

# NEWTON'S TELECOM DICTIONARY

**The Official Dictionary of  
Telecommunications & the Internet**

- IP Telephony • LANs & Intranets • Call Centers & Computer Telephony
- Fiber Optics, SONET and DWDM • Satellites
- Voice, Data, Image & Video Networking • Wired and Wireless Telecom • VoIP • T-1, T-3, T-4, E-1, E-3 • ISDN & ADSL • Cable Modems • Cellular, PCS & GSM • Windows 95, 98, NT, NetWare, Apple, Sun & Unix Networking • Ecommerce



**by Harry Newton**

DISH, Exh.1017, p.0001

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signal by changing its phase, or position, Phase Shift Keying (PSK) in modems. CPM dependent technique which requires that the compare the value of the starting phase of the signal to the value of the ending phase of the permitted signal. Thereby, the value of the transmission can be determined, as long as the transmitter carefully synchronized and the bit interval consistent in time. Each value can represent depending on whether a compression technique improve the efficiency of data transmission.

**Continuous Waves** A series of wave or all of which have a constant or unvarying amplitude.  
**Continuously Variable** Capable of having an infinite number of values, differing from each other by a small amount. Usually used to describe analog transmission.

**Contract** For the purposes developing applications in the telecommunications industry, there are two types: Active and Passive. An active contract is one where the user is actively participating. A passive contract is the type of contract you use when you purchase a software package. By opening the shrink wrapper and committing yourself to the terms of the contract package — the terms of which mostly consist of agreeing to the software in an authorized way.

**Contributing Whore** A title given to a person who provides information for control or signal circuits.

**Control Channel** Within a cellular telephony system, a channel is assigned as a control channel. Instead of supporting voice communications, it allows the base station to broadcast information to cellular phones in its area. Cellular phones continuously receive broadcast information, selecting the base station that provides the best signal.

**Control Character** A non-printing ASCII character that controls the flow of communications or a device. Characters are entered from computer terminal keyboard down the Control key (marked CTRL or CNTRL) while the letter is pressed. To ring a bell at a terminal, an operator could hold down the CTRL "G" key, since Control-G is the BELL character. Characters display Control as the "^" character in front of the letter. For example, ^M is the Carriage Return.  
**Control Circuit** X.21 interface circuit used to transfer information from DTE to DCE.

**Control Connections** A Control VCC link in a LECS. Control VCCs also link the LEC to the LE\_ARP traffic and control frames. The control frames carry data frames.

**Control Equipment** 1. The central control unit in a telephone system. That part which controls the switching to the attached telephones. (Known as key service unit) in a key system.  
2. Equipment used to transmit orders from a remote site to enable you to do things by remote control.

**Control Field** Field in frame containing control information.

**Control Flag** A cellular phone term. A 6-bit flag in the forward channel data stream, composed of busy/idle flag and one bit of the 5-bit decode.

**Control Head Roam Lights** Indicates that the phone is outside the "home" system.  
**Control Of Electromagnetic Radiation** Measures taken to minimize electromagnetic radiation emission from a system or component, or to minimize electromagnetic interference. Such measures are taken for purposes of security and/or the reduction of interference, especially on ships and aircraft.

2. A national operational plan to minimize the use of electromagnetic radiation in the United States and its possessions and the Panama Canal Zone in the event of attack of imminent threat thereof, as an aid to the navigation of hostile aircraft, guided missiles, or other devices.

**Control Of Flow Language** Programming-like constructs (IF, ELSE, WHILE, GOTO, and so on) provided by Transact-SQL so that the user can control the flow of execution of SQL Server queries, stored procedures, and triggers. This definition from Microsoft SQL server.

**Control Panel** The control panel on the Apple Macintosh is for general hardware and software settings. Icons allow a user to customize the system or application, or select a particular service, such as a specific printer, set the sound level, the date and time and choose an Ethernet connection through the network control panel.

**Control Plane** The ATM protocol includes a Control Plane which addresses all aspects of network signaling and control, through all 4 layers of the model.  
**Control Point** A program that manages an APPN network node and its resources, enabling communications to other control points in the network.  
**Control Segment** A worldwide network of Global Positioning System monitoring and control installations that ensure the accuracy of satellite positions and their clocks.

**Control Signal** 1. In the public network, control signals are used for auxiliary functions in both customer loop signaling and interoffice trunk signaling. Control signals are used in the customer loop for Coin Collect and Coin Return and Party Identification. Control signals used in interoffice trunk signaling include Start Dial (Wink or Delay Dial) signals, Keypulse (KP) signals or Start Pulse (ST) signals.

2. In modem communications, control signals are modem interface signals used to announce, start, stop or modify a function. Here's a table showing common RS-232-C and ITU-T V.24 control signals

| Pin | Control Signal            | From | To  |
|-----|---------------------------|------|-----|
| 4   | Request-To-Send (RTS)     | DTE  | DCE |
| 5   | Clear-To-Send (CTS)       | DCE  | DTE |
| 6   | Data Set Ready (DSR)      | DCE  | DTE |
| 8   | Carrier Detect (CD)       | DCE  | DTE |
| 20  | Data Terminal Ready (DTR) | DTE  | DCE |
| 22  | Ring Indicator (RI)       | DCE  | DTE |

**Control Station** On a multi-access link, a station that is in charge of such functions as selection and polling.  
**Control Tier** An AT&T term for the tier within the Universal Information Services network node that provides the transport network's connection control function.

**Control Unit** An architectural component of a processor chip which orchestrates processor activity and handles timing to make sure the processor doesn't overlap functions.  
**Controlled Access** When access to a system is limited to authorized programs, processes or other systems (as in a network).  
**Controlled Environment Vault** CEV. It is a low maintenance, water-tight concrete or fiberglass container typically buried in the ground which provides permanent housing for remote switches, remote line concentrators, pair gain and fiber transmission systems. Because it is buried, it can often be installed in utility easements or other places where local building laws may be a problem. This below ground room that

houses electronic and/or optical equipment is under controlled temperature and humidity conditions.

**Controller** 1. In the truest sense, a device which controls the operation of another piece of equipment. In its more common data communications sense, a device between a host and terminals that relays information between them. It administers their communication. Controllers may be housed in the host, can be stand-alone, or can be located in a file server. Typically one controller will be connected to several terminals. The most common controller is the IBM Cluster Controller for their 370 family of mainframes. In an automated radio, a controller is a device that commands the radio transmitter and receiver, and that performs processes, such as automatic link establishment, channel scanning and selection, link quality analysis, polling, sounding, message store and forward, address protection, and anti-spoofing.  
2. Participant in a conference call who sets up the conference call.

**Controller Card** Also called a hard disk/diskette drive controller. It's an add-in card which controls how data is written to and retrieved from your PC's various floppy and hard drives. Controller cards come in various flavors, including MFN and SCSI. Controller cards are the devices used to format hard drives. Controller cards are not hard drive specific (except within categories). Controller cards will format many drives. But once you have a hard drive that has been formatted by that one controller card, it tends to prefer talking to that controller card forever. If you switch your hard disk to another machine, switch the controller card along with it. If you switch your hard disk to another machine, but not the controller card, then format the hard disk. That's not a "100% Do It Or Else You'll Be Disappointed" rule. But just a "Play It Safe and Switch Them" rule.  
**Contouring** In digital facsimile, density step lines in received copy resulting from analog-to-digital conversion when the original image has observable gray shadings between the smallest density steps of the digital system.  
**CONUS** A military term for CONTiguous United States (lower 48 states). See Contiguous United States.

**Convection Cooling** Design techniques used in switching system construction to permit safe heat dissipation from the equipment without the need for cooling fans.  
**Convector** The device which covers the steam heating radiator in buildings and typically sits underneath a window. Also called a weathermaster.

**Convective Area** An area allocated for heat circulation and distribution. Convector areas, typically built into a wall, can be used as a satellite location only if a more suitable area is unavailable.

**Convergence** 1. A measure of the clarity of a color monitor. A measure of how closely the red, green and blue guns in a color monitor track each other when drawing a color image. The other measures are focus and dot pitch.  
2. A LAN term. The point at which all the internetworking devices share a common understanding of the routing topology. The slower the convergence time, the slower the recovery from link failure.  
3. The word to describe a trend, now that most media can be represented digitally, for the traditional distinctions between industries to blur and for companies from consumer electronics, computer and telecommunications industries to form alliances, partnerships and other relationships, as well as to raid each others markets.  
4. The word "convergence" was set in motion in 1992 when

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giving me money and making Ms. Thomas feel muchly appreciated. Thus her recent email correspondence with me: Thanks for all the hard work and the upcoming hard work ahead. It's been a pleasure. Congrats on a great deal. Chatkash coming. You know what Chatkash are? Yes. It's all the stuff you've been re-gifting to me. The queen. A deserved title. If only I were 20 years more handsome and much smarter. Three traits to the riddley.

**Regional Bell Operating Company** RBOC. Also (Regional Holding Company or RHC. One of the seven (five) Bell operating companies set up after Divestiture, of which own two or more BOCs (Bell Operating Companies). The RBOCs were carved out of the old AT&T/Bell by Judge Harold Greene when he signed off on the future of the Bell operating companies from AT&T in 1984. There is nothing magical about seven — nor the splitting of Bell Operating Companies (BOCs) into RBOCs — the Judge wanted to keep them all roughly the same so he personally assigned which Bell operating company to join which Regional Bell Operating Company. The RBOCs are Ameritech, Bell Atlantic, BellSouth, NYNEX, Telesis, Southwestern Bell and US West. In early 1994, Southwestern Bell changed its name to SBC Communications, Inc. But its telephone companies, it said, will still operate under the Southwestern name. In April, 1996, Bell Atlantic bought NYNEX (the holding company for New York Telephone and New England Telephone) for \$22.1 billion. The new company will be called Bell Atlantic. In April 1997, SBC Communications (the name for the holding company owning Southwestern Bell Telephone) bought Pacific Telesis (the holding company for Pacific Bell) for \$16.7 billion. In early 1998, this left five regional Bell operating companies — Ameritech, Bell Atlantic, BellSouth, SBC Communications and US West.

Some of the Divestiture placed business restrictions on AT&T and the BOCs. Those restrictions were threefold: The BOCs were not allowed into long distance, equipment manufacturing, information services. AT&T wasn't allowed into local telecommunications (i.e. to compete with the BOCs). But it was allowed into computers. The federal Judge overseeing Divestiture, Judge Harold Greene, is slowing the lifting the restrictions. He has allowed the BOCs into information services and AT&T into local service. He has stayed firm on the other two — no equipment manufacturing and no long distance for the RHCs (also called RBOCs).

**Regional Center** A control center (Class 1 office) controlling sectional centers of the telephone system together.

**Regional Holding Company** RHC. Also called Regional Bell Operating Company. See Regional Bell Operating Company.

**Register 1.** See Traffic Register.

A temporary-memory device used to receive, hold, and transfer data (usually a computer word) to be operated upon by a processing unit. The register holds the information for manipulation by the telephone system or a computer. In an automatic telephone system, a register receives dialed pulses and pushbutton tones and then uses that information to control a switch. Computers typically contain a variety of registers. General-purpose registers perform such functions as accumulating arithmetic results. Other registers hold the instructions being executed, the address of a storage location, or data retrieved from or sent to storage. Other words associ-

sequence, read-only storage, permanent storage, random-access memory and shift register.

**Register Differences** The difference in traffic register reading after a specified time has elapsed. See also Traffic Register.

**Registered Access** In the context of message handling services, access to the service performed by subscribers who have been registered by the service provider to use the service.

**Registered Jack** RJ. Any of the RJ series of jacks, described in the Code of Federal Regulations, Title 47, part 68 used to provide interface to the public telephone network. See also RJ-11, RJ-45.

**Registered user** A user of a Web site with a recorded name and password. In a FrontPage web, you can register users with a WebBot Registration component.

**Registrant** See gTLD.

**Registration Sequence Count** An 8-bit counter maintained by the Mobile End System (M-ES) and incremented on each successful establishment of a data link connection with a serving Mobile Data Intermediate System (MD-IS). Used to prevent registration errors due to varying network transit delays between serving MD-IS and home MD-IS.

**Registration Statement** A statement, required by Section 76.12 of the FCC Rules, which is used to notify the FCC that one or more broadcast stations will be carried by the cable television system in a specified Community Unit.

**Registered Terminal Equipment** Terminal equipment which is registered for connection to the telecommunications network in accordance with Subpart C of Part 68 of the FCC's Rules. If a terminal device has been properly registered it will have an identification number permanently affixed to it.

**Registers** An ISDN term. Registers are named storage areas for numbers or strings of characters that control the operation of the ISDN set.

**Registration** The address registration function is the mechanism by which Clients provide address information to the LAN Emulation Server.

**Registration Number (FCC Part 68)** Approval number given to telephone equipment to certify that a particular device passes the tests defined in Part 68 of the FCC Rules. These tests certify the phone won't cause any harm to the public network. They do not attest to the commercial value of the product, nor whether it will (or won't) sell. See Registration Program.

**Registration Program** The Federal Communications Commission program and associated directives intended to assure that all connected terminal equipment and protective circuitry will not harm the public switched telephone network or certain private line services. The program requires the registering of terminal equipment and protective circuitry in accordance with Subpart C of part 68, Title 47 of the Code of Federal Regulations. This includes the assignment of identification numbers to the equipment and the testing of the equipment. The registration program contains no requirement that accepted terminal equipment be compatible with, or function with, the network. In other words, a product registered under Part 68 doesn't mean that the product will actually work — i.e. make and receive phone calls (or whatever). Part 68 simply says it won't cause any harm to the network. See Registration Number and Part 68.

**Registration Timer Values** Time values passed from Mobile Data Intermediate System (MD-IS) to a Mobile End System (M-ES) to inform the M-ES of the period of registration. The M-ES must register again prior to expiration of the



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