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AWARD

911

911 INFORM

**2020 NORTH AMERICAN
ENTERPRISE SAFETY SOLUTIONS
NEW PRODUCT INNOVATION AWARD**

Contents

Background and Company Performance

Industry Challenges

The National Emergency Number Association (NENA) estimates that approximately 240 million calls reach out to 9-1-1 each year.[1] Frost & Sullivan research suggests that nearly 85% of these calls now originate from a mobile device.[2] Public and private safety entities have faced challenges to keep up with the rapid pace of technology innovation, evolving consumer behaviors, and the growing demand for enhanced situational awareness in emergency situations. Enterprise campuses, educational environments, hospitals, hotels, malls and other facilities have spent millions of dollars on high-end security systems; however, in too many instances comprehensive incident intelligence is inaccessible to the responders who need the information most. In many cases, emergency personnel are entering crisis situations blind, resulting in unacceptable delays and inefficient response measures.

Recent legislation (Kari's Law, 2017 and The Ray Baum's Act, 2018) mandates that businesses and facilities with multi-line telephone systems allow callers to dial direct to 9-1-1, that calls route directly to public safety answering points (PSAPs), and that calls initiate with a dispatchable location (i.e., street address, floor level, and a caller's room number if available and not simply the main business address). Moreover, NENA articulated a framework for core technical guidelines when developing a Next Generation 9-1-1 (NG9-1-1) system, known as the i3 architecture, designed as an Internet Protocol (IP)-based 'network of networks' across all public safety and emergency services. As opposed to the legacy voice-centric E911 network, NG9-1-1 supports an array of IP-based communications (including text, data, photos, and video exchanges).

However, these changes focus on one-way outbound communications from callers to PSAPS and only include a path to share information from, for example, an enterprise owner or management team providing additional data. While tracking enterprise device location and user mobility in the enterprise is a valuable component, facility managers and owners lack knowledge of 9-1-1 calls placed from a mobile cellular device inside a facility or property. Any additional data available is usually limited to static building information that may, or may not, be up to date. Thus, in the event of an emergency, enterprise owners, first responders, and citizens must navigate an undesirable situation inside a property with little (if any) information sharing. When PSAPs possess the capability to tap into the robust security systems already deployed in educational institutions, commercial properties, and/or corporate campuses, then situational awareness improves dramatically, enabling the most appropriate response efforts.

New Product Attributes and Customer Impact of 911inform

Founded in 2018 to address the inconsistency and blind spots in emergency situational awareness, 911inform provides innovative technology that streamlines information flows and augments incidence intelligence during critical events. Understanding that important

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[1] National Emergency Number Association, 9-1-1 Statistics, https://www.nena.org/page/911Statistics
[2] *Next-Generation 911—The Future of Public Safety, Forecast to 2025: COVID-19 Elevates Urgency for Next-Gen 911 Deployments,* (Frost & Sullivan, April 2020).

assets are often 'un-connected' in emergency situations, the company's founder created 911inform to deliver enhanced situational awareness to first responders. The solution was initially built to service the needs of their client base and the Public Safety team at Avaya. Avaya immediately recognized the value of the application, which brought connected building functionality, along with enhanced NG911 data delivery to their customer base. In addition to incorporating the solution into their Public Safety offer, the solution was added to applicable State and GSA contracts as orderable Avaya part numbers in order to satisfy RFP and RFI requirements now requiring Federal Law compliance. As a completely system agnostic solution, 911inform also extended the product offer to integrate with any premise, cloud or hybrid environment.

Gathering and Rationalizing Real-time Data to Bridge Information Gaps

911inform aggregates data across siloed systems into a single platform to bridge the information gap between property owners/managers, first responders in the field, and PSAPs. The 911inform solution enables a unique level of real-time situational awareness, aggregating relevant data flows from nearly any platform into a streamlined system with an intuitive interface. The solution integrates information from previously disparate systems into a single, functional implementation to manage emergency events intelligently.

Building on the new NG9-1-1 Additional Data architectures, 911inform partners with RapidSOS, and integrates with the RapidSOS Clearinghouse, currently servicing PSAPs covering over 93% of the population across the United States. By leveraging IP connectivity links, to effectively create a dynamic virtual private network, 911inform can capture and share accurate location information, along with additional data, with emergency call centers, first responders, and designated enterprise personnel.

During an emergency within a property (or an owner's area of interest), the 911inform solution seamlessly shares real-time data with PSAPs. 911inform funnels data and collected information through pre-defined business rules and policies leveraging artificial

Source: 911 inform
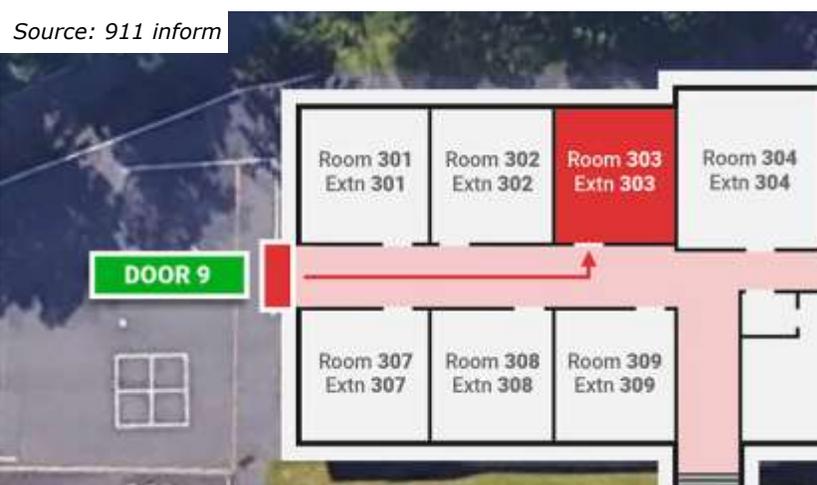
Detailed Floorplans and Access Recommendations

intelligence on the back end. The platform clearly and cohesively collates and presents the data so as not to overload the PSAP dispatcher and/or designated enterprise personnel.

911inform uses the value of the NG911 architecture, and the ability to dynamically deliver multi media content to the PSAP, and create a two-way link providing more control and interaction through a single pane of glass control panel usable by internal responders, public safety dispatchers, or even displayed directly on the public safety MDTs in vehicles.

The solution takes in location data and links with the PSAP and the property's existing technology so that responders can coordinate a response via a single, unified platform. The solution can then send a one-time notification to relevant security and first responders to collaborate and view the location and situation.

The 911inform solution creates a digital space for 'many-to-many' communication and collaboration. This enables users to engage intelligently and contribute additional information that enhances response times rather than merely radioing back to a command center. Through the 911inform solution, the enterprise or educational institution can extend the interface to desired entities (i.e. police, fire, paramedics) responding to the situation by pushing out a notification and link to their cellular device, Toughbook, or mobile data terminal. Responders can add relevant information to the event interface, gain control of door access control or strobe lights, and/or view information from the connected security features (i.e., video feed, shot detection technology, connected building controls). The solution provides responders with up-to-date and highly detailed floor plans so that responders know, for example, which door to approach, where potential hazards may reside, and where risk may exist at the moment. First responders and users need not download any new applications or software to their devices (for privacy and compliance concerns), they simply click on a unique one-time access link to launch the event interface.

Source: 911inform

No Download Necessary - Access from First Responder's Mobile Devices

Gaining and Sharing Highly Accurate Location Information

Leveraging location technology that already exists with mobile devices, the 911inform solution can designate an area (known as a 'geofence') around the enterprise property to alert

predefined parties of interest (e.g., building management, private security, school resource officers) with detailed information. A mobile device can pinpoint its location within three feet outdoors and nine feet indoors (using Wi-Fi access points BSS IDs, cellular GPS, among other technologies). With a customized geofence, an owner can receive a notification when the 9-1-1 system drops a 'location pin' inside that designated area. The 911 system alerts the owner, and/or party of interest, in addition to routing the call and providing the information to the PSAP.

Source: 911inform

- Door Access Controls
- Caller Location Identification
- Connected-building Controls
- Video Controls
- Voice Controls

Agnostic Integrations with Connected Building and Security

The 911inform solution draws from location technology so that when a cell phone call to 911 originates from, for example, a parking lot of a school, a conference room in a corporate campus, or the back lawn of a mall, the PSAP and the business owner will receive an alert through the IP link. That emergency launches an event in the 911inform system the instant the call comes through the system. Additional alerts such as from a gunshot detection system, a panic button, or a weapon detection software running on camera can trigger an event. The solution sends a notification to relevant personnel, security guards, teachers, administrators and/or managers (in the form of a text message containing a browser link). The link opens the event interface, automatically populating with highly detailed floor plans of the location (including room by room outlines, door and window location and sweep direction, location of fire extinguishers or hazardous materials, or other relevant equipment). Further, the intelligence built into the 911inform solution recommends the best access points and directions to the emergency based on up to the minute conditions.

Agnostic to Integrate with Existing Security and Connected Building Controls

911inform built the platform as device-agnostic, integrating with nearly any type of connected building controls and security equipment that a customer already has in place. Basically any system that is IP-based can easily integrate and feed into the data streams of the solution. Further, 911inform demonstrates an admirable degree of effort to ensure that legacy systems (such as analog video or door access controls) can integrate with the

system. Deploying the 911inform solution requires no new equipment purchases, overlaying at the software layer with sensors and cameras across the board e.g., phone systems, strobe lights, cameras, door access controls, alarm systems. The company offers a gateway product to ensure backup connectivity, serving as an interface between public safety and the connected entities on the system through a cellular data and/or voice link.

The 911inform solution enables numerous responders and stakeholders to contribute information and receive updates in an emergency, specifying the location or circumstances. This tight integration with connected controls ensures that in an emergency, responders can click to view near-live video feed (the solution includes impressive video compression technology to serve up the image feed to all the viewing endpoints with a less than one second delay). Moreover, with a simple click in the interface, users can alert the strobe system, lock down the building, or individually check rooms or features. For educational institutions, the company can integrate with student information systems to check-in individuals in the roster and send notifications to parents. In some hotel and resort properties, the solution integrates with hotel management systems and includes safety panic buttons for staff and guests.

Customizable for Unique Configuration Needs

With a highly configurable solution and detailed implementation, 911inform ensures that the emergency management solution meets the functional and flexible needs of customers across use cases. From the onset of a deployment, 911inform displays a highly involved approach that includes onsite surveying to ensure accuracy in the floor plans and layouts. A standard part of the solution includes maintenance to ensure that floor plans are up to date; the software design makes accommodating changes easy. The company built the solution as a flexible set of modules with variable functionality to allow project management teams to cooperate with customers and devise a deployment that meets the needs and pre-set business rules and procedures. Education settings have different needs and requirements than a corporate campus or a commercial mall. The 911inform solution includes flexible options for a variety of situations, to alert certain groups and personnel for medical or security events, to follow shelter in place procedures, and/or denote which areas authorities mark clear or in danger. Schools with the 911inform solutions can lock down the entire campus, containing several buildings extremely efficiently.

With granular detail, the solution can set controls on who can access which features or which user personas can view live cameras or control door locks; the default controls give priority to the first responders in an emergency. Through the implementation process 911inform works closely with customers to decide how to share data with PSAPs and relevant personas and personnel. In an emergency, the solution can send up 64,000 notifications per minute, necessary for government or school situations, and it can send translated messages to relevant recipients in another language. With the customization potential, the solution empowers responders to overcome time-consuming roadblocks. For example, one customer embedded an instructional video on how to turn off the gas lines to a building, rather than calling in a specialist and losing valuable time. Moreover, the system tracks each action noted or taken by each participant in the platform; it creates an auditable record with detailed reportage generated after the event closes.

Conclusion

In the era of mobility, big data, and the Internet of Things, the public safety sector is only beginning to tap into the true opportunity and benefits of situational awareness. Unfortunately, a massive gap currently exists between the information going to the public safety answering point and the data available in the building's existing security and management systems. 911inform proactively addresses this unmet need in public safety by integrating network derived location information with real-time data from a variety of building security and management systems to supply highly accurate, actionable, and timely incident intelligence to public safety entities and location owners over a central platform.

With a transformational platform that will significantly expand public safety capabilities, the 911inform solution is recognized with Frost & Sullivan's 2020 North America New Product Innovation Award in the enterprise safety solutions market.

Significance of New Product Innovation

Ultimately, growth in any organization depends upon continually introducing new products to the market and successfully commercializing those products. For these dual goals to occur, a company must be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.

Understanding New Product Innovation

Innovation is about finding a productive outlet for creativity—for consistently translating ideas into high-quality products that have a profound impact on the customer.

Key Benchmarking Criteria

For the New Product Innovation Award, Frost & Sullivan analysts independently evaluated two key factors—New Product Attributes and Customer Impact—according to the criteria identified below.

New Product Attributes

Criterion 1: Match to Needs
Requirement: Customer needs directly influence and inspire the product's design and positioning.

Criterion 2: Reliability
Requirement: The product consistently meets or exceeds customer expectations for consistent performance during its entire life cycle.

Criterion 3: Quality
Requirement: Product offers best-in-class quality, with a full complement of features and functionalities.

Criterion 4: Positioning
Requirement: The product serves a unique, unmet need that competitors cannot easily replicate.

Criterion 5: Design
Requirement: The product features an innovative design, enhancing both visual appeal and ease of use.

Customer Impact

Criterion 1: Price/Performance Value
Requirement: Products or services offer the best value for the price, compared to similar offerings in the market.

Criterion 2: Customer Purchase Experience
Requirement: Customers feel they are buying the most optimal solution that addresses both their unique needs and their unique constraints.

Criterion 3: Customer Ownership Experience
Requirement: Customers are proud to own the company's product or service and have a positive experience throughout the life of the product or service.

Criterion 4: Customer Service Experience
Requirement: Customer service is accessible, fast, stress-free, and of high quality.

Criterion 5: Brand Equity
Requirement: Customers have a positive view of the brand and exhibit high brand loyalty.

Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate Award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP		OBJECTIVE	KEY ACTIVITIES	OUTPUT
1	**Monitor, target, and screen**	Identify Award recipient candidates from around the globe	• Conduct in-depth industry research • Identify emerging sectors • Scan multiple geographies	Pipeline of candidates who potentially meet all best-practice criteria
2	**Perform 360-degree research**	Perform comprehensive, 360-degree research on all candidates in the pipeline	• Interview thought leaders and industry practitioners • Assess candidates' fit with best-practice criteria • Rank all candidates	Matrix positioning of all candidates' performance relative to one another
3	**Invite thought leadership in best practices**	Perform in-depth examination of all candidates	• Confirm best-practice criteria • Examine eligibility of all candidates • Identify any information gaps	Detailed profiles of all ranked candidates
4	**Initiate research director review**	Conduct an unbiased evaluation of all candidate profiles	• Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles	Final prioritization of all eligible candidates and companion best-practice positioning paper
5	**Assemble panel of industry experts**	Present findings to an expert panel of industry thought leaders	• Share findings • Strengthen cases for candidate eligibility • Prioritize candidates	Refined list of prioritized Award candidates
6	**Conduct global industry review**	Build consensus on Award candidates' eligibility	• Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates	Final list of eligible Award candidates, representing success stories worldwide
7	**Perform quality check**	Develop official Award consideration materials	• Perform final performance benchmarking activities • Write nominations • Perform quality review	High-quality, accurate, and creative presentation of nominees' successes
8	**Reconnect with panel of industry experts**	Finalize the selection of the best-practice Award recipient	• Review analysis with panel • Build consensus • Select recipient	Decision on which company performs best against all best-practice criteria
9	**Communicate recognition**	Inform Award recipient of Award recognition	• Announce Award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance	Announcement of Award and plan for how recipient can use the Award to enhance the brand
10	**Take strategic action**	Upon licensing, company is able to share Award news with stakeholders and customers	• Coordinate media outreach • Design a marketing plan • Assess Award's role in future strategic planning	Widespread awareness of recipient's Award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS

About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation, and implementation of powerful growth strategies. Frost & Sullivan leverages more than 50 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.