

# Glossary<sup>1</sup>

**2G or 2nd Generation**—The currently available digital communication networks for voice and data communication (e.g., GSM, CDMA, PDC).

**2.5G or 2.5th Generation**—Represents an upgrade from the currently available communication networks. This protocol provides more bandwidth and enables packet-switch networks. In Europe this is associated with GPRS.

**2.75G or 2.75th Generation**—A network that includes a number of upgrades to the 2.5G networks and that allows for greater bandwidth. In Europe this is usually associated with a standard referred to as “EDGE.”

**3G or 3rd Generation**—Mobile technology standard that corresponds to the IMT-2000 standard (e.g., UMTS in Europe). This standard will provide higher bandwidth and use packet-switch networks.

**4G or 4<sup>th</sup> Generation**—An anticipated future mobile technology standard that is based on new modulation schemes (e.g., OFDM) and the concept of a separate uplink and downlink channel. This will offer higher bandwidth than 3G networks.

**ARPU or Average Revenue per User**—A method of measuring revenue associated with the delivery of mobile commerce services by MNOs.

**B2B or Business to Business**—This is a commonly used term in e- and m-commerce to describe transactions carried out between businesses.

**B2C or Business to Consumer**—This is a commonly used term in e- and m-commerce to describe transactions carried out between a business and its customers.

**Bluetooth**—A wireless personal area network (PAN) technology protocol that was promulgated by the Bluetooth Special Interest Group ([www.bluetooth.com](http://www.bluetooth.com)). The Bluetooth Special Interest Group was founded in 1998 by a consortium of Ericsson, IBM, Intel, Nokia and Toshiba. Bluetooth is an open standard for short-range transmission of digital voice and data between mobile devices (laptops, PDAs, phones) and desktop devices.

**CDMA - Code Division Multiple Access networks**—A method of frequency re-use whereby many handheld phones use a shared portion of the frequency spectrum. CDMA uses spread-spectrum techniques to assign a unique code to each conversation.

**CDMA2000**—The North American version of the IMT-2000 3G technology.

**CHTML or Compact HTML**—An HTML-compatible markup language for handheld devices that was developed by NTT DoCoMo for use in the i-mode service.

**D-AMPS**—Digital Advanced Mobile Phone System.

**EDGE or Enhanced Data for GSM Evolution**—An enhanced version of the GSM and TDMA networks that increases bandwidth. EDGE is often called the 2.75G network standard.

**GPRS or General Packed Radio Service**—An enhancement to the GSM mobile communications system that supports the transfer of data packets. GPRS enables the continuous flow of IP data packets over the network to enable applications such as Web browsing.

**GPS or Global Positioning System**—A satellite-based navigation system that triangulates a user's signal via three or more satellites. The system was originally developed by the U.S. military but is now also available for commercial and private applications.

**GSM or Global System for Mobile Communications**—A digital cellular phone technology based on TDMA. This is the predominant network in Europe but is also used in the U.S. (e.g., VoiceStream) and around the world.

**Handheld**—Handheld computing device such as a mobile phone or PDA that serves as an organizer and/or communicator.

**HDML or Handheld Device Mark-up Language**—An XML-based mark-up language originally proposed by Phone.Com before the WAP specification was standardized. It includes a subset of WAP capabilities but also has some features that were not included in WAP.

**i-mode**—A packet-based information service from NTT DoCoMo (Japan) designed for their mobile phone network. i-mode provides features such as web browsing, e-mail, games, information management, calendars, and news services. i-mode is a proprietary system that uses cHTML, a customized version of HTML.

**IMT-2000 or the International Mobile Telecommunications 2000**—The IMT-2000 framework is for 3G systems and provides a seamless, global communications service that delivers high-speed multimedia data as well as voice through small, lightweight terminals. This specification was formerly referred to as the Future Public Land Mobile Telecommunications System (FPLMTS).

**LBS or Location-Based Services**—A class of services that have the capability to identify the location of a mobile phone or a vehicle. Location-based services are used both for emergency services as well as commercial applications such as location fleet and field force management, proximity-based services, routing and resource tracking.

**M-Commerce**—Mobile commerce.

**MMS**—Mobile Management Server such as Microsoft's Mobile Information Server.

**Microbrowser**—A browser is a software application that enables a user to view information placed on an Internet site or corporate intranet via an electronic device. The microbrowser is designed for small devices, such as mobile phones.

**MVNO or Mobile Virtual Network Operator**—A reseller of wireless services. These service providers do not own a license for spectrum and may or may not manage their own wireless network infrastructure. The mobile network operators provide service under their own brand name but use the facilities of existing carriers and network operators.

**PAN or Personal Area Network**—PAN technology was introduced at IBM's Almaden Research Center, San Jose, California, by Thomas Zimmerman. A PAN uses a tiny electrical current to transmit information from one person to another or from a person to an electronic device such as a PDA, a phone or a computer.

**PDA**—Personal Digital Assistant.

**Portal**—Service providing access to the World Wide Web. Portal services take the form of web pages that provide search engines or other directory services, and may also provide other types of information. Many portal services are funded by advertising messages.

**SIM or Subscriber Identification Module**—A smart card (i.e., a module) holding the user's identity and telephone account information. This device is a standard component of GSM-based phones.

**SMS**—Short Message Service (currently in use for most mobile subscribers in the form of text mail). The sending and receiving of short alphanumeric messages to and from mobile handsets on a cellular mobile network.

**TDMA or Time Division Multiple Access**—A cellular phone technology that weaves together multiple digital signals into a single communication channel. TDMA is the standard for GSM phones.

**UMTS or Universal Mobile Telecommunications System**—A digital packet-switching technology that has been adopted by the Europeans for implementation of 3G wireless phone networks. UMTS will offer higher bandwidth than GSM and will provide "always-on" access to the network and the Internet.

**WAP or Wireless Application Protocol**—A standard for providing phones, pagers, two-way radios, smart phones and other handheld devices with secure access to text-based e-mail and web pages. WAP standards are promulgated by the WAP Forum ([www.wapforum.org](http://www.wapforum.org)) with the goal of enabling WAP to be useful on all network devices.

**W-CDMA or Wideband-CDMA**—A broadband 3G technology that uses CDMA rather than TDMA. W-CDMA was developed by NTT DoCoMo and has been adopted as a 3G standard by many carriers in Europe, Japan and North America.

**WLAN or Wireless LAN**—A local area network that is equipped with a wireless interface or wireless access point.

**WML or Wireless Markup Language**—A tag-based language similar to HTML that is used in the Wireless Application Protocol (WAP). It is essentially a streamlined version of HTML that can be used on small-screen displays.

## ENDNOTE

- 1 Compiled by Brian E. Mennecke