

**Before the Federal Communications Commission**

---

*IN RE*  
IMPLEMENTATION OF THE  
MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012  
PROVISIONS CONCERNING  
MULTI-LINE TELEPHONE SYSTEMS

---

*ON PUBLIC NOTICE*

---

**COMMENTS OF THE  
NATIONAL EMERGENCY NUMBER ASSOCIATION**

---

TELFORD E. FORGETY, III  
*Attorney*  
*Director of Government Affairs*

*NATIONAL EMERGENCY  
NUMBER ASSOCIATION  
1700 Diagonal Rd., Ste. 500  
Alexandria, VA 22314  
(202) 618-4392*

---



# CONTENTS

- I. Relying on states to require MLTS E9-1-1 location capabilities has proven unsuccessful. .... 2**
- II. Location-capable MLTS are not only feasible, but are already available in the market. .... 3**
  - A. Nearly all legacy MLTS can support E9-1-1 location service if properly configured and subscribed. .... 4
  - B. IP-based on-premise and cloud-hosted MLTS have significantly reduced the cost of providing precise E9-1-1 location information. .... 6
  - C. The costs of implementing standards-based E9-1-1 location capabilities in MLTS will be reasonable for nearly all manufacturers and operators. .... 7
- III. Five years is a reasonable timeframe on which to implement an MLTS E9-1-1 location capability requirement. .... 8**
- IV. The benefits of extending E9-1-1 service requirements to MLTS manufacturers and operators are clear, if difficult to precisely quantify. .... 9**
- V. The Commission should revise its Part 68 rules to require MLTS support for E9-1-1 services. .... 11**
  - A. MLTS manufacturers and shared-system providers should have the flexibility to determine which method of E9-1-1 location identification is appropriate to each installation. .... 14
- VI. Further standards development is no longer required before MLTS manufacturers can implement cost-effective E9-1-1 location capabilities. .... 15**



# Before the Federal Communications Commission

CC 94-102 / WC 05-196 / PS 07-114 / PS 10-255

---

*IN RE*

IMPLEMENTATION OF THE  
MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012  
PROVISIONS CONCERNING  
MULTI-LINE TELEPHONE SYSTEMS

---

*ON PUBLIC NOTICE*

---

## COMMENTS OF THE NATIONAL EMERGENCY NUMBER ASSOCIATION

---

The National Emergency Number Association (“NENA”) respectfully submits the following comments in response to the *Public Notice* adopted by the Commission on May 21<sup>st</sup>, 2012, in these proceedings.

### COMMENTS

For many years NENA has urged the Commission, Congress, state legislatures, and state regulators to improve the safety of the nation’s college students, office workers, and military personnel by requiring the manufacturers of Multi-Line Telephone Systems (MLTS) to include E9-1-1 location capabilities in their products and services.<sup>1</sup> We

---

<sup>1</sup> See, e.g., *In re Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 9-1-1 Emergency Calling Systems* (hereinafter “MLTS 1”), CC Docket No. 94-102, IB Docket No. 99-67, Reply Comments of NENA and NASNA at 3-4.

have not been alone: Many manufacturers of MLTS equipment or providers of MLTS service have supported our calls for such a requirement.<sup>2</sup>

In the Next Generation 9-1-1 Advancement Act of 2012,<sup>3</sup> Congress directed the Commission to answer an important question related to whether the Commission should impose an MLTS E9-1-1 mandate: Is it feasible for MLTS to adequately locate users who call 9-1-1?<sup>4</sup> NENA believes that the answer to that question is a resounding “yes.”

### **I. Relying on states to require MLTS E9-1-1 location capabilities has proven unsuccessful.**

When last the Commission considered whether to impose an MLTS E9-1-1 location requirement, it declined, choosing instead to call on state legislatures to implement MLTS requirements consistent with NENA’s recommendations.<sup>5</sup> At the time, the Commission expected that states would heed its call in the short term, and noted that it would revisit the necessity of an E9-1-1 mandate for MLTS after one year.<sup>6</sup> The Commission did not, however, revisit the question, and more than seven years later, less than half the states (18) have imposed such requirements.

Where states have imposed MLTS location requirements, their scope varies greatly: For example, only four states impose a categorical requirement that MLTS support E9-1-1 location capabilities.<sup>7</sup> Four others impose re-

---

<sup>2</sup> *E.g.*, MLTS 1, TIA Comments at 6.

<sup>3</sup> Pub. L. 112-96, 126 Stat. 237 (Feb. 22, 2012).

<sup>4</sup> *Id.* at 242.

<sup>5</sup> MLTS 1, Report and Order and Second Further Notice of Proposed Rulemaking, 18 FCC Rec’d 25,340, 25,342 (2003).

<sup>6</sup> *Id.*

<sup>7</sup> FLA. STAT. ANN. § 365.175 (West 2012); LA. REV. STAT. ANN. § 33:9110; MICH. COMP. LAWS ANN. § 484.1405 (West 2012); MINN. STAT. ANN. § 403.15 (West 2012).

quirements only on residential MLTS.<sup>8</sup> And, states that do impose requirements on business systems vary as to the number of Emergency Response Locations that must be established for a given facility or group of facilities.<sup>9</sup> One state delegates the establishment of MLTS requirements to municipalities,<sup>10</sup> and one state allows MLTS to evade *any* E9-1-1 requirements by merely disclosing system limitations to users.<sup>11</sup> In each of the 32 remaining states, office and factory workers, faculty and students at colleges and universities, and many military personnel have no legal guarantee that the buildings, factories, dormitories, and on-base buildings they regularly occupy will be reasonably searchable for emergency services personnel when they call 9-1-1. This state of affairs undoubtedly causes delays in response, costing the public in lives and property. It is, however, within the Commission's power to correct, and NENA strongly urges the Commission to do so.

## **II. Location-capable MLTS are not only feasible, but are already available in the market.**

Since the Commission last examined this issue, questions as to the desirability and scope of a potential MLTS location capability requirement have percolated through various state regulatory agencies and legislatures, though of-

---

<sup>8</sup> KY. REV. STAT. ANN. § 65.752 (West 2012); ME. REV. STAT. tit. 25, § 2934; TEX. HEALTH & SAFETY CODE ANN. § 771.060 (West 2012); WASH. REV. CODE ANN. § 80.36.555 (West 2012).

<sup>9</sup> *E.g.*, ILL. STAT. ch. 50 § 750/15.6 (one location per 40k ft<sup>2</sup> or per entity sharing a structure); Me. ADC 65-625 Ch. 11 (one location per floor or per 40k ft<sup>2</sup>); VT. STAT. ANN. tit. 30, § 7057 (West 2012) (general ALI requirement with station identification, only); WASH. REV. CODE ANN. § 80.36.555 (West 2012) (businesses over 25k ft<sup>2</sup>, more than one floor, or multiple buildings must provide ALI to 9-1-1 systems).

<sup>10</sup> ALASKA STAT. § 29.35.134 (West 2012).

<sup>11</sup> COLO. REV. STAT. ANN. § 29-11-100.5 (West 2012).

ten to little effect. In 2010, however, the California Public Utilities Commission (CPUC) conducted a public workshop focused on MLTS E9-1-1 capabilities, and the information developed by that workshop is instructive: Commenters from major wireline carriers and an MLTS manufacturer noted that Private Switch E9-1-1 (PS/E9-1-1) service is available to MLTS operators, and that many MLTS in use or offered for sale include the ability to provide precise E9-1-1 location information using standards-based methods.<sup>12</sup> In addition, the workshop developed data on the initial and recurring costs of implementing PS/E9-1-1 service.<sup>13</sup> The results of the California workshop are consistent with NENA’s experience: Responsible manufacturers and MLTS operators *want* to assure customers’ access to effective emergency response service through MLTS, and many manufacturers, operators, and carriers already support E9-1-1 service consistent with the requirements identified in NENA’s own “Model Legislation.”<sup>14</sup>

***A. Nearly all legacy MLTS can support E9-1-1 location service if properly configured and subscribed.***

Months before the Commission issued its previous Report and Order concerning MLTS, NENA’s Private-Switch subcommittee published a Technical Information Document concerning “Trunking for Private Switch 9-1-1 Service.”<sup>15</sup>

---

<sup>12</sup>Public Utilities Commission of the State of California, *MLTS E9-1-1 Workshop Report* 19-20, Rulemaking 10-04-011, (October 22, 2010).

<sup>13</sup>*Id.*

<sup>14</sup>NENA Data Technical Committee (Multi-Line Telephone Systems Model Legislation Working Group), *NENA Technical Requirements Document on Model Legislation E9-1-1 of Multi-Line Telephone Systems* at 15-19 (v.2 Feb. 5, 2011).

<sup>15</sup>NENA Technical Information Document 03-502, *Trunking for Private Switch 9-1-1 Service* (hereinafter Trunking Standard)

That document describes several methods by which legacy TDM- and CAMA-connected MLTS can support E9-1-1 location identification with sufficient precision to support effective emergency response: Even for these aging systems, proper configuration and normal coordination with serving local exchange carriers are the only requirements for successful implementations that can identify caller location to the level of individual stations or logical groups of stations.<sup>16</sup>

Later, NENA adopted a private switch E9-1-1 database standard that specifies how various MLTS types can provide E9-1-1 location service.<sup>17</sup> That standard references standardized data interchange formats that have, since their adoption, allowed for the automation of many MTLs E9-1-1 management processes.<sup>18</sup> For example, the availability of web portals and standardized interfaces maintained by LECs and other E9-1-1 system service providers, coupled with commercially-available management software, has significantly reduced the management burdens associated with handling moves, additions, and changes to stations within an MLTS environment.<sup>19</sup>

NENA's standards for MLTS E9-1-1 were not designed to assume that major changes would be necessary or even desirable in MLTS that were already on offer or installed as of the date the standards were issued. On the contrary, the standards expressly assume that existing MLTS architectures – key system, PBX, centrex, and hybrid –

---

(Apr. 11, 2003) *available at*:

[http://www.nena.org/general/custom.asp?page=TrunkingPS911\\_Svc](http://www.nena.org/general/custom.asp?page=TrunkingPS911_Svc).

<sup>16</sup>*Id.* at 5-8.

<sup>17</sup>NENA Data Technical Committee (Private Switch Subcommittee), *Private Switch (PS) E-9-9-1 Database Standard* (Aug. 2004) *available at*:

[http://www.nena.org/general/custom.asp?page=PS911\\_Database](http://www.nena.org/general/custom.asp?page=PS911_Database)

<sup>18</sup>*MLTS Workshop Report* at 19.

<sup>19</sup>*Id.*

would continue in existence, and specify mechanisms that allow those architectures to be adapted to the needs of E9-1-1 system operation and database management. Thus for the majority of systems, compliance with the standards should be possible based on minor reconfiguration within individual MLTS installations. In some cases, corresponding subscriptions to private switch E9-1-1 service through serving Local Exchange Carriers may be necessary. Those services, however, are commonly available through carrier tariffs at reasonable rates.

***B. IP-based on-premise and cloud-hosted MLTS have significantly reduced the cost of providing precise E9-1-1 location information.***

Alongside the meteoric rise of one-to-one VoIP services, the availability of low-cost IP station equipment and advanced IP MLTS systems has dramatically changed the business telecommunications market over the past decade. For example, a fully-featured IP MLTS can now be implemented using an off-the-shelf computer, free open-source software (FOSS) for both server and client, low-cost commodity bandwidth, and a SIP trunking service. Customers who prefer to forego on-premises hardware can also take advantage of IP MLTS that are fully hosted “in the cloud” using shared hardware and software. While many of these services use the PS/ALI solution described in NENA’s standards,<sup>20</sup> others use the VoIP Positioning Center methods authorized for use by operators of interconnected VoIP services.<sup>21</sup> Either way, the advent of IP telephony has clearly enabled MLTS manufacturers and operators to provide precise location information to PSAPs at reasonable cost.

---

<sup>20</sup>Trunking Standard at 5-8.

<sup>21</sup>NENA VoIP/Packet Technical Committee, *NENA Interim VoIP Architecture for Enhanced 9-1-1 Services (i2)* at 21-23 (v.2 Aug. 11, 2010) available at: [http://www.nena.org/?page=Interim\\_VoIP\\_i2](http://www.nena.org/?page=Interim_VoIP_i2).

NENA's own office in Alexandria, VA, along with several remote employees in Illinois and Ohio, uses a cloud-hosted MLTS solution that provides all of the features of a traditional on-premise MLTS using shared infrastructure located in Colorado and California. This service costs less than \$30 per month per station plus bandwidth costs of approximately \$200 per month. Configuring this system to provide precise E9-1-1 location service cost NENA a total of \$75 for four locations, plus monthly recurring charges of \$4. Prices like these are largely the result of two factors: economies of scale available through the deployment of high-capacity logically compartmentable IP MLTS, and robust competition in the market for advanced VoIP service. Because numerous media reports and comments in other proceedings identify both of these factors as long-term secular market trends, NENA anticipates that the cost of such services will continue to fall even as their capabilities continue to increase. In NENA's case, for instance, system capabilities now include user-configurable handling of emergency calls on a per-station basis from a user-friendly web interface. As such features grow more common, the capabilities of MLTS themselves will also drive down *operators'* administrative costs associated with E9-1-1 location and call-back provisioning.

***C. The costs of implementing standards-based E9-1-1 location capabilities in MLTS will be reasonable for nearly all manufacturers and operators.***

NENA believes that a majority of MLTS that are currently offered for sale already support E9-1-1 location capabilities to the station or Emergency Response Location level. For these systems, the likely costs of enabling precise location service will come in the form of time spent coordinating system changes with serving LECs, reconfiguring MLTS hardware and software to handle 9-1-1 calls correctly, and possibly upgrading software to automate the handling of moves, adds, and changes in station equipment. Services are available on a competitive basis, how-

ever, from equipment manufacturers, LECs, and software vendors to simplify or even automate these processes.<sup>22</sup> Consequently, NENA believes that the costs associated with completing them initially and on an ongoing basis will be reasonable for both MLTS manufacturers and operators.

However, we recognize that there will inevitably be some legacy or specialty systems that have not yet been upgraded or reengineered to support this functionality. Consequently, NENA supports the adoption of a clear regulatory regime that applies E9-1-1 requirements only on a forward-looking basis. This will allow existing systems that are incapable of providing sufficiently precise location information to continue in use through their planned lifecycles while providing manufacturers with an additional incentive to finish updating product lines and clearing remaining inventory in advance of the date on which a mandate becomes operative.

### **III. Five years is a reasonable timeframe on which to implement an MLTS E9-1-1 location capability requirement.**

Although NENA strongly believes that an MLTS E9-1-1 location mandate could be implemented over a shorter two- to three-year timeframe,<sup>23</sup> we also recognize that a substantial effort will be required to educate MLTS manufacturers, carriers, software providers, and MLTS operators about a new regulatory requirement. This effort will

---

<sup>22</sup>See, e.g., 911ETC Case Study, *Social Security Administration* at 1, available at:

[http://www.911etc.com/assets/files/case\\_studies/911ETC-SocialSecurityAdministration.pdf](http://www.911etc.com/assets/files/case_studies/911ETC-SocialSecurityAdministration.pdf); Redsky Technologies, Inc., E9-1-1 Manager Product Data Sheet, available at: <http://www.redskye911.com/sites/default/files/resources/2012-RedSky-E911-Manager-Datasheet.pdf>. These are representative examples from a broad market and do not imply NENA's endorsement of any company, product, service, or solution.

<sup>23</sup>Model Legislation at 21.

take time. In order to ensure that the business community and all relevant stakeholders have adequate time to complete the transition to E9-1-1 capable MLTS offerings, NENA recommends that the Commission set an initial compliance deadline five years from the date on which an Order is issued implementing E9-1-1 location requirements. Taking into account the time necessary for the Commission to evaluate comments in this proceeding, complete its report to Congress, and consider a Notice of Proposed Rulemaking describing in more detail how a mandate would operate, this timeframe should provide interested parties with at least five years to make necessary changes to products and services.

**IV. The benefits of extending E9-1-1 service requirements to MLTS manufacturers and operators are clear, if difficult to precisely quantify.**

By now the refrains of the public safety community concerning the benefits of location determination capabilities in emergency communications systems are well known.<sup>24</sup> Equally well known is the dearth of hard data available as to how many 9-1-1 calls are placed each year, the reasons for those calls, and the relative fractions of calls that require a particular type of response. While NENA is aware of various state or local projects aimed at improving the collection, aggregation, and analysis of 9-1-1 data, there still exists no comprehensive scheme for the collection of basic statistics about emergency calling in the United States.<sup>25</sup>

---

<sup>24</sup>See, e.g., *In re Amending the Definition of Interconnected VoIP Service in Section 9.3 of the Commission's Rules; Wireless E9-1-1 Location Accuracy Requirements; and E9-1-1 Requirements for IP-Enabled Service Providers*, GN Docket No. 11-117 / PS Docket No. 07-114 / WC Docket No. 05-196, *Comments of the National Emergency Number Association* at 7.

<sup>25</sup>NENA is aware, however, that the National E9-1-1 Implementation Coordination Office is examining processes for self-

The lack of certain inputs will no doubt complicate the Commission's consideration of the relative costs and benefits of imposing an MLTS E9-1-1 mandate. For example, NENA is unable to cite defensible statistics that establish the total number of 9-1-1 calls placed annually, the fraction of those calls placed from MLTS, or the fraction of *those* calls placed from MLTS which are either incapable of supplying E9-1-1 location and call-back capabilities or which are not configured to do so. Neither can we cite consistent statistics as to the relative fraction of calls requiring a particular type of response (police, fire, EMS, other). Nevertheless, NENA is confident that the current state of the MLTS market provides clues to the short- and long-term costs and benefits of an MLTS E9-1-1 mandate. For example, rapid declines in the cost of MLTS service, driven largely by the deployment of massively-shareable VoIP-based MLTS are making E9-1-1 service with precise location capabilities available to businesses of all sizes with only minimal capital investments (e.g., for handsets). Because these services are already on the market, costs that would otherwise be numerous and large (e.g., re-engineering costs for single-customer hardware PBX systems) will instead be small in number and smaller (if not vanishing) in size. On the benefit side of the equation, reducing the area field responders are required to search when they arrive at a location to which they have been dispatched based on E9-1-1 location data will reduce the time it takes for people in distress to receive life-saving services from police, fire, and emergency medical personnel. Reduced response times directly correlate with better outcomes, which translate into reduced monetary losses from lost productivity, medical costs, and property damage, as well as indirect savings through reduced insurance costs and hiring costs (owing to increases in the desirability of jurisdic-

---

reporting of 9-1-1 data by states. Additionally, some commercial efforts have been aimed at collecting data on an automated basis. NENA supports the expansion of all such efforts.

tions perceived to be safer). Compared with the value of a human life, even if measured in dollars, NENA believes that these low and still-declining costs are, in fact, a bargain when compared with the large benefits that can be realized by reducing the required search area to a size that is manageable for small field responder teams, such as a single floor or section of a building.

**V. The Commission should revise its Part 68 rules to require MLTS support for E9-1-1 services.**

The Commission’s Part 68 rules establish technical requirements for Terminal Equipment (TE) eligible for attachment to the Public Switched Telephone network. For traditional TDM- and CAMA-based MLTS the E9-1-1 location capability requirements NENA advocates fall squarely within the class of safety and accessibility requirements the Commission has previously applied to terminal equipment, generally, and to MLTS in particular. For example, the § 68.215(5) establishes limitations on electrical signals that may be carried on wires installed on customer premises for systems serving more than four subscribers.<sup>26</sup> This section improves the safety of MLTS users by protecting against exposure to dangerous current sources. Similarly, other sections of the rules establish requirements for compatibility of TE with hearing aids, ensuring that individuals with hearing impairments have parity of access to telecommunications services and, by extension, 9-1-1 service.<sup>27</sup> For members of the public who occupy or visit locations served by MLTS, appropriate MLTS E9-1-1 location capability requirements would perform similar – and similarly valuable – functions.

Notwithstanding the safety and parity-of-service benefits of adding E9-1-1 compatibility requirements to the Commission’s Part 68 rules, the Commission “previously determined that ‘revising Part 68...would be incon-

---

<sup>26</sup>47 C.F.R. § 68.215(5) (2012).

<sup>27</sup>*E.g.*, 47 C.F.R. §§ 68.4 & 68.316 (2012).

sistent with its conclusion that the states are in a better position to determine the manner in which E9-1-1 should be deployed in a particular locality.”<sup>28</sup> Even if the states were originally better suited to the task, it is a task they have largely chosen not to undertake. Apart from that observation, however, NENA respectfully disagrees with the Commission’s original conclusion.

As frequently expressed in comments by carriers and equipment manufacturers, the watchword of the business community is *certainty*. Regulatory certainty allows industry to undertake investments in new technologies, new products, and new services, confident that those investments will not come to naught on a whim. By deferring to states, however, the Commission has created a great deal of *uncertainty*: Manufacturers and operators of MLTS must now contend with at least 18 different statutory compliance regimes, and may also be subject to other requirements imposed indirectly through contract, tort, and products liability decisions that vary widely between the 50 states. By supplying a single set of nation-wide requirements for MLTS E9-1-1 location capabilities, the Commission could dramatically reduce that uncertainty, and provide manufacturers and operators with clear guidelines for the production, installation, and operation of MLTS in any part of the United States.<sup>29</sup>

NENA also notes that imposing E9-1-1 requirements on MLTS manufacturers would in no way compromise the flexibility of states and localities to determine how they will deploy, manage, or upgrade E9-1-1 systems for two reasons. First, E9-1-1 system architecture is largely standardized, and is, in any event, premised on the archi-

---

<sup>28</sup>*Public Notice* at n.14 (citing *E9-1-1 Scope Report and Order and Second FNPRM*, 18 FCC Rec’d at 25,366-67, ¶ 62).

<sup>29</sup>NENA Model Legislation at 21. NENA notes that the authoring working group which approved the current iteration of our Model Legislation included representatives from carriers, 9-1-1 system service providers, and MLTS manufacturers. *Id.* at 3-4.

tecture of the existing PSTN elements that serve a particular locality. Consequently, manufacturers and operators of MLTS will be able to engineer their systems based on well-established industry standards and knowledge of common PSTN components and structures. Because these constraints already exist even in the absence of an E9-1-1 requirement, imposing such a requirement on manufacturers would not subject localities to any new E9-1-1 system design requirements.<sup>30</sup> Second, the Commission need not answer questions unrelated to the manufacture or operation of terminal equipment. For example, consistent with NENA's model legislation, the Commission could leave decisions such as how many Emergency Response Locations will be required for structures of a given size or configuration to state and local officials who are more familiar with the practical needs of the public and the types of structures that are likely to contain MLTS installations within their jurisdictions.<sup>31</sup> At the same time, the Commission can craft rules that only require MLTS to support E9-1-1 location provisioning, and MLTS operators to configure E9-1-1 service in concert with their serving carrier as a condition of attachment to the PSTN. NENA believes that such an approach adequately balances the need to ensure compatibility of MLTS with E9-1-1 systems and the need of localities to implement E9-1-1 systems in ways that best serve their citizens and residents.

NENA believes that the Commission can craft rules that establish much-needed certainty for the business community while improving public safety and safeguarding the ability of state and local 9-1-1 authorities to implement E9-1-1 systems effectively. We therefore urge the Commission to reject its previous conclusion with respect to the desirability of deferring to states on important matters such as requiring MLTS manufactured or sold after a

---

<sup>30</sup>See *Private Switch (PS) E-9-1-1 Database Standard* at 7.

<sup>31</sup>*Cf. id.* at 11 (suggesting that recommendations for Part 68 revision are ancillary to other legislative goals of the document).

date certain to comply with technical compatibility requirements for E9-1-1 location capabilities. We also urge the Commission to move quickly to incorporate such requirements into its Part 68 rules.

***A. MLTS manufacturers and shared-system providers should have the flexibility to determine which method of E9-1-1 location identification is appropriate to each installation.***

NENA recognizes the need to provide manufacturers and operators of MLTS with flexibility in implementing any new E9-1-1 location capability requirements. NENA believes that requirements for MLTS to provide sufficiently precise E9-1-1 location information can be crafted so as to maximize public safety and minimize costs while allowing manufacturers and operators to tailor individual deployments to the markets, locations, and customers their products, services, and installations serve. As discussed elsewhere in NENA's comments, and consistent with NENA's Model Legislation, we recommend that any action the Commission takes to establish location rules for MLTS expressly consider the need for flexibility in compliance.<sup>32</sup> In this regard, the views of consensus standards bodies such as NENA and ATIS, as well as those of the Administrative Council for Terminal Attachments will be important. NENA therefore recommends that the Commission engage closely with these and other organizations to ensure that final requirements are sufficiently robust to protect the safety of the public and sufficiently flexible to protect the interests of MLTS manufacturers and operators.

---

<sup>32</sup> *E.g., id.* at 18.

## **VI. Further standards development is no longer required before MLTS manufacturers can implement cost-effective E9-1-1 location capabilities.**

As indicated above, standards development efforts aimed at improving the ability of MLTS to provide precise E9-1-1 location information were already well underway before the Commission last considered whether it might be desirable to impose a location capability requirement on MLTS. Since that time, final standards have been adopted that allow both legacy TDM-based MLTS and modern VoIP-based MLTS to convey location information for calling stations to E9-1-1 PSAPs.<sup>33</sup> Because these standards were developed under a consensus process involving representatives from the public safety, carrier, system service provider, and equipment manufacturer communities, they are well known, widely accepted, and consistent on a nation-wide basis. Additionally, NENA's efforts to develop standards for Next Generation 9-1-1 have included work intended to ease the discovery, transmission, and use of location information.<sup>34</sup> Much of that work, coupled with other efforts by the IETF and ATIS, to name only a few, should make it even easier for MLTS to convey precise location information to PSAPs in the future. For the present, however, NENA believes that

---

<sup>33</sup>*E.g., Private Switch (PS) E-9-1-1 Database Standard; Trunking for Private Switch 9-1-1, supra* n.15; NENA VoIP/Packet Technical Committee, *NENA Interim VoIP Architecture for Enhanced 9-1-1 Services (i2)* at 21 (v.2 Aug. 11, 2010) available at: [http://www.nena.org/?page=Interim\\_VoIP\\_i2](http://www.nena.org/?page=Interim_VoIP_i2). The "i2 Solution" – or some variation thereon – is the method by which all interconnected VoIP providers communicate location information to PSAPs.

<sup>34</sup>*E.g., NENA VoIP/Packet Technical Committee (Long Term Definition Working Group), Detailed Functional and Interface Specification for the NENA i3 Solution – Stage 3* at 60 & 74-95 (v.1 June 24, 2011).

existing standards are sufficient to allow existing MLTS products and services (and those offered for sale after a date certain) to interoperate effectively with existing E9-1-1 systems.

### CONCLUSION

The Commission should report to Congress that it is feasible for MLTS manufacturers to include E9-1-1 location capabilities within their products and service offerings, and should begin a rulemaking to require such inclusion.

TELFORD E. FORGETY, III  
*Attorney*

JULY 2012