



CellCastTechnologies

The Global Authority On Location-Based Communications Solutions

WHITE PAPER

Feb 2009

A LAYERED COMMUNICATION STRATEGY FOR SAVING LIVES AND PROPERTY IN A TECHNOLOGY AGE

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It's about time...

With most things in life, timing is everything—from defining missed opportunities to those moments of “right place, right time”. When time is a personal or professional choice, a desired outcome can be maximized; however, in an emergency when imminent disaster of natural or manmade origin is threatening, time is scarce, critical and rarely on your side. Implementing an effective communication strategy for emergency notification is the best way to reduce vulnerability for human and material loss; hence, minimizing the impact of a disaster.

Warning systems such as the emergency broadcast system for television and radio have saved countless lives and will always have a place in protecting society; but the effectiveness of TV and radio for warning civilians during an emergency situation has been diminished in the technology age in which we now live, and the problems faced by emergency managers who are concerned that too wide an area is being warned, thereby possibly creating a mobilization of more people than the infrastructure can handle.. Declining advertising revenues and lagging viewership for these media suggest that more people are abandoning traditional forms of communication and receiving their news and information from the latest digital tools.

The advent and proliferation of cell phones, including the boom in “smart phones,” text messaging and the Internet has changed the way society communicates and those trusted with protecting the public must adapt not only to take advantage of the latest technological advancements, but to build public confidence in a caring and capable government that will be responsive to the public needs.

The recent campaign and election of President Barack Obama in the United States is a great example of how a layered communication strategy can be effective. Obama’s presidential campaign has been profusely praised for the successful way it incorporated the Internet, websites such as YouTube, social networking sites like Facebook and Twitter, text messaging and traditional media to communicate campaign messages. In fact, then-candidate Obama used a text message to inform his supporters of his pick for vice president – asking supporters to sign up in advance to receive the message. Promising in his inauguration address to “restore science to its rightful place”, President Obama has refused to give up his Blackberry device—suggesting an administration that understands and appreciates the value of communication technology. As of this date the President and members of his newly appointed cabinet are encouraging ongoing gathering of the opinions of citizens via this new technology to forge policy and evaluate effective implementation to promote government accountability and transparency.

Emergency management officials must similarly look toward modern technology for a solution to the many challenges they face as they prepare to protect, or communicate in the wake or recovery of a disaster. A comprehensive, layered approach to emergency notification and alerts must be capable of delivering scalable and secure messages efficiently and effectively to both responders and the general public under extreme, variable and adverse conditions. Such an approach requires the integration of traditional emergency notification communication tools (TV, radio, sirens, landline and wireless point to point calls,

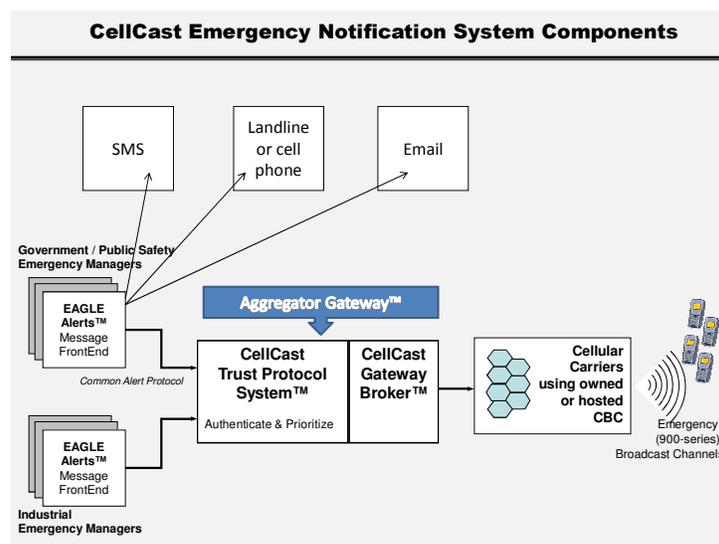
SMS text messaging, and internet) with new vehicles such as the geotargeted capabilities of cell broadcasting, a point to multipoint wireless system.

CellCast Technologies, the global authority on location-based communication solutions, now offers front end and middle wear communication solutions to meet the broadest range of emergency notification and alerts needs . CellCast stands out in delivering the life and property saving integration of all media in a cohesive, coordinated, secure, effective and efficient manner.

As a front end solution, EAGLE Alerts™ (Emergency Alerts for Government and Law Enforcement) is a secure, web-based alert system allowing registered citizens to be directly contacted during emergency situations through SMS text messaging, email, landline and cellular telephone. EAGLE Alert™ messages may include alerts and information about emergencies, such as floods, fires, acts of terrorism, weather related emergencies, and community notifications, such as criminal information, school closings and traffic.

To maximize emergency notification capabilities, EAGLE Alerts™ works seamlessly with the CellCast Aggregator Broker™, a proprietary middlewear system that enables a government or other authorized entity to use a cell broadcast function built into most cell phones to securely and rapidly transmit an emergency alert to cell phones in an affected area—regardless of the size of the area or the subscriber’s cell phone carrier. No database of cell phone subscribers is necessary. The CellCast Aggregator Broker™ is responsible for checking the “authenticity” and authorization of the content providers, and that the message originator is authorized to send a message. It scrutinizes and prioritizes the proposed message against national rules and regulations, local jurisdiction, local mutual agreements, and contracts with affected cellular networks. Because the CellCast Aggregator Broker™ extends emergency messaging capabilities to cell broadcast, emergency messages can now be geotargeted. Unlike a voice or conventional SMS text message, everyone carrying a cellular phone (with the cell broadcast feature enabled) in the targeted area receives the alert at once without queuing delays. In this way, millions of cell phone users- residents, tourists and other visitors to a region- are reached simultaneously without overloading the wireless network, as have happened in many emergency situations relying on conventional SMS text message technology.

Figure 1.0 CellCast Emergency Notification System Components



Finally, a comprehensive layered approach must include adequate education, training and support. Emergency managers need policy to define the types of emergencies and related alerts or notifications to the public, the scale of notification, and the use of 'closed user groups' to communicate among first responders, law enforcement, and government officials. Finally, public education is necessary on the emergency notification tools that are available, along with instructions for participation, such as registration for a front end solution or handset activation instructions to enable cell broadcast.

Although many disasters, such as weather, cannot be controlled, vulnerability can be minimized with a commitment to a proactive, layered communication strategy. Reducing vulnerability can not only save lives, but save millions of dollars lost due to disaster. Countries such as the United States, the Netherlands, South Korea, India, and Turkey have begun to expand their emergency notification systems. Additionally CellCast is currently consulting with government emergency management and economic development officials and their country's respective wireless operators on how to best upgrade their emergency notification systems employing CellCast's front end and middleware solutions. When every second counts, consider turning to CellCast Technologies, LLC, a global leader on location-based communications solutions, to provide a comprehensive, state-of-the-art emergency alert and notification solution to meet your needs.

ABOUT CELLCAST TECHNOLOGIES: With operations headquartered in Houston, Texas and an administrative center in St. Louis, Missouri, CellCast Technologies has long been committed to making the delivery of emergency messages "personal" with their browser based EAGLE™ messaging front-end, their Trust Protocol Consulting services and their innovative Aggregator/Gateway (AG) Broker technology necessary for the deployment of geo-targeted cell broadcast notifications and alerts.

Margaret Bullens is the Director of Marketing for CellCast Technologies with over 20 years experience promoting safety as a leader in national prevention initiatives, local and state public policy, innovative technology development and managing criminal justice collaborations. CellCast's technology team includes Chief Technology Officer Mark Wood who authored *Disaster Communications*; the crisis communication book used by the International Red Cross for training, and is leading cell broadcast harmonization efforts for the United Nations.
