VTP Servers and Clients

This CCNA Video Mentor lab explains how to configure VTP servers and clients, lists the requirements that must be met for those switches to exchange VLAN information, and explains how to use show commands to confirm that the switches have learned about new VLANs. In particular, the objectives of this lab are as follows:

- Configure VTP on Cisco switches.
- Verify whether the switches meet the required conditions that enable VTP to work between two switches.
- Verify that a VTP client has learned VLAN information from a VTP peer.

Scenario

This lab contains three main steps, as follows:

**Step 1.** Configure one switch as a VTP server and another as a VTP client.

**Step 2.** Complete all VTP requirements by configuring trunking between two switches.

**Step 3.** Configure VLANs on the VTP server and confirm that the VTP client has learned about the VLANs.

Initial Configurations

The two 2960 switches in this lab begin with some basic configuration, but with all default settings related to VTP and the VLAN database. Both switches have their hostnames configured, and each has an IP address assigned to its respective VLAN 1 interface. Example 2-1 and Example 2-2 show the basic initial configurations for both switches in this lab.
Example 2-1  Initial Configuration for Sw1

```
hostname Sw1

interface vlan 1
 ip address 172.30.1.101 255.255.255.0
 no shutdown
```

Example 2-2  Initial Configuration for Sw2

```
hostname Sw2

interface vlan 1
 ip address 172.30.1.102 255.255.255.0
 no shutdown
```

## Ending Configurations

This lab adds some configuration commands to both Sw1 and Sw2; however, it does not change any of the earlier configurations. Example 2-3 and Example 2-4 show the configuration added during the lab.

Example 2-3  Configuration on Sw1 Added During This Lab

```
vtp domain Fred
 vtp password Barney

 vlan 2
 name Wilma

 interface gigabitEthernet 0/1
 switchport mode trunk

 interface fastethernet 0/1
 switchport access vlan 2
```

Example 2-4  Configuration on Sw2 Added During This Lab

```
vtp mode client
 vtp domain Fred
 vtp password Barney

 interface fastethernet 0/2
 switchport access vlan 2
```
Video Presentation Reference

This video presents several figures and a table that support the concepts covered in the lab. This section simply lists these figures for reference. Because the video is organized into three separate steps, the reference materials have been organized into three separate sections.

Step 1 Reference

Figure 2-1  Step 1 Topology and Configuration

Sw1 VTP Server Configuration:
1) Defaults to VTP server mode
2) Assign domain name “Fred”
3) Assign password “Barney”

Sw2 VTP Client Configuration:
1) Enable VTP client mode
2) Assign domain name “fred”
3) Assign password “Barney”
**Step 2 Reference**

**Figure 2-2 Requirements for VTP to Work Properly**

- PC1
  - Fa0/1
- VTP Server
  - Sw1
  - Gi0/1
  - Gi0/2
- VTP Client
  - Sw2
  - Fa0/2
- PC2

**VTP Requirements**
1) Same domain name
2) Same password (if used on either switch)
3) Messages sent only over operational trunks

**Send VTP messages on trunks, and only trunks!**

**Step 3 Reference**

**Figure 2-3 VLAN Configuration Process Shown in This Video**

- PC1
  - Fa0/1
- VTP Server
  - Sw1
  - Gi0/1
  - Gi0/2
- Trunk
- VTP Client
  - Sw2
  - Fa0/2
- PC2

**Assign to VLAN 2 with switchport access vlan 2 command.**

**Add VLAN 2 with the vlan 2 command.**

**VTP Revision Number: 0 + 1 = 1**

**VTP Messages with New VLAN Database**

**VTP Revision Number = 1**
**New VLAN 2 Learned**