

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of
Facilitating the Deployment of Text-to-911 and
Other Next Generation 911 Applications;

Framework for Next Generation 911
Deployment

PS Docket No. 11-153

PS Docket No. 10-255

COMMENTS OF AT&T

The Commission has released its Third Further Notice of Proposed Rulemaking in this docket to explore improving the quality of and expanding the scope of text-to-911 service.¹ The Commission is seeking comments on enhancing text-to-911 location information, allowing text-to-911 roaming, and related topics. AT&T Services, Inc., on its own behalf and on behalf of its affiliated companies, (AT&T) files these comments in response to that notice.

I. DISCUSSION

A. Enhanced Location

In the “Enhanced Location” section of the Third Further Notice, the Commission seeks comment on its proposal to require covered text providers to provide “enhanced location” information along with the text message in text-to-911 emergency communications. Specifically, the Commission has, in view of the state of technology and, we hope, in view of the short-shelf life of SMS texting, wisely chosen not to propose any Phase II-like mandates on providers but rather has elected to propose “a less specific obligation,” which the Commission describes as “consisting of the best available location that covered text providers could obtain from any available location technology or combination of technologies, including device-based

¹ *Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications; Framework for Next Generation 911 Deployment*, PS Dockets 11-153 & 10-255, *Second Report and Order and Third Further Notice of Proposed Rulemaking*, FCC 14-118 (rel. Aug. 13, 201) (Third Further Notice).

location.”² We fully support the Commission’s efforts to improve location information for text-to-911 messages and agree with the Commission that Phase II-like mandates are wholly inappropriate; however, we have serious concerns about the wording of the Commission’s enhanced location proposed rule.³

Prior to proposing its rule, the Commission charged its advisory committee—the Communications, Security, Reliability and Interoperability Council (CSRIC)—to study whether Covered Text Providers could provision “Phase II equivalent information” for SMS text-to-911. The CSRIC’s Working Group 1, Next Generation 911, (WG1) issued a Final Report in June, 2014.⁴ Among other things, that report examines several possible methods for enabling updated location information for SMS text-to-911 messages.⁵ As the WG1 Final Report makes clear, however, not all the methods discussed in the report are suitable for all covered text providers and none is without drawbacks.⁶

Without going into exhausting detail, the WG1 Final Report discusses two basic methods for providing enhanced location for text-to-911: (1) Network Based Location and (2) Handset Based Approaches. In the Network Based Location methods section, the WG1 discusses two types: Uplink Time Difference of Arrival (U-TDOA) and Radio Frequency Pattern Matching (RFPM).⁷ In the section on Handset Based Approaches, the WG1 discusses two types of approaches that provide end-to-end text-to-911 with location embedded in SMS messages: one uses the system SMS application; the other uses a user-downloadable texting application.⁸ The

² *Id.* para. 82.

³ *See id.*, Appendix B.

⁴ *Id.*, para. 82. *See also*, CSRIC, Working Group 1, Next Generation 9-1-1, Task 1 Subtask 1, FINAL REPORT—INVESTIGATION INTO LOCATION IMPROVEMENTS FOR INTERIM SMS (TEXT) TO 9-1-1 (June 2014) (WG1 Final Report).

⁵ WG1 Final Report, Section 6, “Updating Location Information During SMS Text to 9-1-1,” pp. 16-22.

⁶ Central to the direction given to the Commission in the WG1 Final Report is this fact that not all methods are suitable for all providers: “Since carriers operate different types of access and core network technologies, location equipment and standards vary along with the types of wireless networks that are deployed. The type of network that a carrier has deployed also impacts the location technology architecture choices that are available. Different technologies, such as CDMA, GSM, or UMTS, each have specific elements and processes that are defined by standards.” WG1 Final Report at 16.

⁷ WG1 Final Report, Section 6.1.2.2, at 17-18.

⁸ *Id.*, Section 6.1.2.3, at 18-21.

methods discussed in the WG1 Final Report weren't intended to exclude consideration of other ways of enhancing location information; nevertheless, the WG1 expressed its belief that any other ways of enhancing location information for SMS text-to-911 would more than likely fall within these two architectural classes.⁹

Presumably, the Commission had the WG1 Final Report in mind when it drafted the “less specific obligation” embodied in the proposed enhanced location rule, because the proposed rule “refrain[s] from [imposing] wireless E9-1-1 Phase II-like mandates for SMS text to 9-1-1 service,” which is in keeping with the WG1 Final Report recommendation, and because the proposed rule presumes that covered text providers will be capable of providing enhanced location for SMS text-to-911, which is also contemplated by the WG1 Final Report.¹⁰ Yet, the proposed rule presents serious operational and compliance issues for covered text providers. We believe these issues result from the Commission’s efforts to be both “technology agnostic” and forward-looking; that is, we believe the Commission did not want to dictate the method a covered text provider would use to provide enhanced location information and the Commission did not want to freeze the level of enhanced location information provided at today’s level of precision. Unfortunately, the result is a proposed rule that is inherently ambiguous, leaving covered text providers unsure of their compliance obligations and susceptible to unnecessary and unfair future enforcement actions.

As written, and in spite of the Commission’s best intentions, the proposed rule could be read to require covered text providers to adopt technologies that are not particularly well suited to their SMS texting platforms or their networks or user equipment. Moreover, the rule could be read to impose on covered text providers an unlimited, on-going, and instant obligation to adopt every improvement on current technologies, regardless of the degree to which location

⁹ *See id.*, Section 6.1.2.1, p. 17.

¹⁰ *Id.*, at 24. *See also*, Third Further Notice, Appendix B: “(12) *Enhanced location for 911 text messages*. Covered text providers subject to this section must provide the designated Public Safety Answering Point enhanced location, *i.e.*, the best available location that covered text providers can obtain from any available location technology or combination of technologies, with 911 text messages no later than two years from the effective date of this rule.”

information is actually improved or the costs or time involved in adopting them. The compliance difficulties of a vague and open-ended obligation should be obvious. At a minimum, it would leave covered text providers questioning whether they were compliant with the Commission's rule, because even if they might be compliant on Day One, they might not be on Day Two.

The better approach would be to acknowledge that the use of SMS texting for text-to-911 "was and is intended to be an interim, best effort service to fill a specific gap of emergency communications until the deployment of NG9-1-1," and to refrain from imposing substantial changes, costs, and network impacts on this interim solution.¹¹ Instead of the proposed rule, the Commission should propose having covered text providers adopt one of the methods discussed in the WG1 Final Report, drawbacks and all,¹² which CSRIC sees as *possibly* within the reach of covered text providers and consistent with the interim nature of the service.¹³ Once having adopted a solution covered in the WG1 Final Report, covered text providers would not be obligated to adopt other or different or improved enhanced location methods during the remaining product life of SMS texting. Covered text providers that cannot deploy these CSRIC methods due to technical and non-technical considerations should be given a meaningful opportunity to seek a waiver.¹⁴

AT&T supports the Commission's ultimate goal of providing public safety with a dispatchable address from nomadic and mobile devices.¹⁵ And we are confident that when all

¹¹ WG1 Final Report at 3.

¹² One of these drawbacks is the need to override the subscriber's location privacy settings in the end-user's device. See WG1 Final Report, Sections 6.1.2.4 and 6.1.2.5, at 20-21. AT&T supports the subscriber's right to privacy and control over its device; nevertheless, the presumption is that end users engaged in emergency communications would want to communicate their location as a way of facilitating the assistance they seek. Any mechanism used to override any privacy setting, if employed, should be limited to emergency communications only and should not expose end users to privacy violations by commercial location-based services (cLBS).

¹³ See WG1 Final Report at 16. ("The following subsections discuss *possible methods* by which to update location information during a SMS text to 9-1-1 session.")

¹⁴ See *id.* ("Whether or not enhanced location information is available (or can be made available) from within a carrier's network depends on technical and non-technical considerations.")

¹⁵ See *Wireless E911 Location Accuracy Requirements*, PS Docket No. 07-114, Third Further Notice of Proposed Rulemaking, 29 FCC Rcd 2374 para. 50 (2014) ("Such a requirement would be consistent with our long-term indoor location objective, which is the delivery of 'dispatchable address' information, including the caller's building address, floor level, and suite/room number.")

the stakeholders work together in good faith—public safety, providers, device manufacturers, and others—a dispatchable address solution is possible, and that any dispatchable address solution that might be devised in the CMRS arena could have applications in other areas, too—such as interconnected voice over IP (interconnected VoIP) and NG911 texting. In its Final Report, the WG1 recommended that the Commission’s main focus should be forward looking by encouraging development of next generation service solutions, and not looking back to SMS texting.¹⁶ Likewise, in its comments in the Wireless Location Accuracy Docket, AT&T has advocated that, “[r]ather than wasting scarce resources on incremental improvements in location accuracy that will not be appreciably more effective than the data we are presently generating, the Commission should focus on providing public safety with what it needs, a dispatchable address, especially since forcing providers to near-term solutions would significantly delay implementation of a dispatchable-address solution.”¹⁷ Hence the efforts of all stakeholders should be directed to achieving the goal of providing public safety with a dispatchable address for next generation services, and not be undermined by seeking short-term, incremental improvements in location data, especially for legacy systems and services, like SMS text-to-911.

B. Roaming Support

In the Roaming Support section of the Third Further Notice, the Commission revisits the question of roaming for SMS text-to-911. All parties acknowledge that the ability of a roaming subscriber to reach public safety in an emergency is critically important. But, while this question has been addressed for wireless voice emergency communications, it remains a problem in the text-to-911 arena, because providers were encouraged to use their legacy texting service for the purpose of providing an interim solution for sending emergency text messages to PSAPs until a

¹⁶ WG1 Final Report at 1-2 (“Therefore, it is recommended that the FCC refrain from wireless E9-1-1 Phase II-like mandates for SMS text to 9-1-1 service and instead encourage further development and implementation of more robust Multimedia Messaging Emergency Services (‘MMES’) solutions based on Long Term Evolution (‘LTE’)/Internet Protocol (‘IP’) Multimedia Subsystem (‘IMS’) as Public Safety evolves towards NG9-1-1 solutions.”).

¹⁷ Comments of AT&T, PS Docket 07-114, at 1-2 (May 12, 2014).

proper and better suited next generation service can be brought on line and because the legacy service was not built for emergency communications. At present, no industry-wide agreement exists on how or even if this legacy text service could be retrofitted to allow roaming subscribers to text public safety while on a serving network.¹⁸ In this context, the Commission seeks comment on “whether solutions could be developed to provide roaming support [no later than two years from the effective date of the proposed rule] and, if not, what would be a suitable timeframe.”¹⁹

AT&T supports the investigation of possible roaming solutions for text-to-911. This support, however, is contingent upon any proposed solution avoiding significant modification to the underlying SMS architecture, because any such modification would require standards work across many aspects of the legacy TDM network and stranded investment in a legacy service that will in the near term be replaced by IP-based texting services. Rather, the focus of any such investigation should be on whether, given the present SMS text-to-911 solution, carriers can agree on a reasonable and effective mechanism for exchanging location information between the serving network and the home covered text provider. Today, no interface exists between a covered text provider’s text control center (TCC) and any roaming partners. Consequently, the home carrier is unable to locate its subscriber on the serving network, and this lack of information affects both the routing of the text message to the appropriate PSAP, as well as any determination of whether the PSAP is capable of accepting text messages.

To the extent that a text-to-911 roaming solution might be devised, it must be developed by an industry standards body (*e.g.*, ATIS/TIA), because roaming by its very nature involves multiple carriers and multiple vendor solutions, which means that individual proprietary solutions would not be effective. And, even after such a standard is developed, ample time must be allotted for the industry to implement it. Typical timeframes suggest that this could take at

¹⁸ AT&T is adopting the use of “serving” and “home” networks used in the Third Further Notice. See Third Further Notice, n292 at 47.

¹⁹ Third Further Notice para. 109.

least three years to accomplish—*i.e.*, two years for the solution to be devised and standards agreed upon, and one year for provider implementation.²⁰ The present proposal (*i.e.*, no later than two years from the effective date of the proposed rule) is insufficient. The Commission should act only after the solution and standards are agreed upon and then give covered text providers at least one year to implement the solution.

C. Cost-Benefit Analysis

The Commission “recognize[s] that implementing the proposed enhanced location and roaming requirements will impose costs on covered text providers . . . [and it] seek[s] detailed information on all of the costs covered text providers estimate the proposed enhanced location and roaming requirements would impose.”²¹ Absent a detailed plan and agreed-upon industry standards for actually provisioning any solutions, however, commenters cannot provide the Commission with meaningful cost estimates, much less “detailed information on all costs.”²² Still, in spite of this impediment, AT&T would ask the Commission to consider not just the “out of pocket” costs, but also the opportunity costs that the proposed rules will have on the roll out of next generation 9-1-1 services (NG911), as well as other wireless and broadband projects—some of which might also benefit public safety.²³

²⁰ Admittedly, these are estimates. The critical piece is the development of a solution and agreement on standards. While two years is a good estimate for that critical element, the process will in fact take as long as necessary, and implementation of any solution cannot begin until it is completed.

²¹ Third Further Notice para. 121.

²² Even with detailed plans and standards, cost estimates can be tricky, especially in this arena where follow-on costs are difficult to assess given the need to fine tune any solution to address unforeseen issues that might directly impact public safety’s ability to respond to an emergency communication.

²³ With respect, AT&T continues to object to the use of the so-called “Salt Lake City Study” and the use of the “Value of a Statistical Life” (VSL) figure of \$9.1 million in order to generate a projected annual benefit of \$92 billion either in this context or others. Third Further Notice para. 120 & n.322; *see* Memorandum to Secretarial Officers, Modal Administrators, from Polly Trottenberg, Under Secretary for Policy, U.S. Department of Transportation, RE: Guidance on Treatment of the Economic Value of a Statistical Life (VSL) in U.S. Department of Transportation Analyses, Feb. 28, 2013 (DOT Guidance on VSL). *See also* Comments of AT&T, PS Docket No. 07-114 (filed May 12, 2014), which we incorporate herein by reference. This highly suspect use of the Salt Lake City Study and the Department of Transportation guidance doesn’t illuminate the cost-benefit analysis of the Commission’s proposal.

Opportunity costs are real and should be considered because carrier resources are finite.²⁴ Not only are there limited financial resources, but there are staffing limitations, as well—not involving just the overall staffing resources of any particular carrier but in particular the ability to find and staff the teams dedicated to addressing issues arising out of new wireless 9-1-1 regulatory obligations. In an industry that is highly regulated and extremely competitive, demands on those resources have real-world impacts on the ability of carriers to effectively and efficiently address existing regulations and respond to competitive pressures. In addition to having to meet existing regulatory obligations, which are numerous and include obligations other than those directly affecting public safety, carriers have to expand, maintain, and improve their networks, address the needs of consumers for new and better devices and services, react to natural and man-made disasters. The same industry people that work on government advisory committees and in industry standards bodies also work to address these existing regulatory and non-regulatory matters. Adding other regulatory demands on them *per force* cuts into the time and opportunity they have to address those issues. Consequently, new regulatory obligations ought to address either critical matters that need immediate attention or future issues that advance legitimate long-term regulatory aims. Retooling legacy systems with a short shelf life do not rise to that standard.

Even if one concedes for the sake of argument that enhanced location and roaming for SMS text-to-911 is a positive thing, it should not be evaluated in a vacuum. It needs to be balanced against the opportunity costs that retooling a legacy system will have on other equally or more important projects, such as the development of NG911, expanding broadband access, addressing cybersecurity, meeting the needs of law enforcement. Even if a cost-benefit analysis could assess “a dollar amount of good” for enhanced location or roaming, how would that dollar

²⁴ http://en.wikipedia.org/wiki/Opportunity_cost: (“..., opportunity costs are not restricted to monetary or financial costs: the real cost of output forgone, lost time, pleasure or any other benefit that provides utility should also be considered opportunity costs.”)

amount compare to the dollar amount of progress in improving or developing next generation systems with even greater potential for good?

If all this weren't enough, a case could be made that not enough PSAPs have adopted text-to-911 to justify any such modifications. Out of the over 6,000 PSAPs in the United States, only a small fraction have tendered valid requests for text-to-911 service. There may be many reasons for this, including the financial resources available to PSAPs to make the upgrades in staffing and facilities necessary to handle emergency text messaging. Regardless of the reason, the fact remains that the level of PSAP adoption of text-to-911 has serious implications for the merit of the Commission's proposal to redirect carrier resources away from more valuable projects and towards retooling the legacy SMS system.

Indirect but real and significant opportunity costs will be incurred as a result of the Commission's proposed text-to-911 obligations. In balance, therefore, the Commission might find that public safety is better served in the long run by encouraging development of NG911 text-to-911 and addressing the issues of location accuracy and roaming within the context of that project.

II. CONCLUSION

AT&T respectfully requests that the Commission consider these comments in its deliberations on this matter.

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