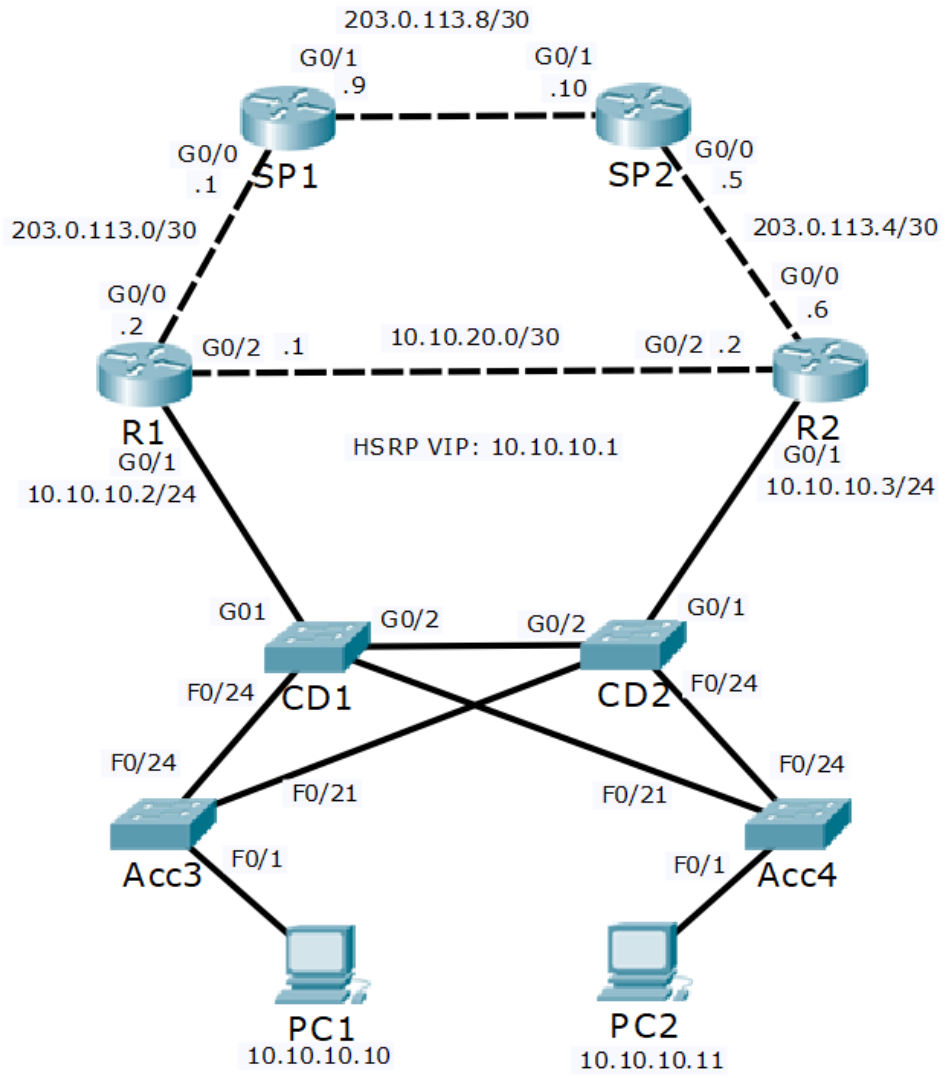
25-2 Spanning Tree Configuration – Lab Exercise

You discovered that switch Acc3 is the Root Bridge in the previous Spanning Tree Troubleshooting lab and traffic is not taking the most direct path across the network. You will correct the configuration in this lab.

Lab Topology



Load the Startup Configurations

Open the '25-2 STP Configuration.pkt' file in Packet Tracer to load the lab.

Spanning Tree Version

1) Verify which version of Spanning Tree is currently in use.

2) Configure the campus to use RPVST+ to reduce convergence time in the case of switch or link failure.

Spanning Tree Root Bridge Configuration

3) Configure the network so that traffic between the PCs and the Internet travels along the shortest available path. If a core/distribution switch fails traffic should failover to the next shortest available path. Do not change any Layer 3 configuration such as HSRP settings.

Port Configuration for End Hosts

4) A Layer 2 loop cannot be formed on a port where a single end host is connected. Ensure these ports transition to a forwarding state immediately when they become active.

   You are concerned that a user may introduce a loop into the network by adding additional switches or changing the cabling. Also ensure these ports will be automatically shut down if a switch is detected on the other side of the link.

Root Bridge Protection

5) Ensure the switches will not allow an unintended switch to become the Root Bridge for the campus.