#### MERCURYGATE

# Last Mile Optimization: Solving the Last Mile Delivery



Every step of the transportation process, from the first mile to the final mile, needs optimization to remain efficient. Today's demands on shippers and transportation providers have created a supply chain environment governed by last-mile delivery capabilities and increasing consumer pressure.

To overcome adversity in the final mile, transportation service providers must understand the nuances and value of last-mile delivery optimization. Whether routes are next day, same day, or multi-day, last mile optimization significantly benefits cost control and customer service. To that end, this e-book explores:



The Last Mile Delivery Problem



What Is Last Mile Delivery Optimization?



The Forms of Last Mile Delivery Optimization



The Benefits of Optimization in the Last Mile



How Last Mile Optimization Should Work

Last mile optimization establishes an environment where:

- All stops (pickup or delivery) are live, real-time all the time, and dynamically optimized.
- Estimated time of arrival updates are provided in real-time.
- Routes are optimized for the least number of miles and stops – without dispatcher intervention.
- Driver mobile capabilities encompass a configurable workflow that captures proof of delivery (POD), accessorial charges, camera integration, messaging, and bar code scanning.

Continue reading for a deep dive on the last mile strategies that will improve efficiencies across your network of shippers, drivers, and end customers.



## The Last Mile Delivery Problem

A last-mile delivery platform empowers businesses to cater to everincreasing customer expectations and achieve operational efficiency. The problem today: many asset-based transportation providers do not have such a platform. As a result, they fail to meet customer needs and company goals.

Several common pain points exist concerning modern last-mile delivery optimization and innovation. <u>SupplyChainBrain</u> highlights that the recent growth of the e-commerce industry has transformed the global marketplace. According to Digital Commerce 360, consumers spent \$870.78 billion online in the U.S. in 2021, up 14.2% from the prior year.

That boom still causes many service providers to fall short with their last-mile delivery performance. Despite the innovations of the past 5 to 10 years, many organizations have not yet evolved to new last-mile delivery services. As a result, problems persist with shipping services and delivery protocols. And these businesses cannot adapt to current market conditions, consumer demands, and e-commerce and digital-based logistics trends.

"As a share of the total cost of shipping, last-mile delivery costs are substantial—comprising 53% overall. And with the growing ubiquitousness of 'free shipping,' customers are less willing to foot a delivery fee, forcing retailers and logistics partners to shoulder the cost." <a href="Insider">Insider</a>
Intelligence reports, "As such, it's become the first place they're looking to implement new technologies and drive process improvements."

consumers spent

\$870.78B

online shopping in 2021

Outdated last mile delivery processes can lead to problems impacting end-to-end shipping services and performance. These include:

- · Poor network and ground-level visibility.
- · Lack of efficient communication.
- Mismanagement of transportation costs.
- Slow response to disruptions.
- Excessive delays in deliveries.
- Poor customer service options.
- · No real-time monitoring and tracking.
- · Lack of sustainability initiatives.
- Cargo/shipment "black holes."
- Weakened approach to final mile logistics.
- Increased occurrence of errors and mistakes.
- Poor communication and collaboration.
- Lower customer satisfaction ratings.
- Poor customer retention and support.
- Damaged brand reputation and standing.
- Lack of insights for choosing last mile carriers.
- Higher shipping and operational costs.

In a day and age where customers are looking for free and reliable shipping services, small excessive fees and unexpected charges can quickly increase the total landed cost and influence service to end consumers.



# What Is Last Mile Delivery Optimization?

Last mile delivery challenges are plentiful, but they can be overcome with proper optimization and innovation. Optimization of the final mile refers to the shipping and logistical process of optimizing delivery services and methods to improve customer experience and meet customer expectations. The design aims to help companies build their brand, attract repeat customers, lower shipping-related expenses, and improve sales.

While all shipping and transportation companies benefit from enhancing last-mile services, many industries need last-mile optimization to maintain a competitive advantage. These include vital services and industries such as medical, food & beverage, climate-controlled goods, equipment, raw materials, and more. In addition, better monitoring and delivery means less waste and spoilage, more profits for shippers, more products on shelves for consumers, and better carrier, shipper, and customer relationships.

There's also a growing interest in what industry insiders call "ultrafast delivery." A press release shared by <u>Supply Chain Dive</u> in spring 2022 noted surprising survey findings:

"Half of the retail and supply chain leaders surveyed said they offer or would offer same-day delivery because customers expect and demand it. In addition, nearly two-thirds (64%) said that they believed more than 40% of shoppers would be willing to pay a higher price for products with a same-day delivery option. And 30% of respondents said they believed the majority of shoppers — 61% or more — would do so."

As more customers begin asking for and expecting these services, it leads transportation providers to a point where they must improve last mile delivery to keep their customers happy, profits high, and expenses manageable.

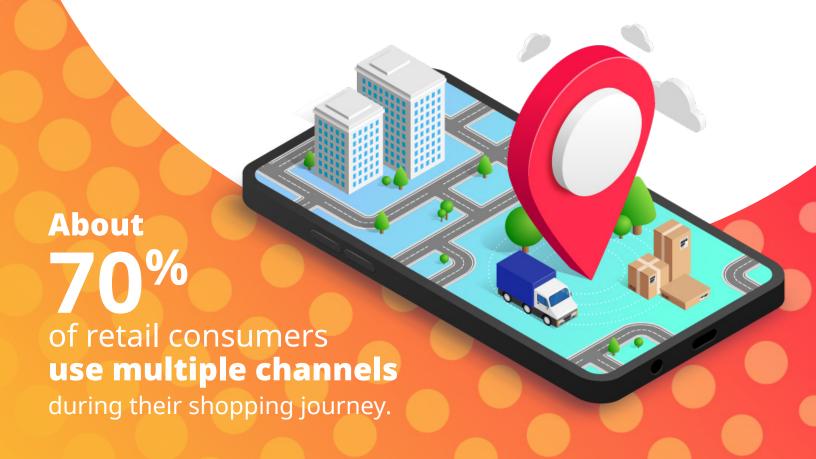
Last mile optimization sets apart the successful companies and those that continue to struggle to keep up with the times and stay ahead of the competition.

# Methods of Last-Mile Delivery Optimization

A <u>study from HBR</u> found that less than 10% of consumers say they were onlineonly shoppers, and an additional 20% reported that they were store-only shoppers. About 70% of retail consumers use multiple channels during their shopping journey. For decades, the online buying experience has been the focus of many retailers and other shippers.

A mission is often accomplished when customers have a positive shopping and buying experience. However, the focus has shifted. Companies today have learned that post-purchase experience matters as much as the first leg of the buying journey. That's why transportation providers have to up their game in the last mile of the delivery.

Last mile delivery optimization requires different tactics depending on the industry involved, the type of cargo hauled, and the start and end destinations. However, three primary optimization conditions can apply to most final mile delivery trends.





#### Dynamic Batch Routing Before Loading

With a batch routing approach, companies work based on a set idea of what tomorrow and the rest of the week will hold for shipments. Plan today for all the activities expected tomorrow. For years, this has been the approach. Shippers have a batch of orders and work diligently to take care of the finite details associated with each shipment.

However, with dynamic routing, planning consideration is given to pick-up locations, delivery locations, and all the attributes of that delivery. As a result, trucks get loaded based on where each stop will occur, what cargo needs to be loaded and unloaded, the capacity limit of trucks, and what drivers are available. The cargo layout can be optimized to coincide with the utilized delivery route. All decisions about the mode, loading, shipping, delivery, and route optimization are made based on the entire batch of shipments, from the first to the final mile delivery.



#### **Within Route Optimization**

Route optimization and freight management plans are all about the ability for in-route optimizations based on real-world conditions. Unfortunately, the best-laid plans often fall through, and disruptions, delays, and other issues can throw route plans and delivery schedules off track at a moment's notice.

Optimizing deliveries within the given route allows for changes in delivery times and orders to accommodate the best delivery deadlines, customer needs, cargo specifications, and other factors.



#### **Dynamic, On-Demand Routing**

Last mile optimization enables real-time entry of new shipments into the route at any given time – dynamic, on-demand routing and order entry into the network.

Partnering with a logistics and shipping partner with innovative tools and systems can make the entire last-mile logistics process more straightforward and efficient. Actionable analytics should be readily accessible in support of informed decisions about route planning, logistics, delivery schedules, and shipment handling specifications.

New pickups and deliveries can be easily assimilated into existing route plans with on-demand routing processes and insight into real-time data and information. As a result, rather than possibly losing out on shipments due to an inability to fit them into pre-planned schedules, transportation providers can capitalize on all orders and keep trucks as complete as possible on every trip.

# Benefits of Optimization in the Last Mile

With the continued rise in consumer demand for fast, affordable, and reliable shipping services, carriers that optimize their performance can ensure service expectations are met for shipping customers and end consumers.

In addition, the increased demand in <u>e-commerce</u>, online ordering, same and next-day delivery, and on-demand tracking and monitoring continues to shape the industry in more ways than one. Likewise, white glove delivery services are becoming increasingly common as consumers seek home installation for e-commerce orders.

From the way consumers shop and make purchases to how they want their products delivered, last mile services have grown essential to the entire purchase, transport, and delivery process. An Anyline survey shared by <u>BusinessWire</u> supports this contention:

"Consumers have relied more on last mile delivery in the last couple of years, with many purchasing items online that they would have previously bought only in person, including groceries (43%), home essentials (30%), and restaurant meals (29%). However, the majority of U.S. shoppers continue to face delivery disruptions in the last mile. Anyline's survey uncovered that close to half (44%) of consumers say delivery timeframes are slower since the start of the pandemic. As well, more than two-thirds (68%) of consumers say they've encountered delivery delays."

The point of last mile optimization and delivery tracking options is the ability to adjust and improve routes in real-time. This approach has proven vital in the <u>age of e-commerce</u> and online shipping services.

With innovative dashboards and remote access apps, drivers, carriers, and customers can now access live status updates and reports about any shipment onboard a truck. And for logistics managers, shippers, and carriers, these tools make it easier to slip in new orders – pick-ups or deliveries – along the way to accommodate rush orders and urgent shipment needs.

With innovative mobility and logistics apps, the routing optimization is also intelligent enough to not just throw in the new shipment at the end of the driver's day. Instead, the apps and tools calculate the best place to add other stops along the way. Approaching orders this way ensures existing deliveries avoid delays while available capacity and delivery times get maximized. Accessing this power and versatility brings various benefits, including the following.



#### Visibility & Transparency

Final mile transportation is a top priority for shippers to keep up with the market and consumer demands. In addition, end-to-end visibility is critical to ensure shipments are streamlined and optimized. Providers must be able to provide shippers with clear visibility into scheduled orders, including data-backed updates, real-time push notifications, on-demand communications, and live data analytics. With improved logistics and supply chain optimization, orders can be shifted and moved as needed with reliable insights and accommodations to capitalize on available orders. Further access to this data allows transportation providers to proactively identify and address trends in their last mile business.



#### **Better Customer Engagement and Sustainable-Driven Operations**

An unexpected perk of improved last mile delivery optimization is the improved lines of connection and engagement it provides between team members and customers. Unfortunately, the last mile is the most visible part of shipping regarding sustainability, causing end consumers to become more vocal.

According to an Accenture report, last mile delivery growth will lead to a "32% jump in carbon emissions from urban delivery traffic by 2030." Customers have made it clear they care about environmental initiatives, so shippers who demonstrate an ability to create sustainable options can earn a competitive advantage.



#### Flexibility and Scalability

Volatile markets and uncertain economic futures make shipping and logistical planning complicated. Optimized services and last-mile-focused initiatives improve the productivity and profitability of supply chains by helping carriers take advantage of real-time scalability and flexibility opportunities. The shipping and freight transportation service providers who can flex, scale, and adapt to meet changing market and consumer trends stand the best chance of weathering disruptions.



#### **Controlled Costs**

According to a 2021 review by <u>Logistics Management</u>, "in addition to the average annual 4.9% rate increase, shippers are managing hefty increases on any surcharges such as additional handling, large parcels and residential and delivery area surcharge deliveries."

With operational costs increasing across the board, asset-based service providers must take advantage of every opportunity to monitor expenses and control fees associated with services. In addition, optimized route planning and <u>strategies</u> and real-time tracking lead to cost reductions in shipment transport.



### Data-Driven ETA Updates and Automated Notifications

Delivery re-routes happen more frequently than most people realize. Weather and traffic-related delays, vehicle breakdowns, and prior delivery delays – these are some of the many ways ETAs can get off track and require adjustments.

Carriers and their shipping customers can improve the speed and accuracy of their response to these disruptions and keep ETAs as on track as possible. At the same time, they can collaborate to make sure end customers get their orders in full and in good condition.



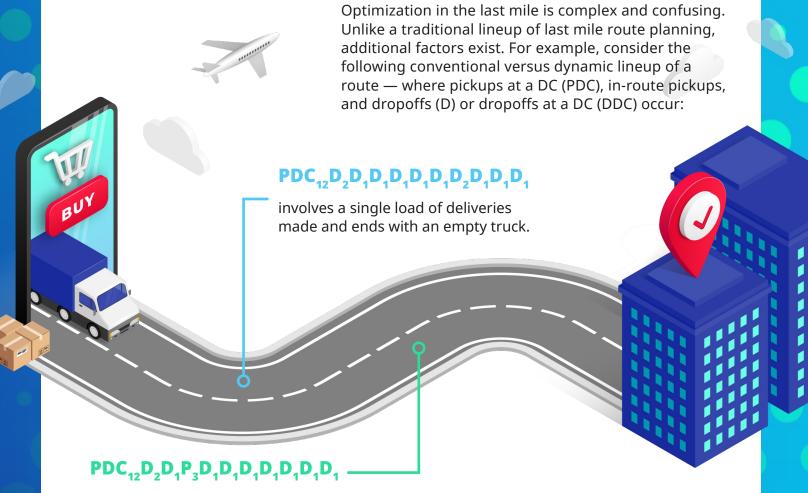
#### **Real-Time Disruption Management**

The most significant benefit of improved last mile delivery is the power and adaptability afforded to transportation service providers. The ability to respond in real-time to issues reduces their impact on individual delivery deadlines. Real-time awareness makes last-mile delivery more manageable and streamlined from start to finish.

The rising demand for reliable last-mile delivery <u>service management</u> is unlikely to slow down anytime soon. According to a <u>2021 research report</u>, "the global supply chain management market size was valued at \$15.85 billion in 2019, and is projected to reach \$37.41 billion by 2027, growing at a CAGR of 11.2% from 2020 to 2027."

There has never been a better time to capitalize on growing market trends and secure customer loyalty with optimized last mile delivery.

# How Last Mile Optimization Should Work



picking up additional orders as the day progresses and delivering the remaining five items to a different distribution center than the original pickup point.

Accenture explained, "The root issue here is lack of buyer awareness. The last-mile ecosystem must make consumers more aware of the environmental impact of delivery options and be more transparent by offering greener delivery choices at checkout. Many people would choose these greener options — 43% of consumers are likelier to choose retailers that offer more sustainable delivery options."

That means assigning each pickup or delivery to the right driver at the specific time and location without adversely impacting other drivers and overall goals.

#### The trick is to:

- **1.** Track all shipment data in real-time and use digital means to track the BOL, POD, and all required documentation within a single view.
- Identify which drivers are best suited for each shipment at its exact pickup or delivery time.
- **3.** Continuously update ETAs based on changing road or traffic conditions.
- **4.** Automate notifications to all affected parties on such changes.
- **5.** Share information regarding updated ETAs within the TMS to allow downstream supply chain parties more time to prepare or flex schedules to account for those changes.
- **6.** Model different scenarios to understand the best options when an original routing plan doesn't work or requires updating and sharing that information in real-time with other network partners.



## Summary: Integration, Dynamic Routing & Better Management Enable Last Mile Delivery Optimization

Outdated methods are no longer effective in competitive markets. Innovation and optimization, especially within last mile deliveries, separate successful companies from those struggling to embrace the trends that shape the industry.

With innovative dashboards, digital tools, data-backed apps, and remote access capabilities, drivers, carriers, and customers enjoy all the benefits of live status updates and reports. Furthermore, optimized tools and <u>tech capabilities</u> make it easier to accommodate new pick-ups or deliveries along the way and work on last-minute orders when and where needed.

This contributes to better customer service and higher profits for shippers and carriers.

## **Choose MercuryGate for Better Last Mile Delivery Optimization**

Last-mile delivery optimization starts with actionable data and intuitive execution. It will help reduce your costs, but it is not enough to optimize once. The best-laid plans for optimization fall short if outdated systems or processes are in place.

The time to leverage a world-class resource for last mile delivery optimization is now, and MercuryGate is that resource.

#### Moved by



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