

Exp. NO: 4

Practical - 04

DATE: 06/08/24

AIM:

Setup and configure a LAN using a switch and ethernet cables in your LAB.

What is LAN?

A Local Area Network refers to a network that connects devices with a limited area, such as an office building, school or home. It enables users to share resources, including data, printers and internet access. LAN connects devices to promote collaboration and transfer info between users & such as computers, printers, servers and switches. Each device connected on a device on a LAN switch can communicate directly on each other, allowing for fast and secure transfer.

How to setup a LAN:

Step 1: Plan and design an appropriate network topology taking into account network requirements and equipment location.

Step 2: You can take 4 computers, a switch with 8/16 or 24 ports which is sufficient for network of them and 4 ethernet cables.

Step 3: Connect your computers to network switch, via an ethernet cable which is simple as plugging one end of a ethernet cable into your computer.

Step 4: Assign IP address to your PCs

1) Log on to the client computer as administrator or as owner

2) Click network and internet connection

3) Right click local area connection / ethernet card to properties → select Internet protocol

(TCP (IPv4) → click on properties. select use the following ip address option and assign ip address.

Step 5: Configure a network switch

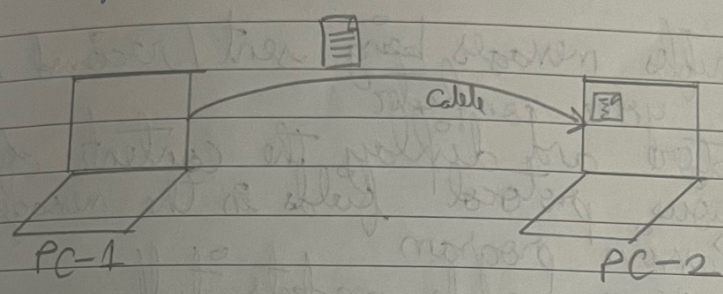
1) Connect your computer to the switch to access the switch interface. you will need to connect your computer to the switch using cable.

2) Log into the web interface & open a web browser and enter the ip address of the switch in the address bar.

3) Configure basic settings & Once you're logged in you will be able to configure basic settings

Step 6: Check the connectivity between switch and other machine by using ping command in cmd by the device.

Step 7: Select border → go to properties → click sharing tab → share it with everyone on the same LAN.



Result :

Thus the setup and configure of LAN is studied and observed.

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6/8/24