

BITACORA

PUNTO 1

enrutar OSPF

ROUTER 1

```
Router1(config)#router ospf 7
```

```
Router1(config-router)#network 172.20.7.56 0.0.0.3 area 0
```

```
Router1(config-router)#network 192.168.10.0 0.0.0.255 area 0
```

```
Router1(config-router)#network 192.168.20.0 0.0.0.255 area 0
```

ROUTER 2

```
Router2(config)#router ospf 7
```

```
Router2(config-router)#network 172.20.7.60 0.0.0.3 area 0
```

```
Router2(config-router)#network 192.168.10.0 0.0.0.255 area 0
```

```
Router2(config-router)#network 192.168.20.0 0.0.0.255 area 0
```

ROUTER 3

```
router ospf 7
```

```
network 172.20.7.56 0.0.0.3 area 0
```

```
network 172.20.7.60 0.0.0.3 area 0
```

```
network 172.20.7.0 0.0.0.31 area 0
```

SWML01

```
router ospf 7
```

```
network 172.20.7.0 0.0.0.31 area 0
```

```
network 172.20.7.48 0.0.0.7 area 0
```

```
network 172.20.7.32 0.0.0.15 area 0
```

SWML02

```
router ospf 7
network 172.20.7.48 0.0.0.7 area 0
network 192.168.30.0 0.0.0.255 area 0
network 192.168.40.0 0.0.0.255 area 0
```

SWML03

```
router ospf 7
network 172.20.7.32 0.0.0.15 area 0
network 192.168.30.0 0.0.0.255 area 0
network 192.168.40.0 0.0.0.255 area 0
```

PUNTO 6**Etherchannel**

Sw2

```
Switch2(config)#int range fa0/21-23
Switch2(config-if-range)#channel-group 1 mode active
Switch2(config)#int port-channel 1
Switch2(config-if)#sw mode trunk
```

Sw3

```
Switch3(config)#int range fa0/21-23
Switch3(config-if-range)#channel-group 1 mode active
Switch3(config)#int port-channel 1
Switch3(config-if)#sw mode trunk
```

PUNTO 3

CONFIG enrutamiento VLANS 30 - 40 sw multicapa

SWML02

Ip routing

```
interface Vlan30
```

```
ip address 192.168.30.2 255.255.255.0
```

```
interface Vlan40
```

```
ip address 192.168.40.2 255.255.255.0
```

SWML03

Ip routing

```
interface Vlan30
```

```
ip address 192.168.30.3 255.255.255.0
```

```
interface Vlan40
```

```
ip address 192.168.40.3 255.255.255.0
```

PUNTO 7

CONFIG VLANS 30 - 40

Sw2

```
Switch2(config)#vlan 30
Switch2(config-vlan)#vlan 40
Switch2(config)#int range g0/1-2
Switch2(config-if-range)#sw mo trunk
```

```
Switch2(config)#int range fa0/1-5
Switch2(config-if-range)#sw mode access
Switch2(config-if-range)#sw access vlan 30

Switch2(config-if-range)#int range fa0/6-10
Switch2(config-if-range)#sw mo access
Switch2(config-if-range)#sw access vlan 40
```

Sw3

```
Switch3(config)#vlan 30
Switch3(config-vlan)#vlan 40

Switch3(config)#int range fa0/1-5
Switch3(config-if-range)#sw mode access
Switch3(config-if-range)#sw access vlan 30

Switch3(config-if-range)#int range fa0/6-10
Switch3(config-if-range)#sw mo access
```

```
Switch3(config-if-range)#sw access vlan 40
```

```
Switch3(config)#int range g0/1-2
```

```
Switch3(config-if-range)#sw mode trunk
```

SWML02

```
SWML02(config)#vlan 30
```

```
SWML02(config-vlan)#vlan 40
```

```
SWML02(config)#int range g1/0/23-24
```

```
SWML02(config-if-range)#sw mo tr
```

```
SWML02(config-if-range)#sw mo trunk
```

SWML03

```
SWML03(config)#vlan 30
```

```
SWML03(config-vlan)#vlan 40
```

```
SWML03(config)#int range g1/0/23-24
```

```
SWML03(config-if-range)#sw mode tr
```

PUNTO 4

GW REDUNDANTE VLAN 10 - 20

ROUTER 1

```
Router(config)#int g0/0/0.10
standby 10 ip 192.168.10.1
standby 10 priority 150
standby 10 preempt
```

```
Router1(config)#int g0/0/0.20
standby 20 ip 192.168.20.1
standby 20 priority 150
standby 20 preempt
```

ROUTER 2

```
Router2(config)#int g0/0/0.10
standby 10 ip 192.168.10.1
standby 10 preempt
```

```
Router2(config-subif)#int g0/0/0.20
standby 20 ip 192.168.20.1
standby 20 preempt
```

PUNTO 5

GW REDUNDANTE VLAN 30 - 40

SWML02

```
SWML02(config)#int vlan 30
SWML02(config-if)#standby 30 ip 192.168.30.1
```

SWML02(config-if)#standby 30 priority 150

SWML02(config-if)#standby 30 preempt

SWML02(config-if)#int vlan 40

SWML02(config-if)#standby 40 ip 192.168.40.1

SWML02(config-if)#standby 40 priority 150

SWML03

SWML03(config)#int vlan 30

SWML03(config-if)#standby 30 ip 192.168.30.1

SWML03(config-if)#standby 30 preempt

SWML03(config-if)#int vlan 40

SWML03(config-if)#standby 40 ip 192.168.40.1

SWML03(config-if)#standby 40 preempt

PUNTO 8

Configuracion de VLANS 10 - 20

SW1

Switch(config)#vlan 10

Switch(config-vlan)#vlan 20

Switch(config)#int range fa0/1-5

Switch(config-if-range)#sw mod access

Switch(config-if-range)#sw access vlan 10

Switch(config-if-range)#int range fa0/6-10

Switch(config-if-range)#sw mod access

Switch(config-if-range)#sw access vlan 20

```
Switch(config)#int g0/1
Switch(config-if)#switchport mode trunk
Switch(config)#int fa0/24
Switch(config-if)#sw mode trunk
```

PUNTO 9

DHCP

ROUTER 3 (dhcp)

```
ip dhcp excluded-address 192.168.10.1
ip dhcp excluded-address 192.168.10.2
ip dhcp excluded-address 192.168.10.3
ip dhcp excluded-address 192.168.20.1
ip dhcp excluded-address 192.168.20.2
ip dhcp excluded-address 192.168.20.3
!
ip dhcp pool vlan10
network 192.168.10.0 255.255.255.0
default-router 192.168.10.1
ip dhcp pool vlan20
network 192.168.20.0 255.255.255.0
default-router 192.168.20.1

ip dhcp excluded-address 192.168.10.1
ip dhcp excluded-address 192.168.10.2
ip dhcp excluded-address 192.168.10.3
ip dhcp excluded-address 192.168.20.1
```

```
ip dhcp excluded-address 192.168.20.2
ip dhcp excluded-address 192.168.20.3
ip dhcp excluded-address 192.168.30.1
ip dhcp excluded-address 192.168.30.2
ip dhcp excluded-address 192.168.30.3
ip dhcp excluded-address 192.168.40.1
ip dhcp excluded-address 192.168.40.2
ip dhcp excluded-address 192.168.40.3
!
ip dhcp pool vlan10
network 192.168.10.0 255.255.255.0
default-router 192.168.10.1
ip dhcp pool vlan20
network 192.168.20.0 255.255.255.0
default-router 192.168.20.1
ip dhcp pool vlan30
network 192.168.30.0 255.255.255.0
default-router 192.168.30.1
ip dhcp pool vlan40
network 192.168.40.0 255.255.255.0
default-router 192.168.40.1
```

SWML02

```
SWML02(config)#int vlan 30
SWML02(config-if)#ip helper-address 172.20.7.1
SWML02(config-if)#int vlan 40
SWML02(config-if)#ip helper-address 172.20.7.1
```

SWML03

```
SWML03(config)#int vlan 30  
SWML03(config-if)#ip helper-address 172.20.7.1  
SWML03(config-if)#int vlan 40  
SWML03(config-if)#ip helper-address 172.20.7.1
```

ROUTER 1

```
Router1(config)#int g0/0/0.10  
Router1(config-subif)#ip helper-address 172.20.7.58  
Router1(config-subif)#int g0/0/0.20  
Router1(config-subif)#ip helper-address 172.20.7.58
```

ROUTER 2

```
Router2(config)#INT G0/0/0.10  
Router2(config-subif)#IP HELP  
Router2(config-subif)#IP HELPer-address 172.20.7.62  
Router2(config-subif)#INT G0/0/0.20  
Router2(config-subif)#IP HELPer-address 172.20.7.62
```