

**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

**COMMENTS OF THE ALLIANCE FOR  
TELECOMMUNICATIONS INDUSTRY SOLUTIONS**

The Alliance for Telecommunications Industry Solutions (ATIS) submits these comments on behalf of its Emergency Services Interconnection Forum (ESIF) and Wireless Technologies and Systems Committee (WTSC) in response to the *Third Further Notice of Proposed Rulemaking (Third FNPRM)* released August 13, 2014, in the above-referenced dockets. In the *Third FNPRM*, the Federal Communications Commission (Commission) seeks comment on technical issues related to the provision of enhanced location information and roaming for Short Message Service to 9-1-1 (SMS-to-911) and on future texting service capabilities. ATIS' comments provide additional information on industry work on enhanced location information, roaming, and Wi-Fi enabled device location information. ATIS strongly believes that the Commission should promote the continued development and deployment of long-term solutions that will offer more advanced methods by which text messages can be sent to public safety, rather than diverting industry resources towards the development of short-lived, interim solutions.

## **I. Introduction**

ATIS is a global standards development and technical planning organization that leads, develops and promotes worldwide technical and operations standards for information, entertainment, and communications technologies. ATIS' diverse membership includes key stakeholders from the Information and Communications Technologies (ICT) industry – wireless and wireline service providers, equipment manufacturers, broadband providers, software developers, consumer electronics companies, public safety agencies, digital rights management companies, and internet service providers. Nearly 600 industry subject matter experts work collaboratively in ATIS' open industry committees.

ATIS has a number of initiatives directed at facilitating access to emergency communications services and systems. ATIS' Emergency Services Interconnection Forum (ESIF), for example, develops standards for the interconnection of emergency services networks through a collaborative process involving service providers and equipment manufacturers, as well as governmental, standards, and public safety organizations. ESIF's Next Generation Emergency Services (NGES) Subcommittee develops standards that focus on Next Generation emergency services architectures, functions, and interfaces for communications networks. In addition, ATIS' Wireless Technologies and Systems Committee (WTSC) works on key emergency service-related initiatives, including SMS-to-911, push-to-talk (PTT), and interference issues. Work on access to emergency communications services and systems is also progressed through ATIS' role as the North American Organizational Partner in the Third Generation Partnership Project (3GPP), which develops 4G wireless specifications, Multimedia Emergency Services (MMES).

ATIS leads a joint collaborative effort with the Telecommunications Industry Association (TIA) to develop standards related to SMS-to-911 communications. This project – "JSMS911" – has published crucial industry standards and guidelines, including *Joint ATIS/TIA Native SMS to 9-1-1 Requirements and Architecture Specification* (J-STD-110) and *Joint ATIS/TIA Implementation Guideline for J-STD-110, Joint ATIS/TIA Native SMS to 9-1-1 Requirements and Architecture Specification* (J-STD-110.01).

## **II. Comments**

### **A. Enhanced Location Information**

In the *Third FNPRM*, Commission seeks comment on issues related to the potential provision of enhanced location with SMS-to-911 communications and proposes to use the term “enhanced location” to mean the best available location.<sup>1</sup> For the purposes of defining enhanced location, ATIS recommends that the Commission instead look to the June 2014 Final Report from Working Group 1 of the current Communications Security, Reliability and Interoperability Council (CSRIC IV). This working group, which investigated location improvements for interim SMS-to-911, concluded that “enhanced location” may refer to any kind of location information that is more accurate than a coarse location and that is useful in dispatching necessary emergency resources to the user requesting help.<sup>2</sup> The working group noted that “enhanced location” is typically “a dynamically measured position, as opposed to being a static, manually provisioned

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<sup>1</sup> *Third FNPRM* at ¶83.

<sup>2</sup> *Final Report – Investigation into Location Improvements for Interim SMS (Text) to 9-1-1* of CSRIC IV Working Group 1 (June 2014) at Section 4.2.2.1. J-STD-110 notes that “[c]oarse location in the context of mobile communications is typically the initial location estimate of the mobile device that is used only for the routing of emergency services communications (e.g., voice, text).” J-STD-110 at Section 3.1

or derived value, and is represented as a set of geographic (geodetic) coordinates such as a latitude/longitude pair.”<sup>3</sup>

The Commission also seeks input on the extent to which the development of enhanced location solutions for the interim SMS standard would divert resources from NG911 solutions.<sup>4</sup> As an initial matter, ATIS notes that J-STD-110 does address location based services (LBS), which may provide supplemental location information if the wireless network operator’s LBS capabilities are able to support enhanced location and if these capabilities are also supported by the subscriber’s subscription, the mobile device settings, and/or by the subscriber’s mobile device capabilities.<sup>5</sup> However, as ATIS has previously explained in this docket<sup>6</sup> and as noted by the current CSRIC<sup>7</sup>, the modification of the interim text-to-911 solution defined in J-STD-110 to further address location based services would require substantial development work and associated costs. While ATIS does not collect data on development and deployment costs associated with its standards, it believes that there would be significant costs associated with the development of interim enhanced location solutions. Moreover, because any interim solution based on SMS will not be incorporated in the long-term solutions under development, these costs would be separate from, and additional to, the costs associated with the development of the long-term solution. In addition, because efforts to develop an interim solution would be accomplished by the same subject matter experts that are working on long-term solutions, this work would further divert essential resources away from the development and deployment of those long-term solutions.

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<sup>3</sup> *Final Report – Investigation into Location Improvements for Interim SMS (Text) to 9-1-1 of CSRIC IV Working Group 1 (June 2014) at Section 4.2.2.1.*

<sup>4</sup> *Third FNPRM at ¶91.*

<sup>5</sup> J-STD-110 at Section 4.

<sup>6</sup> See ATIS Comments to the *Third FNPRM* in PS Docket No. 07-114 (filed July 14, 2014) at p. 5.

<sup>7</sup> *Final Report – Investigation into Location Improvements for Interim SMS (Text) to 9-1-1 of CSRIC IV Working Group 1 (June 2014) at Section 3.2.*

ATIS recommends that, instead of diverting these resources, the Commission should promote the development of long-term solutions, including the implementation of MMES and Global Text Telephony, which will offer more advanced methods by which text messages can be sent to public safety. As the Commission itself notes, technological developments and standards-setting efforts are underway and it is anticipated that within the near future, standards bodies will be adopting or releasing standards that address the provision of enhanced location information for 911 text messages.<sup>8</sup>

## **B. Confidence and Uncertainty**

The Commission also seeks input in the *Third FNPRM* on confidence and uncertainty data and on the CSRIC recommendation that, when enhanced location information is available, it should be delivered with uncertainty and confidence values.<sup>9</sup> ATIS recommends that the industry should agree on a confidence number (e.g., 90%) when enhanced location is made available. As noted in its reply comments to the Commission's *Third FNPRM* regarding wireless E911 location accuracy, ATIS believes that a uniform confidence level among service providers is desirable and recommends that this level should be normalized at 90 percent to provide for the consistent interpretation of location data by the PSAP staff without significantly affecting the integrity of the calculated uncertainty.<sup>10</sup>

## **C. Roaming Support**

The Commission seeks input regarding roaming support, including the technical feasibility of solutions that would allow for location information to be included with SMS-to-911

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<sup>8</sup> *Third FNPRM* at ¶95.

<sup>9</sup> *Third FNPRM* at ¶106.

<sup>10</sup> ATIS Comments to the *Third FNPRM* in PS Docket No. 07-114 (filed July 14, 2014) at pp. 5-6. *See also*: ATIS ESIF Issue 70 (Final Closure Date: November 29, 2010); and *High Level Requirements for Accuracy Testing Methodologies* (ATIS-0500001).

while roaming.<sup>11</sup> ATIS notes that J-STD-110 does not address roaming and recommends that industry efforts to address roaming location information remain focused on long-term solutions such as MMES. As noted above, diverting industry resources towards changes to legacy SMS-related systems and standards is not warranted. Instead, the industry should be encouraged to concentrate its resources on the continued deployment of new technologies, such as MMES, which enable new levels of access to emergency communications for consumers.

The Commission similarly seeks input regarding international roaming issues and, in particular, whether ATIS is addressing international roaming in the context of its standard work.<sup>12</sup> ATIS notes that, while J-STD-110 does not support international roaming, MMES is anticipated to be a global solution that will address roaming. ATIS is not working on an update to J-STD-110, and notes that any interim or medium-term solution will have only limited utility because MMES would not be backwards-compatible with the roaming solutions identified in the *Third FNPRM*. ATIS further notes that country-to-country text-to-911 roaming is a complex issue that may be impacted more directly by different countries' regulations and treaties than by technical standards.

#### **D. Location Information for Wi-Fi Enabled Devices**

Finally, in the *Third FNPRM*, the Commission seeks comment on future texting services, including location information for Wi-Fi enabled devices.<sup>13</sup> As ATIS noted in its reply comments to the *Second FNPRM*, devices that are only connected via Wi-Fi present particular technical challenges that may prevent appropriate SMS-to-911 functionality in some circumstances. ATIS believes that additional study is warranted regarding technical feasibility,

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<sup>11</sup> *Third FNPRM* at ¶¶109-112.

<sup>12</sup> *Third FNPRM* at ¶116.

<sup>13</sup> *Third FNPRM* at ¶125.

particularly with regard to devices connected via Wi-Fi connection.<sup>14</sup> In fact, this work has begun in ATIS, which has initiated an effort to identify technical methods by which an operator of a user access network can acquire and convey location information for over the top (OTT) citizen-to-authority emergency services.

### **III. Conclusion**

ATIS appreciates the opportunity to provide its input in response to the *Third FNPRM*. As demonstrated in these comments, the industry continues to work on new standards and technologies that will address enhanced location information and provide more advanced methods by which text messages can be sent to public safety. ATIS cautions against Commission action that would divert industry resources from the development of these new standards and technologies.

Respectfully submitted,



Thomas Goode  
General Counsel  
Alliance for Telecommunications Industry  
Solutions  
1200 G Street, NW  
Suite 500  
Washington, DC 20005  
(202) 628-6380

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<sup>14</sup> ATIS Reply Comments to *Second FNPRM* at p. 4.