

# NEWTON'S TELECOM DICTIONARY

12<sup>th</sup> Edition

by Harry Newton



## NEWTON'S TELECOM DICTIONARY

saging systems. All the control information and the voice message itself, is conveyed between systems in digital form. By contrast, the AMIS-Analog specification calls for the use of DTMF tones to convey control information and transmission of the message itself is in analog form. AMIS was discussed in detail in the October 1990 issue of Business Communications Review, a monthly magazine out of Hinsdale, IL. AMIS specifications are available from Alison Caughman 404-355-7785.

**Audio Response Unit** A device which translates computer output into spoken voice. Let's say you dial a computer and it said "If you want the weather in Chicago, push 123, then it would give you the weather. But that weather would be "spoken" by an audio response unit. Here's a slightly more technical explanation: An audio response unit is a device that provides synthesized voice responses to dual-tone multi-frequency signaling input. These devices process calls based on the caller's input, information received from a host data base, and information carried with the incoming call (e.g., time of day). ARUs are used to increase the number of information calls handled and to provide consistent quality in information retrieval. See also AUDIOTEX and INTERACTIVE VOICE RESPONSE.

**Audio Track** The section of a videodisc or tape which contains the sound signal that accompanies the video signal. Systems with two separate audio tracks (most videodiscs) can offer either stereo sound or two independent soundtracks.

**Audiographics** The technology which allows sound and visual images to be transmitted simultaneously. According to AT&T, audiographics generally refers to single frame or slow frame visual images as opposed to continuous frame image transmission (e.g. television). Audiographic transmission is often used to teach or train people in remote locations from an educational institution or business 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 AUDIOTEX.

**Audio/visual Multimedia Services** AMS is an ATM term. It specifies service requirements and defines application requirements and application program interfaces (APIs) for broadcast video, videoconferencing, and multimedia traffic. AMS is being developed by the ATM Forum's Service Aspects and Applications (SAA) working group. An important debate in the SAA concerns how MPEG-2 applications will travel over ATM (asynchronous transfer mode). Early developers chose to carry MPEG-2 over ATM adaptation layer 1 (AAL 1); others found AAL 5 a more workable solution. Recently, some have suggested coming up with a new video-only AAL using the still-undefined AAL 2.

**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 File** On some systems, each time a billing file is generated, an audit file is created to record the details of the generation process.

**Audit Trail** A record of all the events that occur when user's 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. Audit trails are great for finding out what activity caused the disaster, the network to crash, etc. Audit trails are great for tracing crooks, i.e. unauthorized break-ins.

**Auditing 1.** An AT&T ISDN term for the monitoring of the status of either the network or the ISDN set.

**2.** Tracking activities of users by record and selected types of events in the security log of a server or a workstation.

**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.

**Augmentation Of Bandwidth** Bandwidth augmentation is the ability to add another communications channel to an already existing communications channel.

**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. 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. In other words, the process of determining the identity of a user attempting to access a system. Authentication codes are exchanged between two computers that use SMTP. I believed that defining authentication was pretty simple until I came across the following definition in a book on cryptography. Here it is: Authentication is any technique enabling the receiver to automatically identify and reject messages that have been altered deliberately or by channel errors. Also, can be used to provide positive identification of the

sender of a message. Although secret (symmetric) key algorithms may be used for some authentication without the prior sharing of any secrets between the messaging parties. See AUTHENTICATION TOKEN.

**Authentication Center** See AuC.

**Authentication Random Number** A random value used in authentication procedures.

**Authentication Sequence Number** A sequence count that is incremented for each change of Authentication Random Number (ARN).

**Authentication Token** A portable device used for authenticating a user. Authentication tokens operate by challenge/response, time-based code sequences, or other techniques. An example is Security Dynamics Technologies Inc. SecurID card. See AUTHENTICATION.

**Auto Discovery** Auto discovery is what takes place when a new device is added to a network. That device (e.g., an ethernet board, a modem, a router) communicates to the network management system that it is online and defines its key characteristics.

**Autochanger** A jukebox-style optical media system that permits the storage and playback multiple discs. Autochangers are available for both 5-, 8-, and 12-inch optical discs.

**Autoresponder** A piece of software usually found on the Internet. Send it an email and it automatically responds with information.

**Authoring** Authoring is the process of using multimedia applications to create multimedia materials (including Web pages) 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. A specialized, high-level, plain-English computer language which permits non-programmers to perform the programming function of courseware development. The program logic and program content are combined. 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 Dealer** See DEALER.

**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 necessary to set speed and parity parameters for the ISDN set.

**Auto Answer** The capability of a phone, a terminal, a video phone, a modem or a computer to answer an incoming call and to set up a connection without anyone actually doing anything to physically answer the call. I have auto answer on my video phone. When it rings, my phone answers and I see who's calling. It's nice.

**Auto Attendant** A shortened name for an automated attendant, a device which answers a company's phones, encourages you to touchtone in the extension you want, and rings that extension. If that extension doesn't answer, it may send the call to voice mail or back to the attendant. It may also allow you to punch in digits and hear information, e.g. the company's hours of business, addresses of local branches, etc. See also AUTOMATED ATTENDANT.

**Auto Baud** Automatic speed recognition. The ability of a device to adapt to the data rate of a companion device at the other end of the link.

**Auto Baud Detect** See AUTO BAUD.

**Auto Busy Redial** A feature of a phone or phone system where the phone has the ability to keep trying a busy number until answered. The circuit actually recognizes the busy tone, hangs up, and dials again. One of the greatest time-savers ever invented.

**Auto Call** Automatic Calling; a machine feature that allows a transmission control unit or a station to automatically initiate access to (i.e. dial) a remote system over a switched line.

**Auto Dial** A feature of phone systems and modems which allows them to dial a long phone number (usually long distance) by punching fewer buttons than there are numbers to dial. One button auto dial on electronic phones is very common these days. Most communications software programs will allow you to auto dial a string of 35 to 40 digits, which you may need if you are dialing through a complex network.

**Auto Dial Auto Answer** A modem feature. Auto Dial lets you dial a phone number through your modem, using your personal computer or data terminal keyboard. Auto Answer permits the modem to automatically answer the incoming call without