

## CABLE

1) There are many different types of cables that can be found based on their application. These cables are often distinguished based on their make. The main cable are:

**Aluminum Cables:** Aluminum cables can often be found when dealing with electricity, because of their high conductive nature. These cables are used in motors, electric lights and even telephone lines.

**Copper Cables:** Similar to aluminum cables, copper cables are also highly conducive, ductile, lightweight and flexible and are commonly used in major electrical segments such as mining, electronics, transportation, and telecommunication.

**Fibre Optic Cables:** This type of Cables can carry messages in the form of light, are made with a bundle of glass optic fibres and a central support wire which strengthens the cable. These cables are used in the telecommunication and computer sector because of its ability to send and receive data quickly.

There are also a lot of connection cable that connect two or more device together, for example the most famous are: VGA cable and HDMI cable (for the video), Ethernet cable (for the internet), audio cable (for audio), USB cable and many more.

## ROUTER

2) A simple router is a device, which in a computer network deals with channeling traffic between two or more devices connected to the same network or in subnets. A broadband router is a basic device to set up a wired or wireless network. Broadband routers ensure that all the computers on a network can send and receive data to each other and across the Internet. These routers are of both wired and wireless but their features are very similar.

A router actually transfers data packets along networks. It requires at least two networks for a router to connect, and need a high-speed cable modem or DSL Internet service connection for work.

### 3) Client-server networks

Client-server networks are used daily by everyone to download or upload files from the internet.

In a client / server network, computers, called servers, make resources available and offer services to other computers, called clients. For example in internet I can search a website, I am the client PC that re-request the service on the internet, the Server PC will accept the request and will send me the website. In-to the Server there are Software and data, it can be accessed by all the client on the network, like a web Server. While In the peer-to-peer network, all the computers have equal status; a pc is both Client and Server. There are computers that can be both client and server and they can send and request messages to the other computers. The main difference is the speed, client-server is faster than peer-to-peer because in the first one the packets travel directly between the two PCs and don't pass data in all the PCs on the network which makes the connection slow.