

**Before the  
Federal Communications Commission  
Washington, D.C.**

In the Matter of	)	
Framework for Next Generation	)	PS Docket No. 10-255
911 Deployment	)	
	)	
	)	
	)	

**REPLY COMMENTS OF  
TEXT THEM IN, INC /dba TEXT2THEM A COMPANY  
PROVIDING B2C TWO-WAY TEXT (SMS) APPLICATIONS  
NOTICE OF INQUIRY**

Text2Them submits these reply comments on the Federal Communications Commission (“FCC”) Notice of Inquiry (“NOI”) issued on December 21, 2010. We agree that “competitive forces and technological innovation have ushered in an era of advanced Internet-Protocol (IP)-based devices and applications that have vastly enhanced the ability of the public to communicate and send and receive information”.

We further believe that much of what NG-911 seeks to developed, as outlined in the December 21<sup>st</sup> NOI, has already been developed in Text2Them’s patent pending two-way text messaging (SMS) system (see attached) , which can enhance the FCC’s 911 current and future systems.

Text2Them has no previous experience with FCC or 911 system developers. Text2Them has, instead, focused its attention on answering a growing consumer question *“If you can text your friends and family, why can’t you text a business or organization?”* According to Neilson Mobile, the number of text messages sent exceeds the number of voice calls sent. This number doubles each year. Making texting the most popular and preferred method of communication. The need to seamlessly engrave it into the corporate environment has lead us to the recent creation of Text2Schools, Text2Retailers, Text2Government (see attached), Text2Colleges and others. It is not just the 911 community that is faced with this problem.

Calling someone, receiving a recorded message or auto response and having the option of pressing a number to be transferred to a live person is common with current voice phone systems. Now, with Text2Them, customers and employees can contact a company, by text message, and have the same auto response, transfer or live text chat options previously only afforded to voice. The only difference is that this is a computer to cell text messaging. We believe that 911 dispatchers and other emergency responders would gain huge benefits and cost savings by incorporating Text2Them patent pending two-way text messaging system into their existing emergency and non-emergency operations.

The benefits for the FCC and NG-911 are enormous; in fact even existing 911 operations can easily install Text2Them into their operations and achieve the benefits of two-way texting and communications.

## **Benefits of Two-Way Texting**

Text2Them has developed a patent pending system that finally allows government and businesses to send and receive text messages without complicating their existing communication systems. Now you can use one system for:

### **911 Dispatch**

There is a proven need for 911 Dispatch to go beyond using text for “tip lines” to be included two-way texting SMS in their current emergency response systems.

### **Law Enforcement Text Tip Line**

Imagine using the same system as a two-way text and tip line for police where they could have a text conversation with concerned citizens instead of current one-way text tip lines.

### **Emergency Text Broadcasting System**

In the aftermath of 9/11, most government agencies have created text message alert systems to notify their citizens of emergencies. These systems sit on the shelf waiting to be used, and at the same time, we hope they will never be utilized.

A text message system that not only broadcast out but can receive messages as well. Target an emergency broadcast to a specific group/dept/geographical area or even individuals so messages gets to those that need to know and allows them to respond, without alarming others.

Imagine using the same system to notify emergency responders when systems are down due to power outages, building evacuation, snow closing or other emergencies.

### **Call Center Text Communication System**

Imagine a text messaging system that would allow each department to communicate with employees on a daily basis, instead of just during emergencies.

### **Citizen Text Communication System**

Text2Them also provides this same system not only as a communication for government and business to reach people, but also for individuals to reach their friends and family, during an emergency with that message everyone wants to hear, “I’m OK.” [www.textImOk.com](http://www.textImOk.com)

### **Text Communication During Disasters**

Imagine being able to use your emergency broadcast system for something other than emergencies. A text message system that not only broadcast out but is able to receive messages as well.

### **SMS Call Center Cost Reductions**

Adding text messaging systems actually reduce the cost and time of voice call responses by as much as 83%, while improving the efficiency of responding to questions of constituents.

The attached pages provide specific answers to the Notice of Inquiry that we believe are already addressed by Text2Them’s patent pending two-way text messaging system.

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## Notice of Inquiry Comments and Reply

Below numbered paragraphs are from the Notice of Inquiry and responses that apply to Text2Them area of experience. Specific questions and requests for comments we are addressing are underlined our responses are in **blue**.

### IV. DISCUSSION

28. The deployment of and transition to NG911 presents multiple opportunities for the benefit of public safety and homeland security. First, replacing today's system with a broadband-enabled, IP-based 911 network will offer far more flexibility, resilience, functionality, innovation potential, and competitive opportunities than is presently possible. NG911 holds the promise to bridge the gap between traditional means of voice-based communications and the advanced capabilities already in widespread use by consumers using smartphones, netbooks, and advanced wireless 4G. In particular these digital devices have powerful processor and storage capabilities and are capable of transmitting not only voice communications, but also text, data, telemetry, image, and video signals, which have benefits to particular communities such as persons with disabilities. Unlike the circuit-switched technology that lies at the heart of the legacy 911 system, today's wireless networks increasingly use all-digital packet switched technology based upon the Internet Protocol suite.<sup>58</sup> Thus, while these networks are capable of conveying text, data, image, and video in addition to voice, the legacy 911 systems are not capable of receiving or processing these communications, and will not be until NG911 is deployed across the country.

**911 texting can be deployed immediately to current law enforcement by adding Text2Them two-way chat system to current law enforcement "text tip lines". MMS can be added shortly (within six months) with Text2Them enhancements.**

29. The adoption of broadband IP-based technology also creates the potential for our 911 system to accommodate a full range of specialized devices and functionalities tailored to particular emergency response scenarios. For example, NG911 could permit the simultaneous transmission of critical health data along with a 911 call for help, both from the "caller" seeking assistance to a dispatcher, and back out from a dispatcher to a first responder arriving on scene or to an emergency room receiving the patient.

**Text2Them System would allow text go from mobile to multiple computers so text conversations across multiple users can be conducted simultaneously. The system is also capable of simultaneously providing critical information to first responders and or to healthcare facilities is also available.**

Likewise, a vehicle's Automatic Collision Notification System could automatically call for help while conveying other relevant information such as the vehicle's location and the severity of the crash. NG911 will also enable 911 call routing based on caller characteristics, not just the location of the call. For example, a 911 call might be made via a video-enabled device by a deaf caller whose native language is American Sign Language. In this situation, rather than routing the call to the "geographically appropriate" PSAP, it may be preferable to enable the 911 system to route the 911 call to a PSAP that is video-enabled and has a 911 call taker prepared to respond to the caller using the caller's native sign language.

**We disagree that video is needed to communicate with deaf customers since text messaging has reduced or eliminated the need to sign for many deaf users. Regardless Text2Them has the ability to route a text message conversation, or**

**provide a connecting code which will connect the call to the appropriate authorities. Text2Them currently is not equipped with video but this enhancement can be provided.**

NG911 will permit this to happen. NG911 will also create the ability to utilize a “virtual PSAP.” Today’s 911 system generally requires a call taker to answer a 911 call from within the walls of a physical PSAP. In a NG911 network, however, a call taker will be able to answer a 911 call from virtually any location. This capability will be particularly advantageous during disasters and high call volume situations. NG911 will also complement the deployment of related next generation emergency communications networks, such as next generation alerting systems and advanced public safety broadband networks.

**Text2Them is a web based system designed to allow access from any location that has broadband access.**

### **A. NG911 Capabilities and Applications**

31. In this section, we review the potential capabilities that the deployment of NG911 systems will provide to the public, and the likely architecture of NG911 networks. We seek comment on each of these elements as a component of NG911. Are there core elements that should be part of every NG911 system and standardized across all NG911 deployments? Are there non-core elements that could be part of NG911 but are optional or can be varied locally? How will these elements (both core and non-core) be affected by future technological change?

**Tip Lines - Currently 911 dispatchers and or police departments are using text messaging as “tip lines”. These systems are one way text message systems and would be the first opportunities to incorporate two-way texting.**

**Emergency Text Alert Systems – Current text alert system, such as DCAlert uses one way broadcast systems. Two-way systems would allow recipients to respond with questions or provide additional critical information.**

### **3. SMS for Emergency Communications**

41. In light of the popularity and ubiquity of SMS, many consumers may assume that they are or will soon be able to text to 911. Indeed, consumer use of SMS has exploded in the past decade and we note that the IETF standard suggests that RTT should be considered as a potential fallback media type when audio communications cannot be supported. Billions of SMS messages are sent each day. Also, unlike some of the other media types discussed above, SMS is readily available on most mobile phones, and thus its implementation into the NG911 (Next Generation 911) network may be one of the first steps in moving beyond a voice-only emergency calling framework. SMS, however, has limitations that will need to be addressed if it is to become a reliable means for emergency communications. For example, a recent study noted that SMS is an asynchronous messaging service that does not provide a means for the sender to know whether and when the message has reached its destination. In addition, the study noted that because each SMS is independent of its predecessors, it is difficult to ensure that messages within the same logical conversation are routed to the same destination.

42. Given these limitations, we seek comment on how the increasing use of SMS may impact emergency communications and whether NG911 networks should be configured to support SMS emergency communications.

For example, are there any proposed technical standards or approaches that would sufficiently address routing and location concerns?

**Text2Them has developed a patent pending text routing system that allows caller to enter an identification number and have text conversation routed to a local or national call center.**

Further, will it be possible to use the existing short code system to reach PSAPs (Public Service Answering Point)?

**Text2Them is based both off the short code system and an email based text messaging system. There are several configurations that can be created depending on needed of call center.**

Are there measurement results for mobile-to-fixed messaging that indicate the reliability and delay of SMS delivery under specified circumstances?

**No studies have been conducted but could easily be performed. This would include several situations from broadcasting out by volume as well as high peak periods of use and how they affect the ability to get text messages out**

Would it be possible to add location information to SMS messages to help in routing such messages and, if so, how?

**Yes. It could be incorporated into our two-way text system and system**

Would it be possible to maintain session continuity across messages, e.g., at the gateway between the cellular network and the IP network?

**Yes our system maintains the "chat" session with chain of conversation after initial short code contact the system converts to an IP network which transmits as text messages.**

Can end-system SMS applications address some of the location related issues, e.g., waiting to send an emergency SMS until location information has been acquired?

**Inclusion of Geo Fencing into any text messaging system would accomplish this current Text2Them systems do not provide this, however, it is easily adapted.**

Have there been trials or operational experiences using SMS within the NG911 architecture?

**There are several 911 Dispatchers using SMS (text messaging), however it is not two-way. Converting their existing system to our two-way system could be done immediately and tested.**

Should SMS be considered primarily as a fall-back mechanism when voice communications are difficult or impossible to transmit?

**Yes, caller should always use voice as their first option and SMS as a fall-back system when voice is dangerous to use or when cell signals are unavailable or jammed.**

As wireless systems evolve to IP based 4G architectures, can the reliability and features of SMS messaging be improved for the purposes of emergency communications and if so, how?

**Text2Them system is both short code and IP based and 4G works within our existing system.**

43. We also seek comment on existing and future public expectations related to the use of SMS for emergency communications. Do consumers understand that currently available SMS generally does not support sending text messages to 911?

**Although voice calls have exceeded SMS since 2008 and people text friends and family rather than place voice calls, text is not used as a two-way system for business as well as 911. The main objective of Text2Them is to solve this problem and create an environment whereby SMS is as convenient as voice.**

Could the implementation of NG911 lead to changes in consumer expectations and public misunderstandings about SMS capabilities?

**Yes. Consumers understand SMS capabilities; however business has not risen to a level to engage the consumer**

Is there a need for programs to educate the public about the limitations of SMS for emergency communications, and if so, what entity should be responsible for developing such programs?

**Yes. Although our system would allow a consumer to use either voice or text with the same amount of ease, it does require a different number. For example DC 911 Dispatch has 911 for voice and 50411 (see attached) to text tips.**

Are there liability issues that could arise if consumers unsuccessfully attempt to use SMS for emergency communications?

**Yes there is on average a 20-60 second delay in receiving text messages. Customers understand since is common in current cell to cell texting as well as computer to cell. However when voice is not an option text is critical. This would need to be explained to the consumer.**

#### **4. NG911 Applications for Persons with Disabilities and Special Needs**

45. The Commission seeks comment on what media types and devices (e.g., text, video) persons with disabilities will likely use to make an emergency call in an NG911 environment? We understand that some people with hearing and speech disabilities make emergency calls directly; others use telecommunications relay services (TRS), a more indirect method to make these calls. How can the Commission ensure that persons with disabilities receive the appropriate benefits from the NG911 system? What, if any, technical or accessibility requirements should be imposed to ensure that persons with disabilities have the necessary access to the NG911 system? To what extent can real-time text, which permits the live exchange of information with a PSAP during a call, assist individuals with hearing or speech disabilities who wish to call 911 directly? Finally, the Commission requires IP-based text and

video relay providers to ensure the prompt and automatic call handling of emergency calls.<sup>76</sup> What considerations are necessary to ensure effective access to NG911 services for callers who continue to rely on IP-based relay services for their 911 calls? Are there different considerations for individuals who continue to use PSTN-based relay services?

**“With car radios and cell telephones useless to many individuals who are deaf or hard of hearing, these text devices are often the only option to send and receive emergency information. Some service plans by wireless vendors who market specifically to deaf and hard of hearing people offer the feature of 24-hour AAA roadside assistance service, which is very popular. Yet in numerous surveys, discussions, and correspondence from individuals who are deaf or hard of hearing since September 11, a frequent concern is the lack of access to Public Safety Answering Points (PSAPs) via these wireless text devices.**

**This service is currently offered in only Sacramento, California. Emergency responders have expressed reluctance to offer this service for a number of reasons, many tied to their concern that it would be unreliable and that device users would not know whether their message succeeded in reaching the PSAP. Deaf and hard of hearing individuals, however, have said that in the absence of any other alternative they are willing to accept the risk.”**

Emergency Preparedness and Emergency  
Communication Access Lessons Learned Since 9/11 and  
Recommendations  
[tap.gallaudet.edu/Emergency/Nov05Conference/EmergencyReports/DHHCANEmergencyReport.pdf](http://tap.gallaudet.edu/Emergency/Nov05Conference/EmergencyReports/DHHCANEmergencyReport.pdf)

### **C. Other Specialized NG911 Applications**

59. Social Media for Emergency Communications. How have consumers used social media to report an emergency or contact public safety during an emergency? How will consumers expect to use social media for emergency purposes in the future? To what extent might state and local public safety jurisdictions employ social media tools as a way to interact with the public? How will these tools impact the deployment of NG911?

**The greatest use of Social Media (Facebook, Twitter exec) does not appear as a means of contacting Emergency Personnel instead used to contact loved ones to determine their safety, situation, or location.**

60. N11 Numbers and Other Services for Emergency Communications.<sup>80</sup> The basic functionality of NG911 is similar to many other location-based information and assistance services, such as 211 (community information and referral), 311 (non-emergency city services), 511 (traffic information), poison control, call-before-you-dig, and other similar services. Since these services share much of the same technical functionality, it may be possible to reduce cost and improve service by integrating some of these services to use a common technology platform. Further, callers may need to be transferred from one service to another, e.g., from 911 to 311 or 211.

**Text2Them offers several text options for callers/texters. The system operates much the same way as a voice call system would operate. Text2Them customers can text a keyword to a short code, and receive auto response. This auto response message provides several options to use to connect by voice, text or get information from a webpage. This provides a “self-service” option and reduces need for live operators. Example:**

**Customers Texts:** Text “non-emergency” at 839846 for information on non-emergency

**Auto Reply:** Information on non-emergency calls at [www.county.com/non-emergency.htm](http://www.county.com/non-emergency.htm) to text chat live text ‘1234567’ to 839846 (textin) or in an emergency call 911

Can such coordination and integration be helpful and cut costs?

**Several studies have been conducted using text messaging to handle call center calls vs voice systems. By simply giving customers the option of voice calls or text they will text. The cost savings are substantial, as high as 83%, in studies. The reason is due to the fact that an operator can handle as many as six text conversations in the time it takes to handle one text message conversation.**

**TEXTING CAN INCREASE OFFICE EFFICIENCY**

Barry Greene, President and CEO of Med Practice Informatics, a Norwalk, Conn.-based health information technology consulting firm, said on average, practices can reduce staff time from one hour, per doctor, per day to less than 10 minutes (83%) by using text messaging systems for appointment reminders, lab calls and follow-ups. He estimated that savings, plus increased revenue by filling saved time with additional patient visits, could boost the bottom line by even \$100,000 per year.

*American Medical News Technology Speaking, March 23,2009*

<b><u>SERVICE CHANNEL</u></b>	<b><u>COST</u></b>
<b>Web Chat</b>	<b>\$7.50</b>
<b>Phone Call with Live Agent</b>	<b>\$4.50</b>
<b>Email</b>	<b>\$2.50</b>
<b>Phone Self-Service</b>	<b>\$1.85</b>
<b>Web Self-Service</b>	<b>\$0.65</b>
<b>SMS (Text Messaging)</b>	<b>\$0.10</b>

Gartner/Avaya, 2005  
(see attached)

62. Disaster Planning and Recovery. How will NG911 facilitate disaster planning and recovery? How will NG911 interact with existing and future public alerting systems? Can national security be enhanced by the consistent implementation of interoperable NG911 systems across the nation? What key NG911 elements should be the focus for consistent implementation and interoperability?

**NG911, with a text messaging system, can play a key role in supporting public alert systems during disasters. It can assist in contacting loved one to determine their safety situation or location. Similarly text messaging has proven time and time again to be the quickest and most effective way to reach loved ones.**

**WI. student missing in Haiti is OK**

After days of uncertainty over the safety of their 20-year-old daughter, Mike and Lisa Elliott of Hartland, WI received news Thursday that Melissa was OK. She sent a text message to her mother who received the text as the parents landed at the airport in Boca Raton, FL.

**Sending a SOS Text Message to Canada Saved a Woman in Haiti** A Canadian woman trapped under rubble after the recent earthquake in Haiti managed to send out a text messages to the Foreign Affairs Department in Ottawa, a place nearly 3,000 miles away. And it saved her life.

**Katrina - Text messaging getting through**

"Text messaging has been the saving technology for us in this hurricane. While the normal voice circuits have been down completely (in New Orleans) or clogged (in Baton Rouge), text messages have been getting through even to those completely cut off in every other way. It's interesting: [S]o many older mobile phone users just aren't into texting, and so they never use it. Now, they're learning on the spot."

**Web site posts half million text messages sent from 9/11**

"urgent. It's tim. I'm okay. Call me at home...i was outside the building when it exploded, but i'm fine."

**Students at VA Tech try text messaging when voice calls won't go through**

"We did also see some heavy text message traffic. A lot of folks have learned that it's much easier to get a text message through at that time than to get a voice call through."

[http://www.textchatlive.com/Emergency\\_Preparedness\\_4M00.html](http://www.textchatlive.com/Emergency_Preparedness_4M00.html)

**NEED FOR CITIZENS EMERGENCY TEXT MESSAGE SYSTEM**

**One of the lessons learned from Katrina, Haiti and other disasters is that victims were unable to reach family and family. There is a need for a national text message alert system where victims of disasters can send a text message to their loved ones that they are okay. Text2Them has designed a system and offers it free to everyone.**

**How TextImOK.com Works**

Register with Text2Them's **FREE** Text I'm OK Program. Download contacts from your cell phone to your computer then uploaded to our online Text2Them system. When faced with an emergency send a text message to Text2Them or an emergency contact person to release a message to your emergency contact group letting them know that you are OK. In the event of a power outage affecting both you and your emergency contact, you can send a text to anyone with computer access, outside of effected area, and have them log on and relay your message. You can also be text "Im OK" to Text2Them and we will send out a message to the emergency contact list that you create through the Text "ImOK" Program.

[http://www.textchatlive.com/Emergency\\_Preparedness\\_4M00.html](http://www.textchatlive.com/Emergency_Preparedness_4M00.html)