

Challenges and Solutions for Temperature- Controlled Carriers

How to Use Software Technology to Master the Critical Business Issues

BY RICK HALBROOKS



The tough hurdles that come with transporting temperature-sensitive freight mean that there is intense pressure to make the right business decisions every step of the way. A misstep can mean large swings in costs and significant drops in profitability. Today the game-changer

for temperature-controlled carriers is the intelligent use of software technology. How do the leading companies in this industry segment

use software tools to succeed? What are the fundamental challenges and the best solutions? Here are our answers to those vital questions.

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The Critical Business Issues

1. Keeping the trailers at the required temperatures.

The need to control the temperature of the trailer is obviously a primary issue, but don't take that to mean that it's a simple matter. For one thing, there can be a very narrow tolerance for temperature variation, depending on the product. Some carriers have had damage claims filed after hauling bananas even though the temperature varied only two degrees from the set point. There are also times when both refrigeration and heating may be needed. If you carry lettuce from California to the Midwest, you may load the produce on a hot day in California's Central Valley and then encounter below-freezing temperatures while crossing the Rocky Mountains. You must have the equipment that will allow you to cool the trailer and heat it up as needed, because if that lettuce gets either frozen or baked, you'll be "eating" a lot of lettuce.

2. Avoiding detention

Temperature-controlled carriers routinely deliver loads by appointment, because this is the best way to ensure that the freight is unloaded as quickly as possible after a truck arrives at its destination. Everyone is eager to get the freight back out of the trailer and into a storage facility where the environment is carefully controlled. If you miss your appointment, you're in danger of

being detained for hours or even days as you wait for another opening at the loading docks. The costs of detention are increased for temperature-controlled carriers because asset utilization is more critical and there are the added fuel costs of running the refrigeration and heating unit while being detained.

There will also be times when your truck is detained even though it arrived on time. This can happen when there is a backlog of deliveries occurring. In these cases, you want to have the technology that allows you to document your detention time so that you can charge fees to recoup your losses. The software should automatically send the data to your billing department and instantly notify you and your customer as soon as the trailer is finally loaded or unloaded. Even more important is the fact that assessing detention fees can work to make it less likely your trucks will be detained again in the future.

3. Maximizing asset utilization

Temperature-controlled trailers cost two or three times as much as dry-van trailers and last only half as long. The initial price tag is higher because, in contrast with the simple shell of

dry-van trailers, temperature-controlled trailers must be constructed to provide a thick layer of insulation all around. There is also the cost of the refrigeration and heating equipment and the alternate fuel tank that is used



to provide fuel to power this equipment.

The higher level of investment in assets means that temperature-controlled carriers feel more

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pressure to maximize these assets. More money is at stake when it takes longer to get a truck unloaded, reloaded, and back on the road. Deadhead miles cost more money. Dwell time issues, such as traffic delays, mechanical breakdowns, and driver rest periods, weigh more heavily on the bottom line. To make matters worse, temperature-controlled carriers operate with a tighter tractor-to-trailer ratio than dry-van carriers. Having fewer trailers available presents additional challenges. All of this makes asset utilization even more critical, because everything must be managed more precisely in order to maintain a reasonable level of profit.



4. Minimizing claims

The risk of being hit repeatedly with costly claims for damaged goods is heightened for temperature-controlled carriers because the freight can be both extremely expensive and highly fragile. If one of your trailers is packed full of fresh strawberries, fine chocolate, or some other pricey commodity, there's a lot of money at stake. A load of expensive meat can be worth a quarter of a million dollars. Let the temperature get out of range at any point while hauling that load, and you may have lost it.

The challenge is not only keeping the temperature within the specified range, but being able to prove that you've done so. The key here is to have tools that can record temperatures within the trailer throughout the trip. If there is a problem with the freight upon delivery and you can show that

you did your job in terms of maintaining the right temperature range, you may avoid a claim. In this case, it may be that there was something wrong with the goods before they were loaded onto your truck. In all cases, claims must be managed quickly, because the goods in question are usually perishable and have a short shelf life.

5. Monitoring tractors

Mobile communications technology has become a standard tool used by trucking companies of every sort. Everyone recognizes the value of being able to communicate with drivers and track truck locations. For temperature-controlled carriers, the value is magnified, because the loads are more time-sensitive. There is even greater emphasis on making deliveries on time, both in terms of preserving the cargo and in terms of avoiding detention.

6. Monitoring trailers

Temperature-controlled carriers take mobile comm capabilities a step further and monitor trailers as well as tractors. In this case, the primary issue isn't the trailer's location, because that can be tracked by monitoring the tractor's location. The point is to have real-time data on the temperature inside the trailer. When intermodal freight is involved, the ability to monitor the temperatures in the trailer becomes even more critical.

If a refrigeration unit fails, hours may go by before the driver notices. Someone other than the driver needs to have access to real-time temperature

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data, so that the driver can be contacted quickly and steps can be taken to protect the freight. Monitoring the temperature constantly also protects against having the temperature set incorrectly by the driver and it provides a record that can be used to refute unwarranted claims of damage.



appointed time. Temperature-controlled carriers, which are more likely to have their drivers handle loading and unloading live, can't drop and hook as easily. The result is that more care and the right software are required to ensure that the right load is on the right truck, so that the need for dropping and hooking is curtailed and out-of-route miles are minimized.

7. Managing drivers' hours of service

Every trucking company has to find a way to juggle schedules to accommodate the hours of service (HOS) limitations placed on drivers. With dry-van hauling, there are many occasions when a problem arises during the course of a load and the solution is simply to let the shipper know that the delivery will be a few hours late. For all of the reasons already mentioned—fragile freight, costs of running the refrigeration or heating unit, and so on— this is generally not a viable option for temperature-controlled carriers.

If a dry-van driver gets delayed and then is facing an HOS cap that will mean missing an appointed delivery time, the carrier will often arrange to have the trailer dropped and hooked to a new tractor and driver. This can allow the freight to be delivered on time, or at least much closer to the

8. Containing fuel costs

When you need fuel for two purposes—to run the tractor and to power the temperature-control unit on the trailer—you become even more sensitive to the impact of fuel costs. There are various strategies for containing fuel costs, such as finding ways to get the lowest prices available, reducing out-of-route and deadhead miles, and ensuring your tractors are getting the best miles-per-gallon possible. Using extremely large quantities of fuel means that if you find ways to reduce your fuel costs, your savings can also be extremely large.

And it's not only that temperature-controlled carriers use more fuel, they also have a more complex formula for calculating the fuel surcharge, and the formula may be different for every customer. In order to ensure that you're

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getting fully reimbursed whenever fuel prices spike, you have to have a good handle on how much fuel you're actually using. The key here is having good dispatch software that will collect all of this data on fuel and generate reports that show you how it all breaks down.

9. Maintaining pallet inventory

Temperature-controlled carriers tend to use pallets for every load. Pallets allow air to circulate under the freight, which helps to ensure a uniform temperature for everything in the trailer. The trailers are constructed to facilitate a certain degree of airflow under the freight, but

a pallet offers substantially more open space.

Pallets are an expense, so you don't want to regard them as disposable. The chore is to keep track of what you deliver and what you get back. Whenever you drop off a load, you want to leave with as many empty pallets as you just unloaded. In the years ahead, pallet tracking will become even more important, because new pallet technology is bringing longer lasting and more durable pallets that are also more expensive.

10. Complying with food safety regulations

Given the strict governmental regulations regarding food safety, temperature-controlled carriers may need to take extra precautions when transporting food. For example, in some cases trailer doors are sealed after the trailer has been loaded, and that seal must remain unbroken until the load is delivered. If the seal is broken, the entire load may be rejected as spoiled, regardless of the condition of the freight. The need to observe such strict rules of compliance just ups the ante a little more.



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Using Software Technology to Master the Challenges

Any company that is already maintaining a steady flow of business as a temperature-controlled carrier is clearly meeting many of these challenges successfully. The bar is raised higher in this segment of the trucking industry and mismanaged carriers don't survive. Still, there is a difference between merely meeting a challenge and mastering it. Some temperature-controlled carriers have risen above the others and are at the top of the game.

If you could analyze the business practices of these industry leaders to see what gives them the edge, the first thing you would discover is that they all make ample use of sophisticated technology. In the world of temperature-controlled carriers, technology is both more valuable and more necessary. You don't stay in business if your management style is to run things by the seat of your pants, keeping facts and figures in your head or on scraps of paper that you leave lying around. The companies that know how to utilize technology are speeding past those that don't.

Of course, technology is a tool and to get any advantage from a tool, you have to use it intelligently. Here are some of the areas where the industry leaders use technology intelligently to master their business challenges:

Trailer temperature and food safety compliance

Sensors within trailers monitor the temperature, then mobile comm connections transmit the readings back to the central office. By establishing limits to these temperature readings, problems can be managed by exception. Rapid alerts are sent to someone in charge whenever a trailer is in danger of failing to maintain the required temperature range. This way, problems can be proactively addressed before a

threshold is crossed that could cause damage. A record is kept of the temperature throughout the time that the freight is being hauled, and this documentation can be crucial in preventing damage claims and ensuring that food safety regulations have been met. Mobile comm technology can also be used to monitor trailer doors that were sealed after the freight was loaded. You will be able to document precisely when and where the sealed doors were opened.

ETA and detention

Dispatch software can use mobile comm data to track the progress of each load. If there is any danger of missing an appointed delivery time, rapid alerts go out, and if a driver's HOS come into play, this will be noted. By using a real-time ETA notification tool to get advance notice of a possible missed appointment, you can reschedule before it's too late. Also, if your truck is on the lot and being detained, automated e-mails or faxes can be sent as reminders that detention is occurring. This may get the attention of the people who can take immediate actions to solve the problem. This is a classic example of the squeaky wheel getting the grease. The use of ETA alerts shows again how managing by exception makes it possible for one person to keep tabs on a large number of loads. Attention and action is required only when something veers out of schedule. The software monitors all of the loads and no one needs to worry about the ones that are keeping to their schedules. The software will also monitor and document any detention that occurs, so that detention charges can be submitted per agreement.

OOR and deadhead miles

Out-of-route and deadhead miles hurt the bottom line directly, so reducing these miles is particularly valuable. Current state-of-the-art dispatch software offers assistance with both of these issues. By monitoring tractor position, dispatchers can know immediately if a truck is veering out of route, and steps can be taken to address the issue quickly. Finding the best back haul can be a tough game, but

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you have a leg up if you can rely on a good software system to help you find and choose the load that best suits your needs. The goal is to make the best use of your assets, and dispatch systems help you minimize the distance you must travel to get freight into the your freshly unloaded trailers.

Fuel costs

Everyone wants to get the best price on fuel, but it's not an easy thing to do. However, optimization software can make it seem easy. By tracking the price of fuel at every truck stop on the continent, a fuel optimization program can show you where you should purchase fuel along your route and how much you should buy at each place you stop. The result can be savings of a few cents per gallon, which translates into thousands of dollars in savings each month when you account for the number of gallons a fleet of trucks uses each month. A good trucking software system will also facilitate the complex work of calculating a fair and accurate fuel surcharge.

Pallet inventory

The mobile comm unit can be used to remind drivers just how many pallets they should retrieve when delivering a load. Any questions about where pallets are, how many you have, and whether you need

to order more, can be answered with the click of a mouse. Your system will have all of that information.

Profitability

It can really help to know which accounts are profitable and which are not. You probably don't want to keep hauling freight for a shipper that turns out

to be only marginally profitable, and you certainly want to know if any of your accounts are causing you to lose money. If your trucking software has the ability to provide profitability analysis, you can see how your accounts stack up. In these times of surplus freight, the smart move is to be more selective. Unprofitable customers who won't agree to a rate increase should be let go.

Marketing

Trucking software can even be used to support marketing efforts, because the system will allow you to document your success. For example, you can

generate reports that show your on-time success and use these to sell your services to shippers. On-time success is one of the most highly prized characteristics sought by shippers who need to move refrigerated cargo. Say that a potential customer is looking for a 95% on-time rate. If you can show that you're at 97%, you're golden. You've just secured yourself a new account.



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McLeod Has the Solutions

The stakes are higher for temperature-controlled carriers. More money is tied up in assets, more fuel is spent delivering each load, and more risk is taken with the expensive and fragile freight. But there's a flip side. A higher profit margin can be obtained if the business is managed well.

McLeod Software is ready to help. We offer products that address all of the critical business issues faced by temperature-controlled carriers. With our software solutions and your management skills, success is guaranteed. The sky is the limit.



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**We can help you and your business
do more, more profitably, today!**

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