

Instituto Tecnológico de Salina Cruz

Fundamentos de Redes

Semestre Enero – Julio 2015

Reporte de Practica

Practica nº 2

Unidad 3

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**Fecha:** 11 de mayo del 2015

**Objetivo:**

Conocer los comandos básicos de un router Cisco.

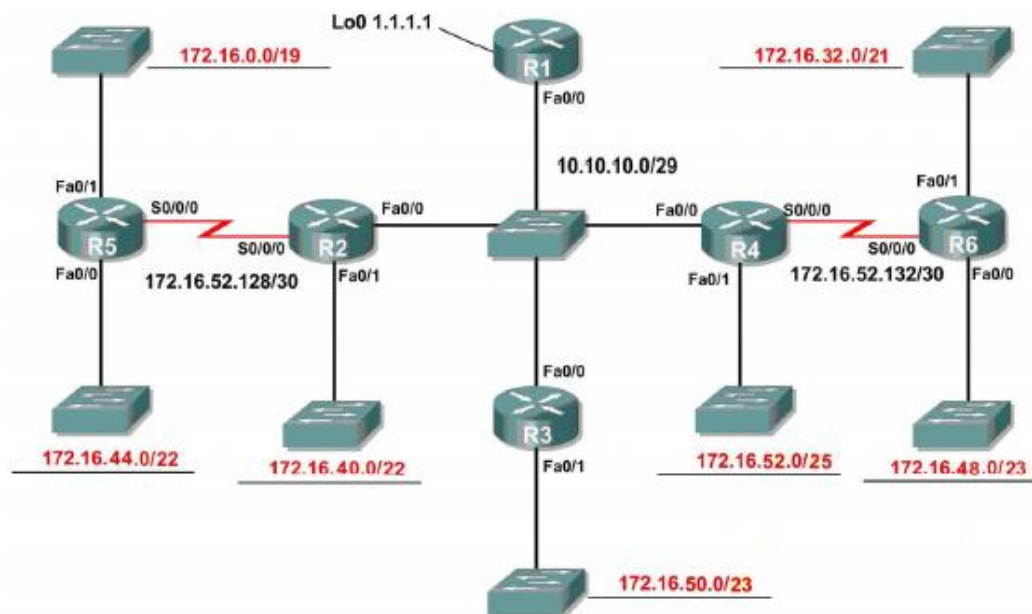
**Instrucciones:**

En la siguiente práctica se conocerá los comandos básicos de un router Cisco, empleando el simulador Packet Tracer, ya que ésta es una herramienta que permite el diseño, la construcción y la configuración directa de diversos dispositivos de una red. Aquí se levantarán los seriales y los puertos fastethernet de cada uno de los Routers para lograr una comunicación entre ellos.

**Materiales:**

Programa de simulacion Packet Tracer

Diagrama de topología



Dispositivo	Interfaz	Dirección IP	Mascara de subred	Gateway
SONY	Fa0/0	10.10.10.1	255.0.0.0	No aplicable
LG	Fa0/0	10.10.10.2	255.0.0.0	No aplicable
	fa1/0	172.16.40.1	255.255.0.0	
	Sa2/0	192.16.52.128	255.255.0.0	
MOTOROLA	Fa0/0	10.10.10.10.3	255.0.0.0	No aplicable
	Fa1/0	172.16.50.1	255.255.0.0	
IBAÑEZ	Fa0/0	10.10.10.4	255.0.0.0	No aplicable
	Fa1/0	172.16.52.1	255.255.0.0	
	S2/0	192.16.52.1	255.255.0.0	
pumas	Fa0/0	172.16.44.1	255.255.0.0	No aplicable
	Fa1/0	192.16.0.1	255.255.0.0	
	S2/0	172.168.52.129	255.255.0.0	
corazon	Fa0/0	172.16.48.1	255.255.0.0	No aplicable
	Fa1/0	192.16.32.1	255.255.0.0	
	S0/0	192.16.52.2	255.255.0.0	
PC1	No aplicable	172.16.0.10	255.255.0.0	172.16.0.1
PC2	No aplicable	172.16.0.11	255.255.0.0	172.16.0.1
PC3	No aplicable	172.16.44.10	255.255.0.0	172.16.44.1
PC4	No aplicable	172.16.44.11	255.255.0.0	172.16.44.1
PC5	No aplicable	172.16.40.10	255.255.0.0	172.16.40.1
PC6	No aplicable	172.16.40.11	255.255.0.0	172.16.40.1
PC7	No aplicable	172.16.50.10	255.255.0.0	172.16.50.1

PC8	No aplicable	172.16.50.11	255.255.0.0	172.16.50.1
PC9	No aplicable	172.16.52.10	255.255.0.0	172.16.52.1
PC10	No aplicable	172.16.52.11	255.255.0.0	172.16.52.1
PC11	No aplicable	172.16.48.10	255.255.0.0	172.16.48.1
PC12	No aplicable	172.16.48.11	255.255.0.0	172.16.48.1
PC13	No aplicable	172.16.32.10	255.255.0.0	172.16.32.1
PC14	No aplicable	172.16.32.11	255.255.0.0	172.16.32.1

A continuación se procede a realizar la configuración inicial para cada una de nuestras PC'S, comenzaremos por la dirección IP y la máscara de subred, solo se muestran como ejemplo la asignación de estos componentes a dos pc's se requiere seguir con la misma configuración para las demás.

PC1

**IP Configuration**

IP Configuration  
 DHCP     Static

IP Address: 172.16.0.10  
Subnet Mask: 255.255.0.0  
Default Gateway: 172.16.0.1  
DNS Server:

IPv6 Configuration  
 DHCP     Auto Config     Static

IPv6 Address: /  
Link Local Address: FE80::2E0:8FFF:FEC6:88D1  
IPv6 Gateway:  
IPv6 DNS Server:

Web Browser  
Cisco IP Communicator

PC2

**IP Configuration**

IP Configuration  
 DHCP     Static

IP Address: 172.16.0.11  
Subnet Mask: 255.255.0.0  
Default Gateway: 172.16.0.1  
DNS Server:

IPv6 Configuration  
 DHCP     Auto Config     Static

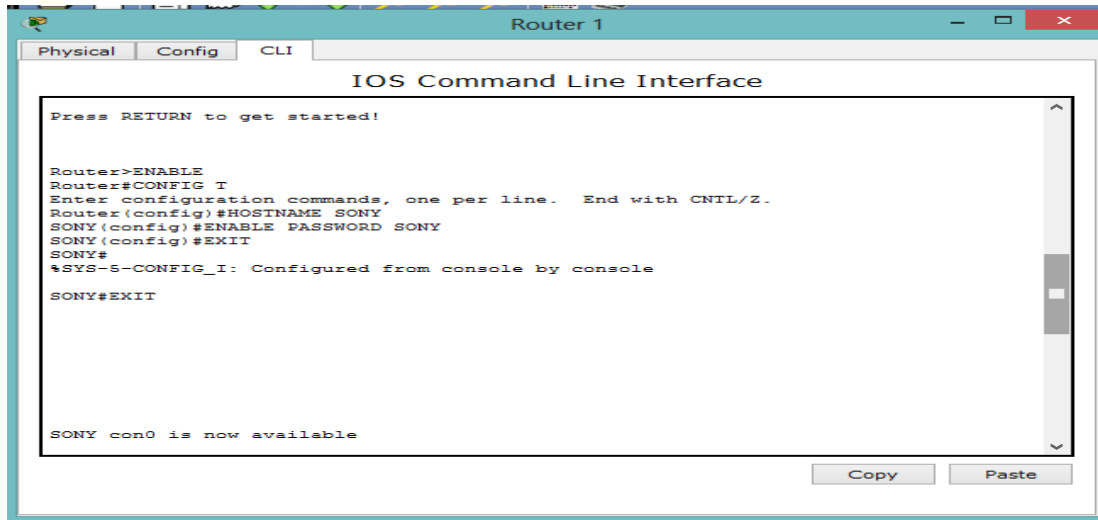
IPv6 Address: /  
Link Local Address: FE80::2E0:A3FF:FE82:9006  
IPv6 Gateway:  
IPv6 DNS Server:

Web Browser  
Cisco IP Communicator

A continuación se procede a realizar las configuraciones iniciales de nuestros Routers así como es el cambio de nombre, una contraseña y un banner.

Asignación de password.

A continuación se le asigna un banner al router,



```
Router 1
Physical Config CLI
IOS Command Line Interface
Press RETURN to get started!

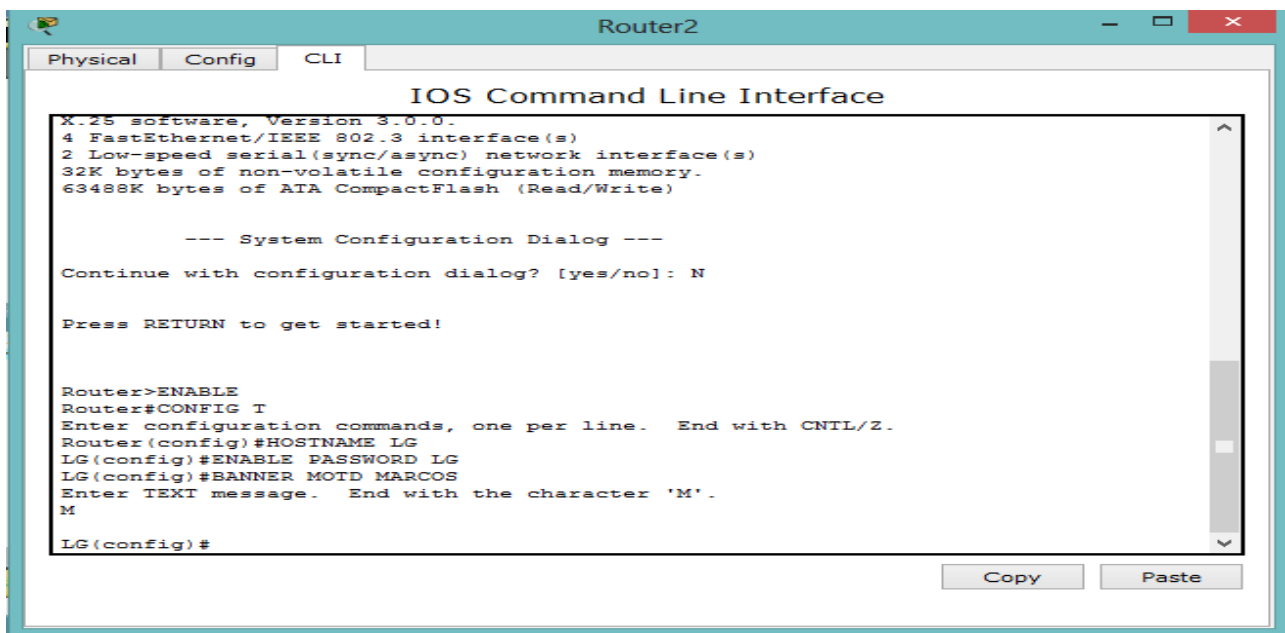
Router>ENABLE
Router#CONFIG T
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#HOSTNAME SONY
SONY(config)#ENABLE PASSWORD SONY
SONY(config)#EXIT
SONY#
%SYS-5-CONFIG_I: Configured from console by console
SONY#EXIT

SONY con0 is now available
```

De igual forma se le asigna un nombre al router.

A continuación se le asigna una contraseña.

Después es necesario concederle un banner.



```
Router2
Physical Config CLI
IOS Command Line Interface
X.25 software, Version 3.0.0.
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---
Continue with configuration dialog? [yes/no]: N

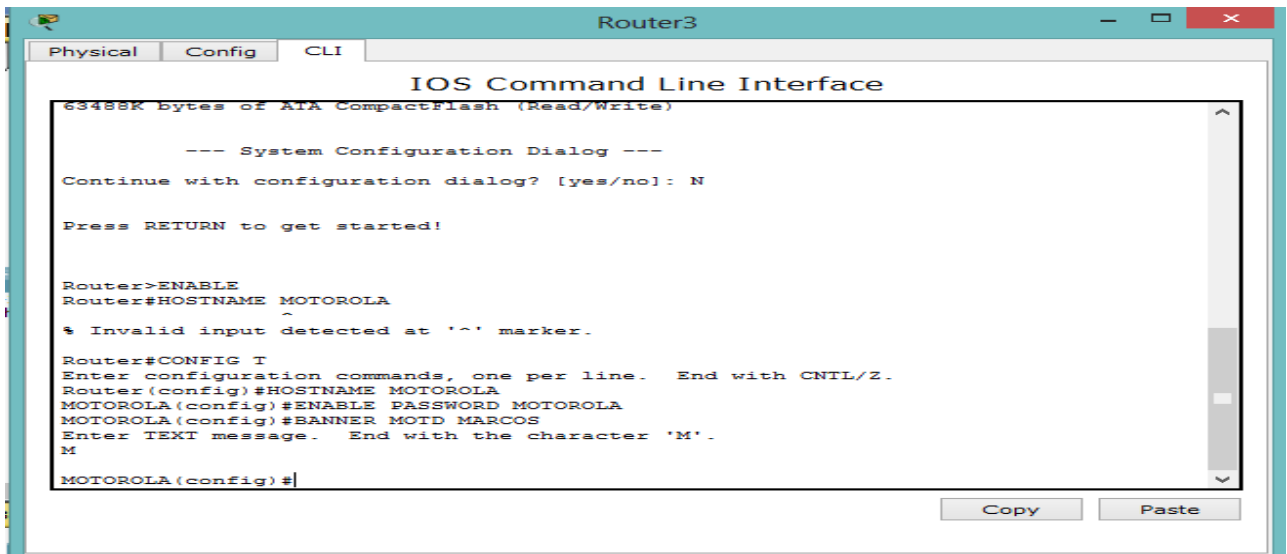
Press RETURN to get started!

Router>ENABLE
Router#CONFIG T
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#HOSTNAME LG
LG(config)#ENABLE PASSWORD LG
LG(config)#BANNER MOTD MARCOS
Enter TEXT message. End with the character 'M'.
M
LG(config)#
```

De igual forma se le asigna un nombre al router.

A continuación se le asigna una contraseña.

Después es necesario concederle un banner.



```
Router3
Physical Config CLI
IOS Command Line Interface
83488K Bytes of ATA CompactFlash (Read/Write)

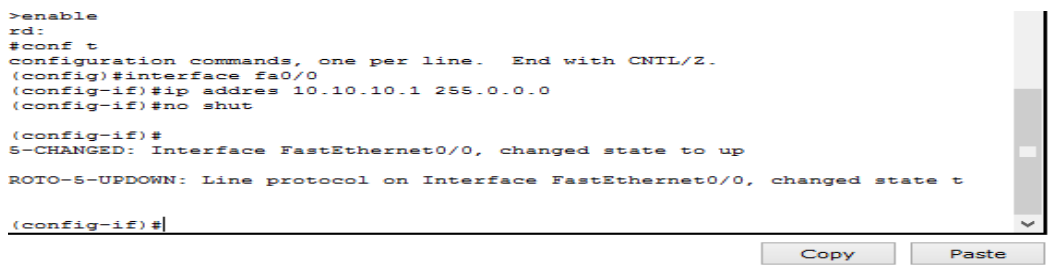
--- System Configuration Dialog ---
Continue with configuration dialog? [yes/no]: N

Press RETURN to get started!

Router>ENABLE
Router#HOSTNAME MOTOROLA
^
% Invalid input detected at '^' marker.

Router#CONFIG T
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#HOSTNAME MOTOROLA
MOTOROLA(config)#ENABLE PASSWORD MOTOROLA
MOTOROLA(config)#BANNER M01D MARCOS
Enter TEXT message. End with the character 'M'.
M
MOTOROLA(config)#
```

Puerto fa0/0



```
>enable
rd:
#conf t
configuration commands, one per line. End with CNTL/Z.
(config)#interface fa0/0
(config-if)#ip address 10.10.10.1 255.0.0.0
(config-if)#no shut

(config-if)#
S-CHANGED: Interface FastEthernet0/0, changed state to up
ROTO-S-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state t

(config-if)#
```

En este caso solo se lleva a cabo el levantamiento de un solo puerto ya que solo tiene conectado un solo dispositivo.

Puerto fa0/0

```
>enable
word:
word:
word:
#conf t
r configuration commands, one per line. End with CNTL/Z.
(config)#interface fa0/0
(config-if)#ip address 10.10.10.2 255.0.0.0
(config-if)#no shut

(config-if)#
K-5-CHANGED: Interface FastEthernet0/0, changed state to up
EPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state t

(config-if)#
```

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Posteriormente levantamos el otro puerto que es el fa1/0.

```
: configuration commands, one per line. End with CNTL/Z.
(config)#interface fa0/0
(config-if)#ip address 10.10.10.2 255.0.0.0
(config-if)#no shut

(config-if)#
:-5-CHANGED: Interface FastEthernet0/0, changed state to up

:PROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state t

(config-if)#exit
(config)#interface fa1/0
(config-if)#ip address 172.16.40.1 255.255.0.0
(config-if)#no shut

(config-if)#
:-5-CHANGED: Interface FastEthernet1/0, changed state to up

:PROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state t

(config-if)#
```

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Ahora llevamos a cabo el levantamiento del serial del router.

S2/0

```
(config-if)#exit
(config)#interface fa1/0
(config-if)#ip address 172.16.40.1 255.255.0.0
(config-if)#no shut

(config-if)#
<-S-CHANGED: Interface FastEthernet1/0, changed state to up

:PROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state t

(config-if)#exit
(config)#interface s2/0
(config-if)#ip address 172.16.40.1 255.255.0.0
%.16.0.0 overlaps with FastEthernet1/0
(config-if)#ip address 172.16.52.128 255.255.0.0
%.16.0.0 overlaps with FastEthernet1/0
(config-if)#ip address 172.16.52.128 255.255.0.0
%.16.0.0 overlaps with FastEthernet1/0
(config-if)#ip address 192.16.52.128 255.255.0.0
(config-if)#no shut

<-S-CHANGED: Interface Serial2/0, changed state to down
(config-if)#
(config-if)#
```

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## Levantamiento del Puerto fa0/0

```
>enable
word:
#conf t
r configuration commands, one per line. End with CNTL/Z.
(config)#interface fa0/0
(config-if)#ip address 10.10.10.3 255.0.0.0
(config-if)#no shut

(config-if)#
K-S-CHANGED: Interface FastEthernet0/0, changed state to up

:PROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state t

(config-if)#
```

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## Levantamiento del Puerto fa1/0.

```
>enable
word:
#conf t
r configuration commands, one per line.  End with CNTL/Z.
(config)#interface fa0/0
(config-if)#ip address 10.10.10.3 255.0.0.0
(config-if)#no shut

(config-if)#
K-5-CHANGED: Interface FastEthernet0/0, changed state to up

EPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state t

(config-if)#exit
(config)#interface fa1/0
(config-if)#ip address 172.16.50.1 255.255.0.0
(config-if)#no shut

(config-if)#
K-5-CHANGED: Interface FastEthernet1/0, changed state to up

EPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state t

(config-if)#
```

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Levantamiento del Puerto fa0/0.

```
>enable
d:
#conf t
onfiguration commands, one per line.  End with CNTL/Z.
(config)#interface fa0/0
(config-if)#ip address 10.10.10.4 255.255.0.0
(config-if)#no shut

(config-if)#
-CHANGED: Interface FastEthernet0/0, changed state to up

OTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state t

(config-if)#
```

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Levantamiento del Puerto fa1/0.

```
(config)#interface fa0/0
(config-if)#ip address 10.10.10.4 255.255.0.0
(config-if)#no shut

(config-if)#
-CHANGED: Interface FastEthernet0/0, changed state to up

%TO-S-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

(config-if)#exit
(config)#interface fa1/0
(config-if)#172.16.52.1 255.255.0.0
      ^
ld input detected at '^' marker.

(config-if)#ip address 172.16.52.1 255.255.0.0
(config-if)#no shut

(config-if)#
-CHANGED: Interface FastEthernet1/0, changed state to up

%TO-S-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

(config-if)#
```

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Levantamiento del Serial2/0.

```
(config-if)#exit
(config)#interface fa1/0
(config-if)#172.16.52.1 255.255.0.0
      ^
ld input detected at '^' marker.

(config-if)#ip address 172.16.52.1 255.255.0.0
(config-if)#no shut

(config-if)#
-CHANGED: Interface FastEthernet1/0, changed state to up

%TO-S-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

(config-if)#exit
(config)#interface s2/0
(config-if)#ip address 172.16.52.1 255.255.0.0
5.0.0 overlaps with FastEthernet1/0
(config-if)#ip address 192.16.52.1 255.255.0.0
(config-if)#no shut

-CHANGED: Interface Serial2/0, changed state to down
(config-if)#
```

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Levantamiento del Puerto fa0/0

```
enable
>rd:
>rd:
>rd:
enable
!conf t
configuration commands, one per line. End with CNTL/Z.
(config)#interface fa0/0
(config-if)#ip address 172.16.44.1 255.255.0.0
(config-if)#no shut

(config-if)#
-S-CHANGED: Interface FastEthernet0/0, changed state to up
PROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state t

(config-if)#
```

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Levantamiento del Puerto fa1/0.

```
(config)#interface fa0/0
(config-if)#ip address 172.16.44.1 255.255.0.0
(config-if)#no shut

(config-if)#
-S-CHANGED: Interface FastEthernet0/0, changed state to up
PROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state t

(config-if)#exit
(config)#interface fa1/0
(config-if)#ip address 172.16.0.1 255.255.0.0
.16.0.0 overlaps with FastEthernet0/0
(config-if)#ip address 172.16.1.1 255.255.0.0
.16.0.0 overlaps with FastEthernet0/0
(config-if)#ip address 192.16.0.1 255.255.0.0
(config-if)#no shut

(config-if)#
-S-CHANGED: Interface FastEthernet1/0, changed state to up
PROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state t

(config-if)#
```

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Levantamiento del Serial2/0.

```
(config-if)#ip address 172.16.52.129 255.255.0.0
.16.0.0 overlaps with FastEthernet0/0
(config-if)#ip address 192.16.52.129 255.255.0.0
.16.0.0 overlaps with FastEthernet1/0
(config-if)#ip address 192.16.52.129 255.255.0.0
.16.0.0 overlaps with FastEthernet1/0
(config-if)#ip address 192.168.52.129 255.255.0.0
(config-if)#no shut

(config-if)#
-5-CHANGED: Interface Serial2/0, changed state to up

(config-if)#
```

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## Levantando el Puerto fa0/0

```
>enable
>rd:
#conf t
configuration commands, one per line. End with CNTL/Z.
(config)#interface fa0/0
(config-if)#ip address 172.16.48.1 255.255.0.0
(config-if)#no shut

(config-if)#
-5-CHANGED: Interface FastEthernet0/0, changed state to up

PROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state t

(config-if)#
```

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## Levantamiento del Puerto fa1/0

```
(config-if)#exit
(config)#interface fa1/0
(config-if)#ip address 172.16.32.1 255.255.0.0
.16.0.0 overlaps with FastEthernet0/0
(config-if)#ip address 192.16.32.1 255.255.0.0
(config-if)#no shut
^
alid input detected at '^' marker.

(config-if)#no shut

(config-if)#
-5-CHANGED: Interface FastEthernet1/0, changed state to up

PROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state t

(config-if)#
```

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