

Enhancing Telematics Systems with RTLS Trailer Tracking

Within transportation and logistics operations, telematics is a popular method for managing assets and optimizing processes. Telematics refers to the use of GPS and other technologies to collect data on the location and condition of assets, such as trucks, trailers, and cargo. This data can be used to improve fleet management, monitor driver behavior, and optimize routing and scheduling. However, as valuable as telematics can be, it has its limitations. That's why it's essential to supplement your telematics system with RTLS asset tracking for trailer tracking.

What is a Telematics System?

Telematics is the use of telecommunications and informatics to transmit data from remote sources to a central location. These systems comprise hardware, software, and communication networks to collect, analyze, and deliver data gathered with trackers, sensors, and cameras. Within fleet management, telematics systems use GPS tracking and cellular or satellite communication to provide data on vehicle location, speed, fuel consumption, and other metrics that can be used to understand and improve logistics processes.

What is RTLS Asset Tracking?

RTLS asset tracking uses a combination of technologies to track the location of assets in real time. Unlike telematics systems, which only track the location and condition of vehicles, RTLS asset tracking can also be used to directly monitor assets contained within those vehicles, such as individual products, pallets, crates, or equipment. Its versatility in being able to track assets on a variety of levels across a variety of scopes is a defining distinction. In other words: you can monitor your trailers and the specific contents of those trailers at the same time.

The Limitations of Telematics Systems

Although telematics systems are an essential part of fleet management, they still have limitations that can hinder their effectiveness, especially in the realm of trailer tracking. While these systems can provide valuable data on trailer location and movement, their capabilities are limited in some key ways. This includes:

Coverage Limitations

Telematics systems rely on cellular or satellite networks, which may not have coverage in all areas. This can result in missing or incomplete data at crucial junctures, especially depending on where a driver's route takes them and how long their route is overall. Also, telematics systems are limited within the bounds of the truck and trailer. On their own, they cannot account for movements in individual assets, pallets, or other smaller units of cargo that might pass between



different trailers during transit routes. The location technology used by these systems is simply too oriented toward large-scale tracking to manage more minute coverage for the smaller assets that trailers contain.

Accuracy Limitations

Similarly, telematics systems may not provide precise location data, especially in areas with poor network coverage or obstructed GPS signals. You can only have so much control over whether you have coverage in the areas that you're passing through. In fact, the only potential workaround to this would be to try to favor roads passing through areas with good coverage, which is an unrealistic effort in futility and a general waste of time. While passing through these obstructed areas, telematics systems cannot achieve full accuracy. Further, accuracy limitations also apply to an inability to retain visibility of single assets or pallets within a trailer. While this might not immediately seem like a problem, it's important to be aware of what's happening to a product that might affect its quality or ability to be delivered.

Visibility Limitations

Perhaps the biggest limitation of telematics is that these systems are reliant on connection to an external, active power source. When trailers are connected to a truck that is turned on, you maintain location and condition visibility. However, if a trailer is disconnected from the truck or the truck is turned off, there is no power source that the system can rely on to collect and transmit that important data. This limits the ability of a telematics system to account for stolen or misplaced trailers. With this limitation, it becomes nearly impossible to recover stolen trailers, and locating misplaced units can take massive amounts of search time that could have been used more productively. After all, it's not easy to locate an asset that can be parked at quite literally hundreds of locations, approved or otherwise.

Benefits of Supplementing Your Telematics System with RTLS

By supplementing your telematics system with RTLS asset tracking technology, you can address many of these limitations in a way that works with your pre-existing systems. This way, you can have the benefits granted by telematics without having to worry about their limitations. Some of the benefits provided by supplementing your telematics system with RTLS include:

Increasing Asset Visibility

You can never have too much asset visibility. RTLS systems use a variety of technologies to provide highly accurate location data on multiple scales and across a range of connectivity levels. This helps address the first two limitations of telematics systems: different location technologies







allow for greater coverage, which leads to greater accuracy. Also, RTLS asset tracking can be applied on a smaller level to maintain insight to the location and condition of individual assets and pallets located within trailers rather than just visibility for the trailer as a whole. This can help ensure product quality and safety, creating an all-around more reliable logistics process.

Improving Data Collection

RTLS data can provide additional information on asset location and movement that may not be available through telematics systems. While this might be considered a more indirect concern for telematics systems, data collection is vital to improving operations and remaining competitive in the market. Data helps businesses make informed decisions, identify patterns and trends, and improve their processes. While telematics can account for data concerning driver behavior, fuel consumption, and trailer status, RTLS asset tracking can provide improved data for both asset location and a number of asset conditions.

Ensuring Real-Time Updates

RTLS trailer tracking even has an answer to the most glaring shortcoming of telematics systems – they don't require connection to a power source in order to operate and continue providing real-time location and condition data. RTLS asset tracking solutions have their own internal power source that allows them to continue operating even when a trailer is disconnected from a truck or the truck it's connected to is powered off. This means that you never lose visibility of your trailers, and you actually have a reliable method for locating lost or stolen assets. With the guarantee of improved and expanded real-time updates, you can rest assured that your assets are secure and that you won't have to spend precious time and money replacing them.

Improve Your Trailer Tracking with RTLS

Link Labs provides a connected trailer tracking solution that your logistics operations can use to enhance the capabilities of your telematics systems. Don't have a telematics system, and you're interested in a cheaper alternative instead? We can do that, too! To learn more about how our AirFinder Everywhere product can help your trailer tracking needs, **visit our website today!**