



Korean NEMA

The Korean National Emergency Management Agency (NEMA) provides national coverage of disaster management including fire, Emergency Medical Systems (EMS) and rescue. The agency's representative brand, U-119, offers a client-oriented, ubiquitous service timely and effectively to the entire Korean nation with cutting-edge IT and medical technology.

OBJECTIVE

Providing accurate situation information and immediate response is critical when it comes to delivering emergency service. With an aging and diversifying society, and an increasing influx of foreigners due to accelerating globalization, emergency situations were becoming harder to manage with the existing U-119 service.

Korean NEMA was often limited to using landline phones and even fax machines to ascertain rescue information and inform responders. The agency wanted to improve service quality and speed up its emergency response times by utilizing 3G wireless communications technology.

SOLUTION DESCRIPTION

Korean NEMA offers four distinct services under U-119. The first service, U-safe Call, targets populations such as the elderly and maintains a comprehensive database that includes their personal and medical information. If one of these individuals dials 119, the first responder dispatched gets the key data about the caller and how to contact relatives which may help clarify the whereabouts of a person in danger.

The second service aspect is its Location Based Service or LBS, which uses the GpsOne™ system built into the handsets to pinpoint a phone's location. There are more than 39 million CDMA wireless phones in use across Korea's 47 million people. These phones utilize a mix of CDMA2000® 1x, EV-DO or HSDPA running over the 3G networks of SK Telecom, KTF and LG Telecom. To take advantage of the vast mobile phone proliferation, new laws allow most relatives to provide the mobile phone number of a lost or distressed person so they can be automatically located in an emergency situation. Another advantage of LBS is that it can be used for telematics applications such as efficient management of accident information for vehicles carrying hazardous substances.

Telemedicine is the third service offering. While transporting a patient, an EMT can transmit high-quality multimedia in real time via a video-enabled mobile phone to share vital, visual information on how



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ORGANIZATION

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OBJECTIVE

- Improve service quality and speed up its emergency response times

SOLUTION

- CDMA wireless phones running over 3G networks of SKT, KTF and LGT
- Created extensive database and leveraged the information for assistance through U-safe Call
- Developed LBS—GpsOne location tracking—to pinpoint emergency victims
- Enhanced Telemedicine by using 3G bandwidth to transmit medical videos and emergency care instructions to EMTs as well as the general public
- Set up a system for receiving pictures and video from emergency scenes to aid in accident understanding and patient treatment

RESULTS

- Served more than 20,000 of the most vulnerable people through the U-safe Call program
- Utilized LBS to track more than 21,000 people who were in potential danger
- Streamlined emergency response management to gain efficiencies across hospital/paramedic staffs
- Increased coordination between NEMA and other government agencies

to treat patients on the way to the hospital. A multimedia recording service also allows anyone reporting an emergency to take a picture or record a video with their mobile phone and send the file directly to an emergency center to give treating physicians a greater understanding of what happened. Another medical related advance made possible by 3G is NEMA's ability to upload CPR videos to mobile phones that users can access during an emergency.

Finally, a Short Message Service (SMS) overlay expands emergency access for people who are verbally challenged. Having greater

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Dae-Hoon Kang, Brand Manager, U-119 Service

accessibility to U-119 has increased personal security for this segment of the population.

To serve foreigners who need to report an accident, NEMA has also set up a simultaneous translation service for emergency situations. Multi-lingual volunteers register their mobile phone number so they can be part of a conference call at a moment's notice to provide translation.

RESULTS

A December 2006 survey of U-safe Call users found that 89.2% of people reported a high level of satisfaction. More than 160,000 people are in the service's database and usage has topped 20,000 suggesting high recognition and perceived value of that service component. In addition, usage of LBS' GPS location service reached more than 21,000 annual cases including use in situations like thwarted suicides, remote rescues and expedited care. Moreover, 3G's higher bandwidth and ability to transmit large video files is helping the telemedicine arm of U-119 achieve greater efficiencies and higher levels of care.

"The 3G speeds have increased the quality of service, honed the accuracy of location information and streamlined emergency response times considerably," says Dae-Hoon Kang, brand manager for the U-119 service. "3G provides an additional resource to let us know when someone is in an emergency situation, as well as the capability to let the victim's family know their current whereabouts and condition. It also helps us to coordinate with other government agencies such as hospitals and police more closely."



3G A-List Awards



Korean NEMA is a 2007 winner of the 3G A-List Award in the Government-International category.

The 3G A-List Awards recognize the leading builders of successful wireless data solutions based on 3G CDMA (CDMA2000 1X, UMTS/HSPA, and EV-DO) technology. **To learn more about the A-List, please visit www.3galist.com**

SUPPORTING PARTNERS

The A-List also recognizes supporting partners for their enabling role in assisting with these wireless data deployments.

