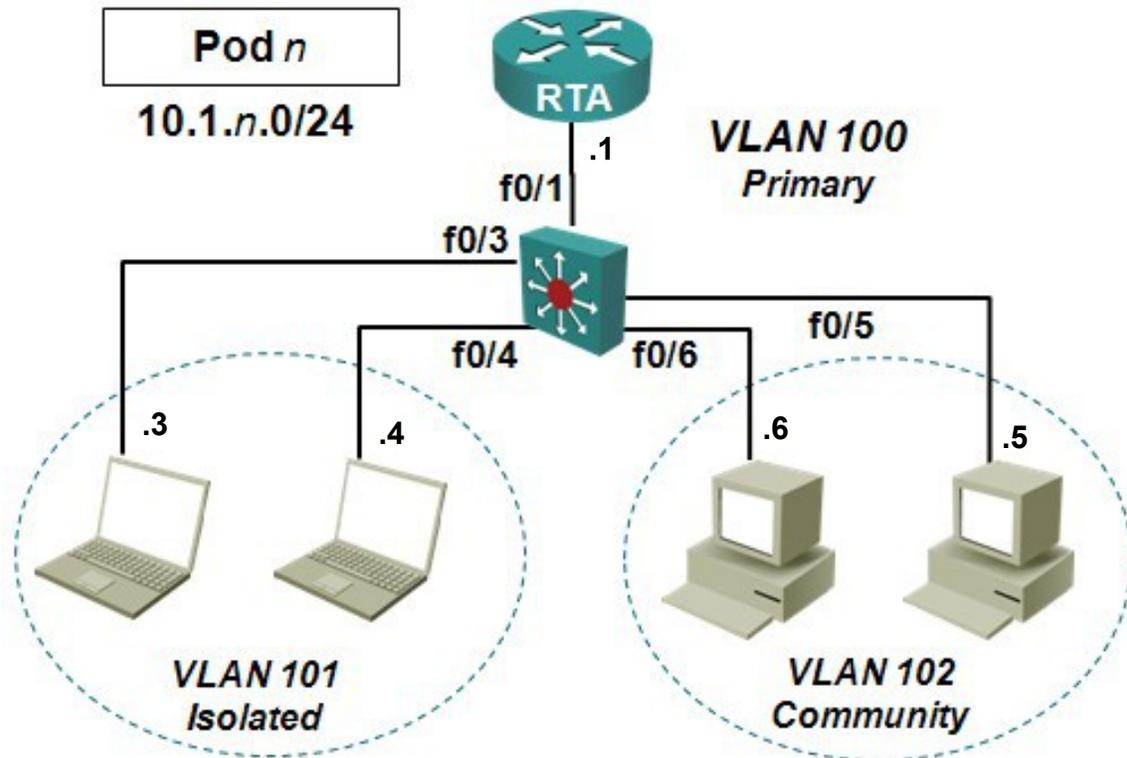


Lab 4, Private VLANS

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 (ordinary) 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: You will need to confirm which switches (2960, 2960+, 3560, 3560G, 3560v2) do or do **not** support the private VLAN feature.

Task 1: Prepare the equipment.

1. Confirm that all previous configuration(s) have been erased from all your devices.
2. Four hosts will be required so you will need to use your laptop(s) in addition to the desktop computers.

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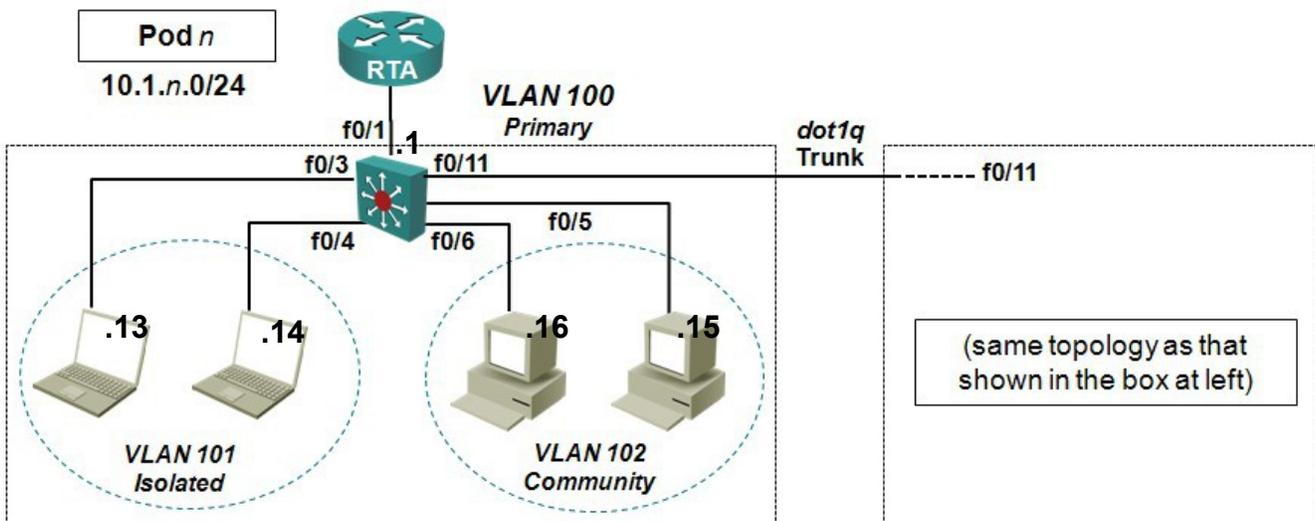
Task 2: Configure using a single switch.

1. Confirm which switches (ie. 2960, 2960+, 3560, 3560G, 3560v2) support pVLANs by entering at least one config command that is specific to pVLANs. Write down which models do and do not support pVLANs. Choose a switch that supports pVLANs for the rest of the lab.
2. Configure your switch according to the given diagram.
3. Configure your router to provide connectivity to each VLAN, but ensure it is NOT configured to do proxy ARP. (How?)
4. 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.
5. Verify that all 4 hosts have the connectivity and L2 isolation you expect. Record (eg. on the last page or on your laptop) the steps you took to do this. Again, capture the config session so that you have all information that may be necessary for post-lab questions.
6. Once you are satisfied all is correct, capture outputs from **sh vtp status** and **sh run** for possible postlab questions.

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

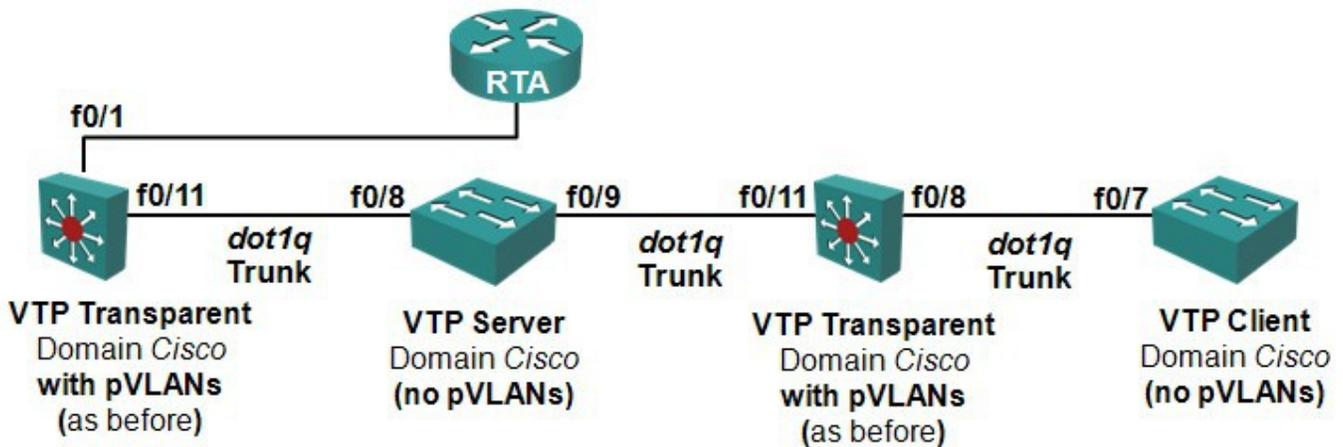
At the group with the higher pod number:

1. Disconnect (only) one router from the topology.
2. Reconfigure the IP parameters of all four hosts so that they match the subnet being used by the other pod.
3. Configure both switches to bring up an 802.1q trunk using port f0/11 on both ends.
4. Record the steps needed to verify that all hosts have the connectivity and L2 isolation you expect. Again, capture the command dialogue as well as the outputs from **sh vtp status** and **sh run** outputs from both switches for possible post-lab questions.



Task 4: Connect Over Trunks Via non-PVLAN Switch(es)

1. Connect two new switches into a topology with the two original switches in the same VTP domain, but that do NOT have pVLAN support as per the topology diagram below. See if everything still operates as expected!
2. Determine which VLANs must be permitted across the trunks in order for the pVLAN traffic to propagate as expected.
3. Document your results: capture the command dialogue as well as the outputs from **sh vtp status** and **sh run** outputs from both switches for possible post-lab questions.



Configure and connect hosts as needed to verify functionality.