

ExNo: 4 Setup and Configure a LAN (Local area network) using a switch and Ethernet cables.

Date: 06:08:24

AIM:

Setup and Configure a LAN (Local area network) using a switch and Ethernet Cables in your lab.

What is a LAN?

A Local Area Network (LAN) refers to a network that connects devices within 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 information between users such as computers, printers, servers, and switches.

How to Setup a LAN:

STEP 1: Plan and Design an appropriate 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 these sizes, and 4 Ethernet

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 PCs

1. Log on to the client computer as an Administrator or as owner.

2. Click network and Internet connection.

3. Right Click Local Area Network /

Ethernet → Go 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.

STEP 6: Check the connectivity between switch and other machine by using Ping command in the command prompt of the device.

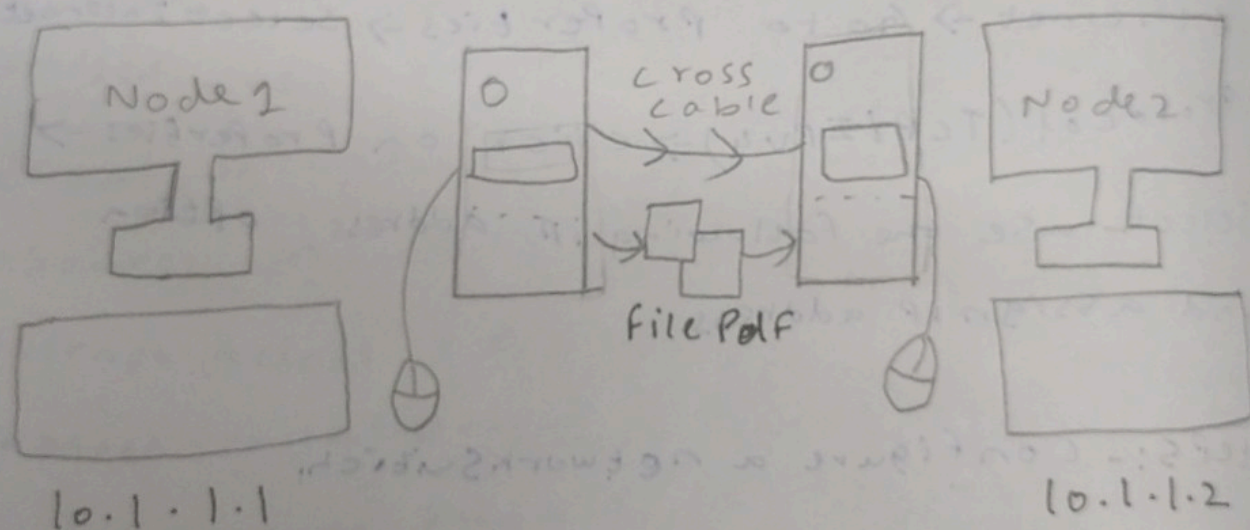
STEP 7: Select a folder; → go to Properties → Click Sharing tab → Share it with everyone on the same LAN.

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

1 Student Observation:

Draw a neat diagram of the LAN in the Configuration Observation book. that you have implemented in your lab. write the IP configuration of each and every device write the outcome and challenges faced while configuring the LAN.

Diagram of the LAN



IP configuration:

Node-1: IPv4 Address: 10.1.1.1

Node-2: IPv4 Address: 10.1.1.2

Outcome:

The file that sent through [click Run: [1/10.1.1.2] (Type) /users/REC/ desktop] is sent successfully.

Result: 204309 no input - 13423 2,0003

Set up for LAN is successfully done and
the result are verified observed &
sendied.

~~6/18/24~~