

CONMUTADORES Y REDES INALAMBRICAS

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Act. 2.2 Ruteo entre vlans 2,3,4,5



Como primer paso debemos crear las vlans tanto en el switch de capa 3 como en los de capa 2, de igual forma truncar la interfaz que se conecta al switch de capa en los switch de capa 2

SWITCH UNO-CAPA 2

```
Switch>ena
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname UNO
UNO(config)#vlan 2
UNO(config-vlan)#name vlanD
UNO(config-vlan)#exit
UNO(config)#vlan 3
UNO(config-vlan)#name vlanT
UNO(config-vlan)#exit
UNO(config)#vlan 4
UNO(config-vlan)#name vlanC
UNO(config-vlan)#exit
UNO(config)#vlan 5
UNO(config-vlan)#name vlanCin
UNO(config-vlan)#exit
UNO(config)#end
UNO#
UNO#ena
UNO#conf t
Enter configuration commands, one per line. End with CNTL/Z.
UNO(config)#inter g0/1
UNO(config-if)#switchport mode trunk
```

```
UNO(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state
to down
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state
to up
```

```
UNO(config-if)#switchport trunk allowed vlan 2,3,4,5
UNO(config-if)#exit
UNO(config)#end
UNO#
%SYS-5-CONFIG_I: Configured from console by console
```

```
UNO#wr
Building configuration...
[OK]
```

SWITCH DOS – CAPA 2

```
Switch>ena
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname DOS
DOS(config)#vlan 2
DOS(config-vlan)#name vlanD
DOS(config-vlan)#exit
DOS(config)#vlan 3
DOS(config-vlan)#name vlanT
DOS(config-vlan)#exit
DOS(config)#vlan 4
DOS(config-vlan)#name vlanC
DOS(config-vlan)#exit
DOS(config)#vlan 5
DOS(config-vlan)#name vlanCin
DOS(config-vlan)#exit
DOS(config)#end
DOS#
DOS#ena
DOS#conf t
Enter configuration commands, one per line. End with CNTL/Z.
DOS(config)#inter g0/1
DOS(config-if)#switchport mode trunk
```

```
DOS(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state
to down
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state
to up
```

```
DOS(config-if)#switchport trunk allowed vlan 2,3,4,5
DOS(config-if)#exit
DOS(config)#end
DOS#
%SYS-5-CONFIG_I: Configured from console by console
```

```
DOS#wr
Building configuration...
[OK]
DOS#
```

SWITCH DE CAPA 3

```
swC3#ena
swC3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
swC3(config)#
swC3(config)#vlan 2
swC3(config-vlan)#name vlanD
swC3(config-vlan)#exit
swC3(config)#vlan 3
swC3(config-vlan)#
%LINK-5-CHANGED: Interface Vlan3, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan3, changed state to up

swC3(config-vlan)#name vlanT
swC3(config-vlan)#exit
swC3(config)#vlan 4
swC3(config-vlan)#
%LINK-5-CHANGED: Interface Vlan4, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan4, changed state to up

swC3(config-vlan)#name vlanC
swC3(config-vlan)#exit
swC3(config)#vlan 5
swC3(config-vlan)#
%LINK-5-CHANGED: Interface Vlan5, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan5, changed state to up

swC3(config-vlan)#name vlanCin
swC3(config-vlan)#exit
swC3(config)#
swC3(config)#end
swC3#
```

%SYS-5-CONFIG_I: Configured from console by console

```
swC3#wr
Building configuration...
[OK]
```

COMO SEGUNDO PASO TENDREMOS QUE CONFIGURAR EL SWITCH DE CAPA 3 DANDOLE A CADA VLAN LA RED QUE LE CORRESPONDE

```
Switch>ena
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname swC3
swC3(config)#interface vlan 2
swC3(config-if)#ip address 192.18.10.1 255.255.255.224
swC3(config-if)#exit
swC3(config)#interface vlan 3
swC3(config-if)#ip address 192.18.10.33 255.255.255.224
swC3(config-if)#exit
swC3(config)#inter vlan 4
swC3(config-if)#ip address 192.18.10.65 255.255.255.224
swC3(config-if)#exit
swC3(config)#inter vlan 5
swC3(config-if)#ip address 192.18.10.97 255.255.255.224
swC3(config-if)#exit
swC3(config)#end
swC3#
%SYS-5-CONFIG_I: Configured from console by console
```

```
swC3#wr
Building configuration...
[OK]
```

COMO PASO NUMERO 3 CONFIGURAMOS DHCP PARA TODAS LAS VLANS EN EL SWITCH DE CAPA 3

```
swC3(config)#
swC3(config)#ip dhcp excluded-address 192.18.10.1 192.18.10.5
swC3(config)#ip dhcp pool vlan2-pool
swC3(dhcp-config)#network 192.18.10.0 255.255.255.224
swC3(dhcp-config)#default-router 192.18.10.1
swC3(dhcp-config)#dns-server 192.18.10.1
swC3(dhcp-config)#exit
```

```
swC3(config)#ip dhcp excluded-address 192.18.10.33 192.18.10.37
swC3(config)#ip dhcp pool vlan3-pool
swC3(dhcp-config)#network 192.18.10.32 255.255.255.224
swC3(dhcp-config)#default-router 192.18.10.33
swC3(dhcp-config)#dns-server 192.18.10.33
swC3(dhcp-config)#exit
```

```
swC3(config)#ip dhcp excluded-address 192.18.10.65 192.18.10.69
swC3(config)#ip dhcp pool vlan4-pool
swC3(dhcp-config)#network 192.18.10.64 255.255.255.224
swC3(dhcp-config)#default-router 192.18.10.65
swC3(dhcp-config)#dns-server 192.18.10.65
swC3(dhcp-config)#exit
```

```
swC3(config)#ip dhcp excluded-address 192.18.10.97 192.18.10.101
swC3(config)#ip dhcp pool vlan5-pool
swC3(dhcp-config)#network 192.18.10.96 255.255.255.224
swC3(dhcp-config)#default-router 192.18.10.97
swC3(dhcp-config)#dns-server 192.18.10.97
swC3(dhcp-config)#exit
swC3(config)#end
swC3#
%SYS-5-CONFIG_I: Configured from console by console
```

```
swC3#wr
Building configuration...
[OK]
```

CONFIGURAMOS EL SWITCHPORT MODE ACCESS dándole su respectiva vlan a las interfaces de los switches

SWITCH swC3-CAPA 3

```
swC3#
swC3#ena
swC3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
swC3(config)#inter range fa0/1
swC3(config-if-range)#switchport mode access
swC3(config-if-range)#switchport access vlan 2
swC3(config-if-range)#exit
swC3(config)#inter range fa0/2
swC3(config-if-range)#switchport mode access
swC3(config-if-range)#switchport access vlan 3
swC3(config-if-range)#exit
swC3(config)#inter range fa0/3
swC3(config-if-range)#switchport mode access
swC3(config-if-range)#switchport access vlan 4
```

```
swC3(config-if-range)#exit
swC3(config)#inter range fa0/4
swC3(config-if-range)#switchport mode access
swC3(config-if-range)#switchport access vlan 5
swC3(config-if-range)#exit
swC3(config)#end
swC3#
%SYS-5-CONFIG_I: Configured from console by console
```

```
swC3#wr
Building configuration...
[OK]
swC3#
```

SWITCH UNO-CAPA 2

```
UNO#
UNO#ena
UNO#conf t
Enter configuration commands, one per line. End with CNTL/Z.
UNO(config)#inter range fa0/1
UNO(config-if-range)#switchport mode access
UNO(config-if-range)#switchport access vlan 2
UNO(config-if-range)#exit
UNO(config)#inter range fa0/2
UNO(config-if-range)#switchport mode access
UNO(config-if-range)#switchport access vlan 3
UNO(config-if-range)#exit
UNO(config)#inter range fa0/3
UNO(config-if-range)#switchport mode access
UNO(config-if-range)#switchport access vlan 4
UNO(config-if-range)#exit
UNO(config)#inter range fa0/4
UNO(config-if-range)#switchport mode access
```









SWITCH DOS-CAPA 2

```
DOS>
DOS>
DOS>ena
DOS#conf t
Enter configuration commands, one per line. End with CNTL/Z.
DOS(config)#inter range fa0/1
DOS(config-if-range)#switchport mode access
DOS(config-if-range)#switchport access vlan 2
DOS(config-if-range)#exit
DOS(config)#inter range fa0/2
```


Scenario 0

Delete

List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC8	PC15	ICMP		0.000	N	0	(edit)	(delete)
	Successful	PC9	PC14	ICMP		0.000	N	1	(edit)	(delete)
	Successful	PC10	PC13	ICMP		0.000	N	2	(edit)	(delete)
	Successful	PC11	PC12	ICMP		0.000	N	3	(edit)	(delete)