FleetLocate BY SPIREON

HOW THE NEW "IOT" WILL HELP YOU IMPROVE TRAILER HEALTH AND OPTIMIZE UTILIZATION

"A New Take on IoT: Information on Trailers"

Managing a transportation business often means operating on razor-thin margins. It's why you increasingly rely on data analytics to point you toward the operational efficiencies and cost-saving measures that keep your business in the black.

Your trailer pools are no exception.

The good news: While trailers historically don't produce significant amounts of data, they produce enough to drive necessary improvements in trailer health and trailer pools optimization.

THE DATA TELLS US THERE'S ROOM FOR IMPROVEMENT

A recent Texas Department of Transportation study found that 73 percent of all roadside trailer violations could have been predicted or identified during the pre-trip inspection process.

That's a sizeable number of avoidable CSA violations.

What's more, a close look at the FMCSA data SMS data reveals that certain makes of trailers represent a disproportionate number of CSA violations. In the case of one 5,000 truck fleet we examined, one particular make of trailer comprised 36 percent of its trailer pools, yet accounted for 72 percent of its CSA violations. Meanwhile, another make, which made up 22 percent of the same fleet's trailer pools, represented only five percent of its CSA violations.

There's obvious room for improvement, here—and your trailer data can provide that clear path forward.

Where is this Information on Trailers technology headed? And, how might you benefit?

RETHINKING TRAILER HEALTH

Your trailers are a critical business asset—and timely maintenance can positively impact your bottom line. Of course, ensuring all of your equipment is in tip-top shape is difficult to do when performing periodic maintenance on a mileage or weekly basis.

That's because a range of factors can uniquely impact maintenance needs for any given trailer, including:

- Weather
- Location
- Trailer miles
- Trailer age
- Trailer make and model

With data-driven insights into trailer health, you'll be empowered to pivot from periodic maintenance to what's becoming more commonly known as condition-based maintenance. Meaning, your trailers will be serviced when scoring models—informed by your unique business rules—indicate that work is needed. This will enable you to prioritize trailers that represent your highest maintenance priorities, ultimately helping you reduce out-of-service time and total maintenance costs across your trailer pools, while improving driver retention and customer service delivery.

What's more, machine learning-powered trailer health models will predict the health of a trailer before dispatch ever assigns it to a load.

Today, and from within your TMS system, your trailer pools are simply represented by a collection of trailer numbers. Unless you have a yard manager physically inspecting each trailer, it's hard to truly understand which trailers in your pool should be dispatched and which should remain in the yard.

Trailer health modeling will solve that problem—enabling you to remotely identify the best trailer for any particular dispatch. It's an advance means you won't be so highly dependent on thorough driver pre-trip inspections—a process that can be somewhat subjective.

What other exciting data developments are on the forefront of trailer health?

Anonymized historical CSA violation datasets will identify which trailers are incurring higher-levels of CSA violations—and why. Leveraging location data overlays and integration with fleet management software:

- Dispatchers will assign the best trailer for a dispatch and minimize the chances of a roadside service failure
- "Drivers and managers will have greater insight into trailer health during inspections."

- Fleet managers will receive alerts to pull trailers out of circulation and into the shop for preventative maintenance at the right time vs the normal time-based trailer maintenance program
- Financial managers can better understand the total cost of ownership of trailers since not all miles are equal and not all trailers behave the same

What's more, this insight may indicate the quality of the trailer or the way it's being maintained, informing your maintenance program and future trailer purchases. How?

Most fleets touch trailers every three months based on a periodic maintenance schedule. Data analytics helps identify trailers that incur harder miles (city work with lots of braking and cornering), versus over-the-road trailers that just do point-to-point miles with little braking and cornering). For example, weighting miles by population density or traffic volumes or speed helps fleets understand that a trailer with fewer city miles needs to be services sooner than an over-the-road trailer with more miles irrespective of how long it took to accumulate the miles.

OPTIMIZING YOUR TRAILER POOLS

Do you have a clear understanding of trailer utilization levels at any given site—not to mention across your various landmarks, customer locations, and depots? If not, you're likely increasing your total cost of ownership.

And, you're not alone.

Trailer utilization data typically generates a bell curve distribution, illustrating that a small number of trailers are doing most of the work, while some are not being put into service at all. Sometimes, these parked trailers just don't look great, they're used for storage, or they're buried so deep that drivers can't get to them. But, sometimes, fleets simply don't recognize that their expensive assets have been sitting unused.

For example, our examination of one trucking company in a typical month found:

- Three trailers were dispatched for nine loads each
- Six trailers hauled eight loads each
- Eight trailers hauled one load a piece
- Eight trailers weren't dispatched at all

Given that these were fairly new trailers, there was no reason why they shouldn't have been placed into service equally.

If your intent is to replace trailers based on a periodic timeframe, this disproportionate utilization will impact both your trailer pools life cycle and your total cost of ownership.

Of course, equal distribution of loads across your trailer pools at any given location is one thing.

Ensuring you have the right number of trailers at each location is another.

Informed by data like customer order inventories, loads booked, and appointment times, you can arrive at the optimal number of trailers to retain at any given location.

Additionally, proportional analytics programs will empower you to predict the number of trailers required to deliver a particular number of loads in a week at any location—all in real time. Meaning, you can allocate your assets appropriately in response to shifting demands, ensuring your trailers aren't sitting idle and customers kept waiting.

Of course, seasonal factors play into these calculations, but, in general, we don't see consistent levels of utilization.

For example, we discovered that 11 percent of one company's trailers were simply not required at a particular location. In fact, a group of 25 healthy trailers sat for 30 weeks, because the location had been over-resourced. As a result, a smaller pool of trailers did the heavy lifting, while others, which were difficult to access, weren't put into service at all.

This is the kind of visibility into your trailer pools that can help you free up assets for use in other locations and, over time, reduce your total cost of ownership.

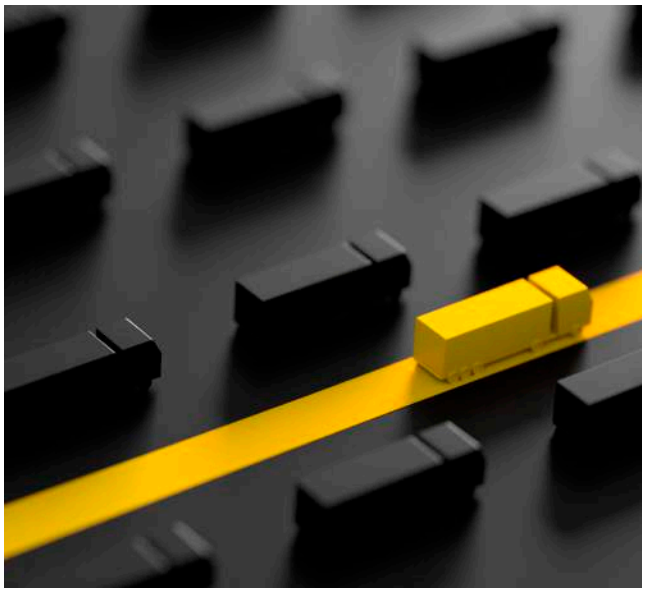
DRIVING BUSINESS RESULTS WITH CLEAR DATA INSIGHTS

Spireon provides transportation business owners with the powerful insights they need to track, manage, and protect their most valuable assets—including connected trailers.

And, with some major initiatives underway, you'll be empowered to make the data-driven business decisions that positively impact your bottom line.

Our roadmap includes:

- Smart trailer technologies that leverage trailer OEM integrations and data suppliers
- TMS integrations that push trailer data and reporting into TMS systems in real-time
- Machine learning-powered trailer health predictions that remotely identify the best trailer for any given load
- Trailer pool optimization insights that leveraging existing Spireon technologies



Want to improve trailer health and optimize utilization of your trailer pools? Call us at +1-800-557-1449. We'd be delighted to help you transform your business.

About Spireon

Spireon, Inc. is the industry's leading open connected vehicle company, providing businesses and consumers with powerful Big Data insights to track, manage and protect their most valuable assets. The award-winning Spireon NSpire open platform delivers rich information from any GPS connected vehicle or asset, converting that information into actionable insight. Headquartered in Irvine, CA, Spireon's open connected vehicle platform now supports more than three million active subscribers across the company's growing suite of product offerings for new and used car dealers, lenders and financial institutions, rental car agencies, insurers, consumers, and fleet, trailer and asset management.

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Date Founded: 2002

Number of Employees: Over 400 Full & Part-Time Number of Managed Devices: 3.75 Million