The Growth of TELEMATICS

By Kara Kuryllowicz

Adoption of telematics has increased across the board, with the shift particularly noticeable in trucking

The Internet of Things is having an extraordinarily positive impact on fleets and their drivers through increasingly sophisticated telematics technology.

"This is absolutely one of the best manifestations of the Internet of Things, because strategically deployed telematics positively affect everything from driver safety, performance, productivity and engagement to reduced downtime and maintenance costs as well as improving the use of existing assets and the better selection of future assets," says Kelly Frey, vice-president, product marketing, Telogis, Aliso Viejo, California, which offers an aftermarket telematics platform, builds its solutions into General Motors, Ford and many other vehicles and is a preferred, premier supplier to Element.

Adds Kimberly Clark, lead telematics, Element, Eden Prairie, Minnesota. "We're well on our way to a future in which the vast majority of our customers will be connected."

Mandated e-logs

While Telematics' adoption has certainly increased across the board, the growth is particularly noticeable in trucking as federal regulations are expected to mandate that drivers monitor hours of service with e-logs by late 2017 or early 2018. Telematics data can also be used to inform dispatchers of drivers' hours-of-service availability to facilitate logistics decisions and safeguard against exceeding the HOS thresholds.

"It makes sense for freight and goods transportation and distribution, passenger transportation, aggregate haulers and more," says Ryan Driscoll, marketing director, GPS Insight, Scottsdale, Arizona.

Wifi and Bluetooth connectivity combined with the 30 to 50 different CPUs (also known as the brains of a computer) on today's average vehicle, a current F1 racecar has about 100 CPUs, give fleet managers a massive amount of relevant data. In the case of factory-installed telematics, the manufacturer is able to monitor engine diagnostics and fault codes, but OEM and after-market telematics will both track the information required to schedule preventive maintenance and repairs and monitor driver behavior and performance.

"That history can be used to keep the assets, vehicles and people, on the road and generating revenue," says Frey.

For every fleet, maximizing the top and bottom line is the priority second only to safety and Clark notes that even those who tackle just the "low-hanging fruit" should cover the cost of their new telematics system in the very first year. To get the best results, fleets must home in on specific telematics' capabilities and master those first, because as Clark points out, additional tools can be added over time. Change management and training will also support the adoption of telematics and ensure uptake.

"Fleets may not be aware of what they aren't using and when our account management team shows them, they love the feature and find even more savings," says Driscoll.

feels there is little resistance, but Clark notes her customers are generally more concerned about that than even cost. Both point out that in large part, telematics' acceptance depends on the company culture and approach as well as the fleet manager's ability to promote the benefits, for example greater convenience, reduced downtime and improved safety.

Carrot and stick

Focus on the positive first, or as Frey puts it, leverage the carrot rather than the stick to realize measurable results. For example, drivers will receive alerts congratulating them on driving 3,000km without exceeding the speed limits or hard braking. They may be acknowledged for an

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As important, telematics are about enhancing performance and productivity and maximizing the value of every maintenance dollar spent, in addition to boosting uptime and reducing if not eliminating, the risk of accidents. Telematics can accurately monitor everything from odometer readings to oil and tire pressure as well as airbag alerts and accident events.

"Of course, safety is key—an imploding or flat tire is a potential hazard, but it also affects fuel efficiency and tire wear which has a cumulative effect across an entire fleet," says Clark.

Fleet managers tend to see the benefits immediately and while telematics' ability to monitor and share data is increasingly accepted in a highly connected world with a preponderance of smart devices, the perception of technology as "big brother" is still a concern for some. Frey

idle rate that is amongst the firm's top two percent and outstanding productivity. Rewards run the gamut from digital badges and trophies to an even more tangible show of appreciation in the form of a movie voucher, a coffee card or a pin for the driver's hat.

"Gaming really helped inspire the Telogis Coach app because it acknowledges that we're all competitive, whether we're reaching for a personal best or intent on outperforming a colleague," says Frey. "We're sharing performance information in real time, while enabling recognition and insights from management and peers and going for a positive emotional response."

In addition, alerts can serve as reminders that company policies exist around certain metrics, such as speed, idling, hard braking and harsh accelerations, but such data also identifies areas where additional education and training may be required.

If a driver receives a certain number of speeding or hard braking alerts, the telematics system can send an advisory to their smart device and follow it up with a tailored video clip they can watch at their convenience. The employer will be informed that they watched that video and give them the opportunity to ask questions. Drivers do appreciate the new information and most recently, driver responses have included, "Thanks I didn't know I had a problem with hard braking." and "I wasn't aware of the risks of following too closely when I'm hauling a full load."

"We appeal to them emotionally and remind them that it could be their own lives or someone else's," says Frey. "As importantly, if the employer knows they're doing something improperly and allows them to continue without intervening, there may be serious negligence and liability issues."

The more common, basic warnings may consist of in-cabin buzzers and flashing lights, but the more sophisticated will include voice-enabled texts that let drivers know they should slow down as they head into a curve on a cold, rainy night.

In addition, Telogis Navigation gives drivers the opportunity to provide feedback on routes, roads and points of interest to help the system to become "smarter" and share that information across its network of more than 150,000 professional drivers who all benefit from the first-person contributions. Navigation tools can also help employees meet delivery deadlines or the daily call quota by directing them around construction and traffic jams.

"Drivers and operators like to have personal input," says Frey.

Different tools can give managers visibility into irregularities in a driver's day, for example, a late start, long lunch, or an extended supplier or customer visit so that managers can managers can address a policy concern or schedule visits to avoid service disruptions. B2B