Ingeniería en Sistemas Computacionales

Conmutación y enrutamiento de redes 14:00 – 15:00

Unidad 1

Evidencia 5: Práctica de sumarización
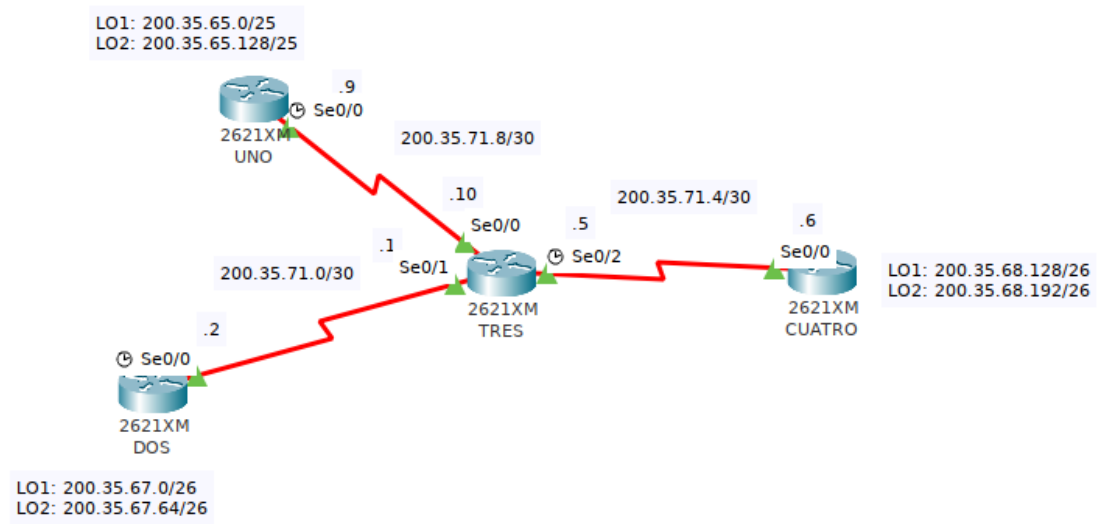
Docente: M.C. Angélica Salazar Ramírez
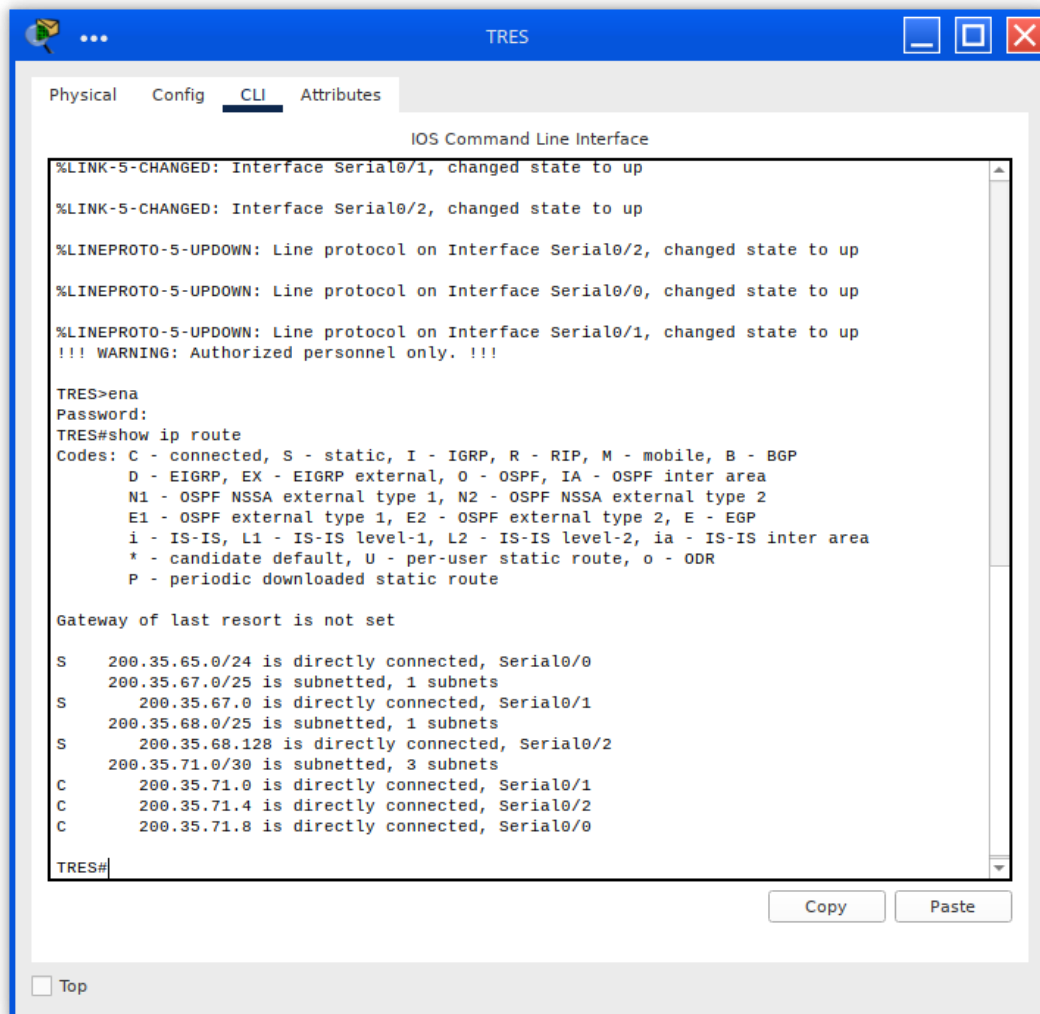

Alumno: Escobar Sánchez José Alejandro

Control: 19170573

Correo: l19170573@culiacan.tecnm.mx

Captura de topología de red

LO1: 200.35.65.0/25
LO2: 200.35.65.128/25

.9
Se0/0
2621XM
UNO

200.35.71.8/30

.10
Se0/0

200.35.71.4/30

.5
Se0/2

.6
Se0/0
2621XM
CUATRO

LO1: 200.35.68.128/26
LO2: 200.35.68.192/26

.1
Se0/1
200.35.71.0/30

2621XM
TRES

.2
Se0/0
2621XM
DOS

LO1: 200.35.67.0/26
LO2: 200.35.67.64/26

Captura de la configuración de enrutamiento del router TRES


```
%LINK-5-CHANGED: Interface Serial0/1, changed state to up

%LINK-5-CHANGED: Interface Serial0/2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/2, changed state to up

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

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1, changed state to up
!!! WARNING: Authorized personnel only. !!!

TRES>ena
Password:
TRES#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

S    200.35.65.0/24 is directly connected, Serial0/0
     200.35.67.0/25 is subnetted, 1 subnets
S       200.35.67.0 is directly connected, Serial0/1
     200.35.68.0/25 is subnetted, 1 subnets
S       200.35.68.128 is directly connected, Serial0/2
     200.35.71.0/30 is subnetted, 3 subnets
C       200.35.71.0 is directly connected, Serial0/1
C       200.35.71.4 is directly connected, Serial0/2
C       200.35.71.8 is directly connected, Serial0/0

TRES#
```

Script de configuración y ejercicio de sumarización de rutas

```
## EJERCICIO DE SUMARIZACION DE RUTAS

Router UNO
200.35.65.0/25
200.35.65.128/25

200.35.65.00000000
200.35.65.10000000

Nueva mascara de red
11111111.11111111.11111111.00000000
/24
Super red 1:
200.35.65.0/24

Router DOS
200.35.67.0/26
200.35.67.64/26

200.35.67.00000000
200.35.67.01000000

Nueva mascara de red
11111111.11111111.11111111.10000000
/25
Super red 2:
200.35.67.0/25

Router CUATRO
200.35.68.128/26
200.35.68.192/26

200.35.68.10000000
200.35.68.11000000

Nueva mascara de red
11111111.11111111.11111111.10000000
/25
Super red 3:
200.35.68.128/25

## SCRIPT DE CONFIGURACION

# config router UNO
enable
configure terminal
hostname UNO
no ip domain-lookup
enable secret cisco
```

```
line console 0
login
line vty 0 15
password cisco
login
banner motd #!!! WARNING: Authorized personnel only. !!!#
interface Se0/0
description Enlace al router TRES
ip address 200.35.71.9 255.255.255.252
clock rate 128000
no shut
interface LO1
ip address 200.35.65.1 255.255.255.128
interface LO2
ip address 200.35.65.129 255.255.255.128
exit
ip route 0.0.0.0 0.0.0.0 Se0/0

# config router DOS
enable
configure terminal
hostname DOS
no ip domain-lookup
enable secret cisco
line console 0
login
line vty 0 15
password cisco
login
banner motd #!!! WARNING: Authorized personnel only. !!!#
interface Se0/0
description Enlace al router TRES
ip address 200.35.71.2 255.255.255.252
clock rate 128000
no shut
interface LO1
ip address 200.35.67.1 255.255.255.192
interface LO2
ip address 200.35.67.65 255.255.255.192
exit
ip route 0.0.0.0 0.0.0.0 Se0/0

# config router CUATRO
enable
configure terminal
hostname CUATRO
no ip domain-lookup
enable secret cisco
line console 0
login
line vty 0 15
```
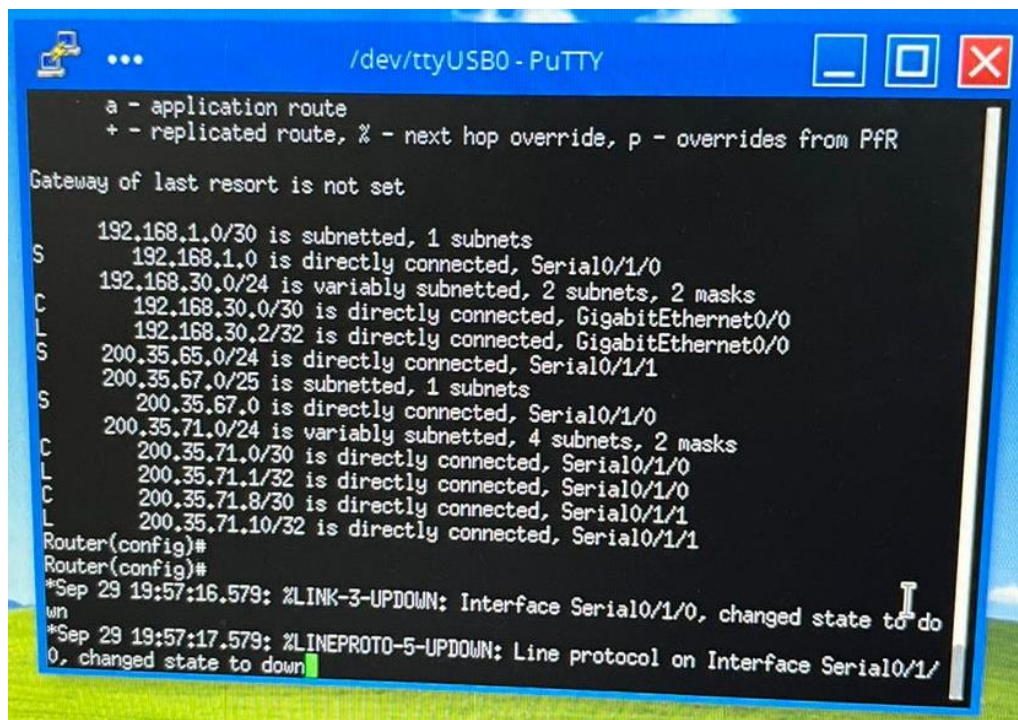
```
password cisco
login
banner motd #!!! WARNING: Authorized personnel only. !!!#
interface Se0/0
description Enlace al router TRES
ip address 200.35.71.6 255.255.255.252
no shut
interface LO1
ip address 200.35.68.129 255.255.255.192
interface LO2
ip address 200.35.68.193 255.255.255.192
exit
ip route 0.0.0.0 0.0.0.0 Se0/0

# config router TRES
enable
configure terminal
hostname TRES
no ip domain-lookup
enable secret cisco
line console 0
login
line vty 0 15
password cisco
login
banner motd #!!! WARNING: Authorized personnel only. !!!#
interface Se0/0
description Enlace al router UNO
ip address 200.35.71.10 255.255.255.252
no shut
interface Se0/1
description Enlace al router DOS
ip address 200.35.71.1 255.255.255.252
no shut
interface Se0/2
description Enlace al router CUATRO
ip address 200.35.71.5 255.255.255.252
no shut
exit
ip route 200.35.65.0 255.255.255.0 Se0/0
ip route 200.35.67.0 255.255.255.128 Se0/1
ip route 200.35.68.128 255.255.255.128 Se0/2
```

Captura de la práctica en laboratorio


```
        a - application route
        + - replicated route, % - next hop override, p - overrides from PfR

Gateway of last resort is not set

        192.168.1.0/30 is subnetted, 1 subnets
S          192.168.1.0 is directly connected, Serial0/1/0
        192.168.30.0/24 is variably subnetted, 2 subnets, 2 masks
C          192.168.30.0/30 is directly connected, GigabitEthernet0/0
L          192.168.30.2/32 is directly connected, GigabitEthernet0/0
S       200.35.65.0/24 is directly connected, Serial0/1/1
        200.35.67.0/25 is subnetted, 1 subnets
S          200.35.67.0 is directly connected, Serial0/1/0
        200.35.71.0/24 is variably subnetted, 4 subnets, 2 masks
C          200.35.71.0/30 is directly connected, Serial0/1/0
L          200.35.71.1/32 is directly connected, Serial0/1/0
C          200.35.71.8/30 is directly connected, Serial0/1/1
L          200.35.71.10/32 is directly connected, Serial0/1/1
Router(config)#
Router(config)#
*Sep 29 19:57:16.579: %LINK-3-UPDOWN: Interface Serial0/1/0, changed state to do
wn
*Sep 29 19:57:17.579: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1/
0, changed state to down
```