

5 things you should know when configuring a Cisco IOS switch

Most switches that are commonly used in small businesses and at home are places that do not require configuration - they are 'plug and play' compliant. However, it is very important to keep in mind that sometimes 'plug and play' doesn't always work. Ngo & agrav

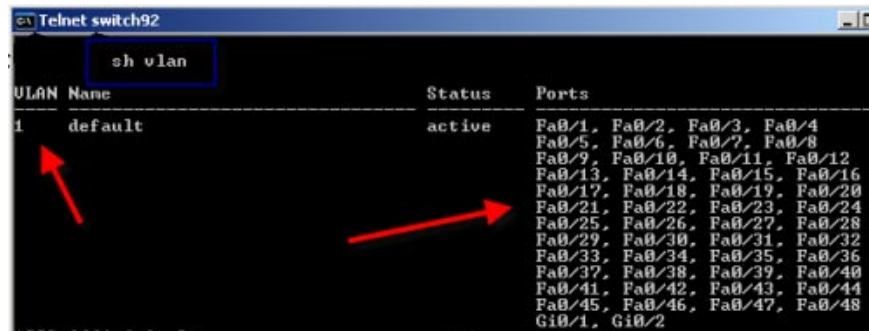
The majority of switches commonly used in small businesses and at home are places that do not require configuration - these switches comply with the 'plug and play' standard. It's important to keep in mind that sometimes 'plug and play' doesn't always work, but these switches will definitely not offer any troubleshooting and data logging, security or control.

So every time you are ready to make the switch to a more complex switch, what is the need to know? Let's answer some of the most frequently asked questions and explore the basic configuration of Cisco IOS switches.

1, Which VLAN is the default?

The default VLAN on all switches is VLAN 1. All ports on the switch are defaulted to VLAN 1. With all ports on VLAN 1 they can communicate with each other. As soon as you change the assigned VLAN on another switch port to VLAN, this switch port will not be able to communicate with the rest of the devices on the other port.

Figure A shows the transition with the default configuration. Notice how the ports on the VLAN1 look like.



Picture A

2, Why need to configure the interface "vlan 1"?

If you want to be able to manage remote switching over the network, the switch needs an IP address. If the

switch is configured with multiple VLANs and you want to be able to manage switches from each VLAN, then it needs an IP address on the VLAN interface in each VLAN.

To be able to manage the switch - even if all ports are in the default VLAN 1 - you'll still need to configure an IP address on the switch 'vlan 1' interface and of course on VLAN 1. Figure B shows us how the switch switched interface configured with IP address on VLAN 1.

```
sh run int vlan1
Building configuration...
Current configuration : 80 bytes
#
interface Vlan1
ip address 10.92.103.2 255.255.255.0
no ip route-cache
end
```

Figure B

3, Why need a default port?

In fact, the switch will not have a configured default gateway. However, if you want to be able to communicate with the switch from another subnet, you need to configure a default gateway on it to be able to connect to the internal LAN adapter.

Here's how to configure a default gateway on the switch:

```
Switch (config) # ip default-gateway 10.92.103.254
```

4, How to speed up switch ports?

Cisco switches can perform many other tasks besides connecting a regular computer to the network. That's why you should use an optimal way to change - They need to be configured further.

To use the port and tell the switch that there will always be 'access devices' (such as computers) on that port, use the following two commands:

```
Switch (config) # interface FastEthernet0 / 48
Switch (config-if) # switchport mode access
Switch (config-if) # no shutdown
Switch (config-if) # spanning-tree portfast
```

5, How important is speed and duplex switch ports?

For switch ports, speed and duplex are very important. This does not mean that speed and duplex are not important on Ethernet switch ports.

However, all switches connect one device to the LAN, and there are many devices that need connectivity, so it is more appropriate to speed up and apply duplex on switch ports. On the network there will always be old and slow devices that are not compatible with your switch, they do not perform acceleration and duplex correctly.

Use the following command to see what speed and duplex a switch port is doing:

```
Switch # show interface gigabitEthernet 1/0/3
```

You will see the following command line:

```
Full-duplex, 100Mb / s, media type is 10/100 / 1000BaseTX
```

To change speed and perform duplexing, use the following command:

```
Switch (config) # interface gigabitEthernet 1/0/3  
Switch (config-if) # speed 100  
Switch (config-if) # duplex half
```

Conclude

Cisco switches are very powerful, and there are many things that you need to learn. However, understanding the basic features in this article, you have a good grasp of how and why the switch configuration is.

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