Lab#06

Transmission of Data Between Routers

To study about how to configure two routers and their implementation.

THEORY:

ROUTER:

A router is a device that forwards data packets along networks. A router is connected to at least two networks, commonly two LANs or WANs or a LAN and its ISP's network. Routers are located at gateways, the places where two or more networks connect.

Types of Routers:

There are several types of routers that you will want to understand. You need to know the difference so that you can set up your network or at least so that you can understand what the local computer guy tells you to do.

Broadband Routers:

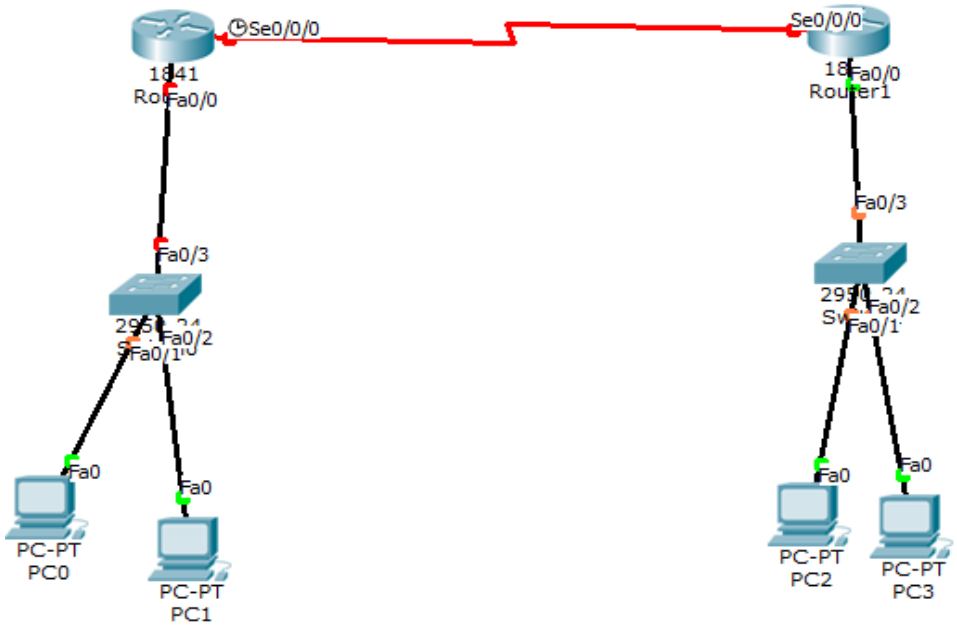
Broadband routers can be used to do several different types of things. They can be used to connect two different computers or to connect two computers to the Internet. They can also be used to create a phone connection.
If you are using Voice over IP (VoIP) technology, then you will need a broadband router to connect your Internet to your phone.

Wireless Routers:

Wireless routers connect to your modem and create a wireless signal in your home or office. So, any computer within range can connect to your wireless router and use your broadband Internet for free. The only way to keep anyone from connecting to your system is to secure your router.

Difference Between DCE & DTE:

DTE is the source or destination of digital data, while DCE is the equipment used to transmit or receive the data. DTE stands for Data Terminal Equipment, while DCE stands for Data Communications Equipment.



Steps:

- First connect both routers.
- Assign IP and gateway to all PC.
- Write the following command on CLI mode.

EXERCISES:

Q1.What is DCE and DTE?

Q,2 Write Example of devices that are DTE and DCE?

Q.3) Why we use router in our network?

Q.4) What is clock rate?

Q.5) What is Gateway?

Q.6) Does it necessary to use serial cable for connecting routers? Explain with reason.

Q.7) What are the difference between fast Ethernet and serial cable?