

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of )  
 )  
Facilitating the Deployment of Text-to-911 and ) PS Docket No. 11-153  
Other Next Generation 911 Applications )  
 )  
Framework for Next Generation 911 Deployment ) PS Docket No. 10-255

**COMMENTS OF APCO INTERNATIONAL**

The Association of Public-Safety Communications Officials-International, Inc. (“APCO”) hereby submits the following comments in response to the Commission’s *Further Notice of Proposed Rulemaking*, FCC 12-149 (released December 23, 2012) (“*FNPRM*”), in the above-captioned proceedings. APCO previously filed comments and reply comments in response to Section III.A. of the *FNPRM*.

Founded in 1935, APCO is the nation’s oldest and largest public safety communications organization. Most APCO members are state or local government employees who manage and operate communications systems -- including Public Safety Answering Points (PSAPs), dispatch centers, radio networks, and information technology -- for law enforcement, fire, emergency medical, forestry conservation, highway maintenance, disaster relief, and other public safety agencies. APCO has long been involved in Commission proceedings regarding 9-1-1 capability and other aspects of public safety communications, and is a party to the “Carrier-NENA-APCO Agreement” referenced in the *FNPRM*.

APCO strongly supports the Commission’s proposal to establish a mandatory framework and implementation timetable for the delivery of text-to-9-1-1 to PSAPs. Text-to-9-1-1

capability will substantially improve the ability of individuals to seek emergency assistance when a voice call is not feasible. In particular, text-to-9-1-1 capability will be invaluable for individuals with speech or hearing disabilities, in rare situations where a voice call to 9-1-1 might be dangerous (*e.g.*, a hostage situation), or when voice calls are being blocked due to unusual network congestion. As APCO previously explained, text-to-9-1-1 (especially when utilizing current SMS technology) lacks some important elements of voice calls to 9-1-1 and may be more difficult than voice calls for PSAP personnel to process.<sup>1</sup> Therefore, public use of text-to-9-1-1 should not be encouraged, except when a voice call to 9-1-1 is not feasible.

APCO is pleased with the success of the text-to-9-1-1 trials that have occurred so far, and believes that improved technology and best practices will facilitate successful implementation of text-to-9-1-1 by PSAPs across the nation, even during the early stages when SMS remains the primary vehicle for texting. Thus, APCO was pleased to join in the Carrier-NENA-APCO Agreement and supports the proposals in the *FNPRM*.<sup>2</sup> We also believe that the Commission has ample authority under the Communications Act of 1934, as amended, and the Twenty-first Century Communications and Video Accessibility Act of 2010, to implement the proposed rules. The following are APCO's comments in response to specific issues raised by the Commission.

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<sup>1</sup> The Commission suggests in the *FNPRM*, at ¶48, that text-to-9-1-1 "may permit 'text-takers' to open multiple texts and prioritize the most life-threatening situations first, rather than waiting to address calls based simply on the order in which they arrived." However, it is questionable whether understaffed PSAPs will in fact be able to manage texts in that manner. Further research on this issue is needed.

<sup>2</sup> Importantly, as the Commission acknowledges, each PSAP will retain the discretion as to whether or not they should accept text-to-9-1-1 messages.

### *Cost-Benefit Analysis*

The FCC addresses overall text-to-9-1-1 costs (primarily for text service providers) by presenting a “cost-benefit” economic analysis that supports the proposed rules.<sup>3</sup> While cost-benefit analysis of a public safety-related “benefit” may be an interesting exercise that satisfies economists’ desire to quantify everything, it can obscure inherently qualitative social benefits, such as ensuring that every citizen has the ability to reach 9-1-1. Therefore, even though the cost-benefit analysis in the *FNPRM* supports APCO’s favored result, we urge the Commission to resist the temptation to rely on that analysis in its final decision, at it could establish a dangerous precedent for future matters involving public safety.

### *Over-the-top Applications*

One of the more difficult issues raised in the *FNPRM* is whether and how to address so-called “over-the-top” software applications that provide text capability. APCO urges that the Commission find a path to include such applications within its text-to-9-1-1 rules as soon as possible, though not at the risk of delaying application of the rules to SMS. As APCO noted in its comments responding to Section III.A. of the *FNPRM*, the Commission should require all text service providers to provide a bounceback message if a text to 9-1-1 cannot be delivered to a PSAP. The specific platform for transmitting a text to 9-1-1 will increasingly become transparent to the sender. An individual texting “9-1-1” needs help and will have an expectation that their text will be delivered to a PSAP, regardless whether the text is sent via SMS or an over-the-top application. However, if the Commission determines that over-the-top applications are unable to satisfy the timeframes in the Carrier-NENA-APCO Agreement, there should nonetheless be firm dates established to ensure meaningful progress and ultimate compliance. APCO also agrees that the Commission’s proposed distinction between (1) interconnected text

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<sup>3</sup> *FNPRM* at ¶¶67-72.

applications that deliver texts to a telephone number, and (2) non-interconnected applications within a defined set of users,<sup>4</sup> is valid and may support different regulatory approaches.

### *Small and Rural Carriers*

APCO supports the Commission's proposal that all CMRS providers, including small and rural carriers, be subject to a uniform timetable for compliance with the text-to-9-1-1.<sup>5</sup> While *some* small and rural carriers may face unique circumstances making it difficult to comply, there is no reason to adopt arbitrary exceptions to the rule based merely on the size or location of a carrier. Of course, a carrier can always submit a request for waiver of the Commission's rules if it faces unique or unusual circumstance that warrant special consideration.

### *Short Code*

As the Commission notes, APCO strongly supports use of the three-digit short code of "9-1-1" for text-to-9-1-1. However, we also agree that for some non-SMS applications an alternative, such as a 9-1-1 icon, may be appropriate.

### *Call Routing and Location Accuracy*

The Commission's rules must provide for routing of texts to the correct PSAP. As explained in the *FNPRM*, routing based at least on cell sector location is currently feasible. We also believe that accurate location information for each 9-1-1 text should be provided to the PSAP. Ideally, that location information should be at least as accurate as the Phase II requirements for wireless voice calls to 9-1-1. The Commission should continue to push the industry to meet that level of accuracy for text-to-9-1-1 within the earliest possible timeframe.

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<sup>4</sup> *FNPRM* at ¶91.

<sup>5</sup> *FNPRM* at ¶101.

All of the reasons supporting the wireless location rules for voice calls also apply to texts. Parity should be the Commission's ultimate goal.

### *Roaming*

APCO stands by its prior comments, noted in the *FNPRM*, regarding the importance of ensuring that a text to 9-1-1 is delivered (or at least a bounceback message sent) regardless whether the subscriber is on their "home" network or roaming.<sup>6</sup> The need for emergency assistance is the same in either case.

### *PSAP Options for Receiving Text-to-9-1-1*

The Commission proposes several optional methods for PSAPs to receive text-to-9-1-1. For NG9-1-1 capable PSAPs, the FCC proposes that there be a standard protocol. In that regard, consideration should be given to both the NENA i3 protocol noted in the *FNPRM* and IP Multimedia Subsystem (IMS) based services, especially as IMS is being used for the national public safety broadband network and will integrate emergency services capabilities via ESINets.

For PSAPs that are not NG9-1-1 capable, the Commission proposes that PSAPs choose from one of several options. While each has its advantages, noted in the *FNPRM*, each also has potential problems that need to be addressed by vendors, service providers, and PSAPs.

The first option presented in the *FNPRM* is a "web browser" that would be installed in each participating PSAP. While many PSAPs do have Internet connectivity, that connectivity is not currently integrated with existing 9-1-1 systems, Computer Aided Dispatch, or other call-taking and dispatching systems. Therefore, a standalone terminal with segregated Internet access, to ensure security, and constant monitoring by limited PSAP staff will likely be required. In addition, the ability to record transactions and retain messages is typically a requirement of the

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<sup>6</sup> APCO acknowledges that the Carrier-NENA-APCO Agreement does not require roaming outside of subscriber's home network.

PSAP, and there are still questions as to how the browser-based solution allows the local entity to retain such information. Additionally, there are a number of security concerns involving Internet connectivity into a PSAP that must be addressed. Firewall and malware protection will be required at the local level, but that also comes with a cost to the PSAP.

The text-to-voice gateway center option noted in the *FNPRM* also has certain risks that need to be addressed. There have already been real world incidents in which relay centers have been contacted via Instant Messaging, and emergency calls has been placed to PSAPs by the relay center. In one case, the text message was sent by a party out of state, and emergency resources were requested for a potentially volatile situation. Resources were dispatched based on the information relayed by the center, which was limited to the address provided by the messaging party, and the nature of the emergency. A law enforcement team made a tactical entry into a residence having been advised there were minors being held at gunpoint. Upon entry, the team discovered a family of four who was terrified and completely unaware of the message that had been sent. Therefore, the gateway solution, along with any IP based messaging system, requires additional security, and a better location identification system to ensure these types of incidents do not become pervasive. The PSAPs involved were not even aware of the fact that an existing relay center could take, and relay, instant messaging traffic.

Another option noted in the *FNPRM* is for text messages to be converted into TTY calls that a PSAP could receive over existing TTY facilities. This too has limitations that need to be considered and addressed. A TTY-based solution does not provide a method to verify delivery of a text message to the PSAP, and will not provide for accurate bounce back messages. In addition, most PSAPs have only limited TTY interface capability, and once SMS via TTY becomes available, there will be modifications required to handle the increased traffic. However,

as TTY is a legacy technology that will eventually become unnecessary with NG9-1-1 deployment, it will be difficult for PSAPs to justify spending scarce resources on the necessary TTY upgrades.

Finally, the Commission suggests the option of established a state or regional approach whereby a NG9-1-1 capable PSAP is designated to receive text messages for large area. While this could lead to earlier implementation, there continues to be the danger of miscommunication of information between PSAPs, along with additional delay. Further technical and operational development is needed before a consolidated approach can be successful.

#### *PSAP Notification of Acceptance and Method*

As stated in the Carrier-NENA-APCO Agreement, a valid notification should require authorization by an appropriate local or State 911 service governing authority. This will be especially important if gateway solutions or “regional PSAPs” are used as it would allow for checks and balances to ensure delivery to the appropriate PSAP.

APCO agrees with suggestions that there be a database through which PSAPs can provide required notifications. Consideration should be given to utilizing existing databases for wireless and wireline calls. This would have the advantage of reducing cost for deployment and implementation of these services. However, there also needs to be a recognition that keeping such a database current would be a substantial undertaking and require significant ongoing funding.

APCO is concerned with the suggestion in the *FNPRM* that there be a “default preference” such as TTY. As noted above, that option imposes certain costs on PSAPs regarding TTY equipment modification to support interfaces and increased volume.

### *Cost Recovery and Funding*

While APCO agrees that the cost to PSAPs of implementing text-to-9-1-1 may not be substantial in every case, there would be real costs imposed on PSAPs that agree to accept texts. As the Commission recently explained to Congress, current 9-1-1 funding mechanisms are not keeping pace with changes in the delivery of telecommunications services.<sup>7</sup> Text-to-9-1-1 is a small example of yet another expense for which there is no readily apparent source of funding for PSAPs. Thus, we believe that the Commission should continue to explore the use of the Universal Service Fund (USF) to support text-to-9-1-1 and other 9-1-1 capabilities.

### CONCLUSION

Therefore, APCO urges the Commission to proceed with its proposed text-to-9-1-1 rules consistent with the comments set forth above and in APCO's prior comments and reply comments concerning Section III.A. of the *FNPRM*.

Respectfully submitted,

/s/

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<sup>7</sup> "Legal and Regulatory Framework for Next Generation 911 Services," *Report to Congress and Recommendations* Federal Communications Commission (February 22, 2013).