Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Modernization of the Nation's Alerting Systems	)	PS Docket No. 25-224
	)	

Comments of the Alliance for Telecommunications Industry Solutions

Thomas Goode
General Counsel

ATIS
1200 G St. NW
Suite 500
Washington, DC 20005
(202)-628-6380

TABLE OF CONTENTS

Summary

*Objectives of Alerting Systems***.** ATIS WTSC supports the Commission's stated objectives of effective alert and warning systems and notes that the Wireless Emergency Alert (WEA) system has evolved to continue to meet these goals.

- The most important factor impacting consumer confidence and opt-in is how WEA is used by the Alerting Authorities.
- The Commission should exercise great caution when considering any rule changes that could affect the Cell Broadcast System (CBS), as such changes may disrupt the wireless communications infrastructure and, by extension, the WEA system. Instead, it should favor light-touch rules that spur and support innovation.
- While WEA is highly reliable and has a high market penetration, there are no alerting systems that could guarantee that all people in a targeted area would receive the alert or take appropriate action.
- Emergency alerting systems should be designed to ensure robust technical capabilities while prioritizing the achievement of key public safety outcomes, such as fostering public trust and encouraging compliance with protective actions.

The Role of Alerting Authorities. ATIS WTSC agrees that the objectives of alerting systems are best served if federal, state, Tribal, territorial, and local governments can send emergency alerts.

- The Commission advocates for enhancements/progress in the following areas: improving centralized coordination, best practices and standardized protocols; possible AI integration; and training and drills for Alerting Authorities.
- A single poor decision or mistake by an Alerting Authority has the greatest potential for significant negative consequences, whether that be loss of life with unclear or incomplete instructions or a lack of relevance resulting in widespread opt-out.

Alerting System Effectiveness. ATIS WTSC notes that WEA currently prioritizes alerts from the President in all network functions and in the broadcast to ensure they are transmitted immediately and without delay across all platforms and devices.

- Messages from the President should be sent out simultaneously through various communication methods to ensure they reach as many people as possible.
- The current WEA system, which broadcasts over the System Information Block (SIB), is not capable of supporting direct video transmission and therefore cannot support videos in National or any other alerts.
- Educating consumers on the types of events requiring rapid updates may mitigate annoyance and opt-out while still allowing the dissemination of life-saving information.
- Promoting local officials' active engagement in alert systems will expand the reach and improve the timeliness of notifications, ensuring that more people receive vital information when it matters most.
- Allowing non-government entities, such as utility companies, to send safety-related alerts via WEA strays from the original goals and objectives of WEA and could lead to alert fatigue.
- WEA is not an appropriate vehicle for machine-to-machine (M2M) alerting applications.

Transmission Capabilities of Alerting Systems. Designing for guaranteed delivery to all intended consumers in a target area is not technically feasible for any alert class, including National Alerts initiated by the President.

- Given the widespread adoption by Commercial Mobile Service Providers (CMSPs) and its demonstrated availability, reliability, and effectiveness, the voluntary nature of WEA has not diminished confidence in the system.
- While voluntary CMSP participation has not diminished confidence in WEA, ATIS WTSC notes that voluntary participation by state and local alerts in emergency alerting systems (EAS) lead to significant inconsistencies in alert dissemination across different channels.

Resilience. ATIS WTSC notes that, while all cellular communication systems are engineered for high levels of resilience, no system can be designed to completely eliminate possible disruptions. WEA also is designed and implemented with alternative pathways and servers to enhance resiliency.

- The wider the variety of systems used to disseminate the alerts, the better the chances of having the largest number of consumers receive the alert in some manner.

Geographic targeting. ATIS WTSC notes that, starting with WEA 3.0, the introduction of device-based geofencing (DBGF) significantly enhanced capable devices.

- ATIS WTSC affirms that the 0.1-mile accuracy allowance for DBGF aligns well with current technological capabilities and the overarching objectives for alert targeting, and that market penetration of WEA 3.0 capable devices has increased significantly through the years.
- Alerting systems should, in principle and to the greatest extent technically feasible, dynamically adapt the alerting area for "threats in motion," such as tornadoes, hurricanes, wildfires, extreme winds, and storm surges. However, the update frequency should be carefully balanced to prevent overloading the core network.

Security. ATIS WTSC agrees that the nation's alerting systems should be secure.

- The points of alert origination should be a critical focus for security measures, as exploits of the points of alert origination provide the greatest reach of any potential impact.

Information Conveyed to the Public. ATIS WTSC agrees that alert and warning systems should include five key informational elements: what is happening, where it is happening (am I affected?), when it is happening, what protective actions need to be taken, and who is issuing the alert.

- Providing resources to Alerting Authorities is a critical step in improving the quality, uniformity, and consistency of alert messages. Comprehensive training programs, best practices, and ongoing support for Alerting Authorities are essential to enhancing the effectiveness of the nation's alerting systems.
- Advanced machine translation technologies that may enable real-time translation of alerts into multiple languages should continue to be investigated.

How the Public Receives Alerts. ATIS WTSC urges the Commission to find a balance that ensures that critical alerts are delivered while respecting people's preferences.

- Consumer frustrations with WEA are best addressed by effective training.
- While empowering consumers with customization options enhances user experience, certain features should not be left entirely to end-user control to preserve the effectiveness of alerting systems.
- Wireless device OEMs have already begun introducing features that augment WEAs distributed by CMSPs.

Other Issues.

- WEA's and EAS's proven ability to provide timely, authoritative alerts and to meet the Commission's key objectives clearly indicates that WEA does not require a redesign. Rather than pursuing a redesign of WEA, the Commission should adopt a technology-neutral and flexible regulatory approach, avoiding prescriptive mandates on how these features are implemented.
- While WEA has been a vital tool for public safety, certain aspects may no longer effectively serve their intended objectives and could benefit from reconsideration or elimination. Refining WEA target criteria and modernizing the manual Alerting Authority processes used in alert creation and dissemination would be beneficial.
- Any proposed elimination or modification of WEA should be guided by thorough impact assessments by all stakeholders to ensure technological compliance and public safety is not compromised.
- Enhancing WEA would involve a range of technical and operational improvements, each with its own costs and complexities. In most cases, gradual, incremental upgrades are more cost-effective than a complete system redesign, although repeated incremental changes could lead to inefficiencies and duplication.
- Increased training for Alerting Authorities, public education, and stakeholder collaboration can significantly enhance the effectiveness of alerting systems in achieving the Commission's intended goals of protecting lives and property during emergencies.
- Collaboration among stakeholders, including the Commission, Federal Emergency Management Agency, emergency management agencies, broadcasters, and wireless providers, ensures that goals are aligned, that best practices can be shared, and that operational challenges can be addressed.
- ATIS stands ready to support these efforts and collaborate with the Commission and other stakeholders to enhance the effectiveness and reliability of the nation's alerting systems.

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Modernization of the Nation's Alerting Systems	)	PS Docket No. 25-224
	)	

Comments of the
Alliance for Telecommunications Industry Solutions

The Alliance for Telecommunications Industry Solutions (ATIS) hereby submits these comments in response to the *Notice of Proposed Rulemaking* (*Eleventh FNPRM or NPRM*), released August 8, 2025, in the above-referenced docket. In the *NPRM*, the Federal Communications Commission (Commission) seeks comment on the objectives that an effective national alerting system should advance and whether changes should be made to modernize the nation's public alert and warning capabilities.

I. BACKGROUND

ATIS is a global standards development and technical planning organization that develops and promotes worldwide technical and operations standards for information and communications technologies (ICT). ATIS' diverse membership includes key ICT stakeholders– wireless, wireline, and VoIP service providers, equipment manufacturers, broadband providers, software developers, consumer electronics companies, public safety agencies, and internet service providers. ATIS is also a founding partner and the North American Organizational Partner of the Third Generation Partnership Project (3GPP), the global collaborative effort that has developed the 4G Long-Term Evolution (LTE) and 5G New Radio (NR) wireless specifications. Nearly 600 industry subject matter experts work collaboratively in ATIS' open

industry committees.

ATIS' WTSC develops wireless radio access, system, and network solutions related to wireless and/or mobile services and systems. WTSC addresses a broad array of issues, from the lawful interception of wireless calls to the application of IMS to NG911 to emergency alerting and warning. WTSC also provides critical technical review and input for necessary contributions to 3GPP. The WTSC WEA Subcommittee is responsible for developing requirements, architecture, mobile device behavior, and more for WEA.

II. COMMENTS

A. Objectives of Alerting Systems

In the *NPRM*, the Commission seeks comment on the objectives that effective alert and warning systems should serve and seeks comments on three goals: (1) alerting systems should provide authorities with the ability to rapidly notify the public of emergencies that may put the public at risk; (2) alerting systems should be capable of delivering instructions that facilitate the protection of life and property; and (3) alerting systems should provide a mechanism for government officials to provide additional authoritative communications with the public before, during, and after an emergency.[1]

ATIS WTSC fully supports these three goals and notes that the industry has continuously evolved WEA to meet these objectives. This evolution has supported the objectives of this alerting system (i.e., the ability to rapidly notify the public of instructions and other information to protect life and property) and reflects over a decade's worth of experience in the field, starting with the transition from 90 characters in English to 360 characters in both English and Spanish.

[1] *NPRM* at ¶7.

In addition, to improve geo-targeting accuracy, target area coordinates are now broadcast to the devices to support more precise geo-targeting through Device-Based Geo-Fencing (DBGF).

As a result of industry's efforts, WEA has the highest consumer market penetration of the alerting systems. The most important factor impacting consumer confidence and opt-in is how WEA is used by the Alerting Authorities. Ensuring the relevance of alerts and the proper use of the system is the single most effective way to enhance consumer confidence and opt-in. ATIS WTSC notes that consumer expectations also must be managed. Consumers should be informed that WEA is intended to bring lifesaving, time-critical information and that opting out eliminates the ability of this system to provide them with this potential lifesaving information.

ATIS WTSC urges the Commission to consider these goals within the context of EAS and WEA. It is important to acknowledge that these systems are not dedicated standalone alerting systems built by the USG for the sole purpose to provide alerts, but existing systems built by industry and used to provide other vital services (wireless voice/data and television/radio programming). WEA was designed to provide a quick and effective warning service to a large number of users without affecting the existing voice and data service, including emergency calls. For example, WEA leverages the 3GPP-defined Cell Broadcast System (CBS) to provide alerts to consumers. CBS was intentionally chosen for its ability to send messages to multiple mobile devices simultaneously and quickly within a specific area with minimum impacts to network congestion, especially during emergencies or large-scale events, compared to point-to-point messaging like SMS. WEA uses the System Information Block (SIB), which provides the parameters devices need to access, configure, and roam within the network, making WEA a part of the foundational element for seamless and efficient wireless communication. CBS is also used globally for public warning systems (including WEA in the U.S., Wireless Public Alerting in

Canada, EU-Alert in Europe, and similar systems in other countries). WEA has evolved as additional enhancements have been requested, allowing for the improvements deployed with WEA 2.0 and 3.0.

ATIS WTSC respectfully urges the Commission to exercise great caution when considering any rule changes that could affect the CBS, as such changes may disrupt the wireless communications infrastructure and, by extension, the WEA system. Any modifications that undermine the integrity of cell broadcast would necessitate a complete redesign of WEA. This would result in the loss of WEA's current high reliability and low latency, ultimately compromising the safety and timely notification of consumers during emergencies.

ATIS WTSC also urges the Commission to avoid setting unachievable goals. Ensuring that all members of the public receive an alert and take protective action[2] is not an achievable goal for either EAS or WEA alone. There are no systems that can ensure that all people in the targeted area will receive alert information, much less that they will take appropriate action. Even WEA, which has a broad market penetration of over 90% of US consumers (in comparison to the 10-15% penetration of complementary dissemination methods), cannot guarantee delivery because EAS and WEA are not mandated, but remain a voluntary option for consumers and because mobile devices can be in a state (e.g., off, airplane mode, or otherwise unreachable by cellular signal) that doesn't allow for delivery. While there is no way to guarantee delivery to all consumers in any target area, multiple innovative delivery paths working collaboratively may come close to meeting this desire. The Commission should thus favor light-touch rules that spur and support innovation. However, it is impossible to guarantee 100% opt-in and there is no way to ensure that even those opted-in will receive and comply with the alert instructions. Further,

[2] *NPRM* at ¶7.

while there are no guarantees, it should be noted that compliance is probably correlated with trust and relevance, which will likely be higher with appropriate targeting and clear and actionable message formulation by the Alerting Authorities.

Emergency alerting systems should be designed to ensure robust technical capabilities while prioritizing the achievement of key public safety outcomes, such as fostering public trust and encouraging compliance with protective actions. By balancing technical excellence with effectiveness in real-world scenarios, these systems can better fulfill their primary mission of safeguarding lives and property during emergencies. Comprehensive public education campaigns can build trust and promote adherence to protective guidance, while transparency about the generation and targeting of alerts further enhances public confidence in the system.

B. **The Role of Alerting Authorities**

The Commission also asks in the *NPRM* about the role of Alerting Authorities and suggests that, because of government agencies' differing responsibilities and geographic jurisdictions, the objectives of alerting systems are best served by all of these types of agencies having the ability to send alerts.[3] ATIS WTSC agrees that the objectives of alerting systems are best served by government agencies at all levels – federal, state, Tribal, territorial, and local – to have the ability to send emergency alerts. This capability ensures comprehensive coverage and timely dissemination of critical information during emergencies, contributing to the effectiveness of the nation's alerting systems. It allows for localized and targeted messaging, addressing specific needs and circumstances of different communities.

[3] *NPRM* at ¶8.

However, allowing all these governmental agencies to send alerts requires robust safeguards to ensure the integrity and reliability of the alerting system. Moreover, there are challenges with Alerting Authorities, such as overlapping roles or duplication of alerts, which can lead to confusion and alert fatigue among the public. To reconcile alerts and minimize alert fatigue, ATIS WTSC recommends that the Commission advocate for advancements in the following areas: improving centralized coordination, best practices and standardized protocols; possible AI integration; and training and drills for Alerting Authorities. Training should receive a very high priority to ensure high quality geotargeting and alert text, and sound decision-making to avoid alert fatigue. Some of these aspects have been raised since the original Commission Commercial Mobile Service Alert Advisory Committee (CMSAAC) report on mobile alert service architecture[4] as well as in the report from the Seventh Communications Security, Reliability and Interoperability Council (CSRIC VII) on standard operating procedures for emergency alerting communications.[5]

While ATIS WTSC is not in a position to advise on whether the current set of designated Alerting Authorities is sufficient or appropriate, it asks the Commission to strongly consider the already challenging task of education/training/collaboration with the existing Alerting Authorities. Commercial Mobile Service Provider (CMSP) Networks are simply the dissemination mechanism for alerts. While FEMA IPAWS and the CMSP Gateway validate message elements, the Alerting Authority is responsible for the timing and content of emergency messages, and the selection of the delivery area, ensuring that timely, accurate, and targeted information reaches those who need it most during an emergency. *A single poor decision or*

[4] CMSAAC, Commercial Mobile Alert Service Architecture and Requirements, PMG-0035 (2007).
[5] CSRIC Report on Standard Operating Procedures for Emergency Alerting Communications (Sept. 16, 2020).

mistake by an Alerting Authority has the greatest potential for significant negative consequences, whether that be a risk to life or property with unclear or incomplete instructions or a lack of relevance, resulting in widespread opt-out.

C. Alerting System Effectiveness

The Commission seeks comment on how alerting systems should be designed to ensure that capabilities are available and maximally effective during national emergencies, and on its view that the nation's alerting systems should be designed to allow the President to both send the public an immediate warning to take protective action and to later provide additional information and reassurance to the public.[6] ATIS WTSC notes that WEA currently prioritizes alerts from the President (the National Alert class, formerly named as Presidential Alert) in the network and in the broadcast to ensure that these messages are transmitted immediately and without delay. In fact, the existing WEA system was built to allow the President to disseminate alerts to the public by using the National Alert class from an Alert Origination Portal. While test messages using the National Alert class have been sent, the President has never issued a live emergency alert message over the EAS or WEA. Both the EAS and WEA are critical tools for public safety, but while they were first designed with National Alerts in mind, the primary use today addresses everyday imminent threats such as severe weather warnings. This highlights the importance of focusing on practical, day-to-day functionality to maximize the alerting systems' public safety benefits.

Messages from the President should be sent out simultaneously through various emergency alert dissemination methods to ensure they reach as many people as possible, no matter their age, location, or the type of technology they use. Alert recipients must be able to

[6] *NPRM* at ¶9.

clearly identify National Alerts as authoritative and urgent to avoid confusion or misinformation. Coordination between federal, state, and local alerting authorities ensures consistent messaging and amplifies the impact of National Alerts.

The Commission also asks if it would be most effective for alerting systems to be able to support video messages from the President.[7] ATIS WTSC appreciates the view that video messages have the ability to enhance the impact of alerts by providing visual and situational clarity. However, the WEA system as designed, which broadcasts over the SIB, is not capable of supporting direct video transmission. Adding this proposed new functionality would require a re-design of the alert system, resulting in a loss of the day-to-day benefits of low latency and high reliability for the thousands of alerts sent every year. Videos and other multimedia content are already supported by WEA through embedded links. Support throughout an emergency is available, from the issuance of a National Alert or Imminent Threat alert informing the public of the event to the use of the Public Safety Message with an embedded link to provide further information, although there may be more appropriate dissemination methods for less time-critical messaging.

The Commission also asks whether there are certain kinds of emergencies that EAS and WEA are not designed to adequately support today, and if so, what steps can be taken to better support those emergencies.[8] ATIS WTSC has been discussing specific event types with key stakeholders, and there are some scenarios that pose challenges for WEA. These involve complex, multi-stage emergencies that require dynamic updates at brief intervals due to ongoing changes in the threat itself or the location impacted (e.g., threats in motion). Updates presented to

[7] *NPRM* at ¶9.
[8] *NPRM* at ¶10.

consumers in a short period of time that are similar in nature may be perceived as duplicates. Educating consumers on the types of events requiring rapid updates may mitigate annoyance and opt-out while still allowing the dissemination of life-saving information.

The *NPRM* asks about incentivizing use of EAS and WEA by local officials and whether the resulting increase in alerts would make the public more likely to receive life-saving alerts.[9] ATIS WTSC notes that "all alerts are local." Encouraging greater use of the WEA system by local officials can significantly enhance the delivery of timely and relevant life-saving alerts to the public. As first responders with real-time knowledge of local threats, local officials are uniquely positioned to provide critical information during emergencies. Promoting local officials' active engagement in alert systems will expand the reach and improve the timeliness of notifications, ensuring that more people receive vital information when it matters most. All authorized Alerting Authorities should be familiar with the appropriate local officials and have pre-established protocols for responding to various types of emergencies. These protocols should include clear lines of real-time coordination. Depending on the situation, alerts may need to be issued by higher authorities for widespread events or by local authorities for more localized incidents. By establishing formal processes through advance planning and maintaining effective coordination during emergencies, the risk of alert fatigue can be minimized. Additionally, public education initiatives that enhance understanding and trust in EAS and WEA – paired with clear, well-crafted messages from knowledgeable Alerting Authorities – will help reduce opt-out rates and encourage prompt public response to alerts.

The Commission in the *NPRM* asks whether there are any circumstances in which it would serve the objectives of the nation's alert and warning systems for non-government entities

[9] *NPRM* at ¶10.

to send safety-related alerts via these systems and, if so, which types of entities should be permitted to send alerts and in what situations.[10] While the authorization of alerting authorities falls upon FEMA, ATIS WTSC believes that allowing non-government entities, such as utility companies, to send safety-related alerts via WEA strays from the original "imminent threat to life and property" goals and objectives of WEA, and could lead to alert fatigue where the public becomes desensitized to frequent notifications, potentially ignoring critical alerts during emergencies or opting out of certain classes of WEA messages. Further, government-issued alerts are subject to public oversight, legal frameworks, and established chains of command, ensuring transparency and accountability. This would not be the case if alerts were issued by the private sector. ATIS WTSC therefore recommends that government agencies should continue to be the sole providers of alerts because they are the only ones subject to relevant oversight, training, and education. Limiting alert issuance to government agencies would avoid introducing additional risks to the alerting system and would minimize the possibility of misuse that could impact credibility.

The *NPRM* also seeks comment on whether accomplishing the nation's alert and warning objectives requires an expansion of the ability of EAS and WEA to support machine-to-machine (M2M) alerting.[11] ATIS WTSC cautions that WEA systems are designed to satisfy the needs of humans and may not guarantee the low latency, high security, and high reliability that is required for automated protective actions like slowing trains or closing water valves. M2M systems require alerts to be structured in a way that devices can interpret and act upon them autonomously – this would require significant modifications to the current WEA policies and

[10] *NPRM* at ¶11.
[11] *NPRM* at ¶11.

format, including entire new messages for this purpose. Given these limitations, ATIS WTSC concludes that WEA is not an appropriate vehicle for M2M alerting applications.

D. Transmission Capabilities of Alerting Systems

The Commission seeks comment on whether alerting systems should be designed with the purpose of guaranteeing delivery of each alert to the intended audience or instead be designed to require only a "best effort" attempt at delivery and rely on a likelihood that the audience will receive at least one alert from a number of possible sources.[12] The *NPRM* seeks information about types of alerts, such as National Alerts, for which delivery must be consistently guaranteed for the objectives of the alerting system to be satisfied.[13]

Designing for guaranteed delivery to all intended consumers in a target area is not technically feasible for any alert class, including National Alerts initiated by the President. Emphasizing robust, resilient, and redundant alerting pathways aligned with a "best effort" approach ensures practical, scalable, and effective alerting. ATIS WTSC reminds the Commission that WEA is designed to deliver critical information quickly during emergencies through a one-way broadcast. This broadcast is accessible to all devices in a geographic area, but delivery cannot be individually confirmed. Adding a confirmation mechanism would require a significant redesign that could delay the dissemination of alerts and increase network congestion, potentially compromising WEA's effectiveness in time-sensitive situations. The importance of utilizing multiple alerting systems (e.g., WEA, EAS, National Oceanic and Atmospheric Administration (NOAA) Weather Radio) to maximize message delivery opportunities therefore cannot be overstated.

[12] *NPRM* at ¶12.
[13] *NPRM* at ¶12.

The Commission also asks about the voluntary nature of participation in the nation's alerting systems and whether this voluntary CMSP participation in alerting systems diminishes Alerting Authorities' confidence that their alert will reach their targeted audience.[14] ATIS WTSC notes that although participation in WEA is voluntary by CMSPs, many carriers, including all nationwide carriers, have chosen to participate in WEA. This widespread adoption by CMSPs supports potential penetration of the consumer base nearing 100%, effectively preserving Alerting Authorities' confidence in audience reach. Over many years of operation, WEA has demonstrated a reliable and effective platform for emergency communication. This history of dependable performance should foster trust among Alerting Authorities regarding alert delivery.

While voluntary CMSP participation has not diminished confidence in WEA, ATIS WTSC notes that voluntary participation in EAS by state and local alerts can lead to significant inconsistencies in alert dissemination across different channels. This could result in gaps in coverage or lack of "local information," as some individuals rely on radio or television for emergency information rather than mobile devices or may seek information from more than one source.

1. Resilience

The Commission proposes that alerting systems incorporate resilience to common causes of disruption to communications, such as power outages and physical damage to infrastructure, and asks whether there are other alternative communications pathways that EAS and WEA can leverage to ensure redundancy.[15] ATIS WTSC notes that no system can be designed to completely eliminate possible disruptions. All cellular communication systems are engineered

[14] *NPRM* at ¶12.
[15] *NPRM* at ¶13.

for high levels of resilience, recognizing their vital role as a communication lifeline – especially during catastrophic events. In addition, WEA is designed and implemented with alternative pathways and servers to enhance resiliency.

Unexpected equipment outages or disruptions to traditional communication infrastructure during disasters could impact WEA dissemination, but the existence of multiple dissemination methods largely mitigates this concern. Multiple alert dissemination pathways play a vital role in supplementing or providing an alternative to WEA during disasters. These pathways could include dedicated emergency channels using NOAA Weather Radio or an approach similar to the old "Civil Defense" AM radio, providing robust, resilient, and widely accessible alternatives or supplements to WEA. Leveraging traditional mediums alongside modern alerting technologies enhances the overall emergency communication ecosystem, ensuring critical information reaches the public under diverse conditions.

The Commission asks whether alerting system resiliency could be enhanced by increasing the interoperability between the alerting systems.[16] As ATIS WTSC explained above, unexpected equipment outages will impact the alerting system. Whether or not equipment is interoperable is irrelevant in such cases – downed equipment, even if interoperable, would still be out of service. The existence of multiple dissemination methods largely mitigates this concern. The wider the variety of systems used to disseminate the alerts, the better the chances of having the largest number of consumers receive the alert in some manner. Other methods for immediate dangers, such as sirens, are critical in the "backup" plan.

[16] *NPRM* at ¶13.

2. Geographic targeting

The Commission asks for feedback on the levels of precision and accuracy that are necessary for alerting systems to be capable of delivering alerts to specific populations that are targeted by alerting authorities, without delivering the alert to populations that are not targeted and seeks comment on the threshold at which geographic overshoot becomes unreasonable and undermines alerting objectives.[17] ATIS WTSC notes that, starting with WEA 3.0, the introduction of Device-Based Geo-Fencing (DBGF) is a significant enhancement for capable devices. This technology harnesses the location capabilities of modern smartphones to establish virtual geographic boundaries, allowing alerts to be rendered directly to devices located within these defined areas. Unlike traditional cell broadcast methods, DBGF enables alerting with substantially greater accuracy through having the device only present the alert if determined to be in the targeted alert area. Moreover, it supports dynamic, real-time targeting that adapts as individuals move into designated alert zones. By integrating DBGF into WEA, geographic targeting from the consumer perspective is markedly improved, reducing the occurrence of irrelevant alerts and thereby increasing public trust and responsiveness to emergency notifications. ATIS WTSC affirms that the 0.1-mile accuracy allowance for DBGF aligns well with current technological capabilities and the overarching objectives for alert targeting and market penetration of WEA 3.0 capable devices has increased significantly through the years. However, there will be times when the location of the device cannot be acquired, resulting in a default behavior of presentation of the alert for consumer safety. Presentation of the alert by default will also occur for any consumer with location services turned off in their user settings. Alerting Authorities should use a polygon or circle, when possible, to define the alert area, rather

[17] *NPRM* at ¶14.

than specifying the alert area using geocodes, in order to trigger DBGF and combat broadcast overshoot.

The Commission asks in the *NPRM* whether alerting systems should be designed to support the targeting of alerts to a continually updated target area and to the people entering and leaving that area and, if so, what technical changes would need to be made for EAS and WEA to support this capability.[18] ATIS WTSC agrees in principle that alerting systems should, to the greatest extent technically feasible, dynamically adapt the alerting area for "threats in motion" such as tornadoes, hurricanes, wildfires, extreme winds, and storm surges. The WEA infrastructure is resilient enough to manage periodic updates. However, the update frequency should be carefully balanced to prevent overloading the core network, which must remain available for essential communications between consumers, first responders, and family members during emergencies. Additionally, too many alert updates may overwhelm recipients and reduce the effectiveness of their response.

To address moving threats that evolve over time, it's important to allow industry stakeholders the flexibility to develop and implement the most effective, scalable, and secure technical solutions and set public expectations that they may receive multiple similar alerts as the situation unfolds. Communicating to the public that updated information is necessary to ensure their safety during a developing event will help the public understand and respond appropriately to multiple similar notifications.

[18] *NPRM* at ¶14.

3. Security

The Commission seeks comment on its view that the nation's alerting systems should be designed to be secure against cyberattacks from our nation's adversaries and asks whether there are specific authentication, validation, and security measures that EAS and WEA should be designed to incorporate.[19] ATIS WTSC agrees that the nation's alerting systems should be secure. The alert origination point must be a primary focus for security, as compromises here can result in the broadest and most significant consequences. Although it was not caused by a cyberattack, the 2018 false Hawaii Missile Alert vividly demonstrates how misinformation entered at the alert source can lead to widespread public disruption. A malicious alert initiated at an authorized alert origination point would be undetectable during the automated alert processing by any other downstream WEA stakeholder (IPAWS, CMSPs). No additional security measures could be applied by FEMA or CMSPs to detect and block the alert from reaching consumers because it would have entered the system from an authorized source.

The one-way broadcast nature of WEA restricts the use of interactive security protocols commonly found in two-way communications, making it impossible to apply advanced cryptographic operations without compromising timely alert delivery. Managing cryptographic keys and certificates securely across multiple agencies, carriers, and devices also presents considerable complexity, with risks of operational disruptions if not handled flawlessly. Moreover, the diverse range of devices receiving WEA, including those with limited processing capabilities, poses compatibility challenges for stronger security solutions. This challenge becomes even harder for roaming devices that may not always be able to get the necessary

[19] *NPRM* at ¶15.

credentials from the networks they connect to and may not be able to receive WEAs while roaming into the U.S.

As explained in the ATIS Report on Mitigating Wireless Emergency Alert (WEA) False Base Station Attacks, the latency and reliability of the alert dissemination would be severely impacted by any added security measures.[20] During the compilation of that security report, the theoretical threats posed by the University of Colorado were closely analyzed, along with the impacts that would occur to consumers if countermeasures should be employed. Each year, thousands of alerts are issued – many of which are Imminent Threat alerts that require immediate attention and action to protect lives. Restricting or impacting all alerts nationwide in response to the limited threat outlined in the University of Colorado paper would be unjustifiable, as it would significantly reduce the effectiveness of these life-saving notifications.

E. Information Conveyed to the Public

In the *NPRM*, the Commission seeks comment on its view that alerting systems should be designed to support the transmission of five mandatory elements in WEA messages: (1) the type of hazard event, (2) the geographic area affected, (3) a recommended protective action, (4) the expiration time of the alert, and (5) the identity of the sending agency.[21] ATIS WTSC agrees that alert and warning systems should include five key informational elements: what is happening, where it is happening (am I affected?), when it is happening, what protective actions need to be taken, and who is issuing the alert. Requiring these elements in all WEA messages aligns with proven best practices and greatly improves public understanding and response. However, ATIS WTSC reminds the Commission that the responsibility for vetting and approving the content of

[20] *ATIS Report on Mitigating Wireless Emergency Alert (WEA) False Base Station Attacks* (ATIS-0700046). Approved Oct. 6, 2020.
[21] *NPRM* at ¶16.

emergency alerts rests solely with the authorized alerting authorities and FEMA. CMSPs play a critical role in disseminating these alerts quickly and reliably, but they do not have the authority or understanding of jurisdictional policies to be tasked with reviewing or filtering alert content.

The Commission also asks whether there are resources, such as training materials or best practices, that could be made available to Alerting Authorities to promote alert message quality, uniformity, and consistency.[22] ATIS WTSC appreciates the Commission's focus on improving the quality, uniformity, and consistency of alert messages and agrees that providing resources to Alerting Authorities is a critical step in achieving these goals. ATIS WTSC believes that comprehensive training programs, best practices, and ongoing support for Alerting Authorities are essential to enhancing the effectiveness of the nation's alerting systems. ATIS WTSC notes that while FEMA has made significant investments in research on alert message wording and formatting, continued emphasis on equipping Alerting Authorities with the tools and training is necessary to apply these insights effectively.

Another resource that promotes alert message quality, uniformity, and consistency is the ATIS WTSC standard on *WEA 3.0 Practical Hints for Alert Originators*.[23] This standard provides guidance to Alerting Authorities regarding the impact their WEA message input (i.e., choice of alert message fields and the content of those fields) has upon WEA message delivery and the alert recipients.

ATIS WTSC also recommends the continued investigation of advanced machine translation technologies which may enable real-time translation of alerts into multiple languages,

[22] *NPRM* at ¶16.
[23] *WEA 3.0 Practical Hints for Alert Originators* (ATIS-0700049), Approved Aug. 18, 2021 (Revised Mar. 7, 2024). This document is available from https://access.atis.org/higherlogic/ws/public/documents?view=.

ensuring that non-English-speaking populations receive timely and accurate information. This approach aligns with ATIS WTSC's prior comments on the effectiveness of machine-based translations for multilingual alerting.[24]

F. How the Public Receives Alerts

The *NPRM* asks for feedback regarding whether consumers have frustrations with the alerts that they are receiving today and whether there are changes that should be made to how emergency alerts are presented to make them easier to understand.[25] ATIS WTSC recognizes that emergency alerts are vital for public safety, but improving how they target users, making messages clearer, and offering customization options are the key goals to keep them effective and trusted. The Commission should find a balance, based on careful evaluation of benefits and risks, that ensures critical alerts are delivered while respecting people's preferences.

ATIS WTSC understands that people have mixed feelings about alerts. They understand their importance but can get frustrated (e.g., with too many alerts, irrelevant warnings, receiving multiple alerts quickly or at inconvenient times, or messages that don't clearly explain the threat or what to do). These frustrations can cause people to ignore or turn off alerts. However, these frustrations are addressed not by technology but by effective training for Alerting Authorities. By equipping alerting authorities with the right knowledge and tools, training helps improve the overall quality and effectiveness of alerts, fostering greater public trust and compliance.

The Commission also asks whether there are end-user features that should not be left to end-user customization because they would likely frustrate the goal of these alerting systems.[26]

---

[24] *See* ATIS Comments and Reply Comments to Commission's May 13, 2024, *Public Notice* in Docket Nos. 15-91 PS Docket No. 15-94, ATIS Comments to Commission's Mar. 12, 2025, *Public Notice* in GN Docket No. 25-133.
[25] *NPRM* at ¶19.
[26] *NPRM* at ¶19.

ATIS WTSC believes that while empowering consumers with customization options enhances user experience, certain features should not be left entirely to end-user control to preserve the effectiveness of alerting systems. Although the public may want customizable features on their devices – such as personalized alert preferences, advanced filtering options, multimedia content, or adjustable alert tones – it is important to consider the technological limitations and potential unintended consequences. Changes to these settings could negatively impact the overall user experience or compromise the effectiveness of emergency messages in ways that users may not fully anticipate.

The Commission seeks comment on challenges equipment manufacturers would confront in supporting the capability to monitor IPAWS (for EAS) directly to augment alert distribution from communications service providers and on what the Commission can do to mitigate these challenges and encourage the adoption of alerting capabilities on end-user devices.[27] ATIS WTSC notes that wireless device OEMs have already begun introducing features that augment emergency alerts (WEAs) distributed by CMSPs. For example, in iOS 17 Apple introduced a feature to enable iPhone users to access additional information that Alerting Authorities place in the Common Alerting Protocol (CAP) IPAWS "instruction" field by tapping on the WEA alert.[28] The Commission should mitigate these challenges by taking a light-touch rules approach that spurs and supports innovation.

G. Other Issues

The Commission seeks comment on whether EAS and WEA are meeting the needs and expectations of both the public and alerting authorities and asks whether EAS and WEA should

[27] *NPRM* at ¶19.
[28] See Reply Comments of Apple Inc., ET Docket Nos. 15-91, 15-94 at 1 (filed Aug. 21, 2023).

be redesigned.[29] ATIS WTSC strongly believes that undertaking a fundamental redesign would undermine the effectiveness of the current system by sacrificing the optimized features that make WEA fast and reliable today. WEA remains a crucial component of the nation's public safety infrastructure, effectively addressing the essential needs of both the public and alerting authorities. WEA and EAS have proven their utility by providing timely, authoritative alerts that save lives and protect property during a wide range of emergencies. While no system is without limitations, the fact that the Commission's key objectives are being met clearly indicates that WEA does not require a redesign to fulfill its mission.

ATIS WTSC urges the Commission to, rather than pursuing any redesign of WEA, adopt a technology-neutral and flexible regulatory approach, avoiding prescriptive mandates on how these features are implemented. A collaborative strategy involving CMSPs, alerting authorities, FEMA, and other stakeholders focused on more effective use of WEA and targeted improvements will maximize WEA's potential, preserve public trust, and effectively adapt to the evolving communication landscape in a cost-efficient manner.

The Commission asks in the *NPRM* whether there are aspects of EAS and WEA that exist today that do not serve the objectives discussed above that should be eliminated.[30] ATIS WTSC notes that, while WEA has been a vital tool for public safety, certain aspects may no longer effectively serve their intended objectives and could benefit from reconsideration or elimination. Refining targeting criteria to leverage DBGF would enhance targeting and reduce unnecessary alert presentations. On the AO side, the current reliance on manual steps in alert creation and dissemination can introduce delays and increase human error risks. Assessing existing

[29] *NPRM* at ¶21.
[30] *NPRM* at ¶21.

procedures and adopting more efficient methods, where appropriate, can enhance timeliness and accuracy while reducing operational burdens.

ATIS WTSC would like to emphasize that any proposed elimination or modification should be guided by thorough impact assessments by all stakeholders to ensure technological compliance and public safety is not compromised. Stakeholder collaboration is essential to balance benefits against operational burdens and to prioritize improvements that maximize effectiveness and minimize unnecessary complexity.

Input is also sought in the *NPRM* on the costs that would be associated with any steps taken to improve the effectiveness of EAS and WEA.[31] ATIS WTSC notes that enhancing WEA involves a range of technical and operational improvements, each of which has its own costs and complexities. In most cases, gradual, incremental upgrades are more cost-effective than a complete system redesign. Adopting common standards and supporting modular upgrades can facilitate broader adoption and ensure the system remains adaptable for future needs. However, it is important to consider that, in some cases, repeated incremental changes – especially those requiring similar updates to underlying systems – could lead to inefficiencies and resource duplication.

Finally, the Commission seeks comment on how increased training for Alerting Authorities, education for the public, and collaboration among all alerting stakeholders can help alerting systems meet their goals and whether voluntary collaboration between alerting stakeholders help to close these gaps.[32] ATIS WTSC agrees that increased training for Alerting Authorities, public education, and stakeholder collaboration can significantly enhance the

[31] *Id.*
[32] *NPRM* at ¶22.

effectiveness of alerting systems in achieving the Commission's intended goals of protecting lives and property during emergencies. Addressing specific gaps in these areas is essential to improving the quality, consistency, and public trust in emergency alerts.

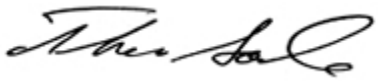
Collaboration among stakeholders – such as the Commission, FEMA, emergency management agencies, broadcasters, and wireless providers – ensures that goals are aligned, best practices can be shared, and that operational challenges can be addressed. Specific steps, such as developing comprehensive training programs, standardizing best practices, launching public awareness campaigns, and fostering stakeholder collaboration, will empower Alerting Authorities, build public trust, and ensure that alerts are timely, accurate, and actionable.

ATIS WTSC stands ready to support these efforts and collaborate with the Commission and other stakeholders to enhance the effectiveness and reliability of the nation's alerting systems.

III. CONCLUSION

ATIS WTSC appreciates the opportunity to provide input into this matter. ATIS WTSC supports the Commission's efforts to ensure that emergency alerting systems remain effective and notes that the WEA system is highly reliable, widely available and extremely effective. A redesign of this system therefore is not necessary and would in fact be highly disruptive. ATIS further recommends that the Commission exercise great caution when considering any rule changes and take a light-touch approach that spurs and supports innovation and does not disrupt the wireless communications infrastructure and, by extension, the WEA system. Any proposed elimination or modification of WEA should be guided by thorough impact assessments by all stakeholders to ensure technological compliance and public safety is not compromised. ATIS WTSC stands ready to support these efforts and collaborate with the Commission and other stakeholders to enhance the effectiveness and reliability of the nation's alerting systems.

Respectfully submitted,



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

September 25, 2025