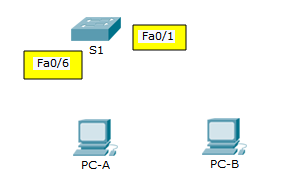
1.3.1.2 - Packet Tracer - Building a Simple Network

Topology



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

* Cable a physical network topology.
* Enter static IP address information on the LAN interface of the hosts.
* Verify that PCs can communicate using the **ping** utility.

Background / Scenario

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. 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.

* 1. Connect the PCs to the switch.
     1. Click **Connections > Copper Straight-Through** to select the correct cable.
     2. Click **PC-A > FastEthernet0** and the click **S1 > FastEthernet0/6**.
     3. Select another Copper Straight-Through cable.
     4. Click **PC-B > FastEthernet0** and the click **S1 > FastEthernet0/1**.
  2. Review network connections.

After cabling the two PCs to the switch, you should see that a green dot is flashing for each connected port, which indicates that the connection is active and some network traffic is flowing between connecting hosts.

* 1. Configure static IP address information on the PCs.
     1. Click **PC-A > Config > FastEthernet0.**
     2. In the **IP Configuration**, type in the IP address 192.168.1.10 and the subnet mask 255.255.255.0.

**Note**: when you click the Subnet Mask after you entered the IP address, Packet Tracer should enter the value 255.255.255.0 automatically. You can manually enter or change it if needed.

* + 1. After all the IP information has been entered, clickthe X at the top right corner. The Config window will be closed and the information entered is saved.

**Note**: there are multiple ways to configure IP address and related information in Packet Tracer. This window not only allows you to enter necessary information, it also shows the status of the NIC, at the top right corner. As indicated, the NIC is active (On); the bandwidth is configured as Auto, with default value of 100Mbps; and the NIC is in full duplex mode.

* + 1. Repeat the previous steps to enter the IP address information on PC-B. You will need to change the IP address. Type in the IP address 192.168.1.11 and the subnet mask 255.255.255.0.
  1. Verify PC settings and connectivity.

Use the Command Prompt to verify the PC settings and connectivity.

* + 1. Click **PC-A > Desktop > Command Prompt.**
    2. Type in the **ipconfig** command. This command displays the IPv4 address information configured.
    3. Type **ping 192.168.1.11** and press Enter.

Were the ping results successful? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Note**: If you did not get a reply from PC-B, check the IP address setting in PC-B. Make sure both PC-A and PC-B IP addresses are entered correctly.