Buyer's Guide

Retail Guide – How to Buy Last-mile Delivery Technology

Create cost efficiencies and satisfied customers

FarEye

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About This Guide

In a world quickly becoming consumed with online shopping, getting last-mile delivery right is critical for retailers. The delivery experience has become an extension of a retailer's brand, and fast, free, flexible and sustainable deliveries are key factors that consumers evaluate when they decide to make an online purchase. Perfecting last-mile deliveries can create superior consumer experiences. And that can create competitive advantages for retailers amid fierce competition for online market share.

Inflationary and recessionary economic forces have created an environment where delivery efficiency and reduced last-mile costs are paramount for both consumer loyalty and retailers' bottom lines. To be competitive, retailers must look to untangle the web of variables, challenges and inefficiencies that every last-mile delivery accounts for. The right technology platform can help.

As we'll explore, the last mile is one of the most critical legs of your customer-centric supply chain. Not only is it the most important leg, it is dynamic, costly and complicated. Solving last-mile challenges can create long-term efficiencies such as reduced risk and cost, and translate into superior delivery experiences for consumers.

This guide will help you understand how last-mile delivery technology can address your challenges and meet your business's needs and goals. We'll examine whether building solutions in-house or buying last-mile delivery solutions work best for your company and uncover what to look for when purchasing last-mile delivery technology.

Let's ensure all of your deliveries reach their destinations every time, on-time, accurately, efficiently, and as sustainably as possible.

And let's make it simple.

Last-mile Delivery

Where retailers and consumers physically meet

The last mile is the most complicated leg of the supply chain because of its unpredictability and inherent requirement to cover large footprints quickly. Unlike the first and mid miles - which move products between a few known locations on a cadenced basis with a few stops - the last mile involves loading vehicles across multiple nodes quickly and efficiently routing them to multiple destinations at a moment's notice. This makes the last mile inefficient, unsustainable and prone to risk. For companies to achieve superior delivery experiences, they must build adaptability and resilience into their delivery networks.

Superior Delivery Experience Defined

Fast

Speed of delivery a major consideration for consumers

Many retailers plan to offer same-day delivery by 2025

Free

Low or no-cost shipping is a top consideration

High shipping costs a barrier to purchase

Flexible

Offering multiple delivery destinations and windows

Allowing consumers to modify deliveries en-route

Visible

Giving consumers visibility to order status

Real-time ETA and delay alerts

Sustainable

Giving consumers reduced emissions delivery options

Allowing consumers to view emissions impact of delivery

The Last-mile Challenge: Barriers to Superior Deliveries

Lack of Visibility and Transparency

Complete order visibility is generally lacking for many retailers. In many deliveries, there is a blind spot once a truck leaves a dock, with no accurate visibility of where the product is and when the consumer can expect their order.

Poor Integrations and Control of Carrier Partners

Partnering with carriers and outsourced networks to execute last-mile deliveries requires fewer resources and investment than building an owned-fleet, making this a popular consumer delivery method for many developing retailers. However, poor visibility, communication, and capacity and price management give these retailers little control of their delivery experiences.

Outdated Technology

Retailers not using a cloud-based software solution may face challenges with creating new offerings to enhance customer experience or expand service offerings, update new routes, track product status, and communicate with drivers and customers. Advanced technology increases efficiency, which reduces cost and improves the last-mile delivery experience.experience.

Inefficient Omnichannel Fulfillment

To offer fast, flexible deliveries, retailers have begun using new fulfillment methods such as micro-fulfillment centers, brick and mortar stores, and drop- shipping. Although these fulfillment methods can add flexibility and capacity, they can further complicate last-mile deliveries and can generate inefficiencies.

Poor Route Optimization

Mature retailers with their own fleets struggle to create optimal routes for their drivers and vehicles, relying on old software and manual processes. This creates inefficiency which costs retailers and consumers both time and money, and increases carbon emissions impacting the environment and organizational ESG goals.

Slow and Costly Returns Process

Consumers today demand free, easy online returns. For retailers, orchestrating reverse logistics can be costly, inefficient and unsustainable.

Why Every Company Needs Last-mile Delivery Technology

The rise of e-commerce giants have convinced consumers they can have any product delivered to them instantly. Retailers today must ensure they deliver superior consumer experiences, picking up orders from anywhere and having them delivered everywhere - to homes, stores or any variety of pick-up points.

The magic making all of this possible is last-mile delivery technology. Amazon and other mega-retailers used to be the only brands with the network and scale to offer low cost same-day and next-day shipping. That's no longer the case. Technology allows any company to automate and perfect last-mile deliveries, and that can yield increased consumer loyalty and future sales. Today's last-mile software tackles complex problems with artificial intelligence, machine learning and automation with easy-to-use, low-code interfaces that can integrate easily with existing processes.

The cost of not using technology to optimize delivery processes is high, as 88% of consumers have abandoned online shopping carts due to poor delivery terms and 85% of consumers will not shop with a retailer again after having a poor delivery experience.

To gain market share in a competitive e-commerce environment, retailers must perfect the last mile. Today's last-mile delivery technology has come a long way, and makes simplifying the last mile possible.

Solutions

Carrier Allocation

Ship with carriers and delivery service providers, ensuring capacity and flexibility while minimizing cost and environmental impact

Consumer Experience

Offer real-time order tracking, branded delivery experiences, flexible scheduling options and services like white glove and same-day delivery

Omnichannel Fulfillment

Unlock new fulfillment options to provide additional flexibility and speed

Returns

Tackle the costly challenge of returned orders and create superior returns experiences

Visibility & Tracking

Track deliveries from order-to-door and provide visibility to all stakeholders

Route Optimization

Automate and optimize the routing of your own fleet

Sustainability

Reduce the carbon emissions impact of last-mile operations with green fleets and emissions reporting

Benefits

Increased:

- Consumer satisfaction and NPS scores
- Asset utilization
- Volume and available capacity
- On-time delivery rate
- Driver productivity

Enhanced:

- Consumer delivery experiences
- Delivery tracking, visibility and ETA communications
- Consumer delivery options
- Demand forecasting and planning
- Carrier integrations

Reduced:

- Last-mile cost
- Carbon emissions
- Lost or failed deliveries
- Customer service calls due to failed/missing delivery
- Loading and transit time
- Fuel usage

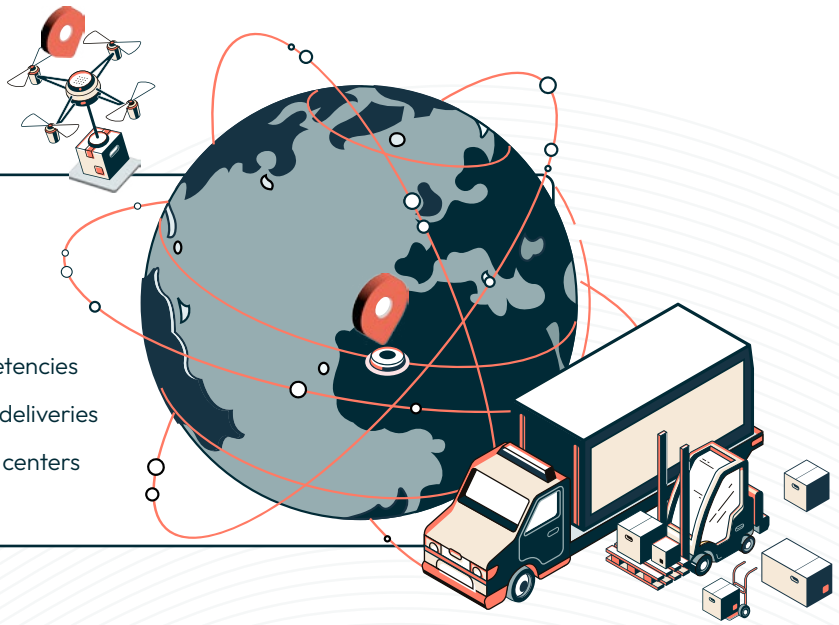
Who this impacts

- Consumers
- Drivers
- Dispatchers
- Managers
- Executives

With the ongoing integration and enhancement of automation across retail logistics networks, technology will continue to be a disruptor in how products move within the last mile, further separating those who deliver superior consumer experiences and those who do not.

Technology enables retail logistics teams to gain power and influence within their companies:

- Free up resources and time to focus on core competencies
- Achieve competitive advantages through superior deliveries
- Turn logistics and supply chain functions into profit centers



The Big Question: Buy vs. Build

We have identified the key challenges companies have in achieving superior last-mile deliveries and uncovered how technology platforms can solve them. Now for the big question - do you build the platform in-house or buy an existing platform from a vendor?

Some key questions to examine as you make your decision:

- Does the platform exist? Is it easy - and fast - to deploy?
- Do I have the resources to build and maintain a platform in-house?
- How much does it cost to build and maintain versus buy?

Existing Platform Available to Buy	In-house Resources Available to Build	Cheaper to Buy	Decision
⛔ No	⛔ No	N/A	**Outsource**
⛔ No	✅ Yes	N/A	**Build**
✅ Yes	⛔ No	✅ Yes	**Buy**
✅ Yes	⛔ No	⛔ No	**Buy**
✅ Yes	✅ Yes	✅ Yes	**Buy**
✅ Yes	✅ Yes	⛔ No	**Buy***

*Long-term cost analysis favors buy over the lifetime of platform use. See below for more detail.

Every company involved in last-mile delivery has nuanced challenges. This alone may drive companies to consider creating their own custom solution. There may be enough internal resources to create a solution in-house and the cost may at first seem lower than purchasing off the shelf. However, the benefits fall apart long-term.

Digging Deeper: Why Buying May be the Right Choice Over the Long Term

1 Speed of Deployment

Creating in-house solutions can take a long time, whereas existing solutions can be implemented and deployed rapidly. Companies want to realize competitive advantages quickly, and superior technology solutions can fast-track success.

2 Pace of Innovation

Building an in-house solution requires time and effort, as does keeping it updated with current technology. Although you may be able to build a solution, keeping your solution on pace with changes in your company, industry and technology can be a long-term hassle. Free-up your company's resources to focus on operational development, agile configurability and creative problem-solving, not software development.

3 Customization

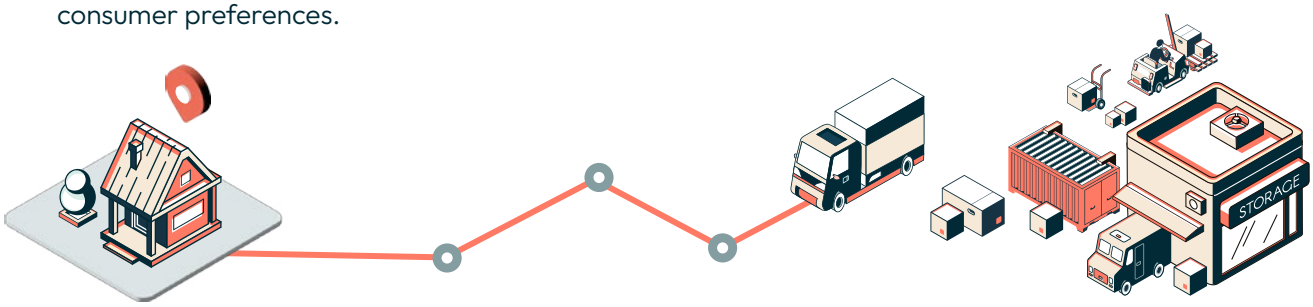
An in-house platform offers the chance to better tailor solutions. However, if poorly designed for the long term, an in-house solution can quickly become a burden that cripples an organization's ability to scale and adapt. Current last-mile technology vendors have the scope and flexibility to customize existing solutions to the needs of your business - and adjust to dynamic, evolving consumer preferences.

4 Cost

Using a software provider helps you spread out and control the development and maintenance costs of the technology over time and across business units as an operating expense (OPEX) rather than a large up-front capital expense (CAPEX) that adds risk and uncertainty. Sometimes, the cost of purchase may seem high initially, but the added benefits, scalability and efficiencies that an existing platform provides can ensure lower costs over the long term and higher lifetime value.

5 Carrier Network Access

Existing last-mile software solutions typically include access to large carrier networks. If you build a solution and you plan to outsource some of your deliveries, you will need to contact multiple carriers individually and then integrate with them in order to create your own carrier network. Instead, grow your global delivery footprint by working with a leading last-mile software provider that offers a large, built-in delivery network to extend your reach and serve new customers in new locations. This approach will enable you to create a more scalable and resilient last-mile delivery network much more quickly and cost effectively.



Typically, companies that purchase last-mile delivery solutions agree with the below criteria:

- Building software is not a core part of its business
- There are solutions in the market that address relevant business challenges
- Internal resources are limited, and they need to focus on core competencies, not software development
- Fast deployment is a higher priority than a fully customized product

In the short term, working with a last-mile solution provider will allow you to deploy a solution quickly and at low cost. In the long term, the provider can customize the solution to your needs and update it as those needs change. With today's low/no-code last-mile delivery platforms, integrating with existing processes and APIs has never been easier.

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What to Look For and How to Choose?

Purchasing last-mile delivery software can seem daunting, with many technology providers to choose from. Here, we'll break down the key solutions to common last-mile delivery challenges and provide a list of capabilities you should look for when making a purchase decision.

Evaluating potential solutions

As emerging technologies continue to transform logistics, last-mile solutions are critical to success. Here are some pointers to look for while evaluating potential solutions:

- Does the software solve for pain points of each key stakeholder?
- Will the software be able to solve any potential pain points?
- Are IT data standards met?
- Does this software have all essential integration points with existing systems?
- Is it a robust all-in-one solution which can take care of any expansion I might have in the future?
- What are the upfront investment and onboarding costs?
- Does the solution provider already have experience working with companies with similar needs and business model as yours?
- Does the software provide ongoing operating efficiencies and margin enhancement?

Evaluating Features and Capabilities

Each of the below key last-mile delivery platform capabilities currently exist in the market. Which do you currently have and which do you have a need for that potential vendors can provide?

Capability	Description	Have	Need
Cloud-Based	SaaS-based product hosted on a multi-tenant cloud, that is highly scalable	☐	☐
Platform Accessibility	Low-code development environment with customizable UI/UX	☐	☐
Visibility & Tracking	Tracking deliveries from order-to-door is integral to delivery success. Most important, the visibility you have translates to visibility for consumers to communicate delivery ETAs ✔ Intelligent ETA predictability ✔ Logistics control tower ✔ Multi-modal visibility ✔ Pickup and delivery visibility ✔ Order-to-door visibility ✔ Intelligent Alerts, Notifications, and Exception Management ✔ Visibility dashboards	☐	☐
Carrier Network	Network of courier/parcel/express carriers globally that you can integrate with and manage	☐	☐
Driver Crowdsourcing	Easy driver onboarding regardless of demand fluctuation: ✔ Driver onboarding & management ✔ Driver mobile application ✔ Shift planning	☐	☐

Capability	Description	Have	Need
Routing	Loop optimization with hybrid routing capabilities that reduce manual route planning: ✔ Address geocoding ✔ Loop optimisation ✔ Hyperlocal routing ✔ Real-time automated routing	☐	☐
Returns Management	Simplify the reverse logistic operation with reduced costs and faster returns: ✔ Refund payment processing ✔ Returns scheduling ✔ Returns tracking and visibility	☐	☐
Workflow Creation	Business Process Management (BPM) engine enables you to create a workflow that maps to their operational strategy via a drag/drop interface	☐	☐
Platform Optimization	AI/ML optimization that leverages pre-built templates with the no-code engine to reduce go-live times	☐	☐
Branding Option	Enable fast integrations using pre-built integrations and connectors: ✔ API-based ✔ File-based	☐	☐
Label Generation	Ensure safe, secure access with tools like: ✔ Single sign on (SSO) ✔ Role-based access control (RBAC) ✔ Log Retention	☐	☐

Capability	Description	Have	Need
Customer Communication	Customizable dashboards that showcase data that helps management analyze and make better decisions	☐	☐
Consumer Feedback	Implementation activities such as configurations & development, internal testing, demos, and customer feedback	☐	☐
Broadcast	24x7 support available across time zones with priority-level incident resolution	☐	☐
Payment	Carbon emissions dashboards to measure and act upon environmental impact. Create sustainable routes and partner with eco-friendly carriers	☐	☐
Delivery Options	Support multiple delivery options like same-day , next-day, scheduled, etc.	☐	☐
Epods	Support electronic proof of delivery	☐	☐
Integrations	Enable fast integrations using pre-built integrations and connectors: ✔ API-based ✔ File-based	☐	☐
Access Management & Security	Ensure safe, secure access with tools like: ✔ Single sign on (SSO) ✔ Role-based access control (RBAC) ✔ Log Retention	☐	☐

Capability	Description	Have	Need
KPI Dashboards and Reporting	Customisable dashboards that showcase data that helps management analyze and make better decisions	☐	☐
Project Implementation	Implementation activities such as configurations & development, internal testing, demos, and customer feedback	☐	☐
Support Policies	24x7 support available across time zones with priority-level incident resolution	☐	☐
Sustainability Measures	Carbon emissions dashboards to measure and act upon environmental impact. Create sustainable routes and partner with eco-friendly carriers	☐	☐
Machine-Learning Intelligence	Machine-learning (ML) algorithm learns from previous data and builds logic to enhance the overall experience	☐	☐
Global Solution	Highly scalable and can be implemented in any geographical location	☐	☐
Mobile Application	A simple and intuitive mobile interface for field workers so they can better serve and communicate with customers	☐	☐

Pricing

When purchasing any technology from a vendor, it can be difficult to estimate costs. Industry, region, transaction amount, current delivery model, customization, level of support required and specific modules purchased all play a role in determining the cost to your business. You should consider the costs associated with implementing the technology, the short-term cost using the technology in your current business model and the long-term costs that may change as your business evolves.

Typical Pricing Models

Flat Rate

- ⊕ Easy to budget for
- ⊕ Easy to communicate internally
- ⊖ Not proportional to services consumption
- ⊖ No financial incentives for increased consumption
- ⊖ Higher financial commitment irrespective of usage

Price per Transaction (all modules)

- ⊕ Higher commitment offers financial incentives
- ⊕ Better for cost and bill of material (BoM) Analysis
- ⊖ Difficult to budget and plan for
- ⊖ No transparency of module-based pricing

Price per Module with Transaction Volumes

- ⊕ Easy to budget for
- ⊕ Easy to communicate internally
- ⊕ Not proportional to services consumption
- ⊕ No financial incentives for increased consumption
- ⊕ Higher financial commitment irrespective of usage

Look for few specific terms that are favorable to your business:

Commitments

Start with lower commitment in first year and move to higher commitment in future years to get better pricing

Price Bands

Check for tier-based pricing to get incentives for higher consumption

Contract Durations

Long-term contracts offer financial incentives

Billing

Advance billing offers additional financial incentives and some freebies

The Integration Process

When purchasing last-mile delivery technology, you need to integrate your processes and technology with the vendor's platform. This requires connections, or APIs, between both parties to allow them to communicate with each other. Personnel and resources will need to work together to write the necessary scripts to the requisite APIs. And then they must be tested and validated.

This can take time, especially for smaller companies with limited resources. Although quality integrations are more important than integrating quickly, you don't want to spend months waiting to be up and running. Speed is crucial here, and fast integration processes can ensure greater speed-to-market and allow you to realize competitive advantages more quickly. Typically, integration timelines range from a few days to a few months.

Understanding the integration process and timelines needed are key considerations you should ask potential vendors, as are your own processes and capabilities.

Common Causes of Delay During the Integration Process:

Be sure to discuss these with vendors and internal stakeholders

Data Integrity

- Poor data
- Inconsistent data
- Failure to map data to correct fields

Internal Resources

- Improper tools
- Lack of capabilities
- Poor resource bandwidth

Integrations connect your business with a technology provider and\or third-party provider technology (such as one of your carriers) across various aspects of last-mile delivery. Below are just a few examples of specific API connections that allow the two parties to communicate:

Fields	Data Type	Field Description	Example
carrier_code	String	Carrier code to be shared if the shipment is pre-assigned to a carrier	DHL, FEDEX
shipper_code*	String	Unique code of shipper system	FLK(Flipkart), AMZ
shipper_tax_number	String	Tax Identification Number is the unique business identity necessary for billing	254618662342879
type_of_order*	String	Type of order	Forward, Reverse, Exchange, Dropoff
main_modaility	String	Mode of transport	Road, Air, Ocean

Checklist for Success

Mapping Your Future

Here is a brief checklist to help you outline your company's future last-mile delivery goals, as well as your current processes and KPIs. When working with a last-mile delivery technology vendor, you can expect to provide similar information to help find a solution tailored to your challenges that works best for you.

Goals

Which last-mile delivery goals are you looking to achieve?

- [ ] **Increase delivery volume and available capacity**
- [ ] **Increase on-time delivery rate**
- [ ] **Increase delivery success rate**
- [ ] **Increase consumer satisfaction and NPS scores**
- [ ] **Increase driver productivity**
- [ ] **Increase service level agreements (SLA) and scheduling & delivery options**
- [ ] **Increase vehicle capacity utilization**
- [ ] **Increase real-time visibility**
- [ ] **Increase delivery profitability**
- [ ] **Increase omnichannel fulfillment methods**

- [ ] **Improve delivery tracking, ETA transparency and accuracy**
- [ ] **Improve consumer experience**
- [ ] **Improve demand forecasting and planning**
- [ ] **Improve carrier integrations**
- [ ] **Improve handling of multi-part deliveries**
- [ ] **Improve returns management**
- [ ] **Improve carrier network management**

- [ ] **Reduce last-mile cost**
- [ ] **Reduce carbon emissions**
- [ ] **Reduce calls to customer-service centers due to failed/missing delivery**
- [ ] **Reduce loading and transit time**
- [ ] **Reduce errors and leakage in your last mile**
- [ ] **Reduce overall delivery time**
- [ ] **Reduce delivery cost**
- [ ] **Reduce cart abandonment**

- [ ] **Other(s)** _____

Metrics and Key Performance Indicators (KPIs)

How do you currently measure last-mile performance and success? How do your current metrics compare to your target metrics?

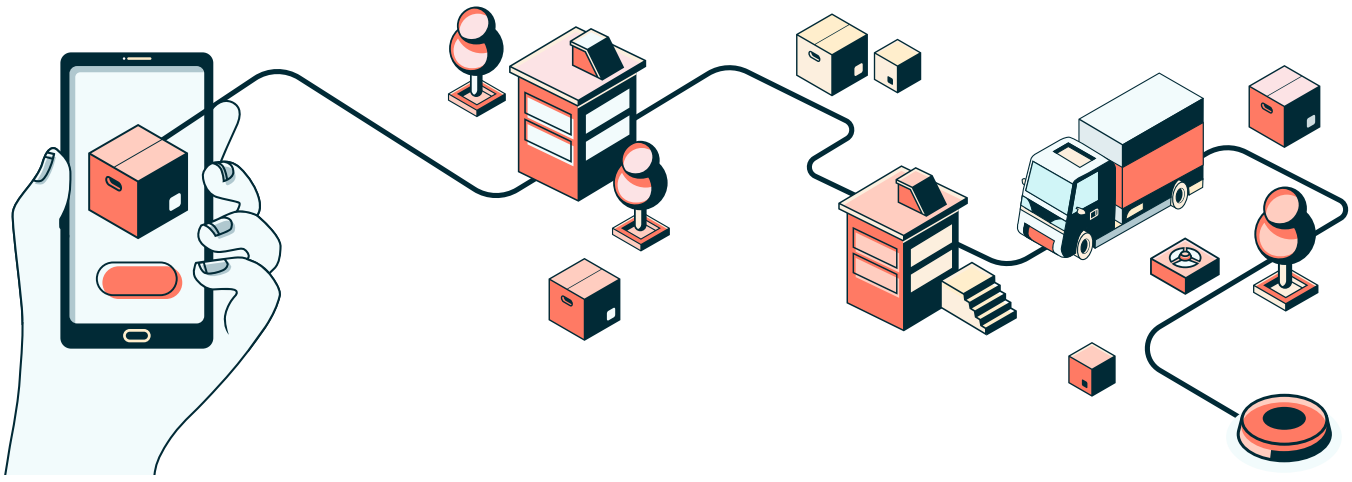
KPI	Currently Measured	Current Value	Target Value
Cost per Delivery	☐		
Consumer NPS	☐		
% Deliveries Made On Time	☐		
Tracking consistency of Shipments	☐		
Driver Performance	☐		
% Deliveries Made First Attempt	☐		
Capacity Utilization	☐		
Cost per Trip	☐		
Delivery Lead Time (average)	☐		
Total Number of Stops	☐		
Total Km or Miles Driven Daily	☐		
Cost per Carrier	☐		
Cost per Mode	☐		
Carbon Emissions (Tons)	☐		
Stops per Hour	☐		
Planned vs Actual Mileage	☐		
Cost per Returned Order	☐		
Driver Utilization	☐		
% Delivery Time Saved	☐		
Cart Abandonment Rate	☐		
Other(s)	☐		

First Choice for Last Mile

FarEye's Delivery Management platform turns deliveries into a competitive advantage. Retail, e-commerce and logistics companies use FarEye's unique combination of orchestration,real-time visibility and branded customer experiences to simplify complex last-mile delivery logistics. The FarEye platform allows businesses to increase consumer loyalty and satisfaction, reduce costs and improve operational efficiencies. FarEye has 150+ customers across 30 countries and five offices globally.

FarEye's Delivery Management Platform

- Access real-time visibility, ML-driven insights, and decisioning for shippers, carrier networks, and consumers
- Optimize dynamic routing, delivery scheduling, order tracking and delivery accuracy
- Provide flexible and frictionless order tracking and fulfillment controls in a branded consumer experience
- Create opportunities to upsell and strengthen brand and consumer relationships
- Map business process management workflows to current operational strategies
- Manage green fleets, reduce CO2 emissions and achieve sustainability goals



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FarEye

333 West Wacker Drive
Suite 2650
Chicago, IL 60606

fareye.com

FE-GLO-LMBG-2022-01