

## Pour mieux comprendre

### 2G

Second generation of the mobile telephony system. 2G networks allow for voice and low-volume digital data (SMS and MMS).

### 3G

Third generation mobile telephony with Kbps speeds above 144, enabling multimedia applications for video transmission, video conferencing and access to broadband Internet.

### 4G

Fourth step in the evolution of mobile communications for the development of various techniques for transmitting multimedia data from networks using IP protocol at a rate of up to 100 megabits per second on the move and 1 gigabit per second on a fixed location with a frequency that can exceed 40 MHz (Examples: LTE and WiMAX).

## Adresse IP

The identifier of each interface of any machine using IP for its communications and that is connected to the network. There are 4-byte IPv4 (e.g. 123.456.789.1) and 16-byte IPv6 addresses. An "IP domain name" is usually associated with that IP address, because it is easier to remember.

## ADSL

Asymmetric Digital Subscriber Line. Communication technique that allows the transmission and reception of digital data over the copper pair of the switched telephone line, independently from the telephone service. The system is called "asymmetric" because the flow is greater in the downlink transmission from the network to the subscriber as in the uplink (stemming from the subscriber).

## Bandwidth

The bandwidth is the maximum amount of data that a communication channel is able to transmit per second. It is calculated in bits per second (bit/s) i.e. by using a unit that measures both throughput and speed of data transmission. Bandwidth can be an indication of speed and throughput.

## SIM card

A chip consisting of a microcontroller and memory. It allows the phone to connect to the operator's mobile network to identify the subscriber. It contains all the necessary information such as those relating to the operator and the subscriber.

## CDMA

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Code Division Multiple Access: a multiple access mode in which each terminal is characterized by a coded signal enabling it to transmit the signal it is emitting or transmitting. Multiple access code division often uses a spread spectrum modulation.

## **Electronic certificate**

An electronic certificate is a digital identity card that contains the public key corresponding to the private key used to sign digital certificates issued by the provider of an electronic certification approved by the National Authority for approval and supervision of the electronic certification. The Authority confirms the link between the physical and non-physical identity (individuals, organizations, servers) and the "virtual" digital entity.

## **E-Commerce**

Economic activity that is provided remotely and by electronic delivery of a product or a service.

## **Convergence**

Convergence in the telecommunications sector implies the ability of different networks to communicate similar services. For example, fixed / mobile convergence tends to bring the use of both these technologies, or the convergence of telecommunications, broadcasting and information technologies.

In addition, the technological convergence of electronics, computing and telecommunications infrastructure have led to the concept of Information Technology and Communications (ICTs).

## **ERPT (Telecom Operator)**

Operator of the public telecommunications network. Any legal person who holds a license to operate a public telecommunications network and / or provide public telecommunications service.

## **Optical fibre**

It is a transmission medium used to transmit any kind of digital data, and offers the best throughputs on long distances with the least mitigation and the greatest immunity to electromagnetic noise.

Used especially in transmission networks and core networks, optical fibre is also increasingly deployed in end subscriber networks.

## **GPRS**

General Packet Radio Service. Voice and data Digital transmission Service over radio waves, offered on second generation GSM mobile network, in which packet switching is used to reach a theoretical speed of 115 kilobits per second (Kbit / s), instead of the limit of 9.6 kilobits per second (Kbit / s) provided by the original model of the global system for mobile communication.

## **GSM**

Global System for Mobile communications. Second generation Telephony standard developed by ETSI (European Telecommunications Standards Institute), especially for voice communications generation. The GSM network is a switched network, i.e., resources are only allocated for the

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duration of the communication and where coverage is provided through antennas or base stations (BTS).

## **HSDPA**

High Speed Downlink Packet Access: A broadband Packet Access Technique used by third-generation mobile networks, in which data is transmitted from the network to the subscriber at the theoretical rate 15 megabits per second, using a frequency range of around 5 MHz.

## **Interconnection**

Reciprocal services provided by two public network operators, or services provided by a public network operator telephone service provider, which allows all users to communicate freely with each other, regardless of the networks to which they are connected or the services they use.

## **Internet**

A computer network used to interconnect all networks in the world. It provides the public with a variety of services such as email, instant messaging, web browsing, using IP (Internet Protocol) communication.

## **Intranet**

Private computer network that uses IP Internet technology to share part of its information systems and operational system within a company or an organization.

## **IP**

Internet Protocol. Telecommunications protocol used on networks that support the Internet and divides the information into packets to be transmitted, to transmit the various packages, transport them independently of each other and reconstruct the incoming original message. This protocol uses a so-called packet switching technique. On the Internet, it is associated with a so-called Data Transmission Control Protocol called TCP, hence the term TCP/IP.

## **ISO (International Organization for Standardization)**

International standards Organization composed of representatives from national standards bodies that facilitate the international exchange of goods and services, while promoting cooperation in the intellectual, scientific, technological and economic spheres.

## **International Roaming**

Possibility for a mobile subscriber of a public telecommunications network to call or be called from abroad under the same technical conditions of a domestic call, but with a differentiated pricing.

## **National roaming**

Possibility for a mobile subscriber of a public telecommunications network to use the wireless network of another operator's public telecommunications network in the country where his/her network operator does not cover the area in which he/her are located. This is done in a transparent

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manner to the subscriber.

## Leased line or dedicated line

Transmission capacity between determined endpoints of the public telecommunications network leased to a user by a public network operator under a lease excluding any switching controlled by the user.

## LTE

Long Term Evolution. Fourth generation mobile technology, aiming to transform third-generation mobile networks into a new, more efficient network capable of transmitting high-speed multimedia data at a theoretical 100 Mbps (downlink) and 50 megabits per second (uplink). (See also 4G).

## MMS

Multimedia Messaging System. Multimedia messaging service that allows the user to send and receive multimedia messages from a mobile phone.

## Domain name

A sequence of alphanumeric characters followed by a suffix also called extension (.ma for Morocco). Each domain name is linked to an IP (Internet Protocol).

## Fixed non-geographic numbers

Numbers for special services in the following structure: 0ZABPQMCDU where Z = 8.

These are special rate numbers for the provision of value added services. There is a distinction between "freephone" numbers, "split charging" numbers and "shared revenue" numbers.

## Service Quality

Operators are committed as part of their mandate to provide a quality level of service comparable to that of international standards. Quality of service is controlled by the ANRT that periodically receives technical indicators on quality of service for evaluation.

## Number portability

The ability for a user to use the same subscription number, regardless of the operator it is subscribed to, and even when he/her switches operators.

## Internet service providers

Internet service providers allow for Internet access, namely Internet cafes and internet access providers.

## Regulation

Regulation in the telecommunications sector is the enforcement by the competent authority, of all legal, economic and technical provisions that allow telecommunications activity to operate freely, and in the interests of healthy and fair competition for the benefit of users of telecommunications networks and services, as provided by law.

## Telecommunication Network

Any facility or group of facilities providing either transmission or both transmission and routing of telecommunications signals as well as the information exchange control and management between the network's endpoints.

## ISDN

Digital Network Services: a fully digital transmission, network capable of providing or supporting a wide range of telecommunication services. The main feature of a digital integrated service network is to allow the aggregation of channels with a 64 kilobits per second data rate. Thus, a basic access with two channels achieves a rate of 128 kilobits per second. A digital network with integration services makes it possible to share sounds, data or images, so it can be used to provide services such as telephony, video telephony, fax, email, etc.

## Value-added services (VAS)

Services that add value to the information provided by the customer by improving their form or content or by providing storage and search capabilities, using the capacity of public networks telecommunications licensees.

The list of VAS is determined by the Decree 2-97-1024 of 27 Shawwal 1418 (February 25, 1998) as amended and supplemented by Decree of the Minister of Industry, Trade and New Technologies No. 618-08 dated 5 Rabi I 1429 (13 March 2008). It includes Voice Mail, Electronic Messaging, Audiotex, Electronic Data Interchange (EDI), Data Access Service, On-line Information Service, Enhanced Fax, File Transfer, Protocols and codes Conversion, Internet Service Services and the recently coined "Commercialization of '.ma' domain names."

## Universal service

Universal Service includes services whose content is set by Law No. 24-96 on postal and telecommunications services as amended by Law No. 79-99 and Law No. 55-01, and land use and/or value-added services, which content and implementing rules are set out in the mandate of public telecommunications networks operators.

## Secure electronic signature

A reliable identification process guaranteeing its link with the act it relates to.

A secure electronic signature must meet the following conditions:

- Be specific to the signatory;
- Be created using means that the signatory is able to keep under his sole control;
- Ensuring a link with the act it relates to so that any subsequent amendment to the Act is detectable;

It must be produced using an electronic signature creation mechanism, evidenced by a certificate of conformity", issued by the National Authority for the approval and monitoring of electronic

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certification. "

## SMS

Short Message Service. Service that enables the transmission of short text messages through the mobile phone network to a maximum size of 160 Latin characters and 70 Arabic characters (as the latter are coded as special Unicode characters using more bits than Latin characters).

## IP telephony

Telephony service based on the implementation and operation within a company or organization, of telephone services over a digital network using the IP protocol. A clear distinction should be made between voice over IP and IP telephony. Voice over IP is a technique for integrating voice data packets over an IP network while IP telephony relies on the voice over IP technique to establish a telephone services on a IP.UIT network

International Telecommunication Union: United Nations specialized agency created in 1865 to regulate telegraph, telephone and radio services.

## VPN

Virtual Private Network Allows for the expansion and interconnection of local networks over a public or uncontrolled network such as the Internet, via a tunnelling protocol. An organization can thus interconnect its sites across the Internet while providing a secure connection. The drawback is that quality of service is not guaranteed, as it is the case of leased lines.

## VSAT

Very Small Aperture Terminal Means a communication technique that uses two-way satellite dish antennas with a diameter less than 3 meters for the exchange of information at low or medium speeds. Use of this service is subject to a license.

## WAP

Wireless Application Protocol. Communications protocol that allows access to the Internet from a wireless terminal such as a mobile phone or a smart phone.

## Wi-Fi

Set of wireless communication protocols under the 802.11 standard. A Wi-Fi network enables users to wirelessly connect multiple computing devices (computer, smart phone, router, etc.).

Depending on the standard, the Wi-Fi protocol allows a radius of several tens of meters indoor and links of 11 Mbps (theoretical) in 802.11 b (real: 6Mbps) to 54 Mbps (theoretical) in 802.11a or 802.11g (real: 25Mbps real) and 300 Mbps (theoretical) in 802.11n (real: 100Mbps).

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