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CONNECTING THE WORLD'S ASSETS

How to Measure the ROI of a Reefer Management Solution

Deciding on the right reefer management solution requires a lot of planning. From the tracking device to the web interface that provides the analytics and reports to integration with dispatch systems, there are many aspects to consider.

But without a doubt the most important aspect you should consider is whether you are going to derive enough return on investment (ROI) to justify the solution. This guide is designed to provide the tools you need to calculate the ROI for a reefer management solution.

Calculating Savings from your Reefer Solution

When looking at a good reefer management solution, there are five areas for potential savings. It's important to evaluate each one carefully to see how they affect your business.

1 LESS FUEL CONSUMPTION

Detecting rapid fuel loss: Fuel theft not only causes an immediate operation cost, it can put a shipment at risk of spoilage if there's not enough fuel to keep the cargo at the right temperature before delivery.

A good reefer management solution will offer the ability to read data from fuel sensors and send alarms in the event of a rapid fuel loss.

Detecting improper fuel invoicing: Sometimes there's an inconsistency between how much fuel is put into the tank and how much is invoiced. Detecting the discrepancies can further reduce fuel costs.

A good reefer management solution will be able to import electronic refill records from fuel suppliers and compare with the fuel measured by the fuel sensor in the vehicle. Mismatches due to overcharging, error or bogus invoices can be investigated and resolved.

Eliminating unnecessary continuous run usage: Unless you are carrying pharmaceuticals or temperature sensitive produce, carriers can achieve greater fuel savings by running in start/stop mode rather than continuous cooling mode. Switching to start/stop mode can reduce fuel consumption by as much as 50%.

A good reefer management solution will track whether the refrigeration unit is operating in continuous or start/stop mode. It will allow the dispatcher to switch between modes

by sending a command directly to the vehicle or messaging the driver to change mode.

Detecting extended reefer usage: A carrier expects that a trailer will be cooled, loaded, sealed and immediately start on its journey. This doesn't always happen. Sometimes shippers cool the trailer, load it partially and then leave the reefer running until they are able to fully load it. Other times, the reefer trailer is used as a storage facility. In both cases, the carrier is left with the fuel bill to keep the reefer cool.

A good reefer management solution allows the carrier to track the usage of reefer at the yard. It can track when the reefer was turned on, when cargo doors were opened for loading and how long the reefer was left on while still in the shipping yard.

2 LESS VEHICLE MAINTENANCE

Preventative maintenance when required: Many carriers use calendars to dictate when maintenance on a trailer should be done. They assume that if maintenance needs to be done every 3,000 hours, a trip to the repair shop every 12 months is sufficient. But preventative maintenance may be occurring either too early or too late using this method.

A good reefer management solution will track the engine hours and mileage driven. If a vehicle is underutilized, preventative maintenance can be delayed. If a vehicle is being overused (or abused, like when it is used as cold storage at a depot or impact is detected by the accelerometer on the tracking device), preventative maintenance can be scheduled earlier. Preventative maintenance based on engine hours and miles driven decreases engine maintenance and tire replacement costs, and it extends the lifetime of the trailer and warranty period.

3 LESS LABOR

Remote reefer activation and checks: Having staff walk the yard to turn on reefer units in advance of loading is not a wise use of labor. Similarly, having people walk around the yard to change the temperature set points or check the status of reefers is time consuming and expensive.

A good reefer management solution can quickly locate a trailer and, with two-way communications, turn a reefer unit on or off. The ability to quickly pinpoint the location of a trailer also reduces the time that yard staff and dispatchers spend looking for misplaced trailers.

Third-party integration: Integrating trailer information with other transportation software systems eliminates the need to switch between applications. It also reduces frustration and the errors that can occur when manually checking or inputting data from one system to another.

A good reefer management solution offers third-party integration with dispatch, in-cab and tire pressure monitoring (TPMS) systems.

It the case of dispatch software, integrated trailer information allows the dispatch system to be the main interface and provides all the information that a fleet manager or dispatcher needs from the reefer management solution.

A good reefer management solution also allows a dispatcher to send commands from the dispatch system to perform functions like turning the reefer unit on or off, changing temperature set points, polling the location of the trailer and much more.

Preventative maintenance based on engine hours and miles driven decreases engine maintenance and tire replacement costs.

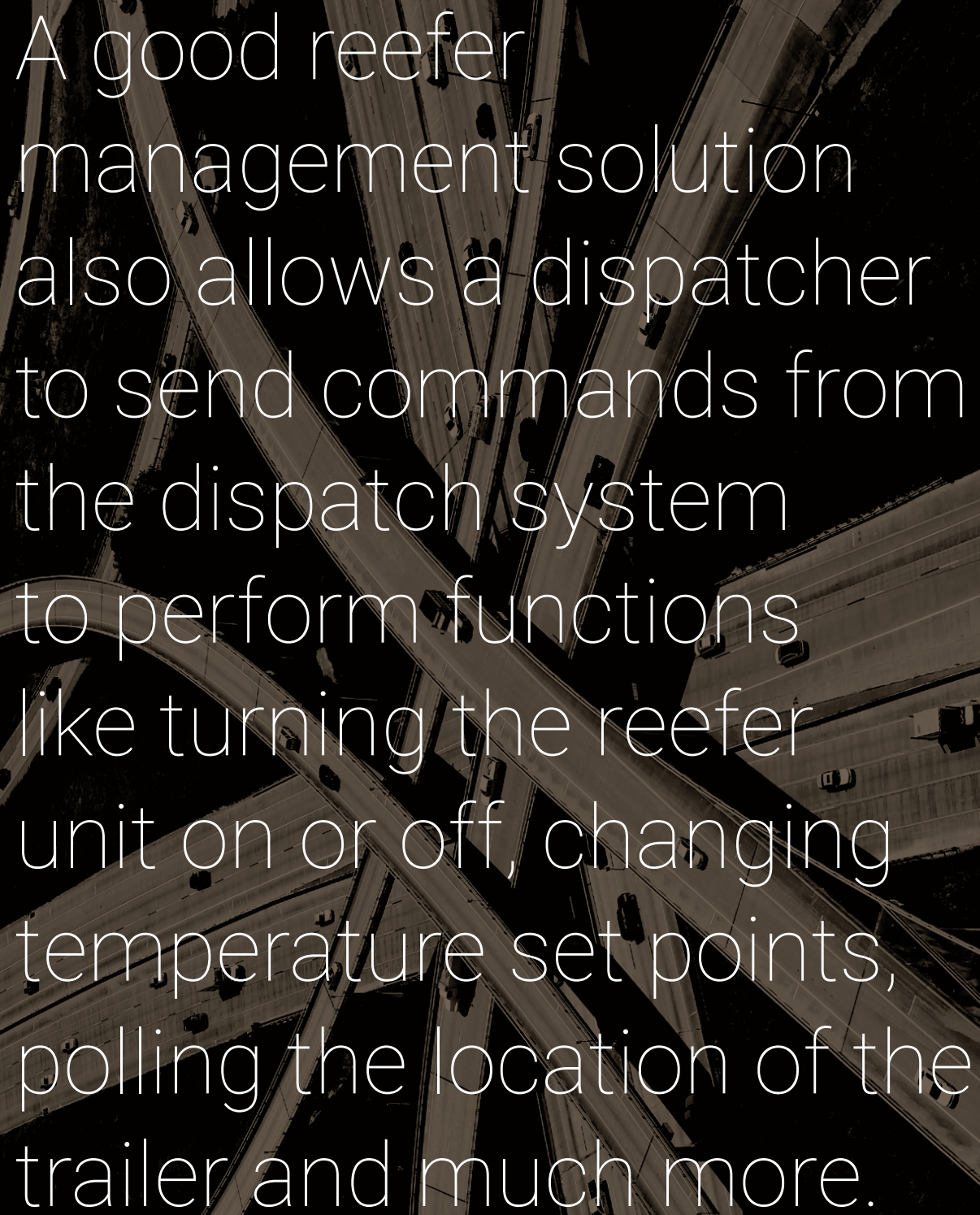## 4 FEWER CLAIMS, LESS LOAD AND TRAILER THEFT

Reduced cargo/trailer theft with trailer lockdown: Sometimes a tractor will break down and need to be serviced. It's not always possible to have the trailer towed with the tractor, so it has to be parked, leaving it (and the cargo) susceptible to theft.

A good reefer management solution allows the dispatcher to put the trailer in "lockdown" mode. A local geofence is placed around the trailer and the dispatcher gets immediate notification if the trailer moves outside the geofence.

Reduced claims due to spoilage: Sometimes there are temperature set point mismatches between the load/order requirements and the actual trailer temperature. This increases the risk of spoilage if the temperature of the cargo gets too high or too low.

A good reefer management solution allows the dispatcher to see the temperature in the trailer and sends an alert if it's

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outside of the allowed variance. Two-way communication allows the temperature to be reset by the dispatcher or allows communication with the driver to adjust the temperature.

dispatcher, but efficient and profitable regional, national and international carriers need telematics to track the location of vehicles to ensure maximum utilization.

A good reefer management solution allows the dispatcher to quickly track the location of refrigerated vehicles and pinpoint ones that have been idle for too long. It will provide reports like dwell time and average utilization so fleet managers can work on reducing the fixed Cost Per Mile (CPM). Reducing the fixed CPM not only increases profits, but also enables fleet owners to do more with their existing fleet of refrigerated vehicles.

5 TRAILER/CONTAINER OPTIMIZATION

Reduced dwell times: If your refrigerated vehicle is stationary or parked in a depot somewhere, it's not moving freight, so it's not making money. It's easy to keep track of a small fleet of refrigerated vehicles with paper and a good

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Need Help Calculating Your ROI for a Reefer Management Solution? Get a free ROI checkup from the experts.

Let us walk you through an ROI analysis of our solutions. We'll look at your specific requirements and tabulate the initial investment, recurring costs and potential savings that an ORBCOMM reefer management solution can deliver.

It's the best way to get the information you need to make smart decisions about your reefer management. ORBCOMM is a leader in the refrigerated transportation market. With a majority market share in the U.S. refrigerated rail and truckload markets, ORBCOMM provides complete end-to-end solutions for two-way wireless tracking and monitoring of reefers, trailers, containers, rail cars and gensets.

ReeferTrak, ORBCOMM's two-way reefer management and control system, interfaces with Carrier Transicold and Thermo King refrigeration units, provides dual satellite-cellular communication capabilities and all the reports, events and alarms needed to provide superior refrigerated transportation services, reduce fleet operating costs and ensure compliance to regulations.

ORBCOMM tracks more than 100,000 assets in the field, so it's no surprise that companies like Werner, Decker Truckline, John Christner Trucking and more have chosen it for their refrigerated vehicle tracking and monitoring solution.

Get your ROI checkup: e-mail us at sales@orbcomm.com

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