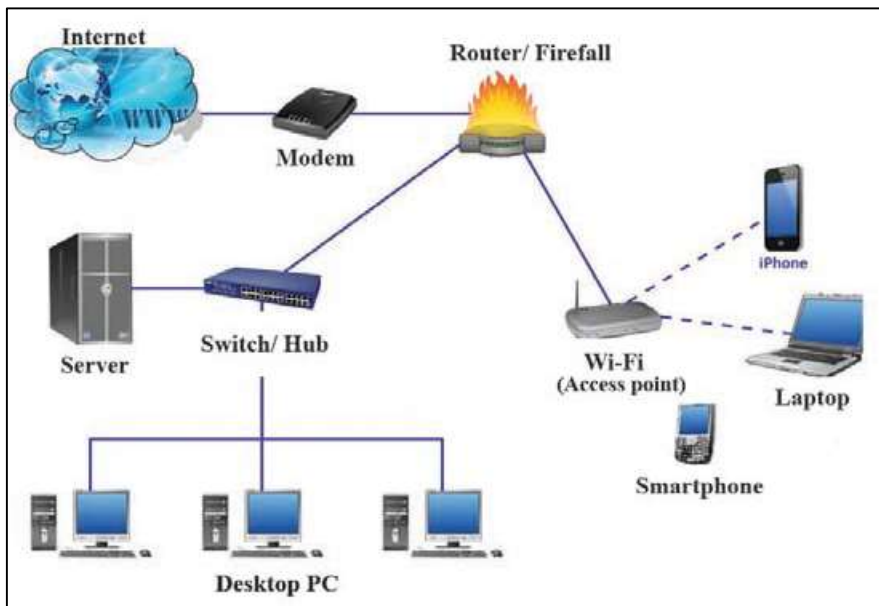
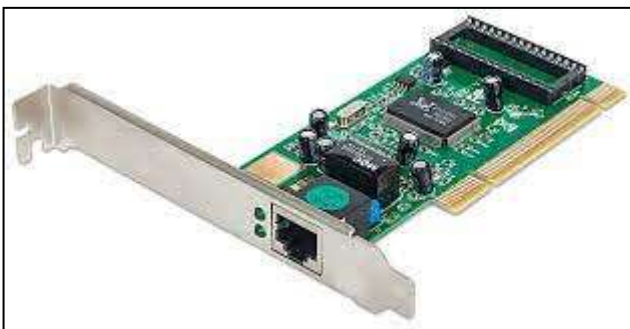


## 1.3 Computer Network Devices



### 1. NIC (Network Interface Card)



- Network cards let a computer exchange data with a network.

### 2. Switch / Hub



- Switch/Hub acts as the mediator to build a connection between two or more computers.
- The main difference is the data transmission speed. Hub sends the transmitted data to all computers but switch sends data to the relevant computer only. Here hub may create an unnecessary network data congestion.
- In data transmission, hub uses half duplex mode and the switch uses full duplex mode.

### 3. Wireless Fidelity - Wi-Fi



- Wi-Fi technology has become the most popular media in computer networking. For this purpose, Wi-Fi access points are used. This allows the users to build a computer network easily and internet connections for mobile phones and laptop computers using radio waves.

#### 4. Router



- Router is the device used to build a connection between two or more computer networks. It is also called a Gateway. This finds out the most suitable ports for data transmission in network communication.

#### 5. Modem



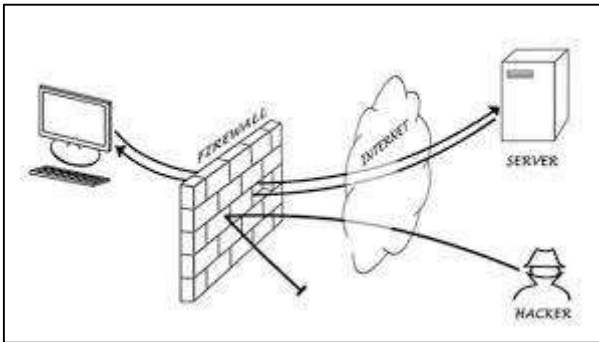
Internal modem



External modem

- The modem acts as a data translator. Digital signals sent from the computer is translated to analog signals so that they can be transmitted via telephone line and the analog signals coming from the telephone line send to the computer from the internet is translated to digital signals. This is called MODulation and DEModulation. MODEM' is a combination of these two words.

## 6. Firewall



- Firewall is a network security. Instructions to control the data and instruction transmission between internet and computer network are built into the system. A firewall operates as a secured barrier between internet and network in exchanging data among computers. Firewalls can be purchased in both forms as software and hardware.