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

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

COMMENTS OF T-MOBILE USA, INC.

T-Mobile USA, Inc. ("T-Mobile") is pleased to be part of the voluntary commitment among the four nationwide wireless carriers, APCO, and NENA to make text-to-911 available to wireless subscribers by May 2014.[1] Text-to-911 will enhance the ability of consumers to contact emergency services, particularly those consumers with hearing or speech disabilities. A critical part of making this effort successful is for consumers to be appropriately informed regarding the limits of the service. This includes, in part, the need for service providers to provide automatic notifications when text-to-911 is not available – a service that T-Mobile already provides. As the Commission moves to expand the availability of text-to-911 services, the environment will become more complicated as we transition through a period where availability and use of text-to-911 will vary from PSAP-to-PSAP and area to area – increasing the complexity and cost, as well as certain inherent risks. The Commission should acknowledge those factors in any new rules.

[1] Letter from APCO International, AT&T, NENA – The 9-1-1 Association, Sprint Nextel, T-Mobile USA, and Verizon, to FCC Chairman Julius Genachowski, Dec. 6, 2012, *available at* http://c.ymcdn.com/sites/www.nena.org/resource/resmgr/GovAffairs/121206_-_Voluntary_Commitmen.pdf.

It should also ensure that consumer education about text-to-911 is nationwide and consistent, focused on the capabilities and limitations of using text messages to contact public safety.

A. Automatic Notifications.

As text-to-911 is rolled out nationwide, some consumers likely will attempt to send text messages to PSAPs that are not capable of receiving them. Indeed, this already happens. As part of the voluntary commitment with APCO and NENA, therefore, T-Mobile and the other nationwide carriers have committed to providing bounce-back messages by June 30, 2013, to any consumer who sends a 911 text in an area where it cannot be delivered to public safety. This will help avoid consumer confusion regarding where the services are available and reduce, but not eliminate, the risk that a consumer sends a text for help that is never received.[2] T-Mobile, for its part, already provides an automatic notification in this situation.

There are, however, a few issues to consider as the FCC moves forward. First, the Commission should not underestimate the challenges for all CMRS carriers to mirror commitments made by the four nationwide carriers. For instance, though T-Mobile already provides a bounce-back message to its subscribers who attempt to text to 911, smaller carriers may find it challenging to do so, particularly on a short timeframe and without cost recovery from state and local governments. Though the Commission suggests that the four nationwide carriers' agreement to meet the voluntary commitments independent of their ability to recover costs from state and local governments indicates that bounce back implementation "appears to be

[2] It is important to remember that SMS is a best-effort communications service and carriers will not be able to guarantee delivery of all messages. 4G Americas, *Texting to 9-1-1: Examining the Design and Limitations of SMS*, White Paper, at 5 (October 2010), *available at* http://www.4gamericas.org/documents/SMS%20to%20911%20White%20Paper%20Final%20October%202010.pdf ("4G Americas White Paper").

feasible at a reasonable cost,"[3] bounce-back implementation is not necessarily inexpensive. The initial implementation is relatively straightforward – as noted above, T-Mobile already sends a bounce-back message to any of its subscribers who attempt to send text messages to 911. But as PSAPs begin to accept text messages, implementation will become much more complex and more costly, as carriers will have to determine when and where bounce-back messages should be sent. Though T-Mobile may be able to absorb some of these costs, smaller carriers may have more difficulty doing so.

Second, the Commission should ensure that carriers can protect their networks when bounce-back implementation – and, indeed, full text-to-911 implementation – creates risks to their networks. In situations where any text-to-911 implementation could permit harm to a carrier's network – via, for instance, a denial-of-service attack, "spoofing," or "flooding"[4] – carriers should be permitted to suspend the service.[5] Where enabling text messages to 911 leaves carriers and PSAPs vulnerable to attack, carriers must be allowed to configure their networks specifically to exclude those messages that create security issues.[6]

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[3] *Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications, Framework for Next Generation 911 Deployment*, Further Notice of Proposed Rulemaking, PS Docket Nos. 11-153 & 10-255, at ¶ 27 (rel. Dec. 13, 2012) ("*FNPRM*").

[4] *See* 4G Americas White Paper at §§ 3.1, 3.2, 3.4.

[5] For instance, many carriers have a method that allows the sending of a text message to a device, in the form of something similar to NPANXXXXXX@carrier.com. This capability, however, could permit denial-of-service attacks. Carriers can protect their networks from such attacks by specifically excluding messages destined to 911@carrier or that are in any way originated as an email message.

[6] This authority is presumed in the ATIS standard for SMS to 911. *See* Joint ATIS/TIA Native SMS to 9-1-1 Requirements and Architecture Specification, § 6 (working document) ("Support for SMS to 9-1-1 is only required for native SMS originated from CMRS devices. The SMS to 9-1-1 system may block SMS to 9-1-1 messages from originations other than CMRS devices to deal with security issues such as denial of service attacks, fraud, and SMS spam."); *see also id.* at 18 ("However, a wireless operator shall reserve the right to perform spam checking or denial of service attack prevention on some or all received SMS messages

B. Education.

Text-to-911 cannot be successful without consistent consumer education about the appropriate circumstances to contact public safety via text message and about where such functionality is available. In addition, T-Mobile believes text-to-911 implementation should be tested. However, any testing scheme should be carefully designed to avoid adversely impacting PSAP operations.

As the Commission, and indeed all stakeholders recognize, the most important message of any education campaign regarding this issue is that texting 911 should always be considered a secondary means of reaching public safety. Subscribers should be encouraged to continue using 911 voice calling as their primary method for contacting public safety in an emergency situation. Text-to-911 will serve as an alternative in those instances where voice calls are not possible. Clear messaging regarding the appropriate role of text-to-911 is critical to all consumer outreach efforts going forward.

While consumer education about text-to-911 will likely be most successful when approached from a local perspective, a national framework will be necessary to ensure consistency. T-Mobile agrees with the Commission's proposal that the Public Safety and Homeland Security Bureau and the Consumer and Governmental Affairs Bureau should coordinate that education effort with other key stakeholders, including state and local government, public safety organizations, consumer groups, and disability advocates.[7] T-Mobile also encourages the Commission to leverage relationships with disability groups that have been fostered by the work of the Emergency Access Advisory Committee.

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terminating on their network from any address, including messages with a value of '911' in the From address field.").

[7] *See FNPRM* ¶ 38.

Finally, T-Mobile supports testing of text-to-911 capabilities, provided that such testing does not adversely disrupt PSAP operations. Testing the transmission from handset to carrier to text-to-911 vendor, however, would be most valuable, particularly if all carriers and vendors agreed upon a standardized test protocol (including using the same test number).

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T-Mobile is proud to be part of the voluntary commitment to provide text-to-911 capabilities to any PSAP that requests it by May 15, 2014, and T-Mobile already provides automatic notifications to its subscribers when they attempt to send SMS messages to 911. Furthermore, the company is pleased that the other nationwide carriers will provide the same service by this summer if they currently do not. In extending these voluntary commitments to all CMRS carriers, though, the Commission must consider the burden they would place on smaller and rural carriers, particularly if the Commission decides that bounce-back implementation is not eligible for state and local cost recovery by any carrier. The Commission must also recognize the importance of a consistent, nationwide education campaign, one that stresses the appropriate use of text messages to reach public safety, and which allows standardized testing of text-to-911 functionality.

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