



## ***California's Emergency Alert System***

**March 11, 2025**

**Upon adjournment of Governmental Organization Committee  
1021 O Street, Suite 1200**

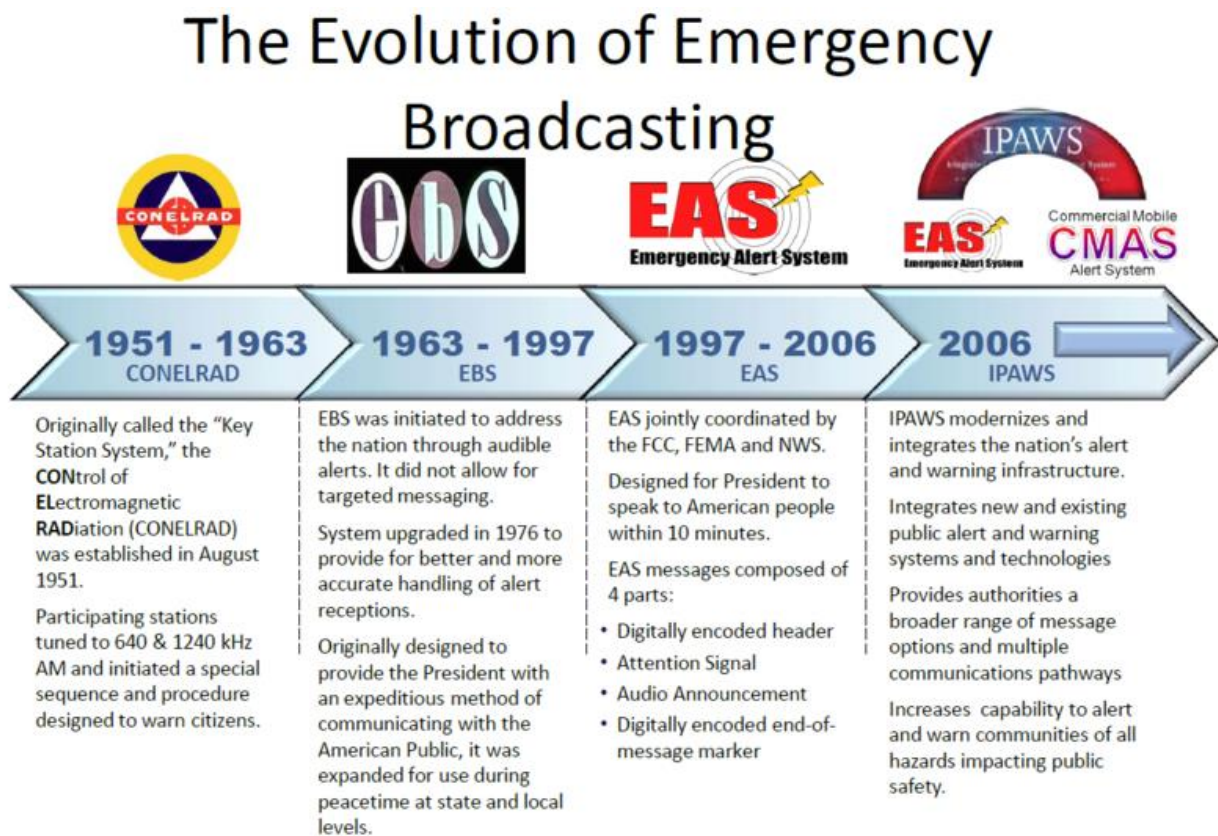
### **JOINT INFORMATIONAL HEARING**

### **SENATE COMMITTEE ON GOVERNMENTAL ORGANIZATION & JOINT LEGISLATIVE COMMITTEE ON EMERGENCY MANAGEMENT & ASSEMBLY COMMITTEE ON EMERGENCY MANAGEMENT**

California's Emergency Alert System has evolved into a critical lifeline for protecting the public during disasters and emergencies. In recent decades, the increasing frequency and severity of wildfires, floods, a pandemic, and other hazards during an increasingly changing global climate, as well as the constant threat of earthquakes, underscores the importance of a coordinated, statewide communication network.

Historically, California's alert infrastructure emerged in response to the State's unique vulnerabilities. Severe events such as the 2017 wildfire season, which witnessed devastating fires in the North Bay area, and significant loss of life and property, revealed that no single community possessed sufficient resources to respond independently. In parallel, the need to provide timely earthquake warnings spurred the development of early warning systems like ShakeAlert, which uses seismic sensor data to provide precious seconds for residents to "drop, cover, and hold on" before damaging shaking arrives. Over time, experience with various disasters have paved the way for the establishment of a comprehensive alert system that includes the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), and the Integrated Public Alert & Warning System (IPAWS).

The EAS is a national public warning system which enables broadcasters, cable operators, and radio stations to interrupt regular programming to deliver urgent messages. Initially designed to allow the President to address the nation during crises, the EAS is now predominantly used by state and local agencies to disseminate information on weather emergencies, civil dangers, and missing children. WEA complements the EAS by sending text-like messages directly to mobile devices within a designated geographic area. This technology has proven invaluable during emergencies because it reaches a broad audience automatically, even if residents are not enrolled in any alert program. Together, these systems are unified under IPAWS, which streamlines message distribution across multiple channels and is intended to ensure that information is transmitted rapidly and consistently.



[http://www.fema.gov/emergency/ipaws/ipaws\\_history.shtm](http://www.fema.gov/emergency/ipaws/ipaws_history.shtm)

Despite the sophistication of these technologies, challenges remain. Recent incidents have shown that delays in alert delivery, particularly during wildfires, can have dire consequences. For example, gaps in connectivity and inconsistencies between overlapping alert systems have sometimes led to delayed evacuation

orders, leaving residents vulnerable. Moreover, ensuring that all members of California's diverse population receive alerts in a manner that is accessible and actionable is an ongoing concern. Special actions have been undertaken to address the needs of individuals with access and functional needs, non-English or limited-English speakers, and other vulnerable groups – yet there is still room for improvement in achieving full inclusivity in alerting and warning.

Coordination among local, state, and federal agencies is essential for the effectiveness of the alert system. Local governments are typically the first to issue warnings based on real-time, on-the-ground assessments, while state agencies like the California Governor's Office of Emergency Services (Cal OES) provide oversight, resources, and technical guidance. The federal government, through the Federal Emergency Management Agency (FEMA) and the Federal Communications Commission (FCC), ensures that systems such as IPAWS meet rigorous standards and can integrate seamlessly with local efforts. This multi-tiered approach allows California to mobilize a rapid response during emergencies, although the complexity of interagency coordination sometimes contributes to communication challenges during critical moments.

Legislative initiatives have sought to address these issues as they have arisen by, among other things, mandating improvements in technology, training, and coordination. Recent bills have focused on modernizing the alert system, ensuring that all local emergency management offices are integrated with IPAWS, and establishing uniform standards for message content and dissemination.

SB 833 (McGuire, Chapter 617, Statutes of 2018) directed Cal OES, in consultation with specified stakeholders, to develop voluntary guidelines for alerting and warning the public of an emergency, and required Cal OES to develop an alert and warning training. The May 2024 *State of California Alert & Warning Guidelines* can be found on Cal OES' internet website, and states the "Legislature intends that, in the event of another catastrophe, every tool to be used to alert and warn all members of the public in the affected area, including individuals with access and functional needs. The Legislature finds and declares that the safety of local communities requires designated Alerting Authorities to ensure they have multiple operators, adequate testing and training, and functional equipment and software to alert and warn all members of the community."

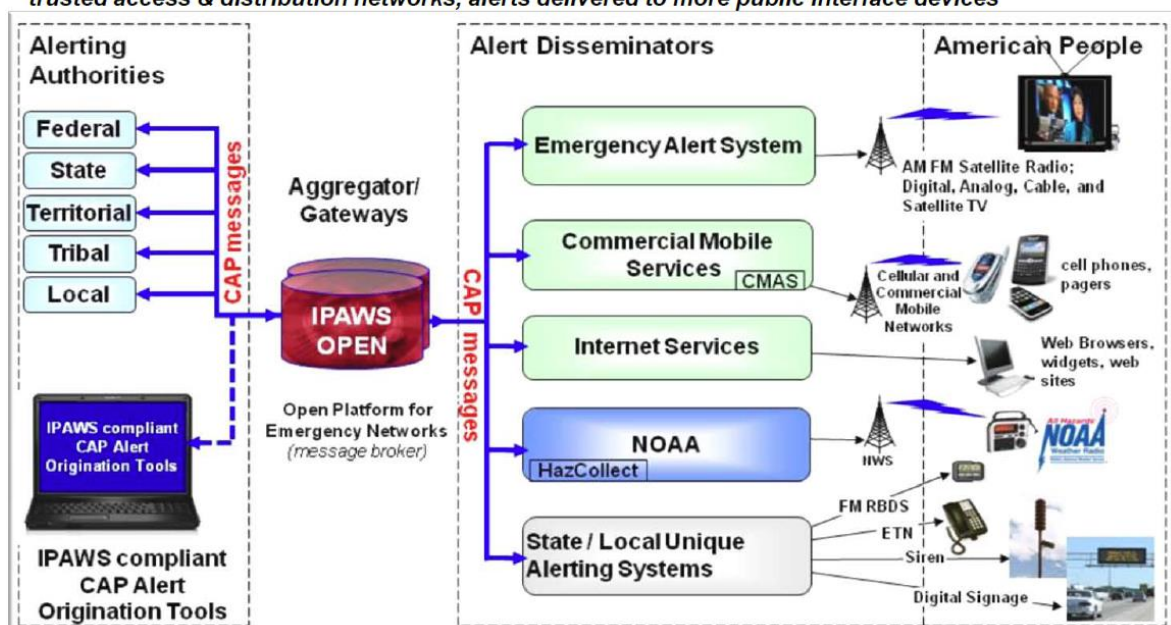
## Integrated Public Alert & Warning System

IPAWS is the backbone of modern emergency communication in the United States, serving as a critical tool for public safety and disaster management. Established by FEMA under Executive Order 13407 in 2006, IPAWS consolidates various alert platforms—including EAS and WEA—into one interoperable network. This system enables federal, state, tribal, territorial, and local authorities to swiftly disseminate geographically targeted warnings and emergency information through multiple communication channels such as broadcast television, radio, mobile devices, and internet services.

According to the FEMA IPAWS Process Playbook (Version 1.0, February 2021), public safety officials—referred to as Alerting Authorities—must compose alerts using the Common Alerting Protocol (CAP), a format that ensures consistency, clarity, and the inclusion of essential information such as the nature of the threat, the affected area, and specific protective actions. Once an alert is composed and reviewed against standardization checklists, it is transmitted to the IPAWS-OPEN platform, where it undergoes authentication before being distributed across the network to various disseminators. These dissemination pathways include EAS for traditional media, WEA for mobile devices, and other internet-based platforms, ensuring that the message reaches the public in seconds.

### The IPAWS Architecture

*Standards Based Alert Message data exchange format, alert message aggregation, shared, trusted access & distribution networks, alerts delivered to more public interface devices*



[http://www.fema.gov/pdf/emergency/ipaws/architecture\\_diagram.pdf](http://www.fema.gov/pdf/emergency/ipaws/architecture_diagram.pdf)

## **Recently Enacted Related Legislation**

SB 341 (McGuire, Chapter 425, Statutes of 2021) requires the California Public Utilities Commission to establish resiliency plans for backup power requirements for telecommunications providers to ensure that service be maintained for at least 72 hours during an electrical outage, as specified.

AB 2386 (Bigelow, Chapter 254, Statutes of 2020) requires Cal OES to annually review a minimum of 10 local emergency plans to determine if they conform or exceed best practices identified by FEMA.

AB 2213 (Limon, Chapter 98, Statutes of 2020) authorizes cities and postsecondary institutions to access resident and student contact information for the sole purpose of enrollment in a public emergency warning system.

SB 209 (Dodd, Chapter 405, Statutes of 2019) requires Cal OES and the Department of Forestry and Fire Protection (Cal FIRE) to jointly establish and lead the California Wildfire Forecast and Threat Intelligence Integration Center, as specified.

SB 670 (McGuire, Chapter 412, Statutes of 2019) requires telecommunications service providers to submit a specified outage notification to Cal OES when a telecommunications outage impacting 911 service and emergency notifications occurs. Makes Cal OES responsible for notifying the appropriate county offices of emergency services, public safety answering points and sheriffs for areas affected.

AB 1877 (Limon, Chapter 630, Statutes of 2018) requires Cal OES to create a library of translated emergency notification and a translation style guide, as specified, and requires designated alerting authorities to consider using the library and translation style guide when issuing emergency notifications to the public.

SB 821 (Jackson, Chapter 615, Statutes of 2018) authorizes counties to access the contact information of accountholders through the records of a public utility for the sole purpose of enrolling residents in a public emergency warning system.

SB 833 (McGuire, Chapter 617, Statutes of 2018) requires Cal OES, in consultation with specified stakeholders, to develop voluntary guidelines for alerting and warning the public of an emergency, and requires Cal OES to develop an alert and warning training, as specified.