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Glossary of Long Distance Terms

ACTA (America's Carriers Telecommunication Association)—National trade association dedicated to the needs of the small, non-dominant long distance carrier.

AIN (Advanced Intelligent Network)—Bellcore's switching concept that centralizes a significant amount of intelligence rather than constantly placing more and more information in the central office switch. The AIN infrastructure makes possible a great number of long distance services, such as national 800-number service and Virtual Access to Private Networks. (See also IN.)

ALT (Alternative Local Transport)—An alternative to the established local telephone company for carrying local traffic. Usually these companies construct a fiber ring in an urban area to attract businesses to use their services in addition to or in place of the services of the local telephone company.

AMA (Automated Message Accounting)—Format in which a digital switch usually creates the usage data used for billing.

ANI (Automatic Number Identification)—A feature that sends a calling party's telephone number over the network to the operator or called party.

ATM (Asynchronous Transfer Mode)—A transmission/switching scheme that is used for very high speed transmission. ATM will be the technology of choice for multimedia transmission.

BHCC (Busy Hour Call Completion)—A term used in traffic measurement. Normally there is one hour of the day that is considered the "busy hour." Equipment is provisioned based on this measurement.

BLSR (Bidirectional Line Switched Ring)—SONET transport network configuration in which network nodes are connected in a ring, and traffic can be instantly re-routed in the other direction around the ring in the event of a cable cut or degradation of optical signal, thereby routing around the point of failure.

BOC (Bell Operating Company)—Any of the 22 regulated telephone companies that are organized into seven Regional Bell holding companies. See RBOC.

CAP (Competitive Access Provider)—Carrier that offers an alternative to the traditional telephone company to carry traffic. See ALT.

CCS7 (Common Channel Signaling No. 7)—Signaling protocol adopted for intelligent networking, in which signaling information for a number of trunks is transmitted on a separate link. Often referred to as SS7, the basis for 800-number database translations, calling card validation, and other advanced services.

CDR (Call Detail Recording)—Raw data on long distance use, which is generated by the long distance network and generally passed to the local exchange carrier to be included on the subscriber's combined local/long distance monthly bill.

CIC (Carrier Identification Code)—Five- to seven-digit number that identifies which interexchange carrier a call will use. Subscribers can dial these digits with each long distance call, or can pre-subscribe to a particular carrier and let the digital switch software add the CIC.

COCOT (Customer Owned Coin Operated Telephone)—In as much as pay phones are no longer the sole province of the telephone company, any entrepreneur can buy, place, and collect from a set of privately owned pay phones.

CompTel (Competitive Telecommunications Association)—

National trade association dedicated to the survival and prosperity of fully competitive marketplace composed of many participants.

CPE (Customer Premise Equipment)—

The telecommunications equipment located on a customer's premises. Usually refers to key systems, private branch exchanges (PBXs), telephones, and computers.

DAL (Dedicated Access Line)—Network connection, often leased from a local exchange carrier or competitive access provider, that provides a direct link from a customer to the long distance network. Typical DALs include outbound WATS lines, PBX tie trunks, and foreign exchange lines.

DS-1, DS-3 (Digital Signal)—Digital transmission rates for time division multiplexing. DS-1 transmits voice, data, and signaling at 1.544 Mbps. With the same data rate as T-1, DS-1 is equivalent to 24 DS-0 channels. DS-3 operates at 45 Mbps, equivalent to 28 DS-1 facilities. SONET equivalents are VT and STS-1.

DWS (Dialable Wideband Service)—An alternative name for multi-rate ISDN. Provides dialed data connectivity at desired bandwidth on a per-call basis (from 128 kbps through 1.536 Mbps in 64 kbps increments).

IDDD (International Direct Distance Dialing)—Sometimes known as “international 15-digit dialing,” feature that allows subscriber to directly dial international numbers

IEC (Interexchange Carrier)—See IXC

IN (Intelligent Network)—The generic term for the Advanced Intelligent Network

IOC (Independent Operating Company)—A local exchange carrier that is not one of the Bell Operating Companies, largely operating in rural and small town areas.

ISDN (Integrated Services Digital Network)—

In its simplest form (Basic Rate Interface), ISDN provides a means of transmitting two voice channels (each operating at 64 kbps) and one data channel (operating at 16 kbps) over a single pair of twisted copper conductors. Long distance providers, however, would use the Primary Rate Interface ISDN, in which there are 23 “B” bearer channels operating at 64 kbps and one “D” data channel operating at 64 kbps. This interface is commonly used to connect customer PBX systems directly to the long distance network, thereby bypassing the local exchange carrier and the access fees it would charge for long-distance calls.

ITU-TSS (International Telecommunications Union—Telecommunications Standards Sector)—

An international group charged with establishing telecommunications standards (formerly CCITT, Comité Consultatif Internationale de Telegraphique et Telephonique).

IXC (Interexchange carrier)—

Telecommunications company that transmits information between LATAs, frequently simply called long distance carriers.

LAN (Local Area Network)—A local communications network connecting computer terminals or workstations, such as personal computers in an office or college campus. LANs are also used in the long distance network to connect off-switch processors, such as computers that provide billing, workforce management, voice recognition, and directory assistance databases.

LATA (Local Access and Transport Area)—

The geographic area that is the domain of the local exchange carrier. Traditionally, calls within a LATA are handled by a local exchange carrier; calls from one LATA to another (known as interLATA calls) are carried by an interexchange carrier.

LEC (Local exchange carrier)—The local telephone company, generally divided into Regional Bell Operating Companies and Independent Operating Companies. A number of large CAPs are now considered LECs.

Matched Nodes—A capability of SONET rings to ensure traffic can be rerouted around a failed site.

MFJ (Modified Final Judgment)—Official name for the 1982 Federal court ruling resulting in divestiture of the Bell Operating Companies from AT&T.

MTS (Message Telecommunications Service)—Ordinary long distance phone call that originates with switched access through a local exchange carrier, is passed to a long distance carrier for interLATA transport, then terminated to the called party through a local exchange carrier on the other end.

NPA (Numbering Plan Area)—Another name for area code. The three-digit NPA makes up the first part of every phone number in the North American Numbering Plan (NANP).

NXX—Often referred to as the “prefix,” the second three numbers in telephone number, after area code, which identify the central office

OC-n (Optical Carrier)—The hierarchy of optical SONET signals at multiples of 51.840 Mbps. Typical line rates are OC-1 (51.84 Mbps), OC-3 (155.520 Mbps), OC-12 (622.08 Mbps), OC-48 (2,488.32 Mbps), and OC-192 (10 gigabits per second). A direct counterpart to the electrical STS-N.

OS (Operations System)—A system that furnishes tools to provide network control, monitoring, and business functions from a centralized location. Nearly all pieces of network equipment or major network functions have an OS.

PBX (Private Branch Exchange)—Customer premises version of a central office switch. Business customers may use dedicated access lines from a long distance carrier to connect PBX systems directly to the long distance switch, bypassing the local telephone company.

PIN (Personal Identification Number)—Authorization number (usually composed of the caller’s telephone number plus a four-digit code) that allows subscribers to access their long distance carriers when away from home.

POP (Point of Presence)—The physical location where a long distance carrier terminates lines before connecting to the local exchange company, another carrier, or directly to a customer.

PRI (Primary Rate Interface)—An ISDN trunk interface often used by long distance carriers for dedicated access lines. See ISDN.

RBOC (Regional Bell Operating Company)—A term for the seven Regional Holding Companies created when AT&T divested the Bell Operating Companies.

SCE (Service Creation Environment)—A set of tools and activities required to create new services for subscribers in the AIN arena.

SCP (Service Control Point)—The centralized network element in the Advanced Intelligent Network architecture that individual switches call on to obtain information and commands necessary for completing an AIN call.

SDH (Synchronous Digital Hierarchy)—Similar to SONET, it is a standard for synchronous digital transmission used outside of North America.

SMS (Service Management System)—The operations support system for Advanced Intelligent Networking. Provides the mechanism for downloading new features and monitoring the AIN network.

SONET (Synchronous Optical Network)—Family of optical transmission rates and interface standards allowing interworking of products from different vendors. Base optical line rate is 51.840 Mbps. Higher rates are direct multiples. The most accepted standards are OC-3, OC-12, OC-48, and OC-192.

SS7 (Signaling System No. 7)—An out-of-band signaling system used to provide basic routing information, call set-up, and other call termination functions. Signaling is removed from the voice channel itself and put on a separate data network. Also known as Common Channel signaling No. 7 (CCS7).

SSP (Service Switching Point)—That node of the Intelligent Network normally associated with an end office. The entrance to the Intelligent Network.

STP (Signal Transfer Point)—A packet switch in the SS7 network that enables cost-effective routing of SS7 signals between other network elements.

STS (Synchronous Transport Signal)—The electrical equivalent of the SONET-defined optical signal with a base rate of 51.840 Mbps. STS-1 is the SONET equivalent of DS-3.

TRA (Telecommunications Resellers Association)—National trade association that represents resellers' interests through government relations on the state and federal levels.

TRS (Telecommunications Relay Service)—Special service for the hearing impaired, required of all local and long distance carriers that provide voice transmission.

VAPN (Virtual Access to Private Networks)—A networking scheme that uses public network facilities to extend private network calling to remote site.

VT (Virtual Tributary)—The electrical equivalent of the SONET-defined signal with a base rate of 1.544 Mbps. VT1.5 is the SONET equivalent of DS-1.

WATS (Wide Area Telephone Service)—Discounted toll service offered on an inward or outward basis. Inward WATS is better known as 800 service.

WDM (Wave Division Multiplexing)—A method for transmitting two or more separate signals on the same fiber path by carrying each signal at a different wavelength.

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