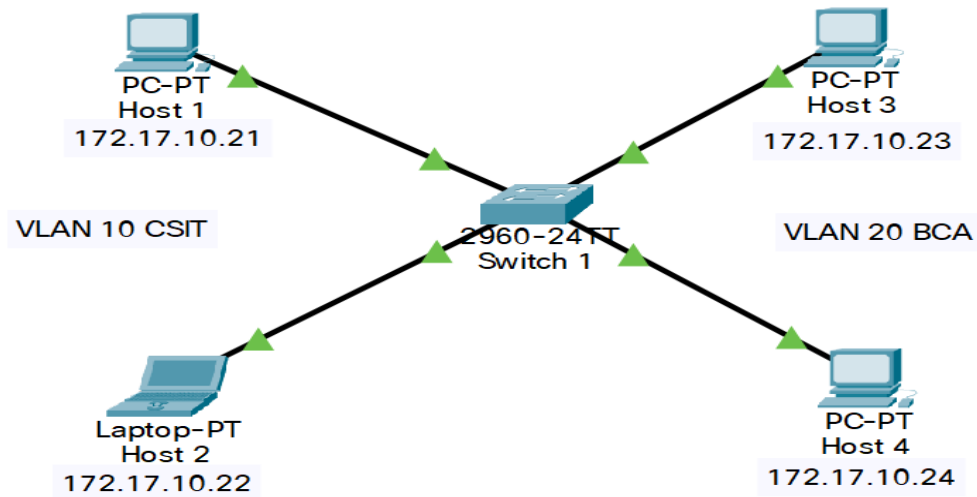


### Lab 3: Creating and configuring VLAN and VLAN Trunking.

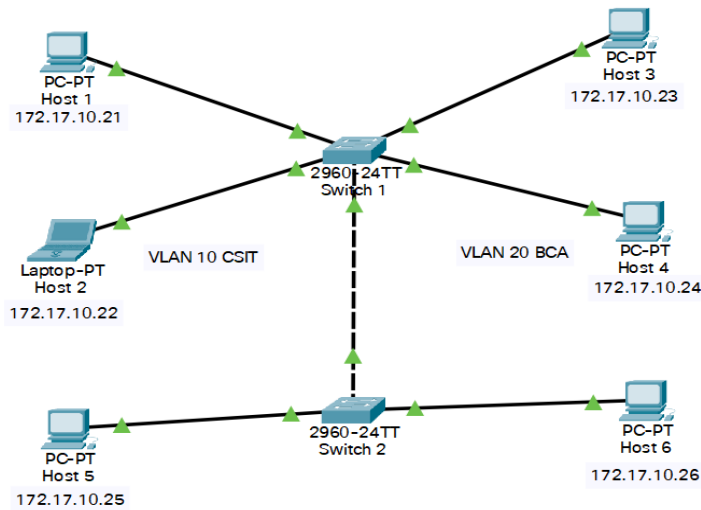
#### Topology 1: VLAN



Device	Interface	IPv4 Address	Subnet Mask	Switch Port	VLAN No	VLAN Name	Link
Host1	NIC	172.17.10.21	255.255.0.0	Fa0/1	10	CSIT	Access
Host2	NIC	172.17.10.22	255.255.0.0	Fa0/2	10	CSIT	Access
Host3	NIC	172.17.10.23	255.255.0.0	Fa0/11	20	BCA	Access
Host4	NIC	172.17.10.24	255.255.0.0	Fa0/12	20	BCA	Access

- Design the given topology.
- Assign the Layer 3 address to all hosts.
- Configure the switch to create two VLANS
  - VLAN 10 as CSIT
  - VLAN 20 as BCA
- Assign VLANs to all the PC according to Addressing Table.
- From the command prompt on each Host, do ping test between Hosts on the same and different VLAN and write the output.
  - Can Host1 ping Host2?
  - Can Host3 ping Host4?
  - Can Host1 ping Host3 and Host4?
  - Can Host3 ping Host1 and Host2?

## Topology 2: VLAN Trunking

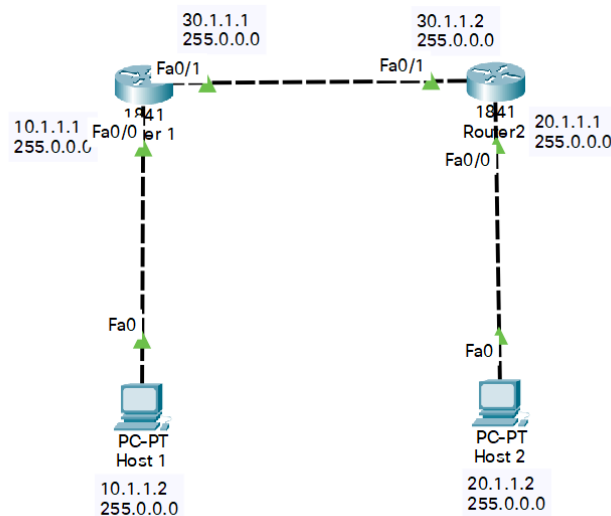


Device	Interface	IPv4 Address	Subnet Mask	Switch Port	VLAN No	VLAN Name	Link
Host1	NIC	172.17.10.21	255.255.0.0	S1; Fa0/1	10	CSIT	Access
Host2	NIC	172.17.10.22	255.255.0.0	S1; Fa0/2	10	CSIT	Access
Host3	NIC	172.17.10.23	255.255.0.0	S1; Fa0/11	20	BCA	Access
Host4	NIC	172.17.10.24	255.255.0.0	S1; Fa0/12	20	BCA	Access
Host5	NIC	172.17.10.25	255.255.0.0	S2; Fa0/3	10	CSIT	Access
Host6	NIC	172.17.10.26	255.255.0.0	S2; Fa0/13	20	BCA	Access
Switch1	Fa0/24	-	-	S2; Fa0/24			Trunk

- Design the given topology.
- Assign the Layer 3 address to all hosts.
- Configure the switches S1 and S2 to create two VLANs in each
  - VLAN 10 as CSIT
  - VLAN 20 as BCA
- Assign VLANs to all the PC according to Addressing Table.
- From the command prompt on each Host, do ping test between Hosts on the same and different VLAN and write the output.
  - Can Host1 ping Host2 and Host5?
  - Can Host3 ping Host4 and Host6?
  - Can Host6 ping Host1?
  - Can Host5 ping Host3?

## Lab 4: Implementation of Static Routing Configuration

Topology

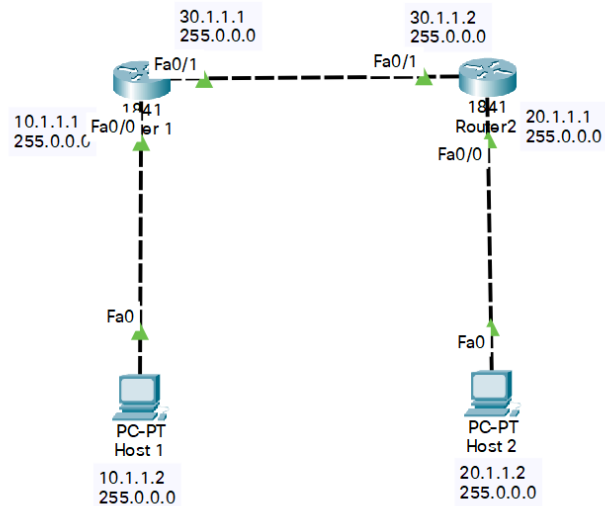


Device	Interface	IPv4 Address	Subnet Mask	Gateway	Link Ports
Host1	NIC	10.1.1.2	255.0.0.0	10.1.1.1	R1; Fa0/0
Host2	NIC	20.1.1.2	255.0.0.0	20.1.1.1	R2; Fa0/0
Router1	Fa0/0	10.1.1.1	255.0.0.0		
	Fa0/1	30.1.1.1	255.0.0.0		
Router2	Fa0/0	20.1.1.1	255.0.0.0		
	Fa0/1	30.1.1.2	255.0.0.0		

- Design the given topology.
- Assign the IP address to all hosts and routers according to Addresssing Table.
- Configure the routers with static route.
- From the command prompt on each host, ping between hosts. Write the output.
  - Can Host1 ping Host2?
  - Can Router1 ping Host2?
  - Can Host1 ping Router2?

## Lab 5: Implementation of Dynamic Routing (RIP) Configuration.

### Topology



Device	Interface	IPv4 Address	Subnet Mask	Gateway	Link Ports
Host1	NIC	10.1.1.2	255.0.0.0	10.1.1.1	R1; Fa0/0
Host2	NIC	20.1.1.2	255.0.0.0	20.1.1.1	R2; Fa0/0
Router1	Fa0/0	10.1.1.1	255.0.0.0		
	Fa0/1	30.1.1.1	255.0.0.0		
Router2	Fa0/0	20.1.1.1	255.0.0.0		
	Fa0/1	30.1.1.2	255.0.0.0		

- Design the given topology.
- Assign the IP address to all hosts and routers according to Addressing Table.
- Configure the routers with dynamic route.
- From the command prompt on each host, ping between hosts. Write the output.
  - Can Host1 ping Host2?
  - Can Router1 ping Host2?
  - Can Host1 ping Router2?