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BEST PRACTICES

AWARDS

F R O S T & S U L L I V A N

2020 BEST PRACTICES AWARD



2020 NORTH AMERICAN TELEMATICS
COMPANY OF THE YEAR AWARD

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Background and Company Performance

Industry Challenges

One of the early use cases of telematics was the provision of emergency services to consumers to ensure their safety. Over the years, automakers and telematics service providers (TSPs) have used telematics to address several other user requirements, such as security, infotainment, navigation, comfort, convenience, user interface (UI), and overall user experience (UX).

As systems and functionalities evolve, so does the automobile, which has become more intelligent and autonomous through telematics support. Similar to consumer electronic devices that require frequent updates, telematics systems and services cannot remain static. Features/services that address specific issues need to be updated or revised as needed, which can be as a result of regulatory changes, updates, new additions to the existing suite of services, or new challenges. One of the newer challenges that automakers face is adapting to new-world problems, such as the increased use of smartphones inside vehicles and distractions caused by using new gadgets and electronics, posing a threat to on-road safety.

Europe has a mandate for emergency calls (eCalls); therefore, automakers are now offering this service as standard on all type-approved vehicles. North America has no such mandate; however, most automakers in both regions offer both a basic eCall service and an advanced version of eCall called automatic crash notification (ACN) that activates in the event of airbag deployment. The US Federal Communications Commission (FCC) estimates about 100 motor vehicle fatalities per day on US roads, with half of vehicle crash eCalls requiring emergency medical services (EMS) dispatch. Research by Blackwell and Kaufman of Carolinas Medical Center shows that the national average response time of 911 calls is 10 to 19 minutes, and 13% of crash fatalities may have been avoided if EMS response times were shorter.¹ The current telematics-based process for emergency responses stemming from eCalls consists of a voice call and no data exchange; therefore, emergency response teams only receive limited verbal information, such as location and vehicle description.

Current public safety access points (PSAPs) in North America are highly fragmented, and the systems used by such organizations are outdated; therefore, adopting newer technologies can be difficult because of incompatibility. An ideal solution would mean that the data presented at the PSAP includes both verbal communication and contextual information about health records, which are crucial for emergency respondents.

In addition, TSPs are expected to innovate constantly and offer newer services that are personalized, customized, and contextual by leveraging the latest technologies, such as artificial intelligence (AI) and machine learning (ML), to stay competitive in the connected car industry.

¹ National Library of Medicine: National Center for Biotechnology Information; April 2002; "[Response time effectiveness: comparison of response time and survival in an urban emergency medical services system](#)"

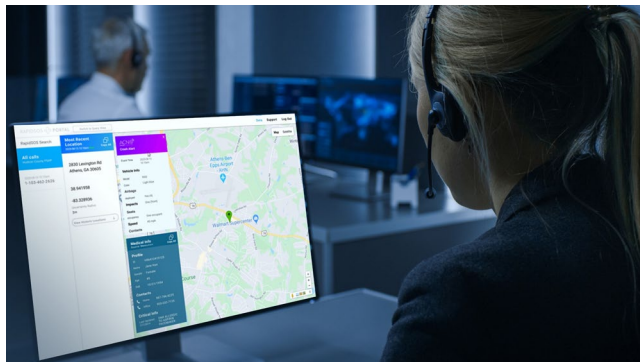
Visionary Innovation and Performance/Customer Impact

Established in 1994 in Irving, Texas, Sirius XM Connected Vehicles Services Inc. (SiriusXM CVS) is a subsidiary of Sirius XM Holdings Inc. (SiriusXM)(NASDAQ: SIRI). SiriusXM CVS launched one of its first programs in 1996 and, after over 20 years in the vehicle services industry, now provides drivers with telematics services, such as crash notification, roadside assistance, remote door unlock, remote engine start, safety, security, and convenience services, and provides automakers with end-to-end turnkey solutions.

Addressing Unmet Needs and Visionary Scenarios through Mega Trends

Over the years, the number of accidents has increased in the United States, and “The traffic fatality jumped to 1.25 per 100 million vehicle miles traveled, up from 1.06 during the same period in 2019,”² and this figure has since reached significant heights. SiriusXM CVS provides an end-to-end comprehensive solution that can help save lives.

Even though many vehicles have emergency notification systems that connect to a call center immediately after a crash, a severely injured driver may be unable to call 911. SiriusXM CVS has developed a transformative platform called advanced Automatic Crash Notification (ACN+), which transmits vehicle crash data digitally to a 911 dispatcher through the RapidSOS emergency response data platform immediately following a crash-related emergency.



In most vehicles, when an airbag notification is triggered or a customer pushes the SOS button, the in-car microphone opens up a voice and data channel for basic telematics, such as crash notification and location. The voice and data channels connect to SiriusXM

CVS's call center, and an agent can talk to the vehicle's occupants and then engage a second agent to contact 911, if necessary. Then, unlike competing solutions, location, vehicle, crash data, customer and medical data are simultaneously populating the computer screen of a local 911 dispatcher through RapidSOS, denoting variables such as airbag deployment, crash impact, vehicle occupancy, vehicle description and driver/passenger data. In addition, SiriusXM CVS's response center can also relay the incident information verbally provided by the vehicle's occupants upon initial contact. This can include crucial information on the extent/nature of injuries; number/type of occupants, such as infants and elderly; condition of occupants; number of vehicles involved in the crash; the vehicle's final resting position, such as the middle of the road or off the road but visible from the roadway; and precise location details of the driver.

² The Wall Street Journal; Scott Calvert; October 1, 2020; "[Rate of Crash Deaths on U.S. Roads Rose During Coronavirus Pandemic](#)"

Another interesting feature of the RapidSOS platform is that it allows subscribers to securely share critical health information with first responders, through their linked medical profile. For example, if the driver has a preexisting medical condition, or known allergies to medicine, and is unable to communicate



that information themselves, this medical information, along with vehicle and driver information, can be shared with first responders and alert them if important care or precautions are required.

SiriusXM CVS's ACN+ solution directly connects to over 4,700 emergency communication centers, through the exclusive collaboration with RapidSOS. As a result, vehicles connected with ACN+ can now send critical data to 911 dispatchers, covering over 90% of the US population nationwide.

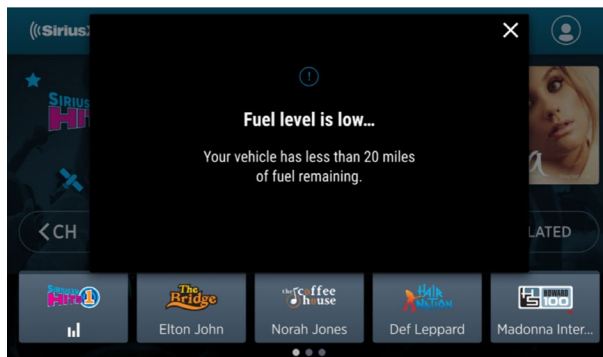
ACN+ is considered revolutionary in the US connected vehicle services industry, and because the solution transmits critical data nonverbally, the quality and reliability of the information is far more accurate. By combining the vehicle and crash data from SiriusXM CVS's ACN+ technology and sending it through the RapidSOS emergency response data platform, 911 personnel can be notified quickly, allowing first responders to receive critical information about the nature and severity of the vehicle emergency before arriving at the scene.

Financial Performance and Price/Performance Value

In 2013, SiriusXM acquired Agero's connected services business for \$530 million, with that business growing significantly over the last two years, providing services for over 12 million active vehicles on the road. Subsequently, as part of its SiriusXM Connected Vehicle business unit, SiriusXM acquired another small business called PayTollo in October 2018, which is a mobile payment platform for toll roads and bridges. The platform uses a GPS toll recognition technology algorithm that eliminates the need for transponders and notifies drivers of each cost. In addition, drivers can interact with their infotainment or head unit directly or use the app to review and pay their tolls.

SiriusXM CVS teamed up with VISA in early 2019 to launch an in-vehicle payment solution transforming the vehicle into a 'hub' that provides for real-time, convenient transactional services to drivers and passengers.

SiriusXM CVS has 24/7 customer service call centers in the United States and Canada which are Payment Card Industry (PCI) compliant. These call centers are staffed with response agents who handle over 300,000 calls a month with the ability to handle over 200 languages. SiriusXM CVS provides agents with continued training and assessments to ensure that premium quality service is delivered. These response experts are trained to assist customers on crash notifications, SOS requests, destination assistance, convenience requests, roadside, and stolen vehicle notifications.



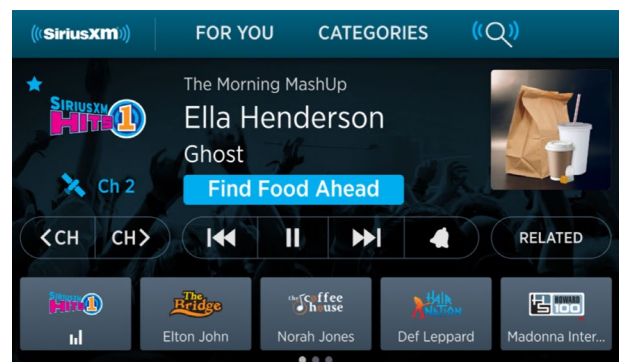
By 2030, new services from the connected car space, such as on-demand mobility services and data analytics based services (e.g., applications, software, and remote services), will be focus areas for SiriusXM CVS.

Customer Ownership Experience

SiriusXM CVS offers a seamless in-vehicle eCommerce platform through voice and interactive services with the head unit, benefiting both customers and merchants. In addition, the digital wallet incorporates secure tokenization that increases the security across the eCommerce ecosystem. As part of the digital wallet feature, the platform leverages the user profile to include details on the customer's purchase history, loyalty programs, and favorite merchants based on vehicle location. In addition, customers can reserve and pay for parking without searching for a payment kiosk, and the eCommerce platform can locate nearby restaurants based on the driver's preferred route.

The Rapid Registration feature makes enrolling in connected vehicle services quick and easy. Customers can initiate the registration by simply entering their mobile phone number into the head unit, or they can provide their number to dealers during the vehicle delivery process. The customer receives a link to the online enrollment form on the phone and can then quickly complete the process using the phone's autofill feature, without having to share any personal information with the dealer.

Frost & Sullivan commends SiriusXM CVS for their leading edge technology advancements in safety and convenience type services that can continue to be tailored to meet consumers' requirements.



Blue Ocean Strategy

SiriusXM CVS is a market leader in the North American connected vehicles industry and has continued to innovate across its multiple connected vehicle services in response to the consumer and industry demand. The company has captured an uncontested market by offering services that no competitor offers in the connected vehicle industry. SiriusXM CVS's strategic solutions provide constant support throughout the vehicle's lifecycle, ensuring a comprehensive and personalized in-vehicle experience for drivers and constant customer relationships and business for auto original equipment manufacturers (OEMs).

Brand Equity

SiriusXM CVS is committed to developing tailor-made products for consumers. In addition, OEMs are adopting SiriusXM CVS's new safety program so that new and preowned vehicle customers can benefit from this latest advancement.

Frost & Sullivan commends SiriusXM CVS for building a strong foundation for its products to gain consumer confidence and for building strong brand equity over the last 20 years by delivering quality services to consumers.

Conclusion

SiriusXM CVS has created a new approach in the telematics industry, in collaboration with RapidSOS, an emergency technology company that connects millions of devices to over 4,700 emergency communication centers. This collaboration aids 911 responders by digitally sharing data immediately from both the emergency incident and vehicle to the 911 dispatcher, irrespective of the technology used in the receiving 911 center, which is considered a game changer for public safety.

With its services, SiriusXM CVS stands out from competitors and offers a connected vehicle platform across North America that provides safety and security services, such as automatic crash notification, roadside assistance, remote door unlock, remote engine start, stolen vehicle recovery assistance, navigation, and integration with smart home devices.

For its strong overall performance, great product value, and superior customer service, SiriusXM CVS is recognized with Frost & Sullivan's 2020 Company of the Year Award in the North American telematics industry.

Significance of Company of the Year

To receive the Company of the Year Award (i.e., to be recognized as a leader not only in your industry, but among non-industry peers) requires a company to demonstrate excellence in growth, innovation, and leadership. This excellence typically translates into superior performance in three key areas (demand generation, brand development, and competitive positioning) that serve as the foundation of a company's future success and prepare it to deliver on the 2 factors that define the Company of the Year Award: Visionary Innovation and Performance, and Customer Impact).



Understanding Company of the Year

Driving demand, brand strength, and competitive differentiation all play critical roles in delivering unique value to customers. This three-fold focus, however, must ideally be complemented by an equally rigorous focus on Visionary Innovation and Performance to enhance Customer Impact.

Key Benchmarking Criteria

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated each factor according to the criteria identified below.

Visionary Innovation & Performance

Criterion 1: Addressing Unmet Needs

Requirement: Implementing a robust process to continuously unearth customers' unmet or underserved needs, and creating the products or solutions to address them effectively.

Criterion 2: Visionary Scenarios through Mega Trends

Requirement: Incorporating long-range, macro-level scenarios into the innovation strategy, thereby enabling first-to-market growth opportunity solutions.

Criterion 3: Implementation of Best Practices

Requirement: Best-in-class strategy implementation characterized by processes, tools, or activities that generate a consistent and repeatable level of success.

Criterion 4: Blue Ocean Strategy

Requirement: Strategic focus on creating a leadership position in a potentially uncontested market space, manifested by stiff barriers to entry for competitors.

Criterion 5: Financial Performance

Requirement: Strong overall business performance in terms of revenue, revenue growth, operating margin, and other key financial metrics.

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 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 world | <ul style="list-style-type: none"> Conduct in-depth industry research Identify emerging industries Scan multiple regions | Pipeline of candidates that potentially meet all best practices criteria |
| 2 Perform 360-degree research | Perform comprehensive, 360-degree research on all candidates in the pipeline | <ul style="list-style-type: none"> Interview thought leaders and industry practitioners Assess candidates' fit with best practices 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 | <ul style="list-style-type: none"> Confirm best practices 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 | <ul style="list-style-type: none"> Brainstorm ranking options Invite multiple perspectives on candidates' performance Update candidate profiles | Final prioritization of all eligible candidates and companion best practices positioning paper |
| 5 Assemble panel of industry experts | Present findings to an expert panel of industry thought leaders | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 practices award recipient | <ul style="list-style-type: none"> Review analysis with panel Build consensus Select winner | Decision on which company performs best against all best practices criteria |
| 9 Communicate recognition | Inform award recipient of recognition | <ul style="list-style-type: none"> 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 able to share award news with stakeholders and customers | <ul style="list-style-type: none"> Coordinate media outreach Design a marketing plan Assess award's role in 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 the 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, resulting in 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, helps clients 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 practices models to drive the generation, evaluation, and implementation of powerful growth strategies. Frost & Sullivan leverages nearly 60 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on 6 continents. To join Frost & Sullivan's Growth Partnership, visit <http://www.frost.com>.