



# IEEE 802.1Q Configuration

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This chapter describes:

- [IP Routing over IEEE 802.1Q](#)
- [InterVLAN Routing and 802.1Q Trunking](#)

## IP Routing over IEEE 802.1Q

This section provides procedures for configuring protocols supported with IEEE 802.1Q encapsulation. The basic process is the same, regardless of the protocol. The process involves the following:

- Enabling the protocol on the router
- Enabling the protocol on the interface
- Defining the encapsulation format as IEEE 802.1Q
- Customizing the protocol to meet the requirements for your environment

To route IP over IEEE 802.1Q between VLANs, you need to customize the subinterface to create the environment in which it will be used. Perform these tasks in the order in which they appear:

- [Enabling IP Routing](#)
- [Defining the VLAN Encapsulation Format](#)
- [Assigning an IP Address to a Network Interface](#)

The IEEE 802.1Q protocol is used to interconnect multiple switches and routers and to define VLAN topologies.



### Note

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IEEE 802.1Q support is available for the MARC 10/100 Fast Ethernet interface only. The FESMIC 10/100 Fast Ethernet interfaces do not support IEEE 802.1Q.

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For complete descriptions of the VLAN commands used in this section, refer to the “Cisco IOS Switching Commands” chapter in the *Cisco IOS Switching Services Command Reference*. For descriptions of other commands that appear in this section, you can either use the command reference master index or search online.

## Enabling IP Routing

IP routing is automatically enabled in Cisco routers. To reenable IP routing if it has been disabled, use the following command in global configuration mode:

```
Router(config)#ip routing
```

Once you have IP routing enabled on the router, you can customize the characteristics to suit your environment. If necessary, refer to the IP configuration chapters in the *Cisco IOS IP and IP Routing Configuration Guide* for guidelines on configuring IP.

## Defining the VLAN Encapsulation Format

To define the encapsulation format as IEEE 802.1Q, use the following commands in interface configuration mode.

	Command	Task
Step 1	<code>interface FastEthernet slot/port.subinterface-number</code> <sup>1</sup>	Specify the subinterface on which IEEE 802.1Q will be used.
Step 2	<code>encapsulation dot1q vlanid</code>	Define the encapsulation format as IEEE 802.1Q and specifies the VLAN identifier.

1. If the router supports only port numbers, and not slot numbers, the format for this command is `interface fastethernet port.subinterface-number`

## Assigning an IP Address to a Network Interface

An interface can have one primary IP address. To assign a primary IP address and a network mask to a network interface, use the following command in interface configuration mode.

Command	Task
<code>ip address ip-address mask</code>	Set a primary IP address for an interface.

A mask identifies the bits that denote the network number in an IP address. When you use a mask to subnet a network, that mask is referred to as a *subnet mask*.

## Example of IP Routing over IEEE 802.1Q

This configuration example shows IP being routed on VLAN 101:

```
!
ip routing
!
interface fastethernet 0/0.101
  encapsulation dot1q 101
  ip addr 10.0.0.11 255.0.0.0
!
```

## VLAN Commands

This section provides an alphabetical listing of useful VLAN commands. All CLI commands used with this feature are documented in the Cisco IOS Release 12.1T (or higher) command reference documents.

Command	Description
<code>clear vlan statistics</code>	Removes virtual LAN statistics from any statically configured or system-configured entries.
<code>debug vlan packets</code>	Displays general information on virtual LAN (VLAN) packets that the router has received but that it is not configured to support.
<code>encapsulation dot1q</code>	Enables IEEE 802.1Q encapsulation of traffic on a specified subinterface in virtual LANs in subinterface configuration mode.
<code>show vlans</code>	Displays VLAN subinterfaces.

# InterVLAN Routing and 802.1Q Trunking

This document provides sample 802.1Q trunking configurations between a Catalyst 3512-XL switch and a Cisco 2600 router; the results of each command are displayed as they are executed. Cisco routers with FastEthernet interfaces, and any Catalyst 2900XL, 3500XL, or 2950 switch can be used in the scenarios presented in this document to obtain the same results.

Trunking is a way to carry traffic from several VLANs over a point-to-point link between the two devices. Ethernet trunking can be implemented by using 802.1Q.

We will create a trunk that carries traffic from two VLANs (VLAN1 and VLAN2) across a single link between a Catalyst 3500 and a Cisco 2600 router. We are using the Cisco 2600 router to do the Inter-VLAN routing between VLAN1 and VLAN2.

Layer 2 switches are not capable of routing or communicating between the VLANs. Therefore, the 10/100 Fast Ethernet interface on the router (FastEthernet 0/0) will support a VLAN, but the 10/100 Fast Ethernet interface on the FESMIC switch (FastEthernet 0/0) will not support a VLAN. For further details on Inter-VLAN routing, refer to the Routing Between Virtual LANs Overview chapter of the “Cisco IOS Switching Services Configuration Guide,” release 12.1.

## Router Description

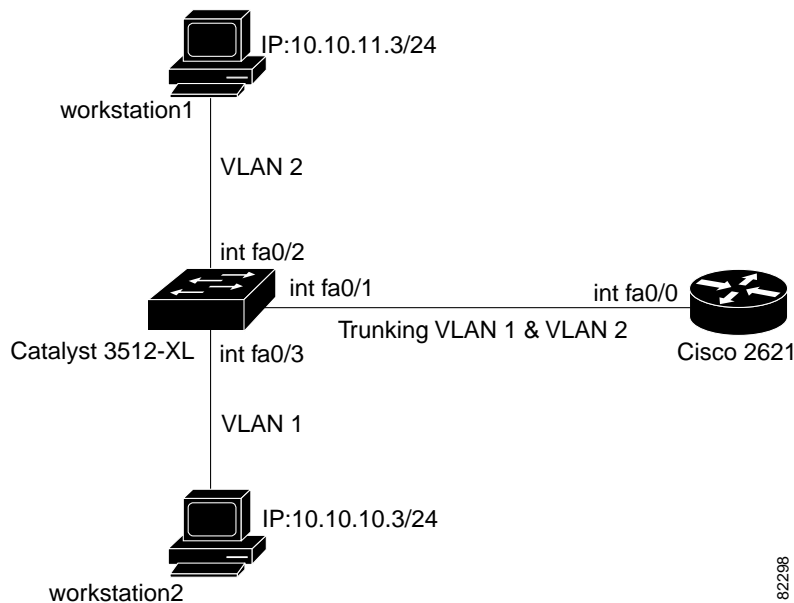
For 802.1Q trunking, one VLAN is not tagged. This VLAN is called native VLAN. The native VLAN is used for untagged traffic when the port is in 802.1Q trunking mode. While configuring 802.1Q trunking, keep in mind that the native VLAN must be configured the same on each side of the trunk link. It is a common mistake not to match the native VLANs while configuring 802.1Q trunking between the router and the switch. For details on native VLANs, refer to the IEEE 802.1Q section, of “Bridging Between IEEE 802.1Q VLANs,” in New Features in release 12.1(3)T.

In this sample configuration, the native VLAN is VLAN1 by default on both the Cisco 2621 router and the Catalyst 3512XL switch. Depending on your network needs, you might have to use a native VLAN other than the default, VLAN1. Commands in the configurations section of this document describe how to change the native VLAN on the Cisco 2600 router and Catalyst 3500XL switch.

Sample configurations presented in this document can be used on the Cisco 3200 Series router, as it includes at least one 10/100 Fast Ethernet interface. Also, make sure that you are using the Cisco IOS version that supports ISL/802.1Q VLAN trunking.

For more information, see the Cisco Technical Tips Conventions.

Figure 15-1 Network Diagram



82298

### Switch Configuration

The following example show the commands that were entered on the 3512XL switch:

- Step 1** Set the privileged mode and Telnet password on the switch.

```
switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
switch(config)#hostname 3512xl
3512xl(config)#enable password mysecret
3512xl(config)#line vty 0 4
3512xl(config-line)#login
3512xl(config-line)#password mysecret
3512xl(config-line)#exit
3512xl(config)#no logging console
3512xl(config)#^Z
```

- Step 2** Set the IP address and default gateway for VLAN1 for management purposes.

```
3512xl#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
3512xl(config)#int vlan 1
3512xl(config-if)#ip address 10.10.10.2 255.255.255.0
3512xl(config-if)#exit
3512xl(config)#ip default-gateway 10.10.10.1
3512xl(config)#end
```

**Step 3** Set the device to VTP `TRANSPARENT` mode.

In our example, we set the mode to be transparent. Depending on your network, set the VTP Mode accordingly. For details on VTP, refer to “Configuring VTP, VLANs, and VLAN Trunks on Catalyst 2900XL and 3500XL Switches.”

```
3512xl#vlan database
3512xl(vlan)#vtp transparent
Setting device to VTP TRANSPARENT mode.
```

**Step 4** Add VLAN2. (VLAN1 already exists by default.)

```
512xl(vlan)#vlan 2
VLAN 2 added:
Name: VLAN0002
3512xl(vlan)#exit
APPLY completed.
Exiting...
```

**Step 5** Enable trunking on the interface FastEthernet 0/1.

```
3512xl#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
512xl(config)#int FastEthernet 0/1
512xl(config-if)#switchport mode trunk
```

**Step 6** Enter the trunking encapsulation as either `isl`,

```
512xl(config-if)#switchport trunk encapsulation isl
```

or as `dot1q`

```
512xl(config-if)#switchport trunk encapsulation dot1q
```

In case of Cisco 2950 switches, the above two commands are not used. Cisco 2950 switches only support 802.1Q encapsulation, which is configured automatically, when trunking is enabled on the interface by using `switchport mode trunk` command.

In case of `dot1q`, make sure that the native VLAN matches across the link. On 3512XL, by default, the native VLAN is 1. Depending on your network needs, you can change the native VLAN to be other than VLAN1, but it is important that you change the native VLAN on the router accordingly. You can change the native VLAN, if needed, by using the following command:

```
3512xl(config-if)#switchport trunk native vlan <vlanID>
```

**Step 7** Allow all VLANs on the trunk.

```
3512xl(config-if)#switchport trunk allowed vlan all
3512xl(config-if)#exit
```

**Step 8** Place FastEthernet 0/2 into VLAN2 and enable portfast on the interface.

```
3512xl(config)#int FastEthernet 0/2
3512xl(config-if)#switchport access vlan 2
3512xl(config-if)#spanning-tree portfast
3512xl(config-if)#exit
```

**Step 9** FastEthernet 0/3 is already in VLAN1 by default. Enable portfast on the interface.

```
3512xl(config)#int FastEthernet 0/3
3512xl(config-if)#spanning-tree portfast
3512xl(config-if)#^Z
```

For details on why you should enable portfast, refer to “Using Portfast and Other Commands to Fix Workstation Startup Connectivity Delays.”

**Step 10** Save the configuration.

```
3512xl#write memory
Building configuration...

3512xl#
```

**Step 11** Verify the configuration as follows:

```
3512xl#show running-config
Building configuration...

Current configuration:

!
version 12.0
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname 3512xl
!
no logging console
enable password mysecret
!
ip subnet-zero
!
interface FastEthernet0/1
switchport mode trunk
```

If 802.1Q is configured, you will instead see the following output under interface FastEthernet 0/1:

```
interface FastEthernet0/1
switchport trunk encapsulation dot1q
switchport mode trunk
!
interface FastEthernet0/2
switchport access vlan 2
spanning-tree portfast
!
interface FastEthernet0/3
spanning-tree portfast
!
interface FastEthernet0/4
!
interface FastEthernet0/5
!
interface VLAN1
ip address 10.10.10.2 255.255.255.0
no ip directed-broadcast
no ip route-cache
!
ip default-gateway 10.10.10.1
!
line con 0
transport input none
stopbits 1
```

```

line vty 0 4
  password mysecret
  login
line vty 5 15
  login
!
end

```

---

### Router Configuration

The following examples show the commands that were entered on the Cisco 2600 router.

---

- Step 1** Set the privileged mode and Telnet password on the router.

```

Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname c2600

c2600(config)#enable password mysecret
c2600(config)#line vty 0 4
c2600(config-line)#login
c2600(config-line)#password mysecret
c2600(config-line)#exit
c2600(config)#no logging console
c2600(config)#^Z

c2600#configure terminal

```

- Step 2** Select FastEthernet 0/0 for the trunk configuration. No L2 or Layer 3 (L3) configuration is done here.

```

c2600(config)#int FastEthernet 0/0
c2600(config-if)#no shut
c2600(config-if)#exit

```

- Step 3** Enable trunking on the sub-interface FastEthernet 0/0.1. Note that actual trunks are configured on the sub-interfaces.

```

c2600(config)#int FastEthernet 0/0.1

```

- Step 4** Enter the trunking encapsulation as either **isl**

```

c2600(config-subif)#encapsulation isl 1

```

or as **dot1q**. In case of dot1q, you need to make sure that the native VLAN matches across the link. On 3512XL, by default, the native VLAN is 1. On the router, configure VLAN1 as the native VLAN.

```

c2600(config-subif)#encapsulation dot1q 1 native

```

On the switch, if you have a native VLAN other than VLAN1, on the router, configure the same VLAN to be the native VLAN, by using the above command.

---



The following example configures 802.1Q trunking on the router.

- 
- Step 1** Configure L3 information on the sub-interface 0/0.1.
- ```
c2600(config-subif)#ip address 10.10.10.1 255.255.255.0
c2600(config-subif)#exit
```
- Step 2** Enable trunking on the sub-interface FastEthernet 0/0.2. Note that actual trunks are configured on the sub-interfaces.
- ```
c2600(config)#int FastEthernet 0/0.2
```
- Step 3** Enter the trunking encapsulation as either **isl**
- ```
c2600(config-subif)#encapsulation isl 2
```
- or as **dot1q**:
- ```
c2600(config-subif)#encapsulation dot1q 2
```
- Step 4** Configure L3 information on the sub-interface 0/0.2.
- ```
c2600(config-subif)#ip address 10.10.11.1 255.255.255.0
c2600(config-subif)#exit
c2600(config)#^Z
```
- Step 5** Save the configuration:
- ```
c2600#write memory
Building configuration...
[OK]
c2600#
```
- 

To make this setup work, and to successfully ping between workstation1 and workstation2, make sure that the default gateways on the workstations are setup properly. For workstation1, the default gateway should be 10.10.11.1 and for workstation2, the default gateway should be 10.10.10.1. For details on how to set the default gateways on the workstations, refer to their respective sections in this document.

## 802.1Q Configuration on the Router for Cisco IOS Versions Earlier than 12.1(3)T

As described earlier in this document, while configuring 802.1Q trunking it is very important to match the native VLAN across the link. In the Cisco IOS software versions earlier than 12.1(3)T, you cannot define the native VLAN explicitly, as the encapsulation dot1q 1 native command under the sub-interface is not available.

In the earlier Cisco IOS versions, it is important not to configure VLAN1 interface as a sub-interface. The router then expects a tag dot1q frame on VLAN1 and the switch is not expecting a tag on VLAN1. As a result, no traffic will pass between VLAN1 on the switch and the router.

Use the following steps to configure the Cisco 2600 router:

---

**Step 1** Set the privileged mode and Telnet password on the router.

```
Router#configure terminal
Router(config)#hostname c2600
c2600(config)#enable password mysecret
c2600(config)#line vty 0 4
c2600(config-line)#login;
c2600(config-line)#password mysecret
c2600(config-line)#exit
c2600(config)#no logging console
```

**Step 2** Select FastEthernet 0/0 for the trunk configuration.

```
c2600(config)#int FastEthernet 0/0
c2600(config-if)#no shut
```

Note that the IP address for VLAN1 is configured on the main interface, and no encapsulation for VLAN1 will be done under the sub-interface.

```
c2600(config-if)#ip address 10.10.10.1 255.255.255.0
c2600(config-if)#exit
```

**Step 3** Configure dot1q encapsulation for VLAN 2 on sub-interface fastEthernet 0/0.2.

```
c2600(config)#int FastEthernet 0/0.2
c2600(config-subif)#encapsulation dot1q 2
```

**Step 4** Configuring L3 information on the sub-interface 0/0.2.

```
c2600(config-subif)#ip address 10.10.11.1 255.255.255.0
c2600(config-subif)#exit
c2600(config)#^Z
```

**Step 5** Save the configuration.

```
c2600#write memory
Building configuration...
[OK]
c2600#
```

---

To successfully ping between workstation1 and workstation2, you need to make sure that the default gateways on the workstations are setup properly. For workstation1, the default gateway should be 10.10.11.1, and for workstation2, the default gateway should be 10.10.10.1. For details on how to set the default gateways on the workstations, refer to their respective sections in this document.

## debug and show Commands

Use the `show int {FastEthernet}` command to check the administrative and operational status of the port. It is also used to make sure that the native VLAN matches on both sides of the trunk. The native VLAN is used for untagged traffic when the port is in 802.1Q trunking mode.

```
3512x1#show int FastEthernet 0/1 switchport
Name: Fa0/1
Switchport: Enabled
Administrative mode: trunk
Operational Mode: trunk
Administrative Trunking Encapsulation: isl
```

```
Operational Trunking Encapsulation: isl
Negotiation of Trunking: Disabled
Access Mode VLAN: 0 ((Inactive))
Trunking Native Mode VLAN: 1 (default)
Trunking VLANs Enabled: ALL
Trunking VLANs Active: 1,2
Pruning VLANs Enabled: 2-1001

Priority for untagged frames: 0
Override vlan tag priority: FALSE
Voice VLAN: none
Appliance trust: none
```

For 802.1Q trunking, the output of the above command changes as follows:

```
Router#show int FastEthernet 0/1 switchport
Name: Fa0/1
Switchport: Enabled
Administrative mode: trunk
Operational Mode: trunk
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: Disabled
Access Mode VLAN: 0 ((Inactive))
Trunking Native Mode VLAN: 1 (default)
Trunking VLANs Enabled: ALL
Trunking VLANs Active: 1,2
Pruning VLANs Enabled: 2-1001

Priority for untagged frames: 0
Override vlan tag priority: FALSE
Voice VLAN: none
```

## show vlans Command

Use the **show vlans** command on the MARC to verify that the 10/100 Fast Ethernet interface (port) belongs to the correct VLAN. In our example, only interface FastEthernet 0/0 belongs to VLAN2. The rest are members of VLAN1.

```
3512xl#show vlans
VLAN Name                               Status  Ports
-----
1    default                               active  Fa0/3, Fa0/4
2    VLAN0002                               active  Fa0/0
1002 fddi-default                           active
1003 token-ring-default                    active
1004 fddinet-default                       active
1005 trnet-default                         active

...(output suppressed)
```

## show vlan-switch Command

Use the **show vlan-switch** command on the FESMIC interfaces to verify that the interface (port) belongs to the correct VLAN.

```
virgoal#sh vlan-switch
VLAN Name                               Status  Ports
-----
1    default                               active
2    VLAN0002                               active  Fa3/0, Fa3/1
3    VLAN0003                               active
```

```

4    VLAN0004                active
5    VLAN0005                active    Fa3/3
6    VLAN0006                active
1002 fddi-default            active
1003 token-ring-default      active
1004 fddinet-default         active
1005 trnet-default           active

```

VLAN	Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
1	enet	100001	1500	-	-	-	-	-	1002	1003
2	enet	100002	1500	-	-	-	-	-	0	0
3	enet	100003	1500	-	-	-	-	-	0	0
4	enet	100004	1500	-	-	-	-	-	0	0
5	enet	100005	1500	-	-	-	-	-	0	0
6	enet	100006	1500	-	-	-	-	-	0	0
1002	fddi	101002	1500	-	-	-	-	-	1	1003

VLAN	Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
1003	tr	101003	1500	1005	0	-	-	srb	1	1002
1004	fdnet	101004	1500	-	-	1	ibm	-	0	0
1005	trnet	101005	1500	-	-	1	ibm	-	0	0

## show vtp status Command

This command is used to check the VLAN trunking protocol (VTP) configuration on the switch. In our example, we have used transparent mode. The correct VTP mode depends on the topology of your network. For details on VTP, refer to *Configuring VTP, VLANs, and VLAN Trunks on Catalyst 2900XL and 3500XL Switches*.

```

3512x1#show vtp status
VTP Version                : 2
Configuration Revision     : 0
Maximum VLANs supported locally : 254
Number of existing VLANs   : 6
VTP Operating Mode         : Transparent
VTP Domain Name            :
VTP Pruning Mode           : Disabled
VTP V2 Mode                : Disabled
VTP Traps Generation       : Disabled
MD5 digest                 : 0xC3 0x71 0xF9 0x77 0x2B 0xAC 0x5C 0x97
Configuration last modified by 0.0.0.0 at 0-0-00 00:00:00

```

## show vlan Command

This command tells you what L2 or L3 information is configured for each VLAN.

```

c2600#show vlan

Virtual LAN ID: 1 (Inter Switch Link Encapsulation)

      vLAN Trunk Interface:    FastEthernet0/0.1

      Protocols Configured:    Address:                Received:                Transmitted:
      IP                      10.10.10.1              40                      38

Virtual LAN ID: 2 (Inter Switch Link Encapsulation)

```

```

vLAN Trunk Interface:  FastEthernet0/0.2

Protocols Configured:  Address:          Received:      Transmitted:
IP                    10.10.11.1    9             9

```

For 802.1Q trunking, the output of the above command changes as follows:

```
c2600#show vlan
```

```
Virtual LAN ID:  1 (IEEE 802.1Q Encapsulation)
```

```
vLAN Trunk Interface:  FastEthernet0/0.1
```

This is configured as native Vlan for the following interface(s): FastEthernet0/0

```

Protocols Configured:  Address:          Received:      Transmitted:
IP                    10.10.10.1      0             2

```

```
Virtual LAN ID:  2 (IEEE 802.1Q Encapsulation)
```

```
vLAN Trunk Interface:  FastEthernet0/0.2
```

```

Protocols Configured:  Address:          Received:      Transmitted:
IP                    10.10.11.1     42            19

```

For 802.1Q trunking, with Cisco IOS versions earlier then 12.1(3)T, the output of the command changes as follows:

```
c2600#show vlan
```

```
Virtual LAN ID:  2 (IEEE 802.1Q Encapsulation)
```

```
vLAN Trunk Interface:  FastEthernet0/0.2
```

```

Protocols Configured:  Address:          Received:      Transmitted:
IP                    10.10.11.1      6             4

```

No IEEE 802.1Q encapsulation is displayed for VLAN1 on any of the sub-interfaces.

## show interface Command

Use the **show interfaces** command to check the administrative and operational status of the interface.

```

c2600#show interfaces FastEthernet 0/0
FastEthernet0/0 is up, line protocol is up
  Hardware is AmdFE, address is 0003.e36f.41e0 (bia 0003.e36f.41e0)
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Full-duplex, 100Mb/s, 100BaseTX/FX
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:00, output 00:00:07, output hang never
  Last clearing of "show interface" counters never
  Queueing strategy: fifo
  Output queue 0/40, 0 drops; input queue 0/75, 0 drops
  5 minute input rate 0 bits/sec, 1 packets/sec

```

```

5 minute output rate 0 bits/sec, 0 packets/sec
  217 packets input, 12884 bytes
    Received 217 broadcasts, 0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 watchdog
  0 input packets with dribble condition detected
  45 packets output, 6211 bytes, 0 underruns(0/0/0)
  0 output errors, 0 collisions, 4 interface resets
  0 babbles, 0 late collision, 0 deferred
  0 lost carrier, 0 no carrier
  0 output buffer failures, 0 output buffers swapped out

```

```

c2600#show interfaces FastEthernet 0/0.1
FastEthernet0/0.1 is up, line protocol is up
  Hardware is AmdFE, address is 0003.e36f.41e0 (bia 0003.e36f.41e0)
  Internet address is 10.10.10.1/24
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ISL Virtual LAN, Color 1.
  ARP type: ARPA, ARP Timeout 04:00:00

```

```

c2600#show interfaces FastEthernet 0/0.2
FastEthernet0/0.2 is up, line protocol is up
  Hardware is AmdFE, address is 0003.e36f.41e0 (bia 0003.e36f.41e0)
  Internet address is 10.10.11.1/24
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ISL Virtual LAN, Color 2.
  ARP type: ARPA, ARP Timeout 04:00:00

```

For 802.1Q trunking, the output of the above command changes as follows:

```

c2600#show interfaces FastEthernet 0/0.1
FastEthernet0/0.1 is up, line protocol is up
  Hardware is AmdFE, address is 0003.e36f.41e0 (bia 0003.e36f.41e0)
  Internet address is 10.10.10.1/24
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 1.
  ARP type: ARPA, ARP Timeout 04:00:00

```

```

c2600#show interfaces FastEthernet 0/0.2
FastEthernet0/0.2 is up, line protocol is up
  Hardware is AmdFE, address is 0003.e36f.41e0 (bia 0003.e36f.41e0)
  Internet address is 10.10.11.1/24
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation 802.1Q Virtual LAN, Vlan ID 2.
  ARP type: ARPA, ARP Timeout 04:00:00

```