

Case study

New York Department of Health and Mental Hygiene

Safer and Sound



At a glance

Industry: Government

Applications:

Emergency Event Management
Emergency Medical Services
Fire and Rescue

New York City Department of Health and Mental Hygiene enhances response capabilities

In the aftermath of the September 11 terrorist attacks on the World Trade Center and subsequent anthrax outbreaks, decision-makers at the New York City Department of Health and Mental Hygiene (DOHMH) took a new look at how environmental and radiation scientists and sanitarians gathered data following the events that would spawn a citywide public-health crisis. They found that some old methods no longer worked.

Simple things, such as providing locations for survey meter measurements, were rendered impossible. Before 9/11, department responders used pen and paper to record sample identification information and locations of environmental data measurements such as chemical concentration or radiation dose rate measurements.

To responders returning from field-testing and data collection, a data dump often required a good memory. "A lot of it was just recollection when they came back into the office with data," said DOHMH City Scientist Mickey Jones. "We'd ask, 'Where have you been? How did you get this?' We're trying to get response personnel off that mindset and into something much more organized, like this system is."

The system she refers to uses the Intermec 760 mobile computer and Global Bay HazardPoint software for environmental emergencies. Global Positioning System (GPS) is used to automatically record address and landmark-dependent location information.

Pen and paper are replaced by a wireless system designed to contain incident-specific data collection forms with GIS-based (Geographical Information Systems) city maps. Instead of bringing a disk back from the field for sensor data uploads, the system provides GPRS transmissions in real time.

Anything But Conventional

Developed to deal with emergency situations, the new system had its first big test in the summer of 2004. On the day before the Republican National Convention was set to open, DOHMH responders were called to a post office in midtown Manhattan. A contractor was performing industrial radiography testing on the building. This testing uses a radioactive source to look for flaws and stress cracks in the interior of the structure.

The radiography machine malfunctioned, emitting low-levels of radiation inside the facility.

At the scene, DOHMH and other responders began monitoring the dose rate inside and around the post office.

The 760, with its Bluetooth® connectivity, captures data using HazardPoint from a number of environmental survey metering devices that DOHMH routinely uses to test the environment for chemical agents and radiation hazards. This ability allowed the DOHMH team to gather readings remotely, putting only the equipment into harm's way.

The DOHMH put the Ludlum model 2241, which measures radiation dose rates, in the bay doorway of the post office, where the dose rates were at an elevated level. This allowed DOHMH personnel to step back about 40 feet while monitoring changes in dose rates to avoid potential radiation exposure. The Ludlum could update the mobile computer wirelessly with periodic readings, which DOHMH then could analyze and transmit back to a central server.

As the learning curve for the new system flattens out, users anticipate sizable time savings in readying data for analysis. "With the old process, responders would be in the field, writing down or calling in data. Someone would be entering that into an Excel® spreadsheet and passing it around. That would take maybe five hours to complete," said City Research Scientist Ed Connelly. The new system should do the job in minutes with increased accuracy.

Sharing responder information with other agencies—police, fire, FBI—eventually will be accomplished by allowing access to the DOHMH's secure HazardPoint Web Management Console, where the data can be viewed over any Internet connection. The HazardPoint software is part of Global Bay AccessPoint mobile data collection

platform. It allows authorized users to access field measurements, run reports and export data to other systems.

Scientists can monitor responder data streaming in from the mobile computers and analyze middle-of-the-night incidents from any location.

HazardPoint's data collection capabilities support two-way synchronization. If, for instance, a DOHMH responder needs to capture additional information from an emergency scene, an electronic form can be up-loaded, modified with added data fields and saved. The next time the responder synchronizes his or her Intermec 760, the revised form will appear and the old form will be removed, ensuring that responders always have the correct forms available.

In the end, the post-office incident turned out to have no terrorist link. DOHMH workers continued monitoring the site until the radioactive source was shielded and radiation levels returned to background levels.

Next: Imagine The Possibilities

Though the new system was deployed for emergency responses, DOHMH anticipates ways it can expand into other areas.

- The Intermec 760 mobile computer runs Microsoft Windows Pocket PC and has an integrated bar-coded label scanner, plus an attached Linkpoint GPS device. Where GPS satellite hookup is unavailable – indoors, for instance – the mobile computer contains electronic maps of the five New York City boroughs for pinpointing locations.
- DOHMH uses the system to conduct remote air-quality testing,

- Global Bay's AccessPoint platform allows development of specialized vertical applications.
- AccessPoint's three major features are a Web management console, a survey builder for creating and modifying forms, and a mobile client for synchronizing handheld equipment with servers.

"An enterprise mobility platform is what we call it," said Global Bay Sales Director Greg Fuchek. "You can have an installation of the software, and then the different business units can use the application to automate different field activities across the organization."

When the first planned system expansion is complete, DOHMH sanitarians will be able to take an Intermec mobile computer to a routine investigation—say for a reported outbreak of food-borne illness at a restaurant. They'll take samples of possible culprits, such as tuna fish, salmon and milk. Each sample container will get a preprinted bar-code label identifying the contents. A sanitarian then will scan the label using the mobile computer, and the information will be transmitted wirelessly to both the department's server and to the database of the Public Health Lab, where the samples will go for analysis.

For now, those at DOHMH would like nothing better than to have their new data-capture equipment quietly gather dust in its current application as an emergency tool.

But New York City, after all, is the city that never sleeps. With help from Intermec and Global Bay, Connelly and his colleagues will do their best to make sure their response system is always alert, as well.

North America

Corporate Headquarters

6001 36th Avenue West
Everett, Washington 98203
Phone: (425) 348-2600
Fax: (425) 355-9551

South America & Mexico Headquarters Office

Newport Beach, California
Phone: (949) 955-0785
Fax: (949) 756-8782

Europe/Middle East &

Africa Headquarters Office

Reading, United Kingdom
Phone: +44 118 923 0800
Fax: +44 118 923 0801

Asia Pacific

Headquarters Office
Singapore
Phone: +65 6303 2100
Fax: +65 6303 2199

Internet

www.intermec.com
Worldwide Locations:
www.intermec.com/locations

Sales

Toll Free NA: (800) 934-3163
Toll in NA: (425) 348-2726
Freephone ROW: 00 800 4488 8844
Toll ROW: +44 134 435 0296

OEM Sales

Phone: (425) 348-2762

Media Sales

Phone: (513) 874-5882

Customer Service and Support

Toll Free NA: (800) 755-5505
Toll in NA: (425) 356-1799

Copyright © 2007 Intermec Technologies Corporation. All rights reserved. Intermec is a registered trademark of Intermec Technologies Corporation. All other trademarks are the property of their respective owners. Printed in the U.S.A. 611652-01C 02/07

In a continuing effort to improve our products, Intermec Technologies Corporation reserves the right to change specifications and features without prior notice.

