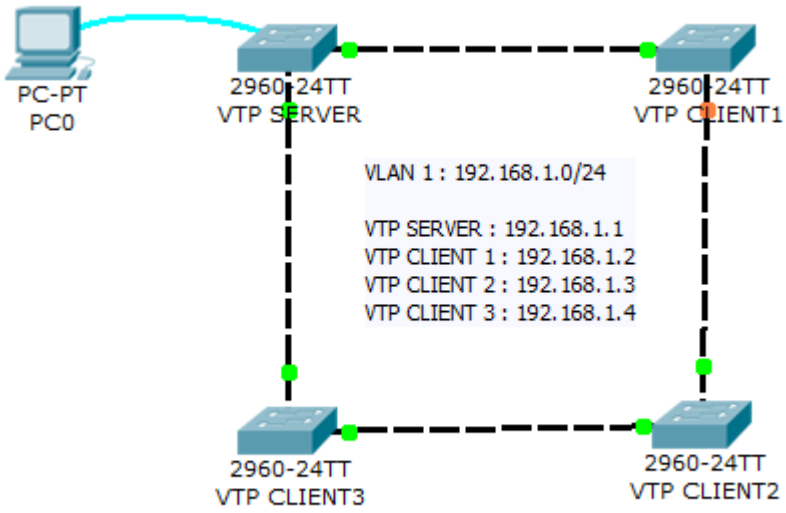
Network diagram

The aim of this lab is to test your ability to configure VLAN and VTP on a small network of 4 switches using Packet Tracer 7.2.1.

This lab will help you to prepare the **VTP testlet and simlet questions of the Cisco ICND1 exam**.



Lab instructions

1.Configure the VTP-SERVER switch as a VTP server

2.Connect to the 3 other switches and configure them as VTP clients.
All links between swiches must be configured as trunk lines.

3.Configure VTP domain name as "TESTDOMAIN" and VTP password as "cisco"

4.Configure VLAN 10 with name "STUDENTS" and VLAN 50 with name "SERVERS"

5. Check propagation on all switches of the VTP domain.

VLAN and VTP lab solution

1. Configure the VTP-SERVER switch as a VTP server

```
VTP-SERVER(config)#vtp mode server
```

Verify the VTP operating mode using the **show vtp status** command

```
VTP-SERVER#show vtp status
VTP Version                     : 2
Configuration Revision          : 4
Maximum VLANs supported locally : 255
Number of existing VLANs        : 7
VTP Operating Mode              : Server
VTP Domain Name                 : TESTDOMAIN
VTP Pruning Mode                : Disabled
VTP V2 Mode                     : Disabled
VTP Traps Generation            : Disabled
MD5 digest                      : 0xAE 0x4F 0x3F 0xC5 0xD3 0x41 0x9C 0x11
Configuration last modified by 192.168.1.1 at 3-1-93 00:27:41
Local updater ID is 192.168.1.1 on interface Vl1 (lowest numbered VLAN
interface found)
```

2. Connect to the 3 other Catalyst switches and configure them as VTP clients.
All links between swiches must be configured as trunk lines.

```
VTP-CLIENT3(config)#vtp mode client
```

VTP-CLIENT3(config)#vtp mode client

Verify the VTP operating mode of the switch using the **show vtp status** command. The "VTP Operating Mode" shoud have the"Client" value. Example with VTP-CLIENT3 switch is provided below.

```
VTP-CLIENT3#sh vtp status
VTP Version                     : 2
Configuration Revision          : 4
Maximum VLANs supported locally : 255
Number of existing VLANs        : 7
VTP Operating Mode              : Client
VTP Domain Name                 : TESTDOMAIN
VTP Pruning Mode                : Disabled
VTP V2 Mode                     : Disabled
VTP Traps Generation            : Disabled
MD5 digest                      : 0xAE 0x4F 0x3F 0xC5 0xD3 0x41 0x9C 0x11
Configuration last modified by 192.168.1.1 at 3-1-93 00:27:41
```

Configure each link between switches as a trunk line using the **switchport mode truink** command

```
interface GigabitEthernet1/1
switchport mode trunk

interface GigabitEthernet1/2
switchport mode trunk
```

3. Configure VTP domain name as "TESTDOMAIN" and VTP password as "cisco"

On the VTP server Catalyst switch:

```
VTP-SERVER(config)#vtp domain TESTDOMAIN
VTP-SERVER(config)#vtp password cisco
```

On each VTP client switch :

```
VTP-CLIENT1(config)#vtp password cisco
VTP-CLIENT1(config)#vtp domain TESTDOMAIN
```

4. Configure VLAN 10 with name "STUDENTS" and VLAN 50 with name "SERVERS"

On the VTP server Catalyst 2960 switch, configure the following commands to create both "STUDENTS" and "SERVERS" vlans :

```
VTP-SERVER(config)#vlan 10
VTP-SERVER(config-vlan)#name STUDENTS
```

```
VTP-SERVER(config)#vlan 50
VTP-SERVER(config-vlan)#name SERVERS
```

5. Check propagation of both "STUDENTS" and "SERVERS" vlans on all Catalyst 2960 network switches of the VTP domain.

Use the **show vlan brief** on each switch to check propagation of the 2 VLANS.

```
VTP-SERVER#show vlan brief

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
--
1    default                          active    Fa0/1, Fa0/2, Fa0/3, Fa0/4,
[...]
10   STUDENTS                         active
50   SERVERS                          active
1002 fddi-default                     active
1003 token-ring-default               active
1004 fddinet-default                  active
1005 trnet-default                    active
```