

Cal/Amp®

Leveraging
Fleet
Management
Data to Drive
Increased
Value



Executive Summary

A fleet management solution can provide a wealth of information about the way your fleet and your drivers operate. In turn, this information can be used to positively impact your operations: to optimize routes, to reduce expenses, and to maximize the value of your investments in equipment, talent and tools. But the deployment of a fleet management solution can often result in information overload. Often, companies will deploy a system and become inundated with data, without a clear idea of how to make the data actionable. Having too many data points can be as challenging to your operations as having too few. This paper discusses the operational data that a fleet management solution can capture and how knowing what to measure can help you realize greater value from your operations.

Introduction

Communication technology has reached a level of sophistication that allows you to know where your drivers and vehicles are at all times. In theory, there's a tremendous business advantage to that level of intelligence. What you know about your operations can help you work more efficiently, at a lower cost, with greater agility and safety, and with stellar customer service.

A fleet management solution captures a broad range of intelligence on the operational realities of your vehicle fleet. The data points it captures can indicate what works and what doesn't: if vehicles are idling excessively, or if they're being driven for non-business purposes; if drivers are meeting their service call goals, or if you need to shift coverage to keep customer appointments; if your fleet is being maintained properly and operated safely. All of these data points and more can be captured and presented in a variety of ways: through maps and graphs, data reports, real-time alerts and other means.

But there's also a pitfall in suddenly having that level of insight: the potential for data overload.

Too Much Information

If your car won't start, you don't need to know how to rotate the tires. You need to understand why the engine won't turn over. The same is true with fleet management. While a vehicle-based solution will make a lot of information available to you, the purpose isn't necessarily to know everything there is to know as it happens.

By way of illustration, let's look at one of the compelling features of a fleet management solution that can be filled with trial and error: alerts.

Alerts are an attractive feature in vehicle management. You can set parameters that will notify key managers and supervisors of vehicle events – speeding, long stops, engine idle, PTO use, late starts, unauthorized use – that occur throughout the day. Depending on the solution, those events can be sent as text messages, e-mail or automated phone call.

The initial temptation is to want to know every time a vehicle exceeds an established guideline. After all, this is what the system is for: real-time knowledge and fleet intelligence. Consider a fleet of 20 vehicles and the ebb and flow of the work day. There may be legitimate elements of concern. For example, a van that sits with the engine idling for four hours may indicate a driver in distress. But there may also be things like traffic volume or construction that slow vehicle progress on the road, or an on-site job that takes longer than expected.

In the course of a day, depending on parameters you set for alerts and real-world operating conditions, a vehicle might trigger a dozen alerts in some fashion. Multiply that times the vehicles in your fleet. For 20 trucks, that could translate into 240 alert e-mails a day, many for things that are inconsequential in the context of the day.

Part of effectively using the vast array of data a fleet management solution presents is identifying the data points that are important or of critical nature to immediate operations. Alerts are a valuable tool, but the challenge is identifying what should be set up as an alert, and what is better identified by analyzing reports for usage patterns or behaviors.

What You Can vs What You Should Measure

With the combination of GPS, Automatic Vehicle Location (AVL), two-way wireless data communication and in-vehicle technologies that can provide everything from simple start and stop events to full-blown mechanical status (ODB-II monitoring, RFID tagging, etc) what you can measure is limited only by what you want to invest in a solution.

What you should measure, on the other hand, depends on a variety of factors.

- **What are the critical needs of your business?** A long-haul trucking fleet is concerned with miles traveled, fuel used and accurate delivery. A fleet of utility vehicles

benefits from knowing vehicle location and availability, and who can respond to critical issues. A delivery service is measured by its ability to manage local pickups under deadlines while ensuring vehicles are operated safely. What you choose to measure and how you use those measurements depends on what's most important to your business.

- **Where are your highest costs?** The insight captured by your fleet management system can often directly address the things that cost you the most money in your fleet operations: things such as your fuel usage, misdirected vehicles, assets that are sitting idle and slow customer service.
- **Where can you add value?** This is a difficult factor to gauge without already having some form of measurement in place. Every company's pain points are different, based on a variety of factors from manager/driver relations to geographic elements. But the universal truth is that you can't understand how you can improve something until you first have the measure of how it's working. What you think you know may or may not be what's actually important. Being happy with six completed jobs a day from your driver is fine, until you realize that with better organization he could be completing eight.

Understanding Your Data: Baseline

The first step in determining how your operations can be improved is knowing how your fleet is performing. It's a lot like visiting your doctor for a physical: before changing your diet or prescribing medication, your doctor wants to see how your body's currently functioning, what levels are outside the norm, and what is or isn't working as it should.

It's the same for your fleet operations. Before you start changing things, you want to have a baseline measure of your fleet's performance. The best method is to collect vehicle operations data for a week to two weeks. Where do your trucks go? Where do they stop? For how long? Are there challenges to getting from point A to point B? How long do engines idle? What alerts do you see? How long do things such as customer visits or work orders actually take versus your expectations?

With a week or two of live data, you can see things as they actually are. This knowledge paves the way for you to know exactly which activities or behaviors require immediate attention and what you may want to monitor more closely. It also allows you to set achievable goals for improving the health of your operations in the long term.

Leveraging Your Data: Ongoing Measurement

Armed with hard data on the way your fleet operates, you can begin setting goals to modify your operations. How you apply the data you collect and the operational efficiencies you choose to pursue will depend on your critical business needs. These vary from company to company. But some common concepts for leveraging fleet management data include the following:

The Goal: Reduce Fuel Costs

The Target: Reduce Engine Idle

The Fact: Excessive engine idle can burn through your fuel budget. How much is too much? A half-hour of engine idle can waste a half-gallon of fuel. That's a lot to pay to go nowhere.

The Value: Using an excessive idle alert, you can obtain hard data on how often and how long your vehicles are running while going nowhere. That information can be used to educate vehicle operators on the true costs of engine idle and set targets to reduce idle and, with it, overall fuel consumption.

The Goal: Improve Vehicle Usage

The Target: Reduce Miles Driven

The Fact: You need to make every operational mile count. If your vehicles are crisscrossing your territory, operating out of bounds, or being used for personal business, you're incurring miles driven that aren't adding to your bottom line.

The Value: Reports of miles driven and alerts for business exceptions – such as operating outside geofenced areas or after-hours ignition events – can help determine the real business usage of your vehicles. This opens the door to improved vehicle routing, completing more jobs each day and reduced fuel usage and off-hours operation. You can also use tools such as turn-by-turn directions to reduce instances of drivers getting lost and needing to backtrack to job sites.

The Goal: Complete More Jobs

The Target: Manage On-Time Home Starts

The Fact: Drivers derive benefit from taking their vehicles home and getting a jumpstart on their jobs. But how do you help your drivers get out the door and ensure the first jobs of the day are completed on time?

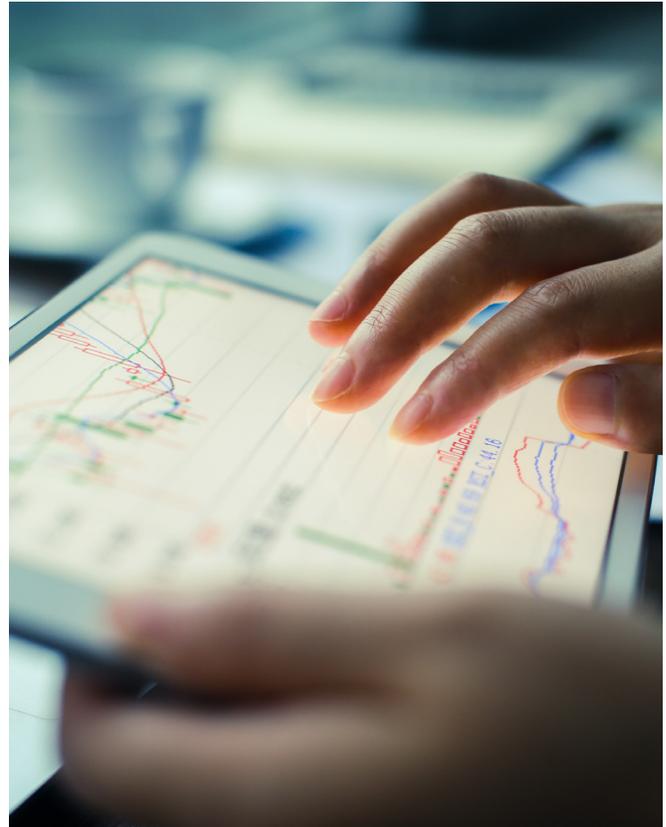
The Value: Using alerts that tell you when a vehicle is on the road, you can set and complete more jobs per day, increase customer satisfaction and proactively measure when your drivers' days begin. You can also determine where and when other drivers may need to cover critical first jobs due to unexpected changes to the start of the day, such as driver illness or vehicle breakdown.

The Goal: Increase Driver Safety

The Target: Manage Challenging Behavior

The Fact: You don't want to be "Big Brother" to your drivers. But your drivers can risk your bottom line through inappropriate behavior such as speeding or other unsafe vehicle operations – activity that could impact your liability and your insurance costs.

The Value: Through alerts that indicate speeding, seatbelt use and other safety-related elements, you can identify and help educate your drivers to unsafe behaviors. This ounce of prevention can not only help make your drivers safer, it can help safeguard your assets and your company's bottom line. Your fleet management solutions provider should be able to offer additional insight into the best ways to use your fleet data to realize operational improvements.



The Result: Better, Strong, Faster

There's always room to improve. When you have a window into daily operations, you can set attainable goals for improving performance. Once you set goals and identify the data that best captures and measures your progress in attaining those goals, the results can have direct impacts on every facet of your operation. Fleet management data gives you the flexibility to make targeted changes and operational improvements that will improve worker and customer satisfaction, the cost of doing business, and the bottom line of your business.

About CalAmp

CalAmp (NASDAQ: CAMP) is a telematics pioneer leading transformation in a global connected economy. We help reinvent businesses and improve lives around the globe with technology solutions that streamline complex IoT deployments and bring intelligence to the edge. Our software applications, scalable cloud services, and intelligent devices collect and assess business-critical data from mobile assets, cargo, companies, cities and people. We call this The New How, powering autonomous IoT interaction, facilitating efficient decision making, optimizing resource utilization, and improving road safety. CalAmp is headquartered in Irvine, California and has been publicly traded since 1983. Lojack is a wholly owned subsidiary of CalAmp. For more information, visit calamp.com, or LinkedIn, Twitter, YouTube or CalAmp Blog.

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