Inicio configuración:

en (enable)

Modo privilegiado (Permite configuraciones)

conf t (configure terminal)

COMODÍN!!!!: ?

show

Guardar Configuració:

copy running-config startup-config

Cambiar de nombre el dispositivo:

hostname nombrequequeremos

Entrar a la configuración d 'una interficie

en/conf t/interface fastEthernet fa0/1 (1, és el num de la interfície)

Definición i configuración de VLAN

Configuració de VLAN

en

conf t

Crear VLAN: vlan vlan_numero (por ejemplo: vlan 2)

Poner nombre a vlan: name Alumnos

Salir: exit

Asignar puerto a vlan:

```
en
conf t
interface fastEthernet fa0/1 #(1, num de puerto)
switchport access vlan vlan_numero
exit
```

Asignar vlan a rango de puertos:

```
en
conf t
interface range fa0/1 - 5 (puertos del 1 al 5)
switchport access vlan vlan_numero
```

Comprovar configuración:

```
Switch# show vlan
```

1a parte

```
en
conf t
vlan 2
name Alumnes
exit
vlan 3
name Professors
exit
vlan 4
name Secretaria
exit
vlan 5
name Consergeria
exit
vlan 6
```

```
name Servidors
exit
exit
copy running-config startup-config
```

2a parte

```
interface range fastEthernet 0/1 - 5
switchport access vlan 2
exit
interface range fastEthernet 0/6 - 10
switchport access vlan 3
exit
interface range fastEthernet 0/11 -15
switchport access vlan 4
exit
interface range fastEthernet 0/16 - 20
switchport access vlan 5
exit
interface range fastEthernet 0/21 - 24
switchport access vlan 6
exit
exit
copy running-config startup-config
```

Enllace troncal (trunk)

```
Switch(config)#interface fa0/24
Switch(config-if)#switchport mode trunk
```

Para configurar el encaminamiento entre VLAN:

1. Configura un puerto de enlace troncal en el switch

```
Switch(config)#interface Gigabit 0/1
Switch(config-if)#switchport mode trunk
```

2. En el router : configurar una interfaz FastEthernet, sin IP ni mascara de red.

```
Router(config)#interface fa0/1
Router(config-if)#no ip address
Router(config-if)#no shutdown
```

3. En el router , configura una sub interfície con una IP y una máscara de red para cada VLAN. Cada subinterfaz tiene un encapsulamiento 802.1Q.

```
Router(config)#interface fa0/1.10
Router(config-subif)#encapsulation dot1q 10
Router(config-subif)#ip address
192.168.10.1 255.255.255.0
```

4. Utilitza las ordenes siguientes para verificar la configuración i el funcionamento del encaminamiento entre VLAN:

```
Switch#show interfaces trunk
Router#show ip interfaces
Router#show ip interfaces brief
Router#show ip route
```

VLAN NATIVA

switchport trunk native vlan vlan-id

Example:

Switch(config-if)# switchport trunk native vlan 200

AFEGIR IP A LA VLAN

https://content.cisco.com/chapter.sjs?uri=/searchable/chapter/content/en/us/td/docs/routers/interface-module-lorawan/software/configuration/guide/b_lora_scg/vlan.html.xml

Configuring IP Address for VLAN

Beginning in privileged EXEC mode, follow these steps to configure IP address for the VLAN:

Procedure

	Command or Action	Purpose
Step 1	**configure terminal**	Enter global configuration mode.
Step 2	**interface vlan** *vlan-id*	Enter interface configuration mode, and enter the VLAN to which the IP information is assigned. The VLAN range is 1 to 4094.
Step 3	**ip address** {*ip-address subnet-mask* | **dhcp** }	Configure the IP address.
Step 4	**exit**	Return to global configuration mode.
Step 5	**show interfaces vlan** *vlan-id*	Verify the configured IP address.
Step 6	**copy running-config startup-config**	(Optional) Save your entries in the configuration file.

Configuring VLAN Trunks

A trunk is a point-to-point link between one or more Ethernet interfaces and another networking device such as a router or a switch. Ethernet trunks carry the traffic of multiple VLANs over a single link, and you can extend the VLANs across an entire network.

You can configure the FastEthernet port as a trunk port that enables tagging of outgoing traffic from the Cisco LoRaWAN Gateway.

- Configuring a Trunk Port

Configuring a Trunk Port

Beginning in privileged EXEC mode, follow these steps to configure a trunk port:

Procedure

	Command or Action	Purpose
Step 1	**configure terminal**	Enter global configuration mode.
Step 2	**interface** *interface-id*	Specify the port to be configured for trunking, and enter interface configuration mode.
Step 3	**switchport mode trunk**	Set the interface in permanent trunking mode and negotiate to convert the link to a trunk link even if the neighboring interface is not a trunk interface.
Step 4	**exit**	Return to privileged EXEC mode.
Step 5	**copy running-config startup-config**	(Optional) Save your entries in the configuration file.

En switch de capa 3, posar els ports en trunk:

https://www.petenetlive.com/kb/article/0001167