Is your agency making the most of IoT fleet management?

What state and federal government agencies are doing to protect drivers and save money
How much more can you be doing with fleet management?

Telematics isn’t a new technology. At this point, it’s a well-known fact that telematics and fleet management software can help government agencies—or any fleet manager—save significant amounts and keep their drivers safe.

But too often agencies fail to take full advantage of all the possibilities offered by modern telematics. A lot of this comes down to the data you can collect with IoT fleet management. In the past, the only measurables for fleet managers were speeding, hard-braking and acceleration. Not anymore.

Today, IoT sensors can monitor and provide detailed information on every aspect of your fleet: vehicle diagnostics, driving behavior analytics, real-time car tracking, route optimization, roadside assistance, media connectivity, yard movement analysis and more.

That’s a lot of insight, a lot of data and a lot of places you can reduce costs while improving the level of your fleet’s service.

Fleet managers will be able to identify and resolve issues—like vehicle wear and tear and substandard driver behavior—before they become problems that damage your fleet’s efficiency.

Whether you’re managing garbage disposal, snow ploughs, or fire trucks, there’s a lot of value in your data—providing you know how to use it.

In this guide, we’ll look at real-world examples of effective government fleet management at the state and federal level, what else your solution can help you do and what more you can do with telematics data.
Case study: The State of Utah Division of Fleet Operations
The State of Utah Division of Fleet Operations ran an in-depth study of the impact of telematics. The study involved approximately 25% of all the vehicles managed by the Fleet Operations—1,296 installed units, in total, across several government agencies.

The pilot group included: the Departments of Administrative Services (DAS), Human Services (DHS), Corrections, Agriculture, Alcoholic Beverage Control (DABC), Technology Services (DTS), Transportation (UDOT), Heritage and Arts (DHA), and the Board of Education.

Several others installed a small number of units for testing purposes: the Navajo Trust, Public Safety, Commerce, and Utah Courts. Across the study, each agency employed different vehicles with different needs.
Focus areas
Agencies began installing telematics solutions in January 2017 and focused on four main areas, with the overall target of lowering the total cost of state-owned fleet vehicles and maximizing driver safety:

1. **Fuel savings:** Both driver speeding and idling were reduced using a combination of in-cab, real-time driver coaching alerts and supervisor feedback.

2. **Maintenance savings:** By proactively checking engine light alerts and low battery notifications, agencies avoided catastrophic failures by identifying when a vehicle needed repairs, increasing productivity and reducing unscheduled downtime.

3. **Accident savings:** In-cab alerts for drivers were critical for increasing seatbelt usage, as well as for reducing speeding and dangerous driving, which are more likely to cause accidents.

4. **Underutilization:** Agencies identified if they really needed certain vehicles, or whether they could be replaced with a cheaper or more energy-efficient solution.

Despite early logistical and implementation hurdles, where approvals, staff and driver training, and the local weather all played their part, the study produced impressive savings for the department.

Case study:
The State of Utah Division of Fleet Operations
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Results
Fuel savings
- $11,540 monthly savings on fuel ($10.60 per vehicle)
- $138,460 annually
- 75,000 lb. reduction in carbon emissions

Maintenance savings
- Identifying battery and engine issues and monitoring driver behavior led to significant savings.
- A strategy to make sure that any engine lights that needed attention would be seen quickly meant a reduction in unscheduled downtime, catastrophic failures and roadside service callouts.
- A reduction in aggressive driving meant the vehicles stayed in better condition and suffered less wear and tear.
- Work order costs decreased by $90,000 ($7,500 monthly) compared to the previous year and $75,000 compared to previous years, representing a 20% improvement since the previous year.
**Case study:**

**The State of Utah Division of Fleet Operations**

**Results**

**Accident savings**
- Collision costs dropped by $36,700 compared to historical trends, a 21% reduction.
- $20,000 was saved in the year due to increased seatbelt usage ($18 per vehicle).
- Savings from increased safety totaled $56,760 during the year. (That’s before taking into account the potential lives saved and injuries avoided through accidents. The consequences can be far more severe than money.)

**Underutilization savings**
- According to the state’s current mileage standards, 340 vehicles—over 25%—in the four pilot agencies did not meet the minimum monthly mileage standard.
- $89,500 monthly savings resulting from eliminated depreciation expenses and fewer collisions ($82 per vehicle per month) or $1,074,400 annually.
- In short, there are significant positive correlations between the installation of telematics solutions in agency vehicles and improvements in key focused cost-saving areas.
- The program is already paying for itself, and will likely only become more valuable as it gathers more data and becomes more established. With this in mind, Fleet Operations has recommended extending the pilot scheme by another 12 months.

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*Sprint Business* Is your agency making the most of IoT fleet management?
8 ways telematics can work harder for your agency
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As the Utah study suggests, IoT fleet management helps you reduce costs and keep drivers safe. This applies to any government agency, irrespective of fleet size and vehicle type.

But there are a lot more ways to drive those savings and improvements than first meet the eye. Here are some examples of how you can use telematics to save—and do—even more.

**Asset tracking:**
The same technologies used for fleet management can help with asset management as well. It’s why a number of businesses in the private sector are combining fleet and asset tracking responsibilities. By identifying the assets most commonly being transported by your fleet, you can help your agency kill two birds with one stone.

**Route optimization:**
Real-time updates can help drivers and managers identify accidents, traffic jams and bottlenecks. The result is that managers can make sure drivers are always taking the most efficient route. In fact, the most efficient route can often be recommended by the tool itself without the manager getting involved.

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**Mobile forms:**
Often drivers need customers and stakeholders to fill in forms and checklists. Mobile forms allow drivers to easily track, store, and share data, while also making life easier for customers and eliminating unnecessary paper. By integrating mobile forms with fleet management, you can ensure the whole system runs more smoothly—not just the vehicles.

**Predictive maintenance:**
Managers can identify wear and tear and vehicle issues before they become a problem. Instead of waiting for regularly scheduled vehicle checks when there’s no problem, or being forced to react with unscheduled maintenance repairs when serious problems occur, you can resolve problems in the most time-efficient and cost-effective way possible.

**Fuel tracking and card integration:**
Accurately track every aspect of your fleet’s fuel use: total distance, total gallons, and total cost. With this information you can monitor and reduce costs and identify areas for improvement. You can even gamify the challenge by offering drivers incentives for being the most fuel-efficient.

**Yard movement analysis:**
This is a seriously under-explored area of telematics. Although vehicles will spend the majority of their time on the road, incremental improvements in yard movement, whether it’s time spent driving, parking or idling in the lot, can lead to significant long-term savings. Especially with vehicles that spend a lot of time in-yard.

**Detect unsafe driver behavior:**
Unsafe driver behavior doesn’t just endanger your drivers’ well-being—it’s also a risk for other road users and can damage your fleet, leading to costly repairs. Safer driving also means lower insurance premiums, as well as fewer speeding tickets, accidents, and subsequent litigation. Detecting these issues means you can provide additional support and training for drivers who need it, and incentivize the best performers.

**Remote workforce management:**
The technology itself can help you solve a lot of these problems. But when you drill into the data generated by fleet management technology, there are literally dozens more opportunities to uncover new savings and optimizations.

*Let’s look at a few.*
What more could you do with fleet data?
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The most value you'll gain from IoT fleet management is in the data you generate. Once you understand your fleet's inefficiencies, you can begin planning how to improve. And the longer you have a telematics system in place, the more data you collect, and the greater the potential savings and ROI.

Here are some ways you can use that data to save and protect even more, based on how the Marine Corps uses telematics:

Make safety a tangible goal for drivers: Start a safety goal and develop a system of accountability around it. With engaged drivers and support from fleet managers and operational supervisors, this can make a huge difference to overall safety.

The Marine Corps uses video telematics to monitor speeding, braking, vehicle collisions and unsafe events in over 7,000 vehicles. This led to a 35% reduction in accident damage over two years and helped reduce fuel use, carbon emissions and idle time by up to 60%.

Video telematics can also capture instances of texting, smoking and phone calls while driving, all of which significantly increase the risk of an incident.

The data generated also allows fleet managers to identify particular issues with individual drivers and coach them on how to improve, having a positive effect on driver behavior and creating a safer driving culture.

24% of damaging incidents are only discovered on inspection—telematics can send an instant alert the moment an incident occurs.

In one case, a dashcam identified that a collision was the fault of another road user, allowing the Marine Corps to recoup $10,000 in repair costs.

1. www.nrel.gov/docs/fy18osti/70223.pdf
What more could you do with fleet data?

Fleet managers can set idling alerts over a certain amount of time (five minutes, for example) to avoid combining data on necessary stops, such as traffic lights, with idling. Idling varies by vehicle type, but if you can cut it by even 10-20% across your fleet, that’s a huge annual saving.

As well as raising the chance of accidents and generating fines, speeding can also raise fuel consumption by up to 20%, while hard braking leads to vehicle wear-and-tear and expensive repair work.

Tracking this data and creating automatic reports against predetermined benchmarks is one of the smoothest ways fleet managers can save money, reduce emissions and promote safety while reducing their manual workload.

Heavy duty vehicles can waste up to a gallon of fuel per hour on idling.
What more could you do with fleet data?

Use geo-fencing to automatically analyze movement:
Reduce the manual effort it takes for drivers to report on where they are by setting up geo-fenced locations so you can analyze where vehicles end up most of the time.

Geo-fencing is the creation of virtual geographical boundaries using Global Positioning System (GPS) or radio frequency identification (RFID) technology. In recent years, geo-fencing technology has come to be widely used by fleets to provide a more responsive customer service and also to ensure more efficient deployment of assets.

Geofences can trigger a particular pre-programmed action when a vehicle equipped with a vehicle tracker or RFID tag enters them. This could include triggering text messages or alerts, prompt mobile push notifications, or alert management whenever a vehicle or individual enters or exits a specific area.

Geo-fencing can give you a crystal-clear picture of parking areas, Vehicle Miles Travelled, and unexpected out of route miles. With this information, you can also figure out if vehicles could be pooled or if a shuttle is an appropriate way to combine trips.

Improve vehicle acquisition:
Use telematics data to understand how vehicles are used and to make smarter decisions about which new vehicles to acquire (e.g., plug-in hybrid vs. diesel).

Fleet locations with alternative fuel infrastructure (or those where it could be put in place) are candidates for electric vehicles, as are fleets with vehicles that don’t need to travel more than a plug-in vehicle battery can manage in a day.

Vehicles rarely entering off-road terrain can be replaced by cheaper alternatives that don’t need to be all-wheel drive, while those operating in the same area at the same time can be combined into motor pools.

2. www.teletracnavman.co.uk/telematics-definitions/what-is-geofencing
Conclusion
There’s a lot more to fleet management for government agencies

Today, The Internet of Things is taking fleet telematics to new places and delivering significant benefits.

You may already be using some form of telematics to improve your fleet’s safety and efficiency—but if you need ways to cut costs even further, the good news is you can do so much more.

Initial savings per vehicle per month can be significant and are only likely to increase the longer your program is in place, and the more data is collected.

IoT fleet management can help drive safety, fuel efficiency, digitization, sustainability and citizen engagement—it will be an integral part of the smart cities of tomorrow. The sooner we embrace it wholeheartedly, the better.

As shown by the case studies, any fleet will benefit from IoT fleet management, making it an ideal solution for government agencies looking to budget effectively in both short and long term.
Let’s talk

Sprint can help build the perfect fleet management solution for your business—for safer drivers, lower costs and a healthier fleet. Speak to one of our experts today.

Find out what Fleet Management can do for you. Contact us to learn more.

Federal agencies: 1-866-414-3225
State and local agencies: 1-866-653-1060 or visit our website.