

Configure VLAN Trunk Protocol (VTP)

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Introduction

This document describes how to configure VLAN Trunk Protocol (VTP).

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This document is not restricted to specific software and hardware versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Conventions

Refer to [Cisco Technical Tips Conventions](#) for more information on document conventions.

Background Information

VTP reduces administration in a switched network. When you configure a new VLAN on one VTP server, the VLAN is distributed through all switches in the domain. This reduces the need to configure the same VLAN everywhere. VTP is a Cisco-proprietary protocol that is available on most of the Cisco Catalyst series products.

Refer to [Understanding VLAN Trunk Protocol \(VTP\)](#) for more information on VTP.

Note: Only registered Cisco users can access internal site, tools, and documents.

Configure

VTP Configuration Guidelines

This section provides some guidelines for the configuration of VTP in the network.

- All switches have the same the VTP domain name, unless the network design insists for different VTP domains.**Note:** Trunk negotiation does not work across VTP domains. Refer to the [Data Traffic Blocked between VTP Domains](#) section of [Troubleshooting VLAN Trunk Protocol \(VTP\)](#) for more information.
- All switches in a VTP domain must run the same VTP version.
- All switches in a VTP domain has the same VTP password, if there is any.
- All VTP Server switch(es) must have the same configuration revision number and it must also be the highest in the domain.
- When you move a VTP mode of a switch from Transparent to Server, VLANs configured on the VTP Transparent switch must exist on the Server switch.

VTP Configuration on Catalyst Switches

This section provides some basic commands in order to configure VTP on the most commonly used Catalyst switches.

Note:The Catalyst 2948G-L3 and Catalyst 4908G-L3 Layer 3 (L3) switches do not support several Layer 2 (L2)-oriented protocols that are found on other Catalyst switches. Such protocols include VTP, DTP, and Port Aggregation Protocol (PAgP).

Catalyst 6500/6000 Series/Catalyst 4500/4000 Cisco IOS® Software (Supervisor Engine III/Supervisor Engine IV), Catalyst 2950, 3550, and 3750 Series Switches

There are two methods that you can use in order to configure VTP, as this section shows. The availability of these methods can differ from the version of Cisco IOS® software. For example, Method 1 is not available on newer versions of Cisco IOS, on the other hand Method 2 (the global configuration mode) is not available in earlier software on Catalyst 6500 series switches that run Cisco IOS Software.

1. **Method 1, in VLAN database mode:**In Cisco IOS Software, you can configure the VTP

domain name, the VTP mode, and the VLANs in VLAN configuration mode. In EXEC mode, issue this command in order to enter VLAN configuration mode:

```
Switch#vlan database
```

```
!--- Issue this command in privileged EXEC mode,  
!--- not in global configuration mode. Switch(vlan)# !--- This is VLAN configuration mode.
```

Issue this command in order to set the VTP domain name:

```
Switch(vlan)#vtp domain example
```

Issue this command in order to set the VTP mode:

```
Switch(vlan)#vtp {client | server | transparent}
```

Issue the **exit** command in order to exit VLAN configuration mode. **Note:** The **end** and the **Ctrl-Z** commands do not work in this mode.

```
Switch(vlan)#end
```

```
Switch(vlan)#^Z
```

```
% Invalid input detected at '^' marker.
```

```
Switch(vlan)#
```

```
Switch(vlan)#exit
```

```
APPLY completed.
```

```
Exiting....
```

```
Switch#
```

2. **Method 2, in global configuration mode:** In Cisco IOS Software global configuration mode, you can configure all VTP parameters with Cisco IOS Software commands. This is the command format:

```
Switch(config)#vtp ?
```

```
domain      Set the name of the VTP administrative domain.  
file        Configure IFS filesystem file where VTP configuration is stored.  
interface   Configure interface as the preferred source for the VTP IP updater  
            address.  
mode        Configure VTP device mode  
password    Set the password for the VTP administrative domain  
pruning     Set the administrative domain to permit pruning  
version     Set the administrative domain to VTP version
```

```
Switch#configure terminal
```

```
Enter configuration commands, one per line. End with CNTL/Z.
```

```
Switch(config)#vtp domain ?
```

```
WORD The ascii name for the VTP administrative domain.
```

```
Switch(config)#vtp domain example
```

```
Changing VTP domain name from example to example
```

```
Switch(config)#vtp mode server
```

3. Issue these commands in order to monitor VTP operation and status:

```
Switch#show vtp status
```

```
VTP Version capable      : 1 to 3  
VTP version running      : 2  
VTP Domain Name          : example  
VTP Pruning Mode         : Disabled  
VTP Traps Generation     : Disabled  
Device ID                : 6400.f13e.dc40
```

Configuration last modified by 10.122.190.226 at 0-0-00 00:00:00
Local updater ID is 10.122.190.226 on interface Fa1 (first layer3 interface found)

Feature VLAN:

```
VTP Operating Mode           : Server
Maximum VLANs supported locally : 1005
Number of existing VLANs      : 16
Configuration Revision        : 0
MD5 digest                   : 0x0A 0xF4 0xFD 0xE9 0x99 0xD7 0xAB 0x3F
                              0x0A 0x64 0x04 0x7C 0x42 0x98 0xD8 0xE5
```

Switch#

Switch#**show vtp counters**

VTP statistics:

```
Summary advertisements received : 0
Subset advertisements received  : 0
Request advertisements received  : 0
Summary advertisements transmitted : 0
Subset advertisements transmitted : 0
Request advertisements transmitted : 0
Number of config revision errors : 0
Number of config digest errors   : 0
Number of V1 summary errors      : 0
```

VTP pruning statistics:

Trunk	Join Transmitted	Join Received	Summary advts received from non-pruning-capable device
-------	------------------	---------------	---

Switch#

Catalyst 2900XL, 3500XL, 2950, and 3550

Complete these steps:

1. Issue these commands from the VLAN database mode:**Note:** This is similar to the method for Cisco 6500 series switches that run Cisco IOS Software.

```
vtp {client | server | transparent}
vtp domain name
```

2. From enable mode, issue these commands in order to monitor VTP operation:

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

Note: The Catalyst 2900XL series switches with Cisco IOS Software Release 11.2(8)SA4 and later support VTP protocol. The Cisco IOS Software Release 11.2(8)SA3 and earlier code do not support VTP protocol on Catalyst 2900XL series switches.

Practical Examples

Example 1:

This example involves two Catalyst 4500 switches that are connected by a TenGigabitEthernet link:

1. Switch-A is a new switch that has no VTP domain name and no VLAN. Switch-C is a switch that currently exists and runs with 16 VLANs in the VTP domain test.
2. In this sample output from the **show vtp status** command, you can see that the VTP version is defaulted to 1. And Switch-A is VTP V2-capable. However, the switch does not run VTP V2 in this case. The switch only runs VTP V2 if the V2 version is configured with the **vtp version 2** command. In this example Switch-A is configured as VTP Client, it is also important to make sure that the switch connected has a Configuration Revision of 0 or lower value than current VTP Server before it is connected into the network:

Switch-A#**show vtp status**

```
VTP Version capable           : 1 to 3
VTP version running          : 1
VTP Domain Name              :
VTP Pruning Mode              : Disabled
VTP Traps Generation         : Disabled
Device ID                     : 6400.f13e.dc40
Configuration last modified by 0.0.0.0 at 0-0-00 00:00:00
Local updater ID is 10.122.190.226 on interface Fa1 (first layer3 interface found)
```

Feature VLAN:

```
VTP Operating Mode           : Server
Maximum VLANs supported locally : 1005
Number of existing VLANs      : 5
Configuration Revision        : 0
MD5 digest                    : 0x57 0xCD 0x40 0x65 0x63 0x59 0x47 0xBD
                               0x56 0x9D 0x4A 0x3E 0xA5 0x69 0x35 0xBC
```

Switch-A#

Switch-A#

Switch-A#

Switch-A#**show vlan brief**

VLAN Name	Status	Ports
1 default	active	Gi1/1, Gi1/2, Gi1/4, Gi1/5 Gi1/6, Gi1/7, Gi1/8, Gi1/9 Gi1/10, Gi1/11, Gi1/12, Gi1/13 Gi1/14, Gi1/15, Gi1/16, Gi1/17 Gi1/18, Gi1/19, Gi1/20, Gi1/21 Gi1/22, Gi1/23, Gi1/24, Gi1/25 Gi1/26, Gi1/27, Gi1/28, Gi1/29 Gi1/30, Gi1/31, Gi1/32, Gi1/33 Gi1/34, Gi1/35, Gi1/36, Gi1/37 Gi1/38, Gi1/39, Gi1/40, Gi1/41 Gi1/42, Gi1/43, Gi1/44, Gi1/45 Gi1/46, Gi1/47, Gi1/48, Te3/2 Te3/3, Te3/4, Te3/5, Te3/6 Te3/7, Te3/8
1002 fddi-default	act/unsup	
1003 token-ring-default	act/unsup	
1004 fddinet-default	act/unsup	
1005 trnet-default	act/unsup	

Switch-A#

Switch-C#**show vtp status**

```
VTP Version capable           : 1 to 3
VTP version running          : 2
VTP Domain Name              : test
VTP Pruning Mode              : Disabled
VTP Traps Generation         : Disabled
Device ID                     : 503d.e583.3b40
Configuration last modified by 10.122.190.227 at 11-24-22 13:44:22
```

Local updater ID is 10.122.190.227 on interface Fa1 (first layer3 interface found)

Feature VLAN:

```
-----
VTP Operating Mode           : Server
Maximum VLANs supported locally : 1005
Number of existing VLANs      : 16
Configuration Revision        : 4
MD5 digest                    : 0xCB 0x67 0x2A 0xF1 0x9A 0x8D 0xD3 0x1B
                               0xA8 0xB3 0x89 0xB2 0x32 0x63 0xA6 0xD0
```

Switch-C#

Switch-C#**show vlan brief**

VLAN Name	Status	Ports
1 default	active	Gi1/1, Gi1/2, Gi1/3, Gi1/4 Gi1/5, Gi1/6, Gi1/7, Gi1/8 Gi1/9, Gi1/10, Gi1/11, Gi1/12 Gi1/13, Gi1/14, Gi1/15, Gi1/16 Gi1/17, Gi1/18, Gi1/19, Gi1/20 Gi1/21, Gi1/22, Gi1/23, Gi1/24 Gi1/25, Gi1/26, Gi1/27, Gi1/28 Gi1/29, Gi1/30, Gi1/31, Gi1/32 Gi1/33, Gi1/34, Gi1/35, Gi1/36 Gi1/37, Gi1/38, Gi1/39, Gi1/40 Gi1/41, Gi1/42, Gi1/43, Gi1/44 Gi1/45, Gi1/46, Gi1/47, Gi1/48 Te3/2, Te3/3, Te3/4, Te3/5 Te3/6, Te3/7, Te3/8
2 VLAN0002	active	
3 VLAN0003	active	
4 VLAN0004	active	
5 VLAN0005	active	
6 VLAN0006	active	
7 VLAN0007	active	

VLAN Name	Status	Ports
8 VLAN0008	active	
9 VLAN0009	active	
10 VLAN0010	active	
11 VLAN0011	active	
12 VLAN0012	active	
1002 fddi-default	act/unsup	
1003 trcrf-default	act/unsup	
1004 fddinet-default	act/unsup	
1005 trbrf-default	act/unsup	

Switch-C#

Switch-A# Switch-A#**configure terminal**

```
Switch-A(config)#vtp version 2
Switch-A(config)#vtp mode client
Setting device to VTP Client mode for VLANs.
Switch-A(config)#end
Switch-A#
```

Switch-A#**show vtp status**

```
VTP Version capable      : 1 to 3
VTP version running      : 2
VTP Domain Name          :
VTP Pruning Mode         : Disabled
VTP Traps Generation     : Disabled
```

Device ID : 6400.f13e.dc40
Configuration last modified by 10.122.190.226 at 11-25-22 02:34:10

Feature VLAN:

VTP Operating Mode : **Client**
Maximum VLANs supported locally : 1005
Number of existing VLANs : **5**
Configuration Revision : 1
MD5 digest : 0xD2 0x3F 0x31 0x25 0x6D 0xD1 0x3E 0x27
0x62 0x77 0x7C 0xAF 0x0F 0xF6 0x72 0x02

Switch-A#

3. At this stage, a trunk was manually created between the two switches. Notice how they synchronize and watch the VTP packet exchange:

Switch-A#**debug sw-vlan vtp events**

vtp events debugging is on

Switch-A#**debug sw-vlan vtp packets**

vtp packets debugging is on

Switch-A#

Switch-A#**configure terminal**

Enter configuration commands, one per line. End with CNTL/Z.

Switch-A(config)#**interface tenGigabitEthernet3/2**

Switch-A(config-if)#**no shut**

Switch-A(config-if)#**end**

Switch-A#

4. **Switch-C** sends a summary advertisement to Switch-A. Switch-A then learns the VTP domain name from it, as shown in this sample output:

!--- On Switch-A:

*Nov 25 02:45:46.580: VTP LOG RUNTIME: switchport trunk mode on Te3/2 has changed *Nov 25 02:45:46.580: VTP LOG RUNTIME: delaying first flood on new trunk *Nov 25 02:45:51.100: VTP LOG RUNTIME: Summary packet received in NULL domain state *Nov 25 02:45:51.100: VTP LOG RUNTIME: **Summary packet received, domain = test, rev = 4, followers = 0, length 80, trunk Te3/2**

!--- This indicates that Switch-A has received its first summary advertisement.

*Nov 25 02:45:51.100: VTP LOG RUNTIME: Validate TLVs : #tlvs 1, max blk size 4 *Nov 25 02:45:51.100: VTP LOG RUNTIME: Validate TLVs : #00, val 6, len 4 *Nov 25 02:45:51.100: *Nov 25 02:45:51.100: summary: 02 01 00 04 74 65 73 74 00 00 00 00 00 00 00 00test..... *Nov 25 02:45:51.100: summary: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 *Nov 25 02:45:51.100: summary: 00 00 00 00 00 00 00 00 04 0A 7A BE E3 32 32 31 31z>c2211 *Nov 25 02:45:51.100: summary: 32 34 31 34 30 31 31 35 8D 07 FE 82 E5 FE 49 AD 24140115...e~l- *Nov 25 02:45:51.100: summary: 1A 6E A5 AB D0 35 C2 CA 00 00 00 01 06 01 00 02 .n%+P5BJ..... *Nov 25 02:45:51.100: *Nov 25 02:45:51.108: VTP LOG RUNTIME: **Transitioning from NULL to test domain**

!--- This is where Switch-A gets the VTP domain name.

5. With the **debug** enabled, you can see that Switch-A receives a summary advertisement with no followers. Therefore, Switch-A updates its domain name and sends advertisement requests to obtain the VLAN information, as shown in this sample output:

!--- On Switch-A

*Nov 25 02:45:51.108: VTP LOG RUNTIME: Summary packet rev 4 greater than domain test rev 0 *Nov 25 02:45:51.108: VTP LOG RUNTIME: Domain test currently not in updating state *Nov 25 02:45:51.108: VTP LOG RUNTIME: **Summary packet with followers field zero**

*Nov 25 02:45:51.108: VTP LOG RUNTIME: **Transmit vtp request, domain test, start value 0**

!--- This is where the advertisement request is sent.

6. **Switch-C** sends another summary advertisement with field followers to VLAN 1. The subset advertisement that contains all VLANs is shown in this output. Then Switch-A configures all the VLANs:

!--- On Switch-A:

```
*Nov 25 02:45:51.595: VTP LOG RUNTIME: Summary packet received, domain = test, rev = 4, followers
= 1, length 80, trunk Te3/2
```

```
!--- Switch-A has received its second summary advertisement.
```

!--- This configuration revision is higher than that on Switch-A.

```
*Nov 25 02:45:51.595: VTP LOG RUNTIME: Validate TLVs : #tlvs 1, max blk size 4 *Nov 25 02:45:51.595: VTP LOG  
RUNTIME: Validate TLVs : #00, val 6, len 4 *Nov 25 02:45:51.595: *Nov 25 02:45:51.596: summary: 02 01 01 04 74 65 73  
74 00 00 00 00 00 00 00 00 .....test..... *Nov 25 02:45:51.596: summary: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00  
..... *Nov 25 02:45:51.596: summary: 00 00 00 00 00 00 00 04 0A 7A BE E3 32 32 31 31 .....z>c2211 *Nov 25  
02:45:51.596: summary: 32 34 31 34 30 31 31 35 8D 07 FE 82 E5 FE 49 AD 24140115...e-l- *Nov 25 02:45:51.596:  
summary: 1A 6E A5 AB D0 35 C2 CA 00 00 00 01 06 01 00 02 .n%+P5BJ..... *Nov 25 02:45:51.596: *Nov 25  
02:45:51.596: VTP LOG RUNTIME: Summary packet rev 4 greater than domain test rev 0 *Nov 25 02:45:51.596: VTP LOG  
RUNTIME: Domain test currently not in updating state *Nov 25 02:45:51.596: VTP LOG RUNTIME: pdu len 80, #tlvs 1 *Nov  
25 02:45:51.596: VTP LOG RUNTIME: Subset packet received, domain = test, rev = 4, seq = 1,  
length = 420
```

```
!--- Switch-A has received its subset advertisement.
```

```
*Nov 25 02:45:51.596: subset: 02 02 01 04 74 65 73 74 00 00 00 00 00 00 ....test..... *Nov 25 02:45:51.596: subset:
00 00 00 00 00 00 00 00 00 00 00 00 00 00 ..... *Nov 25 02:45:51.596: subset: 00 00 00 00 00 00 00 04 14 00
01 07 00 01 05 DC ..... \ *Nov 25 02:45:51.596: subset: 00 01 86 A1 64 65 66 61 75 6C 74 00 14 00 01 08
...!default.... *Nov 25 02:45:51.596: subset: 00 02 05 DC 00 01 86 A2 56 4C 41 4E 30 30 30 32 ...\"VLAN0002 *Nov 25
02:45:51.596: subset: 14 00 01 08 00 03 05 DC 00 01 86 A3 56 4C 41 4E ..... \..#VLAN *Nov 25 02:45:51.596: subset: 30
30 30 33 14 00 01 08 00 04 05 DC 00 01 86 A4 0003..... \..$ *Nov 25 02:45:51.596: subset: 56 4C 41 4E 30 30 30 34 14
00 01 08 00 05 05 DC VLAN0004..... \ *Nov 25 02:45:51.596: subset: 00 01 86 A5 56 4C 41 4E 30 30 30 35 14 00 01 08
...%VLAN0005.... *Nov 25 02:45:51.596: subset: 00 06 05 DC 00 01 86 A6 56 4C 41 4E 30 30 30 36 ...\"&VLAN0006 *Nov
25 02:45:51.596: subset: 14 00 01 08 00 07 05 DC 00 01 86 A7 56 4C 41 4E ..... \..'VLAN *Nov 25 02:45:51.596: subset:
30 30 30 37 14 00 01 08 00 08 05 DC 00 01 86 A8 0007..... \..( *Nov 25 02:45:51.596: subset: 56 4C 41 4E 30 30 30 38 14
00 01 08 00 09 05 DC VLAN0008..... \ *Nov 25 02:45:51.596: subset: 00 01 86 A9 56 4C 41 4E 30 30 30 39 14 00 01 08
...)VLAN0009.... *Nov 25 02:45:51.596: subset: 00 0A 05 DC 00 01 86 AA 56 4C 41 4E 30 30 31 30 ...\"... *VLAN0010 *Nov
25 02:45:51.596: subset: 14 00 01 08 00 0B 05 DC 00 01 86 AB 56 4C 41 4E ..... \..+VLAN *Nov 25 02:45:51.596: subset:
30 30 31 31 14 00 01 08 00 0C 05 DC 00 01 86 AC 0011..... \.,, *Nov 25 02:45:51.596: subset: 56 4C 41 4E 30 30 31 32
18 00 02 0C 03 EA 05 DC VLAN0012.....j.\ *Nov 25 02:45:51.596: subset: 00 01 8A 8A 66 64 64 69 2D 64 65 66 61 75 6C
74 ....fddi-default *Nov 25 02:45:51.596: subset: 30 00 03 0D 03 EB 11 78 00 01 8A 8B 74 72 63 72 0....k.x....trcr *Nov 25
02:45:51.596: subset: 66 2D 64 65 66 61 75 6C 74 00 00 00 01 01 0C CC f-default.....L *Nov 25 02:45:51.596: subset: 04
01 03 ED 07 01 00 02 08 01 00 07 09 01 00 07 ...m..... *Nov 25 02:45:51.596: subset: 20 00 04 0F 03 EC 05 DC 00 01
8A 8C 66 64 64 69 ....l.\...fddi *Nov 25 02:45:51.596: subset: 6E 65 74 2D 64 65 66 61 75 6C 74 00 03 01 00 01 net-
default.... *Nov 25 02:45:51.596: subset: 24 00 05 0D 03 ED 11 78 00 01 8A 8D 74 72 62 72 $....m.x....trbr *Nov 25
02:45:51.596: subset: 66 2D 64 65 66 61 75 6C 74 00 00 00 02 01 00 0F f-default..... *Nov 25 02:45:51.596: subset: 03 01
00 02 .... *Nov 25 02:45:51.596: *Nov 25 02:45:51.666: VTP LOG RUNTIME: Transmit vtp summary, domain test, rev 4,
followers 1, tlv blk size 8 (inc #tlv field), MD5 digest calculated = 8D 07 FE 82 E5 FE 49 AD 1A 6E A5 AB D0 35 C2 CA
```

7. At this point, both switches are synchronized:

```
Switch-A#show vtp status
```

```
VTP Version capable      : 1 to 3
VTP version running    : 2
VTP Domain Name       : test
VTP Pruning Mode         : Disabled
VTP Traps Generation     : Disabled
Device ID                : 6400.f13e.dc40
Configuration last modified by 10.122.190.227 at 11-24-22 14:01:15
```

Feature VLAN:

```

VTP Operating Mode           : Client
Maximum VLANs supported locally : 1005
Number of existing VLANs     : 16
Configuration Revision        : 4
MD5 digest                   : 0x8D 0x07 0xFE 0x82 0xE5 0xFE 0x49 0xAD
                              0x1A 0x6E 0xA5 0xAB 0xD0 0x35 0xC2 0xCA

```

Switch-A#show vlan brief

VLAN Name	Status	Ports
1 default	active	Gi1/1, Gi1/2, Gi1/4, Gi1/5 Gi1/6, Gi1/7, Gi1/8, Gi1/9 Gi1/10, Gi1/11, Gi1/12, Gi1/13 Gi1/14, Gi1/15, Gi1/16, Gi1/17 Gi1/18, Gi1/19, Gi1/20, Gi1/21 Gi1/22, Gi1/23, Gi1/24, Gi1/25 Gi1/26, Gi1/27, Gi1/28, Gi1/29 Gi1/30, Gi1/31, Gi1/32, Gi1/33 Gi1/34, Gi1/35, Gi1/36, Gi1/37 Gi1/38, Gi1/39, Gi1/40, Gi1/41 Gi1/42, Gi1/43, Gi1/44, Gi1/45 Gi1/46, Gi1/47, Gi1/48, Te3/3 Te3/4, Te3/5, Te3/6, Te3/7 Te3/8
2 VLAN0002	active	
3 VLAN0003	active	
4 VLAN0004	active	
5 VLAN0005	active	
6 VLAN0006	active	
7 VLAN0007	active	

VLAN Name	Status	Ports
8 VLAN0008	active	
9 VLAN0009	active	
10 VLAN0010	active	
11 VLAN0011	active	
12 VLAN0012	active	
1002 fddi-default	act/unsup	
1003 trcrf-default	act/unsup	
1004 fddinet-default	act/unsup	
1005 trbrf-default	act/unsup	

Example 2:

This example shows how to verify the VTP configuration on a Catalyst 6000 that runs Cisco IOS Software:

Switch#show vtp status

```

VTP Version:                2
Configuration Revision:      247
Maximum VLANs supported locally: 1005
Number of existing VLANs:    33
VTP Operating Mode:          Client
VTP Domain Name:              Lab_Network
VTP Pruning Mode:             Enabled
VTP V2 Mode:                  Disabled
VTP Traps Generation:        Disabled
MD5 digest: 0x45 0x52 0xB6 0xFD 0x63 0xC8 0x49 0x80
Configuration last modified by 0.0.0.0 at 8-12-99 15:04:49
Switch#

```

Example 3:

This example shows how to display VTP statistics on a Catalyst 6000 that runs Cisco IOS Software:

```
Switch#show vtp counters
```

```
VTP statistics:
```

```
Summary advertisements received: 7
Subset advertisements received: 5
Request advertisements received: 0
Summary advertisements transmitted: 997
Subset advertisements transmitted: 13
Request advertisements transmitted: 3
Number of config revision errors: 0
Number of config digest errors: 0
Number of V1 summary errors: 0
VTP pruning statistics:
```

Trunk	Join Transmitted	Join Received	Summary advts received from on-pruning-capable device
-----	-----	-----	-----
Fa5/8	43071	42766	5

Troubleshoot VTP

Refer to [Troubleshooting VLAN Trunk Protocol \(VTP\)](#) for information to troubleshoot VTP.

Note: Only registered Cisco users can access internal site, tools, and documents.

Related Information

- [Virtual LANs/VLAN Trunking Protocol \(VLANs/VTP\)](#)
- [IP Routing Technology Support](#)
- [Show Commands - Cisco IOS Configuration Fundamentals Command Reference](#)
- [Cisco Technical Support & Downloads](#)