

alertSmarts®

alertSmarts
developed by:
Image Matters LLC



Core Functionality

Context – Sensitive Situation Awareness
Secure Alert Handling
Impact Assessments
Geospatial Data
Reporting and Sharing

Benefits

- Provides time-sensitive situation awareness to any authorized user with Internet access
- Determines the impact of hazardous events to aid in reducing loss of life and property
- Provides a highly adaptive, intuitive user interface that requires minimal training and enhances user productivity
- Enables emergency managers to quickly generate, publish, and share critical, time-sensitive maps, reports, and alerts
- Provides the means for emergency managers to respond to and recover from all types of emergencies, and to mitigate the effects of future disasters through simulations and pre-planning
- Aggregates and filters live alert feeds from authoritative sources such as DHS, NWS, and USGS for timely assessment and response
- Increases cost savings through state-of-the-art data interoperability and integration framework

An End-to-End Alert Processing System for Aggregating, Managing, Assessing, and Reporting on Alerts

Overview

alertSmarts is a highly interoperable, intelligent, web-based situation awareness, impact assessment, and reporting application for efficiently: (1) aggregating, filtering, managing, and monitoring real-time alerts within a rich situation awareness context, (2) integrating multiple geographic data sources on-the-fly into coherent, context-sensitive map views through an extensible, standards-based data interoperability and integration framework, (3) performing impact assessments of the potential and actual impacts of hazardous events upon vulnerable facilities, populations, and property, and (4) producing and consuming maps, reports, and alerts through a unique and powerful Web-based information sharing framework.

alertSmarts provides a comprehensive set of tools for emergency management personnel to deal effectively and efficiently with time-sensitive, mission-critical alerts. Seldom does an alert contain actionable information. It must be assessed in context with other geospatial and operational information to determine actionable information that can then be readily distributed to the right personnel at the right time.

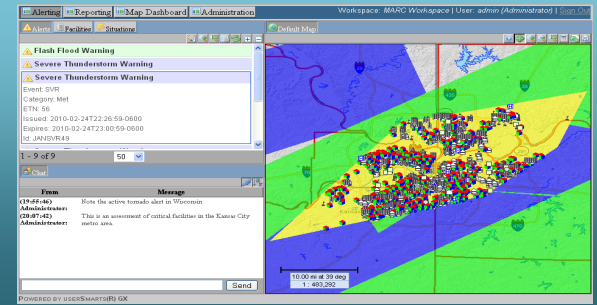
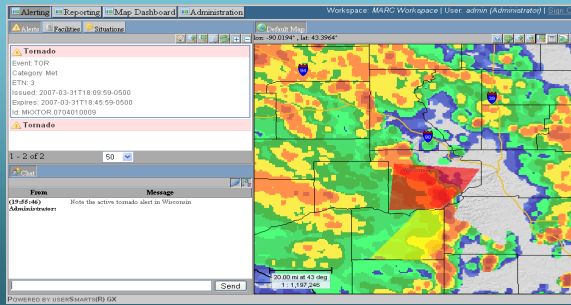
alertSmarts combines near real-time threat and alert information with geographic content, providing emergency managers, first responders, and watch officers the tools to save lives and protect property. *alertSmarts* seamlessly interfaces with live weather and alert data sources and with existing GIS databases (ESRI's ArcIMS and OpenGIS® web services), while processing and providing access to geographically-based alerts and situation reports. *alertSmarts* includes the following core functionalities:

Secure, Context-Sensitive Situation Awareness

Authorized operators can access *alertSmarts* through its unique Web Portal using any Web-accessible device from within or outside an Operations Center. Unique user themes and layout can easily be configured and customized to fit the operational requirements of local, regional, state, and federal agencies and organizations.

Alert Handling

alertSmarts accesses, aggregates, and manages near-real time web-based information ranging from NWS Severe Weather Warning polygons to



Client Quote:

“This... application provides the local jurisdictions in the MARC region a greater situational awareness in planning for and responding to severe weather events and makes GIS technology easily available to the [emergency management] community. In addition it allows users to interact with critical data in a real-time user-friendly interface.”

- Kyle McPhee, planner for MARC Energy Services and Homeland Security program

USGS Earthquake point epicenters to CAP feeds from DHS. *alertSmarts* seamlessly integrates alerts into highly-configurable map views, enabling users to visualize the features they care about in the context of the alert and real-world infrastructure and other features. This new genre of software provides a key component in our nation’s Next Generation Emergency Alerting System (EAS), serving multi-agency, multi-jurisdictional needs.

Impact Assessment

With *alertSmarts*, users can instantaneously evaluate pre-event impacts on critical facilities and property and identify threatened populations, by overlaying alert boundaries or plume footprints from models (e.g., ALOHA), and clipping out features of interest. *alertSmarts* automates actual impact assessment within tornado damage swaths, flood areas, and user-defined boundaries (e.g., buffers or other polygons) and rapidly generates post-event damage assessments, saving valuable time in preparing relief fund requests.

Geospatial Data

alertSmarts seamlessly integrates public geospatial data resources that are freely available on the Web from USGS, NWS, NOAA and other sources, as well as local GIS databases, through a standards-based geospatial data access and integration framework.

Reporting and Sharing

Used for both emergency and non-emergency situations, *alertSmarts* processes alerts from multiple sources, performs assessments, and disseminates customized situation reports via GeoRSS feeds to first responders, emergency managers, and other operational personnel.

alertSmarts generates reports in standard html and PDF formats that contain embedded maps, narrative, summary tables, authorship, and revision history.

Training

alertSmarts comes equipped with historical alert datasets so you can train using your data in your area to make the monitoring, assessment, reporting, and sharing process as realistic as possible. These historical alerts can be loaded and enabled for training events during benign periods. Alternatively, fictitious alert datasets that you define can be used for training.

Real-Time Weather Option

The *alertSmarts* Real-time Weather Dashboard option enables you to visualize graphic displays and real-time, location-specific weather information including active storm tracks and alerts. Sources range from the host of free weather information and alerts from NWS to the weather information products offered by *Weather-bug.com*, including:

- Severe Weather Warning polygons
- Regional radar mosaics
- Satellite imagery (color IR)
- Lightning strikes
- Local wind speed
- Current weather condition summaries
- 1, 2, 3, and 4 hours forecasts

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