

02/8/24

Practical-1

Aim:-

To setup and configure a LAN (Local Area network) using a switch and ethernet cable in your lab.

LAN (Local Area Network) refers to a network that connect devices within a limited access, such as an office building, school or home. It enables users to store resources, including data, printers and internet access. LAN connects devices to promote collaboration and transformation between users, such as computers, printers, servers & switches. Each

How to setup a LAN

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

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

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

Step 4: Assign IP address to your PC.
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
- Go to properties → Select Internet Protocol (→
 Click on properties → Select use the following
 IP address option.

Control Panel > Network & Internet > Network Connections	
Networking	Sharing
IP version 4 (TCP/IPv4) Properties	
<input type="radio"/> Obtain an IP address automatically <input checked="" type="radio"/> Use the following IP address	
IP address	10.1.1.1
Subnet	255.0.0.0
Default gateway	.
<input type="radio"/> Use the following DNS server addresses Preferred DNS server . . . Alternate DNS server . . .	
<input type="checkbox"/> validate settings upon exit	
[Advanced]	

Similarly assign IP address to all the PCs connected to switch

PC - 1 - IP address: 10.1.1.1, subnetmask 255.0.0.0

Steps - configure a network switch

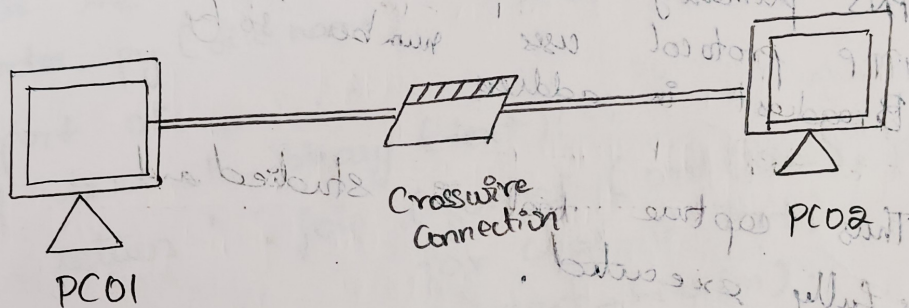
1. Connect your comp to the switch: To access the switch's web interface, you will need to connect your computer to the switch using an Ethernet cable.

2. Log in to the web interface: Open a web browser & enter the IP address of the switch in the address bar.

3. configure basic setting, once you're logged in, you will be able to do it
4. Assign IP address as 10.1.1.5, subnet mask 255.0

Step 7: Check the connectivity between switch and other machine by using ping command.

Step 8: Try to access the shared folder from other computers of the network



Result
To setup and configure a LAN using a switch and ethernet cable

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