

Bouras adel

Switch Multilayer:

!

version 12.2(37)SE1

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname Switch

!

!

!

!

!

!

ip routing

!

!

!

!

!

!

!

!

!

!

!

!

!

!

Bouras adel

```
!  
spanning-tree mode pvst  
!  
!  
!  
!  
!  
!  
interface FastEthernet0/1  
    switchport trunk allowed vlan 10,20  
    switchport trunk encapsulation dot1q  
    switchport mode trunk  
!  
interface FastEthernet0/2  
    switchport trunk allowed vlan 10,20  
    switchport trunk encapsulation dot1q  
    switchport mode trunk  
!  
interface FastEthernet0/3  
    switchport trunk allowed vlan 10,20  
    switchport trunk encapsulation dot1q  
    switchport mode trunk  
!  
interface FastEthernet0/4  
!  
interface FastEthernet0/5  
!  
interface FastEthernet0/6  
!
```

Bouras adel

interface FastEthernet0/7

!

interface FastEthernet0/8

!

interface FastEthernet0/9

!

interface FastEthernet0/10

!

interface FastEthernet0/11

!

interface FastEthernet0/12

!

interface FastEthernet0/13

!

interface FastEthernet0/14

!

interface FastEthernet0/15

!

interface FastEthernet0/16

!

interface FastEthernet0/17

!

interface FastEthernet0/18

!

interface FastEthernet0/19

!

interface FastEthernet0/20

!

interface FastEthernet0/21

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```
!  
interface FastEthernet0/22  
!  
interface FastEthernet0/23  
!  
interface FastEthernet0/24  
!  
interface GigabitEthernet0/1  
!  
interface GigabitEthernet0/2  
!  
interface Vlan1  
no ip address  
shutdown  
!  
interface Vlan10  
mac-address 00e0.f7c1.e701  
ip address 192.168.10.4 255.255.255.0  
!  
interface Vlan20  
mac-address 00e0.f7c1.e702  
ip address 192.168.20.4 255.255.255.0  
!  
ip classless  
!  
ip flow-export version 9  
!  
!  
!
```

Bouras adel

!

!

!

!

!

line con 0

!

line aux 0

!

line vty 0 4

login

!

!

!

!

end

Switch 1:

!

version 15.0

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname Switch

!

!

!

!

!

Bouras adel

```
!  
spanning-tree mode pvst  
spanning-tree extend system-id  
!  
interface FastEthernet0/1  
  switchport mode trunk  
!  
interface FastEthernet0/2  
  switchport access vlan 10  
  switchport mode access  
!  
interface FastEthernet0/3  
  switchport access vlan 20  
  switchport mode access  
!  
interface FastEthernet0/4  
!  
interface FastEthernet0/5  
!  
interface FastEthernet0/6  
!  
interface FastEthernet0/7  
!  
interface FastEthernet0/8  
!  
interface FastEthernet0/9  
!  
interface FastEthernet0/10  
!
```

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interface FastEthernet0/11

!

interface FastEthernet0/12

!

interface FastEthernet0/13

!

interface FastEthernet0/14

!

interface FastEthernet0/15

!

interface FastEthernet0/16

!

interface FastEthernet0/17

!

interface FastEthernet0/18

!

interface FastEthernet0/19

!

interface FastEthernet0/20

!

interface FastEthernet0/21

!

interface FastEthernet0/22

!

interface FastEthernet0/23

!

interface FastEthernet0/24

!

interface GigabitEthernet0/1

Bouras adel

```
!  
interface GigabitEthernet0/2  
!  
interface Vlan1  
  no ip address  
  shutdown  
!  
!  
!  
!  
line con 0  
!  
line vty 0 4  
  login  
line vty 5 15  
  login  
!  
!  
!  
!  
end
```

Switch 2 :

```
!  
version 15.0  
no service timestamps log datetime msec  
no service timestamps debug datetime msec  
no service password-encryption  
!
```

Bouras adel

```
hostname Switch
```

```
!
```

```
!
```

```
!
```

```
!
```

```
!
```

```
!
```

```
spanning-tree mode pvst
```

```
spanning-tree extend system-id
```

```
!
```

```
interface FastEthernet0/1
```

```
    switchport mode trunk
```

```
!
```

```
interface FastEthernet0/2
```

```
    switchport access vlan 10
```

```
    switchport mode access
```

```
!
```

```
interface FastEthernet0/3
```

```
    switchport access vlan 20
```

```
    switchport mode access
```

```
!
```

```
interface FastEthernet0/4
```

```
!
```

```
interface FastEthernet0/5
```

```
!
```

```
interface FastEthernet0/6
```

```
!
```

```
interface FastEthernet0/7
```

```
!
```

Bouras adel

interface FastEthernet0/8

!

interface FastEthernet0/9

!

interface FastEthernet0/10

!

interface FastEthernet0/11

!

interface FastEthernet0/12

!

interface FastEthernet0/13

!

interface FastEthernet0/14

!

interface FastEthernet0/15

!

interface FastEthernet0/16

!

interface FastEthernet0/17

!

interface FastEthernet0/18

!

interface FastEthernet0/19

!

interface FastEthernet0/20

!

interface FastEthernet0/21

!

interface FastEthernet0/22

Bouras adel

```
!  
interface FastEthernet0/23  
!  
interface FastEthernet0/24  
!  
interface GigabitEthernet0/1  
!  
interface GigabitEthernet0/2  
!  
interface Vlan1  
no ip address  
shutdown  
!  
!  
!  
!  
line con 0  
!  
line vty 0 4  
login  
line vty 5 15  
login  
!  
!  
!  
!  
end
```

Switch 3 :

```
!
```

Bouras adel

version 15.0

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname Switch

!

!

!

!

!

!

spanning-tree mode pvst

spanning-tree extend system-id

!

interface FastEthernet0/1

switchport mode trunk

!

interface FastEthernet0/2

switchport access vlan 10

switchport mode access

!

interface FastEthernet0/3

switchport access vlan 20

switchport mode access

!

interface FastEthernet0/4

!

interface FastEthernet0/5

Bouras adel

!

interface FastEthernet0/6

!

interface FastEthernet0/7

!

interface FastEthernet0/8

!

interface FastEthernet0/9

!

interface FastEthernet0/10

!

interface FastEthernet0/11

!

interface FastEthernet0/12

!

interface FastEthernet0/13

!

interface FastEthernet0/14

!

interface FastEthernet0/15

!

interface FastEthernet0/16

!

interface FastEthernet0/17

!

interface FastEthernet0/18

!

interface FastEthernet0/19

!

Bouras adel

```
interface FastEthernet0/20
```

```
!
```

```
interface FastEthernet0/21
```

```
!
```

```
interface FastEthernet0/22
```

```
!
```

```
interface FastEthernet0/23
```

```
!
```

```
interface FastEthernet0/24
```

```
!
```

```
interface GigabitEthernet0/1
```

```
!
```

```
interface GigabitEthernet0/2
```

```
!
```

```
interface Vlan1
```

```
no ip address
```

```
shutdown
```

```
!
```

```
!
```

```
!
```

```
!
```

```
line con 0
```

```
!
```

```
line vty 0 4
```

```
login
```

```
line vty 5 15
```

```
login
```

```
!
```

```
!
```

Bouras adel

!

!

End

Table de routage

```
Switch>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

C      192.168.10.0/24 is directly connected, Vlan10
C      192.168.20.0/24 is directly connected, Vlan20
```

Résultat de la commande ping entre 2 machines de 2 VLAN différents :

```
C:\>ping 192.168.20.1

Pinging 192.168.20.1 with 32 bytes of data:

Reply from 192.168.20.1: bytes=32 time<1ms TTL=127
Reply from 192.168.20.1: bytes=32 time<1ms TTL=127
Reply from 192.168.20.1: bytes=32 time<1ms TTL=127
Reply from 192.168.20.1: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.20.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```