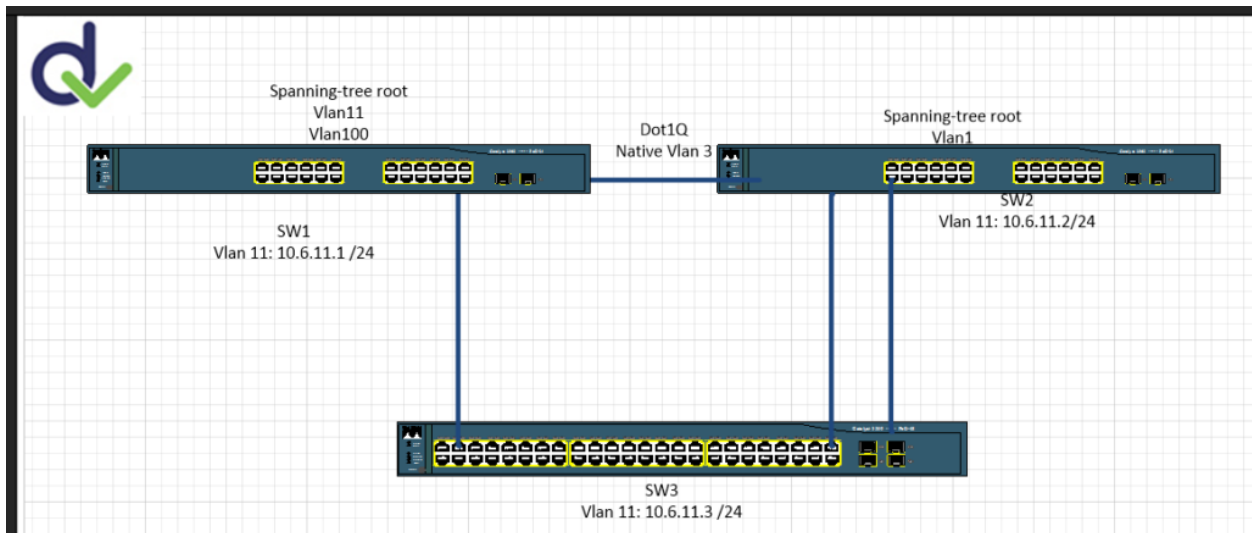
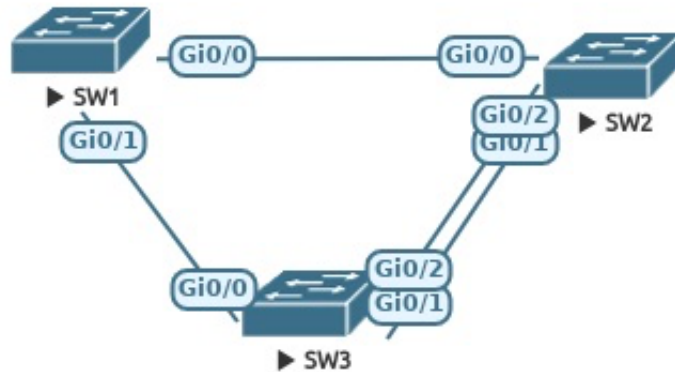


## Lab Topologies:

# Lab 001 - Layer 2 Trunking, VTP and STP Lab



## **Interface Tasks:**

### **SW1 Tasks:**

1. Configure and unshut the following interfaces on SW1 as 802.1q trunks: Gi0/0 and Gi0/1
2. Configure the Trunk on Gi0/0 with a Native VLAN of 3

### **SW2 Tasks:**

1. Configure and unshut the following interfaces on SW2 as an 802.1q trunks: Gi0/0 and Gi0/1
2. Configure the Trunk on Gi0/0 with a Native VLAN of 3
3. Configure and unshut the following interface on SW2 as an ISL Trunk: Gi0/2

### **SW3 Tasks:**

1. Configure and unshut the following interfaces on SW3 as 802.1q trunks: Gi0/0 and Gi0/1
2. Configure and unshut the following interface on SW3 as an ISL Trunk: Gi0/2

### **All Switch Tasks:**

1. Shutdown the rest of the unused ports on all switches

## **VTP Tasks:**

### **SW1 and SW2 Tasks:**

1. Configure SW1 and SW2 to use VTP Transparent mode
2. Configure SW1 and SW2 as VTP Clients
3. Configure SW1 and SW2 to run in VTP Version 2
4. Configure SW1 and SW2 with the VTP Domain name of "TND-LAB" (no quotes)
5. Configure SW1 and SW2 with the VTP Password of vtpP@SS

### **SW3 Tasks:**

1. Configure SW3 as the VTP Server
2. Configure SW3 to run in VTP Version 2
3. Configure SW3 with the VTP Domain name of "TND-LAB" (no quotes)
4. Configure SW3 with the VTP Password of vtpP@SS
5. Build VLAN 11 on SW3 and name it "MGMT" (no quotes)
6. Build VLAN 100 on SW3 and name it "WORKSTATIONS" (no quotes)

### **All Switch Tasks:**

1. Verify the following VTP configuration on each switch:
  - a. The VTP Version
  - b. The VTP Domain
  - c. The VTP Operating Mode
  - d. The VTP Password
2. Verify VLAN Propagation via VTP by viewing the VLAN tables on SW1 and SW2. They should now contain VLANs 11 and VLAN 100.

## **Spanning-Tree Tasks:**

### **SW1 Tasks:**

1. Configure SW1 as the Spanning-Tree root bridge using the priority value of 0 for VLANs 11 and 100.

### **SW2 Tasks:**

1. Configure SW2 as the Spanning-Tree root bridge using the priority value of 0 for VLAN 1

### **SW3 Tasks:**

1. Set SW3s Spanning-Tree priority to the maximum value for all VLANs (current and future) to ensure it does not become the root during an election process while SW1 and SW2 are both online.

## **Additional Spanning-Tree Tasks:**

### **SW1 Tasks:**

1. Configure SW1 to take over as the backup Spanning-Tree root bridge if there is an issue with SW2 for VLAN 1

### **SW2 Tasks:**

1. Configure SW2 to take over as the backup Spanning-Tree root bridge if there is an issue with SW1 for VLANs 11 and 100

## **Layer 3 VLAN (SVI) Tasks:**

### **SW1 Tasks:**

1. Configure SW1 with a Layer 3 VLAN interface for VLAN 11.
2. Configure 10.6.11.1/24 as the IP Address and Subnet Mask for VLAN 11's SVI

### **SW2 Tasks:**

1. Configure SW2 with a Layer 3 VLAN interface for VLAN 11.
2. Configure 10.6.11.2/24 as the IP Address and Subnet Mask for VLAN 11's SVI

### **SW3 Tasks:**

1. Configure SW3 with a Layer 3 VLAN interface for VLAN 11.
2. Configure 10.6.11.3/24 as the IP Address and Subnet Mask for VLAN 11's SVI

## **Verification Tasks:**

1. Verify that SW1 is the root bridge for VLAN 11 and VLAN 100
2. Verify that SW2 is the root bridge for VLAN1
3. Verify that VTP is in sync between SW1, SW2 and SW3
4. Verify that SW1 and SW2 are configured as VTP Clients
5. Verify that SW3 is configured as the VTP Server
6. Verify that all Inter-Switch links are trunking all VLANs