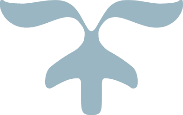


COMPUTER NETWORK

LAB 1



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Computer Networks Lab Exam

# Objective

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

# Steps taken to set up the network

## Step 1:

Design a network topology using Cisco Packet Tracer that includes:

1. LAN Configuration: At least 10 computers connected to switches.
2. WAN Configuration: Connect the LAN network to another network using routers.

## Step 2:

Network Setup in Cisco Packet Tracer:

* Add Devices:

1. Place and connect 10-15 computers.
2. Add necessary switches (at least 2 for the LAN setup).
3. Add at least 2 routers for WAN setup

## Step 3:

Configure IP Addresses:

1. Assign IP addresses to all computers within the LAN.
2. Configure router interfaces with appropriate IP addresses.
3. Set up routing protocols or static routes as needed for WAN communication

## Step 4:

Configuration Steps:

* LAN Configuration:

1. Connect computers to the switches.
2. Configure IP addresses on each computer.
3. Connect switches with each other as needed.

* WAN Configuration:

1. Connect routers to each other.
2. Configure router interfaces with IP addresses.
3. Set up routing (static or dynamic) to ensure connectivity between the LANs.

## Step 5:

Simulation:

* Send Message:

1. Use the simulation mode in Cisco Packet Tracer.
2. Configure and send a message from a computer in one network to a computer in another network.
3. Capture and verify the message transmission

Message transmission using routers :

A computer screen shot of a computer

Description automatically generated

Message transmission using switches:

A screenshot of a computer

Description automatically generated