Universidad Autónoma de Chiapas

Facultad de Contaduría y Administración Campus I

Licenciatura en ingeniería en Desarrollo y Tecnologías de software

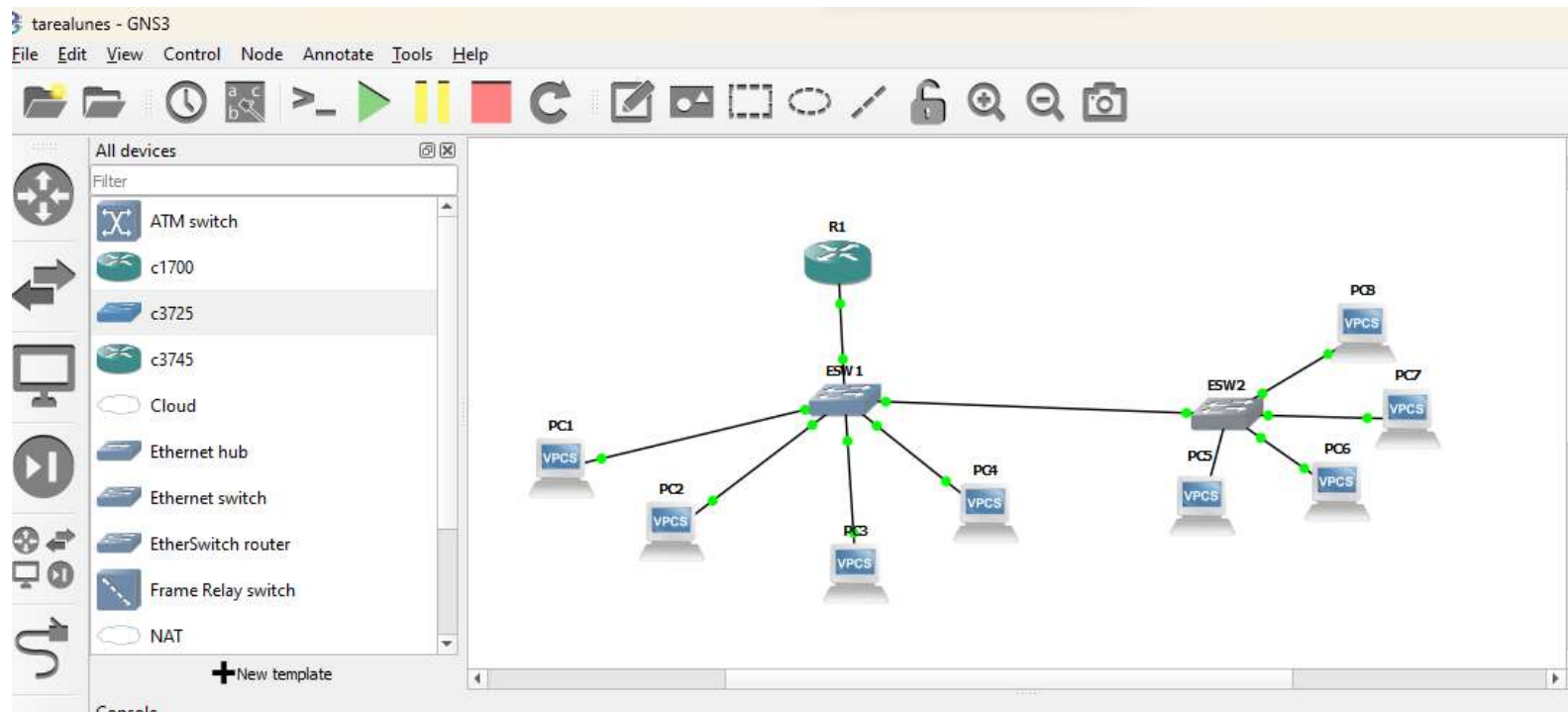MATERIA: Conmutadores y redes inalámbricas

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TUXTLA GUTIERREZ CHIAPAS

```
ESW1#}

% Unknown command or computer name, or unable to find computer address
ESW1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
ESW1(config)#enable
% Incomplete command.

ESW1(config)#hostname MAF
MAF(config)#exit
MAF#
*Mar  1 00:01:14.547: %SYS-5-CONFIG_I: Configured from console by console
MAF#vlan database
% Warning: It is recommended to configure VLAN from config mode,
  as VLAN database mode is being deprecated. Please consult user
  documentation for configuring VTP/VLAN in config mode.

MAF(vlan)#config t
                ^
% Invalid input detected at '^' marker.

MAF(vlan)#vlan database
               ^
% Invalid input detected at '^' marker.

MAF(vlan)#vlan 20 name sergio
VLAN 20 added:
    Name: sergio
MAF(vlan)#vlan 30 name spider
VLAN 30 added:
    Name: spider
MAF(vlan)#exit
APPLY completed.
Exiting....
MAF#show vlan-swicht brief
                   ^
% Invalid input detected at '^' marker.
```

VLAN	Name	Status	Ports
1	default	active	Fa1/0, Fa1/1, Fa1/2, Fa1/3
			Fa1/4, Fa1/5, Fa1/6, Fa1/7
			Fa1/8, Fa1/9, Fa1/10, Fa1/11
			Fa1/12, Fa1/13, Fa1/14, Fa1/15
20	sergio	active	
30	spider	active	
1002	fddi-default	act/unsup	
1003	token-ring-default	act/unsup	
1004	fddinet-default	act/unsup	
1005	trnet-default	act/unsup	

```
MAF#
MAF#config t
Enter configuration commands, one per line.  End with CNTL/Z.
MAF(config)#interface fa 0/0
MAF(config-if)#switchport mode trunk
              ^
% Invalid input detected at '^' marker.

MAF(config-if)#interface fa 1/15
MAF(config-if)#interface fa 1/15
MAF(config-if)#switchport mode trunk
MAF(config-if)#
*Mar  1 00:18:14.187: %SYS-3-CPUHOG: Task is running for (2008)msecs, more than (2000
-Traceback= 0x6001F338 0x60A8A648 0x60A88744
*Mar  1 00:18:16.207: %SYS-3-CPUHOG: Task is running for (4032)msecs, more than (2000
-Traceback= 0x62B0EB28 0x60024CE8 0x60024F70 0x6001B72C 0x6001CA58 0x63643E94 0x60A8A
*Mar  1 00:18:17.307: %DTP-5-TRUNKPORTON: Port Fa1/15 has become dot1q trunk
MAF(config-if)#no shutdown
MAF(config-if)#exit
MAF(config)#interface fa 1/14
MAF(config-if)#switchport mode trunk
MAF(config-if)#switchport
MAF(config-if)#no shutdown
MAF(config-if)#exit
MAF(config)#wr
% Incomplete command.

MAF(config)#^Z
```

```
VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa1/0, Fa1/1, Fa1/2, Fa1/3
                                                Fa1/4, Fa1/5, Fa1/6, Fa1/7
                                                Fa1/8, Fa1/9, Fa1/10, Fa1/11
                                                Fa1/12, Fa1/13, Fa1/14
20   sergio                           active
30   spider                           active
1002 fddi-default                     act/unsup
1003 token-ring-default               act/unsup
1004 fddinet-default                  act/unsup
1005 trnet-default                    act/unsup
MAF#config t
Enter configuration commands, one per line.  End with CNTL/Z.
MAF(config)#interface fa 1/15
MAF(config-if)#switchport mode trunk
MAF(config-if)#
MAF(config-if)#switchport trunk allowed vlan 1-1005
MAF(config-if)#no shutdown
MAF(config-if)#exit
MAF(config)#interface fa 1/14
MAF(config-if)#switchport mode trunk
MAF(config-if)#switchport
MAF(config-if)#switchport trunk allowed vlan 1-1005
MAF(config-if)#no shutdown
MAF(config-if)#exit
MAF(config)#^Z
MAF#w
*Mar  1 00:48:29.607: %SYS-5-CONFIG_I: Configured from console by console
MAF#wr
Building configuration...
[OK]
MAF#show vlan-switch brief

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa1/0, Fa1/1, Fa1/2, Fa1/3
                                                Fa1/4, Fa1/5, Fa1/6, Fa1/7
                                                Fa1/8, Fa1/9, Fa1/10, Fa1/11
```

```
⋮    ● ESW1                       ×   ● R1

20   sergio                        active
30   spider                        active
1002 fddi-default                  act/unsup
1003 token-ring-default            act/unsup
1004 fddinet-default               act/unsup
1005 trnet-default                 act/unsup
MAF#show run
Building configuration...

Current configuration : 2985 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
no service dhcp
!
hostname MAF
!
boot-start-marker
boot-end-marker
!
!
no aaa new-model
memory-size iomem 5
no ip routing
no ip icmp rate-limit unreachable
no ip cef
!
!
!
!

MAF#show run
Building configuration...

Current configuration : 2985 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
```

```
hostname MAF
!
boot-start-marker
boot-end-marker
!
!
no aaa new-model
memory-size iomem 5
no ip routing
no ip icmp rate-limit unreachable
no ip cef
!
!
!
!
no ip domain lookup
!
multilink bundle-name authenticated
!
```

```
exit
@
macro name del_vlan
end
vlan database
no vlan $v
exit
@
!
vtp file nvram:vlan.dat
archive
 log config
  hidekeys
!
!
!
!
ip tcp synwait-time 5
!
!
!
!
interface FastEthernet0/0
 description *** Unused for Layer2 EtherSwitch ***
 no ip address
 no ip route-cache
 shutdown
 duplex auto
 speed auto
!
interface FastEthernet0/1
 description *** Unused for Layer2 EtherSwitch ***
 no ip address
 no ip route-cache
 shutdown
 duplex auto
 speed auto
!
interface FastEthernet1/0
 duplex full
 speed 100
```

```
interface FastEthernet1/6
 duplex full
 speed 100
!
interface FastEthernet1/7
 duplex full
 speed 100
!
interface FastEthernet1/8
 duplex full
 speed 100
!
interface FastEthernet1/9
 duplex full
 speed 100
!
interface FastEthernet1/10
 duplex full
 speed 100
!
interface FastEthernet1/11
 duplex full
 speed 100
!
interface FastEthernet1/12
 duplex full
 speed 100
!
interface FastEthernet1/13
 duplex full
 speed 100
!
interface FastEthernet1/14
 switchport trunk allowed vlan 1-1005
 switchport mode trunk
 duplex full
 speed 100
!
interface FastEthernet1/15
 switchport trunk allowed vlan 1-1005
 switchport mode trunk
```

```
To view existing vlans use the command "show vlan-switch brief"

Alias(exec)      : vl   - "show vlan-switch brief" command
Alias(configure): va X - macro to add vlan X
Alias(configure): vd X - macro to delete vlan X
****************************************************************

^C
alias configure va macro global trace add_vlan $v
alias configure vd macro global trace del_vlan $v
alias exec vl show vlan-switch brief
!
line con 0
 exec-timeout 0 0
 privilege level 15
 logging synchronous
line aux 0
 exec-timeout 0 0
 privilege level 15
 logging synchronous
line vty 0 4
 login
!
!
end
```

```
ESW1                    x      ● R1                      ● ESW2

MAF#
MAF#config t
Enter configuration commands, one per line.  End with CNTL/Z.
MAF(config)#interface range fa 1
% Incomplete command.

MAF(config)#interface range fa 1/1 - 2
MAF(config-if-range)#switchpor access vlan 20
MAF(config-if-range)#switchpor mode access
MAF(config-if-range)#exit
MAF(config)#inteface range fa 1/3 - 4
                    ^
% Invalid input detected at '^' marker.

MAF(config)#interface range fa 1/3 - 4
MAF(config-if-range)#switchport mode access
MAF(config-if-range)#exit
MAF(config)#inteface range fa 1/3 - 4
                    ^
% Invalid input detected at '^' marker.

MAF(config)#interface range fa 1/3 - 4
MAF(config-if-range)#switchport mode access
MAF(config-if-range)#switchpor access vlan 30
MAF(config-if-range)#^Z
MAF#
*Mar  1 00:58:28.743: %SYS-5-CONFIG_I: Configured from console by console
MAF#show vlan-switch brief

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa1/0, Fa1/5, Fa1/6, Fa1/7
                                                Fa1/8, Fa1/9, Fa1/10, Fa1/11
                                                Fa1/12, Fa1/13, Fa1/14
20   sergio                           active    Fa1/1, Fa1/2
30   spider                           active    Fa1/3, Fa1/4
1002 fddi-default                     act/unsup
1003 token-ring-default               act/unsup
1004 fddinet-default                  act/unsup
1005 trnet-default                    act/unsup
MAF#
```

```
: ● ESW1        ● R1        x    ● ESW2        |

*Mar  1 00:00:08.783: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/3,
 changed state to down
R1#config t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#interface 0/0
                      ^
% Invalid input detected at '^' marker.

R1(config)#interface fa 0/0
R1(config-if)#no ip add
R1(config-if)#no shutdown
R1(config-if)#exit
R1(config)#
*Mar  1 00:39:58.851: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up
*Mar  1 00:39:59.851: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed
R1(config)#interface fa 0/0.2
R1(config-subif)#encapsulation dot1Q 2
R1(config-subif)#
*Mar  1 00:40:22.935: %LINK-3-UPDOWN: Interface FastEthernet0/0, changed state to up
R1(config-subif)#ip add 192.168.17.1 255.255.255.0
R1(config-subif)#exit
R1(config)#interface fa 0/0.2
R1(config-subif)#ip dhcp pool sergio
R1(dhcp-config)#network 192.168.17.0 255.255.255.0
R1(dhcp-config)#default-router 192.168.17.1
R1(dhcp-config)#dns-server 8.8.8.8
R1(dhcp-config)#exit
R1(config)#interface fa 0/0.3
R1(config-subif)#network 172.20.10.0 255.255.255.0
                  ^
% Invalid input detected at '^' marker.

R1(config-subif)#ip dhcp pool spider
R1(dhcp-config)#network 172.20.10.0 255.255.255.0
R1(dhcp-config)#dns-server 8.8.8.8
R1(dhcp-config)#exit
R1(config)#^Z
R1#wr
Building configuration...

*Mar  1 00:41:11.583: %SYS-5-CONFIG_I: Configured from console by console[OK]
```

```
: ● ESW1        ● R1        x    ● ESW2

Building configuration...

Current configuration : 1421 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R1
!
boot-start-marker
boot-end-marker
!
!
no aaa new-model
memory-size iomem 5
no ip icmp rate-limit unreachable
ip cef
!
!
no ip dhcp use vrf connected
!
ip dhcp pool sergio
   network 192.168.17.0 255.255.255.0
   default-router 192.168.17.1
   dns-server 8.8.8.8
!
ip dhcp pool spider
   network 172.20.10.0 255.255.255.0
   dns-server 8.8.8.8
!
!
no ip domain lookup
ip auth-proxy max-nodata-conns 3
ip admission max-nodata-conns 3
!
```

```
interface FastEthernet0/0
 no ip address
 duplex auto
 speed auto
!
interface FastEthernet0/0.2
 encapsulation dot1Q 2
 ip address 192.168.17.1 255.255.255.0
!
interface FastEthernet0/0.3
!
interface Serial0/0
 no ip address
 shutdown
 clock rate 2000000
!
interface FastEthernet0/1
 no ip address
 shutdown
 duplex auto
 speed auto
!
interface Serial0/1
 no ip address
 shutdown
 clock rate 2000000
!
interface Serial0/2
 no ip address
 shutdown
 clock rate 2000000
!
ip forward-protocol nd
!
!
no ip http server
no ip http secure-server
!
no cdp log mismatch duplex
!
```

```
no cdp log mismatch duplex
!
!
!
control-plane
!
!
!
!
!
!
!
!
line con 0
 exec-timeout 0 0
 privilege level 15
 logging synchronous
line aux 0
 exec-timeout 0 0
 privilege level 15
 logging synchronous
line vty 0 4
 login
!
!
end
```

```
*Mar  1 00:00:06.835: %LINK-3-UPDOWN: Interface FastEthernet1/4, changed state t
o up
*Mar  1 00:00:06.835: %LINK-3-UPDOWN: Interface FastEthernet1/3, changed state t
o up
*Mar  1 00:00:07.731: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, cha
nged state to down
*Mar  1 00:00:07.807: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et1/15, changed state to down
*Mar  1 00:00:07.807: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et1/14, changed state to down
*Mar  1 00:00:07.811: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et1/13, changed state to down
*Mar  1 00:00:07.811: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et1/12, changed state to down
*Mar  1 00:00:07.819: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et1/11, changed state to down
*Mar  1 00:00:07.823: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et1/10, changed state to down
*Mar  1 00:00:07.827: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et1/9, changed state to down
*Mar  1 00:00:07.827: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et1/8, changed state to down
*Mar  1 00:00:07.827: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et1/7, changed state to down

*************************************************************
This is a normal Router with a Switch module inside (NM-16ESW)
It has been pre-configured with hard-coded speed and duplex

To create vlans use the command "vlan database" in exec mode
After creating all desired vlans use "exit" to apply the config

To view existing vlans use the command "show vlan-switch brief"

Alias(exec)     : vl  - "show vlan-switch brief" command
Alias(configure): va X - macro to add vlan X
Alias(configure): vd X - macro to delete vlan X
*************************************************************
```