



Center for Toxicology and Environmental Health, LLC. Improves Data Management with Mobile Solution

SOLUTION HIGHLIGHTS:

- KEYING ENVIRONMENTAL DATA DIRECTLY INTO A SYMBOL 2800 DEVICE IS MORE ACCURATE, REDUNDANT ENTRY INTO MULTIPLE SYSTEMS IS AVOIDED, AND PAPER IS VIRTUALLY ELIMINATED.
- CTEH FIELD CONSULTANTS CAN NOW GENERATE REPORTS FASTER AND REDUCE TIME SPENT ON DATA QUALITY CONTROL.
- COMMUNITY LEADERS AND REGULATORS NOW HAVE ACCESS TO ACCURATE ENVIRONMENTAL SAFETY STATISTICS VIRTUALLY ON DEMAND.
- LABS CAN NOW FEED ELECTRONIC CHAIN OF CUSTODY (COC) DATA INTO THEIR ANALYSIS SYSTEM RATHER THAN RE-KEYING DATA RECEIVED ON PAPER.
- LAB FINDINGS CAN NOW BE ELECTRONICALLY RETURNED TO THE FIELD TO EXPEDITE DECISION-MAKING AND RESPONSIVENESS.
- BUSINESSES AND CONSUMERS NOW FACE SHORTENED EVACUATION DURATIONS AS A RESULT OF IMPROVED DATA MANAGEMENT AND TIMELIER DECISION-MAKING.

“Community safety is our primary concern. With the integration of Blue Dot’s mNOW! mNOW! Mobile Framework with our EQUIS data management system, we will greatly improve our ability to respond rapidly and accurately to an emergency situation.”

– Brady Davis, GIS/IT Specialist, CTEH

The Center for Toxicology and Environmental Health (CTEH) provides around-the-clock emergency response to train derailments and chemical spills throughout the United States, Canada, and Puerto Rico. Their industrial hygienists, toxicologists, nurses, and information specialists collect air, soil, water, and bulk samples in order to assess occupational and residential exposure levels to environmental hazards. CTEH personnel remain in constant contact with the press, local hospitals, and regulators from initial data collection through the entire remediation process. Depending on the severity and scope of the incident, it could take from two days to six months until environmental quality is determined to be at safe levels.



CHALLENGE:

Because lives and health may be at risk, timeliness and accuracy are fundamental priorities. CTEH is usually on site within 2-3 hours of an incident. They must rapidly collect and process environmental data in order to determine whether, and to what extent, an evacuation is necessary. Air measurements for a major emergency can include up to 3,000 data points, and the findings can result in a wide-scale or whole city evacuation.

OPPORTUNITY:

The legibility and accuracy of handwritten field data can be impacted by fatigue, poor weather conditions, and other factors. When that data is entered into CTEH’s EarthSoft environmental data management system, errors are possible. Data errors cause delays in the ability to make potentially life-saving decisions. Additionally, CTEH’s customers, railroads for example, are liable for costs incurred by businesses and residents within an evacuation zone. Improving the speed and accuracy of environmental sampling could save these companies millions of dollars per year.



CTEH recognized that their paper-based processes needed to be replaced with a mobile technology solution in order to improve speed and accuracy, lower costs, and ensure community safety.



SOLUTION:

CTEH chose Blue Dot Solutions' mNOW! Mobile Framework to interface with their EarthSoft EQuIS environmental data management system. Blue Dot is providing Symbol 2800 Class I/Div II rated industrial scanners to CTEH. Data from the field will be keyed directly into the Symbol device, eliminating the dependency on paper, increasing accuracy and timeliness, and streamlining the entire process.

Blue Dot's mNOW! Mobile Framework is architected for growth, compatibility, and flexibility. Its automated features include several drop-down fields with standard values to minimize keystrokes, and the system collects automated GPS coordinates with an attached GPS device. With 80211b cards in the devices, the CTEH command center becomes a wireless access point and the devices can be synchronized on demand, enabling rapid, on-site statistical analysis. The Symbol 2800 handhelds are also configured to enable bar coding.

BENEFITS:

- With readings captured directly into the Symbol 2800 and interfaced to the EQuIS data management system, CTEH field consultants can be assured that data integrity will remain intact throughout the sampling and analysis process.
- CTEH consultants can quickly generate minimum, maximum, and average reading statistics on a batch of samples, rather than hand-entering the data into a spreadsheet.
- Samples sent to the lab for analysis will now be accompanied by electronic documentation instead of paper records. The analysis results will also be returned electronically, minimizing delays and entry errors.
- The duration of precautionary evacuations can be shortened when more efficient processing of initial readings reveals that the area is safe. When readings are high, authorities can more rapidly adjust the evacuation radius to safe levels.
- Streamlined remediation processes enable ready-access to critical data and appropriate responses throughout the incident duration.
- With streamlined work processes, CTEH will realize significant labor cost savings and improved customer satisfaction.
- Timely and accurate record keeping data can save railroads and other CTEH customers millions of dollars in class action claims and evacuation cost reimbursements.



Blue Dot Solutions, Inc., located in Golden, CO, is a leading provider of intuitive mobile and wireless computing solutions that extend enterprise systems data to a wide range of mobile devices available today. To learn more about Blue Dot Solutions, visit www.bluedotsolutions.com, email info@bluedotsolutions.com or call 303-674-3500.

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