

Leveraging Emergency Notification Alerts

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ABSTRACT

This essay argues for the importance of either creating a new alert system or changing the criteria of the current Emergency Alert System. Such an alert system is critical in assisting emergency managers and law enforcement personnel with communicating safety and security concerns. To use the current system, local and state government officials must complete the Integrated Public Alert and Warning System (PAWS) process.

INTRODUCTION

The Department of Homeland Security (DHS) and other federal organizations such as the National Weather Service (NWS) have access cell phone alert system. But this access requires local and state municipalities to become accredited by the Federal Emergency Management Agency (FEMA) before they can be authorized to use the system. Due to the delay in the accreditation process, local/state governments and even education centers have started or created their own emergency alert systems with mobile and internet capabilities. This creates a redundant system, which is can be beneficial but can also lead to information fratricide by reporting inconsistencies or over-reporting. This redundant system also has drawbacks; for example, subscribers may use a particular service from a school or town, but an adjacent school or town reports an incident using a different service. In the end, the subscriber concerned does not receive a notification. For a multitude of reasons, local and state government officials must be accredited and have access to transmit and notify citizens on the national alert system. This essay discusses the background and creation of the national alert system, the Integrated Public Alert and Warning System (IPAWS),

and the need for local and state government officials and emergency managers to access and transmit on the IPAWS.

BACKGROUND AND CREATION OF THE NATIONAL ALERT SYSTEM

The National Weather Service (NWS) frequently sends out Wireless Emergency Alerts (WEA) about “weather watches, warnings and advisories from both the Common Alerting Protocol (CAP) and Atom Syndication Format (ATOM) through the Emergency Alert System (EAS).”¹ According to the NWS these alerts can be “used to launch Internet messages, trigger alerting systems, feed mobile device (e.g., cell phone/smart phone and tablet) applications, news feeds, television text captions, highway sign messages, and synthesized voice over automated telephone calls or radio broadcasts.”² They can also be specifically targeted to mobile devices operating in a certain geographical location or receiving signals from certain cell towers.

Rather than build a new communication platforms, the Department of Homeland Security (DHS) leveraged and improve the existing National Weather Service (NWS) system for emergency management purposes. On June 26, 2006, Executive Order 13407 authorized the Secretary of Homeland Security to:

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, taking account of Federal Communications Commission rules as provided by law.³

This Executive Order created the Integrated Public Alert and Warning System (IPAWS) program, which enables the Federal Emergency Management Agency (FEMA) DHS to alert and warn US citizens, protecting property and preserving life through the Federal Communications Commission (FCC).

THE INTEGRATED PUBLIC ALERT AND WARNING SYSTEM (IPAWS)

With the recent increase in violent crimes inflicting mass casualties or panic, destructive weather incidents, or other hazardous emergencies, disseminating timely and accurate information must be the responsibility of local government officials. Currently, both local and state government organizations must be authenticated by FEMA before they can use the Integrated Public Alert and Warning System (IPAWS) or transmit using its software. "As of January 2013, 93 public-alerting authorities, 18 including those in at least 35 states, have gone through the necessary authentication steps with FEMA to use IPAWS and an additional 110 alerting authorities have applications in process."⁴

During the Sandy Hook Elementary School Shooting and the Boston Marathon Bombing tragedies, local government, law enforcement and emergency management officials were able to use IPAWS to send out some critical public information. In both instances, alerts ranged from a couple of minutes to almost two hours.⁵ During the Waldo Canyon Wildfire, Colorado, in June 2012, approximately 50,000 out of a potential 118,000 residents signed up for the local emergency notification system within three days in order to receive timely updated information.⁶

In order to better serve and protect the public, emergency management at the local and state government level needs to disseminate timely critical information to a specific area. Integrating the IPAWS alert system assist with all emergencies in which emergency managers need to inform the public of safety concerns and security measures or possibly request assistance in solving a crime.

REASON FOR IPAWS AT THE LOCAL GOVERNMENT LEVEL

Emergency response to disasters will always be further complicated because of communication issues. Communications during an emergency can lack focus or contain little to no information; or they can provide directions to public safety locations, create a citizen reporting hotline, and/or inform concerned or affected citizens of a hospital(s) patient registry. The goal of government officials, during emergency disasters, should be to avoid disseminating inaccurate information. The reason to avoid this is simple: misinformation will be repeated and cause more confusion than assistance.

Emergency management personnel and local government officials must be able to utilize IPAWS or develop a similar system with same capabilities in order to disseminate critical information that will save lives or protect government/personal property. There are three things local government must do to make IPAWS more effective: (1) local government and emergency management departments need to begin and complete the IPAWS accreditation process through FEMA; (2) local citizens must be more proactive and subscribe to and sign-up for the local emergency alert notification system; and (3) FEMA must provide a clear definition, with examples, for all emergency alerts, that allows local governments and emergency managers through local legislation to add specific regional emergency threats that may not be relevant in other areas.

IPAWS Accreditation Process

The four-step process to become an IPAWS approved alerting authority includes: using an IPAWS compatible software system to send the alerts, completing a memorandum of agreement with the FEMA for use of IPAWS system, applying to FEMA to send public alerting permission, and completing Internet-based IPAWS training from FEMA's Emergency Management Institute website.

According to a GAO report, one of the main obstacles to government officials using the IPAWS system is lack of training. In this report, emergency managers across the nation

were surveyed and responded that they lacked training, specifically how to “properly craft and initiate a message... as well as make the system more user-friendly.”⁷ Since this GAO Report’s findings were released nine public and private Universities, nineteen ADA/People with Access and Functional Needs Organizations, and several other government authorities have become IPAWS accredited.⁸ Making the IPAWS system more user-friendly and providing operator training for current and future users will facilitate the ability of emergency managers and government officials to effectively alert the public.

Becoming Proactive

One of the nation’s first pioneers of the “subscribed” alert messaging system was Virginia Tech University. After the campus shooting on April 16, 2007 that resulted in thirty-two dead and seventeen wounded, the Governor’s Office ordered a report be made. In the *Mass Shootings at Virginia Tech Report, Key Findings Section*, four of the twenty-one findings discuss alert communications and notifications.⁹ Virginia Tech has since created VT Alerts and the university Office of Emergency Management has created VTGemini; both systems are multi-modal alerts that send messages to inform subscribers of emergencies and recommend a course of action to follow.¹⁰ VT Alerts and other similar systems are proactive approaches but do not account for people who choose not to subscribe or guest and visitors who are in the area but have not subscribed for these alerts. In response to tragedies and emergencies like the Virginia Tech Massacre, many businesses, schools, organizations, and city councils created their own emergency alert notification systems. Some of these organizations require their employees, students, or parents to subscribe to these notifications; others are voluntary. This methodology, although it may not require the individual to subscribe for the notification system, is still proactive as it informs the individual of the alert system and allows them to subscribe or not subscribe for the service.

Emergency Disaster Defined

FEMA currently has over fifty definitions for “disaster.” Although this seems inconsequential, the reality is that organizations, government officials, and emergency managers throughout the United States react differently during disasters. Without having a standard definition for “disaster,” emergency managers or other government officials are inhibited in providing support and confronting the disaster. FEMA’s basic definition for disaster is “an occurrence that has resulted in property damage, deaths, and/or injuries to a community.”¹¹ The World Health Organization (WHO) defines a disaster as “serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources” and an emergency as “imposed by somebody in authority, who, at a certain moment, will also lift it. Thus, it is usually defined in time and space, it requires threshold values to be recognized, and it implies rules of engagement and an exit strategy.”¹² All emergency disasters need these two critical pieces: quantification of loss of life, equipment, and property which exceed the local level ability to respond to it, and the appointment of somebody who has the authority to mitigate, react, and respond to a disaster for a finite period of time.

With this understanding, emergency managers or government officials can place restrictions on emergency alerts that are sent to the public. Furthermore emergency managers, with the help of FEMA, can better define events that would require an emergency alert.

CONCLUSION

In order to leverage existing emergency notification alerts or Integrated Public Alert and Warning System (IPAWS), on the national level through FEMA, government officials and emergency managers need to become more proactive, seek for their organization or agency to become IPAWS accredited, and establish a standard definition of an emergency disaster with examples.

ABOUT THE AUTHORS

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NOTES

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