

# Sample Configuration: ISL/802.1q Trunking Between Catalyst 2900XL/3500XL/2950 and CatOS Switches

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## Introduction

This document provides sample configurations on InterSwitch Link (ISL) and 802.1q trunking between a Cisco Catalyst 5500 and a Catalyst 3500XL switch; the results of each command are displayed as they are executed. Cisco Catalyst 4000 and 6000 (running CatOS) family switches or other members of the Catalyst 5000 family, and any Catalyst 2900XL, 3500XL, or 2950 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. Two ways in which Ethernet trunking can be implemented are:

- ISL (Cisco proprietary InterSwitch Link protocol)
- 802.1q (Institute of Electrical and Electronics Engineers (IEEE) standard)

We will create a trunk that will carry traffic from two VLANs (VLAN 1 and VLAN 2) across a single link between a Catalyst 3500 and a Catalyst 5500 switch. Information on how to route between the two VLANs is beyond the scope of this document.

To create the examples in this document, we used the following switches in a lab environment with cleared configurations:

- Catalyst 3524XL switch running Cisco IOS 12.0(5.x)XU
- Catalyst 5500 switch running Catalyst OS 5.5(3) software

The configurations in this document were implemented in an isolated [lab environment](#). Ensure that you understand the potential impact of any configuration or command on your network before using it. The configurations on all devices were cleared with the **clear config all** and **write erase** commands to ensure that they have a default configuration.

## Important Notes

### For Catalyst 2900XL/3500XL/2950 Switches:

Catalyst 2950 series switches only support 802.1q trunking. They do not support ISL trunking.

Currently, Catalyst 2900XL/3500XL switches do not support Dynamic Trunking Protocol (DTP). Thus, it is recommended that you use the **nonegotiate** option the *other* side of the trunk link as configured for the Catalyst 4000, 5000, and 6000 switches. This way, the XL switch port will not receive DTP frames that are unfamiliar to it.

On a 4MB DRAM Catalyst 2900XL switch, trunking is only supported with the following trunking-capable modules:

- WS-X2914-XL-V
- WS-X2922-XL-V
- WS-X2924-XL-V
- WS-X2931-XL
- WS-X2932-XL

Refer to the following table for the current list of switch models that support trunking:

Switch Models	Minimum Release Required for ISL Trunking	Minimum Release Required for IEEE 802.1q Trunking	Current Release Required for Trunking (ISL/802.1q )
WS-C2916M-XL (4-Meg Switch)	11.2(8)SA4 (Enterprise Edition)	11.2(8)SA5 (Original Edition)	11.2(8.6)SA6 (Original Edition)
WS-C2912-XL	11.2(8)SA4 (Enterprise Edition)	11.2(8)SA5 (Enterprise Edition)	12.0(5)WC(1) or later
WS-C2924-XL	11.2(8)SA4 (Enterprise Edition)	11.2(8)SA5 (Enterprise Edition)	12.0(5)WC(1) or later
WS-C2924C-XL	11.2(8)SA4 (Enterprise Edition)	11.2(8)SA5 (Enterprise Edition)	12.0(5)WC(1) or later
WS-C2924M-XL	11.2(8)SA4 (Enterprise Edition)	11.2(8)SA5 (Enterprise Edition)	12.0(5)WC(1) or later
WS-C2912MF-XL	11.2(8)SA4 (Enterprise Edition)	11.2(8)SA5 (Enterprise Edition)	12.0(5)WC(1) or later
WS-C2924M-XL-DC	12.0(5)XU	12.0(5)XU	12.0(5)WC(1) or later
WS-C3508G-XL	11.2(8)SA4 (Enterprise Edition)	11.2(8)SA5 (Enterprise Edition)	12.0(5)WC(1) or later
WS-C3512-XL	11.2(8)SA4 (Enterprise Edition)	11.2(8)SA5 (Original Edition)	12.0(5)WC(1) or later
WS-C3524-XL	11.2(8)SA4 (Enterprise Edition)	11.2(8)SA5 (Enterprise Edition)	12.0(5)WC(1) or later

WS-C3548-XL	12.0(5)XP (Enterprise Edition)	12.0(5)XP (Enterprise Edition)	12.0(5)WC(1) or later
WS-C3524-PWR-XL	12.0(5)XU	12.0(5)XU	12.0(5)WC(1) or later
WS-C3524-PWR-XL	12.0(5)XU	12.0(5)XU	12.0(5)WC(1) or later
WS-C2950-12	ISL Not Supported	12.0(5)WC(1)	12.0(5)WC(1) or later for 802.1Q. ISL is not supported.
WS-C2950-24	ISL Not Supported	12.0(5)WC(1)	12.0(5)WC(1) or later for 802.1Q. ISL is not supported.
WS-C2950C-24	ISL Not Supported	12.0(5)WC(1)	12.0(5)WC(1) or later for 802.1Q. ISL is not supported.
WS-C2950T-24	ISL Not Supported	12.0(5)WC(1)	12.0(5)WC(1) or later for 802.1Q. ISL is not supported.

**Note:** In the above table, only WS-C2916M-XL is a 4MB DRAM switch. All the other switches listed are 8MB DRAM switches. To determine whether your switch has 4 MB or 8 MB of DRAM, enter the user-level **show version** command. For more information, see the "How to Determine the Amount of Switch Memory Using the Command Line Interface" section of [Upgrading Software in Catalyst 2900-XL/3500-XL Switches Using the Command Line Interface \(CLI\)](#).

#### For Catalyst 4000, 5000, 6000 Switches:

- The Catalyst 4000 family (including Catalyst 2948G and Catalyst 2980G) only supports 802.1q trunking, not ISL trunking.
- Any Ethernet port on a Catalyst 6000 family member supports either 802.1q or ISL encapsulation.
- Depending on the module, Catalyst 5000 trunk capable ports support only ISL encapsulation, or either ISL or 802.1q. The best way to check this out is to use the **show port capabilities** command; the trunking capacity is explicitly stated. For example:

```

cat5509 show port capabilities 3
Model                               WS-X5234
Port                                3/1
Type                                10/100BaseTX
Speed                                auto,10,100
Duplex                                half,full
Trunk encap type                    802.1Q,ISL
!-- This port supports both 802.1Q and ISL.
Trunk mode                           on,off,desirable,auto,nonegotiate
Channel                               3/1-2,3/1-4
Broadcast suppression                percentage(0-100)
Flow control                          receive-(off,on),send-(off,on)
Security                              yes
Membership                            static,dynamic
Fast start                            yes

```

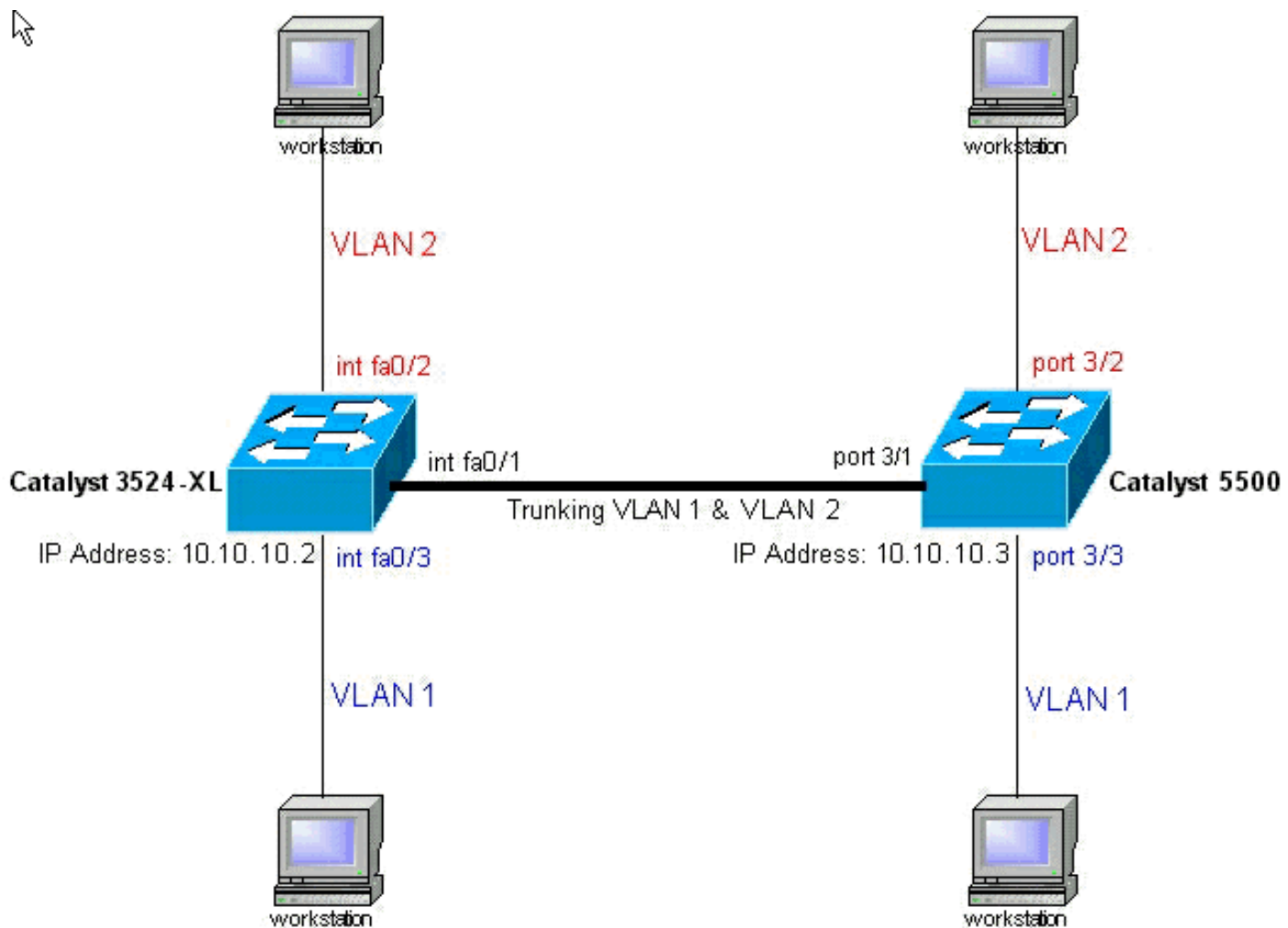
QOS scheduling	rx-(none),tx-(1q4t)
CoS rewrite	yes
ToS rewrite	IP-Precedence
Rewrite	yes
UDLD	yes
AuxiliaryVlan	1..1000,untagged,dot1p,none
SPAN	source,destination

- Make sure that the trunking modes match across the trunk link. If one side of the link is configured as an ISL trunk, the other side of the link should also be configured as ISL; similarly, if one side of the link is configured as an 802.1q, the other side of the link should also be configured as 802.1q.

## Conventions

For more information, see the [Cisco Technical Tips Conventions](#).

## Network Diagram



## General Configuration Tasks

The following configuration is applied to the switches:

- Names assigned to the switches
- Passwords set on the switches
- Switches connected using Fast Ethernet Links

- IP addresses assigned to the switches for management only
- VLAN Trunk Protocol (VTP) modes set on the switches
- Second VLAN (VLAN 2) is added on the switches; ports are added on those VLANs
- Spanning-tree portfast is enabled on the ports, where workstations are connected. According to the topology, it is enabled on ports 2/2, 2/3 of Catalyst 5500 and ports FastEthernet0/2 and FastEthernet0/3 of Catalyst 3524XL switch.

## Configurations

**Note:** The following screen captures show the commands that were entered on the 3524XL switch. Comments between the commands are added in *blue* to explain certain commands and steps:

### Catalyst 3524-XL

```
!-- 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 3524xl  
3524xl(config)#enable password mysecret  
3524xl(config)#line vty 0 4  
3524xl(config-line)#login  
3524xl(config-line)#password mysecret  
3524xl(config-line)#exit  
3524xl(config)#no logging console  
3524xl(config)#^Z
```

```
!-- Set the IP address for Vlan 1 for management purposes.
```

```
3524xl#configure terminal  
Enter configuration commands, one per line. End with CNTL/Z.  
3524xl(config)#int vlan 1  
3524xl(config-if)#ip address 10.10.10.2 255.255.255.0  
3524xl(config-if)#end
```

```
!-- Set the VTP Mode.  
!-- In our example, we have set the mode to be transparent.  
!-- Depending on your network, set the VTP Mode accordingly.  
!-- For details on VTP, refer to the following document:  
!-- Configuring VTP, VLANs, and VLAN Trunks on  
Catalyst 2900XL and 3500XL Switches.
```

```
3524xl#vlan database  
3524xl(vlan)#vtp transparent  
Setting device to VTP TRANSPARENT mode.
```

```
!-- Adding Vlan 2
```

```
3524xl(vlan)#vlan 2  
VLAN 2 added:  
Name: VLAN0002  
3524xl(vlan)#exit  
APPLY completed.  
Exiting....
```

```
!-- Enable trunking on the interface fastEthernet 0/1.
3524xl#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
3524xl(config)#int fastEthernet 0/1
3524xl(config-if)#switchport mode trunk

!-- Enter the trunking encapsulation as either isl or dot1q.

3524xl(config-if)#switchport trunk encapsulation isl
3524xl(config-if)#switchport trunk encapsulation dot1q

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

!--In case of dot1q, you need to make sure that
!-- the native VLAN matches across the link.
!-- On 3524XL, by default, the native VLAN is 1.
!-- Depending on your network needs, you may change
!-- the native VLAN to be other than VLAN1,
!-- but it is very important that you change the native VLAN
!-- on the other side of the link (in our case, cat5509) accordingly.
!-- You may change the native VLAN, if needed, by using the following command:
!-- 3524xl(config-if)#switchport trunk native vlan <vlan ID> .

!-- Allow all VLANs on the trunk.
3524xl(config-if)#switchport trunk allowed vlan all
3524xl(config-if)#exit

!-- The following set of commands will place FastEthernet 0/2
!-- into vlan 2 and enable portfast on the interface.

3524xl(config)#int fastEthernet 0/2
3524xl(config-if)#switchport access vlan 2
3524xl(config-if)#spanning-tree portfast
3524xl(config-if)#exit
3524xl(config)#int fastEthernet 0/3
3524xl(config-if)#spanning-tree portfast
3524xl(config-if)#^Z

!-- For details on why to enable portfast,
!-- refer to:Using Portfast and Other Commands to Fix Workstation Startup Connectivity Delays
!-- Remember to save the configuration
!-- (you don't have to do this on a CatOS switch).

3524xl#write memory
Building configuration...

3524xl#
```

```
3524xl#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 3524xl  
!  
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 FastEthernet0/1:  
!-- 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 FastEthernet0/6  
!  
interface FastEthernet0/7  
!  
interface FastEthernet0/8  
!  
interface FastEthernet0/9  
!
```

```
interface FastEthernet0/10
!
interface FastEthernet0/11
!
interface FastEthernet0/12
!
interface FastEthernet0/13
!
interface FastEthernet0/14
!
interface FastEthernet0/15
!
interface FastEthernet0/16
!
interface FastEthernet0/17
!
interface FastEthernet0/18
!
interface FastEthernet0/19
!
interface FastEthernet0/20
!
interface FastEthernet0/21
!
interface FastEthernet0/22
!
interface FastEthernet0/23
!
interface FastEthernet0/24
!
interface GigabitEthernet0/1
!
interface GigabitEthernet0/2
!
interface VLAN1
ip address 10.10.10.2 255.255.255.0
no ip directed-broadcast
no ip route-cache
!
!
line con 0
transport input none
stopbits 1
line vty 0 4
password mysecret
login
line vty 5 15
login
!
end
```

**Note:** The following screen captures show the commands that were entered on the 5500 switch. Comments between the commands are added in *blue* to explain certain commands and steps:

### Catalyst 5500



*!-- Set the system name and password on the switch.*

Console> (enable) **set system name cat5509**

System name set.

cat5509> (enable) **set password**

Enter old password:

Enter new password:

Retype new password:

Password changed.

cat5509> (enable) **set enablepass**

Enter old password:

Enter new password:

Retype new password:

Password changed.

*!-- Assign the IP address to the switch.*

cat5509> (enable) **set int sc0 10.10.10.3/24**

Interface sc0 IP address and netmask set.

*!-- Set the VTP Mode.*

*!-- In our example,*

*!-- we have set the VTP mode to be transparent;*

*!-- depending on your network,*

*!-- set the VTP Mode accordingly.*

cat5509> (enable) **set vtp mode transparent**

VTP domain modified

*!-- For details on VTP, refer to the following document:*

*!-- [Configuring VLAN Trunks on Catalyst 4000, 5000 Switches](#)*

*!-- Add Vlan 2, and assign port to it.*

cat5509> (enable) **set vlan 2 3/2**

Vlan 2 configuration successful

VLAN 2 modified.

VLAN 1 modified.

VLAN Mod/Ports

-----

2        3/2

*!-- Enable portfast on the ports that are connected to the workstations.*

cat5509> (enable) **set spantree portfast 3/2 enable**

Warning: Spantree port fast start should only be enabled on ports connected to a single host.

Connecting hubs, concentrators, switches, bridges, etc. to a fast start port can cause temporary spanning tree loops. Use with caution.

Spantree port 3/2 fast start enabled.

cat5509> (enable) **set spantree portfast 3/3 enable**

Warning: Spantree port fast start should only be enabled on ports connected to a single host.

Connecting hubs, concentrators, switches, bridges, etc. to a fast start port can cause temporary spanning tree loops. Use with caution.

Spantree port 3/3 fast start enabled.

*!-- For details on why to enable portfast refer to the following document:  
!-- [Using Portfast and Other Commands to Fix Workstation Startup Connectivity Delays](#)*

*!-- Set the trunk encapsulation to be either ISL or 802.1q.*

```
cat5509> (enable) set trunk 3/1 nonegotiate isl
Port(s) 3/1 trunk mode set to nonegotiate.
Port(s) 3/1 trunk type set to Isl.
cat5509> (enable)
```

*!-- If you want to configure 802.1q trunking instead,  
!-- type the following command:*

```
cat5509> (enable) set trunk 3/1 nonegotiate dot1q
```

*!-- In case of dot1q, you need to make sure that  
!-- the native VLAN matches across the link.  
!-- On cat5500, by default, the native VLAN is 1.  
!-- Depending on your network needs, you may change  
!-- the native VLAN to be other than VLAN1,  
!-- but it is very important that you change the native VLAN  
!-- on the other side of the link (in our case, 3524xl) accordingly.  
!-- You may change the native VLAN, if needed, by using the following command:  
!-- cat5509> (enable) set vlan <vlan ID> <mod/port>  
!-- here <vlan ID> is the new Native Vlan and <mod/port> is the trunk port; in our  
case 3/1.*

**Important Note:** Currently, Catalyst 2900XL/3500XL switches do not support Dynamic Trunking Protocol (DTP). Thus, it is recommended that you use the **nonegotiate** option the *other* side of the trunk link as configured above on the Catalyst 4000, 5000, and 6000 switches. This way, the XL switch port will not receive DTP frames that are unfamiliar to it. For details on DTP modes, refer to the **DTP Modes** sections of [Trunking Between Catalyst 4000, 5000, and 6000 Family Switches Using 802.1q Encapsulation](#).

```
cat5509> (enable) show config
This command shows non-default configurations only.
Use 'show config all' to show both default and non-default configurations.
```

.....

.....

..

```
begin
!
# ***** NON-DEFAULT CONFIGURATION *****
!
```

```
!  
#time: Sun Nov 26 2000, 18:19:45  
!  
#version 5.5(3)  
!  
set enablepass $2$FNl3$8MSzcpVMglH2aWfl1l13aZ.  
!  
#system  
set system name cat5509  
!  
#frame distribution method  
set port channel all distribution mac both  
!  
#vtp  
set vtp mode transparent  
set vlan 1 name default type ethernet mtu 1500 said 100001 state active  
set vlan 2 name VLAN0002 type ethernet mtu 1500 said 100002 state active  
set vlan 1002 name fddi-default type fddi mtu 1500 said 101002 state active  
set vlan 1004 name fddinet-default type fddinet mtu 1500 said 101004 state active stp  
ieee  
set vlan 1005 name trnet-default type trbrf mtu 1500 said 101005 state active stp ibm  
set vlan 1003 name token-ring-default type trcrf mtu 1500 said 101003 state acti  
ve mode srb aremaxhop 7 stemaxhop 7 backupcrf off  
!  
#ip  
set interface sc0 1 10.10.10.3/255.255.255.0 10.10.10.255  
  
!  
#set boot command  
set boot config-register 0x2  
set boot system flash bootflash:cat5000-sup3.5-5-2.bin  
set boot system flash bootflash:cat5000-sup3.5-5-3.bin  
!  
#mls  
set mls nde disable  
!  
# default port status is enable  
!  
!  
#module 1 : 4-port 10/100BaseTX Supervisor  
!  
#module 2 : 3-port 1000BaseX Ethernet  
!  
#module 3 : 24-port 10/100BaseTX Ethernet  
set vlan 2 3/2  
set trunk 3/1 nonegotiate isl 1-1005  
  
!-- If dot1q trunk is configured,  
!-- then the above line is displayed as:  
!-- set trunk 3/1 nonegotiate dot1q 1-1005  
  
set spantree portfast 3/2-3 enable  
!  
#module 4 empty  
!  
#module 5 empty
```

```

!
#module 6 : 24-port 10BaseF Ethernet
!
#module 7 empty
!
#module 8 : 24-port 10/100BaseTX Ethernet
!
#module 9 empty
end
cat5509> (enable)

```

## debug and show Commands

On the Catalyst 2900XL/3500XL/2950 switches:

- **show int {FastEthernet | GigabitEthernet} <module/port> switchport**
- **show vlan**
- **show vtp status**

On the Catalyst 5000 switch:

- **show port capabilities <module/port>**
- **show port <module/port>**
- **show trunk <module/port>**
- **show vtp domain**

## Sample show Command Output

### Catalyst 3500XL Switch

**show int {FastEthernet | GigabitEthernet} <module/port> switchport**

This command is used to check the administrative and operational status of the port and 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. Refer to [Configuring VTP, VLANs, and VLAN Trunks on Catalyst 2900XL and 3500XL Switches](#) for details on native VLANs.

```

3524xl#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

```

**Note:** For 802.1q trunking, the output of the above command changes as follows:

```
3524xl#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 vlan

This command is used to verify that the interfaces (ports) belong to the correct VLAN. In our example, only interface Fa0/2 belongs to VLAN 2, and the rest are members of VLAN 1.

```
3524xl#show vlan
VLAN Name                                Status   Ports
----  -
1      default                            active   Fa0/3, Fa0/4, Fa0/5, Fa0/6,
                                           Fa0/7, Fa0/8, Fa0/9, Fa0/10,
                                           Fa0/11, Fa0/12, Fa0/13, Fa0/14,
                                           Fa0/15, Fa0/16, Fa0/17, Fa0/18,
                                           Fa0/19, Fa0/20, Fa0/21, Fa0/22,
                                           Fa0/23, Fa0/24, Gi0/1, Gi0/2
2      VLAN0002                          active   Fa0/2
1002   fddi-default                       active
1003   token-ring-default                 active
1004   fddinet-default                     active
1005   trnet-default                       active
```

...(output suppressed)

### show vtp status

This command is used to check the 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](#).

```
3524xl#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                  : 0x74 0x79 0xD3 0x08 0xC0 0x82 0x68 0x63
Configuration last modified by 10.10.10.2 at 3-1-93 00:05:30
```

## CatOS Switches

### show port channel capabilities <module/port>

This command is used to check if the port is capable of trunking:

```
cat5509 show port capabilities 3/1
Model                WS-X5234
Port                 3/1
Type                 10/100BaseTX
Speed                auto,10,100
Duplex                half,full
Trunk encap type     802.1Q,ISL
Trunk mode            on,off,desirable,auto,nonegotiate
Channel              3/1-2,3/1-4
Broadcast suppression percentage(0-100)
Flow control          receive-(off,on),send-(off,on)
Security              yes
Membership            static,dynamic
Fast start            yes
QOS scheduling        rx-(none),TX(1q4t)
COs rewrite           yes
ToS rewrite           IP-Precedence
Rewrite               yes
UDLD                  yes
AuxiliaryVlan         1..1000,untagged,dot1p,none
SPAN                  source,destination
```

### show port <module/port>

```
cat5509> (enable) show port 3/1
```

Port	Name	Status	Vlan	Level	Duplex	Speed	Type
3/1		connected	trunk	normal	a-full	a-100	10/100BaseTX

Port	AuxiliaryVlan	AuxVlan-Status
3/1	none	none

Port	Security Violation	Shutdown-Time	Age-Time	Max-Addr	Trap	IfIndex
3/1	disabled	shutdown	0	0	1 disabled	12

Port	Num-Addr	Secure-Src-Addr	Age-Left	Last-Src-Addr	Shutdown/Time-Left
3/1	0	-	-	-	-

...(output suppressed)

### show trunk

This command is used to verify the trunking status and configuration.

```
cat5509> (enable) show trunk
* - indicates vtp domain mismatch
Port      Mode      Encapsulation  Status      Native vlan
-----
3/1        nonegotiate  isl            trunking    1
```

Port	Vlans allowed on trunk
------	------------------------

3/1	1-1005
-----	--------

Port	Vlans allowed and active in management domain
------	---

3/1	1-2
-----	-----

Port	Vlans in spanning tree forwarding state and not pruned
------	--

3/1	1-2
-----	-----

**Note:** For 802.1q trunking, the output of the above command changes as follows:

```
cat5509> (enable) show trunk
```

```
* - indicates vtp domain mismatch
```

Port	Mode	Encapsulation	Status	Native vlan
------	------	---------------	--------	-------------

3/1	nonegotiate	dot1q	trunking	1
-----	-------------	-------	----------	---

Port	Vlans allowed on trunk
------	------------------------

3/1	1-1005
-----	--------

Port	Vlans allowed and active in management domain
------	---

3/1	1-2
-----	-----

Port	Vlans in spanning tree forwarding state and not pruned
------	--

3/1	1-2
-----	-----

### show vtp domain

```
cat5509> (enable) show vtp domain
```

DomainName	Domain	Index	VTP	Version	Local	Mode	Password
------------	--------	-------	-----	---------	-------	------	----------

1	2	Transparent	-
---	---	-------------	---

Vlan-count	Max-vlan-storage	Config	Revision	Notifications
------------	------------------	--------	----------	---------------

6	1023	0	disabled
---	------	---	----------

Last Updater	V2 Mode	Pruning	PruneEligible on Vlans
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10.10.10.3	disabled	disabled	2-1000
------------	----------	----------	--------

## Related Information

- [Creating and Maintaining VLANs](#) - Catalyst 2950 switches
- [Configuring VTP, VLANs, and VLAN Trunks on Catalyst 2900XL and 3500XL Switches](#)
- [Configuring VLAN Trunks on Catalyst 4000, 5000 Switches](#)
- [Configuring VLAN Trunks on Catalyst 6000 Switches](#)
- [Using Portfast and Other Commands to Fix Workstation Startup Connectivity Delays](#)

- [Catalyst 2950 Desktop Switch Command Reference](#)
  - [Catalyst 2900XL/3500XL, Cisco IOS Desktop Switching Command Reference](#)
  - [Catalyst 4000, 5000, 6000 Family Command Reference Index](#) (5.5)
  - [LAN Technologies Technical Tips](#)
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