

Instituto Tecnológico y de Estudios Superiores de Monterrey



**Tecnológico
de Monterrey**

ActReto05

Grupo 302

Planeación de Reto

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| | |
|-------------------------------|-----------|
| Amparo Alcaraz Tonella | A01253885 |
| Adolfo García Vázquez | A01741767 |
| Cielo María Vega Godoy | A01741542 |
| Mónica Catalina Guzmán García | A00838824 |

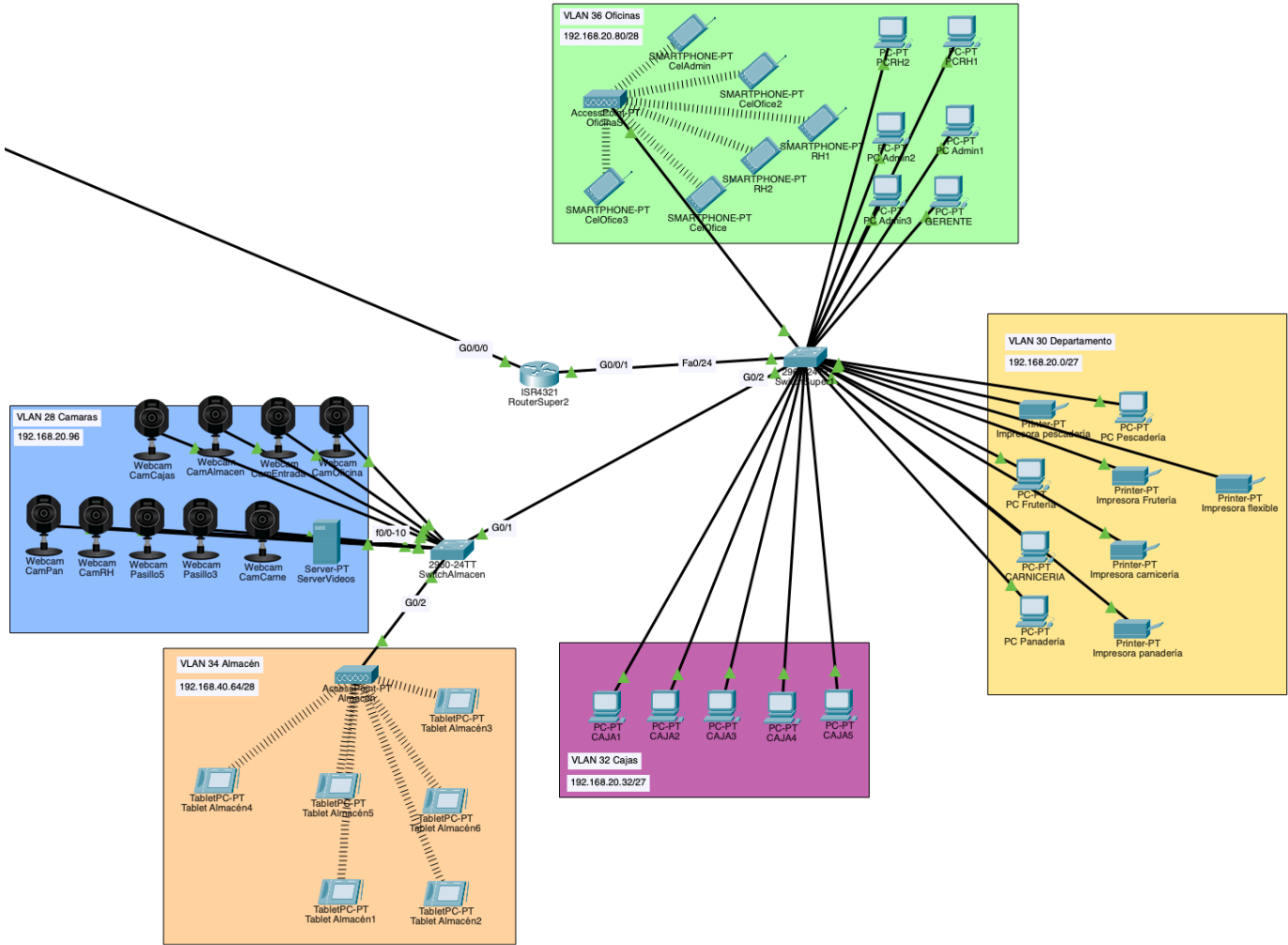
Descripción de configuraciones

En este reporte, se incluye la configuración de los dispositivos de las redes locales utilizando el protocolo de DHCP de tal manera que será más fácil integrar dispositivos nuevos a la red en un futuro. Por ejemplo, si la empresa de tractos contrata a más conductores y les proporciona otro teléfono con acceso a la red del garaje, este se podrá conectar sin la necesidad de configurar una IP nueva en el sistema. Adicionalmente, se implementaron siete VLANs donde dos son en la oficina de tractos en el switch SwitchCamiones y los otros cinco en SwitchSuper1 y SwitchAlmacen. El router RouterSuper2 fue asignando la IP 192.168.0.1 y RouterCamiones fue asignada la IP 192.168.0.2. Cabe mencionar que la conexión entre los routers se realizó con un cable de cobre en el simulador, pero en la actualidad se va a realizar con fibra óptica; por ahora, solo se utilizó el de cobre por problemas en el simulador.

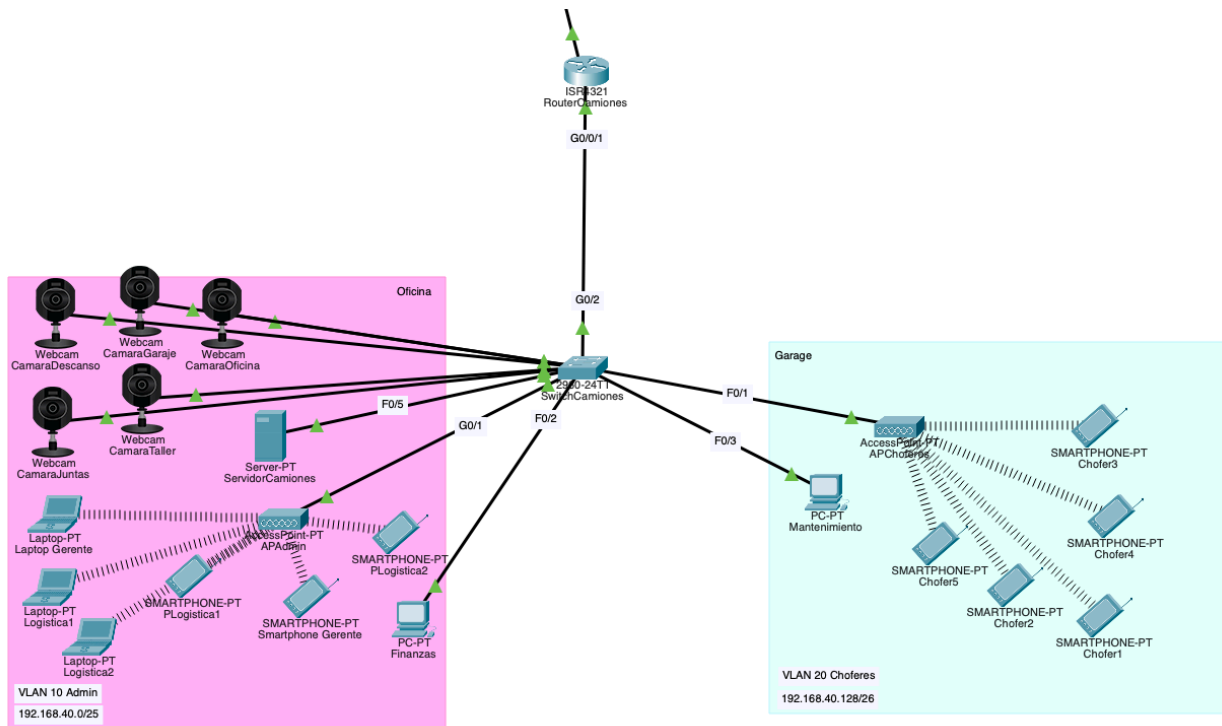
| Segmento | Switch | Num. Hosts requeridos | Prefijo de red | Máscara en notación punto decimal | Bloque asignado de direcciones IP | Primera dirección IP válida del bloque | Última dirección IP válida del bloque |
|---|----------------|-----------------------|-------------------|-----------------------------------|-----------------------------------|--|---------------------------------------|
| Routers (sin VLAN) | (No aplica) | 2 | 192.168.0.0/30 | 255.255.255.252 | 192.168.0.0-192.168.0.3 | 192.168.0.1 | 192.168.0.2 |
| Vlan 10 - Tractos - Admin | SwitchCamiones | 12 | 192.168.40.0/25 | 255.255.255.128 | 192.168.40.0 - 192.168.40.127 | 192.168.40.1 | 192.168.40.126 |
| Vlan 20 - Tractos - Choferes | SwitchCamiones | 9 | 192.168.40.128/26 | 255.255.255.192 | 192.168.40.128 - 192.168.40.191 | 192.168.40.128 | 192.168.40.190 |
| Vlan 30 - Supermercado - Área de productos y departamentos | SwitchSuper1 | 13 | 192.168.20.0/27 | 255.255.255.224 | 192.168.20.0 - 192.168.20.31 | 192.168.20.1 | 192.168.20.30 |
| Vlan 32 - Supermercado - Área de cajeros y escritorio principal | SwitchSuper1 | 12 | 192.168.20.32/27 | 255.255.255.224 | 192.168.20.32 - 192.168.20.63 | 192.168.20.33 | 192.168.20.62 |
| Vlan 34 - Supermercado - Almacén; Switch almacén | SwitchAlmacen | 8 | 192.168.20.64/28 | 255.255.255.240 | 192.168.20.64 - 192.168.20.79 | 192.168.20.65 | 192.168.20.78 |

| | | | | | | | |
|--|-------------------|---|----------------------|-----------------|-----------------------------------|---------------|----------------|
| Vlan 36 - Supermerca do - Oficinas | SwitchSu per1 | 7 | 192.168.20.80/2 8 | 255.255.255.240 | 192.168.20.80 - 192.168.20.95 | 192.168.20.81 | 192.168.20.94 |
| Vlan 38 - Supermerca do - Cámaras; Switch almacén | SwitchAl macen | 9 | 192.168.20.80/2 8 | 255.255.255.240 | 192.168.20.96 - 192.168.20.111 | 192.168.20.97 | 192.168.20.110 |

Configuración lógica super



Configuración lógica tractos



Tractos

RouterCamiones

```
Router>ena
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname RouterCamiones
RouterCamiones(config)#enable secret class
RouterCamiones(config)#no ip domain-lo
RouterCamiones(config)#no ip domain-lookup
RouterCamiones(config)#service pass
RouterCamiones(config)#service password-encryption
RouterCamiones(config)#line con 0
RouterCamiones(config-line)#pass
RouterCamiones(config-line)#password cisco
RouterCamiones(config-line)#login
RouterCamiones(config-line)#logging sync
RouterCamiones(config-line)#exit
RouterCamiones(config)#line vty 0 4
RouterCamiones(config-line)#password cisco
RouterCamiones(config-line)#login
RouterCamiones(config-line)#logging sync
RouterCamiones(config-line)#exit
RouterCamiones(config)#banner motd #Favor de no entrar sin autorizacion#
RouterCamiones(config)#do wr
Building configuration...
[OK]
RouterCamiones(config)#int g0/0/1.10
RouterCamiones(config-subif)#desc ?
LINE Up to 240 characters describing this interface
RouterCamiones(config-subif)#desc Vlan para admins
RouterCamiones(config-subif)#encap dot1q 10
RouterCamiones(config-subif)#ip add 192.168.40.1 255.255.255.128
RouterCamiones(config-subif)#exit
RouterCamiones(config)#do wr
Building configuration...
[OK]
RouterCamiones(config)#interface gigabitethernet 0/0/1.20
RouterCamiones(config-subif)#encapsulation dot1q 20
RouterCamiones(config-subif)#ip address 192.168.40.129 255.255.255.192
```

```
RouterCamiones(config-subif)#exit
RouterCamiones(config)#interface gigabitethernet 0/0/1
RouterCamiones(config-if)#no shut
RouterCamiones(config)#ip dhcp pool office
RouterCamiones(dhcp-config)#network
RouterCamiones(dhcp-config)#network 192.168.40.0 255.255.255.128
RouterCamiones(dhcp-config)#default-r
RouterCamiones(dhcp-config)#default-router 192.168.40.1
RouterCamiones(dhcp-config)#dns
RouterCamiones(dhcp-config)#dns-server 8.8.8.8
RouterCamiones(dhcp-config)#exit
RouterCamiones(config)#ip dhcp pool camiones
RouterCamiones(dhcp-config)#net 192.168.40.128 255.255.255.192
RouterCamiones(dhcp-config)#def
RouterCamiones(dhcp-config)#default-router 192.168.40.129
RouterCamiones(dhcp-config)#dns
RouterCamiones(dhcp-config)#dns-server 8.8.8.8
RouterCamiones(dhcp-config)#exit
```

```
RouterCamiones(config)#ip route 192.168.20.0 255.255.255.0 192.168.0.1
RouterCamiones(config)#show ip route
```

^

% Invalid input detected at '^' marker.

```
RouterCamiones(config)#exit
RouterCamiones#
%SYS-5-CONFIG_I: Configured from console by console
RouterCamiones#show ip route
Codes: L - local, C - connected, S - static, 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
  192.168.0.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.0.0/30 is directly connected, GigabitEthernet0/0/0
L    192.168.0.2/32 is directly connected, GigabitEthernet0/0/0
S    192.168.20.0/24 [1/0] via 192.168.0.1
  192.168.40.0/24 is variably subnetted, 4 subnets, 3 masks
C    192.168.40.0/25 is directly connected, GigabitEthernet0/0/1.10
L    192.168.40.1/32 is directly connected, GigabitEthernet0/0/1.10
C    192.168.40.128/26 is directly connected, GigabitEthernet0/0/1.20
L    192.168.40.129/32 is directly connected, GigabitEthernet0/0/1.20
RouterCamiones#RouterCamiones#
```

```
RouterCamiones#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
RouterCamiones(config)#interface GigabitEthernet0/0/0
RouterCamiones(config-if)#exit
RouterCamiones(config)#exit
RouterCamiones#
%SYS-5-CONFIG_I: Configured from console by console
RouterCamiones#do wr
      ^
% Invalid input detected at '^' marker.

RouterCamiones#wr
Building configuration...
[OK]
RouterCamiones#ping 192.168.0.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.0.1, timeout is 2 seconds:
.!!!!
Success rate is 80 percent (4/5), round-trip min/avg/max = 0/0/0 ms
RouterCamiones#
```

SwitchCamiones

Configuración

– Configuración base y de seguridad

```
Switch>ena
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname SwitchCamiones
SwitchCamiones(config)#no ip domain
SwitchCamiones(config)#no ip domainl
SwitchCamiones(config)#no ip domain-l
SwitchCamiones(config)#no ip domain-lookup
SwitchCamiones(config)#enable ?
    password Assign the privileged level password
    secret Assign the privileged level secret
SwitchCamiones(config)#enable secret class
SwitchCamiones(config)#s?
sdm service snmp-server spanning-tree
SwitchCamiones(config)#service ?
    dhcp Enable DHCP server and relay agent
    password-encryption Encrypt system passwords
    timestamps Timestamp debug/log messages
SwitchCamiones(config)#service pa
SwitchCamiones(config)#service password-encryption
SwitchCamiones(config)#line con 0
SwitchCamiones(config-line)#pass
SwitchCamiones(config-line)#password cisco
SwitchCamiones(config-line)#login
SwitchCamiones(config-line)#logging sync
SwitchCamiones(config-line)#exit
SwitchCamiones(config)#line vty 0 15
SwitchCamiones(config-line)#pass
SwitchCamiones(config-line)#password cisco
SwitchCamiones(config-line)#login
SwitchCamiones(config-line)#logg
SwitchCamiones(config-line)#logging sync
SwitchCamiones(config-line)#exit
```

– Configuración VLANs

```
SwitchCamiones(config)#vlan 10
SwitchCamiones(config-vlan)#name Admin
SwitchCamiones(config-vlan)#exit
SwitchCamiones(config)#vlan 20
```



```
SwitchCamiones(config-vlan)#name Choferes
SwitchCamiones(config-vlan)#exit
SwitchCamiones(config)#int g0/1
SwitchCamiones(config-if)#switch mode access
SwitchCamiones(config-if)#switchport access vlan 10
SwitchCamiones(config-if)#do wr
SwitchCamiones(config)#int f0/1
SwitchCamiones(config-if)#switch mode access
SwitchCamiones(config-if)#switchport access vlan 20
SwitchCamiones(config-if)#do wr
SwitchCamiones(config)#int f0/2
SwitchCamiones(config-if)#switch mode access
SwitchCamiones(config-if)#switchport access vlan 10
SwitchCamiones(config-if)#exit
SwitchCamiones(config)#int f0/3
SwitchCamiones(config-if)#switch mode access
SwitchCamiones(config-if)#switchport access vlan 20
SwitchCamiones(config-if)#do show vl br
SwitchCamiones(config)#int g0/2
SwitchCamiones(config-if)#switchport mode trunk
SwitchCamiones(config-if)#switchport trunk allowed vlan 10,20
SwitchCamiones(config-if)#exit
```

– Agregando cámaras

```
SwitchCamiones#config t
Enter configuration commands, one per line. End with CNTL/Z.
SwitchCamiones(config)#int range fastethernet 0/6-10
SwitchCamiones(config-if-range)#switchport mode access
SwitchCamiones(config-if-range)#switchport access vlan 10
```

– Agregando servidor de videos

```
SwitchCamiones>ena
Password:
SwitchCamiones#int fastethernet 0/5
      ^
% Invalid input detected at '^' marker.
```

```
SwitchCamiones#config t
Enter configuration commands, one per line. End with CNTL/Z.
SwitchCamiones(config)#int f0/5
SwitchCamiones(config-if)#switchport mode access
SwitchCamiones(config-if)#switchport access vlan10
      ^
% Invalid input detected at '^' marker.
```

```
SwitchCamiones(config-if)#switchport access vlan 10
```

```
SwitchCamiones(config-if)#exit
SwitchCamiones(config)#exit
SwitchCamiones#
%SYS-5-CONFIG_I: Configured from console by console
SwitchCamiones#wr
Building configuration...
[OK]
SwitchCamiones#
```

Supermercado

Configuración Router

```
Router>ena
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#no ip domain-lo
Router(config)#no ip domain-lookup
Router(config)#service pass
Router(config)#service password-encryption
Router(config)#banner motd #Favor de no entrar al router del switch sin autorizacion#
Router(config)#enable secret class
Router(config)#line con 0
Router(config-line)#password cisco
Router(config-line)#login
Router(config-line)#logging sync
Router(config-line)#exit
Router(config)#line vty 0 4
Router(config-line)#password cisco
Router(config-line)#login
Router(config-line)#logging sync
Router(config-line)#exit
Router(config)#do wr
Building configuration...
[OK]
Router(config)#int g0/0/1.34
Router(config-subif)#encap dot1q 34
Router(config-subif)#ip add 192.168.65 255.255.255.240
^
% Invalid input detected at '^' marker.

Router(config-subif)#ip add 192.168.20.65 255.255.255.240
Router(config-subif)#exit
Router(config)#int g0/0/1.30
Router(config-subif)#encap dot1q 30
Router(config-subif)#ip add 192.168.20.0 255.255.255.224
Bad mask /27 for address 192.168.20.0
Router(config-subif)#ip add 192.168.20.1 255.255.255.224
Router(config-subif)#exit
Router(config)#int g0/0/1.32
Router(config-subif)#encap dot1q 32
Router(config-subif)#ip add 192.168.20.33 255.255.255.224
Router(config-subif)#exit
```

```
Router(config)#int g0/0/1.36
Router(config-subif)#encap dot1q 36
Router(config-subif)#ip add 192.168.20.81 255.255.255.240
Router(config-subif)#exit
Router(config)#int g0/0/0
Router(config-if)#no shut
Router(config)#int g0/0/1
Router(config-if)#no shut
Router(config-if)#exit
Router(config)#hostname RouterSuper
RouterSuper(config)#ip dhcp pool departamentos
RouterSuper(dhcp-config)#network 192.168.20.0 255.255.255.224
RouterSuper(dhcp-config)#default
RouterSuper(dhcp-config)#default-router 192.168.20.1
RouterSuper(dhcp-config)#dhcp
RouterSuper(dhcp-config)#dns
RouterSuper(dhcp-config)#dns-server 8.8.8.8
RouterSuper(dhcp-config)#exit
RouterSuper(config)#ip dhcp pool cajas
RouterSuper(dhcp-config)#network 192.168.20.32 255.255.255.224
RouterSuper(dhcp-config)#default-router 192.168.20.33
RouterSuper(dhcp-config)#dns-server 8.8.8.8
RouterSuper(dhcp-config)#exit
RouterSuper(config)#ip dhcp pool almacen
RouterSuper(dhcp-config)#network 192.168.20.64 255.255.255.240
RouterSuper(dhcp-config)#default-router 192.168.20.65
RouterSuper(dhcp-config)#dns-server 8.8.8.8
RouterSuper(dhcp-config)#exit
RouterSuper(config)#ip dhcp pool oficinas
RouterSuper(dhcp-config)#network 192.168.20.80 255.255.255.240
RouterSuper(dhcp-config)#
RouterSuper(dhcp-config)#default-router 192.168.20.81
RouterSuper(dhcp-config)#dns-server 8.8.8.8
RouterSuper(dhcp-config)#exit

RouterSuper(config)#int g0/0/1.38
RouterSuper(config-subif)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0/1.38, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1.38, changed
state to up
RouterSuper(config-subif)#encap dot1q 38
RouterSuper(config-subif)#ip add 192.168.20.97 255.255.255.240
RouterSuper(config-subif)#exit
RouterSuper(config)#ip dhcp pool camaras
RouterSuper(dhcp-config)#network 192.168.20.96 255.255.255.240
RouterSuper(dhcp-config)#default router 192.168.20.97
```

```

      ^
% Invalid input detected at '^' marker.

RouterSuper(dhcp-config)#default ?
  A.B.C.D Router's IP address
RouterSuper(dhcp-config)#default router ?
% Unrecognized command
RouterSuper(dhcp-config)#default-router 192.168.20.97
RouterSuper(dhcp-config)#dns-server 8.8.8.8
RouterSuper(dhcp-config)#exit
RouterSuper(config)#wr
      ^
% Invalid input detected at '^' marker.

RouterSuper(config)#do wr
Building configuration...
[OK]
RouterSuper(config)#
RouterSuper(config)#ip dhcp excluded-address 192.168.20.1
RouterSuper(config)#ip dhcp excluded-address 192.168.20.33
RouterSuper(config)#ip dhcp excluded-address 192.168.20.65
RouterSuper(config)#ip dhcp excluded-address 192.168.20.81
RouterSuper(config)#ip dhcp excluded-address 192.168.20.97

RouterSuper(config)#interface GigabitEthernet0/0/0
RouterSuper(config-if)#ip address 192.168.0.1 255.255.255.252
RouterSuper(config-if)#exit
RouterSuper(config)#exit
RouterSuper#
%SYS-5-CONFIG_I: Configured from console by console
RouterSuper#do wr
      ^
% Invalid input detected at '^' marker.

RouterSuper#wr
Building configuration...
[OK]
RouterSuper#

RouterSuper(config)#interface GigabitEthernet0/0/0
RouterSuper(config-if)#ip route 192.168.40.0 255.255.255.0 192.168.0.2
RouterSuper(config)#exit
RouterSuper#
%SYS-5-CONFIG_I: Configured from console by console
RouterSuper#show ip route
Codes: L - local, C - connected, S - static, 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
 192.168.0.0/24 is variably subnetted, 2 subnets, 2 masks
 C 192.168.0.0/30 is directly connected, GigabitEthernet0/0/0
 L 192.168.0.1/32 is directly connected, GigabitEthernet0/0/0
 192.168.20.0/24 is variably subnetted, 10 subnets, 3 masks
 C 192.168.20.0/27 is directly connected, GigabitEthernet0/0/1.30
 L 192.168.20.1/32 is directly connected, GigabitEthernet0/0/1.30
 C 192.168.20.32/27 is directly connected, GigabitEthernet0/0/1.32
 L 192.168.20.33/32 is directly connected, GigabitEthernet0/0/1.32
 C 192.168.20.64/28 is directly connected, GigabitEthernet0/0/1.34
 L 192.168.20.65/32 is directly connected, GigabitEthernet0/0/1.34
 C 192.168.20.80/28 is directly connected, GigabitEthernet0/0/1.36
 L 192.168.20.81/32 is directly connected, GigabitEthernet0/0/1.36
 C 192.168.20.96/28 is directly connected, GigabitEthernet0/0/1.38
 L 192.168.20.97/32 is directly connected, GigabitEthernet0/0/1.38
 S 192.168.40.0/24 [1/0] via 192.168.0.2
 RouterSuper#
 RouterSuper#
 RouterSuper#
 RouterSuper#
 RouterSuper#
 RouterSuper#Enter configuration commands, one per line. End with CNTL/Z.
 RouterSuper(config)#
 RouterSuper(config)#interface GigabitEthernet0/0/0
 RouterSuper(config-if)#Enter configuration commands, one per line. End with CNTL/Z.
 RouterSuper(config)#
 RouterSuper(config)#interface GigabitEthernet0/0/0
 RouterSuper(config-if)#exit
 RouterSuper(config)#exit
 RouterSuper#
 %SYS-5-CONFIG_I: Configured from console by console
 RouterSuper#wr
 Building configuration...
 [OK]
 RouterSuper#ping 192.168.0.2
 Type escape sequence to abort.
 Sending 5, 100-byte ICMP Echos to 192.168.0.2, timeout is 2 seconds:
 !!!!!
 Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/2 ms
 RouterSuper#

Configuración SwitchAlmacen

Originalmente, se había planeado que las cámaras se iban a conectar a las VLANs de su área correspondiente en el supermercado. Sin embargo, estas sólo cupieron en el del almacén, por lo que se va a hacer un VLAN nueva cuyo único propósito es administrar las cámaras y recaudar los videos en el servidor ServerVideos.

Configuración

— Configuración inicial

```
Switch>ena
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname SwitchAlmacen
SwitchAlmacen(config)#banner motd #Favor de no entrar al switch de almacen sin
autorizacion#
SwitchAlmacen(config)#no ip
SwitchAlmacen(config)#no ip
SwitchAlmacen(config)#no ip ?
access-list Named access-list
arp IP ARP global configuration
default-gateway Specify default gateway (if not routing IP)
dhcp Configure DHCP server and relay parameters
domain IP DNS Resolver
domain-lookup Enable IP Domain Name System hostname translation
domain-name Define the default domain name
ftp FTP configuration commands
hosts Add an entry to the ip hostname table
name-server Specify address of name server to use
scp Scp commands
ssh Configure ssh options
SwitchAlmacen(config)#no ip domain-l
SwitchAlmacen(config)#no ip domain-lookup
SwitchAlmacen(config)#service ?
dhcp Enable DHCP server and relay agent
password-encryption Encrypt system passwords
timestamps Timestamp debug/log messages
SwitchAlmacen(config)#service pa
SwitchAlmacen(config)#service password-encryption
SwitchAlmacen(config)#enable secret class
SwitchAlmacen(config)#line con 0
SwitchAlmacen(config-line)#password cisco
SwitchAlmacen(config-line)#login
```

```
SwitchAlmacen(config-line)#logging sync
SwitchAlmacen(config-line)#exit
SwitchAlmacen(config)#line vty 0 15
SwitchAlmacen(config-line)#password cisco
SwitchAlmacen(config-line)#login
SwitchAlmacen(config-line)#logging sync
SwitchAlmacen(config-line)#exit
SwitchAlmacen(config)#do wr
Building configuration...
[OK]
```

— Configuración de vlans

```
SwitchAlmacen(config)#vlan 34
SwitchAlmacen(config-vlan)#name Almacen
SwitchAlmacen(config-vlan)#exit
SwitchAlmacen(config)#int g0/2
SwitchAlmacen(config-if)#switch mode access
SwitchAlmacen(config-if)#switchport access vlan 34
SwitchAlmacen(config-if)#exit
SwitchAlmacen(config)#int g0/1
SwitchAlmacen(config-if)#switchport mode trunk
SwitchAlmacen(config-if)#switchport trunk allowed vlan 34
SwitchAlmacen(config-if)#exit
```

— Agregando espacio para las cámaras

```
SwitchAlmacen(config)#vlan 38
SwitchAlmacen(config-vlan)#name Camaras
SwitchAlmacen(config-vlan)#exit
SwitchAlmacen(config)#
SwitchAlmacen(config)#int range f0/1-9
SwitchAlmacen(config-if-range)#switchport mode access
SwitchAlmacen(config-if-range)#switchport access vlan 38
SwitchAlmacen(config-if-range)#exit
SwitchAlmacen(config)#exit
```

— Agregando el vlan de camaras

```
SwitchAlmacen(config)#interface gigabitethernet 0/1
SwitchAlmacen(config-if)#switchport trunk allowed vlan 34,38
SwitchAlmacen(config-if)#exit
SwitchAlmacen(config)#exit
```

— Agregando el servidor

```
SwitchAlmacen(config)#int f0/10
SwitchAlmacen(config-if)#switchport mode access
SwitchAlmacen(config-if)#switchport access vlan 38
```



```
SwitchAlmacen(config-if)#end  
SwitchAlmacen#
```

Configuración SwitchSuper1

```
Switch>ena
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname SwitchSuper
SwitchSuper(config)#banner motd #Favor de no entrar al switch del super sin autorizacion#
SwitchSuper(config)#no ip domain-l
SwitchSuper(config)#no ip domain-lookup
SwitchSuper(config)#service pa
SwitchSuper(config)#service password-encryption
SwitchSuper(config)#line con 0
SwitchSuper(config-line)#password cisco
SwitchSuper(config-line)#login
SwitchSuper(config-line)#logging sync
SwitchSuper(config-line)#exit
SwitchSuper(config)#line vty 0 15
SwitchSuper(config-line)#password cisco
SwitchSuper(config-line)#login
SwitchSuper(config-line)#logging sync
SwitchSuper(config-line)#exit
SwitchSuper(config)#do wr
Building configuration...
[OK]
SwitchSuper(config)#vlan 30
SwitchSuper(config-vlan)#name Departamento
SwitchSuper(config-vlan)#exit
SwitchSuper(config)#vlan 32
SwitchSuper(config-vlan)#name Cajas
SwitchSuper(config-vlan)#exit
SwitchSuper(config)#vlan 36
SwitchSuper(config-vlan)#Oficinas
^
% Invalid input detected at '^' marker.

SwitchSuper(config-vlan)#name Oficinas
SwitchSuper(config-vlan)#exit
SwitchSuper(config)#int range f0/3 f0/7
^
% Invalid input detected at '^' marker.

SwitchSuper(config)#int range f0/3-7
SwitchSuper(config-if-range)#switch mode access
```

```
SwitchSuper(config-if-range)#switchport access vlan 32
SwitchSuper(config-if-range)#exit
SwitchSuper(config)#int range f0/13-20
SwitchSuper(config-if-range)#sw mode access
SwitchSuper(config-if-range)#sw
SwitchSuper(config-if-range)#switchport access vlan 30
SwitchSuper(config-if-range)#exit
SwitchSuper(config)#int range f0/8-12
SwitchSuper(config-if-range)#sw mode access
SwitchSuper(config-if-range)#switchport access vlan 36
SwitchSuper(config-if-range)#exit
SwitchSuper(config)#int g0/1
SwitchSuper(config-if)#sw mode access
SwitchSuper(config-if)#switchport access vlan 36
SwitchSuper(config-if)#exit
SwitchSuper(config)#int range f0/1-2
SwitchSuper(config-if-range)#sw mode access
SwitchSuper(config-if-range)#switchport access vlan 36
SwitchSuper(config-if-range)#exit
SwitchSuper(config)#enable secret class
SwitchSuper(config)#int g0/2
SwitchSuper(config-if)#swicht mode trunk
```

^

% Invalid input detected at '^' marker.

```
SwitchSuper(config-if)#sw
SwitchSuper(config-if)#switch mode trunk
SwitchSuper(config-if)#swi
SwitchSuper(config-if)#switchport trunk allowed vlan 30, 32 , 36
```

^

% Invalid input detected at '^' marker.

```
SwitchSuper(config-if)#switchport trunk allowed vlan 30,32,36
SwitchSuper(config-if)#exit
```

```
SwitchSuper#config t
SwitchSuper(config)#int g0/2
SwitchSuper(config-if)#switchport trunk allowed vlan 30,32,34,36,38
SwitchSuper(config-if)#exit
SwitchSuper(config)#exit
```

```
SwitchSuper#config t
Enter configuration commands, one per line. End with CNTL/Z.
SwitchSuper(config)#int f0/24
```

```
SwitchSuper(config-if)#switchport mode trunk
SwitchSuper#conf t
Enter configuration commands, one per line. End with CNTL/Z.
SwitchSuper(config)#interface gigabitethernet 0/2
SwitchSuper(config-if)#switchport trunk allowed vlan 30,32,34,36,38
SwitchSuper(config-if)#exit
SwitchSuper(config)#exit
SwitchSuper#
%SYS-5-CONFIG_I: Configured from console by console
SwitchSuper#wr
Building configuration...
[OK]
SwitchSuper#
```

```
SwitchSuper#conf t
Enter configuration commands, one per line. End with CNTL/Z.
SwitchSuper(config)#vlan 38
SwitchSuper(config-vlan)#name cameras
SwitchSuper(config-vlan)#
SwitchSuper(config-vlan)#
SwitchSuper(config-vlan)#
SwitchSuper(config-vlan)#
SwitchSuper(config-vlan)#end
```

```
SwitchSuper#conf t
Enter configuration commands, one per line. End with CNTL/Z.
SwitchSuper(config)#vlan 34
SwitchSuper(config-vlan)#name Almacen
SwitchSuper(config-vlan)#exit
SwitchSuper(config)#exit
SwitchSuper#
%SYS-5-CONFIG_I: Configured from console by console
SwitchSuper#do we
```

```
^
% Invalid input detected at '^' marker.
```

```
SwitchSuper#wr
Building configuration...
[OK]
SwitchSuper#
```

```
SwitchSuper#conf t
Enter configuration commands, one per line. End with CNTL/Z.
SwitchSuper(config)#interface fastethernet 0/10
SwitchSuper(config-if)#switchport access vlan 30
SwitchSuper(config-if)#exit
```

```
SwitchSuper(config)#do wr
Building configuration...
[OK]
SwitchSuper(config)#int Fa0/17
SwitchSuper(config-if)#switchport access vlan 30
SwitchSuper(config-if)#exit
SwitchSuper(config)#do wr
Building configuration...
[OK]
SwitchSuper(config)#
```

Pruebas de conectividad

Router a router

Pings mutuos entre ambos routers

```
RouterCamiones
Physical Config CLI Attributes
IOS Command Line Interface
32768K bytes of non-volatile configuration memory.
4194304K bytes of physical memory.
3223551K bytes of flash memory at bootflash:.

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0,
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1,
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1.10,
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1.20,
changed state to up
Favor de no entrar sin autorizacion
User Access Verification
Password:
RouterCamiones>ena
Password:
RouterCamiones#ping 192.168.0.1

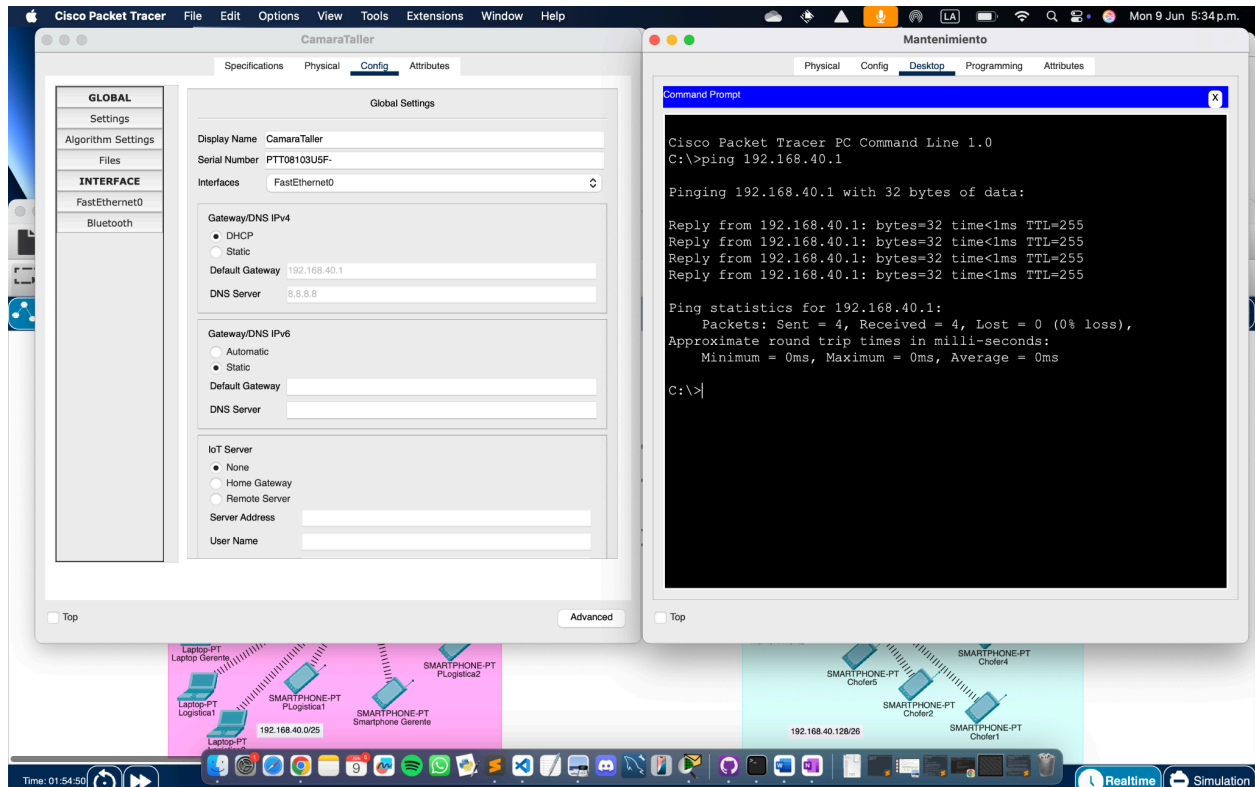
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.0.1, timeout is 2 seconds:
!!!!
Success rate is 80 percent (4/5), round-trip min/avg/max = 0/0/0 ms
RouterCamiones#

RouterSuper2
Physical Config CLI Attributes
IOS Command Line Interface
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1.30,
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1.32,
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1.34,
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1.36,
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/1.38,
changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0/0,
changed state to up
Favor de no entrar al router del switch sin autorizacion
User Access Verification
Password:
RouterSuper>ena
Password:
RouterSuper#ping 192.168.0.2

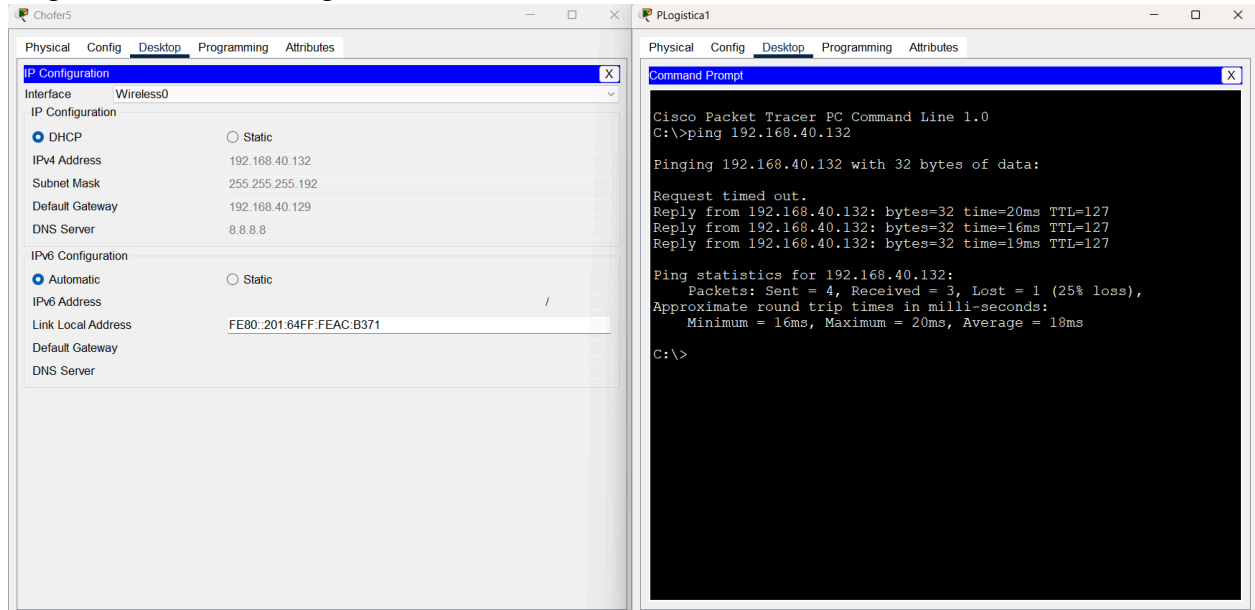
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.0.2, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms
RouterSuper#
```

Misma LAN tractos

Ping de PC mantenimiento a cámara del taller

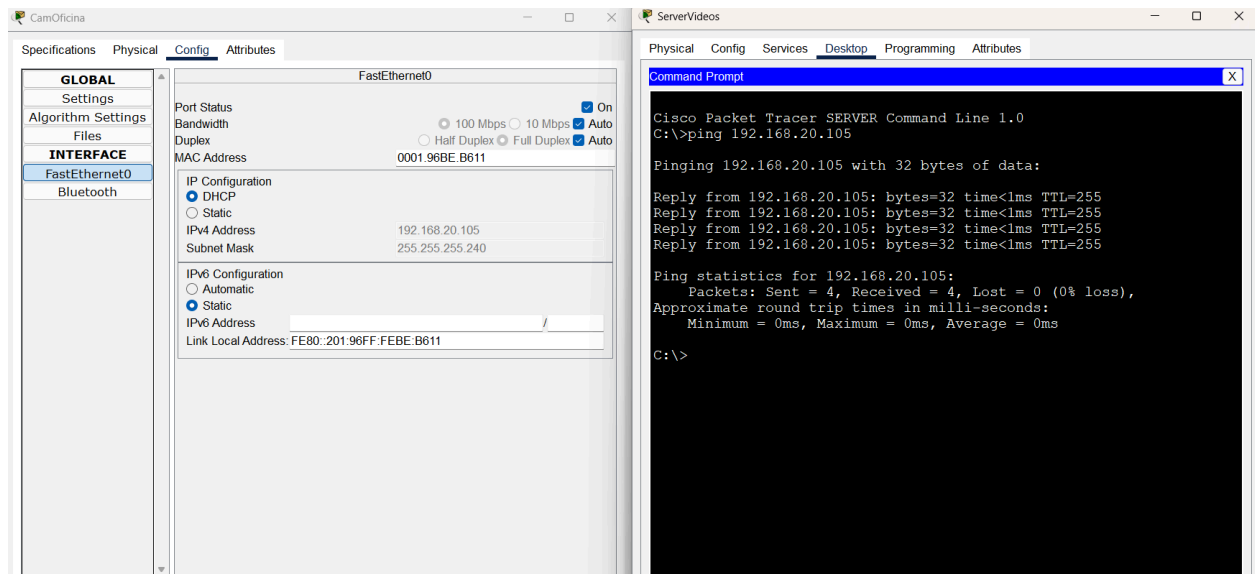


Ping desde celular de Logística 1 a celular de Chofer 5

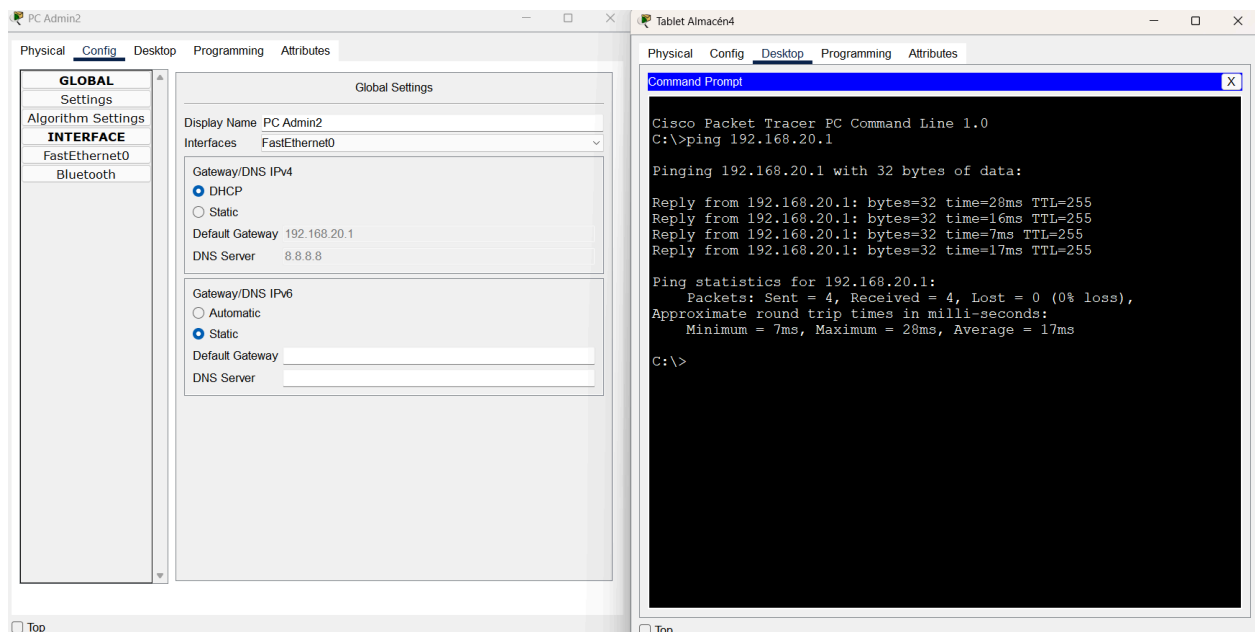


Misma LAN super

Ping desde cámara de seguridad CamOficina hacia ServerVideos

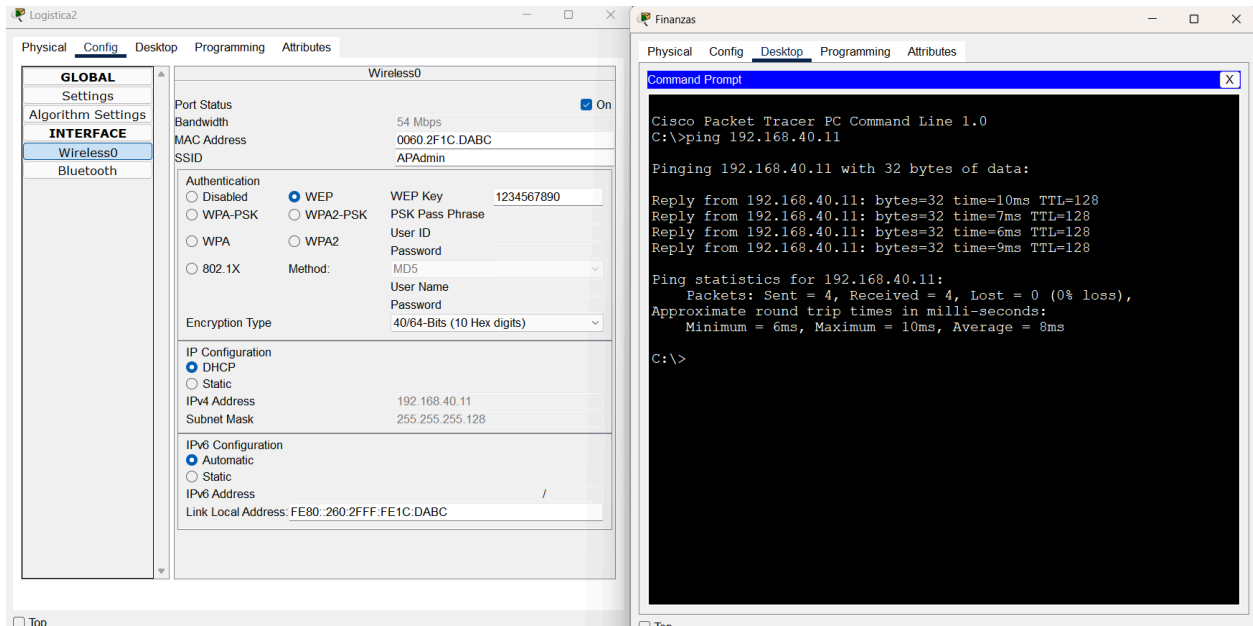


Ping desde tablet de Almacén4 hacia PC de Admin2

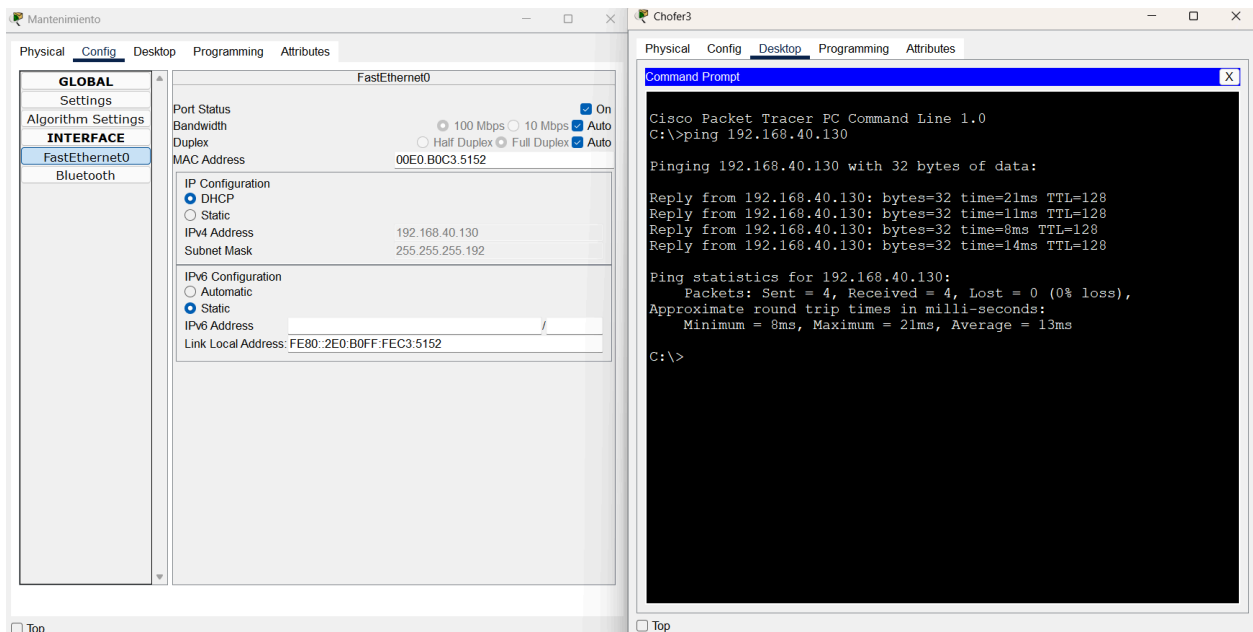


Misma VLAN tractos

Ping desde PC de Finanzas hacia Laptop de Logística 2

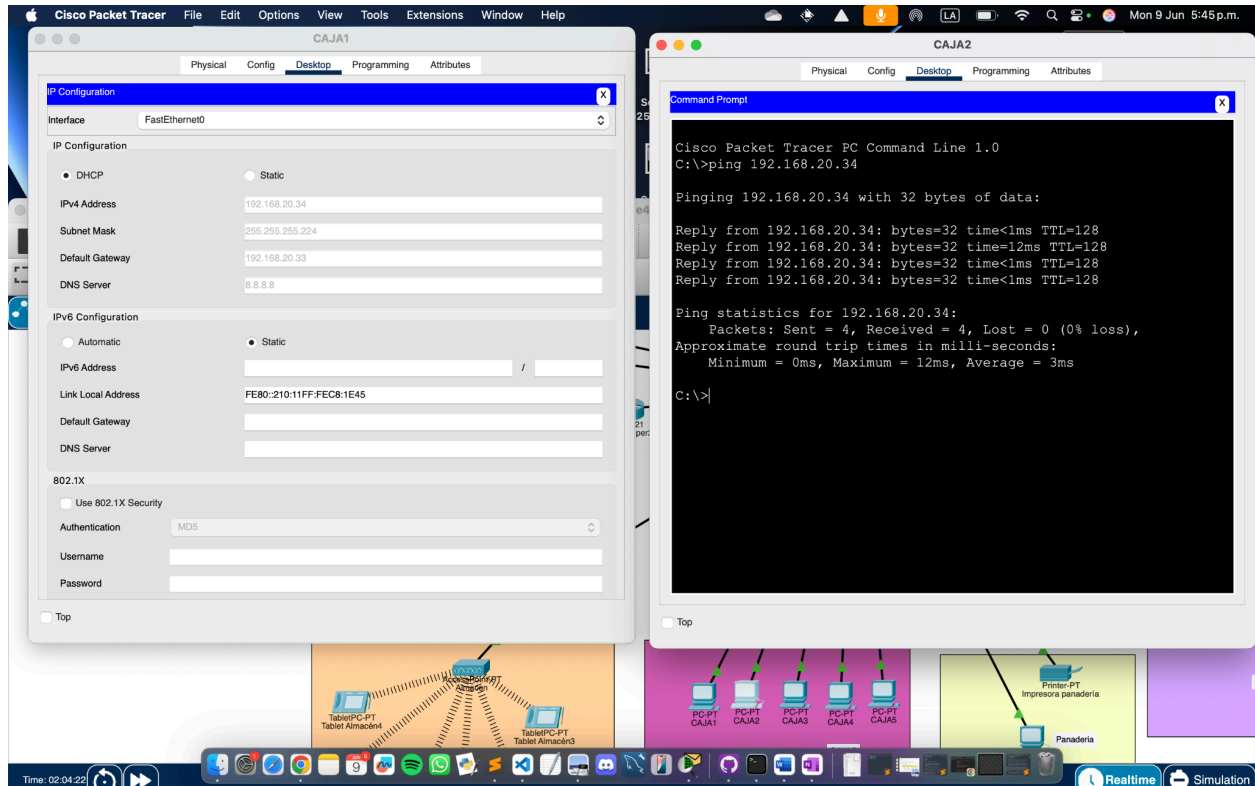


Ping desde celular de Chofer3 hacia PC de Mantenimiento

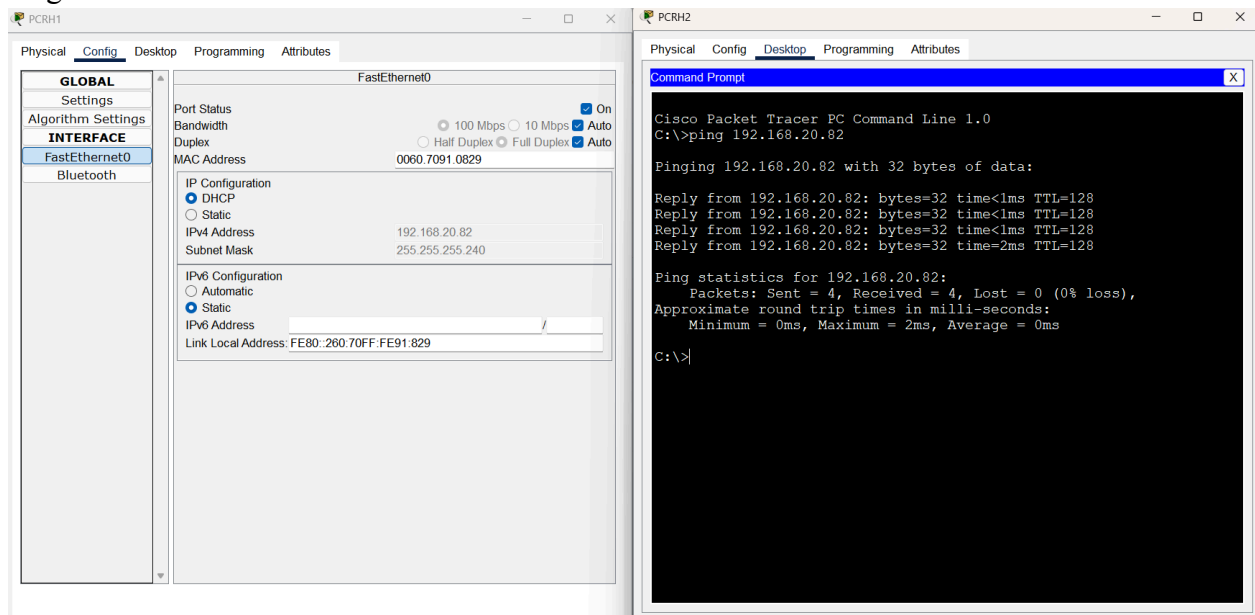


Misma VLAN super

Ping de PC CAJA1 a CAJA2

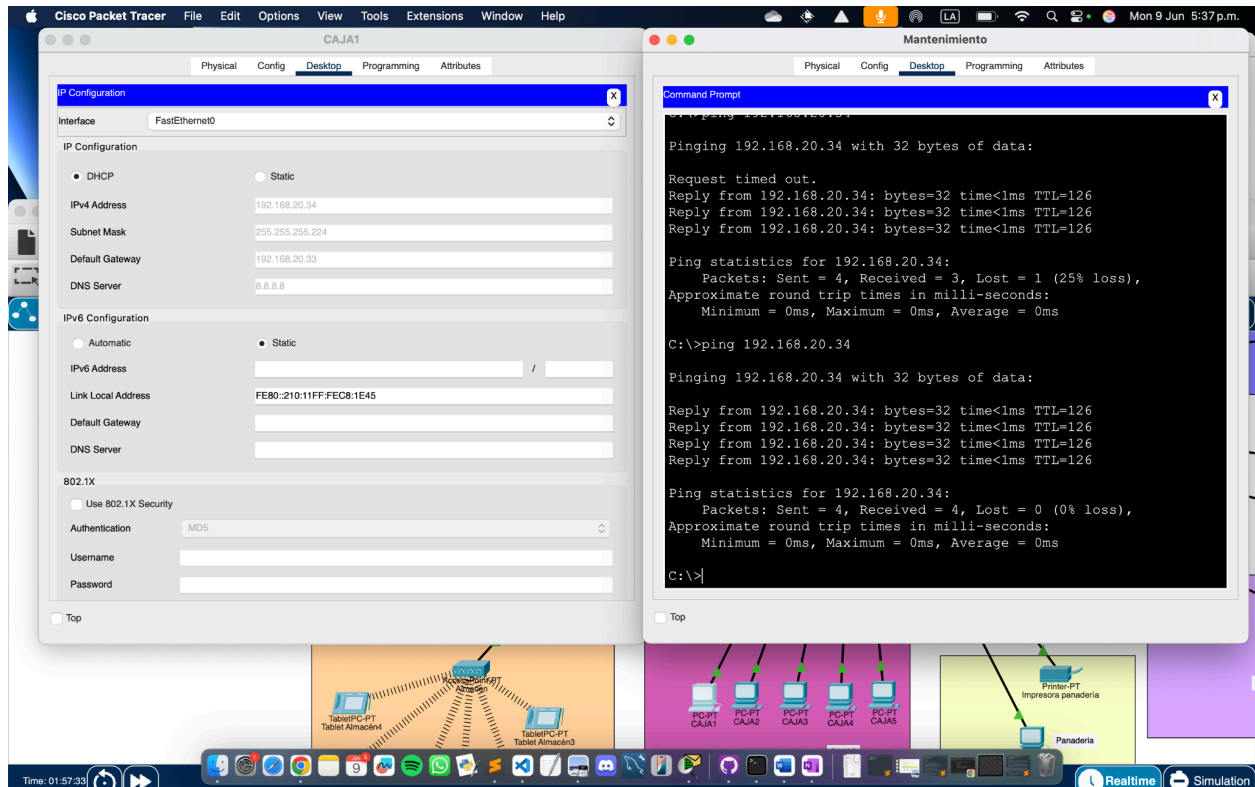


Ping de PC de RH1 a RH2



Redes diferentes

Ping desde la PC de mantenimiento de Tractos hacia PC CAJA1 del super



Ping desde PC GERENTE del supermercado hacia Laptop Gerente Tractos

