Glossary of Terms

Alias	Infobeam™	Query
Alphanumeric	Information On Demand	ReFLEX
Ancillary Service	Interoperability	Remote Access
Application	IVR	Remote Connection
ASCII	kHz	RF
Bits	Latency	Roaming
B.P.S.	LCD	Routing
Bandwidth	mHz	Server
Beaming	Numeric	Service Provider (ISP)
Bluetooth	Numeric Display	Simulcast
Digital	Numeric Paging	SMS
Domain Name System (DNS)	Overcall Charge	SMTP
Encryption	P2P	SSL
Enterprise Monitoring	Paging/Messaging	TAP
FCC	PCS	TCP/IP
FEC	PDA	Trusync
Filtering	PIC	URL
Firewalls	PIM	vsat
FLEX	PIM Synchronization	WAP
Forwarding	PIN	WCTP
Gateway	Platforms	Wireless internet
GHz	POP3	Wireless messaging
GPS	Protocol	WMLl
HTTP	Pull	WWW
IMAP	Push	XML

Alias - Also referred to as a Username or Vanity name. A custom name used to gain access your e-mail account or can be used in place of the 10-digit phone number in your 2-way address making it easier for your friends to remember.

For example, instead of having an e-mail address like "2145551212@usamobility.net" or "2145551212@my2way.com", ", you can have "MarcSmith@usamobility.net", or "MarcSmith@my2way.com". And for 2-way to 2-way addressing, you simply use "MarcSmith" as the wireless address.

Alphanumeric - Describes the combined set of all letters in the alphabet and the numbers 0 through 9.

Ancillary Service -Secondary services that enhance the value of a customer's messaging experience such as voice mail, message center, maintenance, etc.

Application - A program or group of programs (software) designed for end users that executes a particular task. Software can be divided into two general classes: systems software and applications software. Systems software consists of low-level programs that interact with the computer at a very basic level. This includes operating systems, compilers, and utilities for managing computer resources.

In contrast, applications software (also called end-user programs) includes database programs, word processors, and spreadsheets. Figuratively speaking, applications software sits on top of systems software because it is unable to run without the operating system and system utilities.

ASCII - (American Standard Code for Information Interchange), a code that represents letters, numerals, punctuation marks and control signals as seven bit groups. It is used as a standard code by the transmission of data. The values range from hex value 00 to hex value 7F.

Bits - Short for binary digit, the smallest unit of information on a machine.   A single bit can hold only one of two values: 0 or 1. More meaningful information is obtained by combining consecutive bits into larger units. For example, a byte is composed of 8 consecutive bits. A byte is an abbreviation for binary term, a unit of storage capable of holding a single character. Large amounts of memory are indicated in terms of kilobytes (1,024 bytes), megabytes (1,048,576 bytes), and gigabytes (1,073,741,824 bytes).

B.P.S. -(Bits Per Second,) the speed with which data (distinct pieces of information, usually formatted in a special way) can be transmitted/transferred from one device to another. Data rates are often measured in megabits (million bits) or megabytes (million bytes) per second. These are usually abbreviated as Mbps and MBps, respectively.   Another term for data transfer rate is throughput.

Bandwidth - The difference between the highest and lowest frequencies available for network signals or the amount of data that can be transmitted in a fixed amount of time. The term is also used to describe the rated throughput (data transfer rate) capacity of a given network medium or protocol.

Beaming - Is the infrared transfer of data from one handheld device to another.   This ability to transfer data in the form of a contact card, event, application, etc., uses infrared port technology integrated into the device.

Bluetooth - A short-range radio technology aimed at simplifying communications among Internet devices and between devices and the Internet. For wireless devices, it is an open specification for seamless wireless short-range communication of data and voice between mobile and stationary devices.

Products with Bluetooth technology must be qualified and pass interoperability testing by the Bluetooth Special Interest Group prior to release.

Digital - A digital signal is composed only of electrical pulses representing either zero or one. Because digital signals are made up only of binary streams, less information is needed to transmit a message. Digital encoding therefore increases the capacity of a given radio frequency. Furthermore, only digitized information can be transported through a noisy channel without degradation. Even if corruption occurs, as long as the one zero pattern is recognizable, the original information content can be perfectly replicated at the receiving end.

Domain Name System - (DNS or Service or Server), an Internet service that translates domain names into IP addresses. Because domain names are alphabetic, they're easier to remember. The Internet however, is really based on IP addresses. Every time you use a domain name, therefore, a DNS service must translate the name into the corresponding IP address. For example, the domain name "www.example.com" might translate to 198.105.232.4.

The DNS system is, in fact, its own network. If one DNS server doesn't know how to translate a particular domain name, it asks another one, and so on, until the correct IP address is returned. On the Internet, domain names typically end with .com, .net, .org, .edu, .gov, etc.

Encryption - The translation of data into a secret code. Encryption is the most effective way to achieve data security. To read an encrypted file, you must have access to a secret key or password that enables you to decrypt (process of decoding data) it. Unencrypted data is called plain text; encrypted data is referred to as cipher text.

Enterprise Monitoring - Also known as "event management". This application provides automatic dispatch of user-defined notification messages to involved parties, without user-intervention.

FCC - Federal Communications Commission), the FCC has the authority to regulate all interstate communications originating in the United States.

FEC - (Forward Error Correction), a method of increasing the reliability of data communication. In 1-way communication channels, a receiver does not have the option to request a re-transmission if an error was detected. Forward Error Correction is a method of sending redundant information with the data in order to allow the receiver to reconstruct the data if there was an error in transmission.

Filtering - A process or device that screens network traffic for certain characteristics such as source address, destination address or protocol and determines whether to forward or discard that traffic based on the established criteria.

Firewalls - A system designed to prevent unauthorized access to or from a private network. Firewalls can be implemented in both hardware and software, or a combination of both. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet, especially Intranets. All messages entering or leaving the Intranet pass through the firewall, which examines each message and blocks those that do not meet the specified security criteria.

FLEX - Motorola's flexible high-speed paging coding scheme.

Forwarding - Process of sending a frame toward its ultimate destination by way of an Internet-working device.

Gateway - A combination of hardware and software that links two different types of networks or systems. Gateways between e-mail systems, for example, allow users on different e-mail systems to exchange messages.

The interface used to connect two dissimilar networks or systems by providing conversion from one network to another.

GHz -(GigaHertz), one GigaHertz is equal to on billion hertz. HERTZ -A measurement of frequency in cycles per second. One Hertz is one cycle per second.

GPS - (Global Positioning System), a worldwide MEO (medium or middle, earth orbit) satellite navigational system formed by 24 satellites orbiting the earth and their corresponding receivers on the earth. The satellites orbit the earth at approximately 12,000 miles above the surface and make two complete orbits every 24 hours.

The GPS satellites continuously transmit digital radio signals that contain data on the satellites location and the exact time to the earth-bound receiver. The satellites are equipped with atomic clocks that are precise to within a billionth of a second. Based on this information the receivers know how long it takes for the signal to reach the receiver on earth. As each signal travels at the speed of light, the longer it takes the receiver to get the signal, the farther away the satellite is. By knowing how far away a satellite is, the receiver knows that it is located somewhere on the surface of an imaginary sphere centered at the satellite. By using three satellites, GPS can calculate the longitude and latitude of the receiver based on where the three spheres intersect. By using four satellites, GPS can also determine altitude.

HTTP - (HyperText Transfer Protocol), the underlying protocol used by the World Wide Web. HTTP defines how messages are formatted and transmitted, and what actions Web servers and browsers should take in response to various commands. For example, when you enter a URL in your browser, this actually sends an HTTP command to the Web server directing it to fetch and transmit the requested Web page.

The other main standard that controls how the World Wide Web works is HTML, which covers how Web pages are formatted and displayed.

HTTP is called a stateless protocol because each command is executed independently, without any knowledge of the commands that came before it. This is the main reason that it is difficult to implement Web sites that react intelligently to user input. This shortcoming of HTTP is being addressed in a number of new technologies, including ActiveX, Java, JavaScript and cookies.

IMAP - (Internet Message Access Protocol), a protocol for retrieving e-mail messages. The latest version, IMAP4, is similar to POP3 but supports some additional features For example, with IMAP4, you can search through your e-mail messages for keywords while the messages are still on mail server. You can then choose which messages to download to your machine.

Infobeam™ - A loadable application to the wireless device that allows the user to pull information such as ATM locations, restaurants, driving directions, stock quotes, etc.

Information On Demand - Subscriber can select the information about the topic they would like to know about via a Web site such as mobile.msn.com or mobile.yahoo.com.

Interoperability - The ability of a network to interact with networks. The ability of software and hardware on different machines from different vendors to share data.

IVR - (Interactive Voice Response), computers that perform selected telephone answering functions. For example, calling the bank to see if a check has cleared.

KHz - (KiloHertz), one KHz is equal to 1,000 Hertz. HERTZ -A measurement of frequency in cycles per second. One Hertz is one cycle per second.

Latency - In networking, the amount of time it takes a packet of information to travel from the initial source to the final destination. Together, latency and bandwidth define the speed and capacity of a network.

LCD - (Liquid Crystal Display), a type of display used in many portable devices and computers. 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. Each crystal, therefore, is like a shutter, either allowing light to pass through or blocking the light. Most LCD screens are backlit, or transmissive, to make them easier to read.

MHz-(Megahertz), one MHz is equal to one million Hertz. HERTZ -A measurement of frequency in cycles per second. One Hertz is one cycle per second.

Numeric - Describes the numbers 0 through 9. The character set used by "numeric pagers". This character set includes the numbers '0' to '9', punctuation such as a space(' '), hyphen('-'), and sometimes other symbols, such as "$.".

Numeric Display - Display of numbers.

Numeric Paging - Numeric Paging is the most widely used type of paging. The caller simply calls your pager phone number and enters the number where you can reach them.

Overcall Charge - Also referred to as "additional usage". The amount charged to an account for each incoming message or character in excess to the number of messages or characters included for a particular service fee.

P2P - (Peer to Peer), a term used to describe an end user sending a message to another end user via their wireless devices, where each device has equivalent capabilities and responsibilities.

Paging/Messaging - Numeric and 1-way Word equipment is generally referred to as Pagers. 2-way equipment is generally referred to as Devices. Both can be referred to as a Unit. 1-way paging service is generally referred to as Traditional Paging or simply Paging. 2-way service is referred to as Messaging. Both services can be referred to as Wireless Messaging.

Numeric Paging

Numeric Paging displays the telephone number or numeric message of a caller on your pager screen. Callers can send numeric messages up to 20 characters long, such as a telephone number or special numeric codes. You will receive an audible beep (or vibration) to alert you that a message has been received on your pager.

Word Paging

A Word Pager, also known as an Alphanumeric or Text pager, is a pager that receives and displays messages containing text and numbers.

2-way Messaging

2-way Messaging allows you compose, send and receive important information. This solution allows you to send, reply to and receive e-mails, manage your contacts, manage your calendars and access on-the-go information, plus much more.

PCS - (Narrowband Personal Communications Services) also called NPCS, a new generation of digital, 2-way, low powered wireless services in the 800 to 900 MHz bands that will support a wide range of services including confirmed delivery of message, full 2-way data transfer, voice messaging and connectivity via the internet.

PDA - (Personal Digital Assistant), a handheld device that combines computing, telephone/fax, Internet and networking features. A typical PDA can function as a cellular phone, fax sender, Web browser and personal organizer. Unlike portable computers, most PDAs began as pen-based, using a stylus rather than a keyboard for input. This means that they also incorporated handwriting recognition features. Some PDAs can also react to voice input by using voice recognition technologies. PDAs of today are available in either a stylus or keyboard version.

PIC - (Personal Interactive Communicators), this is a device such as the ST902 or Unication M900. These devices allow 2-way communication.

PIM - (Personal Information Manager), a type of software application designed to help users organize random bits of information. Although the category is fuzzy, most PIMs enable you to enter various kinds of textual notes - reminders, lists, dates - and to link these bits of information together in useful ways. Many PIMs also include calendar, scheduling, and calculator programs.

PIM Synchronization - Allows your PIM unit and desktop to transfer information via software making them coexist.

PIN - (Personal Identification Number), a PIN number uniquely identifies a subscriber. Often a subscriber's PIN number is their local numeric input number, but there need not be any relationship between the two. A PIN number is not specific to any particular device/pager, but is generally assigned to a particular subscriber.<

For Assured Messaging, the 10-digit phone number is the PIN. For traditional (1-way) messaging, PINs are not device phone numbers. An entry in the PIN field overrides any selection in the directory. Subscribers with only numeric paging service are not reachable through the Internet.

Platforms - The underlying hardware or software for a system on which a given operating system or application runs.

POP3 - (Post Office Protocol), a protocol used to retrieve e-mail from a mail server. Most e-mail applications (sometimes called an e-mail client) use the POP protocol, although some can use the newer IMAP (Internet Message Access Protocol).

There are two versions of POP. The first, called POP2, became a standard in the mid-80's and requires SMTP to send messages. The newer version, POP3, can be used with or without SMTP.

Protocol - An agreed-upon format for transmitting data between two devices. Examples: Pocsag, Flex.

A formal set of conventions governing the format and control of inputs and outputs between two communication devices. This includes the rules by which these two devices communicate, as well as handshaking and line discipline.

Pull - The act of the subscriber sending a command to a database requesting immediate delivery of specific information.

Push - Information automatically being sent out to a subscriber based on a set time or a certain criteria of circumstances.

Query - A request for information from a database.

Reflex - 2-way paging protocols developed by Motorola for enhanced paging/messaging services. ReFLEX25 supports outbound transfer rates of up to 6,400 bits per second in a 25 KHz channel and 12,800 bits per second in a 50 KHz channel. ReFLEX50 protocols provide transfer rates two time faster than that of ReFLEX25.

Remote Access - A connection to an office network from a remote site such as home or a hotel. Once connected, you access network resources if directly connected to the network.

Remote Connection - Describes a link from one computer or a network of computers from one site to a computer or network at another site.

RF - (Radio Frequency), any frequency within the electromagnetic spectrum associated with radio wave propagation. When an RF current is supplied to an antenna, an electromagnetic field is created that then is able to propagate through space. Our wireless technologies are based on RF field propagation.

Roaming - Traveling outside a carrier's local area. In paging and messaging, roaming is the ability to move from one coverage area to another without interruption in service or loss in connectivity.

Routing - The process of locating the most efficient or effective pathway through a network to a destination computer. Routing is commonly handled by the network or communication software.

In internetworking, the process of moving a packet of data from source to destination. Routing is usually performed by a dedicated device called a router. Routing is a key feature of the Internet because it enables messages to pass from one computer to another and eventually reach the target machine. Each intermediary computer performs routing by passing along the message to the next computer. Part of this process involves analyzing a routing table to determine the best path.

Routing is often confused with bridging, which performs a similar function. The principal difference between the two is that bridging occurs at a lower level and is therefore more of a hardware function whereas routing occurs at a higher level where the software component is more important. And because routing occurs at a higher level, it can perform more complex analysis to determine the optimal path for the packet.

Server - A computer or device on a network that manages network resources. For example, a file server is a computer and storage device dedicated to storing files. Any user on the network can store files on the server. A print server is a computer that manages one or more printers, and a network server is a computer that manages network traffic. A database server is a computer system that processes database queries.

Servers are often dedicated, meaning that they perform no other tasks besides their server tasks. On multiprocessing operating systems, however, a single computer can execute several programs at once. A server in this case could refer to the program that is managing resources rather than the entire computer.

Service Provider (ISP or Internet Service Provider), a business that provides access to a part of the Internet. For a monthly fee, the service provider gives you a software package, username, password and access phone number. Equipped with a modem, you can then log on to the Internet and browse the World Wide Web and USENET, and send and receive e-mail.

In addition to serving individuals, ISPs also serve large companies, providing a direct connection from the company's networks to the Internet. ISPs themselves are connected to one another through Network Access Points (NAPs). ISPs are also called IAPs (Internet Access Providers).

Simulcast - Broadcasting a message over multiple transmitters throughout a geographical region precisely at the same time.

SMS - (Short Messaging Service), similar to paging, SMS is a service for sending short text messages to mobile phones.

SMTP - (Simple Mail Transfer Protocol), is an old e-mail Internet protocol used in TCP/IP networks for e-mail exchange. SMTP can be used for 1-way paging and 2-way messaging as long as the originator's address is included in the from field. SMTP, DTMF (Telephone), SNPP, and TAP are used to send messages to 1-way numeric and text wireless messaging devices.

SSL -(Secure Sockets Layer - pronounced as separate letters), a protocol developed by Netscape for transmitting private documents via the Internet. SSL works by using a private key to encrypt data that's transferred over the SSL connection Both Netscape Navigator and Internet Explorer support SSL, and many Web sites use the protocol to obtain confidential user information, such as credit card numbers By convention, URLs that require an SSL connection start with https: instead of http:.

Another protocol for transmitting data securely over the World Wide Web is Secure HTTP (S-HTTP). Whereas SSL creates a secure connection between a client and a server, over which any amount of data can be sent securely, S-HTTP is designed to transmit individual messages securely. SSL and S-HTTP, therefore, can be seen as complementary rather than competing technologies. Both protocols have been approved by the Internet Engineering Task Force (IETF) as a standard.

TAP - (Telocator Telocator Alphanumeric Protocol), an Alphanumeric or 1-way only protocol, is also known as the "IXO" protocol because the IXO Company used to make a hand-held keyboard device for entering alpha messages. The Telocator Paging Association later changed the name from IXO to TAP.

The TAP protocol is used by software and machines to dial into a paging carrier's network. TAP is an old standard ASCII paging protocol with X-ON, X-OFF using a 10 bit code (1 start, 1 parity, 1stop) with even parity. TAP may be used to send a message to a 2-way device, but a return reply is not possible.

TCP/IP - (Transmission Control Protocol & Internet Protocol), TCP is one of the main protocols in TCP/IP networks. Whereas the IP protocol deals only with packets, TCP enables two hosts to establish a connection and exchange streams of data. TCP guarantees delivery of data and also guarantees that packets will be delivered in the same order in which they were sent.

Trusync - A Motorola software program that allows the 2-way device to synchronize with the users desktop for Scheduler, Contacts, and Tasks.

URL - (Universal Resource Locator), the global address of documents and other resources on the World Wide Web. The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located.

VSAT - (Very Small Aperture Terminal), an earthbound station used in satellite communications of data, voice and video signals, excluding broadcast television. A VSAT consists of two parts, a transceiver that is placed outdoors in direct line of sight to the satellite and a device that is placed indoors to interface the transceiver with the end user's communications device, such as a PC. The transceiver receives or sends a signal to a satellite transponder in the sky. The satellite sends and receives signals from a ground station computer that acts as a hub for the system. Each end user is interconnected with the hub station via the satellite, forming a star topology. The hub controls the entire operation of the network. For one end user to communicate with another, each transmission has to first go to the hub station that then retransmits it via the satellite to the other end user's VSAT.   Also known as a private dedicated connection via satellite.

WAP -(Wireless Application Protocol), a secure specification that allows users to access information instantly via handheld wireless devices such as mobile phones, pagers, 2-way radios, smartphones and communicators.

WCTP - (Wireless Communication Transfer Protocol), specifically aimed at creating a simple means of passing alphanumeric and binary messages between wireline systems and 2-way capable wireless devices.

Wireless Internet - A service that provides access to Internet e-mail and/or the World Wide Web via a wireless network.

Wireless Messaging - The "pushing" of information to and from mobile devices (via a wireless network), allowing users to receive and send time-sensitive notifications and maintain important contacts while on the move.   It includes SMS (Short Message Service), EMS (Enhanced Message Service), and MMS (Multimedia Message Service).

WML - (Wireless Markup Language), commonly known as a micro browser. WML is a XML language used to specify content and user interface for WAP devices.

WML is supported by almost every mobile phone browser around the world.

WML pages are requested and served in the same way as HDML pages. For Web servers to serve WML pages, they must contain the text/vnd.wap.wml mime type.

WWW - (World Wide Web), a system of Internet servers that support specially formatted documents. The documents are formatted in a markup language called HTML (HyperText Markup Language) that supports links to other documents, as well as graphics, audio, and video files. This means you can jump from one document to another simply by clicking on hot spots(links, graphical links). Not all Internet servers are part of the World Wide Web.

There are several applications called Web browsers that make it easy to access the World Wide Web; Two of the most popular being Mozilla Firefox and Microsoft's Internet Explorer.

World Wide Web is not synonymous with the Internet. The Internet is a global network connecting millions of computers. More than 100 countries are linked into exchanges of data, news and opinions.

Unlike online services, which are centrally controlled, the Internet is decentralized by design. Each Internet computer, called a host, is independent. Its operators can choose which Internet services to use and which local services to make available to the global Internet community. Remarkably, this anarchy by design works exceedingly well.

There are a variety of ways to access the Internet. Most online services, such as America Online, offer access to some Internet services. It is also possible to gain access through a commercial Internet Service Provider (ISP). The Internet is not synonymous with World Wide Web.

XML - (Xtensible Markup Language), created so that richly structured documents could be used over the Web.