Putting Data in the Driver’s Seat

With the explosion of data in fleet operations, learn how to move beyond ‘capture and collect’ to drive outcomes – impact decisions, improve operations, and control costs.
There is little argument that today's fleets are awash in data. Thanks to telematics and other fleet management systems, fleets can measure and monitor almost every aspect of their operations from routing to maintenance to driver behavior, often in near real time.

A recent industry survey found that of fleets using telematics, the percentage of on-road vehicles in their fleets with telematics is 37%. The study also found that data management was among the top three concerns of fleet managers.

Specifically for government fleets, the ability to capture this data has helped measure and make improvements to fleet effectiveness in these days of ongoing budget cuts and pressure to rein in costs with scant resources.

From routing optimization to fleet utilization, fuel consumption and drive time, all the information needed to make significant improvements in any given fleet operation can literally be right at a fleet manager’s fingertips.

But, because of the vast quantity of data created by this data tsunami, this information does not always get utilized the way it should. Data needs to be the beginning of managing fleet optimization and drive the fleet operation.

**Where to start.**

County, municipal, state, and federal agencies are responsible for some of the largest, most diversified, and complex fleets in the country. Most of these fleets have missions that demand being able to serve very specific populations and communities sometimes in less-than-ideal situations while doing so in the most efficient and cost-effective manner.

To stay ahead, data must be actionable and align with the overall mission and budget.

These fleets have numerous opportunities to turn data – raw information about the fleet and its performance – into true actionable intelligence.

**Route Optimization: from dots to dynamic**

GPS, the cornerstone of telematics technology, has come a long way since its days of dots on a map. Today, fleets have the ability to see more than just where a driver is. Routing has become dynamic and three dimensional. Fleet personnel can now make adjustments based on real-time driving conditions – such as school zones, construction, or traffic delays – cutting expenses related to fuel, excessive vehicle wear and tear, traffic violations, and even crashes.

In addition, because wear and tear is lessened, route optimization can be a strategy fleets use to extend the life of vehicle assets.

**Utilization: ruthless and rigorous**

Data measuring vehicle trips, mileage, and fuel use will give a fleet manager an at-a-glance snapshot as to how efficiently the fleet is being used, and, more important, if the fleet is too large or too small. If a vehicle has consumed fewer than 500 gallons of fuel or been used less than 2,500 miles during the past 12 months, the fleet manager should evaluate whether it is still needed. Ruthlessly evaluating and rigorously rightsizing the fleet will not only make the fleet operation more efficient, but will help save in all areas of the fleet operation from licensing expenses to maintenance to fuel to garaging.

**Fuel Consumption: data drives savings**

Next to depreciation, fuel is a fleet's largest expense, and controlling this cost center is typically one of the biggest immediate gains (typically well beyond 20%). Fleets get from using a telematics solution, but only if the fleet acts on the data. For example, the advent of telematics gave fleet managers insight into how often vehicle idling was occurring and at what expense. This led many fleet managers to act by either enacting a no-idle policy or by setting parameters to significantly cut the acceptable amount of idling for the fleet.

Fuel savings is often a factor of driver behavior. And, again, data can be used to drive fleet operations. Telematics data captures how drivers are operating their fleet-issued vehicles – are they speeding, cornering too fast, or accelerating aggressively – all fuel-wasting behavior that can be corrected with feedback and coaching.

**The evolution of routing.**

Routing will help fleet personnel more efficiently get a driver from point A to point B, but GPS tracking has evolved beyond just seeing where a vehicle is. Fleets can now track a vehicle and monitor a driver’s behavior to determine if he or she is on track to arrive at an appointed time, if the driver is actually at the job site, and how long he or she has been there, correlating that time with the estimated travel and work times for that job. While the ability to track arrival times and time on site is certainly beneficial in providing good customer service – for instance, being able to notify a customer that a service appointment has to be pushed back or rescheduled – for the fleet, accountability is probably even more valuable.

For a government fleet, correlating known data parameters – it should take a driver 15 minutes to drive to the destination or the job should take no less than 30 minutes and no more than two hours – with the actual
situation (a driver was delayed because of an accident en route, or the driver didn’t stick to the route, etc.) will help the fleet and the agency determine accountability for the action, helping to demonstrate that it is both fulfilling its mission and is addressing any productivity problems as they arise.

**Let data drive your decisions.**

Having data on mileage, maintenance, and other dynamics will help fleet personnel to determine if they have not only the correct number of vehicles but the right type of vehicles in the fleet. Many government fleets are not only under pressure to economize, but to improve their carbon footprints. An obvious way to do so is to add an alternative-fueled vehicle such an electric vehicle (EV).

But using the data instead of a dictate to drive the decision will help fleet personnel to determine not only if this is the best vehicle to use, but if any alternative vehicle makes sense. The data may show that the fleet’s drivers exceed the operational limits of a once-a-day charge, don’t have access to a charging infrastructure (or the fleet will also have to invest in one), or if the fleet’s drivers need to haul or carry heavy equipment or supplies, an EV may not make sense. In contrast, shorter trips or trips that involve going back and forth to the same local site multiple times a day may make it ideal for implementing an EV. But it all comes down to the data, and if it supports either decision.

**Safety: monitor and mitigate**

Many telematics providers are working directly with major insurance carriers to provide incentives for fleets. Some provide small breaks just for having telematics installed, while others give premium reductions when a fleet can show safety improvements through telematics.⁶

Because fleet personnel can monitor a driver’s behaviors often being able to set alerts for actions that are outside of acceptable driving parameters, driver risk profiles not only can be monitored, but acted on, improving the driver’s and overall fleet’s risk profile.

In the event of a crash, the telematics data can be used to help reconstruct the event, helping to accurately assign blame to the driver(s) responsible. If the crash involved a driver that exhibited previous reckless behavior, data related to poor driving behavior will certainly be uncovered by plaintiff’s attorneys, but so will the steps taken in response to it, which may help mitigate the fleet’s liability or exonerate it completely.

Telematics has been shown to mitigate the risk of vehicle theft and aid in faster recovery, oftentimes before the vehicle asset or cargo was damaged or altered.⁷

**Maintenance: time is money**

Time is money, and when vehicles and equipment are down, that means the fleet is unable to do its job and provide its services. A new frontier for fleet telematics is predictive maintenance, which correlates vehicle operational data with OEM maintenance parameters and the fleet’s own historic data to allow maintenance personnel to anticipate when a repair needs to be made. This helps to eliminate excessive downtime tied to catastrophic equipment failures. Instead, all maintenance and repairs – thanks to the data – become routine and scheduled with the consequences of less costs and less vehicle and driver downtime.

**Start with one thing.**

The above are just some of the ways data can be used to drive fleet operations. Certainly, as time goes by, fleets will become more adept and sophisticated in the way they take data and turn it into actionable information.

While the more a fleet can use its data to drive its operations the more it’ll see benefits, fleet managers don’t have to drive everything at once. Starting with one or two of the biggest pain points will make the paradigm shift easier. Adding more layers to the fleet optimization program once fleet systems have been developed and individualized will then be seamless, resulting in faster improvements in operations.

**Analytics: the road ahead**

Telematics as a tool for fleets has evolved and is likely to do so for years to come, particularly as more fleets adopt the technology, more automakers include it as a built-in feature, and, more important, the public begins to recognize telematics as useful tool and demand it as part of both the vehicles they drive and the companies and governments that serve them.

In parallel, fleets want more integrated systems that can function on their own and not have to constantly be managed.⁸

Fleets typically take vehicle- and event-level telematics data and convert it into driver scorecards that rate the risk levels of various drivers. This requires a certain level of sifting data, evaluating it, and taking action.

But the next step is transforming telematics into a tool that can be individualized to the specific needs of the fleet and integrated into every aspect of its operations to give deep operational insights. There is currently a government fleet testing such a system, and it is giving a glimpse into what the truly data driven fleet will look like.

This government fleet is employing a prototype system that is using data over a six-month period to get a clear picture of the fleet’s operational profile. The goal is to use utilization and other insights to make adjustments to the fleet;
including size and vehicle type. Part of the goal of the test is for fleet personnel to easily access actionable fleet data on various dashboards and mobile devices.

This type of data to “actionable intelligence” will likely become the norm once its effectiveness is clearly demonstrated. Fleets will be able to view the data most important to them and have them in an easy to view dashboard display that will allow fleet managers to monitor trends over time.

Even beyond that, industry experts are predicting the technology will evolve into something that can be reviewed by intelligent machines, designed to identify data points that are outside the norm of what a human would be able to easily detect – battery failure, for instance.

A telematics analytics solution will shed light on every aspect of a fleet operation’s life cycle to help optimize operations, reduce costs, and improve productivity.

It’s important to measure the fleet’s operational plans daily. Doing this allows fleet personnel to determine if the fleet’s operational plan is being adhered to and what economic impact this activity is having on operations. An analytics solution can answer such questions and drill down to provide the deep operational insight needed for the fleet to be more efficient and effective. More than simple field reporting or job reports, AT&T provides a unique solution demonstrates its benefits in terms of dollars and cents with the consequences of activities out in the field, translating into real operational performance and an improved bottom line.

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