

Glossary of Telco Terms

■Access

Generally refers to the connection between your business and the public phone network, or between your business and another dedicated location. A large portion of your business phone bill typically consists of monthly recurring charges that cover access costs. Examples of access include individual business lines, digital T-1 connections, or dedicated access lines to long distance companies.

■Analog

The original and still prevalent technology used for local telephone telecommunications transmission. Analog signals are direct reproductions of sound waves. Voice conversations, computer data, and video can be sent via analog technology; however, digital technology can be more reliable, particularly at high bandwidths (speeds). The world is rapidly adapting digital as the new standard. Some modern digital phone equipment will not work with analog phone lines.

■Backbone

The main connectivity device in a network. All systems that connect to the backbone can connect to each other. This does not prohibit systems from setting up separate arrangements to connect directly with each other, bypassing the backbone, for cost, performance, or security reasons.

■Bandwidth

Capacity or volume inherent in every telecommunications line. For example, the standard business data line has a bandwidth capacity of 64 Kbps (kilobits per second), which is more than enough for a clear voice conversation. Higher bandwidths are needed for the transfer of more complicated information such as large amounts of computer data or video. Sometimes companies with high bandwidth demands need dedicated private lines to ensure that the whole bandwidth capacity is available to them at all times. A higher bandwidth rating means that data moves faster.

BPL

Broadband over Power Lines

■Central Office

The physical point where your business line is connected by your local phone company to other subscribers. Telecom deregulation mandates that the phone company's central office computers be able to connect your call to customers of any other local phone company and to the long distance network of your choice. The central office is part of the Public Switched Telephone Network (PSTN).

■Centrex

A service offered by your local phone company. Centrex makes "intelligent" features available to any individual business phone, without your company having to buy or maintain additional equipment. Centrex service is like "leasing" PBX (private branch exchange) features from your phone company instead of investing in your own PBX equipment.

■Channel

A path of communication, also called a line or circuit. A channel often refers to a single digital communications link within a larger connection such as a T-1.

■Circuit Switching

A communications method in which a dedicated path is identified to connect two end points. The telephone system is an example of a circuit-switched network: a link is established, data transferred (the conversation, fax, etc.) and then the link is released.

■CIR (Committed Information Rate)

The rate at which a Frame Relay network agrees to transfer information under normal conditions, averaged over a minimum increment of time. One of the most common metrics is to measure performance in bits per second.

■Combo Trunk

Also referred to as "Two-Way." A circuit which may be used for either incoming calls to your company or outgoing calls by employees.

■Copper Wire

Used for more than 100 years to build telephone networks, copper wire is still the predominant type of wiring used by the local Bell companies to reach homes and businesses. Today, telecommunications companies are building new lines and replacing old ones with fiber optics and other high speed transmission media instead of copper wire.

■Data

A generic term referring to any telecommunications transmission other than voice conversation. Examples include computer file transfer, computer networking, Internet access, and video transmission. Data transmissions are greatly enhanced by larger bandwidth connections that supply faster transmission speed.

■Dedicated Data Service

Also called "private line" or "leased line." A direct connection between your business and another location, that bypasses the public switched phone network. This service guarantees the entire bandwidth will be available to you at all times and will not be constrained by any "traffic" from the public network. Dedicated data service is available in speeds ranging from 64 kilobits per second (Kbps) to 45 megabits per second (Mbps).

■Dedicated Internet Access

Also called "private Internet connection." A dedicated data connection that bypasses the local phone company to connect your business directly to an Internet service provider. Unlike dial up or "shared" Internet service, dedicated private Internet connection can be accessed simultaneously by multiple users within your company's local area network (LAN).

■Dedicated Long Distance

A service that allows you to connect your business phone system directly to the long distance company network of your choice. Long distance calls are then routed directly to the long distance carrier, bypassing the local phone company's central office. Monthly access charges are billed for the dedicated connection, but the long distance per-minute rates are typically greatly reduced.

■Dial-up Access

A data connection made between two computers through a standard telephone line using a modem. Dial-up access is used by traveling employees to connect them to your company's network or to other services such as the Internet from a remote location. Dial-up connections are typically limited by the speed of the modem or the capacity and quality of the public switched telephone network - often a copper telephone line.

■Direct Inward Dialing

Enables the employees of your company to each have their own phone number, and enables the phone system to route incoming calls directly to the employee's phone rather than through a receptionist or automated voice response routing system. The DID line must connect to a PBX (private branch exchange) located on your premise. Typically, a company will share one DID line per 10 employees.

■Digital

A digital telecommunications signal is one which is transmitted using bits of information instead of sound waves. Digital signals can provide a more accurate reproduction than traditional analog sound waves, and digital technology can be used for all the same purposes such as voice conversations, computer data, and video transmission. Many of today's high speed, high quality computer communications are made possible by digital technology. The newest phone networks being built are constructed using 100% digital technology.

■DOD (direct Outward Dialing)

Enables your employees to dial a number outside the company without having to go through a receptionist or attendant. Usually done by dialing "9" to access an outside line before dialing the phone number itself. DOD assures the availability of an outside line no matter how heavy the incoming phone traffic. The DOD line must connect to a PBX (private branch exchange) located on the business's premise.

■DS-0

The base unit of digital service transmission capacity, equal to 64 kilobits per second (Kbps). It describes the digital speed for services that use a single dedicated telephone line, for instance a dedicated Internet connection for a small office.

■DS-1

Also referred to as a T-1. DS-1 service transmits information at the rate of approximately 1.5 Mbps (megabits per second), enough for services that use a single dedicated telephone line, for instance a dedicated Internet connection for a small office.

■DS-3

Also called a T-3. DS-3 service transmits information at the rate of approximately 45 megabits per second (Mbps), which is the equivalent of about 28 DS-1 or T-1s, or 672 simultaneous voice conversations over the line. That's enough capacity or bandwidth to meet the communications needs of heavy telecom users such as huge corporations, universities, and hospitals. The right phone equipment, such as a digital PBX (private branch exchange), must be owned to utilize the DS-3.

■Encryption

Application of a specific algorithm to data so as to alter the appearance of the data making it incomprehensible to those who are not authorized to see the information.

■Extranet

A Web site that is accessible to authorized outsiders. An extranet provides various level of accessibility to outsiders (i.e. customers, vendors, etc.). You can access the extranet, typically if you have a valid user-name and password. In addition, your identity may determine which parts of the extranet you can view.

■Fiber Optics

A means of transmitting digital information over a glass strand or "fiber." Laser light pulses are sent over the glass strands in the form of digital signals (0s and 1s). Though only as thick as a human hair, each fiber optic strand has far greater capacity, or bandwidth, to carry information than copper wire.

■Firewall

A gateway between two networks that buffers and screens traffic that attempts to pass between the two networks.

■Fractional T-1

Businesses that want all of the features of a T-1 connection but do not need all the bandwidth a full T-1 supplies can sometimes arrange to lease a "fractional" T-1 from the phone company. The business then uses as much of the T-1's capacity as it needs and pays less than the cost of a full T-1 connection. Typically, any portion of the T-1 can be leased as a fractional T-1 and the phone company may lease the remaining capacity to another tenant in the same building.

■Frame Relay

High-speed data transfer using a shared digital network. Frame relay is provided by your phone company via data lines that are physically separate from the public switched telephone network (PSTN) that transmits voice conversations. Frame relay is cheaper than a dedicated data line because it is shared. An important benefit of frame relay is its "inherent redundancy", which means there is no single point of failure in the transmission because the data can be sent via multiple paths. Frame relay is particularly appropriate for Internet connections or other data transfer between computers.

■FX (Foreign Exchange)

A service that allows your business to have its dial tones supplied by a remote location. Often bought to preserve an existing phone number after a move or to use a phone number associated with another location (for example, a business close to, but not in, New York City might use FX service to have a New York telephone number to give the impression of being in the city).

■Home Region Call

A call placed within the local service area of a particular phone company. Generally transmitted without toll charges. IntraLATA.

■Hybrid System

A phone system that combines many of the features of a Key phone system and a PBX (private branch exchange) phone system. Not every incoming line appears on every phone, as in most Key systems, but the hybrid system can accommodate both Key and PBX phones.

■Inbound

Service that handles incoming calls (calls placed to a business) but not outgoing calls (calls made from the business). Generally this means toll-free 800 service (receiver pays) but can also refer to 700 and 900 services (callers pay). Customer service, catalog sales, insurance claims, technical support, and reservations are a few applications for inbound service.

■InterLATA

Communication between Local Access Transport Areas (LATAs), generally known as a "long distance call." For instance, a call you make to a location outside the calling area or LATA served by your local phone carrier. (see also LATA)

■Internet

A global network connecting government, educational, private, and commercial networks. The Internet can be accessed by a computer, regardless of the computer's standards and protocols, and it provides access to any other computer logged onto its network.

■Internet Service Provider (ISP)

A company that provides dedicated or dial up access to the Inter, either directly or indirectly to the Internet backbone. Generally, ISPs offer different types of service, suited for everything from small business and home use to specialized needs of larger companies, at varying price levels.

■Interstate

Between or among states. In telecommunications, this refers to a call placed outside the call originator's state. Interstate communications are regulated by the Federal Communications Commission (FCC).

■IntraLATA

Communication within a Local Access Transport Area (LATA). For instance, a call you make within the local service area of your local phone carrier. (see also LATA)

■ **Intranet**

A network based on Internet protocols belonging to an organization, usually a corporation, accessible only by the organization's members, employees, or others with authorization. An intranet's Web site looks and acts like any other Web site, but the access security surrounding an intranet fends off unauthorized usage. Intranets are used to share information.

■ **Intrastate**

In telecommunications, this refers to a call placed within state's boundaries. Intrastate communications are regulated by each state's public utility commission.

■ **ISDN**

Integrated Services Digital Network is a dial up technology that digitally enhances regular telephone lines to provide users much faster data connections. It is slightly less expensive than a fractional T-1, but ISDN is not scalable to a business' needs in terms of bandwidth. ISDN can be ideal for the home office environment or Internet connectivity.

■ **Inward Trunks**

Circuits dedicated to incoming calls only. Companies that want to ensure their customers can always reach them dedicate a fixed number of circuits as inward trunks.

■ **Key System**

A telephone equipment system in which the phones have several line buttons that can access outgoing or incoming calls directly to or from the local phone company's central office. Unlike a PBX (private branch exchange) system where your employees must dial "9" to get an outside line, Key System users can access outside lines directly from their set of line buttons on the phone.

■ **LAN**

Local Area Network or network used to link multiple computers at a single site (for instance, in a building or campus area). LANs enable workstations within your company to share data, software, and hardware such as printers or high speed modems.

■ **LATA**

(Local Access Transport Area) A geographic area defined by the courts within which local switched services are offered by a particular local phone company. There are 200 LATAs in the United States. Contrary to popular belief, LATAs have nothing to do with area codes.

■ **Line**

A path of communication. For residential customers, a line connects your individual phone with the local phone company's central office. For business customers, a line generally connects your phone system, rather than each individual phone, to your local central office.

■ **Long Distance Call**

A call placed outside the local service area of a local phone company. Long distance calls can be either intrastate or interstate. Generally, incremental use (per minute) charges apply and are billed by your long distance carrier.

■ **Modem**

A device that, when used with communications software, enables one computer to talk to another across phone lines. Data is converted by the modem into an analog signal to be carried over the traditionally analog telephone network. Derived from the term "modulator/demodulator."

■ **Monthly Recurring Charges**

Charges for phone service that occur every month as a "set" fee, rather than as a variable, incremental use charge. Monthly recurring charges include individual business lines, digital T-1 connections, or dedicated access lines to long distance companies. Basic phone service and advanced features such as call waiting, voice mail, and call forwarding are examples of monthly recurring charges for residential or business customers.

■ **PBX (Private Branch Exchange)**

When businesses reach a certain size, they often convert their phone systems from simple business lines or Key Systems to a PBX, which is a piece of equipment that acts as the company's own internal telephone "switch," or central office. The PBX handles internal company calls and all the connections to and from the public telephone network. It also manages the availability of outside circuits so the employee's phones, computers, and fax machines can get through. PBX systems typically allow businesses to take advantage of sophisticated features offered by local phone companies. For example, with DID (direct inward dialing) service, a PBX allows each employee to receive calls directly at their desk via a dedicated phone number, even if there are many more employees than available circuits.

■Private Line

A dedicated circuit to connect a company's equipment at both ends. Used most often for data transfer among multiple company locations - for example, retail stores, bank branches, manufacturing sites, and branch offices.

■RBOC (Regional Bell Operating Company)

Any one of seven local phone companies that were formed out of the old AT&T/Bell system: Ameritech, Bell Atlantic, Bell South, NYNEX, Pacific Telesis, Southwestern Bell (SBC), and US West. Before deregulation, RBOCs were the only companies authorized to sell local service in most areas of the United States. Also known as the "Baby Bells."

■Redundancy

Having one or more back-up communications systems to prevent system failure if one goes out. Modern telecommunications networks have redundancy built in to every critical component of the network.

■Regional Toll Call

A call placed to a location outside your local service area, yet within the area served by your local phone company. These calls are typically not covered by the monthly local service fee and are billed based on incremental (per minute) use.

■Resale

Some companies buy local and/or long distance service in large quantities and repackage it for "resale" to their customers. Most resellers do not own their own networks, but in many cases they discount prices to their customers. In some cases, they also add value in the form of consolidated billing or more customer service.

■Server

A computer dedicated to providing specific service to client computers. A computer that shares its resources - such as printers and files - with other computers on the network.

■Spam

Term used to describe unsolicited e-mail or newsgroup posts, often in the form of commercial announcements. The act of sending a spam is called spamming.

■Station

A term to describe a telephone based on how it is connected to the local central office (for example, the station lies behind the PBX [private branch exchange] or Key System). Can also refer to the line between an individual extension and the PBX or Key System.

■Switch

Equipment that routes a call. Many businesses refer to the "switch" or PBX (private branch exchange) in their phone closet. The term is more typically used to describe the huge computer switching centers that make up a phone company's central office. A switch responds to incoming signals and then connects or "switches" calls to the desired destination. The modern digital switches used in the newest phone networks are very advanced computer systems, providing sophisticated calling features and handling million of calls without interruption.

■Switched Service

A term describing regular local or long distance phone service that is "switched" or run through the local central office. All residential and many business services are switched services. Unlike "private line" service, where lines carrying only one customer's phone traffic run between two points, switched service is carried on the public telephone network.

■T-1

Also called a DS-1. T-1 service transmits information at the rate of approximately 1.5 Mbps (megabits per second), enough capacity to carry about 24 simultaneous voice conversations. Growing businesses sometimes find it economical to upgrade to T-1 service as an alternative to paying for an increased number of individual phone lines. Another reason to lease a T-1 connection is to use the capacity or bandwidth for high-speed data transmissions or Internet connections. The right phone equipment, such as a digital PBX (private branch exchange), must be owned to utilize T-1 Service.

■Trunk

A high capacity connection, usually between the PBX (private branch exchange) equipment in your office and your phone company's local central office. Trunks can be configured to handle only incoming calls, only outgoing calls, or a combination of both.

■Two-way

Also referred to as "combo trunk." A circuit that can be configured for either incoming calls to your company or outgoing calls by employees.

VOD

Video On Demand