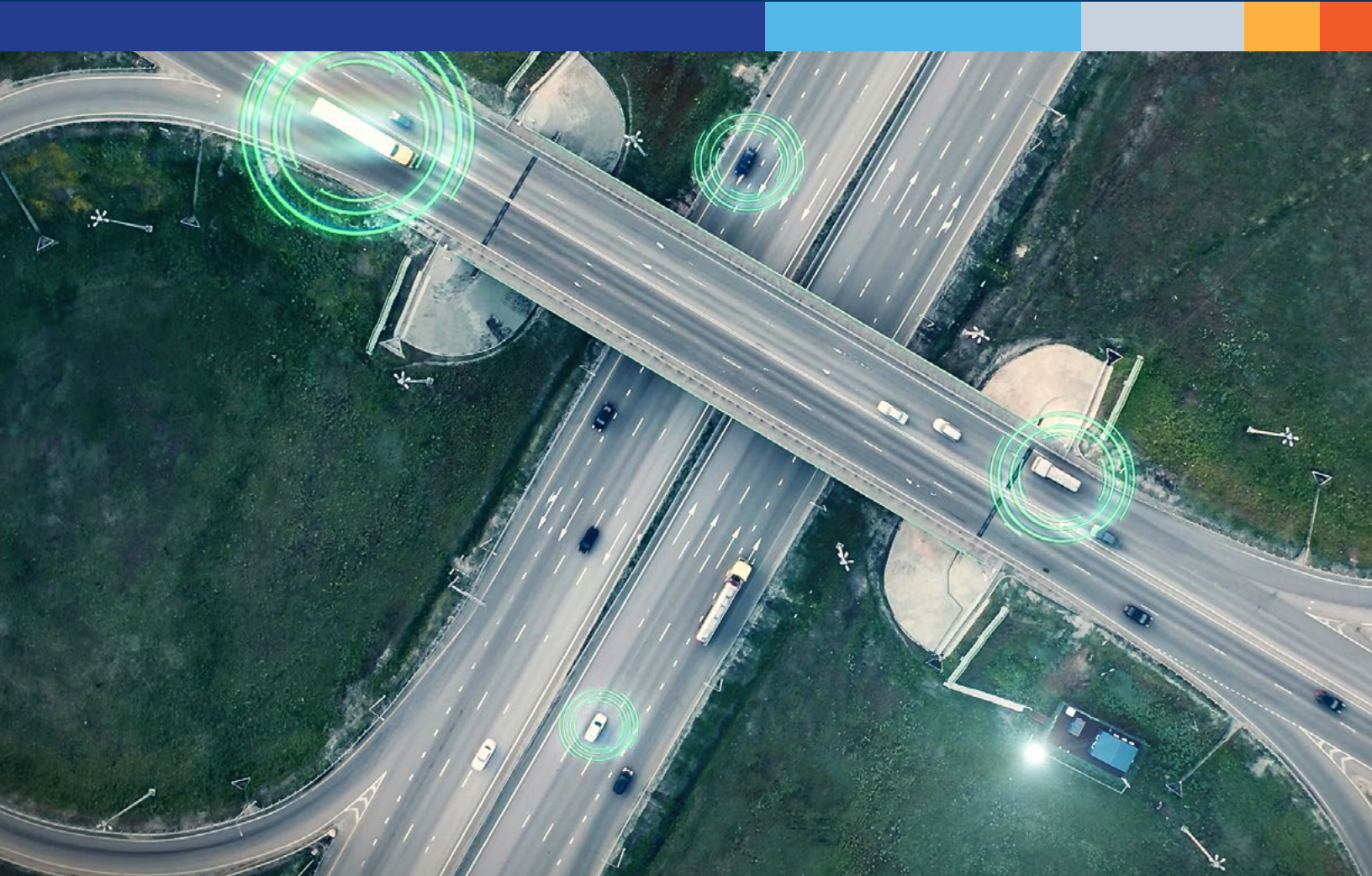**DispatchTrack**

Last Mile Optimization

How Route Optimization Can Add to Your Last Mile Capabilities

And How to Tell if You Need a Cloud-Based Route Optimizer

"More layers of difficulty keep being added to the optimization problem itself—and there looks to be no end in sight."

Jamie Condliffe, *MIT Technology Review*

Who should read this document?

3PLs, last mile carriers, and anyone else whose last mile costs are too high—or who struggles with missed delivery windows and low on-time rates—and who wants to find out what to do about it.

Why is this document worth your time?

Because it offers actionable information about route optimization's importance in modern last mile logistics—backed up by DispatchTrack's decade-plus of experience listening to and working with companies of all shapes and sizes.

What will you learn?

- How the quality of your routes impacts costs and on-time delivery rates
- How to assess whether or not you need route optimization tools
- What to look for in route optimization technology

DispatchTrack
Last Mile Optimization

TABLE OF CONTENTS

01

INTRODUCTION:

The Modern Last Mile Problems

Every dispatcher has been there at some point: A highway pileup first thing in the morning has made all of your ETAs for the day obsolete, and your switchboard is lighting up with customer calls.

You scramble to reschedule impacted deliveries to ensure consignees will still be home when the driver gets there.

The result? All of your truck routes become jagged and inefficient. Your drive times increase, your fuel costs go up, and your customers start drafting irate Yelp reviews.

People talk about the last mile problem—but really there are (at least) two distinct problems that we talk about when we talk about last mile routing:

- Complexity makes it difficult to set efficient routes. This leads to increased drive time, sub-optimal capacity utilization, and higher fuel and labor costs.

- That same complexity makes it difficult to set accurate ETAs. Whether routes are efficient and optimized or not, businesses need accurate ETAs in order to reduce failed deliveries, reverse logistics costs, negative customer reviews, etc.

DispatchTrack
Last Mile Optimization

More often than not, these two problems go hand in hand. And because of the difference in travel times between trucks and cars, it's something Google Maps and Waze really can't help you with.

Neither of these are new challenges—but changing customer expectations mean that dealing with these problems is no longer optional.

"But if you can shorten your delivery windows with more precise ETAs and stretch your capacity with better routes, you can win more business, reduce costs, and boost your margins."

Thanks to the Amazon Effect, consumers want faster turnarounds and shorter delivery windows—and they're more likely than ever to make purchasing decisions based on delivery experience. When businesses outsource their delivery, that pressure from customers is shifted onto the logistics provider. But if you can shorten your delivery windows with more precise ETAs and stretch your capacity with better routes, you can win more business, reduce costs, and boost your margins.

"The Amazon Effect has introduced consumers to an almost completely frictionless shopping process with near-immediate results (more and more, this refers to delivery, too).

Lin Grosman, *Forbes*

02
Do You Really Need an AI-Powered SaaS Solution to Optimize Your Routes?

At this point you might be thinking: *"I don't need route optimization—what I need is for my drivers and carriers to stick to their schedules, and for consignees to be home when they say they'll be home. I need better on-time delivery rates, fewer rejected deliveries, and reduced inbound call volumes from customers and clients."*

Under the right circumstances, smart route optimization technology has the power to directly offer exactly what you're looking for.

But how do you figure out if your current routing methods need an upgrade? You can start by asking yourself a few questions:

• **What is your first attempt delivery rate?** If your number is below about 90%, there's probably room to improve.

DispatchTrack
Last Mile Optimization

- **What is your lead time for creating a truck route for a given day?**
  If you're spending hours' worth of manual effort to generate hundreds or thousands of routes, that creates long lead times and significant labor costs—which could be reduced through automation. If your existing routing software takes hours to run, the same logic applies.

> *"If you're noticing negative trends (or the numbers just seem worse than expected), you need smarter route optimization to decrease fuel costs and total miles, increase route capacity, and reduce failed deliveries."*

- **How do your planned versus actual stops stack up for each route?**
  If you're not getting as many stops done per day as you expect, your route optimization methods might be underestimating service times, failing to account for road conditions, or otherwise missing out on important factors that impact the feasibility of a given ETA. This impacts your flexibility around last minute orders and changes.

DispatchTrack
Last Mile Optimization

"Hundreds of constraints must be taken into account. You might calculate an amazing route that hits all your deliveries, but can you fit everything in the back of the van? How much longer will it take to unload the frozen food than the staples? Is it worth dropping off heavy items first to save fuel?"

Jamie Condliffe, *MIT Technology Review*

- **What's your net promoter score (NPS)?** Some estimates put the average NPS for 3PLs above 50. If yours is worse, inaccurate ETAs might be a root cause.

- **What is your cost per delivery?** Depending on size and industry, average cost per last mile delivery might be around $10. If your calculations show noticeably more than that (or even close to that for a larger operation), there's a good chance you're spending more on fuel and labor, completing fewer deliveries per day, or travelling more miles than you really have to.

These questions are useful because they give you something to compare against. But you can also look at trends over time for total miles, total fuel costs, on-time deliveries, and other metrics. **If you're noticing negative trends (or the numbers just seem worse than expected), you need smarter route optimization to decrease fuel costs and total miles, increase route capacity, and reduce failed deliveries.**

DispatchTrack
Last Mile Optimization
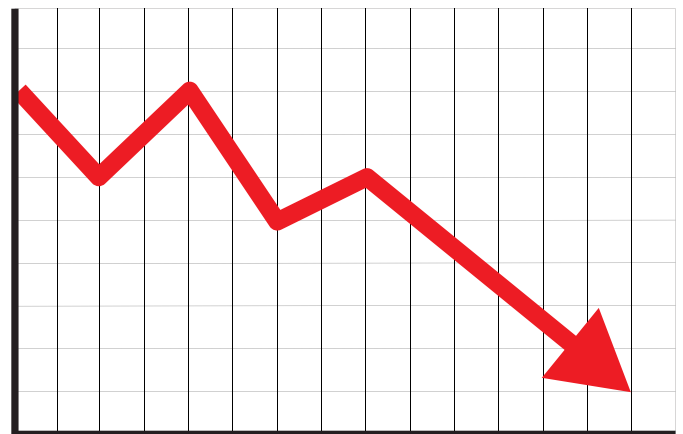
03

How Should You Actually Select a Routing Solution?

On a gut level, you already know what you want in a routing solution. You want to create large numbers of routes as quickly and easily as possible, you want to scale your routing efforts up or down as needed, you want to dynamically reroute when things change on the day of delivery, and you want to generate optimal routes with precise, accurate ETAs.

What does a routing solution have to offer to make that possible?

"Just because something's in the cloud doesn't mean that it's automatically built to scale... If the software grinds to a halt after a few thousand trucks, it's not designed for scalability."

SCALABLE CLOUD ARCHITECTURE

Route optimization software needs to compute routes quickly and scale easily. On-prem solutions make the second part of the equation virtually impossible—the only way to create more routes (e.g. to handle a spike in order volumes) is to add extra servers, which can be incredibly costly and labor intensive.

At the same time, **just because something's in the cloud doesn't mean that it's automatically built to scale.** Vendors should be able to show you how their platforms handle a hundred trucks, a thousand trucks, and ten thousand trucks—**if the software grinds to a halt after a few thousand trucks, it's not designed for scalability.**

The ability to create routes rapidly isn't just for show. **If your software is built to let you reroute dynamically on the fly, you can accommodate new orders or changes to delivery windows without losing efficiency.** Trust us, your customers and clients will thank you for this.

## FLEXIBLE, TRUCKING-SPECIFIC ROUTING OPTIONS

The reason that shippers can't use Google Maps to route their shipments is that it's not designed to accurately calculate travel time for trucks. Drive times are impacted by traffic, trucks maneuvering more slowly than cars, differing loads, etc. Your routing software won't produce accurate ETAs if it can't handle these factors.

You should look for tools that account for:

- Driver/resource availability and cost

- Resource skill level

- Customer availability time windows

- Customer tier level and preferred time windows

"If your software is built to let you reroute dynamically on the fly, you can accommodate new orders or changes to delivery windows without losing efficiency."

Route optimization is about decreasing complexity. Every factor that the optimization tool can account for is another area of complexity that human laborers don't have to spend time on. Combine this with scalability, and you're ready to turn optimized routes into the bedrock of smarter, more efficient last mile operations.

DispatchTrack
Last Mile Optimization
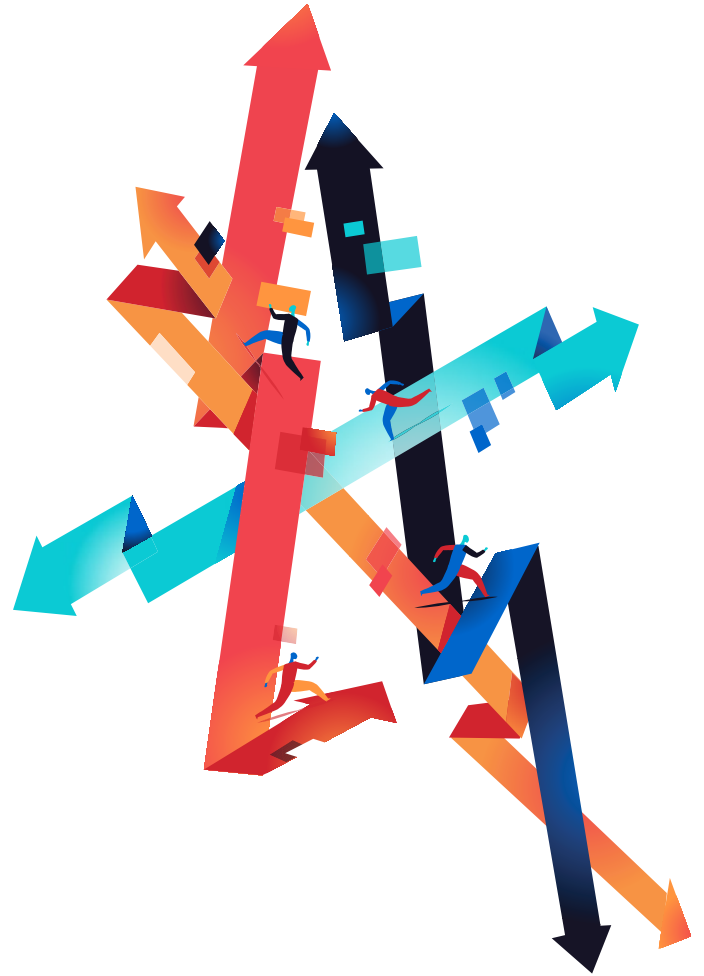
04

The Benefits of Accurate Route Optimization: Better On-Time Delivery, Reduced Costs

Modern technology makes it possible to visualize your entire last mile in real time, automate communication between consignees, drivers, clients, and dispatchers, and proactively manage exceptions on the day of delivery. **But none of this helps you if every delivery is costly and behind schedule.**

But let's think about the impact on a logistics provider's day-to-day last mile if a rapid route optimization tool could power in-window deliveries at a rate of 98%.

DispatchTrack
Last Mile Optimization

- **With scalable, rapid routing that runs through tens of thousands of trucks in minutes or seconds, you can shorten your routing lead times.** Considering how much emphasis many modern businesses (to say nothing of consumers) place on rapid fulfillment, this can create a real competitive advantage.

- **When your route optimization tool offers multiple routing options, you can also give more prioritization to customer tiers and driver skill levels.** This means you keep your most important customers happy and save your most valuable personnel or your best carriers for the jobs that really need them.

> *"When you optimize routes for distance, you complete deliveries more quickly, which means you can accommodate more orders in a single day with the same number of drivers."*

- **The more you increase your on-time delivery rate, the more effectively you can manage the 2% of deliveries that don't go according to plan**. If every delivery is behind schedule, you and your customer service team only have time to react—mostly in the form of fielding incoming calls. When there are fewer exceptions to manage, call volume drops, and you can provide proactive customer support for the deliveries that require it.

DispatchTrack
Last Mile Optimization

- **When you optimize routes for distance, you complete deliveries more quickly, which means you can accommodate more orders in a single day with the same number of drivers.** This gives you added flexibility when order volumes increase (potentially even same-day orders), and it decreases your cost per delivery through decreased labor and fuel spend. Studies have shown that optimized routes can save 20-40% on fuel costs and drive time.

Think about all of the metrics we talked about above (first attempt delivery rate, planned vs. actual daily stops, NPS, cost per delivery, etc.). What would be the effect on your operations if you improved all of them overnight?

"Before adopting new technology, companies should consider whether the provider of the solution has a working knowledge of how the industry operates. A certain amount of industry expertise is required to avoid a tech provider that might make inaccurate assumptions that ultimately fail to address the root issues the company is seeking to alleviate."

Lidia Yan, *Forbes*

05

CONCLUSION:

How to Build the Last Mile of the Future

Route optimization isn't just about finding the shortest routes—it's about the ability to maximize capacity, to stay agile and flexible, and to gain control over your last mile operations.

That means that the technology surrounding your routing tools is just as important when you're figuring out what you want your operations to look like going forward. Right now, how do you know when an order needs to be rerouted? How do you communicate the new route to a driver, or the new ETA to the consignee? What's the least laborious way to bill customers?

"The technology surrounding your routing tools is just as important when it comes to figuring out what you want your operations to look like going forward."

DispatchTrack
Last Mile Optimization
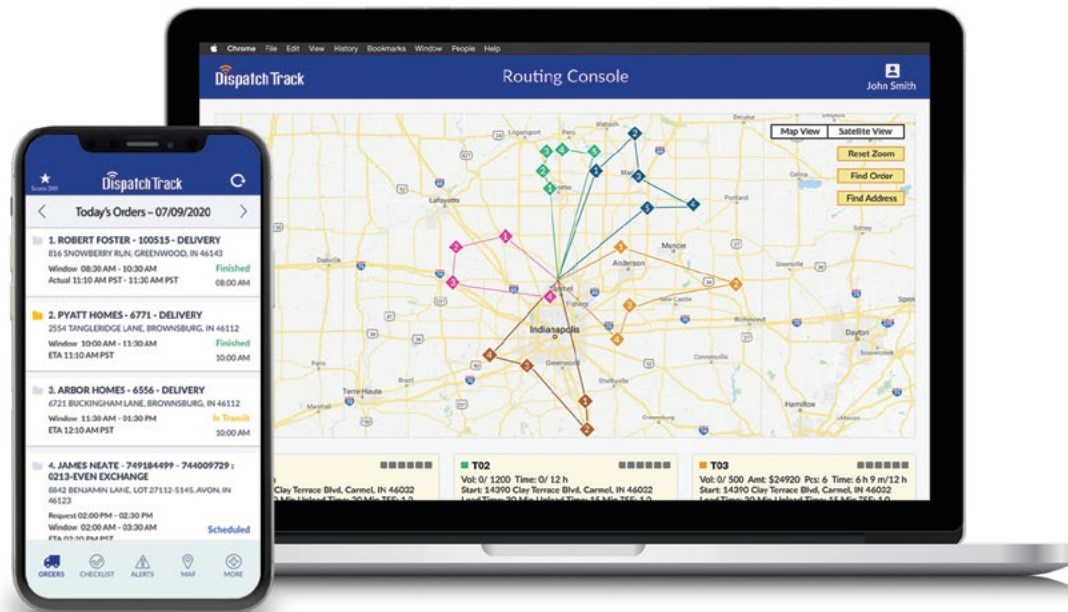
Route thousands of stops in seconds and push new stops directly to drivers.

Where are we coming from when we talk about the challenges and solutions that surround route optimization? We're coming from a decade of working hand in hand with shippers, 3PLs, and other last mile delivery experts to understand and address the underlying challenges that make last mile success so difficult.

At DispatchTrack, we've built our platform around powerful route optimization functionality—**we offer customers the ability to create thousands of routes in a matter of minutes, all with precise, accurate ETAs**—but our technology also gives users the ability to extract the most possible value from that optimization. We offer a real-time visibility dashboard that shows you all of your (and your carriers') trucks, routes, and orders for the day at a glance—which means that you can effortlessly manage by exception and even dynamically generate new routes as needed.
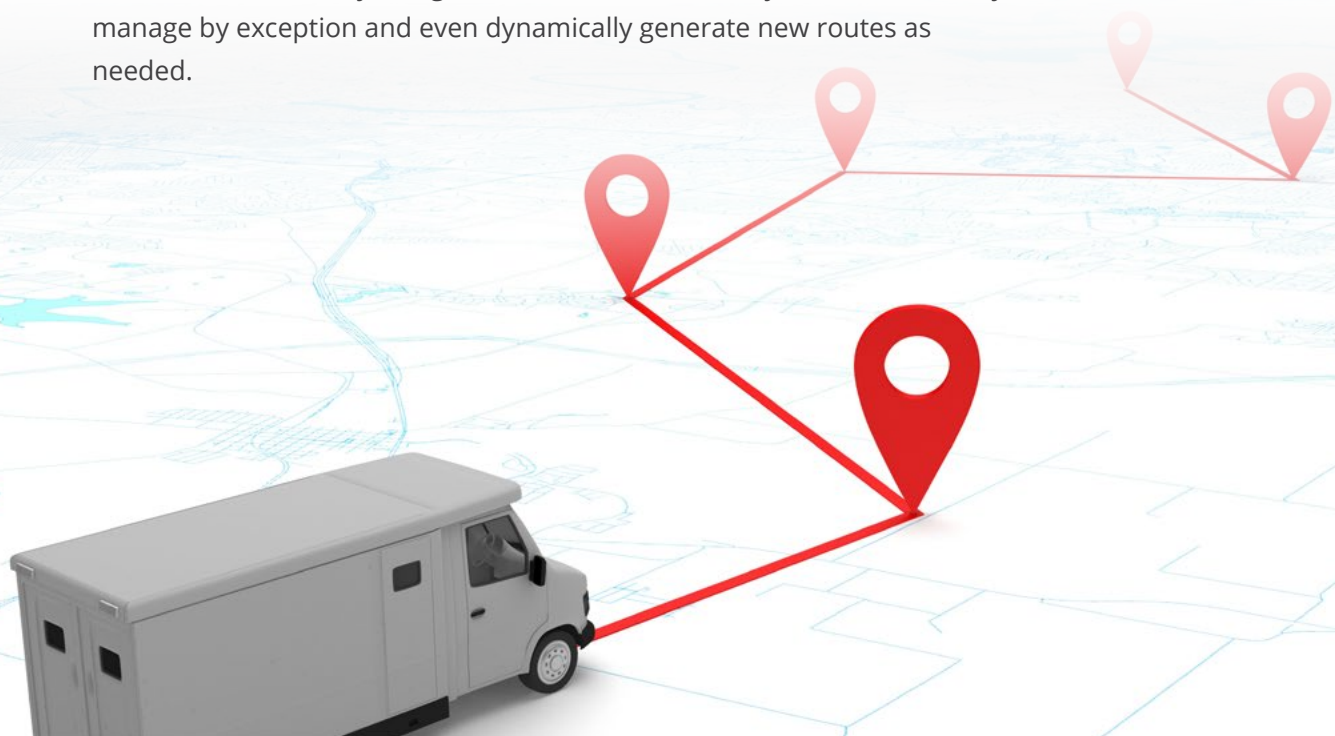
> *"Optimized routes are just the beginning of your smarter, less frustrating, more cost-effective last mile operations."*

When you make a change, you can push new routes to the driver through an intuitive mobile app (which also allows digital capture of proof of delivery) and automatically communicate new ETAs to the customer via text or email. We offer customer self scheduling and order tracking, automated billing and settlement, telematics integration, fleet management, and more—all with the goal of giving logistics managers 360-degree visibility and the capabilities to manage everything that crops up during last mile delivery.

This means that optimized routes are just the beginning of your smarter, less frustrating, more cost-effective last mile operations.
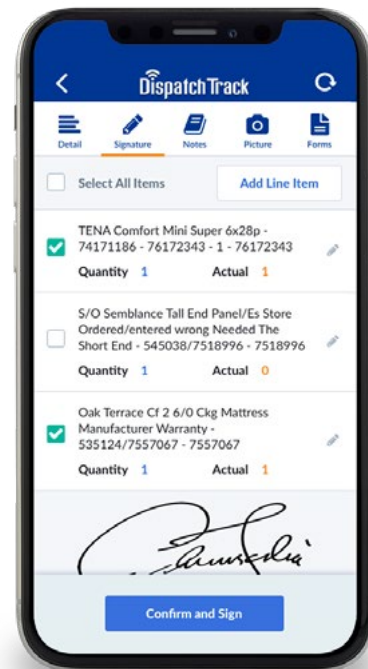
DispatchTrack

DispatchTrack is a leading provider of SaaS solutions for food distributors, furniture retailers, and anyone else who struggles to optimize the last mile. Our streamlined and intuitive user dashboard provides the real-time visibility that dispatchers need to keep track of their deliveries and proactively manage them.

Among the platform's many features, we offer modular tools for self-scheduling, route optimization, customer communication, real-time tracking and ETA, proof of delivery, and delivery network intelligence and analytics.

With customers across North America, Europe, South America, and Asia, DispatchTrack is used by thousands of businesses of all sizes and many multi-billion-dollar enterprises across a wide range of industries. More than 180 million scheduled delivery experiences are powered by DispatchTrack each year. **For more information, contact us now at 1-866-437-3573 or sales@dispatchtrack.com.**