



Integrated Public Alert and Warning System Discussion

PAWS PMO in coordination with FEMA ODIC welcomes

Key Industry and Federal Experts

on

Disability Access and Functional Needs



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Outcomes from FEMA IPAWS/ODIC July 1, 2010 Round Table

- ▶ The IPAWS program office has and will continue to establish, develop and maintain collaborative working relationships with various special needs organizations and agencies. The IPAWS program offices has established ongoing relationships with organizations such as:
 - The Office of Disability Integration and Coordination (ODIC)
 - The National Center for Accessible Media (NCAM /WGBH) Caption Research
 - The National Council on Disability (NCD)
 - The National Council on Independent Living (NCIL)
 - University of Kansas (Life Span Institute/ Research and Training on Independent Living)
 - The Coalition of Organizations for Accessible Technology (AAPD/COAT)
 - DEAF Link (State of Texas Emergency Management)
 - SIGNTEL (Horace Mann School of the Deaf / Boston Mass)

- ▶ Additionally, through these and other continuing efforts, the IPAWS program office has also had the privilege to participate in such events as:
 - National Council on Independent Living Annual Conference (20 Years of ADA)
 - Interagency Disability Educational Awareness Showcase (IDEAS)
 - FEMA Getting Real Conference
 - Monthly White House Disabilities Working Group teleconference
 - US Congressional Demonstration, highlighting technologies for people with special needs

- ▶ Through these efforts the IPAWS PMO has had the opportunities to explore new technologies and examine methodologies to enhance the programs ability to meet the access and functional needs of citizens with disabilities.



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Integrated Public Alert and Warning System

Get Alerts, Stay Alive

December
2010



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The Evolution of Emergency Broadcasting



Originally called the “Key Station System,” the **CONTROL** of **ELECTROMAGNETIC RADIATION** (CONELRAD) was established in August 1951.

Participating stations tuned to 640 & 1240 kHz AM and initiated a special sequence and procedure designed to warn citizens.

EBS was initiated to address the nation through audible alerts. It did not allow for targeted messaging.

System upgraded in 1976 to provide for better and more accurate handling of alert receptions.

Originally designed to provide the President with an expeditious method of communicating with the American Public, it was expanded for use during peacetime at state and local levels.

EAS jointly coordinated by the FCC, FEMA and NWS.
Designed for President to speak to American people within 10 minutes.

EAS messages composed of 4 parts:

- Digitally encoded header
- Attention Signal
- Audio Announcement
- Digitally encoded end-of-message marker

IPAWS modernizes and integrates the nation’s alert and warning infrastructure.

Integrates new and existing public alert and warning systems and technologies

Provides authorities a broader range of message options and multiple communications pathways

Increases capability to alert and warn communities of all hazards impacting public safety.



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IPAWS Federal Guidance -

Executive Order 13407 states:

“It is the policy of the United States to have an effective, reliable, integrated, flexible, and comprehensive system to alert and warn the American people...”

“establish or adopt, as appropriate, common alerting and warning protocols, standards, terminology, and operating procedures for the public alert and warning system to enable interoperability and the secure delivery of coordinated messages to the American people through as many communication pathways as practicable...”

“administer the Emergency Alert System (EAS) as a critical component...”

“ensure that under all conditions the President of the United States can alert and warn the American people.”

1995 Presidential EAS Statement of Requirements states:

“The national level EAS must be: Fully integrated from the national to local level, yet capable of independent local (Priority Two) and state (Priority Three) operations”

**The IPAWS Program Management Office was formed to implement
Executive Order 13407**



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The IPAWS Program Vision, Mission, and Goals

Vision

Timely alert and warning to American citizens in the preservation of life and property.

Mission

Provide integrated services and capabilities to Federal, State, territorial, tribal, and local authorities that enable them to alert and warn their respective communities via multiple communications methods.

Goals

To attain the Vision and accomplish the Mission, FEMA has established three overarching strategic goals:

Goal 1 – Create and maintain an integrated interoperable environment for alert and warning

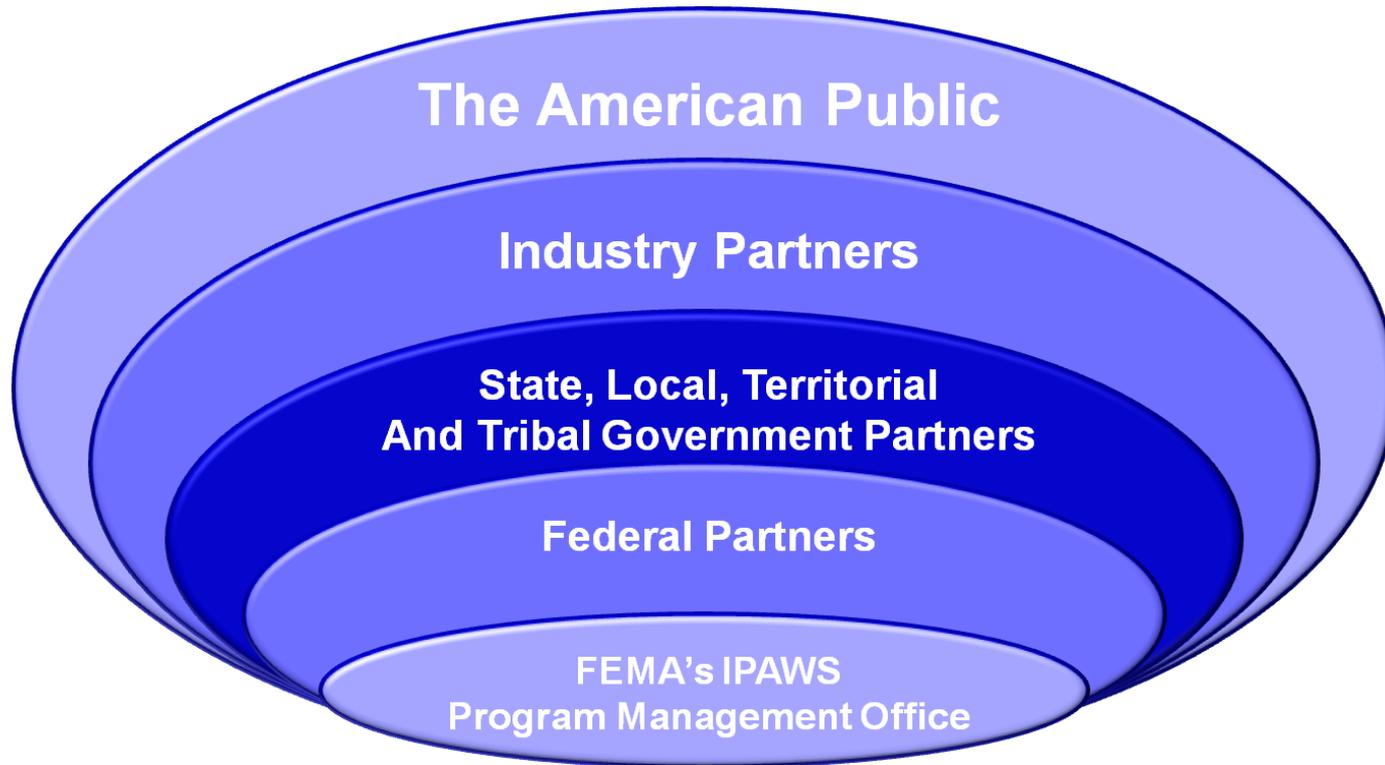
Goal 2 – Make Alert and Warning More Effective

Goal 3 – Strengthen the Resilience of IPAWS Infrastructure



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IPAWS Stakeholders



- Successful private-public relationships are critical to IPAWS.
- IPAWS is fulfilling the requirements in EO 13407 by reaching out to all stakeholders.



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IPAWS Vision

*Timely Alert And Warning To American Citizens In
The Preservation of Life And Property*



**Alerting Authorities;
Federal, State,
territorial, tribal,
and local**



IPAWS Alert Aggregators



Television



Radio



Cell Phone



Computer



Home Phone



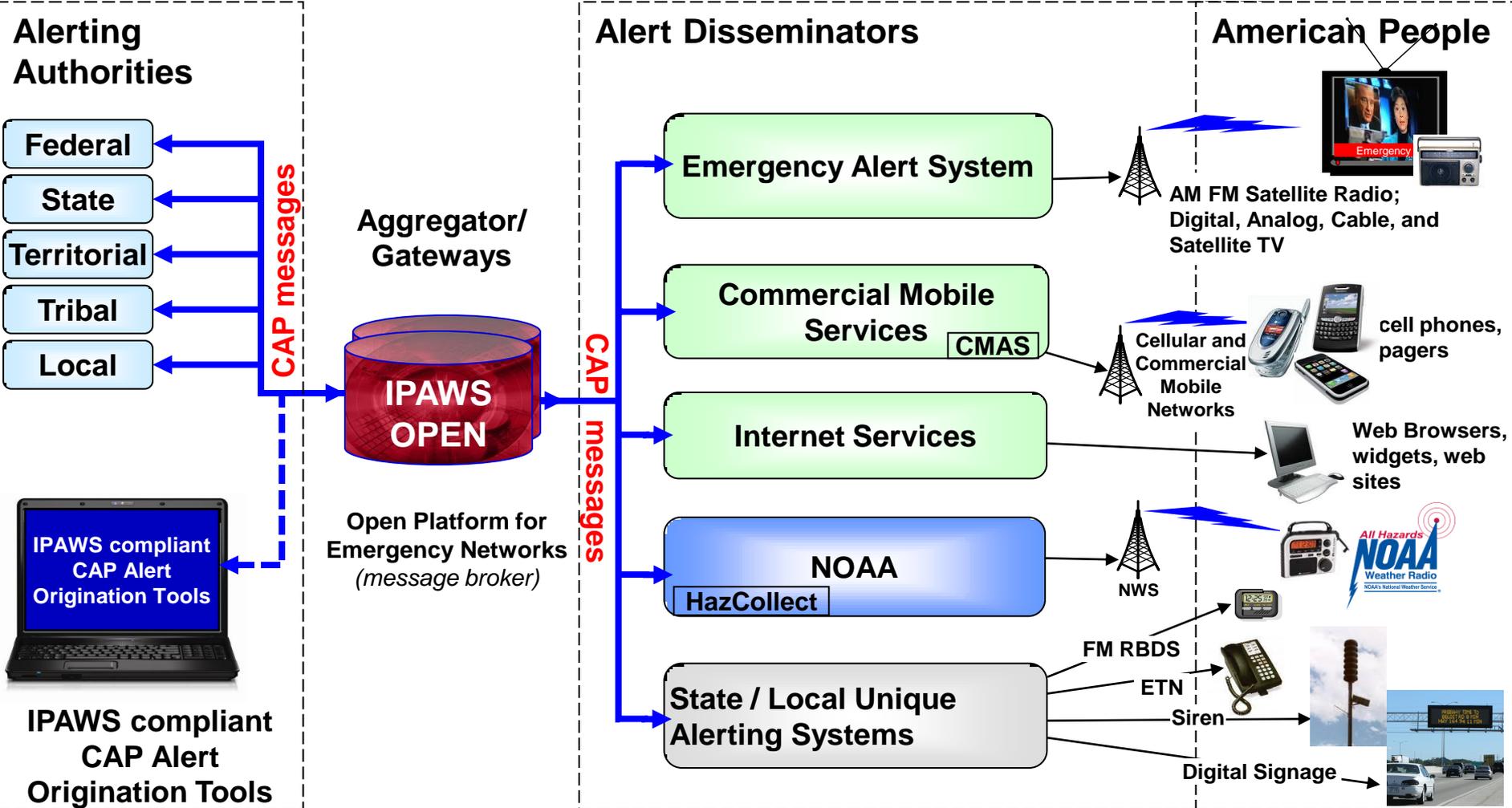
Public Signage



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IPAWS Architecture

Standards Based Alert Message protocols, authenticated alert message senders, shared, trusted access & distribution networks, alerts delivered to more public interface devices



IPAWS Collaboration with organizations supporting Americans with Functional and Access Needs

- ▶ Organizations supporting Americans with Functional and Access Needs play a key role in the execution of the IPAWS program and meeting the requirements specified in the Executive Order.
- ▶ The IPAWS program has and will continue to establish, develop, and maintain collaborative working relationships with various organizations and agencies including but not limited to:
 - **FEMA Office of Disability Integration and Coordination (ODIC)**
 - **National Center for Accessible Media (NCAM)**
 - **Gallaudet University**
 - **National Organization on Disability (NOD)**
 - **University of Kansas (Life Span Institute)**
 - **National Council of Independent Living (NCIL)**
 - **National Council on Disabilities (NCD)**
 - **WGBH National Center for Accessible Media**



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IPAWS Project Areas

- ▶ Emergency Alert System – modernization and expansion of EAS - implementation of next generation digital format for distribution of alerts; the Common Alerting Protocol (CAP); doubling of FEMA connected Primary Entry Point (PEP) stations to provide direct EAS broadcast coverage to 90% + of the United States population
- ▶ Commercial Mobile Alert System (CMAS) – system enabling alert authorities access to cellular networks for broadcast of alert messages in text format (capability is alert message broadcast to a location, not a subscription SMS based service)
- ▶ IPAWS Alert Aggregator (OPEN) – a CAP message broker and dissemination gateway providing authenticated alert authorities at all levels (federal state territorial, tribal, local) access to public communications networks for dissemination of alert and warning information
- ▶ Integration of capabilities and access with NOAA capabilities – weather alerting systems
- ▶ Training Development and Outreach - to alerting officials, private sector partners, and the American public
- ▶ Study and Development of better alerting capabilities – focus on alerting for Americans with functional and special access needs and non-English speakers

IPAWS is enhancing and modernizing the National EAS system while developing additional capabilities that will be available for use by all levels of alert authority (digital alert distribution to broadcasters, cellular broadcast alerts, integration with NOAA networks)

IPAWS does not replace local alerting systems. Through integration, IPAWS can provide additional capabilities to local alerting authorities.



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IPAWS Milestones & Activities

- ▶ **IPAWS Technical Specification to Common Alerting Protocol v1.2 (Completed – Nov 2009)**
- ▶ **Commercial Mobile Alerting System Interface Specification (Completed – Dec 2009)**
- ▶ **Conducted live code exercise of national EAS (EAN) in Alaska (Completed – Jan 2010)**
- ▶ **First Expansion Primary Entry Point station brought online (31 August 2010)**
- ▶ **DM-OPEN v 2.0 brought online in FEMA data center (29 August 2010)**
 - ▶ **DMIS / OPEN v1.0 remains online in DHS data center for transition period**
- ▶ **Accepted the ECIG CAP to EAS Implementation Guide (August 2010)**
 - ▶ Document available at: <http://www.eas-cap.org/documents.htm>
- ▶ **Formally adopted Common Alerting Protocol (CAP v1.2) (September 2010)**

Moving Forward:

- ▶ **Conformance testing of vendor products to IPAWS CAP Profile**
 - ▶ Lab web site/vendor application at: <https://www.nimssc.org/ipawsconform/default.asp>
- ▶ **IPAWS CMAS Gateway available for carrier testing (Feb 2011)**
- ▶ **Inventory of State and Local EOC Alert and Warning Capabilities**
- ▶ **Nationwide test of the national Emergency Alert System (2011)**



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Comments and Questions

▶ **IPAWS Website** - <http://www.fema.gov/emergency/ipaws>

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