

GLOSSARY OF TERMS

0 + Calls – Calls placed by dialing 0, followed by the area code and the telephone number.

0 ++ Calls – Calls placed by dialing 0, followed by the area code, telephone number, and calling card number.

0 +- Calls – Calls placed by dialing 0. Followed by the area code and telephone number, then waiting for the operator to respond.

0- Calls – Calls placed by dialing 0 only, and then waiting for the operator to respond.

1 + - Direct dialed long-distance calls, where the caller dials 1, followed by the area code and telephone number. In the lodging industry, a call that is billed to the guest by the hotel.

800 number – A special area code reserved for companies to use for toll-free inbound calls.

900/976 Numbers – Dial sequences accessing information or conferencing services on a pay-per-call basis. The first three digits – 900 or 976 – identify the type of service.

AC Powered – A device (for example, a payphone) powered with standard alternating current (usually 110 volts AC). Compare with line powered.

Access Codes – Special dialing sequences used to access carriers or special Telco services. The most common are 800, 950, and 1010XXX.

Alternate Operator Services (AOS) – Services provided by specialty firms, as opposed to the LECs or IXC. Some AOS companies provide services that may not be available from a LEC or IXC, such as billing to commercial credit cards, foreign language operators, store and forward messaging, information services, and conference calling. AOS is also used to mean automated operator systems – see definition.

Americans with Disabilities Act (ADA) – Signed by President Bush on July 26, 1991, the act paves the way for public accommodations and public services to “take those steps that may be necessary to ensure that no individual with a disability is excluded, denied services, segregated or otherwise treated differently than other individuals. The ADA prohibits discrimination in many areas, including telecommunications. In accordance with the law, many payphone operators and other aggregators have made various accommodations at their sites, for example, the addition of TDDs which open payphones to the 22 million deaf and hearing impaired consumers and the 2.1 million speech impaired consumers.

Answer Detection – The ability of CPE to determine if and when a call has been answered, independently of public network. Answer detection is a vital internal function in store and forward devices and is also available as a stand-alone system for connection to PBXs.

Answer Supervision – The network call status signals passed from the terminating CO to the originating CO that give the status of a call. The signals are available only to LECs, IXCs, and other switches on the network. Privately owned Devices or CPE must provide their own circuitry to determine the status of a call.

Anti-stuffing Device – See *coin return*

Audiotex - See *voice response*

Automatic Number Identification (ANI) – Provides the originating caller’s telephone number to the terminating CO or carrier network equipment.

Backboard – A predrilled, fiberglass mounting template that allows rapid installation of payphones in most environments.

Bell Operating Company (BOC) – Local Bell operating companies formed in the 1984 divestiture of AT & T. The 22 BOCs operate under the seven RBOCs.

Blocking – **1.** Automatically disallowing calls to certain numbers, exchanges, or areas, usually because they cannot be billed or carried by the operator. **2.** When a call cannot be connected by the carrier because no trunks are available.

Bong Tone – The distinctive tone generated by CPE or CO equipment to prompt the caller to enter his calling card number.

Butt Set – A specialized telephone set used by technicians to check lines, make test calls, diagnose lines, etc.

Cadence Detection – An answer detection technique whereby the device detects a break in the ring back signal cadence (2 seconds of ring back signal, 4 seconds of silence) and assumes that ringing has stopped because the call was answered.

Call Home – The ability of a CPE system (an intelligent payphone, for example) to call a specified number at a pre-designated time (e.g. daily or weekly) or when certain conditions occur, such as system faults, handset missing, coin box full, or traffic above or below specified levels.

Call Processing System – A system that provides multiple call automation processes such as store-and-forward, automated collector, message delivery, dialed number screening, automatic transfer to alternative services and interconnection with other CPE systems.

Call Screening – The ability of a CPE system to analyze the number dialed by a caller to determine whether the call can be processed by the system (usually meaning billed) or must be passed to the LEC.

Calling Card – Cards issued by LECs and IXC's that are used by subscribers to charge telephone calls to the carrier. Some cards, such as BOCs and some GTE and AT&T can be billed by third parties while others, such as AT&T CIID, MCI, and Sprint cannot.

Card Reader – An electronic mechanism that converts information recorded on a credit card's magnetic stripe into data understood by a microprocessor system.

Central Office (CO) – The telephone company facility to which subscriber lines are connected.

Channel Bank – A system that demultiplexes an incoming digital signal, typically from a T-1 circuit, converts the signals to analog, and interconnects with a CPE system such as a PBX. For outbound signals, it performs the reverse processes of digitizing and multiplexing.

Chute Extension – A device inside a payphone that guides the coin down into the coin return. Also known as the chute return assembly.

Coin Box – A steel box that sits inside the payphone. It houses coins until they are collected by the payphone operator. Also known as coin receptacle/coin cover.

Coin Line – A new LEC offering that private payphone operators use to connect dumb phones to the public network. Often confused with COPT line – see definition.

Coin Mechanism – A mechanical or electronic device that accepts, routes, and verifies coinage in payphones.

Coin Relay and Hopper Assembly – A device inside a payphone. The hopper holds coins in a compartment; the relay is used to mechanically “fire” the coins into the coin box or out the coin return (the signal to fire or not fire is given by the motherboard). The relay is actually an electromechanical induction coil that pushes an actuator on the side of the hopper. The hopper is a zinc two-part die casing with a single upper chamber and two exit tubes, each going to a different location, depending on the signal sent to the relay.

Coin Return – When a caller places a call, any money that is returned to him sits at the bottom of the payphone in the coin return. The caller simply pushes the flap to remove his coins. The flap, or flapped door, keeps the coin return dry and helps prevent fraud. Coin returns also sometimes have cutter bars to prevent fraud. Also known as anti-stuffing device.

Coin Signaling Device/Unit – A device inside a payphone that recognizes nickels, dimes and quarters and reports them to the motherboard. Also called a trigger switch or signal mode.

Collect Call – A call that is paid for by the called party.

Common Carrier – In telephony, a company authorized by federal or state authority to offer telephone services to the public.

COPT Line (coin operated pay telephone) – The CO line used to connect smart payphones to the public network. Also called a public access line or PAL line. Often confused with coin line – see definition

Customer –Owned Coin-Operated Telephone (COCOT) – A payphone that operates on a restricted CO line. The acronym is also used to refer to the private payphone operators that manage these routes. See *payphone operator*

Daughterboard – An add-on printed circuit board attached to a motherboard

Debit card – Often incorrectly referred to as prepaid cards – see definition. A debit card debits a user’s pre-established account of money at the time of a purchase. For example, this account could be a checking account or an account established with service provider. This practice is sometimes used in debit payphone systems, but clearly has applications in other markets as well.

Demarc – The connection point between CPE and the CO.

Dial-Around Compensation – A recent ruling by the FCC that grants compensation to private payphone operators for handling calls that are directed by the caller to a specified IXC. At the time of this writing, the compensation is a flat amount of \$6 per payphone per month.

Dropped Call – A call in which the radio link between the cellular customer and the cell site is broken. Dropped calls can happen often, and for many reasons. Terrain, equipment problems, atmospheric interference, and traveling out of range are some of the causes of dropped calls.

Dual – Tone Multifrequency (DTMF) – The tones generated by modern telephones to signal Cops and communicate with a wide variety of devices. Each key on the keypad causes two discrete tones to be generated. Also called Touchtone, an AT&T trademark now in common usage.

Dumb Phone – A telephone with no internal logic that must be connected to a PBX or CO switch to function.

Electronic Switching System (ESS) – The type of switching system used in most modern central offices. Usually refers to the AT&T SESS, although also used generically.

End Office – The CO to which a subscriber is connected.

End User – The person or organization utilizing a product or service. For example, hotels and airports are end users of payphones.

Enhanced Services – Peripheral or value-added services linked to a base network or service. Enhanced services such as message forwarding and electronic yellow pages benefit a select segment of a larger end user group.

Equal Access – An FCC ruling that said all users of public switched networks should have free and equal access to the carrier of their choice (implemented via 800, 950, and 10XXX access).

Exchange – Frequently used as a synonym for the CO or switching center.

Fax Switch – Any device capable of detecting facsimile machine CNG tones or carrier signals, and switching the call to another line, fax machine, or store and forward system.

Federal Communications Commission (FCC) – An independent federal agency authorized by the Communications Act of 1934. It is responsible for regulating interstate and foreign telecommunications. It does not have jurisdiction over most interstate matters.

Gateway – An entry point or connection to a network or system. In telephony, gateway services providers, such as calling card validation services, are companies approved to attach to the public switched network common channel (SS7) and provide special services. Individual companies needing such services cannot directly access the common channel and must go through a gateway.

Grace Period – The amount of time subtracted from a call's duration, as measured by a device such as a PBX, to account for inaccuracies in the timing of calls. Used extensively by telephone services resellers such as hotels, whose CPE lacks the ability to accurately determine if and when an outgoing call was answered. The grace period is an educated guess; if the caller stays on the line longer than the grace period, the hotel then assumes that the call was answered and bills the guest.

Ground Start – Method used to signal the CO that is calling party has gone off-hook. Ground is momentarily connected to the tip side of the CO line. *See also loop start*

Ground – A reference point arbitrarily selected to represent zero voltage levels or to serve as the common electrical return path for all circuitry within a system.

Hand Off – The act of transferring a cellular conversation from one cell to another (within 250 milliseconds) with no perceived disruption.

Handset – A hand-held transmitter (microphone) and receiver (ear piece) mounted as single unit in a high impact plastic shell (ABS or Lexan). It is attached to a payphone by a lanyard that is housed in armored cable.

Hardwired – When two pieces of equipment communicate with one another via a dedicated circuit or through a wire to which both are directly connected.

Hearing Aid Compatible – Payphone handsets that can be used with inductively coupled hearing aid devices. A caller may readily identify hearing aid-compatible phones by looking for the blue grammar.

Hook flash – A brief interruption in the call to signal the CO or PBX for special features such as call waiting or call transfer. Created by rapidly depressing and releasing the hookswitch or pressing the flash key.

Hookswitch Dialing – Expertly operated, a hookswitch may be used to dial a call by imitating the pulsing of a standard rotary dial. Most smart phones electronically block this possibility.

Interexchange Carrier (IXC) – A common carrier that only carries traffic between telcos and does not offer direct subscriber connections. A new more accurate name for long distance companies. AT&T, MCI, Sprint, etc. are IXC's.

Interface – A shared boundary defined by common physical and electrical interconnection characteristics.

Keypad Assembly – The keypad is mounted in the unit dial. Its function is to create DTMF signaling from the phone to the CO. The CO is reached because the keypad “breaks” the dial tone to call the CO. Also known as a touch call unit.

Lanyard – The reinforced steel running through the armored cable of a handset. It securely connects the handset to the payphone case.

Last Number Redial – See pound sign redial

Least Cost Routing (LCR) – A feature of a communications switching system (a PBX or) least expensive route available.

Letter of Agency (LOA) – Legal authority from a subscriber to a third party allowing them to act on the third party's behalf regarding matters involving the LEC or IXC's.

Line Powered – Telephone equipment that is powered solely by the CO talk battery supplied from a CO as in a standard phone line.

Local Access Transport Area (LATA) – A geographic area within which a LEC is authorized to provide local and long distance services. BOCs are prohibited from providing interLATA services, while AT&T cannot provide intraLATA services. Restrictions on other carriers vary according to state regulations.

Local Exchange Carrier (LEC) – Local telephone company licensed by state authority. Also known as a local exchange company.

Local Network – A data communications network that supports multiple access for data communications network that supports multiple access for data communications over a narrow range, usually within a building, and over a distance of one mile or less.

Loop – A local communication path between a central office and a subscriber. Also known as subscriber loop, local line, and CO line.

Lower Housing – The bottom half of the casing for a payphone. It houses the coin mechanism, the coin signaling unit, the coin relay and hopper assembly, and the anti-stuffing device (coin return).

Magnetic Stripe Card – One of the three most common types of prepayment cards, See also *Prepaid cards*.

Main Distribution Frame – The physical facilities on which lines are terminated for protection and cross connected by jumpers to the CO equipment.

Modem (Modulator-Demodulator) – A device that converts serial digital data from a transmitting terminal to a signal suitable for transmission over a telephone channel, and then reconverts the signal to serial digital data for the receiving terminal.

Motherboard – The main or primary circuit board. Add-on or daughterboards are then attached to or plugged into the motherboard to provide additional capabilities.

Network-based technology – With prepaid card technology, intelligence is either located on the card itself or on a network, where it would reside on a system or switch. Network based cards do not require a special reader and can therefore be used from any telephone. To make a call, a caller typically dials an 800 number and inputs his card number.

NPA-NXX-XXXX – Shorthand for area code (NPA) + CO number (NXX) + subscriber line number (XXXX). In other words, a telephone number.

Off Hook / On Hook – Off Hook is when the receiver is lifted off the cradle, completing a connection. On Hook is the condition when the receiver is placed back in the cradle, breaking the connection.

Operator Assisted Calls – Station-to-station, calling card, third party billed, collect, and person-to-person calls requiring operator assistance to complete.

Operator Services Provider (OSP) – A company that provides live or automated switched service with the basic goal of completing calls. Non AT&T or non-telco providers often bear the label « alternative » operator services, or AOS (see definition).

Optical Stripe Card – One of three most common types of prepayment cards. *See also prepaid cards.*

Part 68 Requirements – Specifications established by the FCC as the minimum acceptable protection communications equipment must provide the telephone network. *See also registration number.*

Payphone Operator – A person or company – public or private – that owns payphones. Typically a payphone operator maintains his phones, i.e. collection, repair, and other services.

Payphone Slug – A worthless metal disk used instead of a coin.

Pedestal – A mounting device used in payphone installations where the instrument is not attached to a wall.

Point of Presence (POP) – The location where LECs connect with an IXC.

Port – An access point in a computer or switching system where the system is capable of exchanging data with external devices.

Pound Sign Redial – A commonly used feature offered by telcos and AOS that allows a caller to make subsequent calls, without having to reenter their calling card number, by pressing the pound sign key at the conclusion of a calling card call.

Preferred Interexchange Carrier (PIC) – The IXC presubscribed to a subscriber line. Common usage is to say that a line is “PICed” to a carrier. *See presubscription*

Prepaid Cards – Often incorrectly referred to as debit cards. A prepaid card is established with a certain dollar amount – say, for example, \$10. A user buys the card for \$10 and when he makes a purchase, the amount of the purchase is deducted, and so on, until the card has no value. There are three types of technology used in prepaid cards – magnetic stripe, optical stripe, and smart cards. A debit card, however, debits a user’s established account of money – see definition.

Private Branch Exchange (PBX) – Equipment used to switch telephone calls within a business or closed environment and also from that environment to outside lines.

Protocol - Conventions used in interconnecting electronic devices.

Public Service Commission/Public Utilities Commission (PSC/PUC) – A state body that regulates and monitors the services of common carriers within a state.

Public Switched Network – Public telephone network operated by common carriers.

Push to Talk – A method of payphone operation in which the caller activates a push-button switch when the called party answers. Once pushed, money is collected and the handset microphone turned on. This is not efficient for calls to 976 numbers, answering machines, or answering services.

Rate Table – A table of area codes and exchanges that determines rates for calls, taking into account certain variables such as geography, time of day, and other discounts. Rate tables for AOS systems may also include other information such as codes to indicate the relationship of a called location to the originating telephone or system (e.g. interLATA or intraLATA) or billable exchange or non-billable exchange.

Refurbished/Remanufactured – Often used interchangeably, but definitely not the same. Refurbished equipment is cleaned and repaired to working condition, but does not carry the performance³ warranties of new equipment, nor does it have the same tax status. Remanufactured equipment is repaired and modified to the same specifications as new equipment, carries new equipment warranties and has the same tax status as new equipment.

Regional Bell Operating Company (RBOC) – When AT&T divested itself of the Bell operating companies; the court divided the 22 operating companies into seven, similar sized regional operating companies. (Now, also called a Regional Holding Company (RHC).

Registration Number – Approval given to manufacturers of telephone equipment to certify that a particular device passes the tests defined in Part 68 of the FCC Rules. These tests do not attest to its commercial value.

Registration – A procedure required by the FCC to certify that a manufacturer's equipment meets certain standards for connection to the public switched network.

Rejection Assembly & Linkage Arm – An assembly inside a payphone that has a rejecter lever that works with the linkage assembly in pressing against the side of the coin mechanism to push open its hinged side. This allows stuck coins to fall through to the coin return.

Remote Access – The ability to place a call to a modem connected to a CPE system and then communicate with it for the purposes of collecting data such as billing records, sending it information such as rate table or software updates, or running diagnostics.

Remote Diagnostics – CPE system diagnostics that are initiated from another location by dial-up access.

Retrofit Kit – A kit to convert or upgrade a payphone or other device with new or enhanced capabilities, such as adding store and forward to a dumb phone.

Reverse Battery – A signal provided by a CO indicating that some event has taken place (for example, that the called party has answered the phone). Represented as the momentary reversal of tip and ring connections.

Ring Signal tone – The signal tone produced by the terminating CO to ring the called party's telephone. Typically 105 volts AC. 20Hz, two seconds on, four seconds off. The calling party does not hear this signal tone. *See also ringback tone.*

Ringback Tone – The tone produced by the originating CO to let the caller know that the terminating CO is ringing the called telephone.

Ringer Equivalence – The measure of the electric resistance that a phone device places across a CO line (in accordance with FCC Part 68 specs).

Route Management Software – A software system generally loaded into an IBM compatible computer that monitors repair, collection, fraud, and non-sent-paid calls. This system allows the payphone operator to better manage his routes.

Security Stud – A cylindrically shaped metal finger that holds the door to a coin box open until the box is removed for collection.

Side tone – Sound picked up by the speaker's own telephone transmitter and reproduced in his receiver (i.e. the speaker's own voice). If side tone is too loud, it causes the speaker to talk more softly, which reduces the sound level for the listener.

Slamming – The illegal process of changing the presubscribed carrier designation on a telephone line without the permission of the subscriber.

Smart Cards – Often confused with debit and/or prepayment cards (see definitions for each). A smart card is one of the three most common forms of prepayment cards used in payphones (it has applications in many other industries as well). A smart card contains an integrated chip on which one can store financial records, travel records, customer information, etc.

Smart Phone – Telephones with internal processors that replicate CO functions to enable them to process a variety of call types without the assistance of the CO.

Special Information Tones (SIT) – Also called three-tones. A series of three tones followed by a recorded announcement; used on the public switched network to designate problems such as circuit unavailable, number out of order, or number no longer in service, or to provide dialing instructions.

Speech Recognition – The recognition of spoken commands. Speech recognition is divided into two segments: speaker-dependent, which "recognizes" a certain person's voice; and speaker-independent, which recognizes, any speaker's voice.

Speech Synthesis – Artificially generated speech, a text-to-speech application that may be used to produce an unlimited number of phrases. Unlike digitized speech, synthesized speech never begins as real "speech." It is particularly useful when it is not practical to record in human voice all the information a system might be asked to deliver – in systems where voice processing accesses a computer database, for instance. *See digitized voice.*

Speech-to-Text/Text-to-Speech – The conversion of information from voice to print and vice versa.

Speed Dialing – A feature allowing callers to call specific numbers, such as long distance carriers, car rental agencies, or airlines, by pressing a single, preprogrammed key, or dialing a special, shorter number, such as #1, rather than the full telephone number.

Switch – A device for connecting a telephone to another telephone connected to the same device or a telephone to another line to make or receive a call. Found in Cos and PBXs.

Synthesized Voice – *See speech synthesis*

T-1 – A digital transmission format, providing a channel with a capacity of 1.544 million bits per second. Typically can provide up to 24 voice circuits.

T-wrench – A special wrench used to open the upper and lower housing of payphones.

Tabletop Phone – A payphone that is very similar in looks and size to a traditional residential phone. These phones are often placed in locations where a wall mount is infeasible or too expensive. Tabletop phones have a “bulged” shape that accommodates a coin box.

Tariff – A document filed with a government regulatory body providing information required by that body. Any party falling under jurisdiction of the regulatory body must file tariffs. Tariffs may include information such as rates, terms, conditions, commissions, surcharges, fees, and estimates of volumes.

Telco – A telephone operating company.

Telecommunications Device for the Deaf (TDD) - A device that allows the deaf, hard of hearing, or speech impaired to make telephone calls. A TDD is essentially a word processor with modem; the basic model has a keyboard, acoustic cups, and a 20-character display. TDDs communicate with one another by sending signals over the phone line. Each user types his conversation; both ends of the conversation are displayed on the machine. There are portable models of TDDs and also models that are built in to payphones. Also known as text telephones.

Third Party Call – Any call charged to a number other than that of the destination.

Tip and Ring – A commonly used term referring to the positive and negative wires in a telephone circuit. A throwback to the manual switchboard days.

Twisted Pair Cable – Two wires usually loosely spun around each other to help cancel out any induced noise.

Upper Housing – The upper half of the casing for a payphone. It houses the rejection assembly and linkage arm, the handset, and the keypad assembly.

Validation – The process of verifying that a calling card or credit card account is valid and thus it is OK to process a call to be billed to that account.

Vault Door – The door that sits in front of the coin box, presumably to prevent vandalism.

Voice Response – A voice processing system’s ability to integrate or interact with touch-tones and spoken commands. Voice response helps callers select and collect information from service providers and helps telemarketers, information houses, and others collect information from callers.

Wink – An instantaneous “no voltage” condition as measured across a CO loop that indicates that dial tone is about to be supplied to the circuit.