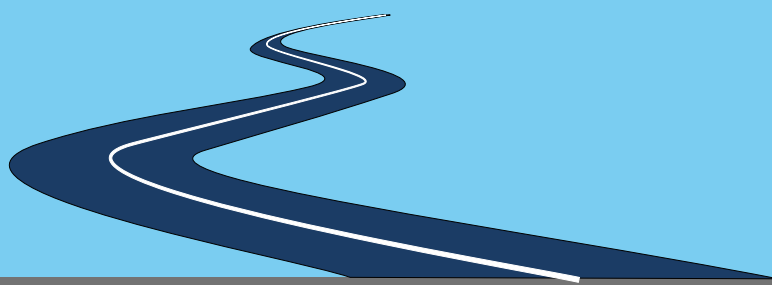


PUTTING AN END TO EMPTY MILES

Q&A with SemiCab Chief Product Officer,
Vivek Sehgal

Volatility and empty miles have been twin banes of the freight industry since day 1. Both result in creating network-wide inefficiencies that affect all members of the freight industry. These inefficiencies, if resolved, can result in a more efficient, profitable, and improved experience for all stakeholders. The industry is recognizing that technology may be the answer. This is clearly reflected in the growth of new companies in the “freight-tech” sector over the last few years.

We spoke to SemiCab’s Chief Product Officer, Vivek Sehgal, to understand what role technology plays in addressing the industry’s biggest challenges, and how SemiCab, a Collaborative Transportation Platform (a term coined by [Gartner](#)) may help. Here’s what Vivek had to say.



Q: WHAT IS BEHIND THE VOLATILITY AND EMPTY MILES THAT HAVE PERSISTENTLY CHARACTERIZED FREIGHT MARKETS?

A: Let’s take a look at volatility from different perspectives. For a shipper, volatility is a lack of reliable supply at predictable prices. For a carrier, it is a mirror image: lack of stable demand at profitable rates. One key difference is that demand is generally stable in a geography (shippers keep shipping in the same lanes over long periods of time since their supply chain networks evolve slowly) even as it may have time-based patterns, but supply (trucks) is always on the move and therefore continuously shifts in time and space. This is a unique characteristic of this industry which causes initial volatility.

Temporary geographic imbalances between demand and supply affect prices, pushing them up in areas where there is more demand than the number of trucks and vice-versa. These price changes further affect behavior as carriers want to get to an area with higher prices, which adds capacity and in turn abates those higher prices. The demand-supply-imbalance hotspot moves to another geography and the cycle continues!

As carriers chase higher prices, they may be adding extra empty miles to earn a few extra dollars, but in the process, they are also moving capacity unwittingly. In some cases, carriers may be declining contract-based loads from shippers to move their trucks to high-demand areas. This forces shippers to look for spot-capacity, raising spot prices and busting their budgets in the process.

Some variability does exist in demand, but the freight industry’s unique characteristic of physically moving supply (trucks) makes the demand-supply equation much more volatile than in other industries. This affects pricing, further exacerbating the situation.



**EMPTY MILES + VOLATILITY =
FREIGHT INEFFICIENCY**

Q: HOW DOES THE GROWTH OF ECOMMERCE IMPACT INEFFICIENCIES IN THE FREIGHT INDUSTRY?

A: Ecommerce growth means we have an expanding network of locations: distribution centers, stores, and e-commerce fulfillment centers that are being placed closer to consumers in order to fulfill customer orders reliably, and within hours. This has created new transportation demand for short and mid-haul routes that barely existed a few years back.

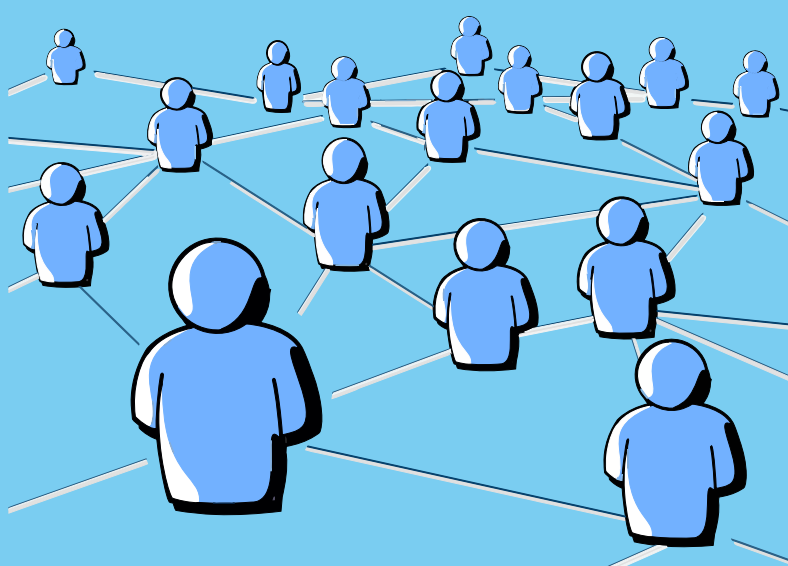
Unfortunately, short-to-mid haul routes are unattractive to carriers since it makes their assets less productive as trucks sit waiting for loading or unloading at the docks, instead of running. In turn, retailers are forced to build their private fleets or to get into dedicated fleet arrangements with carriers. This resolves some issues, but these fleets often add more empty miles into the network as they drive empty when returning to their warehouses. Therefore, while it provides shippers with the control they desire on shipping operations, it pushes their costs up, and adds unnecessary carbon to the environment through empty backhaul miles.

Q: WHAT IS THE ROLE OF DIGITAL FREIGHT NETWORKS (DFNS) IN COMBATING EMPTY MILES?

A: DFNs are valuable in connecting shippers with carriers. They provide a technological leap from a world that once relied heavily on “load boards” to make carrier-shipper matches, but DFNs remain highly transactional—they are incapable of addressing the issue of empty miles.

The term DFN has become somewhat overused recently, covering a large swath of solutions from digital load-boards, digital brokers and visibility providers, up to true freight networks. I recommend a great piece of research by Gartner: [“2020 Market Guide for Digital Freight Models for Road Transportation”](#) that provides clarity into what is available, and what each vendor truly does. Gartner has done a great job defining vendor categories in this space to help shippers understand how they differentiate so they can make informed decisions.

In this report, SemiCab was the only DFN recognized as a [Collaborative Transportation Platform \(CTP\)](#) in North America. CTPs are different in that they are focused on creating a network of shippers and carriers to strategically drive efficiencies through the reduction of empty miles and volatility. This is achieved through technology that optimizes the whole network rather than a transactional focus on one load at a time.



Q: HOW DOES A COLLABORATIVE TRANSPORTATION PLATFORM (CTP) WORK DIFFERENTLY TO CREATE EFFICIENCIES, LIKE REDUCING EMPTY MILES?

A: In so many ways! First, employing digital freight technologies that are relational (not transactional) is key; that's how you enable Virtual Dedicated Capacity (VDC). With VDC, a digital freight platform provides all the benefits of a dedicated fleet—quality, service levels, stable pricing—with the flexibility of a one-way lane-based model. This makes collaborative freight optimization possible. As a CTP, SemiCab employs robust AI/ML and predictive optimization technologies to look at the entire demand and supply picture in the network and optimize the freight for all stakeholders holistically.



SemiCab consistently finds value when evaluating the aggregate demand from shippers. We were able to find synergies for one of our shipper customers recently by combining current shipper-lanes on our platform, reducing the cost for all shippers and simultaneously reducing empty miles on selected routes. This created 4-6% savings on freight costs for everyone involved.

We also help shippers reduce their dedicated fleet costs by utilizing their empty backhauls. For example, we were able to find complementary loads for one retailer, expanding their dedicated fleet utilization by up to 20% on certain lanes. This not only reduces their cost of running the dedicated fleet, but also helps them achieve their environmental goals by directly reducing their carbon footprint created by empty miles.

While most shippers don't have the resources in place to secure executable backhaul freight that meets their needs, SemiCab does. Matching the equipment, weight, volume, location, and HOS constraints to find optimal opportunities is a simple task for our optimization engine; we crunch through thousands of constraints and loads to find the optimal match every single time.



The freight industry is clearly in need of an overhaul. There are so many bits and pieces to consider! If you're ready to be an #emptymileeliminator, check out our new guide: [Collaborative Transportation—The Antidote to Freight Market Volatility](#). Download it today, and join the conversation about putting an end to empty miles on our [LinkedIn page](#).