Richard Lorenzo Ray
Los Angeles, California

February 6, 2013

Senator Alex Padilla, Chairman
Senate Committee on Energy, Utilities and Communications
State Capitol Room 5046
Sacramento CA 95814

Dear Mr. Padilla:

This is in reference to the Next Generation 9-1-1 (NG 9-1-1) along with related developments in deployment of reverse 911, the commercial mobile alert system, and the FirstNet public safety broadband network, I firmly support the implementation and deployment of "Emerging Communications Technologies and Public Safety Networks". I would also like to share a couple of examples of the real life challenges that I have personally experienced when faced with emergencies. It is due to these personal experiences, as well as that of other people with disabilities.

I would like to provide some information about my professional background experience and my involvement as a member of several local, state and national organizations. As an ADA Compliance Coordinator for the City of Los Angeles Department on Disability, I am responsible for coordinating and monitoring department compliance with disability civil rights laws and regulations, which include assisting City departments with effective implementation of the 1973 Rehabilitation Act, the Americans with Disabilities Act (ADA), and the ADA Amendments Act of 2008. I also provide technical assistance to City departments and facilitate access for individuals who are deaf, deaf-blind, hard-of-hearing and individuals who have speech disabilities to city-wide programs, facilities, and services.

I am the Chair of the National Emergency Number Association (NENA) - Accessibility Committee and a co-Chair of the Federal Communications Commission - Emergency Access Advisory Committee (EAAC). I am also a member of the National Advisory Board of Preparedness & Emergency Response Research Center (PERRC), University of Berkeley and the California Public Utilities Commission (CPUC), Deaf and Disabled Telecommunications Program (DDTP) - Equipment Program Advisory Committee.

As you know, technology is growing and changing rapidly. Individuals with disabilities are using handheld wireless devices as their primary mode of communication. There are over 32 million individuals who are deaf, deaf-blind, and hard of hearing and over 7.5 million individuals who have speech disabilities nationwide. In the State of California, there are over 2.2 million individuals who are deaf, deaf-blind, hard of hearing or have a speech disability relying on emerging technology. These individuals utilize wireless devices as their primary mode of communication. They use SMS, videophone, e-mail and instant messaging rather than relying on Teletypewriter/

Telecommunication Devices for the Deaf (TTY/TDD). This communication technology enables those individuals to merge into society.

Unfortunately, these individuals with disabilities, including those who are deaf, deaf-blind, hard of hearing, or have a speech disability, have no other means for contacting 9-1-1 with current text technology. It is critical that they access emergency services directly through the use of a simple, easy-to-remember three digit dialing code, 9-1-1.

I have had experiences when I was unable to contact 9-1-1 via my cellular telephone due to my deafness.

On October 2, 2011, I was unable to call 9-1-1 for help from my smart phone. The text messaging system was not available for 9-1-1 calls. I was experiencing a sharp chest pain and numbness in my arm while driving on errands and had a difficult time breathing. Fortunately, a friend who was with me drove me to the hospital immediately where I stayed overnight for observation.

Also, several years ago, I was behind a vehicle that did not move after the light turned green. When the car in front of me did not move for a certain period of time, I stepped out of my vehicle to investigate and found a driver who was locked in, with his head on the steering wheel. I tapped the window to get his attention. He did not respond and then I jerked the car hoping to get his attention to no avail. I feared that he might have died behind the wheel. I could not call 9-1-1 emergency service for help because I was deaf plus there were no other people around to ask for help. There was no system that would allow me to connect to 9-1-1 service. As much as I wanted to be a "Good Samaritan", the thought of not being able to help the driver greatly disturbed me. My only recourse was to text a friend and asked him to call 9-1-1. I never learned what happened to that man.

I would like to provide you with background information regarding the Alliance for Telecommunications Industry Solutions (ATIS) and Cellular Telephone Industry Association (CTIA)'s position on text messaging to 9-1-1.

Initially, ATIS and CTIA proposed to utilize the Internet Protocol (IP)-Relay service as an interim solution to call 9-1-1 emergency services instead of direct text messaging to 9-1-1. http://www.atis.org/PRESS/pressreleases2011/121311.html.

The 3rd party IP-relay and Video Relay Services (VRS) in the United States began in 2002. Since then, many people who are deaf, deaf-blind and hard of hearing utilize videophone, smart phones, and computers more and more often than using TTYs. These users felt it was costly to pay for all three services; landline, high speed and wireless carriers so they decided to terminate the landline services since they use TTYs less often.

Since they have terminated their landline services, they assumed that relay service providers were accessible for 9-1-1 calling needs. In the early days of the industry, prior to the Ten-Digit Numbering (TDN) requirements, relay providers were not equipped to connect 9-1-1 calls though and they warned customers to continue to use their TTY for 9-1-1. Nevertheless, consumers still called through VRS or IP relay service in emergency situations and Communication Assistants (CAs), faced with a person in need, would attempt to connect them even though the system was not ready. Due to the obvious need for Internet relay services to be accessible for 9-1-1 calls, the FCC intervened and established the current set of requirements.

In 2008, the FCC mandated a TDN plan implementation that would connect users of Internet-based relay services with each other, with hearing people, and 9-1-1 services using just one local telephone number. This requires users to register with their preferred relay service providers. When a 9-1-1 relayed call is being made, the caller information is to be electronically passed through and populated on PSAP ANI/ALI screen. Unfortunately, this is still an issue.

Voice over Internet Protocol (VoIP) telephony is a challenge for the emergency services industry. These issues are further complicated by the nature of relayed calls – having a third party or more involved in the call flow. Many relay service providers have contracts with vendors for automatic and/or manual routing services. Most would choose manual, which meets their financial status. Sadly, many relayed calls would go through emergency, non-emergency or administration lines instead of a 9-1-1 line and the caller information doesn't show on the ANI/ALI screen.

Telecommunications Relay Services and 9-1-1 Services

We applaud VRS and IP Relay Service Providers for making every effort to facilitate 9-1-1 emergency calls quickly as possible. A number of 9-1-1 test calls via both IP-relay and VRS were conducted between August 2006 and October 23, 2012. The results of 9-1-1 calls via both VRS and IP relay services remain the same; the average connecting time to PSAP ranged from 2 minutes and 53 seconds to 8 minutes.

Emergency Access Advisory Committee (EAAC) Survey Report

As you are aware, the FCC established an Emergency Access Advisory Committee (EAAC) in December 2011 as required by the Twenty-first Century Communications and Video Accessibility Act of 2010 (Accessibility Act). Chairman Julius Genachowski appointed me as a Co-Chair of the EAAC. This committee determines the most effective and efficient technology and methods by which to enable access to Next Generation 9-1-1 emergency services by individuals with disabilities. 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.

I would like to reiterate several critical points from the national survey report.

- **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 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.

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. I have sent a request 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.

Emergency Alerts

Access to emergency warning and information is important for the general population as well as for people with disabilities. People in the United States rely on siren, television, radio, and telephone for information whenever a crisis or emergency occurs; however, this type of technology is inaccessible and not reliable or workable for deaf, deaf-blind and hard of hearing people.

On December 23, 1985, I was at a lower level when a twin-engine plane crashed through the Concord Sun Valley shopping mall's roof, igniting a fireball that burned everyone in its path. Seven people died and 77 people were hurt. There were announcements which I did not understand. I did not learn about this disaster until I arrived home.

It is critical that people with disabilities receive messages at the same time as hearing people. In order to meet their needs, technical development may be necessary to create a system that provides equal communication access to receive notification.

It is crucial that options with redundancy for emergency alerting system that are accessible to individuals with disabilities such as 9-1-1 mass notification systems using electronic reader board, email, SMS, video clips, and various emerging technology in addition to analog phone systems.
Due to technological changes in the industry and expansion of alerting notification systems, it is critical to consider the needs of individuals with disabilities in times of crisis. Implementation of technology, programs, and services to meet their communication needs (both technology and non-technology) should be properly evaluated to ensure accessibility; therefore, a number of options should be utilized to disseminate notifications at the same time.

Often, using a combination of methods would be more effective than relying on one method by itself. For instance, combining visual and audible alerts will reach a greater audience than either method would by itself to ensure that people with disabilities can evacuate the physical area in a variety of situations and with or without assistance. (DOJ, 2008, Notification)

Conclusion

It is imperative that individuals who are deaf, deaf-blind, hard of hearing, or have a speech disability have the ability to call 9-1-1 directly via SMS, videophone and other emergency technologies through the use of simple, easy-to-remember 3-digit dialing code, 9-1-1. In addition, it is critical that people with disabilities receive messages at the same time as hearing people. In order to meet their needs, technical development may be necessary to create a system that provides equal communication access to receive notifications.

It is also critical that options with redundancy for emergency alerting systems are accessible to individuals with disabilities such as 9-1-1 mass notification systems using electronic reader board, email, SMS, video clips, and various emerging technologies in addition to analog phone systems. Furthermore, mass mandatory testing on a regular basis should be conducted to ensure that ALL types of alert modes are working. They should be corrected immediately if an issue arises.

A delay of a few *minutes* has shown that it could lead to death. Every *second* counts! It should not be every minute count! This is a matter of life and death.

Thank you for taking these aforementioned issues into consideration. Please contact us if you have further questions.

Sincerely,

Richard L. Ray