

NENA Standard Managers Guide to American with Disabilities (ADA) Title II: Direct Access

Abstract: This document defines standards of operation that are essential for PSAPs in an effort to comply with Federal ADA mandates.



NENA Standard Managers Guide to Title II: Direct Access

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1 Executive Overview

Dialing of a simple, easy-to-remember three-digit code, 9-1-1 is the most familiar and effective way Americans have of finding help in an emergency. The Americans with Disabilities Act (ADA), Public Law 101-336, was enacted July 26, 1990, and requires all Public Safety Answering Points (PSAPs) to provide direct access to citizens who use Telecommunication Devices for the Deaf (TDD) and Teletypewriters (TTY) and computer modems. (28 CFR 35.162). It requires that public entities provide an equitable level of service to persons with disabilities, to that of which is provided to all other citizens. Additionally, it prohibits an agency from relying on an outside relay service or third-party service for providing access. The Department of Justice (DOJ) has interpreted Title II so as to require that PSAPs provide direct and equal access to 9-1-1 for individuals with disabilities who use TDDs and TTYs. Direct access means that PSAPs MUST be able to directly receive TDD/TTY calls without relying on outside relay services or third-party services. PSAPs also MUST follow proper procedures and practices when TDD/TTY calls are received, including Voice Carry-Over (VCO) and Hearing Carry-Over (HCO) calls.

The DOJ oversees compliance with this mandate and has issued a Technical Assistance (TA) document for 9-1-1. And yet, disparity in the level of service for TDD/TTY users still exists.

In September 15, 2010, the DOJ published a final rule which includes the revision of Section 35.161 Telecommunications where a public entity communicates by telephone with applicants and beneficiaries, text telephones (TTYs) or equally effective telecommunications systems SHALL be used to communicate with individuals who are deaf, ind, hard of hearing or have speech disabilities.

In 2013, the DOJ filed comments with the Federal Communications Commission (FCC), Docket #11-153, indicating that PSAPs MUST accept a call from a person with a hearing or speech disability that originates a call as a Short Message Service (SMS) call, but reaches the PSAP as a TDD/TTY call.

The 9-1-1 number has been designated for public use throughout the United States to report an emergency, request emergency assistance, or both. However, the original 9-1-1 system is based on traditional telephone technology, which cannot process text, data, image, or video sent from handheld devices and computers (i.e.: personal digital assistants (PDAs), cellular phones, portable media players, video phones or cameras). To address the changing technology, State and local governments are working to improve their 9-1-1 emergency communications systems and are moving towards an IP-enabled network. The ultimate goal is to have an emergency network that will enable the general public to make a 9-1-1 "call" via voice, text, or video from wired and wireless devices and directly communicate with personnel at the PSAP.

Many individuals with disabilities now use the internet and wireless text devices as their primary modes of telecommunications. At the same time, PSAPs are considering and

planning to shift from analog communication technology to new Internet-Protocol (IP)-enabled Next Generation 9-1-1 services (NG-9-1-1) that will provide voice and data (such as text, pictures, and video) capabilities.

It is crucial that individuals who are deaf, deafblind, hard of hearing, or have a speech disability have the ability to access 9-1-1 emergency services directly via text messaging systems as an interim solution utilizing simple 3-digit dialing code, 9-1-1. This text messaging system enables them to receive service via two-way communication in a manner that is functionally equivalent to the ability of an individual who does not have a hearing or speech disability.

Today, PSAPs can choose whether to implement SMS Text to 9-1-1 per the DOJ guidelines; however, effective telecommunication systems **MUST** be implemented. TDD/TTY/SMS Text, Video Relay Calls, Internet Protocol Relay Services, Captioned Telephone Relay Services, and Speech-to-Speech Relay Services **MUST** be considered.

This document defines standards of operation that are essential for PSAPs in an effort to comply with this Federal mandate.

Purpose and Scope

The Managers Guide to the ADA: Title II, Direct Access standard is a tool designed to assist managers in bringing PSAPs into compliance with the ADA. Utilizing this standard will enhance the quality of service provided to the public, including the estimated 38 million people in the United States who have hearing loss.¹

It is important to remember that the DOJ is the only agency that can determine if the PSAP is in compliance. Therefore, the elements within this standard are to be viewed as “minimum standards” and agencies are encouraged to seek additional information or advice (i.e.: Best Practices), in addition to this standard.

The ADA requires an agency to conduct periodic self-evaluations of programs, polices, and services to ensure equal access to all citizens with disabilities. The Managers Guide to the ADA: Title II, Direct Access standard is a valuable tool to facilitate this by providing information on the following elements:

- Self-Evaluation and Transition Plan (Update)
- Equipment and Network
- Operations
- Communication Officer Training
- Outreach to people with disabilities

¹ <http://libguides.gallaudet.edu/content.php?pid=119476&sid=1029190>

Reason to Implement

NENA's goal is to ensure that everyone has access to emergency services anytime, anywhere, from any device. To accomplish this, PSAP Managers **MUST** implement these standards to ensure equitable levels of service during an emergency to all citizens, including those with disabilities. Also, implementing these standards will assist the agency to be in compliance with federal regulations.

Benefits

Use of this Managers Guide to the ADA: Title II, Direct Access standard will:

- Assist agencies in their ADA compliance efforts.
- Improve the services provided to people with disabilities, especially during emergencies.

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**NENA
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This Standard Document (STA) is published by the National Emergency Number Association (NENA) as an information source for 9-1-1 System Service Providers, network interface vendors, system vendors, telecommunication service providers, and 9-1-1 Authorities. It is not intended to provide complete design or operation specifications or parameters or to assure the quality of performance for systems that process such equipment or services.

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This document is an information source for the voluntary use of communication centers. It is not intended to be a complete operational directive.

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National Emergency Number Association
1700 Diagonal Rd, Suite 500
Alexandria, VA 22314
202.466.4911
or commleadership@nena.org

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This section defines keywords, as they should be interpreted in NENA documents. The form of emphasis (UPPER CASE) shall be consistent and exclusive throughout the document. Any of these words used in lower case and not emphasized do not have special significance beyond normal usage.

1. **MUST, SHALL, REQUIRED:** These terms mean that the definition is a normative (absolute) requirement of the specification.
2. **MUST NOT:** This phrase, or the phrase "SHALL NOT", means that the definition is an absolute prohibition of the specification.
3. **SHOULD:** This word, or the adjective "RECOMMENDED", means that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
4. **SHOULD NOT:** This phrase, or the phrase "NOT RECOMMENDED" means that there may exist valid reasons in particular circumstances when the particular behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
5. **MAY:** This word, or the adjective "OPTIONAL", means that an item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because the vendor feels that it enhances the product while another vendor may omit the same item. An implementation which does not include a particular option "must" be prepared to interoperate with another implementation which does include the option, though perhaps with reduced functionality. In the same vein an implementation which does include a particular option "must" be prepared to interoperate with another implementation which does not include the option (except, of course, for the feature the option provides.)

These definitions are based on IETF [RFC 2119](#).

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National Emergency Number Association
1700 Diagonal Rd, Suite 500
Alexandria, VA 22314
202.466.4911
or commleadership@nena.org

Reason for Issue/Reissue

NENA reserves the right to modify this document. Upon revision, the reason(s) will be provided in the table below.

Document Number	Approval Date	Reason For Issue/Reissue
52-002	02/01/2005	Initial Document
NENA-STA-035.2-2018	11/15/2018	Update to align with current ADA requirements.

2 Operational or Technical Description

There are a multitude of elements that are critical to the overall provision of access to telephone emergency services. All areas are equally important and defined herein.

Established operating procedures and comprehensive training programs are keys to a successful emergency response system. A self-evaluation process is required of all agencies to ensure the agency's commitment to the protection of lives and property in the community it serves. It is recommended that you maintain documentation of your evaluation process. If, at some time, your agency is contacted by the DOJ, you will have answers readily available.

The DOJ recognizes that many individuals with disabilities rely on IP-based and digital wireless devices, rather than analog-based TDD/TTY, as their primary modes of telecommunications and 9-1-1 call-taking centers are shifting from existing traditional telephone emergency services to new IP-enabled NG 9-1-1 services. The DOJ is considering revising the regulation implementing Title II of the ADA to address in what manner public entities that operate 9-1-1 call-taking centers, which are also known as PSAPs should be required to make changes in telecommunication technology to reflect developments that have occurred since the publication of the DOJ's 1991 regulation.

On July 26, 2010, the DOJ published an advance notice of proposed rulemaking (ANPRM) to address what manner PSAPs should be required to make changes in communication technology to reflect developments that have occurred since the publication of the 1991 regulations.² Many individuals with disabilities are using Internet and wireless text devices as their primary modes of telecommunications. At the same time, PSAPs are considering and planning to shift from analog telecommunications technology to new Internet-Protocol (IP)-enabled NG 9-1-1 services that will provide voice and data (such as text, pictures, and video) capabilities. The ANPRM sought information on possible revisions to the Department's regulation to ensure direct access to NG 9-1-1 services for individuals with disabilities. The DOJ requested comments regarding appropriate steps to provide individuals with disabilities with access to NG 9-1-1 technology at 9-1-1 emergency call-taking centers, including converging IP 9-1-1 technologies that are as effective as those provided for individuals without disabilities.

On February 22, 2012, Congress enacted the NG9-1-1 Advancement Act of 2012 as part of the Middle Class Tax Relief and Job Creation Act of 2012. Section 6509 of the Act directs the Commission to issue a report, within one year of enactment, containing recommendations for the legal and statutory framework for NG9-1-1 services. On February 28, 2013, FCC issued a report to Congress on the legal and regulatory framework for NG9-1-1 services.

² <http://www.justice.gov/opa/pr/2010/July/10-crt-850.html>, July 23, 2010

NG9-1-1 is an important step forward to allow for individuals who are deaf, deafblind, hard of hearing as well as individuals who have speech disabilities have direct access to 9-1-1 emergency services using various communication modalities.

Due to revolution in telecommunication technology, Congress sought to “update the communications laws to help ensure that individuals with disabilities are able to fully utilize communications services and equipment and better access video programming.”³ Thus, the Twenty-First Century Communications and Video Accessibility Act (CVAA) was passed by Congress and signed by President Barack Obama on October 8, 2010 to update the nation’s telecommunications protections for people with disabilities. The CVAA follows a string of laws, passed in the 1980s and 1990s that were designed to ensure that telephone and television services would be accessible to all Americans with disabilities. CVAA is divided into two sections: 1) Communications Access and 2) Video Programming.

As required by the CVAA, the FCC established the Emergency Access Advisory Committee (EAAC) on December 7, 2010. The EAAC was chartered on January 14, 2011 to determine the most effective and efficient technologies and methods by which to enable equal access to emergency services by individuals with disabilities as part of the nation’s migration to Next Generation 911 (NG9-1-1), and to make recommendations to the Commission on how to achieve those effective and efficient technologies and methods.

The committee developed and distributed a national survey nationwide asking people with disabilities to share their experiences calling 9-1-1 and which communication modes would help them if they call 9-1-1 in the future. Please see the national survey report, <http://transition.fcc.gov/cgb/dro/EAAC/EAAC-REPORT.pdf>.

Several critical points from the national survey report needs to be reiterated.

- Question 16 on page 23: As for texting options to use to call 9-1-1, 45.1% prefer text; 45.7% on real-time text; 43.7% on email. Calling 9-1-1 via relay service shows 25.7%
- Question 22 on page 29: 77% of respondents say it is very important to have direct access to 9-1-1 rather than via relay service, with a further 15% percent saying it is somewhat important. Only 4% say it is not very important, and only another 4% say that it is not important at all. In other words, 92% say it is important to call 9-1-1 directly.
- Question 23 on page 30: 83% prefer to use the same device as the one they use for everyday communication to call 9-1-1. It is very important and somewhat important

³ See S. Rep. No. 111-386, 111th Cong., 2d Sess. at 1 (2010); H.R. Rep. No. 111-563, 111th Cong., 2d Sess. at 19 (2010).

to another 12%. Only 2% say it is not very important, and only 3% say it is not important at all.

On March 12, 2012, the EAAC meeting was held and a resolution was adopted, "EAAC supports an interim solution for text to 9-1-1, at a minimum, SMS, and other technologies as appropriate, with a 3-digit short code 9-1-1." This motion was so critical in prodding the wireless industry to move toward providing direct access to emergency services.

Short Message Service (SMS) is a text messaging service component of most telephone, World Wide Web, and mobile device systems.

On December 6, 2012, the FCC announced that the nation's four largest wireless carriers (AT&T, Verizon, Sprint, and T-Mobile) along with the Association of Public Safety Communications Officials (APCO) and the NENA have agreed to accelerate the availability of text-to-911, with major deployments expected in 2013 and a commitment to nationwide availability by May 15, 2014.

In order to fully implement text messaging to 9-1-1, Public Safety Answering Points (PSAPs) MUST also agree to support the four wireless carriers in their efforts. A request has been sent to the Department of Justice (DOJ) for assistance in helping to bridge the connection between wireless carriers and PSAPs and updating the regulations related to Title II of the Americans with Disabilities Act (ADA) on direct communication access to 9-1-1 due to changes in communication technologies. Currently, the ADA regulations require that PSAPs accept direct calls from teletypewriter (TTYs) users.

On March 8, 2013, the Department of Justice (DOJ) submitted a reply comment in response to the FCC's Further Notice of Proposed Rulemaking on Facilitating the Deployment of Text to 9-1-1 and Other Next Generation (NG) 9-1-1 Applications, FCC PS Docket 11-153. The DOJ clarified that Title II regulation requires that public entities that communicate by telephone with applicants and beneficiaries use TTYs or another equally effective telecommunications system to communicate with individuals who are deaf, deafblind, or hard of hearing or have speech disabilities—unless the entity can demonstrate that doing so would result in a fundamental alteration in the nature of a service, program, or activity or in undue financial and administrative burdens 28 C.F.R. §§ 35.161(a), 35.164. In addition, § 35.162 requires PSAPs to provide direct access to 9-1-1 services and, thus, PSAPs may not require TTY or computer modem users to use relay services to call 9-1-1.4

On February 23, 2016, NENA announced its support to accelerate the deployment of NG9-1-1 services utilizing all elements: voice, video, text, and data across the United States by the end of 2020. As it was described, the critical communications link between citizens and their local first responders is mired in the technology of the telephone age. Please see

⁴ <http://apps.fcc.gov/ecfs/document/view?id=7022129201>

the press release regarding 9-1-1 Organizations Launch Next Generation Accelerated Deployment Effort, <http://www.ng911now.org/>.

On December 15, 2016, the FCC amended and adopted its Rules and Orders (R & O) as well as Further Notice of Proposed Rulemaking (FNPR) to facilitate a transition from text telephone (TTY) technology to Real-time Text (RTT) as a reliable and interoperable universal text solution over wireless Internet protocol (IP) enabled networks for people who are deaf, deafblind, hard of hearing, or have a speech disability. RTT allows text characters to be transmitted instantly as they are being created, can be sent simultaneously with voice, and permits the use of off-the-shelf end user devices to make text telephone calls. Recipients can immediately read the message while it is being written, without waiting.

In this R & O, the FCC addresses application of RTT to telecommunications relay services (TRS) and seek further comment on a sunset date for TTY support, as well as other matters pertaining to the deployment of RTT. By this proceeding, a major step is taken toward enabling a universal and integrated text solution for people with disabilities who rely on text communications in the twenty-first century.

In addition, the FCC asked for recommendations on how to accelerate the integration of real-time text (RTT) into emergency communications systems, with special emphasis on increased access to RTT by public safety answering points (PSAPs).

This rule allows wireless carriers to provide real-time text technology (RTT) in lieu of TTY in a graduated manner.⁵

Timeline for the implementation of RTT

December 31, 2017

- Big Four Carriers in downloadable app or minimum of one phone.

December 31, 2018

- Phone manufacturers include functionality in all new phones.

December 31, 2019

- Big Four Carriers make available in all new phones.

December 31, 2020

- Small Carriers make available in downloadable app or minimum of one phone.

June 30, 2021

- Small Carriers make available in all new phones

The prospect of developing new Title II requirements for access to NG 9-1-1 raises a number of general issues, including determining which performance-based standards or

⁵ https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-169A1.pdf

technical specifications would better ensure access to NG 9-1-1 to determining the effective date for the application of the new provisions.

2.1 Self-Evaluation and Transition Plan (Update)

The agency **MUST** conduct a self-evaluation of their current services, policies, and practices to ensure equitable levels of service to all populations including those with disabilities.

The agency **MUST** attempt to afford the opportunity to individuals with disabilities to participate in the agency's self-evaluation process. The agency may identify such individuals through agencies or organizations that provide services for people with disabilities.

The agency **MUST** provide a manner in which individuals with disabilities and other interested persons will be informed of their protections against discrimination assured to them by the ADA.

The agency **MUST** have a published grievance procedure providing for prompt and equitable resolution of complaints alleging any action that would be prohibited by the ADA.

The following is provided as a sample of questions that should be asked in a self-analysis of your 9-1-1 system and services. The more questions that are answered "yes", the more likely the PSAP will provide meaningful emergency communications and response service to those using TDD/TTY/SMS/RTT Text. If "no", you may want to consider taking action and documenting a timeline for completion.

- Does the telephone emergency response system provide the direct equal access level of service, i.e. Automatic Number Identification (ANI) and Automatic Location Identification (ALI), to all people using communications technologies for emergency requests for assistance, including those who people using TDD/TTY/SMS/RTT?

TTY Yes No Scheduled for Completion: Completed:

SMS Yes No Scheduled for Completion: Completed:

RTT Yes No Scheduled for Completion: Completed:

- In the event of individual line or system failure, does an alternative method of receiving emergency communications requests for assistance provide direct equal accessibility for TDD/TTY/SMS⁶/RTT?

TTY Yes No Scheduled for Completion: Completed:

SMS Yes No Scheduled for Completion: Completed:

⁶ In this particular context the issue of SMS may need additional potential future consideration, guidance and/or recommendations.

RTT Yes No Scheduled for Completion: Completed:

- Are all consoles that are available for receiving emergency communications requests for assistance equipped with TDD/TTY/SMS/RTT Text equipment and/or functionality?

TTY Yes No Scheduled for Completion: Completed:

SMS Yes No Scheduled for Completion: Completed:

RTT Yes No Scheduled for Completion: Completed:

- Is redundancy in the 9-1-1 equipment provided for? If the answer to the previous question is yes, are TDD/TTY/SMS/RTT Text equipment included in the redundancy plan?

TTY Yes No Scheduled for Completion: Completed:

SMS Yes No Scheduled for Completion: Completed:

RTT Yes No Scheduled for Completion: Completed:

- Does the equipment and method used to transfer emergency communications requests for assistance to other emergency services provide for direct equal accessibility with TDD/TTY/SMS/RTT Text?

TTY Yes No Scheduled for Completion: Completed:

SMS Yes No Scheduled for Completion: Completed:

RTT Yes No Scheduled for Completion: Completed:

- If your system utilizes automatic call distribution and includes an automatic recording to persons who may be put into a queue until there is an available telecommunicator, does the recording include a TDD/TTY/SMS/RTT Text recorded message?

TTY Yes No Scheduled for Completion: Completed:

SMS Yes No Scheduled for Completion: Completed:

RTT Yes No Scheduled for Completion: Completed:

- Do equipment upgrades or expansion plans include TDD/TTY/SMS/RTT Text?

TTY Yes No Scheduled for Completion: Completed:

SMS Yes No Scheduled for Completion: Completed:

RTT Yes No Scheduled for Completion: Completed:

- Does the recording equipment (which records incoming emergency lines) include recording the point of answer for TDD/TTY/SMS/RTT Text?

TTY Yes No Scheduled for Completion: Completed:

- SMS Yes No Scheduled for Completion: Completed:
- RTT Yes No Scheduled for Completion: Completed:
- Are TDD/TTY/SMS/RTT Text located where the call taker can switch from voice mode of communication to TDD/TTY/SMS/RTT Text without causing delay in answer time?
TTY Yes No Scheduled for Completion: Completed:
SMS Yes No Scheduled for Completion: Completed:
RTT Yes No Scheduled for Completion: Completed:
 - Can VCO and HCO calls be handled with the current system?
TTY Yes No Scheduled for Completion: Completed:
RTT Yes No Scheduled for Completion: Completed:
Has the center explored the feasibility of or already have TDD/TTY/SMS/RTT Text detection equipment installed?
TTY Yes No Scheduled for Completion: Completed:
RTT Yes No Scheduled for Completion: Completed:
 - Does the PSAP have a process for testing silent calls, open line, or non-responsive emergency communications requests for assistance to ensure they are not TDD/TTY/RTT Text where the person cannot respond?
TTY Yes No Scheduled for Completion: Completed:
RTT Yes No Scheduled for Completion: Completed:
 - Does the communications system have the capability to provide TDD/TTY/SMS⁷/RTT Text to alternative non-emergency numbers?
TTY Yes No Scheduled for Completion: Completed:
SMS Yes No Scheduled for Completion: Completed:
RTT Yes No Scheduled for Completion: Completed:

⁷ In this particular context the issue of SMS may need additional potential future consideration, guidance and/or recommendations.

- Can the call taker make a call or text back using TDD/TTY/SMS/RTT Text?
TTY Yes No Scheduled for Completion: Completed:
SMS Yes No Scheduled for Completion: Completed:
RTT Yes No Scheduled for Completion: Completed:
- Do you have a maintenance plan for the TDD/TTY/SMS/RTT Text equipment and procedures (including documentation) applicable to your state or region?
TTY Yes No Scheduled for Completion: Completed:
SMS Yes No Scheduled for Completion: Completed:
RTT Yes No Scheduled for Completion: Completed:

Title II of the ADA and the DOJ's implementing regulation provide that State and local government agencies MUST make reasonable modifications to their policies, practices, and procedure whenever necessary to avoid discrimination against individuals with disabilities unless making the modification would fundamentally alter the nature of the service, program or activity, or would result in undue financial and administrative burdens. 28 CFR 35.130 (b) (7) (reasonable modifications in policies); 28 CFR 35.164 (undue burdens). A growing number of State and local governments have studied options for IP-based 9-1-1 networks in preparation for moving to NG 9-1-1 and have developed NG 9-1-1 migration/transition plans. The DOJ believes that in developing new or reviewing current NG 9-1-1 plans, State and local 9-1-1 agencies MUST include specific plans for equal access for NG 9-1-1 for individuals with disabilities.

- In your PSAP's NG 9-1-1 plan, did you address issues related to access for individuals with disabilities?
 Yes No Scheduled for Completion: Completed:
- What modes of communication (e.g., voice, text, video, or data) are individuals with disabilities more likely to use to make direct calls to a PSAP within your area, and from what types of devices would the calls be made?
- Has your agency developed and implemented Standard Operating Procedures (SOPs) for responding to TDD/TTY/SMS/RTT Text calls?
 Yes No Scheduled for Completion: Completed:
- Have SOPs or Standard Operating Guidelines (SOGs) been written for TDD/TTY/SMS/RTT Text call handling and disseminated to call-taking personnel?
 Yes No Scheduled for Completion: Completed:

- Does your back-up center have the capability to answer TDD//TTY/SMS/RTT Text calls?
 Yes No Scheduled for Completion: Completed:
- Do your call-back procedures include contingencies for reaching an individual who uses a TDD//TTY/SMS/RTT Text device?
 Yes No Scheduled for Completion: Completed:
- Does the PSAP comply with state and federal record retention standards for 9-1-1 TDD//TTY/SMS/RTT Text request for service?
 Yes No Scheduled for Completion: Completed:
- Are there procedures for handling Telecommunication Relay Services (TRS) calls?
 Yes No Scheduled for Completion: Completed:
- Has the agency developed and incorporated effective methods for transferring TDD//TTY/SMS/RTT Text calls to fire, police or EMS? (Note: only applicable if voice calls are handled this way.)
 Yes No Scheduled for Completion: Completed:
- Has the agency developed and implemented SOPs or SOGs for processing silent, open-line calls, and non-responsive emergency communications requests for assistance? Does the call taker interrogate the line for a possible TDD//TTY/SMS/RTT Text call (see Title II Technical Assistance Manual)?
 Yes No Scheduled for Completion: Completed:
- Is there a procedure in place to regularly test TDD//TTY/SMS/RTT Text calls within the overall system?
 Yes No Scheduled for Completion: Completed:
- Are there minimum TDD//TTY/SMS/RTT Text training requirements for telecommunicators?
 Yes No Scheduled for Completion: Completed:
- Does the agency provide a comprehensive TDD//TTY/SMS/RTT Text training program for all call takers?
 Yes No Scheduled for Completion: Completed:
- Is refresher training provided for TDD//TTY/SMS/RTT Text, and, if so, at a minimum of every 6 months, as mandated by the ADA?
 Yes No Scheduled for Completion: Completed:

- Is someone assigned to follow technological development through the various public safety associations and add these innovations into the training regimen?
 Yes No Scheduled for Completion: Completed:
- Has a public awareness program been developed and implemented, to notify people using TDD/TTY/SMS/RTT Text about the PSAP's direct equal access accessibility and services?
 Yes No Scheduled for Completion: Completed:
- Does the local telephone directory indicate direct access to telephone emergency services for TDD/TTY/SMS/RTT Text users?⁸
 Yes No Scheduled for Completion: Completed:

2.2 Equipment and/or Network

The agency MUST ensure telephone emergency response systems provide the same level of service to all citizens, including those who call with a TDD/TTY/SMS Text per NENA-04-001 Issue 2, 3.17.2 Signaling and 5.18 - TDD/TTY/SMS Text Compatibility.

The agency MUST ensure that in the event of individual line or system failure, there is an alternative method of receiving emergency calls accessible to TDD/TTY/SMS Text callers.

The agency MUST ensure all Customer Premise Equipment (CPE) workstations or Answering Position Units (APUs) available for receiving emergency calls are equipped with TDD/TTY/SMS Text equipment that is readily available to use without delay.

If applicable, the agency MUST ensure that those contingencies in place for the back-up of the 9-1-1 equipment at an alternate site include accessibility to TDD/TTY/SMS Text equipment.

The agency MUST ensure that the equipment and methods used to transfer emergency calls to other emergency services be accessible with TDD/TTY/SMS Text. Secondary agencies that receive transferred calls from a Primary PSAP MUST have equipment and methods for processing TDD/TTY/SMS Text calls.

The agency MUST ensure that if their system utilizes Automatic Call Distribution (ACD), which includes an automatic recording to the citizen, the ACD MUST also include a recorded TDD/TTY message. (See NENA-04-001 Issue 2, 5.18.3 - *TDD/TTY Considerations in the ACD Environment.*)

The agency MUST ensure, where voice calls are recorded, that TDD/TTY/SMS Text calls are also recorded. This includes all incoming emergency lines. An agency SHALL test the

⁸ <https://www.ncjrs.gov/pdffiles/adad.pdf>

recording and TDD/TTY/SMS Text equipment to ensure compatibility. (*Note NENA-04-001 Issue 2, 3.5.12 - Logging and Recall Recorder Requirements – Warning.*)

The agency MUST ensure that call-answering time for voice calls and TDD/TTY/SMS Text calls are equitable. The TDD/TTY/SMS Text operating procedures may not require substantially more time to turn on or set up, causing further delays in response. (Refer to the NENA-04-001 Issue 2 for technical specification.)

The agency MUST ensure that their equipment can handle VCO and HCO calls. (*See NENA-04-001 Issue 2, 5.18 - fourth paragraph.*)

The agency MUST ensure preprogrammed TDD/TTY/SMS Text messages are formatted in compliance with accepted TDD/TTY/SMS Text protocols, *per NENA-04-001 Issue 2, 5.18.1 Pre-Programmed Messages and 13.4.1 Appendix D – TDD/TTY Pre-Programmed Messages.*

The agency MUST provide TDD/TTY/SMS Text access to alternative emergency and non-emergency numbers.

The agency MUST ensure that the call taker can also make outgoing TDD/TTY/SMS Text calls.

The agency MUST maintain functional TDD/TTY/SMS Text equipment, provide backup equipment when equipment is out for service, and documentation of any maintenance performed.

It is important to note that standards for accepting, transmittal, and interfacing with Real Time Text sources for emergency calling are still under development at the time this document was published. This work is being led by the NENA i3 Architecture Working Group (STA-010.3). The reader is advised to investigate the progress made in STA-010.3 to ensure that any new systems will be capable of utilizing RTT as well as the other noted mechanisms.

2.3 Operating Procedures

The agency MUST develop, implement and disseminate standard operating procedures for responding to TDD/TTY/SMS Text calls, to all managers and call taking personnel.

The agency MUST establish a policy for activating and querying silent, open line calls with a TDD/TTY/SMS Text.

Secondary PSAPs MUST have TDD/TTY/SMS Text capability.

The agency MUST ensure that call takers are familiar with Telecommunication Relay Services (TRS) and procedures are in place for the proper handling of TRS calls.

The agency MUST establish a testing program that ensures TDD/TTY/SMS Text functionality. This testing program MUST be conducted and documented with a minimum of once-per-shift-per-day.

3 Training

The ADA mandates that public entities provide emergency telephone services to persons with disabilities, which is direct and equal to services provided to others. To accomplish this, the following SHALL apply:

3.1 Comprehensive Training

Each agency **MUST** provide initial comprehensive training to those personnel who may have contact with individuals from the public who are deaf, deafblind, hard of hearing, or who have speech disabilities, per the DOJ Technical Assistance [Access for 9-1-1 and Telephone Emergency Services](#). It is desirable that personnel do not take calls from the public alone prior to the successful completion of TDD/TTY/SMS Text training in accordance with this standard.

Comprehensive training includes, but is not limited to include the following topics. Detailed training standards can be found within the NENA TDD/TTY/SMS Text Training Standard, 52-xxx (pending).

The reader is advised to investigate the progress made in STA-010.3 to ensure that any new training include utilizing RTT as well as the other noted mechanisms as the technology becomes available and deployed.

3.1.1 Legislation/Regulation

- Americans with Disabilities Act, as amended
 - Title II – Public Services
 - DOJ of Justice Requirements
 - Self-Evaluation (Title II, § 35.105 Self-Evaluation)
 - ADA Coordinator/Updated Procedures/Future Technologies
- Section 504 of Rehabilitation Act, as amended Local/State Regulations
- Liability and Penalties for Non-Compliance
- References
- §35.149 Discrimination Prohibited

Except as otherwise provided in §35.150, no qualified individual with a disability SHALL, because a public entity's facilities are inaccessible to or unusable by individuals with disabilities, be excluded from participation in, or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any public entity.

- §35.150 Existing Facilities

General. A public entity SHALL operate each service, program, or activity so that the service, program, or activity, when viewed in its entirety, is readily accessible to and usable by individuals with disabilities

- §35.160 General

A public entity SHALL take appropriate steps to ensure that communications with applicants, participants, members of the public, and companions with disabilities are as effective as communications with others.

- §35.161 Telecommunications

A) Where a public entity communicates by telephone with applicants and beneficiaries, text telephones (TDD/TTY/SMS TEXTs) or equally effective telecommunications systems SHALL be used to communicate with individuals who are deaf, deafblind, hard of hearing or have speech disabilities.

B) When a public entity uses an automated-attendant system, including, but not limited to, voice mail and messaging, or an interactive voice response system, for receiving and directing incoming telephone calls, that system MUST provide effective real-time communication with individuals using auxiliary aids and services, including TDD/TTY/SMS TEXTs and all forms of FCC-administered telecommunications relay system, including Internet-based relay systems.

C) A public entity SHALL respond to telephone calls from a telecommunications relay service established under Title IV of the ADA in the same manner that it responds to other telephone calls.

- §35.162 Telephone Emergency Services

Telephone emergency services, including 9-1-1 services, SHALL provide direct access to individuals who use TDD's and computer modems

3.1.2 Communications Issues

Many people with disabilities are prevented from participating fully in programs, activities and services because of communication difficulties. People who have hearing or speech disabilities use different ways to communicate while people who are deaf may give and receive information through writing or sign language. To address this, the ADA requires that communication with people with disabilities must be "as effective" as communication with others.

- Deaf/Hard of Hearing (HOH)/DeafBlind/Speech Disability
- ASL v. English
- Assistive Devices
- Public Education & Outreach/Advocacy
- References

3.1.3 PSAP Equipment

Direct, equal access requires PSAPs to have the appropriate equipment to communicate with people who use TTYs. In order to afford equal access to TTY users, every call-taking position within a PSAP must have its own TTY or TTY-compatible equipment. PSAPs must have systems that enable call takers to handle TTY calls as properly, promptly, and reliably as voice calls. Every call-taking position needs its own TTY equipment.

- Stand alone
- Integrated
- Detection Equipment
- Database Records
- Testing/Documentation
- Troubleshooting
- Consumer Equipment
- Cellular compatible
- Portable/Compact Units
- References

3.1.4 Call Handling

Equal access means that the telephone emergency services provided for TTY users are as effective as those provided for persons who make voice calls.

- Response Time
- Response Quality
- Hours of Operation
- Features offered (e.g., automatic number identification, automatic location identification, automatic call distribution)
- Call Recognition
- Protocol
- Abbreviations
- Language Examples
- Answering the Call
- Making the Call
- Third Party Calls/Telephone Relay Services
- VCO/HCO
- Call Transfers/Monitoring

- Troubleshooting
- Documentation
- References

3.2 Practical Instruction & Testing

Testing call takers and their equipment is the one of the most effective ways to ensure compliance with the ADA's requirement that accessibility features are maintained in operable working condition. PSAPs should conduct an internal testing program. The tests should be designed to ascertain whether TTY equipment functions properly and whether personnel have been adequately trained to recognize TTY calls quickly, to operate TTY equipment, and to conduct TTY conversations. The Department recommends the following for an effective testing program.

TTY equipment must be maintained and tested at least as often as voice telephone equipment, to ensure that the equipment is operating properly. If PSAPs check their voice telephone equipment every day to make sure it is working, they must do so every day for TTY equipment. Similarly, if PSAPs have contracts with outside companies for maintenance of their voice telephone equipment, they must employ equally effective methods for TTY equipment.

- Scenario Based
- Quality Assurance
- Documentation
- References

3.3 Refresher Training

Each agency **MUST** provide refresher training at least as often as they require or offer training for voice calls, but at a minimum, every six months, per the U.S. DOJ Technical Assistance Access for 9-1-1 and Telephone Emergency Services.

3.3.1 Methods for Refresher Training

This standard may be accomplished in a variety of methods, to include but not limited to:

- Roll Call Briefings
- Memorandums
- Test Call Programs
- Refresher Training Courses
- Comprehensive Training Courses

3.3.2 Refresher Topics

Below are some recommendations of topics to be used as refresher training and some creative ideas for the enhancement and delivery of training material in a refresher format.

- TDD/TTY/SMS Text call recognition & processing
- Handling VCO & HCO requests
- Procedures for TRS calls
- Legal updates
- New technologies
- Disability Awareness (a review of physical, visual and communications-related disabilities)
- TDD/TTY/SMS Text protocol, abbreviations and etiquette
- English vs. ASL Gloss
- Alzheimer's Awareness
- Aphasia & Other Stroke-related conditions
- Disasters & People with Disabilities
- Crimes Against People with Disabilities

3.4 Annual Review for Training Materials

The agency MUST conduct an annual review of training materials and keep abreast of changes that may impact the provision of accessible services, training materials. When changes occur, timely updates to training materials are required

4 Other

The agency should make an effort to ensure that local telephone directories indicate TDD/TTY/SMS Text access to 9-1-1 telephone emergency services, and that there is no directive to the caller to press the space bar or TDD/TTY/SMS Text keys.⁹

The agency SHALL conduct outreach to people with disabilities, which includes providing information regarding TDD/TTY/SMS Text access to 9-1-1.

It is recommended that the agency establish a TDD/TTY/SMS Text Phone Pal Program (See Operational Information Document (OID) 52-501), whereby utilizing members of the community in the testing equipment and call taker proficiencies.

It is recommended that PSAPs are working in tandem with covered groups (deaf, deafblind, hard-of-hearing, speech disabilities, etc.) to ensure that their policies,

⁹ <https://www.ncjrs.gov/pdffiles/adad.pdf>

procedures, equipment, training and upgrades meet the immediate need of the community.

It is recommended that PSAPs are working in tandem with the DOJ to ensure Spoofing and Swatting calls are not allowed to access the 9-1-1 system and violators prosecuted. The goal is to minimize any delay or accessibility to 9-1-1 System.

5 NENA Registry System (NRS) Considerations

Not Applicable

6 Documentation Required for the Development of a NENA XML Schema

Not Applicable

7 Impacts, Considerations, Abbreviations, Terms, and Definitions

7.1 Operations Impacts Summary

All PSAPs handling 9-1-1 and other emergency services MUST be able to directly receive TDD/TTY/SMS Text calls without relying on an outside relay service or a third party service (DOJ, 1998, p. 4). Due to rapidly changing communication technologies and the 9-1-1 system being transitioned to IP-enabled; it is imperative to consider providing access to callers who use those options. Currently, Text to 9-1-1 is beginning and it is expected that options for calling 9-1-1 will expand as soon as the NG9-1-1 system is deployed. Currently, legislation is being developed for a Next Generation 9-1-1 (NG9-1-1) system. This system will implement text-to-911, allowing individuals to send text messages to PSAPs. This is especially beneficial for people who are deaf, deafblind or hard of hearing and who may traditionally have relied on TDD/TTY to contact 9-1-1.

Title II of the ADA and the DOJ's implementing regulation provide that State and local government agencies MUST make reasonable modifications to their policies, practices, and procedures whenever necessary to avoid discrimination against individuals with disabilities, unless making the modification would fundamentally alter the nature of the service, program or activity, or would result in undue financial and administrative burdens. See 28 CFR 35.130 (b) (7) (reasonable modifications in policies); See 28 CFR 35.164 (undue burdens). A growing number of State and local governments have studied options for IP-based 9-1-1 networks in preparation for moving to NG 9-1-1 and have developed NG 9-1-1 migration/transition plans. The DOJ believes that in developing new or reviewing current NG 9-1-1 plans, State and local 9-1-1 agencies MUST include specific plans for equal access for NG 9-1-1 for individuals with disabilities.

The NENA Video Relay Service and IP Relay Service PSAP Interaction OID is intended to provide guidelines for PSAPS related to emergency calls placed via Video Relay and IP Relay services, the timely Relay (comparable to non-relay calls) of such calls to the

appropriate PSAP, and the interaction between call originators, the relay Video Interpreter, Communications Assistant, third parties and the PSAP telecommunicator.

In an effort to provide standardized training to PSAPs in the area of TDD/TTY/SMS Text call handling, the development of this document has included recommended standards developed by the Association of Public-Safety Communications Officials (APCO) International and NENA. The TDD/TTY/SMS Text Workgroup developed this document on the premise that training should be standardized across public-safety organizations to ensure consistent compliance with the ADA Title II requirements for telephone emergency services.

This standard should be viewed as independent and stand-alone from standards addressed elsewhere. Telecommunicators should be cognizant of other relevant standards, mandates, and legislation.

7.2 Technical Impacts Summary

Technical references, concerning equipment and/or network issues, are found within existing NENA technical standards.

Some of the recommendations contained herein, if implemented, may reduce the amount of time required for efficient handling of Video Relay, IP Relay, TTY/TDD/SMS Text calls made to 9-1-1.

7.3 Security Impacts Summary

VRS and IP Relay services using IP networks are subject to security threats; however, VRS providers believe that videophone technology is safe and easy to use with network security features like firewalls. IP networks were developed to foster connectivity but did not necessarily contain all the requirements to facilitate security without additional mechanisms. IP multimedia services are an easy target because they are based on IP networks that are inherently insecure. IP was also developed to be flexible, so there are many types of services today that have been built on top of IP over time.

The NENA 75-001 security document contains additional information useful to all participants and should be consulted when implementing these services.

7.4 Recommendation for Additional Development Work

The recommendations offered herein are meant to serve as suggestions for model operating procedures for the call-taking function within PSAPs. Certainly, we all agree that persons who have hearing or speech disabilities are no different from any other citizens in their desire to have quick, effective communication with the appropriate emergency services during their time of need.

7.5 Anticipated Timeline

This document contains several potential systemic improvement recommendations. Depending upon which (if any) recommendations are implemented varying timelines will be applicable. Generally, the recommendations are easily achievable within a 12 to 24-month time period.

7.6 Cost Factors

It is not the intent of NENA to burden an agency with additional requirements that may require funding. However, as previously stated, these are minimum standards that will assist the agency with meeting DOJ mandates. Specific cost factors associated with implementation for this standard cannot be determined due to the diversity that exists with PSAPs in their configuration and operations.

Each agency **MUST** provide initial comprehensive training to those personnel who may have contact with individuals from the public who are deaf, deafblind, hard of hearing, or who have speech disabilities, per the DOJ Technical Assistance [Access for 9-1-1 and Telephone Emergency Services](#). It is desirable that personnel do not take calls from the public alone prior to the successful completion of TDD/TTY/SMS Text training in accordance with this standard.

Comprehensive training includes, but is not limited to include the following topics. Detailed training standards can be found within the NENA TDD/TTY/SMS Text Training Standard, 52-xxx (pending).

Title II covers all activities of state and local governments, regardless of the government entity's size or receipt of federal funding. The ADA regulations stipulate accommodations **MUST** be made, unless the agency can prove undue hardship.

7.7 Cost Recovery Considerations

Not Applicable

7.8 Additional Impacts (non-cost related)

The information or requirements contained in this NENA document are expected to have the following impacts, based on the analysis of the authoring group. At the date of publication of this document, development had not started. The primary impacts are expected to include:

- 1) More reliable and timely emergency connectivity between call originators and PSAPs.
- 2) Improved quality of direct communication between callers and PSAPs (more functionally equivalent service provision).

7.9 Abbreviations, Terms, and Definitions

See NENA Master Glossary of 9-1-1 Terminology, NENA-ADM-000 [1], for a complete listing of terms used in NENA documents. All abbreviations used in this document are listed below, along with any new or updated terms and definitions.

Term or Abbreviation (Expansion)	Definition / Description
ADA (Americans with Disabilities Act)	Federal Legislation passed into law July 26, 1990, that prohibits discrimination on the basis of disability.
CPE (Customer Premise Equipment)	Equipment for handling of telecommunication call taking equipment.
DOJ (Department of Justice)	A branch of the Federal Government legislated to oversee compliance of Title II of the ADA.
Direct Access	Defined by DOJ as the capability for 9-1-1 to directly receive a TDD/TTY/SMS TEXT call without relying on relay or third party services.
HOH (Hard of Hearing)	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.
RTT (Real-Time Text)	Real-Time Text (RTT) is text transmitted instantly as it is typed or created. Recipients can immediately read the message while it is being written, without waiting. RTT is used for conversational text, in collaboration, and in live captioning.
SMS (Short Message Service)	Short Message Service is a text messaging service component of most telephone, World Wide Web, and mobile device system. It uses standardized communication protocols to enable mobile devices to exchange short text message.
SIP (Session Initiation Protocol)	A signaling protocol used to create, manage and terminate sessions in an IP based network.

TA (Technical Assistance)	Technical Assistance document issued by the U.S. Department of Justice (US DOJ) to assist agencies in achieving compliance with regulations.
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8 Recommended Reading and References

- [1] NENA Master Glossary of 9 1 1 Terminology, [NENA-ADM-000](#)
- [2] "Access for 9-1-1 and Telephone Emergency Services." U.S. DOJ of Justice, Civil Rights Division, Disability Rights Section. ADA Technical Assistance. Washington, DC: Volume One. July, 2001 www.ada.gov/911ta.htm.
- [3] Americans with Disabilities Act (ADA) Training Standards for Communications Officers. Associated Public Safety Communication Officials, International (APCO), August 2003
- [4] Minimum Training Standard for TDD/TTY Use in the Public Safety Communications Center, [APCO/NENA ANS 3.105.1-2015](#)
- [5] ADA Best Practices Tool Kit for State and Local Governments (Chapter 4: 9-1-1 and Emergency Communications Services)

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Members	Employer
Richard Ray, Accessibility Committee Co-Chair	City of Los Angeles Department on Disability
Donna Platt, Accessibility Committee Co-Chair	North Carolina Division of Services for the Deaf and Hard of Hearing
Wrentree Kelly-King, WG Leader	Department of Public Safety Communications, Fairfax County, VA
Kerry Coward, WG Co-Leader, Technical Editor	Consultant
Josh Howell	City of Grand Rapids Michigan Police

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Delaine Arnold, ENP, Committee Resource Manager, has facilitated the production of this document through the prescribed approval process.

The ADA Title II Working Group is part of the NENA Development Group that is led by:

- Pete Eggimann, ENP, and Jim Shepard, ENP, Development Steering Council Co-Chairs
- Roger Hixson, ENP, Technical Issues Director
- Chris Carver, ENP, PSAP Operations Director