

INSTITUTO TECNOLÓGICO DE SALINA CRUZ

Redes de computadoras

Practica no.1.

Unidad 3.

Realizada por: sanchez santiago noe.

Lugar y fecha: salina cruz Oaxaca a 16 de abril de 2015.

Docente: Román Nájera Susana Mónica.

Semestre y grupo: 6e.

Carrera: ing. en tecnologías de la información y de las comunicaciones

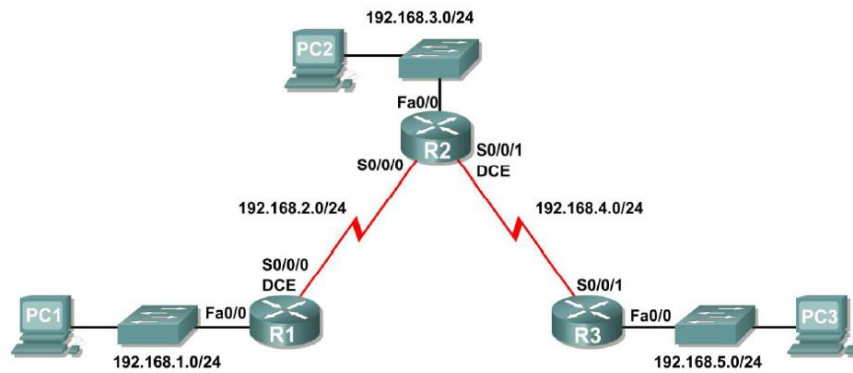
Objetivo: Desarrollar las habilidades necesarias del alumno que le permitan la configuración básica y manipulación de equipos de interconexión como lo son los router.

Instrucciones: realizar la tabla de direccionamiento, la configuración inicial Y verifique las conexiones entre las PC's, agregar al menos 5 pcs por subred.

Materiales:

Software packet tracer.

Computadora.



1.- Elaboración de tablas de enrutamiento.

	INTERFAZ	DIRECCION IP	MASCARA DE SUBRED	GATEWAY POR DEFECTO
yop	fa0/0	192.168.1.1	255.255.255.0	n/a
	S2/0	192.168.2.1	255.255.255.0	n/a
yet	fa0/0	192.168.3.1	255.255.255.0	n/a
	S2/0	192.168.2.2	255.255.255.0	n/a
	S3/0	192.168.4.1	255.255.255.0	n/a
zet	Fa0/0	192.168.5.1	255.255.255.0	n/a
	S2/0	192.168.4.2	255.255.255.0	n/a
Pc1	Nic	192.168.1.10	255.255.255.0	192.168.1.1
Pc2	Nic	192.168.1.11	255.255.255.0	192.168.1.1
Pc3	Nic	192.168.1.12	255.255.255.0	192.168.1.1
Pc4	Nic	192.168.1.13	255.255.255.0	192.168.1.1
Pc5	Nic	192.168.1.14	255.255.255.0	192.168.1.1
Pc6	Nic	192.168.3.10	255.255.255.0	192.168.3.1
P7	Nic	192.168.3.11	255.255.255.0	192.168.3.1
Pc8	Nic	192.168.3.12	255.255.255.0	192.168.3.1
Pc9	Nic	192.168.3.13	255.255.255.0	192.168.3.1
Pc10	Nic	192.168.3.14	255.255.255.0	192.168.3.1
Pc11	Nic	192.168.5.10	255.255.255.0	192.168.5.1
Pc12	Nic	192.168.5.11	255.255.255.0	192.168.5.1
Pc13	Nic	192.168.5.12	255.255.255.0	192.168.5.1
Pc14	Nic	192.168.5.13	255.255.255.0	192.168.5.1
Pc15	Nic	192.168.5.14	255.255.255.0	192.168.5.1

2.- configuración básica.

Configuración IP

Configuración IP

☐ DHCP

☒ Estático

Dirección IP

192.168.1.10

Máscara de Subred

255.255.255.0

Gateway por Defecto

192.168.1.1

Servidor DNS

IPv6 Configuration

☐ DHCP

☐ Auto Config

☒ Estático

IPv6 Address /

Link Local Address

FE80::290:21FF:FE74:D52B

IPv6 Gateway

IPv6 DNS Server

Configuración IP

Configuración IP

☐ DHCP

☒ Estático

Dirección IP

192.168.3.10

Máscara de Subred

255.255.255.0

Gateway por Defecto

192.168.3.1

Servidor DNS

IPv6 Configuration

☐ DHCP

☐ Auto Config

☒ Estático

IPv6 Address /

Link Local Address

FE80::205:5EFF:FEC2:225A

IPv6 Gateway

IPv6 DNS Server

Configuración IP

Configuración IP

☐ DHCP

☒ Estático

Dirección IP

192.168.5.10

Máscara de Subred

255.255.255.0

Gateway por Defecto

192.168.5.1

Servidor DNS

IPv6 Configuration

☐ DHCP

☐ Auto Config

☒ Estático

IPv6 Address /

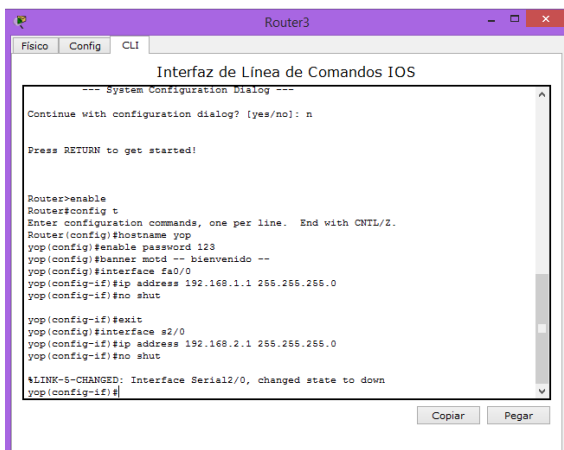
Link Local Address

FE80::260:3EFF:FE78:865C

IPv6 Gateway

IPv6 DNS Server

Levantamiento de puertos y seriales.

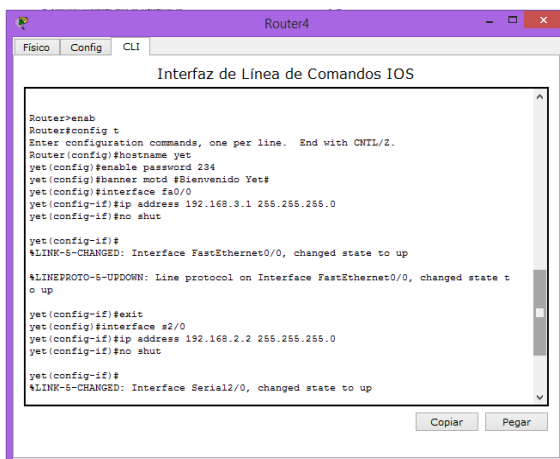


```
Router3
Fisico Config CLI
Interfaz de Línea de Comandos IOS
--- System Configuration Dialog ---
Continue with configuration dialog? [yes/no]: n
Press RETURN to get started!

Router>enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname yop
yop(config)#enable password 123
yop(config)#banner motd -- bienvenido --
yop(config)#interface fa0/0
yop(config-if)#ip address 192.168.1.1 255.255.255.0
yop(config-if)#no shut

yop(config-if)#exit
yop(config)#interface s2/0
yop(config-if)#ip address 192.168.2.1 255.255.255.0
yop(config-if)#no shut

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
yop(config-if)#
```

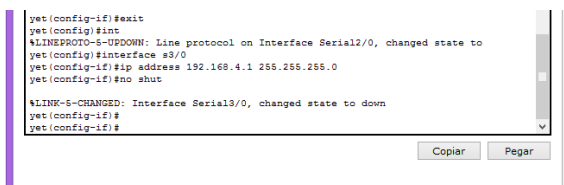


```
Router4
Fisico Config CLI
Interfaz de Línea de Comandos IOS

Router>enab
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname yet
yet(config)#enable password 234
yet(config)#banner motd #Bienvenido Yet#
yet(config)#interface fa0/0
yet(config-if)#ip address 192.168.3.1 255.255.255.0
yet(config-if)#no shut

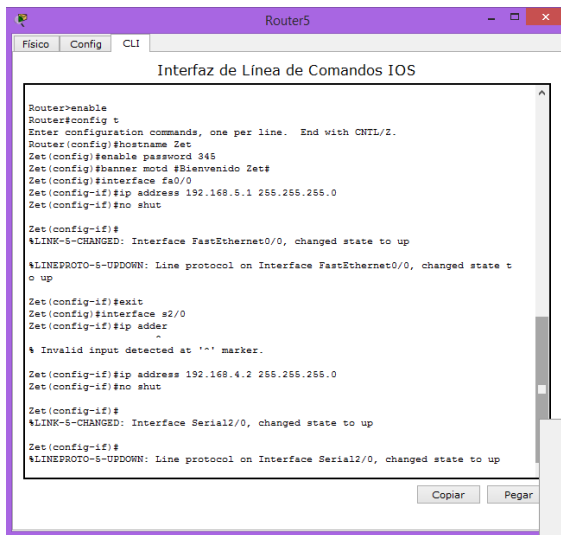
yet(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
yet(config-if)#exit
yet(config)#interface s2/0
yet(config-if)#ip address 192.168.2.2 255.255.255.0
yet(config-if)#no shut

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



```
yet(config-if)#exit
yet(config)#int
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to
yet(config)#interface s3/0
yet(config-if)#ip address 192.168.4.1 255.255.255.0
yet(config-if)#no shut

%LINK-5-CHANGED: Interface Serial3/0, changed state to down
yet(config-if)#
yet(config-if)#
```



```
Router>enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname Zet
Zet(config)#enable password 345
Zet(config)#banner motd $Bienvenido Zet$
Zet(config)#interface Fa0/0
Zet(config-if)#ip address 192.168.5.1 255.255.255.0
Zet(config-if)#no shut

Zet(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
Zet(config-if)#exit
Zet(config)#interface s2/0
Zet(config-if)#ip addres
% Invalid input detected at '^' marker.

Zet(config-if)#ip address 192.168.4.2 255.255.255.0
Zet(config-if)#no shut

Zet(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
Zet(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
```

Verificación de conexión entre pc y routers.



```
Packet Tracer PC Command Line 1.0
PC>ping 192.168.1.12

Pinging 192.168.1.12 with 32 bytes of data:

Reply from 192.168.1.12: bytes=32 time=1ms TTL=128
Reply from 192.168.1.12: bytes=32 time=0ms TTL=128
Reply from 192.168.1.12: bytes=32 time=0ms TTL=128
Reply from 192.168.1.12: bytes=32 time=0ms TTL=128

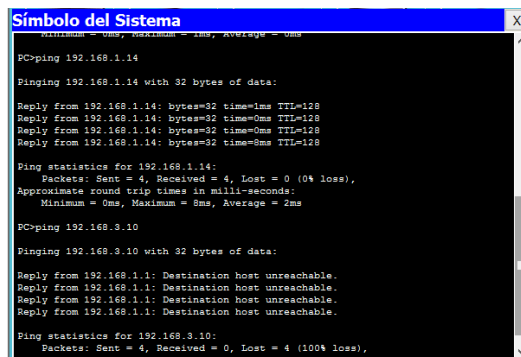
Ping statistics for 192.168.1.12:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

PC>ping 192.168.1.13

Pinging 192.168.1.13 with 32 bytes of data:

Reply from 192.168.1.13: bytes=32 time=1ms TTL=128
Reply from 192.168.1.13: bytes=32 time=0ms TTL=128
Reply from 192.168.1.13: bytes=32 time=0ms TTL=128
Reply from 192.168.1.13: bytes=32 time=0ms TTL=128

Ping statistics for 192.168.1.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```



```
Minimum = 0ms, Maximum = 1ms, Average = 0ms

PC>ping 192.168.1.14

Pinging 192.168.1.14 with 32 bytes of data:

Reply from 192.168.1.14: bytes=32 time=1ms TTL=128
Reply from 192.168.1.14: bytes=32 time=0ms TTL=128
Reply from 192.168.1.14: bytes=32 time=0ms TTL=128
Reply from 192.168.1.14: bytes=32 time=8ms TTL=128

Ping statistics for 192.168.1.14:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 8ms, Average = 2ms

PC>ping 192.168.3.10

Pinging 192.168.3.10 with 32 bytes of data:

Reply from 192.168.1.1: Destination host unreachable.
Reply from 192.168.1.1: Destination host unreachable.
Reply from 192.168.1.1: Destination host unreachable.
Reply from 192.168.1.1: Destination host unreachable.

Ping statistics for 192.168.3.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

```
Símbolo del Sistema X
Packet Tracer PC Command Line 1.0
PC>ping 192.168.2.1

Pinging 192.168.2.1 with 32 bytes of data:

Reply from 192.168.2.1: bytes=32 time=0ms TTL=255
Reply from 192.168.2.1: bytes=32 time=0ms TTL=255
Reply from 192.168.2.1: bytes=32 time=0ms TTL=255
Reply from 192.168.2.1: bytes=32 time=0ms TTL=255

Ping statistics for 192.168.2.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>
```

```
Símbolo del Sistema X
Packet Tracer PC Command Line 1.0
PC>ping 192.168.2.2

Pinging 192.168.2.2 with 32 bytes of data:

Reply from 192.168.2.2: bytes=32 time=0ms TTL=255
Reply from 192.168.2.2: bytes=32 time=0ms TTL=255
Reply from 192.168.2.2: bytes=32 time=0ms TTL=255
Reply from 192.168.2.2: bytes=32 time=0ms TTL=255

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 3ms, Average = 0ms

PC>
```

```
Símbolo del Sistema X
Packet Tracer PC Command Line 1.0
PC>ping 192.168.4.2

Pinging 192.168.4.2 with 32 bytes of data:

Reply from 192.168.4.2: bytes=32 time=1ms TTL=255
Reply from 192.168.4.2: bytes=32 time=0ms TTL=255
Reply from 192.168.4.2: bytes=32 time=0ms TTL=255
Reply from 192.168.4.2: bytes=32 time=0ms TTL=255

Ping statistics for 192.168.4.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

PC>
```

Conclusión / resultados: en base a la figura proporcionada procedimos a la elaboración de las tablas de direccionamiento, posteriormente asignamos las ip a las pc, al término se realizó la configuración básica de cada router (asignación de nombre, contraseña, banner y levantamiento de puertos y seriales), para finalizar se verifico si existía conexión de pc a router.