

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

In the Matter of	)	
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In the Matter of Wireless E911 Location Accuracy Requirements	)	PS Docket No. 07-114
	)	
E911 Requirements for IP-Enabled Service Providers	)	WC Docket No. 05-196
	)	
	)	

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.<sup>1</sup> TIA appreciates the opportunity to discuss how the Commission can further effectively support and develop the location accuracy capabilities of 911 and E911 services for voice communications during emergencies.

TIA represents the global information and communications technology (ICT) industry through standards development, advocacy, tradeshow, 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,

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<sup>1</sup>*In the Matter of Wireless E911 Location Accuracy Requirements; E911 Requirements for IP-Enabled Service Providers*, Further Notice of Proposed Rulemaking and Notice of Inquiry, PS Docket No. 07-114, WC Docket No. 05-196 (rel. Sept. 23, 2010) (E911 Location Accuracy FNPRM and NOI).

satellite, and unified communications. TIA is accredited by the American National Standards Institute (ANSI).

## **SUMMARY**

TIA, a resolute supporter of the Commission's efforts to improve emergency communications comprehensively, urges the Commission to recognize that a flexible and non-intrusive regulatory system in the development of and investment in innovative E911 technologies is essential. Promulgating new location accuracy requirements at this time will chill the development of location accuracy industry standards and best practices just as these processes are gaining momentum. Furthermore, adopting a single location accuracy standard for both network and device location technologies would disregard that increased technological diversity and choice, driven by market decisions, are the most effective means to spur further innovation. Because of the possible ramifications of such regulation, TIA urges the Commission to focus on allowing the formulation and implementation of standards and best practices by network providers, vendors, and all stakeholders. If the Commission nonetheless adopts further location accuracy rules, TIA urges it to take into consideration the unique challenges presented by the tremendously differing physical settings that networks serve in the United States and ensure that any new rules include technology neutral and results-based principles.

Due to the time and flexibility needed for the industry to develop new location accuracy methods for devices, services, and applications that do not have phone numbers or provide Accuracy Location Information (ALI) connectivity, such devices should not be burdened at this time with location accuracy requirements. Instead of applying new rules to such devices, which will create disincentives to invest and develop standards and best practices, the Commission should

encourage the development of innovative location accuracy technologies and capabilities from market-based competition.

In addition, applying new location accuracy rules to nomadic interconnected or non-interconnected VoIP will hinder the effectiveness of industry-driven development of standards and best practices – an effect noted by the FCC’s Communications Security, Reliability and Interoperability Council (CSRIC) as vital to the development of VoIP services – and will, by decreasing investment incentives, discourage the accessibility of disabled and underserved populations.

Finally, TIA urges the Commission to form an advisory committee to comprehensively study the effect of the extension of 911 and E911 location accuracy rules. Such a committee can make certain that input from all stakeholders is considered and will facilitate much-needed discussion on how to speed development of new location accuracy technologies.

## DISCUSSION

### **I. THE COMMISSION SHOULD EXERCISE CAUTION IN IMPLEMENTING NEW LOCATION ACCURACY REQUIREMENTS AT THIS TIME.**

In its E911 Location Accuracy FNPRM and NOI, the Commission seeks comment on methods to improve location determination accuracy.<sup>2</sup> It also seeks guidance on ways to ensure that E911 services are accessible to persons with disabilities<sup>3</sup> and on whether to adopt a single location accuracy standard instead of the distinct network and handset requirements.<sup>4</sup> Moreover, the Commission seeks comment on how best to encourage development of technologies facilitating location accuracy in “challenging environments”.<sup>5</sup>

TIA has long supported the Commission’s continuing focus on improving location accuracy for emergency communications,<sup>6</sup> and will continue to work with the Commission and all stakeholders to ensure that wireless and VoIP E911 services meet the needs of the American people during emergencies. Even now, industry is working to improve location accuracy technologies and applications to more quickly and accurately locate persons in crisis and to facilitate emergency requests by and responses to those with disabilities and those who reside in sparsely populated or tribal areas.

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<sup>2</sup>See E911 Location Accuracy FNPRM and NOI at ¶ 15.

<sup>3</sup>See *id.*

<sup>4</sup>See *id.* at ¶ 17.

<sup>5</sup>*Id.* at ¶ 22.

<sup>6</sup>TIA has noted its support of the Commission’s efforts to improve 911 and E911 services as far back as 2007. See Comments of the Telecommunications Industry Association, CC Docket No. 94-102, PS Docket No. 07-114, WC Docket No. 05-196 at 2 (filed Aug. 20, 2007)

However, in the wake of the Commission's recent E911 accuracy rulemaking, the most effective and efficient improvements to location accuracy technology will be developed through a light-touch, technology-neutral regulatory environment that empowers industry to do what it does best: develop innovative market solutions. TIA encourages the Commission to recognize that, given the unique geographic, radio frequency, and technology feasibility characteristics of networks today, a one-size-fits-all regime is not in the best interests of the American people.

**a. Adoption of Additional 911 and E911 Location Accuracy Requirements to Covered Technologies At This Time Will Stifle Innovation.**

The Commission has recently issued E911 rules with which industry must comply. Placing additional compliance burdens on industry at this time, through further location accuracy regulations, will divert focus from developing new life-saving, advanced location accuracy techniques and instead place focus on regulatory compliance. To date, the development of 911 and E911 location accuracy technologies and applications has been fostered by a voluntary and consensus-based standards process. In consideration of the success of this process thus far, the Commission should refrain from imposing regulations that could slow additional development.

In particular, TIA strongly encourages the Commission not to impose a single uniform standard for location accuracy rules. Mandating a single standard for both network and device location accuracy will drive technological innovation and investment towards meeting such a standard, rather than developing location accuracy enhancements that go beyond any new requirements.

If the Commission were to establish a single location accuracy standard, given the unique challenges that particular networks' technologies face in the diverse geographic regions they serve, any such standard must reflect the particular challenges different technologies face in

indoor, outdoor, urban, and rural areas. For example, in the Commission’s adjoining Second Report & Order in this matter, it made allowances for areas where terrain features may hinder location accuracy.<sup>7</sup> Industry has gained the experience and knowledge to effectively work towards solutions for the problems experienced in network location accuracy due to geographic characteristics such as mountains, forestation, or building characteristics that may disrupt signals. New uniform compliance and testing requirements will not reflect unique characteristics, including that the “proportion of mobile phone calls to 911 placed from indoors varies from PSAP to PSAP, from town to town, from county to county, and from state to state.”<sup>8</sup> If the Commission considers the different location accuracy challenges faced by networks in an urban area versus a rural, heavily forested, or mountainous area, a uniform rule will result, at best, in a drastically increased number of waiver proceedings and at worst, in unnecessary enforcement proceedings. Either outcome wastes the resources of all stakeholders and creates a disincentive to develop NG911 technologies.

If the Commission nonetheless adopts new rules, TIA encourages it to recognize the challenges posed by different geographic locations and also to set a reasonable and flexible timeline for carriers to improve location accuracy in all environments. As discussed above, the first is a real-world necessity; the second will provide regulatory certainty for carriers as they work to improve location accuracy, especially in challenging environments.

Further, the Commission should continue to ensure that E911 location accuracy requirements are technology-neutral and carefully avoid the endorsement of one technology over another; setting

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<sup>7</sup>In the Matter of Wireless E911 Location Accuracy Requirements, Second Report and Order, PS Docket No. 07-114 at ¶ 56 (rel. Sept. 23, 2010).

<sup>8</sup>Comments of Qualcomm, Inc., PS Docket No. 07-114, CC Docket No. 94-102, WC Docket No. 05-196 at 5.

objective and performance-based requirements will ensure that the FCC's technology neutrality policy is maintained and that the most effective technologies are selected in the market.

Finally, TIA notes that industry standard development organizations are making progress on location accuracy. Setting new regulations at this time could derail this progress and deter further consensus-driven innovation. Heightened requirements will demand increased investment with less certain return, and standard development currently underway may be abandoned as obsolete before it can be implemented. As the business case becomes less enticing for investors, the level of innovation and improved service will decrease.

Accordingly, the FCC should continue to monitor developments in 911 and E911 location accuracy, and should refrain from requiring additional rules at this time. By allowing the industry to continue to pioneer improved services and applications unhindered by further regulations, the Commission can allow for the market-based advancements that have rapidly advanced location accuracy.

## **II. NO LOCATION ACCURACY MANDATES SHOULD BE IMPOSED UPON DEVICES THAT DO NOT USE PHONE NUMBERS OR PROVIDE ALL CONNECTIVITY FOR SUCH PRODUCTS.**

In the NPRM/NOI, the Commission asks what wireless devices, services, and applications that provide the equivalent of mobile telephony or interconnected VoIP should be subject to E911 location accuracy regulations.<sup>9</sup> While TIA believes that the capability for such telephony services to provide effective location accuracy is nearing, more time is needed for the industry to develop market-based, voluntary standards. Thus, location accuracy rules should not be applied

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<sup>9</sup>See E911 Location Accuracy FNPRM and NOI at ¶ 15.

to any device, service, or application that does not use phone numbers or provide ALI connectivity.

TIA instead encourages the Commission to facilitate the development of standards for PSAPs that allow IP-enabled devices, services, and applications to connect to 911 on a voluntary basis.

The Commission should abstain from promulgating location accuracy rules on these nascent technologies to allow additional time to develop, evaluate, and test such standards.

Implementing regulations at this point in time will inhibit the development of further standards and best practices and could result in unworkable rules.

### **III. THE COMMISSION SHOULD NOT SUBJECT NOMADIC INTERCONNECTED OR NON-INTERCONNECTED VOIP PROVIDERS AND DEVICES TO CMRS LOCATION ACCURACY STANDARDS.**

As the Commission is aware, the VoIP market is highly competitive, with VoIP spending projected to increase 52 percent by 2014 over 2009.<sup>10</sup> This market heavily relies on the regulatory flexibility under which it currently operates to continue to develop. TIA notes that location accuracy innovation in the VoIP space is due in large part to the voluntary and consensus-based efforts of standard development and best practices. Furthermore, the FCC's CSRIC Working Group 4A (Best Practices for Reliable 9-1-1 and E9-1-1) acknowledges 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."<sup>11</sup> TIA offers its full support for the efforts of CSRIC Working Group 4A to compile standards and best practices for 911 and E911 VoIP services, and encourages CSRIC Working Group 4B

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<sup>10</sup> See Channel Partners, "SOHOs, Enterprises to Boost VoIP Spending Through 2014" (December 2010), available at <http://www.channelpartneronline.com/news/2010/12/sohos-enterprises-to-boost-voip-spending-through.aspx>.

<sup>11</sup> CSRIC, Working Group 4A, Best Practices for Reliable 9-1-1 and E9-1-1, Final Report at 3 (CSRIC 4A Final Report).

(Transition to NG9-1-1) to implement the recommendations in its report to develop and encourage the use of best practices in lacking areas, particularly those noted as deficient of any best practices at this time (including defining geographic coverage for PSAPs, PSAP certification and testing, location information inputting and updating validation procedures, and the format for delivering address information to PSAPs).<sup>12</sup> As with industry standard development-based innovation, the most effective way for the Commission to facilitate improvements in location accuracy is to support the implementation of such standards and best practices. Further, the implementation of new 911 and E911 rules to the dynamic and developing nomadic interconnected VoIP and non-interconnected VoIP segments will, contrary to the supposition in the NOI,<sup>13</sup> inhibit accessibility to interconnected VoIP services for disabled individuals as these new requirements will stall further investment through mandates despite ongoing development of standards and best practices. Thus, if the Commission imposes further location accuracy requirements on it, the innovative nature of the VoIP market will be adversely affected to a significant degree.

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<sup>12</sup>CSRIC 4A Final Report at 8, 12, 14, 17, 19-20, 22.

<sup>13</sup>See E911 Location Accuracy FNPRM and NOI at ¶ 31.

**IV. THE COMMISSION SHOULD FORM AN ADVISORY COMMITTEE TO STUDY THE TECHNICAL, OPERATIONAL AND ECONOMIC ISSUES RELATED TO THE EXTENSION OF 911 AND E911 LOCATION ACCURACY REQUIREMENTS.**

Given the complexities in and harms to innovation and investment resulting from expanding location accuracy requirements at this time, TIA recommends that the Commission establish an E911 Technical Advisory Group (ETAG) as proposed previously by TIA, CTIA, The 911 Industry Alliance, and a host of other interested parties.<sup>14</sup> An ETAG, comprised of experts from the wireless network manufacturer, device manufacturer, service provider, and public safety sectors, will help to ensure that cross-industry and public safety concerns and expertise are considered and will encourage continued dialogue on how best to empower carriers, vendors, and other stakeholders to provide further advanced E911 technologies.

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<sup>14</sup>See, e.g., Comments of TIA at 9; Comments of CTIA at 9; Comments of The 911 Industry Alliance at 2; Comments of AT&T at 4, 13; Comments of Nokia Inc. and Nokia Siemens Networks at 6; Comments of Motorola, at 4-6; Comments of Sprint Nextel Corporation at 3; Reply Comments of The Emergency Services Interconnection Forum, at 4-5; ATIS at 10; Reply Comments of The Center for Democracy and Technology/EFF at 2; and Ericsson Inc. at 2-5.

