Telematics is Making Fleets EFFICIENT &

Several real-world examples show how telematics solutions are making fleets' efforts to go green a success.

There's little argument that telematics is changing the way fleets operate, making them more efficient, safer, and successful at fulfilling their part of the corporate mission.

There's another aspect of telematics — an unintended consequence — that is less well known. These solutions are greening the end-user fleets. In some cases, the green benefits were a happy accident, e.g., better routing or a telematics-driven eco-driving program resulting in better fuel mileage and, consequently, cost savings. For other fleets, telematics has been used in a calculated effort to reduce idling and, therefore, fuel expense and emissions.

No matter how fleets have arrived at their green destinations, telematics has been increasingly leading the way.

Following are a representative sampling of how telematics has helped fleets save money and create more sustainable fleets.

Controlling Routing and Fuel Spend

In the global supply chain, service vehicles are a forgotten element. To improve efficiency and increase sustainability, Apptricity partnered with ngConnect (Alcatel-Lucent) and Chorus, New Zealand's telecommunications infrastructure company, to generate greater efficiency, fuel savings, and asset control. The result, Smartfleet, uses machine-to-machine (M2M) technologies, leveraging high-bandwidth connectivity to providing Chorus total visibility, extending the warehouse to the destination.

First, the inventory on every truck is tagged with RFID readers. Then, Smartfleet enables real-time tracking of those assets. Drivers know exactly what's aboard at all times because they can track everything on a smartphone or tablet. That means they can rendezvous with other trucks nearby to switch supplies, eliminating trips back to the warehouse and saving fuel. Technicians are notified if a specific piece of equipment is taken off the van, which helps eliminate lost or stolen items as a loss-control benefit to the solution.

Apptricity's Smartfleet also monitors maintenance and repair operations — which help on fuel savings — staff assignments, outsourced work and other items. Smartfleet software enables more fuel-efficient dispatching, service routes and schedules of technicians, and their vehicles via GPS. It even pre-notifies customers of arrival times, ensuring receipt and eliminating trips to empty homes.

Greening the Fleet's Images and Results

Hurley and David, Inc. is a full service air conditioning and heating contractor based in Springfield, Mass. In addition to scheduled service checks, repairing existing equipment, and installation of new equipment, Hurley and David already had an investment in a hard-installed GPS tracking system, which was too expensive and the reinstallation process was cumbersome and costly, averaging $300 per installation. It also was difficult to calculate idling times.

The company turned to Azuga and its engine-connected G2 solution for the answer. Azuga G2 is not just boosting the bottom line, it's helping Hurley and David enhance its go-green image. Assisted by Azuga marketing, Hurley and David is rolling out a comprehensive go-green campaign across their website, social media, and local advertising to get the word out to its customers and its community.

SUSTAINABLE

Greening the Home Team

HomeTeam is a provider of pest and termite control for homes and businesses. Part of its pest and termite process requires using chemicals in an environmentally sensitive and effective way. Driven by its internal company culture of promoting safety and efficiency, it made sense for HomeTeam to also focus on greening its fleet of 1,200 vehicles.

Unlike most organizations that need to first test a new telematics solution to prove the business case, the decision to adopt telematics was an easy one for HomeTeam. The implementation for the technology was originally driven by one of its sister pest control companies. While the original intent stemmed from a driver safety perspective, it quickly realized fuel and mileage reductions for the organization.

"From our experience, there appears to be a clear interlink between safety and green," said Kevin Wolf, HomeTeam's CFO. "Maintaining green efforts was a logical extension of the company's present objectives."

Aggressive driving, such as harsh acceleration and speeding, correlates to greater fuel consumption and risky driving — as does vehicle idling and taking less than optimal routes. Once the company rolled out Geotab's telematics solution offered by Go GPS, it realized an immediate 10-11 percent reduction in fuel spend. In the case of HomeTeam, safety and sustainability equals to organizational savings that, on its own, continuously reinforces the benefits of telematics.

As stressed by Geotab's CEO Neil Cawse, "at the end of the day, it's really all about being able to manage by measurement – where am I today, and how am I going to improve tomorrow?"

Exceeding Expectations

Kennecott Utah Copper's (KUC) vehicles don't travel great distances but they are spread across a 25 mile stretch, which made it difficult to manage its large fleet of vehicles. The most significant issue the company was having was in monitoring and policing idle activity. Equipment was left idling for multiple hours, and managers knew they were producing large amounts of greenhouse gas (GHG) emissions as a result. The excessive idling was also leading to warranty issues.

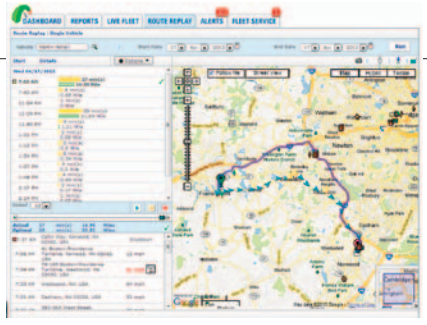
Equipment utilization was also an issue. There was a need to monitor equipment utilization in order to improve efficiency and vehicle availability by rightsizing the fleet.

The EPA award nominated mining company implemented the GPS Insight fleet tracking system in late 2008 when it began to monitor idle time and GHG emissions on 28 vehicles.

Since that time, the GPS Insight solution has enabled KUC to far exceed its original expectations. Today, the company has 580 vehicles outfitted with the GPS Insight solution, using it to track preventive maintenance intervals and alerts, ensuring proper routing of service vehicles, fuel savings, idle reduction, GHG reduction, and monitoring fleet utilization and availability.

"We have saved over $1 million in fuel costs alone in the last 12 months, and have saved thousands of dollars in other projects using the GPS Insight toolset," said Kenny Harvey, mobile maintenance planner.

Distributing Efficiency



Beer distributor M.L. Wismer Distributing was seeking ways to save money, gain more visibility, and serve its customers quickly and efficiently. The answer was a the Fleetmatics system, which provides a wide range of detailed reports and alerts, from real-time location data of any vehicle, speed, routes, distance traveled, engine start up and shut down time, fuel usage, and much more. It also provides an idle report that gives true idle times. This report includes idle stop and start times, location of idling, total idle time, and alerts when idle times exceed a set threshold. This report alone can reduce fuel usage, improve routing, and decrease engine wear, according to Fleetmatics.

The Texas-based company has installed the Fleetmatics systems in its entire fleet of 64 trucks, saving $3,290 per month by using the Fleetmatics system. ▶

Improving Safety and Fuel Consumption

DriveCam powered by Lytx improves safety by combining data and video analytics with real-time driver feedback and coaching, resulting in reductions in collision-related costs and fuel consumption. Using the Lytx Engine, the DriveCam Solution scores, prioritizes and tracks the results of driving behaviors to identify improvement opportunities for increased safety. An in-vehicle device captures driving behavior, which is reviewed and scored by trained professionals, then passed on to the fleet for use in coaching drivers.

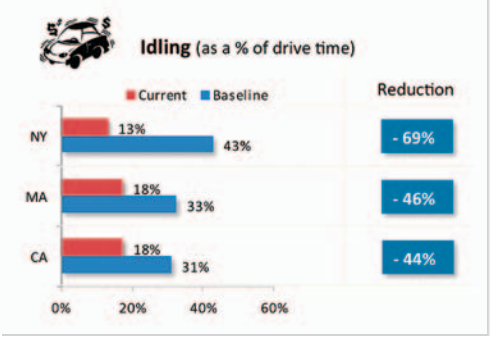
Fleets manage the DriveCam Program through the DriveCam Online 24/7 secure access web-based platform. The platform provides the important information fleets need to identify fleet risk and prioritize what's needed to maximize a safety program, along with providing the necessary tools for coaching drivers to improve their driving behavior, and improve vehicle performance and efficiency.

"We appreciate that the DriveCam Programgm is a single platform solution and we don't need to purchase additional hardware. All we have to do is turn a switch and we're able to see our vehicles in real time; this allows us to manage our fleet more effectively and more efficiently," said John Petrelli, manager of risk management for the Orange County Government. "The fleet video-based devices enabled us to see a lot of poor driving behaviors which we addressed with those drivers through the coaching. Over the trial period, we saw a reduction of about 90 percent of coachable incidents."

Reducing Excessive Idling and Greenhouse Gas Emissions

Excessive idling results in decreased fuel efficiency and increase wear and tear on vehicles. It is well-documented that every hour of idling burns about 0.8 gallons of fuel in heavy-duty vehicles and 0.5 gallons of fuel in light-duty vehicles.

For one of its fleet clients, PHH Arval used its telematics solution to track idle stops where the total duration of idling was greater than five minutes. During the first eight weeks, vehicles averaged 4.4 hours idling per vehicle per week. For the final eight weeks of the tracking period, when anti-idling efforts of less than five minutes per stop were put in place, vehicles averaged 1.7 hours idling per vehicle per week, resulting in a 62 percent reduction in idle time. Drivers were instructed that they should never leave their assigned vehicles running while parked.



Activity and Trips Reports as well as Idle Stop Exception Reports were reviewed by managers weekly after baseline period. Details regarding each idle event can be viewed in reports or on a map.

Future capability will allow for an in-cab buzzer to sound if driver keeps vehicle on for more than corporate maximum allowed time.

As a result, the client fleet improved its fuel efficiency by 9.3 percent for an aver age fuel savings of $47.70 per vehicle per month and an annual greenhouse gas emissions reduction of 1.7 tons.

Green Company Makes Operations More Sustainable

Temecula, Calif..-based Eggleton Trucking hauls bulk commodities — primarily mulch and compost — to farms throughout southern California. The eight Mack trucks that make up Eggleton's fleet average between 100 and 110 loads of material per week. By adding two more trucks this spring, they'll be hauling close to 140 loads each week.

In 2012, Eggleton decided to do something about its fleet tracking problems, and selected Spireon's FleetLocate GPS fleet management system to improve its dispatch operations. FleetLocate is a scalable fleet management platform that provides continuous vehicle monitoring, vehicle safety and performance data, and customizable alerts. FleetLocate also provides a browser-based mobile platform that allow users to access vehicle data via Android and iOS-based phones.

The solution provides real-time location information for the entire fleet, enabling both Dan Eggleton and his son and partner Kyle to view truck information from a mobile phone at any time of the day or night. Kyle and Dan said there were no objections from the drivers about the new tracking system. Better planning has increased productivity by three to four loads per week, yielding an incremental $1,600. That's around a 27-to-1 return on investment for FleetLocate's fleet management system, according to the telematics company.

Dan Eggleton (left) and his son Kyle use FleetLocate GPS to track the company's drivers.

Telematics Solution Supports Cleaning Company

Hangers Cleaners pretty much pioneered the we-come-to-you approach to dry cleaning in Kansas City, Mo., when it began operation nine years ago.

For some time Hangers Cleaners Owner Joe Runyan suspected that his drivers, despite their overall good driving records and customer service, might not be operating the vans as cost effectively as he would like.

He consulted with Sprint Connected Fleet Solutions for a way to confirm his suspicions. The solution was a Geotab device that logs data for every aspect of the drivers' daily routes, including long the van idles at each stop.

The Geotab GO6 device was installed in all the delivery vans. Runyan didn't tell the drivers about the Geotab installation for a few weeks, so he could get a driving baseline.

Just by reducing the idling time alone, the solution should generate enough savings to make the solution quickly pay for itself, according to Sprint.

Defeating a Fleet Flashpoint: Idling

Oilfield services company Summit Energy Services, Williston, N.D., operates a fleet of over 300 vehicles, ranging in size from Ford F-150 pickup trucks to large flatbed semi-trailers.

The company implemented Ford Crew Chief Powered by Telogis as a way of managing factors such as truck idling and asset utilization. The Ford Crew Chief system identifies engine idling and alerts management, allowing them to work with the drivers to educate them on ways to reduce idling. The company has been able to reduce engine idling by 75 percent just through identifying causes of the issue and working with drivers to curtail that behavior. One of the primary reasons Summit said it uses Ford Crew Chief is to determine proper allocation and utilization of its fleet. It gives management real-time visibility into the location of people and vehicles and helps ensure that the closest personnel available to respond to immediate needs are properly routed, rather than sending someone else out from headquarters — ultimately saving time and resources.