

1. General

Land line

Conventional (non-wireless) telephone connection.

Cell

Loosely, one or more collocated base stations. They can service different stations, different frequencies, or both. The geographic area served by a base station. Wireless networks are comprised of many overlapping cells.

IME

International mobile equipment identity. A unique serial number used on digital mobile phones.

Alphanumeric Display

A display capable of containing letters and numbers, but not graphics.

Talk time

The length of time a wireless device may be engaged in transmission (phone conversations, sending or receiving data) before it runs out of battery power.

Multiple numbers per name

This means that individual entry in the phone book can contain more than one phone number, such as Office, Home, Mobile, Fax, etc. This is different from grouping, which lets you create group entries in the phonebook, such as Office, Family, Food, etc.

Standby time

The maximum length of time a wireless phone or communicator is fully charged, turned on and ready to send and receive calls or data transmissions. Standby time is reduced by the amount of time the phone is used for talking on a phone draws more energy from a battery than standby mode.

Vibrate

The phone includes a mechanical device that can make the phone vibrate when it would otherwise ring or make a sound, such as an incoming call or an alarm. This is often useful for situations where an audible phone ringer would be inappropriate, such as in public or in office environments. The feature can be enabled or disabled through the phone's settings. Some phones permit both a sound and vibration at the same time, some do not. Some phones vibrate more vigorously than others. In particular, since a motorized weight usually produces the vibrations, lighter-weight phones may have weaker vibrating mechanisms.

Li-ion battery

Lithium-ion type of battery often used to power wireless communication devices. Considered superior to NiCd and NiMH batteries—they are lighter weight, have a relatively long cycle life and generally do not suffer from “memory” effect.

Li-po battery

Lithium polymer type of battery. Similar to Li-ion batteries, but slightly lighter and the batteries can be molded to any shape.

Polyphonic Ring tones

Polyphonic ring tones can create multiple tones and/or notes simultaneously. This produces a more natural and realistic sound for melodies compared to very old phones that could produce only one note at a time. Polyphonic ring tones can create multiple tones simultaneously. This produces a more natural and realistic sound for melodies. Unlike real-music ringtones, polyphonic ring tones only simulate music using tones or preset instrument sounds. They cannot reproduce vocals or exact music.

Ring back tone

The sound made by the phone network to indicate a ringing phone on the other end of the line. In other words, the sound you hear when you call someone else; and the sound someone else hears when they call you (before the call is answered).

Speaker phone

A built-in hand free. Allows the phone to be used at a short distance, without the phone being held next to the face.

Car kit (Hands-free kit)

Accessories that allow you to use your phone in the car without requiring use of your hands. The kit may contain a few essential items such as a fast battery charger and a hands-free holder (hardware to hold the phone).

The kit may also include connections to an external antenna, external speaker and/or microphone for better audio quality, or a junction box with data port for optional fax/modem connections.

HEP :(Hands-free profile)

A Bluetooth profile (mode) designed to enable a two-way wireless speaker-phone to be used with a Bluetooth phone. Although it can be used with a desktop speaker-phone accessory, its most common use is with car kits.

QWERTY

QWERTY is standard layout for letter keys on text keyboards and thumbboards. Originally created for typewriters, it is currently the layout found on most English-language computer keyboards. It is named for the order of the first six keys on the top row, which happen to form a pronounceable word. On phones, the keys are usually much smaller and closer together.

This means they cannot be used with two full hands like full-size keyboard, but rather are designed to be used with two thumbs while holding the phone. Even traditional touch-typing is not possible on a phone's small QWERTY keyboard; the familiar layout makes it easier to find the correct letter among a large number of keys.

Antenna

A physical device for sending or receiving radio signals. Antenna comes in a variety of shapes and sizes. Some wireless phones contain internal antennas, which others have antennas that extend above the phone. The size and shape of the antenna is carefully designed and tuned to the type of radio wave being transmitted and received.

SIM

Subscriber Identity Module. The smart card used in digital phones. It carries the user's identity for accessing the network and receiving calls and also stores information, such as phone directory and received SMS messages.

Prepaid

In contrast, Pre-paid is an option for credit-challenged customers, or customers who prefer to avoid the risks of overage charges. With pre-paid, Minutes must be purchased in advance and credited to a balance of minutes. When the balances of minutes run out, no more calls can be made, preventing the customer from incurring a debt. Blocks of airtime minutes purchased for a pre-paid account may have an expiration date.

Post paid

Traditional post-paid service generally requires passing a credit check. Also with post-paid, a monthly bill or invoice is issued to collect the present month's fixed fees in advance, and the past month's variable fees after a fact. Typical post-paid plans include a preset amount of minutes.

If a greater amount of minutes are used, significant "overage" charges may be assessed. The customer is often not notified of overage charges until they receive invoice weeks later.

Activation is making a phone active on a cell phone network. It is the process that links a specific cell phone to a specific customer account and phone number. It requires configuration on the network side for the network to recognize that specific phones as belonging to that customer. It may also require configuration on the phone itself.

This may be automated to some extent, or it may require following special instructions to enter specific codes into menus that are normally hidden. Activating a phone is generally specific to CDMA phones. GSM phones do not need to be activated.

Service plan (Calling plan)

A package of services offered by wireless service providers that includes the activation, monthly charges, per-minute air time charges, roaming terms, local service area as well as additional services (such as voicemail, data, or international roaming).

IM (Instant Messaging)

A category of internet-based "chat" technologies that typically enabled rapid text communication between two people. A key feature of IM is the ability to have a buddy list of friends or peers, and see at a glance which friends are available for chat. This capability is known as "presence".

Predictive Text Input

A technology which allows you to enter text by pressing only one key per letter. The phone will automatically compare all of the possible letter combinations against a built-in dictionary of words. The current predictive text input implementations are T9, ITAP and eZitext.

T9

Look at predictive text input.

Memory card slot

Memory card slot are used primarily to add memory to a phone, in the form of a memory card. Extra memory can be used to store and transfer photos, videos, music, computer files, or backups of phone data such as the phone book and calendar.

Card slot

Some phones accept memory cards for storage expansion. Usually a small card is included in the standard package; bigger capacity cards can be purchased separately. Card detail: Micro SD, M2, MMC, mini SD, SD: Secure Digital.

Flash memory

A type of memory chip that is used for storing information over time. Compared to other types of memory, flash memory retains information without electrical power, which is why flash memory is used for removable memory cards, as well as internal memory for data that should be retained when the device is turned off. Popular types of removable flash memory cards include SD and microSD.

Shared Memory (Dynamic Memory)

This refers to the structure of the phone memory for storing information.

Shared (dynamic) memory means that there is one large “pool” of memory available for multiple types of information. The different types of info can include photos, videos, music, voice recording, software applications (java, BREW, etc.), Wallpapers, and ring tones.

It may also include contacts, calendar entries, and to-do items. So with shared memory, if you have a large number of music files or ring tones on your phone that will reduce the amount of memory available for software, photos, and videos, or vice-versa. The alternative is partitioned memory, where the memory is divided into fixed areas for each type of information. The disadvantages of portioned memory is that if you fill up the photo memory, for example, you can't take any more photos until you delete some, even though there may be plenty of (wasted)memory available for other type of info.

Some phones have a sort of hybrid memory, where some type of info share memory, such as ring tones, wallpaper, and software, while memory for photos and contacts are partitioned, for example, GB(Giga Byte) An amount of data equal to approximately 1billion bytes. Data size is also often measured in MB: 1GB=1024MB.

Hot Swap (Hot Swappable)

A “hot swap” is inserting or removing a component of a device while it is operating. “Hot Swappable” indicates an aspect of a device that allows such as operation. In phones, this usually refers to memory cards, and means a memory card can safely be inserted or removed without turning of the phone.

If a phone's memory card is not hot-swappable, it may be due a physical design choice, such as the memory card slot being located under the battery.

RAM (Random-access Memory)

Memory where software resides while it is running, along with the data it is using. Both the OS and application software use RAM. RAM is a type of memory that is very fast, but is volatile, meaning all information is lost when electric power is removed. For this reason, it is useful only for temporary storage of data that requires fast access. A device will typically have RAM and some kind non-volatile memory to store a copy of all software and data that need to be kept when the device is powered off or that specific software is not running. Devices with more RAM can run more complex software and/or more application at one time.

ROM (Read-Only Memory)

Memory that stores data long-term. This memory is non-volatile, meaning it keeps data even when the device is powered off. This memory stores user content, as well as a copy of all software so it can be loaded into RAM when needed. ROM is better known as flash memory.

Walkie-Talkie

A type of personal 2-way radio, usually hand-held, that unlike a cell phone, operates independently of any land-based network. One user can speak instantly to all other users within range by simply pushing down a “talk” button. Functionally similar to a walkie-talkie has also been duplicated on cell phones, in the form of a service called push-to-talk (PTT).

2. Network

GSM

Global system for mobile communications. The international digital radio standard created by the European telecommunication standards institute. GSM is currently the dominant 2G digital mobile phone standard for most of the world.

CDMA

Code Division Multiple Access. A type of digital wireless technology that allows large amount of voice and data to be transmitted on the same frequency. CDMA is the second generation cellular technology (or 2G) and is available in Canada, United States, Pacific Asia, and Latin America. Most CDMA service providers will migrate to a high-speed data technology called 1xRTT. The CDMA phones are not listed on GSMarena.com.

2G

2nd generation (2G) refers to the initial group of wireless technology standards that were digital instead of analog (1G). Digital increased capacity significantly over analog, permitting many more people to use the same base station (tower) at one time. 2G offers both data and voice, but unlike 2.5G or 3G standards, transferring data over a 2G involves a "data call", which uses as much network capacity as any other call, and uses for the capacity for the duration of the connection, regardless of whether data is being transmitted at any one moment. Newer 2.5G and 3G standards are much faster for data, and only use network capacity when data is actively transmitted.

3G

3G stands for 3rd generation. Analog cellular phones were the first generation. Digital marked the second generation. 3G is loosely defined, but generally includes high data speeds are possibly the most prominent feature, and certainly the most hyped. They enable such advanced features as live, streaming video. There are several different 3G technology standards. The most prevalent is UMTS, which is based on WCDMA. (WCDMA and UMTS are often used interchangeably.)

3GPP2

3rd generation partnership project 2

A technical standards group focusing on CDMA2000 and related technologies.

3GPP

3rd generation partnership project

A technical standards group focusing on GSM, GPRS, EDGE, WCDMA, and related technologies.

UMTS

Universal Mobile Telecommunications System. A third generation (3G) wireless communications technology and the next generation of GSM. UMTS is a wireless standard approved by the international telecommunications union and is intended for advanced wireless communications. UMTS uses WCDMA technology, and the two terms are often used interchangeably with each other.

WCDMA

Wideband Code Division Multiple Access. An approved third-generation (3G) wireless standard which utilizes one 5MHz channel for both voice and data, offering data speeds of 144 kbps and 2Mbps.

4G (Fourth Generation)

A somewhat vague term used to describe wireless mobile radio technologies that offer faster data rates than current 3G (Third Generation) technologies. 4G networks are also more data-centric and based on standard internet technologies such as IP. Voice service is typically provided using a special form of VoIP. WINMAX and LTE are examples of 4G technologies.

Band

In wireless communication, band refers to a specific range of radio frequencies. For example, the PCS "1900" band spans frequencies from 1850MHz to 1995MHz. Currently, wireless communication service providers in the US use the cellular (850), and CS (1900), and AWS (1700) bands.

Quad band

Quad band (also known as quad-band or quad band) literally means four bands. Most people come across the term when it is used to describe mobile phones supporting four frequency bands. Having more than one frequency in one device is useful to enable roaming between different countries that peg the allowed transmission frequency at different values or to allow a better coverage in the same country.

Triband

Tri band phones (known as tri-band or triband) are mobile phones that support three frequency bands. Having more than one frequency in one device is useful to enable roaming between different countries that peg the allowed transmission frequency at different values or to allow a better coverage in the same country.

Dual band

Phones that can switch between two different bands of frequencies. In Europe dual-band usually means GSM900/GSM1800 capable phone, while in USA it might mean GSM850/GSM1900 or combination of two other bands.

[Service Provider]

The ultimate user, i.e., customer of a communications service.

Wireless carriers, also called service providers or operators, are the companies that operate the wireless networks and sell those users use of networks (the service). The network consists of antennas linked to base stations (commonly called "towers"), and infrastructure linking them. The service is simply allowing customers to access the network, typically billed by the minute. Some carriers offer flat-rate plans. Still others, called MVNOs, do not own a network. See: MVNO "carrier" can also refer generally to the radio waves "carrying" the signal, or specifically to a small part of a frequency band.

3. Connectivity

Broadband

1. A term used to compare frequency band width greater than 3MHZ narrow band frequencies. Broadband frequencies can transmit more data and at a higher speed than narrowband frequencies. In general typical paging services utilize narrowband services. Wireless phones and communication devices use broadband.
2. High-speed data transmission. Often associated with high-speed internet access. Generally fast enough to support application such as streaming video.

Broadcast

Transmitting a single or data stream too many potential users simultaneously. Traditional TV and Radio are examples of wireless broadcast technology. Most mobile phones technology is unicast means one-to-one, while broadcast is one-to-many. Some newer mobile phone technology is broadcast, however, such as certain technologies for live TV on mobile devices.

Port

1. A physical connector that mates with another connector (usually a type of plug on the end of the cable) to electrically connects two devices. For example, a charging port connects a phone to a power source to recharge the battery. A data port allows a phone to connect to a PC or other device for various type of data transfer. Also called a "jack" or simply "connector".
2. The act of "porting", or transferring, a phone number from one carrier to another.

USB

USB (Universal Serial Bus) is a type of plug-in connection that is used to connect some phones in PC. USB is useful for quickly transferring files to and from phones, or for synchronizing address book and calendar information with a computer application such as outlook. Most of the phones require proprietary USB cables to connect to a PC. Ex: min u USB, micro USB.

3GPP2

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Data-Capable

This means that the phone can be used like a modem to connect a separate computer to the internet or other system. With the proper equipment and network support, some phones also allow faxes to be sent and received.

Infrared port (IrDA)

Allows cell phones, PDA's, and other devices to connect to each other for various purposes. Infrared is a wireless technology that uses a beam of invisible light to transmit information.

Bluetooth

A wireless personal area network (PAN) specifications that connects phones, computers, appliances, etc.. Over short distances without wires by using low power radio frequencies Bluetooth allows you to leave your phone in your pocket, while talking on your phone with a Bluetooth headset with no wires. You can also exchange contact or scheduling information with other Bluetooth-enabled phones nearby, or send such information to a nearby Bluetooth-enabled printer.

WAP

Wireless Application Protocol (WAP) is the first global standard for internet services over mobile phone networks. It is capable of displaying “mini websites”, Which looks simple when compared with normal websites but which already provide a variety of powerful services, including banking, ticket purchases, news updates and more to your WAP-enabled phone.

A2DP

Advanced Audio Distribution Profile

A Bluetooth profile (mode) for streaming audio, such as from a music phone to head phones. Compared to profiles such as headset and hands free, A2DP supports stereo audio, and is one-way instead of two-way.

WLAN (or) WIF

A WLAN or wireless LAN is a wireless local area network that uses radio waves as its carrier. Wi-Fi, or wifi, is a trademark for sets of product compatibility standards based on the IEEE 802.11 specifications for WLANs.

4. CALLS

Call screening

A digital “answering machine”, replacing voice mail, which plays an announcement and records messages on the phone. The user can listen to a caller while they leave a message, and optionally answer the phone. Unlike voice mail, airtime is used while the caller is leaving the message.

Cell info display

The capability of your phone to display the location of the nearest cell tower to your location.

Video calling

Also known as “videophone”, or “video conferencing”, this feature lets two people with 3G video phones talk to each other while viewing 2- way live video of each other. Some phones with this feature have a camera that rotates or swivels, so it can face the user for video calling, and face “out” for talking photos. Other phones have two cameras-one facing in and one facing out. This feature requires a 3G network that specifically supports video calling. It will only work when the phone is in range of such a network. Both phones must also support video calling not all 3G phones do. A one-way variant also exists called “video sharing”.

Voice tones

Use of this function is subject to various laws regarding the privacy of phone conversations and may be prohibited or restricted in certain countries. Always obey the applicable laws and regulations on the use of this feature.

5. VAS

GPRS

General Packet Radio Service. A packet-switched technology that enables high-speed wireless internet and other data communications. GPRS offers a ten fold increases in data speed over previous technologies, up to 115k bit/s (in theory). Typical real-world speeds are around 30-40kbps. Using a packet switching, subscribers are always connected and always on-line. GPRS is considered a 2.5G technology.

Edge

Enhanced data rates for global revolution. A technology being promoted by the TDMA and GSM communities that is capable of both voice and 3G data rates up to 384kbps. Standard is based on GSM standard and uses TDMA multiplexing technology.

E-mail

This article is about electronic mail. E-mail is often used to deliver bulk unsolicited messages, or “spam”, but filter programs exist which can automatically block, quarantine or delete some or most of these, depending on the situation.

Push mail

Push mail is the method of having email received for a user on a server automatically forwarded to a mobile device. This works by keeping an active connection open between the mobile device and the server so that the server can notify the mobile device immediately when new mail has arrived. In a typical non-push (pull) scenario, the mobile device would poll the server at some user specified time interval (such as every hour) and ask the server if any new email has arrived. If new email arrives even a second after the server is poiled, it will sit there waiting until the next time that the mobile device checks for mail. Push technology is also often used for non-email data such as contacts and calendar appointments, as well. Popular push systems include direct push from Microsoft and blackberry connects from RIM.

POP

(POP3)Post Office Protocol an interest protocol used to download messages from an email server to an email client (usually email software running on a PC or mobile device). IMAP is a newer alternative to POP, and there are proprietary protocols as well, such as outlook/exchange and blackberry.

IMAP

(IMAP4)Internet Message Access Protocol.

An internet protocol used to download messages from an email server to an email client (usually email software running on a PC or mobile device).IMAP is a newer alternative to the POP protocol. Compared to POP, IMAP offers more intelligent handling of email accounts that are checked from multiple clients, such as checking your email from both your PC and a mobile device.

Definition of “Communication”

A communication is a style of smart phone made popular by Nokia’s 9000 series of handsets, such as the 9300 and the 9500. A communication is generally regarded to be a clamshell device that has its hinges on one of its long edges that contains a QWERTY keyboard and a landscape oriented display on the inside. The world communicator is also used to refer specifically to Nokia’s 9000 series of handsets. Including E90.

GPS

Global Positioning System. A system of satellites, computers, and receivers that is able to determine the latitude and longitude of a receiver on earth by calculating the time difference for signals from different satellites to reach the receiver.

A-GPS

(Assisted GPS) A type of handset-based position location technology. To determine location, the phone takes readings from both GPS satellites and nearby cellular base stations (towers), with the help of a location server on the network. The location server on the network is required to tell the phone which satellites to look for, and also to perform the complex calculations that provide precise location information. This technology generally provides better accuracy than GPS-only and network-based technologies. A GPS also works in place where GPS-only and network-based technologies do not work well, such as dense urban areas, inside buildings, and in moving cars.

Voice mail

Services provided by a phone network to store and manage voice messages for individual users. Like an answering machine, voice mail can handle a call when the person is being called is unavailable, by playing a greeting message and recording a voice message from the caller. From a modern mobile phone, the voice mail system can usually be accessed by pressing and holding the “1” key, although some phones use a different key, or require dialing a code. Once connected to the system, voice messages can be retrieved and managed using a traditional phone menu in interface. Many voice mail systems also offer advanced options such as different greetings for different times or dates, or fax management.

Voice memo

Voice memo lets you record and store short voice messages that you can play back at any time. Many phones with this feature also let you record parts of phone conversations in progress. Some phones have a dedicated voice-memo button to activate the feature. Some phones limit the memos and total length of all messages combined, while still others limit only total length.

PTT (Push-To-Talk)

PTT is a two-way communication service that works like a “walkie talkie”. A normal cell phone call is full-duplex, meaning both parties can hear each other at the same time. PTT is half-duplex, meaning communication can only travel in one direction at any given moment. To control which person can speak and heard, PTT requires the person speaking to press a button while talking and then release when they are done. The listener then presses their button to respond. This way the system knows which direction the signal should be traveling in. Most PTT systems allow group calling, meaning one person can speak to everyone in their assigned or current group at once, just by pressing a PTT key. Some new PTT systems introduced in 2003 and 2004 use VOIP technology to provide PTT service digitally over 3G data networks.

Video sharing

A one-way version of video calling, this feature lets two people with 3G video phones talk to each other while one user views one-way live video from the other person’s phone camera. This feature requires a 3G network that specifically supports video calling and/or video sharing-not all 3G phones do.

EMS

Enhanced Message Service. An extension of SMS that enables the sending of a combination of simple melodies, images, sounds, animations and formatted text as a message to another EMS-compatible phone.

MMS

Multimedia Messaging Service. A further extension of SMS and EMS. MMS is designed to make use of newer and quicker mobile transmission methods such as GPRS, HSCSD, EDGE and UMTS, involving the attachment of multimedia extensions to messages, such as video and sound.

6. Entertainment

Games

Many phones include simple games for the user to pass the time when walking, traveling, etc. The games referred to here are ones built into the phone, that do not require the connection and airtime to play. (there are games available over the wireless internet that do not require connection and thus airtime.) Many phones also include the ability to download new games wirelessly. There are several different technologies for downloadable games, including java, BREW, Mophun, and WGE. The technologies are incompatible, although some phones support more than one technology.

FM Radio

Some phones include an integrated FM radio for listening to live-broadcast FM radio stations. Some phones with this feature require that the headset be connected to use this feature, so that the headset wire can be used as an antenna.

RDS

Radio Data System/ Radio broadcast Data System. A standard for broadcasting supplemental digital data along with FM radio broadcasts, such as station name and program info (song name, artist, etc.) Some phones with an advanced FM radio feature support RDS and thus can display RDS info.

Voice record

The ability of a phone to record the conversations on a call for playback later.

Music player

This means that the phone includes memory storage for MP3, AAC or similar music files, and software for playing that music. Generally, music can be downloaded into the phone from the computer and played back later through a headset attached to the phone. This is not to be confused with real-music ring tones, which are usually a distinct feature. A "music player" feature can play whole songs, independently of the ringer functionality.

MP3

MPEG audio layer 3. An audio compression technology that is part of MPEG-1 and MPEG-2 specifications. Commonly used to distribute music on the internet and on portable players.

7. Camera

VGA

Video Graphics Array. Graphics standard introduced by IBM, having a resolution of 640*480 pixels.

Pixel

The smallest visual unit in an electronic display or visual data file; a single “dot”. Most modern electronic displays are composed of a grid of pixels. Each pixel can be turned on or off, or- in the case of full-color displays-dimmed or made a specific color. In this way, pixels are individually controlled to cause the whole display to show information and graphics. An important measure of an electronic display the number of pixels. More pixels allow the display to show more detail and more information. This is called “resolution”, and is typically stated in terms of vertical and horizontal pixels (such as 240*320).

Mega pixel

This term refers to the size of an image, usually in reference to a photo from a digital camera and camera phones are often measured in mega pixels. For example, a two-mega pixel camera can produce images with two million pixels. Since pixels are usually square and form a grid, a 1-megapixel camera will produce an image roughly 1200 pixels wide by 900 pixels high.

Flash light

Some phones include a dedicated small, bright white LED that functions as a flashlight. In some camera phones with this feature, the LED light also does double-duty as a camera flash. However, not all camera phones with a flash allow flashlight (non-camera-related) use, and not all camera phones with a flashlight include camera flash capability.

Fixed-focus

A camera with a single small lens that cannot be adjusted to focus on objects at different distances. In order to have most objects appear in focus, a fixed-focus lens must be very small and have a tiny aperture (opening to the sensor). This allows the objects at a wide range of distance to appear in focus.

Auto-focus

A type of camera lens that can adjust the distance that is in focus (focal length). Auto-focus usually provide better photo quality than fixed-focus lenses can be larger and allow more light to reach the camera sensor. The downside of the auto-focus is usually a delay when taking a photo (shutter lag). Unlike fixed-focus lenses, auto-focus lenses provide “depth of field”, meaning objects not at the focus distance appear out of focus (blurry). Most auto-focus cameras mechanically change the distance between two lenses to do this using a small motor or ultrasonic actuator. Newer technologies use lenses that can change shape, providing the same functionality in the smaller package.

Xenon flash

The type of very bright flash unit found in most standalone digital cameras, and some higher-end camera phones. A xenon flash consists of a glass tube filled with xenon gas. When a very high voltage current of electricity is applied, the tube emits a very bright-but very brief-flash of white light. Xenon flashes are generally brighter than the LED type found in many camera phones.

Digital zoom

Zoom is a feature of many cameras and camera phones that make the subject appear “closer”, filling more of the image area. The other type of zoom is optical zoom, which uses moving lenses for maximum quality. Unlike digital zoom, optical zoom has no trade-offs in quality or image size.

Optical zoom

Zoom is a feature of many cameras and camera phones that make the subject appear “closer”, filling more of the image area. The other type of zoom is digital zoom, a software feature that has trade-offs in quality or image size. Many cameras and some camera phones offer both optical and digital zoom, for increased total zoom. Optical zoom uses moving lenses to make the subject appear closer. Unlike digital zoom, additional detail is visible when optical zoom is used.

8. Security code

Security code

A numeric code (password) used to prevent unauthorized or accidental alteration of data programmed into wireless phones. The security code can be used by the owner of a phone to change the lock code.

Lock code

A code that prevents a wireless phone from unauthorized use. When explicitly locked, and each time the phone is turned on, it will prompt the user to enter the code before it will allow a call to be placed. Calls, such as emergency or other specially-programmed numbers, may be placed without entering a lock code. Typical default codes include the last four digits of your phone number, the last four digits of your social security number, "1234", or "0000". There are many other types of "locks", though:

PIN

Personal Identification Number. In the context of wireless devices, the PIN is a like a password that prevents other people from using the service. It is numeric code used to unlock the phone and/or complete a call or data transmission. It must be entered each time you use the phone, unless you disable it.

Locked phone

(Unlocked phone)

Although there are several types of "locks" that can apply to phone, the most talked-about type is a carrier lock, also known as SIM lock or subsidy lock. Many phones sold by carriers come "locked" phone can only be used with that carrier; it cannot be used with another carrier's service. (Not counting roaming). This lock can usually be removed by entering a special code or numeric password.

PUK code

PIN unlock code

PUK is the code required to unlock a GSM SIM card that has enabled itself after an incorrect PIN code was entered three times in a row. If an incorrect PUK code is entered 5-10 times, the SIM card will permanently block (disable) itself.

You must contact the carrier (service provider) that issued the SIM card to contain the PUK code.

9. Application

PIM (Personal Information Manager/Management)

Ex: Contacts, email, text notes, voice notes, alarms/remainder also.

Accelerometer

An electronic that measures tilt and motion.

A device with an accelerometer knows what angle it is being held at. It can also measure movements such as rotation, and motion gestures such as swinging, shaking, and flicking. One common use in phones is to detect whether the phone is upright or sideways and automatically rotate the graphics on the screen accordingly. Another common use is controlling games and other applications (such as music player) by moving or shaking the phone.

Picture editor

Picture editor (also known as photo editor) is a specialized professional position in which one collects and reviews photographs and/or illustrations for publication in alignment with preset guidelines. Publications include, but are not limited to, websites, books, magazines, newspapers, art galleries, and corporate products, such as annual reports.

PRL (Preferred Roaming List)

The PRL is the list of information that resides in the memory of a digital phone. It lists the frequency bands the phone can use in various parts of the country. (The smaller bands within cellular or PCS.)

Roaming

Roaming is the general term in wireless telecommunications that refers to the extending of connectivity service in a location that is different from the home location where the service was registered. The term "roaming" originates from the GSM (Global System for Mobile communications) sphere. Traditional GSM roaming is defined (cf. GSM Association Permanent Reference Document AA.39) as the ability for the cellular customer to automatically make and receive voice calls, send and receive data, or access other services, including home data services, when traveling outside the geographical coverage area of the home network, by means of using a visited network.

Fire Wire

Originally developed by Apple, this is an increasingly popular and very fast external bus for transferring data between devices; also known as IEEE 1394 for the name of the standard it engendered.

Screensavers

A screensaver is a type of computer program initially designed to prevent "phosphor burn-in" on CRT and plasma computer monitors by blanking the screen or filling it with moving images or patterns when the computer is not in use. Today, screensavers are also used for entertainment or security purposes.

Calculator

Most in-phone calculators only perform simple math, such as addition, subtraction, multiplication, and division. Some also includes special-purpose tools such as tip calculators or currency converters.

Calendar

Calendar functions, sometimes also referred to as "PIM" (Personal Information Manager) functions; allow you to store scheduling and event information in your phone. Some phones also offer ability to sound an alert (or vibrate) to remind you of upcoming events. These alerts may serve as an integrated alarm feature calendar feature allows you to store scheduling and event information in your phone. Some phones can also synchronize this information with a PC, PDA, or laptop. See PC sync and syncML for more information.

Alarm

An alarm feature which can be set for a specific time and date or can used as a daily alarm. If the phone has a calendar feature, the alarm feature may be integrated with that (in some Motorola phones for example), so an alarm is simply a calendar event. Although some phones with a calendar feature also have a separate alarm feature.

Gallery

The gallery menu contains images and ringing tones. All the images you have taken with an integrated or attached camera, as well as the pre-locked images and the polyphonic tones are stored in the gallery. Images received in an MMS message can be copied and saved in the gallery and then used as wallpaper, or in creating new MMS messages. Personal folders in the gallery can also be created, for e.g. a folder for summer holiday pictures and one for graphical illustrations.

Theme

A visual motif for a user interface. A theme or skin includes a set of matching elements that change the look and/or sound of the user interface, including the home screen, background image, icons, menus, startup graphics and sounds, etc. Phones with theme and/or skin capability may come with several options preloaded, and often allow more to be downloaded and applied later. A theme/skin may have a generic theme, such as "tech" or "nature", or a something more specific, such as a specific sports team. Themes may also include sounds, such as ring tones, on/off sounds, key tones, etc. Some phones have separate "skin" and "theme" functions, where the skin controls the look of the menus, and the theme includes other elements.

Java (J2ME)

J2Me (Java 2 Micro edition) is a feature that allows the device to run small, user-installable software applications written especially for mobile devices such as phones. J2ME applications can provide specific functions such as a tip calculator, they can be games, or they can be custom-written corporate applications. They can be internet-enabled, so that, for example, a J2ME game might let you play someone else in real time over the internet. They can be created by anyone-not just the phone manufacturer or your carrier. You can download new applications to your phone at any time. Most phones allow you to download new applications to your phone at any time. Most phones allow you to download new applications directly to your phone using the wireless internet feature.

Blackberry

The Blackberry is a wireless handheld device introduced in 1997 as a two-way pager. The more commonly known smart phone blackberry, which supports push e-mail, mobile telephone, text messaging, internet faxing, web browsing and other wireless information services was released in 2002. It is a prime example of a convergent device. Developed by the Canadian company Research In Motion (RIM), it delivers information over the wireless data networks of mobile phone service companies. Blackberry first made headway in the marketplace by concentrating on e-mail. RIM currently offers blackberry e-mail service to non-blackberry devices, such as the palm Treo, through the blackberry connect software. The original blackberry device had a monochrome display, but all current models have color displays.

10. Display

Finger touch

A type of touch screen (or other fixed surface) that is optimized for operation by human finger, as opposed to a stylus.

Touch screen

Touch-screens are typically found on larger displays, in phones with integrated PDA features. Most are designed to work with either your finger or a special stylus. Tapping a specific point on the display will activate the virtual button or feature displayed at that location on the display. Some phones with this feature can also recognize handwriting written on the screen using a stylus, as a way to quickly input lengthy or complex information.

Stylus

A small pen like instrument used to “write” on a touch screen device. A stylus is often nothing more than a simple stick of plastic, except that its tip is specifically designed to not damage the screen. The stylus provides far more accuracy that could be achieved with a fingertip, and provides a familiar pen-like experience for inputting handwritings and drawings.

LCD

Liquid Crystal Display. LCD displays utilize two sheets of polarizing material with a liquid crystal solution between them. An electric current passed through the liquid causes the crystals to align so that light cannot pass through them. Monochrome LCDs in phones usually have both a back light and a reflective backing, allowing them to be equally usable in both bright light and complete darkness. Color LCDs come in many types. STN, TFT, and TFD are several common technologies used.

OLED

Organic Light-Emitting Diode. A next-generation display technology that consists of small dots of organic polymer that emit light when charged with electricity. OLED displays are thinner, lighter, brighter, cheaper to manufacture and consume less power than the current LCD displays.

STN

Super Twisted Nematic. A type of LCD displays technology. STN uses less power and is less costly than TFT technology, but at the expense of image quality and response time.

TFD

Thin Film Diode. A type of LCD displays technology. TFD technology combines the excellent image quality and fast response time of TFT, with the low power consumption and low cost of STN.

TFT

Thin Film Transistor. A type of LCD displays technology. Compared to other types of LCD technology, TFT features excellent image quality and response time, but uses more power, and is more expensive.

11. OS

Symbian OS

Symbian is a venture originally formed by Nokia, Ericsson, Motorola, and Psion to create easy to use operating system for wireless devices and personal digital assistants (PDAs). Their first operating system was called EPOC. Symbian is now primarily used as the underlying OS for two major smart phones platforms: S60 and UIQ.

S40

S40 is the platform that Nokia runs on its feature phone headsets models. Unlike S60, it does not run on top of the symbian OS, but the rather runs on a fully proprietary system. Formerly known as series 40, the system generally only allows the user to install java based applications instead of native applications that can be installed by users of S60 devices.

S60 (Series 60)

A major platform for smart phones. Based on the symbian operating system, S60 provides a standardized interface and a standardized platform for developers to create advanced applications for phones. S60 was originally developed as “series 60” by Nokia. Nokia uses S60 for its own smart phones, and also licenses the platform to other phone manufacturers, such as siemens and Samsung. As with other major smart phone platforms, S60 requires a large color display, a powerful processor chip, a large amount of memory for storing applications and games. Unlike PDA-based platforms and certain other symbian-based platforms, S60 does not require a touch screen or pen input, although touch-screen support is being worked on for future versions of S60.

Definition of “S80”

S80, previously known as series S80, is the software platform that Nokia runs on top of the symbian OS for its 9000 series of communicator devices. Nokia has announced that S80’s functionality will be folded into the S60 platform, and that S80 will cease to be developed. Also known as:”Series 80”.

Definition of “S90”

S90, previously known as series S90, is the software platform that Nokia runs on top of the symbian OS in its 77xx series of touch screen enabled multimedia devices. Nokia has announced that S90’s functionality will likely be folded into the S60 platform, and that S80 will cease to be developed. Also known as: “Series 90”.

Operating system

While the software that controls the regular phones is produced by the phone manufacturers, this is not the case with the smart phones – just like the desktop PCs and the PDAs their OS-es are supplied by independent vendors. The “core” software that controls the basic operation of an electronic device. Examples include windows and Mac OS for PCs, and palm OS and symbian for mobile devices. EX: Palm, Linux, windows, vista, symbian.

PALM OS

("Cobalt", "Garnet OS", "Palm OS")

Palm OS is the operating system used on the palm pilot and Treo lines of PDAs and smart phones sold by palm, as well as those sold by many other companies, including Sony. ACCESS, the company that absorbed palm source, has renamed the product to be the garnet OS. Palm, the hardware company, formerly palm one, currently has a license that allow it to further develop palm OS 5 was cobalt (palm OS6). Cobalt has since been killed off in favor of a feature system that runs on top of a mobile Linux OS. Also known as: "Cobalt", "Garnet OS", "Palm OS".

Linux OS

Linux is a free, open source UNIX-like operating system developed by Linux torvoids. It has been ported to many platforms, including mobile phones developed by Motorola and others.

Symbian OS

Symbian is a venture originally formed by Nokia, Ericsson, Motorola, and Psion to create easy to use operating system for wireless devices and personal digital assistants (PDAs). Their first operating system was called EPOC. Symbian is now primarily used as the underlying OS for two major smart phone platforms: S60 and UIQ.

Voice dial

A feature that allows a user to dial a phone number by spoken commands.

Conference call

A conference call is a telephone call in which the calling party wishes to have more than one called party listens in to the audio portion of the call. The conference calls may be designed to allow the called party to participate during the call, or the call may be set up so that the called party merely listens into the call and cannot speak. It is often referred to as an ATC (Audio Tele-Conference).

Call forwarding

A feature allowing the subscriber to forward a call to another telephone number.

Call barring

Allows you to set your phone to prohibit certain incoming or outgoing phone calls.

Call waiting

A feature allowing the subscriber to be alerted of another call during a current situation.

Call divert

This is the network feature that can also be accessed through most handsets providing the ability to redirect your number to another number. There are several levels of diversion available; not answered, out of service, engaged, switched off or unconditional.

Automatic redial

A service feature that allows users to redial the most recently dialed phone number by pressing one or several keys.

Fixed dialing

A service feature that allows users to restrict their outgoing calls and messages to selected phone numbers, included in a fixed dialing list. Once the service is activated the user can only call and send messages to the phone numbers from the list. The capacity of the fixed dialing list depends on the capacity of the SIM card. The list is protected by a PIN code.

Speaker phone

Speaker phone allows the phone to be used at a short distance, without the phone being held next to the face, (and without using the headset.) It allows a small group of people near the phone to all hear and participate in the conversation. It is also useful for hands-free, safe operation in an automobile, and when on hold for a long period of time.

Cell profile

The ability of a phone to assign different ring types to different callers.

Caller ID

A feature that displays the name and/or number of the calling party on the phone's display when an incoming call is received. Virtually all digit phones-as well as many analog phones-have this capability. While typically only the number is received, most phones will display the name, if the number matches an entry in the phone's built-in phone book.

Picture ID

Picture ID allows you to associate a specific photo or custom graphics with individual phone entries. When that person calls, the associated graphic/photo is shown on the display. Photos and graphics can also sometimes be downloaded into the phone directly from the computer, or downloaded via the wireless internet feature.

Voice dial

A feature that allows a user to dial a phone number by spoken commands.

12. PDA

Smart phone

A category of mobile device that provides advanced capabilities beyond a typical mobile phone. Smart phones run complete operating system software that provides a standardized interface and platform for application developers. By the strict definition, smart phones are distinct from PDA-based devices running operating systems such as Palm OS or windows mobile for pocket PCs. While PDA-based devices usually have a touch-screen for ten input, smart phones usually have a standard phone keyboard for input. Compared to standard phones, smart phones usually have larger displays and more powerful processors. Applications written for a given smart phone platform can usually run on any smart phone with that platform, regardless of manufacturer. Compared to Java or BREW applications, native smart phone applications usually run faster and integrate more tightly with the phone features and user interface. The two major smart phone platforms are series 60 (by Nokia) and windows mobile for smart phones (by Microsoft). Phones that are not smart phones or PDA phones are called feature phones.

Feature phones

Any mobile phone that is not a smart phone or PDA phone. Feature phones have proprietary operating system (OS) firmware. If they support third party software, it is only via a limited interface such as Java or BREW. Compared to software for smart phones, Java or BREW software feature phones is often less powerful, less integrated with other features of the phone, and less integrated into the main user interface of the phone. This is changing, as newer versions of Java and BREW allow software to be more powerful and integrate with more features of the phone, although the difference is still present, especially on the interface side. While third-party smart phones software is a “first-class citizen” on the phone, third-party Java or BREW software is usually restricted to a special “applications” section of the interface.

Integrated PDA (Personal Digital Assistant)

This indicates that the phone has built-in PDA functionality. Such phones are also sometimes referred to as “smart phones”, although “smart phones” are generally considered a different category from “PDA phones” here on this site. Most PDA phones have a standardized OS such as windows mobile for pocket PC, Palm OS, or UIQ. Many also have an extra-large touch screen and feature handwriting recognition for faster text entry.