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Best Practices in Emergency Notification

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There is no single best practice in emergency communication, and each community is different. Successful deployment and operation of your emergency notification system will be aided by incorporating as many recognized and recommended practices as possible.

Emergency notification systems are becoming more and more prevalent in the public safety sector. Cities, counties, townships and agencies of all shapes and sizes are deploying communications tools to alert their constituents in an emergency. But does Joe Public know that the county might call him?

Public Outreach and Education

Establishing awareness, participation and responsibility among your constituents is vitally important, and should be number one on any list of best practices. A deliberate, thoughtful public information campaign will help ensure your community is aware of the emergency notification system, understands its purpose and knows how to respond to a call. Reach out to your community.

When the system goes live, make an announcement—hold a press conference, issue a news release, work with the media to let people know that the system is there. Tell your citizens what kinds of situations it will be used for and what to do if they get a call. Encourage people to “opt-in”—register their cell phones and other devices. Your outreach campaign will be a vital tool to gather preferred contact information and methods for citizens using media other than landlines.

A good emergency notification provider will include public outreach support as part of their system offering. Some key components of a successful public information campaign are:

- *Assign a project manager for the campaign.* Maybe it is your public information officer or an associate in that department. Maybe you engage an outside firm. Whichever route you choose, work closely with your provider to craft your message.

- *Brand your system.* Give it a name that is logical, easy to remember and appropriate to your community. Create brochures or literature, and an area dedicated to the system on your Web site.
- *Collaborate with local media.* Engage media partners who will carry the message to sign up, support and reinforce alert messages, and help maintain a consistent message to the public.
- *Build relationships with other public safety and disaster response partners*—including local media, vendors and suppliers, disaster response organizations like the Red Cross, 2-1-1 and others. Cross-promote public safety and emergency response resources.
- *Engage spokespersons.* Are there famous athletes, local celebrities, media personalities, or public safety and law enforcement leaders who would be great advocates of the system? Ask them to attend events, visit schools and participate in public service announcements.
- *Build relationships with advertising partners.* See if you can establish partnerships that include regular exposure and discounts on advertising. Ask a partner to sponsor the campaign.
- *Reach out to local retailers whose businesses are related to safety and preparedness.* See if they are willing to give promotions or hold events at their stores.
- *Encourage your citizens to be partners in emergency preparedness.* Make preparedness information and resources easily available through your agency and on your Web site.
- *“Frequently Asked Questions”* are a great vehicle through which to express system information. Post them on your Web site.

Photos courtesy of Twenty First Century Communications.



Trends in Communication Preferences

Of course, you want the best and most current data possible in your emergency notification database. Contact data available to public safety agencies includes either emergency 9-1-1 data purchased from area telecom carriers, or 4-1-1 data from commercial sources.

4-1-1 data is the same as “white pages” data—it includes residents and businesses listed in the phone book. While emergency 9-1-1 data includes both listed and unlisted numbers, neither type of database includes VoIP or VoIP numbers (such as Vonage and Wide Open West). Cellular phones numbers are also unavailable. According to the Pew Internet and American Life Project, of a population of 301 million in the U.S., 262 million, or 80 percent, are cell phone subscribers. In fact, worldwide there are more mobile phones than there are televisions and PCs combined. In addition, a 2008 study from The Nielsen Company stated that more than 20 million U.S. households (17 percent) were “wireless substitutors”—homes without landlines, which rely solely on mobile phones for their home telecommunications. According to Nielsen, this percentage has grown by 3 to 4 percentage points per year. So, encouraging citizen opt-in is fast becoming a best practice in emergency notification.

The most common method for gathering voluntary registrations is through an online form on the agency’s Web site. Opportunities for non-Internet users to sign up should also be available. In-person registration can be offered at municipal buildings. Reach citizens through their utilities, telecom carriers and/or cable companies—see if these service providers are willing to send inserts in their bills.

Educate and encourage, but also help people to register with the system. Exhibit at community events, fairs and parades, where you can set up wireless laptops and assist with registration. Partner with local libraries—ask them to help citizens register, especially those who do not use computers and the Internet at home.

Multi-modal Communications

Needless to say, Americans are becoming a “preference-driven” group. Not only have we become accustomed to conducting business over the Web or through a mobile device, now we may prefer one method over another. Many people are on the go and want to receive

information via text message or e-mail on their PDAs. Others are in front of a computer all day and prefer an e-mail. Still others are at home, and will answer the landline. Hearing impaired persons may prefer to receive a message on a TTY device. And, of course, many people would like a cellular call.

Don’t forget about text messaging. It is quickly becoming the default communication channel of millions. According to NeuStar, 72.2 percent of wireless users, or 203 million Americans, have paid for SMS packages. There has been a 107 percent increase in text message use in the USA in the past year.

Preferences aside, in a major disaster, it is best practice to send your message out using every channel available. Depending on the time of day, people may be at home, work or school, in transit, in a meeting or in elsewhere. If the situation is urgent, and you need to inform everyone as quickly as possible, sending the notification over landline, cell phone and TTY, via text message, e-mail and other means increases the likelihood that the information will reach individuals on at least one of their devices. It also bypasses certain network issues. For example, text messages frequently get through when the telephone lines are congested. Therefore, it is absolutely critical that the emergency notification system you choose offers multi-modal communications.

TTY/TDD

The abbreviations TTY (telephone typewriter or teletypewriter) and TDD (Telecommunications Device for the Deaf) stand for a group of telecommunication devices that make it easier for hearing and speech impaired people to communicate over telephone lines. With respect to emergency notification to TTY/TDD devices, there are two approaches currently in place in the industry.

Some systems are unable to detect the machines automatically. They require hearing impaired individuals to register their TTY phone numbers into the system. Thus, the TTY numbers are stored in a separate list, and require a separate type of notification campaign to reach them. This type of notification process requires a live relay operator—human intervention—to translate the message from voice or text into the “Baudot” tones recognized by TTY devices.

Use an emergency notification system with True TTY communica-

ESTABLISH POLICIES TO COMMUNICATE WITH THE MEDIA REGARDING THE INCIDENT AND THE ALERT. **This will help maintain a consistent message to the public.**

tions. This means that the system itself has the ability to detect the machines during a single notification process, without needing to send a separate message to a separate list of numbers. They also have the ability to send the Baudot tones directly to the machines without the intervention of a live relay operator. The emergency notifications using these systems are “functionally equivalent,” meaning that they are equally accessible to persons with disabilities.

Why is this important? Not only does it eliminate delays in notifications to the hearing impaired, it reduces the risk of non-compliance with the Americans with Disabilities Act (ADA). The ADA says that State, County and City agencies must assure that all their programs and services are accessible to individuals with disabilities.

Inbound IVR

The emergency notification conversation usually centers on outbound calls and messages. However, studies have shown that every five outbound messages can trigger two to three inbound calls for clarification or further information. During the 2007 wildfire evacuations in San Diego, the area’s 2-1-1 call center was overwhelmed with incoming calls from citizens looking for information and instructions.

Inbound interactive voice response (IVR) programs can be used to handle those high volumes of incoming calls with automation, leaving personnel free to continue operations and support response efforts.

This inbound functionality is a feature of hosted mass notification systems, rather than onsite systems or equipment. Onsite systems have limited call processing capacity, typically 24 ports to each voice response unit, and the call activity takes place on the agency’s local phone lines, which also have limits.

Hosted systems are able to offer high volume inbound IVR because they run remotely on large telecom platforms with multiple thousands of IVR ports dispersed across multiple locations. Since the inbound telephone number is hosted remotely by the vendor, the calls terminate on the vendor’s telecom platform—not the local network. This prevents congestion at the local level, while still satisfying every caller and keeping agency personnel and local phone lines open for regular operations and incident response.

Inbound IVR is essentially a self-service, inbound portal, a means to provide employees, citizens and the media with up-to-the-minute information in any situation. It is an easy way for organizations to make clarification and follow-up instructions available during and after an incident, such as repopulating areas after evacuations. The messages that callers hear can be changed and updated as needed, on-the-fly, as the situation unfolds.

The system should be able to transfer an existing agency telephone number into the inbound program, or provide a new number if needed. The inbound feature should include the ability to prompt callers to give responses using voice or touch tone, and to transfer callers to other lines. This “call filtering” can help queue and route callers to needed resources while leaving personnel free to continue operations.

Also, prompting callers for responses can be used to gather information such as safe and well, assistance needed, status on conditions such as power outages, fires and floods. The data should populate reports—just like in outbound programs—and be used to aid in the response.

Inbound IVR also has numerous applications for internal or staff communications. Personnel can call in, be authenticated using an ID and password, report their well being and status, receive assignments and confirm receipt of information. Inbound applications include:

- Staff notification

>>FAQ

WHAT IS THE EMERGENCY NOTIFICATION SYSTEM?

HOW DOES IT WORK?

WHAT TYPES OF MESSAGES WILL BE SENT?

DOES IT HAVE MY PHONE NUMBER?

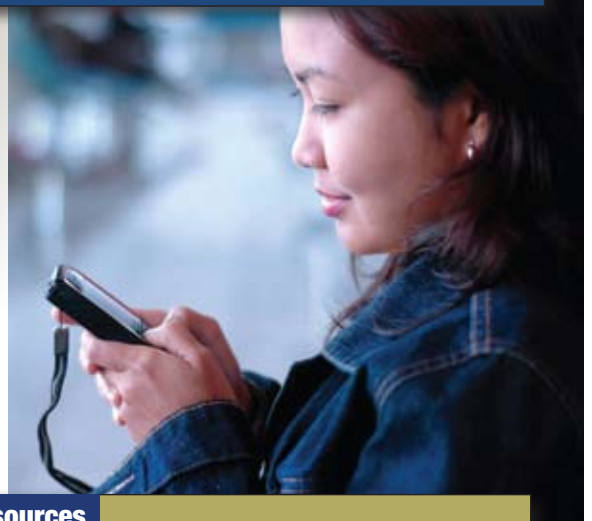
WHAT IF I DON'T HAVE A LANDLINE, CAN THE SYSTEM CALL MY CELL PHONE?

HOW CAN I SIGN UP TO RECEIVE NOTIFICATIONS?

HOW DOES THE SYSTEM RESPOND TO BUSY SIGNALS OR NO-ANSWER?

WHAT PRECAUTIONS ARE TAKEN TO PROTECT PERSONAL CONTACT INFORMATION STORED IN THE SYSTEM?

WHAT SHOULD I DO IF I GET A CALL?



Campaign Resources

DHS Ready Campaign “Prepare, Plan, and Stay Informed”: www.ready.gov

Best Practices in Emergency Notification

- Public information
- Call filtering and routing
- Media communications
- Follow-up to an outbound alert
- Post-evacuation—repopulate an area, safe to return

Develop Your Operating Procedure

Finally, just as an informed community is an important piece of the puzzle, an informed organization is also critical. It is sometimes an overlooked and underestimated part of the emergency notification project.

During system implementation and prior to going live, execute an internal awareness campaign. This will bring associates across your agency up to speed on the emergency notification system by the time the public announcement is made.

Once the decision is made to purchase a system, the focus turns to issues of project planning, implementation and training. As that is underway, assign an individual to develop a standard operating procedure for the system. Establish a protocol for the system's use to provide a comfort level among personnel. Doing so will provide guidelines on system use and administration and offer an overview of policies and agency roles and responsibilities.

The document should define the authority and responsibility for system administration, control, access and use. Who is authorized to activate your system? This should be in a written, quick-to-read list that is kept right next to the activation station(s). Which department will oversee (administer) the system? There should be a chain of command as to who has the authority in your organization to activate notification campaigns. Clarity will prevent overuse of the system—"the boy who cried wolf"—and desensitize citizens to it.

The guidelines should identify which types of situations will warrant system activation. While it is not practical to define all cases in which the system should be used, you can set criteria to use as a general guideline for determining the need to issue an alert. Conditions under which the system should be deployed are:

- Evacuation
- Train wreck, with chemical spill or escaping gases
- Severe weather or other disaster
- Nuclear plant incident
- Terrorist threat
- Active shooter

Clarity here will prevent personnel from being afraid to activate the system. It is also useful to define conditions which are not appropriate for activation, such as commercial, political or non-official business.

Establish policies to communicate with the media regarding the incident and the alert. This will help maintain a consistent message to the public. Engage the support of your local media during incidents:

- Notify your system administrator and agency PIO of all activations.
- Activations automatically include notification to all media outlets in tandem with public notifications.
- Publish an inbound hotline with follow-up information for public and media inquiries

Watching New Trends

Emergency notification is becoming an increasingly common means of alerting communities to threats and responding to disaster. Though much of the general public is familiar with the concept, a thoughtfully planned

and executed public outreach campaign will foster important community participation in emergency preparedness. It is important to pay attention to trends in communication preferences, new devices and new features, but not to jump to implement every new fad. About six months ago IM was the buzz; today it is Twitter. Who knows what it will be in six more months? The best bet is to have multi-modal communications available and employ all available channels in an emergency, including TTY/TDD, to increase the likelihood of reaching everyone on at least one device. Reaching everyone is the goal, but truly getting through to each citizen is not always possible. Use inbound IVR as a self-service

information portal through which citizens, staff and the media can confirm alerts, gather updates and stay informed.

There is no single best practice in emergency communication, and each community is different. Successful deployment and operation of your emergency notification system will be aided by incorporating as many recognized and recommended practices as possible. It is important to have an established system operating procedure. Consult with your neighboring communities and other agencies in the public safety sphere to gather their expertise. Don't forget about the NENA Operating Standards for Telephone Emergency Notification Systems (www.nena.org/standards/operations/emergency-notification-systems). And as always, look to your provider for guidance and support. **ENPM**

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"MULTI-MODAL" COMMUNICATIONS MEANS:

- Landline
- Cell phone
- VoIP phone
- Satellite phones
- PDA devices such as Blackberry, Treo, etc.
- Pager
- SMS Text messaging
- E-mail
- Fax machines
- TTY/TTD for hearing impaired

