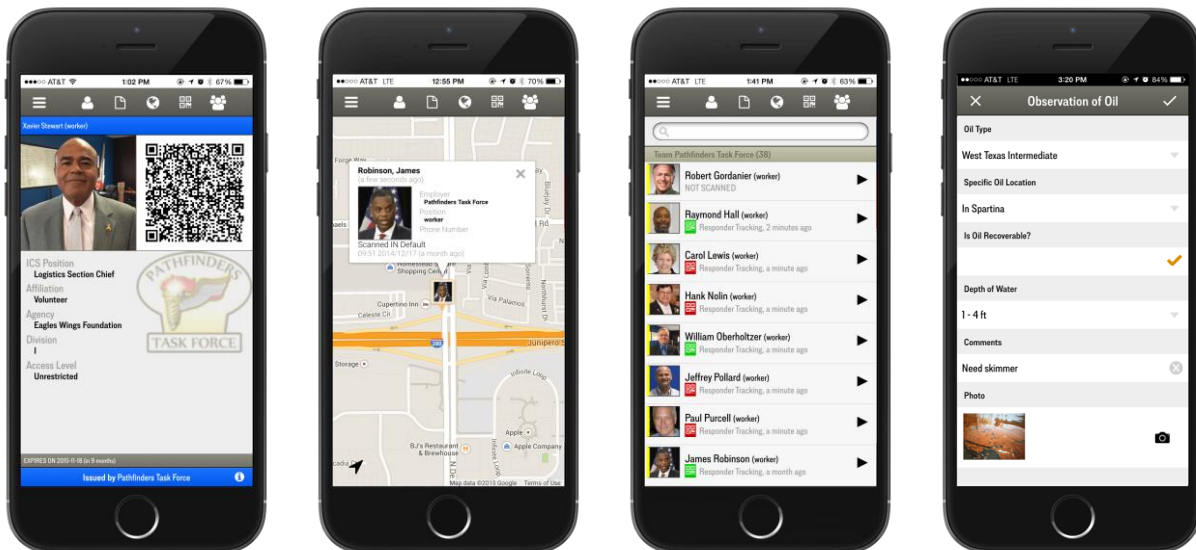


National Oceanic and Atmospheric Administration:

Natural Resources Damage Assessment & Marine Debris Program Post Impact Comparison Analysis

Virtual Badge® (VB) is a software platform that leverages the power of smartphones and tablets to provide increased business intelligence for mobile operations. Virtual Badge turns smartphones into full-functioning badges, which also double as a workforce management platform. National Oceanic and Atmospheric Administration “NOAA” can use Virtual Badge® to collect actionable, GIS formatted data, and electronically manage identities for employees, contractors, and volunteers. This data is available in a web-based Control Center for administration and scientific analysis, and can be easily exported and integrated in a variety of formats. In the hands of the NOAA, this platform will increase operational awareness, coordination amongst outside agencies, communication with stakeholders, efficiency, accountability and analysis. Specifically, Virtual Badge® can be used to help the NOAA with Natural Resources Damage Assessment and the Marine Debris Program. VB was even used extensively during the 2010 BP Oil Spill by NOAA and other organizations to track the progress of the Sentinel Snare program, resulting in over 48,000 standardized field reports.



Virtual Badge® combines identification management with actionable data reporting

VB’s most recent deployment was following Hurricane Joaquin in October 2015, when the Bahamian Government used VB to perform critical infrastructure, unmet needs, and damage assessments, evacuation site tracking, and supply route mapping for affected populations on seven islands. Because Virtual Badge® works even in a 100% disconnected environment, statistics and actionable data were available instantly for command decisions and scientific analysis. Virtual Badge® allowed the Bahamian Command to make real-time decisions based on actionable data they would not normally have.

Natural Resources Damage Assessment

According to the NOAA, “if it appears that significant impacts may have occurred to natural resources, a Natural Resource Damage Assessment (NDRA) may be initiated.” This process is lengthy, can take many years to fully be completed, and must first assess the injury to the environment, plan its restoration, hold polluters accountable, and restore the environment. Virtual Badge® is a commercial-of-the-shelf solution NOAA can implement to make this process proceed more efficiently. Maintaining situational awareness is a critical need for command, as keeping an operation organized is key to being successful. Using VB would mean that NOAA Command instantly could have statistical data for analysis, reporting, and integration with other systems, and can utilize local resources and responders who could download the app in the field while an incident is unfolding. Traditional systems such as radio, telephone, and pen-and-paper data recording can’t create a complete operational picture, and there is no quick and efficient way to collate and display all of the data.

Data collection is a core competency of Virtual Badge® - relied upon for 7 years now, even in areas with no cell and no Internet. Any documentation normally collected with pen and paper can be transformed into electronic forms accessible by the Virtual Badge® mobile application. VB forms standardize information flows and include photo documentation to provide more cohesive intelligence. When forms are completed in the field the submissions are automatically time/date stamped, geocoded, and tagged by the submitter. By collecting data electronically, the timeliness and scope of information gathering is greatly improved. Quicker, more actionable data can result in reduced environmental impact and a greater understanding of the problem. Some examples of data collected by VB in real-world disasters are: critical infrastructure assessments, oil spill sightings, wildlife analysis assessments, scientific environmental impact assessments, safety assessments, floodwater assessments, and various engineering assessments.



NOAA could use Virtual Badge® to keep track of Remote Natural Resource Assessments as well as the Marine Debris Program

Marine Debris Program

The NOAA Marine Debris Program seeks to “investigate and prevent the adverse impacts of marine debris.” This program involves not only NOAA personnel but also involves volunteers worldwide. Virtual Badge® can greatly supplement this program’s ability to find, report, and act upon actionable data. By using VB’s electronic badging profiles, NOAA could both badge employees and allow volunteers to self-register with the Marine Debris Program. This would result in a unified “eyes and ears” reporting system for the NOAA to use for reporting and responding to marine debris. Users registered with Virtual Badge® would become part of a unified workforce, with potentially tens of thousands of people being able to report on marine debris worldwide. As Virtual Badge® works in a completely disconnected environment, debris sightings far away from land can still be reported in a standardized, GIS formatted manner. As Virtual Badge® works on most modern cell phones, it could become a force multiplier for NOAA’s Marine Debris Program efforts.

All data gathered by Virtual Badge® is available from a secure, web-based Control Center. Administrators have access to all data represented on a map-based display, creating a “battle map” of situational awareness which instantly creates a Common Operating Picture. Custom map layers can be implemented and historical data can be shown, means administrators can view updates on any incident, from anywhere in the world. Analytics gathered by the VB can be exported to a variety of formats or integrated into other systems for additional, immediate analysis. Administrators can even use the Control Center to create customized executive summaries, which have been valuable for command meetings and public information requests.

About

Disaster Solutions, LLC (DS) is a HUBZone certified small business located in Florida and specializing in disaster response consulting services and disaster response software development. DS has seven approved US Patents which enforce intellectual property protection for a variety of disaster software scenarios. DS has completed a FedRAMP-Moderate Pre-assessment audit by an authorized Federal third party assessor and currently has two Cooperative Research and Development Agreements with the Federal Government. DS also has a valid 5-year GSA Schedule 84 contract. A history of response operations can be viewed at www.disastersolutions.cc/history.html.



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