



# Top 5 ways a comprehensive commercial navigation solution can improve fleet efficiency

*...down to the last mile*



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MAPS | Maps & Applications for Professional Solutions

Map intelligence designed to solve the unique needs of commercial fleets, shippers and delivery logistics companies



*Global Offices:  
USA, UK, France, Germany, Sweden, India*

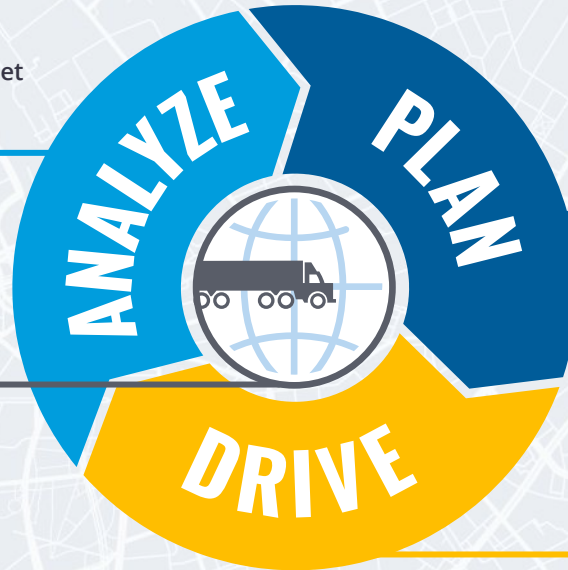
ROUTING • SCHEDULING • VISUALIZATION • NAVIGATION

# Map Intelligence for the Entire Commercial Vehicle Routing Workflow



- Resource & Route
- Profitability Analysis
- Driver Performance & Debriefing Fleet
- Analysis Data Science

*Rooted in our global commercial vehicle map data and routing engine*



- Distance & Duration
- Strategic Planning & Network Modeling
- Daily Routing & Decision Support (Fleet & Vehicle Level)

- Mobile Connectivity & Dispatch
- Dynamic Resequencing
- Navigation
- Real-Time Visibility

# Our Portfolio Includes:

## A PLATFORM



Mapping  
APIs



Routing  
APIs



Navigation  
APIs



Location  
APIs



## INDIVIDUAL PRODUCTS

 **PC MILER**<sup>®</sup>

 **COPILOT**<sup>®</sup>

 **APPIAN**<sup>™</sup>

 **MILEON**<sup>™</sup>  
BY  PC MILER

# Commercial vehicles need **commercial** navigation



# Don't take the risk.



## 3,200+

Estimated number of bridge strikes  
from 2007-2017

## 12

Fatal crashes where a large truck struck a  
bridge overhead structure from 2014-2018

## \$11,000

Company penalty for failing to comply with a  
posted route restriction along a roadway

# This is our core competency.

Digital cartographers

GIS engineers

Procurement team

QA analysts

Data scientists

<https://apps.trb.org/>  
<https://www.timesfreepress.com/news/local/story/2020/jan/11/dangerous-bridge-strikes-cost-millions/512783/>  
[www.fmcsa.dot.gov/faq/what-penalty-failing-comply-posted-route-restriction-along-roadway](http://www.fmcsa.dot.gov/faq/what-penalty-failing-comply-posted-route-restriction-along-roadway)



# Navigation is a tool for **DRIVERS**





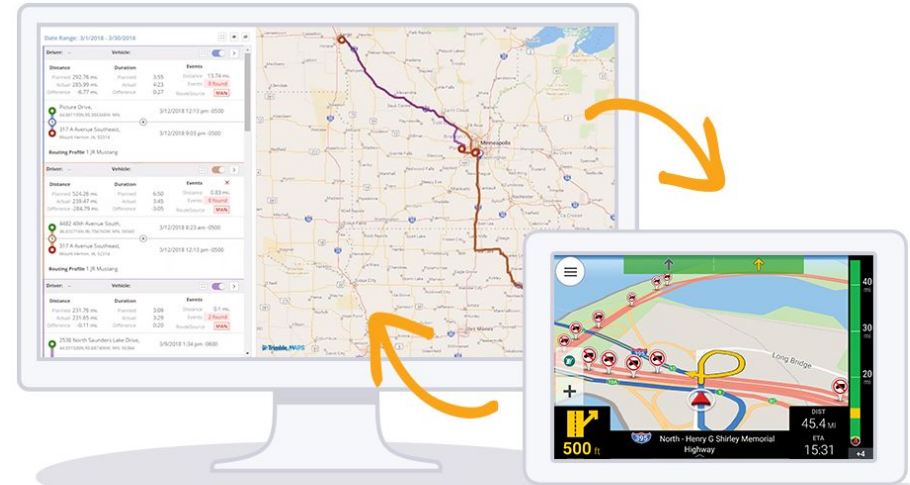


# Navigation is a tool for **FLEETS**

*to keep their drivers safe & efficient*

# Top 5 ways a **comprehensive** commercial navigation solution improves fleet efficiency

- 1 Controlled application settings
- 2 Verified, commercial location data
- 3 Site guidance in the last mile
- 4 Dynamic ETAs and automated notifications
- 5 Real-time visibility and post-trip insight



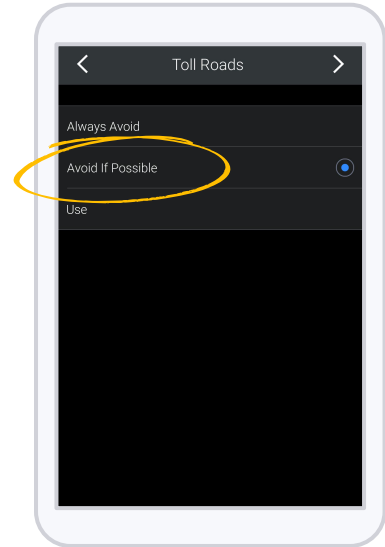
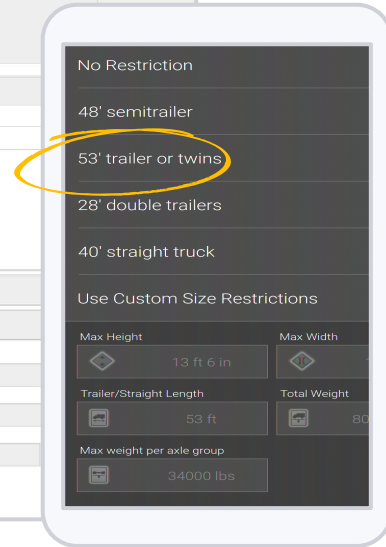
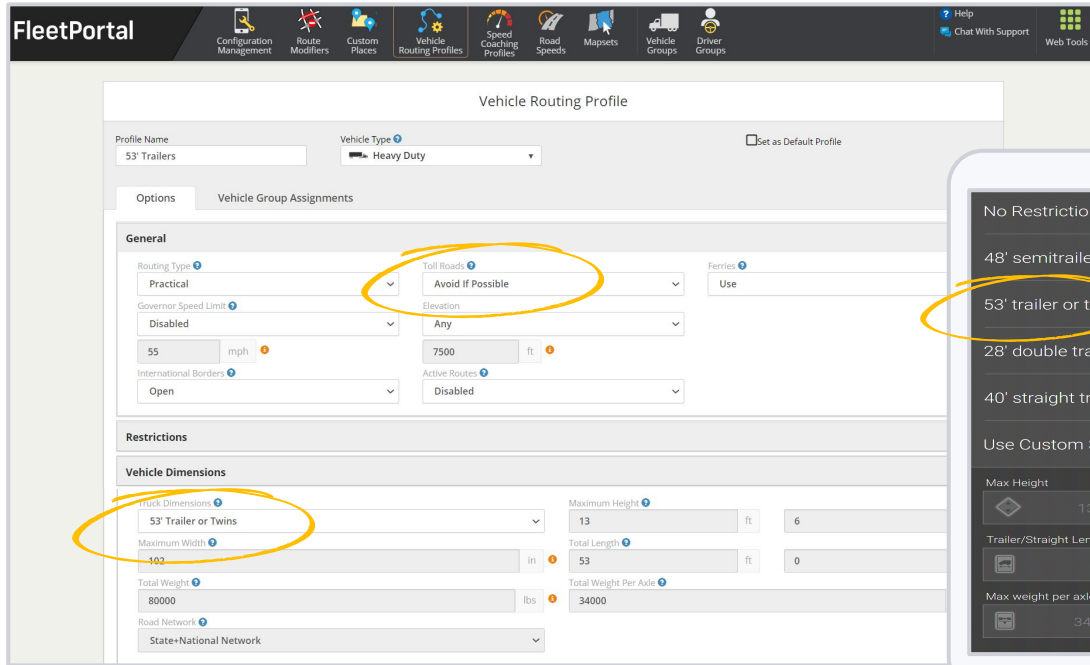
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# Controlled navigation settings

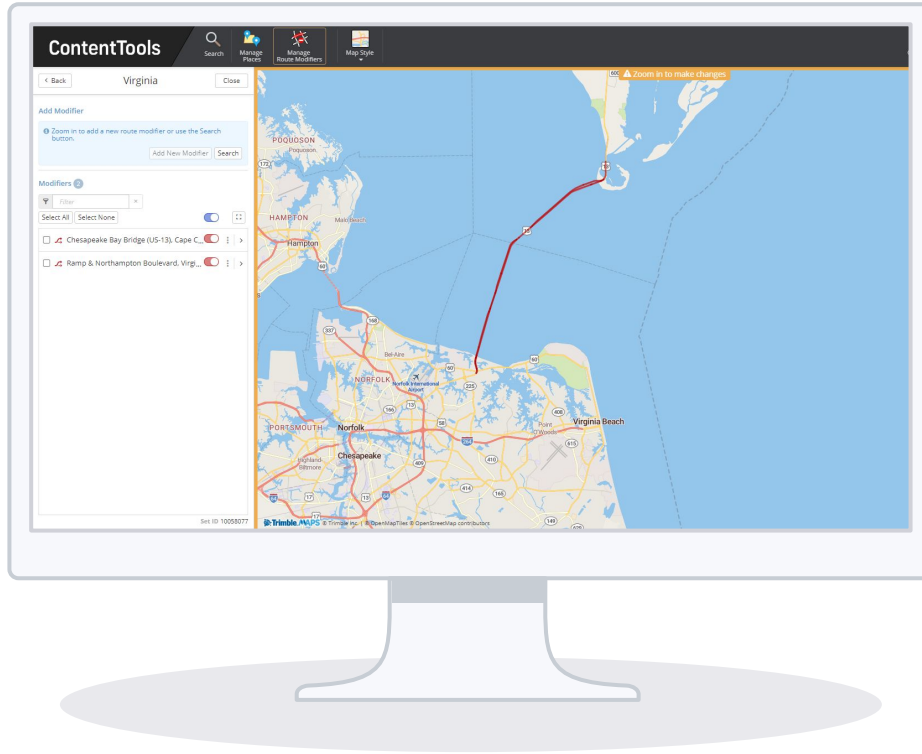
*Ensure fleet-wide safety and consistency*



# Set drivers up for success with remote configuration of navigation settings



# Regulate road preferences and influence route guidance



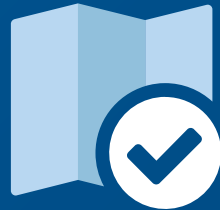
- Avoid or favor specific road segments to keep drivers on roads your business prefers

***TIP! Set avoids for temporary road closures or roadwork***

2

# Verified, commercial location data

*Precision in the last mile with detailed site information*



# Commercial vehicles need commercial location data.

- **>25%** of locations are off by more than 0.5 miles
- Zip code alone can be off by more than **20 miles**
- **Truck entrances and exits** are different than auto


This has a direct impact on safe navigation!

Details	
Place Name	Sysco Indianapolis
Gate 1 (Entry) - 39.872307, -86.229603	⊖
Gate Restrictions	Restrict automobiles
Gate 2 (Exit) - 39.872314, -86.229059	⊖
Gate Restrictions	Restrict automobiles
Gate 3 (Two Way) - 39.872376, -86.229907	⊖
Gate Restrictions	Restrict trucks
Gate 4 (Two Way) - 39.86794, -86.229031	⊖
Gate Restrictions	Restrict trucks

# We've verified and predefined a collection of commercial Places with rich facilities data for last mile navigation

- Precise Location
- Site Boundary (Geofence)
- Entry Gate and Preferred Path
- Exit Gate and Preferred Path
- Actionable Attributes

**Product Co. Warehouse**



6201 Warehouse Rd.  
Flemington, NJ 08822

**Hours of Operation**


Mon	6a-4p
Tue	6a-4p
Wed	6a-4p
Thu	6a-4p
Fri	6a-4p
Sat	9a-2p
Sun	Closed

**Contact Number**  
609-555-1212

**Avg. Dwell Time (min.)**  
65

Overnight Parking

▼ More





3

# Site guidance thru the last mile

*Avoid delays & alleviate driver stress*



# Keep drivers and loads safe while improving on-site efficiency

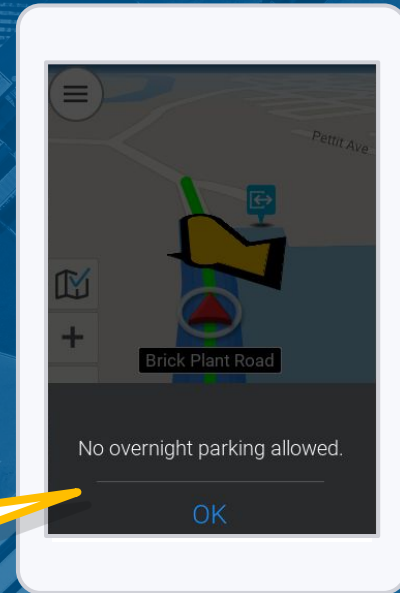


- Routing to the correct site entry or exit gate
- Precise turn-by-turn directions
- Avoids dangerous vehicle maneuvers
- Reduces delivery delays
- Reduce phone calls with dispatch

# Give drivers information to make smarter, faster deliveries - and decisions

- Detailed data about the facility
  - Parking availability, amenity information
- Improve execution at facility
  - Dock numbers, contacts
- Driver moves on to next load faster

*Notes for driver sent directly from the back office*



# Rich location data + navigation optimizes carrier-shipper relationships

- Avoid delivery delays and improve on time performance
- Ensure first time delivery success
- Communicate accurate ETAs
- Improved efficiency and safety at the facilities
- Accurate dwell and detention time calculations
- Enhance “Shipper-of-Choice” status



## CUSTOMER USE CASE:

# Incorporating precise location data into navigation for driver safety

*One of the largest trucking companies in the U.S. with over 2,000 tractors and 5,500 trailers*

## The Challenge

- Difference in street address and actual truck entrance at facility
- Incorporating customer-provided directions to drivers into navigation
- Sending important delivery/pick up notes to drivers

## The Solution

- Predefined customer locations with boundary polygons, truck entrance and exit gates, and paths that outline the customer's recommended routes
- Added specific driver guidance messages
- Data delivered directly to in cab navigation for drivers

## The Results

- Precise last mile routing and navigation in the last mile
- Drivers feel safe and confident
- Improved driving experience



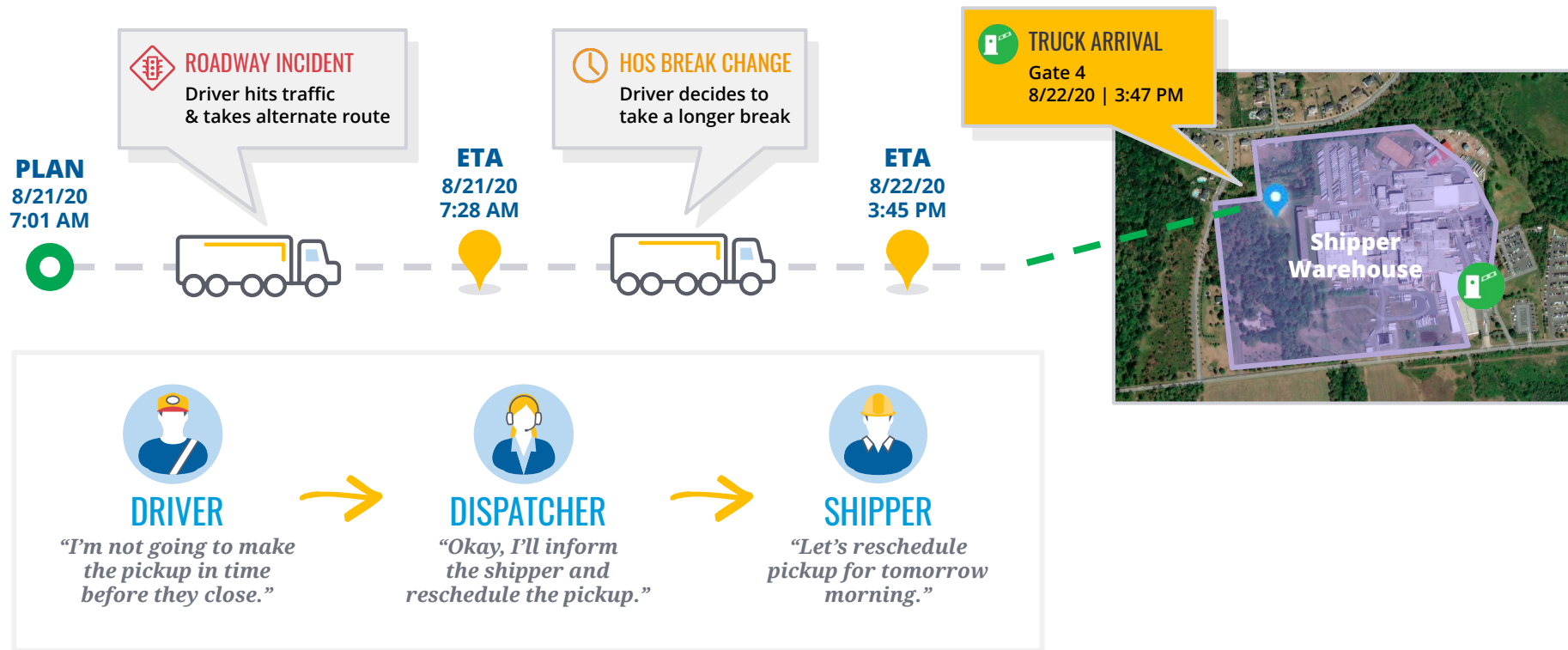
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# Dynamic ETAs & automated notifications

*Real-time data & “on the road” visibility*



# Visibility for dispatch intelligence and customer management



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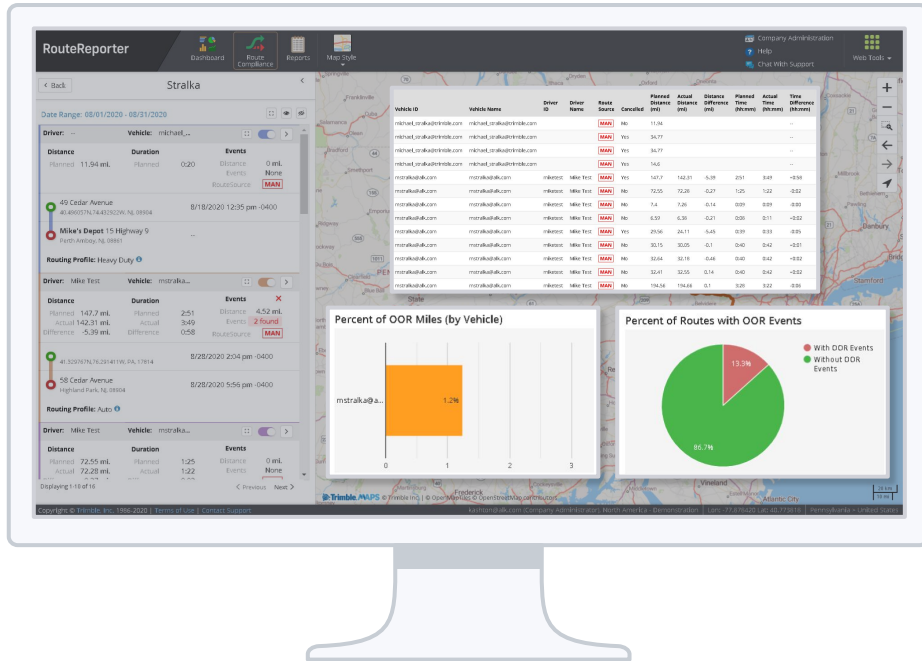
# Post-trip & performance insight

*Know what happened on the road*





# Uncover areas of opportunity and improve operations by comparing planned vs. actual routes



- Compare distances and drive times
- Analyze out of route, toll cost, operating hours, and route cost savings
- Identify driver coaching opportunities

*Gain insight fleet-wide, or drill down to each route*

## USE CASE:

# Uncovering potential cost savings through powerful route analysis

*Comparison of planned vs. actual routes for 155,000+ trips from 5 long haul carrier customers*

## Data Analyzed

- Routes planned using industry standard PC\*MILER
- CoPilot pings from the route driven

## Data Compared

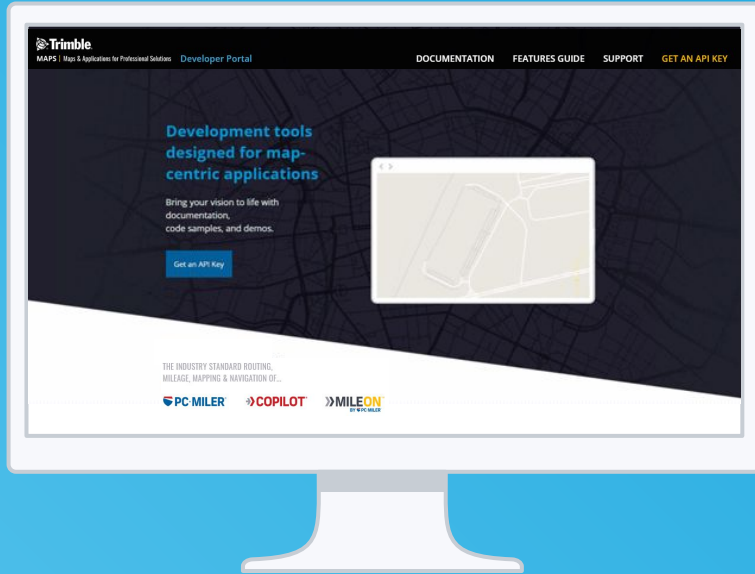
- Distance Traveled (miles)
- Drive Time/Duration (hours)
- Route Cost
- Toll Cost

## Findings

- On average, fleets could have saved **2.16%** or **\$222,763 a month** following the planned route
- On average, fleets could have saved **3,117** hours per month
- On average, fleets could have seen a **1.58% reduction in OoR miles** if drivers had executed the planned route =
  - 114,506 miles saved per month
  - 1,374,072 miles a year
  - Potential savings of \$2,500,811 a year by reducing OoR mileage



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# Q&A

NOVEMBER 5-6, 2020

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*A Virtual Experience*

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*Got 7 minutes? Watch our demo.*

How to leverage verified, commercial location data for streamlined operations in the last mile



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Director of Operations & Strategy

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# THANK YOU



**Global Offices**

USA, UK, France, Germany, India

**Trimble MAPS** is dedicated to transforming journeys through innovative routing and scheduling, visualization and navigation solutions. Rooted by a robust commercial vehicle road network and routing engine, our dynamic, map-centric platform is developed for a broad range of industries, workforces, and fleets of all sizes.