

SoCalGas Case Study

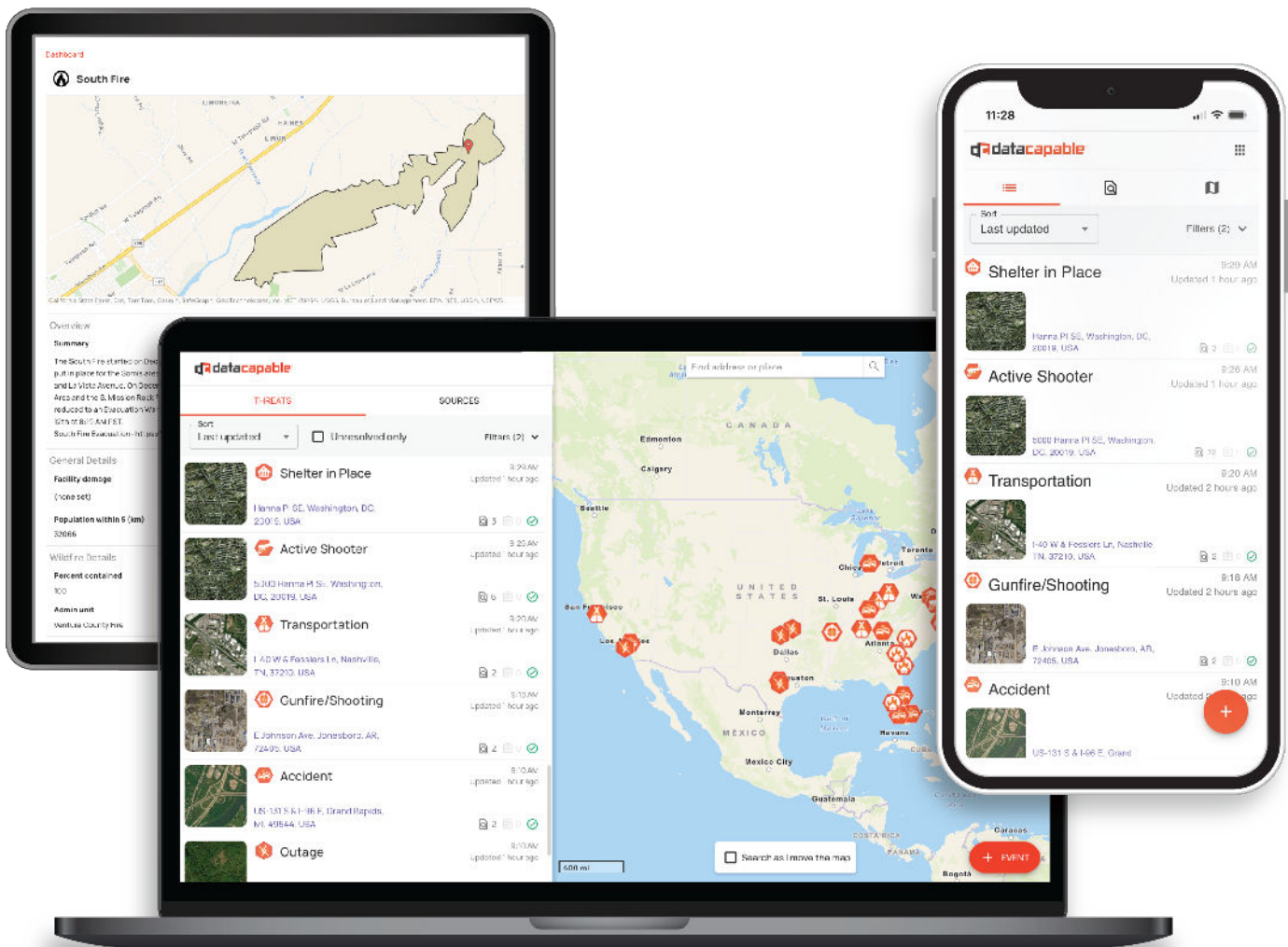
Transforming Threat Awareness and Crisis Management
with DataCapable's Threat Detector for Public Safety



Introduction

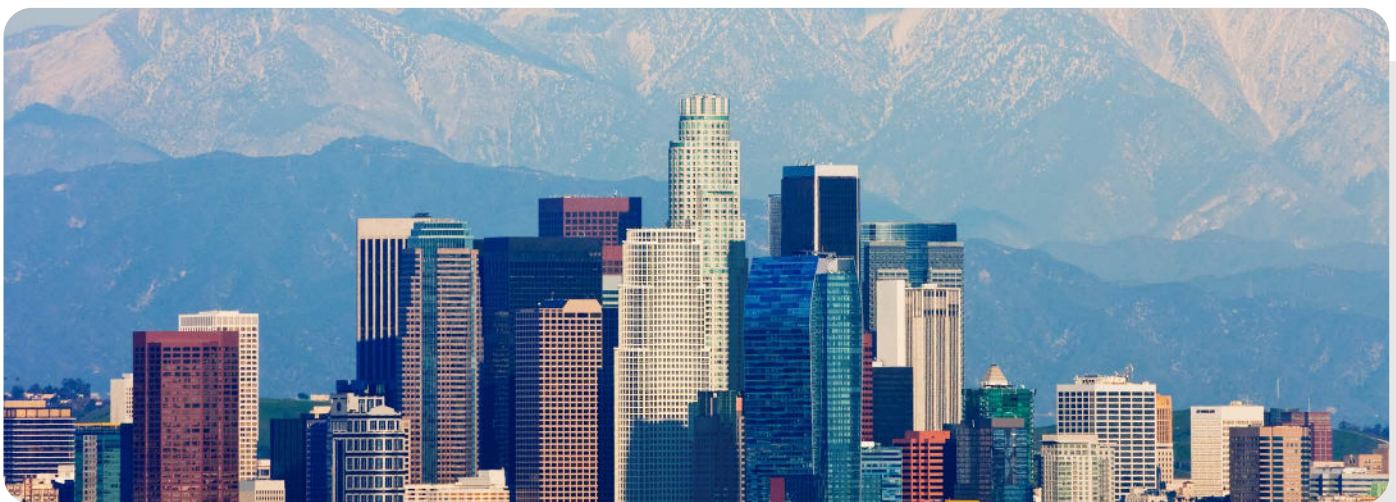
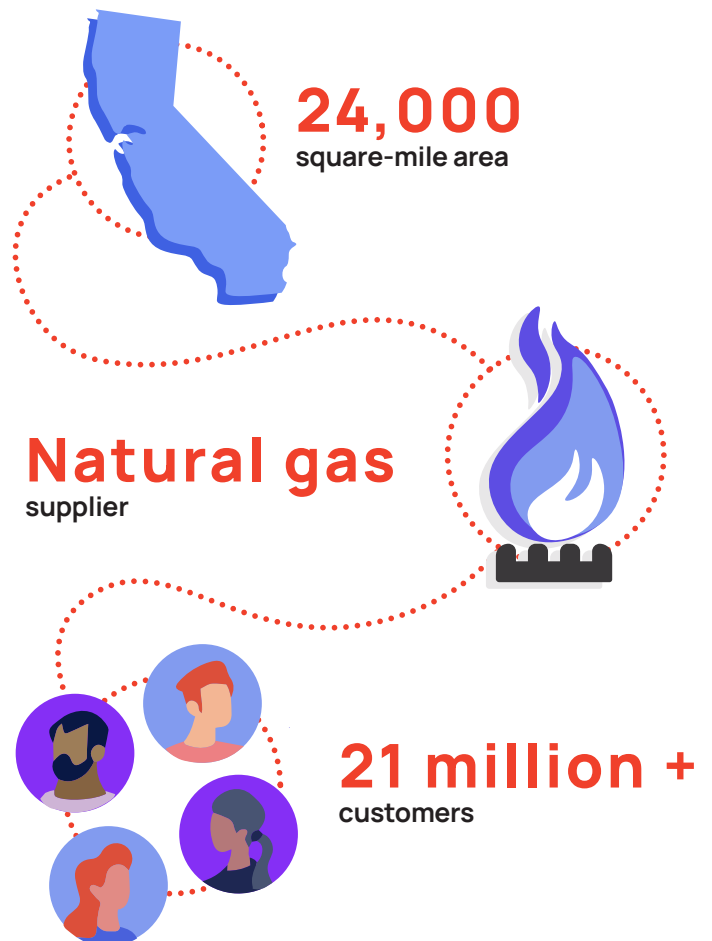
In the risk-prone landscape of utility management, SoCalGas, the United States' largest natural gas distribution utility, confronted escalating challenges in emergency response and customer communication amidst natural disasters and service disruptions. Serving a sprawling territory across Central and Southern California—a region notorious for wildfires, earthquakes, and other natural calamities—demanded an innovative approach to ensure safety, reliability, and customer trust.

Enter DataCapable's Threat Detector software, a pioneering solution set to revolutionize SoCalGas's risk mitigation capabilities by offering detailed critical event detection, setting a new standard in utility crisis management and customer service excellence.



Background

SoCalGas, a pivotal part of California's energy framework, supplies natural gas to over 21 million customers spanning a 24,000-square-mile area. Its responsibilities transcend mere fuel delivery, encompassing the continuity of service and safety amid the state's varied natural disaster threats.



Background

Susceptibility to Natural Disasters & Extreme Weather

California's vulnerability to a diverse array of natural calamities poses substantial challenges for emergency management and public safety. Wildfires represent a particularly acute hazard, with their increased frequency and intensity attributed to arid conditions, vigorous winds, and changing climate patterns.

In 2023, the state grappled with a disturbing upsurge in natural disasters. A total of 594,971 emergency responses were deployed to tackle 7,127 wildfires that ravaged 324,917 acres, claimed four lives, and damaged 71 structures. Moreover, a series of over 700 landslides within a span of three January weeks, catalyzed by nine atmospheric rivers, impacted over half a million residents, highlighting the heightened risk and potential devastation of such disasters.

State's Mitigation Measures & Historical Context

California has historically been prone to disasters such as floods, fires, and earthquakes. From 1950 to 2017, about 40% of State of Emergency declarations were due to floods, while fires accounted for roughly 30%. Although earthquakes occurred less frequently, they represented some of the most catastrophic events. Major earthquakes have been responsible for three of the state's five deadliest disasters since 1950.

The increase in severity and frequency of these events, especially wildfires, has been significant over the decades. For example, the state has seen a rise in Federal Fire Management Assistance Grants, with an average of nearly ten per year since 2000, compared to less than five per decade in previous decades.

This uptick is linked to the deteriorating health of California's forests due to drought and pest infestations and certain forest management practices that have contributed to an overabundance of fuel.

SoCalGas's efforts in disaster response have had to evolve with these changing dynamics. The advent of predictive analytics and real-time monitoring capabilities has enabled the utility to anticipate and respond to disasters with greater agility, safeguarding infrastructure and ensuring the continuity of service amidst these challenges.

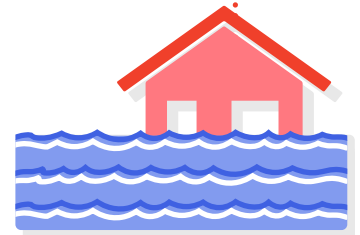


30%

of State of Emergency declarations

40%

of State of Emergency declarations



3

out of 5 deadliest disasters since 1950 have been earthquakes

Background

Civil Threats

In addition to the numerous natural threats to California's landscape, the state's social and sociopolitical climate also faces constant threats, including an increase in active shooter incidents.

Civil Unrest

In the political election season of 2019-2020, the United States observed a marked increase in civil unrest incidents throughout the nation, particularly in response to perceived systemic racism and protests related to police violence:

- **Protests**

The Major Cities Chiefs Association recorded **8,700 protests** across the U.S. and Canada from May 25 to July 31, 2020, with **574 involving acts of violence**.

- **Arrests**

Over **14,000** individuals were arrested during these protests, emphasizing the unrest's scale and intensity.

- **Damages**

Estimated **\$1-2 billion in insured damages** from protests, marking one of the costliest civil disorder events in U.S. history.

- **Law Enforcement Injuries**

Over **2,035 officers were injured**, underlining the confrontations' severity.

California saw the most civil unrest and protests during the high-tension political election season. Although the protests were predominantly peaceful, some instances of rioting, looting, and arson resulted in significant property damage. Even peaceful demonstrations significantly contributed to unforeseen road blockades, traffic, and detours, which can significantly hinder utilities' ability to dispatch efficiently.



Background

A Predicament for Utilities

Utilities like SoCalGas need quick, comprehensive emergency information to guide adaptive response strategies effectively. This need is highlighted by the scenario below.

Before the implementation of Threat Detector, a SoCalGas dispatch team was en route to address a reported gas leak in a residential neighborhood. Relying solely on information from mainstream news and official government alerts, the team was unaware that a recent landslide, triggered by heavy rainfall overnight, had obstructed the primary access route to the neighborhood.

Due to the delay in information, this landslide had not yet been reported by mainstream media or included in government alerts. As a result, the team encountered an unexpected roadblock upon arrival, significantly delaying their response. The lack of timely information meant they had to backtrack and find an alternative route, wasting precious time that could have been used to mitigate the gas leak more swiftly.

This incident emphasized the limitations of relying on traditional alerting channels, which often provide limited visibility and can result in being the last to know about evolving threats.

- **Increased Risk to Emergency Responders**

The incident posed risks to the residential community and the SoCalGas risk mitigation team. This highlights the need for more immediate and comprehensive sources of information to ensure public safety and protect emergency responders.

- **Decreased Customer Satisfaction**

The incident negatively impacted customer satisfaction by extending the duration of the gas leak, potentially eroding trust in the utility's ability to respond effectively to emergencies, and contributing to a deterioration in customer relations and public perception of SoCalGas.

- **Compounded Safety Hazards**

SoCalGas is responsible for ensuring infrastructure integrity and public safety, but gas leaks in dangerous environments can interact with other threats, such as landslides, floods, or earthquakes. These interactions can create compounded emergency situations that are difficult to manage.

- **Necessity for Immediate Information Systems**

Quick and comprehensive emergency information systems like Threat Detector are crucial as traditional alerting channels often lag behind real-time events. Rapid data reporting and analyst validation enhance threat awareness, allowing for more effective and timely responses. Without such tools, emergency response teams face major issues in deploying efficiently and ensuring the safety of communities and personnel.

DataCapable emerged as the ideal collaborator, offering a suite of tools designed to provide real-time insights, timely intelligence, and streamlined communication channels during emergency events. This partnership began a strategic overhaul to reinforce SoCalGas's resilience against threats and natural disasters and elevate its commitment to customer safety and satisfaction.

DataCapable's Role

In the fast-paced world of emergency management, DataCapable's Threat Detector software solution offers unparalleled information on emergency situations and response capabilities tailored specifically for the unique challenges faced by SoCalGas.

This isn't just a software solution; it's a paradigm shift in reporting emergencies.

Combining the cutting edge of near real-time updates backed by analyst validation, geospatial analytics, and AI-driven insights, DataCapable's Threat Detector software solution offers a vision of a safer, more responsive future. Central to this solution was its ability to seamlessly integrate with SoCalGas's existing infrastructure, providing a unified, intuitive interface for monitoring threats across the utility's expansive service territory.

DataCapable's Approach to Emergency Management

By integrating these capabilities, DataCapable equipped SoCalGas with the resources to stay alert to emergencies proactively, enhancing operational resilience and customer trust.



24/7 Threat Detector Monitoring

Threat Detector contextualizes and validates events before notifying clients. This consistent, early detection of rapidly evolving incidents allows for a quick reporting and turnaround response by utilities and agencies to weather events or other threats.



Expert Human Analysis & Validation

Expert human analysts empowered with AI algorithms rapidly assess and validate incoming data to provide comprehensive threat data.



Intuitive Event Filtering

Allows clients to sort through events by contextualized information, such as date ranges, and specific use cases such as active shooters and civil unrest, tailoring focus to relevant events.



Detailed Event Information

Offers comprehensive details including imagery, geo-location, number of sources, and comments for added situational awareness. This ensures that those in need of specifics are armed with the most detailed information necessary.



Seamless API Integration

DataCapable's Threat Detector Software integrates with other software systems through API integration. This eliminates manual data transfer and provides users with an interactive view of threat information within their existing GIS platform.



Customizable Subscription Plans

DataCapable offers tailored subscription levels to meet the needs of different organizations. From basic monitoring to comprehensive incident analysis, Threat Detector can effectively provide for every organization, regardless of size.



Direct Link Sharing

Facilitates easy sharing of event details for efficient internal communication.

What Challenges Did SoCalGas Face?

SoCalGas confronted a series of significant challenges that tested the resilience and responsiveness of its operational and infrastructural capabilities.

- **Infrastructure Risks**

Susceptibility to weather-related disasters such as hurricanes, landslides, and floods, often leading to the loosening and leaking of underground pipes and the damaging of overhead lines.

- **Operational Threats**

The threat of human-induced incidents, including bomb threats and civil unrest situations, presents significant operational difficulties, often hindering the safe and effective deployment of response crews.

- **Delayed Emergency Response**

Dependence on conventional monitoring systems frequently leads to a lag in emergency response, highlighting the need for faster tools for quick alerts.

- **Complication of Event Verification**

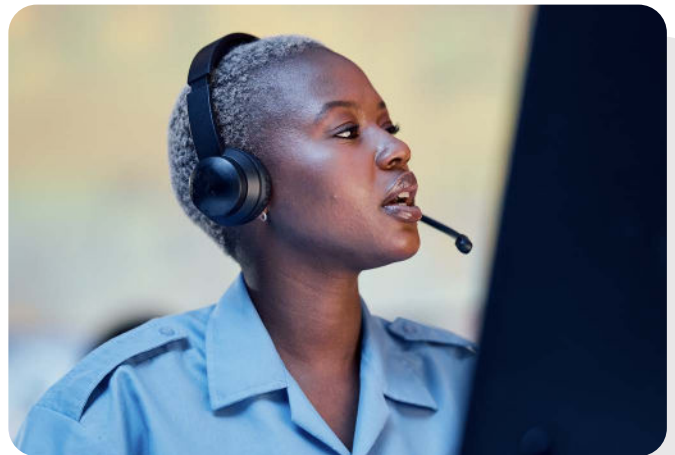
A lack of quick, on-the-ground validation challenges the process of accurately verifying and responding to events like floods, making it difficult to promptly obtain the necessary and specific details for an effective emergency response.

- **Fragmented Situational Awareness**

Drawing information from different sources was time-consuming, stunted a holistic understanding of emergencies, and didn't always provide the precise information needed that advanced analytics provides.

- **Ineffective Crisis Communication**

The challenge of ensuring clear, timely communication of relevant and evolving information with trusted partners to maintain trust and coordination.



- **Safety & Regulatory Compliance Issues**

The importance of a comprehensive approach to incident tracking and compliance to uphold safety standards.

- **Safeguarding Infrastructure Integrity**

The need for preventive measures and repair responses to protect gas infrastructure against emergencies.

These challenges underscored the need for a revolutionary approach to emergency management—a need that DataCapable's solution was uniquely positioned to fulfill.

Solution

DataCapable's Threat Detector Software presents targeted solutions to address the specific challenges faced by SoCalGas, ensuring a resilient and proactive emergency management system.

Expert Human Analyst Validation

The software solution utilizes the expertise of human analysts equipped with AI to verify the accuracy of data. Validated data is integrated with geospatial mapping to provide specific and detailed information for users.

Mitigating Information Delays

Using AI to aggregate real-time data and expert human validation, Threat Detector allows trusted partners swift access to critical information beyond traditional news for faster, smarter crisis response.

Unified Data Integration and Analysis

DataCapable's platform centralizes and validates diverse data sources on one enhanced visual platform, eliminating the need for trusted partners to piece together information manually.

Streamlining Crisis Communication

Automated alert systems, filtering, and contextualizing events based on location, date, type of event, etc., allow SoCalGas to focus on the most relevant events.

Facilitating Regulatory and Safety Compliance

Integration with existing infrastructure and comprehensive reporting tools help SoCalGas adhere to safety standards and regulatory requirements.

Addressing Operational Challenges from Human Threats

Early warnings from public data source analysis enable effective crew deployment against human-induced threats, enhancing security and crisis management.

Protection in Weather-Related Infrastructure

With AI-sourced and human-validated data, users receive advanced warnings of weather-related disasters, giving them time to prepare for severe weather conditions.

Optimizing Emergency Resource Deployment

Customizable dashboards provide evergreen and comprehensive overviews of ongoing incidents, allowing SoCalGas to deploy emergency resources strategically based on precise, validated information.

Protecting Infrastructure Integrity

Predictive analytics and preemptive planning, supported by the software, aid in protecting SoCalGas's infrastructure against the inevitable impacts of emergencies and natural disasters.

In essence, DataCapable's Threat Detector Software equips SoCalGas with an advanced, integrated solution that addresses each of its specific challenges head-on.

From helping mitigate human and weather-related threats to keeping to improving situational awareness, DataCapable transforms emergency attention and management into a more informed and efficient process. This comprehensive approach not only safeguards infrastructure and public safety but also has reinforced SoCalGas's commitment to operational excellence and customer satisfaction in the face of emergencies.

Results

The deployment of DataCapable's Threat Detector Software heralded a new era of emergency management for SoCalGas, marked by significant achievements:



SoCalGas prioritizes safety, which is reflected in their adoption of DataCapable's Threat Detector Software. This commitment to safety culture is action-oriented, focusing on control of known hazards and proactive measures against potential risks, which is crucial for the company's expansive network of pipelines and infrastructure.

Implementing the Threat Detector Software is a strategic move to ensure the safety of the public, systems, employees, and contractors. It has bolstered SoCalGas's ability to rapidly detect and respond to threats, including natural disasters, thereby safeguarding infrastructure integrity and enhancing community trust.

Operational Efficiencies & Cost Savings

SoCalGas experienced operational efficiencies that translated into cost savings by optimizing resource allocation and streamlining emergency response processes. The utility was able to direct resources more effectively, reducing the overall cost of emergency management.

Compliance & Safety Enhancement

The platform's comprehensive reporting and analysis tools ensured that SoCalGas remained compliant with regulatory standards, contributing to an overall enhancement of safety protocols and procedures.

Enhanced Emergency Preparedness & Response

The ability to detect and analyze threats in real time markedly improved SoCalGas's emergency preparedness and response times efficiency. This swift action minimized the duration and impact of service disruptions, safeguarding both public safety and utility infrastructure.

Improved Customer Communication & Satisfaction

The automated alert system and real-time updates significantly improved the utility's communication with customers during emergencies. Customers appreciated the proactive, transparent approach to information sharing, bolstering their trust and satisfaction with SoCalGas's services.

Conclusion

Beyond the immediate success of the Threat Detector implementation, DataCapable's suite of solutions, including its Outage Map & Community Portal software, offers a forward-looking approach to civic, utility operations, and emergency management coordination.

The partnership between SoCalGas and DataCapable is a testament to the power of innovative technology in addressing the complex maneuvers faced by utility providers today.

As SoCalGas continues to harness DataCapable's comprehensive tools, it sets a new standard for utilities nationwide in leveraging advanced technology for comprehensive threat awareness, operational efficiency, and customer satisfaction.



DataCapable

Many utility companies struggle to meet their customers' growing expectations. DataCapable's industry-leading software equips utilities with Outage and Event Map and threat detection tools to improve their operations, ultimately delivering an exceptional customer experience.

Schedule a demo today!



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