eBook

Fleet management and dashcam solutions
Maximizing financial impact

verizon
connect

Table of Contents

Every commercial fleet represents huge investments — in vehicles, assets, facilities, technology, and people. And every fleet manager's priority is optimizing their fleet with technology and best practices to drive value for their organization or business.

Modern fleet management and dashcam solutions help optimize returns on investments throughout a fleet. They help elevate safety, reduce costs, streamline maintenance, and provide detailed insights for data-driven decision-making.

This eBook will help you measure and improve your fleet's financial performance with intelligent fleet management and dashcam technology.

Defining and measuring financial impact

Identifying key performance indicators (KPIs)

The first step in improving a fleet's financial performance is defining key performance indicators (KPIs) and establishing a process for measuring them. Establishing baseline metrics that assess current operational costs, inefficiencies, and crash-related expenses enables an operation to set measurable goals for improvement.

Managers can then use fleet management and dashcam technology to generate reports that demonstrate financial impact for comprehensive analysis.

There are six main fleet KPIs for measuring and improving financial performance. This table explains those KPIs, how they can be improved, and how those improvements impact financial performance.

	Fuel costs	Maintenance expenses	Vehicle and asset uptime	Driver productivity	Safety and compliance	Customer service
Means of improvement	Fuel use can be reduced with fleet tracking technology that replays routes for visibility into inefficient stops, reduces idling, and promotes better driving habits.	Proactive maintenance and early issue detection reduce unexpected repairs and improve long-term fleet health.	More efficient maintenance secures greater availability of vehicles for operations.	Fleet tracking solutions help drivers be more efficient and reduce non-productive time.	Intelligent Dashcams help managers coach, champion, and reward safe driving behaviors.	Visibility into fleet activity and location streamlines communication to end customers.
Impact on financial performance	Lower fuel costs are a direct cost savings.	More efficient maintenance reduces repair costs and improves uptime.	Higher uptime improves productivity and directly increases revenue.	Increased output per driver directly boosts revenue.	Preventing collisions and improving overall vehicle operation can prevent roadside fines, minimize liability exposure, and lower insurance premiums.	Increased customer satisfaction leads to repeat customers and higher revenue.

Table 1

Baseline metrics and measurable goals

The first step in maximizing financial performance is establishing clear baseline metrics — the numbers that describe the current state of an operation. Managers should be able to measure any improvements against these baseline numbers. Here are some common metrics that can be used to determine baselines for the KPIs in Table 1.

It's clear that **having a fleet management system in place can support establishing baseline metrics to drive value for an organization.** Other technologies — such as ELDs, digital DVIR solutions, and intelligent dashcams — are also beneficial.

The Verizon Connect Fleet Savings Calculator

Verizon Connect fleet management tools help thousands of fleets improve financial performance by reducing fuel usage, increasing productivity, and prioritizing safety.

To show how improving KPIs can make a significant financial impact, we created a calculator that estimates savings based on a few basic inputs. Discover the potential savings your fleet can pursue — try the calculator!

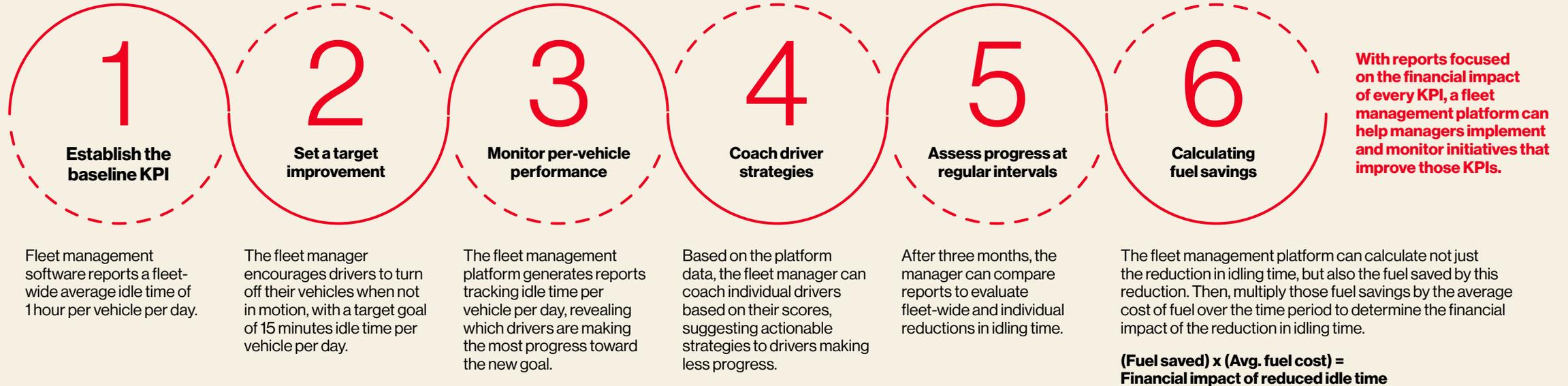|	Fuel costs	Maintenance expenses	Vehicle and asset uptime	Driver productivity	Safety and compliance	Customer service
Baseline metrics	• Total monthly fuel spend • Fuel consumption per vehicle • Fuel cost per mile • Idling time per vehicle	• Maintenance cost per vehicle • Maintenance cost per mile • Unscheduled vs. scheduled maintenance ratio • Average vehicle downtime per maintenance event	• Utilization rate (time in use/total available time) • Mean time between failures (MTBF) • Mean time to repair (MTTR)	• On-time performance rate • Miles driven per shift or per hour • Idle time per shift • Driver safety score	• Driver safety scores • Near miss event rate • Critical event reduction • Hours-of-service (HOS) violations • Inspection compliance rate • Safety-related citations or violations	• On-time delivery rate • Average response time to customer inquiries • Customer satisfaction scores (CSAT) • Failed deliveries or service attempts • Job verification requests
Potential sources	• Fuel card reports • Fleet management system data	• Warranty and claim records • Internal or vendor service records • Fleet management system data	• Internal or vendor service records • Fleet management system data	• Customer delivery records or CRMs • Intelligent dashcams • Fleet management system data	• Insurance records • Electronic logging devices (ELDs) • Driver vehicle inspection report (DVIR) logs • Intelligent dashcams • Fleet management system data	• Customer delivery records or CRMs • Fleet management system data

Table 2

Tracking and reporting

Just as a fleet management system helps establish baseline metrics, it's also the key to tracking KPIs over time, defining areas of improvement, and determining the financial impact of those improvements.

An advanced fleet management solution may also include ELD and DVIR functionalities; it can also fully integrate with an intelligent dashcam. Such an integrated system can become the primary tool for a fleet manager to track and report

improvements in financial performance. Tabs 4 and 5 of this eBook will explore the process in detail.

Here's a simplified example based on reducing idling time per vehicle.

1
Establish the baseline KPI

Fleet management software reports a fleet-wide average idle time of 1 hour per vehicle per day.

2
Set a target improvement

The fleet manager encourages drivers to turn off their vehicles when not in motion, with a target goal of 15 minutes idle time per vehicle per day.

3
Monitor per-vehicle performance

The fleet management platform generates reports tracking idle time per vehicle per day, revealing which drivers are making the most progress toward the new goal.

4
Coach driver strategies

Based on the platform data, the fleet manager can coach individual drivers based on their scores, suggesting actionable strategies to drivers making less progress.

5
Assess progress at regular intervals

After three months, the manager can compare reports to evaluate fleet-wide and individual reductions in idling time.

6
Calculating fuel savings

The fleet management platform can calculate not just the reduction in idling time, but also the fuel saved by this reduction. Then, multiply those fuel savings by the average cost of fuel over the time period to determine the financial impact of the reduction in idling time.

(Fuel saved) x (Avg. fuel cost) = Financial impact of reduced idle time

With reports focused on the financial impact of every KPI, a fleet management platform can help managers implement and monitor initiatives that improve those KPIs.

The importance of professional installation and training

Modern fleet management and dashcam solutions rely on sophisticated, AI-enabled telematics and video devices that seamlessly integrate with other vehicle systems. Since these systems help measure so many critical KPIs, it's important to have them professionally installed.

Here's how professional installation helps maximize device performance and optimize financial impact:

Minimizing vehicle downtime.
Expert installers complete the work faster, so vehicles spend less time in the garage and more on the road.

Keeping accurate data flowing.
Improperly installed devices may not collect or transmit complete, accurate data, which impairs their ability to boost your financial performance.

Reducing installation errors.
Poorly installed devices can lead to system malfunctions, so it's critical to have them installed by professionals.

Maximize system lifespan.
Correct installation helps prevent premature hardware failure, so devices can boost fleet performance for longer.

What you should expect from your installer

Flexible installation scheduling.
If your operation depends on daily routes, your installer should be able to work evenings and weekends. Pick the installation windows that keep your vehicles on the road when they're most productive.

A dedicated onboarding success expert.
Make sure you have a single point of contact guiding you every step of the way.

A plan for a smooth rollout.
Adopting your devices and integrating them with other systems should be as minimally disruptive as possible.

Day-one impact.
You should have instant access to live tracking, real-time alerts, and the insights required to improve your KPIs.

Training and initial support

To ensure proper adoption, utilization, and long-term value, fleets should initiate training for drivers and technicians immediately following installation. Training on system usage and basic troubleshooting helps ensure that a fleet's staff — not just their vehicles — is fully equipped to deliver stronger financial performance.

- Drivers must understand how road-facing dashcams and extended-view cameras work, as well as how to respond to alerts. They should also understand how driver-facing dashcams help identify and — with coaching — correct behaviors that negatively impact the fleet's financial performance.*

- Drivers may also need training on ELDs and DVIR apps that empower them to become a more integral part of the vehicle health process.

- Vehicle technicians benefit from knowing how to perform basic troubleshooting, interpret system alerts, and identify when escalation is needed to minimize downtime and maintenance costs.

Without this foundational training, even the best-installed systems may underperform due to misuse, confusion, or neglect. Training also fosters confidence, reduces resistance to new technology, and accelerates financial impact by enabling fleet managers to make informed decisions from day one.

*In accordance with local laws, employers should disclose and receive driver acknowledgment as part of their initial training before cameras are installed.

Strategic implementation for maximum financial impact

Every fleet is different, so there's no standard formula for turning KPIs into optimized financial performance. It's up to individual fleet managers to align fleet management and dashcam data with their organization's business goals.

This requires moving beyond basic tracking and video capture to in-depth data analysis. **The first step is identifying the KPIs that most significantly impact a fleet's performance and the best ways to measure them**, as described in Tab 2. It's critical to map out how the insights from fleet management systems and intelligent dashcams contribute to overall business objectives.

Here's an example of how a manager can **calculate the financial impact of reduced speeding on crash reduction**, starting with actual aggregated customer data from Verizon Connect:

A driver who commits more than three speeding events increases their likelihood of being in a crash by 230%.[1]

Calculating the financial impact of reduced speeding on crash reduction

Here's how a manager can leverage this data point to calculate the financial impact of reduced speeding on crash reduction using KPIs from their own fleet data. Since these KPIs may vary considerably from one fleet to another, **this example uses figures that are strictly hypothetical. Individual fleets should use their own data to calculate their own financial impact.**

KPI	Hypothetical value
Average cost of repairs from a crash	$5,000
Average liability costs from a crash	$10,000
Average vehicle downtime resulting from a crash	3 days
Average revenue loss from vehicle downtime	$1,000/day
Fleet crash rate per 100,000 miles	5
Speeding events per driver	Identified by fleet management software

9

How to calculate the financial impact of crash reduction from reduced speeding

1

Combine KPIs 1-4

$5,000 repairs per crash

+ $10,000 liability costs per crash

+ (3 x $1,000) downtime costs per crash

= $18,000 per crash

2

Multiply the average cost per crash by KPI 5

$18,000 per crash

X 5 crashes per 100,000 miles

= $90,000 fleet crash costs per 100,000 miles

3

Identify "overspeeders"

This is where the fleet's management software comes in. If the platform records 50% of the fleet's drivers committing more than three speeding events per month, the manager can identify these drivers as "overspeeders" — and calculate the crash costs associated with them.

4

Calculate additional crashes by overspeeders

Remember, data shows that **"overspeeders" are 2.3 times (230%) as likely to experience a crash.** Therefore:

- Non-speeders' crash rate = x

- Overspeeders' crash rate = 2.3x

- Since 50% of the fleet are overspeeders and 50% are non-speeders, the current overall fleet crash rate = (0.50)x + (0.50)2.3x

- So, overall crash rate = 0.5x + 1.15x, or 1.65x

Coaching the overspeeders to be non-speeders would reduce crash rate from 1.65x to x — a 39% reduction.

Reducing the current crash rate of 5 per 100,000 miles by 39% would deliver a new rate of 3.05 per 100,000 miles.

Overspeeders account for 1.95 more crashes per 100k miles than non-speeders.

5

Multiply additional crashes by overspeeders by average cost per crash

1.95 additional crashes by overspeeders per 100,000 miles

X $18,000 per crash

= $35,100 per 100,000 miles due to overspeeders

Actionable conclusion

In this hypothetical example, the manager now knows that coaching the "overspeeders" to observe posted speed limits more closely can potentially save the fleet $35,100 per 100,000 miles.

This is only a hypothetical example, but research shows that **fleets using management platforms average a 22% crash cost reduction across all industries.**[2]

And this example may not even include all the costs associated with crashes. Fleet managers should also consider:

- Third-party liability
- Property damage
- Workers' compensation injuries
- Specialized equipment damage
- Driver turnover

Training and adoption

KPIs aren't just for fleet managers — sharing them with drivers magnifies their impact and gets measurable results faster by ensuring everyone understands the benefits of using fleet management technologies.

Crash reduction is just one example of how insights from fleet management and dashcam solutions can directly impact a fleet's bottom line. These technologies also track driver behaviors such as speed, space management, tailgating, phone use, fatigue, and distracted driving — all of which correlate with crash data and can be improved with coaching.

The more drivers understand the financial impact of these KPIs, the better they're able to contribute to improvements. They should also understand that stronger financial performance can lead to stronger job security and enhanced financial outcomes for them as well.

That's why it's so important to not only involve drivers in the adoption of fleet management and dashcam solutions, but to make fleet-wide training a continuing priority.

The more drivers understand the financial impact of these KPIs, the better they're able to contribute to improvements.

Optimizing Cost Centers for enhanced financial performance

Any of the KPIs in Tab 1 can be optimized to improve a fleet's financial performance. However, it can be helpful to group KPIs into cost centers, where leveraging fleet management software and intelligent dashcam solutions can impact several KPIs at once for maximum improvement.

Three cost centers fleets typically consider are fuel efficiency, vehicle maintenance, and driver management.

Fuel efficiency strategies

Fuel cards

Some fleets that don't maintain their own fuel stations issue fuel cards to their drivers. Fuel cards are the simplest way to enable drivers to fuel up wherever they are — and they also give fleet managers insights that can save time, lower costs, and prevent fraud.

- Fuel card data shows which drivers are fueling which vehicles, and how often. This data can spotlight drivers or vehicles that tend to have higher fuel usage rates.
- Fuel card records also show where drivers are refueling. Are they getting the best prices available?
- Fuel card usage data should correlate closely with miles driven. A driver who buys more fuel than the mileage would indicate may be committing fraud by fueling a personal vehicle.
- Fleet management platforms can often integrate fuel card data to centralize usage insights on one screen and make analysis easier.

Navigational aids

The navigational functionalities in fleet management platforms give drivers and managers multiple ways to improve fuel efficiency. In fact, fleets using management software average a 16% fuel cost reduction across all industries.[2]

- Digital maps show drivers the most efficient directions to their next delivery, with near-real-time updates to help avoid delays due to accidents and construction.
- GPS tracking helps managers monitor vehicles in near-real time to pinpoint and resolve potential delays.
- Stored data helps managers replay drivers' routes to acknowledge strong performers — and coach others to foster improvement.

Driver training

Data from fleet management platforms gives managers the insights they need to coach drivers on fuel-efficient driving techniques such as:

- Reduced speeding
- Reduced harsh driving
- Reduced idling times
- Prevent unauthorized usage

Proactive vehicle maintenance

Preventive maintenance

Fleet management platforms help fleets take a more proactive approach to maintenance — creating reminders for service and catching issues before they become expensive problems, reducing vehicle downtime, and extending vehicle lifespans.

- When a vehicle service plan is created in the platform, it notifies managers based on mileage and/or hours of use when each vehicle or asset needs routine maintenance. And preventive maintenance —such as oil changes, tire rotations, and brake service — is the best way to prevent repairs that cost far more over the long term.

- The platform notifies managers when maintenance is due, so they can reduce downtime by combining activities or initiating them when vehicles come in for minor repairs. For example, if a van needs a headlight replaced, it can also receive an oil change if one would be needed soon.

- Based on the vehicle service plan, the platform records all maintenance activities for easy reference and retains complete documentation for compliance purposes.

Reducing unexpected breakdowns

Preventive maintenance prevents the unexpected repairs and breakdowns that damage a fleet's bottom line.

- Many fleet management platforms integrate with vehicles' on-board diagnostics to collect data on essential systems such as drivetrains and emissions.

- This data can help managers and technicians identify and address small issues before they become problems that require expensive repairs.

- These insights help prevent unexpected breakdowns that cause work and delivery delays, costly towing, and excessive downtime.

Extending vehicle lifespan and maximizing asset value

Keeping vehicles on the road (and assets in production) longer is a huge boost to fleet financial performance. By addressing issues early, preventive maintenance helps extend lifespans, which improves performance in two ways:

- Vehicles and assets with longer lifespans contribute more production than those with shorter lifespans.

- Such vehicles and assets retain more value as they age, enabling higher resale prices or stronger trade-ins.

Driver management and collision reduction

As described in Tab 4, fleet managers can leverage data concerning driver behavior to implement changes that directly improve financial performance. Here are some more predictive data demonstrating that drivers with repeat occurrences of risky driving events almost double their likelihood of being in a crash. Remember, in this hypothetical example, each crash costs the fleet approximately $18,000.

Monitoring and improving driver behavior

Given these numbers, it's clear that improving driver behavior can help improve a fleet's financial performance significantly — and that fleet management software and intelligent dashcams can play a huge role in making it happen.

GPS tracking records driver speeds versus local limits, as well as harsh driving events such as rapid acceleration and harsh cornering. Managers can use this data to coach drivers and encourage safer driving.

In fact, fleets using Verizon Connect Reveal for one year or more found that their drivers had a 48.6% median reduction in speeding[1] and a 22% average crash cost reduction.[2]

Intelligent dashcams, combined with features such as Verizon Connect's Integrated Video, detect and record risky driving behaviors such as stop sign violations, phone use, and tailgating. Video snippets stored in the fleet management platform can help managers intervene with drivers and correct these behaviors.

Many fleets even create a safety scoreboard incorporating data from fleet management and dashcam solutions and leverage gamification to motivate drivers to adopt safer driving styles.

Critical event per 1,000 miles	Increased likelihood of being in a crash	Approximate added costs per 100,000 miles*
More than 3 speeding events	230%	$35,100
More than 2 stop sign violations	260%	$39,600
More than 3 phone distraction events	160%	$20,700
More than 2 major tailgating events	230%	$35,100
More than 5 moderate tailgating events	200%	$30,000

Table 3[1]

*Calculations are based on the assumptions and formula found on page 10.

Reduction in behavior with in-cab dashcam alerts

📱	**Phone calls**	↓50%
💤	**Fatigue** [2]	↓50%
🚫	**Distraction**	↓33%
🚭	**Smoking**	↓30%
🚗	**Tailgating**	↓25%

Table 4[1]

The impact of intelligent dashcams

Additional data shows that AI-powered dashcams with in-cab alerts significantly improve driver behavior, leading to a substantial reduction in safety-critical events such as phone calls, fatigue, distraction, smoking, and tailgating.

With these events captured on video and stored in the fleet management platform, a manager has an enhanced ability to work with drivers to improve their behavior. Drivers are less likely to repeat these behaviors when they know they are being recorded every second they're behind the wheel.

Liability mitigation and costs

In addition to helping reduce the likelihood of collisions, fleet management and dashcam solutions help fleets reduce the financial impact of crashes that do happen.

When there is a crash, footage from dashcams and Integrated Video systems can provide irrefutable evidence that the fleet's driver was not at fault. They may show a car out of its lane or a car running a red light, sideswiping to collide with the fleet's vehicle.

Reduced crash rates and reduced liability for the collisions that do occur can help lower a fleet's legal exposure, and that in turn can lead to reduced legal fees and insurance premiums. In fact, 50% of fleets using video dashcam technology report reduced insurance costs[2] — and minimizing these costs can significantly boost a fleet's financial performance.
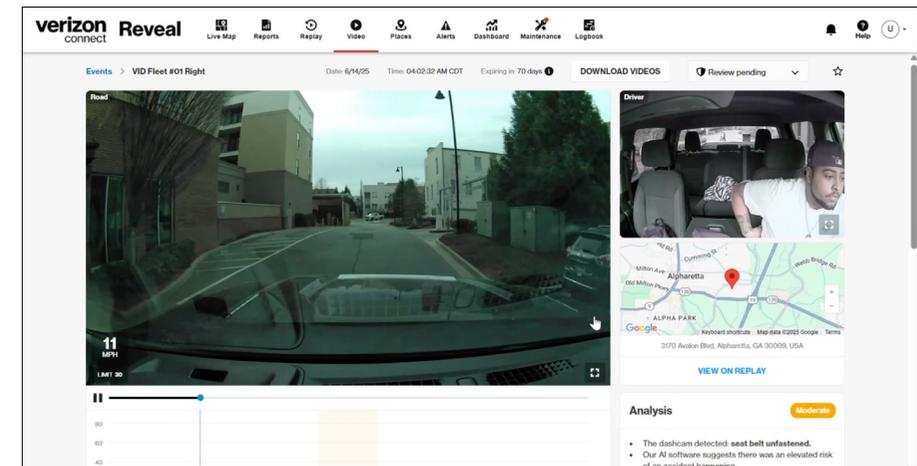
Leveraging advanced features for financial impact

We've covered how identifying high-risk drivers with fleet management and dashcam solutions can boost financial performance by reducing dangerous driving behaviors that impact fleet safety. An advanced fleet management platform also provides analytics and other advanced features that enhance bottom line performance in other ways.

Integrating with business systems

A fleet management platform never operates in a vacuum. Advanced solutions integrate with other essential business systems to help generate holistic improvements across an entire organization.

- **Accounting, CRM, and other platforms.** When fleets connect their fleet management and dashcam data with accounting, CRM, and other platforms, every department in the organization can leverage these insights. For instance, on-time delivery data generated by fleet management software can be automatically accessible by the fleet's CRM for new business conversations, and fuel savings can be used by accounting to update projections.

- **Organization-wide insights.** With fleet management software providing a comprehensive view of operational costs, revenue generation, and risk exposure, managers can make confident, data-based decisions about future investments and expansion.

Automation for higher operational efficiency

Everyone's time is valuable, and fleet management staff only have so many hours in a day. Here are a few examples of how an advanced fleet management solution automates routine tasks to free up staff time for more strategic initiatives.

- **Routine tasks such as reporting and alerts.** Fleet management software records thousands of events and alerts every day, but they're automatically organized and available with the click of a mouse. Compiling a comprehensive report on quarterly fuel use, for instance, takes just minutes.

- **Flagging risky driving events.** When an intelligent dashcam records risky behavior, the footage is automatically flagged for review, so the manager doesn't have to watch hours of video to locate it.

- **Streamlining maintenance and recordkeeping.** As a vehicle nears a 5,000-mile milestone, for example, fleet management software schedules an oil change reminder and alerts the driver, manager, and lead technician. The vehicle's complete service history is one click away.

These automation examples are one reason 56% of fleets using management solutions report improved operational efficiency.[2]

Utilizing analytics and reporting for strategic decisions

An advanced fleet management solution gives managers the insights they need for long-term decision-making.

- **Identifying underutilized assets and optimizing fleet size.** Assets such as trailers and heavy equipment represent significant investments, so it's critical to identify which ones are being used to their fullest capacity — and which ones frequently sit idle. Easy-to-understand utilization reports help managers make data-driven decisions about their fleet. In fact, 52% of fleets using fleet management solutions report improved asset utilization.[2]

- **Forecasting maintenance needs and budgeting effectively.** A fleet management platform doesn't just issue notifications when vehicles need maintenance — it also forecasts near- and long-term maintenance needs so managers can budget for materials and manpower more accurately.

- **Measuring the impact of implemented changes on ROI.** From crash prevention to fuel savings, streamlining maintenance to optimizing fleet size, fleet management software doesn't just help generate positive ROI. It also provides analytics that help managers measure that impact.

52% of fleets using fleet management solutions report improved asset utilization.[2]

Achieving sustainable results with fleet management solutions

Improving a fleet's financial performance should not be an initiative for a single quarter or a year — it should be a long-term goal backed by organizational strategies and a commitment to essential technology.

While there is no textbook strategy that will work for every company, many fleets successfully improve results year after year by continuously following these steps:

Continuous monitoring and optimization help fleets build on previous success to improve results year after year.

1 **Defining their key performance indicators,** establishing baselines and determining measurement standards.

2 **Installing advanced fleet management software** and training all personnel in its use.

3 **Implementing processes that translate data into financial impact** and evaluating the most critical actions for financial impact.

4 **Optimizing cost centers** to maximize the financial impact of data-driven decisions.

5 **Leveraging advanced features** that extend the insights from fleet management software throughout the organization.

18

Verizon Connect helps small businesses, enterprise companies, government agencies, and nonprofit organizations with their fleet, field service, and asset management needs. Our easy-to-use dashboards and reporting tools help uncover hidden costs, reveal the potential for greater productivity, encourage safer driving behaviors, reduce fuel expenses, and improve fleet efficiency.

With Verizon Connect tools providing around-the-clock monitoring, you'll soon know how you can reduce costs and operate a more efficient fleet.

To learn more or to schedule your free fleet tracking consultation, visit verizonconnect.com.

verizon
connect