When it comes to fleet-management systems, there is certainly no shortage of technology solutions—or data for that matter. Today's systems can provide gobs of fleet information, ranging from real-time GPS (global positioning system) tracking and engine diagnostics to whether or not your driver is wearing his seatbelt. And while information is certainly powerful, some of today's fleet managers are finding there can be too much of a good thing.

That was certainly the case for Mike O'Connell, director of fleet at Frito-Lay. When the snack giant decided to add telematics to its fleet of 17,000 delivery trucks, the business possibilities were endless—an opportunity that both excited and bewildered O'Connell.

“When we first did the pilot, it was very overwhelming because we didn't know what we were looking for,” he says. “We had so much data, we didn't know what to do with it.”

It wasn't until O'Connell and his team started to segment the data that they began to get a clear idea of what the system could do for the company's bottom line. “I don't need a second-by-second of everything,” he explains. “I need snapshots of data, and I need to know when things change. I also need to prioritize what is important to us.”

But when you are swimming in data, how do you even know what to reach for? The answer to that question will vary by company, of course, but there are some current trends that are leading fleet managers down the road to profitability.
NAVIGATING THE DATA

There is no question the transportation industry understands the importance of technology. ABI Research estimates this year, fleet-management systems subscriptions will surpass 2 million, with that number quickly climbing to more than 3 million by 2015. According to Dominique Bonte, ABI’s group director of telematics and navigation, the problem is many companies never moved beyond “the dot on the map” GPS provided—a misstep Bonte believes was largely caused by a lack of vendor support. “It was very much pushing technology and then once it was sold, it was up to the fleet manager to try and do something with it,” he says.

But like most of today’s executives, fleet managers are trying to do more with less manpower, which means they certainly don’t have time to translate stacks of data reports. The key, Bonte explains, is finding a good data-processing solution that does the work for you and, more importantly, creates value out of the data that is being collected. “I would really look at companies that can actually provide that business intelligence dimension and not just work with a hardware vendor or a software vendor that sells black boxes or software packages and then leaves you very much to your own devices,” he says.

The good news is vendors are stepping up to the plate with a new generation of automated solutions that take the burden off of the fleet operator. Foxboro, Mass.,-based Axeda, for example, offers a platform that allows users to build location-based services into telematics systems and can create “geofences” to react to changes in location. “The software will watch the vehicle in operation and if it sticks to the rules, it is silent,” explains Dale Calder, founder of Axeda. “But if for some reason it falls behind or goes outside of the geofence … it can notify someone who can take action on it.”

Calder says the trend is to use the platform to correlate the telematics data with other logistical information such as routing and the supply chain. “By tying all those things together, you start having the software do things for you,” Calder remarks. “So the person who was watching 50 trucks can now handle 500 trucks because he doesn’t have to watch them—the system watches for him. He just has to handle the exceptions.”
Focusing on the exceptions has certainly worked for Frito-Lay. Using the GO5 telematics system from Geotab, the snack provider has created data “scorecards” that are helping O’Connell identify vehicles that are not meeting idle and out-of-route mile goals—the two metrics the company is measuring to drive down fuel costs.

To meet its out-of-route mile goals, for example, the company integrates engineering data from its routing system with the actual mileage measured from its telematics system. “We take those engineered routes against actual, and then we scorecard the variants,” O’Connell explains. If a vehicle falls outside of the target mileage range, O’Connell is automatically notified and can respond appropriately.

And Frito-Lay is reaping the benefits. According to O’Connell, the company is just shy of meeting its 50% reduction in idling goal, and it hasn’t even finished equipping its entire fleet with the telematics system. “You don’t have to be 100% implemented to still influence the organization,” O’Connell says. “As we phase in regions, we are absolutely seeing performance flow through, and we are meeting our fuel plan.”

INSURED SAVINGS

Driver measurements such as idle time and out-of-route miles are just two examples of one of the most recent shifts in fleet management, according to Colin Sutherland, who is the vice president of sales at Geotab. “Prior to 2010, I can say most fleets were just interested in managing their running cost per mile, which would be fuel, tire, maintenance, cost of the asset,” he explains. “But, of course, as the economy changes and sometimes you are driving significantly fewer miles because your business is gone … the idea of analyzing your fleet based on running cost per mile had to change.”

As a result, some fleet operators are now using their telematics systems to measure the one thing they can control—driving behaviors. Telematics systems equipped with accelerometers can now tell operators if drivers are speeding, heavily braking, aggressively turning, and perhaps falling asleep at the wheel. In addition to increasing efficiency and reducing wear and tear on the vehicle, monitoring driver behavior can help operators weed out the bad drivers and potentially prevent accidents before they even happen.

With the Dept. of Transportation’s new Compliance, Safety, Accountability (CSA 2010) initiative—which will hold drivers and their employers accountable for unsafe driving—enhancing safety is certainly at the forefront of several motor carriers’ minds. Sylvia Karmanoff is highly experienced in the area of fleet management. She is managing director of technology consulting firm KEMSI and believes companies that use telematics will have a clear advantage over companies that do not use the technology. “You can actually monitor your fleet closely and take corrective action way before the government is going to find out,” she says. “So you can meet the new government standards and improve your positioning in terms of quality of your fleet.”

In fact, some companies are taking these solutions a step further and using telematics systems to drive down insurance costs. According to Sutherland, pest-control service provider Orkin has been successfully doing that for more than eight years now, and other companies have just recently started to see the benefits available from the strategy. “Fleets can reduce between $1,000–$2,000 per vehicle per year in claim
costs,” Sutherland says. “Self-insurance claim reduction costs for some fleets equal the fuel savings that they can get from telematics.”

Many insurance companies are also starting to offer discounts to fleet operators that implement telematics systems with safety-measurement capabilities, how I want him to respond—(either) yes/no, type a full response, or use one of my canned responses. The key value proposition in the whole thing is streamlining communication between the field and the backoffice.”

for the company by allowing workers to do more work in less time, it saved the cable provider costs by reducing the number of contract laborers it needed to hire overall.

ON THE HORIZON
The idea of doing more with less will continue to be a key trend for fleet management, according to Ewing. As fleet operators start to add more hardware and data plans to their fleets, Ewing says there will have to be some consolidation.

“You are starting to introduce a lot of different form factors and data plans into the vehicle—smartphones, laptops, and Garmin displays,” he says. “I continue to see that consolidating into fewer form factors; otherwise it’s going to get really crowded in the truck.”

Jeff Newman is the senior vice president of business development for telematics hardware supplier Enfora, and he says the concept of mobile hotspots may offer fleet operators a way

A fleet-management system can accurately track a vehicle’s whereabouts, but that’s just the beginning. Today managers are monitoring idling, hard braking, routes, and engine health.

INSIDE THE CAB
Another more recent trend in fleet management is connecting drivers to the backend office to increase efficiency and, in turn, drive sales. Todd Ewing, senior product manager at Sage Quest, says this strategy has been especially beneficial for metro fleet operators such as plumbers, cable technicians, and utilities.

By using Sage Quest’s system, which includes under-the-dash equipment from hardware supplier Enfora and an in-cab display from Garmin, Ewing says companies are essentially automating their business.

“It’s giving them a remote way to deliver stops without having to have paper sheets, without phone calls and updates and statuses,” Ewing explains. “As a dispatcher, I can send a simple message down, have it appear on the Garmin as a pop-up icon, and decide it, they were able to go from 110 to 115 work orders per tech per month, up to an average of 160 orders,” he says. Not only did the system increase efficiency

“You can actually monitor your fleet closely and take corrective action way before the government is going to find out.”

— Sylvia Karmanoff, KEMSI

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likely be on board with a solution that made it easier to consolidate all data through one system.

“That hasn’t been done before because typically those have been one-to-one relationships in wireless,” Newman says. “Now with this mobile-hotspot concept, you can actually scale and manage different wireless technologies inside of one concentrator, and you can aggregate those back to a backend system that can manage all of that information.”

Of course, it’s anybody’s guess as to what tomorrow’s fleet-management systems will look like, which is exactly why Bonte of ABI Research says it is important for companies to think ahead and choose solutions that are based on an open strategy so they aren’t tied to one specific piece of hardware or software solution. Cloud-based systems are your best bet, he says, or combined solutions that involve several vendors to provide a comprehensive system.

“You are starting to introduce a lot of different form factors and data plans into the vehicle ...”

— Todd Ewing, Sage Quest

**HOW WELL DO YOU KNOW YOUR DRIVER?**

Today’s telematics systems are not only helping fleet operators get a clearer picture of what their vehicles are doing, but also what the people inside their vehicles are doing. Using a combination of GPS technology and accelerometers, fleet operators are starting to separate the safe drivers from the erratic drivers and, in turn, are improving the quality and safety of their fleets. In fact, thanks to some creative data use, fleet operators can even separate loyal employees from those who commit the worst chicanery.

GPS Insight, a supplier of GPS fleet-tracking solutions, said one of its customers recently used its telematics reporting suite to identify an employee that was padding hours and falsifying time-sheets. In addition, by using the reporting suite’s new fuel card application, the customer detected the same employee was committing fuel card fraud.

By combining GPS tracking data with fuel card purchase data, the customer was able to generate reports on all fuel card transactions, and more importantly, see flagged activity where a specified vehicle was not present for the associated purchase transaction. After reviewing a color-coded report — green for verified purchases and red for potential fraud — the customer was able to see that the employee was actually making multiple fuel purchases in which the location of the truck was not verified, and the customer had the proof it needed to handle the situation appropriately.

The fuel card reporting solution, developed by Wright Express, is also capable of calculating MPG data and anomalies, as well as the easy identification of non-fuel purchases and an IFTA (Intl. Fuel Tax Assn.) state mileage/fuel purchase report. According to GPS Insight, advanced data tools like fuel card reports are taking fleet management to the next level by putting the control back into the hands of fuel operators — and taking the wheel away from unfit drivers.