

STP (Spanning-tree protocol)

```
sw(config)#spanning-tree vlan 1 priority 4096
sw#show spanning-tree brief
```

Definovanie root

Virtual LANs

Aktivovanie VLAN

```
sw#vlan database
sw(vlan)#vlan 101 name karol
sw(vlan)#vlan 102 name fero
sw(vlan)#exit
```

Statické pridelenie fyzického portu do VLAN

```
sw#configure terminal
sw(config)#interface fastethernet 0/X
sw(config-if)#switchport mode access
sw(config-if)#switchport access vlan 101
sw(config-if)#end
```

```
sw#show vlan
sw#show vlan id 2
sw#vlan database → sw(vlan)#show current
```

Zobrazí výpis virtuálnych LAN

Vytvorenie trunku

```
sw(config)#interface fastethernet 0/1
sw(config-if)#switchport mode trunk
sw(config-if)#switchport trunk encapsulation dot1q
sw(config-if)#switchport trunk allowe
sw(config-if)#end
```

na iný SWITCH

ak príkaz nefunguje dot1q je implicitne !!!
ktoré VLANs sú zapúzdrené do trunk-u

```
sw(config)#interface fastethernet 0/11
sw(config-if)#switchport mode trunk
sw(config-if)#end
```

na ROUTER

```
sw#show port capabilities 0/1
sw#show interface fastethernet 0/1 switchport
sw#show trunk 0/1
sw#show vtp status
sw#show vtp counters
```

či podporuje trunk a encapsulation
overenie konfigurácie trunku
overenie konfigurácie trunku
overenie VTP konfigurácie
zobrazenie štatistiky o prijatých o poslaných oznámeniach

VTP (Virtual Trunking Protocol)

```
sw_A#vlan database
sw_A(vlan)#vtp server
sw_A(vlan)#vtp password cisco
sw_A(vlan)#vtp domain group1
sw_A(vlan)#exit
```

medzi switchmi musí byť trunk!!!

```
sw_B#vlan database
sw_B(vlan)#vtp client
sw_A(vlan)#vtp password cisco
sw_A(vlan)#vtp domain group1
sw_B(vlan)#exit
```

```
show vtp status
show vtp counters
show vtp passwords
```

overenie VTP konfigurácie
zobrazenie štatistiky o prijatých o poslaných oznámeniach

Konfigurácia na Routri

Configuring Inter-VLAN Routing – subinterface

```
Router_A(config)#interface fastethernet 0/0
Router_A(config-if)#no shutdown
Router_A(config-if)#interface fastethernet 0/0.1
Router_A(config-subif)#description vlan101
Router_A(config-subif)#encapsulation dot1q 101
Router_A(config-subif)#ip address 192.168.1.1 255.255.255.0
Router_A(config-if)#interface fastethernet 0/0.2
Router_A(config-subif)#description vlan102
Router_A(config-subif)#encapsulation dot1q 102
Router_A(config-subif)#ip address 192.168.5.1 255.255.255.0
Router_A(config-if)#interface fastethernet 0/0.3
Router_A(config-subif)#description vlan103
Router_A(config-subif)#encapsulation dot1q 103
Router_A(config-subif)#ip address 192.168.7.1 255.255.255.0
Router_A(config-subif)#end
```

Musí byť nakonfigurovaný aj subinterface pre riadiacu vlan1 (ktorá je na switchi default). Potom ide telnet na ten subinterface.