

NENA

Master Glossary

Of

9-1-1 Terminology



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NENA Master Glossary of 9-1-1 Terminology

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National Emergency Number Association (NENA) Committee Chairs

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NENA STANDARDS

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1 Executive Overview

1.1 Purpose and Scope of Document

This “NENA Master Glossary of 9-1-1 Terminology” document is a guide for readers of NENA publications and tool for members of the NENA committees that prepare them. It defines the terms, acronyms and definitions associated with the 9-1-1 industry. Intended users of this document are any person needing NENA’s definition/description of a 9-1-1 related term.

1.2 Benefits

Use of this “NENA Master Glossary of 9-1-1 Terminology” will:

- provide a consistent definition for all definitions and acronyms identified with NENA Standards documents produced by the NENA Committees
- reduce the work required to establish definitions for consistently utilized terms and acronyms

1.3 Reason for Issue

This document is issued to provide a NENA perspective for Terms, Acronyms and Definitions associated with the 9-1-1 industry.

1.4 Reason for Reissue

NENA reserves the right to modify this document. Whenever it is reissued, the reason(s) will be provided in this paragraph.

March 1998, Original

October 2002, Updated to include new terms utilized within NENA standards documents and to adjust existing definitions to comply with technology improvements.

February 2003, Updated to include new terms utilized in revised 02-011 standard document and new 06-002, 06-003 standard documents.

October 2004, Updated to include new/revised terms utilized in the following documents:

- 03-501 Network Quality Assurance;
- 03-502 Trunking for Private Switch 9-1-1 Service; Future 9-1-1 Models TID;
- 05-001 Implementation of the Wireless Emergency Service Protocol E2 Interface;
- 05-501 SS7 guidelines for MSC to Selective Router Connectivity;
- 07-501 E9-1-1 and Emerging Technologies.

February 2005. Updated to reflect Operational Committees input and use of this document as well as Technical Committees.

November 2005. Updated to include terms and acronyms utilized in the following documents:

- 03-503 SS7 Guidelines for Wireline and VoIP Emergency Services Gateway Interconnection to 9-1-1 Selective Routers TID;
- 03-504 PSAP Callback to all 9-1-1 Callers, Combating Wireless E9-1-1 Fraud and Mobile Emergency Services (E9-1-1M) TID,
- 52-002 Managers Guide to Title II: Direct Access,
- 53-002 Mutual Aid Standard/Model Recommendation,
- 54-501 Human Resources Sub-Committee Resource List OID,
- 56-502 Minimum Standards for Emergency Telephone Notification Systems,
- 56-502 Milepost OID.

1.5 References

NENA Standards are registered by the NENA Executive Office and assigned an identifying number in accordance with the following numbering plan:

NENA-xx-yyy

Where “xx” represents the categories:

xx 01-25 represents Technical Committee Documents

01 for Technical Standards Administration

02 for Technical Data Documents

03 for Technical Network Documents

04 for Technical PSAP Documents

05 for Technical Wireless Documents

06 for Technical ALEC and Private Switch Documents

07 for Technical Non Traditional Communication Documents

08 for Technical VoIP/Packet Documents

yyy 501-599 represents Technical Information Documents

xx 51-99 represents Operational Committee Documents

51 for Operational Standards Administration

52 for Operational Accessibility Documents

53 for Operational Contingency Planning Documents

54 for Operational Human Resources Documents

- 55 for Operational Public Education Documents
- 56 for Operational Standard Operating Procedures Documents
- 57 for Operational Wireless Implementation Documents
- 58 for Operational VoIP Operations Documents
- 59 for Operational Location/GIS/Mapping Documents
- yyy 501-599 represents Operational Information Documents

NENA Standards Documents are available on the NENA WEB Site: www.nena.org

2 Terms/Definitions

<i>Term</i>	<i>Definition</i>
1A2	A designation for Key Telephone Systems which utilize an “A” lead for control.
9-1-1	A three-digit telephone number to facilitate the reporting of an emergency requiring response by a public safety agency.
9-1-1 Administrator	The administrative jurisdiction of a particular 9-1-1 system. This could be a count/parish or city government, a special 9-1-1 or Emergency Communications District, a Council of Governments, an individual PSAP or other similar body.
9-1-1 Service Area	The geographic area that has been granted authority by a state or local governmental body to provide 9-1-1 service.
9-1-1 System	The set of network, data base and CPE components required to provide 9-1-1 service.
9-1-1 Tandem	(see Enhanced 9-1-1 Control Office)
“A” Lead Control	A wire used to control the Key Telephone Unit in a 1A2 type Key Telephone System. In some E9-1-1 systems it is used to identify the position connected to the trunk.
Abandoned Call	A call placed to 9-1-1 in which the caller disconnects before the call can be answered by the Public Safety Answering Point (PSAP) attendant.
Access Line	The connection between a customer premises network interface and the Local Exchange Carrier that provides access to the Public Switched Telephone Network (PSTN).
Acoustic Coupler	The rubber cups, which hold the telephone handset on the TTY.
Advanced Mobile Phone Service (AMPS)	The analog radio interface utilized in cellular telephone systems.
Alarm Dry Contacts	A set of relay contacts which are caused to either open or close when an alarm condition occurs. (Ref. NENA 04-001)
ALI Retrieval	A request for ALI record from the PSAP to the ALI data base.
ALI Retrieval Rate	The number of requests for ALI that are not duplicated within a two (2) minute time frame.
All Circuits Busy (ACB)	A telephone line state that informs the caller that all available telephone lines are in use.
Alternate ISDN PSAP	(see Alternate Public Safety Answering Point)
Alternate Number	Used in Interim Number Portability (INP), the caller’s original telephone number which is call forwarded to the new carrier’s telephone number. Also known as Call Forward Number.
Alternate PSAP	A PSAP designated to receive calls when the primary PSAP is unable to do so.

Term	Definition
<i>Alternate Routing</i>	The capability of routing 9-1-1 calls to a designated alternate location(s) if all 9-1-1 trunks are busy or out of service. May be activated upon request or automatically, if detectable, when 9-1-1 equipment fails or the PSAP itself is disabled.
<i>Alternative Local Exchange Carrier (ALEC)</i>	(See Local Exchange Carrier (LEC))
<i>Alternative Methods of Notification</i>	Having the ability to locate the emergency caller and initiate emergency response. The adequacy of alternative methods of notification and responding to emergencies would be determined by appropriate governmental authorities operating pursuant to applicable legal requirements.
<i>Alternative Methods to Support Enhanced 9-1-1</i>	Methods used by a MLTS Operator to permit a 9-1-1 emergency response team reasonable opportunity to quickly locate a caller as alternatives to the MLTS signaling needed to produce the automatic display of caller location information on the video terminal of the call-taker.
<i>American Sign Language</i>	Language expressed through hands and body movements to express concepts rather than complete sentences. The grammatical structure is different than standard English.
<i>American Standard Code for Information Interchange (ASCII)</i>	This standard defines the code for a character set to be used for information interchange between equipment of different manufacturers and is a standard for data communications over telephone lines. In the context of TDD/TTY this refers to both a binary code and modulation method used for 110/300 baud TDD/TTY communications (per EIA PN-1663).
<i>Americans with Disability Act (ADA)</i>	Federal Legislation, passed into law July 26, 1990, that prohibits discrimination on the basis of disability.
<i>Amplitude Modulated</i>	The encoding of a carrier wave by variation of its amplitude in accordance with an input signal.
<i>Angle of Arrival (AOA)</i>	A terrestrial Location Determination Technology (LDT) that computes a transmitter's location based upon the angle at which the transmitter's radio signal strikes multiple receivers.
<i>Answering Position</i>	(see Attendant Position)
<i>Answering Position Unit (APU)</i>	A term used to define call-taking equipment.
<i>Answering Positioning Unit (APU)</i>	Answering Position Unit used to define call taking equipment.
<i>ArcNet</i>	Multiplexed switching technology used to transport small fixed packets called "cells".

Term	Definition
ASL Gloss	The reference to “ASL gloss” is when American Sign language is communicated through typing – as on a TTY – and many of the visual elements crucial to clear communications are lost.
Asymmetrical Digital Subscriber Line (ADSL)	A multi-channel modulation method for subscriber line access, unidirectional, running at 1-6 Mb/s from the end office to the end user.
Asynchronous Transfer Mode (ATM)	A high speed, connection oriented multiplexing and switching method, specified in international standards, utilizing fixed length cells to support multiple types of traffic. It is asynchronous in the sense that cells carrying user data need not be periodic.”
Asynchronous Transfer Mode (ATM) Adaptation Layer-AAL1, 2, 5	Used within an ATM network to convert the data from an end-user application into a form that fits into ATM cells [<i>the number relates to the applicable layer</i>]
Attendant Position	The Customer Premises Equipment (CPE) at which calls are answered and responded to by the Telecommunicator.
Auto-Re-Addressing	Feature that allows for delivery of a voice call to the jack where the caller’s device is currently connected after moving.
Automatic Alarm and Automatic Alerting Device	Any automated device which will access the 9-1-1 system for emergency services upon activation and does not provide for two-way communication. (Many states prohibit the dialing of 9-1-1 by an automated device.)
Automatic Call Distributor (ACD)	Equipment that automatically distributes incoming calls to available PSAP attendants in the order the calls are received, or queues calls until an attendant becomes available.
Automatic Collision Notification (ACN)	The process of identifying that a motor vehicle has been involved in a collision, collecting data from sensors in the vehicle, and communicating that data to a Call Center or PSAP.
Automatic Location Identification (ALI)	The automatic display at the PSAP of the caller’s telephone number, the address/location of the telephone and supplementary emergency services information.
Automatic Location Identification (ALI) Call Retrieval	A process of counting ALI data base queries not duplicated within a two (2) minute time frame.
Automatic Location Identification (ALI) Customer Retrieval	A process of counting ALI data base queries not duplicated within a twenty-four (24) hour time frame.
Automatic Location Identification (ALI) Data Base	The set of ALI records residing on a computer system.

Term	Definition
Automatic Location Identification (ALI) Discrepancy	An ALI Discrepancy is defined as a record being retrieved from ALI during an actual E9-1-1 call with incorrect address. For example, the house number or directional is wrong for the caller.
Automatic Location Identification (ALI) Multiplexer	A CPE component which performs the function of communicating with the ALI data base. An ALI Multiplexer typically works in conjunction with an ANI controller.
Automatic Location Identification (ALI) Queries	The act of querying/retrieving the automatic display at the PSAP of the address/location of the telephone and supplementary emergency service information related to the caller's telephone number.
Automatic Location Identification (ALI) Retrieval	The process of querying the 9-1-1 data base for ALI records.
Automatic Number Identification (ANI)	Telephone number associated with the access line from which a call originates.
Automatic Number Identification (ANI) Controller	A stand-alone CPE component which provides the ANI decoding and function key control for 9-1-1 service.
Automatic Number Identification Information Digits (ANI II Digits)	Digits in the Enhanced MF Signaling protocol that indicate to the PSAP CPE ANI display device whether the display should remain steady or flash, or if the call is a test call.
Average Busy Hour	The 1-hour period during the week statistically shown over time to be the hour in which the most telephone calls are received.
Backup Public Safety Answering Point (PSAP)	Typically a disaster recovery answering point which serves as a backup to the primary PSAP and is not co-located with the primary PSAP.
Basic 9-1-1	An emergency telephone system which automatically connects 9-1-1 callers to a designated answering point. Call routing is determined by originating central office only. Basic 9-1-1 may or may not support ANI and/or ALI.
Basic Rate Interface (BRI)	Interface by which ISDN terminals access the local switch that provides full-duplex ISDN basic rate access. The BRI is composed of two 64-kbps clear B channels for information (voice or data) transfer in either circuit or packet mode and one 16-kbps clear D channel for packet data information transfer and signaling communication with the Telco Switch.
Baud Rate	A measure of signaling speed in data communications that specifies the number of signaling elements that can be transmitted each second.
Baudot Code	A five-bit encoding scheme developed for Telex transmission that represents text, numerals, punctuation and control signals. It is the standard transmission signaling scheme used by TTY (TDD) devices. (per EIA PN-1663)

Term	Definition
Bell Operating Company (BOC)	Individual local telephone companies which were part of the Bell System prior to divestiture of AT&T.
Binary Coded Decimal (BCD)	A coding system in which each decimal digit from 0 to 9 is represented by four binary (0 or 1) digits. (Ref. NENA 04-002)
Building Unit Identifier (BUI)	A room number or equivalent designation of a portion of a structure/building.
Business Day	A 24 hour period of time beginning at midnight which is established by the Data Base Management System Providers' and/or Service Providers' hours of operation. Business days do not normally include Saturday and Sunday or any Provider's recognized holidays.
Busy Hour	The hour each day with the greatest call volume.
Busy Line Interrupt (BLI)	Ability of an operator in special circumstances or emergency situations to interrupt a conversation, if necessary at the request of a PSAP
Busy Line Verification (BLV)	An operator service whereby the operator checks a line to see if it is busy, off-hook, or whether some trouble has caused a false busy signal
Busy Tone	An audible signal indicating a call cannot be completed because the called access line is busy. The tone is applied 60 times per minute.
Cable TV/Telephony	Service that use hybrid coaxial/fiber network device to deliver voice grade communications.
Call Associated Signaling (CAS)	Allows for the device position or location information to be delivered to the emergency services network in the call signaling as part of the call setup information. With CAS, the originating network pushes the position information to an Emergency Services Network Entity (ESNE).
Call Back	The capability to recontact the calling party
Call Back Number	A number used by the PSAP to re-contact the location from which the 9-1-1 call was placed. The number may or may not be the number of the station used to originate the 9-1-1 call.
Call Check	(see Recall Recorder)
Call Delivery	The capability to route a 9-1-1 call to the designated selective router for ultimate delivery to the designated PSAP for the caller's ANI/KEY.
Call Detail Logging	The process of recording incoming call data. Also known as ANI printout. (Ref. NENA 04-001)
Call Detail Record (CDR)	The data information sent to the ALI computer by a remote identifying device (PBX, Call Position Identifier, ...) (From 03-007)
CallPath Associated Signaling (CAS)	A method for delivery of wireless 9-1-1 calls in which the Mobile Directory Number and other call associated data are passed from the Mobile Switching Center to the PSAP via the voice path.

Term	Definition
Call Progress Signals	Audible cues to advise 9-1-1 callers of the status of their call. (e.g. Busy Tone, Reorder Tone)
Call Relay	Forwarding of pertinent information by a PSAP attendant to the appropriate response agency (Not to be confused with Telephone Relay Service).
Call Routing	The capability to selectively route the 9-1-1 call to the appropriate PSAP.
Call Sequencer	A unit which monitors incoming calls at a PSAP and indicates to the answering positions, which of the incoming calls has been unanswered the longest.
Call Set-up Time	The amount of time between when a caller dials the last one (1) in 9-1-1 and the call is presented to the appropriate PSAP.
Call Taker Position	(see Attendant Position)
Call Transfer	The capability to redirect a call to another party.
Caller Hold	The capability of the PSAP to maintain control of a 9-1-1 caller's access line, even if the caller hangs up.
Calling Line Identification (CLID)	Signaling parameter that identifies the telephone number of the party placing a call.
Calling Party Hold	The capability of the PSAP to maintain control of a 9-1-1 caller's access line, even if the caller hangs up.
Calling Party's Number (CPN)	Typically a call back number associated with a wireless telephone. The CPN may also be the MDN, MIN, a temporary call back number, a tracking number or ID number and may not support call back in all cases.
Canadian Radio-television and Telecommunications Commission (CRTC)	Supervises and regulates broadcasting and telecommunications systems in Canada.
Carrier Frequency	The frequency of the unmodulated IRIG B or E signal.
Case Number	Tracking number used to reference recorded incidents and events. Related nomenclature: Call Number, Report Number, Incident number, Report number.
Cathode Ray Tube (CRT)	Video monitor used for displaying information.
Cell	The wireless telecommunications (Cellular or PCS) antenna serving a specific geographic area.
Cell face	(see Cell Sector)
Cell Sector	One face of a cell antenna (typically 3-sided) that operates independently of the other sectors.
Cell Site	The location of a cell and related equipment.

Term	Definition
Cellular Priority Access Service (CPAS)	A uniform nationwide method of providing priority access to authorized wireless subscribers in the event of an emergency.
Central Office (CO)	The Local Exchange Carrier facility where access lines are connected to switching equipment for connection to the Public Switched Telephone Network.
Central Office (CO) Transfer	A service provided by the Central Office that allows an established call to be transferred to another location.
Central Processing Unit (CPU)	The part of a computer which performs the logical, computational and decision making functions.
Centralized Automated Message Accounting (CAMA)	A type of in-band analog transmission protocol that transmits telephone number via multi-frequency encoding. Originally designed for billing purposes.
Centrex	A business telephone service offered by some Local Exchange Carriers that provides PBX type features over access lines.
Centrex-based Internet Protocol (CTX-IP)	Telco voice service that provides Internet protocol based private automatic branch exchange or PABX-like features on all lines sued by a single customer; the switching equipment is located at the central office and is operated and maintained by the Telco.
Channel Associated Signaling (CAS)	An option for the signaling channel (time slot 16) of an E1 interface; ITU G.704. Used on digital interfaces for signaling.
Circuit Route	The physical path between two terminal locations.
Class of Service	A designation of the type of telephone service, e.g. residential, business, centrex, coin, PBX, wireless.
Code Division Multiple Access (CDMA)	A digital radio interface utilized by some North American PCS carriers.
Commercial Call Center	A privately operated call center, which answers emergency and/or non-emergency calls.
Common Language Location Identifier (CLLI)	An 11-character code assigned to a central office to designate the physical location and area served. Characters 1-4 designate the rate center location, characters 5-6 designate the state code, characters 7-8 identify the central office, and characters 9-11 specify the equipment type.
Communications Impaired	A person who is deaf, hearing impaired, or speech impaired that requires use of assistive telecommunications technology.
Company Identifier (ID) 1	A 3-5 character identifier, that distinguishes the entity providing voice service (e.g., Wireline, Wireless, VoIP, PBX, etc.) to the end user. The company identifier registry is maintained by NENA in a nationally accessible data base.
Company Identifier (ID) 2	A 3-5 character identifier, that distinguishes the source of the ALI record information (e.g., service provider/reseller/private switch owner)

Term	Definition
Competitive Data Base Provider	A company that offers telephone subscriber data base services in competition to an Incumbent Local Exchange Carrier (ILEC). This company is usually an unregulated entity.
Competitive Local Exchange Carrier (CLEC)	(see Local Exchange Carrier (LEC))
Completion	Date and time stamp when Data Base Management System Provider's Data Rep has corrected and updated all ALI data bases.
Completion Date	Applies to the Service Provider's service order process date that does the physical disconnection of dial tone by the Donor Company and the physical connection of dial tone by the Recipient Company to an end user. The expectation is that the completion date should be the due date on the service order.
Computer Aided Dispatch (CAD)	A computer based system, which aids PSAP telecommunicators by automating selected dispatching and record keeping activities.
Computer Telephone Integration (CTI)	Integrating telephone function into a computing device.
Conference Transfer	The capability to bridge a third party onto an existing call. Also known as three-way calling.
Confidence/ Uncertainty	<p><u>Confidence</u>: The mathematically derived statistical estimate indicating how sure the measuring system is that the wireless Phase 2 location data estimate is accurate, within the bounds defined by the Uncertainty value. This is expressed as a percentage, such as 90%, or 45% etc. The specific value is not representative of the accuracy of the PDE locating system.</p> <p><u>Uncertainty</u>: The mathematically derived statistical estimate, expressed in meters, indicating the size of the area used in the calculation of Confidence. The specific value IS NOT representative of the accuracy of the PDE locating system.</p> <p><u>NOTE</u>: Because of the differences in the way that location vendors have implemented their technologies, the resulting Confidence & Uncertainty values cannot be viewed consistently across multiple carriers. Example (not indicative of any particular company): Wireless Service Provider "A" sends the following C&U 90%, 115 meters Wireless Service Provider "B" sends the following C&U 80%, 115 meters</p>
Consolidated PSAP	A facility where one or more Public Safety Agencies choose to operate as a single 9-1-1 entity.

Term	Definition
Constant Bit Rate (CBR)	A service class, where the bit rate is fixed, i.e., the traffic is not burst. Examples are voice and uncompressed video.
Contaminated Number Pooling	The practice of recovering full NPA-NXX's or thousands blocks of NPA-NXX's from Local Exchange Carriers who do not utilize the majority of numbers within the NXX block of 10,000 numbers. The unused numbers are assigned to other LECs. The numbers utilized within the pooled 1,000 blocks must be ported back to the LEC who is the Service Provider for the active numbers.
Coordinate Based Routing	The process of using a Coordinate Routing Data Base (CRDB) to perform selective routing on a 9-1-1 call based on the X, Y coordinates from which the call originated. The X, Y coordinates respectively represent the longitude & latitude of a position. The CRDB provides a translation between a given position expressed in X, Y coordinates, to an Emergency Services Zone, by determining the ESZ in which the coordinates are located.
Customer Comments	Supplementary information useful in dispatching, provided in conjunction with ALI displays.
Customer Premises Equipment (CPE)	Communications or terminal equipment located in the customer's facilities – Terminal equipment at a PSAP.
Cutover	The activation of a new telephone call processing or switching system.
Data Base	An organized collection of information, typically stored in computer systems, comprised of fields, records (data) and indexes. In 9-1-1, such data bases include MSAG, telephone number/ESN, and telephone customer records.
Data Base Management System (DBMS)	A system of manual procedures and computer programs used to create, store and update the data required to provide Selective Routing and/or Automatic Location Identification for E9-1-1 systems.
Data Base Management System Provider	Entity providing Selective Routing (SR) and/or Automatic Location Identification (ALI) data services.
Data Bit	A binary digit, either a zero (0) or a one (1).
Data Bit Free Run	A binary digit, either zero (0) or a one (1). The operating condition of a clock in which the location oscillator is not locked to an external synchronization reference, and is using no storage techniques to sustain its operating frequency.
Data Communications Equipment (DCE)	The designation for RS-232 and EIA/TIA-574 serial communication devices such as modems. Data Communications Equipment (DCE) typically connects to Data Terminal Equipment (DTE).
Data Exchange	The process of exchanging 9-1-1 data between Service Providers and the Data Base Management System Provider.
Data Processing Day	The day in which processing of a given service order update occurs.

<i>Term</i>	<i>Definition</i>
<i>Data Terminal Equipment (DTE)</i>	The designation for RS-232 and EIA/TIA-574 serial terminal devices such as data terminals or PCs. Data Terminal Equipment (DTE) typically connects to Data Communications Equipment (DCE).
<i>Decaying</i>	Directions from positive to negative, relative to the starting points, whose transient amplitudes decay with time in a ringwave pattern. These transients are typically caused by sources internal to the PSAP (motor, lighting and inductive loads, etc.) (Ref. NENA 04-001)
<i>Dedicated Trunk</i>	A telephone circuit used for a single purpose; such as transmission of 9-1-1 calls.
<i>Default Routing</i>	The capability to route a 9-1-1 call to a designated (default) PSAP when the incoming 9-1-1 call cannot be selectively routed due to an ANI/KEY failure or other cause.
<i>Delay</i>	Anything that is done to delay transmission of the packets such as protocol conversion, queuing, etc.
<i>Department of Justice (DOJ)</i>	A branch of the Federal Government legislated to oversee compliance of Title II of the ADA.
<i>Derived Voice Lines</i>	The VoDSL voice lines are derived from the data portion of the ADSL line. The phone numbers associated with the derived lines are assigned out of the Class 5 switch that the VoDSL Gateway connects to.
<i>Dial Tone First</i>	The provision of dial tone to enable a caller to originate and complete 9-1-1 calls from public telephones without inserting a coin or any other device. Also known as coin-free dialing.
<i>Digital Subscriber Line (DSL)</i>	A subscriber loop supporting one of the digital transmission techniques.
<i>Digital Subscriber Line Access Multiplexer (DSLAM)</i>	Terminates an ADSL line at the central office.
<i>Direct Access</i>	Defined by the DOJ as the capability for 9-1-1 to directly receive a TTY call without relying on relay or third party services.
<i>Direct Connect</i>	This is a method of connecting a TTY directly into the phone line. When using direct connect, you can dial directly from the keyboard and use auto-answer features.
<i>Direct Dispatch</i>	The performance of 9-1-1 call answering and dispatching by personnel at the primary PSAP.
<i>Direct Inward Dialing (DID)</i>	The ability for a caller outside a company to call an internal extension without having to pass through a switchboard operator or attendant at the MLTS.
<i>Directory Number (DN)</i>	A dialable 10-digit telephone number associated with a telephone subscriber or call destination.

Term	Definition
Disaster	Any event which can cause a significant disruption to emergency calling capability.
Disaster Recovery	A specific set of procedures designed to reduce the damaging consequences of unexpected events resulting in the loss of 9-1-1 capabilities.
Discrepancies	A Service Provider term used to describe subscriber records that do not match the MSAG and are referred to an error file or report for resolution.
Discrete Multi Tone (DMT)	The transmission medium for ADSL.
Disk Operating System (DOS)	A personal computer operating system which manages the computer's resources.
Diverse Routing	The practice of routing circuits along different physical paths in order to prevent total loss of 9-1-1 service in the event of a facility failure.
Domain Name Server (DNS)	Computing device having a first octet of 172-190.
Donor Company	The Service Provider currently responsible for an end user's telephone service prior to the migration of the telephone number to another Service Provider.
Dual Tone Multi-Frequency (DTMF)	The transmission of a selected number or symbol (*, #) via the generation of a specific pair of tones when that number's or symbol's button on a push button telephone is pressed. Also known as Touch-Tone™. The tones are audible and transmitted within the voice band.
Dynamic Host Control Protocol	Assignment of an IP address to a client from a host that is only viable during any one established session.
Echo	Return of transmitted data.
Electronic Industry Association (EIA)	U.S. trade organization that issues its own standards and contributes to the American National Standards Institute.
Electronic Key Telephone System (E-Key)	A multi-line telephone system which utilizes stored program control technology instead of KSU's and KTU's.
Electro-Luminescent Display (ELD)	A type of video display which creates images of graphics or text by direct conversion of electrical energy into light. An alternative to the Cathode Ray Tube (CRT).
Electronic Industry Association (EIA)	A trade organization of manufacturers that sets standards for use of its member companies conducts education programs and lobbies in Washington for its members' collective prosperity. Also associated with the Telecommunications Industry Association (TIA).
Emergency Alert Systems (EAS)	Radio or television based broadcast of emergency event information.

Term	Definition
Emergency Call	A telephone request for public safety agency emergency services which requires immediate action to save a life, to report a fire or to stop a crime. May include other situations as determined locally.
Emergency Location Identification Number (ELIN)	A valid North American Numbering Plan format telephone number, assigned to the MLTS Operator by the appropriate authority that is used to route the call to a PSAP and is used to retrieve the ALI for the PSAP. The ELIN may be the same number as the ANI. The North American Numbering Plan number may in some cases not be a dialable number.
Emergency Medical Service (EMS)	Fire, hospital, poison control, etc. response centers.
Emergency Message (EM) Circuits	The special service circuits used to carry 9-1-1 calls to the PSAP.
Emergency Notification Systems (ENS)	General category for any systems used to notify persons of an emergency. May include changeable message signs, sirens, telephone and other media.
Emergency Response Location (ERL)	A location to which a 9-1-1 emergency response team may be dispatched. The location should be specific enough to provide a reasonable opportunity for the emergency response team to quickly locate a caller anywhere within it.
Emergency Ring Back	The capability of a PSAP attendant to ring the telephone on a held circuit. Requires Calling Party Hold. Also known as re-ring. (A Basic 9-1-1 feature)
Emergency Service Central Office Number (ESCO)	The information delivered to the PSAP when there is an ANI failure between the end office and the 9-1-1 Control Office. When ANI is not available, the 9-1-1 call is default routed and the ANI display at the PSAP will be "911-OTTT" (or 911-TTTT) with TTT identifying the incoming trunk group.
Emergency Service Number (ESN)/ Emergency Service Zone (ESZ)	An ESN is a three to five digit number representing a unique combination of emergency service agencies (Law Enforcement, Fire, and Emergency Medical Service) designated to serve a specific range of addresses within a particular geographical area, or Emergency Service Zone (ESZ). The ESN facilitates selective routing and selective transfer, if required, to the appropriate PSAP and the dispatching of the proper service agency (ies).
Emergency Services Routing Digit (ESRD)	Either a 10-digit North American Numbering plan or non-NANPA number that uniquely identifies a base station, cell site, or sector that is used to route wireless emergency calls through the network. The ESRD may also be used to retrieve the associated ALI data with the call. These numbers can be dialable or non-dialable.
Emergency Services Routing Key (ESRK)	Either a 10-digit North American Numbering plan or non-NANPA number that uniquely identifies a wireless emergency call, is used to route the call through the network, and used to retrieve the associated ALI data. These numbers can be dialable or non-dialable.

Term	Definition
Emergency Service (ES) Trunks	Message trunks capable of providing ANI, connecting the serving central office of the 9-1-1 calling party and the designated E9-1-1 Control Office.
Emergency Stand Alone (ESA)	A feature within a remote switching unit (RSU) which allows for independent operation of the remote whenever the links between the host and remote are disabled. Based on translations the features are downloaded from the host to the remote prior to the failure.
Emergency Telephone Notification Systems (ETNS)	Specific category for a system that uses the telephone – in conjunction with other elements – including computer based hardware and software to notify persons of an emergency.
Emerging Technologies	New technologies and network to deliver communications.
End Office	(see Central Office (CO)).
End User	The 9-1-1 caller.
End User Move Indicator (EUMI)	A field in the Local Service Request (LSR) form that indicates the end user (subscriber) is changing Service Address during the porting process.
Enhanced 9-1-1 (E9-1-1)	An emergency telephone system which includes network switching, data base and CPE elements capable of providing Selective Routing, Selective Transfer, Fixed Transfer, caller routing and location information, and ALI.
Enhanced 9-1-1 (E9-1-1) Control Office	The Central Office that provides the tandem switching of 9-1-1 calls. It controls delivery of the voice call with ANI to the PSAP and provides Selective Routing, Speed Calling, Selective Transfer, Fixed Transfer, and certain maintenance functions for each PSAP. Also known as 9-1-1 Selective Routing Tandem or Selective Router.
Enhanced 9-1-1 (E9-1-1) Tandem Office	(see Enhanced 9-1-1 Control Office)
Environmental Services Research Institute (ESRI)	Software developer of geographical information system (GIS) software and technology.
Essex	(see Centrex)
Ethernet	A popular local area data communication network, which accepts transmissions from computers and terminals.
Exchange	A defined area, served by one or more telephone central offices, within which a Local Exchange Carrier furnishes service.
Exempt Lines	Access lines not subject to 9-1-1 charges.
Failed Migrate Record	A Function of Change (M) migrate transaction record sent to the E911 DBMS by the Recipient Company which fails to process because the DBMS E911 record is still locked.

Term	Definition
Fast Busy	(see Reorder Tone)
Feature Group D (FGD)	An MF signaling protocol, originally developed to support equal access to long distance services, capable of carrying one or two ten-digit telephone numbers.
Fixed Transfer	The capability of a PSAP attendant to transfer a 9-1-1 call to a pre-determined location by activating a single button.
Footprint	The geographic area covered by a particular wireless cell or cell sector.
Forced Disconnect	The capability of a PSAP attendant to disconnect a 9-1-1 call even if the calling party remains off-hook. Used to prevent overloading of 9-1-1 trunks.
Foreign Exchange Service (FX)	A telephone line switched in an exchange or central office other than the exchange or central office area in which the telephone is located.
Frame Relay	A dedicated digital transport service that routes information via switched packets. It is defined in ANSI data link level T 1.618.
Free Run	The operating condition of a clock in which the local oscillator is not locked to an external synchronization reference, and is using no storage techniques to sustain its operating frequency. (Ref. NENA 04-002)
Gateway	The Point at which a circuit-switched call is encoded and repackaged into IP packets – Equipment that provides interconnection between two networks with different communications protocols; two examples are packet assembler/disassemblers and protocol converters. Gateways operate at the 4 th through 7 th layers of the Open Systems Interconnection model.
Gateway Mobile Location Center (GMLC/MLC)	The GMLC serves as the point of interface to the GSM wireless network for the Emergency Services Network. The GMLC serves as the entity which retrieves, forwards, stores and controls position data within the location network. It receives Position Information from the wireless network, forwards it to the Emergency Service Network upon request and coordinates requests for position update.
Generic Digit Parameter (GDP)	Identifies the type of address to be presented in calls set up or additional numeric data relevant to supplementary services such as LNP or E9-1-1.
Geographic Number Portability (GNP)	A form of telephone number portability, where a telephone number may be ported outside its originally assigned rate center (e.g., across LATA boundaries, or to another state). This is different from Local Number Portability (LNP) where the telephone number must be reused within the same rate center.
Geographic Information System (GIS)	A computer software system that enables one to visualize geographic aspects of a body of data. It contains the ability to translate implicit geographic data (such as a street address) into an explicit map location. It has the ability to query and analyze data in order to receive the results in the form of a map. It also can be used to graphically display coordinates on a map i.e. Latitude/Longitude from a wireless 9-1-1 call.

Term	Definition
Global Positioning System (GPS)	A satellite based Location Determination Technology (LDT).
GR303	A Telcordia standard for communicating from a central office to a remote line module.
Grade of Service	The probability (P), expressed as a decimal fraction, of a telephone call being blocked. P.01 is the grade of service reflecting the probability that one call out of one hundred during the average busy hour will be blocked. P.01 is the minimum recommended Grade of Service for 9-1-1 trunk groups.
Global Standard for Mobile Communications (GSM)	International standard digital radio interface utilized by some North American PCS carriers.
Groupe Speciale Mobile (GSM)	Global System for Mobile Communications. The predominant digital telephone service technology outside the United States, with some services within the United States. The radio interface is either in the 9—MHZ or 1.8GHZ band.
H.323	Specified in International Telecommunications Union-Telecommunications (ITU-T) specification H.323, the specification for transmitting multimedia (voice, video, and data) across a network, and is used in some VoIP architectures.
Health Insurance Portability and Accountability Act (HIPPA)	Federal regulation protecting patients from unauthorized disclosure of medical information.
Hearing Carry Over (HCO)	A method which utilizes both voice and text communications on the same call, allowing a person who is speech impaired to listen to the other party's conversation and respond by typing via a TTY or other means of text communications.
High Bit Rate Digital Subscriber Line (HDSL)	A bi-directional T1 or DS1 service for the local loop, but restricted to being served from Carrier Service Area, probably at less than two miles from the subscriber.
Highway Call Box	A telephone enclosed in a box and placed along a highway that allows a motorist to summon emergency and non-emergency assistance.
Host Mobility	Powerful IP new routing capability that allows a device to move to another host network and still be identified.
Host Switch	An end office with an internal controller or intelligent process used to complete calls. A host switch controls the function of a remote switch unit (RSU) via a central "control" or "processor" resident within the host switch.

Term	Definition
Idle Circuit Tone Application	A feature which applies a distinctive tone toward the PSAP attendant to distinguish between calls that have been abandoned before the attendant answers, and calls where the caller is unable or unwilling to speak.
Impulse Transient	A high energy unidirectional voltage or current impulse resembling a “spike” which is typically caused by sources external to the PSAP (lightning, grid switching, etc.). (Ref. NENA 04-001)
Incident Commander	Title that identifies the individual responsible for a specific incident or event.
Incumbent Local Exchange Carrier (ILEC)	A telephone company that had the initial telephone company franchise in an area.
Instant Call Recorder	A device that allows the user to instantly playback all (or portions of) a call for service to clarify or validate what was heard by the operator to what was said by the caller. Also called and Instant Recall recorder.
Instant Playback Recorder	(see Recall Recorder)
Institute of Electrical and Electronic Engineers (IEEE)	A publishing and standards making body responsible for many telecom and computing standards.
Integrated Access Device (IAD)	Replaces the standard DSL modem at the customer premises. Typically has a built-in standard DMT based DSL modem, an Ethernet Interface for the PC or any other data device and anywhere from 4 to 12 analog ports for phones.
Integrated Services Digital Network (ISDN)	International standard for a public communication network to handle circuit-switched digital voice, circuit-switched data, and packet-switched data.
Integrated Service Digital Network Digital Subscriber Line (ISDL)	A digital interface providing multiple channels for simultaneous functions between the network and CPE
Integrated Services Digital Network User Part (ISUP)	A message protocol to support call set up and release for interoffice voice call connections over SS7 Signaling.
Intelligent Network	A telecommunications network that has functions and controls distributed at various nodes on and off the network, enabling great flexibility in transport. This is an SS7 network that includes components such as SSP (Signal Switching Point), STP (Signal Transfer Point), and SCP (Service Control Point or Switch Control Point – depending on the reference you read).
Intelligent Transport System (ITS)	Multi-disciplined plan, under the jurisdiction of the U.S. Dept. of Transportation, to improve traffic flow.
Intelligent Workstation (IWS)	Computer based 9-1-1 answering position equipment that includes computer telephony integration.

Term	Definition
<i>Interactive Voice Response (IVR)</i>	A computer system accessible by registered users utilized to identify the Service Provider and 24 X 7 access number for telephone numbers which have been ported or pooled.
<i>Interim Number Portability (INP)</i>	The practice of moving a customer to a new carrier using a new telephone number, with the old telephone number forwarded to the new telephone number.
<i>Inter-local Services Agreement</i>	An agreement among governmental jurisdictions or privately owned systems, or both, within a specified area to share 9-1-1 system costs, maintenance responsibilities, and other considerations.
<i>Inter-Range-Instrumentation Group (IRIG)</i>	This group, in 1959, proposed a series of time code formats now known as IRIG or NASA time codes. (Ref. NENA 04-002)
<i>Inter-Tandem Transfer</i>	The capability of transferring a call over the 9-1-1 network from a PSAP served by one 9-1-1 tandem to a PSAP served by a different 9-1-1 tandem.
<i>Internal Clock</i>	A time-of-day reference source for timing information in equipment or systems. (Ref. NENA 04-002)
<i>International Multimedia Teleconferencing Consortium (IMTC)</i>	VoIP Forum
<i>International Telecommunications Union – Telecommunications (ITU-T)</i>	International standards body for all communications services.
<i>Internet Assigned Number Authority (IANA)</i>	Responsible to assign public domain addresses.
<i>Internet Corporation Assigned Names and Numbers (ICANN)</i>	Emerging authority for public domain addresses and URL's.
<i>Internet Engineering Task Force (IETF)</i>	Lead standard setting authority for internet protocols.
<i>Internet Protocol (IP)</i>	The method by which data is sent from one computer to another on the Internet or other networks.

Term	Definition
Internet Protocol Address (IP Address)	A 32-bit address assigned to hosts using TCP/IP. An IP address belongs to one of five classes (A, B, C, D, or E) and is written as 4 octets separated by periods (dotted decimal format). Each address consists of a network number, an optional sub network number, and a host number. The network and sub network numbers together are used for routing, while the host number is used to address an individual host within the network or sub network.
Internet Protocol Security (IPSec)	IPSec is the next-generation network layer crypto platform. IPSec can be found on routers, firewalls, and client desktops
Internet Protocol Telephony (IP Telephony)	A general term for the technologies that use the IP's packet-switched connections to exchange voice, fax, and other forms of information that have traditionally been carried over the dedicated Circuit-Switched (CS) connections of the PSTN. The IP address may change each time the user logs on.
Internet Service Provider (ISP)	Company that provides Internet access to other companies and individuals
Internet Telephony Service Provider (ITSP)	A Company providing Internet based telephony services
International Telecommunications Union (ITU)	The telecommunications agency of the United Nations established to provide worldwide standard communications practices and procedures. Formerly CCITT
Interoperability	The capability for disparate systems to work together.
Interworking	Concept where systems or components from different origins or companies, running on different hardware and operating systems, working together to perform some tasks using common standard network procedure or protocol.
ISDN PSAP	(see Public Safety Answering Point)
Jack (RJ-11)	Standard 4-wire connector for phone lines.
Jitter	Packets arriving at a non consistent rate due to a type of distortion caused by the variation of a signal from its reference that can cause data transmission errors, particularly at high speeds.
Jurisdiction	A government agency that has contracted for Enhanced 9-1-1 service. This may be a county, a city, a COG, or a 9-1-1 Area.
Key Pulse (KP)	An MF signaling tone (digit)
Key Service Unit (KSU)	Equipment which provides ringing, lamp voltages, conference, etc. for multi-line key telephone sets.
Key Telephone System (KTS)	A multi-line telephone system comprised of multi-line telephone sets, KTU's and KSU's. Also a type of Multi-line Telephone System designed to provide shared access to several outside lines through buttons, or keys, typically offering identified access lines with direct line appearance or termination on a given telephone set.

<i>Term</i>	<i>Definition</i>
<i>Key Telephone Unit (KTU)</i>	A unit mounted in a KSU, required per line, providing key telephone control functions. E.g. hold, lamp, common ringing.
<i>Landline</i>	Colloquial term for the Public Switched Telephone Network access via an actual copper or fiber optic transmission line that travels underground or on telephone poles. Used to differentiate the “wireless” connectivity of a cellular or PCS system.
<i>LATA Switching Systems Generic Requirements (LSSGR)</i>	A set of Telcordia (formerly Bellcore) specifications defining the requirements of LATA switching systems.
<i>Light Emitting Diode (LED)</i>	Lamps used for display of information. Commonly used on telephone sets to indicate line status.
<i>Line Digital to Trunk (PSAP) (LDT)</i>	A type of Multi Frequency (MF) trunk interface that requires the PSAP equipment to dip the ALI data base.
<i>Liquid Crystal Display (LCD)</i>	A type of video display that creates images of graphics or text by aligning liquid crystals so that they reflect light. An alternative to the Cathode Ray Tube (CRT).
<i>Local Access and Transport Area (LATA)</i>	The geographical areas within which a local telephone company offers telecommunications services.
<i>Local Area Network (LAN)</i>	A transmission network encompassing a limited area, such as a single building or several buildings in close proximity.
<i>Local Exchange Carrier (LEC)</i>	A Telecommunications Carrier (TC) under the state/local Public Utilities Act that provide local exchange telecommunications services. Also known as Incumbent Local Exchange Carriers (ILECs), Alternate Local Exchange Carriers (ALECs), Competitive Local Exchange Carriers (CLECs), Competitive Access Providers (CAPs), Certified Local Exchange Carriers (CLECs), and Local Service Providers (LSPs).
<i>Local Exchange Routing Guide (LERG)</i>	A data base which defines inter-exchange call routing in the North American Public Switched Telephone Network. It associates NPA/NXX’s with their appropriate network elements.
<i>Local Loop</i>	A physical facility between a customer’s network interface and the local serving central office. The most common form of local loop is a pair of wires.

<i>Term</i>	<i>Definition</i>
<i>Local Notification</i>	A system capability whereby a call to 9-1-1 from a MLTS extension is directed through the 9-1-1 Network to a Public Safety Answering Point and simultaneously to a switchboard operator, attendant, or designated personnel where assistance can be provided to the Public Safety Answering Point to locate the caller and/or to assist in directing response. For Local Notification, the call back number shall be a phone number that can be dialed from the PSTN, which will be answered by the switchboard operator, attendant or designated personnel. Local Notification must include the capability for the switch board operator, attendant or designated personnel to identify the location of telephone lines that have dialed 9-1-1.
<i>Local Number Portability (LNP)</i>	A process by which a telephone number may be reassigned from one Local Exchange Carrier to another.
<i>Local Number Portability Administration Center (NPAC) Data Base</i>	The eight (8) regional Number Portability Administration Center Data Bases which contain current Service Provider switching specific information about TNs involved in porting activity.
<i>Local Service Management System (LSMS) Data Base</i>	The LSP owned network data base which holds down-loaded ported number information. The NPAC SMS (service management system) downloads information to the LSMS; the LSMS supplies porting data to the SCP (service control point) used for the routing of telephone calls.
<i>Location Determination Technology (LDT)</i>	A system which computes the x and y coordinates of a wireless 9-1-1 caller.
<i>Location Information Server (LIS)</i>	Device administered by the Enterprise and configured with data that provides the association between physical jack locations and location information.
<i>Logging Recorder</i>	A voice-band audio recorder which records to and plays from a permanent storage media such as tape or disk. Logging recorders are typically multi-channel so as to simultaneously record from several sources.
<i>Login</i>	The process of identifying and authenticating oneself to a computer, ACD or E9-1-1 attendant position system.
<i>Loopback</i>	A type of diagnostic test in which a transmitted signal is returned to the transmitting device and then compared to the original signal.
<i>Main Station</i>	(see Access Line)
<i>Management Information System (MIS)</i>	A program that collects, stores and collates data into reports enabling interpretation and evaluation of performance, trends, traffic capacities, etc.
<i>Manual Transfer</i>	The capability of a PSAP attendant to transfer a 9-1-1 call to another location by manually dialing the destination number or speed dialing code.

Term	Definition
Master Clock	An accurate timing device that generates synchronization signals to control other clocks or equipment. (Ref. NENA 04-002)
Master Street Address Guide (MSAG)	A data base of street names and house number ranges within their associated communities defining Emergency Service Zones (ESZs) and their associated Emergency Service Numbers (ESNs) to enable proper routing of 9-1-1 calls.
Master Street Address Guide (MSAG) Discrepancy	An MSAG Discrepancy is defined as a record being retrieved from ALI during an actual E9-1-1 call with incorrect information because an MSAG field was incorrect. For example, incorrect ESN assignment or transposition of numbers, incorrect house number ranges, odd/even indicator.
Master Street Address Guide (MSAG) Error	An MSAG error is defined as a hard error from DBMS service order processing or a manual update that failed to meet the MSAG specifications.
Mechanical Dialer	(see Automatic Alarm and Automatic Alerting Device)
Media Gateway Control Protocol (MGCP)	A protocol that resides in the application layer of the TCP/IP 5 layer reference model. It is used to control media gateways (e.g., IP phones, trunking gateways) connected to an IP network – Enables external control and management of data communications equipment operating at the edge of multi-service packet.
Micro-Cell	Commonly used to describe PCS cells due to their much smaller footprint compared to a Cellular cell.
Migrate	The term used to describe the inward transaction the Recipient Company submits to the 9-1-1 Data Base Management System Provider that signifies movement of telephone service from a Donor Service Provider.
Millisecond (ms)	One-thousandth of a second (0.001 s)
Misroute	An E9-1-1 call routed to an incorrect PSAP due to a network discrepancy; i.e., wrong ESN in selective routing data base, incorrect switch translations.
Mobile Directory Number (MDN)	The telephone number dialed to reach a wireless telephone.
Mobile Identified Number (MIN)	A 34-bit binary number that a wireless handset transmits to identify itself to the wireless network.
Mobile Position Center (MPC)	The MPC serves as the point of interface to the ANSI wireless network for the Emergency Services Network. The MPC serves as the entity which retrieves, forwards, stores and controls position data within the location network. It can select the PDE(s) to use in position determination and forwards the position to the requesting entity or stores it for subsequent retrieval. In the case of a PDE with autonomous determination capability, the MPC receives and stores the position estimation for subsequent retrieval. The MPC may restrict access to position information (e.g., require that the MS be engaged in an emergency service call or only release position information to authorized nodes.)

Term	Definition
Mobile Station (MS)	The Mobile Station is the end user making the emergency services call. In Phase 2 it is up to the location terminology in the wireless network to locate the Mobile Subscriber's handset so that the Position Information may be passed to the Emergency Services Network.
Mobile Switching Center (MSC)	The wireless equivalent of a Central Office, which provides switching functions from wireless calls.
Mobile Switching Office (MSO)	(see Mobile Switching Center (MSC))
Modem	An interface device which allows digital data signals to be transmitted over analog telephone lines.
Multi-Frequency (MF)	A type of in-band signaling used on analog interoffice and 9-1-1 trunks.
Multi-Line Telephone System (MLTS)	A system comprised of common control unit(s), telephone sets, and control hardware and software. This includes network and premises based systems. i.e., Centrex and PBX, Hybrid, and Key Telephone Systems owned or leased by governmental agencies and non-profit entities, as well as for profit businesses.
Multi-Line Telephone System (MLTS) Operator	The entity that either owns, or leases/rents from a third party, and operates a MLTS through which a caller/person may place a 9-1-1 call through the public switched network.
Multi-Protocol Label Switching (MPLS)	A mechanism that allows network administrators to perform a measure of traffic engineering within their networks.
Multi Protocol Over ATM (MPOA)	A specification that enables ATM services to be integrated with existing local-area networks (LANs) that use Ethernet, token-ring or TCP/IP protocols. The goal of MPOA is to allow different LANs to send packets to each other via an ATM backbone.
National Emergency Number Association (NENA)	The National Emergency Number Association is a not-for-profit corporation established in 1982 to further the goal of "One Nation-One Number." NENA is a networking source and promotes research, planning and training. NENA strives to educate, set standards and provide certification programs, legislative representation and technical assistance for implementing and managing 9-1-1 systems.
Nationally Recognized Testing Laboratory (NRTL)	Any of several testing laboratories recognized in the United States in accordance with industry and municipal standards.
Network Access Server (NAS)	A server that can attach a "modem" to a telephone circuit and provide data access to the Internet.
Network Reliability Council (NRC)	A study group made up of experts in the field of networks as they relate to Public Safety Systems charged with assessing the reliability of the network and to make recommendations concerning service quality.

Term	Definition
Network Time Protocol (NTP)	A powerful utility for synchronizing system clocks over a TCP/IP network.
No Record Found (NRF)	A condition where no ALI information is available for display at the PSAP.
Non-blocking	A switching network designed to complete all call attempts.
Non Call-Path Associated Signaling (NCAS)	A method for delivery of wireless 9-1-1 calls in which the Mobile Directory Number and other call associated data are passed from the Mobile Switching Center to the PSAP outside the voice path.
Non-Selective Routing	The routing of 9-1-1 calls based on the NXX or trunk group.
North American Numbering Plan	Use of 10 digit dialing in the format of a 3 digit NPA followed by 3 digit NXX and 4 digit line number. NPA-NXX-XXXX.
North American Numbering Plan Administration	The agency that tracks assignment of Area Codes and Central Office Codes.
Not In Service (NIS)	A telephone line state that informs the caller that the number dialed is no longer in service.
NPAC – Interactive Voice Response (IVR) System	Porting data is available throughout the U.S. from the NPAC data base via IVR access. Throughout the 02-011 document, referral to access porting data, DOES NOT MEAN IVR ACCESS.
Numbering Plan Area (NPA)	An established three-digit area code for a particular calling area where the first position is any number 2 through 9 and the last two (2) positions are 0 through 9.
Number Pooling	The current practice of assigning blocks of telephone numbers to Local Exchange Carriers in blocks of 1,000 instead of a full NPA-NXX with 10,000 telephone numbers.
Numbering Plan Digit (NPD)	A component of the traditional 8-digit 9-1-1 signaling protocol between the Enhanced 9-1-1 Control Office and the PSAP CPE. Identifies 1 of 4 possible area codes.
Numbering Plan Digits (NPD)	Part of the North American telephone numbering scheme. This is also known as the Area Code or Numbering Plan Area (NPA).
NXX	A three-digit code in which N is any digit 2 through 9 and X is any digit 0 through 9. Typically used in describing the “Exchange Code” fields of a North American Numbering Plan telephone number. The full numbering system is in the format of “Area Code” + “Exchange Code” + “Line Number” or NPA-NXX-XXXX. A central office will have one or more area and exchange codes.
NYNEX Information Publication (NIP)	Information published by the NYNEX telephone company (now part of Bell Atlantic).

Term	Definition
<i>On-Time-Point</i>	The leading edge of a pulse which occurs coincident with the beginning of a second. (Ref. NENA 04-002)
<i>Open Systems Interconnection (OSI)</i>	A 7-layer hierarchical reference model structure developed by the International Standards Organization for defining, specifying, and relating communications protocols; not a standard or a protocol; Layer Description – (7) Application Provides interface with network users, (6) Presentation Performs format and code conversion, (5) Session Manages connections for application programs, (4) Transport Ensures end-to-end delivery, (3) Network Handles network addressing and routing, (2) Data Link Performs local addressing and error detection and (1) Physical Includes physical signaling and interfaces
<i>Order of Authority</i>	A formal order by the state or local authority which authorizes public agencies or public safety agencies to provide 9-1-1 service in a geographical area.
<i>Originating Switchhook Status Indication</i>	An audible and/or visible indication of the status of a calling party being held. (A Basic 9-1-1 feature)
<i>Oscillatory</i>	A transient comprised of various impulse transients with alternating characteristics. (Ref. NENA 04-001)
<i>Overflow</i>	The telecommunications term for the condition when there are more calls than the primary network path is designated to handle. This condition invokes the need to perform some form of call treatment, such as busy signals or Alternate Routing (also see Alternate Routing).
<i>P.01 Grade of Service</i>	(see Grade of Service.)
<i>Packet</i>	Logical grouping of information that includes a header containing control information and (usually) user data. Packets are most often used to refer to network layer units of data. The terms <i>datagram</i> , <i>frame</i> , <i>message</i> , and <i>segment</i> are also used to describe logical information groupings at various layers of the OSI reference model and in various technology circles
<i>Personal Communications Service (PCS)</i>	A Commercial Mobile Radio Service using cellular radio networks, but distinct from cellular wireless in its frequencies and communications options.
<i>Personal Digital Assistant (PDA)</i>	Small, handheld device used to store address book information, telephone numbers, personal contacts and other personal information.
<i>Phonetic Alphabet</i>	Words and names used to clarify the letter used. (Example: A=alpha or Adam, B=bravo or boy).
<i>Pilot Number</i>	A telephone customer's main account number, lead number, main listed number, or billing account.

Term	Definition
Point-to-Point Protocol (PPP)	Imitating a virtual circuit by allowing only assigned addresses to communicate.
Polygon	A shape that is closed, i.e.: circle, square, triangle or any derivative thereof.
Position Determining Entity (PDE)	The PDE determines the precise position or geographic location of a wireless terminal when the MS starts a call or while the MS is engaged in a call. Each PDE supports one or more position determining technologies. Multiple PDEs may service the coverage area of an MPC and multiple PDEs may serve the same coverage area of an MPC utilizing different positioning determining technologies. (PDE is synonymous with Location Determination Technology (LDT))
Position Identifier	A pulse in the IRIG time code which has a predetermined duration and rate that is used to identify location of time code information. (Ref. NENA 04-002)
Prelingual Deafness	The loss of hearing before the development of language skills.
Primary ISDN PSAP	(see Primary Public Safety Answering Point)
Primary Public Safety Answering Point (PSAP)	A PSAP to which 9-1-1 calls are routed directly from the 9-1-1 Control Office. (see Public Safety Answering Point)
Primary Rate ISDN (PRI)	A non-switched digital service which utilizes DS1 level 1.544 mbps digital carrier full duplex technology and standards to transport multiple 64 kbps clear channels from an originating ISDN equipped central office switch over a point to point facility to a terminating ISDN equipped customer location. PRI utilizes a full duplex 1.544 mbps DS1 level circuit sectioned into twenty-four (24) individual 64 kbps clear channels. Bearer services and circuit control are comprised of twenty-three (23) 64 kbps B-channels and one (1) 64 kbps D-channel totaling to the 1.544 mbps level.
Primary Rate Interface (PRI)	A bundle of ISDN circuits with 23 B channels at 64 Kbps and one D channel equivalent to one T1 link.
Private 9-1-1 Emergency Answering Point	An answering point operated by non-public safety entities with functional alternative and adequate means of signaling and directing response to emergencies. Includes training to individuals intercepting call for assistance that is in accordance with applicable local emergency telecommunications requirements. Private 911 Emergency Answering Points are an adjunct to public safety response and as such must provide incident reporting to the public safety emergency response centers per local requirements.
Private Branch Exchange (PBX)	A private telephone switch that is connected to the Public Switched Telephone Network.

Term	Definition
Private Switch 911 (PS/911)	A private telephone system which includes network, switching and data base elements capable of providing ANI (ELIN) and ALI (ERL). Designed to use in emergency situations to notify Public Safety personnel of the specific location of a 9-1-1 caller utilizing a Telephone Station connected to a private telephone network.
Private Switch ALI (PSALI)	A service option which provides Enhanced 9-1-1 features for telephone stations behind private switches. E.g. PBXs.
Protocol	A set of rules or conventions that govern the format and relative timing of data in a communications network. There are three basic types of protocols: character-oriented, byte-oriented, and bit-oriented. The protocols for data communications cover such things as framing, error handling, transparency, and line control.
Provider Selection	New IP routing capability that allows a device to select its provider.
Pseudo Automatic Location Identification (pALI)	An ALI record associated with a pANI, configured to provide the location of the wireless cell or sector and information about its coverage or serving area (footprint).
Pseudo Automatic Number Identification (pANI)	A telephone number used to support routing of wireless 9-1-1 calls. It may identify a wireless cell, cell sector or PSAP to which the call should be routed. Also known as routing number.
Public Agency	A state or any unit of local government or special purpose district located in whole or in part within a state, which provides police, fire-fighting, medical or other emergency services or has authority to do so.
Public Safety Agency	An entity that provides fire fighting, law enforcement, emergency medical or other emergency service.
Public Safety Answering Point (PSAP)	A facility equipped and staffed to receive 9-1-1 calls. (see also Primary and Secondary Public Safety Answering Point (PSAP))
Public Service Announcement (PSA)	Announcement of events, emergency information and other public interest information on public and private media (radio, television, print) at no cost to the requesting agency (usually).
Public Switched Telephone Network (PSTN)	The network of equipment, lines, and controls assembled to establish communication paths between calling and called parties in North America.
Pulse Width Coded	Modulation of a carrier by the digital representation of an analog signal. (Ref. NENA 04-002)
Q or QQ	Indicates a question
Quality Assurance Program	System that facilitates review and evaluation of work product. Information is used to validate effectiveness of training and evaluate need for additional training or other corrective action.

Term	Definition
Quality of Service (QoS)	As related to data transmission a measurement of latency, packet loss and jitter.
Queuing	Queuing is an automated process by which call are presented in a predefined sequence to a call taker.
Radio Frequency (RF)	Self explanatory.
Rate Center	A geographically specified area used for determining mileage and/or usage dependent rates in the Public Switched Telephone Network.
Real-Time	The availability of information at the exact time it is occurring.
Real-Time Transport Protocol (RTP)	A network protocol used to carry packetized audio and video traffic over an IP network that helps ensure that packets get delivered in a timely way.
Recall Recorder	A voice-band audio recorder which records to and plays from a media that may not be permanent (such as tape loop, fixed disk or RAM). Recall recorders are typically associated with each operator position for the purpose of recording and playing back their most recent conversations. Also known as Call Check or Instant Playback Recorder.
Receipt	Date and time stamp when document either entered into an electronic tracking system by the jurisdiction or service provider.
Recipient Company	The new Service Provider responsible for the end users telephone service and E9-1-1 data after the migration of the telephone number from a Donor Service Provider.
Redundancy	Duplication of components, running in parallel, to increase reliability; A backup system (either a device or a connection) that serves in the event of primary system failure.
Referred	Date and time stamp when the Data Base Management System Provider's Data Rep determines it is necessary to forward the request to another entity.
Rejected	Date and time stamp a request is denied by the recipient.
Remote Call Forwarding	As utilized within Interim Number Portability, a permanent call forwarding feature that allows a call to one Directory Number to be automatically advanced to a Directory Number of another Local Exchange Carrier.
Remote Switch Units (RSU)	A small switching system that is located at a remote point from a host switch. All or most of its call processing capability is obtained from an electronic type host office. The remote is connected to the host by umbilical circuits providing message and signal handling capabilities.
Reorder Tone	An audible tone of 120 interrupts per minute (ipm) returned to the calling party to indicate the call cannot be processed through the network. Sometimes referred to as fast busy.
Request for Comment (RFC)	A method by which standard setting bodies receive input from interested parties outside of the working group.

Term	Definition
Re-Ring	(see Emergency Ring Back)
Resource Reservation Protocol (RSVP)	Protocol that supports the reservation of resources across an IP network.
Response Agency	The public safety agency having legal or consensual obligation to respond to a call for service.
Retrieval Key	A 10-digit number that is used to uniquely identify an emergency call for the purpose of retrieving the ALI record by the PSAP.
Ringback Tone	A tone returned to the caller to indicate that a call is being processed.
RJ-11	A standard jack for handset and other devices connecting to a twisted pair.
Route Diversity	(see Diverse Routing)
Router	<ul style="list-style-type: none"> ■ An interface device between two networks that selects the best route to complete the call even if there are several networks between the originating network and the destination ■ A device that provides network management capabilities (e.g., load balancing, network partitioning, usage statistics, communications priority and troubleshooting tools) that help network managers to detect and correct problems ■ An intelligent device that forwards data packets from one local area network (LAN) to another and that selects the most expedient route based on traffic load, line speeds, costs, or network failures to complete the call
Routing Number	(see <i>Pseudo Automatic Number Identification (pANI)</i>)
RS-232C	An electrical and mechanical standard for the serial transfer of digital information between digital systems, such as computers, printers or communications equipment.
Secondary ISDN Public Safety Answering Point	(see Secondary Public Safety Answering Point)
Secondary Public Safety Answering Point	A PSAP to which 9-1-1 calls are transferred from a Primary PSAP. (See Public Safety Answering Point)
Selective Router	(see Enhanced 9-1-1 Control Office)
Selective Routing (SR)	The routing of a 9-1-1 call to the proper PSAP based upon the location of the caller. Selective routing is controlled by the ESN which is derived from the customer location.
Selective Routing Data Base (SRDB)	The routing table that contains telephone number to ESN relationships which determines the routing of 9-1-1 calls.

Term	Definition
Selective Transfer	The capability to transfer a 9-1-1 call to a response agency by operation of one of several buttons typically designated as police, fire, and emergency medical; based on the ESN of the caller.
Server	<ul style="list-style-type: none"> ■ On a local area network, the computer that runs the administrative software to control access to the network. The server makes network resources available to the workstations ■ Node or software program that provides services to clients ■ In network addressing, a concentrator, data switch, or host computer being accessed ■ In a synchronous packet assembler/disassembler (PAD), a device that assigns remote devices to a logical multipoint host line
Service Address	The physical location of a subscriber access line. Service Address is the recommended address for 9-1-1 use. (May be different from the listed address or billing address)
Service Level Agreement (SLA)	A contract between a service provider and the end user, which stipulates and commits the service provider to a required level of service.
Service Order	Local Exchange Carrier document used for additions, changes or removals of telephone service.
Service Order Input (SOI)	Service Order Input is a file of completed service order updates that is sent to the DBMSP by all SP's.
Service Provider	An entity providing one or more of the following 9-1-1 elements: network, CPE, or data base service.
Service Provider Identifier (SPID)	A four (4) character, numeric service provider identification code assigned by the National Exchange Carrier Association (NECA) to Local Exchange Carriers. It does not include resellers, private switch owners or others not acting as LEC's who are sending customer's transaction record data to the 9-1-1 data bases.
Serving Central Office	The central office (CO) from which a subscriber is served. (see Central Office (CO))
Session Initiation Protocol (SIP)	This application protocol already has a priority field that recognizes four values. In order of importance, they are: <i>Emergency, Urgent, Normal, Non-Urgent</i>
Shared Residential MLTS Service	The use of a MLTS to provide service to residential facilities even if the service is not delineated for purposes of billing. For purposes of the definition, residential facilities shall be liberally construed to mean single family and multi-family facilities including Extended Care Facilities and Dormitories.

Term	Definition
Shared Telecommunications Services	Includes the provision of telecommunications and information management services and equipment within a used group located in discrete private premises in building complexes, campuses, or high-rise buildings, by a commercial shared services provider or by a user association, through privately owned customer premises equipment and associated data processing and information management services, and includes the provision of connections to the facilities of a local exchange and to interexchange telecommunications companies.
Signaling Connection Control Part (SCCP)	SCCP is the protocol used at the transport layer for TCAP-based services such as freephone (800/888), calling card, local number portability, wireless roaming, and personal communication services (PCS). SCCP also provides the means by which an STP can perform global title translation (GTT), a procedure by which the destination signaling point and subsystem number (SSN) is determined from digits (i.e., the global title) present in the signaling message.
Signaling System 7 (SS7)/Common Channel Signaling 7 (CCS7)	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).
Signature Control	A means to control the output of a time code signal based on the sync or lock status of the PSAP master clock. (Ref. NENA 04-002)
Simple Network Time Protocol (SNTP)	A utility for synchronizing system clocks over a TCP/IP network. This protocol is similar to NTP and is used when the ultimate performance of the full NTP implementation is not needed.
Simulated Facility Group (SFG)	A Facility Group is a set of trunks established for a particular transport purpose to which incoming calls are routed. When this is simulated, this is a form of call blocking for congestion control.
Single Point of Failure	A hardware or software component or sub-system which experiences a failure causing more than 50% of the total system to fail. (Ref. NENA 04-001 Reliability Objectives)
Small Office/Home Office (SOHO)	Describes a small office or home office with few occupants, often just one.
Society of Automotive Engineers (SAE)	U.S. based engineering standard body for the automotive industry.
Sockets	A method for communication between two applications in a network. The socket is defined as “the endpoint in a connection”.
Soft Permanent Virtual Circuit (SPVC)	A Soft PVC is a user-to-user connection in which the user-to-network connections are PVCs, but all or part of the cross-network connection is an SVC and does not need to be configured at every hop across the ATM network (as would be the case for a PVC).

Term	Definition
Source Data Base	The data base maintained by each Service Provider which provides customer telephone number and location information for the initial load and ongoing updates to the ALI data base held by the Data Base Management System Provider.
Spatial	Concept of describing a space or area of space.
Spike Masking	The “spike” is a rapid increase in the number of call attempts to the telephone network. When the network’s capacity is reached, all call attempts beyond when can be carried are blocked or “masked” (i.e., you can’t see them because they are being carried).
Splash Ringing	The capability to provide an audible signal simultaneously with trunk seizure on an incoming 9-1-1 call.
Stand Alone Data Base	A data base system created, maintained and located at a 9-1-1 Jurisdiction.
Standard Operating Procedure (SOP)	A written directive that provides a guideline for carrying out an activity. The guideline may be made mandatory by including terms such as “shall” rather than “should” or “must” rather than “may”.
Start (ST)	An MF signaling tone (digit).
Start Bit	In asynchronous transmission, the first element in each character that prepares the receiving device to recognize the incoming information.
Start Prime (STP)	An MF signaling tone (digit)
Station Identification	A telephone number dialable from the public switched network, which provides sufficient information to permit a return call by the Public Safety Answering Point to the caller or a telephone nearby the caller.
Stop Bit	In asynchronous transmission, the last transmitted element in each character, which permits the receiver to come to an idle condition before accepting another character.
Straight Binary Seconds (SBS)	A binary number that appears in the IRIG time code which represents the total number of seconds since midnight. (Ref. NENA 04-002)
Stranded Unlock Record	A record in the E911 data base unlocked by the Donor Company via a Function of Change (U) unlock transaction record for more than seven (7) days for which a migrate order has not been sent by the Recipient Company. Once unlocked, a record remains unlocked until a (M) migrate record is received, or the system’s permissive migrate transaction time has expired and no other changes shall be made to the record.
Successful ALI Queries	The sum of all ALI Queries less No Record Finds, Misroutes, MSAG Discrepancies, and ALI Discrepancies.
Switched Virtual Circuit (SVC)	A network connection initiated by signaling at a UNI, where the originator specifies the destination address.

Term	Definition
<i>Symmetrical Digital Subscriber Line (SDSL)</i>	A technology that allows more data to be sent over existing copper telephone lines. It is called symmetric because it supports the same data rates for upstream and downstream traffic.
<i>Sync</i>	Abbreviation for synchronized or synchronization.
<i>Synchronization</i>	In the context of timing, synchronization means to bring clocks or data streams into phase so they agree with the PSAP master clock. (Ref. NENA 04-002)
<i>Synchronous Optical Network (SONET)</i>	High speed digital transport over fiber optic networks using synchronous protocol.
<i>System Network Architecture (SNA)</i>	IBM's standard network architecture describing logical structure, formats, protocols and operational sequences for transmitting information between software and hardware devices.
<i>System Provider</i>	(see Service Provider)
<i>Tag</i>	A unique label that precedes the data for the data element associated with the tag.
<i>Tag Data</i>	A method of identifying data elements of varying lengths within a data record.
<i>Tag Data Record</i>	A record of varying length comprised of pre-defined tag labels and their associated data elements.
<i>Tandem Central Office (Tandem CO)</i>	(see Enhanced 9-1-1 Control Office)
<i>TDD/TTY Detector</i>	Any device that automatically detects TDD/TTY tones and audibly and/or visually notifies the calltaker.
<i>Technical Advisory (TA)</i>	A document describing Telcordia's preliminary view of proposed requirements for products, interfaces, technologies or services.
<i>Technical Assistance (TA)</i>	Technical Assistance document issued by the U.S. Department of Justice (US DOJ) to assist agencies in achieving compliance with regulations.
<i>Technical Information Document (TID)</i>	NENA White Paper.
<i>Technical Reference (TR)</i>	A Telcordia document that spells out detailed specification for product or service development.
<i>Telecommunications Device for the Deaf (TDD)</i>	Also known as TTY. (see Teletypewriter (TTY))
<i>Telecommunications Industry Association (TIA)</i>	A lobbying and trade association, the result of the merger of the USTA (United States Telephone Association) and the EIA (Electronic Industries Association).
<i>Telecommunications Relay Service (TRS)</i>	A federally mandated service provided by states that provides communication relay between TTY users and voice telephone users, via a third party, for communications assistance.

<i>Term</i>	<i>Definition</i>
<i>Telecommunications Service Provider (TSP)</i>	A business that provides voice or data transmission services. These services are provided over a telecommunications network that transmits any combination of voice, video and/or data between users. A TSP could be, but is not limited to, a Local Exchange Carrier (LEC), a wireless telecommunications provider, a Commercial Mobile Radio Service provider, or a PBX service provider.
<i>Telecommunicator</i>	As used in 9-1-1, a person who is trained and employed in public safety telecommunications. The term applies to call takers, dispatchers, radio operators, data terminal operators or any combination of such functions in a PSAP.
<i>Telematics</i>	The system of components that supports two-way communications with a motor vehicle for the collection or transmission of information and commands.
<i>Telephone Service Priority (TSP)</i>	A procedure used by a telephone company to establish priorities in deciding which lines and trunks to restore subsequent to an outage. Generally, the highest priority goes to federal law enforcement and military usage, with local emergency services (including 9-1-1) and medical facilities following. Established by the National Communications System Office.
<i>Teletypewriter (TTY)</i>	Also know as TDD. A device capable of information interchange between compatible units using a dial up or private-line telephone network connections as the transmission medium. ASCII or Baudot codes are used by these units. (per EIA PN-1663)
<i>Text Telephone</i>	Another term for TDD/TTY
<i>Three-Way Calling</i>	(see Conference Transfer)
<i>Time Code</i>	A series of pulses or characters which represent a digit such as a 4. The location of a particular binary digit in the code defines its meaning, 4 hours, 4 minutes or 4 seconds. (Ref. NENA 04-002)
<i>Time Difference of Arrival (TDOA)</i>	A terrestrial Location Determination Technology (LDT) that computes a transmitter's location based upon the times a signal is received at multiple receivers.
<i>Time Division Multiple Access (TDMA)</i>	A digital radio interface utilized by some North American PCS carriers.
<i>Time Devision Multiplexing (TDM)</i>	A digital multiplexing technique for combining a number of signals into a single transmission facility by interweaving pieces from each source into separate time slots.
<i>Time Sync Status Character</i>	A specific character location in the ASCII time code data stream which changes dependent on the lock or unlock status of the PSAP master clock to its source. (Ref. NENA 04-002)

<i>Term</i>	<i>Definition</i>
<i>Token Ring</i>	Local area network architecture originally developed by IBM. Later standardized by ISSS as 802.5. Transmission on the network is governed by the possession of a “token” or specific octet of data. A station may only transmit when it receives the token.
<i>Traceable UTC Source</i>	Traceable sources of UTC time are available from various time services of the National Institute of Standards and Technology (NIST) and US Naval Observatory (USNO). These services include telephone dial-up, low and high frequency radio transmissions, and Global Positioning System (GPS). (Ref. NENA 04-002)
<i>Transaction Capabilities Application Port (TCAP)</i>	TCAP is an application protocol used to connect to an external data base, perform a query of the data base and retrieve information. The information or data retrieved is then sent back in the form of a TCAP message to the signaling point that requested it. It may reside upon the SS7 protocol stack or TCP/IP stack.
<i>Transfer</i>	A feature which allows the PSAP Telecommunicator to redirect a 9-1-1 call to another location.
<i>Transfer Key</i>	A key which is programmed to dial a telephone number, a selective routing transfer code, or a speed dial code to accomplish the transfer of calls.
<i>Transient</i>	A random disturbance of normal voltage with a very short time duration (<8.3ms) that occurs on the power source or data/signal/telecommunications conductors.
<i>Transient Voltage Surge Suppression (TVSS)</i>	Devices designed to protect critical PSAP equipment from transients induced on powering and data/signal/telecommunications conductors. (Ref. NENA 04-001)
<i>Transmission Control Protocol (TCP)</i>	A communications protocol linking different computer platforms across networks. TCP/IP functions at the 3 rd and 4 th levels of the open system integration model.
<i>Transmission Control Protocol/Internet Protocol (TCP/IP)</i>	A layered set of protocols used to connect dissimilar computers together. The TCP part of this provides the transport service required by the application layer. The TCP layers in the two host computers that are sending data will communicate to each other to insure reliable data packet transport. The IP part of this provides the service user to deliver the datagram to its destination. This layer provides the routing through the network and the error messages should the datagram be undeliverable.
<i>Transport Control Protocol (TCP)</i>	The end to end reliability protocol that recognizes and corrects lower layer errors caused by connectionless networks.
<i>Trunk</i>	Typically, a communication path between central office switches, or between the 9-1-1 Control Office and the PSAP.
<i>Trunk Group</i>	One or more trunks terminated at the same two points.

<i>Term</i>	<i>Definition</i>
<i>Trunk Seizure</i>	The point in time at which a 9-1-1 call is assigned to a trunk and acknowledgment is provided by the equipment at the distant end.
<i>Unavailable Bit Rate (UBR)</i>	A service call where the bit rate available in the network is not guaranteed to the user. The network does not provide flow control handshaking with the user.
<i>Uncertainty</i>	(See Confidence/Uncertainty)
<i>Underwriters Laboratories (UL)</i>	One of several United States nationally recognized testing laboratories (NRTL) whose testing specifications have been adopted as de facto industry standards.
<i>Uniform Resource Locator (URL)</i>	Mnemonic interpretation of the IP address.
<i>Uninterruptible Power Supply (UPS)</i>	An auxiliary power unit for a telephone system which provides continuous battery backup power in the event of a commercial power failure.
<i>Universal Coordinated Time (UTC)</i>	Also known as Zulu or Greenwich Mean Time (GMT).
<i>Unlock</i>	The action required by a 9-1-1 Data Base Management System Provider, upon notification from a Donor Company, that makes the end user's telephone number record available for the Recipient Company to replace the customer details and Company ID.
<i>Variable Bit Rate non-real Time (VBRnrt)</i>	A service where the transmission rate varies over time incorporating the concept of bandwidth on demand.
<i>Variable Bit Rate real-time (VBRrt)</i>	A service where the transmission rate varies over time incorporating the concept of bandwidth on demand.
<i>Version 4 of the Internet Protocol</i>	The transmission of voice as packets of data, using the protocol originally developed for the Internet.
<i>Virtual Facility Group (VFG)</i>	One or more trunks terminated at the same two points and used internally within a switch. When referred to as E911VFG, it relates to the E9-1-1 Control Office switch. (From 03-007)
<i>Virtual Private Network (VPN)</i>	Uses information stored in the signaling network regarding customer configurations and dialing plans to allow the use of public network facilities as if they were dedicated to a specific private network.
<i>Voice Carry Over (VCO)</i>	A method which utilizes both voice and text communications on the same call, allowing a person who is hearing impaired to speak directly to the other party and receive response via a TTY or other means for text communications.
<i>Voice over Asynchronous Transfer Mode (VoATM)</i>	A technology that has its root in the development of broadband ISDN. It integrates the multiplexing and switching functions and allows communications between devices
<i>Voice over Digital Subscriber Link (VoDSL)</i>	Enabling digital voice transmission identical to voice over internet protocol but using digital subscriber services as the transport.

<i>Term</i>	<i>Definition</i>
<i>Voice over Frame Relay (VoFR)</i>	A high-speed communications technology used to connect voice applications. It is a way of sending information over a wide area network (WAN) that divides the information into frames or packets. Each frame has a label that the network uses to decide the destination of the frame.
<i>Voice over Internet Protocol, Voice over IP (VoIP)</i>	Provides distinct packetized voice information in digital format using the Internet Protocol. The IP address assigned to the user's telephone number may be static or dynamic.
<i>Voice over Packet (VoP)</i>	Packetized voice communication over a data network.
<i>Voice over the Internet</i>	Transmit voice with varying consistency depending on overall traffic and engineering of the Internet circuits.
<i>Web</i>	World Wide Web or Internet.
<i>Wide Area Network (WAN)</i>	Network using common carrier-provided lines that covers and extended geographical area.
<i>Wireless</i>	Means any Commercial Mobile Radio Service (CMRS) that falls under the FCC's Docket 94-102 requirement for wireless enhanced 9-1-1 service.
<i>Wireless Local Loop</i>	A "local loop" is a telephone company's distribution of PSTN connectivity to end users within a small (e.g., less than one square mile) geographic area. When that connectivity is done via two-way radio transmission that is a "wireless local loop".
<i>Wireless Phase I</i>	Required by FCC Report and Order 96-264 pursuant to Notice of Proposed Rulemaking (NPRM) 94-102. The delivery of a wireless 9-1-1 call with callback number and identification of the cell-tower from which the call originated. Call routing is usually determined by cell-sector.
<i>Wireless Phase II</i>	Required by FCC Report and Order 96-264 pursuant to Notice of Proposed Rulemaking (NPRM) 94-102. The delivery of a wireless 9-1-1 call with Phase I requirements plus location of the caller within 125 meters 67% of the time and Selective Routing based upon those coordinates. Subsequent FCC rulings have redefined the accuracy requirements.
<i>Wireless Service Provider (WSP)</i>	Cellular, satellite or other radio based telephony or data transport commercial entity.
<i>Wireless Telecommunications</i>	The family of Telecommunications services under the heading of Commercial Mobile Radio Service. Includes Cellular, Personal Communications Services (PCS), Mobile Satellite Services (MSS) and Enhanced Specialized Mobile Radio (ESMR).
<i>Withdrawn</i>	Date and time stamp a request is cancelled by the originator.

<i>Term</i>	<i>Definition</i>
<i>Workspace</i>	The physical building area where work is normally performed. This is a net square footage measurement which includes hallways, conference rooms, rest rooms, break rooms but does not include wall thickness, shafts, heating/ventilating/air conditioning equipment spaces, mechanical/electrical spaces or similar areas where employees do not normally have access.
<i>World Wide Web (WWW)</i>	The public internet.
<i>eXtensible Markup Language (XML)</i>	An internet specification for web documents that enables tags to be used that provide functionality beyond that in Hyper Text Markup Language (HTML). Its reference is its ability to allow information of indeterminate length to be transmitted to a PSAP call taker or dispatcher versus the current restriction that requires information to fit the parameters of pre-defined fields.
<i>X,y</i>	Shorthand expression for coordinates that identify a specific location in two dimensions representing latitude and longitude.
<i>X.25</i>	Defined network layer protocol that is used in packet-data switching to establish, maintain, and clear virtual circuit connections between an ISDN terminal and a destination in the packet-switched network

3 Acronyms

<i>Acronym</i>	<i>Definition</i>
AAR	Association of American Railroads
ACB	All Circuits Busy
ACD	Automatic Call Distributor
ACN	Automatic Collision Notification
ADA	Americans with Disabilities Act
ADEA	Age Discrimination in Employment Act
ADSL	Asymmetrical Digital Subscriber Line
ALEC	Alternate Local Exchange Carrier
ALI	Automatic Location Identification
AMPS	Advanced Mobile Phone Service
ANI	Automatic Number Identification
ANSI	American National Standards Institute
AOA	Angle of Arrival
API	Application Programming Interface
APU	Answering Position Unit
ASCII	American Standard Code for Information Exchange
ASL	American Sign Language
ASLARRA	American Short Line and Regional Railroad Association
ATA	Analog Terminal Adapter
ATIS	Alliance for Telecommunications Industry Solutions
ATM	Asynchronous Transfer Mode
BCD	Binary Coded Decimal
BellCore	Bell Communications Research
BLI	Busy Line Interrupt
BLV	Busy Line Verification
BOC	Bell Operating Company
BRI	Basic Rate Interface
BUI	Building Unit Identifier
CAD	Computer Aided Dispatch
CAMA	Centralized Automatic Message Accounting
CAP	Competitive Access Provider
CAS	Call-path Associated Signaling, Channel Associated Signaling
CBN	Call Back Number
CBR	Constant Bit Rate
CCH	Computerized Criminal History
CCS	Common Channel Signaling
CCS7	Common Channel Signaling 7
CDMA	Code Division Multiple Access
CdPN	Called Party Number
CDR	Call Detail Record

<i>CGI</i>	Common Gateway Interface
<i>CGL</i>	Calling Geodetic Location Parameter
<i>CgPN</i>	Calling Party Number
<i>CHGN</i>	Charge Number Parameter
<i>CLEC</i>	Competitive Local Exchange Carrier or Certified Local Exchange Carrier
<i>CLID</i>	Calling Line Identification
<i>CLLI</i>	Common Language Location Identifier
<i>CMRS</i>	Commercial Mobile Radio Service
<i>CO</i>	Central Office
<i>CODEC</i>	enCOde/DECode
<i>COG</i>	Council of Government
<i>CONUS</i>	Continental United States
<i>CoS</i>	Class of Service
<i>CPAS</i>	Cellular Priority Access Service
<i>CpCAT</i>	Calling Party CATegory
<i>CPE</i>	Customer Premises Equipment
<i>CPN</i>	Calling Party's Number
<i>CPU</i>	Central Processing Unit
<i>CRDB</i>	Coordinate Routing Data Base
<i>CRT</i>	Cathode Ray Tube
<i>CRTC</i>	Canadian Radio-television and Telecommunications Commission
<i>CTI</i>	Computer Telephone Integration
<i>CTIA</i>	Cellular Telephone Industry Association
<i>CTX-IP</i>	Centrex-based Internet Protocol
<i>CW</i>	Call Waiting
<i>DCE</i>	Data Communications Equipment
<i>DBMS</i>	Data Base Management System
<i>DHCP</i>	Dynamic Host Control Protocol
<i>DHS</i>	United States Department of Homeland Security
<i>DID</i>	Direct Inward Dialing
<i>DMS</i>	Data Management System
<i>dMSID</i>	Default Mobile Station Identity
<i>DMT</i>	Discrete Multi Tone
<i>DN</i>	Directory Number
<i>DNS</i>	Domain Name Server
<i>DOD</i>	Direct Outward Dialing
<i>DOE</i>	United States Department of Energy
<i>DOJ</i>	United States Department of Justice
<i>DOL</i>	United States Department of Labor
<i>DOS</i>	Disk Operating System
<i>DP</i>	Dial Pulse
<i>DRP</i>	Disaster Recovery Plan

<i>DSL</i>	Digital Subscriber Line
<i>DSP</i>	Digital Signal Processing
<i>DSLAM</i>	Digital Subscriber Line Access Multiplexer
<i>DTE</i>	Data Terminal Equipment
<i>DTMF</i>	Dual Tone Multi-Frequency
<i>E9-1-1</i>	Enhanced 9-1-1
<i>E9-1-1M</i>	Mobile E9-1-1, Mobile Emergency Service
<i>EAS</i>	Emergency Alert Systems
<i>ECOM</i>	Essential Communications During Emergencies
<i>ECR</i>	Emergency Call Register
<i>EEOC</i>	Equal Employment Opportunity Commission
<i>EIA</i>	Electronic Industry Association
<i>EIA</i>	Electronic Industry Alliance Recommended Standard 232 (serial interface)
<i>ELA</i>	Emergency Line Access
<i>ELD</i>	Electro-Luminescent Display
<i>ELIN</i>	Emergency Location Identification Number
<i>ELT</i>	English Language Translation
<i>EM</i>	Emergency Message
<i>EMS</i>	Emergency Medical Service
<i>EMT</i>	Emergency Medical Technician
<i>ENS</i>	Emergency Notification Systems
<i>EPROM</i>	Erasable Programmable Read-Only Memory
<i>ERL</i>	Emergency Response Location
<i>ES</i>	Emergency Service
<i>ESA</i>	Emergency Stand Alone
<i>ESCO</i>	Emergency Service Central Office
<i>ESGW</i>	Emergency Services Gateway
<i>ESIF</i>	Emergency Services Interconnection Forum
<i>ESME</i>	Emergency Services Message Entity
<i>ESMR</i>	Enhanced Specialized Mobile Radio
<i>ESN</i>	Emergency Service Number, Electronic Serial Number, Emergency Service Network
<i>ESNE</i>	Emergency Services Network Entity/Element
<i>ESQK</i>	Emergency Service Query Key
<i>ESP</i>	Emergency Services Provider, or Emergency Services Protocol
<i>ESRD</i>	Emergency Services Routing Digit
<i>ESRI</i>	Environmental Services Research Incorporated
<i>ESRK</i>	Emergency Services Routing Key
<i>ESRN</i>	Emergency Service Routing Number
<i>ESZ</i>	Emergency Service Zone (same as ESN)
<i>ETB</i>	Emergency Transport Backup
<i>ETNS</i>	Emergency Telephone Notification System
<i>EUMI</i>	End User Move Indicator
<i>FAQ</i>	Frequently Asked Questions

FCC	Federal Communications Commission
FDDI	Fiber Optic interface
FGD	Feature Group D
FHA	United States Federal Highway Administration
FLSA	Fair Labor Standards Act
FMLA	Family and Medical Leave Act
FRA	United States Federal Railway Administration
FX	Foreign Exchange
GA	Go ahead
GAP	Global Address Parameter
GDP	Generic Digit Parameter
GIS	Geographic Information System
GMLC	Gateway Mobile Location Center (MLC)
GMT	Greenwich Mean Time
GNP	Geographic Number Portability
GPS	Global Positioning System
GSM	Global Standard for Mobile Communication
HCO	Hearing Carry Over
HDSL	High bit rate Digital Subscriber Line
HDTV	High-Definition Television
HID	Hardware Identity
HIPPA	Health Insurance Portability and Accountability Act
HLR	Home Location Register
HOH	Hard of Hearing
HTML	Hyper Text Markup Language
HTTP	Hyper Text Transfer Protocol
IAD	Integrated Access Device
IAM	Initial Address Message
IANA	Internet Assigned Number Authority
ICANN	Internet Corporation Assigned Names and Numbers
ICR/IRR	Instant Call Recorder/Instant Recall Recorder
ICS	Incident Command System
ID	Identified
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
ILEC	Incumbent Local Exchange Carrier
IMEI	International Mobile Equipment Identity
IMSI	International Mobile Station Identity
IMTC	International Multimedia Teleconferencing Consortium
IN	Intelligent Network
INP	Interim Number Portability
IP	Internet Protocol

<i>IPI</i>	Imagery and Geospatial Plans and Policy Branch
<i>ipm</i>	Interrupts per minute
<i>IPSec</i>	Internet Protocol Security
<i>Ipv4</i>	Version 4 of the Internet Protocol
<i>IRIG</i>	Inter-Range Instrumentation Group
<i>ISDL</i>	ISDN Digital Subscriber Line
<i>ISDN</i>	Integrated Services Digital Network
<i>ISP</i>	Internet Service Provider
<i>ISUP</i>	Integrated Services Digital Network User Part
<i>ITS</i>	Intelligent Transportation System
<i>ITSP</i>	Internet Telephony Service Provider
<i>ITU</i>	International Telecommunications Union
<i>ITU-T</i>	International Telecommunications Union – Telecommunications
<i>IVR</i>	Interactive Voice Response
<i>IWS</i>	Intelligent Workstation
<i>KP</i>	Key Pulse
<i>KSU</i>	Key Service Unit
<i>KTS</i>	Key Telephone System
<i>KTU</i>	Key Telephone Unit
<i>LAN</i>	Local Area Network
<i>LATA</i>	Local Access and Transport Area
<i>LCD</i>	Liquid Crystal Display
<i>LCR</i>	Least Cost Routing
<i>LDT</i>	Location Determination Technology or Line Digital to Trunk
<i>LEC</i>	Local Exchange Carrier
<i>LED</i>	Light Emitting Diode
<i>LERG</i>	Local Exchange Routing Guide
<i>LIS</i>	Location Information Server
<i>LNP</i>	Local Number Portability
<i>LPN</i>	Local Public Safety Number
<i>LSMS</i>	Local Service Management System
<i>LSP</i>	Local Service Provider
<i>LSR</i>	Local Service Request
<i>LSSGR</i>	LATA Switching Systems Generic Requirements
<i>MDC</i>	Mobile Data Communications
<i>MDN</i>	Mobile Directory Number
<i>MDT</i>	Mobile Data Terminal
<i>MEID</i>	Mobile Equipment Identity
<i>MF</i>	Multi-Frequency
<i>MGCP</i>	Media Gateway Control Protocol
<i>MIN</i>	Mobile Identified Number
<i>MIS</i>	Management Information System

<i>MLTS</i>	Multi-Line Telephone System
<i>MP</i>	Mobile Phone
<i>MOA</i>	Memorandum of Agreement
<i>MOU</i>	Memorandum of Understanding
<i>MPC</i>	Mobile Positioning Center
<i>MPLS</i>	Multi-Protocol Label Switching
<i>MPOA</i>	Multi-Protocol Over ATM
<i>ms</i>	Millisecond
<i>MS</i>	Mobile Station
<i>MSA</i>	Metropolitan Statistical Area
<i>MSAG</i>	Master Street Address Guide
<i>MSC</i>	Mobile Switching Center
<i>MSID</i>	Mobile Station Identity
<i>MSISDN</i>	Mobile Station ISDN Number
<i>MSO</i>	Mobile Switching Office
<i>MSRN</i>	Mobile Station Routing Number
<i>MSS</i>	Mobile Satellite Services
<i>MTA</i>	Multimedia Terminal Adapter
<i>MTID</i>	Mobile Terminal Identity
<i>MTP</i>	Message Transfer Point
<i>MTSO</i>	Mobile Telephone Switching Office
<i>NAD83</i>	North American Datum 83
<i>NANP</i>	North American Numbering Plan
<i>NANPA</i>	North American Numbering Plan Administration
<i>NAS</i>	Network Access Server
<i>NASNA</i>	National Association of State 9-1-1 Administrators
<i>NBMA</i>	Non-Broadcast Multiple Access
<i>NCAS</i>	Non Call-path Associated Signaling
<i>NCIC</i>	National Crime Enforcement Center
<i>NECA</i>	National Exchange Carrier Association
<i>NENA</i>	National Emergency Number Association
<i>NGA</i>	United States National Geospatial Intelligence Agency
<i>NHTSA</i>	National Highway Traffic Safety Administration, United States Department of Transportation
<i>NIP</i>	NYNEX Information Publication
<i>NIS</i>	Not In Service
<i>NIST</i>	National Institute of Standards and Technology
<i>NNSA</i>	United States National Nuclear Security Administration
<i>NOCC</i>	Network Operations Control Center (for wireless carriers)
<i>NORAD</i>	North American Aerospace Defense Command
<i>NPA</i>	Numbering Plan Area
<i>NPAC</i>	Number Portability/Pooling Administration Center
<i>NPD</i>	Numbering Plan Digit

<i>NPRM</i>	Notice of Proposed Rulemaking
<i>NRC</i>	National Reliability Council
<i>NRIC</i>	National Reliability and Interoperability Council
<i>NRF</i>	No Record Found
<i>NRTL</i>	National Recognized Testing Laboratory
<i>NSI</i>	Non-Subscriber Initialized (as in phones)
<i>NTIA</i>	National Telecommunications and Information Administration, United States Department of Commerce
<i>NTP</i>	Network Time Protocol
<i>NTSB</i>	United States National Transportation Safety Board
<i>NXX</i>	Telephone Numbering Code for Exchange Code
<i>OID</i>	Operational Information Document
<i>OLI</i>	Originating Line Identification parameter
<i>OSI</i>	Open Systems Interconnection
<i>OST</i>	United States Office of Secure Transportation
<i>pALI</i>	Pseudo Automatic Location Identification
<i>PAM</i>	PSAP to ALI Message specification
<i>pANI</i>	Pseudo Automatic Number Identification
<i>PAS</i>	Priority Access Service
<i>PBX</i>	Private Branch Exchange
<i>P-CBN</i>	PSAP Call Back Number
<i>PCIA</i>	Personal Communications Industry Association
<i>PCS</i>	Personal Communications Service
<i>PCSC</i>	Personal Communications Switching Center
<i>PDA</i>	Personal Digital Assistant
<i>PDE</i>	Position Determining Entity
<i>pESN</i>	Pseudo Electronic Serial Number
<i>PGID</i>	Paging Identity
<i>PPP</i>	Point-to-Point Protocol
<i>PRI</i>	Primary Rate Interface/ISDN
<i>PSA</i>	Public Safety Agency, Public Service Announcement
<i>PSALI</i>	Private Switch ALI
<i>PSAP</i>	Public Safety Answering Point or Primary Public Safety Answering Point
<i>PSAP-ECR</i>	Public Safety Answering Point – Emergency Call Register
<i>PSQM</i>	Perceptual Speech Quality Measurements
<i>PSTN</i>	Public Switched Telephone Network
<i>PVC</i>	Permanent Virtual Circuit
<i>Q or QQ</i>	Indicates a question
<i>QoS</i>	Quality of Service
<i>RAS</i>	Remote Access Server
<i>RCC</i>	Remote Call Center
<i>RF</i>	Radio Frequency
<i>RFC</i>	Request for Comment

RMS	Records Management System
RSU	Remote Switching Unit
RSVP	Resource Reservation Protocol
RTP	Real Time Transport Protocol
SAE	Society of Automotive Engineers
SBS	Straight Binary Seconds
SCCP	Signaling Connection Control Part
SCP	Service Control Point or Switching Control Point
SDSL	Symmetrical Digital Subscriber Line
SFG	Simulated Facility Group
SIF	Signaling Information Field
SIO	Service Information Octet
SIP	Session Initiation Protocol
SK	Stop keying
SKSK	Stop keying, stop keying. Officially ends a TDD conversation
SLA	Service Level Agreement
S/MIME	Secure Multipurpose Internet Mail Extensions
SNA	System Network Architecture
SNL	Sandia National Laboratories
SNTP	Simple Network Time Protocol
SOHO	Small Office/Home Office
SOI	Service Order Input
SONET	Synchronous Optical NETWORK
SOP	Standard Operating Procedures
SPCS	State Plane Coordinate Systems
SPID	Service Provider Identifier
SPVC	Soft Permanent Virtual Circuit
SR	Selective Routing, Selective Router
SRDB	Selective Routing Data Base
SS	Serving System
SS-ECR	Serving System – Emergency Call Register
SSP	Signal Switching Point
SS7	Signaling System 7
ST	Start
STP	Start Prime or Signal Transfer Point
SVC	Switched Virtual Circuit
TA	Technical Advisory (published by Bellcore) or Technical Assistance
TC	Telecommunications Carrier
TCAP	Transaction Capabilities Application Part
TCP	Transport/Transmission Control Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol
TDD	Telecommunications Device for the Deaf

<i>TDM</i>	Time Division Multiplexing
<i>TDMA</i>	Time Division Multiple Access
<i>TDOA</i>	Time Difference of Arrival
<i>TELCO</i>	Telephone Company
<i>TIA</i>	Telecommunications Industry Association
<i>TID</i>	Technical Information Document (published by NENA) or Technical Issues Director
<i>TLDN</i>	Temporary Long Distance Number
<i>TLS</i>	Transport Layer Security
<i>TMSI</i>	Temporary Mobile Station Number
<i>TN</i>	Telephone Number
<i>TR</i>	Technical Reference (published by Bellcore)
<i>TRS</i>	Telecommunications Relay Service
<i>TSP</i>	Telephone Service Priority or Telecommunications Service Provider
<i>TTL</i>	Transistor to Transistor Logic
<i>TTY</i>	Teletypewriter (also known as TDD)
<i>TU</i>	Telematics Unit
<i>TVSS</i>	Transient Voltage Surge Suppression
<i>TWC</i>	Three-Way Calling
<i>UAC</i>	User Agent Client
<i>UAS</i>	User Agent Service
<i>UBR</i>	Unavailable Bit Rate
<i>UIM</i>	User Identity Model
<i>UL</i>	Underwriters Laboratories
<i>uLPN</i>	Unique Local Public Safety Number
<i>UNI</i>	Unbundled Network Interface
<i>UPS</i>	Uninterruptible Power Supply
<i>URL</i>	Uniform Resource Locator
<i>USGS</i>	United States Geological Survey
<i>USMC</i>	United States Marine Corps
<i>USNG</i>	United States National Grid
<i>USNO</i>	United States Naval Observatory
<i>USTA</i>	United States Telephone Association
<i>UTC</i>	Universal Coordinated Time
<i>VBRnrt</i>	Variable Bit Rate non-real time
<i>VBRrt</i>	Variable Bit Rate real-time
<i>VCO</i>	Voice Carry Over
<i>VDSL</i>	Very high-speed Digital Subscriber Line
<i>VFG</i>	Virtual Facility Group
<i>VLR</i>	Visitor Location Register
<i>VoATM</i>	Voice over ATM
<i>VoDSL</i>	Voice over Digital Subscriber Link
<i>VoFR</i>	Voice over Frame Relay

<i>VoIP</i>	Voice over Internet Protocol
<i>VoP</i>	Voice over Packet
<i>VPN</i>	Virtual Private Network
<i>VSP</i>	VoIP Service Provider
<i>WAN</i>	Wide Area Network
<i>WCM</i>	Wireline Compatibility Mode
<i>WGS 84</i>	World Geodetic System 1984
<i>WSP</i>	Wireless Service Provider
<i>WWW</i>	World Wide Web
<i>XML</i>	eXtensible Markup Language
<i>XXXXX</i>	Indicates an error or mistake in typing