

**8TH**  
Expanded &  
Updated Edition

by  
**Harry  
Newton**

# Newton's Telecom Dictionary

The Official Dictionary of  
Computer Telephony, Telecommunications,  
Networking, Data Communications,  
Voice Processing and the Internet

**# 1 SELLER OVER 100,000 SOLD**

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## NEWTON'S TELECOM DICTIONARY

**AP** See ADD-ON or APPLICATIONS PROCESSOR. AP is an AT&T word for a piece of equipment which hangs off the side of their PBX and makes it do more things, like voice mail.

**APA** All Points Addressable (APA) method of host graphics implementation which uses vertical and horizontal pixel coordinates to create a more graphic image. An SNA definition.

**APAD** Asynchronous Packet Assembler/Disassembler.

**APC** Adaptive predictive coding. A narrowband analog-to-digital conversion technique employing a one-level or multilevel sampling system in which the value of the signal at each sample time is adaptively predicted to be a linear function of the past values of the quantized signals. APC is related to linear predictive coding (LPC) in that both use adaptive predictors. However, APC uses fewer prediction coefficients, thus requiring a higher bit rate than LPC.

**APCC** The American Public Communications Council, which is part of the North American Telecommunications Association (NATA).

**APD** Avalanche PhotoDiode. A diode that, when hit by light, increases its electrical conductivity by a multiplication effect. APDs are used in lightwave receivers because the APDs have great sensitivity to weakened light signals (i.e. those which have traveled long distances over fiber). APDs are designed to take advantage of avalanche multiplication of photocurrent.

**APERIODIC ANTENNA** An antenna designed to have an approximately constant input impedance over a wide range of frequencies; e.g., terminated rhombic antennas and wave antennas.

**APERTURE** For a parabolic reflector or a horn antenna, aperture is the dimension of the open mouth and represents a surface over which it is possible to calculate the radiation pattern. For a series of  $n$  stacked transmitting elements such as dipoles or slots, the vertical aperture is usually defined as  $n$  times the element spacing in wavelengths.

**APERTURE DISTORTION** In facsimile, the distortions in resolution, density, and shape of the recorded image caused by the shape and finite size of the scanning and recording apertures or spots.

**API** An Application Programming Interface is software that an application program uses to request and carry out lower-level services performed by the computer's or a telephone system's operating system. For Windows, the API also helps applications manage windows, menus, icons, and other GUI elements. In short, an API is a "hook" into software. An API is a set of standard software interrupts, calls, and data formats that application programs use to initiate contact with network services, mainframe communications programs, telephone equipment or program-to-program communications. For example, applications use APIs to call services that transport data across a network. Standardization of APIs at various layers of a communications protocol stack provides a uniform way to write applications. NetBIOS is an early example of a network API. Applications use APIs to call services that transport data across a network.

**APL** Automatic Program Load in telecom. In data processing, it's a popular programming language.

about 15 to 20,000 hertz.  
(approximately 20 hertz to 15 ear.

ch the human ear can detect those from 300 to 3,000 hertz a phone doesn't sound "Hi-Fi." essing system. The user can y a menu option by hitting a two. Computer or voice pro-ays — menu-driven and non- or users to use, but they can bly spoken in a few seconds. omated attendant/voice mes- sing applications. See also

**IFICATION AMIS.** Issued in l at addressing the problem of rent vendors can network or vendors could not exchange ion between two systems for ot describe the user interface nent AMIS in a particular sys-

IS-Digital, is based on com- ing systems. All the control ed between systems in digital lls for the use of DTMF tones ie message itself is in analog er 1990 issue of Business of Hinsdale, IL. AMIS specifi- 55-7785.

tes computer output into spo- d "If you want the weather in er. But that weather would be / more technical explanation: thesized voice responses to vices process calls based on ita base, and information care- re used to increase the num- sistent quality in information OICE RESPONSE.

sound and visual images to diographics generally refers oposed to continuous frame ansmission is often used to ucational institution or busi-

ness training center, saving travel and housing expense.

**AUDIOTEX** A generic term for interactive voice response equipment and services. Audiotex is to voice what on-line data processing is to data terminals. The idea is you call a phone number. A machine answers, presenting you with several options, "Push 1 for information on Plays, Push 2 for information on movies, Push 3 for information on Museums." If you push 2, the machine may come back, "Push 1 for movies on the south side of town, Push 2 for movies on the north side of town, etc." See also INFORMATION CENTER MAILBOX.

**AUDIOTEXT** A different, and less preferred, spelling of AUDIOTEX. See AUDIO-TEX.

**AUDITORY PATTERN RECOGNITION** Auditory pattern recognition is the ability to recognize spoken words.

**AUDIT** To conduct an independent review and examination of system records and activities in order to test the adequacy and effectiveness of data security and data integrity procedures, to ensure compliance with established policy and operational procedures, and to recommend any necessary changes.

**AUDIT TRAIL** A record of all the events that occur when users request and use specific resources. An audit trail gives you the ability to trace who did what and who was responsible for what. An audit trail is a chronological record of system activities that is sufficient to enable the reconstruction, review, and examination of the sequence of environments and activities surrounding or leading to an operation, a procedure or an event in a transaction from its inception to final results. Audit trail may apply to information in an automated information system, to the routing of messages in a communications system, or to material exchange transactions, such as in financial audit trails.

**AUDITING** An AT&T ISDN term for the monitoring of the status of either the network or the ISDN set.

**AUDIX VOICE POWER** A voice processing application, part of Integrated Solution III (IS-III), that provides Automated Attendant, call answering, voice-mail, message drop, and information services for use with the AT&T Merlin telephone system.

**AUGER** A type of drill bit typically used to make large, deep holes for passing wire or cable through wood.

**AUI** Autonomous Unit Interface or Attachment Unit Interface. Most commonly used in reference to the 15 pin D type connector and cables used to connect single and multiple channel equipment to an Ethernet transceiver.

**AUP** Acceptable Use Policy. The term used to refer to the restrictions placed on use of a network; usually refers to restrictions on use for commercial purposes.

**AURAL** Relating to the sense of hearing.

**AUSTPAC** A packet-switched network implemented in Australia.

**AUTHENTICATE** To establish, usually by challenge and response, that a transmission attempt is authorized and valid. To verify the identity of a user, device, or other entity in a computer system, or to verify the integrity of data that have been stored, transmitted, or otherwise exposed to possible unauthorized modification.

## NEWTON'S TELECOM DICTIONARY

A challenge given by voice or electrical means to attest to the authenticity of a message or transmission.

**AUTHENTICATION** The process whereby a user or information source proves they are who they claim to be.

**AUTHORING** Authoring is the process of using multimedia applications to create multimedia materials for others to view. Multimedia authoring uses many tools, from the more familiar text editor or desktop publishing application, to tools for capturing and manipulating video images or editing audio files. Authors might include specialized creators of training, sales, or corporate applications such as insurance claims processing. Or, they might be creators of everyday business communications like voice-annotated email. Over time, everyone involved in business communications will probably have some level of multimedia authoring capability.

**AUTHORING SYSTEM** Software which helps developers design interactive courseware easily, without heavy computer programming. See **AUTHORING**.

**AUTHORIZED AGENT** Also called Authorized Sales Agent. A term chosen by some of the Bell operating companies and many of the cellular phone companies to refer to companies which sell their network services on commission. Some of these companies have specific industry knowledge and have written specialized software. The idea is to work with businesses to arm them with the absolute best package of telecommunications hardware, software and services.

**AUTHORIZED BANDWIDTH** The necessary bandwidth required for transmission and reception of intelligence. This definition does not include allowance for transmitter drift or Doppler shift.

**AUTHORIZED FREQUENCY** A frequency that is allocated and assigned by an authority to a specific user for a specific purpose.

**AUTHORIZATION** Think of charging things on your MasterCard, Visa, or American Express card. If the store cannot authorize the amount of your purchase, your Visa card will not allow you to make the purchase. Authorization is needed for many long distance calls, especially those made using credit cards, telephone company calling card, etc. Authorization is done by the operator's computer checking with the remote validation database service. See **BVA**, **BVS** and **VALIDATION**.

**AUTHORIZATION CODE** A code in numbers and/or letters employed by a user to gain access to a system or service. If you are making a call out on a restricted line, the PBX will ask you for an authorization code. If you have one, your call will go through. If not, your call will be denied (i.e. not go through). Authorization codes come in various flavors. Some can be used for making long distance calls. Some can be used also for international calls, etc. See **AUTHORIZED USER**.

**AUTHORIZED USER** A person, firm, corporation or any other legal entity authorized by the provider of the service to use the service being provided.

**AUTO ADJUST** An AT&T ISDN term. The automatic setting of the baud rate. The baud rate is automatically set through the use of the AT portion of the command line. The speed of the computer is determined from the A and the parity is determined from the combination of the A and T. For this reason, it is not neces-

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