-router)#interface serial 0/0/0
R2(config-if)#ban
R2(config-if)#bandwidth 128
R2(config-if)#interface serial 0/0/1
R2(config-if)#ban
R2(config-if)#bandwidth 128
R2(config-if)#inter
R2(config-if)#interface serial 0/0/0
R2(config-if)#ip ospf cost 7500
R2(config-if)#exit
R2(config)#exit
R2#
```

R2

Physical Config CLI Attributes

IOS Command Line Interface

```
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0,
changed state to down

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0,
changed state to up

R2>enable
R2#con
R2#show
R2#show ip os
R2#show ip ospf ne
R2#show ip ospf neighbor

Neighbor ID      Pri   State          Dead Time    Address
Interface
1.1.1.1          0     FULL/ -        00:00:32     172.31.21.1
Serial0/0/1
R2#
```

R2

Physical Config CLI Attributes

IOS Command Line Interface

```
Serial0/0/1 is up, line protocol is up
  Internet address is 172.31.21.2/30, Area 0
  Process ID 1, Router ID 2.2.2.2, Network Type POINT-TO-POINT,
Cost: 781
  Transmit Delay is 1 sec, State POINT-TO-POINT, Priority 0
  No designated router on this network
  No backup designated router on this network
  Timer intervals configured, Hello 10, Dead 40, Wait 40,
Retransmit 5
    Hello due in 00:00:01
    Index 1/1, flood queue length 0
    Next 0x0(0)/0x0(0)
    Last flood scan length is 1, maximum is 1
    Last flood scan time is 0 msec, maximum is 0 msec
    Neighbor Count is 1 , Adjacent neighbor count is 1
      Adjacent with neighbor 1.1.1.1
      Suppress hello for 0 neighbor(s)
GigabitEthernet0/1 is up, line protocol is up
  Internet address is 10.10.10.1/24, Area 0
  Process ID 1, Router ID 2.2.2.2, Network Type BROADCAST, Cost:
1
  Transmit Delay is 1 sec, State WAITING, Priority 1
  No designated router on this network
  No backup designated router on this network
--More--
```

R2

Physical Config CLI Attributes

IOS Command Line Interface

```
Serial0/0/1
R2#sh
R2#show ip
R2#show ip pr
R2#show ip protocols

Routing Protocol is "ospf 1"
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Router ID 2.2.2.2
  Number of areas in this router is 1. 1 normal 0 stub 0 nssa
  Maximum path: 4
  Routing for Networks:
    172.31.21.0 0.0.0.3 area 0
    172.31.23.0 0.0.0.3 area 0
    10.10.10.0 0.0.0.255 area 0
  Passive Interface(s):
    GigabitEthernet0/1
  Routing Information Sources:
    Gateway          Distance      Last Update
    1.1.1.1           110          00:06:14
    2.2.2.2           110          00:11:01
  Distance: (default is 110)

R2#
```

R2

Physical Config CLI Attributes

IOS Command Line Interface

```
Routing for Networks:  
  172.31.21.0 0.0.0.3 area 0  
  172.31.23.0 0.0.0.3 area 0  
  10.10.10.0 0.0.0.255 area 0  
Passive Interface(s):  
  GigabitEthernet0/1  
Routing Information Sources:  
  Gateway          Distance      Last Update  
  1.1.1.1           110          00:06:14  
  2.2.2.2           110          00:11:01  
  Distance: (default is 110)  
  
R2#show  
R2#show ip  
R2#show ip rpo  
R2#show ip ro  
R2#show ip route ospf  
O  192.168.30.0 [110/782] via 172.31.21.1, 00:08:42,  
Serial0/0/1  
O  192.168.40.0 [110/782] via 172.31.21.1, 00:08:42,  
Serial0/0/1  
O  192.168.200.0 [110/782] via 172.31.21.1, 00:08:42,  
Serial0/0/1  
  
R2#
```

R2

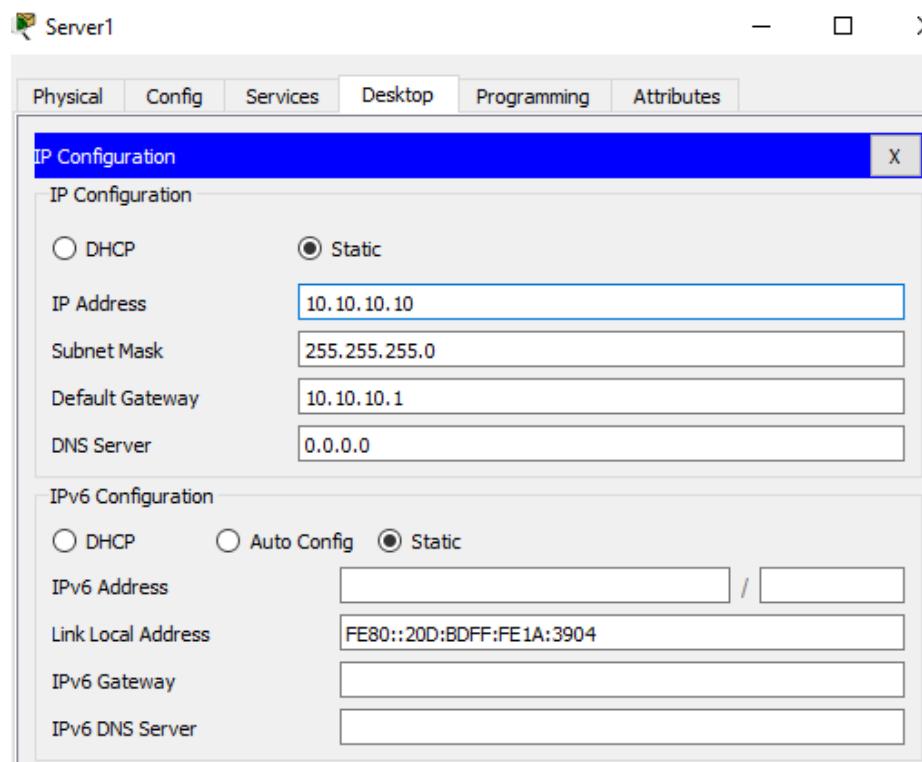
Physical Config CLI Attributes

IOS Command Line Interface

```
changed state to up  
  
00:09:57: %OSPF-5-ADJCHG: Process 1, Nbr 1.1.1.1 on Serial0/0/1  
from LOADING to FULL, Loading Done  
  
R2#con  
R2#conf  
R2#configure t  
Enter configuration commands, one per line. End with CNTL/Z.  
R2(config)#ip na  
R2(config)#ip nat inside so  
R2(config)#ip nat inside source static 10.10.10.10  
209.165.200.229  
R2(config)#interface g0/0  
R2(config-if)#ip nat ousite  
^  
* Invalid input detected at '^' marker.  
  
R2(config-if)#ip nat out  
R2(config-if)#ip nat outside  
R2(config-if)#inter  
R2(config-if)#interface g0/1  
R2(config-if)#ip nat in  
R2(config-if)#ip nat inside  
R2(config-if)#

```

Web Server



Configuración R3

```

Router#configure
Router#configure t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname R3
R3(config)#ip doma
R3(config)#ip domain l
R3(config)#ip domain lookup
R3(config)#interface seri
R3(config)#interface serial s0/0/1
^
% Invalid input detected at '^' marker.

R3(config)#interface serial 0/0/1
R3(config-if)#ip add
R3(config-if)#ip address 172.31.23.2 255.255.255.252
R3(config-if)#no shut
R3(config-if)#no shutdown

R3(config-if)#
%LINK-5-CHANGED: Interface Serial0/0/1, changed state to up

R3(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1,
changed state to up

```

R3

Physical Config CLI Attributes

IOS Command Line Interface

```
R3(config-if)#
%LINK-5-CHANGED: Interface Loopback5, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback5,
changed state to up

R3(config-if)#ip add
R3(config-if)#ip address 192.168.5.0 255.255.255.0
Bad mask /24 for address 192.168.5.0
R3(config-if)#no chu
R3(config-if)#no shu
R3(config-if)#no shutdown
R3(config-if)#int lo6

R3(config-if)#
%LINK-5-CHANGED: Interface Loopback6, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback6,
changed state to up

R3(config-if)#ip address 192.168.6.0 255.255.255.0
Bad mask /24 for address 192.168.6.0
R3(config-if)#no shu
R3(config-if)#no shutdown
R3(config-if)#

```

R3

Physical Config CLI Attributes

IOS Command Line Interface

```
*LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1,
changed state to up

R3>enab
R3>enable
R3#conf
R3#configure t
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#router ospf 1
R3(config-router)#rou
R3(config-router)#router-id 3.3.3.3
R3(config-router)#net
R3(config-router)#network 172.31.23.0 0.0.0.3 area 0
R3(config-router)#network 192.168.4.0 0.0.3.255 area 0
R3(config-router)#pas
R3(config-router)#passive-interface lo4
R3(config-router)#passive-interface lo5
R3(config-router)#passive-interface lo6
R3(config-router)#interface serial 0/0/1
R3(config-if)#ban
R3(config-if)#bandwidth 128
R3(config-if)#

```

Configuración S1

S1

Physical Config CLI Attributes

IOS Command Line Interface

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname S1
S1(config)#ip doma
S1(config)#ip domain-l
S1(config)#ip domain-lookup
S1(config)#exit
S1#copy runn
S1#copy running-config st
S1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
S1#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
S1(config)#vlan 30
S1(config-vlan)#name Administracion
S1(config-vlan)#vlan 40
S1(config-vlan)#name Mercadeo
S1(config-vlan)#vlan 200
S1(config-vlan)#name Mantenimiento
S1(config-vlan)#

```

S1

Physical Config CLI Attributes

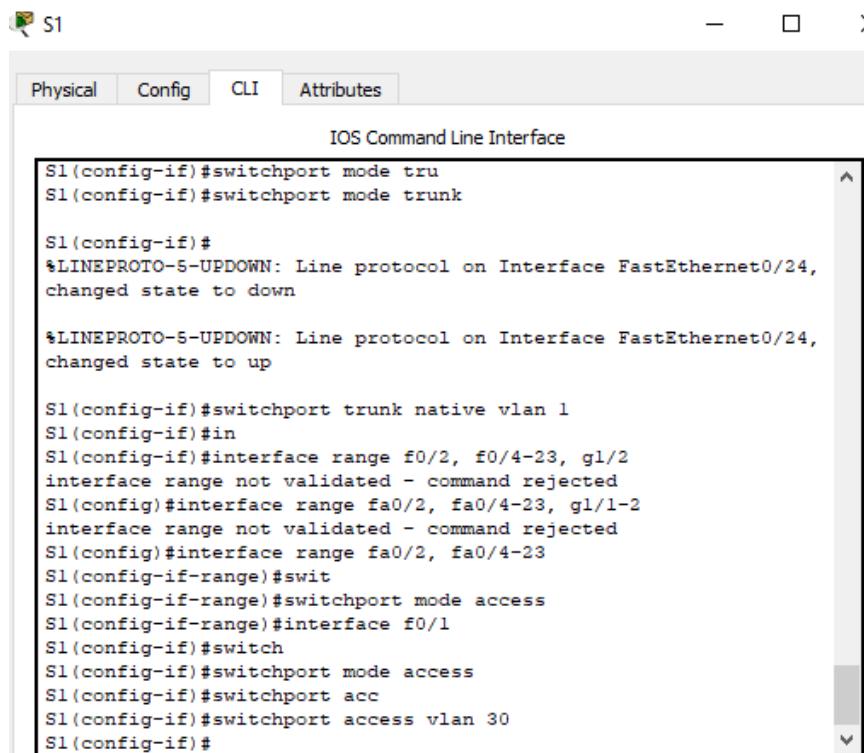
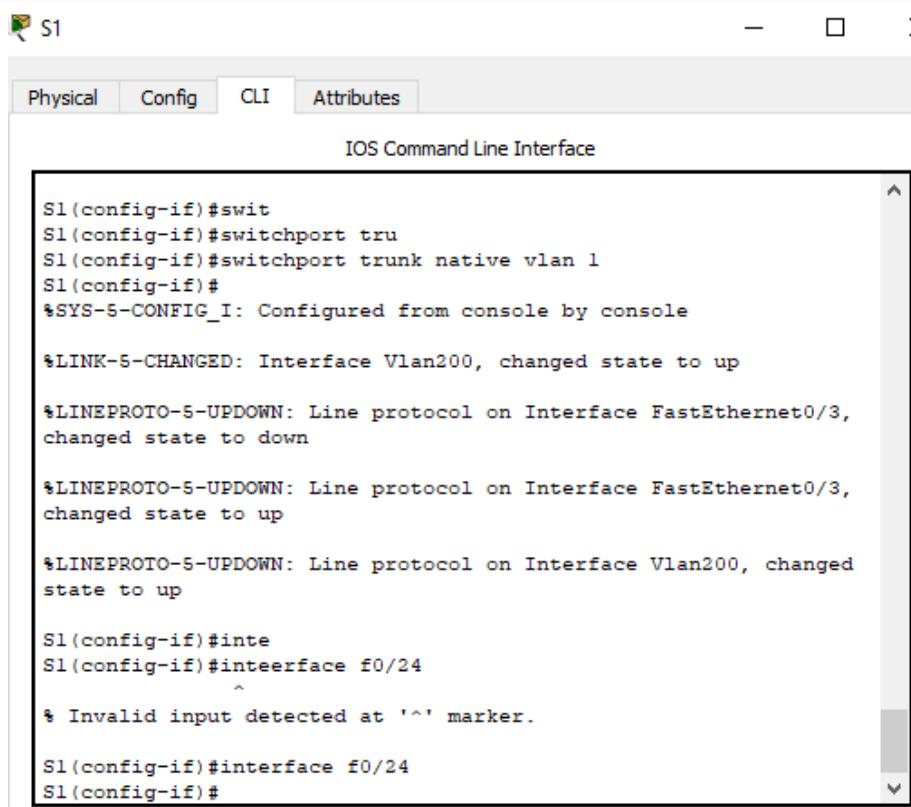
IOS Command Line Interface

```
S1(config-vlan)#name Administracion
S1(config-vlan)#vlan 40
S1(config-vlan)#name Mercadeo
S1(config-vlan)#vlan 200
S1(config-vlan)#name Mantenimiento
S1(config-vlan)#exit
S1(config)#int
S1(config)#interface vlan 200
S1(config-if)#ip addr
S1(config-if)#ip address 192.168.200.2 255.255.255.0
S1(config-if)#no su
S1(config-if)#no shu
S1(config-if)#no shutdown
S1(config-if)#ip def
S1(config-if)#ip default
S1(config-if)#exit
S1(config)#ip defa
S1(config)#ip default-gateway 192.168.200.1
S1(config)#in
S1(config)#interface f0/3
S1(config-if)#swit
S1(config-if)#switchport mode trun
S1(config-if)#switchport mode trunk

S1(config-if)#swit
```

Ctrl+F6 to exit CLI focus

Copy Paste



S1

Physical Config CLI Attributes

IOS Command Line Interface

```
S1(config-if)#interface range fa0/2, fa0/4-23
S1(config-if-range)#shu
S1(config-if-range)#shutdown

%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to
administratively down

%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to
administratively down

%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to
administratively down

%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to
administratively down

%LINK-5-CHANGED: Interface FastEthernet0/7, changed state to
administratively down

%LINK-5-CHANGED: Interface FastEthernet0/8, changed state to
administratively down

%LINK-5-CHANGED: Interface FastEthernet0/9, changed state to
administratively down
```

Configuración S3

S3

Physical Config CLI Attributes

IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/18, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/18,
changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/18, changed state to
down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/18,
changed state to down

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

Switch>enable
Switch#confi
Switch#configure t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#host S3
S3(config)#ip domain loo
S3(config)#ip domain lookup
S3(config)#

```

S3

Physical Config CLI Attributes

IOS Command Line Interface

```
S3(config)#dns
S3(config)#ip domain
S3(config)#ip domain-lo
S3(config)#ip domain-lookup
S3(config)#vlan 30
S3(config-vlan)#name Administracion
S3(config-vlan)#vlan 40
S3(config-vlan)#name Mercadeo
S3(config-vlan)#Vlan 200
S3(config-vlan)#name Mantenimiento
S3(config-vlan)#exit
S3(config)#inter
S3(config)#interface vlan 99
S3(config-if)#ip add
S3(config-if)#no vlan 99
S3(config)#inte
S3(config)#interface vlan 200
S3(config-if)#ip addre
S3(config-if)#ip address 192.168.200.3 255.255.255.0
S3(config-if)#no shu
S3(config-if)#no shutdown
S3(config-if)#exit
S3(config)#ip def
S3(config)#ip default-gateway 192.168.200.1
S3(config)#
S3
```

S3

Physical Config CLI Attributes

IOS Command Line Interface

```
S3(config-if)#switchport mode access
S3(config-if)#switchport access vlan 40
S3(config-if)#interface range f0/1-2, f0/4-Z
S3#
*SYS-5-CONFIG_I: Configured from console by console
configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
S3(config)#interface range f0/2, f0/4-24
S3(config-if-range)#sh
S3(config-if-range)#shutdown

*LINK-5-CHANGED: Interface FastEthernet0/2, changed state to
administratively down

*LINK-5-CHANGED: Interface FastEthernet0/4, changed state to
administratively down

*LINK-5-CHANGED: Interface FastEthernet0/5, changed state to
administratively down

*LINK-5-CHANGED: Interface FastEthernet0/6, changed state to
administratively down

*LINK-5-CHANGED: Interface FastEthernet0/7, changed state to
administratively down
S3
```

Conclusiones

El Presente Trabajo de habilidades prácticas me permitió poner en práctica las temáticas aprendidas Durante el transcurso del presente Diplomado de Cisco CCNA 1 y CCNA 2, para la cual Utilice el Programa de Simulación Packet Tracer, en este programa pude realizar el montaje de la Topología Propuesta en la Guía, para posteriormente realizar la configuración de Cada uno de los Dispositivos que la Componen, y por Ultimo realizar la pruebas de Funcionalidad.

Espero que este trabajo de habilidades practicas Cumpla con los Requerimientos Exigidos Por el Tutor.

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