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CLASS: BTECH-CSE-C

Observation

Objective: Create and configure a suitable topology for both LAN and WAN using 10-15 computers, routers, and switches. Simulate the transmission of a message from one network to a computer in another network.

Procedure:

- **Topology Design:**

- The network topology was successfully created in Cisco Packet Tracer, including both LAN and WAN configurations.

- The LAN was configured with 10-15 computers connected to at least two switches.

- The WAN setup was achieved by connecting the LAN networks via two routers.

- **Network Setup:**

- Devices were added and connected as per the topology design.

- IP addresses were correctly assigned to all computers within the LAN, ensuring proper communication.

- Router interfaces were configured with appropriate IP addresses to enable WAN communication between networks.

- **LAN Configuration:**

- All computers were connected to switches, and each computer was assigned a unique IP address within the specified subnet.

- Switches were connected to each other to ensure full LAN connectivity.

- **WAN Configuration:**

- Routers were successfully connected to each other, and interfaces were configured with correct IP addresses.

- Static routes were set up on the routers, enabling successful communication between the LANs over the WAN.
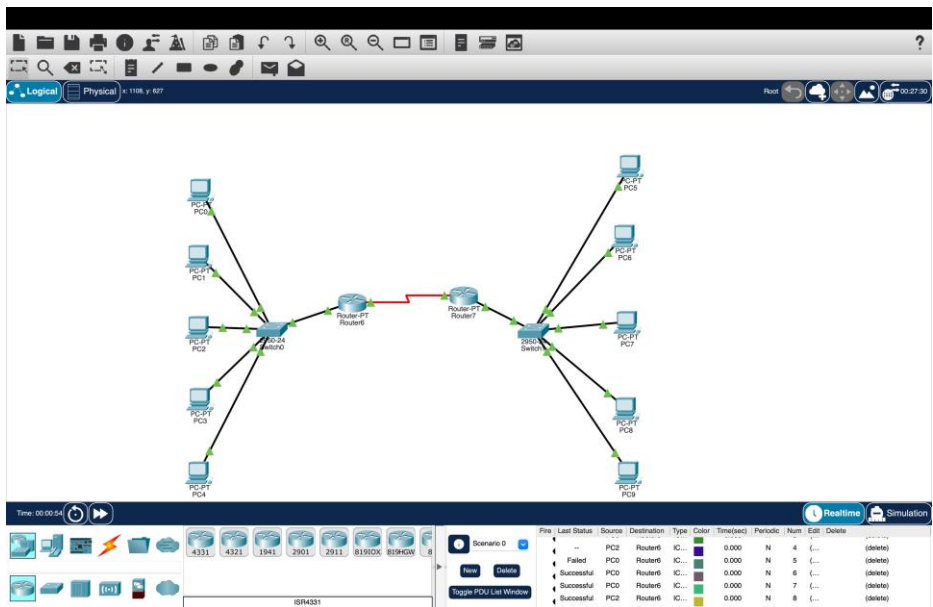
- **Simulation:**

- A message was sent from one computer in one LAN to a computer in another LAN using the simulation mode in Cisco Packet Tracer.

- The message was transmitted successfully across the network, traveling through switches, routers, and the WAN.

- The path of the message was observed, and the transmission was verified to be correct with no errors.

- **Network Performance:**

- The network operated as expected, with no packet loss or transmission errors observed.

- The successful message transmission confirmed that the network was properly configured for both LAN and WAN communication.

OUTPUT:

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC4	Router6	IC…		0.000	N	0	(…	(delete)
	Successful	PC2	Router6	IC…		0.000	N	1	(…	(delete)
	Successful	PC3	Router6	IC…		0.000	N	2	(…	(delete)