TAB 21 – 09/12/2013
Wireless Emergency Alerts (WEA)

IPAWS Overview

The Integrated Public Alert and Warning System (IPAWS) is a comprehensive, coordinated, integrated system that can be used by authorized public officials to deliver effective alert messages to the American public. It provides the President as well as Federal, State, territorial, tribal, and local warning authorities the capabilities to alert and warn their communities of all hazards impacting public safety and well-being via multiple communication pathways.

IPAWS allows alerting authorities to write their own message using commercially available software that is compliant with open standards. The message is then delivered to the IPAWS Open Platform for Emergency Networks (OPEN) where it is authenticated, and then delivered simultaneously through multiple communications pathways reaching as many people as possible to save lives and protect property.

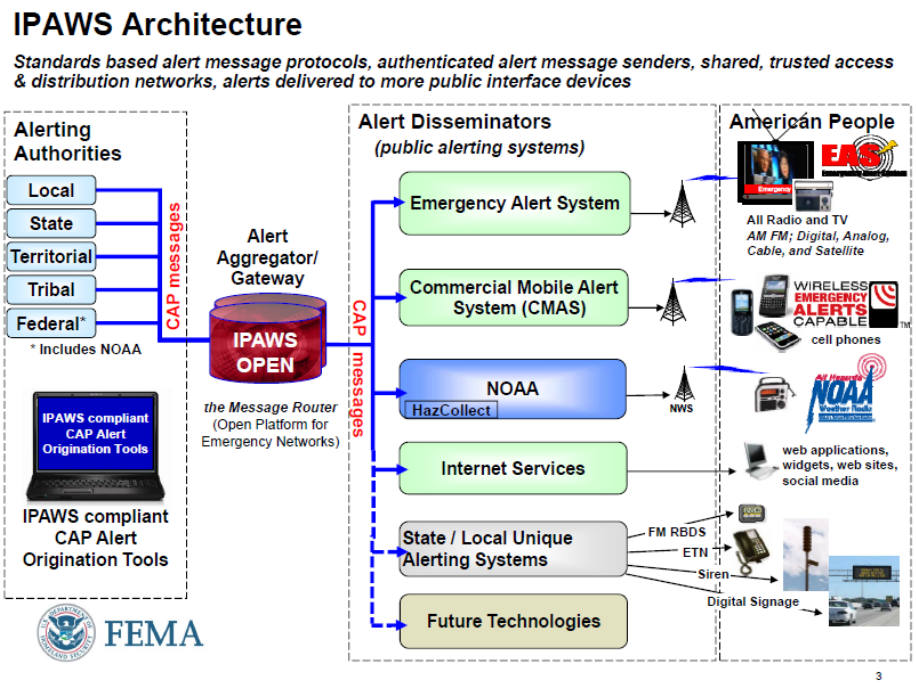
Alerting authorities can create location-specific alerts that are scaled to cover areas as big as their entire jurisdiction or a much smaller area within their jurisdiction, depending on the delivery capabilities of the system used for public dissemination. For example, alerts relayed via EAS and broadcast by a local TV station will cover the entire viewing area of the station. Alerts relayed by WEA are required to be delivered to an entire county although some cellular service providers may opt to broadcast to smaller affected areas.

The Common Alerting Protocol (CAP) is an open, non-proprietary digital message format for all types of public and private emergency alerts and notifications, which can be delivered across multiple communications pathways such as broadcast TV and radio; cable and satellite TV and radio; mobile/cellular and wireless devices; variable message signs; and emerging technologies.

Alert origination tools are software products used by emergency managers, public safety officials, and other alerting authorities to create and send critical lifesaving messages to the public. The centralized alert aggregator/gateway receives CAP alert messages from various message origination/authoring tools, authenticates the sender, and sends the alert messages to IPAWS-compliant dissemination systems.

Multiple alert dissemination systems will have access to IPAWS:

- IPAWS alerts can be delivered by the Emergency Alert System, using AM, FM, and satellite radio as well as broadcast, cable, and satellite TV.
- Alerts can be delivered as geographically targeted Wireless Emergency Alerts (WEA) to customers who own a WEA capable mobile device alerting them of imminent threats to safety in their area (including Presidential and AMBER alerts). IPAWS is the sole means of disseminating WEAs.
- The National Weather Service operates the All-Hazards Emergency Message Collection System (HazCollect) to deliver “Non-Weather Emergency Messages” (NWEMs) through NOAA Weather Radio and other NWS dissemination services. IPAWS is the sole automated system for routing alerts to HazCollect.



- Alerts will be available on the Internet through web based applications, email, instant messaging, social media, and RSS/ATOM feeds. Both public and private sector services may monitor IPAWS and disseminate alerts.
- State, local, territorial, and tribal alerting systems such as emergency telephone networks, sirens, and digital road signs may also be configured to retrieve alerts from IPAWS once they are IPAWS/CAP compliant.
- Finally, CAP and IPAWS make it possible to integrate future alerting technologies and systems.

Designated Alerting Authorities at the Federal, State, Local, Tribal and Territorial levels are authorized to send alerts and warning messages to their respective communities. There are a number of government programs with written plans that may indicate specific alerting authorities including State/Regional/Local Emergency Alert System Plan and the State/Regional/Local AMBER Alert Plan.

A Collaborative Operating Group (COG) is a term used by IPAWS to designate an organization that is responsible for coordinating emergency management/incident response activities and public alerting. It typically consists of public safety officials who need to coordinate actions, communicate and exchange information in a collaborative environment. Examples of organizations that may constitute a COG include state, regional, county, or municipal emergency management or public safety organizations.

A COG is established when a sponsoring organization executes a Memorandum of Agreement (MOA) with FEMA. In addition to executing an MOA, the COG must also apply for specific alerting authorities, including the geographic extent of authority (e.g. county) and types of alerts. Before submitting to FEMA, the application must be reviewed by a state authority to ensure that the request is consistent with state Emergency Alert System, AMBER, other emergency operations plans and current practice.

Wireless Emergency Alerts

Wireless Emergency Alerts (WEA), formerly known as Commercial Mobile Alert System (CMAS) or Personal Localized Alerting Network (PLAN), is a national emergency alert system to send 90-character, text-like messages to users' WEA-capable mobile devices starting April 2012. While these alerts will appear on a person's mobile device similar to a text message, Wireless Emergency Alerts are not text messages. Instead, Wireless Emergency Alerts use a different kind of technology to ensure they are delivered immediately and are not subjected to potential congestion (or delays) on wireless networks. In order to be distinguished from regular text messages, WEA messages include a special tone and vibration, both repeated twice. This service is offered for free by wireless carriers. WEA messages will not count towards texting limits on someone's wireless plan.

The Alerting Authority for a WEA message defines the geographic extent of the alert in the alert origination software. WEA messages are disseminated in a geographically targeted fashion by county or, depending on the wireless carrier's capabilities, even by cell tower. A person traveling into an area for which a WEA message has been issued will receive the message on his or her WEA-capable mobile device upon entry into the area.

There are three different kinds of alerts:

1. Presidential Alerts – Alerts issued by the President or a designee;
2. Imminent Threat Alerts – Alerts that include severe man-made or natural disasters, such as hurricanes, earthquakes, tornadoes, etc., where an imminent threat to life or property exists;
3. AMBER Alerts – Alerts that meet the U.S. Department of Justice's criteria to help law enforcement search for and locate an abducted child.

WEA-capable devices can be identified by a special logo on the packaging materials or in the accompanying documentation. Individuals can opt-out of receiving WEA messages for imminent threats and AMBER alerts, but not for Presidential messages. To opt out, a person needs to adjust settings the respective settings on their mobile device.

State Emergency Communications Committee

The Washington State Emergency Communications Committee (SECC) was established in 1996 as instructed by the Federal Communications Commission (FCC) to develop a State EAS Plan.

Recognizing the potential of emerging notification technologies under the Integrated Public Alert & Warning System (IPAWS) and the need to implement and sustain such technologies in a coordinated manner, the SECC decided this year to expand its scope and provide guidance for the use of Wireless Emergency Alerts (WEA) in Washington State. Based on its extensive experience with the Emergency Alert System (EAS), the SECC is well suited to develop guidance for WEA, as the challenges in operating public alert and warning systems effectively remain similar regardless of the technology.

Despite the enormous potential of WEA to warn large parts of the population quickly, initial experiences with the technology, which has been in place since April 2012, have demonstrated that significant work remains to be accomplished in the areas of plan, policy, and procedure development and integration; resolution of technical problems; training of alerting authorities; and public information before the

system can reach its full potential. There is a certain sense of urgency involved for two reasons. First, alerting authorities would like to take advantage of the new technology as soon as possible. Second, remaining challenges must be resolved, before too many individuals choose to opt out.

The SECC has therefore decided to create a separate WEA Subcommittee. This subcommittee is comprised of federal, state, and local alerting authorities issuing WEA messages to residents and visitors of the State of Washington. The WEA Subcommittee will work collaboratively with subject matter experts from alert origination service providers, wireless carriers, and device manufacturers. The purpose of the WEA Subcommittee is:

- to develop a state WEA plans, policies, and procedures;
- to coordinate and integrate federal, state, and local WEA plans, policies, and procedures;
- to identify and coordinate the resolution of technical WEA problems in collaboration with alert origination service providers, wireless carriers, and device manufacturers;
- to serve as a conduit for public information regarding WEA technology;
- to identify and assist in filling training needs for WEA alerting authorities;
- to promote timely and pertinent Wireless Emergency Alert dissemination throughout the state;
- to foster effective and integrated use of all IPAWS dissemination technologies, specifically EAS and WEA.

Links

Integrated Public Alert & Warning System (IPAWS)
http://www.fema.gov/integrated-public-alert-warning-system

IPAWS online training
http://training.fema.gov/EMIWeb/IS/courseOverview.aspx?code=is-247.a

How to sign up for IPAWS
http://www.fema.gov/alerting-authorities#3

IPAWS OPEN Developers List
http://www.fema.gov/media-library-data/20130726-1828-25045-1522/opendevelopers.pdf

Wireless Emergency Alerts (WEA)
http://www.fema.gov/wireless-emergency-alerts

Provider-specific WEA information
http://www.ctia.org/consumer_info/safety/index.cfm/AID/12082

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