



Information, Integration, and Interoperability is Critical in Joint Emergency Operations

Time, information, communication, and awareness are critical to successful response during an emerging emergency. Disasters, whether naturally occurring or man-made, often involve multi-agency response from entities and organizations at the federal, state, and/or local levels.

In an emergency, it is vital that first responders are able to communicate and share information, regardless of the agency they represent. Yet, interoperability and information integration remain a challenge when it comes to real-time, multi-agency coordination.

To address this challenge, the Center for Visualization and Data Analytics (CVADA) at Rutgers, the State University of New Jersey, a Department of Homeland Security (DHS) Science and Technology (S&T) Center of Excellence, developed the **Mobile Computing Application Platform (MCAP)** in partnership with the U.S. Army Tank Automotive Research, Development and Engineering Center.

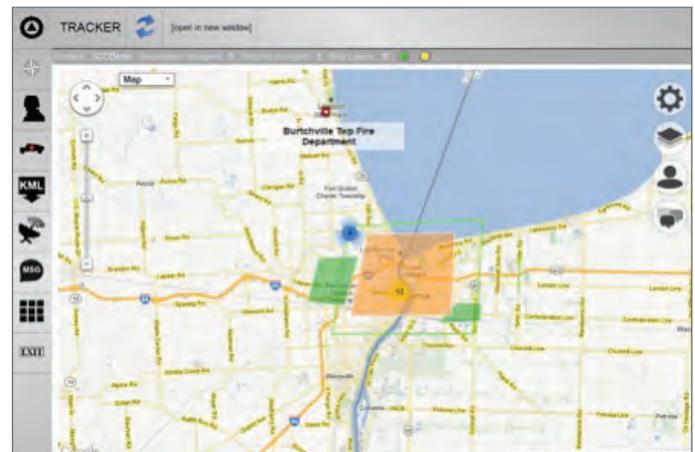
MCAP Integrates Multiple Data Sources for Situational Awareness During Disasters

MCAP is a Web-based platform that enables nearly real-time situational awareness and joint incident command through a visual interface that integrates a variety of user-defined tools and applications to allocate and manage resources, communicate through texts and emails, and view real-time data updates on a map.

MCAP leverages commercial mobile broadband networks and off-the-shelf smart devices, such as tablets and smartphones, to provide a Web-based interface capable of integrating military, police, consumer, and automotive hardware and software.

Real Users

- The Michigan National Guard 51st Civil Support Team has tested MCAP software and hardware and provided user feedback over the past three years.
- The St. Clair County's (Michigan) hazmat team is currently field testing the MCAP system.



A view of the command console

MCAP Features

Core components of MCAP include a command console (i.e., the visual interface) and a smartphone application called Tracker. The command console can be accessed through any Web browser.

Tracker has proved to be a valuable tool for field personnel responding to incidents. It tracks and manages first responders and their activities and maps the positions of responders and on-the-ground features such as hospitals and parking lots. Through Tracker, responders can communicate with each other and the incident commander, share images, and update maps with text or photo markers.



Tracker application on a smartphone

Next Steps

As field testing of MCAP continues, project partners are exploring ways to transition the system to first responders. In addition, CVADA researchers are testing applications, such as social media analysis tools, on the MCAP platform.

[Information about MCAP is available.](#)