

What is the Internet?

When **IT began** computers were developed, when they were capable of operating alone, some people had the idea of linking them in order that they could exchange data; this is the concept of a **network**. Therefore, it was not only necessary to develop physical links between computers so that information could circulate, but also a communication language so that they could have a real exchange; it was decided to name this language: a **protocol**.

Over the Internet, many protocols are used; they are part of a series of protocols which are called **TCP/IP**. TCP/IP is based on tagging each **computer** with an address called an **IP address** which makes it possible to convey data to the right address. Then these addresses were linked to **domain names** so that they could be remembered more easily.

Heterogeneous networks (of different kinds) were developed in the four corners of the globe; some people then decided to link these networks (universities or the army for example). Protocols were developed to allow all these networks to communicate and form the network of networks, little by little forming a giant spiders "**web**" then making the largest network containing all the networks which they called the **Internet!** There are different protocols on the internet (languages between computers) which enable different things to be done:

- **IRC**: live chat
- **HTTP**: look at web pages
- **FTP**: transfer files
- and many other things

Each of them is assigned a number (the **port**) which is sent during communication (transmission is carried out by small packets of information). It is therefore possible to know which program each small packet relates to:

- HTTP packets arrive on port 80 and are transmitted to the internet browser from which the page was requested
- IRC packets arrive on port 6667 (or another generally located around 7000) and are transmitted to an IRC client such as mIRC (or other)

Connecting to the Internet

The **network interface card** is the part of the computer which makes it possible to connect to a network via specially provided lines for sending digital information. The **modem** makes it possible to connect to a network using telephone lines, which were not originally provided for this but which remain the most commonly used means of communication.

An **IP address** is associated to the **network interface card** making it possible to identify the computer on the network.

Connecting using a modem is totally different, a modem makes it possible to establish communication between two computers using a telephone line. You can however have access to a network (and thus by extension to the Internet) by contacting a computer linked ("on one side") to one or several telephone lines (to receive the call) and ("on the other side") to a network using a network interface card.

This computer generally belongs to your Internet Service Provider (ISP). When it connects you via its intermediary, it borrows an IP address that the computer will retain during the connection. Each time it connects it arbitrarily allocates one of the free IP addresses that it has. If it is able to supply the same IP address for each connection, it is then called a "fixed IP address".