// Comando para obtener más resoluciones, en la máquina virtual. sudo apt install virtualbox-guest-dkms

// PARTE 1 // Hito1

//PCA

sudo ip address add 10.0.51.1/24 dev eth1 sudo ip route add 10.0.0.0/8 via 10.0.51.2 ping 10.0.51.2 ping 10.0.52.1

//RA

configure terminal interface eth0.0 ip address 10.0.51.2/24 exit interface eth0.1 ip address 10.0.0.1/30 exit ip route 10.0.52.0/24 10.0.0.2 exit ping 10.0.0.2

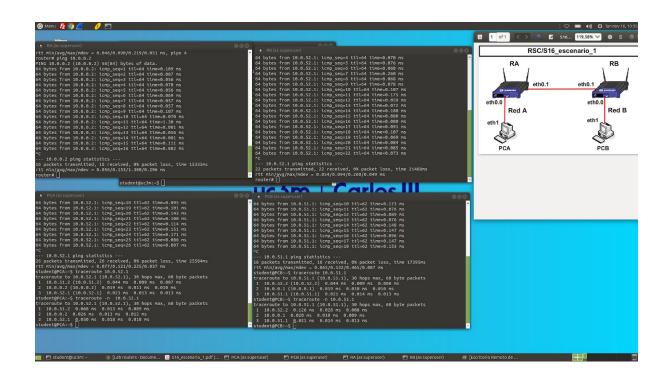
//RB

configure terminal interface eth0.1 ip address 10.0.0.2/30 exit interface eth0.0 ip address 10.0.52.2/24 exit ip route 10.0.51.0/24 10.0.0.1 exit

//PCB

sudo ip address add 10.0.52.1/24 dev eth1 sudo ip route add 10.0.0.0/8 via 10.0.52.2

sh run //muestra todo en router, fuera de config no ip address DIRECCIÓN //Borrar dirección, dentro de una interfaz ip a s //Muestra todo en pc sudo ip address del IP dev ethX //Borra direcciones de pcs



```
// PARTE 2
// Hito2
// R1
config t
interface eth0.0
no ip address 192.168.0.1/24
ex
interface eth0.1
no ip address 192.168.1.1/24
ip address 10.0.51.2/25
ex
interface eth0.2
no ip address 192.168.2.1/24
ip address 10.0.51.181/30
ex
interface eth0.3
no ip address 192.168.3.1/24
ip address 10.0.51.177/30
ex
interface eth0.4
no ip address 192.168.4.1/24
ex
ip route 10.0.0.0/16 10.0.51.182 1
ip route 10.0.0.0/16 10.0.51.178 2
ip route 10.0.51.128/27 10.0.51.178 1
ip route 10.0.51.128/27 10.0.51.182 2
ip route 10.0.51.160/28 10.0.51.182 1
ip route 10.0.51.160/28 10.0.51.178 2
ip route 10.0.51.184/30 10.0.51.178 1
ip route 10.0.51.184/30 10.0.51.182 2
ip route 10.0.51.188/30 10.0.51.182 1
ip route 10.0.51.188/30 10.0.51.178 2
// R2
config t
```

interface eth0.0
no ip address 192.168.0.1/24
ex
interface eth0.1
no ip address 192.168.1.1/24
ip address 10.0.51.130/27
ex
interface eth0.2
no ip address 192.168.2.1/24
ip address 10.0.51.178/30
ex
interface eth0.3
no ip address 192.168.3.1/24

ip address 10.0.51.185/30 ex interface eth0.4 no ip address 192.168.4.1/24 ip route 10.0.0.0/16 10.0.51.186 1 ip route 10.0.0.0/16 10.0.51.177 2 ip route 10.0.51.0/25 10.0.51.177 1 ip route 10.0.51.0/25 10.0.51.186 2 ip route 10.0.51.160/28 10.0.51.186 1 ip route 10.0.51.160/28 10.0.51.177 2 ip route 10.0.51.180/30 10.0.51.177 1 ip route 10.0.51.180/30 10.0.51.186 2 ip route 10.0.51.188/30 10.0.51.186 1 ip route 10.0.51.188/30 10.0.51.177 2 // R3 config t interface eth0.0 no ip address 192.168.0.1/24 ex interface eth0.1

config t interface eth0.0 no ip address 192.168.0.1/24 ex interface eth0.1 no ip address 192.168.1.1/24 ip address 10.0.51.162/28 ex interface eth0.2 no ip address 192.168.2.1/24 ip address 10.0.51.189/30 ex interface eth0.3 no ip address 192.168.3.1/24 ip address 10.0.51.182/30 ex interface eth0.4 no ip address 192.168.4.1/24 ip address 10.0.51.186/30 ex

ip route 10.0.0.0/16 10.0.51.190 ip route 10.0.51.0/25 10.0.51.181 1 ip route 10.0.51.0/25 10.0.51.185 2 ip route 10.0.51.128/27 10.0.51.185 1 ip route 10.0.51.128/27 10.0.51.181 2 ip route 10.0.51.176/30 10.0.51.181 1 ip route 10.0.51.176/30 10.0.51.185 2

// R4

config t

interface eth0.0

no ip address 192.168.0.1/24

ex

interface eth0.1

no ip address 192.168.1.1/24

ip address 10.0.51.0/24

ex

interface eth0.2

no ip address 192.168.2.1/24

ip address 10.0.51.190/30

ex

interface eth0.3

no ip address 192.168.3.1/24

ex

interface eth0.4

no ip address 192.168.4.1/24

ex

ip route 10.0.51.0/25 10.0.51.189

ip route 10.0.51.176/30 10.0.51.189

ip route 10.0.51.160/30 10.0.51.189

ip route 10.0.51.180/30 10.0.51.189

ip route 10.0.51.184/30 10.0.51.189

ip route 10.0.51.128/30 10.0.51.189

// hstOfi1

sudo ip address del 192.100.100.1/24 dev eth1 sudo ip address add 10.0.51.1/25 dev eth1 sudo ip route add 10.0.0.0/8 via 10.0.51.2

// hstOf2

sudo ip address del 192.100.100.3/24 dev eth1 sudo ip address add 10.0.51.129/27 dev eth1 sudo ip route add 10.0.0.0/8 via 10.0.51.130

// R100

// Todo con todo

traceroute 10.0.51.1

traceroute 10.0.51.2

traceroute 10.0.51.129

traceroute 10.0.51.130

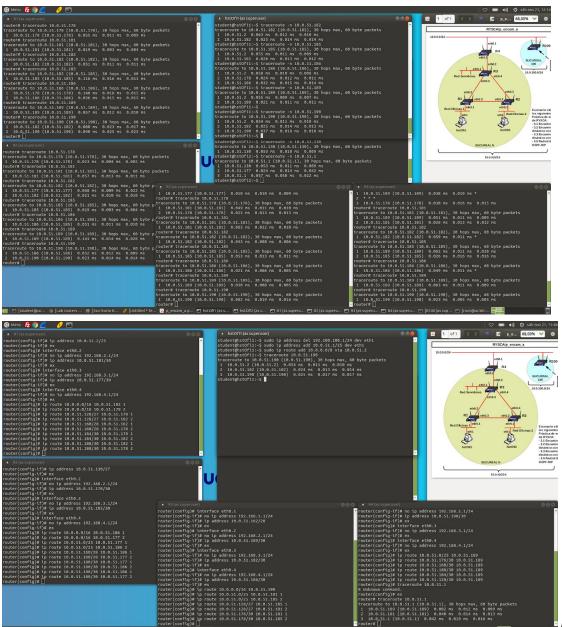
traceroute 10.0.51.162

traceroute 10.0.51.177

traceroute 10.0.51.178

traceroute 10.0.51.181

traceroute 10.0.51.182 traceroute 10.0.51.185 traceroute 10.0.51.186 traceroute 10.0.51.189 traceroute 10.0.51.190



Desconectar R1-R2, para R1

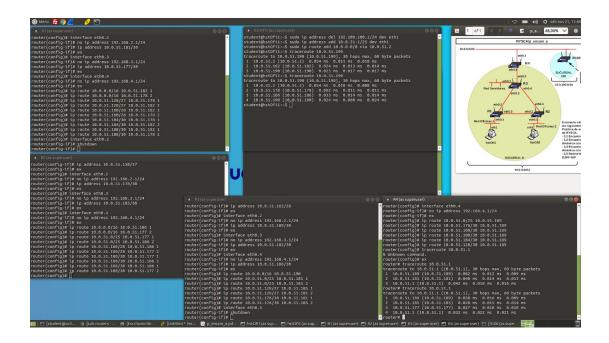
interface eth0.3 shutdown

ex

// Desconectar R2-R1, para R2

interface eth0.2 shutdown

ex



// Hito3 - Partiendo del Hito2 sin enlaces cortados // R1

no ip route 10.0.0.0/16 10.0.51.182 1 no ip route 10.0.0.0/16 10.0.51.178 2 no ip route 10.0.51.128/27 10.0.51.178 1 no ip route 10.0.51.128/27 10.0.51.182 2 no ip route 10.0.51.160/28 10.0.51.182 1 no ip route 10.0.51.160/28 10.0.51.178 2 no ip route 10.0.51.184/30 10.0.51.178 1 no ip route 10.0.51.184/30 10.0.51.182 2 no ip route 10.0.51.188/30 10.0.51.182 1 no ip route 10.0.51.188/30 10.0.51.178 2 router rip network 10.0.51.0/24 ex

// R2

no ip route 10.0.0.0/16 10.0.51.186 1 no ip route 10.0.0.0/16 10.0.51.177 2 no ip route 10.0.51.0/25 10.0.51.177 1 no ip route 10.0.51.0/25 10.0.51.186 2 no ip route 10.0.51.160/28 10.0.51.177 1 no ip route 10.0.51.160/28 10.0.51.186 2 no ip route 10.0.51.180/30 10.0.51.177 1 no ip route 10.0.51.180/30 10.0.51.186 2 no ip route 10.0.51.188/30 10.0.51.186 1 no ip route 10.0.51.188/30 10.0.51.177 2 router rip network 10.0.51.0/24 ex

// R3

no ip route 10.0.0.0/16 10.0.51.190 1 no ip route 10.0.51.0/25 10.0.51.181 1 no ip route 10.0.51.0/25 10.0.51.185 2 no ip route 10.0.51.128/27 10.0.51.185 1 no ip route 10.0.51.128/27 10.0.51.181 2 no ip route 10.0.51.176/30 10.0.51.181 1 no ip route 10.0.51.176/30 10.0.51.185 2 router rip network 10.0.51.0/24 ex

// R4

no ip route 10.0.51.0/25 10.0.51.189 no ip route 10.0.51.176/30 10.0.51.189 no ip route 10.0.51.160/30 10.0.51.189 no ip route 10.0.51.180/30 10.0.51.189 no ip route 10.0.51.184/30 10.0.51.189 no ip route 10.0.51.128/30 10.0.51.189 router rip network 10.0.51.0/24 ex

// Probar de todos los routers a Ofis y mostrar ips rip

ex

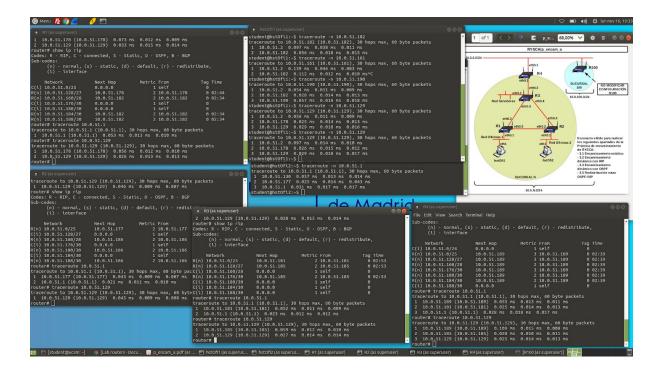
show ip rip status show ip rip traceroute 10.0.51.1 traceroute 10.0.51.129

// Traceroute hasta Ofi1

traceroute -n 10.0.51.1

// Traceroute hasta Ofi2

traceroute -n 10.0.51.129



// Hito4

// Desconectar R1-R2, para R1

config t interface eth0.3 shutdown ex

// Desconectar R2-R1, para R2

config t interface eth0.2 shutdown ex

// Probar de todos los routers a Ofis y mostrar ips rip

ex show ip rip status show ip rip traceroute 10.0.51.1 traceroute 10.0.51.129

// Traceroute hasta Ofi1

traceroute -n 10.0.51.1

// Traceroute hasta Ofi2

traceroute -n 10.0.51.129

