Taking the Risk out of Driving

Sierra Wireless 3G Embedded Modules Help DriveCam Expand its Market



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Profile

DriveCam is a global Driver Risk Management company that reduces claims costs and saves lives by improving the way people drive. The company has been reducing risky driving behaviors for more than 10 years and has been included on Inc. magazine’s list of the 500 fastest-growing, privately held companies in the US for the past three years.

Challenge

By combining sight and sound, expert analysis and driver coaching, DriveCam has reduced vehicle damages, workers’ compensation and personal injury costs by more than 50 percent in nearly 100,000 commercial and government vehicles. Unlike basic crash recorders and audio-based black boxes, DriveCam’s exception-based video event recorder is the only solution providing two-way communication that incorporates video, audio and objective third-party scoring to customers such as US Concrete, LifeCare Ambulance, Veolia Transportation, and US Marine Corps.

Applying intelligent algorithms and data analysis to a variety of risky driving events, DriveCam’s event recorders are triggered by exceptional force and capture moments both before and after a risky event. DriveCam provides users with an online coaching interface so that fleet managers can review data with drivers in order to understand and improve driving behavior. Event recorders are not recording continuously and cannot be used by fleet management as a driver surveillance tool; triggering of event recorder data is controlled by vehicle drivers.

Initially building its business through smaller fleets, such as first responders and transit authorities who required that vehicles be returned to a central location after each shift, DriveCam’s solution relied upon its customer’s fleet or safety manager to crawl into each vehicle to access the recorder and download data at the end of the day. Somemanagers setup docking stations at their headquarter entrance, allowing drivers to connect and download data upon entry, but this took extra time for personnel each and every day.
DriveCam eventually moved to setting up WiFi infrastructures at customer headquarters in order to provide a quicker, more centralized means for fleet managers to download event recorder data. However, setting up the infrastructure took time and added cost to the overall solution. WiFi also did not scale to address download issues that DriveCam would face as it expanded its customer base to include long-haul transportation companies and businesses providing employees with company vehicles that are not returned to a central location each night. Without direct download capabilities or access to a short-range WiFi infrastructure, the data on the DriveCam event recorder could not be transmitted, and DriveCam realized that it would need to move to long-range wireless connectivity in order to meet the demands of larger and more distributed fleets.

Solution

DriveCam turned to Sierra Wireless to help the transition to a flexible, cellular solution that addresses the needs of fleets of all shapes and sizes. The company started shipping event recorders with the Sierra Wireless 3G CDMA embedded module running on Sprint’s EV-DO network in March of 2007 and also employed the Sierra Wireless professional services team for integration assistance and time-to-market support. With more than 14 years of integrating its wireless modules into partner products, Sierra Wireless offers the people, technology, equipment, and licenses required for advanced testing with new customer platforms and expediting commercialization.

“We were looking for a mature partner with a component that would readily fit into our tamper-proof device,” said Kathleen Glass, director of marketing for DriveCam. “Our event recorders must standup to some pretty extreme conditions, such as dust from concrete trucks and dirt from waste trucks, as well as high heat. Sierra Wireless’ industrial-grade modules fit that requirement and provide the reliable connectivity that we promise customers.”Sierra Wireless embedded modules power in-vehicle devices that offer GPS systems and interoperate with a variety of tools and utilities to provide the information and functionality required for today’s in-vehicle applications. In addition to the transmission of real-time event data, theembedded modules enable vehicle tracking, routing, and diagnostics management.
The consistent two-way cellular communication also allows DriveCam to remotely

monitor and manage its event recorders, proactively checking on system health to reduce potential downtime and providing automatic firmware updates to relieve internal client resources of the task.

“The more immediate and consistent feedback that can be provided for coaching across fleets, the better the results will be for our customers,” said Glass. “Highly evolved safety programs will get the highest return, so we have to make it as easy as possible for our customers to be successful.”

The DriveCam solution provides a 50 percent reduction on vehicle damages, workers’ compensation and personal injury costs for its customers, with the majority of customers moving toward cellular. Not only does cellular connectivity reduce deployment costs by eliminating the need for WiFi infrastructure and reducing the time required by personnel to manage data download, but cellular provides additional security and is quick to deploy regardless of fleet size.

Results

DriveCam is currently using the Sierra Wireless 3G embedded modules in about one-fifth of its deployed vehicles, including the 5000 vehicles belonging to families who have enrolled in American Family Insurance’s Teen Safe Driver Program™.

DriveCam also plans to introduce the event recorders that operate the GSM network in Europe later in 2008.

“The ability for high-speed two-way data transmission using Sierra Wireless modules has opened the market for us,” said Glass.” It provides a lot of potential growth opportunities for us to develop additional capabilities and better serve our clients.”

The DriveCam exception-based event recorders with the Sierra Wireless 3G embedded module have provided the following benefits:

- Enhanced fleet safety with immediate and consistent access to event recorder data, regardless of vehicle location
- Improved management of remote devices and reduced required service time through proactive monitoring of system health
- Reduced deployment and operational costs by removing need for WiFi infrastructure and personnel required to manage and maintain a solution
- Shortened time-to-market with quick and easy installation, regardless of fleet size
- Created new opportunities for market growth with ability to transmit and receive event recorder data at anytime and from anywhere

Industry

Transportation

Customer

DriveCam, a global Driver Risk Management company that has been using exception-based video event recorder to reduce risky driving behaviors for 10 years

Challenge

How to create long-range wireless connectivity in order to meet the demands of larger and more distributed fleets

Solution

Sierra Wireless 3G MC5725 PCI Express Mini Card on the Sprint EV-DO networkDrivecam Video Event Recorder Solution

Results

- Reduced deployment and operational costs
- Shortened time-to-market with quick and easy installation
- Improved management of remote devices and enhanced safety
- Improved customer service
- Created new opportunities for market growth with ability to transmit and receive event recorder data at anytime and from anywhere