



GUT INSTINCT IS NOT ENOUGH:

How to Make Your Field Service Operations Data-Driven

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Running a top-tier field service operation requires a lot more than gut instinct. Fleets need data to make informed decisions about their people, vehicles, equipment, and customers. But integrating data and automation into operational functions can be painful and ineffective if not done strategically.

Learn how to effectively build more data-driven field service operations with advice from industry insiders in this [recent webinar](#). Pulling from decades of experience, each of these field service professionals has helped guide their companies away from slow, offline methods of operating into advanced, data-driven systems that improve safety and efficiencies. This whitepaper is an extract of the insights they shared at our webinar.

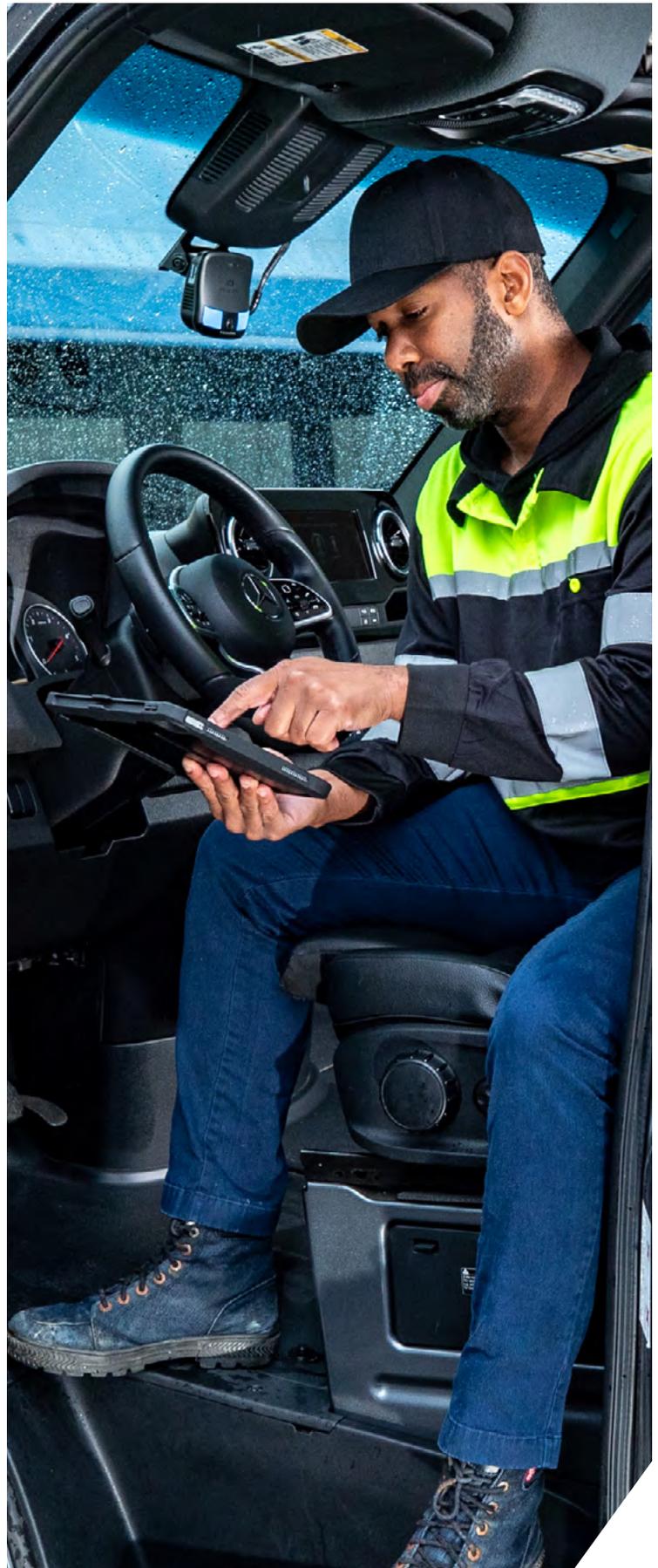
THE SPEED OF DATA IS ELEVATING FIELD SERVICE OPERATIONS

“The speed in which we get data has been the biggest improvement in field service operations,” says Mike Pelaez, Vice President Safety & Compliance for Airgas Dry Ice. “We get [data] instantly in real time, which helps our customer experience because we’re able to adapt and quickly solve problems, as opposed to waiting days.”

Over the past decade, the increasing speed of digital data has driven the improvements in field service operations. Rooms full of paper logs have been replaced with automated collection and analysis of telematics data, engine data, and more. Managers are now looking at sophisticated dashboards summarizing input from hundreds, if not thousands, of crew members and vehicles. And instead of having to wait days, this information is available in real time.

With near-instant data from [advanced fleet tracking software](#) and tools like weather and traffic alerts, logistics and dispatch teams can make better decisions, and ultimately managers are put in positions of knowledge rather than assumption.

Yet the velocity and sheer volume of data can overwhelm even the most well-run company. Here are five ways the experts in our webinar advised that fleets manage and wield data to improve operations.



#1: Leverage predictive analytics to improve efficiencies

Incorporating predictive analytics helps fleets shift to a proactive approach for functions like scheduling and resource allocation. For example, smart field service fleets are lowering failure rates by using alerts for [preventative maintenance](#). Vehicles and equipment are called in for maintenance based on specific thresholds (such as engine hours, mileage, or days/weeks in use), instead of waiting for them to fail in the field and having to disrupt operations and customer service for reactive repairs.

“We push all our engine data back to a fleet maintenance ERP system—this includes hours data, PTO data, DTCs, and more,” says Martin Baker, Safety Director, Transportation at Badger Infrastructure Solutions. “This helps our finance and maintenance teams plan orders and the build schedule because we know what asset is declining and what we can get more life out of. We make better decisions on what to push to a refurbishment program, what to retire, and what to build new. This has been huge. It has literally saved us millions of dollars in the long run.”

Also, predictive analytics can help fleets budget for jobs. For example, some larger fleets may estimate a job to be an 8-hour day and find out it’s actually 6 hours by geofencing their customers to track when vehicles are



arriving and departing. This helps managers understand the data for labor and assets, such as the actual time on the job site, instead of operating on assumptions. Most importantly, it ensures the fleet isn’t losing money and can safely service customers every day.

Predictive analytics can also help streamline customer service and reduce multiple-call events. Looking at customer call times based on topic, fleets can categorize service calls by either simple or complex. As calls come in, fleets can then proactively route simple calls to more junior representatives and more complex calls to senior reps. This improves time-to-resolve metrics, reduces call backs, and increases customer satisfaction.

#2: Choose specific data and metrics to improve performance

It’s impractical to try to measure all the data flowing into your fleet management system at high speeds—the goal is to make the large volume of data usable. And every field service company will have different operational targets they want to focus on and improve. That being said, there are some common metrics industry experts suggest that field service companies track, all of which are centered on safety and performance:

- Engine hours
- PTO hours
- Mileage
- Vehicle location
- Time on site
- Mean time to resolve (MTTR)
- First-time fix
- Accident exonerations
- Claims payouts

Roger Bias, Senior Global Field Operations and Process Improvement Manager for Catalina Marketing, spoke about how his company has taken a targeted number of key performance indicators (KPIs) to develop an advanced way to measure performance: “We’ve implemented something new called a process performance index, which drives continuous improvement. For example, let’s say a service provider is consistently hitting a 24-hour MTTR every month on a 35-hour goal. Even though they

are beating their goal, I can also see there is a 20% defect rate. This means 20% of customers are calling in and complaining, which kicks off a conversation with that provider about not prioritizing time over quality.”

On a related note, Pelaez suggests using a “single source of truth” for the metrics you decide to track and measure. He says, “At the end of the day, you’re reporting different information either to regulators or up to executive management. It needs to be right. Let’s say your fleet management system and ELD system calculate mileage slightly differently—you don’t want that number skewed by even a few miles. Make all your calculations from a single source of truth to know that you’re chasing the right numbers and have the quality and accuracy of data you need.”

#3: Use real-time data to improve decision making and operations



There are countless ways to leverage the power of real-time data, improving every aspect of your organization. Some top examples from industry insiders are:

“We use real-time telematic data post-sale to verify time or truck time with a customer,” says Baker. “But whenever we get into **emergency response**, that real-time data turns into a dispatch tool for us. In a crisis, information changes by the minute and our dispatch team needs real-time location and telematics data to find the closest truck to a call. For example, our incident commander saw a storm turn from Texas into Louisiana and made the call to shift all our trucks—it was like watching a movie seeing all those vehicles turn on the live map.”



Getting data in real time has been very beneficial for us, simply because it’s enabled us to employ predictive maintenance alerts. Our depot repair and inventory management systems are tied into our ticketing system, allowing our agents to view those assets. They receive notifications when repairs are due so we can address maintenance proactively.”

ROGER BIAS

Senior Global Field Operations and Process Improvement Manager, Catalina Marketing

Pelaez spoke even more broadly, “We use real-time data to keep our people safe. For example, Lytx’s real-time* weather alerts is huge, especially paired with traffic alerts. We can respond to storms as they happen and keep our people safe en route. Also, real-time video allows us to show officers at an **accident scene** what happened, so we can avoid false claims, tickets, and similar.”

#4: Integrate artificial intelligence (AI) and machine learning with field service data

Modern fleet management technology incorporates AI to automate different functions. For example, AI handles data mining. The technology can sift through the massive amount of data points a fleet generates each day and determine what is useful and accurate—which only improves over time with the power of machine learning.

Bias shares that Catalina Marketing uses AI to automate repeatable command lines for call center agents, saving them from handling lower value items such as retrieving customer records or recent transactions. The company also uses AI bots to support technicians, providing them with quick access to job information and training materials.

Lytx's machine vision and AI (MV+AI)[†] technology on dash cam devices improves safety. The MV+AI is constantly scanning and evaluating driving patterns to determine potential risk. Alerts help technicians and fleet managers correct distracted driving as it occurs, reducing risk in both the short and long term.

"When managers alone would watch dash cam video, they would have different opinions on what they saw," notes Pelaez. "Whereas Lytx's MV+AI classifies risk behaviors in a video consistently and accurately. This consistency helps companies figure out their riskiest behaviors. And all that time managers spent reviewing clips can now be used to go bond with their people and create relationships."

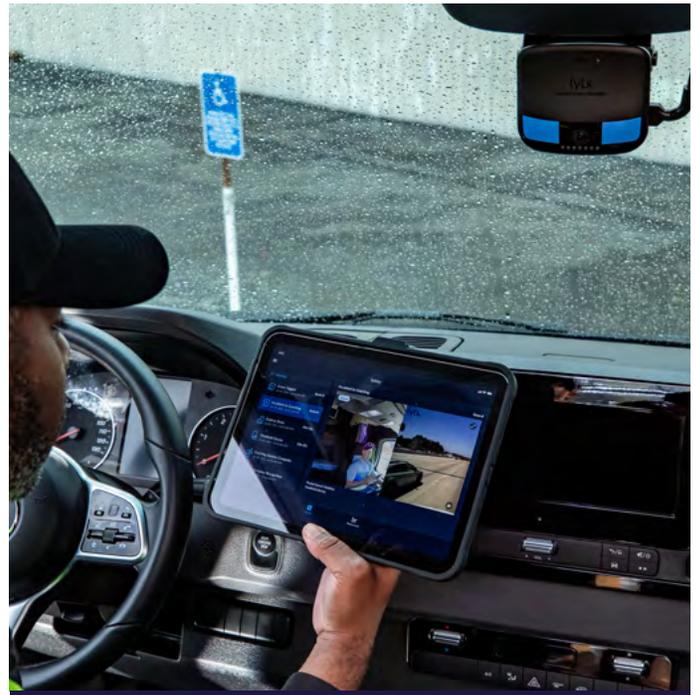
#5: Strike a balance between data automation and the human element

If your fleet has accurate, relevant data flowing in and out of its field service operations, you've built a solid foundation. Yet don't overlook the importance of building processes to help your team use and benefit from the data.

"The concern is that AI and technology is going to take jobs away," notes Baker. "We tell people it won't replace you—it will free you. You can do more things now that you enjoy."

Bias echoes that, saying, "What the data and automation does is take away repeatable work and allow our agents to work on higher value tasks. We tell our team that. They're not going to get bored doing mundane, repeatable work. [Data automation] allows them to grow professionally."

Another aspect of balancing data and the human element relates to [driver coaching](#). Coaching about risky behaviors



I've lost count of the driver exonerations. I stopped counting at about 40, and that was four years ago. There's no telling how many drivers the video safety technology has gotten out of citations or causes of crashes. That's where you get the buy-in."

MARTIN BAKER
Safety Director, Transportation
Badger Infrastructure Solutions

should be two-way conversations, versus just sharing video clips and engine data. And managers should realize that technicians are human—they're going to make mistakes and coaching effectiveness scores will never be 100 percent.

Video data can also build trust and buy-in within a fleet. Video clips reveal the truth of what happened during accidents to police officers, insurance agents, and lawyers, which saves the fleet thousands in claims. But from a human standpoint, it shows technicians how the technology can protect them.

THE FUTURE OF DATA AND TECHNOLOGY IN FIELD SERVICE OPERATIONS

The webinar closed with the experts sharing their opinions on which trends or technologies would make the biggest impact on the industry in 2025 and beyond. Here are their predictions:



I see AI continuing to grow and be implemented everywhere, in all kinds of ways. I think we're going to see major advancements on that front."

ROGER BIAS
Senior Global Field Operations and Process Improvement Manager,
Catalina Marketing



There's a huge shortage of people, especially long-haul truckers. Autonomous vehicles will meet that need in the industry. Not replacing jobs but filling those driver shortages for point A to B, excluding end-user deliveries. We're close to getting autonomous driving that will change everything."

MIKE PELAEZ
Vice President Safety & Compliance
Airgas Dry Ice



We currently have a lot of devices in our trucks. AI is going to push everything into one device in the future and get some of these devices out of people's faces when they're driving. The technology is going to advance exponentially toward an all-in-one-device."

MARTIN BAKER
Safety Director, Transportation
Badger Infrastructure Solutions

For more expert advice on building data-driven field service operations, watch the full webinar.

MEET THE EXPERTS



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* Subject to available cellular network coverage.

†MV+AI technology is a driver aid only. Drivers should never wait for a warning before taking measures to avoid an accident. The MV+AI distraction detection and alerting technology does not collect, store, or use any biometric identifiers or biometric information (e.g., scans of facial geometry) to detect distracted driving behaviors. See <https://www.lytx.com/driver-information>.