**Paso 1**

enable

configure terminal

no ip domain-lookup

hostname Main

service password-encryption

enable secret class

banner motd $users that unauthorized access is prohibited$

line console 0

logging synchronous

password cisco

login

exit

ip domain-name cisco.com

username admin password class

crypto key generate rsa

1024

ip ssh version 2

line vty 0 15

transport input ssh

login local

exit

**Paso 2**

interface gigabitEthernet 0/1

ip address 192.168.2.1 255.255.255.0

no shutdown

description Local-1

int s0/0/0

ip address 10.1.1.1 255.255.255.252

no shutdown

description Connection-to-Branch

exit

**Paso 3**

1,2.-

enable

configure terminal

vlan 5

name ACAD

vlan 10

name TEACH

vlan 15

name STUDENT

vlan 50

name NETADMIN

exit

3.-

Main-1 SW

interface range f0/23, f0/24, g0/1

switchport mode trunk

exit

Main-2 SW

interface f0/23

switchport mode trunk

exit

Main-3 SW

interface f0/24

switchport mode trunk

exit

4.-

Main-2 SW, Main-3 SW

interface f0/5

switchport mode access

switchport access vlan 5

interface f0/10

switchport mode access

switchport access vlan 10

interface f0/15

switchport mode access

switchport access vlan 15

interface f0/20

switchport mode access

switchport access vlan 50

**Paso 4**

Main

interface g0/0.5

encapsulation dot1Q 5

ip address 192.168.1.1 255.255.255.240

interface g0/0.10

encapsulation dot1Q 10

ip address 192.168.1.17 255.255.255.240

interface g0/0.15

encapsulation dot1Q 15

ip address 192.168.1.33 255.255.255.240

interface g0/0.50

encapsulation dot1Q 50

ip address 192.168.1.49 255.255.255.240

exit

interface g0/0

no shutdown

**Paso 5**

Main

ip access-list standard block15

deny 192.168.1.32 0.0.0.15

permit any

ip access-list standard ACL

line vty 0

access-class ACL in

int g0/0.10

ip access-group block15 out

exit

**Paso 6**

Main-1 SW

int vlan 50

ip address 192.168.1.50 255.255.255.240

no shutdown

exit

ip default-gateway 192.168.1.49

Main-2 SW

int vlan 50

ip address 192.168.1.51 255.255.255.240

no shutdown

exit

ip default-gateway 192.168.1.49

Main-3 SW

int vlan 50

ip address 192.168.1.52 255.255.255.240

no shutdown

exit

ip default-gateway 192.168.1.49

**Paso 7**

Main-2

1.-

interface range f0/1-4, f0/6-9, f0/11-14, f0/16-19, f0/21-24, g0/1-2

shutdown

2.-

interface range f0/5, f0/10, f0/15, f0/20

switchport port-security

switchport port-security maximum 2

switchport port-security mac-add sticky

switchport port-security violation protect

**Paso 8**

Main

Router rip

version 2

network 10.1.1.0

network 192.168.1.0

network 192.168.1.16

network 192.168.1.32

network 192.168.1.48

network 192.168.2.0

no auto-summary

passive-interface g0/0.5

passive-interface g0/0.10

passive-interface g0/0.15

passive-interface g0/0.50

passive-interface g0/0

passive-interface g0/1

exit

Remote

router rip

version 2

network 10.1.1.0

network 192.168.3.0

default-information originate

no auto-summary

passive-interface s0/0/1

passive-interface g0/0

**Paso 9**

service timestamps log datetime msec

service timestamps debug datetime msec

ntp server 192.168.2.10

logging 192.168.2.10

logging trap debugging

ntp update-calendar