



# THE VALUE OF ROUTE PLANNING AND OPTIMIZATION

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## ROUTE PLANNING AND OPTIMIZATION



### POSTAL & PARCEL DELIVERY

- Letter delivery
- E-commerce packages



### PUBLIC WORKS

- Waste management
- Street sweeping
- Snowplow
- Work orders & inspections



### NEWSPAPER

- Home delivery
- Retail distribution
- Total market coverage (TMC)



### UTILITIES

- Meter reading
- AMR
- Work orders & inspections
- Outage management



## PARTNERS



20 YEAR  
GOLD  
PARTNER





- Traditional route planning
- Large-scale projects
- Route balancing and sequencing
- Detailed editing tools
- Custom features



- Dynamic routing for parcel delivery
- Fast results
- Scalable SaaS solution
- Reduced I.T. infrastructure
- ArcGIS for Server
- Standard APIs



## VALUE OF ROUTE OPTIMIZATION



Decrease  
total  
route time  
and distance



Improve  
customer  
satisfaction



Solve  
large  
problems  
in seconds



Help  
drivers  
on the  
road



Save time and  
money  
with  
hosted  
deployment

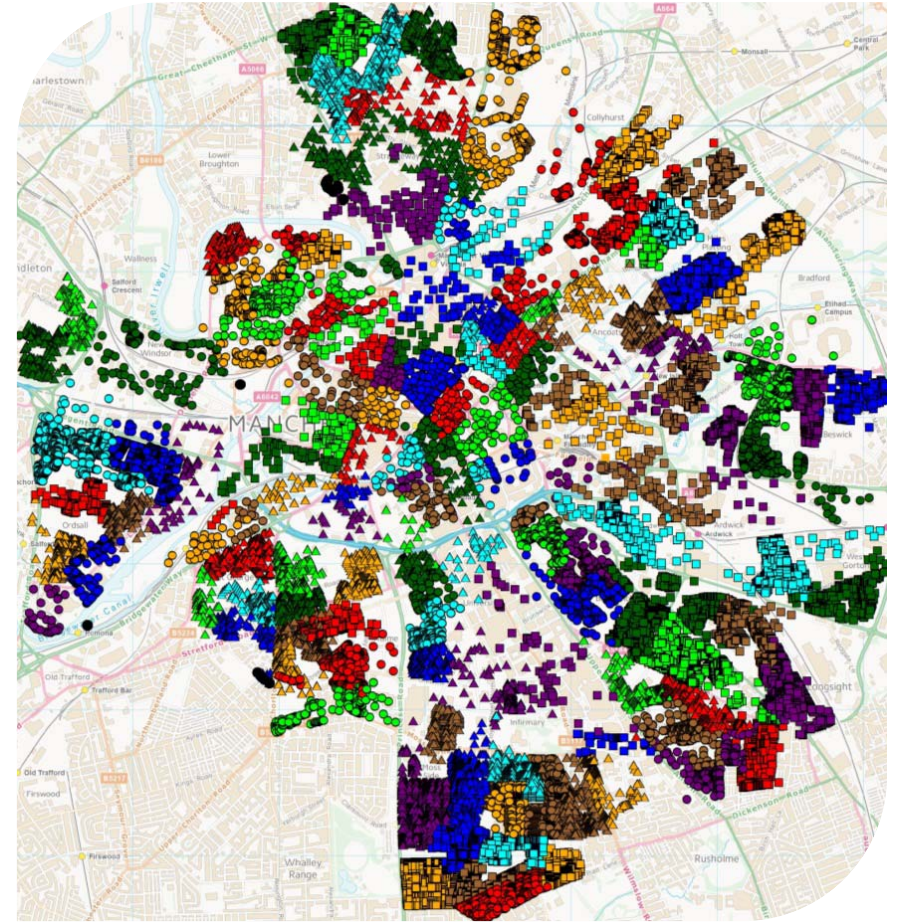
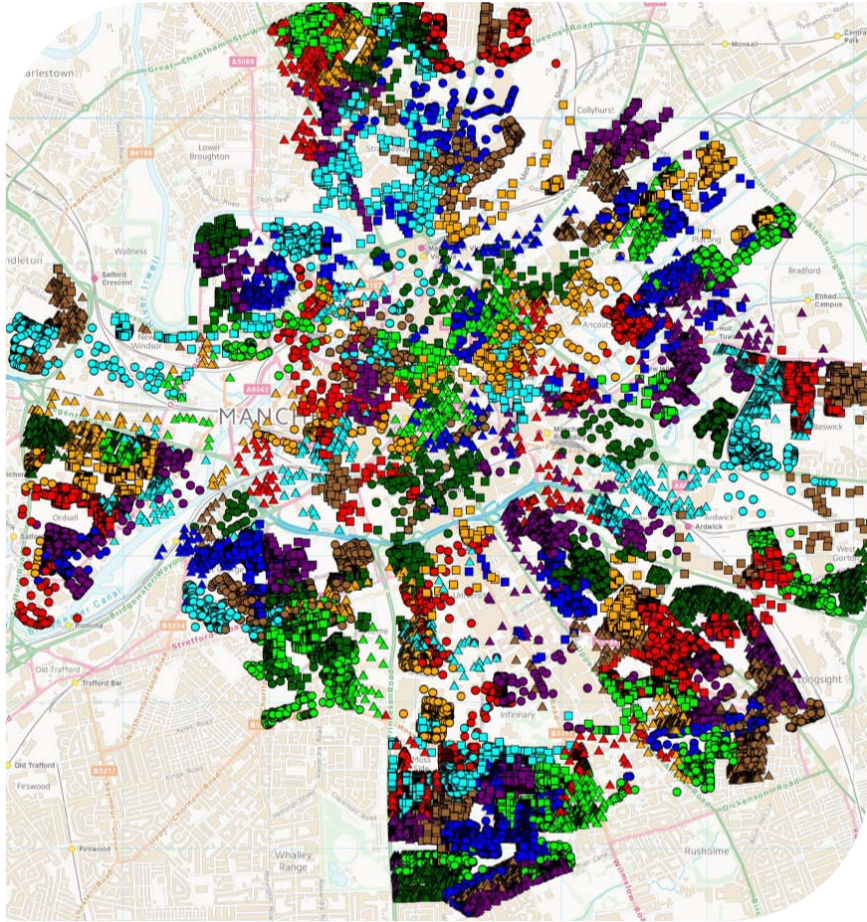




ROUTE PLANNING AND OPTIMIZATION

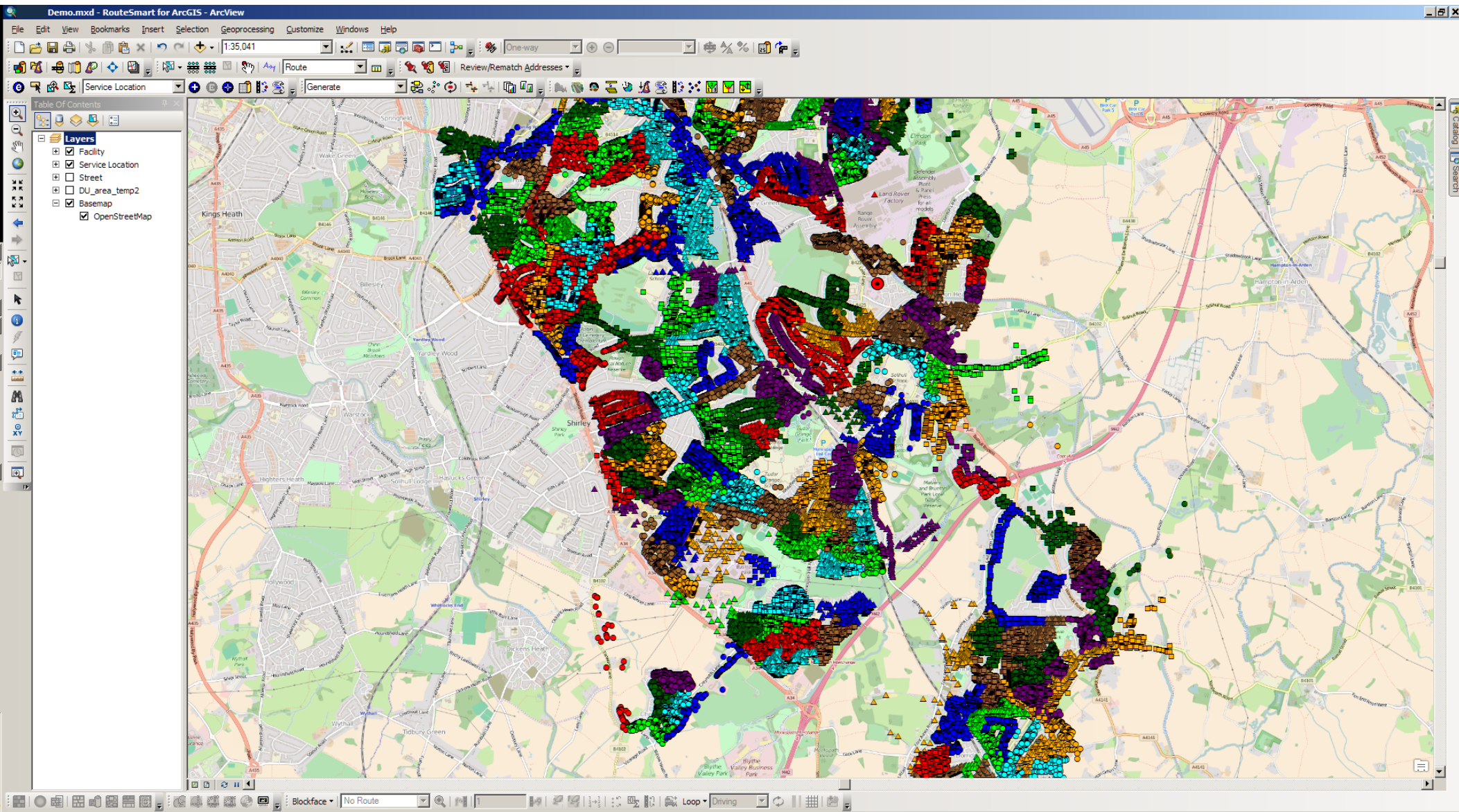


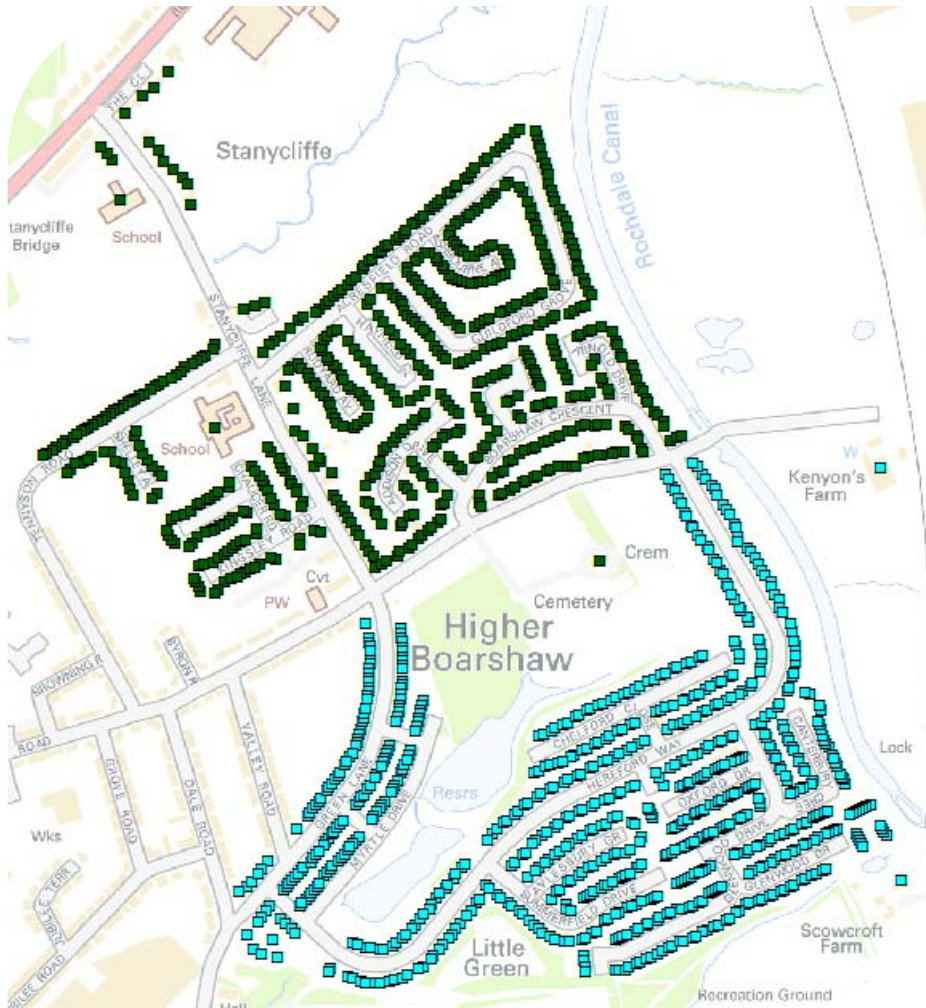




HIGH-DENSITY OPTIMIZATION





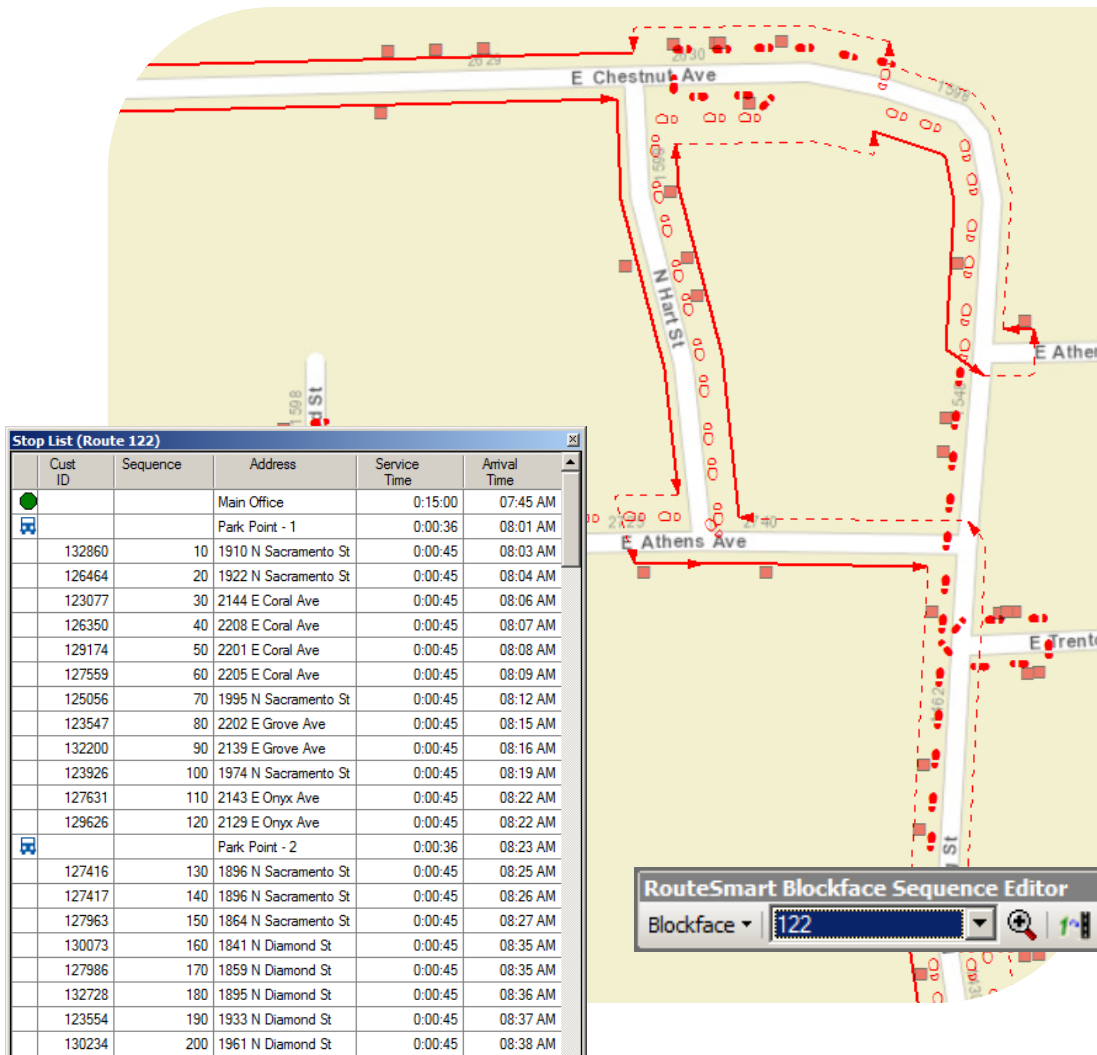


# OPTIMIZE SEQUENCES FOR LARGE ROUTES

- Hundreds of locations
- Walking service
- Driving service
- Park and loop problems



# DETAILED CONTROL FOR LINE OF TRAVEL



- Solver options
- Sequence editing tools



WEB SERVICES FOR DYNAMIC ROUTES

# RaaS<sup>®</sup>

A thick orange arrow that starts with a dot on the left, curves upwards and then downwards, and ends with a triangular arrowhead pointing to the right.

Routing as a Service

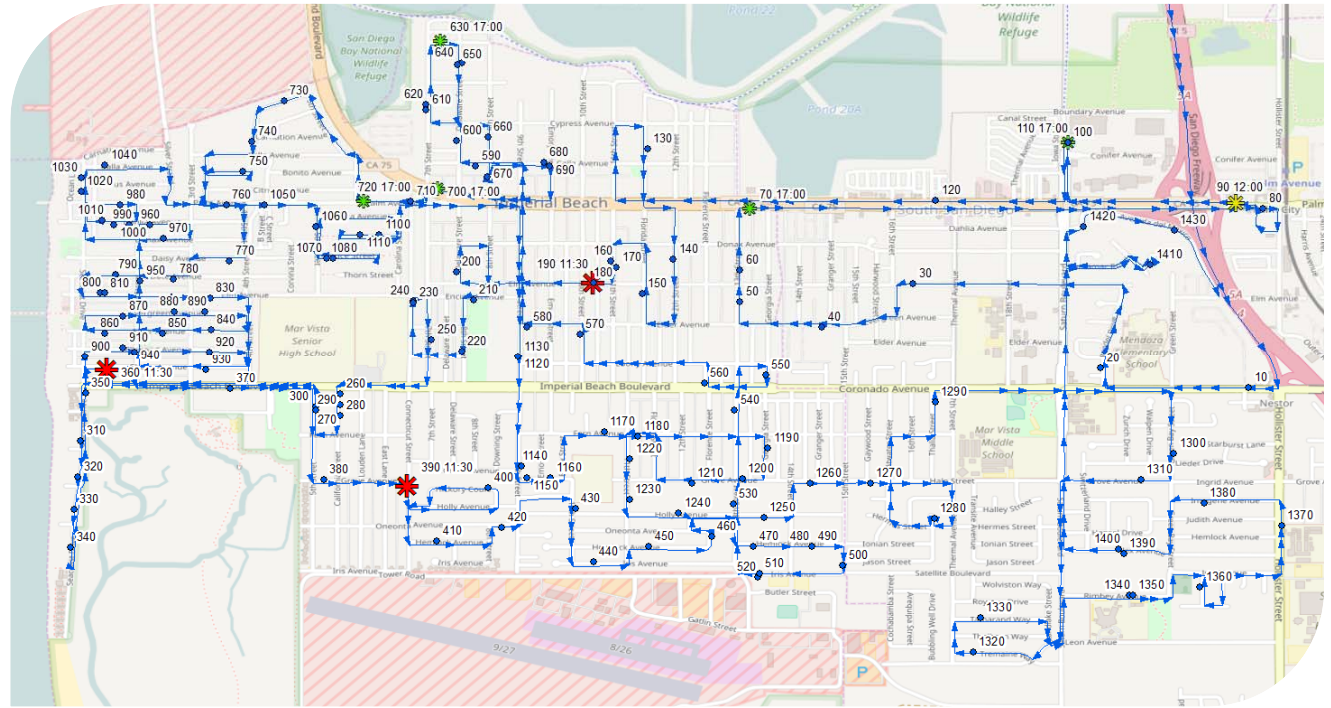
## ROUTE OPTIMIZATION - INTEGRATED



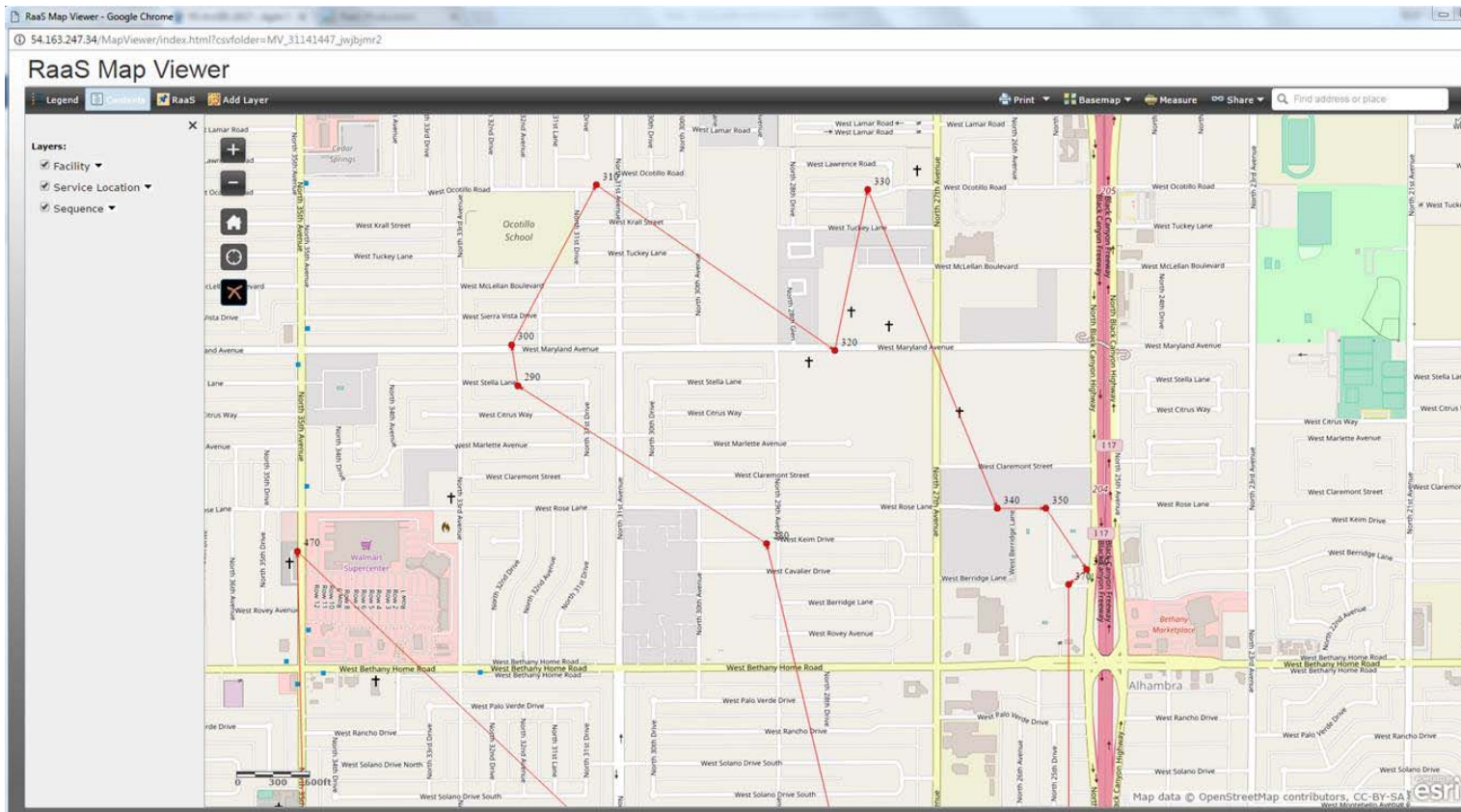
HANDHELDS  
TELEMATICS

Esri NAVIGATOR  
RS NAVIGATOR  
TOMTOM

GIS  
VIEWING  
REPORTING



- Hundreds of locations
- Walking service
- Driving service
- Time-definite deliveries



WEB VIEW

- Coming later in 2017
- View the results of RaaS in your browser





# CASE STUDY - ONTRAC



## CASE STUDY: DRIVING CLIENT SUCCESS

- Western US last-mile fulfillment
- 1400 routes per day in RaaS
- 70-75 stops per route
- Option for contract drivers
- RaaS integrated with handhelds



- Drivers sequence routes in <30 sec.
- 30 minutes more time for deliveries
- Time definite deliveries being met
- Fewer drivers making more deliveries
- 1 million routes in April



## CASE STUDY: DRIVING CLIENT SUCCESS

1. Packages sorted in Distribution Center



2. Driver scans packages



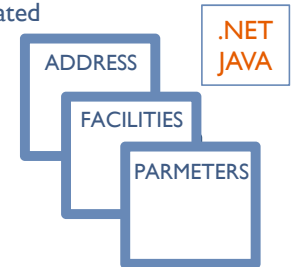
3. Driver requests sequence



4. OnTrac Distribution Center Server receives request



5. Objects are created



6. Sent to RaaS  
Geocoded  
Sequenced



9. Driver loads the van and goes



8. Results are returned to the driver



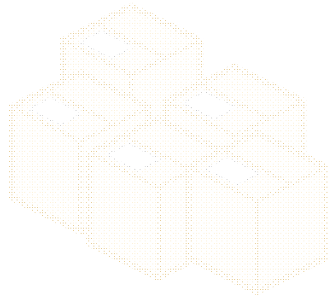
7. OnTrac requests results and processes



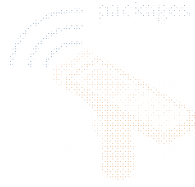


## CASE STUDY: DRIVING CLIENT SUCCESS

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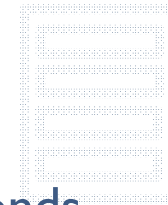
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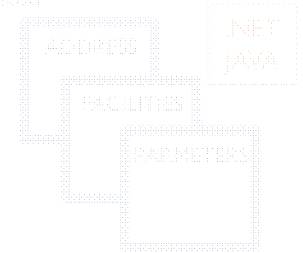
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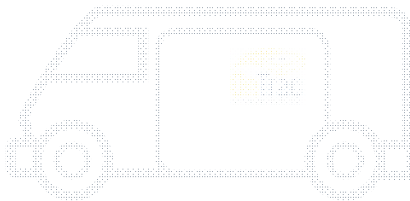
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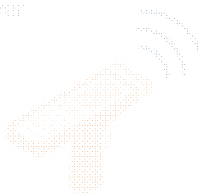
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7. Driver loads the van and goes



8. Results are returned to the driver



:30 seconds

**:05 seconds**



6. Sent to RaaS Geocoded Sequenced





## CASE STUDY: DRIVING CLIENT SUCCESS

### CLIENT BENEFITS

Reduce average travel distance	8-10%, 50 miles per route ~ 4.5 miles, \$1.25/mile
Decrease route planning time	30 minutes, 6-8 additional stops \$10/hour
Save time sorting and loading, load in waves	15 minutes, 3-4 more stops \$10/hour
Reduce number of routes	10% fewer routes Fixed costs \$100/route
Meet critical delivery times	Fewer redeliveries 1-2 per route \$1-\$2



# CASE STUDIES

## CASE STUDY // RouteSmart for Postal & Parcel Delivery

### Isle of Man Post Office Delivers Internal Productivity Savings

➔ Isle of Man Post Office has increased productivity of postal delivery rounds



"The software is very intelligent and can hold large amounts of information to give accurate modeling"



#### THE CHALLENGE

The underlying trend within volumes over recent years. All costs increase. Delivery times are also the most important background that the Isle of Man from Integrated Skills Limited. Traditionally delivery routes, analysis of each route. This is of the delivery postman to get information with other data. It was time consuming and slow. Despite the professional analysis was subjective.

#### THE SOLUTION

As Mike Cribben, Special Projects for the investment was to be without the need for labor. Still, we needed to remove the Digital mapping allows accurate required a solution that ended in our approach to reviewing. The RouteSmart software has walking routes, urban and rural and street box collection.

## CASE STUDY // RouteSmart for Postal & Parcel Delivery

### How Posti Group Implemented RouteSmart to Realize Significant Cost Savings



"RouteSmart plays a big role in Posti's future."



#### EXECUTIVE SUMMARY

Beginning in 2008, Posti Group began a successful route improvement project with RouteSmart at its core. The team integrated RouteSmart into their operations processes, improved geographic data, and learned to better handle variations in daily volume. The results of the project more than achieved the required minimum 5% cost savings across the board, and showed positive returns much faster than expected.

#### THE COMPANY

Posti provides businesses and consumers with delivery services for letters, direct mail, newspapers, and magazines throughout Finland and 11 more countries. The company, owned by the state of Finland, has been operating for nearly 400 years, and had 2014 net sales of EUR 1,859 million. They provide a solid background and long-term commitment to their strategy.

Posti Group's four divisions include Postal Services, Parcel and Logistics Services, Italia Russia, and OpusCapita. Through its 23,000 employees and 1,000 post offices, and 400+ parcel stations, Posti serves 5.5 million locations and delivers 9 million sendings every day.

#### THE CHALLENGE

Business challenges for Posti included measuring and increasing delivery efficiency, improving operating scenarios, and increasing cost savings throughout the organization. From an operations perspective, Posti needed to measure, plan, and optimize their routes as well as perform analytic modeling. These would be required to more effectively react to changing delivery volumes. But Posti would first have to integrate RouteSmart into their existing infrastructure, and improve geographic data such as delivery location information and street data for all of their service areas.

#### THE GOALS

Posti's ambitious goal of 5% targeted cost savings at each delivery center needed to be met by decreasing total travel distances, effectively modeling the proper number of routes based on delivery volumes, and increasing vehicle utilization. In addition, Posti desired to achieve even higher service reliability. They would use RouteSmart to help them attain all goals.



## CASE STUDY // RouteSmart for Postal & Parcel Delivery

### How the Swiss Post optimized over 2,300 mail routes and saved over 2.5 million Swiss francs (CHF)

➔ Working closely with postal carriers, Swiss Post harnessed RouteSmart delivery times for 2,300 routes throughout Switzerland. They then optimized over 1.3 million CHF in 2013, significantly decreasing the carriers' individual



#### THE CHALLENGE

The Swiss Post has been delivering mail throughout Switzerland since services vastly different geographic areas, ranging from the country's cosmopolitan cities like Geneva and Zurich.

The Head for Route Planning and Editing, Markus Steinmann, together Specialists, has reorganized over 2,300 routes in more than 90 facilities.

The verification of the sequences by the Delivery Team Manager was (manually), then moved to Microsoft Excel and color coded maps.

As Switzerland grew, the buildings, related traffic, and mail volume increased. New delivery points were added manually at the apparent best sequence mail sorting centers. The process was not ideal because new points capacity, causing the routes to become less geographically compact.



The world's most intelligent routing system



## CASE STUDY UNITED STATES POSTAL SERVICE

### United States Postal Service Finds Success with RouteSmart's RaaS

The United States Postal Service required a new solution for a new line of business, so they implemented RouteSmart RaaS to optimize routes for Sunday deliveries of Amazon packages. The Postal Service relies on RaaS to improve efficiency by 30%, and has been able to double their Sunday deliveries over the past year.



## ABOUT ROUTESMART







POSTAL &  
PARCEL DELIVERY



PUBLIC WORKS



NEWSPAPER



UTILITIES



RouteSmart is  
**global**



Since **1986**



**Experience and  
innovation**



**Route planning**  
is at our core



**Big Data**  
routing



## DRIVING CLIENT SUCCESS



### Developed by RouteSmart

- We build RouteSmart
- We support it
- We back it
- We partner with industry leaders



### Client Services

- Experienced Implementation Consultants
- Product training
- Special projects
- Dedicated Support Staff



### Added Benefits

- Networking forums
- SmartDirections news and info
- Skill Builder program
- Routing U
- Intersect conferences



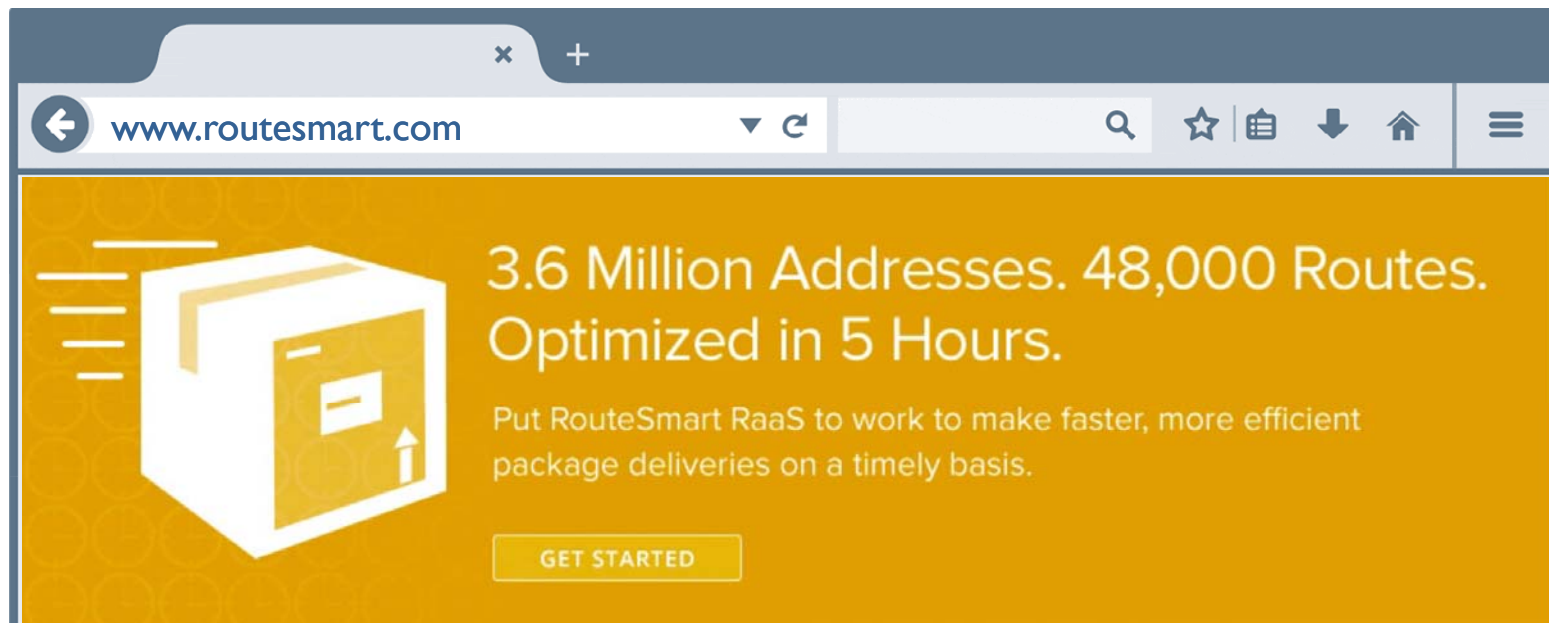
## INTERNATIONAL CLIENTS



NEW  
ZEALAND  
POST  
GROUP



- Company information
- Industry profiles
- Case studies





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