

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

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| In the Matter of |) | DA 14-1335 |
| |) | FCC 14-118 |
| Public Safety and Homeland Security Bureau |) | PS Docket 11-153 |
| Requested Comments to Topics |) | PS Docket 10-255 |

REPLY COMMENTS OF NEXGEN GLOBAL TECHNOLOGIES, LLC

NexGen Global Technologies, LLC (“NexGen”) submits these reply comments in response to the Commission’s Public Notice in the aforementioned docket(s).

BRIEF OVERVIEW OF NEXGEN: NexGen has developed technologies for real time SMS/MMS/IP/Cloud-Based Two-Way Texting and Media Retrieval for PSAPs in support of First Responders. The NexGen products are a complement to Text-to-911 (with our addition of MultiMedia Emergency Services, specifically the retrieval of photos and video clips from cell phones). NexGen products also have the capability to accelerate and scale NG911 services with features and functionalities that can enhance Public Safety.

NexGen, (with systems already in place at the Florida School for the Deaf & Blind and Union County 911, North Carolina), has already proven that these services substantially improve emergency response, save lives, can reduce property damage, allow for the proper allocation of emergency resources as well as expand access to emergency help; both for people with disabilities and for people in situations where placing a voice call to 911 and speaking could be difficult and/or dangerous.

NexGen's MMES (MultiMedia Emergency Services) technologies are hybrid SMS/MMS/IP/Cloud-Based solutions and can be deployed by Public Service Answering Points (PSAPs) now, irrespective of whether existing infrastructures are analog or digital or have Text-to-911 capabilities.

NexGen's Two-Way Text and Media solutions allow a cell phone user who calls a PSAP Operator to open and conduct a Two-Way Text session in addition to allowing the PSAP personnel to retrieve media (photo/video clips and accompanying text) from the caller's cell phone. The Caller does not have to install a cell phone app, nor does the PSAP need to install special software, hardware, or upgrade their equipment. The Operator does not have to ask the Caller which carrier or cell phone they are utilizing. The system automatically interconnects across all wireless networks, cell phones and cellular enabled wireless devices. In the case of media, once the media is received, the 911 Operator is able to immediately forward the media (along with pertinent biographical information such as height, weight and description), to all First Responders listed for distribution in the NexGen system -- all in real time.

As a stand-alone system, it easily integrates into any existing PSAP without the increased cost of IT hardware, software or infrastructure changes or additions. The NexGen system is easily accessible via a web browser, and PSAP personnel can be trained on its use within an hour.

NexGen is in the process of developing the ability to retrieve the longitude/latitude (X/Y) location coordinates of cell phones in communication with its systems. The caller does not need a cell phone app on his/her phone to complete this process.

NEXGEN'S REPLY TO PERTINENT TOPICS:

NexGen wishes to comment on the aforementioned docket(s), and our comments are as follows:

NexGen fully supports the Commission's commitment to ensure access to emergency services (inclusive of texting, sending photos and video clips) for all Americans, and understands that providing such access is a pressing issue, and that these services need to be provided in a timely and expedient manner. NexGen also agrees that the Commission's rules will continue to evolve as legacy networks and services transition to next generation technologies in accordance with the evolution of consumer needs and expectations.

Current market trends strongly indicate continued progression from a predominantly voice-driven medium of communication to one based more on text and data (photo and video clip) transmissions. NexGen believes future technology deployments will mirror the beliefs of many American consumers that Text-to-911 (inclusive of photos and video clips) can and should be handled by PSAPs.

In order for a technical evolution of NG911 technologies to take place, there will first need to be a working partnership between existing and developing technologies. The Commission's rules will need to support such collaborations by making 911 test data available to inventors and developers and ensuring that equal and timely access to such data is not restricted and how to gain access to this data should not be shrouded in mystery.

Simple instructions outlining how to obtain this data in a timely fashion must be readily available so that the process does not discourage or prevent

inventors/developers from working on 21st century solutions in support of Public Safety. These solutions will provide unique value for the millions of Americans with hearing and speech disabilities in addition to playing a crucial role in protecting life and property, providing improved situational awareness for emergency responders and better emergency resource allocation.

NexGen believes that in order for the best interest of the American Public to be served (sooner than later), proven Over The Top (OTT) text and media messaging applications should be made available to PSAPs. These systems can reside in a PSAP whose transfer of SMS/MMS may occur outside of the 911 framework. Integrations of these text and media solutions into legacy applications have started, and will continue to play an integral part in the evolution of the technical infrastructure that supports Public Safety at a more rapid pace.

There are many small, rural and regional Commercial Mobile Radio Service providers (CMRS) that will not be reaching text-to-911 milestones as quickly as those in larger urban areas. Because OTT solutions work with existing mainstream technologies, these applications can provide an immediate platform for smaller PSAPs to bring texting and media capabilities to their communities.

Allowing for the interim use of Two-Way Text and Media solutions that work outside of the 911 framework can provide immediate benefit to the speech and hearing impaired community. According to Public Notice FCC 14-118, there are approximately 48 million people in the United States who are deaf or hard of hearing and approximately 7.5 million people with speech disabilities. These numbers include youth, adults, elderly, and war-wounded veterans. These basic

SMS/MMS services, that many Americans believe are in place as a means by which to contact 911, should no longer be denied to members of the speech and hearing impaired community or to the public at large while they wait for the 911 infrastructure to advance to this level.

As noted by the FCC Commission's Emergency Access Advisory Committee (EACC), referenced in Public Document FCC 14-118, individuals who are deaf, hard of hearing, or speech-disabled currently have no direct means of accessing 911 other than through attaching a separate teletype (TTY) device to their cell phone. This core technology was invented in the early 1960's. The EACC goes on to state that the vast majority of people who are deaf, hard of hearing, or speech-disabled have discarded TTY's or have never acquired or used a mobile TTY, and as a result do not have a practicable means of directly accessing 911. Though held outside of the 911 framework, given the staggering numbers of Americans who cannot hold a text conversation or send in a photo or video clip to 911, rule making that will allow for these basic but essential SMS/MMS types of communications should be enacted to serve and protect this population.

NexGen has deployed its Two-Way Text and Media solutions at the Florida School for the Deaf and Blind (FSDB), Saint Augustine, Florida. FSDB, established in 1885, is a fully accredited state of Florida public school and outreach center for eligible Pre-K and K-12 deaf/hard of hearing or blind/visually impaired students. FSDB serves about 800 students on campus in academic programs, in addition to about 400 infants and toddlers and their families across the state of Florida through Parent Service Programs. As per Public Notice FCC 14-118 " the Commission stated

that the record in this proceeding and the EAAC Report had already shown that a significant number of people who are deaf, hard of hearing, or speech disabled will benefit from the ability to directly send a text message to 911 from any device that is text-capable". NexGen respectfully submits to the Commission that they review and evaluate the use of the Two-Way Text, Photo and Video Clip solutions used outside of the 911 network that allow the student body and school personnel at FSDB to communicate directly with the FSDB Police Communications Center using the same 21st century mainstream technologies used in their everyday communications (outside of contacting 911). The FSDB community is able to effectively use a technology whose platform works outside of the 911 network. These technologies can be used within a PSAP environment by putting Standard Operating Procedures (SOPs) in place on how and when a Two-Way Text session should be opened or when a photo or video clip should be retrieved from a cell phone.

Part of what will drive cost down for the implementation of text/media-to-911 at the PSAP level will be competition. Competition can only be created when inventors/developers are granted access to the core 911 data and test facilities needed to assist in the development of Public Safety solutions and so provide significant benefits to the American public.

Although using SMS platforms that require hitting "Send" may not be the ideal solution, this is an evolutionary process, as is the case with all emerging technologies. Waiting for what is referred to as the "ideal" solution is a losing proposition when there are proven interim solutions that can effectively address this need and solve this problem right now.

Should the American public have to wait for the emergency communications infrastructure to undergo a complete overhaul that will take years to complete? Two-Way Text sessions and real time transfer of photos or video clips to PSAPs outside of the 911 network are a major part of everyday cell phone communications. How soon can rules be enacted that will allow for the use of interim solutions, which are already available to the American public via mainstream technologies that are in use today?

If an interim media solution (such as the one currently in place at Union County 911, North Carolina) had been in place during the Virginia Tech shootings, the photos and videos from the active crime scene that were being aired on CNN could instead have gone directly to PSAPs, then distributed to SWAT Teams in real time.

Right now, through OTT solutions, PSAPs would be able to conduct Two-Way Text sessions and retrieve photos/video clips during crimes in progress such as break-in and entry, domestic violence, child abuse, abduction, or whenever a victim fears that the suspect may overhear their call to 911.

Shouldn't the value of these OTT solutions be considered as an interim solution while the national 911 network infrastructure is being completed?

NexGen will venture to say that the American public is not only in favor of having these capabilities, but should and will demand them.

These OTT solutions can also serve as secondary backup systems in the event that a PSAP experiences 911 Customer Premise Equipment (CPE) failures. These OTT solutions can also assist in preventing the 911 network from becoming

congested by allowing Operators to open Two-Way Text sessions and retrieve photos and video clips outside of the 911 network. These types of technologies can also be adapted to handle 911 data, thereby creating solutions that can serve as a PSAPs primary text/media-to-911 solution and also serve as a backup secondary Two-Way Text and Media solution.

In order to roll out text/media-to-911 in every jurisdiction across the USA, NexGen believes that PSAPs should be required to implement text-to-911. NexGen also believes that public demand and considerations of public safety will provide substantial momentum, and that both Congress and the PSAP's respective state government should help fund the move to text/media-to-911. The cost of allowing text and media solutions to work outside of the 911 framework will not be wasted as NG911 upgrades are implemented. These solutions will complement the new infrastructure and serve as a back-up to text-to-911 calls whenever necessary.

The trend in public communications from voice calls to texting may eventually change the way America will elect to contact 911. We believe that changing from voice to text (and photos and video clips) as a means of communication, will not cause an increase in contacts to 911, but only the way America may choose to make these contacts.

NexGen believes that interconnected texting applications (apps) must have the ability to text-to-911. Otherwise, the likely potential exists for there to be a great deal of confusion with respect to exactly which interconnected texting apps allow for contacting 911 and which do not. Unfortunately, but most likely, the way that an individual will find out that they cannot contact 911 using an interconnected

texting will be during a 911 emergency situation. At minimum, if interconnected text apps are not required to provide text-to-911, this will cause a delay in 911 services being provided to the individual attempting to contact 911 using one of these apps. Seconds can make a significant difference in dispatching First Responders to life threatening situations. There is real potential for loss of life and/or property caused by the delay or inability to contact 911 using an interconnected texting app. Bounce back messaging also needs to be considered when looking at rule making regarding these apps. A consumer attempting to text-to-911 with an interconnected texting app in a jurisdiction not yet text-to-911 enabled would immediately know that their text-to-911 will not prompt a response other than the bounce back message. NexGen agrees with Microsoft's assertion, (Public Notice FCC 14-118), that "as long as access to the SMS API remains available to interconnected text apps, enabling text-to-911 by December 31, 2014 is technically possible."

NexGen also asks the Commission to consider rule making specifically regarding cell phone apps being marketed as an alternate means of contacting 911. NexGen tested one of these apps while standing in a PSAP and the communication was never routed to 911. The communication was never routed anywhere. Cell phone apps being marketed as an alternate means of contacting 911 in lieu of other means of contacting 911 may be viable solutions, but these must connect the user to the proper jurisdictional PSAP in relation to the location of the user's cell phone.

CMRS providers are to be commended for the having entered into a voluntary agreement to provide text-to-911 services and having implemented this service in addition to the bounce back message within the timelines agreed to. Since

the Commission states in Public Notice FCC 14-118 that; “Nor is there any serious question as to the overwhelming public interest benefits to be derived from prompt implementation of text-to-911”, NexGen asks the Commission to consider requiring CMRS providers to provide test data and lab facilities to inventors/developers (even if there is a reasonable cost involved for those wanting access). NexGen believes that doing so will advance development and shorten the time line needed to implement these solutions. Providing access to such data and lab facilities will help to advance the development needed to make sure PSAP technologies meet the American public’s expectation. OTT Public Safety solutions are compatible with current technologies, employing the same mainstream methods used by the American public during the course of their daily cell phone communications.

NexGen believes that a per PSAP pricing model would be beneficial to both PSAPs and providers, but that the equipment should only be installed when a PSAP is ready to accept text-to-911 messages. This will help control the outlay of cost for CMRS providers so that they will not incur this cost until the PSAP is ready to receive text-to-911 messages. Waiting until the PSAP is ready for text-to-911 will also prevent the build-out of a network with CRMS equipment that could be outdated before the text-to-911 messaging services can be activated.

NexGen believes that part of what will allow for greater PSAP adoption of text-to-911 will be a more competitive market. A more competitive market place can, in part, be accomplished if the Commission enacts rule making that will require the Text Control Center (TCC) providers to grant equal access to the 911 text data and test facilities to all companies that develop and provide Public Safety solutions

along with time lines to gain access and ensure an expedient application/acceptance process. Otherwise TCC providers will be the only providers of text-to-911 solutions, creating what can be perceived as a non-competitive market place and pricing scenario.

NexGen also agrees that CMRS providers need to support SMS-based text-to-911 indefinitely. SMS as we know it will start to migrate to a more robust communications platform capable of not only text communications, but will evolve to become an integrated communications platform. This platform will be capable of handling photos, video clips and even live streaming video using one cell phone user interface. As has been, and continues to be the case, there will be a need for the CMRS providers to ensure that older technologies remain functional while the new technologies go on line. Past and continuing CMRS migrations include converting their networks from analog to digital and again from 2G to 3G, and now 4G LTE.

Although NexGen agrees that it is reasonable for CMRS providers to receive commercial compensation for the delivery of 911 text messages, there does seem to be a potential issue where a pre-paid messaging plan that is out of funds will not be able to contact 911 during an emergency if the funds are depleted. Perhaps a rule should be made that will allow for 911 text messages to be routed regardless of whether or not a phone has funds. This is similar to the rule that a cell phone without voice service can still call 911. Since it is becoming evident that the way the American public communicates with 911 is changing, so should the rules that govern these communications.

We find the 90-day notification of migration to covered text providers by CMRS providers to be reasonable as mentioned in Public Notice FCC 14-118. However, in order for the covered text providers to be able to effectively migrate to any new systems, the CMRS providers should then be required to provide the pertinent information and equal access connectivity to the covered text provider at the same 90-day time frame. Otherwise, covered text providers may not have a sufficient amount of time to complete their migration to the CMRS provider's new platform replacing their SMS platform.

With respect to "Liability Protection" for PSAPs, CMRS providers, interconnected text providers and technology vendors in relationship to the implementation of text-to-911: The same liability protection should be extended to the providing of location information in addition to secondary services used by a PSAP that may work outside of the 911 system that is serving the public interest. We do agree that the Liability Protection should be based on a standard of conduct that could be invoked as a defense.

Given the commercial location based technologies available today, NexGen knows that location information can currently be obtained from a cell phone within 15 to 30 seconds of opening a Two-Way Text session. This technology has been developed, but in order for this technology to be used as an interim solution, the FCC will need to enact rule making for these types of solutions in support of Public Safety to ensure:

1. Liability Protection
2. Equal and timely access for inventors, developers and providers of Public Safety.

NexGen believes that location based networks will evolve and that a two to three year timeframe to enact delivering location information with a text (SMS) message is a suitable timeframe. We wish to also add that until location based information is passed with a text message, the use of commercially available location based products should be allowed for use in Public Safety applications and exempt from current connectivity restrictions and receive Liability Protection. This would serve the interest of the American public. There is no valid reason to delay the potentially life-saving delivery of location information until an ideal solution is made available as the above referenced solution can be made available within several months. Additionally, perhaps the Commission may wish to consider the delivery of X-Y-Z (lon, lat, alt) coordinates when enacting rules pertaining to enhanced location. The addition of altitude will prove to be of great benefit when First Responders are responding to emergencies in any multi-level homes, buildings or other structures.

In terms of Rich Media Service such as MMS and MMES, while the CMRS networks are retro fitted or adapted to be able to deliver MMS/MMES to PSAPs, NexGen confirms that MMS/MMES is already being delivered to a U.S. based PSAP and Police Emergency Communications Center. Although the delivery of MMS/MMES is currently being handled outside of the 911 system, the receipt of MMS/MMES has already proven to be an effective tool in assisting First Responders to save lives. Furthermore, since the "Commission stated that sending text messages, photos, and video clips has become an everyday activity for mobile device users on 21st century broadband networks, and that adding non-voice capabilities to our 911

system will improve emergency response, save lives, reduce property damage, as well as expand access to emergency help, both for people with disabilities and for people in situations where placing a voice call to 911 could be difficult or dangerous.” NexGen asserts that allowing for communications consisting of SMS/MMS to PSAPs in relation to, but outside of the 911 system, are viable solutions. These solutions are already proven, meet Standards, and will continue to serve the American Public as secondary back-up systems, even after the 911 system becomes fully capable of handling MMS/MMES.

Chairman Wheeler stated; “Today we are taking actions that will allow 911 to keep pace with new technology, that sets the stage for enabling even more functionality on the 911 platform, and, most importantly, that will save lives.” NexGen fully agrees with the Chairman’s statement. However, NexGen believes that in order for technologies to be invented and developed that will assist First Responders in saving lives, an environment and regulations that foster such development must be in place. Ensuring that small businesses, inventors, and developers are granted equal access to test data and facilities is crucial. Services such as short codes and consumer location based services should also be included under equal access provisions, and SMS/MMS/MMES transfers outside of the 911 system need to be recognized as viable solutions. Liability Protections need to be extended to the use of these technologies, and facilities when used to benefit the American Public. With the Commission ensuring that both access and protections are granted, then the American Public will see the 911 system evolve to match and

even exceed the 21st century solutions in support of Public Safety that many Americans already believe are (or should be) in place.

These OTT solutions will provide unique value for the millions of Americans with hearing and speech disabilities; they can also play a crucial for people in situations where placing a voice call to 911 and speaking could be difficult and/or dangerous. These interim solutions can improve situational awareness for emergency responders and serve as aids for emergency resource allocation. Best of all, these emergency communications enhancements can be made with existing interim solutions that use mainstream technology protocols already in place and already familiar to the American Public.

Respectfully submitted,

/s/ Michael Romano

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