

A photograph of a house partially submerged in floodwater, with a blue overlay. The house is a single-story building with a gabled roof and several windows. The water is murky and reaches up to the windows. In the foreground, there are some plants and a wooden railing. The background shows more trees and a utility pole.

Crisis Track Implementation Plan for Cook County, GA

Crisis Track[®]

Strong local government disaster management processes speeds up disaster assistance funding for its constituents. By providing local governments with a tool to help obtain disaster assistance, local governments can reduce resources allocated towards the documentation of their disaster operations and impacts. This helps both local government and the State to quickly collect, report, and document disaster impacts needed to make decisions on how to best support local response and recovery from an incident and request Federal Disaster Assistance.

As the number and cost of annual disasters grow, the implementation of disaster response and recovery operations has become more burdensome and complicated at the local level. Crisis Track, the most comprehensive disaster management software on the market, is unique as it is the only application to use local government data as the foundation for all of its capabilities. Crisis Track, like response and recovery, starts at the local level. We leverage local government data - tax parcel, infrastructure, address, employee, and equipment, infrastructure data, local staffing lists, and equipment inventories - to help prepare communities to manage disaster consequences and, if necessary, quickly apply for FEMA disaster assistance.

This whitepaper details how Crisis Track's disaster management solution helps local governments during disaster situations. Please note the links to videos and use cases embedded in the document.

Project Statement

The State of Georgia has had 23 Federal Major Disaster Declarations during the period of 2008 – 2018, with an average of 38 counties in each declaration. Each of these disaster declarations required an enormous amount local government resources to gather data and develop documentation to meet FEMA's disaster declaration requirements.

Additionally, once a declaration was received, local governments expended significant personnel resources to document damages to publicly owned infrastructure, track work performed (the quantity and cost of labor and materials) to restore damaged infrastructure to pre-disaster conditions, and to maintain, reconcile, and archive project documentation in compliance with Public Assistance Grant approval and audit processes. The systems supporting this work within local governments are primarily paper-based and depend on labor-intensive data entry, reconciliation, and paperwork management processes to comply with FEMA Public Assistance Grant requirements.

Procurement of disaster management software will help local emergency management offices implement improved disaster documentation processes, public assistance project management, and paperwork management workflows

needed to meet the rigorous FEMA requirements for requesting disaster declarations and managing public assistance grants. Disaster management software will allow local governments to determine the disaster costs and complete FEMA grant applications more efficiently.

The benefits of Crisis Track's Disaster Management software will be to:

1. Reduce the time it takes local governments to assess the disaster consequence and provide FEMA a request for assistance from several weeks to 1-2 days.
2. Improve the quality and accuracy of damage cost estimation as well as the define scope and extent of damage statewide.
3. Improve the ability of local governments to meet the increasingly rigorous declaration and grant management processes established by FEMA.
4. Provide real-time map displays of damage, which can speed up the approval of Individual Assistance declarations.
5. Allow local governments to better track and document labor and equipment costs eligible for Public Assistance grants, such as debris removal and protective measures provided by first responders, which will improve the accuracy and timeliness for cost recovery
6. Reduce local government resources needed to support disaster declaration and public assistance grant processing.

Currently, much of the local government disaster assistance processes are paper-based. By providing disaster management software to emergency managers, local governments can more quickly complete the required FEMA paperwork to get disaster assistance to our constituents when they need it the most.

Proposed Solution

Crisis Track is disaster management software designed specifically for local governments. Crisis Track uses local government data to more quickly identify disaster costs and complete FEMA paperwork to get disaster assistance into the community faster. The following provides a detailed specification as well as short videos on how Crisis Track can support local government disaster management processes.

Crisis Track offers three tiers of functionality each of which fit specific solutions within emergency management:

Crisis Track Damage Assessment helps local governments conduct simple damage assessments from a mobile app using local GIS or tax data.

Crisis Track Disaster Management includes the functionality in the damage assessment tier and provides local governments with post declaration

functionality such as force account labor and equipment tracking and debris monitoring.

Crisis Track Emergency Management has all of the functionality in the first two tiers and provides local governments with the ability to capture incident action plans and situation reporting. This tier also provides a SAR module that assists in the planning, execution, and documentation of SAR events.

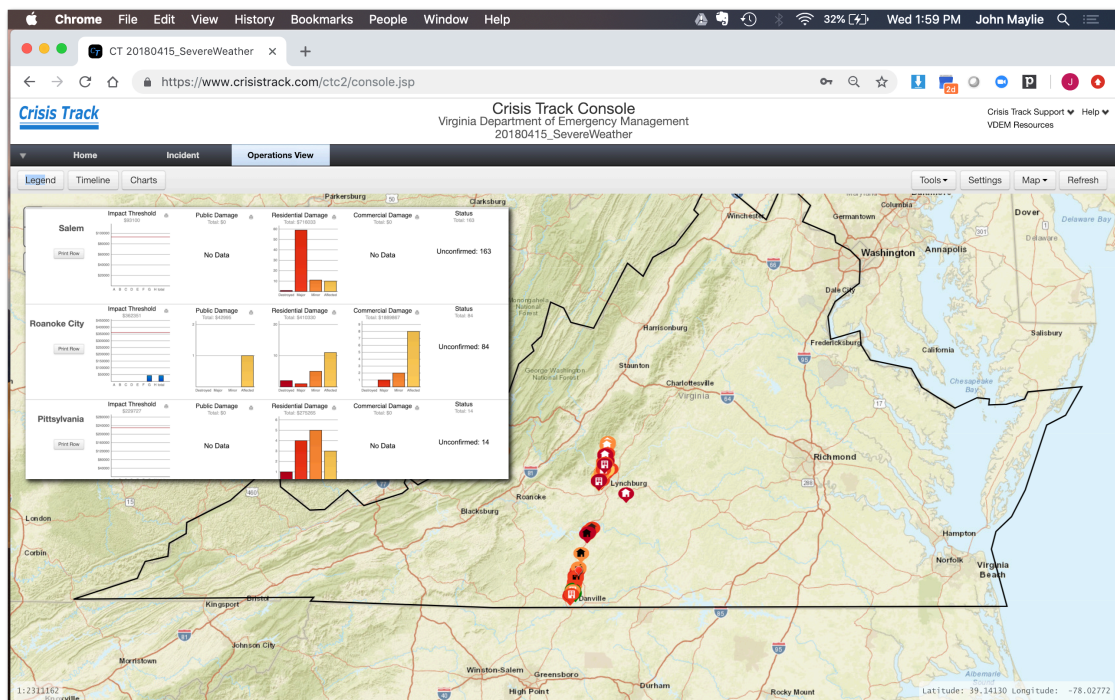
The following matrix further details the features in each tier:

Feature	DA	DM	EM
Infrastructure Damage Cost Calculator	✓	✓	✓
Road Closure Tracking	✓	✓	✓
Initial Damage Reporting	✓	✓	✓
Real-Time Location Tracking	✓	✓	✓
GIS Data Integration	✓	✓	✓
FEMA/FHWA Damage Assessment Forms	✓	✓	✓
Force Labor and Equipment Tracking		✓	✓
Multiple Team Workflow		✓	✓
Incident Management Forms		✓	✓
Emergency Management Request Tracking		✓	✓
Debris Monitoring		✓	✓
Citizen Self Reporting Website		✓	✓
ArcGIS Online Integration		✓	✓
Search and Rescue			✓
Incident Resource Management			✓
Re-Entry Permitting			✓

Damage Reporting Specifications (DA) – Crisis Track will provide local governments with the ability to capture initial and detailed data on disaster impacts suitable for requesting FEMA Public Assistance, FEMA Individual Assistance, and Small Business Administration Disaster Loans as well as meeting state and local disaster consequence reporting needs. By staging local data and plans, impact reporting will shorten from weeks to hours. The proposed solution will provide the following capability for damage reporting:

- Individual Assistance damage reporting requirements:
 - Collect data elements as defined by the FEMA Damage Assessment Operations Manual
 - Calculate damage costs based on local tax assessment data
- Public Assistance damage reporting requirements:

- Collect data elements as defined by the FEMA Damage Assessment Operations Manual
- Calculate public infrastructure damage costs based on local tax assessment data where available.
- Report debris cost estimates
- Report Category A and Category B labor and equipment estimates
- Small Business Administration damage reporting:
 - Collect commercial data elements as defined by the Small Business Administration Disaster Loan Program
 - Calculate commercial damage costs based on local tax assessment data where available.

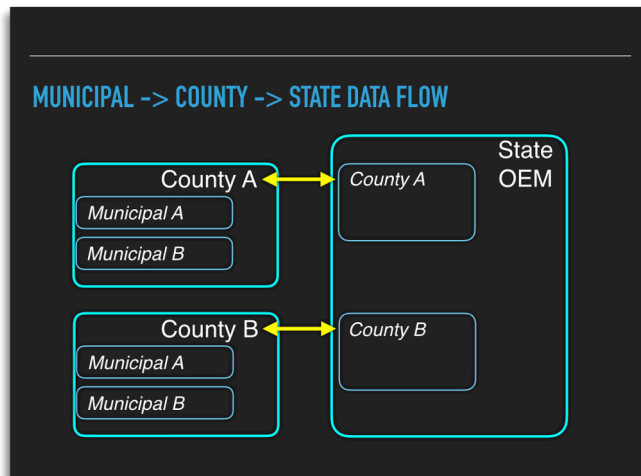


- Track damage reporting from a list or a map view
- Track road closures by a point and a line
- Track debris removal by point and a polygon
- Produce maps showing the concentration by grant category
- Generate FEMA Preliminary Damage Assessment forms: FEMA 90-80, FEMA 90-81, FEMA Individual Assistance Street Sheets, and SBA commercial damage estimates
- Configure data entry form elements to meet local needs

See how Virginia's Department of Emergency Management leverages local GIS data: <https://www.crisistrack.com/vdem/>

State – County – Municipal Data Administration (DM) – Crisis Track will separate access and reporting for municipal, county, and (where available) state

government users. Separate reporting allows local governments to meet their own reporting needs and increases usage. This reporting then summarizes at a county and state level. The proposed solution will provide the following capability for the government tier-level data administration:



- Provide separate data views for municipal and county users
 - Municipal damage reporting will roll up to county-level reporting.
 - Individual municipal government users will only have access to damage report data for their jurisdiction
 - County government users will have access to individual county and municipal damage report data
- Provide the capability to allow each municipality and county administrator to manage user access for each of their domains.

Public Self-Reporting Website (DM) – Crisis Track will provide a public self-reporting website for the local government. The website will feed into the damage reporting for that county and help the emergency manager define the area of concern more quickly. The proposed solution will provide the following capability for a public self-reporting website:

- Provide a simple form that allows public individuals to report residential or commercial infrastructure damage as well as provide insurance information
- Provide the ability for constituents to upload photos
- Provide a web page as a hyperlink or html form tag that can be embedded into an existing county web page
- Allow the web or social media page to be used on a mobile device
- Provide administrators with the ability to enable and disable the public self-reporting web page without webserver access.
- Provide an auto-completed address based on the local government's 911 address point file where available

Community self-reporting can drive recovery efforts.

Watch this [video](#) on how Crisis Track helps:



Here's a video detailing how this feature works:

<https://crisistrack.vids.io/videos/a49adfb61e1de3c22c/citizenrequest-mp4>

Recovery Operations and Management (DM) – Crisis Track will provide the capability to plan for, manage, and report on recovery operations. Disaster management operations can be organized and managed into teams of force labor and equipment resources. Teams' time and costs are calculated in real time from the mobile application and auto-filled onto project worksheets for FEMA reimbursement. The proposed solution will provide the following capability for recovery operations planning and management:

- Manage disaster consequence data by incident
- Graphically delineate an area of concern by drawing an area or uploading a shape
- Locate and manage operations resource locations
- Allow for the creation and management of teams consisting of personnel and equipment
- Store personnel and equipment inventories for use in any incident
- Allow tasks to be assigned to teams that define missions and areas of responsibility
- Store pre-configured teams and tasks that can be used for any incident.
- Track the location of teams in real-time
- Track the time a team spends doing a task from a mobile device
- Track emergency management requests from a call center
- Populate and export to the following FEMA and FHWA forms:
 - FEMA 90-120 – Special Considerations
 - FEMA 90-121 - PNP Facility
 - FEMA 90-123 - Force Account Labor Summary
 - FEMA 90-124 - Materials Summary
 - FEMA 90-125 - Contract Work Summary
 - FEMA 90-127 - Force Account Equipment Summary
 - FEMA 90-128 - Applicant's Benefits Calculation
 - FHWA 1547 - Detailed Disaster Inspection Report
- Enter and export FEMA Debris Monitoring forms such as load tickets and unit rate tickets
- Enter and export FEMA Project Worksheets
- Enter and export FEMA Substantial Damage Estimation forms
- Retain data supporting FEMA Public Assistance grant applications for a period of three years from the date the State closes the grant

See how Crisis Track tracks force labor and equipment time for Public Assistance.

Click [here for a short video](#):



Watch how Crisis Track keeps track of force account labor and equipment:
https://crisistrack.vids.io/videos/7c9ad1bc1a14ecc2f4/video3_june_2018-mp4

Evacuation Management (EM) – In the Emergency Management product tier, Crisis Track will provide the ability to manage evacuations and reentry into an area designated for mandatory evacuations. The proposed solution will provide the following capability for evacuation management:

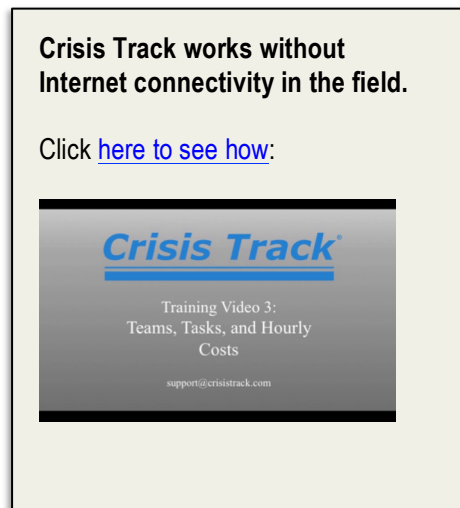
- Track evacuation notification efforts using data entry forms from mobile devices
- Accept reentry permit requests from the public
- Allow for a workflow to issue reentry permit approval based need and priority
- Issue reentry permits based on an area of concern
- Read and check reentry permits entering and leaving an area
- Track reentry permit status from a list or a map view

Search and Rescue (SAR) Operations Management (EM) – In the Emergency Management product tier, Crisis Track will provide the capability to manage land search operations. The proposed solution will provide the following capability requirements for search and rescue operations:

- Formulate teams of personnel and equipment
- Provide tools to identify a search radius
- Draw search area polygons over USGS topographic maps
- Identify infrastructure inside the search area for Urban Search and Rescue operations
- Search teams to enter clue and other data onto SAR forms from a mobile application
- Track “bread-crumbs” travel trails on both mobile and web applications to help determine probability of detection
- Populate and to export to the following ICS forms:
 - ICS 201 – Incident Briefing
 - ICS 202 – Incident Objectives
 - ICS 203 – Organization Assignments
 - ICS 204 – Assignment List
 - ICS 205 – Radio Communications Plan
 - ICS 205A – Communications List
 - ICS 206 – Medical Plan
 - ICS 207 – Incident Organization Chart
 - ICS 208 – Safety Message/Plan
 - ICS 209 – Incident Status Summary
 - ICS 210 – Resource Status Change
 - ICS 211 – Check In List
 - ICS 214 – Unit Log
 - ICS 215 – Operational Planning Worksheet
- Allow for coordinate transformations from mission planning to populate to ICS forms

Mobile Application (DA) – Since most information collection happens in the field, Crisis Track is mobile enabled for field data entry and situational

awareness. The proposed solution will provide the following mobile capabilities:



- Enter data, photos and locations using an application on a mobile device
- Allow for mobile users to access assignments by teams and tasks
- Show task boundaries, current position, and assignments on a map on the mobile application
- Track time spent on each task from the mobile application
- Allow for the mobile application to function without internet connectivity
- Map local government GIS data for infrastructure locations where available
- Allow for the device's GPS position to located infrastructure where local government GIS data is not available

- Allow users to add or change a location from a map on the device
- Make the mobile application available at no charge on iOS, Android, Windows 10, and Kindle application stores

See how Crisis Track works without Internet connectivity:

<https://crisistrack.vids.io/videos/489ad1bc1a14e3ccc0/offline-editing>

GIS Interface (DM) – Crisis Track will access data from and interface with local government GIS environments. The proposed solution will provide the following capability to interface with GIS:

- Store local government infrastructure locations and valuations
- Export disaster consequences to Esri shapefiles
- Allow the overlay of local ArcGIS map services onto system mapping components
- Interface with ArcGIS Online in real-time (No shapefile import/export)

Web EOC Interface (DM): Crisis Track will interface with the local government's Web EOC instance. The proposed solution will provide the following capability to interface with Web EOC:

- Map incident names between Crisis Track and Web EOC
- Export disaster consequences to Web EOC Input Views

Branding – Crisis Track allows local governments to brand the application with their logos. The proposed solution will provide the following capability for branding:

- Place local government logos on the disaster management software application
- Place local government logos on the citizen self reporting and reentry permit

- application websites
- Place local government logos on report exports

Hosting – Crisis Track runs on cloud-based infrastructure hosted in the Amazon Web Services EC2 environment. A hosted environment ensures uptime, especially where incidents can affect local computing infrastructure. Crisis Track's cloud-based infrastructure ensures the following:

- Geographic redundancy - Crisis Track runs geographic redundant infrastructure in Amazon's Data Center East and Data Center West. A load balancer directs web traffic from clients to the closest data center to reduce latency. Data is mirrored between redundant infrastructure and serves as a backup to each other.
- Backup procedures - Crisis Track servers are backed up nightly.
- Uptime Status Reporting - In the last 6 months our system monitoring reports (<http://www.crisistrack.com/status/>) show Crisis Track at near 100% uptime.

For more technical details, please see the Crisis Track Technical FAQ.

Implementation Plan – Crisis Track will prepare an implementation plan and schedule that outlines how the disaster management software will be configured and trained on. The implementation will detail the following tasks:

- Acquire and load local data – request and process local data for use by the disaster management solution
- Setup and launch account – configure account for the disaster management solution
- Training – provide training to the partners both online, on location, and train-the trainer offerings
- Technical Support – provide email and phone technical support from 8:00am – 6:00pm Eastern Time Monday through Friday with extended hours during disaster support.

Improving local disaster management processes will improve local government recovery processes and expand its resources. Crisis Track looks forward to supporting you in your disaster management needs.