Emergency Messaging & Contingency Communications

By William E. Ott

There has been a lot of talk since the terrorist attacks of Sept. 11, 2001, about the need for a single, more unified protocol communications system that could reach a myriad of devices (e.g., weather radios, e-mail, voice call systems, pagers, cellular phones, highway message signs, etc.) to warn people of terrorist events and provide information on weather emergencies, hazardous materials incidents, Amber Alert events and other important messages that directly impact personal or public safety. As things stand today in the United States, no single resource can reach everyone through their many types of devices. A unified system could potentially save thousands of lives in emergency situations—particularly during a terrorist attack.

Various local and regional systems provide effective service in those areas, mostly used for weather-related events, such as tornadoes in Oklahoma or hurricanes on the southeast and gulf coasts. President Bush recently authorized a national Amber Alert system to put information regarding child kidnappings on highway signs and radio stations. Also, a variety of Internet-based local, state and private emergency messaging systems that deliver messages to e-mail, pagers, phones and PC-based applications are coming online.

Currently, the only publicly funded, national program we have is the emergency alert system (EAS). That system grew out of the Cold War

era Emergency Broadcast System, which was one of the cornerstones of the Civil Defense System. We also have the successful NOAA Weather Radio system that, since its inception in the early 1960s, has saved countless lives from tornadoes, flash flooding and hurricanes. These systems can be used to transmit national emergency information on order of the president, but that's not practical for smaller scale, regional emergencies. Also, many areas of the country receive poor to no coverage of these national radio systems. Unless someone were listening to a commercial radio or television in those areas, they would be unaware of an emergency message.

On the commercial end, many available services provide various types of messaging to your e-mail, pager or phone. Some of these services are free, like the messages provided by such news services as CNN (www.cnn.com), Fox News (www.foxnews.com), MSNBC (www.msnbc.com) and many local television stations.

These services usually require detailed registration; collected data is used for targeted marketing toward subscribers. They also tend to be minutes to an hour slower than fee-based commercial services.

Fee-based services, such as Flashnet from Intel Center (www.intelcenter.com) for terrorism-related events, Critical Alerts (www.criticalalerts.com) for significant news events, StormNow (www.stormnow.com) for weather-related events and many others, tend to

offer close to real-time notification of events to your e-mail, pager or phone.

Then there are the countless emergency notification systems run by individual government and public safety agencies, as well as a few private lists such as the CrisisAlert group on www.yahoo.com. These systems are useful, but frequently offer no set time frame for message delivery because operation depends on someone being available to send the message.

One of the most exciting things I've seen recently in emergency messaging is the Common Alerting Protocol (CAP). This Java-based development protocol is designed for local area communication and notification. I'd encourage you to read about it and sign up for the demonstration system at www.incident.com. This is a good first step toward creating a communications standard that everyone could build on for their specific needs, yet allow interoperability among different locales.

In addition to communicating with the public, communications among public safety agencies is another problem area that, in the short term, can be addressed with an Internet solution. Such services as those provided by Infinity Healthcare's EMSystem (www.emsystem.com) allow multiple agencies to communicate and share resource information instantly, using nothing but Internet-connected PCs and a Web browser. This system is used for hospital diversions, MCI notification, site-to-site messaging and many other purposes.

Phone companies and wireless carriers providing cellular phone and pager services could play a major role in assisting with notification services. It would be relatively easy for wireless carriers to send emergency messages to all of their subscribers on a large scale. It would be a little more difficult, but certainly possible to send messages targeting people in specific areas. The newest wireless phones are GPS-enabled, allowing the carrier to see exactly where the user is. If an emergency existed in a specific area, the carrier could notify all phones in that region based on GPS readings, as well as all subscribers who live in that region. Landline phone companies could employ the same technique with voice notification calling systems.

Wouldn't it be wonderful to somehow harness all of this into a specific protocol so that every locale could share information with any other locale without special conversions or translations? The recipients could select to receive information about any type of event from any location, perhaps their home county or the county and state of their vacation home.

We should see accelerated growth in emergency messaging soon because both Intel and Microsoft have expressed interest in this field, and the Consumer Electronic Association (CEA), a group that drives television and radio production standards, has formed two working groups to investigate technologies that would allow the transmission of emergency messaging to people based on a device's location. Within a couple of

years, the CEA hopes to have radios and televisions on the market that can turn themselves on to notify or wake people up in the event of an emergency.

On a personal note, you should make communications plans for yourself, your family and your friends. As recommended on the Department of Homeland Defense readiness Web site www.ready.gov, everyone should have an action plan in place for communications should your area experience an emergency, be it terrorism, a natural disaster or an accident. Consider establishing a phone call to a relative in a distant location as your family's contact point. Prepaid phone cards for all family members can ensure public telephone access.

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