



VIA ECFS

February 8, 2013

Marlene H. Dortch, Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
TW-A325
Washington D.C. 20554

Re: Facilitating the Deployment of Text-to-911 and Other Next generation 911 Applications [PS Docket No. 11-153]; Framework for Next Generation 911 Deployment [PS Docket No. 10-255]

Dear Ms. Dortch:

Enclosed for filing in the above referenced Further Notice of Proposed Rulemaking are reply comments of the Rehabilitation Engineering Research Center for Wireless Technologies (Wireless RERC).

Should you have any questions concerning this filing, please do not hesitate to contact me via email at helena.mitchell@cacp.gatech.edu.

Respectfully submitted,

Helena Mitchell
Principal Investigator, Wireless RERC
Center for Advanced Communications Policy
Georgia Institute of Technology

Enclosure

In the Matter of)	
)	
Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications)	PS Docket No. 11-153
)	
Framework for Next Generation 911 Deployment)	PS Docket No. 10-255
)	
)	
)	

REPLY COMMENTS

The Rehabilitation Engineering Research Center for Wireless Technologies (Wireless RERC), hereby submits reply comments in the above-referenced Further Notice of Proposed Rulemaking released on December 13, 2012. The Wireless RERC¹ mission is to research, evaluate and develop innovative wireless technologies and products that meet the needs, enhance independence, and improve the quality of life and community participation of people with disabilities. As such, we are pleased that the FCC is taking steps to codify access to emergency services by people with disabilities. The Wireless RERC reaches out to the community of people with disabilities to garner their interest and gather their input regarding their specific accessibility needs. This is an ongoing effort conducted through the Web-based Wireless RERC Survey of User Needs (SUN), which is updated regularly. In addition, the Wireless RERC conducts periodic surveys on topics of a timely nature such as hearing aid compatibility, use of social media in emergency communications, and the potential of next-generation 911 (NG911) technologies. The comments respectfully submitted are based on subject matter expertise developed over the 12 years of the Wireless RERC’s existence. Findings from our research and development efforts inform the recommendations made herein.

¹ The Rehabilitation Engineering Research Center for Wireless Technologies (Wireless RERC) is sponsored by the National Institute on Disability and Rehabilitation Research (NIDRR) of the U.S. Department of Education under grant number H133E110002. The opinions contained in this filing are those of the authors and do not necessarily reflect those of the U.S. Department of Education or NIDRR.

III. A Automated Error Messages for Failed Text-to-911 Attempts and Consumer Expectations and Education

Reply to comments filed by Telecommunications for the Deaf and Hard of Hearing, et al. (Consumer Groups and TAP)

The Consumer Groups and TAP "...concur with the Commission that regardless of industry efforts, there should be regulations, and that the scope be extended to all CMRS providers. The Consumer Groups and TAP also support the Commission's proposal to require all carriers to provide bounce back error messages by June 30, 2013.²" The Wireless RERC agrees with both assertions. The consumer group that stands to benefit the most is people with disabilities; particularly, people with hearing loss and speech disabilities. People with speech disabilities are a large and diverse group which includes individuals with Autism, traumatic brain injury, stroke, physical trauma to the vocal chords, cleft lip or palate, and others with difficulties vocalizing (e.g., stuttering). Of course, other situations may require "silent calls" by the hearing population, as well. Therefore, despite the voluntary measures taken by the top four U.S. providers, it is necessary that *all* mobile service providers be held to the same standards to ensure as great of coverage as possible with regard to text-to-911 availability and the required bounce back error message. The Commission acknowledges that some carriers may face "technical and operational issues in order to meet the proposed notification requirement."³ However, according to comments filed by the Rural Telecommunications Group, Inc. (RTG), they are "unaware of any of its members to date who anticipate difficulty in complying with the proposed bounce back requirement and RTG therefore does not oppose adoption of the proposed June 13 deadline."⁴

Moreover, the bounce back message in itself can act as a consumer education tool; alerting users to the limitations of text-to-911 and reinforcing the message that when possible,

² Comments of Telecommunications for the Deaf and Hard of Hearing, et al. in Docket No.s 11-153 and 10-255, p.6.

³ Federal Communications Commission (2012). Further Notice of Proposed Rulemaking *In the Matter of Facilitating the Deployment of Text-to-911 and Other Next generation 911 Applications; Framework for Next generation 911 Deployment* [PS Docket No. 11-153, PS Docket No. 10-255], Washington, D.C., December 13, 2012.

⁴ Comments of the Rural Telecommunications Group, Inc., Docket Nos. 11-153 and 10-255. P1.

voice or relay calls to 911 are the preferred method.

Reply to comments filed by the National Emergency Number Association (NENA)

NENA recommended that all bounce back messages use the same language: *Please make a voice or relay call to 9-1-1. Text-to-9-1-1 service is not available at this time.*⁵ The Consumer Groups and Tap, in general, agree but add that the reason for the error message should also be included in the bounce back message.⁶ The Wireless RERC agrees with both parties but urges the Commission to adopt NENA's standardized language and require the carriers to add a reason. The reason is important because if an individual is alone and unable to make a voice or relay call, they should know if the service is only temporarily unavailable for reasons such as network congestion. In such a case, the person can try again, in other cases, the person will have to get to a landline phone to make a 9-1-1 call. Providing information within the bounce back message will enable people to more rapidly assess the situation and take appropriate alternative actions. With that said, it is imperative that the language used in the bounce back error message be vetted amongst people whose primary language is American Sign Language (ASL). ASL is the fourth most common language used in the U.S. so the accommodation would benefit a significant population. In focus groups conducted by the Wireless RERC to explore the usability of ASL video formats for wireless emergency alerts, participants emphasized the fact that some phrases and expressions do not translate well into ASL, or are otherwise not easily understood by people who are deaf. Idiomatic expressions that have entered mainstream English such as "low lying areas" and "take cover" may cause confusion. Likewise, abbreviations and technical terms that may be used in the bounce back error messages may essentially get lost in translation. Hence, we recommend that potential error message language as to why the message was not received be circulated amongst Deaf ASL users to determine the best phrasing.

1. Consumer Expectations and Education

Reply to comments by CTIA – The Wireless Association (CTIA)

Public education efforts should employ any and all means necessary to reach citizens.

⁵ Comments of NENA, Docket No.s 11-153 and 10-255, p.6.

⁶ Comments of Telecommunications for the Deaf and Hard of Hearing, et al. in Docket No.s 11-153 and 10-255, p.8.

Text-to-911 capabilities and limitations should be communicated to the public through government websites, email subscriber services, television and radio public service announcements (PSA), cell carrier and cell manufacturer instructional materials, organizations and non-government agencies working on behalf of with people with disabilities. This is especially true of federal agencies such as the FCC and state agency outreach programs and mechanisms. With the growth of social media use in emergencies, social media outlets should also be included for all of the aforementioned entities. Materials should be available in alternative formats (i.e., braille, large print, electronic, accessible PDF etc.) and televised PSAs or other promotional videos should *always* have captions and ASL interpretations. Any awareness campaign should include radio, television, and web content specifically aimed at reaching people with disabilities by not only making the content accessible, but by including persons with disabilities as actors in the PSAs.

According to CTIA, “To successfully transition to NG9-1-1 systems, the FCC and appropriate public safety representatives, in coordination with the wireless industry and representatives of individuals with disabilities, must lead the effort to educate the public about the availability and limitations of text-to-9-1-1.”⁷ The Wireless RERC agrees with CTIA in that consumer education should be a collaborative effort led by the FCC and other public safety agencies; but we also maintain that the role of the federal government should include ensuring the accessibility of outreach activities and materials.⁸ The FCC’s Consumer and Governmental Affairs Bureau should be responsible for developing disability-oriented, public information materials and ensuring they are made available to states and localities in accessible formats so that they can tailor the materials to their needs, effectively streamlining the resources needed to create materials in alternate formats and modalities.⁹ If each state and locality were required to create and disseminate accessible outreach materials, the cost would increase dramatically. We also encourage the FCC to develop a nationwide PSA (for radio and television that includes the

⁷ Comments of CTIA, Docket No.s 11-153 and 10-255, p.11.

⁸ Comments of the Wireless RERC, *Public Safety and Homeland Security Bureau Seeks Comment on the Legal and Statutory Framework for Next Generation 9-1-1 Services Pursuant to the Next Generation 9-1-1 Advancement Act of 2012* [PS Docket No. 10-255, PS Docket No. 11-153, PS Docket No. 12-333], p. 6.

⁹ In state and local initiatives, the outreach materials would be required, under Title II of the Americans with Disabilities Act, to be accessible to people with disabilities.

captions and a sign language interpreter) regarding text-to-911 that directs viewers to a means of checking the availability of text-to-911 in their area.

In closing, the Wireless RERC wishes to emphasize the importance of advancing parity of access to emergency services via the use of standardized bounce back messages that have been vetted and verified by people with disabilities and adopting the June 2013 deadline. Equally important is the development and dissemination of inclusive and clear outreach materials designed to educate the public on text-to-911.

Respectfully submitted,



Helena Mitchell, PhD,
Salimah LaForce
Georgia Institute of Technology
500 10th Street, 3rd Fl. NW
Atlanta, GA 30332-0620
Phone: (404) 385-4640

Dated this 8th day of February 2013