

Overcoming Fleet Tracking Challenges with Link Labs

Fleet tracking is a critical aspect of modern transportation and logistics operations. However, businesses often encounter various challenges when it comes to effectively managing and monitoring their fleets. Let's take a deep dive into three of the most common challenges and how Link Labs' AirFinder solution can help.

Challenge #1: Managing Trailers

When it comes to fleet tracking, managing trailers is one necessity that tends to pose quite a challenge for even the most sophisticated logistics operations. The reason this challenge exists is readily evident: fleets consist of large numbers of trailers, and those trailers travel across a wide span of locations. This makes it difficult to maintain full awareness of how trailers are being used and where they are at any given time. And while many trucks have telematics systems that can provide some information, those systems have limited visibility into connected trailers and no visibility at all into disconnected ones.

Flawed trailer management can lead to complications concerning **utilization**. Maximizing the use of available trailers is crucial to ensure cost-effectiveness and meet customer demands. However, due to its complexities, trailer utilization often gets overlooked, leading to some trailers being underutilized while others are hazardously overburdened.

Another significant challenge in trailer management is keeping track of **dwelt time**. Dwell time refers to the duration that a trailer spends at a particular location, such as a warehouse or a distribution center. Prolonged dwell time might indicate that a trailer has been overlooked, needing to be unloaded or placed back into use cycles. Again, the complications arise because of volume: the more trailers you have, the more difficult it is to notice when certain ones aren't in use. Dwell time is also linked to **yard management**, with the yard serving as a crucial link between warehouse and transportation. Improper yard management leads to misplaced trailers; misplaced trailers lead to increased dwell times and supply chain disruptions.

Theft and **unauthorized access** to trailers also pose significant challenges for fleet managers. Trailer theft is a persistent problem in the logistics industry, resulting in notable financial losses and operational inefficiencies. Unauthorized access to trailers can also lead to additional issues such as cargo tampering or pilferage. Once again, the question becomes, how can you effectively protect all your trailers when there are so many that you need to keep an eye on? And how do you continue to do so when they're in remote locations?



Challenge #2: Monitoring Cargo

Monitoring cargo poses another considerable challenge for logistics and supply chain management. Again, telematics are incomplete in this regard, and even most trailer tracking systems do not provide visibility at the box or pallet level. This makes it difficult to properly ensure the safety and integrity of goods throughout the transportation process, which is essential for customer satisfaction and operational efficiency.

One of the primary challenges in cargo monitoring is granular **location tracking**. Many companies focus on truck and trailer location, but overlook the value of tracking boxes and pallets within a trailer. Knowing the precise location of specific cargo at any given time is vital for effective supply chain management, as it enables companies to monitor the progress of shipments, estimate arrival times, and proactively address any delays or disruptions. It also helps to ensure that cargo is delivered to its proper location, especially when trailers are carrying for multiple locations at once.

Temperature monitoring is another key consideration when it comes to transporting cargo, particularly in regards to perishable goods. Maintaining the optimal temperature range throughout the journey is crucial to prevent spoilage and preserve product quality, but most companies monitor the overall interior

temperature of their refrigerated trailers and leave it at that. However, this provides limited data on the actual temperature of the products themselves, a feat which requires temperature monitoring on the box or pallet level.

Temperature isn't the only condition that poses a challenge to effective cargo monitoring. Cargo is often subjected to various external forces, such as **shock** and **vibration**, during transportation. Without proper cargo monitoring and risk mitigation, these forces can potentially damage sensitive or fragile goods without anyone even knowing. This begs the question: how can you know that your cargo has sustained damage on the road? That certainly isn't something that most fleet tracking systems cover, leaving the problem to persist with little hope in sight.

Challenge #3: Accessing Data

The ability to access fleet tracking data has the potential to revolutionize the logistics and transportation industry, providing valuable insights that can be used to make decisions about operational improvement. However, the process of obtaining and accessing critical data is laden with challenges that can make the analytics stage seem unreachable. This is particularly true when it comes to the facility aspect of fleet management.



Leaving the facility is a crucial event in the logistics process. It marks the beginning of the product transportation journey and triggers the collection of some of the most useful data. It's important to know which trailers and corresponding cargo have left the facility, and it's important to know where they go once they leave. Having access to this data can provide information about trailer use and delivery rates, as well as insight into what resources are available to ship remaining cargo. But without tracking on both the trailer and cargo level, it's difficult to know exactly what's leaving at any given time.

Another aspect of this challenge lies in the potential for **unauthorized usage** of trailers. Unauthorized usage occurs when trailers are utilized without proper authorization or outside of designated areas or timeframes. This is not the same as theft; rather, unauthorized usage implies that the equipment is being used by workers for work purposes, simply not in line with company policies. This can hinder the accuracy of collected data, with unauthorized access leading to resource mismanagement and process disruptions.

Additionally, managing an **automatic trailer count** is a valuable facility management tool that can pose challenges. Automatic trailer count refers to the ability to accurately determine the number of trailers available at any given

time. Inaccurate information about trailer availability can lead to inefficient resource allocation and planning. Most notably, it can lead to overspending on additional trailers if the company looks at the data and believes they do not have enough to cover the scope of their regular operations. The challenge lies in the inability to maintain visibility of unhooked trailers on most fleet tracking and telematics systems, making automated trailer counts difficult to enforce.

Addressing Fleet Tracking Challenges with AirFinder

As daunting as these fleet tracking challenges can be, they are not by any means insurmountable. With strategic applications of the right technology, your logistics operations can overcome these challenges and embrace your company's glowing future. Depending on the scope of your problems, these problems can even be solved with one base solution, such as Link Labs' AirFinder enterprise asset visibility solution for logistics operations. Whether you need more visibility of your trailer, cargo, or facility operations, our asset tracking system has the solution to your unique needs.

Non-Powered Tracking for Trailers

Many trailer management challenges are rooted in the lack of visibility of disconnected trailers. When trailers are hooked up to trucks,



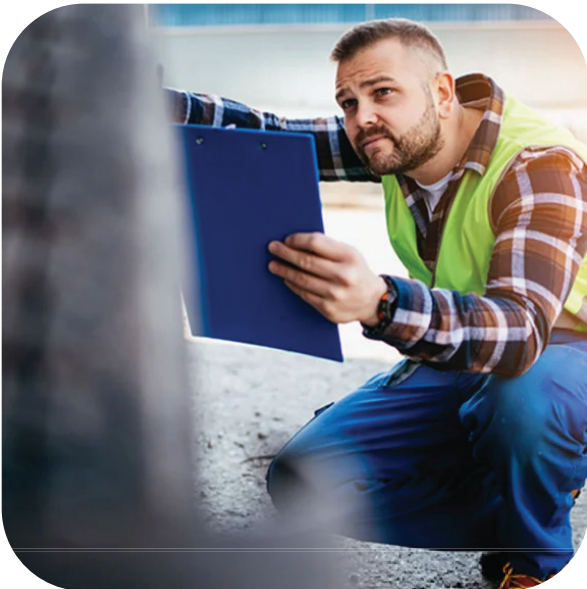
they can operate on the installed telematics system; they cannot do so when the truck is turned off or disconnected, leading to gaps in visibility. This incomplete visibility is what leads to improper utilization, extended dwell times, and even theft.

Our AirFinder system provides an excellent alternative for trailers that lack a continuous power source. Our solution utilizes advanced technologies to ensure seamless tracking without relying on external power or connections. This allows your company to never lose sight of your trailers, providing improved understanding into trailer location, availability, and dwell times. You can further guard against theft and unauthorized access with geofencing, which allows you to designate virtual boundaries and receive alerts when trailers leave those limits. If a trailer leaves when it is not supposed to, you can act quickly to prevent theft, with location tracking capabilities guiding you to the location of your trailer. This solution also helps improve productivity, providing understanding into how, when, and where trailers are being used and providing the data you need to make informed decisions about operational improvement.

Condition Monitoring for Cargo

Many companies do not attempt to monitor cargo at the box or pallet level because they do not believe it is possible. Indeed, most logistics-oriented tracking services focus on much larger scales, concerning themselves with where cargo is along the delivery route rather than within the trailer itself. But this large-scale focus is exactly what leads to challenges with monitoring granular location, temperature, and other conditions for specific cargo.

Link Labs' AirFinder solution can provide location seamless location visibility on both a large and small scale. By using our SuperTag Hub mode, our SuperTag asset tags double as an access point or gateway to monitor the location of other assets while in transit. With this strategy, you can achieve visibility of the boxes and pallets within your trailer to provide a record of product custody and successful delivery. Further, many of our tags can be integrated with condition monitoring sensors for temperature, shock, vibration, and more. This gives you insight to the condition of the products rather than the trailer, allowing you to ensure the integrity of your cargo and take action if something shows risk of damage.





Integration Capabilities for Improved Data

It has already been demonstrated how AirFinder can provide more complete data for fleet tracking efforts, both on the trailer and cargo level. More data naturally means more potential for analysis and informed decision-making. Non-powered trailer tracking in particular can lead to improved awareness of when trailers leave a facility, unauthorized usage, and trailer counts. But that awareness is only half the battle. A company's data needs to be in one place in order to conduct proper analysis, but many companies already have telematics, facility, and other systems in place to monitor other aspects of their operations. How do you keep track of all that data when it's coming from different sources?

The best solution is to simply integrate your systems. Our AirFinder solution is designed to integrate with your pre-existing systems, including telematics, company clouds, and more. Through this integration, you can collect and analyze collected information in a shared location, ensuring that each data point gets its due consideration. Not all companies work to provide these integration capabilities, but we understand the importance of simplifying your operations as much as possible.

Specialized Forms of Trailer Tracking

Fleet tracking will always include the aspect of trailer tracking, but not all trailers are created equal. Different types of trailers have different purposes and require different considerations. While there is still overlap, there are unique challenges that waste management and tanker trailers face that warrant specialized attention.

Waste Management Tracking

Managing garbage disposal vehicles requires detailed route planning based on dumpster locations and pick-up schedules. Usually, drivers follow a predefined route every day, but sometimes, traffic and construction can get in the way. In this case, it is more difficult to keep track of whether all dumpsters have been properly emptied.

AirFinder can help. By affixing tags to both the vehicles and the dumpsters, there is an automated record of all the dumpsters that the driver has come in contact with. This also allows waste management companies to maintain records of how often specific dumpsters are emptied, as well as how many dumpsters a driver encounters on any given day. This information can then be used to make informed decisions about routes and planning in the future.



Tanker Tracking

At first glance, the basic challenges of tanker tracking are the same as general trailer tracking. There needs to be usage and location visibility in order to ensure that resources are being properly allocated and shipments are arriving on time. However, there is an added challenge in that these tanker trailers often contain potentially hazardous substances such as fuels or chemicals, both of which are highly susceptible to theft. We've already discussed how AirFinder can help with standard trailer tracking challenges, including location and utilization monitoring. But AirFinder can also help with safety compliance and tampering detection. By enabling shock and other access control sensors, companies can receive alerts when there is unauthorized access to the tanker. They further have a record of driver behavior that can be provided if a regulatory body demands documentation.

Embrace the AirFinder Difference

Here at Link Labs, we take the time to understand your company's unique challenges to help you implement the best solution for your needs. Whether your logistics company struggles with any of the above challenges or has other fleet or trailer tracking problems to solve, we have the tools and technology to help. [Visit our website](#) to learn about how our fleet tracking and other logistics solutions can help your company today!