

Network and Cybersecurity essentials (ACCA4024 Network Lab)

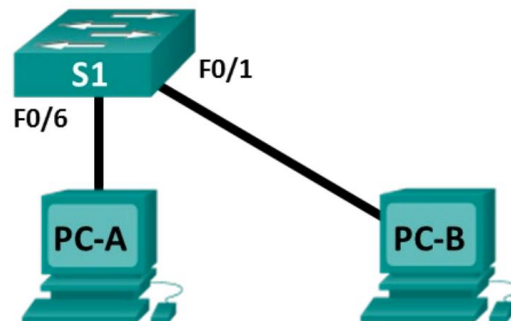
Task 1 (To be done on real Cisco devices)

Can also be done in Packet Tracer if real devices are not available.

Understand Networking Devices: Design and Connect a Simple Network and determine IP Address

- 1: Building a Simple Network
- 2: Determine and Verify IP Address

Topology for 1:



Addressing Table

Device	Interface	IP Address	Subnet Mask
PC-A	NIC	192.168.1.10	255.255.255.0
PC-B	NIC	192.168.1.11	255.255.255.0

Objectives

1

Setup the Topology

Enter static IP address information on the LAN interface of the hosts referring to Addressing Table.

Verify that PCs can communicate using the ping utility.

Background / Scenario

As we discussed during our lecture session, networks are constructed of three major components: hosts, switches, and routers. In this lab, you will build a simple network with two hosts and a switch using Cisco Switch. You will apply IP addressing for this lab to the PCs to enable communication between these two devices. Use the ping utility to verify connectivity during Task 1.

Instructions

Use Cisco Switch and PCs

1. Collect the required cables. (You might need 2 Straight through Cables/ Any Cat 5E or higher Cables)
2. Identify the PC labels at your workstation.
3. Go to the Switch Panel and connect the cables from appropriate PC ports to any port of a switch.
4. Do appropriate configuration in the PC's. (To configure IP Address in a PC, follow the instruction given under Task 2)
5. Go to the command prompt of both the PC's and issue ipconfig to check the configuration.
6. Ping and Test.
7. Document the outcome.

NB: You might need to disable the firewall on your PC for your pings to work. However, please remember to enable the firewall again once you're done.

Ipconfig

What is the IP address of the computer?

What is the subnet mask of the computer?

Ping 192.168.1.11 (Other PC's IP Address)

Was the ping successful?

Click PCB (PC1) → Desktop → Command Prompt → Ipconfig

What is the IP address of the computer?

What is the subnet mask of the computer?

Ping 192.168.1.10 (Other PC's IP Address)

Was the ping successful?