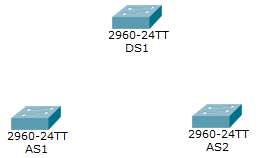
Packet Tracer - Configure VTP and DTP

Topology



Objectives

In this activity, you will configure VTP and DTP.

1. Background / Scenario

Scalability and management are two crucial considerations in large networks. VTP and DTP are technologies that improve management and scalability. VLAN Trunking Protocol (VTP) allows the switches to communicate over VLANs automatically, improving management and scalability. Dynamic Trunking Protocol (DTP) allows the switches to automatically negotiate and establish trunk links. DTP also improves scalability.

In this activity, you will configure a switched environment where trunks are negotiated and formed via DTP, and VLAN information is propagated automatically through a VTP domain.

* 1. Using Dynamic Trunk Protocol (DTP) to form trunk links

Access links transport single VLAN frames and trunk links carry frames belonging to multiple VLANs. While trunk links can be manually configured, DTP can be used to allow the switches to negotiate and establish trunk links automatically. DTP is very helpful in large networks.

* + 1. Connect the F0/7 port on AS1 to F0/7 port on DS1.
    2. Configure DTP desirable on the F0/7 port on DS1.

DS1(config)# **interface f0/7**

DS1(config-if)# **switchport mode dynamic desirable**

* + 1. Connect the F0/9 port on AS2 to F0/9 port on DS1.
    2. Configure DTP desirable on the F0/9 port on DS1.

Based on the fact that the ports above were made DTP desirable on DS1, is it correct to state that “DS1 ports F0/7 and F0/9 should have become trunk links”? Explain.

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* + 1. Issue **show interfaces trunk** command on the switches to verify that trunking has been enabled on the switches.

DS1# **show interfaces trunk**

* + 1. From the **show interfaces trunk** output, which trunking mode is configured in the switch ports?

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* 1. Configuring VTP

VTP is used to communicate VLAN information among VTP domain participating switches.

* + 1. To create a new VTP domain, configure switch DS1 as a VTP server by assigning **CCNA-LAB** as the domain name with the password **cisco12345**.

**Note**: VTP domain names are case-sensitive. VTP domain passwords are optional but increase security.

* + 1. Issue the **show vtp status** to verify that the domain was created.

DS1# **show vtp status**

* + 1. Configure 5 VLANs on DS1. Use VLANs 10, 20, 30, 40, and 50.
    2. Configure the access layer switches AS1 and AS2 to the domain as VTP clients.
    3. Verify that AS1 and AS2 have learned the VLANs added to the domain from switch DS1.