

# NEWTON'S TELECOM DICTIONARY

The Official Dictionary of Telecommunications  
Networking and Internet

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## Context Corporation / Control Equipment

tention and lost. See also Ethernet.

**Context Corporation** An independent consultancy headed by Ray Horak, Consulting Editor of Newton's Telecom Dictionary. In fact, and according to Horak's mother, wife and children, The Context Corporation is the world's greatest consultancy, headed by the world's greatest, sweetest and most handsome man. Note: Horak's ex-wives (and others) have offered differing and unprintable definitions.

**Context-Based Access Control** See CBAC.

**Context Dependent Soft Keys** Many telephones now have an LCD screen. Sometimes such screens have unmarked keys underneath them and/or at their side. What these keys do depends on the "labels" appearing on the screen. They are called "context dependent" because what those keys do depends on where the call is at that time. The first context dependent soft keys were on the Mitel SuperSet 4 phones. When the handset was resting on the phone, only three of the six context sensitive keys had meaning. One said "Program," one said "Msg" and one said "Redial." When you picked the phone up, three buttons would now be alive. One would say "Page," one would say "Redial" and one would say "Hangup." If the phone rang and you picked it up, one button would now say "trans/conf" (meaning transfer/conference. When another phone was ringing, one button would say "Pickup," letting you push that button and answer someone else's phone. And so on. The neatest implementation of context sensitive keys was probably on the Telenova (now no longer manufactured). At one point when you were in voice mail, this phone's six buttons looked exactly like a cassette recorder — record, play, fast forward, fast reverse, etc. It was brilliant. No one has ever made using voice mail so easy.

**Context Keys** Buttons on a phone or device that have a display next to them. The buttons perform different functions depending on the what the screen shows when you press the button. See Context Dependent Soft Keys.

**Context Sensitive** A term from the computer industry which means that "Help" is only a keystroke away. Hit F1 and Help information will flash on the screen. That information will be relevant to what you're doing now, i.e. that help is within the context of what's going on right this moment. See also Context Dependent Soft Keys.

**Context Switch** The technique with which an Intel 80x86 microprocessor handles multitasking is called a context switch. The CPU performs a context switch when it transfers control from one task to another. In the process, it saves the processor state (including registers) of one task, then loads the values for the task that is taking control. Context switching is the kind of multitasking that is done in standard mode Windows, where the CPU switches from one task to another, rather than allocating time to each task in turn, as in timeslicing.

**Contextual Ecommerce** Imagine you receive a email from your friendly CD supplier. In it, he talks about the latest from Madonna. The email mentions the name of the CD. You notice its title is in blue and underlined — like a hot link to a Web site. You click on it. Instantly, you've bought the CD. You receive it the next day by Fedex. Bingo, we now have contextual ecommerce.

**Contiguous Port** Ports occurring in unbroken numeric sequence.

**Contiguous Slotting** This term refers to the process of selecting individual DS-0 circuits, within a DS-1 circuit or DS-3 circuit, which are adjacent to one another. Due to the timing difference which can result when non-adjacent channels are selected, contiguously slotted channels are preferable when the end equipment is designed to multiplex the individual low-speed channels into a single, higher speed connection.

**Contiguous United States** The area within the boundaries of the District of Columbia and the 48 contiguous states as well as the offshore areas outside the boundaries of the coastal states of the 48 contiguous states, (including artificial islands, anchored vessels and fixed structures erected in such offshore areas for the purpose of exploring for, developing, removing and transporting resources therefrom) to the extent that such areas appertain to and are subject to the jurisdiction and control of the United States within the meaning of the Outer Continental Shelf Land Act, 43 U.S.C. Section 1331, et seq.

**Continental Telecom Inc.** CONTEL. A telephone company made up of more than 600 small phone companies. In 1990 it merged with GTE in a tax-free swap of shares. CONTEL was formed and grown by Charles Wohlstetter, an ex-stockbroker, who became financially comfortable (to say the least) in the process of growing CONTEL. In late 1990, CONTEL merged with GTE, which is a euphemism for GTE buying ConTEL.

**Continental Morse Code** See Morse Code.

**Continuity** An uninterrupted electrical path.

**Continuity Check** A check to determine whether electrical current flows continuously throughout the length of a single wire on individual wires in a cable.

**Continuity Check Tone** CCT. A single frequency of 2000 Hz which is transmitted by the sending exchange and looped back by the receiving exchange. Reception of the returned indicates the channel is working. See ITU-T Recommendation.271.

**Continuous** A word used in voice recognition to mean a type of recognition that requires no pause between utterances.

**Continuous DTMF** This is a feature of some phones (especially cellular phones) that sends touchtone sounds for as long as the key is held down, allowing access to services such as voice mail and answering machines that need long-duration tones. Some phones automatically have continuous DTMF; some don't. It's worth checking. Continuous DTMF makes a lot more sense.

**Continuous Information Environment** A term for the world we live in — in which information (text, voice, video, images, etc.) is flowing at us continuously. And our job is, somehow, to manage the information. The idea is to use the new computer telephony terms to manage the information.

**Continuous Phase Modulation** CPM. An efficient means of modulation for purposes of digital transmission over a radio system, such as microwave. CPM modulates the signal by changing its phase, or position, much as does Phase Shift Keying (PSK) in modems. CPM is a memory-dependent technique which requires that the receiving device compare the value of the starting phase of the transmitted signal to the value of the ending phase of the previously transmitted signal. Thereby, the value of the transmitted symbols can be determined, as long as the transmitter and receiver are carefully synchronized and the bit intervals, therefore, are consistent in time. Each value can represent one or more bits, depending on whether a compression technique is used to improve the efficiency of data transmission. See also PSK.

**Continuous Waves** CW. A series of electromagnetic waves or cycles, all of which have a constant or unvarying amplitude. Continuous wave usually refers to the output of a device (e.g., an optical fiber laser) which is turned on, but which is not modulated with a signal.

**Continuously Variable** Capable of having one of an infinite number of values, differing from each other by an arbitrarily small amount. Usually used to describe analog signals or analog transmission.

**Contract** For the purpose developing applications in the telecommunications industry, there are two types of contracts: Active and Passive. An active contract is one you must sign. A passive contract is the type of contract you find in a software package. By opening the shrink wrapped package, you are committing yourself to the terms of the contract inside the package — the terms of which mostly consist of not duplicating the software in an unauthorized way.

**Control** In switching systems, the overall control of the switches. This includes monitoring to determine when action is needed, logic to determine what action is needed, and command, to initiate the actions.

**Control Cable** A multiconductor cable made for operation in control or signal circuits.

**Control Channel** A control channel is a logic channel carrying network information rather than actual voice or data messages. Within a cellular telephone system, several of the channels are assigned as "control" channels. Instead of supporting voice communications, these channels allow the base station to broadcast information to the cellular phones in its area. Cellular phones continuously monitor this broadcast information, selecting the base station that provides the best signal.

**Control Character** A non-printing ASCII character which controls the flow of communications or a device. Control characters are entered from computer terminal keyboards by holding down the Control key (marked CTRL on most keyboards) while the letter is pressed. To ring a bell at a remote telex terminal, an operator could hold down the CTRL key, and tap the "G" key, since Control-G is the BELL character. Most computers display Control as the "^" character in front of the designated letter. For example, ^M is the Carriage Return character.

**Control Circuit** X.21 interface circuit used to send control information from DTE to DCE.

**Control Connections** A Control VCC links the LEC to the LECS. Control VCCs also link the LEC to the LES and carry LE\_ARP traffic and control frames. The control VCCs never carry data frames.

**Control Equipment** 1. The central "brains" of a telephone system. That part which controls the signaling and switching to the attached telephones. Known as the KSU (or key service unit) in a key system.



Release, or a Second Edition, or a software release with a number that differs from the previous one because it includes a number after the decimal point. For example, Side Office 4.0 is new updated, improved software. Side Office 4.01 is a bug fix or service package to fix Side Office 4.0.

**Service Period** The time during which the telephone company furnishes a circuit.

**Service Observing Period (month)** A telephone company term. All business days of a month (approximately 22 days). It is recommended that the period established for measuring dial tone speed and incoming matching loss coincide as closely as possible with the Service Observing Month.

**Service Points** The points on the customer's premises where such channels or facilities are terminated in switching equipment used for communications with phones or customer-provided equipment located on the premises.

**Service Portability** A telephone company AIN term. The ability of an end user to retain the same geographic or non-geographic telephone number (NANP numbers) as he/she changes from one type of service to another. The INC Number Portability Workshop agreed that NANP numbers (e.g., 800, 500, 555, 950) should not be service portable for applications outside of their respective industry approved service definitions or guidelines, should those definitions or guidelines exist.

**Service Profile Identifier** See SPID.

**Service Provider 1.** A Windows Telephony Applications standard which lies between Windows Telephony and the network. It defines how the network — anything from POTS to T-1, from a Northern Telecom to an AT&T PBX

— shall interface to Windows Telephony, which in turn talks to the Applications Programming Interface, which talks to the Windows telephony applications software. See Windows Telephony.

2. An organization that provides connections to a part of the Internet. If you want to connect your company's network, or even your personal computer, to the Internet, you have to talk to a "service provider." Also called an ISP, i.e. Internet Service Provider.

3. A service provider is also a company which provides information to people who call up on a phone or on a modem.

4. An SCSA computer telephony definition. An addressable entity providing application and administrative support to the client environment by responding to client requests and maintaining the operational integrity of the server.

5. A telecommunications service provider.

**Service Provider Messages** An SCSA definition. The message information required by, and provided by, the service provider to perform its functions in the environment in which it is installed. Contrast with SCSA Message Protocol Interface. See Service Provider.

**Service Provider Network Identifier** SPNI. An identifier for the service provider operating a particular CDPD network.

**Service Provider Portability** A telephone company AIN term. The ability of an end user to retain the same geographic or non-geographic telephone number (NANP numbers) as he/she change from one service provider to another.

**Service Provisioning Tool** What the computer industry calls a network manager, the telephone industry calls a service provisioning tool. It is a complex piece of software that allows telephone companies to contact their various switches and sundry computers dispersed over a wide geographic area, to log onto those machines and to upload, download and organize those machines so they are able to make different, new, updated software services for the telephone industry's customers. Telephone companies use various networks to get into their remote switches. Those networks might vary from dial-up to ISDN to packet switched networks to T-1. The better service provisioning tools allow one technician in one place to update and test multiple central offices and computers simultaneously.

**Service Quality** A call center term. A measure of how well staffing matches workload, expressed often as average delay (in answering a call).

**Service Terminal** The equipment needed to terminate the channel and connect to the phone apparatus or customer terminal.

**Service Traffic Management** STM. The platform functionality for detecting overloads associated with a specific service and for sending service-specific control messages to the appropriate entities. STM is the SLEE (Service Logic Execution Environment) functionality for detecting overloads associated with a specific service and for sending Automatic Code Gap messages to the appropriate entities. The SN&M (Service Negotiation and Management) OA (Operations Application) also provides STM (Service Traffic Management)-related capabilities.

**Service Switching Point** SSP. A telephone company AIN term. A switching system, including its remotes, that identifies calls associated with intelligent network services and initiates dialogues with the SCPs in which the logic for the services resides. See SSP.

**Services Management System** SMS. Administers 800 Data Base Service numbers on a national basis. Customer records for 800 Service are entered into the SCP through this system. See Eighthundred Service.

**Services Node** SN. A network system in the AIN architecture containing functions that enable flexible information interactions between an end user and the network.

**Services On Demand** An AT&T term for the immediate provision of almost any network service through universal ports, whenever required by a user; as opposed to provision via an expensive, time consuming, inflexible service order process.

**Serving Area Interface** A serving area interface is part of a phone company's outside plant. It is a fancy name for a box on a pole, a box attached to a wall or a box in the ground that connects the phone company's feeder or subfeeder cables (those coming from the central office) to the drop wires or buried service wires that connect to the customer's premises. It's also called a cross-wire box. See also Feeder Plant and Drop Wire.

**Serving Closet** The general term used to refer to either a riser or a satellite closet; Satellite Cabinet; Satellite Closet.

**Serving Mobile Data Intermediate System** A cellular radio term. The CDPD network entity that operates the Mobile Serving Function. The serving MD-IS communicates with and is the peer endpoint for the MDLP connection to the M-ES.

**Serving Office** An office of AT&T or its Connecting or Concurring Carriers, from which interstate communications services are furnished.

**Serving Wire** The term for the phone number that serves the location, referring to the phone number and terminating wire as one unit. Usually applies to a POTS number.

**Serving Wire Center** The wire center from which service is provided to the customer.

**Servlet** An applet that runs on a server. The term usually refers to a Java applet that runs within a Web server Web server environment. This is analogous to a Java applet that runs within a Web browser browser environment. Java servlets are becoming increasingly popular as an alternative to CGI programs. The biggest difference between the two is that a Java applet is persistent. This means that once it is started, it stays in memory and can fulfill multiple requests. In contrast, a CGI program disappears once it has fulfilled a request. The persistence of Java applets makes them faster because there's no wasted time in setting up and tearing down the process.

**Servo** Short for servomechanism. Devices which constantly detect a variable, and adjust a mechanism to respond to changes. A servo might monitor optical signal strength bouncing back from a disc's surface, and adjust the position of the head to compensate.

**SERVORD** Service Order.

**SES 1.** Satellite Earth Stations.

2. Severely Errored Second. A second in which a severe number of errors are detected over a digital circuit. Each error comprises a code violation (CV), such as a bipolar violation. The specific definition of SES depends on the type of circuit involved, e.g. T-1, T-3, OC-3 and OC-48. See also CV and ES.

3. Source End Station: An ATM termination point, which is the source of ATM messages of a connection, and is used as a reference point for ABR services. See DES.

**Sesame** Secure European System for Applications in a Multivendor Environment. Developed by the ECMA (European Computer Manufacturers Association), it is intended for very large networks of disparate origin.

**Session 1.** A set of transmitters and receivers, and the datastreams that flow between them. In other words, an active communication, measured from beginning to end, between devices or applications over a network. Often used in reference to terminal-to-mainframe connections. Also a data conversation between two devices, say, a dumb terminal and a mainframe. It may be possible to have more than one session going between two devices simultaneously.

2. As defined under the Orange Book, a recorded segment of a compact disc which may contain one or more tracks of any type (data or audio). The session is a purely logical concept; when a multisession disc is mounted in a multisession CD-ROM player, what the user will see is one large session encompassing all the data on the disc.

**Session Description Protocol** See SDP.

**Session Initiation Protocol** See SIP.

**Session key** A digital key that is created by the client, encrypted, and sent to the server. This key is used to encrypt data sent by the client. See also Certificate, Digital