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 THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION

Danielle Coffey
Vice President, Government Affairs

Mark Uncapher
Director, Regulatory and Government Affairs

Brian Scarpelli
Senior Manager, Government Affairs

TELECOMMUNICATIONS INDUSTRY ASSOCIATION
1320 Court House Road
Suite 200
Arlington, VA 22201
(703) 907-7700

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COMMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION

I. INTRODUCTION AND SUMMARY

The Telecommunications Industry Association1 (“TIA”) submits these comments in response to the Federal Communications Commission’s (“Commission”) Further Notice of Proposed Rulemaking (“FNPRM”) in the above-referenced dockets.2 In the FNPRM, the Commission put forward proposed rules to bring about the ability for consumers to text critical emergency information to public safety answering points (“PSAPs”). TIA is a longtime supporter of the Commission’s efforts to comprehensively improve emergency communications,

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.

and we agree that the development of a NG911, IP-based network where PSAPs can receive diverse forms of communication will greatly benefit each citizen of the United States, particularly those with disabilities, in a variety of scenarios. TIA’s member companies develop, manufacture, and supply the equipment used in the Nation’s communication networks, and are invested in the policies adopted towards the realization of a next generation 9-1-1 (“NG911”) system. TIA is an accredited standard development organization for the ICT sector\(^3\) by the American National Standards Institute.

First, we urge the Commission to use as flexible an approach as possible moving forward to reduce barriers to extending text-to-911 capabilities past native SMS, thereby increasing the ability of all Americans to text timely emergency information to PSAPs, particularly individuals who are disabled or in a situation where speaking is not possible. Towards this end, we believe that the Commission should avoid noted jurisdictional issues as well as strong technical feasibility and competitive indicators and decline to extend any new text-to-911 regulations to nascent non-native SMS services. Furthermore we believe that flexibility on the Commission’s part will be crucial to realizing text-to-911 in regard to the voluntary deadline set under the Carrier-NENA-APCO Agreement, and that appropriate waivers should be used.

We also note the existence of the joint standard for the delivery of text-to-911 that is currently underway by ATIS and TIA. We believe that voluntary and consensus-based standards should be used as safe harbors to compliance (not the requirements themselves), and that as this

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effort concludes, TIA recommends that the Commission seriously consider it for use as a safe harbor.

Finally, we emphasize to the Commission the importance of consumer understanding and continued education for the public. Particularly during the transitional period, we believe that a comprehensive and inclusive effort will ensure not only that consumer expectations remain realistic but that PSAPs can handle the text-to-911 messages they receive.

II. TIA ENDORSES A FLEXIBLE APPROACH TO IMPLEMENTATION THAT PROTECTS INNOVATION

TIA members believe that regulatory uncertainty is inversely correlated to investment and innovation, and that the Commission can, by ensuring that it uses a flexible approach moving forward, reduce this major barrier to extending text-to-911 capabilities past native SMS – regulatory uncertainty – and in this way increase the ability of all Americans to text timely emergency information to PSAPs, particularly individuals who are disabled or in a situation where speaking is not possible. New laws or regulations, if adopted, should reflect that the most effective and efficient means of developing the current national 911 infrastructure into the conceptualized NG911 network. TIA believes that this would best be accomplished through the continuation of technology neutral, light-touch regulations that consider distinctive geographic, radio frequency, and technology feasibility characteristics particular to certain areas of the country due to NG911 deployment naturally occurring through a phased-in approach and turning on local decisions and funding. The Commission should also ensure that its actions do not derail any ongoing efforts through the adoption of new rules that would impact negatively upon that work.
TIA recognizes the benefits of text-to-911 noted in the FNPRM, and at the same time TIA believes that any mandates from the Commission should respect the need of manufacturers and operators to make informed on-the-ground decisions about equipment replacement in networks. These operators and their vendors are the only parties in a position to make the most appropriate priority determinations for operators’ facilities as they improve their networks. We also note that, as recommended by the Commission’s Communications Security, Reliability and Interoperability Council’s (“CSRIC”) working group 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 a 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 the Commission has recently acknowledged, along with the overall transition from the Public Switched Telephone Network to an all-Internet Protocol (“IP”) network.

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4 FNPRM at ¶¶ 48-57.
6 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.”).
a. Jurisdictional Issues Should Be Resolved

TIA joins other commenters in questioning the jurisdictional basis put forward by the Commission in proposing new obligations for text-to-911 capability. The Commission posits the CVAA, Title III of the Communications Act, and the Commission’s ancillary authority as jurisdiction for its proposals. TIA urges that the Commission should justify these authorities to directly show how interconnected text applications are subject to the jurisdiction as posited in the FNPRM. In our view, the Commission lacks the legal authority to apply obligations on IP-based services before the implementation of a NG911 framework.

TIA does not agree that the Commission has demonstrated that the CVAA grants the ability to implement rules for a text-to-911 solution. The only portion of the CVAA that addresses NG911 is Section 106, which gives narrow authority to the Commission to safeguard accessibility to IP emergency services for persons with disabilities, but fails to allow for regulation of SMS-to-911. We agree that Congress explicitly anticipated this applying to IP-enabled networks and services used by VoIP providers, making it difficult to see how the Commission could propose in the FNPRM to pull IP services into “legacy” 911 obligations.

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9 See FNPRM at ¶ 169.
10 See Id. at ¶ 170-171.
11 See Id. at ¶ 172.
12 47 U.S.C. § 615c(g)).
14 We find the examples provided by the VON Coalition particularly compelling to illustrate this point. See VON Coalition comments at 7.
While the CVAA does give some regulatory power to enact the recommendations of the EAAC, it does not give the Commission unlimited authority over IP-enabled communications – in other words, the EAAC itself should not be viewed as a living source of authority, but as a source of recommendations for action using existing authority elsewhere in the CVAA and other FCC authorities. In regards to Title III of the Communications Act and ancillary jurisdiction as valid authorities, we note that the CVAA still would remain as the basis for general grants of authority which do not unambiguously envisage NG911.

b. Technical and Competitive Reasons to Appropriately Limit the Extent of Proposed Text-to-911 Regulations

In the Commission’s FNPRM, the Commission discusses extending obligations to non-native SMS, or over-the-top (“OTT”), text-to-911 applications and services.\(^{15}\) TIA, as a representative for ICT manufacturers and suppliers, 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.\(^{16}\) However we cannot agree with proposals discussed in the FNPRM that request the Commission corral OTT text-to-911 applications in with the same obligations proposed for other SMS text-to-911.\(^{17}\)

\(^{15}\) FNPRM at ¶¶ 78-100.

\(^{16}\) For example, as far back as 1997, the Commission has stated that “Technological neutrality will allow the marketplace to direct the advancement of technology and all citizens to benefit from such development. By following the principle of technological neutrality, we will avoid limiting providers… to modes of delivering that service that are obsolete or not cost effective. Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776 (1997), ¶ 49.

\(^{17}\) FNPRM at ¶ 83.
Initially, we note that OTT messages are reliant on broadband access, and we maintain that they are less dependable than SMS texts carried over existing standards-based SMS architectures. There are significant and well-documented technical challenges associated with the use of SMS to contact 9-1-1 emergency services (such as latency and lack of reliability), with life threatening implications to the end-users. Concerns in this area noted in the FNPRM itself come not only from the interests representing OTT services, but from several carriers. We reiterate that there are numerous substantial technical problems that persist and should be addressed prior to a text-to-911 obligation being extended to nascent IP applications including OTT text, especially due to the issues of location accuracy. In TIA’s view, an emerging, IP-based technology would be more realistically implemented in the future NG911 network.

The careful avoidance of the endorsement of one technology over another, and setting objective and performance-based requirements will ensure that the FCC’s technology neutrality

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18 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.


20 See, e.g., FNPRM at ¶ 73.

21 See 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 (Nev. 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 (Nev. 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.

22 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 (Nev. 14, 2012).
policy is maintained and that the most effective technologies are selected in the market. Where legitimate technical differences in capability exist that make a service clearly nascent, the issue is not one of technology neutrality but of detrimental effects to innovation. In cases such as the comparison of native SMS to IP-based OTT text-like services, the premature extension of text-to-911 rules to the latter will only serve to create regulatory barriers to investment in the development of innovative services.\(^23\) We do not believe that the Commission intends for its regulations to have this effect.\(^24\) If the Commission does move forward with extending 9-1-1 obligations to new NG9-1-1 services in the immediate future, a crucial consideration the Commission must keep in mind is the unfeasibility of adopting requirements that would have the effect of negatively impacting product design cycles and investment, or of forcing operators to retrofit existing infrastructure and equipment.\(^25\) These considerations should be intertwined with our recommendations about the need for the Commission to ensure that any move forward with NG9-1-1 obligations incorporate issues and concerns related to the larger issue of transitioning the PSTN to an all-IP network.

\(^{23}\) Furthermore, we take issue with the assertion that the FCC including OTT services in the FCC’s text-to-911 rules in this matter would assist ongoing standards efforts and regard this argument as a slippery slope. TIA members believe that competition and government endorsement via safe harbor designation — not government mandate before the fact — should dictate voluntary, consensus-based standardization efforts. If the Commission were to use this as a justification for extending text-to-911 obligations to nascent OTT text-like services, it could easily extend the same logic into any other communications industry effort with ongoing standardization as a way to bring in emerging technologies.

\(^{24}\) See The FCC’s Broadband Acceleration Initiative: Reducing Regulatory Barriers to Spur Broadband Buildout (rel. Feb. 3, 2011) available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db0209/DOC-304571A2.pdf. See also Remarks of FCC Chairman Julius Genachowski, Broadband Acceleration Conference (Feb. 9, 2011) at 1-2 (“One thing government at all levels can do is ensuring efficient, effective regulation. We need rules that serve legitimate public needs without erecting costly or unnecessary barriers…Overly burdensome rules and regulations can slow down deployment and raise costs. It also can limit businesses ability to invest in new technologies and hire new workers.”) (FCC Broadband Goals).

\(^{25}\) Emergency Access Advisory Committee report at 8 (stating that “[s]ignificant modifications or alterations to the existing wireless service provider SMS network standards and architecture would create technical and economic feasibility issues. Such changes would require development of new chipsets and firmware for mobile devices and equipment, and revision of existing network standards and elements in the core wireless networks. Modification efforts would take many years and delay implementation of SMS-to-9-1-1 by which time messaging capabilities for Next Generation 9-1-1 […] could have already been developed and deployed.”).
The most effective and efficient means of developing the current national 911 infrastructure into one that supports text-to-911 will be accomplished through the continuation of technology-neutral regulations that consider distinctive geographic, radio frequency, and technology feasibility characteristics particular to certain areas of the country. A flexible regulatory environment will reflect that the realistic capabilities of any text-to-911 solution in lieu of the NG911 network cannot be subject to a “one-size-fits-all” regime, and will provide certainty required by industry stakeholders to continue to make investments into upgrades to the legacy system towards realizing text-to-911 along with NG911 innovations. With this in mind, we note that:

- Where the Commission proposes that all text-capable cell phones support 911 as the three-digit short code for emergency text messages sent to PSAPs,\(^\text{26}\) it will be appropriate for the Commission to recognize the extent to which mobile devices have proliferated in the United States which have not been tested for support for 911 as a SMS short code.\(^\text{27}\)

- Recognizing the sunsetting use of TTYs,\(^\text{28}\) we note Section 9.2 of the EAAC’s TTY Transition Report for possible solutions\(^\text{29}\) and our belief that that IP wireline

\(^{26}\) See FNPRM at ¶ 108.

\(^{27}\) See, e.g., Letter from Bennett L. Ross, counsel to Motorola Mobility, Inc. to Marlene H. Dortch, Federal Communications Commission, PS Docket No. 11-153, at 1 (Apr. 17, 2012).

\(^{28}\) See FNPRM at ¶ 112.

or mobile handsets which implement a TTY replacement functionality should be exempted from any TTY attachment requirements.

c. **The Proposed Deadline Requirement May Not be Feasible for All and should be Universally Implemented in a Reasonable and Flexible Way**

In the FNPRM, the Commission seeks comment on whether all CMRS providers and interconnected text providers should be required to implement the capability to support text-to-911 throughout their networks by May 15, 2014.30 TIA believes that the application of a deadline requirement to all carriers and third party providers may not be feasible based on the fact that substantial changes to the existing wireless service provider SMS network standards and architecture is expected to create technical and economic feasibility issues for some more than others.31 Based on the above-noted complicating factors that may delay ubiquitous deployment, which may affect smaller carriers not part of the voluntary agreement, the Commission should reasonably use its waiver authority32 to ensure that feasibility is incorporated into the deployment of text-to-911 and that best efforts are not punished. While the Commission asks valid questions in the FNPRM regarding differences in time frames for CMRS versus interconnected text providers, and the possibility of shortening the implementation period as time as the process for enabling text-to-911 requires careful consideration of unique circumstances.

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30 FNPRM at ¶ 101-103.

31 See FNPRM at ¶ 101-103 (noting concerns already voiced in this docket).

32 To obtain a waiver of the Commission’s Rules a petitioner must demonstrate either that (i) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the present case, and that a grant of the waiver would be in the public interest;10 or (ii) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest or the applicant has no reasonable alternative. See 47 C.F.R. § 1.925(b)(3)(i-ii).
We believe that by demonstrating a consistent pattern of fairly and reasonably addressing waivers, the Commission can provide needed regulatory certainty in this area.

For example, in considering compliance for two-way interconnected text, the Commission should take into account that it may not be feasible for a such a provider to be able to put in place all of the necessary technical solutions by May 15, 2014 to enable two-way text-to-911 capability because, unlike carriers who may have been working at this issue for a notable portion of time, this issue is relatively new to interconnected text providers. Lastly, we urge that, if the Commission appropriately utilizes their waiver authority to permit targeted providers and/or areas further time to deploy text-to-911 capability, that a reasonable extended time be allowed for its phasing in past the deadline voluntarily taken on in the Carrier-NENA-APCO Agreement.33

d. The Commission Should Adopt the Joint ATIS/TIA Native SMS to 9-1-1 Requirements and Architecture Specification as a Safe Harbor for Compliance with Text-to-911 Regulations

TIA firmly believes that allowing for the development of voluntary, consensus-based standards – which will naturally include detailed study to ensure that interoperability, portability and security (among other) concerns are fully addressed – will most efficiently ensure that the Commission reaches its goals for text-to-911 (and the realization of a successful NG911 system). Embracing the development of these standards as recommended by, for example, the FCC’s

33 For example, the Carrier-NENA-APCO Agreement states that once a “valid” PSAP request is made for delivery of text messages, “service will be implemented within a reasonable amount of time of receiving such request, not to exceed six months.” Carrier-NENA-APCO Agreement at 2.
EAAC,\textsuperscript{34} and avoiding overly-imposing new regulations would streamline this standardization process further.

As we detailed for the Commission in our joint comments filed with the Alliance for Telecommunications Industry Solutions (“ATIS”),\textsuperscript{35} TIA and ATIS have joined forces to jointly develop an industry standard – \textit{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 Short Message Service (“SMS”) capabilities. In addition, this standard will contain a definition, assumptions, and requirements for the bounce-back message, which will be aligned with the voluntary industry agreement that was jointly announced on December 6, 2012, by AT&T, Sprint Nextel, T-Mobile USA, Verizon, APCO International and NENA – The 9-1-1 Association.\textsuperscript{36} Finally, the joint comments note that it is anticipated that J-STD-110 will be published as a final document by the end of March 2013.\textsuperscript{37}

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


\textsuperscript{35} 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”).


\textsuperscript{37} See Joint TIA-ATIS Reply Comments at 4.
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 and fits the bill. We very strongly support the Commission adopting J-STD-110, once completed, as a safe harbor for compliance to text-to-911 regulations.

III. THE IMPORTANCE OF CONSUMER EXPECTATIONS, AND CONTINUED AND COORDINATED OUTREACH FROM STAKEHOLDERS

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 and learning of text-to-911 abilities as well as 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, such as the EAAC, in finding ways to address these unfortunate realities associated with transitional periods through coordinated public education campaigns. 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.
IV. CONCLUSION

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

Respectfully submitted,

TELECOMMUNICATIONS INDUSTRY ASSOCIATION

By: /s/ Danielle Coffey

Danielle Coffey
Vice President, Government Affairs

Brian Scarpelli
Manager, Government Affairs

TELECOMMUNICATIONS INDUSTRY ASSOCIATION
1320 Court House Road
Suite 200
Arlington, VA 22201
(703) 907-7700

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