

emergency situations often begin with a 9-1-1 call – and thus Public Safety Answering Points (PSAPs) play a special role in early detection and public alerting of threats. By their nature, PSAP staff and management know their communities and local responder agencies very well, as they communicate every day with 9-1-1 callers and first responders. Thus, by having WEA at their disposal, including with additional features, PSAPs can play an essential role in tailoring emergency alerts and warnings.

Due to the laudable work of the Commission, FEMA, the wireless industry, and many others, WEA is a success and saves lives.² And mirroring the remarkable advancements in wireless technology even in the few years since launching in April 2012, WEA holds great potential to serve an increasingly beneficial role as a Next Generation alerting platform.

A number of other forms of wireless-based alerting and information sources exist, such as social media, texting services, and mobile apps. Many of these tools are useful, and promoted by state and local government agencies. But WEA needs to continue to be set apart, and recognized by the general public, as the only official, IPAWS-based channel for reliable and secure dissemination of wireless alerts to mobile devices requiring immediate attention and action, ranging from the need to take shelter from a localized tornado, to a national-level threat.

An enhanced WEA has additional value, in that it can help reduce duplicative 9-1-1 calls, particularly during large-scale incidents. An effective public alert in such circumstances, with information about the scope and status of response, would result in a better-informed public, who could then use the 9-1-1 system to convey more relevant information back to PSAPs. Indeed, an improved WEA would help PSAPs receive more timely information and focus on emergency operations.

² APCO was represented on the Commission’s Commercial Mobile Service Alert Advisory Committee.

There are numerous communications platforms available to and in use by the public. Smartphones have become highly personalized devices used for social media, messaging, email, etc.³ Thus, WEA must be continually designed and deployed in a manner such that when the general public receives a WEA message, they know it is serious and requires their immediate attention. This will also help encourage consumers to opt into the service, as will a number of the Commission's proposals designed to enhance the effectiveness of WEA. Further, WEA can serve as a platform for alerts and messages of a less severe, but still important, purpose, so that state and local government authorities can take advantage of the platform if they choose.

I. Messaging

A. An Extended Character Length Would Benefit Public Safety

The Commission proposes to expand the maximum permissible length of WEA messages from 90 to 360 characters of alphanumeric text. In particular, the Commission would “extend the character limit for those networks and devices for which it is technically feasible to deliver and process 360-character messages . . . while continuing to allow the delivery of 90-character messages on 2G and 3G networks and devices.”⁴ APCO supports this proposal. Expanding the character limit to 360 is feasible, easily implemented, and would permit inclusion of additional important information. An upper limit of 360 characters is appropriate for disseminating official, targeted, immediate, and actionable information. Further, 360-character functionality would provide public safety alert originators with improved flexibility to determine the most effective message length as each circumstance warrants.

³ For example, a recent study found that an increasing percentage of the public is using smartphones to access the Internet. See JOHN B. HERRIGAN & MAEVE DUGGAN, PEW RESEARCH CTR., HOME BROADBAND 2015, at 2 (2015), available at <http://www.pewinternet.org/files/2015/12/Broadband-adoption-full.pdf>.

⁴ NPRM at para. 9.

Not all current networks may support character lengths beyond the current 90 limit. In this regard, the Commission asked whether the coexistence of 90- and 360-character alerts might cause public confusion.⁵ APCO believes that the software used by public safety alert originators can break up messages as needed, so that consumer devices limited to 90-character alerts would still be able to receive longer messages as separate alerts until the full message length is transmitted.⁶ Further, public safety officials could simply craft alert language of the length required of the situation, up to 360 characters. During emergencies, PSAPs and other emergency operations personnel are focusing on response and recovery, so the more efficient the WEA process, the better.

Relatedly, the FCC asks whether it would “be preferable to adopt a date certain by which all Participating CMS Providers must be able to deliver 360-character WEA messages, rather than allowing the co-existence of 90- and 360-character WEA messages.”⁷ As noted above, for networks that are limited to transmitting 90 characters, alerts exceeding 90 characters should be transmitted using more than one alert message as necessary. This approach should work well from the public safety perspective, and is independent of the status of 4G deployment. Accordingly, APCO recommends that the Commission permit a Participating CMS Provider to continue delivering 90-character messages until that provider retires the relevant legacy network that is limited to transmitting 90 characters.

B. A New “Emergency Government Information” Alert Should Be Implemented

The Commission proposes to create a new class of WEA message, “Emergency Government Information,” defined as “an essential public safety advisory that prescribes one or

⁵ *Id.* at para. 13.

⁶ The software also should signal that a series of messages is being delivered (e.g., “1 of X”).

⁷ NPRM at para. 15.

more actions likely to save lives and/or safeguard property during an emergency.”⁸ APCO supports this new category, and the Commission’s proposed definition. Public safety agencies already issue these types of alerts, just not as WEA. Creating this new category will enable public safety alert originators to take advantage of WEA when helpful, as compared to other less secure and less immediate methods they may be employing presently (such as social media channels, text-based alerting, etc.).

At the same time, the Commission appears to recognize the special nature of WEA by asking how it can “ensure that Emergency Government Information messages are used appropriately and in circumstances where they would be most effective at precipitating protective action.”⁹ APCO agrees that it is important that Emergency Government Information messages be reserved for disseminating the most pressing and impactful content, to remain consistent with the purposes of WEA and best receive and maintain the attention of the public. The proposed definition conveys the “essential” and “emergency” nature intended of Emergency Government Information alerts to “save lives,” and thus should restrict use of this alert category accordingly. APCO encourages the Commission to adopt and apply a definition that prevents expanding use of WEA too far. The Commission should also limit permitted alert originators of Emergency Government Information messages to state, local, or Tribal government authorities, and their underlying public safety agencies, such as PSAPs, police, fire and EMS departments, and emergency operations centers.

APCO also noted with interest the recommendations by FEMA to reclassify WEA into Federal Alerts, AMBER Alerts, Severe Weather Alerts, and Local Threat Alerts.¹⁰ These alert

⁸ *Id.* at para. 18.

⁹ *Id.* at para. 19.

¹⁰ *Id.* at para. 22.

categories have the advantage of being worded to more directly convey the potentially life-saving importance of the message to members of the public. It is likely still early enough to change the nomenclature of the WEA categories without causing excessive consumer confusion. Also, to preserve WEA for issuing official, immediate, and actionable alerts, APCO would recommend defining “Local Threat Alerts” similar to Imminent Threat Alerts or the proposed definition of “Emergency Government Information.”

C. Embedding Content Into WEA Would Enhance Alerting

The Commission proposes to eliminate the current rule prohibiting WEA messages (other than Presidential Alerts) from containing embedded references to phone numbers and URLs.¹¹ In just the short three-plus years since WEA was launched, messages with embedded references have become ubiquitous in many other forms of communication. This includes the variety of non-WEA alerting methods used by state and local agencies such as social media, text messages, mobile apps, etc. Accordingly, APCO supports elimination of this rule. As noted above, enhancing WEA could reduce unnecessary 9-1-1 calls and enable more informed and focused 9-1-1 calls to PSAPs. The inclusion of embedded references would permit public safety alert originators to incorporate by reference more information, such as specific guidelines or multimedia contained on their websites,¹² and thereby make more effective use of WEA.¹³

¹¹ *Id.* at para. 25.

¹² The Commission asks whether it should also adopt rules governing the provisions of alerts containing multimedia, such as maps. *Id.* at para. 30. From a public safety perspective, enabling the inclusion of multimedia content in WEA messages would enhance the value and effectiveness of WEA.

¹³ The Commission inquires about other impacts of including embedded information, such as delivery latency and mobile device battery life. *Id.* at para. 28. There are parallels to issues APCO has addressed for mobile apps. In this regard, APCO’s Key Attributes of Effective Apps for Public Safety and Emergency Response, workshops on mobile app security and data sensitivity co-hosted with the National Institute of Science and Technology, White Paper on the Status of 9-1-1 Apps, and testing on data and battery efficiency may offer useful considerations. These documents and supporting materials are available at: <http://appcomm.org/articles/>.

The Commission also seeks comment on whether it would be possible to enable an alert recipient via interactive links to provide real-time feedback to alert originators.¹⁴ APCO recommends that WEA remain one-way as it is presently, from official sources to the public. Enabling responses from the public would involve a number of complexities for public safety agencies that would be difficult to address. At a minimum, public safety alert originators would have to implement methods and dedicate personnel to aggregate and analyze responses. Further, while the integrity of messages delivered through an official one-way alert system can be ensured, feedback from the general public cannot by comparison be readily vetted, secured, and confirmed, and therefore cannot be relied upon, at least in the usually limited window of time to respond to emergencies.

II. Geo-Targeting is Very Important

Emergency messages need to be targeted to the affected population. This is very important in order to maintain the public's trust and confidence in WEA that if they receive an alert, they must pay attention. Too many false alarms will eventually cause WEA to fail.

Effective geo-targeting is also very helpful for PSAPs in order to lessen inquiries from members of the public who are located outside of the impacted area yet receive the alert. The goal should be to reduce, to the maximum extent possible, unintended confusion, concern, and even harm caused by alerts to the public who are in fact unaffected. It is similarly important to consider the perspective of the PSAP staff that would receive resulting 9-1-1 calls, and who also may be outside of the affected area and even unaware themselves of the neighboring situation. In such situations, these public safety communications professionals, as well as responders in the

¹⁴ NPRM at para. 28.

field, might waste resources responding to a non-existent threat.¹⁵ Further, targeting messages helps emergency managers and responders to better control and manage the situation, so that the right segments of the population are identified and provided the information or direction they need to be safe and enable responders to do their jobs.

APCO thus fully supports the Commission’s reasonable proposal to “require that Participating CMS Providers must transmit any alert message that is specified by a geocode, circle, or polygon to a target area not larger than the specified geocode, circle, or polygon” and that if the Participating CMS Provider “cannot broadcast the alert to an area that accurately matches the target area,” the Participating CMS Provider “may transmit an Alert Message to an area that closely approximates the target area, but in any case not exceeding the propagation area of a single transmission site.”¹⁶

APCO understands that the ability to geo-target wireless messages can be affected by network topology, geography, and radiofrequency behavior. But to be as clear as possible, geo-targeting saves lives. Accordingly, APCO encourages the wireless industry to apply available wireless network and device technologies to target messages as precisely as possible.

III. Testing and Proficiency Training are Fundamental to Public Safety Communications

A. Public Safety Alert Originators Should Have Options to Participate in Testing

Testing, training, and exercises are routine and essential components of all public safety communications functions. Accordingly, WEA public safety originators should be afforded

¹⁵ Today, PSAPs generally lack the means for streamlined data sharing, relying on phone calls and emails to share information about alerts issued by neighboring jurisdictions. While next generation systems will improve data sharing, extending WEA character length and permitting embedded references such as a contact number other than “9-1-1” would help manage the impacts of imperfect geo-targeting.

¹⁶ NPRM at para. 37.

options to at a minimum test the transmission path to the FEMA interface. Further, APCO recommends that the Commission provide appropriate opportunities for public safety alert originators to take part in the Required Monthly Testing (RMT) initiated by FEMA for Participating CMS Providers. This could include having the test message sent to the geographic region of the originator, and following the current RMT practice that configures handsets to receive the RMT message without signaling its receipt on subscribers' handsets.¹⁷ Testing should be designed to confirm functionality yet avoid “alert fatigue” on the part of the general public. Also, APCO sees less value in using testing for proficiency training purposes.¹⁸ Proficiency training does not require live WEA tests, and in fact may be accomplished more effectively and efficiently via other offline methods using the alert software.

B. Alert Logging and Test Reporting Should be Implemented

The Commission notes that, “[a]ccording to CSRIC IV, there is no established procedure for Participating CMS Providers to inform alert originators or government entities of the success or failure of WEA tests under the current WEA testing model, . . . and thus no available method to analyze these results in the interest of public safety.”¹⁹ This information would be very valuable to public safety alert originators who in turn could provide helpful feedback to the industry. Thus, the Commission should adopt more specific requirements that would lead to a uniform format for reporting test results to public safety officials.

The Commission also proposes to require new alert logging functions of Participating CMS Provider gateways.²⁰ This is needed. State and local public safety alert originators need to

¹⁷ *Id.* at para. 43 n.146, para. 45.

¹⁸ *See id.* at para. 54.

¹⁹ *Id.* at para. 55.

²⁰ *Id.* at para. 56.

be able to have their alerts logged, so that they can know whether and why their messages were or were not transmitted.

CONCLUSION

APCO supports the Commission's initiative to enhance WEA, consistent with its comments herein.

Respectfully submitted,

APCO INTERNATIONAL

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