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. ON SECOND FURTHER NOTICE OF PROPOSED RULEMAKING

Steve B. Sharkey
Eric Hagerson
T-MOBILE USA, INC.
601 Pennsylvania Ave., NW
Washington, DC 20004
(202) 654-5900

John T. Nakahata
Kristine Laudadio Devine
WILTSHIRE & GRANNIS LLP
1200 Eighteenth Street, NW
Suite 1200
Washington, DC 20036
(202) 730-1300

Counsel to T-Mobile USA, Inc.

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I. INTRODUCTION AND SUMMARY

T-Mobile USA, Inc. ("T-Mobile")[1] is proud to be part of the voluntary commitment among the four nationwide carriers, APCO, and NENA to provide interim, SMS-based, text-to-911 service by May 15, 2014.[2] With the implementation of those commitments, well over 90 percent of wireless consumers will be able to text 911 to reach any PSAP that is capable of receiving and utilizing those messages.[3] Texting has become an important means of communication for wireless users and consumers increasingly expect to be able to send emergency messages to 911 via SMS. As a result, T-Mobile is committed to ensuring that, where public safety is capable of receiving them, consumers can send text messages to 911. T-Mobile recognizes the importance of working with all stakeholders to facilitate text-to-911 on existing networks, to the extent technically and economically feasible.

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[1] T-Mobile USA, Inc. is a wholly-owned subsidiary of T-Mobile US, Inc., a publicly traded company.

[2] Letter from Terry Hall, APCO International, Robert W. Quinn, Jr., AT&T, Barbara Jaeger, NENA – The 9-1-1 Association, Charles W. McKee, Sprint Nextel, Kathleen O'Brien Ham, T-Mobile USA, and Kathleen Grillo, Verizon, to FCC Chairman Julius Genachowski, Commissioner McDowell, Commissioner Clyburn, Commissioner Rosenworcel, and Commissioner Pai, PS Docket Nos. 11-153 & 10-255 (Dec. 6, 2012), *available at* http://c.ymcdn.com/sites/www.nena.org/resource/resmgr/GovAffairs/121206_-_Voluntary_Commitmen.pdf ("Carrier-NENA-APCO Agreement").

[3] *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Service*, Sixteenth Report, FCC 13-34, 28 FCC Rcd. 3700 ¶ 53 (2013) (showing total connections for the top service providers). In addition to those customers served directly by the carriers participating in the voluntary commitment, it is likely that resellers using their networks will also have access to the installed text-to-911 capability, except in cases where a reseller uses its own Short Message Service Center ("SMSC"). The voluntary commitment does not apply to third party applications.

As T-Mobile has told FCC staff, it is on track to have text-to-911 available by May 15, 2014, for those PSAPs that will be ready and able to utilize texts.[4] One primary remaining potential impediment is the readiness of the Text Control Center ("TCC") providers, as they are not yet fully interconnected as the industry standards contemplate.[5] Until that happens, T-Mobile will not be able to reach PSAPs that are not served by T-Mobile's TCC vendor. In fact, the absence of full interconnection and interoperability between TCCs has the potential to affect PSAPs who wish to implement the service, as lack of interconnection and interoperability may hinder their access to all carriers. To ensure all PSAPs can benefit from the voluntary commitment, the Commission's near-term focus should be on solidifying these interconnection arrangements. Once those arrangements are in place, T-Mobile is confident that the required infrastructure will be available to support the delivery of text-to-911 service to the vast majority of U.S. wireless consumers, subject only to PSAP readiness.

As the Commission contemplates the proposals set forth in the *Second FNPRM*,[6] it is critical to remember that interim text-to-911 is only a temporary solution. Voice calls remain the best option to contact 911 in an overwhelming majority of instances, a position supported by

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[4] *See, e.g.*, Letter from Steve B. Sharkey, T-Mobile, to Adm. David Simpson, Chief, Public Safety and Homeland Security Bureau, FCC, PS Docket Nos. 10-255 & 11-153 (Apr. 1, 2014) (quarterly status report on text-to-911 implementation).

[5] *See* Letter from John T. Nakahata, Counsel to T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, PS Docket Nos. 11-153 & 10-255 (Mar. 18, 2013); Letter from Ray Rothermal, Counsel, Sprint Corporation, to Marlene H. Dortch, Secretary, FCC, PS Docket Nos. 11-153 & 10-255 (Mar. 25, 2014); *see also* ATIS, *Supplement A to J-STD-110, Joint ATIS/TIA Native SMS to 9-1-1 Requirements and Architecture Specification*, J-STD-110.a (Nov. 2013).

[6] *Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications, Framework for Next Generation 911 Deployment*, Policy Statement and Second Further Notice of Proposed Rulemaking, FCC 14-6, PS Docket Nos. 11-153 & 10-255 (rel. Jan. 31, 2014) ("*Second FNPRM*").

many PSAPs.[7] As T-Mobile has repeatedly said on the record in this and related proceedings, although the industry-public safety voluntary agreement represents an important step forward for the advancement of emergency communications, that agreement does not obviate the fundamental technical issues related to use of SMS for reaching 911.[8] The Commission should continue to view this interim implementation as a "best effort" service on the part of wireless carriers and other stakeholders that bridges to next generation 911 implementation, and should avoid technically and economically infeasible mandates. To do otherwise would be to act arbitrarily and capriciously. It would be much more useful and productive to allow carriers to focus on next generation 911 services rather than requiring them to retrofit legacy networks, especially when doing so is infeasible within the legacy network architectures. Requiring carriers to divert resources in this manner will only serve to delay the deployment of next generation emergency services, including a robust text-to-911 service.

Furthermore, the Commission should first review and consider recommendations currently being developed by CSRIC IV Working Group 1 on some of the very issues discussed in the *Second FNPRM*, such as providing enhanced location information, before proceeding to

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[7] *See, e.g.*, Reply Comments of the Boulder Regional Emergency Telephone Service Authority, PS Docket Nos. 11-153 & 10-255, at 7 (Apr. 9, 2013) ("Voice calls are the most efficient means for an individual to convey to a PSAP the nature and location of an emergency."); Letter from Trey Forgety, NENA – The 9-1-1 Association, to Marlene H. Dortch, Secretary, FCC, PS Docket Nos. 11-153 & 10-255 (Jan. 24, 2014) ("a voice call will always be preferable to text").

[8] *See, e.g.*, Reply Comments of T-Mobile USA, Inc., PS Docket Nos. 11-153 & 10-255, at 2-5 (Apr. 9, 2013); Comments of T-Mobile USA, Inc., PS Docket Nos. 11-153 & 10-255, at 2 (Mar. 11, 2013); Reply Comments of T-Mobile USA, Inc., PS Docket Nos. 11-153 & 10-255, at 3-14 (Feb. 9, 2012); Comments of T-Mobile USA, Inc. PS Docket Nos. 11-153 & 10-255, at 10-13 (Dec. 12, 2011) Reply Comments of T-Mobile USA, Inc., PS Docket No. 10-255 (Mar. 14, 2011); Comments of T-Mobile USA, Inc., PS Docket No. 10-255, at 8-13 (Feb. 28, 2011).

adopt new rules for text-to-911.[9] Next generation networks will have built-in support for multiple means of communication to emergency service and it is important to ensure that any new rules do not undermine or slow progress toward its implementation.

T-Mobile also encourages the Commission to support rules that do not have unintended negative consequences for stakeholders. To this end, any deadline for implementation must not apply to networks that are being decommissioned or transitioned. Moreover, if the Commission decides to impose text-to-911 obligations on parties who currently are not subject to the voluntary agreement, the imposition of such duties should not levy additional burdensome and costly requirements on participating stakeholders and should preserve flexibility with respect to commercial negotiations between carriers, handset manufacturers, resellers, and over-the-top text providers. Finally, T-Mobile continues to urge the Commission to press for adoption of a nationwide liability standard and to adopt safe harbors based on voluntary agreements, where appropriate.

II. IF THE COMMISSION PUSHES FORWARD WITH EXTENDING RULES TO ALL COVERED TEXT PROVIDERS, IT MUST REFRAIN FROM ADOPTING TECHNICALLY AND ECONOMICALLY INFEASIBLE MANDATES.

The voluntary commitment represents a tremendous step forward in providing consumers with an SMS-based alternative to reach 911 when a voice call cannot or should not be made. In the *Second NPRM*, the Commission seeks comments on several proposals, including enhanced location and text-to-911 while roaming, that go beyond the voluntary commitment. These functionalities were not included in that agreement, not because they were ignored, but because they were not technically feasible, particularly for an interim, SMS-based solution—a conclusion

[9] Communications, Safety, Reliability, and Interoperability Counsel IV, Working Group #1: NG911, Status Update (Mar. 20, 2014), http://transition.fcc.gov/bureaus/pshs/advisory/csric4/CSRIC_IV_WG1_STATUS_03202014.pdf.

also reached by the FCC's Emergency Access Advisory Committee.[10] CSRIC IV, Working Group 1, under Task 1, is currently examining the feasibility of providing enhanced location information with text-to-911 messages and is scheduled to report in June 2014.[11] The Commission should first review and consider CSRIC's report and recommendations before finalizing any conclusions.

Technical and economic feasibility are factual concerns that warrant careful consideration. As a matter of law, adopting technically or economically infeasible requirements is arbitrary and capricious action.[12] Furthermore, technology-forcing statutes—*i.e.*, "if you require it, they will invent it" mandates—can only be enacted by Congress, not by an agency that lacks specific authority to do so.[13]

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[10] *See Emergency Access Advisory Committee (EAAC) Report and Recommendations*, at 28 (Dec. 2011), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-312161A1.pdf; *Report of Emergency Access Advisory Committee (EAAC) Subcommittee 1 on Interim Text Messaging to 9-1-1*, at 7, 9-11 (Mar. 1, 2013), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-319329A1.pdf.

[11] *See* CSRIC IV Working Group Descriptions and Leadership (Mar. 27, 2014), http://transition.fcc.gov/bureaus/pshs/advisory/csric4/CSRIC_IV_Working_Group_Descriptions_3_27_14.pdf.

[12] *See Nuvio Corp. v. FCC*, 473 F.3d 302, 303 (D.C. Cir. 2006) (technical and economic feasibility are "made necessary by the bar against arbitrary and capricious decision-making,"), *Alliance for Cannabis Therapeutics v. Drug Enforcement Admin.*, 930 F.2d 936, 940 (D.C. Cir. 1991) ("[i]mpossible requirements imposed by an agency are perforce unreasonable.").

[13] *See* 47 U.S.C. 615 ("[n]othing in this subsection shall be construed to authorize or require the Commission to impose obligations or costs on any person."). *Cf. Union Elec. Co. v. EPA*, 427 U.S. 246, 256-57 (1976) ("[T]he 1970 Amendments to the Clean Air Act were a drastic remedy to what was perceived as a serious and otherwise uncheckable problem of air pollution. The Amendments place the primary responsibility for formulating pollution control strategies on the States, but nonetheless subject the States to strict minimum compliance requirements. These requirements are of a 'technology-forcing character,' and are expressly designed to force regulated sources to develop pollution control devices that might at the time appear to be economically or technologically infeasible.") (internal citation omitted).

Here, it is also particularly important to bear in mind that SMS-based, text-to-911 is only an interim solution that provides a stopgap until the NG911 transition is complete.[14] As a temporary solution, it makes little sense to require substantial redesign or retrofitting of the basic SMS platform, which would require the support of a substantial international standardization effort. Significant enhancements are better addressed through defining next generation text services, including next generation text-to-911.

A. Enhanced Location for SMS Messages Is Not the Same as Phase II E911 for Voice, and Thus Should Not Be Subject to Phase II Location Accuracy Requirements.

T-Mobile appreciates the need for PSAPs to have access to the most accurate location estimate possible in order to respond to a 911 call and that in some cases the only way to obtain that information is through E911 automatic location information. At this point in time, however, it is premature to mandate the provision of E911 information for SMS-based, text-to-911. Today, carriers implement location determination differently for voice services, meaning E911, than for SMS. Emergency voice services (E911, including enhanced location) cause the network and handset resources to be placed into dedicated emergency operating modes.[15] In comparison, SMS makes use of the same location engines as commercial location-based services and has no special emergency operation modes. As carriers experiment with different ways to determine location for commercial services, and thus what could be provided for SMS-based text-to-911, prematurely establishing text-to-911 accuracy requirements by rule before the technical

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[14] *See Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications, Framework for Next Generation 911 Deployment*, Notice of Proposed Rulemaking, FCC 11-134, 26 FCC Rcd. 13615 ¶ 5 (2011) ("we explore the potential for using SMS as an interim solution for text-based communication to 911, given the near-universal availability and consumer familiarity with SMS"); *see also* Carrier-NENA-APCO Agreement.

[15] In GSM/UMTS networks, this mode is called "Emergency Service Mode," while in the LTE environment, it is generically referred to as "Emergency Bearer Services."

capabilities are fully vetted can have negative effects and inadvertently suppress the innovation that will lead to such enhanced location capabilities.

As a preliminary matter, "Phase II E911" is a term and technological implementation that is specific to voice E911. Voice E911 operates in the control plane and in a special operating environment.[16] By contrast, the interim SMS-based text-to-911 standard has been designed to operate in the commercial services environment using the same resources as commercial location-based applications. One of the most significant differences between the two is that some location technologies are licensed separately for voice 911 than for commercial services and thus may not be available for use with an interim text-to-911 service. In addition, since SMS-based text-to-911 does not place the handset into Emergency Service Mode, certain user interface and privacy settings may restrict the use of some location technologies that would otherwise be available for an E911 voice call.

For these reasons alone, the Commission should not mandate that interim text-to-911 be delivered to PSAPs with latitude and longitude coordinates that would meet the Phase II accuracy requirements if the text were a voice call. Inasmuch as these operations are being conducted on different platforms and in completely different operational modes of networks and handsets, any performance requirements need to be tailored to what is practically possible within that operational setting. As noted above, CSRIC IV Working Group 1 is currently studying the

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[16] "Emergency Service Mode" on a wireless handset enables calls to 911 even when the handset is locked as well as when the phone is not activated or does not have a SIM card installed. All other user-selected functionalities of the handset are disabled, while certain features (such as GPS) are enabled. 3GPP TS 22.101, *Service aspects; Service principles*, § 10.6 (documenting Location Availability and privacy override) § 10.7 (documenting transfer of data during emergency calls); 3GPP TS 22.003, *Circuit Teleservices supported by a Public Land Mobile Network (PLMN)* ("Emergency calls supersede all constraints imposed by supplementary services or user equipment features used for other Tele or Bearer services. The lock state of the UE is overridden by the SOS procedure.").

technical feasibility of including Phase II-like location and accuracy information in SMS messages sent to 911; that work, however, is still in progress and is exploratory in nature. For example, one question under consideration is how the concept of "rebidding" will operate within a best-effort, store and forward service with no guarantee of successful transmission, with no native means of determining or transmitting enhanced location information.[17]

If the Commission is going to define performance requirements for the interim, SMS-based text-to-911 solutions, it should do so within the context of that specific operating environment, and not import standards from another setting. However, it would be much better for the Commission to focus its efforts regarding text-to-911 location accuracy on next generation technologies and networks, including LTE and NG911, rather than on SMS using legacy 2G and 3G networks.

B. Existing Network Structures Are Not Capable of Supporting Text-to-911 for Roaming Subscribers.

As T-Mobile has stated on the record in previous proceedings, there is no way within the existing CMRS network to provide callers with the ability to send a text message to 911 while roaming.[18] Under the interim SMS to 911 ATIS standard, a serving (or roaming) carrier automatically passes a 911 SMS to the home carrier's SMSC, which then passes the message to

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[17] The interim SMS to 911 standard, as set forth in ATIS standard J-STD-110, uses the existing SMS "store and forward" capabilities to forward the emergency message to the short code "911" and to a Text Control Center ("TCC") for delivery to a PSAP. ATIS, *Joint ATIS/TIA Native SMS to 9-1-1 Requirements and Architecture Specification*, J-STD-110 (Mar. 2013). *Cf.* 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*").

[18] *See* Comments of T-Mobile USA, Inc., PS Docket Nos. 11-153 & 10-255, at 3-4 (Apr. 9, 2013); Letter from John T. Nakahata, Counsel to T-Mobile USA, Inc., to Marlene H. Dortch, Secretary, FCC, PS Docket Nos. 11-153 & 10-255, at 2 (Oct. 11, 2012); *see also 4G Americas White Paper* at 19-20.

the TCC serving the home carrier. Location lookup occurs in the home network. However, in the case of roaming SMS messages, that lookup, which allows the TCC to determine whether an applicable PSAP accepts 911 texts, will fail because the location information was not generated by the home network but rather by the serving network, and the serving network does not pass along this location data with the SMS.[19]

While T-Mobile agrees with the Commission that "access to 911 via text is just as critical for roaming consumers as it is for consumers utilizing a home carrier's network,"[20] it is clear from the record that roaming access is not achievable in today's networks.[21] And the interim nature of text-to-911 counsels against imposing any expensive or burdensome obligations on carriers related to roaming. Resources would be better spent focused on NG911 solutions that can address 911 text roaming in a more holistic and complete manner.

T-Mobile certainly agrees that the risk of consumer confusion is high where the user experience is not consistent. But as T-Mobile has said before on the record,[22] because the ultimate decision to make text-to-911 available to consumers rests with PSAPs, the text-to-911 user experience will not be uniform. Indeed, it is not clear how many consumers will ever have access to the interim solution; it is possible that many consumers' first opportunity to send a text message to 911 will be via an IP network under NG911. In other words, interim text-to-911 may never be uniformly available. This is the reason the Commission imposed a bounce-back

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[19] *See* T-Mobile USA, Inc. Comments in Support of CTIA Petition for Reconsideration, PS Docket Nos. 11-153 & 10-255, at 4-5 (Aug. 26, 2013).

[20] *Second FNPRM* ¶ 48.

[21] *See id.* ¶¶ 46-47 (citing comments by carriers and public safety entities acknowledging that roaming text-to-911 is not feasible and calling for deployment without roaming capability rather than overall delay).

[22] *See* Comments of T-Mobile USA, Inc., PS Docket Nos. 11-153 & 10-255, at 4 (Mar. 11, 2013).

message requirement on all covered text providers—to "deal expeditiously with…customer confusion."[23]

Although consumer education is not a perfect answer to these concerns, in the case of a service that will not likely develop into more than a temporary solution, T-Mobile believes it is the best method for reducing consumer confusion. Rather than imposing technically and economically infeasible mandates on carriers that divert attention and resources away from efforts to develop and deploy next-generation systems, the Commission should acknowledge the limitations of interim text-to-911 and encourage local public safety officials to work diligently to educate consumers about those limitations when text-to-911 service is launched in an area.

III. IF THE COMMISSION REQUIRES TEXT-TO-911 TO BE EXPANDED BEYOND THE VOLUNTARY COMMITMENT PROVIDERS, IT SHOULD EXEMPT NETWORKS THAT ARE BEING RETIRED AND IT SHOULD NOT INSERT ITSELF INTO RAPIDLY EVOLVING COMMERCIAL RELATIONSHIPS BETWEEN CMRS PROVIDERS AND APPLICATIONS PROVIDERS.

A. The Deadline for Full Deployment Should Not Apply to Decommissioning Networks.

Given that T-Mobile will be implementing text-to-911 by May 15, 2014, it does not believe that the Commission's proposal to establish a December 31, 2014, deadline for implementation of text-to-911 is problematic for its legacy T-Mobile network. However, if the Commission does move ahead to mandate that all other covered text providers implement text-to-911, the Commission should exempt networks that will be decommissioned within eighteen months of the effective date of the new mandate from having to provide more than the bounce-

[23] *Facilitating the Deployment of Text-to-911 and other Next Generation 911 Applications, Framework for Next Generation 911 Deployment*, Report and Order, FCC 13-64, 28 FCC Rcd. 7556 ¶ 3 (2013).

back message. To do otherwise would mandate wasteful investment in a capability that will be soon discarded along with the rest of that network.

T-Mobile is in the process of migrating MetroPCS subscribers from the MetroPCS legacy CDMA network to T-Mobile's HSPA and LTE networks. That process is currently expected to be complete sometime in 2015. As MetroPCS subscribers are migrated to T-Mobile's HSPA and LTE networks, even if those subscribers are accessing service under the MetroPCS brand, they will have access to the same text-to-911 service available to all other T-Mobile subscribers. Because the MetroPCS legacy CDMA network will be decommissioned within a relatively short timeframe, requiring costly upgrades to enable text-to-911 on that network would be a heavy burden. Although the Commission could also proceed by case-specific waivers, it would provide a greater level of regulatory certainty for capital investment planning if the Commission incorporates this exemption into the rule, rather than deferring the issue to later waiver petitions.

B. The Commission Should Support the Use of Existing Commercial Relationships to Ensure Text-to-911 Capability By Over-the-Top Applications.

If the Commission decides to require interconnected over-the-top text providers to implement text-to-911, T-Mobile does not object to the general proposal to "adopt[] a requirement that CMRS carriers not block access to capabilities that would enable interconnected text providers to provide consumers using their OTT applications to send texts to 911"[24] so long as that access does not harm the underlying carrier network. That said, the Commission should not establish detailed requirements with respect to *how* a wireless carrier interacts with an over-the-top text provider with respect to text-to-911. Unless there are valid technical or network security concerns, carriers should have no reason to block 911 texts being sent through their

[24] *Second FNPRM* ¶ 29.

Internet browsers or when the carrier has permitted a text provider to have access to the carrier's native SMS capability. Thus, T-Mobile supports a requirement that would prohibit wireless carriers from blocking 911 messages sent through an application that has the appropriate access to location and other handset and network functions.

But the Commission should not require additional affirmative steps by carriers to enable access by OTT text providers through the CMRS provider's native SMS capability.[25] As the NPRM acknowledges, OTT text providers have multiple options for implementing text-to-911, including multiple server-based methods.[26] Creating a right of access to the CMRS provider's SMS platform is unnecessary. In addition, the Commission should eschew highly intrusive and onerous requirements such as its proposal to require a CMRS carrier to coordinate with all of its handset manufacturers and operating system providers to "ensure that each device model that is capable of supporting an interconnected text messaging application would also be capable of interfacing with the CMRS provider's underlying native texting application and SMS or messaging platform."[27] Such obligations would force CMRS providers to engage in resource intensive, costly product development. While the Commission rightly notes that CMRS providers would have the option to recover costs for such work,[28] these are expenses that may not be factored into the business plans for interconnected over-the-top text providers. Therefore, even this legitimate cost recovery could potentially make existing over-the-top texting

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[25] This restraint should likewise apply to MVNOs and other resellers that choose to implement their own text-to-911 solution rather than relying on their carrier partner to meet those obligations.

[26] *Second FNPRM* ¶¶ 30-33.

[27] *Id.* ¶ 27.

[28] *See id.* ¶ 28.

commercial models uneconomic and thus have the unintended consequence of stifling innovation in the over-the top text marketplace.

Similarly, the Commission should not insert itself into commercial negotiations among carriers, manufacturers, and applications developers over a wide range of business issues and design considerations. As the Commission recognizes, many OTT text applications "already obtain the user's location for non-emergency purposes."[29] They do so today under standardized procedures through which application developers seek and obtain permission to use certain handset and network features, including location capabilities.[30] Moreover, these relationships are flexible and rapidly evolving; adding significant FCC regulations even just for text-to-911 would add rigidity and make these relationships much less adaptable and less economically attractive. The procedures by which such applications obtain location information should not be affected by any obligations imposed on OTT text providers, but should be able to evolve as technology and markets dictate. The Commission should leave it to the CMRS provider and the OTT text provider to negotiate the details of these relationships, and recognize that OTT providers have multiple alternatives for delivering text-to-911.

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[29] *Id.* ¶ 33.

[30] *See, e.g.*, Location and Maps Programming Guide, Apple, Inc., iOS Developer Library, https://developer.apple.com/library/ios/documentation/userexperience/conceptual/LocationAwarenessPG/CoreLocation/CoreLocation.html (last visited Apr. 3, 2014) (describing the process for implementing location services in an iOS application); Location and Maps, API Guides, Android Developers, http://developer.android.com/guide/topics/location/index.html (last visited Apr. 3, 2014) (same for Android applications).

IV. T-MOBILE SUPPORTS ACTIONS THAT INCREASE CERTAINTY AND PREDICTABILITY FOR ALL STAKEHOLDERS.

A. A Uniform Nationwide Liability Standard Will Promote Deployment of New Emergency Communications Technologies.

T-Mobile has liability protection equivalent to incumbent LECs for 911 activities under the law as it is today. Past federal legislation ensures that all forms of FCC-mandated 911 and E911 are subject to the same liability standards, whether wireline or wireless. But the wireline liability standards vary from state to state, and this patchwork creates risks for carriers as well as hampers efforts to implement new technologies and communications services for emergency contact. T-Mobile continues to encourage the Commission to advocate for a nationwide liability standard to ensure clarity and predictability for all stakeholders.

B. T-Mobile Supports Adoption of a Clearly Implemented Safe Harbor.

Though T-Mobile supports the adoption of safe harbors for certain services based on industry voluntary agreements, it does not fully understand how the safe harbor as described would function with respect to the current voluntary commitment.[31] To the extent the Commission proposes to provide a safe harbor for text-to-911 services under future voluntary commitments as an alternative to regulation by rule,[32] T-Mobile supports that proposal. Industry solutions often provide entities with greater flexibility to address the variety of issues that can arise when offering a complex service. Ensuring that entities that have committed to providing a particular service with particular features are protected under a safe harbor will allow entities to feel confident and secure that such voluntary commitments are endorsed and supported by the Commission.

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[31] *See Second FNPRM* ¶ 58.

[32] *Id*.

V. CONCLUSION

The Carrier-NENA-APCO Agreement represents an important step in providing consumers expanded access to emergency services. The Commission's proposals in the *Second FNPRM* bring us even closer to that important goal. But the promise of improved access to emergency communications cannot overcome the very real technical limitations of SMS when used for 911. T-Mobile encourages the Commission to keep the interim nature of text-to-911 in mind as it considers new rules governing this service. Any mandates must be technically and economically feasible, and should not create unnecessary burdens for carriers that might impair progress toward deploying next generation networks.

Respectfully submitted,

John T. Nakahata
Kristine Laudadio Devine
WILTSHIRE & GRANNIS LLP
1200 Eighteenth Street, NW
Suite 1200
Washington, DC 20036
(202) 730-1300

Counsel to T-Mobile USA, Inc.

Steve B. Sharkey
Eric Hagerson
T-MOBILE USA, INC.
601 Pennsylvania Ave., NW
Washington, DC 20004
(202) 654-5900

April 4, 2014