

Summary

Statements by Commission officials and CMRS providers suggest an intent for WEA to supplant ENS. However WEA and ENS are separate public notification tools, each with distinct capabilities. They are part of a group of notification tools available to public safety agencies.

Local public safety agencies and ENS providers have gained a great deal of experience and expertise in messaging through use of ENS service over the past decade. Those agencies are familiar with use of ENS services. Rather than requiring separate certification and training in use of WEA, the Commission should develop and make available to ENS providers a WEA API, and encourage ENS providers to integrate WEA service into their ENS interfaces and services. Independent certification and qualification to use WEA should remain available to those local authorities which decline to subscribe to integrated WEA/ENS services.

Some of the rule changes proposed by the Commission have merit, and should be adopted. These include providing for transmission of WEA notifications to smaller, more targeted areas, increasing the length of WEA messages, and allowing CMRS users to opt-out of weather service alerts. With respect to methods of accommodating legacy WEA messages limited to 90-characters, and newer WEA service with longer message lengths, additional information is required before BRETSA can advocate for one-method over the other. BRETSA believes that the issue is actually which of the methods proposed is the “least-worst” option. It must be determined whether breaking longer messages into a number of shorter messages meeting the 90-character limit, will result in messages being transmitting in the correct order, or could result in the messages being transmitted out-of-order or message segments being delayed.

Other proposed rules should *not* be adopted. Creating additional purposes for messages, and providing for additional end-to-end testing of the WEA service would result in additional,

not exigent uses of the WEA service, leading to people opting out of or disregarding WEA notifications. Providing for additional alert tones and vibration sequences would only complicate the service for end users, without benefit, while provision for graphical information in messages would be inconsistent with integration of the WEA with ENS. .

Ranking or prioritizing messages from different jurisdictions for transmission would only delay essential notifications. Notifications should instead be transmitted on a first-come, first-serve basis. As indicated above, only imminent threat notifications should be permitted.

Providing for feedback from users, seeking to crowd-source information regarding incidents for emergency response, would lead to information overload and provide unreliable information. The type of information provided would be much different than where a dispatcher is able to question a civilian witness-caller, and direct the civilian witness to the facts relevant to emergency response.

While the Commission cannot grant CMRS providers immunity from state liability laws in the provision of WEA service, the Commission can condition requirements that CMRS providers participate in the service in any state upon state laws granting such immunity.

Finally, ENS remains and will remain a critical tool for public notification. The exclusion of CMRS and VoIP customer information from the ANI/ALI database in favor of p-ANIs supporting dynamic provision of location information, requires CMRS and VoIP users to self-register for ENS service for it to be fully effective. CMRS and VoIP providers should either collect and provide customer telephone number, residence and business/educational addresses for the local ENS databases, or assist in educating the public as to the need to self-register this information.

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**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)
)
Improving Wireless Emergency Alerts and) PS Docket No. 15-91
Community-Initiated Alerting)

To: The Commission

**COMMENTS OF
THE BOULDER REGIONAL EMERGENCY TELEPHONE SERVICE AUTHORITY**

The Boulder Emergency Telephone Service Authority (“BRETSA”), by its attorney, hereby submits its Comments on the Commission’s November 19, 2015 Notice of Proposed Rulemaking in the above-referenced Docket (“NPRM”).¹

I. Wireless Emergency Alerts Should Be Viewed In The Context Of Other Alerting Tools.

While FCC officials and representatives of CMRS providers have suggested WEA as a replacement for Emergency Notification Service (“ENS”), the fact is that both are different tools with different capabilities among an array of alerting tools which also include the Emergency Alert System (“EAS”), sirens, First Responders in public address system-equipped vehicles, First Responders going door-to-door, Twitter messages from public safety agencies or Offices of Emergency Management, and digital highway signs, among others. Some small rural

¹ BRETSA is a Colorado 9-1-1 Authority which establishes, collects and distributes the Colorado Emergency Telephone Surcharge to fund 9-1-1 service in Boulder County, Colorado. The BRETSA Board includes the Boulder County Sheriff, the City of Boulder Police Chief, representatives of the Boulder County Firefighters Association and the City of Longmont Division of Public Safety. The fifth seat of the Board is filled by representatives of the smaller cities and towns in Boulder County, Colorado on a rotating basis. These Comments are thus intended to represent the perspective of the entity responsible for funding 9-1-1 operations, *and* of the agencies and authorities responsible for PSAP operations and overall public safety services and budgeting. PSAP operations, procedures and business rules are closely integrated with those of the First Responder agencies they dispatch.

jurisdictions have even established their own ENS services based on residents subscribing to e-mail, text message and/or twitter lists or feeds.

A. WEA Should Leverage ENS And Be Integrated With ENS Available At The Local Level.

Local public safety agencies around the country have been subscribing to and using ENS services for a decade or more. ENS is available without specific federal approval and training, and has proven extremely useful in alerting and instructing the public regarding hazardous conditions or incidents. Universities, local public schools and other entities have also subscribed to “Call-list Notification Services”² for purposes of providing students, parents, members, or other interested parties of administrative and emergency information. (Some ENS services also include call-list calling services; BRETSA uses such services primarily for administrative purposes in transmitting messages to public safety officials and/or First Responders.) Broadcast stations and other entities have also developed call-list services for providing subscribers with weather alerts (sometimes highly geo-centric), and/or other information. Significant experience and expertise in the area of emergency messaging has been gained through public safety agency use of ENS services over the past decade, as well as through the use of Call-list Notification Services by public and private entities.

The ubiquitous subscription to, and usage levels of, ENS and other notification services by local public safety agencies validates the adage that “all emergencies are local.” It

² BRETSA here uses the term “Call-list” Notification System” to refer to systems for transmitting recorded voice notifications, e-mails, fax messages, and text-, twitter- or other messages to phone numbers or messaging addresses included in a pre-established list. Non-public safety agency outbound notification systems are limited to Call List Notification Systems which parties have “opted into” for free or for a fee, or where parties are automatically included such as by virtue of enrollment in an educational institution. ENS, available to public safety agencies, initially leveraged the ANI/ALI database for 9-1-1 calls which indexed the locations at which telephone service had been installed by the telephone numbers assigned to an access line, and created an ENS database in which telephone numbers were indexed by the locations at which the corresponding access lines were installed. (Hence the common, and trademarked, term “Reverse 9-1-1.”) Due to the use of pseudo-ANIs (“p-ANIs”) in the provision of 9-1-1 service to CMRS and VoIP users, ENS services now use a combination of (i) a reversed ANI/ALI database, (ii) VoIP numbers and service addresses supplied for a fee by providers of fixed VoIP services, (iii) self-registered VoIP and CMRS number and residential/business locations, and (iv) commercially provided data.

demonstrates the local need for notification services including WEA.³ Unfortunately, WEA is not as available and useful to local public safety officials as other notification tools, and is underutilized for local public safety notification purposes. Local public safety use of WEA requires approval and coordination with state officials for the launch of WEA notifications. Even where local agencies go through the process of being approved to directly launch WEA notifications (i) the approval process is time-consuming and more difficult than necessary, (ii) the training process is more time-consuming than necessary, (iii) the process for launching a notification is more complex and time-consuming than necessary, and (iv) the granularity of notifications is currently limited to the county-level. The intent seems to be to *protect* WEA from local use rather than to facilitate its use by local public safety agencies. The significant and positive use of ENS over the past decade demonstrates that any such intent is unfounded.

Personnel in many jurisdictions have become familiar with the ENS service interfaces provided by the commercial ENS providers with which the jurisdictions contract; and commercial ENS providers are beginning to provide WEA interfaces with their ENS services. Given the complementary nature of ENS and WEA, the interface and process for using the services *should* be integrated. Integration would allow officials to create messages and launch events using a common and familiar interface, rather than requiring they learn a new and separate interface for WEA. It would allow officials to create and launch an emergency notification through a single, simultaneous process, reducing the time required to initiate the

³ Public safety is an area in which distributed and autonomous decisionmaking—local public safety officials and First Responders acting autonomously based on familiarity with the areas and populations they serve and their superior knowledge of “conditions on the ground” has served the country well. Modern communications and information systems can improve local knowledge and knowledge of conditions on the ground to improve emergency management and response. However those same systems can also create in state and federal officials a false sense of an ability to effectively manage emergencies and direct First Responders remotely; by “remote control.” It would be ironic and perverse if these improved systems were used as a premise for state or federal officials to assume or usurp control of such systems and local emergency management and response, at the expense of their and its efficacy.

process. While some jurisdictions may elect to obtain only WEA or ENS service, or to maintain separate interfaces for launching notifications through each service; BRETSA believes the majority of jurisdictions would use the WEA notification tool in concert with the ENS notification tool. Thus, the better approach would be to publish to ENS providers the WEA API, to facilitate ENS providers integrating WEA into their existing notification services.

Not integrating WEA into existing notification services and interfaces means that WEA is yet another service public safety personnel are responsible for learning, when NG9-1-1 also promises to deliver additional formats and information for PSAPs to deal with, and public safety agencies and PSAPS have limited resources and personnel to deal with the varied information and formats.

B. WEA and ENS Have Distinct Features And Advantages.

While federal officials and representatives of CMRS providers have suggested that WEA will replace ENS; ENS has features and capabilities that WEA is unlikely to duplicate.

ENS has become an integrated messaging platform that transmits notifications by voice, text, e-mail, and fax. Some ENS services allow the user to type-in the notification message for transmission by SMS text, e-mail and fax, and use a text-to-voice engine to generate the voice message. BRETSA declines to use this capability, however, because (i) text-to-voice speech sounds artificial when, particularly in an emergency, people want to hear a real voice, (ii) the artificial sound of text-to-voice speech may cause recipients to question the authenticity of the message, and (iii) text-to-voice engines can mispronounce words, which could be critical in notification and instructions regarding an emergency.

ENS is like a scalpel compared to the scythe-like approach of WEA. Even with the sub-county level notification capability proposed in the NPRM, WEA will not allow the geographic precision of which ENS is capable. Even if ENS-like precision may eventually be developed for

WEA by enabling users' phones to determine whether the phone's location is within the geographic area defined for a message by the public safety official launching a WEA notification; ENS will still offer unique abilities WEA cannot duplicate.

With ENS, an official can define the area to receive a notification by address range, intersection or address and radius, a polygon applied to a map display or a free-form area hand-drawn on a map display using a mouse or similar device. ENS providers geo-code the addresses so that a call-list can be extracted from the address range or area designated to receive the notification. This precision allows officials to give "prepare to evacuate" and "evacuate" notices to threatened areas, in the event of a wildfire for example, on a neighborhood-by-neighborhood basis. This can avoid such a large number of people evacuating an area that roads become clogged, evacuation is delayed, and First Responders are prevented from moving up into the evacuation area to fight the fire. Staged evacuation also allows positioning of law First Responders to prevent unauthorized individuals, including looters, moving into the evacuated areas. Similarly, separate messages to separate areas can instruct individuals in each area to use alternative routes to evacuate the area; either to avoid clogging roads or, where mountain residents may be located in close proximity but have egress through separate canyons, to provide additional direction to motivate and focus action.

There are ENS capabilities WEA will not be able to duplicate, *even if* precise geo-targeting of notifications is developed with WEA. ENS allows officials to exclude telephone numbers or messaging addresses associated with a specific residence or commercial location from the notification. This enables officials to transmit warnings and instructions regarding a barricaded-suspect or hostage incident to individuals located near the scene of the incident, but avoid transmission of the those messages to the suspect or hostage-taker, for example. It also

enables individuals who are not at home when a notification is transmitted to be alerted to the situation, and to take appropriate actions if minors are at home alone or with a sitter, for example.⁴ Because ENS will notify CMRS users from the affected area even when they are located outside the affected area, ENS is useful for notifying evacuated residents when evacuation orders are lifted, when a wildfire threat has been temporarily abated so that residents can re-enter their neighborhoods to remove personal items from their homes, etc.

Residents of mountainous areas or other locations where CMRS reception is limited must rely upon wireline services and/or text messages to receive notifications.⁵ Indeed, Boulder County's most dense wildfire interfaces are in areas where CMRS service is spotty and unreliable, and people are required to maintain landlines for dependable telephone service. WEA uses only CMRS service while ENS uses wireline, CMRS and other services to transmit notifications.

WEA also has unique capabilities vis-à-vis ENS. WEA is able to transmit notifications to transient users in the area affected by an emergency, whose wireless phone numbers and addresses would not be in the ENS database for the affected area. WEA will transmit notifications to wireless or VoIP users who have not registered to receive *ENS* notifications, or have not kept their registered information current. It also appears that WEA messages broadcast

⁴ As CMRS and VoIP services gained significant market penetration, with (i) wireless numbers not being identified to a specific address for purposes of provider's in supplying of billing for service, and (ii) p-ANI's being used for wireless and VoIP 9-1-1, some local authorities and ENS providers introduced the ability of residents to register their wireless or VoIP numbers, fax numbers, and text message and e-mail addresses associated with their residential and/or academic or business address(es). Some ENS providers subscribe to commercial databases of telephone numbers and associated residence addresses in customer-jurisdictions, and some ENS providers both subscribe to commercial databases and provide for residents to register their telephone numbers and addresses. This not only provides for inclusion of wireless and VoIP subscribers in ENS databases, but also allows entry of additional user information for notifications such as fax numbers, text and e-mail addresses, language preferences, etc.

⁵ Wireless users in apartment buildings have also reported difficulties in receiving wireless voice calls in their apartments, which have required that they maintain wireline service in addition to wireless service. With the transition of CMRS to LTE-IMS, text message coverage will reportedly be similar to voice coverage.

to users in the affected area may be received more quickly than individually-addressed ENS notifications.

C. ENS “Lessons Learned” Should Inform FCC Action Herein, And WEA Policy And Use.

ENS has not just provided experience and knowledge regarding use of notification services, message content, and area selection. Among the lessons relevant to this proceeding are:

1. Over-use of ENS services results in users un-registering their devices, or disregarding notifications. It is also believed that people have un-registered their devices and complained of over-use of the *ENS* services following multiple Weather Service notifications in a short period through the *WEA* service, mistakenly believing the notifications were through the *ENS* service. While the evidence to support this is anecdotal at best, people are more familiar with *ENS* services, and wireless and some VoIP users must manually register their devices for *ENS* services. No action is required to receive *WEA* notifications, however. As a corollary, some *ENS* service providers include automatic transmission of National Weather Service alerts in their service offerings, but some jurisdictions opt-out of weather notifications because of the number of alternative sources of weather information for their constituents.

2. Delivery of *ENS* calls can be interrupted or delayed. *ENS* calls are typically initiated at redundant and diverse locations with access to multiple interexchange providers for delivery of messages into the target area. However delivery of *ENS* calls has been impeded or prevented by (i) capacity limitations in a wire center, (ii) outbound calling from an area limiting wire center capacity and ability to complete inbound *ENS* calls (including people calling 9-1-1 after receiving an *ENS* call to confirm or inquire about the emergency or instructions), (iii) limited trunk or other transmission capacity into a PBX serving a university, business, apartment complex, etc., and (iv) transmission facilities burning in a wildfire, washed away in a flood, or

otherwise being interrupted by the incident with respect to which notifications are being made. With respect to the latter cause of message delivery to be delayed or prevented, it is important to note that destruction of wireline facilities can affect CMRS and VoIP services as well as POTS.

While Colorado PSAP personnel were aware that CMRS providers rely upon wireline facilities to interconnect transmitter sites with MSCs, the full impact of this network dependency was brought home during the 2013 floods in North-Central Colorado. When the wireline (fiber) network facilities connecting with the wire center in Estes Park was washed away along with the road in which the facilities were placed, CMRS as well as wireline and probably VoIP users were prevented from reaching 9-1-1. Instead of CMRS providing an alternative path to 9-1-1, or an alternative path for notifications to reach users, CMRS (and perhaps VoIP service) is vulnerable to the same network outages affecting wireline facilities.⁶

3. People generally need to receive advice to take action multiple times and from multiple sources before they take action. WEA and ENS notifications, used in concert, can serve provide warnings and instructions in multiple formats and through multiple services.

4. While it may seem inconsistent with the third lesson learned, public safety officials have also learned that some individuals seem to become dependent upon the notifications, rather than using their common sense in the face of an emergency. Since BRETSA subscribed to ENS services a decade ago, BRETSA has experienced individuals calling 9-1-1 to state that wildfires are almost at their property but have not yet received a “reverse 9-1-1 call,”

⁶ Even CMRS providers were unaware of the impact of the wireline outage upon their services, who did not report the outage affecting their services. In Colorado Public Utilities Commission (“CPUC”) Proceeding 15R-0318T in 2015, representatives of CMRS providers were still stating incorrectly that the outage preventing their customers 9-1-1 call reaching PSAPs occurred on the Basic Emergency Service Provider (SSP) side of the Selective Router. It is notable that the exchange carrier’s connection to the Estes Park end office was not protected by diverse and redundant facilities, due to the cost and terrain-related difficulty of placing alternately-routed facilities to benefit a small population. Ironically, under current circumstances, it would fall to the exchange service provider, whose exchange service revenues are declining, to place the alternately-routed facilities to the Estes Park area, while the facilities would benefit CMRS and VoIP providers as well. This situation is replicated numerous times across Colorado, and BRETSA believes the Mountain West.

and inquire whether they should evacuate, for example.⁷ It is important that individuals use their common sense and manage their own emergencies, because (i) incidents may not rise to a level requiring or justifying public notification, (ii) a person may encounter incidents before they have been reported to public safety officials, First Responders have responded and evaluated the situation, or officials have launched a public notification, or (iii) public notification may be delayed or prevented. See paragraph 2 above.

5. In emergency situations, when alerting the public to hazardous situations or incidents, officials rarely have the resources and time to create messages in multiple languages. Assuming resources were available to create multilingual messages, because of the inability to identify users who are non-English speakers and their language of choice, alternative language versions of the message would have to be recorded/typed in, serially, in a single message. This would delay launching notifications. It would increase the time required to deliver the message to each user and would delay receipt of the message by all targeted users, vitiate the utility of notification services, and place the public at risk. (While public safety agencies and First Responders go to extraordinary efforts to protect and render assistance to every individual; they must also apply their limited resources to benefit the largest number of people.)

Despite these challenges, jurisdictions with large populations speaking the same language may chose to create non-English messages for notifications targeted to non-English speaking neighborhoods. It is more feasible to include multi-lingual messages in pre-planned ENS notifications, or in pre-recorded messages for standard types of notifications.

⁷ “Reverse 9-1-1” is a trademarked name for ENS service supplied by one provider. However the media and the public often refer to the ENS service by that name regardless of the provider of the ENS service involved.

6. Many people who receive an ENS or WEA notification, respond by calling 9-1-1 to verify the information conveyed. Notifications can thus cause a surge in 9-1-1 calls other than for emergency response, and may interfere with 9-1-1 calls seeking emergency response.

In large counties and jurisdictions such as Boulder County, which extends from the plains of Colorado east of the Front Range to the Continental Divide, WEA weather alerts may be issued based on conditions in one area of the County, which are not affecting other areas or the location of PSAPs. Unless PSAP personnel have their personal wireless phones with them in the PSAP and turned on, the PSAP may not be aware that the WEA notification has been provided in their area, and thus be unable to verify the notification or provide additional information the caller may be seeking.⁸

II. Many Of The Proposed Rule Changes Will Improve WEA Service.

BRETSA believes the most important changes to WEA service would be to make it more available to local authorities and as expeditious to use as ENS. This would require recognition that WEA is a complementary tool rather than a replacement for ENS, and that local public safety officials have a greater need for notification tools than state and federal authorities.

BRETSA believes integration of WEA with ENS services would provide the substantial benefits of allowing local officials to launch WEA notifications through a familiar interface and without additional delay. It would facilitate use of ENS and WEA messaging. Without these changes, local public safety agencies will continue to rely on ENS services which they can launch more

⁸ PSAP protocols permitting or prohibiting personal cellphones on the dispatch floor vary from jurisdiction to jurisdiction.

quickly, using more messaging services and formats, with the other advantages discussed above.⁹ However changes proposed in the NPRM will improve WEA.

A. Allowing More-Narrowed Geo-Targeting Of WEA Notifications Is An Important.

Currently, the smallest area to which WEA messages are geo-targeted are counties. Boulder County is over 700 square miles in area, ranging from Colorado’s high plains east of the Front Range, to the Continental Divide. 43 of Colorado’s 64 counties are larger than 1,000 square miles in area, the largest almost 5,000 square miles. People receiving WEA messages concerning weather conditions in other portions of a county, or receiving repeated alerts for different areas as storms move across a county, may opt out of or disregard WEA messages (and/or opt out of ENS registration out of confusion over which service was providing the notifications). WEA is also of limited utility to local public safety agencies because messages cannot be targeted to affected areas.

While more narrowed geo-targeting of WEA messages would make the service more useful and avoid causing people to opt out of WEA and ENS, it would also pose additional concerns for PSAPs. More targeted WEA messages may be transmitted to areas of the county in which the PSAP is *not* located, so the PSAP would not be aware of the notifications even if PSAP protocols allowed personal cellphones on the dispatch floor. WEA notifications result in calls to 9-1-1 from people receiving them to verify the notification, obtain more information or ask what action they should take. PSAPs cannot effectively respond to such calls when they don’t even know that WEA notifications have been transmitted, let alone what information was provided. Thus, when state or federal agencies launch a notifications are transmitted to an area,

⁹ Local Authorities must have the discretion to determine whether to subscribe to or qualify to use ENS and/or WEA services, whether to use them as integrated or separate services, and whether to employ them in any specific situation. These decisions are best made by officials “on-the-ground” with the best knowledge of the facts, the constituents they serve, and agency resources.

PSAPs serving the area should be notified of (i) the information transmitted, (ii) the area to which the information has been transmitted, and (iii) any additional information users may require.

The NPRM proposes to allow inclusion of URLs and telephone numbers in the WEA notifications, for people to use to verify information and obtain additional information. Whether or not URLs and telephone numbers are provided in WEA messages, people will call 9-1-1 in response to WEA notifications. PSAPs should be provided the information they require to respond to such calls, even if the response is to direct callers to the same numbers or URLs included in the WEA messages. (9-1-1 calls in response to WEA notifications can tie up PSAP lines and dispatchers, and delay or prevent receipt and handling of calls regarding true emergencies.)

B. Increasing The Length Of WEA Messages Will Improve The Service.

Notification service messages must be long enough to alert recipients to the incident or conditions prompting the notification, and provide direction as to the action(s) recipients should take. The current WEA message limits make it difficult to meet this objective.

Increasing the length of WEA messages will not only better-enable officials to provide users the information they require; it will enable officials to include URLs, telephone numbers, frequencies of traveler advisory stations or broadcast stations users might access for additional information. This would serve the dual purpose of providing additional information to users, and directing users to other sources of information than dialing 9-1-1.

The NPRM identifies three option for transmission of the longer messages proposed to devices which are unable to receive them:

1. Create two separate messages, one adhering to the current 90-character limit and the second taking advantage of the longer message length;

2. Create one message, but transmit only the first 90 characters to legacy devices; or
3. Break a longer message into the separate parts meeting the 90-character limit for successive transmission to legacy devices.

The first option will require additional time to compose and transmit the messages, reducing the utility of the notifications. ENS is already favored over WEA because of the greater time required to launch WEA notifications. It is also unclear whether legacy and newer devices would distinguish, accept and display only the length of message intended for the device.

The second option continues to limit the ability to compose messages providing the information users require, and prejudice the ability of officials to make the best use of the longer message length the Commission proposes to provide. Because the most critical information regarding the emergency would have to be included in the first 90 characters, the provision of additional information in the remaining characters available for newer devices may be confusing. The additional information may be superfluous.

The third option is problematic for several reasons. It would result in additional notifications being transmitted, which can annoy users and cause them to opt-out of WEA (and/or ENS) notifications. This may be ameliorated by the narrowing of geo-targeted areas for the notifications, so that the users receiving the notifications will regard them as relevant and important.

Further, when *ENS* notifications are broken into multiple messages for transmission as SMS text, message parts may be delivered out of order and after some delay. This could be confusing or, worse, lead to misinterpretation of the notification. BRETSA does not know whether WEA messages would be reliably transmitted in the correct order, the message parts would be identified as “1 of 3,” “2 of 3,” etc., or transmission of some message parts would be delayed.

Without more information, BRETSA cannot reach a conclusion as to which of the three options the Commission identifies for accommodating legacy devices subject to current message limits, and new devices subject to the expanded message length, would be best (or least-worst).

It would facilitate inclusion of URLs in WEA messages if a single website was developed for use by any entity launching a WEA notification, with a website having brief URL using a very limited number of characters. Short subdirectory addresses could be created, perhaps including the two-letter state abbreviation for the state in which the agency transmitting the notification is located, and sequential numerical codes four- or five-digits in length assigned to sequential incidents, by state. This would limit the number of characters required to provide the applicable URL, allowing its use even in messages subject to the 90-character limit. Local agencies should be permitted to include such a common URL in ENS messages as well, including ENS/WEA messages prepared in common using commercial ENS providers' messaging interfaces. Local agencies would also require the ability to post information to the website, in the subdirectory identified in the notification.

C. Users Should Be Able To Opt-Out Of National Weather Service WEA Weather Alerts.

WEA is an important means of transmitting severe weather alerts to the public. Weather alerts are the most frequent use of the WEA service, and are also a reason users confused about the source of the notifications unregister their phones from ENS service. Weather alerts transmitted via WEA are also available on weather radios, and transmitted on broadcast stations during program interruptions or through television screen crawls. It is better that users opt out of WEA weather alerts, than opt out of weather alerts *and* ENS service.

The second most frequent use of WEA appears to be for AMBER Alerts. AMBER Alerts are also transmitted on broadcast stations, and electronic highway signs. However while users

opting out of weather alerts are putting themselves at risk, opting out of Amber Alerts places others at risk. More targeted notifications may also minimize the incidence of users opting out of notification services.

III. The Commission Should Avoid Rule Changes Which Would Decrease The Utility Of The Service.

A number of rule changes proposed by the Commission would decrease the usefulness of WEA notifications, and other notifications as well. These include the proposals to (i) use WEA for “Emergency Government Information,” (ii) develop additional tones and vibration cadences to indicate different types of alerts, (iii) process and send Imminent Threat Alerts reaching a certain threshold of urgency, severity and certainty before other alerts, (iv) allow inclusion of graphical content in WEA messages, (v) provide for feedback from users to help emergency responders make decisions about appropriate emergency responses, (vi) provide for increased end-to-end testing, and (vii) provide immunity to CMRS providers.

A. The Commission Should Not Create Additional Purposes For WEA Messaging.

Purposes for which WEA notifications may be used are “Presidential Alerts,” “Amber Alerts,” and as relevant to local public safety authorities: “Imminent Threat Alerts.” The Commission now proposes to add “Emergency Government Information” such as “boil water advisories,” as purposes for WEA notifications.

Just as WEA is one of a number of methods of notifying or alerting the public, and is complementary to other methods; the Commission need not seek to make WEA the solution to *all* public safety notification needs. Overuse of WEA and ENS results in users ignoring notifications and opting out of the services. WEA should be reserved for Imminent Threat Alerts. There are other notification tools which can fill the need of emergency government information

such as boil water alerts. These could include follow-on *ENS* messages to residents of affected areas, after an initial Imminent Threat notification. Local authorities have web sites, have developed twitter feeds for provision of public information as well as to provide updates regarding public emergencies such as wildfires and floods, and release information to local broadcast stations which responsibly report that information to the public during emergencies. Notifications of some types of emergency information may also be provided by First Responders and volunteers going door-to-door or using loudspeaker-equipped vehicles, etc.

B. The Commission Should Not Provide For Different Tones And Vibration Cadences For Different Types Of WEA Notifications.

The Commission should apply the KISS principle in making changes to WEA notifications, and “keep it simple.” Americans do not live in fear, and do pay little attention to emergency preparedness except during public emergencies. The less frequently WEA notifications are transmitted, the less likely users are to ignore or opt-out of receiving the messages. The more complex the service is, with different tones and vibration cadences, the less likely users are to understand what the tones and vibrations mean.

C. The Commission Should Not Seek To Rank Or Prioritize Emergencies, But Should Provide For Transmission Of WEA Notifications On A First-Come, First-Served Basis.

Local public safety authorities are experienced professionals at responding to emergencies. They are disciplined in their use of messaging systems such as *ENS*. Public Safety Authorities activate *ENS* and would activate WEA in response to emergencies. Neither the Commission nor any other party should assume the authority to rank or prioritize one jurisdiction’s emergency as more important than another. Moreover, the review and ranking of emergencies can only serve to delay transmission of WEA notifications. In the time required for a state or federal authority to decide which emergency is most important and related notifications

should be sent first, the pending notifications related to all emergencies could likely be transmitted.

Moreover, as a matter of comity between federal and state agencies, locally-initiated WEA notifications should be presumed to comply with WEA requirements, and not subjected to any review and approval prior to transmission. If subsequent review discloses abuse of the WEA service and standards by a local jurisdiction, then that jurisdiction's qualification to initiate WEA notifications can be suspended.

As BRETSA has stated above, the Commission should support integration of WEA with commercial ENS services, including the creation of common messages and simultaneous launch of ENS and WEA notifications using a single or common interface created by the ENS provider. Delays in WEA notifications can interfere with the effective integration and coordination of WEA and ENS notifications. However neither use of WEA nor subscription to integrated ENS-WEA services should be *required*. These decisions must be left to the sole discretion of local authorities.

D. The Commission Should Not Provide For Inclusion Of Graphical Information In WEA Messages.

WEA is not the solution to all emergency notification requirements. It can complement other notification services using other communications technologies if capabilities are added for more narrow geo-targeting and for provision of longer messages. ENS messages transmitted via voice and text message are not capable of including graphical information, although e-mail and fax message would be capable. Messages can be prepared and notifications launched most expeditiously, if officials can prepare a single message for a notification provider to simultaneously transmit using all available means. Since graphical information cannot be

included in some messaging media, inclusion of graphical information would require preparation of separate messages and delay launch of the notifications.

To the extent graphical information may be helpful to the public, inclusion of URLs in WEA and other messages will allow users receiving notifications to access such information, without delaying the overall notification.

E. The Commission Should Not Provide For Feedback From Users To Help Public Safety Officials Or First Responders Make Decisions About How To Respond To Incidents.

The proposal to provide for users to send feedback to public safety officials to assist the officials in making decisions how to respond to incidents, would crowd-source emergency response. While this may seem useful in theory, BRETSA believes it will be impractical in practice, particularly in emergency situations. PSAPs are already swamped with calls from the public during emergencies, requesting assistance or requesting or providing information. This already leads to information overload as dispatchers are focused on triaging calls and getting help to those with the greatest need. In such circumstances, First Responders are occupied with responding to emergencies, and trained and experienced resources who could interpret publicly-provided information are generally not available.

Information from untrained laymen, largely anonymous in a crowd-sourced application, would be highly unreliable. As public response is proposed, there would not appear to be a means of determining or verifying the location of the parties responding, limiting the number of responders, or vetting the reliability of the responders. While the best information regarding an incident or public emergency would usually be from an on-the-scene assessment by a public safety professional, the next best information may be from an individual who is not a public safety professional on the phone relating current information and *answering dispatcher's questions* with 360-degree, five-sense situational awareness. Without the ability for a dispatcher

or other qualified personnel to ask clarifying questions and focus the witness on relevant information, the utility of the information provided will be questionable.

Nevertheless, if available, public safety agencies should have the option of utilizing response capability in the manner they determine will be useful.

F. The Commission Should Limit End-To-End WEA Testing, Rather Than Creating Additional Opportunities For Transmission Of Non-Emergency Notifications.

The more frequent the use of notification services, especially for non-emergency testing purposes, the more likely it is that people will ignore notifications, and opt-out of WEA (and ENS) service. When people receive a notification with the alert tone and vibration cadence, they will pay attention.

Rather than each jurisdiction conducting end-to-end testing of the WEA service, integration of WEA with commercially provided ENS services would allow public safety agencies to test WEA notifications from initiation to delivery to the ENS provider. The ENS providers, each representing a large number of jurisdictions, could conduct tests from their systems through to the point in the WEA service process that a notification would be launched. Public safety agencies certified to use WEA as a stand-alone service should also be able to test WEA up to the point that the notification would be launched. This will allow users to train and test those portions of the WEA notification process over which they have control.

A limited number of end-to-end tests should suffice to confirm the services remain operational.

G. The Commission Cannot Grant CMRS Providers Immunity For Transmitting WEA Notifications.

Just as the Commission has concluded that it cannot grant 9-1-1 providers immunity from state law creating liability for negligent, grossly negligent or intentional misconduct, the

Commission cannot grant CMRS providers immunity from liability under state law with respect to WEA notifications.

CMRS providers can be required to provide or participate in WEA notifications, just as broadcasters have been and are required to participate in or support the Emergency Broadcast System/Emergency Alert System as a condition of their use of the public resource of the electromagnetic spectrum. However such a requirement in any state can be conditioned upon the laws of that state granting providers immunity from liability for their negligence (and/or their gross negligence or intentional acts) in the provision of WEA service.

IV. Commission Rules To Support ENS Are Required.

ENS and WEA are complementary services for notification of the public of imminent threats. ENS databases can no longer be fully populated from the 9-1-1 ANI/ALI basis, due to the percentage of people who have “cut the cord” in favor of CMRS or VoIP services. Users of these services no longer have their numbers and locations in the ANI/ALI database, as 9-1-1 service is instead supplied using p-ANIs and dynamically updated location information.

In the past, BRETSA has sought regulations which would compel CMRS and VoIP providers to use their many contacts with their customers to collect each customer’s number, residential location and educational or business location for use in populating ENS databases. This would help assure that the ENS databases can be as complete as possible. An alternative would be for CMRS and VoIP provider websites, customer information, bill inserts and other customer contacts to encourage their customers to register their phones with their local public safety agency’s ENS service, if their local public safety agency subscribes to an ENS service with which users can register their phones. For example, in Colorado there is a directory of

Colorado counties and cities with a link to the ENS registration page for each. This would not significantly burden providers, and would make overall emergency notification more effective.

Respectfully submitted,

**BOULDER REGIONAL EMERGENCY
TELEPHONE SERVICE AUTHORITY**

By: _____ /s/

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