

Glossary of Telecom Terms

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DOD# 940

26 Bit Wiegand Format: The industry standard data output of access control card readers.

ACD - Automatic Call Distributor: A device for distributing many calls uniformly among a group of agents or operators. The ACD pays attention to real time traffic load and other factors like which agent has been the busiest or idle the longest, to evenly distribute call traffic to the agents (also see UCD).

ADA - Americans with Disabilities Act: Legislation passed in 1992 to assure equal building access for the disabled, which also included equal access to emergency assistance in the event of an elevator emergency.

AGC - Automatic Gain Control: Electronic circuit which automatically increases the volume when someone is speaking quietly and drops the volume when someone is speaking loudly, to keep the transmitted signal constant.

A-Lead: Control leads that come from 1A2 key telephone to operate features like flashing of lights to indicate a busy, holding or ringing line.

Analog Single Line Station: An extension port on a PABX/KSU that will allow a standard household type phone to interface with the system. (POTS)

ATA - Analog Telephone Adapter: Analog Telephone Adapter, allows user to connect analog telecom devices to their LAN, WAN or internet (See FXO, FXS).

AWG - American Wire Gauge: The higher the AWG number the thinner the wire.

BOM - Beginning of Message: A short electrical pulse provided by a digital announcer when used in certain 4 wire E & M modes. The pulse alerts the PABX that the Beginning of a Message is coming.

Butt Set: A sophisticated, one piece, telephone used by technicians to diagnose telephone lines or equipment.

Call Progress Detection (Analysis): A feature of some terminal devices that allows the Terminal Device to detect when a call has been answered, so the device can play a recorded announcement to the person that answered.

Carbon Transmitter (Handset): The microphone of a telephone handset which uses carbon granules and a diaphragm. The diaphragm responds to voice and varies the pressure on the granules and hence, their resistance.

Cat 5E: This is a performance category for 8 conductor twisted pair wire. It defines the maximum data rate that a cable can handle.

CD Quality: Digital audio utilizing 16 bits of resolution at a sampling rate of 44.1k, which is the same as audio CD's. Better sounding than other compressed formats such as MP3.

C.O./CO - Central Office: A main telephone office where switching equipment is housed and customer lines originate. Also contains Trunk line connections to other Central Offices. A C.O. line is a phone line coming from the Central Office and terminating at the user's premise.

Central Station Monitoring: Service provided to monitor security systems and emergency phones 24 hours a day. Often uses a high speed DTMF communication format to automatically identify where the call is coming from.

Centrex: A name for an umbrella service offering of the local telephone company. Customers lease a portion of the Central Office switch to create a centralized point of control and routing. In concept, Centrex is providing similar features to a PABX. In some areas, also known as Centron, Cenpac, or Plexar.

CMOS - “Complimentary, Metal Oxide Semiconductor”: When used for the image sensor in video cameras it allows a wide operating temperature range with high reliability.

CNG - CalliNG: 1100 Hz .5 second tone generated every 3.5 seconds by fax machines.

Contact Closure: Contacts that when “closed” connect a pair of wires together and disconnects the wires when “open”. A doorbell button is a simple example of a momentary contact closure.

CPC - Calling Party Control (Disconnect Supervision): A short break in the line current in the called party’s phone line when the calling party hangs up. Not available on most PABX’s.

Demarcation Point (box): Typically the point at which the phone line enters the building. The telephone company is responsible for all wiring up to this point.

DHCP: Dynamic Host Configuration Protocol

DISA: Direct Inward System Access

DID: Direct Inward Dialing is a feature allowing callers to directly reach a PABX extension without an operator’s assistance.

Distinctive Ringing (also known as ringmate, custom ring, identifying ring master): Different patterns of ringing that allow a user to identify the source of the call, outside, or inside (intercom) or who the call is for. Usually two burst or three burst with different durations.

DSL - Digital Subscriber Line: High Speed digital data on standard two conductor voice grade telephone wiring. Allows high speed Internet access and telephone calls to take place simultaneously.

DSL Filter: Filter designed for DSL lines that prevents the normal telephones from hearing the high speed digital data and interfering with the data.

DTMF - Dual Tone Multi-Frequency (Touch Tone): Audible tones which conform to North American Telephone Standards. These are generated by push-button telephones to dial telephone numbers, as well as to provide control or data input to voice processing systems. Especially significant in the operation of Viking automated attendants and fax/data line sharing devices.

E² Memory: (see Non-Volatile E² Memory)

E & M Control / 4 Wire E & M: An equipment signaling system usually used in PABX applications with a digital announcer. This interface control scheme is standard equipment on most Viking announcers.

Earth Ground: A wire conductor that terminates in the earth for electrical purposes.

FCC: Federal Communications Commission

Facility Code: A 3 digit number that each Proxy Card contains in order to provide greater security. Usually the cards used at a given building all have the same facility code.

Fiber Optic Modems: Devices to extend a telephone link on fiber optic cable.

FXO: An analog input RJ-11 port just like a POTS trunk input on a PABX or key system. An FXO port receives talk battery and ring voltage.

FXS: An analog output RJ-11 just like a station port on a phone system or PABX extension. It provides Talk Battery, dial tone, and Ring Voltage.

Ground Start Line: A type of call signaling. In this scheme, when a call is routed to a subscriber, the phone company will apply a ground signal on the TIP side of the line even before a Ring Signal is sent. By detecting this signal, phone systems can immediately determine that the line is about to be in use, and avoid call crashing.

Hook Switch Flash or Switch Hook Flash: A signal originated by momentarily depressing the switch hook on a single line phone. Typically used for accessing C.O. or PABX features.

Hz - Hertz: Indicates the frequency (number of cycles per second) of alternating current such as Ringing Voltage or Touch Tone signals.

Intercept: To stop a telephone call directed to an improper telephone number, and redirect that call to an operator or recording.

Industry Canada: Is the equivalent of U.S. FCC.

ISDN - Integrated Services Digital Network: An emerging international standard that defines interfaces for simultaneous voice and data transmission through a single channel over the public network.

ISDN Terminal Adapter: An interface between an ISDN line and a computer. Often these provide 1 or 2 analog POTS output ports.

KSU: Key Service Unit: A central control cabinet serving many multi-button key telephones. Contains equipment which enables the user to pick up and hold PABX or Central Office lines and provide flashing line, steady, busy, and wink hold signals. Dial intercom service is also an option.

LED: Light Emitting Diode.

Loop Current: (typically 20 to 50 mA) Current that flows from the C.O. when a telecom device goes off hook.

Loop Start Line: A type of calling signal that relies on a telecom device to allow DC current to flow when it goes into an off hook condition. The C.O. or PABX senses this current and intercepts it as a request for service. Also known as "POTS".

Loud Ringing: A tone sent over a paging system that is typically triggered by Ring Voltage or a dry Contact Closure.

MOH: Music On Hold

Night Ringing: The same as Loud Ringing, but usually disabled during the day or "normal business" hours.

N.O./N.C.: Normally Open/Normally Closed Contact.

"No KSU": A phone containing all control functions normally associated with a KSU, thus not requiring a KSU.

Non-Volatile E² Memory: Memory that will not be lost from a power failure: Does not need battery backup.

OPX: Off Premise eXtension: A telephone line from the phone system terminated in a different building than the phone system.

PABX: Private Automatic Branch eXchange: Phone system used to switch telephones between extensions and to outside lines. For incoming and outgoing (dial 9) calls.

Page Code: An access code of a PABX that allows users to access the paging equipment to voice page.

Page Port: A 600 ohm audio output of a PABX intended to connect to an external paging amplifier.

Page Trigger: A signal provided to an amplifier to automatically switch the amplifiers input or mute background music during a page. Typically a "dry" Contact Closure, but in some cases can be a 5 volt DC or 12 volt DC trigger voltage.

PBX: (see PABX).

PCB: Printed Circuit Board.

POTS: Plain Old Telephone Service (See C.O., Analog Single Line Station, Loop Start Line).

Phono (RCA) Plugs: Shielded cable and connector arrangement that is primarily used for low level audio or video connections.

Plexar: (see Centrex)

Proximity Card: A credit card sized card that identifies itself when within close proximity of a reader. Card "swiping" is not necessary. The card contains a 3 digit Facility Code, a 5 digit Internal card number and a 5 digit External Printed number, that may or may not match the Internal number.

Proximity Card Reader: A device used to read the data from a Proximity Card. The Proximity Card can be read when held within a few inches of the reader.

Rack Mount: Equipment which is designed to mount in a standard steel framework consisting of parallel pairs of steel channel verticals spaced 19" and drilled for mounting screws.

RAD/RAN Device: Record/ANnounce: a device such as a Digital Announcer.

RAN Trunk/RAN Circuit: Record/ANnounce Trunk or Circuit: Connects the telephone system to a record/announce device.

REN - Ringer Equivalency Number: 1 REN = The energy to ring 1 Plain Old Telephone. The REN number can be found on the FCC label on the device. The total ringer load on a line is equal to the sum of all the REN numbers of all the telephone devices connected to the line.

RF - Radio Frequency: Electromagnetic waves operating between 10 KHz and 3 MHz propagated without guide (wire or cable) in free space.

RF Choke: A device intended to prevent RF waves from entering a wire or cable.

Ring Back Tone: The sound you hear when the phone you call is ringing.

Ringdown Circuit: A circuit connecting 2 devices so that when one device goes off hook it automatically rings the other device.

Ring Generator: (see Ring Voltage) A circuit producing AC voltage that is higher than 50 Volts and has a frequency of 20 Hz.

Ring Signal: (see Ring Voltage).

Ring Trip: The process of stopping the AC Ring Signal and connecting the voice path at the C.O. when the ringing telephone is answered.

Ring Voltage: A 20 Hz AC voltage higher than 50 Volts RMS superimposed on the phone line to ring bells, activate ring detectors in phone systems, faxes, modems, etc.

RJ-11, RJ-14, RJ-21X, RJ-25: See DOD# 839 for more information.

RMS - Root Mean Square: This is simply a fancy way of describing the average voltage level of an audio signal or Ring Voltage.

RS232: An Electronic Industry Association (EIA) standard that defines a computer interface for connecting serial communication devices such as printers and modems.

RS-485: is a standard defining the electrical characteristics of drivers and receivers for use in balanced digital multipoint systems.

66 Block: A terminal block where up to 4 sets of up to 25 pairs of wire can be interconnected. The installer uses a special "punch down" tool to connect the wires.

SLT: Single Line Telephone.

SOHO: Small Office/Home Office: An acronym for a new class of employment where the employee may be performing part or all of their work at home in a small office set up.

Subscriber Line: The telephone line connecting the local Telco Central Office to the customer's telephone instrument or telephone system.

T1: 24 channel high speed digital line.

Talk Battery: DC voltage supplied by the C.O. to the subscriber's loop to operate the telephone equipment.

Telco: Local Telephone Company

Terminal Device: Telephone, phone system, fax, modem, etc. capable of terminating an analog phone line.

Trunk: A telephone communication path or channel between two points, one usually being a Central Office.

Trunk Port: An input on a PABX or KSU that is used to interface the system with C.O. lines.

UCD - Uniform Call Distribution: A device for distributing many calls uniformly among a group of agents or operators, following simple logic like "top down" or "round robin". It will not pay attention to real time traffic load or any other factors like which agent has been the busiest or idle the longest (see ACD).

UPS - Uninterruptible Power Supply: Provides power to your phone equipment, computers, etc., in the event of a commercial power failure.

USB - Universal Serial Bus: A serial bus standard to interface devices to a host computer.

VoIP Gateway: A digital-to-analog converter. Some multi-function gateway units combine several functions in one device, such as a built-in cable/DSL modem, Ethernet ports and router capabilities, and FXS ports. A single function gateway, also known as an analog telephone Adapter (ATA), contains an RJ-45 port to connect to the internet, and an RJ-11 port to connect to analog devices.

VoIP: Voice over Internet Protocol: The technology used to send voice over a data network using internet protocol. There are many potential benefits to this new technology; less cost (no local/long distance charges), voice and data handled by the same network, and many new integrated services become available.

VOX: Voice Operated eXchange: The feature of some Terminal devices that provides automatic switching or activation when sound or voice energy is detected. Sometimes used to eliminate the need for push-to-talk operation.

WAV File (or WAVE File): is short for Waveform audio format, and is a Microsoft and IBM file format standard for storing an audio bitstream on PCs.