

# commands page

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## helpful for troubleshooting:

do show int trunk

do show vlan brief

Switch(config)#spanning-tree mode rapid-pvst <--change the spanning tree version

## ---Change the root bridge---

Switch(config)#spanning-tree vlan 1 root [primary/secondary]

--or--

★ Switch(config)#spanning-tree vlan 1 priority ?  
<0-61440> bridge priority in increments of 4096

## ---For edge ports---

Switch(config)#interface range FastEthernet 0/1-24

Switch(config-if-range)#switchport mode access

Switch(config-if-range)#spanning-tree portfast

Switch(config-if-range)#spanning-tree bpduguard enable <--to prevent connections from other switches

## ---For switch to switch connections with RTSP---

Switch(config)#interface range GigabitEthernet 1/1/1-4

Switch(config-if-range)#spanning-tree link-type point-to-point

## ---VLAN's---

### ---creating vlans---

★ Switch(config)#vlan <69> <---vlan id number  
Switch(config-vlan)#name <nice> <---vlan name

Sw1(config)#interface range g1/1-4

Sw1(config-if-range)#switchport trunk native vlan 999 <---changing the native vlan

Sw1(config)#interface range g1/0/1-24

Sw1(config-if-range)#switchport access vlan 11 <---changing the port vlan

Sw1(config-if-range)#switchport voice vlan 66 <---changing the voice vlan

## ---vlan routing---

### --router on a stick--

R1(config)#interface G0/0

R1(config-if)#no ip address

R1(config-if)#no shut

R1(config-if)#interface G0/0.x

(x = subinterface ID – should match the VLAN ID)

```
R1(config-subif)#encapsulation dot1q x
```

```
R1(config-subif)#ip address A.B.C.D A.B.C.D
```

```
R1(config)#ip helper-address [dhcp server IP] <--- if there is a dhcp server
```

### **--layer 3 switch with routing--**

```
Sw2(config)#ip routing
```

```
Sw2(config)#interface vlan 1
```

```
Sw2(config-if)#no ip address
```

```
Sw2(config-if)#shut
```

```
Sw2(config-if)#interface vlan x
```

```
Sw2(config-if)#ip address A.B.C.D A.B.C.D
```

```
Sw2(config-if)#no shut
```

```
Sw1(config)#ip helper-address [dhcp server IP] <--- only if using switch routing and there is a dhcp server
```

### **---layer 2/3 switch (no routing)---**

★ enter in vlans

```
Sw1(config)#interface vlan 1
```

```
Sw1(config-if)#no ip address
```

```
Sw1(config-if)#shut
```

```
Sw1(config)#int vlan [# of network management]
```

```
Sw1(config-if)#ip address [highest ip of vlan subnet - this is the default gateway] [subnet mask]
```

### **---Port Security---**

```
Sw3(config)#interface range f0/1-24 <---Don't put this on a trunk because it will mess up your network
```

```
Sw3(config-if-range)#switchport port-security
```

```
Sw3(config-if-range)#switchport port-security maximum 3 <---should be set to 3 if you have a voice vlan
```

```
Sw3(config-if-range)#switchport port-security mac-address sticky
```

```
Sw3(config-if-range)#switchport port-security violation shutdown
```

```
Sw3(config-if-range)#do write
```

### **---Link Aggregation---**

```
Sw1(config)#interface range g1/1/1-4
```

```
Sw1(config-if-range)switchport mode trunk
```

```
Sw1(config-if-range)switchport trunk native vlan 777 <---make sure both switches have the same native vlan
```

```
Sw1(config-if-range)#channel-group 1 mode active
```

```
Sw1(config)#interface Port-channel 1
```

```
Sw1(config-if)#switchport mode trunk
```

```
Sw1(config-if)#switchport trunk native vlan 777 <---just to make sure
```

### **---ACL---**

```
ip access-list standard <ForRemoteAccess>
```

```
permit host 172.16.0.1 - used for specific hosts
```

```
    permit 172.16.0.0 0.0.0.255    -- this has a wildcard, it is used for whole subnets
line vty 0 15
    login local
    transport input ssh
    access-class <ForRemoteAccess> in
```

### **---SSH---**

```
hostname s1
enable secret cisco
username admin password class
ip domain-name bubba.local
crypto key generate rsa
    1024
ip ssh v 2
line vty 0 15
    login local
    transport input ssh
```



VPN

↳ because its on a server it doesnt matter (does matter for plex)

good download client

know where youre downloading from

SONARR

↳ put them wherever you want

↳ can update your catalogue automatically

↳ transmission for download client

on y -or subtitles) → \$12.00 → for adding new shows (app) (works with sonarr ; radarr)

Indexer

↳ Jackett as an indexer

↳ can add indexers that allows you to get any individual torrents as a package

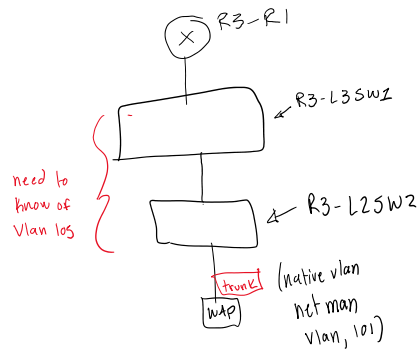
Transmission

↳ can add the link manually

Current: VLAN 102 → Wifi | 10.1.102.1 - 254

target: ① vlan 102 → Private Wifi | 10.1.102.1 - 254

② Vlan 110 → Public Wifi | 10.1.110.1 - 254



Changed wifi Vlan from 100 → 102

### Vlan 110

- needs ip-helper address from special router DHCP scope

→ this means the router needs its own DHCP scope.

- Shouldn't be connected to anything but internet

to do this ...

↳ only put vlan on R3-L2SW2 ; R3-L3SW1

or

↳ make an ACL that excludes connection from private wifi to everything (except internet) Vlan 110

Current Issue:

↳ both private ; public don't get DHCP

Possible fix(??):

↳ plug WAP into PoE L3SW1

↳ that way we don't have to worry about L2SW2(?)