

NENA

Master Glossary

Of

9-1-1 Terminology



NENA Master Glossary of 9-1-1 Terminology
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Prepared by:
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/Reissue

This standards document is met to convey 9-1-1 database industry standards for all 9-1-1 DBMSPs, SPs and 9-1-1 jurisdictional entities to assist in ensuring the accuracy and integrity of the 9-1-1 database. NENA reserves the right to modify this document. Upon revision, the reason(s) will be provided in the table below.

Version	Date	Reason For Changes
Original	March 1998	Initial Document
2	October 2002	Updated to include new terms utilized within NENA standards documents and to adjust existing definitions to comply with technology improvements.
3	February 2003	Updated to include new terms utilized in revised 02-011 standard document and new 06-002, 06-003 standard documents.
4	October 2004	Updated to include new/revised terms utilized in the following documents: <ul style="list-style-type: none"> • 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.
5	February 2005	Updated to reflect Operations Committees input and use of this document as well as Technical Committees.

6	November 2005	<p>Updated to include terms and acronyms utilized in the following documents:</p> <ul style="list-style-type: none"> • 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.
7	April 2006	<p>This update changes the document number for the NENA Master Glossary of 9-1-1 Terminology from 01-002 to 00-001. The number change moves the document to the General Administrative section of NENA Standards utilized for standards that are applicable to all Committees.</p> <p>Update includes terms and acronyms utilized in the following documents:</p> <ul style="list-style-type: none"> • 08-001, Interim VoIP Architecture for Enhanced 9-1-1 Services (i2) • 52-003, Call Taker Proficiency and Quality Assurance • 02-502, Company ID Registration Service
8	November 2006	<p>Updated to include terms and acronyms utilized in the following documents:</p> <ul style="list-style-type: none"> • 02-501, Wireless (Pre-XML) Static and Dynamic ALI Data Content • 03-503, Technical Information Document on Rate Center Consolidation • 08-001, Interim VoIP Architecture for Enhanced 9-1-1 Services (i2) Definitions • 08-504, VoIP Standards Development Organizations • 54-002, Hearing Standards for Public Safety Telecommunicators

		<ul style="list-style-type: none"> • 56-005, Call Answering Standard/Model Recommendation • 56-503, Wide Area/Statewide Emergency Notification Systems • 56-504, VoIP E9-1-1 Deployment and Operational Guidelines • 58-502, VoIP Funding and Regulatory Issues
9	March 30, 2007	<p>Updated to include terms and acronyms utilized in the following documents:</p> <ul style="list-style-type: none"> • 02-013, NENA Data Standards for the Provisioning & Maintenance of MSAG Files to VDBs & ERDBs • 02-503, NENA Technical Information Document on XML Namespaces • 03-002, NENA Standard for the Implementation of Enhanced MF Signaling, E9-1-1 Tandem to PSAP • 03-505, NENA Technical Information Document on Rate Center Consolidation Technical Information Document • 04-005 NENA ALI Query Service Standard • 08-505, NENA VoIP Recommended Method(s) for Location Determination to Support IP-Based Emergency Services Technical Information Document • 08-751, NENA i3 Technical Requirements Document • 08-752, NENA Technical Requirements Document for Location Information to Support IP –Based Emergency Services • 53-501, NENA Hazard and Vulnerability Analysis Operation Information Document • 53-502, NENA Resources Analysis Operations Information Document
10	June 1, 2007	<p>Updated to include terms and acronyms utilized in the following documents:</p> <ul style="list-style-type: none"> • General 9-1-1 & VoIP terms and definitions • 03-506, NENA E9-1-1 Voice Circuits Requirements Document • 04-002, NENA PSAP Master Clock Standard • 07-504, NENA Automatic Collision Notification and Vehicle Telematics Technical Information Document

		<ul style="list-style-type: none"> • 53-503, NENA PSAP Survivability Operations Information Document • 56-505, Guidelines for Handling Call Regarding Missing and Exploited Children Operations Information Document • 57-002, NENA Wireless Maintenance Call Routing and Testing Verification Standard • 58-001, NENA IP Capable PSAP Minimum Operational Requirements Standard
11	May 16, 2008	<p>Updated to include terms and acronyms utilized in the following documents:</p> <ul style="list-style-type: none"> • 00-002, NENA Standards Advisory Committee (SAC) Membership, Roles and Responsibilities Document, Versions 1 & 2 • 01-001 Technical Committee Organizational Structure and Document Development & Approval Process, Version 4 • 02-010, NENA Standard Formats & Protocols for ALI Data Exchange, ALI Response & GIS Mapping • 02-013, NENA Data Standards for the Provisioning & Maintenance of MSAG Files to VDBs & ERDBs, V2 • 02-014, NENA GIS Data Collection and Maintenance Standards • 03-004, NENA Standard for E9-1-1 Functional Entity Model Version 2 • 03-008, NENA Recommended Standard for E9-1-1 Default Assignment and Call Routing Functions • 08-002, NENA Functional and Interface Standards for Next Generation 9-1-1 (i3) • 51-001, NENA Operations Committee Organization and Document Development & Approval Process • 52-502, NENA Video Relay Service & IP Relay Service PSAP Interaction OID • 53-504, NENA Drills and Exercises OID • 53-505, APCO-NENA Service Capability Criteria Rating Scale OID • 56-002, NENA Standard for NORAD/FAA Notification: Airborne Events Version 2 • 56-506, NENA PSAP Site Selection Criteria

		<p>Operations Information Document</p> <ul style="list-style-type: none"> • 57-503, NENA Procedures for Notification of ERDB and VPC Operators of ESN Changes by 9-1-1 Administrator
12	July 15, 2009	<p>Updated to include terms and acronyms utilized in the following documents:</p> <ul style="list-style-type: none"> • 2-001, NENA Information Document for Synchronizing Geographic Information System databases with MSAG & ALI, Version 1 • 01-001, Technical Committee Organizational Structure and Document Development & Approval Process, Version 4.1 • 02-013, NENA Data Standards for the Provisioning and Maintenance of MSAG Files to VDBs and ERDBs • 02-502, Company ID Registration Service, Version 3 • 03-507, ESQK Guidelines for VoIP to E9-1-1 Connectivity • 06-502, Industry Common Mechanism for MLTS E9-1-1 Caller Information • 06-750, Model Legislation, Enhanced 9-1-1 for Multi-Line Telephone Systems, Version 2 (Converted from 06-501) • 52-001, E9-1-1 TTY Training, Version 2 • 53-506, NENA Intra-Agency Agreements Model Recommendations, Version 1 • 53-507, NENA Virtual PSAP Management, Version 1 • 56-006, Emergency Call Processing Protocol Standard Model • 56-507, NENA Railroad & PSAP Interaction, Version 1
13	March 17, 2010	<p>Updated to provide new numbering structure for Joint Committee developed documents in section 1.5 and to include terms and acronyms utilized in the following documents:</p> <ul style="list-style-type: none"> • 03-508, NENA Impacts of Using a Common Trunk Group to Carry Calls of Multiple Service Types into a Legacy Selective Router, Version 1 • 56-508, NENA Protocol for Handling Calls Regarding Human Trafficking, Version 1

		<ul style="list-style-type: none"> • 70-001, NENA Registry System Standard, Version 1 • 71-001, NENA Standard for NG9-1-1 Additional Data Version 1
14	September 29, 2010	Updated to include terms and acronyms utilized in the following documents: <ul style="list-style-type: none"> • 71-502, An Overview of Policy Rules for Call Routing and Handling in NG9-1-1
15	February 24, 2011	Updated to reflect Operations Committees input and use of this document as well as Technical Committees.

1.4 References

NENA documents will be 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” Administrative Documents

00 for NENA Committee Administrative Documents

“xx” Technical Standards and Technical Information Documents

01 for Technical Committee Administrative Documents

02 for Technical Data Documents

03 for Technical Network Documents

04 for Technical PSAP-CPE Documents

05 for Technical Wireless Documents

06 for ALEC and Private Switch Documents

07 for Non Traditional Communication Documents

08 for VoIP/Packet Documents

09-19 Reserved for Technical Categories

“xx” Regulatory/Legislative Standards and Information Documents

20 for Reg/Leg Committee Administrative Documents

21 for Regulatory Documents

22 for Legislative Documents

23-29 Reserved for Reg/Leg Categories

“xx” Education Advisory Board Standards and Information documents

30 for EAB Committee Administrative Documents

31 for EAB Documents

31-39 Reserved for EAB Categories

“xx” Operations Standards and Operations Information Documents

51 for Operations Administrative Documents

52 for Accessibility
53 for Contingency Planning
54 for Human Resources
55 for Public Education
56 for Standard Operating Procedures
57 for PSAP Operations and Next Generation Integration (formerly PSAP Service Integration and Wireless Operations)
58 for VoIP Operations
59-69 Reserved for Operations Categories

“xx” Joint Technical/Operations Documents

70 for Systems Management/Core Services Documents
71 for Data Structures Documents
72 for Transport and Interconnection Documents
73 for Accessibility Documents
74 for Education Documents
75 for Security Documents
76 for PSAP Operations Documents

77-89 Reserved for Joint Technical/Operations Categories and “yyy” represents the document number (i.e.; 001, 002, 003, etc.)

001 – 500 Standards
501 – 749 Information Documents
750 – 999 Requirements Documents

“xx” Numbering Currently Not Reserved

40-50 available
90-99 available

All documents shall show the document number in the upper right corner of each page as follows:

Document Title
NENA-xx-yyy, Version X¹, September 1, 1996 (zzzzzzz)

Where “zzzzzzz” is the term “Draft” until issued, “Original” if new, or the term “Draft Revision” if document is being revised, and “Revised” when issued.

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

¹ Version number may not be utilized. Current Committee template requirements shall take precedence.
Version 15, March 29, 2011

2 Terms/Definitions

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
IA2	A designation for Key Telephone Systems which utilize an “A” lead for control.	
3GPP	The 3 rd Generation Partnership Project (3GPP) is a collaboration agreement that was established in December 1998. The collaboration agreement brings together a number of telecommunications standards bodies which are known as “Organizational Partners”.	
3rd Rail	The 3 rd Rail is the electrified steel rail running parallel to track. It is used to power commuter trains such as those found in subways and urban elevated transit systems. 3 rd rails are typically charged with 600 volts or higher. Their positioning on the railroad makes them susceptible to contact.	
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 county/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 Authority Manager	An agent of a 9-1-1 Authority who defines policy for a PSAP.	
9-1-1 Governing Authority or 9-1-1 Authority	The organization having administrative jurisdiction over a particular 9-1-1 system. This could be a county/parish or city government, a special 9-1-1 or Emergency Communications District, a Council of Governments 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, software applications, data bases, CPE components and operations and management procedures required to provide 9-1-1 service.	
9-1-1 Tandem	(see Enhanced 9-1-1 Control Office)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>“A” Lead Control</i>	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.	
<i>Abandoned Call</i>	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.	
<i>Access Infrastructure Provider (AIP)</i>	The entity providing physical communications access to the subscriber. This access may be provided over telco wire, CATV cable, wireless or other media. Usually, this term is applied to purveyors of broadband internet access but is not exclusive to them.	
<i>Access Line</i>	The connection between a customer premises network interface and the Local Exchange Carrier that provides access to the Public Switched Telephone Network (PSTN).	
<i>Access Location Entity (ALE)</i>	A network entity or function that provides network measurements to a LIS allowing the LIS to correlate a device with a physical location.	
<i>Access Provider</i>	An access provider is any organization that arranges for an individual or an organization to have access to the Internet.	
<i>Acoustic Coupler</i>	The rubber cups, which hold the telephone handset on the TTY.	
<i>Additional Call Data</i>	Data that is associated with a call, a caller or a location.	
<i>Administrative (ESN)</i>	A 3-5 digit number that represents an ESZ. It is stored in the MSAG and is returned from an ALI query. The Administrative ESN facilitates dispatching of the proper emergency service agency(ies). An Administrative ESN is assigned to each MSAG range to associate the physical addresses to an ESZ. It is used to display English Language Translations (ELT) and may be used by CPE to transfer calls to the correct responder. An Administrative ESN may not be the same as a routing ESN (Refer to Routing ESN)	
<i>Advanced Mobile Phone Service (AMPS)</i>	The analog radio interface utilized in cellular telephone systems.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Aggregator</i>	An entity that takes calls of multiple traffic types or calls from multiple carriers and combines them on a trunk group to the selective router. A carrier may provide aggregation functions for their own network, or an entity can provide aggregator services for their clients.	
<i>Alarm Dry Contacts</i>	A set of relay contacts which are caused to either open or close when an alarm condition occurs. (Ref. NENA 04-001)	
<i>ALI Retrieval</i>	A request for ALI record from the PSAP to the ALI data base.	
<i>ALI Retrieval Rate</i>	The number of requests for ALI that are not duplicated within a two (2) minute time frame.	
<i>All Circuits Busy (ACB)</i>	A telephone line state that informs the caller that all available telephone lines are in use.	
<i>Alliance for Telecommunications Industry Solutions (ATIS)</i>	A U.S.-based organization that is committed to rapidly developing and promoting technical and operations standards for the communications and related information technologies industry worldwide using a pragmatic, flexible and open approach. Please refer to: http://www.atis.org/	
<i>Alternate Address Record</i>	An Alternate Address record may be the Postal equivalent to the MSAG or it may be any other alternate address required (i.e. an alias street name – John Carpenter Freeway vs. Highway 121).	
<i>Alternate Emergency Access Number (AEAN)</i>	A 10-digit unlisted number, answered on a 24/7 basis, used to receive VoIP calls until these calls can be delivered to the selective router serving the PSAP. After E9-1-1 implementation, these lines should only be used for specific routing circumstances (as defined in NENA VoIP Deployment and Operational Guidelines OID, 56-504, section 3.7.3 Default, Overflow and Alternate Routing). It can also be utilized to receive misrouted calls from other PSAPs not within the selective routing service area, operator-assisted emergency calls, default-routed wireless calls, calls routed to the PSAP via private call centers, and calls relayed from telecommunications relay services. Caller identification should be included as an option.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<i>Alternate ISDN PSAP</i>	(see Alternate Public Safety Answering Point)	
<i>Alternate Number</i>	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.	
<i>Alternate PSAP</i>	A PSAP designated to receive calls when the primary PSAP is unable to do so.	
<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 National Standards Institute (ANSI)</i>	Entity that coordinates the development and use of voluntary consensus standards in the United States and represents the needs and views of U.S. stakeholders in standardization forums around the globe. Please refer to: http://www.ansi.org/	
<i>American Sign Language</i>	A visual/gestural, non-written language with its own unique syntax and grammar based on hand shapes, body movements and facial expressions.	
<i>American Sign Language (ASL) Gloss</i>	ASL has no written form. When communicating in ASL through typing or writing, many of the visual elements crucial to clear communications are based on ASL.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>American Standard Code for Information Interchange (ASCII)</i>	A standard for defining codes for information exchange between equipment produced by different manufacturers. A code that follows the American Standard Code for Information Interchange.	
<i>Americans with Disabilities Act (ADA)</i>	Federal Legislation passed into law July 26, 1990, that prohibits discrimination on the basis of disabilities.	
<i>Amplitude Modulated</i>	The encoding of a carrier wave by variation of its amplitude in accordance with an input signal.	
<i>Analog Telephone Adapter (ATA)</i>	An analog telephone adaptor (ATA) is a device used to connect a standard telephone to a computer or network so that the user can make calls over the Internet.	
<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>Application Layer Security</i>	Providing security to application layer protocols (HTTP, FTP, SMTP for example) through one of many methods that may include end-to-end privacy (PKE etc), message integrity, non repudiation, proof of submission etc	
<i>ArcNet</i>	Multiplexed switching technology used to transport small fixed packets called "cells".	
<i>ASL Gloss</i>	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.	
<i>Association of Public Safety Communications Officials (APCO)</i>	APCO is the world's oldest and largest not-for-profit professional organization dedicated to the enhancement of public safety communications.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<i>Association of Radio Industries and Businesses (ARIB)</i>	The objectives of ARIB are to conduct investigation, research & development and consultation of utilization of radio waves from the view of developing radio industries, and to promote realization and popularization of new radio systems in the field of telecommunications and broadcasting.	
<i>Asymmetrical Digital Subscriber Line (ADSL)</i>	A Digital Subscriber Line, that transmits and receives at different speeds.(See Digital Subscriber Line)	
<i>Asynchronous Transfer Mode (ATM)</i>	A link layer protocol that uses very small frames (53 bytes) and predetermined routes, which allows for efficient switching.	
<i>Asynchronous Transfer Mode (ATM) Adaptation Layer-AAL1, 2, 5</i>	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>]	
<i>Attendant Position</i>	The Customer Premises Equipment (CPE) at which calls are answered and responded to by the Telecommunicator.	
<i>Authentication Process</i>	The process of verifying the claimed identity of a session requester. Mutual authentication is important to ensure that both the originator of the session and the recipient of the request are both satisfied with the credential information being provided. Authentication mechanisms are needed in the i2 solution to ensure that only trusted entities with existing relationships will be provided access to E9-1-1 data and services.	
<i>Authority Having Jurisdiction (AHJ)</i>	The administrative jurisdiction of a particular 9-1-1 system. This could be a county/parish or city government, a special 9-1-1 or Emergency Communications District, a Council of Governments, an individual PSAP or other similar body. <i>(see 9-1-1 Governing Authority, 9-1-1 Administrator)</i>	
<i>Auto-Re-Addressing</i>	Feature that allows for delivery of a voice call to the jack where the caller's device is currently connected after moving.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Automatic Alarm and Automatic Alerting Device</i>	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.)	
<i>Automatic Call Distributor (ACD)</i>	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.	
<i>Automatic Collision Notification (I)</i>	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.	
<i>Automatic Location Identification (ALI)</i>	The automatic display at the PSAP of the caller's telephone number, the address/location of the telephone and supplementary emergency services information of the location from which a call originates.	
<i>Automatic Location Identification (ALI) Call Retrieval</i>	A process of counting ALI data base queries not duplicated within a two (2) minute time frame.	
<i>Automatic Location Identification (ALI) Customer Retrieval</i>	A process of counting ALI data base queries not duplicated within a twenty-four (24) hour time frame.	
<i>Automatic Location Identification (ALI) Data Base</i>	The set of ALI records residing on a computer system.	
<i>Automatic Location Identification (ALI) Discrepancy</i>	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.	
<i>Automatic Location Identification (ALI) Multiplexer</i>	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.	
<i>Automatic Location Identification (ALI) Operator</i>	Operates the Automatic Location Identification infrastructure used to provide caller information associated with a pANI offered in a query from a PSAP.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<i>Automatic Location Identification (ALI) Queries</i>	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.	
<i>Automatic Location Identification (ALI) Retrieval</i>	The process of querying the 9-1-1 data base for ALI records.	
<i>Automatic Number Identification (ANI)</i>	Telephone number associated with the access line from which a call originates.	
<i>Automatic Number Identification (ANI) Controller</i>	A stand-alone CPE component which provides the ANI decoding and function key control for 9-1-1 service.	
<i>Automatic Number Identification Information Digits (ANI II Digits)</i>	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.	
<i>Automatic Vehicle Location (AVL)</i>	A means for determining the geographic location of a vehicle and transmitting this information to a point where it can be used.	
<i>Average Busy Hour</i>	The 1-hour period during the week statistically shown over time to be the hour in which the most telephone calls are received.	
<i>Average Sector Radius Range</i>	The average true sector radius under average operating conditions. Radius at which cell tower's polygon of coverage influence ends and another begins.	
<i>Back to Back User Agent (B2BUA)</i>	A logical entity that receives a request and processes it as a user agent server (UAS). In order to determine how the request should be answered, it acts as a user agent client (UAC) and generates requests. Unlike a proxy server it maintains dialog state and must participate in all requests sent on the dialogs it established.	
<i>Backup Public Safety Answering Point (PSAP)</i>	Typically a disaster recovery answering point which serves as a backup to the primary PSAP and is not co-located with the primary PSAP.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Basic 9-1-1</i>	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.	
<i>Basic Rate Interface (BRI)</i>	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.	
<i>Baseline MSAG</i>	MSAG file that is a snapshot image which represents a complete, up-to-date set of MSAG data at the point in time it was created.	
<i>Baud Rate</i>	A measure of signaling speed in data communications that specifies the maximum number of signaling elements that can be transmitted each second.	
<i>Baudot Code</i>	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)	
<i>Bell Operating Company (BOC)</i>	Individual local telephone companies which were part of the Bell System prior to divestiture of AT&T.	
<i>Binary Coded Decimal (BCD)</i>	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)	
<i>Boolean Expression</i>	An expression that contains logical (i.e. true or false) expressions and Boolean operators (i.e. NOT, AND, OR), i.e. "An Orange is a vegetable" is FALSE, 3 is less than 5 is TRUE	N
<i>Border Control Function (BCF)</i>	Provides a secure entry into the ESInet for emergency calls presented to the network. The BCF incorporates firewall, admission control, and may include anchoring of session and media as well as other security mechanisms to prevent deliberate or malicious attacks on PSAPs or other entities connected to the ESInet.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Broadband Remote Access Server (BRAS)</i>	A server that routes traffic to and from the digital subscriber line access multiplexers (DSLAM) on an Internet service providers (ISP) network.	
<i>Building Unit Identifier (BUI)</i>	A room number or equivalent designation of a portion of a structure/building.	
<i>Business Day</i>	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.	
<i>Busy Hour</i>	The hour each day with the greatest call volume.	
<i>Busy Line Interrupt (BLI)</i>	Ability of an operator in special circumstances or emergency situations to interrupt a conversation, if necessary at the request of a PSAP	
<i>Busy Line Verification (BLV)</i>	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	
<i>Busy Tone</i>	An audible signal indicating a call cannot be completed because the called access line is busy. The tone is applied 60 times per minute.	
<i>Cable Modem Termination System (CMTS)</i>	The node used to control cable modems in a cable network system.	
<i>Cable TV/Telephony</i>	Service that use hybrid coaxial/fiber network device to deliver voice grade communications.	
<i>Call Associated Signaling (CAS)</i>	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).	
<i>Call Back</i>	The capability to re-contact the calling party	
<i>Call Back Number</i>	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.	
<i>Call Check</i>	(see Recall Recorder)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Call Delivery</i>	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.	
<i>Call Detail Logging</i>	The process of recording incoming call data. Also known as ANI printout. (Ref. NENA 04-001)	
<i>Call Detail Record (CDR)</i>	The data information sent to the ALI computer by a remote identifying device (PBX, Call Position Identifier, ...) (From 03-007)	
<i>Call Identifier</i>	An identifier assigned by the first element in the first ESInet which handles a call. The form of a Call Identifier is a Globally Unique Identifier (GUID). Call Identifiers are globally unique.	
<i>CallPath Associated Signaling (CAS)</i>	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.	
<i>Call Progress Signals</i>	Audible cues to advise 9-1-1 callers of the status of their call. (e.g. Busy Tone, Reorder Tone)	
<i>Call Queuing</i>	The method of selection of which calls get passed to the outgoing trunk group when there are more call originations than terminating members on the outgoing trunk.	
<i>Call Relay</i>	Forwarding of pertinent information by a PSAP attendant to the appropriate response agency (Not to be confused with Telephone Relay Service).	
<i>Call Routing</i>	The capability to selectively route the 9-1-1 call to the appropriate PSAP.	
<i>Call Sequencer</i>	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.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Call Server</i>	The term Call Server in the Interim VoIP Architecture For Enhanced 9-1-1 Services standard is used to refer to the entity in a private or public IP domain that provides service to endpoints in an emergency caller's home domain and that interworks with the SIP servers and other elements in the IP domain used to support emergency services call routing in the i2 solution. The Call Server may use SIP or some other VoIP signaling protocol within its own serving domain.	
<i>Call Session Control Function (CSCF)</i>	General term for a functional entity within a IMS core network that can act as Proxy CSCF (P-CSCF), Serving CSCF (S-CSCF), Emergency CSCF (E-CSCF), or Interrogating CSCF (I-CSCF).	
<i>Call Set-up Time</i>	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.	
<i>Call Taker</i>	An agent of a PSAP who answers emergency calls	
<i>Call Taker Position</i>	(see Attendant Position)	
<i>Call Taker Supervisor</i>	An agent of a PSAP who supervises Call Takers	
<i>Call Transfer</i>	The capability to redirect a call to another party.	
<i>Callback Number</i>	An identifier for an emergency caller that can be used by the PSAP to reach an emergency caller subsequent to the release of an emergency call. In the i2 solution, the Callback Number is an E.164 number, but may be represented in VoIP signaling by a uniform resource identifier (URI), for example.	
<i>Caller Hold</i>	The capability of the PSAP to maintain control of a 9-1-1 caller's access line, even if the caller hangs up.	
<i>Calling Line Identification (CLID)</i>	Signaling parameter that identifies the telephone number of the party placing a call.	
<i>Calling Party Hold</i>	The capability of the PSAP to maintain control of a 9-1-1 caller's access line, even if the caller hangs up.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Calling Party's Number (CPN)</i>	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.	
<i>Calls</i>	A generic term used to include any type of request for emergency assistance (RFEA);and is not limited to voice	N
<i>Canadian Radio-television and Telecommunications Commission (CRTC)</i>	Supervises and regulates broadcasting and telecommunications systems in Canada.	
<i>Carrier</i>	A function provided by a business entity to a customer base, typically for a fee. Examples of carriers and associated services are; PSTN service by a Local Exchange Carrier, VoIP service by a VoIP Service Provider, email service provided by an Internet Service Provider.	
<i>Carrier Frequency</i>	The frequency of the unmodulated IRIG B or E signal.	
<i>Case Number</i>	Tracking number used to reference recorded incidents and events. Related nomenclature: Call Number, Report Number, Incident number, Report number.	
<i>Catenary</i>	On electrified railroads, Catenary is the wiring system suspended above the tracks used to power electric trains. Note: These wires are extremely dangerous; they carry very high voltage power. Any wire found to be dangling or down on a railroad location should be considered live unless confirmed otherwise by a railroad official.	
<i>Catenary Pole</i>	Poles used to support and suspend catenary wires	
<i>Cathode Ray Tube (CRT)</i>	Video monitor used for displaying information.	
<i>Cell</i>	The wireless telecommunications (Cellular or PCS) antenna serving a specific geographic area.	
<i>Cell face</i>	(see Cell Sector)	
<i>Cell Sector</i>	One face of a cell antenna (typically 3-sided) that operates independently of the other sectors.	
<i>Cell Site</i>	The location of a cell and related equipment.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Cellular Priority Access Service (CPAS)</i>	A uniform nationwide method of providing priority access to authorized wireless subscribers in the event of an emergency.	
<i>Central Office (CO)</i>	The Local Exchange Carrier facility where access lines are connected to switching equipment for connection to the Public Switched Telephone Network.	
<i>Central Office (CO) Transfer</i>	A service provided by the Central Office that allows an established call to be transferred to another location.	
<i>Central Processing Unit (CPU)</i>	The part of a computer which performs the logical, computational and decision making functions.	
<i>Centralized Automated Message Accounting (CAMA)</i>	A type of in-band analog transmission protocol that transmits telephone number via multi-frequency encoding. Originally designed for billing purposes.	
<i>Centrex</i>	A business telephone service offered by some Local Exchange Carriers that provides PBX type features over access lines.	
<i>Centrex-based Internet Protocol (CTX-IP)</i>	Telco voice service that provides Internet protocol based private automatic branch exchange or PABX-like features on all lines used by a single customer; the switching equipment is located at the central office and is operated and maintained by the Telco.	
<i>Channel Associated Signaling (CAS)</i>	An option for the signaling channel (time slot 16) of an E1 interface; ITU G.704. Used on digital interfaces for signaling.	
<i>China Communications Standards Association (CCSA)</i>	A nationally unified communications standards organization that can adapt the growing market, keep pace with global industry and accord with Chinese situations.	
<i>Circuit Route</i>	The physical path between two terminal locations.	
<i>Circuit-Switched Networks</i>	Circuit-switched is a type of network in which a physical path is obtained for and dedicated to a single connection between two end-points in the network for the duration of the connection. Ordinary voice phone service is circuit-switched.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Civic Address</i>	Any city-style address that includes a house number and a street name is considered a Civic Address. Civic Addresses include a community name that may or may not be recognized by the USPS or be MSAG valid. Civic Addresses may be used as Postal address if recognized by the USPS. Civic Addresses may be used as MSAG addresses if they are an exact match to the MSAG address. A rural route delivery address or FPO or APO address is not considered a Civic Address. See Civic Location.	
<i>Civic Location</i>	A set of elements that describe detailed street address information. See Civic Address.	
<i>Civic To MSAG Translation</i>	Translations consist of processes, tables or rules that can be used to: <ul style="list-style-type: none"> • Translate a Civic Address from/to an MSAG-format address. • Translate a Postal Address from/to an MSAG-format address. • Translate Landmark from/to an MSAG-format address (e.g. Empire State Building ---→ 350 5TH AVE). A civic address may need to be translated so that the data is consistent to the format within the existing PSAP equipment and processes (i.e., CAD, mapping, CPE).	
<i>Class of Service</i>	A designation of the type of telephone service, e.g. residential, business, centrex, coin, PBX, wireless.	
<i>Client ID</i>	An identifier for an instance of a Location Object (Geo Location, Civic Location or both) that is stored in a LIS.	
<i>Code Division Multiple Access (CDMA)</i>	A digital radio interface utilized by some North American PCS carriers.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>CODEC (Coder/DECoder or Compression/DECompression)</i>	<p>In communications engineering, the term <i>codec</i> is used in reference to integrated circuits, or chips that perform data conversion. In this context, the term is an acronym for “coder/decoder.” This type of codec combines analog-to-digital conversion and digital-to-analog conversion functions in a single chip. In personal and business computing applications, the most common use for such a device is in a modem.</p> <p>The term <i>codec</i> is also an acronym that stands for “compression/decompression.” A codec is an algorithm, or specialized computer program, that reduces the number of bytes consumed by large files and programs. In order to minimize the amount of storage space required for a complicated file, such as a video, compression is used. Compression works by eliminating redundancies in data. Compression can be done for any kind of file, including text, programs, images, audio, video, and virtual reality (VR). Compression can reduce the size of a file by a factor of 100 or more in some cases. For example, a 15-megabyte video might be reduced to 150 kilobytes. The uncompressed file would be far too large to download from the Web in a reasonable length of time, but the compressed file could usually be downloaded in a few seconds. For viewing, a <i>decompression</i> algorithm, which “undoes” the compression, would have to be used.</p>	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Coercion</i>	<p>The intimidation of a victim to compel the individual to do some act against his or her will by the use of psychological pressure, physical force, or threats. The crime of intentionally and unlawfully restraining another's freedom by threatening to commit a crime, accusing the victim of a crime, disclosing any secret that would seriously impair the victim's reputation in the community, or by performing or refusing to perform an official action lawfully requested by the victim, or by causing an official to do so.</p> <p>A defense asserted in a criminal prosecution that a person who committed a crime did not do so of his or her own free will, but only because the individual was compelled by another through the use of physical force or threat of immediate serious bodily injury or death.</p>	
<i>Collaborative software</i>	(also referred to as groupware or workware support systems) is software designed to help people involved in a common task achieve their goals. Collaborative software is the basis for <u>computer supported cooperative work</u> .	
<i>Commercial Call Center</i>	A privately operated call center, which answers emergency and/or non-emergency calls.	
<i>Common Language Location Identifier (CLLI)</i>	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.	
<i>Common (or Shared) Trunk Group</i>	A trunk group that carries calls that originates from more than one service type or more than one carrier.	
<i>Communication Assistant (CA)</i>	The third party in a text-based relay call.	
<i>Communications Impaired</i>	A person who is deaf, hearing impaired, or speech impaired that requires use of assistive telecommunications technology.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Communications Service Provider (CSP)</i>	An entity that provides the services and signaling to support communication services for one or more endpoints. These services might include any combination of voice, video and/or data communications between users, or services provided by the CSP to an end user. The CSP may or may not be the provider of the access or transport network.	
<i>Communications Services Providers</i>	This term is used generically to refer to any and all providers of telecommunications services that may be used to generate a 9-1-1 call, and who would interconnect in any fashion to the 9-1-1 network. CSPs include wireline ILECs and CLECs, Wireless Service Providers, VoIP Service Providers, operators of large PBXs and any other entity providing telecommunications services to the general public.	
<i>Company Identifier (ID) 1</i>	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.	
<i>Company Identifier (ID) 2</i>	(see Data Provider)	
<i>Competitive Data Base Provider</i>	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.	
<i>Competitive Local Exchange Carrier (CLEC)</i>	(see Local Exchange Carrier (LEC))	
<i>Completion</i>	Date and time stamp when Data Base Management System Provider's Data Rep has corrected and updated all ALI data bases.	
<i>Completion Date</i>	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.	
<i>Computer Aided Dispatch (CAD)</i>	A computer based system, which aids PSAP Telecommunicators by automating selected dispatching and record keeping activities.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Computer Telephone Integration (CTI)</i>	Integrating telephone function into a computing device.	
<i>Conference Transfer</i>	The capability to bridge a third party onto an existing call. Also known as three-way calling.	
<i>Confidence/ Uncertainty</i>	<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>	
<i>Congestion Control</i>	A method of controlling traffic when there are insufficient resources to meet demand, for example more requests for calls than there are trunks. It may be achieved by rejecting requests, and/or diverting calls.	
<i>Consolidated PSAP</i>	A facility where one or more Public Safety Agencies choose to operate as a single 9-1-1 entity.	
<i>Constant Bit Rate (CBR)</i>	A service class, where the bit rate is fixed, i.e., the traffic is not burst. Examples are voice and uncompressed video.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Contaminated Number Pooling</i>	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.	
<i>Contingency Routing Number (CRN)</i>	A 24x7 PSAP emergency number, or a routing number associated with a national or default call center.	
<i>Continuity of Operations</i>	The ability to continue operations during and after a major disaster.	
<i>Coordinate Based Routing</i>	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.	
<i>Credential Authority</i>	An authority responsible for supporting the infrastructure to assign and revoke electronic digital certificates to i2 network entities.	
<i>Credible TIP</i>	A report from a confidential and anonymous tipster that contains information sufficient for law enforcement to initiate an investigation, obtain corroborating evidence, and possibly effect a felony arrest.	
<i>Critical Issues Forum (CIF)</i>	Periodic events presented as a public service, focusing on emerging and significant topics in emergency communications. CIFs typically provide one to three day workshops featuring industry experts.	
<i>Currency</i>	Being fully trained, tested and up-to-date regarding a specific assignment. A measure of readiness.	
<i>Customer Comments</i>	Supplementary information useful in dispatching, provided in conjunction with ALI displays.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Customer Premise Equipment (CPE)</i>	Communications or terminal equipment located in the customer's facilities – Terminal equipment at a PSAP.	
<i>Cutover</i>	The activation of a new telephone call processing or switching system.	
<i>Data Attribute</i>	Descriptive information about features or elements contained in a database.	
<i>Data Base</i>	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.	
<i>Database Administrator</i>	An agent of a 9-1-1 Authority who maintains address databases on behalf of a set of PSAPs.	
<i>Database Administrator Supervisor</i>	An agent of a 9-1-1 Authority who supervises Database Administrators.	
<i>Data Base Management System (DBMS)</i>	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.	
<i>Data Base Management System Provider</i>	Entity providing Selective Routing (SR) and/or Automatic Location Identification (ALI) data services.	
<i>Data Bit</i>	A binary digit, either a zero (0) or a one (1).	
<i>Data Bit Free Run</i>	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.	
<i>Data Communications Equipment (DCE)</i>	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).	
<i>Data Exchange</i>	The process of exchanging 9-1-1 data between Service Providers and the Data Base Management System Provider.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Datagram</i>	Nate Wilcox: “a self-contained, independent entity of data carrying sufficient information to be routed from the source to the destination computer without reliance on earlier exchanges between this source and destination computer and the transporting network.”	
<i>Data Over Cable Service Interface Specifications (DOCSIS)</i>	The name given to the specifications for residential cable Internet Access	
<i>Data Processing Day</i>	The day in which processing of a given service order update occurs.	
<i>Data Provider</i>	A 3-5 character identifier, that distinguishes the source of the ALI record information (e.g., service provider/reseller/private switch owner). A.K.A. Company Identifier (ID) 2.	
<i>Data Synchronization</i>	Keeping multiple datasets in coherence with one another to maintain data integrity.	
<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>Deaf</i>	Partially or completely lacking in the sense of hearing. When referencing the Deaf community, this refers to people who use American Sign Language as a primary means of communication.	
<i>Deaf-Blind</i>	A term used to describe a person in whom hearing loss and vision impairment combine to interfere with his/her ability to function effectively in life. S/he may have either total or partial loss of both senses, or one or the other.	
<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>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Decibel</i>	A unit for expressing the relative intensity of sounds on a scale from zero for the average least perceptible sound (near total silence) to about 130 for the average pain level. A sound 10 times more powerful than 0dB is 10 dB. A sound 100 times more powerful than near total silence is 20 dB. A sound 1,000 times more powerful than near total silence is 30 dB. In normal, non-laboratory situations an average human ear can only detect a change of at least 3 db.	
<i>Dedicated Trunk</i>	A telephone circuit used for a single purpose; such as transmission of 9-1-1 calls.	
<i>Default Route</i>	The routing condition that occurs when a 9-1-1 call arrives at a switching or routing point with insufficient data to allow normal routing to the correct PSAP.	
<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>Definitive Civic Address</i>	In the context of location information to support IP based emergency services: An address that can be resolved into a local MSAG valid address, will yield a route to the correct PSAP when used to route an emergency call, and is bound to a specific VoIP end-point.	
<i>Delay</i>	Anything that is done to delay transmission of the packets such as protocol conversion, queuing, etc.	
<i>Delegate Credential Authorities</i>	A delegate credential authority issues certificates, which are derived from Valid Emergency Services Authority (VESA) certification. It is responsible for issuing certificates to the operators of network entities that utilize VESA certificates for the exchange of authenticated data on the i2-defined interfaces. Examples of delegate credential authorities may be PSAP operators, state emergency authorities, or regional 9-1-1 service providers.	
<i>Delta MSAG</i>	The Delta MSAG is a file of incremental changes to the MSAG. The changes are applied in the order that they are presented, to either the last updated version of the MSAG or a current Baseline of the MSAG, whichever is more recent.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<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 “last mile” solution that uses existing telephony infrastructure to deliver high speed broadband access. DSL standards are administered by the DSL Forum (http://dslforum.org/).	
<i>Digital Subscriber Line Access Multiplexer (DSLAM)</i>	A digital subscriber line access multiplexer (DSLAM) delivers exceptionally high-speed data transmission over existing copper telephone lines. A DSLAM separates the voice-frequency signals from the high-speed data traffic and controls and routes digital subscriber line (xDSL) traffic between the subscriber’s end-user equipment (router, modem, or network interface card [NIC]) and the network service provider’s network. Reprinted Courtesy of International Engineering Consortium (IEC) http://www.iec.org/online/tutorials/dslam/	
<i>Direct [and equal] Access</i>	The ability to TTY calls without relying on an outside relay service or third party services.	
<i>Direct Connect</i>	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>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Directory Number (DN)</i>	A dialable 10-digit telephone number associated with a telephone subscriber or call destination.	
<i>Disaster</i>	Any event which can cause a significant disruption to emergency calling capability.	
<i>Disaster Recovery</i>	A specific set of procedures designed to reduce the damaging consequences of unexpected events resulting in the loss of 9-1-1 capabilities.	
<i>Discrepancies</i>	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.	
<i>Discrete Multi Tone (DMT)</i>	The transmission medium for ADSL.	
<i>Disk Operating System (DOS)</i>	A personal computer operating system which manages the computer's resources.	
<i>Diverse Routing</i>	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.	
<i>Domain Name Server (DNS)</i>	Used in the Internet today to resolve domain names. The input to a DNS is a domain name (e.g., elcordia.com); the response is the IP address of the domain. The DNS allows people to use easy to remember text-based addresses and the DNS translates those names into routable IP addresses.	
<i>Domain Name System (DNS)</i>	A globally distributed database for the resolution of host names to numeric IP addresses.	
<i>Donor Company</i>	The Service Provider currently responsible for an end user's telephone service prior to the migration of the telephone number to another Service Provider.	
<i>Dual Tone Multi-Frequency (DTMF)</i>	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.	
<i>Dynamic Host Configuration Protocol (DHCP)</i>	A widely used configuration protocol that allows a host to acquire configuration information from a visited network and, in particular, an IP address.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Dynamic Host Configuration Protocol Server (DHCP)</i>	The Dynamic Host Configuration Protocol (DHCP) is a set of rules used by a communications device (such as a computer, router or networking adapter) to allow the device to request and obtain an Internet address from a server which has a list of addresses available for assignment.	
<i>Dynamic Host Control Protocol</i>	Assignment of an IP address to a client from a host that is only viable during any one established session.	
<i>E.164 number</i>	E.164 is an international numbering plan for public telephone systems in which each assigned number contains a country code (CC), a national destination code (NDC), and a subscriber number (SN). There can be up to 15 digits in an E.164 number. The E.164 plan was originally developed by the International Telecommunication Union (ITU).	
<i>Echo</i>	Return of transmitted data.	
<i>Education Advisory Board (EAB)</i>	Appointed by the NENA President, members of the EAB provide the NENA Executive Board with committee support in defining and developing NENA's educational mission.	
<i>Electrical Sub Station</i>	A power station found along the track area of electrified railroads used to aid in the power requirements and distribution of the rail system. Substations are normally fenced off for safety however access can be gained. All equipment in the substation is electrified with high voltage.	
<i>Electronic Industry Association (EIA)</i>	U.S. trade organization that issues its own standards and contributes to the American National Standards Institute.	
<i>Electronic Key Telephone System (E-Key)</i>	A multi-line telephone system which utilizes stored program control technology instead of KSU's and KTU's.	
<i>Electro-Luminescent Display (ELD)</i>	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).	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<i>Electronic Industry Association (EIA)</i>	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).	
<i>Emergency Alert Systems (EAS)</i>	Radio or television based broadcast of emergency event information.	
<i>Emergency Call</i>	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.	
<i>Emergency Call Routing Function (ECRF)</i>	Receives location information (either civic address or geo-coordinates) as input and uses this information to provide a URI that can be used to route an emergency call toward the appropriate PSAP for the caller's location. Depending on the identity and credentials of the entity requesting the routing information, the response may identify the PSAP, or an Emergency Services Routing Proxy (ESRP) that acts on behalf of the PSAP to provide final routing to the PSAP itself. The same database that is used to route a call to the correct PSAP may also be used to subsequently route the call to the correct responder, e.g., to support selective transfer capabilities.	
<i>Emergency Call Session Control Function (E-CSCF)</i>	The entity in the IMS core network that handles certain aspects of emergency sessions, e.g. routing of emergency requests to the correct emergency center or PSAP.	
<i>Emergency Communications Center (ECC)</i>	A set of call takers operating under common management which receives emergency calls for service and asynchronous event notifications and processes those calls and events according to a specified operational policy.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Emergency Location Identification Number (ELIN)</i>	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.	
<i>Emergency Medical Service (EMS)</i>	Fire, hospital, poison control, etc. response centers.	
<i>Emergency Message (EM) Circuits</i>	The special service circuits used to carry 9-1-1 calls to the PSAP.	
<i>Emergency Notification Systems (ENS)</i>	General category for any systems used to notify persons of an emergency. May include changeable message signs, sirens, telephone and other media.	
<i>Emergency Response Location (ERL)</i>	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.	
<i>Emergency Ring Back</i>	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)	
<i>Emergency Routing Data Base (ERDB)</i>	The ERDB contains routing information associated with each Emergency Service Zone (ESZ) in a serving area. It supports the boundary definitions for ESZs and the mapping of civic address or geo-spatial coordinate location information to a particular ESZ.	
<i>Emergency Routing Data Base (ERDB) Operator</i>	An operator that supports the real time routing server (ERDB) that can resolve location information to emergency service zone route at the request of a VPC.	
<i>Emergency Service Central Office Number (ESCO)</i>	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 "911-0TTT" (or 911-TTTT) with TTT identifying the incoming trunk group.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Emergency Service Number (ESN)</i>	A 3-5 digit number that represents one or more ESZs. An ESN is defined as one of two types: Administrative ESN and Routing ESN (Refer to definitions elsewhere in this document.)	
<i>Emergency Service Number (ESN)/ Emergency Service Zone (ESZ)</i>	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).	
<i>Emergency Service Zone (ESZ)</i>	A geographical area that represents a unique combination of emergency service agencies (e.g., Law Enforcement, Fire and Emergency Medical Service) that are within a specified 9-1-1 governing authority's jurisdiction. An ESZ can be represented by an Emergency Service Number (ESN) to identify the ESZ. (Refer to ESN)	
<i>Emergency Service Zone Routing Data Base (ERDB)</i>	The ERDB contains routing information associated with each Emergency Service Zone (ESZ) in a serving area. It supports the boundary definitions for ESZs and the mapping of civic address or geo-spatial coordinate location information to a particular ESZ.	
<i>Emergency Service Zone Routing Data Base (ERDB) Operator</i>	The entity that operates the ERDB serving a defined geographic area.	
<i>Emergency Services Gateway (ESGW)</i>	The Emergency Services Gateway (ESGW) is the signaling and media interworking point between the IP domain and conventional trunks to the E9-1-1 SR that use either Multi-Frequency [MF] or Signaling System #7 [SS7] signaling. The ESGW uses the routing information provided in the received call setup signaling to select the appropriate trunk (group) and proceeds to signal call setup toward the SR using the ESQK to represent the Calling Party Number/Automatic Number Identification (ANI) information.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Emergency Services Gateway (ESGW) Operator</i>	Operates emergency service gateway(s).	
<i>Emergency Services Interconnection Forum (ESIF)</i>	An open, technical/operational forum, under the auspices of the Alliance For Telecommunications Industry Solutions, with the voluntary participation of interested parties to identify and resolve recognized 9-1-1 interconnection issues. The interest of all members will be served by observing the principles of openness, fairness, consensus, and due process. ESIF will liaise with standards and governmental organizations to apprise them of its deliberations and decisions. Discussions will be focused on the FCC’s Wireless Phase I and II mandates, and into other areas of emergency services interconnection.” Please refer to: http://www.atIS.org/esif/index.asp	
<i>Emergency Services IP Network (ESInet)</i>	An IP-based inter-network (network of networks) shared by all agencies which may be involved in any emergency.	
<i>Emergency Services Query Key (ESQK)</i>	The ESQK identifies a call instance at a VPC, and is associated with a particular SR/ESN combination. The ESQK is delivered to the E9-1-1 SR and as the calling number/ANI for the call to the PSAP. The ESQK is used by the SR as the key to the Selective Routing data associated with the call. The ESQK is delivered by the SR to the PSAP as the calling number/ANI for the call, and is subsequently used by the PSAP to request ALI information for the call. The ALI database includes the ESQK in location requests sent to the VPC. The ESQK is used by the VPC as a key to look up the location object and other call information associated with an emergency call instance. The ESQK is expected to be a ten-digit North American Numbering Plan Number.	
<i>Emergency Services Routing Digit (ESRD)</i>	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.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Emergency Services Routing Key (ESRK)</i>	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.	
<i>Emergency Services Routing Number (ESRN)</i>	The ESRN is used by the Call Server/Routing Proxy to route an emergency call to the correct ESGW, and by the ESGW to select the desired path to the appropriate SR for the call. The ESRN is expected to be a ten-digit North American Numbering Plan Number.	
<i>Emergency Services Routing Proxy (ESRP)</i>	An i3 functional element which is a SIP proxy server that selects the next hop routing within the ESInet based on location and policy. There is an ESRP on the edge of the ESInet. There is usually an ESRP at the entrance to an NG9-1-1 PSAP. There may be one or more intermediate ESRPs between them.	
<i>Emergency Service (ES) Trunks</i>	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.	
<i>Emergency Stand Alone (ESA)</i>	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.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Emergency Telecommunications (EMTEL)</i>	<p>The concept of EMTEL addresses a broad spectrum of aspects related to the provisioning of telecommunications services in emergency situations. Emergency situations may range from a narrow perspective of an individual being in a state of personal emergency (with need to make an emergency call due to sudden illness, traffic accident, outbreak of fire in the home...) to a very broad perspective of serious disruptions to the functioning of society (viz. disaster situations due to events or processes such as earthquakes, floods, large scale terrorist attacks, etc.). The concept also covers the telecommunications needs of society's dedicated resources for ensuring public safety; including police forces, fire fighting units, ambulance services and other health and medical services, as well as civil defense services. The telecommunications needs of such services have until now been satisfied by dedicated networks and equipment, often different for different services, but with modern technology it is possible to increasingly integrate such services with the public telecommunications services.</p> <p>Terrestrial and satellite radio/TV broadcasting and Internet services provide means for dissemination of information to the general public, in particular in hazardous and disaster situations. Telecommunications means may also be increasingly used as parts of various community functions such as health services (e.g. remote patient monitoring to reduce need for hospitalization).</p>	
<i>Emergency Telephone Notification Systems (ETNS)</i>	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.	
<i>Emerging Technologies</i>	New technologies and network to deliver communications.	
<i>End Office</i>	(see Central Office (CO)).	
<i>End User</i>	The 9-1-1 caller.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>End User Move Indicator (EUMI)</i>	A field in the Local Service Request (LSR) form that indicates the end user (subscriber) is changing Service Address during the porting process.	
<i>English Language Translation (ELT)</i>	<p>An ELT is an alphanumeric description of the primary Law Enforcement, Fire and Emergency Medical Service agencies associated with a given Emergency Services Zone/Number. The ELT (also known as an “agency file” or “tell tale” in some systems) includes the name of the first-responder agency, and may include their station number (for dispatch purposes) and telephone number. Examples:</p> <ul style="list-style-type: none"> • ESN 123 translates to: <County> Sheriff, <County> Fire, <County> EMS • ESN 130 translates to <City> Police, <City> Fire Station 57, <County> EMS • ESN 135 translates to <City> Police 6th Precinct, <City> Fire Station 22, <City> EMS <p>(Where the element “<County>” or “<City>” is replaced with the actual County or City name.)</p> <p>Some 9-1-1 systems support more than three agencies. In those cases, the ELT may contain additional listings for Advanced Life Support (Paramedics and Mobile Intensive Care Units), Medevac helicopter services, State or Marine Police, etc.</p>	
<i>Enhanced 9-1-1 (E9-1-1)</i>	<p>A telephone system which includes network switching, data base and Public Safety Answering Point premise elements capable of providing automatic location identification data, selective routing, selective transfer, fixed transfer, and a call back number.</p> <p>The term also includes any enhanced 9-1-1 service so designated by the Federal Communications Commission in its Report and Order in WC Docket Nos. 04-36 and 05-196, or any successor proceeding.</p>	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Enhanced 9-1-1 (E9-1-1) Control Office</i>	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.	
<i>Enhanced 9-1-1 System Service Provider (E9-1-ISSP)</i>	An E9-1-1 System Service Provider (E9-1-ISSP) provides systems and support necessary to enable 9-1-1 calling for one or more Public Safety Answering Points (PSAPs) in a specific geographic area. It is typically, but not always, an Incumbent Local Exchange Carrier (ILEC). This includes: <ul style="list-style-type: none"> • A method of interconnection for all telecommunications providers including but not limited to the wireline, wireless, and VoIP carriers • A method and mechanism for routing a 9-1-1 call to the Public Safety Answering Point (PSAP) with no degradation in service regardless of the technology used to originate the call • A method to provide accurate location information for an emergency caller to a PSAP and if required, to other emergency response agencies • Installation of PSAP call handling equipment and training of PSAP personnel when contracted to do so • Coordinating with PSAP authorities and other telecommunications entities for troubleshooting and on issues involving contingency planning, disaster mitigation and recovery 	
<i>Enhanced 9-1-1 (E9-1-1) Tandem Office</i>	(see Enhanced 9-1-1 Control Office)	
<i>Enhanced Data rates for GSM Evolution (EDGE)</i>	EDGE is a digital mobile phone technology which acts as a bolt-on enhancement to 2G and 2.5G General Packet Radio Service (GPRS) networks.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Enterprise Network</i>	A large network connecting major points in a company or other organizations not part of the public telecommunications infrastructure.	
<i>Enumeration</i>	A type of data element whose value is one of a specified set of labels or names. For example, one could have an enumeration whose possible values are selected from the set “Online”, “Offline” and “Maintenance”	
<i>Environmental Services Research Institute (ESRI)</i>	Software developer of geographical information system (GIS) software and technology.	
<i>ESInet</i>	An ESInet is a managed IP network that is used for emergency services communications, and which can be shared by all public safety agencies. It provides the IP transport infrastructure upon which independent application platforms and core functional processes can be deployed, including, but not restricted to, those necessary for providing NG9-1-1 services. ESInets may be constructed from a mix of dedicated and shared facilities. ESInets may be interconnected at local, regional, state, federal, national and international levels to form an IP-based inter-network (network of networks).	
<i>Essex</i>	(see Centrex)	
<i>Ethernet</i>	A popular local area data communication network, which accepts transmissions from computers and terminals.	
<i>European Telecommunications Standards Institute (ETSI)</i>	ETSI is an independent, non-profit organization, whose mission is to produce telecommunications standards for today and for the future. Based in Sophia Antipolis (France), ETSI is officially responsible for standardization of Information and Communication Technologies (ICT) within Europe. These technologies include telecommunications, broadcasting and related areas such as intelligent transportation and medical electronics.	
<i>Exchange</i>	A defined area, served by one or more telephone central offices, within which a Local Exchange Carrier furnishes service.	
<i>Exempt Lines</i>	Access lines not subject to 9-1-1 charges.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Failed Migrate Record</i>	A Function of Change (M) migrate transaction record sent to the E9-1-1 DBMS by the Recipient Company which fails to process because the DBMS E9-1-1 record is still locked.	
<i>Family abduction</i>	A family abduction occurs when, in violation of a custody order, a decree, or other legitimate custodial rights, a member of the child's family, or someone acting on behalf of a family member, takes or fails to return a child.	
<i>Fast Busy</i>	(see Reorder Tone)	
<i>Fast Busy Tone</i>	Also, Recorder 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. (57-001)	
<i>Feature</i>	Abstraction of real world phenomena	
<i>Feature Group D (FGD)</i>	An MF signaling protocol, originally developed to support equal access to long distance services, capable of carrying one or two ten-digit telephone numbers.	
<i>File Transfer Protocol (FTP)</i>	A widely accepted, and readily available, means of communication, designed specifically to move data files between computer systems over an IP network.	
<i>Fixed Transfer</i>	The capability of a PSAP attendant to transfer a 9-1-1 call to a pre-determined location by activating a single button.	
<i>Fixed/Static</i>	Refers to an IP end-point that cannot move, is always in same location and always accesses a network from the same point.	
<i>Footprint</i>	The geographic area covered by a particular wireless cell or cell sector.	
<i>Force</i>	Threats of serious harm to, or physical restraint against, that person or another person; and/or by means of any scheme, plan, or pattern intended to cause the person to believe that, if the person did not perform such labor or services, that person or another person would suffer serious harm or physical restraint; or by means of the abuse or threatened abuse of law or the legal process,	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Forced Disconnect</i>	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.	
<i>Foreign Exchange Service (FX)</i>	A telephone line switched in an exchange or central office other than the exchange or central office area in which the telephone is located.	
<i>Frame Relay</i>	A dedicated digital transport service that routes information via switched packets. It is defined in ANSI data link level T 1.618.	
<i>Fraud</i>	A false representation of a matter of fact—whether by words or by conduct, by false or misleading allegations, or by concealment of what should have been disclosed—that deceives and is intended to deceive another so that the individual will act upon it to her or his legal injury.	
<i>Free Run</i>	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)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Frequency division duplex (FDD)</i>	<p>FDD is the application of frequency-division multiple access (access technology that is used by radio systems to share the radio spectrum) to separate outward and return signals. The uplink and downlink sub-bands are said to be separated by the “frequency offset”.</p> <p>Frequency division duplex is much more efficient in the case of symmetric traffic. In this case TDD tends to waste bandwidth during switchover from transmit to receive, has greater inherent latency, and may require more complex, more power-hungry circuitry.</p> <p>Another advantage of FDD is that it makes radio planning easier and more efficient since base stations do not “hear” each other (as they transmit and receive in different sub-bands) and therefore will normally not interfere each other. With TDD systems, care must be taken to keep guard bands between neighboring base stations (which decreases spectral efficiency) or to synchronize base stations so they will transmit and receive at the same time (which increases network complexity and therefore cost, and reduces bandwidth allocation flexibility as all base stations and sectors will be forced to use the same uplink/downlink ratio)</p>	
<i>Gateway</i>	<p>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 4th through 7th layers of the Open Systems Interconnection model.</p>	
<i>Gateway Mobile Location Center (GMLC/MLC)</i>	<p>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.</p>	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>General Packet Radio Service (GPRS)</i>	GPRS is a mobile data service available to users of GSM mobile phones. It is often described as “2.5G”, that is, a technology between the second (2G) and third (3G) generations of mobile telephony. It provides moderate speed data transfer, by using unused TDMA channels in the GSM network. Originally there was some thought to extend GPRS to cover other standards, but instead those networks are being converted to use the GSM standard, so that is the only kind of network where GPRS is in use. GPRS is integrated into GSM standards releases starting with Release 97 and onwards. First it was standardized by ETSI but now that effort has been handed onto the 3GPP.	
<i>Generic Digit Parameter (GDP)</i>	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.	
<i>Geocoding</i>	Translation of one form of location into another, typically a civic address into an x, y coordinate.	
<i>Geographic Number Portability (GNP)</i>	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.	
<i>Geographic Information System (GIS)</i>	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.	
<i>Geo Location</i>	Latitude, longitude, elevation, and the datum which identifies the coordinate system used. For the i2 solution it is expected that geo location information will be formatted using the World Geodetic System 1984 (WGS841) datum.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Geospatial</i>	Data Accurately references to a precise location on the earth's surface.	
<i>GIS (Geographic Information System)</i>	A system for capturing, storing, displaying, analyzing and managing data and associated attributes which are spatially referenced.	
<i>Global Positioning System (GPS)</i>	A satellite based Location Determination Technology (LDT).	
<i>GR303</i>	A Telcordia standard for communicating from a central office to a remote line module.	
<i>Grade Crossing</i>	Where rail systems cross road networks at the same grade or level (i.e., without a bridge or tunnel to separate them).	
<i>Grade of Service</i>	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.	
<i>Global Standard for Mobile Communications (GSM)</i>	International standard digital radio interface utilized by some North American PCS carriers.	
<i>Groupe Speciale Mobile (GSM)</i>	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.	
<i>H.323</i>	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.	
<i>Hard of Hearing</i>	The term "hard of hearing" refers to those who have some hearing, are able to use it for communication purposes, and who reasonably comfortable doing so. A hard of hearing person, in audiological terms, may have a mild to moderate hearing loss.	
<i>Health Insurance Portability and Accountability Act (HIPAA)</i>	Federal regulation protecting patients from unauthorized disclosure of medical information.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Hearing Carry Over (HCO)</i>	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.	
<i>Hertz</i>	Hertz (abbreviated Hz) is a unit of frequency (of change in state or cycle in a sound wave, alternating current, or other cyclical waveform) of one cycle per second. It replaces the earlier term; cycle per second (cps). In acoustic sound, the range of average human hearing is from 20 Hz to roughly 20 kHz (20 thousand Hertz). The pitch of middle C on a piano is 263 Hz.	
<i>High Bit Rate Digital Subscriber Line (HDSL)</i>	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.	
<i>Highway Call Box</i>	A telephone enclosed in a box and placed along a highway that allows a motorist to summon emergency and non-emergency assistance.	
<i>Home Subscriber Server (HSS)</i>	A common functional entity to both the circuit switched and packet switched mobile domains in 3GPP/3GPP2. The HSS is the master database for a given user. It is the entity containing the subscription-related information to support the network entities actually handling calls/sessions.	
<i>Host Mobility</i>	Powerful IP new routing capability that allows a device to move to another host network and still be identified.	
<i>Host Switch</i>	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.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Human Trafficking</i>	All acts involved in the transport, harboring, or sale of persons within national or across international borders through coercion, kidnapping, deception, or fraud for the purpose of placing persons in situations of forced labor or services such as domestic servitude, factor or agricultural work; or Sex trafficking in any commercial sex act induced by force, fraud, or coercion. It is always considered a severe form of trafficking if the person induced to perform the sexual act is under the age of majority, regardless of whether the elements of force, fraud or coercion are involved.	
<i>Hypertext Transport Protocol (HTTP)</i>	Hypertext Transport protocol typically used between a web client and a web server that transports HTML and/or XML. Often used as a transport for SOAP.	
<i>I3Public Safety Answering Point (i3 PSAP)</i>	A PSAP that is capable of receiving IP-based signaling for delivery of emergency calls and for originating calls and is conformant to NENA specifications for such PSAPs.	
<i>Idle Circuit Tone Application</i>	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.	
<i>Implementation and Coordination Office (ICO)</i>	National 9-1-1 Implementation and Coordination Office, previously known as the National 9-1-1 Program Office, currently jointly operated by NHTSA and the National Telecommunication Information Administration which was created and funded by the ENHANCE 9-1-1 Act of 2004. (http://www.e-911ico.gov)	
<i>Impulse Transient</i>	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)	
<i>Incident Commander</i>	Title that identifies the individual responsible for a specific incident or event.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Incident Identifier</i>	An identifier assigned by the first PSAP which declares an incident. The form of an Incident Identifier is a URI GUID. Incident Identifiers are globally unique.	
<i>Incumbent Local Exchange Carrier (ILEC)</i>	A telephone company that had the initial telephone company franchise in an area.	
<i>Instant Call Recorder</i>	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.	
<i>Instant Playback Recorder</i>	(see Recall Recorder)	
<i>Institute of Electrical and Electronic Engineers (IEEE)</i>	A publishing and standards making body responsible for many telecom and computing standards.	
<i>Integrated Access Device (IAD)</i>	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.	
<i>Integrated Services Digital Network (ISDN)</i>	International standard for a public communication network to handle circuit-switched digital voice, circuit-switched data, and packet-switched data.	
<i>Integrated Service Digital Network Digital Subscriber Line (ISDL)</i>	A digital interface providing multiple channels for simultaneous functions between the network and CPE	
<i>Integrated Services Digital Network User Part (ISUP)</i>	A message protocol to support call set up and release for interoffice voice call connections over SS7 Signaling.	
<i>Integrated TTY</i>	Integrated TTY refers to TTY functionality that has been integrated within a computer work station. This may be found within the 9-1-1 telephony system or interfaced in a CAD (computer aided dispatch) system.	
<i>Intelligent Network</i>	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).	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Intelligent Transport System (ITS)</i>	Multi-disciplined plan, under the jurisdiction of the U.S. Dept. of Transportation, to improve traffic flow.	
<i>Intelligent Workstation (IWS)</i>	Computer based 9-1-1 answering position equipment that includes computer telephony integration.	
<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>Inter-center testing</i>	This is a testing mechanism by which call takers make test calls to other PSAP's to test their proficiency.	
<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>International Telecommunications Union – Development (ITU-D)</i>	The ITU-D is responsible for creating policies, regulation and providing training programs and financial strategies in developing countries. The mission of the ITU-D is to facilitate and enhance telecommunication development worldwide by offering, organizing and coordinating technical cooperation and assistance activities.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>International Telecommunications Union – Radiocommunications (ITU-R)</i>	The ITU-R plays a vital role in the management of the radio-frequency spectrum and satellite orbits, finite natural resources which are increasingly in demand from a large number of services such as fixed, mobile, broadcasting, amateur, space research, meteorology, global positioning systems, environmental monitoring and, last but not least, those communication services that ensure safety of life at sea and in the skies.	
<i>Internet Architecture Board (IAB)</i>	<p>The IAB is the committee charged with oversight of the technical and engineering development of the Internet by the Internet Society (ISOC). It oversees a number of Task Forces, of which the most important are the Internet Engineering Task Force (IETF) and the Internet Research Task Force (IRTF).</p> <p>The body which eventually became the IAB was originally formed by the United States Department of Defense’s Defense Advanced Research Projects Agency under the name Internet Configuration Control Board in 1979; it eventually became the Internet Advisory Board in September, 1984, and then the Internet Activities Board in May, 1986 (the name was changed, while keeping the same acronym). It finally became the <i>Internet Architecture Board</i>, under ISOC, in January, 1992, as part of the Internet’s transition from a U.S.-government entity to an international, public entity.</p>	
<i>Internet Assigned Numbers Authority (IANA)</i>	IANA is the entity that oversees global IP address allocation; DNS root zone management, and other Internet protocol assignments.	
<i>Internet Corporation Assigned Names and Numbers (ICANN)</i>	Emerging authority for public domain addresses and URL’s.	
<i>Internet Engineering Steering Group (IESG)</i>	The IESG is a body composed of the Internet Engineering Task Force Chair and Area Directors.	
<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.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Internet Protocol Access Network (IP Access Network)</i>	The network in which the first IP address is assigned to an end-point. For residential networks the creation and supply of an access network may require the co-operation of several different providers. For example an ISP may lease lines and DSLAM capacity from an existing telephony provider, in such a circumstance both entities are required in the providing of an access network.	
<i>Internet Protocol Address (IP Address)</i>	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.	
<i>Internet Protocol Client (IP Client)</i>	Used to refer to the IP endpoint communications equipment or application that is used to originate a voice, video or text request for emergency services (e.g., by calling 9-1-1). The term IP device or IP endpoint may also be used.	
<i>Internet Protocol-Connectivity Access Network (IP-CAN)</i>	The collection of network entities and interfaces that provides the underlying IP transport connectivity between the user endpoint and the IMS entities.	
<i>Internet Protocol-Coordination Ad-Hoc Committee (IP-COAD)</i>	One of the major challenges facing VoIP services is the lack of technical standards in place that allow customers to initialize calls to the proper 9-1-1 call center in an emergency. To respond to these VoIP challenges, ATIS' Emergency Services Interconnection Forum (ESIF) recently launched a new "IP Coordination Ad Hoc Committee" to contribute to the planning, development, and architectural design of an overall IP-based Enhanced 9-1-1 (E9-1-1) system.	
<i>Internet Protocol Endpoint (IP Endpoint)</i>	See IP Client	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Internet Protocol Multimedia Subsystem (IMS)</i>	The IP Multimedia Subsystem comprises all 3GPP/3GPP2 core network elements providing IP multimedia services comprising audio, video, text, chat, etc. and a combination of any or all of them delivered over the packet switched domain.	
<i>Internet Protocol Private Branch Exchange (IPBX (or IP PBX)</i>	An IP PBX is a private branch exchange (telephone switching system within an enterprise) that switches calls between VoIP (Voice over Internet Protocol or IP) users on local lines while allowing all users to share a certain number of external phone lines. The typical IP PBX can also switch calls between a VoIP user and a traditional telephone user, or between two traditional telephone users in the same way that a conventional PBX does. The abbreviation may appear in various texts as IP-PBX, IP/PBX, or IPPBX.	
<i>Internet Protocol Relay Service (IP Relay Service)</i>	A call center service similar to VRS that provides a third party communications relay between Internet texting users (mobile or stationary) and voice telephone users.	
<i>Internet Protocol Security (IPSec)</i>	IPSec is the next-generation network layer crypto platform. IPSec can be found on routers, firewalls, and client desktops	
<i>Internet Protocol Telephony (IP Telephony)</i>	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.	
<i>Internet Service Provider (ISP)</i>	Company that provides Internet access to other companies and individuals	
<i>Internet Society (ISOC)</i>	ISOC is a professional membership society with more than 100 organizations and over 20,000 individual members in over 180 countries. It provides leadership in addressing issues that confront the future of the Internet, and is the organization home for the groups responsible for Internet infrastructure standards, including the Internet Engineering Task Force (IETF) and the Internet Architecture Board (IAB).	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Internet Telephone Service Provider (ITSP)</i>	An ITSP offers an Internet data service for making telephone calls using Voice over Internet Protocol technology. Most ITSPs use SIP or H.323 (although H.323 use is declining) for transmitting telephone calls as IP data packets. Customers may use old plain telephones with an analog telephone adaptor (ATA) providing RJ-11 to Ethernet connection.	
<i>Internet Telephony Service Provider (ITSP)</i>	A Company providing Internet based telephony services	
<i>International Telecommunications Union (ITU)</i>	The telecommunications agency of the United Nations established to provide worldwide standard communications practices and procedures. Formerly CCITT	
<i>Interoperability</i>	The capability for disparate systems to work together.	
<i>Interpretalk</i>	A brand name telephonic language interpreter service.	
<i>Interrogating-CSCF</i>	The entity in the IMS core network that is mainly the contact point within an operator's network for all IMS connections destined to a subscriber of that network operator, or a roaming subscriber currently located within that network operator's service area.	
<i>Interworking</i>	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.	
<i>Intra-center testing</i>	This is a testing mechanism by which call takers make test calls from position to position within the Center utilizing the internal telephony system.	
<i>ISDN PSAP</i>	(see Public Safety Answering Point)	
<i>Jack (RJ-11)</i>	Standard 4-wire connector for phone lines.	
<i>Jitter</i>	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.	
<i>Join, Joining</i>	The process of linking table records by matching data field values common to both tables.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Jurisdiction</i>	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.	
<i>Jurisdiction 9-1-1 Administrator or Jurisdiction 9-1-1 Coordinator</i>	An individual appointed by the 9-1-1 Governing Authority or 9-1-1 Authority to oversee or exercise executive control over a particular 9-1-1 System.	
<i>Jurisdiction Database Coordinator or Jurisdiction MSAG Coordinator</i>	The individual with the 9-1-1 Governing Authority or 9-1-1 Authority who has responsibility for all daily maintenance of the 9-1-1 database, to include, but not limited to MSAG maintenance, 9-1-1 Inquiry resolution, notifying SPs of address changes or corrections for a resident. This could be a county/parish or city government, a special 9-1-1 or Emergency Communications District, a Council of Governments or other similar body.	
<i>Jurisdictional Address</i>	An MSAG valid address for the physical location of a subscriber access line, which has been assigned by the jurisdiction's local addressing authority; i.e., planning department, zoning department, etc. and is used for 9-1-1 emergency dispatching purposes.	
<i>Key Pulse (KP)</i>	An MF signaling tone (digit)	
<i>Key Service Unit (KSU)</i>	Equipment which provides ringing, lamp voltages, conference, etc. for multi-line key telephone sets.	
<i>Key Telephone System (KTS)</i>	A type of Multiple-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>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>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Landmark Location</i>	Landmark locations can be Civic Addresses but are generally the names of buildings or other commonly known recognized places (e.g., The Empire State Building, The Alamo, etc.) or the name by which a prominent feature is publicly known.	
<i>Last Routing Option (LRO)</i>	The LRO is sent by the VPC to the Call Server/Routing Proxy and provides the Call Server/Routing Proxy with a “last chance” destination for the call. The LRO may be the Contingency Routing Number (CRN), which is a 24x7 PSAP emergency number, or it may contain a routing number associated with a national or default call center. The content of the LRO will depend on the condition that resulted in the providing of the LRO. Ultimately the usage of LRO routing data for call delivery is based on logic internal to the Call Server/Routing Proxy.	
<i>LATA Switching Systems Generic Requirements (LSSGR)</i>	A set of Telcordia (formerly Bellcore) specifications defining the requirements of LATA switching systems.	
<i>Layer</i>	A spatial dataset containing a common feature type. Layers are also referred to as themes.	
<i>Layer-2 Tunneling Protocol (L2TP)</i>	Allows Point to Point Protocol (PPP) sessions to be tunneled over IP and ATM networks	
<i>Legacy Gateway</i>	A signaling and media interconnection point between callers in legacy wireline/wireless originating networks and the i3 architecture, so that i3 PSAPs are able to receive emergency calls from such legacy networks.	
<i>Legacy PSAP</i>	A PSAP that cannot process calls received via i3-defined call interfaces (IP-based calls) and still requires the use of CAMA or ISDN trunk technology for delivery of 9-1-1 emergency calls	
<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>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<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>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 notifies an attendant or designated personnel to identify the location of the telephone that has dialed 9-1-1.	U
<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>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Local Operational MSAG</i>	A Local Operational MSAG is maintained in a format other than the recommended standard set forth in NENA 02-010 and 02-011. This format may consist of variances to the standard MSAG such as unparsed and concatenated fields for directional, street name, and suffix. (See Standard MSAG and MSAG Address)	
<i>Local Service Management System (LSMS) Data Base</i>	The LSP owned network data base which holds downloaded 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>Local Service Office (LSO)</i>	The central office (CO) from which a subscriber is served. [see <i>Serving Central Office, Central Office (CO)</i>]	
<i>Location</i>	In the context of location information to support IP based emergency services: The physical position of VoIP end-point expressed in either civic or geodetic form. A spot on the planet where something is; a particular place or position. Oxford Dictionary, Oxford University Press, 2009.	
<i>Location Acquisition</i>	In the context of location information to support IP based emergency services: Refers to the way in which a network determined location is provided to the network entity responsible for inserting the location information into the context of an emergency call. Location information may be pushed to the network entity by the LIS, or pulled by the network entity from the LIS. The network entity may be the target, or it may be some other routing node such as a proxy or call-server.	
<i>Location-aware</i>	In the context of location information to support IP based emergency services: Used to describe IP endpoint devices that are location-capable and that have acquired location information, either with network assistance or by self-determination.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Location By-Reference</i>	An identifier that when referenced in the correct manner by an authenticated and authorized entity will yield the location of an IP end-point. An example of a location reference is a URI.	
<i>Location By-Value</i>	In the context of location information to support IP based emergency services: A PIDF-LO containing the location of an IP end-point that can be attributed to a specific point in time.	
<i>Location-capable</i>	Used to describe IP devices that are capable of requesting, acquiring, and storing location information as well as including this information in a PIDF-LO when originating an emergency call.	
<i>Location Conveyance</i>	Refers to the act of transporting location information with an emergency call.	
<i>Location Data Security</i>	A process to ensure that a relatively high degree of security for correctness of information, integrity, and authorization of access, authenticity/secretcy, and accuracy of information. The intent of the NENA i2 solution is to provide functional equivalency to the existing network services in an IP-based environment, and this includes ensuring that the location information is valid and secure.	
<i>Location Dependability</i>	In the context of location information to support IP based emergency services: Reflects the level of trust that a receiving node has in the quality and authenticity of the location information being provided.	
<i>Location Determination</i>	In the context of location information to support IP based emergency services: Act of using measurements taken from the access network to calculate or otherwise discover the physical location of a device.	
<i>Location Determination and Acquisition Functions</i>	Location determination includes the functions necessary to accurately and automatically (without input from the user) determine the position of the IP device and associate that location information uniquely with that device. Location acquisition refers to the functions necessary to make that location information available to the device on request, or to make that location information available to a Proxy acting on behalf of that device so that location information can be used for emergency calling.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Location Determination Technology (LDT)</i>	A system which computes the x and y coordinates of a wireless 9-1-1 caller.	
<i>Location Estimate</i>	In the context of location information to support IP based emergency services: The approximate physical position of an IP end-point expressed in either civic or geodetic form usually accompanied by a degree of uncertainty. The degree of uncertainty may be expressed by a reduction in precision. For civic locations this equates to the number of fields specified while for geodetic locations it equates to the definition of an area or volume specified as a shape.	
<i>Location-incapable</i>	Used to describe IP devices that are not capable of requesting, acquiring, or storing location information. This includes most current IP devices.	
<i>Location Information</i>	The actual geo or civic location data independent of its containers, protocols or reference mechanisms.	
<i>Location Information Element (LIE)</i>	A protocol container for either or both of: <ul style="list-style-type: none"> • one Location Key (LK) • one Presence Information Data Format (PIDF) document 	
<i>Location Information Server (LIS)</i>	A Location Information Server (LIS) is a functional entity that provides locations of endpoints. A LIS can provide Location-by-Reference, or Location-by-Value, and, if the latter, in geo or civic forms. A LIS can be queried by an endpoint for its own location, or by another entity for the location of an endpoint. In either case, the LIS receives a unique identifier that represents the endpoint, for example an IP address, circuit-ID or MAC address, and returns the location (value or reference) associated with that identifier. The LIS is also the entity that provides the dereferencing service, exchanging a location reference for a location value.	
<i>Location Information Server (LIS) Operator</i>	Operates the LIS associated with the IP access network used by the callers.	
<i>Location Information Server Identifier (LIS-ID)</i>	An identifier for the LIS in which the location object (LO) is stored.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Location Key (LK)</i>	<p>An object that uniquely identifies an instance of a LO that is stored/managed by a LIS on behalf of a VoIP endpoint. The Location Key must contain:</p> <ul style="list-style-type: none"> • LIS-ID – an identifier for the LIS in which the LO is stored. • Client ID – an identifier for an instance of a LO (Geo Location, Civic Location or both) that is stored in a LIS. 	
<i>Location Object (LO)</i>	<p>The LO is used to refer to the current position of a VoIP endpoint that originates an emergency call. The LO is expected to be formatted as a Presence Information Document Format – Location Object (PIDF-LO) as defined by the IETF in draft-ietf-geopriv-pidf-lo-03[8]. The PIDF-LO may be:</p> <ul style="list-style-type: none"> • Geo location – latitude, longitude, elevation, and the datum which identifies the coordinate system used. For the i2 solution it is expected that geo location information will be formatted using the World Geodetic System 1984 (WGS84) datum. • Civic location – a set of elements that describe detailed street address information. 	
<i>Location Query Function (LQF)</i>	<p>Uses a dereferencing protocol (SIP or HTTP) to exchange a location reference (LbyR) for location information (LbyV).</p>	
<i>Location Recipient</i>	<p>In the context of location information to support IP based emergency services: A location recipient is the consumer of location information. This may be the target, the PSAP, the VPC or any other node that uses location information when it is provided.</p>	
<i>Location Retrieval Function (LRF)</i>	<p>The IMS associated functional entity that handles the retrieval of location information for the emergency caller including, where required, interim location information, initial location information and updated location information. The LRF may interact with a separate RDF or contain an integrated RDF in order to obtain routing information for an emergency call.</p>	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Location to Service Translation (LoST) Protocol</i>	A protocol that takes location information and a Service URN and returns a URI. Used generally for location-based call routing. In NG9-1-1, used as the protocol for the ECRF and LVF.	
<i>Location-unaware</i>	Used to describe IP devices that are location-capable but that have not been able to successfully acquire location information, either with network assistance or by self-determination.	
<i>Location Validation</i>	Refers to the action of ensuring that a civic address can be used to discern a route to a PSAP.	
<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>Lost otherwise missing</i>	A child's whereabouts are unknown to the child's caretaker and this causes the caretaker to be alarmed for at least 1 hour and try to locate the child, under one of two conditions: (1) the child was trying to get home or make contact with the caretaker but was unable to do so because the child was lost, stranded, or injured; or (2) the child was too young to know how to return home or make contact with the caretaker.	
<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.	
<i>Master Clock</i>	An accurate timing device that generates synchronization signals to control other clocks or equipment. (Ref. NENA 04-002)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Master Street Address Guide (MSAG)</i>	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.	
<i>Master Street Address Guide (MSAG) Address</i>	<p>Address recognized by Public Safety for the dispatch of emergency first responders. It is an absolute and unique address in that variants for directions, street spelling, street suffixes, and community names are not allowed. It is preferred that MSAG Addresses be in Civic Address format. The community name associated with this address format is assigned by the Addressing Authority in cooperation with the 9-1-1 Administrator and may or may not be the same as the community name assigned by the USPS.</p> <p>MSAG addresses are used to route 9-1-1 calls and for ALI display.</p> <p>NOTE: MSAG Address data format is not standardized throughout the country. This is generally attributed to legacy system limitations that have been continued as operational practices on the part of 9-1-1 administrative entities. This fact gives rise to the need for two subtending MSAG definitions. (See Standard MSAG and Local Operational MSAG.)</p>	
<i>Master Street Address Guide (MSAG) Administrator</i>	The organizational entity responsible for maintaining a specific set of MSAG data in order to keep it relevant and up-to-date. The MSAG Administrator is the final authority on MSAG accuracy and works with the appropriate 9-1-1 Administrator to maintain integrity of the data.	
<i>Master Street Address Guide (MSAG) Consumer</i>	Identifies appropriate organizational entities that have an accepted need for the MSAG in order to support E9-1-1 (e.g., DBMSPS, SPs, Wireless, VDBs, ERDBs, VSPs).	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Master Street Address Guide (MSAG) Discrepancy</i>	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.	
<i>Master Street Address Guide (MSAG) Error</i>	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.	
<i>Master Street Address Guide (MSAG) FTP Client</i>	Describes the system which connects to the MSAG FTP Server in order to retrieve MSAG data files. Throughout this document the MSAG FTP Client will referred to as the “FTP client”.	
<i>Master Street Address Guide (MSAG) FTP Interface</i>	Utilizes the SFTP protocol that has been implemented on one or more managed file servers, which enables the transfer of MSAG data files to authorized MSAG consumers.	
<i>Master Street Address Guide (MSAG) FTP Server</i>	The system that the MSAG Source organization uses for distributing MSAG data files to necessary recipients. MSAG data files may be distributed on several servers with each server responsible for enforcing user authentication processes for any MSAG FTP Client system. Throughout this document the MSAG FTP Server will referred to as the “FTP server”.	
<i>Master Street Address Guide (MSAG) Operator</i>	Typically the Database Management System Provider (DBMSP). Works in conjunction with 9-1-1 Administrator to provide and maintain the database equipment and infrastructure that supports the access and retrieval of the MSAG data by authorized parties	
<i>Master Street Address Guide (MSAG) Source</i>	Represents a recognized supplier of MSAG files, which may be the MSAG Administrator, or an authorized MSAG Operator. The MSAG Source is typically the E9-1-1 System Service Provider, but may be the 9-1-1 Administrator’s MSAG Administrator.	
<i>Mechanical Dialer</i>	(see Automatic Alarm and Automatic Alerting Device)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Media Gateway Control Protocol (MGCP)</i>	In computing, MGCP is a protocol used within a Voice over IP system. MGCP is an internal protocol used within a distributed system that can appear to the outside world as a single VoIP gateway. This system is composed of a Call Agent, at least one “media gateway” (MG) that performs the conversion of media signals between circuits and packets, and at least one “signaling gateway” (SG) when connected to the PSTN. MGCP is a client-server protocol, used by telephony providers in order to have more control over subscribers, contrary to the Session Initiation Protocol (SIP) or H.323 that are peer-to-peer protocols. However, MGCP and SIP can be combined in some cases.	
<i>Mediation</i>	A service that provides a uniform appearance to a service consumer for a set of services with a disparate set of service interfaces.	
<i>Message Encryption</i>	Message encryption is a process of disguising a message in such a way as to hide its substance.	
<i>Message Integrity</i>	Message integrity mechanisms provide protection against unauthorized message modifications.	
<i>Micro-Cell</i>	Commonly used to describe PCS cells due to their much smaller footprint compared to a Cellular cell.	
<i>Migrate</i>	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.	
<i>Milepost</i>	A unique identifier for a location along a rail line or highway identified by the owner of the track or governmental authority, as applicable.	
<i>Millisecond (ms)</i>	One-thousandth of a second (0.001 s)	
<i>Misroute</i>	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.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Mobile</i>	In the context of location information to support IP based emergency services: A user is said to be mobile if they are able to change access points while preserving all existing sessions and services regardless of who is providing the access network, and their location may be definitively represented by a geographic co-ordinates but only indicatively represented by a civic address.	
<i>Mobile Competence Centre (MCC)</i>	The Mobile Competence Centre (MCC) provides support to the 3 rd Generation Partnership Project (3GPP), as well as to ETSI's Technical Committee projects. MCC combines voluntary resources with funded resources, all of which are located at the ETSI Headquarters in Sophia Antipolis, southern France. Some experts have been provided by the 3GPP Partners; the remaining team members are paid for from the MCC budget.	
<i>Mobile Directory Number (MDN)</i>	The telephone number dialed to reach a wireless telephone.	
<i>Mobile Identified Number (MIN)</i>	A 34-bit binary number that a wireless handset transmits to identify itself to the wireless network.	
<i>Mobile Position Center (MPC)</i>	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.)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Mobile Station (MS)</i>	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.	
<i>Mobile Switching Center (MSC)</i>	The wireless equivalent of a Central Office, which provides switching functions from wireless calls.	
<i>Mobile Switching Center Trunk Alternate Route</i>	The routing condition that occurs when all trunks from the MSC to SR are <i>out of service</i> and calls need to be routed to the PSAP. The scenario represents an MSC to SR trunk <i>failure</i> condition versus an all trunks <i>busy</i> condition. (57-001)	
<i>Mobile Switching Center Default Route</i>	The routing condition that occurs when a) a wireless 9-1-1 call arrives at an MSC with insufficient data to allow normal routing to the correct PSAP, or b) all dedicated MSC to SR trunks, primary and secondary routes, are out of service (i.e., trunk <i>failure</i> condition).(57-001)	
<i>Mobile Switching Center Trunk Overflow</i>	The routing condition that occurs when all trunks from the MSC to the SR are busy with calls and additional calls need to be routed to the PSAP. Wireless call volume exceeds available MSC to SR trunk capacity. (57-001)	
<i>Mobile Switching Office (MSO)</i>	(see Mobile Switching Center (MSC))	
<i>Modem</i>	An interface device which allows digital data signals to be transmitted over analog telephone lines.	
<i>Multi-Frequency (MF)</i>	A type of in-band signaling used on analog interoffice and 9-1-1 trunks.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Multi-Line Telephone System (MLTS)</i>	A system comprised of common control unit(s), telephone sets, control hardware and software and adjunct systems used to support the capabilities outlined herein. This includes network and premises based systems. E.g., Centrex, VoIP, as well as PBX, Hybrid, and Key Telephone Systems (as classified by the FCC under Part 68 Requirements) and includes systems owned or leased by governmental agencies and non-profit entities, as well as for profit businesses.	
<i>Multi-Line Telephone System (MLTS) Operator</i>	The entity responsible for ensuring that a 9-1-1 call placed from an MLTS is transmitted and received in accordance with this legislation regardless of the MLTS technology used to generate the call. The MLTS Operator may be the MLTS Manager or a third-party acting on behalf of the MLTS Manager.	
<i>Multi-Line Telephone System (MLTS) Manager</i>	The entity authorized to implement an MLTS, either through purchase or lease of an MLTS or the purchasing of MLTS services, as the means by which to make 9-1-1 calls.	
<i>MultiMedia Telecommunications Association (MMTA)</i>	MMTA focuses on the convergence of communications and computing. Providing an open forum for the development of global markets, MMTA strives to ensure a high level of competency and creativity in the delivery of new technology-based solutions to the business community. In the fall of 2000, MMTA was integrated into TIA.	
<i>Multi-Protocol Label Switching (MPLS)</i>	A mechanism that allows network administrators to perform a measure of traffic engineering within their networks.	
<i>Multi Protocol Over ATM (MPOA)</i>	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.	
<i>Namespace Name</i>	The full-form name of a namespace. For example, “ <i>Library Of Congress Catalogue Number</i> ” or “ <i>urn:oasis names:tc:emergency:cap:1.1</i> ” (the XML namespace name assigned to the OASIS Common Alerting Protocol schema definitions).	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<i>Namespace Qualifier</i>	A short-form synonym of a namespace name. It is used together with an object identity to make explicit the defining (parent) namespace of the identity. We will then say that the identity is <i>namespace-qualified</i> . For example, LCCN is used for the “ <i>Library Of Congress Catalogue Number</i> ” namespace.	
<i>Namespace Prefix</i>	The equivalent of <i>namespace qualifier</i> in XML – a short-form synonym for a <i>namespace URI</i> .	
<i>Namespace Uniform Resource Identifier (URI)</i>	The XML specific <i>namespace name</i> .	
<i>National Emergency Management System (NIMS)</i>	Homeland Security Presidential Directive-5, issued on 28 February 2003, directed the Secretary of Homeland Security to develop and administer a National Incident Management System (NIMS). NIMS provides a consistent nationwide template to enable all government, private-sector, and nongovernmental organizations to work together during domestic incidents.	
<i>National Emergency Number Association(NENA)</i>	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.	
<i>Nationally Recognized Testing Laboratory (NRTL)</i>	Any of several testing laboratories recognized in the United States in accordance with industry and municipal standards.	
<i>Network Access Identifier (NAI)</i>	An identifier commonly used to tie a user to a specific realm.	
<i>Network Access Server (NAS)</i>	A device that controls access to a network or to an ISP. It is an access gateway between an external communications network and an internal network.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Network Address Translation (NAT)</i>	In computer networking, the process of network address translation (NAT, also known as network masquerading or IP-masquerading) involves re-writing the source and/or destination addresses of IP packets as they pass through a router or firewall. Most systems using NAT do so in order to enable multiple hosts on a private network to access the Internet using a single public IP address.	
<i>Network Element Security</i>	Describes methods for securing any layer 3 device in an IP network – including routers and some switches. This includes both physical and IT related security practices.	
<i>Network Layers Model</i>	The OSI, or Open System Interconnection, model defines a networking framework for implementing protocols in seven layers. Control is passed from one layer to the next, starting at the application layer in one station, and proceeding to the bottom layer, over the channel to the next station and back up the hierarchy. In ascending order the layers are: physical, data link, network, transport, session, presentation, and application.	
<i>Network Layer Security</i>	This is security deployed by layer 3 devices that prevent attacks aimed at terminating network services. This includes firewalls, ACL's and other network related devices and techniques for threat mitigation.	
<i>Network Location Determination</i>	In the context of location information to support IP based emergency services: Refers to the mechanism and data that a network entity can use to ascertain the whereabouts of a terminal in the access network such that the location can be specified in a valid PIDF-LO.	
<i>Network Reliability Council (NRC)</i>	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.	
<i>Network Time Protocol (NTP)</i>	A powerful utility for synchronizing system clocks over a TCP/IP network.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Next Generation 9-1-1 (NG9-1-1)</i>	<p>NG9-1-1 is an IP-based system comprised of managed IP-based networks (ESInets), functional elements (applications), and databases that replicate traditional E9-1-1 features and functions and provide additional capabilities. NG9-1-1 is designed to provide access to emergency services from all connected communications sources, and provide multimedia data capabilities for PSAPs and other emergency service organizations.</p> <p>NOTE: It is recognized that there will be a multi-year transition to NG9-1-1 beginning as early as 2010. See the NENA list of FAQs related to NG9-1-1 for more details.</p>	
<i>Next Hop</i>	Common IP packet routing term that indicates the IP address of the intermediate destination to which data packet's should be forwarded to along the path of the packet's final destination.	N
<i>No Record Found (NRF)</i>	A condition where no ALI information is available for display at the PSAP.	
<i>Nomadic</i>	In the context of location information to support IP based emergency services: A user is said to be nomadic if they are constrained within an access network such that their location can be represented as a definitive civic address for that network attachment. The user may move from one network attachment to another but cannot maintain a session during that move. If the user is able to move outside the definitive civic address without losing network attachment then the user is considered to be mobile, not nomadic.	
<i>Nomadic VoIP Call</i>	Call generated by a VoIP user other than their originally provisioned fixed location using the terminal equipment from that location (i.e.: VoIP handset, laptop, VoIP terminal, PC).	
<i>Non-blocking</i>	A switching network designed to complete all call attempts.	
<i>Non Call-Path Associated Signaling (NCAS)</i>	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.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Non-family Abduction</i>	A non-family perpetrator takes a child by the use of physical force or threat of bodily harm or detains a child for at least 1 hour in an isolated place.	
<i>Non-Selective Routing</i>	The routing of 9-1-1 calls based on the NXX or trunk group.	
<i>North American Numbering Plan</i>	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.	
<i>North American Numbering Plan Administration</i>	The agency that tracks assignment of Area Codes and Central Office Codes.	
<i>Not In Service (NIS)</i>	A telephone line state that informs the caller that the number dialed is no longer in service.	
<i>NPAC – Interactive Voice Response (IVR) System</i>	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.	
<i>Numbering Plan Area (NPA)</i>	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.	
<i>Number Pooling</i>	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.	
<i>Numbering Plan Digit (NPD)</i>	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.	
<i>Numbering Plan Digits (NPD)</i>	Part of the North American telephone numbering scheme. This is also known as the Area Code or Numbering Plan Area (NPA).	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>NXX</i>	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.	
<i>NYNEX Information Publication (NIP)</i>	Information published by the NYNEX telephone company (now part of Bell Atlantic).	
<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>Operations Development Conference (ODC)</i>	A working conference, the ODC is designed to help 9-1-1 professionals improve the 9-1-1 system, as well as their own 9-1-1 center operations and management. NENA’s Operations Committee comprised of several topic-specific committees, works throughout the year on the development of recommended 9-1-1 System Operations Standards and Operations Information Documents. Much of the direction, agendas, and scope of the topic-specific committees for the year are established at this conference. The ODC provides an opportunity for attendees to discuss and evaluate pressing 9-1-1 issues and emerging trends with other 9-1-1 professionals from across the USA, Canada, and Mexico in face-to-face meetings.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<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 Carrier</i>	An entity that provides telecommunications services to the end user.	
<i>Originating ESInet</i>	The first emergency services network in the call flow. Originating networks (those initiating 9-1-1 calls) deliver their emergency calls to this network. An originating ESInet will make routing decisions and may forward the emergency call to another ESInet for routing to the PSAP.	
<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>Origination Network</i>	The network which originates a 9-1-1 call. Includes the access network and the calling network. Typically operated by carriers or other service providers.	
<i>Oscillatory</i>	A transient comprised of various impulse transients with alternating characteristics. (Ref. NENA 04-001)	
<i>Otolaryngologist</i>	A physician specialized in diagnosing diseases of the head and neck especially those involving the ears, nose, and throat (ENT).	
<i>Overflow</i>	The routing condition that occurs when all trunks from the originating network element (e.g. LEC end office, ESGW, PBX) to the SR are busy with calls and additional calls need to be routed to the PSAP. Call volume exceeds available end office to SR trunk capacity. The term “overflow” refers to the treatment a call receives and may include routing to announcements and/or all-trunks-busy tones, or b) all dedicated end office to SR trunks, primary and secondary routes, are out of service (i.e. trunk <i>failure</i> condition).	
<i>P.01 Grade of Service</i>	(see Grade of Service.)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<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>Packet-Switched Data Networks</i>	In telecommunications, packet-switching is now-dominant communications paradigm, in which packets (units of information carriage) are individually routed between nodes over data links which might be shared by many other nodes. In packet switched networks, such as the Internet, the data is split up into packets, each labeled with the complete destination address and routed individually.	
<i>Permanent Virtual Circuit (PVC)</i>	Permanent or semi-permanent links that are configured in a packet network. A PVC follows a fixed path through a network.	
<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.	
<i>Point-to-Point Protocol (PPP)</i>	A protocol that is used to establish a network link over a dedicated channel. It is widely used for internet access. PPP is modular in design and can support different authentication protocols.	
<i>Point-to-Point Protocol over Asynchronous Transfer Mode (ATM) (PPPoA)</i>	A specific binding that allows PPP to be used for ATM links. PPPoA is used for DSL networks.	
<i>Point-to-Point Protocol over Ethernet (PPPoE)</i>	A specific binding that allows PPP to be used for Ethernet networks links. PPPoE is used for DSL networks.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Policy-based Routing Function (PRF)</i>	A database function that analyzes and applies ESInet or PSAP state elements to route calls, based on policy information associated with the next-hop.	U
<i>Policy Editor</i>	A tool to edit policy in a user-friendly way.	N
<i>Policy Store</i>	A data base that contains the policy rules.	N
<i>Polygon</i>	A shape that is closed, i.e.: circle, square, triangle or any derivative thereof.	
<i>Position Determining Entity (PDE)</i>	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))	
<i>Position Identifier</i>	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)	
<i>Postal Address</i>	Address recognized and used by the United States Postal Service (USPS) for delivery of mail. It may be an address with a house number and street name or may also consist of other USPS acceptable delivery options such as rural route information such as Army Post Office (APO), or Fleet Post Office (FPO). Postal addressing may contain variants of abbreviations (Avenue or Ave, Street or St, Route or Rt) that the Postal Service recognizes as acceptable postal addresses. Postal addresses reflect the name of the community assigned by the USPS to the correct zip code.	
<i>Pre-programmed message</i>	Pre-programmed messages refer to TTY message that may be programmed into some models of standalone or integrated TTYs that allows the call taker to transmit the message within a minimum number of keystrokes or mouse clicks.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Prelingual Deafness</i>	The loss of hearing before the development of language skills.	
<i>Presence</i>	“Presence” or presence information, conveys the ability and willingness of a user to communicate with other users on a network, across a set of devices. IETF RFC 2778 defines a model and terminology for describing systems that provide presence information. In that model, a presence service is a system that accepts, stores, and distributes presence information to interested parties.	
<i>Presence Information Data Format (PIDF)</i>	The Presence Information Data Format is specified in IETF RFC 3863; it provides a common presence data format for Presence protocols, and also defines a new media type. A presence protocol is a protocol for providing a presence service over the Internet or any IP network.	
<i>Presence Information Data Format – Location Object (PIDF-LO)</i>	Provides a flexible and versatile means to represent location information in a SIP header using an XML schema.	
<i>Primary ISDN PSAP</i>	(see Primary Public Safety Answering Point)	
<i>Primary Public Safety Answering Point (PSAP)</i>	A PSAP to which 9-1-1 calls are routed directly from the 9-1-1 Control Office. (see Public Safety Answering Point)	
<i>Primary Rate ISDN (PRI)</i>	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.	
<i>Primary Rate Interface (PRI)</i>	A bundle of ISDN circuits with 23 B channels at 64 Kbps and one D channel equivalent to one T1 link.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<i>Private 9-1-1 Emergency Answering Point</i>	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 9-1-1 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.	
<i>Private Branch Exchange (PBX)</i>	A private telephone switch that is connected to the Public Switched Telephone Network.	
<i>Private Switch 9-1-1 (PS/9-1-1)</i>	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.	
<i>Private Switch ALI (PSALI)</i>	A service option which provides Enhanced 9-1-1 features for telephone stations behind private switches. E.g. PBXs.	
<i>Project ALERT</i>	America's Law Enforcement Retiree Team for MEC cases	
<i>Protocol</i>	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.	
<i>Provider Selection</i>	New IP routing capability that allows a device to select its provider.	
<i>Proxy</i>	An entity in a call path that is an intermediary, and not an endpoint. Most message contents are copies (proxied) from one side of the proxy to the other, but the proxy may modify some elements, make a routing decision, or reject the call.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Proxy Call Session Control Function (P-CSCF)</i>	The P-CSCF is the first contact point for the UE within the IMS core network. For an IMS-based emergency call, the P-CSCF detects the emergency call and forwards it to an E-CSCF.	
<i>Proxy Operator</i>	Operates proxy server(s).	
<i>Proxy or Proxy Server/Policy and Routing Server</i>	“A policy and routing server in the context of SIP is a proxy server, an intermediary entity that acts as both a server and a client for the purpose of making requests on behalf of other clients. A proxy server primarily plays the role of routing, which means its job is to ensure that a request is sent to another entity “closer” to the targeted user. Proxies are also useful for enforcing policy (for example, making sure a user is allowed to make a call). A proxy interprets, and, if necessary, rewrites specific parts of a request message before forwarding it.” (Refer to IETF RFC 3261[5].) It can be a policy/routing element in other protocols.	
<i>Pseudo Automatic Location Identification (pALI)</i>	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).	
<i>Pseudo Automatic Number Identification (pANI)</i>	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.	
<i>Public Agency</i>	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.	
<i>Public Review Period</i>	A period of time in which a draft document is posted to the NENA web site for review by all NENA members and any non-members who wish to comment regarding the content of the draft document.	
<i>Public Safety Agency</i>	An entity that provides fire fighting, law enforcement, emergency medical or other emergency service.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<i>Public Safety Answering Point (PSAP)</i>	Public Safety Answering Point (PSAP): A set of call takers authorized by a governing body and operating under common management which receives 9-1-1 calls and asynchronous event notifications for a defined geographic area and processes those calls and events according to a specified operational policy.	
<i>Public Safety Answering Point (PSAP) Manager</i>	An agent of a PSAP who defines policy for a PSAP.	
<i>Public Safety Answering Point (PSAP) Operators</i>	Operates the Public Safety Answering Points in a particular county, state, or other regional jurisdiction.	
<i>Public Safety Answering Point (PSAP) Uniform Resource Identifier (URI)</i>	A form of a name or address that denotes a PSAP and is used over an IP network.	
<i>Public Service Announcement (PSA)</i>	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).	
<i>Public Switched Telephone Network (PSTN)</i>	The network of equipment, lines, and controls assembled to establish communication paths between calling and called parties in North America.	
<i>Pulse Width Coded</i>	Modulation of a carrier by the digital representation of an analog signal. (Ref. NENA 04-002)	
<i>Q or QQ</i>	Indicates a question	
<i>Qualified Communication Assistant</i>	An individual who must have competent skills in typing, grammar, spelling, interpretation of typewritten ASL, and familiarity with hearing and speech disability cultures, languages and etiquette. Cas must possess clear and articulate voice communications. [FCC 47 C.F.R. § 64.604 (a)(1)(ii)]	
Qualified Interpreter	An individual who interprets effectively, accurately, and impartially, both receptively and expressively, between American Sign Language and spoken English.	
Qualifier Transliterater	An individual who transliterates effectively, accurately, and impartially, both receptively and expressively, between English-based sign language and spoken English.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Quality Assurance Program</i>	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.	
<i>Quality of Service (QoS)</i>	As related to data transmission a measurement of latency, packet loss and jitter.	
<i>Queue</i>	A stored arrangement of calls or data waiting to be processed	N
<i>Queuing</i>	Queuing is an automated process by which call are presented in a predefined sequence to a call taker.	
<i>Radio Frequency (RF)</i>	Self explanatory.	
<i>Railroad Electrical Sub Station</i>	A power station found along the track area of electrified railroads used to aid in the power requirements and distribution of the rail system. Substations are normally fenced off for safety however access can be gained. All equipment in the substation is electrified with high voltage.	
<i>Railroad Milepost</i>	A unique identifier for a location along a rail line or highway identified by the owner of the track or governmental authority, as applicable.	
<i>Railroad Special Agent/Railroad Police Officer</i>	A peace officer who is commissioned in his or her state of legal residence or state of primary employment and employed by a railroad to enforce state laws for the protection of railroad property, personnel, passengers, and/or cargo.	
<i>Railroad Trespasser</i>	Railroads are predominately privately owned. Any person on railroad property not at a public grade crossing or with permission of the railroad is considered to be trespassing on private property. (See section 8.4 for further explanation of trespasser.)	
<i>Rate Center</i>	A geographically specified area used for determining mileage and/or usage dependent rates in the Public Switched Telephone Network.	
<i>Real-Time</i>	The availability of information at the exact time it is occurring.	
<i>Real Time Protocol (RTP)</i>	An IP protocol used to transport media (voice, video, text) which has a real time constraint.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Real-time Transport Control Protocol (RTCP)</i>	<p>RTCP is a sister protocol of RTP and provides out-of-band control information for an RTP flow. It partners RTP in the delivery and packaging of multimedia data, but does not transport any data itself. It is used periodically to transmit control packets to participants in a streaming multimedia session. The primary function of RTCP is to provide feedback on the quality of service being provided by RTP.</p> <p>It gathers statistics on a media connection and information such as bytes sent, packets sent, lost packets, jitter, feedback and round trip delay. An application may use this information to increase the quality of service perhaps by limiting flow, or maybe using a low compression codec instead of a high compression codec. RTCP is used for Quality of Service (QoS) reporting.</p>	
<i>Real-Time Transport Protocol (RTP)</i>	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.	
<i>Recall Recorder</i>	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.	
<i>Receipt</i>	Date and time stamp when document either entered into an electronic tracking system by the jurisdiction or service provider.	
<i>Recipient Company</i>	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.	
<i>Redirect Operator</i>	Operates redirect server(s).	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Redirect Server/Call Relay Server</i>	In the context of SIP, a call relay server is a redirect server UA server that generates (3xx) redirect responses to requests it receives, redirecting the client to contact an alternate set of Uniform Resource Identifiers (URIs). (Refer to IETF RFC 3261[5].) This may be an H.323 Gatekeeper for implementations that use ITU H.323 architectures.	
<i>Redundancy</i>	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.	
<i>Referred</i>	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.	
<i>Regional Access Network Provider (RANP)</i>	The entity that provides wide area DSL coverage. The RANP provides logical links to an ISP in the form of ATM PVCs, L2TP tunnels, or IP routed traffic.	
<i>Registry</i>	A registry is a single place for keeping valid data values associated with a specific XML data element.	
<i>Rejected</i>	Date and time stamp a request is denied by the recipient.	
<i>Remote Authentication Dial-In User Service (RADIUS)</i>	The attributes for conveying access network ownership and location information based on a civic and geospatial location format	
<i>Remote Call Forwarding</i>	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.	
<i>Remote Switch Units (RSU)</i>	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.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Reorder Tone</i>	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.	
<i>Representational State Transfer (REST)</i>	An interface that transmits domain-specific data over HTTP without an additional messaging layer such as SOAP or session tracking via HTTP cookies.	
<i>Request for Comment (RFC)</i>	A method by which standard setting bodies receive input from interested parties outside of the working group.	
<i>Re-Ring</i>	(see Emergency Ring Back)	
<i>Resource Reservation Protocol (RSVP)</i>	Protocol that supports the reservation of resources across an IP network.	
<i>Response Agency</i>	The public safety agency having legal or consensual obligation to respond to a call for service.	
<i>Retrieval Key</i>	A 10-digit number that is used to uniquely identify an emergency call for the purpose of retrieving the ALI record by the PSAP.	
<i>Ringback Tone</i>	A tone returned to the caller to indicate that a call is being processed.	
<i>RJ-11</i>	A standard jack for handset and other devices connecting to a twisted pair.	
<i>Roaming</i>	Roaming: means gaining network access through a service provider other than the one that the subscriber purchases service from, or outside the subscriber's home service territory.	
<i>Root Discovery Operator (RDO)</i>	The operator that supports the well known root database from which the URI (Uniform Resource Identifier) of the correct VDB or ERDB can be determined based on regional location information.	
<i>Route Diversity</i>	(see Diverse Routing)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Router</i>	<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 	
<i>Routing Determination Function (RDF)</i>	The IMS-associated functional entity, which may be integrated in a Location Server (e.g. GMLC) or in an LRF and provides the proper outgoing address to the E-CSCF for routing the emergency request towards a PSAP. It can interact with a location functional entity (e.g. GMLC) to manage ESQK allocation and management and deliver location information to the PSAP.	
<i>Routing Emergency Service Number (ESN)</i>	The 3-5 position Emergency Service Number (ESN) used by a selective router to selectively route a 9-1-1 call and for switch-based selective transfer features. In cases where Routing ESNs are not used, the routing ESN equals the Administrative ESN. (Refer to Administrative ESN)	
<i>Routing Number</i>	(see Pseudo Automatic Number Identification (pANI))	
<i>Routing Number Authority (RNA)</i>	An authority responsible for distributing ranges of numbers to network operators for the purposes of call routing and query steering.	
<i>RS-232C</i>	An electrical and mechanical standard for the serial transfer of digital information between digital systems, such as computers, printers or communications equipment.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Runaways</i>	A runaway is when a child leave home without permission and stays away overnight; or a child 14 years old or younger (or older and mentally incompetent) who is away from home chooses not to return when supposed to and stays away overnight; or a child 15 years old or older who is away from home chooses not to return and stays away two nights.	
<i>Satellite Offices</i>	Typically auxiliary work sites set up and used by a single employer. Satellite offices are not necessarily geographically convenient or designed specifically for telework use.	
<i>Secondary ISDN Public Safety Answering Point</i>	(see Secondary Public Safety Answering Point)	
<i>Secondary Public Safety Answering Point</i>	A PSAP to which 9-1-1 calls are transferred from a Primary PSAP. (See Public Safety Answering Point)	
<i>Selective Router</i>	(see Enhanced 9-1-1 Control Office)	
<i>Selective Router (SR) Operators</i>	Operates the Selective Router(s) corresponding to specific local exchange areas.	
<i>Selective Routing (SR)</i>	The process by which 9-1-1 calls/messages are routed to the appropriate PSAP or other designated destination, based on the caller's location information, and may also be impacted by other factors, such as time of day, call type, etc. Location may be provided in the form of an MSAG-valid civic address or in the form of geo coordinates (longitude and latitude). Location may be conveyed to the system that performs the selective routing function in the form of ANI or pseudo-ANI associated with a pre-loaded ALI database record (in Legacy 9-1-1 systems), or in real time in the form of a Presence Information Data Format – Location Object (PIDF-LO) (in NG9-1-1 systems) or whatever forms are developed as 9-1-1 continues to evolve.	
<i>Selective Routing Data Base (SRDB)</i>	The routing table that contains telephone number to ESN relationships which determines the routing of 9-1-1 calls.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Selective Transfer</i>	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.	
<i>Sensor</i>	An entity/device capable of observing a phenomenon and returning an observed value.	
<i>Server</i>	In information technology, a server is a computer program that provides services to other computer programs (and their users) in the same or other computers. The computer that a server program runs in is also frequently referred to as a server (though it may be used for other purposes as well).	
<i>Server</i>	<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/disassemble (PAD), a device that assigns remote devices to a logical multipoint host line 	
<i>Service Access Points</i>	Specifies the network address of the processing entity that exposes the service interface. There may be more than one such address corresponding to various “flavors” of the service such as the different <i>bindings</i> under which the service is made available. Bindings are used to define the access mechanism used when a service is invoked (e.g., SOAP/HTTP, JMS/Messaging, and CORBA IIOP).	
<i>Service Address</i>	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)	
<i>Service Composition</i>	Used to bring together multiple services to satisfy more complex or higher-level needs.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<i>Service Level Agreement (SLA)</i>	A contract between a service provider and the end user, which stipulates and commits the service provider to a required level of service.	
<i>Service Order</i>	Local Exchange Carrier document used for additions, changes or removals of telephone service.	
<i>Service Order Input (SOI)</i>	Service Order Input is a file of completed service order updates that is sent to the DBMSP by all SP's.	
<i>Service Provider</i>	An entity providing one or more of the following 9-1-1 elements: network, CPE, or data base service.	
<i>Service Provider Identifier (SPID)</i>	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.	
<i>Service Registry</i>	A logically centralized directory of services. The registry provides a central place where service providers can publish new services and service consumers can discover those services.	
<i>Service Type</i>	A broad definition to describe different originating networks types. Examples are wireless, wire line, cable, IP, etc. Calls can be classified by their service type	
<i>Service Uniform Resource Name (Service URN)</i>	A URN with "service" as the first component used with IETF draft-ietf-ecrit-service-urn procedures to provide location-based routing of a call.	
<i>Serving Central Office</i>	The central office (CO) from which a subscriber is served. (see Central Office (CO))	
<i>Serving-CSCF (S-CSCF)</i>	The S-CSCF is the entity in the IMS core network that handles the session states.	
<i>Serving Public Safety Answering Point</i>	The PSAP to which call would normally be routed. (57-001)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Session Initiation Protocol (SIP)</i>	An IETF defined protocol (RFC3261) that defines a method for establishing multimedia sessions over the Internet. Used as the call signaling protocol in VoIP, i2 and i3	
<i>Shared Residential MLTS Service</i>	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.	
<i>Shared Telecommunications Services</i>	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.	
<i>Short Message Service (SMS)</i>	A service typically provided by mobile carriers that sends short (160 characters or fewer) messages to an endpoint. SMS is often fast, but is not real time.	
<i>Signaling Connection Control Part (SCCP)</i>	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.	
<i>Signaling System 7 (SS7)/Common Channel Signaling 7 (CCS7)</i>	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).	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<i>Signature Control</i>	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)	
<i>Simple Network Management protocol (SNMP)</i>	A protocol defined by the IETF used for managing devices on an IP network.	
<i>Simple Network Time Protocol (SNTP)</i>	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.	
<i>Simple Object Access Protocol (SOAP)</i>	SOAP is a protocol for exchanging XML-based messages over a computer network, normally using HTTP. SOAP forms the foundation layer of the Web services stack, providing a basic messaging framework that more abstract layers can build on.	
<i>Simple Transversal of User Datagram Protocol (UDP) Network Address Translation (NATs) (STUN)</i>	A protocol for assisting devices behind a NAT firewall or router with their packet routing.	
<i>Simulated Facility Group (SFG)</i>	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.	
<i>Single Point of Failure</i>	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)	
<i>Small Office/Home Office (SOHO)</i>	Describes a small office or home office with few occupants, often just one.	
<i>Smuggling</i>	Every act whereby an immigrant is assisted in crossing international borders and this crossing is not endorsed by the government of the receiving state, neither implicitly nor explicitly.	
<i>Society of Automotive Engineers (SAE)</i>	U.S. based engineering standard body for the automotive industry.	
<i>Sockets</i>	A method for communication between two applications in a network. The socket is defined as “the endpoint in a connection”.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Soft Permanent Virtual Circuit (SPVC)</i>	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).	
<i>Source Data Base</i>	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.	
<i>Spatial</i>	Relating to, occupying, or having the character of space. Geographic Information Systems store spatial data in regional databases. See Geospatial.	
<i>Speech Impairment</i>	Speech Impairment is a communications disorder, such as stuttering, impaired articulation, language impairment or a voice impairment, which adversely affects a person's ability to articulate speech clearly.	
<i>Spike Masking</i>	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).	
<i>Splash Ringing</i>	The capability to provide an audible signal simultaneously with trunk seizure on an incoming 9-1-1 call.	
<i>SSH File Transfer Protocol (SFTP)</i>	A network protocol that provides file transfer and manipulation functionality over any reliable data stream. It is typically used with the SSH-2 protocol to provide secure file transfer.	
<i>Stand Alone Data Base</i>	A data base system created, maintained and located at a 9-1-1 Jurisdiction.	
<i>Standard Master Street Address Guide (MSAG)</i>	An MSAG maintained in accordance with the data fields as recommended in NENA standards 02-010 and 02-011. (See MSAG Address and Local Operational MSAG)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Standard Operating Procedure (SOP)</i>	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”.	
<i>Standards Advisory Committee (SAC)</i>	The Standards Advisory Committee consists of representatives from both NENA Technical and Operations Committees. The SAC advises the NENA Executive Board that the NENA processes have been followed during the document approval process	
<i>Standards Development Organization (SDO)</i>	An entity whose primary activities are developing, coordinating, promulgating, revising, amending, reissuing, interpreting, or otherwise maintaining standards that address the interests of a wide base of users outside the standards development organization.	
<i>Start (ST)</i>	An MF signaling tone (digit).	
<i>Start Bit</i>	In asynchronous transmission, the first element in each character that prepares the receiving device to recognize the incoming information.	
<i>Start Prime (STP)</i>	An MF signaling tone (digit)	
<i>Station Identification</i>	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.	
<i>Stop Bit</i>	In asynchronous transmission, the last transmitted element in each character, which permits the receiver to come to an idle condition before accepting another character.	
<i>Straight Binary Seconds (SBS)</i>	A binary number that appears in the IRIG time code which represents the total number of seconds since midnight. (Ref. NENA 04-002)	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Stranded Unlock Record</i>	A record in the E9-1-1 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 systems permissive migrate transaction time has expired and no other changes shall be made to the record.	
<i>Stream Control Transport Protocol (SCTP)</i>	<p>SCTP is defined by IETF RFC2960 as the transport layer to carry signaling messages over IP networks. SCTP/T is just one of the many products in the Adax Protocol Software (APS) SIGTRAN suite that has been designed for Convergence, Wireless and Intelligent Networks. Compliant with IETF RFC2960 and RFC3309, SCTP/T (SCTP for Telephony) is implemented in the OS kernel. SCTP/T provides a transport signaling framework for IP networks that enhances the speed and capability of SSCS/HSL and can be deployed over T1/E1, Ethernet and ATM OC3 physical media interfaces.</p> <p>In addition to the services specified in IETF RFC2960, Adax SCTP/T also provides a transport framework with levels of service quality and reliability as those expected from a Public Switched Telephony Network (PSTN).</p>	
<i>Successful ALI Queries</i>	The sum of all ALI Queries less No Record Finds, Misroutes, MSAG Discrepancies, and ALI Discrepancies.	
<i>Switched Virtual Circuit (SVC)</i>	A network connection initiated by signaling at a UNI, where the originator specifies the destination address.	
<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>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<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>T1</i>	<p>The T1 (or T-1) carrier is the most commonly used digital transmission service in the United States, Canada, and Japan. In these countries, it consists of 24 separate channels using pulse code modulation (PCM) signals with time-division multiplexing (TDM) at an overall rate of 1.544 million bits per second (Mbps). T1 lines originally used copper wire but now also include optical and wireless media. A T1 Outstate System has been developed for longer distances between cities.</p> <p>It is common for an Internet access provider to be connected to the Internet as a point-of-presence (POP) on a T1 line owned by a major telephone network. Many businesses also use T1 lines to connect to an Internet access provider.</p>	
<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>Target</i>	The IP endpoint to which location is attributed.	
<i>TDD/TTY Detector</i>	Any device that automatically detects TDD/TTY tones and audibly and/or visually notifies the calltaker.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdte</i>
<i>Team Adam</i>	NCMEC on site emergency response team for abduction cases	
<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>Technical Requirements Document (TRD)</i>	NENA Technical Requirements Document, developed by a Technical Committee, is used as basis for a NENA Technical Committee or outside Standards Development Organization (SDO) to develop formal industry accepted standards or guidelines.	
<i>Telecommunication Technology Committee (TTC)</i>	A Japanese committee whose purpose is to contribute to standardization in the field of telecommunications by establishing protocols and standards for telecommunications networks and terminal equipment, etc as well as to disseminate those standards.	
<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>N)ew U)pdate</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>Telecommunications Technology Association (TTA)</i>	Telecommunications Technology Association was founded as a voluntary standards body and has established a total of 450 standards in telecommunications fields. Its main aim is to enhance the Korean national infrastructure of telecommunication systems.	
<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 mechanisms that support the acquisition of telemetry data and action based upon it.	
<i>Telemetry</i>	Telemetry is a technology that allows the remote measurement and reporting of information of interest to a system designer or operator; e.g., doctor monitoring pacemaker functionality.	
<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 known 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>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Telework</i>	A work arrangement in which employees work at any time or place that allows them to accomplish their work in an effective and efficient manner.	
<i>Temporary Residence</i>	The use of MLTS to provide temporary occupancy in a facility such as dormitories, hotel/motel, health care and nursing homes, or other similar facilities.	
<i>Text Telephone</i>	Another term for TDD/TTY	
<i>Third Generation Partnership Project 2 (3GPP2)</i>	A collaborative third generation (3G) telecommunications specifications-setting project comprised of interests from the Americas and Asia developing global specifications for Mobile Application Protocol (MAP) “Wireless Radio-telecommunication Intersystem Operations” network evolution to 3G. The project is focused on global specifications for the radio transmission technologies supported by MAP and the wireless IP core networks, together known as the cdma2000 [®] family of standards.	
<i>Three-Way Calling</i>	(see Conference Transfer)	
<i>Throwaway</i>	A Throwaway is a child asked or told to leave home by a parent or other household adult and the child is out of the household overnight; or a child who is away from home is prevented from returning home by a parent or other household adult.	
<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 Duplex Mode (TDD)</i>	This is using TDM access to separate outward and return signals in which the bandwidth used can be variable based on the requirements of the data being transmitted.	
<i>Time Division Multiple Access (TDMA)</i>	A digital radio interface utilized by some North American PCS carriers.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Time Division 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>Tipsoft</i>	A brand name of tip management software.	
<i>Tipster</i>	A confidential informant who reports information regarding criminal activity, including human trafficking activity, to a Crime Stoppers' telephone tip line, or who reports such information electronically through an internet website or text messaging system designated for anonymous Crime Stoppers tips.	
<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>Topology</i>	Spatial relationships between connecting or adjacent features in a geographic information system data layer.	
<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>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<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>Transport Facility</i>	An analog or digital circuit that connects switches and/or networks together. In this document, this refers to a digital trunk that carries calls between either the carrier network and the SR, or the SR and the PSAP.	
<i>Trespasser</i>	Railroads are predominately privately owned. Any person on railroad property not at a public grade crossing or with permission of the railroad is considered to be trespassing on private property. (See section 8.4 for further explanation of trespasser.)	
<i>Trunk</i>	Typically, a communication path between central office switches, or between the 9-1-1 Control Office and the PSAP.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Trunk Alternate Route</i>	The routing condition that occurs when all trunks from the end office to SR are <i>out of service</i> . The scenario represents an end office to SR trunk <i>failure</i> condition versus an <i>all trunks busy</i> condition.	
<i>Trunk Group</i>	One or more trunks terminated at the same two points.	
<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>TTY Protocol</i>	TTY protocol refers to the use of unique abbreviations used to control the flow of conversation. The use of TTY protocols is critical to effective TTY communications.	
<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 Identifier (URI)</i>	A predictable formatting of text used to identify a resource on a network (usually the Internet) OR A string of characters that must follow prescribed syntaxes such as URL, URN... <u>Note</u> Version 1.1 of the XML namespaces recommendation uses IRIs (Internationalized Resource Identifiers) instead of URIs. However, because version 1.1 is not yet a full recommendation [February, 2003] and because the IRI RFC [11] is not yet complete, this document continues to refer to URIs instead of IRIs.	
<i>Uniform Resource Locator (URL)</i>	A URL is a URI specifically used for describing and navigating to a resource (e.g. http://www.nena.org)	
<i>Uninterruptible Power Supply (UPS)</i>	A backup system designed to provide continuous power in the event of a commercial power failure or fluctuation.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Universal Coordinated Time (UTC)</i>	Also known as Zulu or GMT. Time provided by National Institute of Standards and Technology (NIST) and United States Naval Observatory (USNC).	
<i>Universal Resource Name</i>	Uniform Resource Identifiers (URIs) that use the <i>urn</i> scheme, and are intended to serve as persistent, location-independent resource names.	
<i>Universal Terrestrial Radio Access (UTRA)</i>	UTRA is a standard for 3G mobile communications services being specified by 3GPP. The radio access components of UTRA are based on direct-spread wideband code-division multiple access (WCDMA) and hybrid time-division (TDCDMA) access methods that have been designed for 3G frequency efficiency, mobility, and QoS requirements.	
<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>User Agent (UA)</i>	As defined for SIP in IETF RFC 3261[5], the User Agent represents an endpoint in the IP domain, a logical entity that can act as both a user agent client (UAC) that sends requests, and as user agent server (UAS) responding to requests.	
<i>User Agent Client (UAC)</i>	Refer to IETF RFC 3261 for the following definition. "A user agent client is a logical entity that creates a new request, and then uses the client transaction state machinery to send it. The role of UAC lasts only for the duration of that transaction. In other words, if a piece of software initiates a request, it acts as a UAC for the duration of that transaction. If it receives a request later, it assumes the role of a user agent server for the processing of that transaction."	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>User Agent Server (UAS)</i>	Refer to IETF RFC 3261 for the following definition. “A user agent server is a logical entity that generates a response to a SIP request. The response accepts, rejects, or redirects the request. This role lasts only for the duration of that transaction. In other words, if a piece of software responds to a request, it acts as a UAS for the duration of that transaction. If it generates a request later, it assumes the role of a user agent client for the processing of that transaction.	
<i>User Datagram Protocol (UDP)</i>	One of several core protocols commonly used on the Internet. Used by programs on networked computers to send short messages, called datagrams, between one another. UDP is a lightweight message protocol, compared to TCP, is stateless and more efficient at handling lots of short messages from many clients compared to other protocols like TCP. Because UDP is widely used, and also since it has no guaranteed delivery mechanism built in, it is also referred to as Universal Datagram Protocol, and as Unreliable Datagram Protocol.	
<i>User Equipment (UE)</i>	A device allowing a user access to network services.	
<i>V0 Interface</i>	LIS to VoIP Endpoint. The V0 interface is used to provide a means for a VoIP endpoint to receive information corresponding to a pre-determined location.	
<i>V1 Interface</i>	VoIP Endpoint to Call Server/Proxy. The V1 interface is between the VoIP Endpoint and the Call Server within the VSP’s network.	
<i>V2 Interface</i>	Call Server/Proxy to VPC. The V2 interface is used to request emergency call routing information when the Call Server/Routing Proxy/Redirect Server is a separate element from the VPC.	
<i>V3 Interface</i>	LIS to VPC (Optional). The V3 interface provides a means for the VPC to obtain the emergency caller’s location.	
<i>V4 Interface</i>	Call Server/Routing Proxy to ESGW. The V4 interface is used to forward the call to the appropriate ESGW.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
V5 Interface	Call Server to Redirect Server. The V5 interface is defined as a SIP interface to a Redirect Server so it supports a subset of the SIP specification.	
V6 Interface	Call Server to Routing Proxy. The V6 interface is defined as a SIP interface to a Routing Proxy.	
V7 Interface	<p>Location Validation Interface. The V7 interface is used by the LIS provider to request validation of a given Civic Location as compared with the MSAG-based data stored in the VDB. A location validation request includes at least the civic location. The response includes an indication of whether or not the Civic Location is a valid address recognized by the MSAG, and may include error/diagnostic information to assist in resolving problems. The interface should be able to support individual location validation requests sent one at a time for validation processing.</p> <p>The V7 interface is a web server that is described by a WSDL (Web Service Description Language). More information can be found at http://www.nena.org/xml_schemas/nena.htm under NENA Schemas, Release 4.1, I2, Schemas and WSDLs.</p>	
V8 Interface	<p>VPC to ERDB. The V8 interface supports queries from the VPC to the ERDB. The VPC sends location information for the emergency caller to the ERDB to obtain routing information (ESRN), and other information to help in selection of an appropriate ESQK for the call and to support the delivery of call/location information in response to ALI database requests.</p> <p>The V8 interface is a web server that is described by a WSDL (Web Service Description Language). More information can be found at http://www.nena.org/xml_schemas/nena.htm under NENA Schemas, Release 4.1, I2, Schemas and WSDLs.</p>	
V9 Interface	LIS/VPC to Root Discovery Operator. The V9 interface allows a VEP/LIS or VPC to discover the appropriate VDB/ERDB.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Valid Emergency Services Authority (VESA)</i>	This organization is the root source of all certificates. It is responsible for identifying and issuing certificates either directly to end using entities or through delegate credential authorities. It is responsible for ensuring that any delegate credential authority that it identifies is properly qualified and operating with sufficient security and legitimacy to perform this role. Where VESA issues certificates directly to end users, it also has the responsibilities of a delegate credential authority in those cases.	
<i>Valid XML instance document</i>	The instance document satisfies the structural, content type and constraints established by its associated schema (document definition).	
<i>Validation Data Base (VDB)</i>	The VDB contains information that describes the current, valid civic address space defined by the Emergency Services Network Provider's MSAG. Validation against this database ensures that the address is a real address (i.e., the address exists) but does not ensure that it is the location of the caller.	
<i>Validation Data Base (VDB) Operator</i>	An operator that provides location information validation services to LIS operators and other users.	
<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>V-E2 Interface</i>	VPC to ALI DB. The V-E2 interface uses the E2+ protocol as defined in NENA Standards 05-001[13], with modifications required for support of i2.	
<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>VESA Certificate</i>	This is the certification provided by a VESA that clearly identifies the end user is properly qualified and operating with sufficient security and legitimacy to perform its role. Presumably it can be used in a variety of situation including secure web based transactions and exchange of data from one point to another on the network. Generally, the process of checking certification occurs in the background and the end user receives either a pass or a fail.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Victim</i>	Also known as the trafficked person, trafficking victim or witness – refers to the individual who was subjected to trafficking and is now participating in the criminal justice system as a witness for the government against the trafficker.	
<i>Video Interpreter (VI)</i>	The third party in a relayed call for Video Relay Services (VRS) using sign language interpreting and/or signed or oral transliteration.	
<i>Videophone Remote Interpreting (VRI)</i>	An interactive video teleconferencing system that utilizes a Sign Language Interpreter at a call center to interpret between sign language users and non-sign language users through video-conferencing equipment. This differs from VRS in that the hearing and deaf parties can be present in the same room. Additionally, VRI is not regulated or reimbursable by the FCC and costs are incurred by party hiring the VRI service.	
<i>Video Relay Service (VRS)</i>	A service provided by common carriers and other vendors that provides third party communication relay between video telephone users using Internet connections and videophone or webcam and voice telephone users. Such services are located in call centers around the country.	
<i>Virtual Circuit (VC)</i>	A packet-based communications link between two devices that emulates a dedicated physical circuit.	
<i>Virtual Circuit Identifier (VCI)</i>	Part of the addressing information used in an ATM frame that identifies a particular virtual path.	
<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 E9-1-1VFG, it relates to the E9-1-1 Control Office switch. (From 03-007)	
<i>Virtual LAN (VLAN)</i>	A logical grouping of ports and endpoints such that all ports and endpoints in the VLAN appear to be on the same physical (or extended) LAN segment even though they may be geographically separated.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Virtual Office, Virtual PSAP</i>	A fully functional worksite that is not bound to a specific location but is portable and scalable, connecting employees to the work process in the most advantageous setting, rather than employees having to come to a central office to connect to the work process.	
<i>Virtual Path Identifier (VPI)</i>	Part of the addressing information used in an ATM frame that identifies a particular virtual path.	
<i>Virtual Private Network (VPN)</i>	A virtual private network (VPN) is a network that uses a public telecommunication infrastructure, such as the Internet, to provide remote offices or individual users with secure access to their organization's network	
<i>Virtual Worker, Virtual Workforce</i>	Employees who consistently work at home or at a remote location with no designated work space or equipment provided at a central office.	
<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>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 (VoIP) Positioning Center (VPC)</i>	The element that provides routing information to support the routing of VoIP emergency calls, and cooperates in delivering location information to the PSAP over the existing ALI DB infrastructure. The VPC supports access to the routing data in the ERDB.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Voice over Internet Protocol (VoIP) Service Provider (VSP)</i>	Operates the network service and equipment that provides call processing for Voice over IP subscribers.	
<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>Voice Service Provider (VSP)</i>	Operates the network equipment that provides call processing for Voice over Internet Protocol subscribers.	
<i>VoIP Endpoint (VEP)</i>	The endpoint IP Device that is used to originate an emergency call.	
<i>VoIP Positioning Center (VPC)</i>	The VoIP Positioning Center (VPC) is the element that provides routing information to support the routing of VoIP emergency calls, and cooperates in delivering location information to the PSAP over the existing ALI DB infrastructure. The VPC supports access to the routing data in the ERDB.	
<i>VPC Operator</i>	Operates VPC network element(s).	
<i>Web</i>	World Wide Web or Internet.	
<i>Web service</i>	A self-contained, self-describing, modular application that can be published, located, and invoked across the Web. Web services perform functions that can be anything from simple requests to complicated business processes	N

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<i>Web Service Description Language (WSDL)</i>	<p>The Web Services Description Language (WSDL) is an XML-based language used to describe the services a business offers and to provide a way for individuals and other businesses to access those services electronically. WSDL is the cornerstone of the Universal Description, Discovery, and Integration (UDDI) initiative spearheaded by Microsoft, IBM, and ARIBA. UDDI is an XML-based registry for businesses worldwide, which enables businesses to list themselves and their services on the Internet. WSDL is the language used to do this.</p> <p>WSDL is derived from Microsoft’s Simple Object Access Protocol (SOAP) and IBM’s Network Accessible Service Specification Language (NASSL). WSDL replaces both NASSL and SOAP as the means of expressing business services in the UDDI registry.</p>	
<i>Well-formed XML instance document</i>	The instance document satisfies XML syntax rules	
<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 Access Point (WAP)</i>	<p>http://en.wikipedia.org/wiki/Wireless_access_point, provides the following definition: “In <u>computer networking</u>, a wireless access point (WAP or AP) is a device that connects wireless communication devices together to form a <u>wireless network</u>. The WAP usually connects to a <u>wired network</u>, and can relay data between wireless devices and wired devices. Several WAPs can link together to form a larger network that allows “<u>roaming</u>”. (In contrast, a network where the client devices manage themselves – without the need for any access points – becomes an <u>ad-hoc network</u>.) Wireless access points have IP addresses for configuration.”</p> <p>Refer also to http://www.ieee802.org/11/</p>	
<i>Wireless Fidelity (WiFi)</i>	A common name for IEEE 802.11 wireless broadband access networks.	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
<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 Network Controller (WNC)</i>	A wireless network controller manages a group of wireless access points in a wireless LAN. In this type of network the wireless network controller is able to control wireless access point hand-overs to improve the overall performance of the network.	
<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>Working Group (WG)</i>	A group of people formed to discuss and develop a response to a particular issue. The response may result in a Standard, an Information Document, Technical Requirements Document or Liaison	

<i>Term</i>	<i>Definition</i>	<i>N)ew U)pdate</i>
Workspace	The physical building area where work is normally performed. This is a net square footage measurement which includes hallways, conference rooms, rest rooms, and 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 acc	
Worldwide Interoperability for Microwave Access (WiMAX)	A brand name and a certification mark for IEEE 802.16 compliant products.	
World Wide Web (WWW)	The public internet.	
XSD Profile	A profile of SPML-based provisioning describing the use of XML and an XSD as a data model.	
eXtensible Markup Language (XML)	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.	
eXtensible Markup Language (XML) instance document	An XML document that conforms to a given schema, as a specific instance of that schema.	
eXtensible Markup Language (XML) Schema	The formal document definition (structure, content type and constraints) describing a class of XML instance documents. There are various XML schema languages, but in this document, all schemas are assumed to be defined using the W3C XML Schema definition language [5].	
X,y	Shorthand expression for coordinates that identify a specific location in two dimensions representing latitude and longitude.	
X.25	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>	<i>N)ew U)date</i>
3GPP	3 RD Generation Partner Project	
3GPP2	3 rd Generation Partnership Project 2	
A&E	Architectural and Engineering	
AAR	Association of American Railroads	
ACB	All Circuits Busy	
ACCDEN	Access Denied	
ACD	Automatic Call Distribution, Automatic Call Distributor	
ACN	Automatic Collision Notification	
ADA	Americans with Disabilities Act	
ADEA	Age Discrimination in Employment Act	
ADSL	Asymmetrical Digital Subscriber Line	
AEAN	Alternate Emergency Access Number	
AES	Advanced Encryption Standard	
AHJ	Authority Having Jurisdiction	N
AIP	Access Infrastructure Provider	
ALE	Access Location Entity	
ALEC	Alternate Local Exchange Carrier	
ALI	Automatic Location Identification	
ALIDB	Automatic Location Identification Database	
AMPS	Advanced Mobile Phone Service	
ANI	Automatic Number Identification	
ANI/ALI	Automatic Number Identification/Automatic Location Identification	N
ANS	American National Standard	
ANSI	American National Standards Institute	
AOA	Angle of Arrival	
AoR	Address of Record	
APCO	Association of Public Safety Communications Officials	
API	Application Programming Interface	
APU	Answering Position Unit	
AQS	NENA ALI Query Service	
AQSI	ALI Query Services Interface	
ARES	Amateur Radio Emergency Service	
ARIB	Association of Radio Industries and Businesses	
ARP	Address resolution Protocol	
ASCII	American Standard Code for Information Exchange	
ASL	American Sign Language	
ASLARRA	American Short Line and Regional Railroad Association	
ASP	Application Service Provider	

ASRR	Average Sector Radius Range	
ATA	Analog Terminal Adapter	
ATIS	Alliance for Telecommunications Industry Solutions	
ATM	Asynchronous Transfer Mode	
AVL	Automatic Vehicle Location	
B2BUA	Back to Back User Agent	
BASK	Binary Amplitude Shift Key	
BCD	Binary Coded Decimal	
BCF	Border Control Function	
BellCore	Bell Communications Research	
BLI	Busy Line Interrupt	
BLV	Busy Line Verification	
BOC	Bell Operating Company	
BOOTP	Bootstrap Protocol	
BP	Best Practice	N
BPL	Broadband Over Power Lines	
BRAS	Broadband Remote Access Server	
BRI	Basic Rate Interface	
BTS	Bureau of Transportation Statistics	
BUI	Building Unit Identifier	
C-TAG	The innermost VLAN tag as defined in IEEE 802.1ad	
CA	Communications Assistant	
CAD	Computer Aided Dispatch	
CAMA	Centralized Automatic Message Accounting	
CAP	Competitive Access Provider	
CART	Child Abduction Response Team	
CAS	Call-path Associated Signaling, Channel Associated Signaling	
CBA	Cost Benefits Analysis	
CBN	Call Back Number	
CBR	Constant Bit Rate	
CCA	Cost Comparison Analysis	
CCH	Computerized Criminal History	
CCS	Common Channel Signaling or Hundred Call Seconds	
CCSA	China Communications Standards Association	
CCS7	Common Channel Signaling 7	
CDMA	Code Division Multiple Access	
CdPN	Called Party Number	
CDR	Call Detail Record	
CFS	Consolidated Firearms System	
CGI	Common Gateway Interface	
CGL	Calling Geodetic Location Parameter	
CgPN	Calling Party Number	

CHGN	Charge Number Parameter	
CID	Company Identification/Identifier	
CIF	Critical Issues Forum	
CII	Criminal Identification and Investigation	
CISC	Canadian Radio-Television and Telecommunications Commission Interconnection Steering Committee	
CJIC	Criminal Justice Information System	
CLEC	Competitive Local Exchange Carrier or Certified Local Exchange Carrier	
CLID	Calling Line Identification	
CLLI	Common Language Location Identifier	
CMRS	Commercial Mobile Radio Service	
CMTS	Cable Modem Termination System	
CO	Central Office	
CODEc	Coder/EDCoder or Compression/DECompression	
COG	Council of Government	
COLT	Cell on Light Truck	
CONUS	Continental United States	
COOP	Continuity of Operations Plan	N
CoS	Class of Service	
COW	Cell on Wheels	
CPAS	Cellular Priority Access Service	
CpCAT	Calling Party CATegory	
CPE	Customer Premise Equipment	
CPN	Calling Party Number Parameter	
CPU	Central Processing Unit	
CRDB	Coordinate Routing Data Base	
CRL	Certificate Revocation List	
CRM	Committee Resource Manager	
CRN	Contingency Routing Number	
CRT	Cathode Ray Tube	
CRTC	Canadian Radio-television and Telecommunications Commission	
CSCF	Call Session Control Function	
CSP	Communications Services Provider	
CTI	Computer Telephone Integration	
CTIA	Cellular Telephone Industry Association	
CTX-IP	Centrex-based Internet Protocol	
CW	Call Waiting	
dB	Decibels	
DB	Deaf-Blind	
DBMS	Data Base Management System	
DBMSP	Data base Management System Provider	
DCE	Data Communications Equipment	

DHCP	Dynamic Host Control Protocol (i2) Dynamic Host Configuration Protocol	
DHHS	United States Department of Health and Human Services	
DHS	United States Department of Homeland Security	
DID	Direct Inward Dialing	
DMS	Data Management System	
dMSID	Default Mobile Station Identity	
DMST	Domestic Minor Sex Trafficking	
DMT	Discrete Multi Tone	
DN	Directory Number	
DNS	Domain Name Server (or Service or System)	
DOCSIS	Data over Cable Service Interface Specification	
DoD	Department of Defense	
DOD	Direct Outward Dialing	
DOE	United States Department of Energy	
DOJ	United States Department of Justice	
DOL	United States Department of Labor	
DoS	Denial of Service	
DOS	Disk Operating System	
DOT	Department of Transportation	
DP	Dial Pulse	
DRP	Disaster Recovery Plan	
DSL	Digital Subscriber Line	
DSLAM	Digital Subscriber Line Access Multiplexer	
DSP	Digital Signal Processing	
DTE	Data Terminal Equipment	
DTMF	Dual Tone Multi-Frequency	
DVROS	Domestic Violence Restraining Order System	
E9-1-1	Enhanced 9-1-1	
E9-1-1M	Mobile E9-1-1, Mobile Emergency Service	
EAB	Education Advisory Board	
EAS	Emergency Alert Systems	
ECOM	Essential Communications During Emergencies	
ECR	Emergency Call Register	
ECRF	Emergency Call Routing Function	
ecrit	Emergency Context Resolution In the Internet	
E-CSCF	Emergency Call Session Control Function	
EDGE	Enhanced Data rates for GSM Evolution	
EEOC	Equal Employment Opportunity Commission	
EENA	European Emergency Number Association	
EFM	Ethernet in the First Mile	
EIA	Electronic Industry Association	
EIA RS-	Electronic Industry Alliance Recommended Standard 232 (serial interface)	

232		
EISI	Emergency Information Services Interface	
ELA	Emergency Line Access	
ELD	Electro-Luminescent Display	
ELIN	Emergency Location Identification Number	
ELT	English Language Translation	
EM	Emergency Message	
EMS	Emergency Medical Service	
EMT	Emergency Medical Technician	
EMTEL	Emergency Telecommunications	
ENS	Emergency Notification Systems	
EO	End Office	
EOC	Emergency Operations Center	
EPAD	Emergency Provider Access Directory	
EPROM	Erasable Programmable Read-Only Memory	
EPZ	Emergency Planning Zone	
ERDB	Emergency Services Zone Routing Database	
ERL	Emergency Response Location	
ES	Emergency Service	
ESA	Emergency Stand Alone	
ESC	Emergency Services Call	
ESCO	Emergency Service Central Office	
ESGW	Emergency Services Gateway	
ESIF	Emergency Services Interconnection Forum	
ESInet	Emergency Services IP Network	
ESME	Emergency Services Message Entity	
ESMI	Emergency Services Messaging Interface	
ESMR	Enhanced Specialized Mobile Radio	
ESN	Emergency Service Number, Electronic Serial Number, Emergency Service Network	
ESNE	Emergency Services Network Entity/Element	
ESNet	Emergency Services Network	
ESNI	Emergency Services Network Interfaces	
ESQK	Emergency Services Query Key	
ESP	Emergency Services Provider, or Emergency Services Protocol	
ESRD	Emergency Services Routing Digit	
ESRI	Environmental Services Research Incorporated	
ESRK	Emergency Services Routing Key	
ESRN	Emergency Services Routing Number/Name	
ESRP	Emergency Services Routing Proxy	
ESZ	Emergency Services Zone (same as ESN)	
ETA	Estimated Time of Arrival	

ETB	Emergency Transport Backup	
ETNS	Emergency Telephone Notification System	
ETSI	European Telecommunications Standards Institute	
EUMI	End User Move Indicator	
FAA	Federal Aviation Administration	
FAQ	Frequently Asked Questions	
FBI	Federal Bureau of Investigation	
FCC	Federal Communications Commission	
FDD	Frequency Division Duplex	
FDDI	Fiber Optic interface	
FE	Functional Entity	
FG-D	Feature Group D	
FGDC	Federal Geographic Data Committee	
FHA	United States Federal Highway Administration	
FLSA	Fair Labor Standards Act	
FMLA	Family and Medical Leave Act	
FOC	Function of Change	
FQDN	Fully Qualified Domain Name	
FRA	United States Federal Railway Administration	
FTP	File Transfer Protocol	
FTTA	Fiber To The Access	
FTHH	Fiber To The Home	
FTTP	Fiber To The Premises	
FX	Foreign Exchange	
GA	Go ahead	
GAP	Global Address Parameter	
GA SK	Go Ahead Stop Keying (Go Ahead or Ready to Hang Up)	
GDP	Generic Digit Parameter	
geopriv	Geolocation and Privacy	
GETS	Government Emergency Telecommunications Service	
GHC911	Greater Harris County 9-1-1 Network	
GIS	Geographic Information Systems	
GML	Geographic Markup Language	
GMLC	Gateway Mobile Location Center (MLC)	
GMT	Greenwich Mean Time	
GNP	Geographic Number Portability	
GOS	Grade of Service	
GPOSDIR	GeoPositionDirective INVOKE (see JSTD-036)	
Gposdir	GeoPositionDirective RETURN RESULT (see JSTD-036)	
GPOSREQ	GeoPositionRequest INVOKE (see JSTD-036)	
gposreq	GeoPositionRequest RETURN RESULT (see JSTD-036)	
GPRS	General Packet Radio Service	

GPS	Global Positioning System	
GR-2945	Telcordia Year 2000: Systems and Interfaces General Requirements Document	
GSM	Global Standard for Mobile Communication	
GUID	Globally Unique Identifier	
HCO	Hearing Carry Over	
HELD	HTTP-Enabled Location Delivery protocol	
HFC	Hybrid Fiber Coax	
HDSL	High bit rate Digital Subscriber Line	
HDTV	High-Definition Television	
HID	Hardware Identity	
HIPAA	Health Insurance Portability and Accountability Act	
HLR	Home Location Register (see ANSI-41)	
HOH	Hard of Hearing	
HRRC	Houston Rescue and Restore Coalition	
HSPD	Homeland Security Presidential Directive	
HSS	Home Subscriber Server	
HTML	Hyper Text Markup Language	
HTRA	Human Trafficking Rescue Alliance	
HTTP	Hyper Text Transfer Protocol	
HVAC	Heating Ventilation and Air Conditioning	
Hz	Hertz	
i2	NENA 08-001 Interim VoIP Architecture for Enhanced 9-1-1 Services (i2)	
IAB	Internet Architecture Board	
IAD	Integrated Access Device	
IAM	Initial Address Message	
IANA	Internet Assigned Numbers Authority	
ICANN	Internet Corporation Assigned Names and Numbers	
ICE	Immigration Customs Enforcement	
ICO	National 9-1-1 Implementation and Coordination Office	
ICR/IRR	Instant Call Recorder/Instant Recall Recorder	
ICS	Incident Command System	
ID	Identified	
IEEE	Institute of Electrical and Electronics Engineers	
IESG	Internet Engineering Steering Group	
IETF	Internet Engineering Task Force	
IID	Incident Identification	
ILEC	Incumbent Local Exchange Carrier	
IM	Instant Messaging	
IMEI	International Mobile Equipment Identity	
IMS	IP Multimedia Subsystem	
IMSI	International Mobile Station Identity	

IMTC	International Multimedia Teleconferencing Consortium	
IN	Intelligent Network	
INP	Interim Number Portability	
IP	Internet Protocol	
IPBX (or IP PBX)	Internet Protocol Private Branch Exchange	
IP-CAN	IP Connectivity Access Network	
IP-COAD	Internet Protocol-Coordination Ad-Hoc Committee	
IPI	Imagery and Geospatial Plans and Policy Branch	
ipm	Interrupts per minute	
IpoE	Internet Protocol over Ethernet	
IP Relay	Internet Protocol Relay	
IPSec	Internet Protocol Security	
Ipv4	Version 4 of the Internet Protocol	
IRIG	Inter-Range Instrumentation Group	
ISDL	ISDN Digital Subscriber Line	
ISDN	Integrated Services Digital Network	
ISOC	Internet Society	
ISP	Internet Service Provider	
ISUP	Integrated Services Digital Network User Part	
ITS	Intelligent Transportation System	
ITSP	Internet Telephone Service Provider	
ITU	International Telecommunications Union	
ITU-D	International Telecommunications Union – Development	
ITU-R	International Telecommunications Union – Radiocommunications	
ITU-T	International Telecommunications Union – Telecommunications	
IVR	Interactive Voice Response	
IWS	Intelligent Workstation	
J CM	Joint Committee Meeting	
KP	Key Pulse	
KSU	Key Service Unit	
KTS	Key Telephone System	
KTU	Key Telephone Unit	
LAENS	Large Area Emergency Notification System	
L2TP	Layer-2 Tunneling Protocol	
LAN	Local Area Network	
LATA	Local Access and Transport Area	
LCD	Liquid Crystal Display	
LCR	Least Cost Routing	
LDAP	Lightweight Directory Access Protocol	
LDT	Location Determination Technology or Line Digital to Trunk	
LEC	Local Exchange Carrier	

LED	Light Emitting Diode	
LERG	Local Exchange Routing Guide	
LIE	Location Information Element	
LIS	Location Information Server	
LIS-ID	Location Information Server Identifier	
LK	Location Key	
LLDP-MED	Link Layer Discovery Protocol Media Endpoint Discovery	
LNP	Local Number Portability	
LO	Location Object	
LOCREQ	Location Request	
LoST	Location to Service Translation	
LPN	Local Public Safety Number	
LRF	Location Retrieval Function	
LRO	Last Routing Option	
LSMS	Local Service Management System	
LSO	Local Serving Office	
LSP	Local Service Provider	
LSR	Local Service Request	
LSSGR	LATA Switching Systems Generic Requirements	
LTD	Long Term Definition	
LVF	Location Validation Function	
MapInfo	Mobile Information (see JSTD-036) (MapInfo is a trademark registered name!)	
MCC	Mobile Competence Centre	
MDC	Mobile Data Communications	
MDF	Main Distribution Frame	
MDN	Mobile Directory Number	
MDT	Mobile Data Terminal	
MEC	Missing and Exploited Children	
MEID	Mobile Equipment Identity	
MEP	Message Exchange Pattern	
MF	Multi-Frequency	
MGCP	Media Gateway Control Protocol	
MIN	Mobile Identified Number, Mobile Identification Number	
MLP	Mobile Location Protocol	
MIS	Management Information System	
MLTS	Multi-Line Telephone System	
MMTA	MultiMedia Telecommunications Association	
MOA	Memorandum of Agreement	
MOU	Memorandum of Understanding	
MP	Mobile Phone	

MPC	Mobile Positioning Center	
MPCAP	Mobile Positioning Capability (see JSTD-036)	
MPLS	Multi-Protocol Label Switching	
MPOA	Multi-Protocol Over ATM	
ms	Milliseconds	
MS	Mobile Station	
MSA	Metropolitan Statistical Area	
MSC	Mobile Switching Center	
MSAG	Master Street Address Guide	
MSC	Mobile Switching Center	
MSID	Mobile Station Identity	
MSISDN	Mobile Station ISDN Number	
MSO	Mobile Switching Office	
MSRN	Mobile Station Routing Number	
MSS	Mobile Satellite Services	
MTA	Multimedia Terminal Adapter	
MTID	Mobile Terminal Identity	
MTP	Message Transfer Point	
MTSO	Mobile Telephone Switching Office	
NAD83	North American Datum 83	
NAED	National Academies of Emergency Dispatch	
NAI	Network Access Identifier	
NANP	North American Numbering Plan	
NANPA	North American Numbering Plan Administration	
NARUC	National Association of Regulatory Utility Commissioners	
NAS	Network Access Server	
NASAR	National Association of Search and Rescue	
NASNA	National Association of State 9-1-1 Administrators	
NAT	Network Address Translation	
NBMA	Non-Broadcast Multiple Access	
NCAS	Non Call-path Associated Signaling	
NCIC	National Crime Enforcement Center, National Crime Information Center	
NCMEC	National Center for Missing and Exploited Children	
NECA	National Exchange Carrier Association	
NENA	National Emergency Number Association	
NFPA	National Fire Protection Association	
NGA	United States National Geospatial Intelligence Agency	
NG9-1-1	Next Generation 9-1-1	
NGES	Next Generation Emergency Services	
NGESN	Next Generation Emergency Services Network	
NGN	Next Generation Network	
NGO	Non-Governmental Organization	

NHTRC	National Human Trafficking Resource Hotline	
NHTSA	National Highway Traffic Safety Administration, United States Department of Transportation	
NID	Network Interface Device	
NIMS	National Incident Management System	
NIP	NYNEX Information Publication	
NIS	Not In Service	
NIST	National Institute of Standards and Technology	
NLSI	National Lighting Safety Institute	N
NNSA	United States National Nuclear Security Administration	
NOCC	Network Operations Control Center (for wireless carriers)	
NORAD	North American Aerospace Defense Command	
NPA	Numbering Plan Area	
NPAC	Number Portability/Pooling Administration Center	
NPD	Numbering Plan Digit	
NPRM	Notice of Proposed Rulemaking	
NRC	National Reliability Council	
NRIC	Network Reliability and Interoperability Council	
NRF	No Record Found	
NRS	NENA Registry System	
NRTL	National Recognized Testing Laboratory	
NSI	Non-Service Initialized (as in phones)	
NSP	Network Service Provider	
NTIA	National Telecommunications and Information Administration, United States Department of Commerce	
NTP	Network Time Protocol	
NTSB	United States National Transportation Safety Board	
NXX	Telephone Numbering Code for Exchange Code or Telephone exchange code	
OASIS	Organization for the Advancement of Structured Information Standards	
OCN	Operating Company Number	
ODC	Operations Development Conference	
OEM	Original Equipment Manufacturer	
OID	Operations Information Document	
OLI	Originating Line Identification parameter	
OMA	Open Mobile Alliance	
ORR	Office of Refugee and Resettlement	
ORREQ	Origination Request Invoke (see JSTD-036)	
Orreq	Origination Request RETURN RESULT (see JSTD-036)	
OSI	Open Systems Interconnection	
OST	United States Office of Secure Transportation	
P.01	Probability of one (1) call in one (100) hundred calls being blocked	

<i>Pali</i>	Pseudo Automatic Location Identification	
<i>PAM</i>	PSAP to ALI Message specification	
<i>PAN</i>	Personal Area Network	
<i>PAP</i>	Prohibited Armed Persons	
<i>pANI</i>	Pseudo Automatic Number Identification	
<i>PAS</i>	Priority Access Service	
<i>PBX</i>	Private Branch Exchange	
<i>PCA</i>	PSAP Credentialing Agency	
<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>P-CSCF</i>	Proxy Call Session Control Function	
<i>PDA</i>	Personal Digital Assistant	
<i>PDE</i>	Position Determining Entity	
<i>PDOP</i>	Position Dilution of Precision	
<i>Pesn</i>	Pseudo Electronic Serial Number	
<i>PGID</i>	Paging Identity	
<i>PIDF</i>	Presence Information Data Format	
<i>PIDF-LO</i>	Presence Information Data Format – Location Objects	
<i>PIO</i>	Public Information Office	
<i>PKI</i>	Public Key Infrastructure	
<i>PMI</i>	Project Management Institute	
<i>PMP</i>	Project Management Professional	
<i>POC</i>	Point of Contact	
<i>PON</i>	Passive Optical Network	
<i>POS</i>	Packet Over SONET	
<i>PPP</i>	Point-to-Point Protocol	
<i>PPPoA</i>	Point-to-Point Protocol over ATM	
<i>PPPoE</i>	Point-to-Point Protocol over Ethernet	
<i>PRF</i>	Policy Routing Function	
<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>PTSC</i>	Packet Technologies and Services Committee (ATIS Standards Committees)	
<i>PUC</i>	Public Utility Commission	
<i>PVC</i>	Permanent Virtual Circuit	

<i>Q or QQ</i>	Indicates a question	
<i>QoS</i>	Quality of Service	
<i>RACES</i>	Radio Amateur Civil Emergency Service	
<i>RADIUS</i>	Remote Authentication Dial-In User Service	
<i>RANP</i>	Regional Access Network Provider	
<i>RAS</i>	Remote Access Server	
<i>RBAC</i>	Role Based Access Control profile	
<i>RCC</i>	Remote Call Center or Rate Center Consolidation	
<i>RDF</i>	Routing Determination Function	
<i>RDO</i>	Root Discovery Operator	
<i>REST</i>	Representational State Transfer	
<i>RF</i>	Radio Frequency	
<i>RFC</i>	Request for Comments	
<i>RFI</i>	Request for Information	
<i>RFP</i>	Request for Proposal	
<i>RFQ</i>	Request for Quote	
<i>RG</i>	Response Gateway, Routing Gateway	
<i>RMS</i>	Records Management System	
<i>RNA</i>	Routing Number Authority	
<i>ROI</i>	Return on Investment	
<i>ROM</i>	Rough Order of Magnitude	
<i>ROUTREQ</i>	Route Request (see ANSI-41)	
<i>RPC</i>	Remote Procedure Call	
<i>RSU</i>	Remote Switching Unit	
<i>RSVP</i>	Resource Reservation Protocol	
<i>RTCP</i>	Real Time Control Protocol	
<i>RTP</i>	Real Time Transport Protocol	
<i>RTSP</i>	Real Time Streaming Protocol	
<i>SAC</i>	Standards Advisory Committee	
<i>SAE</i>	Society of Automotive Engineers	
<i>SAML</i>	Security Assertion Markup Language	
<i>SBC</i>	Session Border Control	
<i>SBS</i>	Straight Binary Seconds	
<i>SC</i>	Service Consumer	
<i>SCCP</i>	Signaling Connection Control Part	
<i>SCP</i>	Service Control Point (see ANSI-41) or Switching Control Point	
<i>S-CSCF</i>	Serving Call Session Control Function	
<i>SCTP</i>	Stream Control Transport Protocol	
<i>SDO</i>	Standards Development Organization	
<i>SDP</i>	Session Description Protocol	
<i>SDSL</i>	Symmetrical Digital Subscriber Line	
<i>SFG</i>	Simulated Facility Group	

SFTP	Secure Shell File Transfer Protocol	
SHA	Secure Hash Algorithm	
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	
SMDPP	SMS Delivery Point to Point INVOKE (see ANSI-41)	
SME	Subject Matter Experts	
SMS	Short Message Service	
SMTP	Simple Mail Transfer Protocol	
SNA	System Network Architecture	
SNL	Sandia National Laboratories	
SNR	Signal to Noise Ratio	
SNTP	Simple Network Time Protocol	
SOA	Service Oriented Architecture	
SOAP	Simple Object Assess Protocol	
SOG	Standard Operating Guidelines	
SOHO	Small Office/Home Office	
SOI	Service Order Input	
SONET	Synchronous Optical NETwork	
SOP	Standard Operating Procedures	
SP	Service Provider	
SPCS	State Plane Coordinate Systems	
SPID	Service Provider Identifier	
SPML	Service Provisioning Markup Language	
SPVC	Soft Permanent Virtual Circuit	
SR	Selective Routing, Selective Router [a.k.a., E9-1-1 Tandem, or E9-1-1 Control Office]	
SRDB	Selective Routing Data Base	
SS	Serving System	
SS-ECR	Serving System – Emergency Call Register	
SSH	Secure Shell	
SSH-2	Secure Shell, Version 2	
SSP	Signal Switching Point	
SS7	Signaling System 7	
ST	Start	
S-TAG	The outermost VLAN tag as defined in IEEE 802.1ad	
STCP	Stream Control Transport Protocol	
STP	Start Prime or Signal Transfer Point	

STUN	Simple Transversal of Universal Datagram Protocol (UDP) Network Address Translations (NATs)	
SVC	Switched Virtual Circuit	
TA	Technical Advisory (published by Bellcore) or Technical Assistance	
TC	Telecommunications Carrier	
TCAD	Technical Committee Administrative Document	
TCAP	Transaction Capabilities Application Part	
TCP	Transport/Transmission Control Protocol	
TCP/IP	Transmission Control Protocol/Internet Protocol	
TCU	Telematics Control Unit	
TDC	Technical Development Conference	
TDD	Telecommunications Device for the Deaf or Time Division Duplex Mode	
TDD-TTY	Telephone Device for the Deaf-Teletypewriter (Text Telephone)	
TDM	Time Division Multiplexing	
TDMA	Time Division Multiple Access	
TDOA	Time Difference of Arrival	
TELCO	Telephone Company	
TIA	Telecommunications Industry Association	
TID	Technical Information Document (published by NENA) or Technical Issues Director	
TLDN	Temporary Long Distance Number	
TLS	Transport Layer Security	
TLT	Technical Lead Team	
TMSI	Temporary Mobile Station Number	
TN	Telephone Number	
TR	Technical Reference (published by Bellcore)	
TR45	TIA Engineering Committee on Mobile and Personal Communications Standards	
TR 45.2	Telecommunications Industry Association Subcommittee responsible for “Wireless Intersystem Technology – Mobile and Personal Communications Standards”	
TRD	Technical Requirements Document	
TRS	Telecommunications Relay Service	
TSD	Technical Standards Document	
TSP	Telephone Service Priority or Telecommunications Service Provider, Telematics Service Provider	
TTA	Telecommunications Technology Association	
TTC	Telecommunication Technology Committee, or Time to Completion	
TTL	Transistor to Transistor Logic	
TTY	Teletypewriter (a.k.a. TDD, Telecommunications Device for the Deaf and Hard-of-Hearing)	
TU	Telematics Unit	

TVPA	Trafficking Victims Protection Act of 2000	
TVPRA	Trafficking Victims Protection Reauthorization Act of 2003	
TVSS	Transient Voltage Surge Suppression	
TVW	Testing Validation Worksheet	
TWC	Three-Way Calling	
UA	User Agent	
UAC	User Agent Client	
UAS	User Agent Service	
UBR	Unavailable Bit Rate	
UDDI	Universal Description, Discovery and Integration	
UDP	User Datagram Protocol	
UE	User Element	
UIM	User Identity Model	
UL	Underwriters Laboratories	
uLPN	Unique Local Public Safety Number	
UNI	Unbundled Network Interface	
UPS	Uninterruptible Power Supply	
URI	Uniform Resource Identifier	
URISA	Urban and Regional Information Systems Association	
URL	Uniform Resource Locator (location sensitive)	
URN	Uniform Resource Name (location insensitive)	
USAR	Urban Search and Rescue	
USF	Universal Service Fund	
USGS	United States Geological Survey	
USMC	United States Marine Corps	
USNG	United States National Grid	
USNO	United States Naval Observatory	
USPS	United States Postal Service	
USTA	United States Telephone Association	
USTSA	United States Telecommunications Suppliers Association	
UTC	Universal Coordinated Time	
UTRA	Universal Terrestrial Radio Access	
VBR_{nrt}	Variable Bit Rate non-real time	
VBR_{rt}	Variable Bit Rate real-time	
VC	Virtual Circuit	
VCI	Virtual Circuit Identifier	
VCIN	Violent Crime Information Network	
VCO	Voice Carry Over	
VDB	Validation Data Base	
VDSL	Very high-speed Digital Subscriber Line	
VE2	Voice over Internet Protocol E2 Interface	
VEDS	Vehicle Emergency Data Sets	

VEP	VoIP End Point	
VESA	Valid Emergency Services Authority	
VF	Validation Function	
VFG	Virtual Facility Group	
VI	Video Interpreter	
VIN	Vehicle Identification Number	
VLAN	Virtual LAN	
VLR	Visitor Location Register	
VoATM	Voice over ATM	
VoDSL	Voice over Digital Subscriber Link	
VoFR	Voice over Frame Relay	
VoIP	Voice over Internet Protocol	
VON	Voice over Network	
VoP	Voice over Packet	
VPC	VoIP Positioning Center	
VPI	Virtual Path Identifier	
VPN	Virtual Private Network	
VRI	Video Remote Interpreting	
VRS	Video Relay Service	
VSP	VoIP Service Provider	
W3C	World Wide Web Consortium	
WAENS	Wide Area Emergency Notification System	
WAN	Wide Area Network	
WAP	Wireless Access Point	
WCM	Wireline Compatibility Mode	
WG	Working Group	
WGS 84	World Geodetic System 1984	
WiFi®	Wireless Fidelity	
WiMAX	Worldwide Interoperability for Microwave Access	
WNC	Wireless Network Controller	
WPS	Wireless Priority Service	
WSDL	Web Service Definition Language	
WSP	Wireless Service Provider	
WSS	Web Services Security	
WTSC	Wireless Technologies and Systems Committee	
WWW	World Wide Web	
XACML	eXtensible Access Control Markup Language	
XML	eXtensible Markup Language	
XSD	W3C XML Schema Definition	
XXXXX	Indicates an error or mistake in typing (erasing the error)	