



BlackBerry Customer Success Story



Federal Government Agency Uses BlackBerry Solution, with Freeance Mobile App and GPS, to Streamline Storm Survey Work

THE CHALLENGE

Surveying damage from severe storms is an important mission of the US National Weather Service (NWS). This labor-intensive work requires field surveyors to travel to storm sites and document the damage left behind by major weather events such as tornados. Areas to be surveyed can span lengths of 15 miles or longer. Surveyors would document data gathered at the storm sites using pen and paper.

Keith Stellman, Warning Coordination Meteorologist with NWS says one major challenge of this field operation is maximizing the accuracy of the collected data. "Surveying a tornado track can involve pages of handwritten notes, GPS coordinates, and calculations. Once notes are made, surveyors must travel back to the office to enter all of that data manually," Stellman explains. In the process of entering this data, detailed notes made at the scene are often summarized, and any details that weren't written down immediately can be forgotten. Stellman wanted to decrease data entry time and increase the accuracy of the process.

THE SOLUTION

Stellman and his team of surveyors implemented Freeance Mobile software, developed by TDC Group Inc., to accelerate the data collection and data entry process on BlackBerry® smartphones in the hands of the surveyors. All relevant data pertaining to the damage survey can now be entered by surveyors right at the storm site using their BlackBerry smartphone.

Data entry is quicker and more consistent by way of a custom-built data collection form, which NWS built using Freeance Mobile software. On the data collection form, surveyors use drop-down and list menus for selectable data items, such as damage indicator type and wind speed range, as well as freeform comment fields for entering notes. Using the integrated camera on the BlackBerry smartphone, surveyors can take photographs of the damage to add to the event file. All data collected at the storm site is automatically time-stamped with GPS coordinates thanks to the GPS technology built into the BlackBerry smartphone.

Data is then sent from the BlackBerry smartphone through the BlackBerry Enterprise Server, behind the firewall, and onto NWS's ESRI ArcGIS® server. The back-end database on the ESRI server is used by government agency scientists, insurance companies and other interested parties throughout the country. With an interwoven web of stakeholders relying on the data, enhanced accuracy is an asset.

The US National Weather Service (NWS) is a federal government agency of the National Oceanic and Atmospheric Administration. NWS meteorologists perform post-storm damage surveying, where they collect key data on storm events and ultimately update a national database for scientific, academic, commercial and public use.

Industry: Government & Public Sector

Region: North America

Company Size:

Federal government with 5,000 employees

Solution:

BlackBerry® Enterprise Server, Freeance Mobile™ - Pro Edition from TDC Group, Inc.

US NATIONAL WEATHER SERVICE'S BENEFITS

"The BlackBerry solution, together with Freance Mobile software, virtually eliminates the need for manual data entry or reporting. I've personally saved five hours of data collection and reporting time on a single survey of a tornado event by virtue of being able to record everything on my BlackBerry smartphone right at the storm site."

Keith Stellman,
Warning Coordination Meteorologist,
US National Weather Service

Being able to use BlackBerry smartphones to collect damage data at the storm site, with an electronic form that guides the surveyor through the data collection process, is helping to streamline field operations and the ensuing data flow for NWS. With the elimination of paper notes, data entry back at the office is almost eliminated, and there is virtually no time lag from the moment a surveyor enters data to the availability of that data on the NWS ESRI ArcGIS server. The ability to input data directly onto the electronic form at the storm site is a key contributor to enhanced data accuracy. "With no need to review handwritten notes or recall information after the fact, there is less likelihood that the collected information will be incomplete or incorrect," says Stellman.

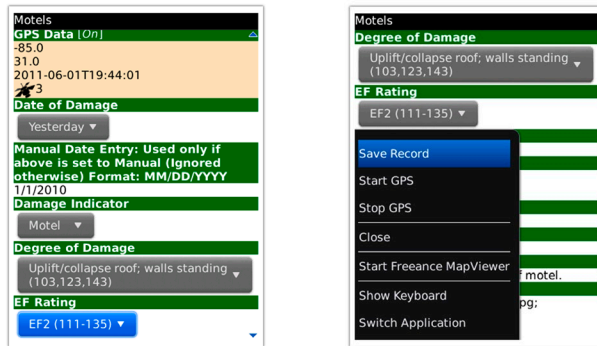
The solution makes the data collection process easier and faster for NWS. "The BlackBerry solution together with Freance Mobile software virtually eliminates the need for any post-collection data entry or reporting to be done manually," Stellman explains. "As an example, I've personally saved five hours of data collection and reporting time on a single survey of a tornado event by virtue of being able to record everything on my BlackBerry smartphone right at the storm site."

Leveraging the automatic time-stamped GPS coordinates, calculations pertinent to the storm event can be done faster or even automatically. This is an improvement on past procedures, where surveyors had to make manual calculations using GPS coordinates. "In most instances when you use Freance Mobile software and BlackBerry smartphones, once you leave the event site, your collection, calculating and reporting tasks are done," says Stellman.

Stellman says the BlackBerry solution has introduced a major leap forward in streamlining and standardizing the collection of storm survey data for NWS.

KEY BENEFITS

- Improved accuracy of collected data
- Easy-to-use, all-in-one device for data collection in the field
- Increased productivity in field operations
- Faster access to information by key stakeholders



BlackBerry smartphone screen shots showing the US National Weather Service's custom-built data collection forms built using the Freance application.

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