Before the
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Framework for Next Generation 911 Deployment	)	PS Docket No. 10–255
	)	
	)	
	)	

To: The Commission

COMMENTS OF THE

TELECOMMUNICATIONS INDUSTRY ASSOCIATION

The Telecommunications Industry Association (TIA) hereby submits comments to the Federal Communications Commission (Commission) in the above-captioned proceeding.[1] TIA appreciates the opportunity to discuss how the Commission can best encourage the development of innovative technologies that will allow the public to effectively seek emergency assistance by means beyond traditional voice communications.

TIA 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 80 years, TIA has enhanced the business environment for broadband, mobile wireless, information technology, networks, cable, satellite, and unified communications. TIA is accredited by the American National Standards Institute (ANSI).

[1] *In the Matter of Framework for Next Generation 911 Deployment*, Notice of Inquiry, PS Docket No. 10-255 (rel. Dec. 21, 2010) (NG911 NOI).

SUMMARY

TIA is a longtime and dedicated supporter of the Commission's efforts to improve emergency communications comprehensively. The development of an IP-based network where public safety answering points (PSAPs) can receive diverse forms of communication will greatly benefit each citizen of the United States, particularly disadvantaged populations targeted by the Commission. In evaluating how best to deploy a next generation 911 (NG911) network as soon as technically feasible, the Commission should be mindful of the need to develop technologies that will facilitate such a network. TIA urges that the Commission take the path most certain to allow for market-based, consensus industry standards – efforts already underway – that will result in maximum investment incentives, leading to the most innovative and efficiently-built NG911 network. To this end, TIA supports implementing NG911 technologies and networks by allowing innovation to flourish without strict Commission mandates.

Given the operational and funding issues that are likely to be encountered in the rollout of NG911 technologies, as well as the potential confusion that could be created by a NG911 deployment offering widely disparate capabilities in different jurisdictions, TIA believes that it is better for a NG911 rollout to focus on a subset of capabilities that can be rolled out nationwide rather than enabling deployment of a wide range of capabilities in an uneven way. Not only would a focused and uniform rollout be easier to explain to the public, but it is also likely to be more compatible with the budgetary constraints that are likely to remain in place for years to come.

TIA also notes its opposition to the proposal to expand the *E911 Scope Order* to extend NG911 obligations upon hotspot providers, such as coffee shops. Regulation of such entities will have a

very negative effect on the growing VoIP market and chill access to wireless broadband for many Americans.

Finally, TIA has long facilitated collaboration between the ICT industry and accessibility advocates. TIA suggests that the Commission ensure that their proposed actions in the NG911 NOI related to disabled access to an IP-based NG911 network are fully coordinated with the Commission's Emergency Access Advisory Committee (EAAC), and to utilize the experience and recommendations of the EAAC.

DISCUSSION

I. THE COMMISSION SHOULD EMBRACE POLICIES THAT FACILITATE NEXT GENERATION 911 TECHNOLOGY INNOVATION THROUGH INDUSTRY-LED, MARKET-BASED EFFORTS.

a. TIA Supports the Commission's Vision for the Next Generation 911 Network

In its NG911 NOI, the Commission seeks comment on potential capabilities that the deployment of NG911 systems will provide to the public, and the likely architecture of NG911 networks.[2] TIA supports the inclusion in the NG911 network of enhanced methods to deliver emergency information described in the Notice once technologies are developed to meet the needs of 911 communicators and the public.[3] As stated by TIA in its comments on the E911 Location

[2] *See* NG911 NOI at ¶ 31.

[3] *Id.* at ¶ 33-38 (detailing the opportunity to include in NG911 capabilities processing of what the Commission terms as "new media": message-based text (SMS), real-time text (RTT), still images, real time video, telemetry data, and auxiliary medical or other data.

Accuracy FNPRM and NOI,[4] market-based standardization efforts should be encouraged by the Commission to swiftly deploy these and other capabilities.

TIA members, like many stakeholders involved in the delivery of emergency communications, understand the imperative nature of the needed transition to an effective NG911 network. However, there are significant challenges to developing a NG911 network that will take time and resources to address. Public safety entities must attain funding for the evolution of PSAPs to an all-IP platform and will need to put in place state and regional emergency services networks. In many cases this will require greater coordination between agencies as well as more centralized planning than is common today. For this reason NG911 will not only require the development of operational procedures and refinement of technical standards, but will also bring with it major organizational challenges. In particular, emergency services networks must be coordinated on a nationwide basis in order to appropriately support the implementation of cyber security protections that will be necessary to prevent attacks that could cripple NG911 systems. Given the many challenges that need to be overcome to enable a nationwide NG911 rollout, large efforts will be required – on an intra-industry and intra-company level, through investment in research and development, network upgrades, and standards development – to provide the best 911 service possible to all Americans.

With many fundamental capabilities required for the envisioned NG911 network far from attainable, large efforts are currently underway – on an intra-industry and intra-company level, through investment in research and development, network upgrades, and standard development– to provide the best 911 service possible to all Americans. For example, TIA standards have

[4] Comments of TIA, PS Docket No. 07-114, CC Docket No. 94-102, WC Docket No. 05-196 *at* 8 (filed Aug. 20, 2007).

enabled multi-line telephone system (MLTS) technologies, such as private branch exchanges, to be capable of providing the business location address, and, when properly configured by the business owner, to provide more detailed information for wired phone locations (suite, floor, etc.).[5] However, location identification remains an issue for nomadic devices[6]. With significant time allowed for additional standard development, nomadic devices such as handsets which connect through a building or campus-wide broadband networks to MLTS may be able to provide increased location accuracy details. Nomadic devices used with MLTS have location requirements that are quite similar to other IP-based access devices, and should therefore be regarded under consistent, if not the same, requirements as those which may be defined for Wi-Fi hot spots. Support for nomadic technologies may also require building owners to properly configure their system's location services to ensure location information is provided accurately from all locations.[7]

While refraining from imposing any further regulatory burdens on those providing these critical services, the Commission can best ensure that these developments proceed by continuing to

[5] In 2003, TIA published the standard "TIA-689-A Telecommunications Multiline Terminal Systems PBX and KTS Support of Enhanced 9-1-1 Emergency Calling Service," which describes how multiline terminal systems, such as PBXs, can support E911. The TIA-689-A standard specifically addresses dialing, routing, local notification and network interface technical specifications associated with outgoing 911 calls from MLTS stations. This standard does not address systems connected to public or private networks using Voice over Internet Protocol (VoIP), which was addressed in the TIA standard "TIA/EIA -TSB 146 IP Telephony Support for Emergency Calling Service." TSB-146 is a bulletin that provides guidelines for providing E911 support for VoIP in an enterprise environment, but not for the residential environment.

[6] *See* Comments of VON Coalition, PS Docket No. 07-114, WC Docket No. 05-196 (filed Jan. 19, 2011) (describing the technical and operational obstacles of providing wireless location in WLAN networks and "hot spots," and the practical realities of making that technical information useful to first responders).

[7] As recently as October of 2010, the California Public Utilities Commission released a report on MLTS E911 location information, noting the concerns of public safety, identifying best practices for provisioning MLTS phone station information in the 911 database, and assessing the feasibility of MLTS E911 location accuracy solutions. The report noted that "PSAPs and other parties emphasized the need for a legal requirement on PBX/MLTS owners with penalties for non-compliance, since carriers and other service providers cannot compel the provisioning of MLTS caller location." California Public Utilities Commission, *Telephony Aspects of MLTS and Packetbased Equipment, including VoIP 1544 kbps Interface Requirements for Packet-based Gateways* (Oct. 2010), *available at* ftp://ftp.cpuc.ca.gov/Telco/MLTS_E-911/Final_MLTS_E9-1-1_Workshop_Report.pdf.

encourage communication on such issues between Federal, State, Public Safety, industry, and general business stakeholders. Innovation cannot be spurred by increased regulation, particularly when the creative basis for the desired result is in its early stages. Further, a resulting effect of such an attempt by the Commission will most adversely affect the populations the Commission seeks to help, such as disabled populations and residents of tribal areas, due to a lack of incentive to invest and innovate.

In the NG911 NOI, the Commission nonetheless contemplates the adoption of new regulations towards this transition, suggesting such measures as a "national set of milestones to…accelerate and measure NG911 deployment."[8] If regulations must be imposed, the most effective and efficient means of developing the current national 911 infrastructure into the conceptualized NG911 network will be accomplished through the continuation of light-touch, technology-neutral regulations that consider distinctive geographic, radio frequency, and technology feasibility characteristics particular to certain areas of the country. Supported by the Commission's discussion in the Notice on the "diverse mix of physical infrastructures, networking protocols, applications, and devices may facilitate the carriage of potential NG911 media types from a 911 caller to a NG911-enabled PSAP,"[9] a flexible regulatory environment will reflect that the realistic capabilities of the NG911 network cannot be subject to a "one-size-fits-all" regime, will provide critical certainty required by industry stakeholders to continue to make investments into upgrades to the legacy system towards realizing NG911, and will result in increased innovation. Towards providing certainty, TIA additionally supports the Commission

[8] NG911 NOI at ¶ 65.

[9] *Id.* at ¶ 49.

proposal that "liability protection extend to all forms of information pushed to a PSAP or pulled from external sources by a PSAP, regardless of the platform over which information travels."[10]

Recognizing the limitations on currently available technology, to the extent the Commission acts when determining "primary" or "secondary" media,[11] TIA urges the limitation of services that connect to the NG911 network to voice as "primary" media and telemetry data as "secondary" media. Requiring other types of media, such as social networking, to connect to the network would raise privacy concerns and could drastically increase emergency services network vulnerabilities. Therefore, this should not be done until such a time when voluntary security standards can adequately protect the network.

Although the availability and popularity of SMS might suggest that it be designated as an additional primary media, or as a "secondary media", the limitations of SMS for transmission of emergency calls to a PSAP should preclude its use. Indeed, in the NOI, the Commission notes the limitations of SMS and specifically cites routing and location concerns.[12] Resolution of these concerns would require considerable industry standards work, if such resolution is possible. Industry efforts are better spent on the development of a new IP protocol that is better adapted to the demands of emergency calls.

Adding to this concern is the fact that the severe lack of funding available to most local and state governments limits resources of public safety entities to upgrade their communications systems and to mitigate cyber attacks. Moreover, to resolve interoperability issues between PSAPs, the communications network, applications, and devices, further standard development is crucial. To

[10] *Id.* at ¶ 73.

[11] *Id.* at ¶ 39-40.

[12] *Id.* at ¶ 41.

deliver the highest level of interoperability, requirements for emergency communications using IP must be kept as simple as possible. For example, for VoIP, only the most basic functionality should be assumed (e.g., in terms of codecs, support for the ITU G.711 standard); if kept at minimal levels, it is much more likely that the private sector can meet or exceed expectations of the public safety community. This approach will also result in lower financial burdens on state and local governments, and enable the most rapid and uniform rollout of NG911.

II. THE COMMISSION SHOULD NOT ALTER THE E911 ORDER's CRITERIA TO APPLY TO FURTHER NG911 PARTICIPANTS AT THIS TIME.

The Commission asks in the NG911 NOI whether it should consider "expanding or modifying the four criteria from the *E911 Scope Order* to apply to additional NG911 participants" to such hotspot providers as "coffee shops, hotels, bus lines, and public parks."[13] TIA has noted in the past that extending E911 location accuracy rules to these entities would effectively put the Commission in the position of regulating these businesses, and will chill growth of VoIP services, running contrary to the *Vonage Order*.[14] TIA believes that the same rationale should apply to the Commission's proposal to place burdens on these entities connected to NG911 deployment at this time.

Instead of regulating such peripheral entities, the Commission should abstain from extending rules to these parties, and allow for further standard development to occur within the industry that can fully address the role these entities should play in the NG911 network. In support of this

[13] *Id.* at ¶ 53.

[14] Comments of TIA, PS Docket No. 07-114, CC Docket No. 94-102, WC Docket No. 05-196 (filed Aug. 20, 2007) *at* 8.

suggestion, TIA notes the CSRIC Working Group 4A (Best Practices for Reliable 9-1-1 and E9-1-1) conclusion that "the successful implementation of 9-1-1 and enhanced 9-1-1 for voice over IP (VoIP) services depends on the availability of, and adherence to, industry standards and best practices."[15] Further, expanding the scope of the *E911 Scope Order* will restrain accessibility to such businesses for all Americans as these new requirements will discourage investments in deployment of hotspots by business owners wary of incurring obligations to the Commission.

[15] CSRIC, Working Group 4A, Best Practices for Reliable 9-1-1 and E9-1-1, Final Report at 3.

III. THE COMMISSION SHOULD ENSURE THAT IT FULLY COORDINATES ANY ACTIVITY REGARDING EMERGENCY COMMUNICATIONS TO DISABLED INDIVIDUALS WITH THE COMMISSION'S EMERGENCY ACCESS ADVISORY COMMITTEE.

In the NG911 NOI, the Commission discusses possible activity in the realm of disabled accessibility. The Commission seeks details on the technology preferences of disabled individuals for emergency communications, and inquires as to whether considerations are necessary to ensure effective access to NG911 services for callers who continue to rely on IP-based relay services for their 911 calls.[16] The Commission also proposes undertaking a rulemaking, independent of the EAAC, to ensure that individuals with disabilities have access to an IP-enabled emergency network.[17] TIA recommends that any activity in these areas be fully coordinated with the EAAC, which is currently formulating a survey on this topic for the Commission by mandate under the 21st Century Communications and Video Accessibility Act of 2010.[18]

The EAAC is an appointed committee of highly qualified individuals with expert knowledge related to enhancing disabled populations' access to emergency communications, and TIA does not believe that the EAAC's important work should be made redundant. The EAAC's survey to disabled individuals is required by statute to collect information "to determine the most effective and efficient technologies and methods by which to enable access to emergency services by individuals,"[19] and addresses precisely the issue that the Commission proposes taking independent action on in the NG911 NOI. Therefore, based on the relevant statutory language,

[16] NG911 NOI at ¶ 45.

[17] *Id.* at ¶ 47.

[18] Pub. L. No. 111-260 § 106.

[19] *Id.* § 106(c).

as well as TIA's own representation as a co-chair in the EAAC, TIA believes that the Commission not duplicate the work of the EAAC, and should ensure full coordination with the EAAC if it chooses to examine disabled access to emergency communications.

CONCLUSION

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

Respectfully submitted,

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