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# Paso 4

no ip domain-lookup

hostname B1-R1

service password-encryption

enable secret class

banner motd #Warning. #

line con 0

password cisco

login

logging synchronous

line vty 0 4

password cisco

login

exit

ip domain-name cisco.com

crypto key generate rsa

1024

username admin secret cisco

line vty 0 4

transport input ssh

login local

exit

ip ssh version 2

-- Se define la version de ssh la version 2 es mejor

-- Se crea el usuario local para el acceso al dispositivo ya sea router o switch

--Se deshabilitan todos los puertos y se habilitan de acuerdo a como se vallan usando

int range f0/1-24

shutdown

exit

int range g0/1-2

shutdown

exit

--Asignar la descripcion para cada interfaz

int nombreInterfaz

description \_descripcion adecuada para cada interfaz\_

--Direccionamiento de switches

vlan numeroVlan

name nombreAdecuado

exit

int vlan numeroVlan

ip address direccion\_ip mascarasubred\_paso3

# Paso 5

--Asignacion de vlans a puertos

vlan 10

name INVESTIGACIÓN/DESARROLLO

vlan 20

name PRODUCCIÓN

vlan 30

name VENTAS

vlan 100

name ADMOR

vlan numeroVlan

name nombreAdecuado

exit

int vlan numeroVlan

ip address \_ \_

int range f0/2-4

switchport mode access

switchport access vlan 10

no shutdown

exit

int range f0/5-7

switchport mode access

switchport access vlan 20

no shutdown

exit

int range f0/8-10

switchport mode access

switchport access vlan 30

no shutdown

exit

int range f0/11-20

switchport mode access

switchport access vlan 100

no shutdown

exit

# Paso 7

ip default-gateway direccion\_ip

int range f0/1,...

switchport mode trunk

switchport trunk native vlan 99

# Paso 8

switchport port-security

switchport port-security violation shutdown

switchport port-security mac-address sticky

switchport port-security maximum 1

# Paso 9

B1-R1

ip dhcp excluded-address 10.129.255.254

ip dhcp excluded-address 10.129.247.254

ip dhcp excluded-address 10.129.243.254

ip dhcp excluded-address 10.129.223.254

ip dhcp excluded-address 10.129.211.254

ip dhcp excluded-address 10.129.215.254

ip dhcp excluded-address 10.129.176.1 10.129.176.5

ip dhcp excluded-address 10.129.183.254

ip dhcp excluded-address 10.129.183.253

ip dhcp excluded-address 10.129.184.1 10.129.184.5

ip dhcp excluded-address 10.129.191.254

ip dhcp excluded-address 10.129.191.253

ip dhcp pool B2R1\_VLAN10

network 10.129.248.0 255.255.248.0

default-router 10.129.255.254

dns-server 10.129.207.243

exit

ip dhcp pool B2R1\_VLAN20

network 10.129.244.0 255.255.252.0

default-router 10.129.247.254

dns-server 10.129.207.243

exit

ip dhcp pool B2R1\_VLAN30

network 10.129.240.0 255.255.252.0

default-router 10.129.243.254

dns-server 10.129.207.243

exit

ip dhcp pool B3R1\_VLAN10

network 10.129.216.0 255.255.248.0

default-router 10.129.223.254

dns-server 10.129.207.243

exit

ip dhcp pool B3R1\_VLAN20

network 10.129.210.0 255.255.254.0

default-router 10.129.211.254

dns-server 10.129.207.243

exit

ip dhcp pool B3R1\_VLAN30

network 10.129.212.0 255.255.252.0

default-router 10.129.215.254

dns-server 10.129.207.243

exit

ip dhcp pool B5R1\_LAN

network 10.129.176.0 255.255.248.0

default-router 10.129.183.254

dns-server 10.129.207.243

exit

ip dhcp pool B4R1\_LAN

network 10.129.184.0 255.255.248.0

default-router 10.129.191.254

dns-server 10.129.207.243

exit

B2R1

interface g0/0.10

ip helper-address 10.129.207.234

interface g0/0.20

ip helper-address 10.129.207.234

interface g0/0.30

ip helper-address 10.129.207.234

B3R1

interface g0/0.10

ip helper-address 10.129.207.234

interface g0/0.20

ip helper-address 10.129.207.234

interface g0/0.30

ip helper-address 10.129.207.234

B4R1

interface g0/0

ip helper-address 10.129.207.234

B5R1

interface g0/0

ip helper-address 10.129.207.234

# Paso 10

Bn-R1

ntp server 10.129.207.242

B1-R1 y SW1-B1-R1

logging host 10.129.207.243

service timestamps log datetime msec

# Paso 11

SW1-B2R1 S1-S2-S3-S4-S5

interface g0/0.10

description VLAN 10

encapsulation dot1Q 10

ip address 10.129.255.254 255.255.248.0

interface g0/0.20

description VLAN 20

encapsulation dot1Q 20

ip address 10.129.247.254 255.255.252.0

interface g0/0.30

description VLAN 30

encapsulation dot1Q 30

ip address 10.129.243.254 255.255.252.0

interface g0/0.100

description VLAN 100

encapsulation dot1Q 100

ip address 10.129.239.254 255.255.255.224

exit

interface g0/0

no shutdown

SW1-B3R1 S1-S2-S3

interface g0/0.10

description VLAN 10

encapsulation dot1Q 10

ip address 10.129.223.254 255.255.248.0

interface g0/0.20

description VLAN 20

encapsulation dot1Q 20

ip address 10.129.211.254 255.255.254.0

interface g0/0.30

description VLAN 30

encapsulation dot1Q 30

ip address 10.129.215.254 255.255.252.0

interface g0/0.100

description VLAN 100

encapsulation dot1Q 100

ip address 10.129.209.254 255.255.255.128

exit

interface g0/0

no shutdown

# Paso 12

Región 1

RIP V2

B1-R1

router rip

versión 2

network 10.0.0.0

passive-interface g0/0.10

end

B2-R1

router rip

version 2

network 10.0.0.0

passive-interface g0/0.10

passive-interface g0/0.20

passive-interface g0/0.30

passive-interface g0/0.100

end

B3-R1

router rip

version 2

network 10.0.0.0

passive-interface g0/0.10

passive-interface g0/0.20

passive-interface g0/0.30

passive-interface g0/0.100

end

B1

router rip

versión 2

end

Region 2

RIP V1

B4-R1

router rip

network 10.0.0.0

passive-interface g0/0

end

B5-R1

router rip

network 10.0.0.0

passive-interface g0/0

end

# Paso 13

ip route 0.0.0.0 0.0.0.0 10.129.167.253

router rip

version 2

default-information originate

end

# Paso 14

ISP

ip route 209.165.200.224 255.255.255.224 209.165.201.1

B1

ip route 209.165.201.4 255.255.255.252 209.165.201.2

ip route 209.165.201.8 255.255.255.252 209.165.201.2

# Paso 15

**Configuración de NAT estática y PAT**

**B1**

access-list 1 permit 10.128.0.0 0.1.255.255

ip nat inside source static 10.129.207.244 209.165.200.225

ip nat inside source static 10.129.207.241 209.165.200.226

ip nat pool PAT 209.165.200.227 209.165.200.254 netmask 255.255.255.224

ip nat inside source list 1 pool PAT overload

int s0/0/0

ip nat inside

int s0/0/1

ip nat inside

int s0/1/0

ip nat inside

int s0/1/1

ip nat outside

exit

exit

# Paso 16

**TELNET Y SSH**

(Todos lo Switches y routers)

line vty 0 4

transport input all

login local

**Servidores de la R1**

**Web-Intranet**

**IP:** 10.129.207.244

**MÁSCARA:** 255.255.255.240

**GATEWAY:** 10.129.207.254

**DNS:** 10.129.207.243

**Servidor DNS interno**

**IP:** 10.129.207.243

**MÁSCARA:** 255.255.255.240

**GATEWAY:** 10.129.207.254

**DNS:** 10.129.207.243

**Servidor de Correo**

**IP:** 10.129.207.242

**MÁSCARA:** 255.255.255.240

**GATEWAY:** 10.129.207.254

**DNS:** 10.129.207.243

**Servidores FTP/TFTP**

**IP:** 10.129.207.241

**MÁSCARA:** 255.255.255.240

**GATEWAY:** 10.129.207.254

**DNS:** 10.129.207.243

**Servidores Externos**

**Servidor DNS**

**IP:** 209.165.201.5

**MÁSCARA:** 255.255.255.252

**GATEWAY:** 209.165.201.6

**DNS:** 209.165.201.5

**Servidor WEB**

**IP:** 209.165.201.9

**MÁSCARA:** 255.255.255.252

**GATEWAY:** 209.165.201.10

**DNS:** 209.165.201.5