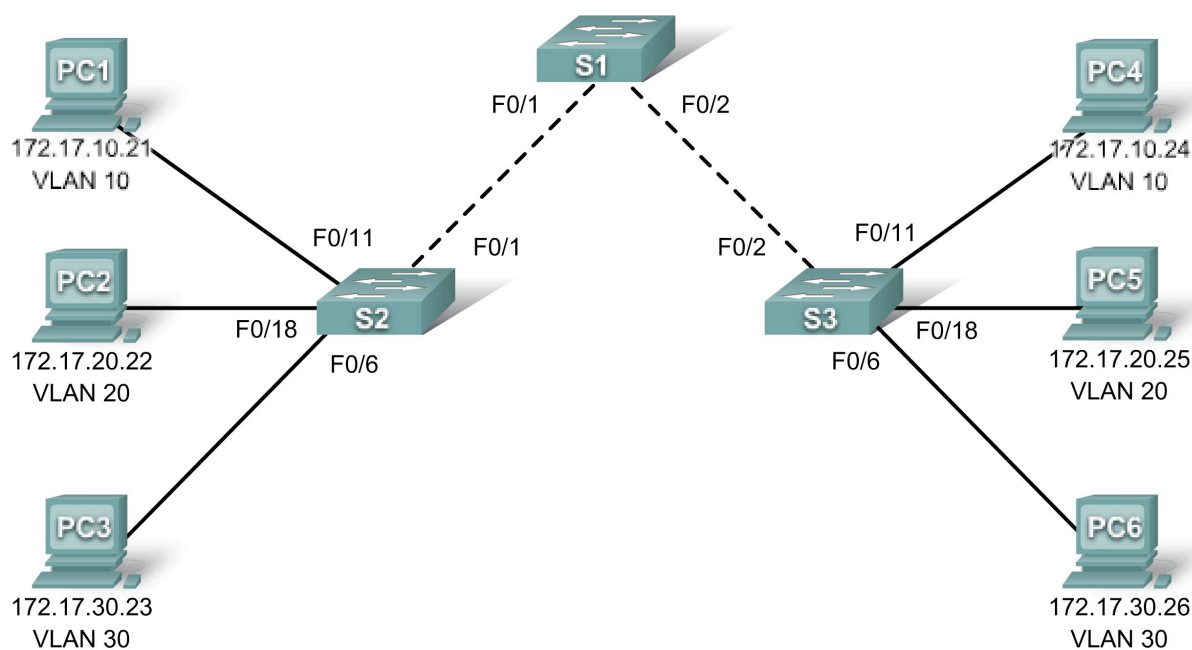# PT Activity 4.4.3: Troubleshooting the VTP Configuration

Topology Diagram

Addressing Table

Device	Interface	IP Address	Subnet Mask
S1	VLAN 99	172.17.99.11	255.255.255.0
S2	VLAN 99	172.17.99.12	255.255.255.0
S3	VLAN 99	172.17.99.13	255.255.255.0
PC1	NIC	172.17.10.21	255.255.255.0
PC2	NIC	172.17.20.22	255.255.255.0
PC3	NIC	172.17.30.23	255.255.255.0
PC4	NIC	172.17.10.24	255.255.255.0
PC5	NIC	172.17.20.25	255.255.255.0
PC6	NIC	172.17.30.26	255.255.255.0

Port Assignments (S2 and S3)

Ports	Assignment	Network
Fa0/1 - 0/5	802.1q Trunks (Native VLAN 99)	172.17.99.0 /24
Fa0/6 - 0/10	VLAN 30 - Guest (Default)	172.17.30.0 /24
Fa0/11 - 0/17	VLAN 10 - Faculty/Staff	172.17.10.0 /24
Fa0/18 - 0/24	VLAN 20 – Students	172.17.20.0 /24

Learning Objectives

- Find and correct all configuration errors.
- Document the corrected network.

Introduction

The VLAN Trunking Protocol (VTP) helps ensure uniform VLAN configurations on your switched network, but it must be configured correctly. In this activity, the VTP domain name is **Lab4_3**, and the VTP password is **cisco**. However, there are a number of errors in this configuration that you must troubleshoot and correct before end-to-end connectivity within the VLAN is restored. You will have successfully resolved all errors when the same VLANs are configured on all three switches, and you can ping between any two hosts in the same VLAN or between any two switches.

Task 1: Troubleshoot and Correct VTP and Configuration Errors

When all errors are corrected, you should be able to ping PC4 from PC1, PC5 from PC2, and PC6 from PC3. You should also be able to ping the management interfaces on both S2 and S3 from S1. Use **cisco** for the user EXEC password and **class** for the privileged EXEC password.

Task 2: Document the Switch Configuration

When you have completed your troubleshooting, capture the output of the **show run** command and save it to a text document for each switch.

Your completion should be 100%. If not, troubleshoot to correct any errors.

Correct Switch Configurations:

S1 Configuration:

```
no service password-encryption
!
hostname S1
!
enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCi1
!
no ip domain-lookup
!
interface FastEthernet0/1
 switchport trunk native vlan 99
 switchport mode trunk
!
interface FastEthernet0/2
 switchport trunk native vlan 99
```

```
 switchport mode trunk
!
interface FastEthernet0/3
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/4
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/5
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/6
shutdown
!
interface FastEthernet0/7
 shutdown
!
interface FastEthernet0/8
 shutdown
!
interface FastEthernet0/9
 shutdown
!
interface FastEthernet0/10
 shutdown
!
interface FastEthernet0/11
 shutdown
!
interface FastEthernet0/12
 shutdown
!
interface FastEthernet0/13
 shutdown
!
interface FastEthernet0/14
 shutdown
!
interface FastEthernet0/15
 shutdown
!
interface FastEthernet0/16
 shutdown
!
interface FastEthernet0/17
 shutdown
!
interface FastEthernet0/18
 shutdown
!
interface FastEthernet0/19
```

```
 shutdown
!
interface FastEthernet0/20
 shutdown
!
interface FastEthernet0/21
 shutdown
!
interface FastEthernet0/22
 shutdown
!
interface FastEthernet0/23
 shutdown
!
interface FastEthernet0/24
 shutdown
!
interface GigabitEthernet1/1
 shutdown
!
interface GigabitEthernet1/2
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
interface Vlan99
 ip address 172.17.99.11 255.255.255.0
!
line con 0
 password cisco
 login
!
line vty 0 4
 password cisco
 login
line vty 5 15
 password cisco
 login
!
end
```

S1# show vtp password
VTP Password: cisco

S1#show vtp status

VTP Version   : 2
Configuration Revision   : 8
Maximum VLANs supported locally : 64
Number of existing VLANs   : 9
VTP Operating Mode   : Server
VTP Domain Name   : Lab4_3
VTP Pruning Mode   : Disabled
VTP V2 Mode   : Disabled
VTP Traps Generation   : Disabled
MD5 digest   : 0x81 0x95 0xD8 0xA7 0x78 0x4F 0x04 0xB8

Configuration last modified by 0.0.0.0 at 3-1-93 00:01:36
Local updater ID is 172.17.99.11 on interface Vl99 (lowest numbered VLAN interface found)

S2 Configuration:

```
no service password-encryption
!
hostname S2
!
enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCi1
!
no ip domain-lookup
!
interface FastEthernet0/1
 switchport trunk native vlan 99
 switchport mode trunk
!
interface FastEthernet0/2
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/3
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/4
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/5
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/6
 switchport access vlan 30
 switchport mode access
!
interface FastEthernet0/7
 switchport access vlan 30
 switchport mode access
 shutdown
!
interface FastEthernet0/8
 switchport access vlan 30
 switchport mode access
 shutdown
!
interface FastEthernet0/9
 switchport access vlan 30
 switchport mode access
 shutdown
!
interface FastEthernet0/10
```

```
 switchport access vlan 30
 switchport mode access
 shutdown
!
interface FastEthernet0/11
 switchport access vlan 10
 switchport mode access
!
interface FastEthernet0/12
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/13
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/14
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/15
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/16
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/17
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/18
 switchport access vlan 20
 switchport mode access
!
interface FastEthernet0/19
 switchport access vlan 20
 switchport mode access
 shutdown
!
interface FastEthernet0/20
 switchport access vlan 20
 switchport mode access
 shutdown
!
interface FastEthernet0/21
 switchport access vlan 20
 switchport mode access
 shutdown
!
```

```
interface FastEthernet0/22
 switchport access vlan 20
 switchport mode access
 shutdown
!
interface FastEthernet0/23
 switchport access vlan 20
 switchport mode access
 shutdown
!
interface FastEthernet0/24
 switchport access vlan 20
 switchport mode access
 shutdown
!
interface GigabitEthernet1/1
 shutdown
!
interface GigabitEthernet1/2
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
interface Vlan99
 ip address 172.17.99.12 255.255.255.0
!
line con 0
 password cisco
 login
!
line vty 0 4
 password cisco
 login

line vty 5 15
 password cisco
 login
!
End


S2#show vtp password
VTP Password: cisco

S2#sh vtp status
VTP Version                     : 2
Configuration Revision          : 8
Maximum VLANs supported locally : 64
Number of existing VLANs        : 9
VTP Operating Mode              : Client
VTP Domain Name                 : Lab4_3
VTP Pruning Mode                : Disabled
VTP V2 Mode                     : Disabled
VTP Traps Generation            : Disabled
MD5 digest                      : 0x81 0x95 0xD8 0xA7 0x78 0x4F 0x04 0xB8
Configuration last modified by 0.0.0.0 at 3-1-93 00:01:36
```

S3 Configuration:

```
no service password-encryption
!
hostname S3
!
enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCi1
!
no ip domain-lookup
!
interface FastEthernet0/1
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/2
 switchport trunk native vlan 99
 switchport mode trunk
!
interface FastEthernet0/3
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/4
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/5
 switchport trunk native vlan 99
 switchport mode trunk
 shutdown
!
interface FastEthernet0/6
 switchport access vlan 30
 switchport mode access
!
interface FastEthernet0/7
 switchport access vlan 30
 switchport mode access
 shutdown
!
interface FastEthernet0/8
 switchport access vlan 30
 switchport mode access
 shutdown
!
interface FastEthernet0/9
 switchport access vlan 30
 switchport mode access
 shutdown
!
interface FastEthernet0/10
 switchport access vlan 30
 switchport mode access
```

```
 shutdown
!
interface FastEthernet0/11
 switchport access vlan 10
 switchport mode access
!
interface FastEthernet0/12
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/13
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/14
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/15
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/16
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/17
 switchport access vlan 10
 switchport mode access
 shutdown
!
interface FastEthernet0/18
 switchport access vlan 20
 switchport mode access
!
interface FastEthernet0/19
 switchport access vlan 20
 switchport mode access
 shutdown
!
interface FastEthernet0/20
 switchport access vlan 20
 switchport mode access
 shutdown
!
interface FastEthernet0/21
 switchport access vlan 20
 switchport mode access
 shutdown
!
interface FastEthernet0/22
 switchport access vlan 20
```

```
 switchport mode access
 shutdown
!
interface FastEthernet0/23
 switchport access vlan 20
 switchport mode access
 shutdown
!
interface FastEthernet0/24
 switchport access vlan 20
 switchport mode access
 shutdown
!
interface GigabitEthernet1/1
 shutdown
!
interface GigabitEthernet1/2
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
interface Vlan99
 ip address 172.17.99.13 255.255.255.0
!
line con 0
 password cisco
 login
!
line vty 0 4
 password cisco
 login
line vty 5 15
 password cisco
 login
!
End

S3#sh vtp password
VTP Password: cisco


S3#sh vtp status
VTP Version                     : 2
Configuration Revision          : 0
Maximum VLANs supported locally : 64
Number of existing VLANs        : 8
VTP Operating Mode              : Client
VTP Domain Name                 : Lab4_3
VTP Pruning Mode                : Disabled
VTP V2 Mode                     : Disabled
VTP Traps Generation            : Disabled
MD5 digest                      : 0x42 0xFE 0xED 0xCA 0xBE 0xCC 0x6F 0x0A
Configuration last modified by 0.0.0.0 at 0-0-00 00:00:00
```