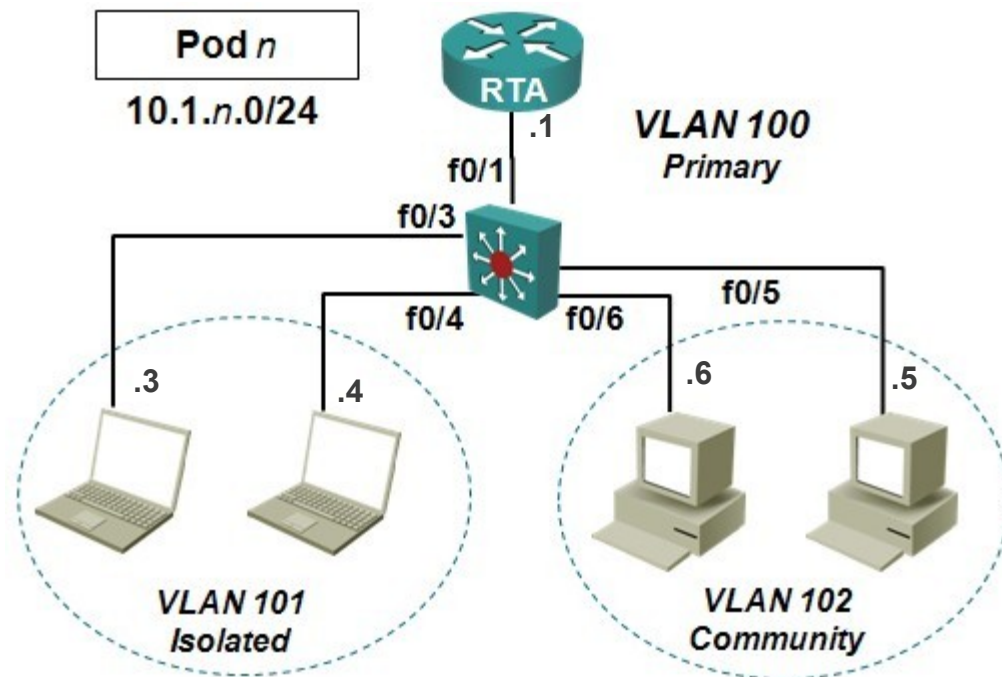


Chapter 2 Lab 2-9, Private VLANS

Topology



Objectives

- Configure private VLANs on a single switch.
- Verify appropriate connectivity and layer 2 traffic isolation.
- Extend the pVLAN topology to two switches connected by an 802.1Q trunk.

Background

In this lab, you will configure pVLANs on a single switch, then add a trunk to another switch to create a multi-switch pVLAN topology.

Note: Only the Catalyst 3560 switches support the private VLAN feature.

Step 1: Prepare the equipment.

- Power up the switches and use the standard process for establishing a HyperTerminal console connection from a workstation to each switch in your pod. If you are connecting remotely to the switches, follow the instructions that have been supplied by your instructor.
- Remove all VLAN information and configurations that may have been previously entered into the switches. Refer to Lab 1-1, "Clearing a Switch," and Lab 1-2, "Clearing a Switch Connected to a Larger Network."

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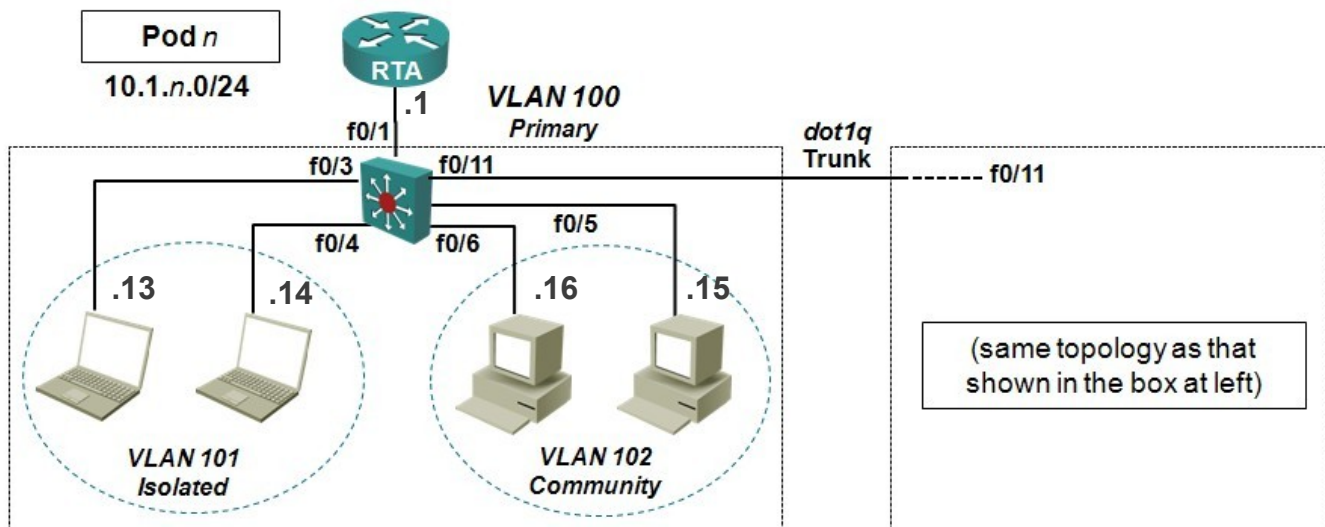
- c. A single router connected will be connected to a promiscuous port, so power up a C2811 and ensure no existing configuration is being loaded.
- d. 4 hosts will be required so you will need to use your laptops in addition to your caddies. If you run short, ask the professor to borrow a caddy or two.

Step 2: Configure using a single switch.

- a. Configure your 3560 switch according to the given diagram.
- b. Configure your router to provide connectivity to each VLAN, but ensure it is NOT configured to do proxy ARP. (How?)
_____)
- c. Now, verify that your switch configurations were complete and correct. Capture the commands (and their output) that were used to do this, for post-lab questions.
- e. Verify that all 4 hosts have the connectivity and L2 isolation you expect. Document below, the steps you took to do this. Again, capture the command dialogue so that you have all information that may be necessary for post-lab questions.
- f. Once you are satisfied all is correct, capture outputs from **sh vtp status** and **sh run** for submission.

Step 3: Expand the pVLAN topology by connecting up with another group.

- a. At the group with the higher pod number:
 - a. Disconnect the router from the topology.
 - b. Reconfigure the IP parameters of all four hosts so that they match the subnet being used by the other pod.



- d. Configure both switches to bring up an 802.1q trunk using port f0/11 on both ends.

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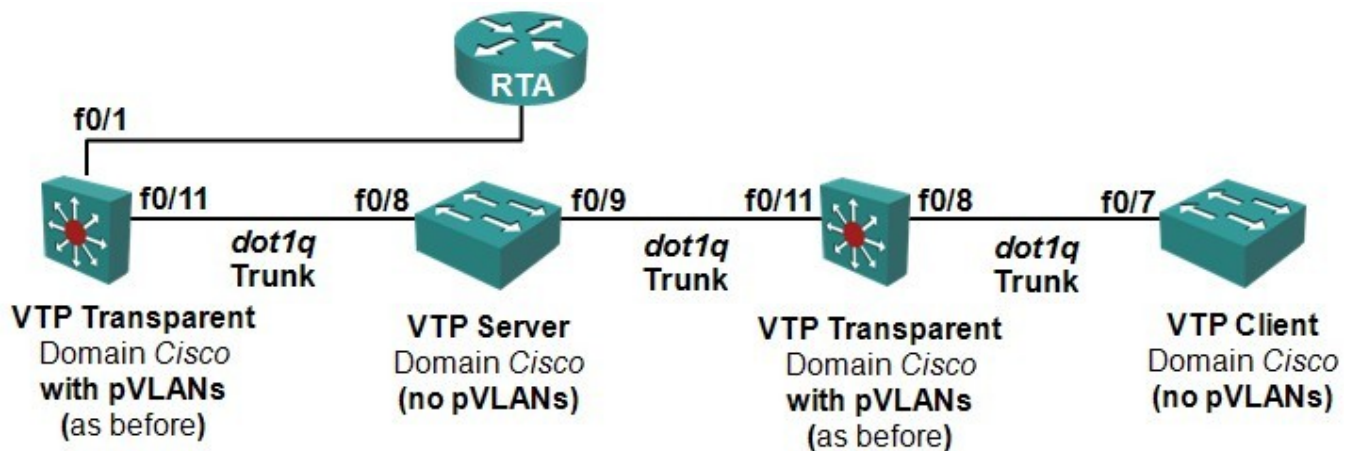
- e. Document below, the steps needed to verify that all hosts have the connectivity and L2 isolation you expect. Again, capture the command dialogue for any post-lab questions.

Step 4: Wrap up.

Capture final **sh vtp status** and **sh run** outputs from both C3560 switches for any post-lab questions.

Challenge

Connect these two C3560 switches into a topology with 2 other switches in the same VTP domain, but that do NOT have pVLAN support and see if everything still operates as expected! Document your findings.



Configure and connect hosts as needed to verify functionality.