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Ready When it Matters

Genasys Inc.
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March 27th, 2025

Andrew Bower
Legislative Director, Rep. Robert Garcia
Andrew.Bower@mail.house.gov

Subject: Congressional Inquiry Regarding the Emergency Alerts During the Los Angeles Fires, dated February 3, 2025

Dear Mr. Bower,

Please find Genasys Inc.'s response to your inquiry attached. Although the official investigation is still ongoing, we have endeavored to provide answers to your questions to the best of our ability.

Please let me know if you require additional information.

Sincerely,

Richard Danforth
Chief Executive Officer

Attachment: Genasys Inc.'s Response to Congressional Letter

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March 27th, 2025

Genasys Inc.
16262 W. Bernardo Dr.
San Diego, CA 92127

Re: Congressional Letter to Genasys Dated February 3, 2025

Dear Los Angeles County Members of Congress:

Regarding your inquiry in the letter dated February 3, 2025, we have included responses to the eight questions asked about the January 2025 Los Angeles County wildfires. Genasys provides software for zone-based emergency management, first responder collaboration, and geo-targeted, public-facing alerting that is used by many communities, counties, and states. Data has shown that our software enables emergency managers and first responders to work more efficiently and communicate life safety notifications to the public faster, helping to reduce casualties from wildfires, flooding, and other life safety threats.

Alerts issued through our Genasys software are prepared and sent by local officials managing an incident. Our software is designed to send notifications through multiple channels, including our Genasys Protect app for citizens, email, text, and long-range acoustic devices (if installed in the area), to enhance emergency notification reach and coverage. Our software also facilitates Wireless Emergency Alerts (WEA) through the Federal Emergency Management Agency's (FEMA) Integrated Public Alert & Warning System (IPAWS). Our multi-channel, geo-targeted communication capabilities, along with our zone-based evacuation management tools, are why many cities, counties, and states choose Genasys to help keep their constituents safe.

The responses to your questions are included in order. We are grateful to be working with you to help keep people safe during public safety threats and other emergencies.

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Questions and Answers

1. **Please provide context and information regarding how Genasys, Inc. is utilized by Los Angeles County to provide protecting communications tools including the EVAC and ALERT systems.**

The **Los Angeles County Office of Emergency Management (LACOEM)** utilizes Genasys' EVAC, PROTECT and ALERT software products to enhance public safety, improve coordination among response agencies, and ensure timely and effective communication during emergencies.

A. **Genasys EVAC:** LACOEM leverages our EVAC platform to quickly define and display geographic areas (zones) impacted by an emergency, which enables emergency response agencies to react swiftly to unfolding situations. EVAC facilitates collaborative decision-making by allowing agencies to share real-time event status updates, coordinate response strategies, and communicate essential information to businesses and the public.

B. **Genasys PROTECT:** Public-facing emergency information is distributed through the Genasys PROTECT platform, which is available as both a web and mobile application. This tool allows community members to remain informed and take necessary precautions during emergencies.

C. **Genasys ALERT:** To reach residents and stakeholders quickly, LACOEM uses the Genasys ALERT platform to distribute critical alerts and notifications via multiple channels, including SMS, voice calls, email, and IPAWS. This multi-channel approach increases the likelihood that important messages reach as many people as possible in an emergency.

By integrating these advanced Genasys software solutions, LACOEM enhances its ability to protect lives and property through efficient, timely, and coordinated emergency communication efforts.

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2. **Please describe the actions taken by both Los Angeles County and Genasys, Inc., and any interactions between the County and the company, over the days following the false alarms that could assist us in our oversight of best practices for emergency communications tools.**

Throughout the Los Angeles County wildfires, in which hundreds of alerts were distributed through Genasys platforms, a single WEA was erroneously sent through the IPAWS channel to the entire county at 3:56 pm on January 9, 2025. Upon becoming aware of the WEA, Genasys Inc. took immediate action, in coordination with LACOEM, to mitigate the situation and prevent recurrence. This alert was an evacuation warning, not a mandatory evacuation order.

Based on our review of Genasys records and information received from LACOEM, on January 9, 2025, LACOEM staff used our ALERT platform to send multiple notifications throughout the day to different areas of the county impacted by separate, concurrent active fires. LACOEM staff used ALERT to send emergency notifications through IPAWS, SMS, voice calls, emails, TTY (teletype for the hearing impaired), and the Genasys Protect mobile app. At 3:46 pm, an alert was created that included the previously mentioned output channels intended for residents impacted by the Kenneth Fire only. The LACOEM staff system operator selected the appropriate geometry in the system mapping interface and saved it. The geometry was correctly saved to the SMS, voice, email, TTY, and Genasys Protect app output channels, but did not save to the IPAWS channel. However, an automated process required by IPAWS added the county geocode to the alert. The system operator did not know that the intended geometry was missing from the IPAWS channel and launched the alert at 3:56 pm. The alert was successfully sent to the correct geo-targeted area for all output channels other than IPAWS. The alert was sent to the entire county via an IPAWS WEA because the county geocode was added to the alert and IPAWS allows for alerts to be issued by geocode (see screenshot of actual alert).

LACOEM alert system operators routinely check the IPAWS live monitoring site, PBS Warn, after sending an alert to verify receipt. As a result of this practice, the countywide distribution of the WEA in question was quickly identified. The operator immediately canceled the WEA from the Genasys interface. According to system logs, the total time from when the alert was sent outside of the intended geometry via IPAWS, to the time the alert was canceled in the same interface, was 2 minutes 47 seconds. LACOEM immediately called FEMA to verify the alert had been canceled. However, LACOEM continued to receive reports that the alert was still being received. A countywide correction was sent 20 minutes after the alert was cancelled.

LACOEM then contacted its Genasys customer success manager to assist with identifying why the canceled WEA that FEMA verified was no longer active was still being received. While investigating, it was discovered that alerts with very similar wording had been sent to targeted areas within Los Angeles County for other concurrent evacuations. It was believed that these similar alerts were being confused for the cancelled alert. The Genasys customer success manager worked closely with LACOEM to cancel all active alerts which might be confused with the cancelled alert. In addition, the default expiry time in LACOEM's system was reconfigured from 24 hours to four hours as recommended by FEMA.

In parallel, Genasys promptly escalated the issue to its engineering team, which conducted a thorough review and implemented additional safeguards designed to prevent recurrence.

At LACOEM's request for on-site support, Genasys immediately dispatched a customer success manager and a GIS analyst to the Emergency Operations Center (EOC) to work

directly with LACOEM. This direct engagement provided real-time troubleshooting to better ensure that all necessary corrective measures were effectively communicated and implemented. ALERT templates were created to reduce message formation time, increase consistency of message content, and to confirm key message elements are included in all emergency alerts.

Additionally, Genasys worked with LACOEM to provide the California Governor's Office of Emergency Services (Cal OES) with system data and technical support as part of the transition of WEA operations to its management and control.

Genasys collaborated with FEMA to investigate the root cause of the erroneous messages that continued to be sent. This partnership was critical in understanding the underlying technical factors. FEMA confirmed no WEA messages were transmitted from the Los Angeles County Genasys ALERT system after January 9, 2025 through January 27, 2025.

Throughout this process, Genasys remained fully engaged with LACOEM and key federal and state agencies to swiftly resolve the incident while strengthening safeguards to uphold the highest standards in emergency communications.

3. **Please provide a list of all contracts with State, Tribal, or local governments to provide protective communications tools.**

The requested information is confidential. As a result, Genasys cannot disclose this information.

4. **Please describe the proper operating procedures to be followed by Los Angeles County for utilizing both Genasys' EVAC software for targeting evacuation areas, and Genasys' ALERT software for mass notification. What roles are played by Office of Emergency Management personnel and what roles are played by Genasys' software?**

The operating procedures in Los Angeles County for utilizing EVAC and ALERT are established and managed solely by LACOEM. Genasys provides access to its technology platform and support resources to facilitate emergency response and mass notification but does not dictate or influence LACOEM's operational protocols or decision-making processes. However, the platform is intended to provide an end-to-end emergency response workflow, guiding operations from initial incident detection through repopulation.

Genasys EVAC Capability

A. **Secure Platform**
   a. EVAC is a secure platform requiring system login authorized by designated agency or jurisdiction system administrators.
B. **Incident Assessment & Evacuation Planning**
   a. Upon identifying a potential threat, agency officials can access EVAC to assess the affected area.
   b. Zones define specific evacuation areas based on multiple factors such as risk assessment and population density.
C. **Evacuation Activation & Communication**
   a. Using EVAC, agency officials can communicate evacuation information across agencies and to the public in real time.
   b. The Genasys PROTECT web and mobile app provides community members with situational awareness and evacuation instructions which come directly from agency officials operating the system.
D. **Ongoing Monitoring & Adjustment**
   a. As conditions evolve, agency officials continuously monitor evacuation progress and can modify status and messaging based on updated intelligence.
   b. The platform supports communication with agencies and first responders, and to the public to make possible consistent dissemination of information across constituencies.

Genasys ALERT Capability

A. **Public Notification**
   a. Once an evacuation status is requested, agency officials initiate geo-targeted public safety notifications through ALERT to provide immediate public awareness.
   b. Geo-targeted notifications are sent via various channels, such as SMS, voice calls, email, and IPAWS, to reach residents in affected areas.
B. **Ongoing Monitoring and Adjustment**
   a. Agency officials monitor responses, refine messaging as needed, and provide the public with information updates.
   b. The public-facing platform, Genasys PROTECT, enables at-risk populations to receive alerts, view evacuation maps, and track real-time conditions.

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Integration & Workflow

While EVAC and ALERT are independent systems, they function collaboratively to support emergency response operations. LACOEM personnel leverage these tools to coordinate evacuations, issue alerts, and manage public safety throughout an incident. This structured approach permits all phases of emergency management—from incident detection, evacuation, emergency notification, to repopulation—to be handled effectively.

5. **What is the status of your investigation into the cause of the alert message being sent beyond its intended targeting?**

   As discussed in our response to question No. 2, the alert configuration phase of one alert (sent at 3:56 PM PST on January 9, 2025) was configured within the IPAWS output system to alert the entire Los Angeles County geocode.
   We have thoroughly investigated the issue with our emergency partners in Los Angeles County. Our investigation indicates that local network outages in and around the LACOEM offices are the most likely cause behind the intended geography not being saved within IPAWS but being properly saved in all other output channels.

   We have modified the software to incorporate safeguards to better ensure that all notifications, including IPAWS, will not go beyond the intended geography. At this time, our investigation has been concluded.

6. **Specifically describe what issues were presented by the user interface of Genasys ALERT/GEM, and how Genasys has addressed these issues.**

   ALERT requires users to define who will receive an alert by one of the following methods: selecting individual contacts, selecting a contact list, typing in a geocode (IPAWS only), or geolocating contacts by defining the alert area in the system mapping interface. If none of those conditions are met, the alert will not go to "ready" status, and the user will not be able to send it.

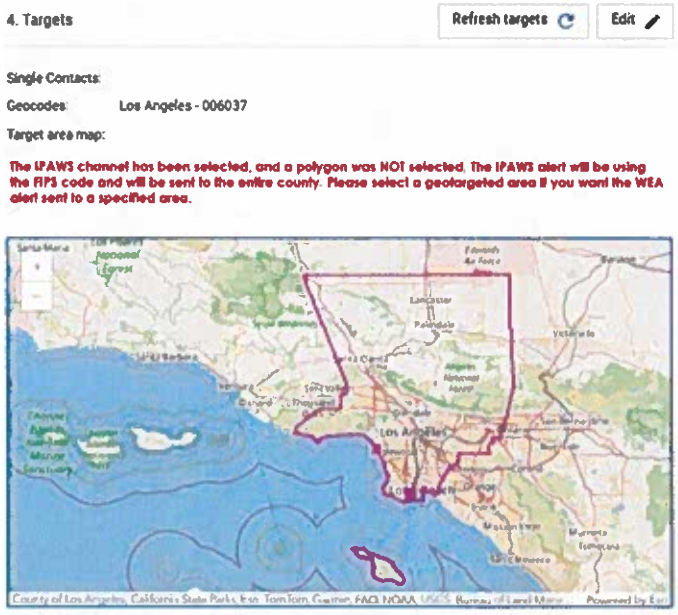
   Our investigation revealed that the system user created the alert by cloning a previously sent alert and modifying its properties. The user deleted the polygon from the previous alert and uploaded a shapefile to the ALERT system to define the new alert target area. The system is designed to accommodate this workflow.

The system auto-populates the required IPAWS geocode field, identifies registered email addresses and phone numbers within the alerting area, and adds them to the list of alert recipients, and the defined geometry is simplified to under 100 vertices as required by IPAWS. During that process for the alert in question, the geocode field auto populated, and the geometry was saved to all output channels, except IPAWS. Since FEMA protocol permits alerts to be sent using only geocodes, no error was detected, the alert went to "ready" status, and the user was able to send it. This resulted in distribution within the IPAWS output channel to the entire county instead of just the intended geo-targeted area.

Genasys engineers analyzed the issue and detected that, during a network disruption, an alert update command without a polygon and with a geocode could overwrite the emergency area.

SOLUTION: Two changes were applied to the ALERT platform in the hours following the incident to safeguard against potential recurrence:

A. **WARNING MESSAGE:** Any IPAWS alert which does not have a target area defined will result in the user receiving the bold red warning message pictured below PRIOR to sending the alert.



B. **GEOMETRY REQUIRED (conditional):** All alert update commands for the IPAWS channel now include a defined target area (geometry), if the other existing channels have a defined target area (geometry).

C. **GEOMETRY REQUIRED (always)**: A new system setting has been created in the ALERT platform, which, if enabled, does not allow the execution of IPAWS alerts without a defined geometry. This prevents the execution of IPAWS WEA notifications with only a geocode, even though FEMA's protocol allows this option.

7. **Are there any levels of secondary review, two-person authentication, or checklists with respect to the targeting and distribution of WEA messages in Genasys' ALERT system?**

The ALERT platform has role-based access control using profile permissions determined by system administrators to restrict who can send an alert, how they can send an alert (using a template or create from scratch), and the output channels to which they have access.

Checklists:
Users authorized by their system administrator to send IPAWS WEA notifications will be prompted during the alert creation process to complete all required fields, select the target area, and review the message prior to sending. LACOEM's system is configured to prevent users from bypassing the "review" step during alert creation, even if they are initiating the alert using a template. ALERT is designed to enable the use of pre-templated messages to reduce message formation time, to increase the consistency of message content, and to better ensure the inclusion of key message elements when operating the system during a large, dynamic emergency.

There are currently no system settings that require secondary review or two-person authentication.

8. **What training is provided by Genasys for the staff of public agency purchasers of Genasys software for the EVAC and ALERT systems?**

Genasys provides the following training options for customers:

A. **In-person training and drills:** On request, dependent on contract terms and conditions.

B. **Live training via virtual platform:** Genasys trainers provide live, interactive system training via a virtual platform of the customer's choice (TEAMS, Zoom, etc.). This training is available on an annual basis to all customers free of charge.

C. **Online learning management system:** All system users have access to the Genasys Learning Management System, where they can enroll in courses designed to improve proficiency by testing core competency prior to completion. Each course includes access to Quick Reference Guides that can be downloaded for easy access on local devices. This system is available to all customers free of charge.

D. **Help Center:** Genasys hosts a full complement of help articles, FAQs, and reference materials which can be accessed from either interface. These resources are available to all customers free of charge.

We thank you for your time and oversight as we all work together to keep people safe throughout emergencies and disasters in California and the United States.

Richard S. Danforth
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