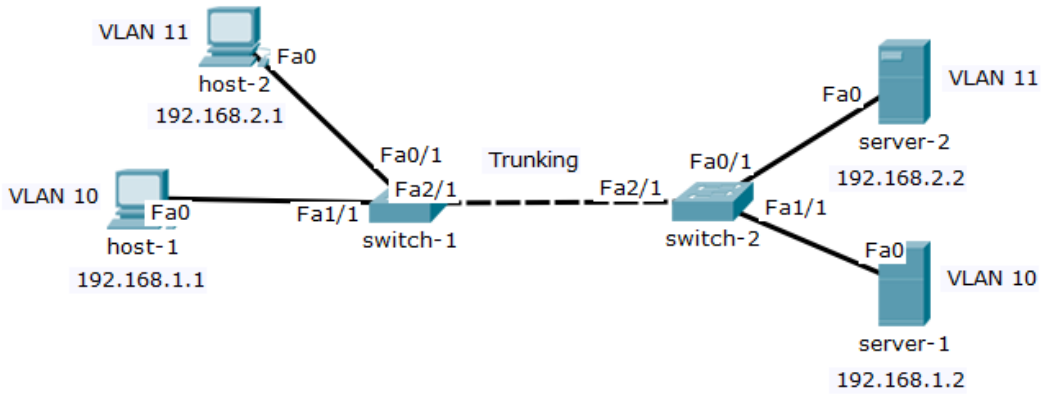
Static Trunking

Lab Summary

Configure access ports, assign VLANs and enable static trunk.

Figure 1 Lab Topology



Lab Configuration

Start Packet Tracer File: **Static Trunking**

Switch-1:

Click on the *switch-1* icon and select the *CLI* folder. Hit the <enter> key for user mode prompt (>).

Step 1: Enter global configuration mode.

switch-1> **enable**
Password: **cisconet**
switch-1# **configure terminal**

Step 2: Create VLAN 10 and assign it to access port Fastethernet1/1 for host-1.

switch-1(config)# **vlan 10**
switch-1(config-vlan)# **exit**
switch-1(config)# **interface fastethernet1/1**
switch-1(config-if)# **switchport mode access**
switch-1(config-if)# **switchport access vlan 10**
switch-1(config-if)# **exit**

Step 3: Create VLAN 11 and assign it to access port Fastethernet0/1 for host-2.

```
switch-1(config)# vlan 11
switch-1(config-vlan)# exit
switch-1(config)# interface fastethernet0/1
switch-1(config-if)# switchport mode access
switch-1(config-if)# switchport access vlan 11
switch-1(config-if)# exit
```

Step 4: Enable Fastethernet2/1 as a trunk interface and turn off DTP negotiation.

```
switch-1(config)# interface fastethernet2/1
switch-1(config-if)# switchport mode trunk
switch-1(config-if)# switchport nonegotiate
```

Step 5: Configure the default native VLAN and allow only VLAN 10 and 11 across the switch trunk.

```
switch-1(config-if)# switchport trunk allowed vlan 10,11
switch-1(config-if)# end
switch-1# copy running-config startup-config
```

Switch-2:

Click on *switch-2* icon and select *CLI* folder. Hit the <enter> key for user mode prompt (>).

Step 6: Enter global configuration mode.

```
switch-2> enable
Password: cisconet
switch-2# configure terminal
```

Step 7: Create VLAN 10 and assign it to access port interface Fa1/1 for server-1.

```
switch-2(config)# vlan 10
switch-2(config-vlan)# exit
switch-2(config)# interface fastethernet1/1
switch-2(config-if)# switchport mode access
switch-2(config-if)# switchport access vlan 10
switch-2(config-if)# exit
```

Step 8: Create VLAN 11 and assign it to access port interface Fa0/1 for server-2.

```
switch-2(config)# vlan 11
switch-2(config-vlan)# exit
switch-2(config)# interface fastethernet0/1
switch-2(config-if)# switchport mode access
```

switch-2(config-if)# **switchport access vlan 11**
switch-2(config-if)# **exit**

Step 9: Enable Fastethernet2/1 as a trunk interface and turn off DTP negotiation.

switch-2(config)# **interface fastethernet2/1**
switch-2(config-if)# **switchport mode trunk**
switch-2(config-if)# **switchport nonegotiate**

Step 10: Configure the default native VLAN and allow only VLAN 10 and 11 across the switch trunk.

switch-2(config-if)# **switchport trunk allowed vlan 10,11**
switch-2(config-if)# **end**
switch-2# **copy running-config startup-config**

Step 11: Verify Lab

Verify the trunk is operational and the native VLAN is 1. Confirm VLAN 10 and VLAN 11 are only allowed across the trunk interface.

switch-1# **show running-config**

switch-1# **show interfaces trunk**

Port	Mode	Encapsulation	Status	Native vlan
Fa2/1	**on**	802.1q	**trunking**	1

Port	Vlans allowed on trunk
Fa2/1	**10-11**

Port	Vlans allowed and active in management domain
Fa2/1	10,11

Port	Vlans in spanning tree forwarding state and not pruned
Fa2/1	10,11

Verify that host-1 can ping server-1 in the same subnet (192.168.1.2/24) and not server-2 (192.168.2.2/24). Verify that host-2 can ping server-2 and not server-1.

host-1: c:\>**ping 192.168.1.2** (yes)

host-1: c:\>**ping 192.168.2.2** (no)

host-2: c:\>**ping 192.168.2.2** (yes)

host-2: c:\>**ping 192.168.1.2** (no)

Lab Notes

The **switchport mode trunk** command configures a static trunk with ***on*** mode (manual). The **switchport nonegotiate** command turns off DTP frames as a recommended security best practice for static trunks.