

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
Facilitating the Deployment of Text-to-911 and) PS Docket No. 11-153
Other Next Generation 911 Applications)
)
Framework for Next Generation 911) PS Docket No. 10-255
Deployment)

COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION

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I. INTRODUCTION AND SUMMARY

The Telecommunications Industry Association¹ (“TIA”) offers these comments in response to the Federal Communications Commission’s (“Commission”) *Third Further Notice of Proposed Rulemaking* (“FNPRM”) in the above-referenced dockets.² In the FNPRM, the Commission seeks to increase the availability of location information for Short Message Service “SMS” and other messaging platforms to public safety answering points (“PSAPs”).

TIA strongly supports the Commission’s efforts to comprehensively improve emergency communications. We concur that the development of a next generation 9-1-1 (“NG911”), IP-based network, through which PSAPs could receive diverse forms of communication, will greatly improve public safety. Our member companies develop, manufacture, and supply the equipment used in the Nation’s communication networks, and are committed to accelerating the realization of a NG911 system. TIA is additionally an ANSI accredited standard development organization for the ICT sector with an extensive history working with public safety

¹ TIA is a Washington, DC-based trade association and standard developer that represents the global information and communications technology (“ICT”) industry through standards development, advocacy, tradeshows, business opportunities, market intelligence and world-wide environmental regulatory analysis. For over eighty years, TIA has enhanced the business environments for broadband, mobile wireless, information technology, networks, cable, satellite, and unified communications. TIA’s hundreds of member companies’ products and services empower communications in every industry and market, including healthcare, education, security, public safety, transportation, government, the military, the environment, and entertainment.

² See *Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications*, PS Docket No. 11-153, et al., Policy Statement and Third Further Notice of Proposed Rulemaking, FCC 14-118 (rel. August 13, 2014).

communications.³ We urge the Commission to remain cognizant of the previously identified barriers to extending text-to-911 location information capabilities.⁴

II. THE DEVELOPMENT OF VOLUNTARY, CONSENSUS BASED STANDARDS HAS CONTRIBUTED TO TEXT TO 9-1-1 SOLUTIONS

As the Commission notes in the FNPRM, TIA has previously joined with the Alliance for Telecommunications Industry Solutions (“ATIS”) in cooperating on the development of a joint standard for the delivery of text-to-911.⁵ We believe that voluntary and consensus-based standards should be used as safe harbors to compliance (not the requirements themselves). The development of voluntary, consensus-based standards benefits the Commission by helping it reach its text-to-911 policy goals, as well as the evolution of NG911 system.

As we have previously detailed for the Commission in our joint comments filed with ATIS,⁶ TIA and ATIS have joined forces to develop an industry standard – *Joint ATIS/TIA Native SMS to 9-1-1 Requirements and Architecture Specification* (“J-STD-110”) – that will define the requirements and architecture for text messaging to 911 emergency services using native wireless operator SMS capabilities. In addition, this standard contains definitions, assumptions, and requirements for the bounce-back message, which was aligned with the

³ TIA publishes a publicly-available annual report that includes the latest actions taken by each respective TIA engineering committee toward the development of standards for the advancement of global communications. See TIA, *Standards & Technology Annual Report 2012-2013*, available at <https://www.tiaonline.org/sites/default/files/pages/STAR2013withLinks.pdf> (last accessed October 16, 2014)

⁴ CSRIC Working Group 1A, Key Findings and Effective Practices for Public Safety Consolidation, Final Report (Oct. 2010) (CSRIC Public Safety Consolidation Report).

⁵ See FNPRM at 39

⁶ See Joint Reply Comments of ATIS and TIA, PS Docket Nos. 11-153 and 10-255 (filed Feb. 8, 2013) (“Joint TIA-ATIS Reply Comments”).

voluntary industry agreement that was jointly announced by AT&T, Sprint Nextel, T-Mobile USA, Verizon, APCO International and NENA – The 9-1-1 Association.⁷

TIA has long advocated that the use of industry-developed technical standards as a safe harbor for compliance where necessary, and not as a substitute for more general performance objectives, can be an effective tool to ensure consistency and transparency. Given the above-described industry effort, we believe that J-STD-110 reflects an appropriately-tailored solution to interim text-to-911. . We have strongly supported the Commission adopting J-STD-110, as a safe harbor for compliance to text-to-911 regulations.

TIA cautions, however, against regarding the standards development process as a mechanism through which creation of otherwise nonexistent technology functionality can be mandated.

III. CHALLENGES FOR TEXT TO 911 LOCATION ACCURACY

We applaud the continuing activity of the Commission’s Communications Security, Reliability and Interoperability Council (“CSRIC”) on best practices for reliable 9-1-1 and enhanced 9-1-1 services. The availability and adherence to industry standards and best practices will bring about successful implementation of 9-1-1 and enhanced 9-1-1. The Commission’s approach in this matter should also reflect the degree of convergence of IP-enabled services, as

⁷ See Letter to FCC Chairman Julius Genachowski, Commissioner McDowell, Commissioner Clyburn, Commissioner Rosenworcel and Commissioner Pai, from AT&T, Sprint Nextel, T-Mobile USA, Verizon, APCO International and NENA – The 9-1-1 Association, filed December 6, 2012, in PS Docket Nos. 10-255, 11-153 (“Carrier-NENA-APCO Agreement”).

the Commission has recently acknowledged,⁸ along with the overall transition from the Public Switched Telephone Network to an all-Internet Protocol network.⁹

TIA members believe that regulations should reflect the most effective and efficient means of developing the current national 9-1-1 infrastructure into the conceptualized NG911 network. This would best be accomplished through the continuation of technology neutral, light-touch regulations that consider distinctive geographic, radio frequency, and technology feasibility characteristics particularly as NG911 deployment occurs through a phased-in approach. The Commission should also ensure that its actions do not derail any ongoing efforts through the adoption of new rules that would negatively impact that work.

IV. THE DRAMATIC GROWTH OF OVER-THE-TOP (OTT) SERVICES SIGNIFICANTLY CONSTRAINS TEXT-TO-911 REGULATIONS

In the FNPRM, the Commission discusses extending obligations to non-native SMS, or over-the-top (“OTT”), text-to-911 applications and services.¹⁰

According to Analysys Mason, “More than half of smartphone owners worldwide are already active users of OTT messaging apps, and there are no signs of the market slowing.” Their estimate is that that “the total volume of messages sent from mobile devices via IP services

⁸ See *Reliability and Continuity of Communications Networks, Including Broadband Technologies*, PS Docket No. 11-47, *Effects on Broadband Communications Networks of Damage or Failure of Network Equipment or Severe Overload*, PS Docket No. 10-92, *Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, EB Docket No. 06-119, *Notice of Inquiry*, FCC 11-55 (rel. April. 7, 2011) at ¶ 28 (observing that “...three major industry sectors are converging on ever more extensive use of broadband technologies: public safety, commercial communications, and utilities.”).

⁹ See Comments of TIA, PS Docket Nos. 10-255, 11-153, and 12-333 (filed Dec. 13, 2012) at 13-16.

¹⁰ See FNPRM at 20.

exceeded the volume of SMS messages for the first time in 2013, at more than 10.3 trillion compared with 6.5 trillion worldwide.”¹¹

Another research firm, Parks Associates, recently concluded that “Personal communications is increasingly mobile and social; traditional SMS service is now overtaken by new OTT mobile messaging services.”¹² Parks notes “As a result, the rapid growth in messaging app usage comes at the cost of text messaging. Parks Associates estimates that global OTT messaging volume will grow from 10 trillion messages in 2013 to nearly 67 trillion messages in 2018, while global text messaging volume will decline from nearly 9 trillion messages in 2013 to just over 6.7 trillion messages in 2018.” Notwithstanding the fact that some OTT messaging services are interconnected, the transition the messaging market is undergoing presents very significant challenges in establishing domestic US requirements. These hurdles are all difficult to overcome because of the very global nature of OTT services.¹³

TIA remains fully dedicated to the principle of technology neutrality and believes that the Commission appreciates this core principle’s value across the communications sector in facilitating competition. However, we remain cautious regarding prospects for extending to OTT text-to-911 applications, including interconnected OTT, with the same obligations proposed for other SMS text-to-911. As the Commission appropriately notes, a variety of technical issues can

¹¹ See Analysys Mason, “OTT MESSAGING VOLUMES WILL NEARLY DOUBLE IN 2014” January 28, 2014 (<http://www.analysismason.com/About-Us/News/Insight/OTT-messaging-volumes-Jan2014-RDMV0/>, last accessed October 15, 2014)

¹² See Park Associates, “The Post-SMS War for Mobile Communications: Messaging Apps” 2Q 2014 (<http://www.parksassociates.com/report/post-sms-war> last accessed October 15, 2014)

¹³ See Analysys Mason, OTT COMMUNICATION SERVICES WORLDWIDE: FORECASTS 2013–2018, December 13, 2013 (<http://www.analysismason.com/Research/Content/Reports/OTT-communication-services-worldwide-forecasts-20132018/>, last accessed October 15, 2014)

prevent PSAPs from receiving necessary critical detail from these services.¹⁴ For example, broadband access reliant OTT messages are less dependable than SMS texts carried over existing standards-based SMS architectures.¹⁵ Significant and well-documented technical challenges associated with OTT SMS (such as latency, lack of reliability, and location accuracy challenges) constrain its reliability for contacting 9-1-1 emergency services. These persistent technical problems must be addressed prior to a text-to-911 obligation being extended to nascent IP applications including OTT text.¹⁶

III. THE IMPORTANCE OF CONSUMER EXPECTATIONS AND THE INTEGRATION WITH NG9-1-1

TIA emphasizes the importance of consumer understanding and continued education for the public. Particularly during the transitional period, such efforts will ensure not only that public expectation remains realistic but that PSAPs can handle the text-to-911 messages they receive.

¹⁴ See FNPRM from 81-134.

¹⁵ The ATIS Interim Non-Voice Emergency Services Incubator, of which TIA was a member, concluded that the limitations of SMS for transmission of emergency calls to a PSAP will only be appropriate after considerable industry standards work when it is clear that industry efforts are better spent on the development of a new IP protocol that is better adapted to the demands of emergency calls. *See, e.g.*, ATIS Interim Non-Voice Emergency Services Report and Recommendations (Rel. Dec. 12, 2011), available at <http://www.atis.org/docstore/product.aspx?id=26035>.

¹⁶ *See* as noted in the FNPRM at 22, see Letter from Glenn S. Richards, Executive Director, VON Coalition, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 11-117, WC Docket No. 05-196, PS Docket No. 11-153, PS Docket No. 10-255 (Jun. 27, 2012). *See also* Notice of Oral Ex Parte from Kim Robert Scoville, TeleCommunications Systems, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, PS Docket Nos. 11-153 and 10-255 (Nov. 9, 2012) at 2 (noting that it cannot be authoritatively concluded that all OTT messaging applications “rely on underlying SMS technology to manage the messaging process” and that this “may change in the future.”). *See also, e.g.*, Letter from Grant B. Spellmeyer, Esq., Executive Director – Federal Affairs & Public Policy, United States Cellular Corporation, to Marlene H. Dortch, Secretary, Federal Communications Commission, PS Docket Nos. 11-153 and 10-255 (Nov. 6, 2012) at 2 (noting the lack of resolution of these technical issues is reflected by the divergence of opinions on whether to address NG9-1-1 OTT SMS applications in the same rulemaking as “native” SMS. *See, e.g.*, Letter from Glenn S. Richards, Executive Director, Voice on the Net Coalition, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 11-117; WC Docket No. 05-196; PS Docket Nos. 11-153, 10-255, and 07-114 (Nov. 14, 2012).

At the time of the adoption of the FNPRM, less than 1.8 percent of PSAPs, just 121 of the approximately 6,800 were capable of receiving text messages.¹⁷

The ICT manufacturer and supplier community is prepared to work in partnership with the Commission, other Federal and state agencies, and other stakeholders, to raise public attentiveness to text-to-911 and to educate the public on its abilities and limits. We recognize that even before text-to-911 is available, a concerted public education effort will be required to help consumers understand what the system can and cannot do.

As we note above, system conversions are dependent on a number of factors and deployment schedules will differ. In order to address inevitable situations during this transition, such as the case where a consumer moves in and out of areas that have text-to-911 capability without realizing it, we encourage the Commission to coordinate with the various stakeholders. This campaign should also look to reach PSAP stakeholders, who must be ready for the handling of text messages. PSAPs will have to cultivate and train to a common practice to enable the smoothest transition possible.

The growing market share of OTT messaging services presents yet another layer of complexity, in effect requiring users to be able to distinguish messaging services that can contact emergency services and those that cannot.

¹⁷ See Statement of Commissioner Michael O'Reilly, Concurring in part, dissenting in part 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 (August 8, 2014)

TIA appreciates the significant resource challenges that PSAPs face in making the transition to Next Generation 9-1-1 services. Investment in new functionality must be weighed against alternatives.

IV. CONCLUSION

For the foregoing reasons, TIA urges the Commission to take into consideration its views in this proceeding.

Respectfully submitted,

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