

**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

**T-MOBILE USA, INC. COMMENTS IN SUPPORT OF
CTIA PETITION FOR RECONSIDERATION**

T-Mobile USA, Inc.¹ (“T-Mobile”) hereby supports CTIA’s Petition for Reconsideration of the roaming requirements set forth in the Commission’s Order of May 17, 2013, in the above-captioned proceeding.²

I. The Commission Should Clarify that Serving Carriers for a Roaming User Are Not Responsible for Sending Bounce-Back Messages.

T-Mobile is pleased with the opportunity to work with the stakeholders to the voluntary commitment in implementing text-to-911 services nationwide. As T-Mobile noted in its initial comments on the bounce-back proposals in the Further Notice of Proposed Rulemaking³ in this proceeding, it also understands both the importance of providing automatic notifications to consumers when text-to-911 service is not available and that automatic notifications cannot solve

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

² *Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications; Framework for Next Generation 911 Deployment*, Report & Order, 28 FCC Rcd. 7556 (2013) (“Order”).

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, 27 FCC Rcd. 15659 (2012) (“FNPRM”).

all of the problems inherent with using a “best effort” service like SMS for emergency communications.⁴ Although SMS has its limitations, T-Mobile is committed to working with other stakeholders to implement text-to-911 in the most successful way possible given those limitations. Unfortunately, in adopting rules codifying the bounce-back requirement, the Commission imposed a requirement on carriers serving a roaming user that ignores one of the key limitations of SMS messaging—that only the home carrier can provide bounce-back messages to its subscribers, including when those subscribers are roaming on another carrier’s network.⁵

CTIA’s petition correctly describes the problems with Section 20.18(n)(7), which can be read to require serving carriers to generate a bounce-back message for subscribers roaming on their networks who attempt to reach 911 via text message.⁶ This rule as currently written is problematic, because it is not technically feasible for serving carriers to perform this function. It also has legal problems, both because an infeasible requirement is *per se* arbitrary and capricious⁷ and because the Commission instructed commenters on the FNPRM to defer their discussion of issues related to roaming to the non-accelerated comment cycle. The result is that the Commission has adopted a rule that is technically infeasible for carriers to meet, and that

⁴ Comments of T-Mobile USA, Inc., PS Docket Nos. 11-153, 10-255, at 2 (January 29, 2013) (noting that bounce-back messages will “help avoid consumer confusion regarding where services are available and reduce, but not eliminate, the risk that a consumer sends a text for help that is never received.”).

⁵ For the purpose of these comments, T-Mobile will refer to the roaming carrier as the “serving carrier” to avoid any confusion. The serving carrier is the carrier that receives the SMS message from a roaming user on its network, and that passes the SMS message through its network and switches to the SMSC of the subscriber’s home carrier.

⁶ See generally Petition for Reconsideration, or in the Alternative, for Clarification of CTIA—The Wireless Association, PS Dockets Nos. 11-153, 10-255 (June 28, 2013) (“CTIA Petition”).

⁷ See *Nuvio Corp. v. FCC*, 473 F.3d 302, 303 (D.C. Cir. 2006); *Alliance for Cannabis Therapeutics v. DEA*, 930 F.2d 936, 940 (D.C. Cir. 1991).

affected parties have not had an opportunity to discuss on the record. The Commission cannot issue new rules before it has allowed the comment period to close.⁸ As the D.C. Circuit has said, the Commission must “turn[] square corners” when imposing new rules.⁹

T-Mobile supports CTIA’s petition in this matter. The Commission should defer imposing any text-to-911 requirements on carriers related to roaming subscribers until such requirements are technically feasible. Until that time, the Commission should clarify that bounce-back requirements continue to be the responsibility of home carriers, not serving carriers.

II. Serving Carriers Are Technically Incapable of Sending Bounce-Back Messages Due to SMS Network Architectures.

The record is clear that the roaming requirement in Section 20.18(n)(7) is not technically feasible, and thus the roaming rule as implemented is arbitrary and capricious. As parties have previously explained, SMS messages are handled by the home carrier and interact directly with the home carrier’s network. The serving carrier, on the other hand, does not handle roaming SMS messages, and it is therefore not technically feasible for the serving carrier to provide the bounce-back message as the serving carrier does not process the user’s SMS.¹⁰

CTIA’s petition describes the well-understood fact that “[c]urrent network architectures do not permit *serving* carriers to provide wireless subscribers roaming on their networks with an automatic bounce-back message.”¹¹ This fact was expressed on the record in comments on the

⁸ See *Rural Cellular Ass’n v. FCC*, 08-1069, 2008 WL 9391132 (D.C. Cir. 2008) (granting stay of Commission Order imposing E911 requirements on wireless carriers due to “the serious problems with the notice”).

⁹ *MCI Telecommunications Corp. v. FCC*, 917 F.2d 30, 42 (D.C. Cir. 1990).

¹⁰ Comments of AT&T Inc., PS Docket Nos. 11-153, 10-255, at 20-21 (Mar. 11, 2013).

¹¹ CTIA Petition at 4 (emphasis added).

FNPRM;¹² the EAAC has also stated on the record that SMS messages are under “home operator control.”¹³ Indeed, the Order itself noted that home carriers are generally responsible for generating bounce-back messages.¹⁴ NENA, moreover, recently noted that it supports CTIA’s petition, stating that CTIA’s position is “consistent with the understanding of the public safety community” and that “the roaming limitations of existing SMS systems were understood by the parties to the agreement NENA negotiated with the four largest wireless carriers and APCO.”¹⁵

In its opposition to CTIA’s petition, APCO challenges this accepted understanding and states that the Text Control Center (“TCC”) will have coarse location information for a consumer sending an SMS message to 911, and should thus be able to inform the carrier—presumably, APCO means the serving carrier—whether the message can be delivered to a text-ready PSAP or not.¹⁶ This seems to imply that a serving carrier will send 911 texts generated by roamers on its network to its TCC, assuming it has one, and not directly to home carriers. This description of the routing and network configuration, however, is incorrect.

The ATIS Text-to-911 standards document does not address roaming;¹⁷ therefore, the serving carrier will automatically pass a 911 SMS directly to the home carrier’s SMSC. From there, the home carrier’s SMSC will pass the SMS to the TCC *servicing that home carrier*. When

¹² See, e.g., Reply Comments of the Texas 9-1-1 Entities, PS Docket Nos. 11-153, 10-255, at 4 (Feb. 8, 2013).

¹³ See EAAC, *Report of Emergency Access Advisory Committee (EAAC) Subcommittee 1 on Interim Text Messaging to 9-1-1*, at 10 (Mar. 1, 2013), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-319329A1.pdf.

¹⁴ Order ¶ 71.

¹⁵ Letter from Trey Forgety, NENA: The 9-1-1 Association, to Marlene H. Dortch, Secretary, FCC, PS Docket No. 11-153 (August 24, 2013).

¹⁶ Opposition of APCO International to Petition for Reconsideration, PS Docket Nos. 11-153, 10-255, at 3 (Aug. 15, 2013) (“APCO Opposition”).

¹⁷ See *Joint ATIS/TIA Native SMS to 9-1-1 Requirements and Architecture Specification* § 4 (working document) (“Roaming is not addressed in this version of this Standard.”).

the location lookup occurs, it will occur in the home network. In the case of roaming SMS messages, the location determination, which is required in order to ascertain 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. In this scenario, since the home carrier's TCC is not provided location information and hence cannot determine PSAP text taking availability, it will generate a bounce back message to the home carrier that will pass the message to its SMSC which is then delivered, via the roaming network, to the subscriber.

Changes to this configuration are simply not feasible. All SIM cards are coded with the Global Title of the home carrier's SMSC. When a roaming subscriber sends an SMS, the serving carrier routes that SMS to the home carrier's SMSC based on the Global Title. During this procedure, no serving carrier conducts any data manipulation—the serving carrier's network simply passes the message through based on the information provided by the SIM. Compliance with the roaming rule, however, would require serving carriers to intercept the outbound roaming message and analyze it *before* passing it through to the home carrier's SMSC. This would have to be done to *every single SMS message*, to determine which ones, if any, are directed to 911. In short, a separate platform would have to be developed to intercept and interrogate all outbound SMS traffic. If a message is to be delivered to 911, the serving carrier's network would have to manipulate the Global Title, changing it from the home carrier to that of the serving carrier to ensure proper delivery. Implementing this new platform would require development and acceptance of new standards, design and significant modifications of the technology itself, and implementation across all carrier networks—requiring sizeable capital upgrades from all carriers

as well as a lengthy deployment process. It would also risk degradation of normal SMS delivery, as all SMS messages would be subject to analysis.

It is equally infeasible in a roaming scenario for location determination to be done by the home carrier's TCC after failure of location lookup. Such determination would require the TCC to determine that the message originated outside of the home carrier's network, determine who the serving carrier is, determine that the serving carrier is a U.S. carrier, determine whether it has links to the location information of that carrier, and determine the user's coarse location information—all before sending a query back to the serving carrier. This would be complex, extremely expensive, and require a lengthy implementation process. The steps required to enable serving carriers to provide bounce-back messages for roaming subscribers are far in excess of what APCO considers will be merely “difficult” and will “impose some expense.”¹⁸

III. Requiring Serving Carriers to Send Bounce-Back Messages to Roaming Users Does Not Comport with the National Carriers' Voluntary Commitment or the Order.

In addition to the technical infeasibility of the roaming requirement for serving carriers, Section 20.18(n)(7)'s mandate is also contrary to the understanding of the parties to the Voluntary Commitment and to the Order. As CTIA notes, the Commission acknowledges in the Order that the Voluntary Commitment, on which it modeled its proposed text-to-911 rules, does not require bounce back messages while a subscriber is roaming.¹⁹ Thus the Commission deferred contemplation of roaming issues from the bounce-back portion of the bifurcated

¹⁸ APCO Opposition at 2.

¹⁹ See Order ¶ 70 (citing Letter from APCO International, AT&T, NENA – The 9-1-1 Association, Sprint Nextel, T-Mobile USA, and Verizon, to Julius Genachowski, Chairman, FCC, and Commissioners McDowell, Clyburn, Rosenworcel and Pai, Dec. 6, 2012, *available at* http://c.ymcdn.com/sites/www.nena.org/resource/resmgr/GovAffairs/121206_-_Voluntary_Commitmen.pdf).

comment cycle.²⁰ Yet the Commission then adopted a rule that mandates provision of bounce-back messages by serving carriers, despite the complete lack of support for such a rule in the record. The roaming rule is also inconsistent with other statements in the Order. For instance, the Order notes that carriers must comply with the bounce-back requirement only insofar as they have “direct control” over the transmission of the text message²¹—something that is never the case with serving carriers and roaming subscribers.

T-Mobile believes the Commission did not intend to create a mandate for serving carriers in Section 20.18(n)(7) but rather intended to ensure that serving carriers do not *prevent* home carriers from generating bounce-back messages for their roaming subscribers. The record simply does not support any other roaming requirement, including one that obligates serving carriers to send bounce-back messages to roaming subscribers. Though no party has had the opportunity to comment specifically on the extension of the bounce-back requirement to serving carriers, what statements are in the record regarding roaming make it clear that this rule is not technically feasible.

The Commission should therefore either issue an erratum correcting the rule or clarify that Section 20.18(n)(7) does not apply to serving carriers. T-Mobile also supports CTIA’s alternative proposal—that 20.18(n)(7) be deleted and that, if necessary, Section 20.18(n)(3) be modified to provide for a bounce-back message where a subscriber is roaming on another carrier’s network. APCO is of course correct that there are enormous public interest benefits to implementation of the text-to-911 rules across the industry,²² but implementing rules that are impossible to comply with does not further that critical public interest. CTIA’s proposal ensures

²⁰ See FNPRM ¶ 20; see also CTIA Petition at 8 & n.19.

²¹ Order ¶ 52.

²² See APCO Opposition at 2.

that carriers will not be sidetracked by the need to seek waivers of the roaming rule and can instead focus their efforts on ensuring that bounce-back implementation is smooth, and on moving forward to develop solutions for full text-to-911 implementation.

IV. The Commission Should Act Quickly to Avoid Compounding the Existing Uncertainty in Advance of the September Deadline for Bounce-Back Implementation.

T-Mobile urges the Commission to act quickly in resolving the issues raised by CTIA's petition. The bounce-back requirement becomes effective across the industry on September 30, 2013, but failure to act before that deadline will not, as noted by the Blooston Rural Carriers, result in compliance with the current rule.²³ Failure to address this issue now will draw valuable resources into further proceedings, and away from compliance with the remainder of the bounce-back and text-to-911 rules.

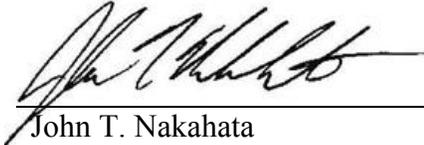
V. Conclusion

The Commission should move quickly to clarify the "roaming rule" in Section 20.18(n)(7) to ensure that those obligations are not imposed on serving carriers but rather describe the obligation of home carriers to ensure that their roaming subscribers receive an automatic notification that text-to-911 is not available while roaming. The rule as it stands is technically infeasible, as is clear from what record evidence there is on roaming, and affected parties have had no opportunity to comment on the specific rule. The existing rule is arbitrary

²³ Comments in Partial Support of CTIA Petition of the Blooston Rural Carriers, PS Docket Nos., 11-153, 10-255, at 5 (Aug. 15, 2013).

and capricious and the Commission should take quick action to reconsider it in advance of the September 30 deadline for bounce-back implementation.

Respectfully submitted,



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