

**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

REPLY COMMENTS OF MICROSOFT CORPORATION

Microsoft Corporation (“Microsoft”) respectfully submits these reply comments in response to the Second Report and Order and Third Further Notice of Proposed Rulemaking (the “*FNPRM*”) in the above-captioned proceeding. While some commenters supported expanding text-to-9-1-1 obligations to a broader array of messaging applications, none explained how to successfully expand the obligation prior to resolving the underlying challenges in a next generation emergency calling system. Moreover, none of the comments filed addressed the complex and expensive challenge of routing next generation communications (including messaging services provided over the top of broadband networks) to the *appropriate* Public Safety Answering Point (“PSAP”) among the some 6,000 PSAPs that exist in the U.S. today. This omission stems from the fact that the hard work to solve this problem has yet to be done.

Although the location challenges addressed by a number of commenters are significant and will require substantial cross-industry work and cooperation, resolving those challenges is just the beginning: once a user’s location is determined, it must be mapped to an appropriate PSAP so the emergency communication can be routed accordingly. Microsoft applauds the Commission’s efforts to address the complex PSAP system that currently exists in the U.S., and

we hope to assist the Commission in its efforts to successfully transition America’s 9-1-1 system to a 21st century next generation emergency network.¹

DISCUSSION

I. The Commission Should Not Expand the Text-to-9-1-1 Obligation to Non-Interconnected Messaging Applications.

Some commenters encouraged the Commission to expand the new text-to-9-1-1 obligations to messaging applications and services that do not connect to the Public Switched Telephone Network (“PSTN”).² For example, the National Emergency Number Association (“NENA”) would expand the “bounce back message” obligation to non-interconnected text applications, thus requiring the provider to “bounce back” a message to the user that emergency services are not available using this particular application.³ This is necessary, according to NENA, because “requiring anything less than a bounce-back message sent or triggered when a user attempts to text 9-1-1 in an unsupported circumstance will lead to serious consumer confusion.”⁴ NENA’s proposal assumes, however, that non-interconnected applications create an expectation that the consumer can reach 9-1-1. Microsoft respectfully disagrees that a non-interconnected application creates such an expectation – particularly if the application does not enable the user to engage in texting conversations with *any* telephone number, much less the phone number “9-1-1.” As Microsoft has noted, apps such as Instagram and Snapchat, as just

¹ See Federal Communications Commission, Public Notice, DA 14-1481, *FCC Seeks Nominations by November 7, 2014 for Membership for New Task Force on Optimal Public Safety Answering Point Architecture* (rel. Oct. 10, 2014).

² See Comments of the National Emergency Number Association, *In the Matter of Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications*, PS Docket Nos. 11-153, 10-255 (Oct. 16, 2014) (“Comments of NENA”); Comments of Media Friends, *In the Matter of Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications*, PS Docket Nos. 11-153, 10-255 (Oct. 15, 2014) (“Comments of Media Friends”).

³ Comments of NENA, at 11-12.

⁴ *Id.* at 12.

two examples, provide messaging capabilities but in no way create an expectation of being able to go outside the app to reach 9-1-1.⁵ In many cases, the messaging app is “closed” and can communicate only with other users who have downloaded the same application. These applications, moreover, oftentimes do not include a dial pad that would enable the user to depress “9-1-1.” With no dial pad on an app, it is difficult to imagine how a user could be led to believe there is access to 9-1-1. Additionally, with no dial pad that would enable an attempt to text 9-1-1, there will be no 9-1-1 text attempt to which a provider must “bounce back” a disclaimer.

Media Friends asserts that non-interconnected texting applications should connect to 9-1-1 because consumers may be confused by the fact that some texts connect to 9-1-1 while others do not.⁶ This claim misses the mark for a number of reasons. First, the Commission was well aware of this dichotomy when it limited its rules to “interconnected text” apps and services. Nothing has changed since the Commission’s decision that would justify a change in its rules now. Second, Media Friends’ comments fail to address any of the practical challenges associated with enabling a closed application or other non-interconnected applications to connect to the PSTN-based 9-1-1 network. As Microsoft and others have stated, closed apps do not create an expectation of reaching the emergency communications network.⁷ However, even if one assumes such an expectation, Media Friends has not explained how a closed app can

⁵ Comments of Microsoft Corporation, *In the Matter of Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications*, PS Docket Nos. 11-153, 10-255, at 8-10 (April 4, 2014).

⁶ Comments of Media Friends, at 7.

⁷ Comments of Microsoft, at 8-9 (April 4, 2014); Comments of Twilio, Inc., *In the Matter of Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications*, PS Docket Nos. 11-153, 10-255, at 8 (April 4, 2014) (“Consumers do not expect OTT text-messaging applications to support text-to-911.”).

overcome the technical limitations inherent in connecting to a PSAP. As Microsoft described in its comments, closed apps cannot communicate with users who do not have the same app downloaded, and expecting PSAPs to download all conceivable non-interconnected apps to enable such communication is fraught with challenges and would impose on PSAPs a burden to stay current with a rapidly changing app environment fueled by global developers.⁸

Finally, by expanding the scope of its rules to non-interconnected applications, the FCC would be attempting to expand its rules to a host of app providers around the world, many of which offer their apps for free and are therefore not in a position to invest in the infrastructure and/or commercial relationships that would be necessary to enable a text to 9-1-1 to text-capable PSAPs in the U.S.⁹ Nowhere in the record of this proceeding has any commenter addressed these issues or offered solutions to the technical, operational and practical challenges they present.

II. The Commission Should Allow the Industry to Resolve the Location and Routing Challenges Inherent in the U.S. 9-1-1 System and Should Refrain from Imposing Wireless E9-1-1 Phase II Location Accuracy Requirements on Next Generation Emergency Communications.

The comments submitted in this proceeding highlight the continued challenges of accurately locating applications and services in a 21st century Internet ecosystem where services and networks are no longer inextricably linked.¹⁰ This separation of the network from the

⁸ See, e.g., Comments of Microsoft Corporation, *In the Matter of Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications*, PS Docket Nos. 11-153, 10-255, at 7-9 (Oct. 15, 2014); see also Comments of APCO, *In the Matter of Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications*, PS Docket Nos. 11-153, 10-255, at 6 (Oct. 16, 2014) (addressing the cybersecurity issues associated with connecting PSAPs to the Internet).

⁹ See Comments of Microsoft Corporation, at 3-4, 9 (April 4, 2014).

¹⁰ See, e.g., Comments of NENA, at 11 (“NENA expects the trend toward disaggregation of [access network provider] and [service provider] services to accelerate.”).

service creates new challenges not previously encountered in the location and routing issues addressed by the Commission and the industry. Moreover, this separation of network and service demands a new approach to resolving the location and routing challenges of next generation emergency services.

Specifically, the Commission should not reflexively approach next generation emergency communications from the perspective of its Phase II E9-1-1 wireless rules.¹¹ There, the FCC imposed location accuracy requirements that are applied to the provider of the service, the CMRS carrier, which also operates and controls the network over which the service is provided. As a result, it was possible – although still quite challenging, time-consuming and enormously expensive – to hold the CMRS carrier responsible for providing accurate location information to the PSAP.

In the emerging world of apps and services provided untethered from a particular network or device, it is not realistic to impose accuracy requirements that result in enormous costs on free apps and services provided by small companies from every corner of the globe.¹² As Microsoft has noted, the FCC would have practical difficulties enforcing Phase II-like E9-1-1 accuracy requirements against small Internet companies located outside the U.S.¹³ As a result, attempting to do so by imposing onerous accuracy obligations on over-the-top apps and services would put U.S. companies at a competitive and financial disadvantage as they would strive to comply with obligations that their competitors would not.

¹¹ *Id.* at 2 (All services “must provide location determination capabilities equivalent to those required for voice 9-1-1 calls placed on wireless networks”).

¹² *See* Comments of Microsoft Corporation, at 14 (April 4, 2014) (stating that the FCC’s current accuracy requirements, which mandate testing on a county-by-county basis throughout the United States, simply will not scale in the “‘over the top’ world”).

¹³ *Id.*

Moreover, even if the FCC could practically enforce accuracy requirements on the potentially thousands of apps that may provide U.S. consumers messaging capabilities, it is not clear that PSAPs are prepared for the onslaught of Phase II testing that would be required if each app were subject to the testing and accuracy obligations. Therefore, Microsoft respectfully suggests that emergency location and accuracy in an over-the-top environment calls for a new approach – one that enables a safe and effective emergency communications system while also allowing innovation to flourish both inside and outside the U.S.

CONCLUSION

Microsoft appreciates the Commission's efforts to move our country's emergency communications system into the 21st century Internet ecosystem. However, as described herein, Microsoft respectfully suggests that the Commission consider carefully the practical, technical and operational differences between today's over-the-top communications services and those of the 1990s wireless industry. Today's services, which are no longer inextricably bound to an underlying network provider or device, require a new approach to emergency communications and, more specifically, to determining the accuracy of a user's location when contacting emergency services. Simply extending old E9-1-1 rules to new services and technologies will not serve consumers in need of emergency assistance. Therefore, Microsoft respectfully requests that the Commission refrain from extending its text-to-9-1-1 obligations further and, instead,

allow the industry to work collaboratively to resolve these underlying location and routing challenges.

Respectfully submitted,

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