

# Distribution & Geospatial Analytics

GeoSmart Asia 2018 / #Locate18  
Stream: Smart Cities  
10th Apr, 2018

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Spiral Data Group Pty Ltd



## OUR STORY



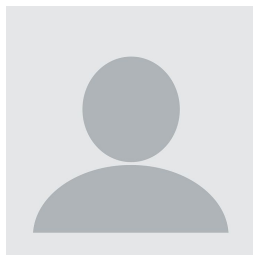
Build custom geospatial  
analytics for distribution networks



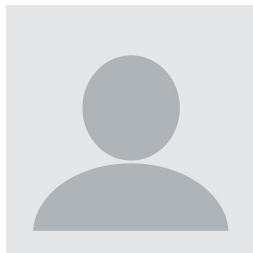
SaaS product in beta for  
automated B2B prospecting

1. Vehicle routing and fleet sizing
2. Inventory management for reps
3. Find B2B prospects that match your business

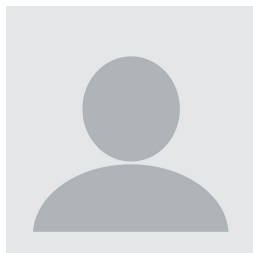
## ACTORS



MAPS

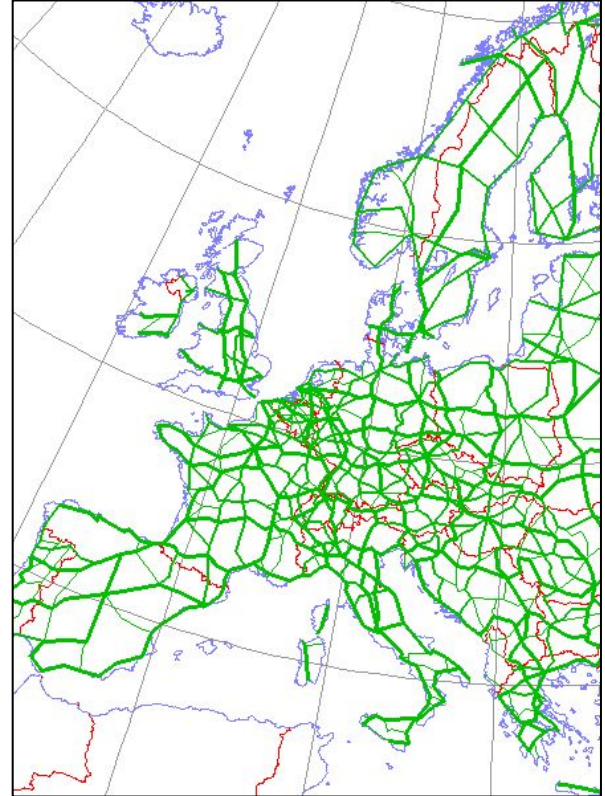
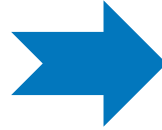
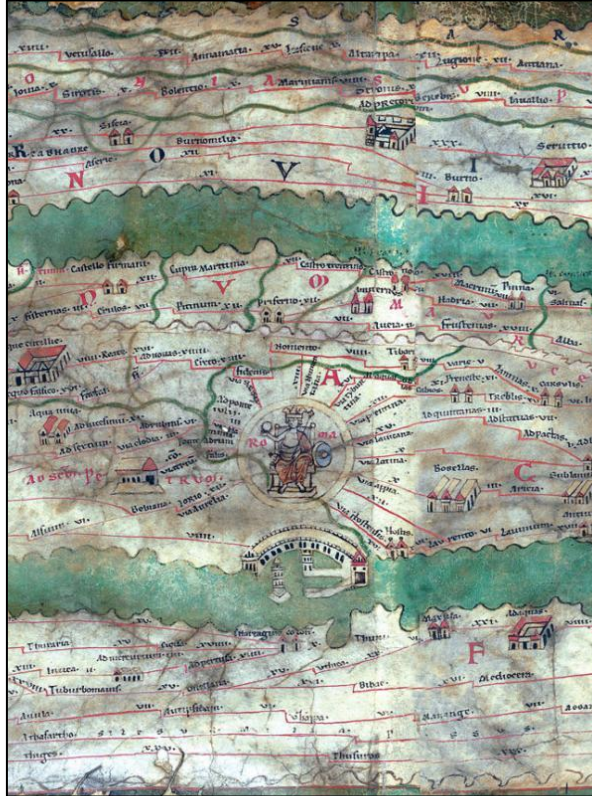


DISTRIBUTION



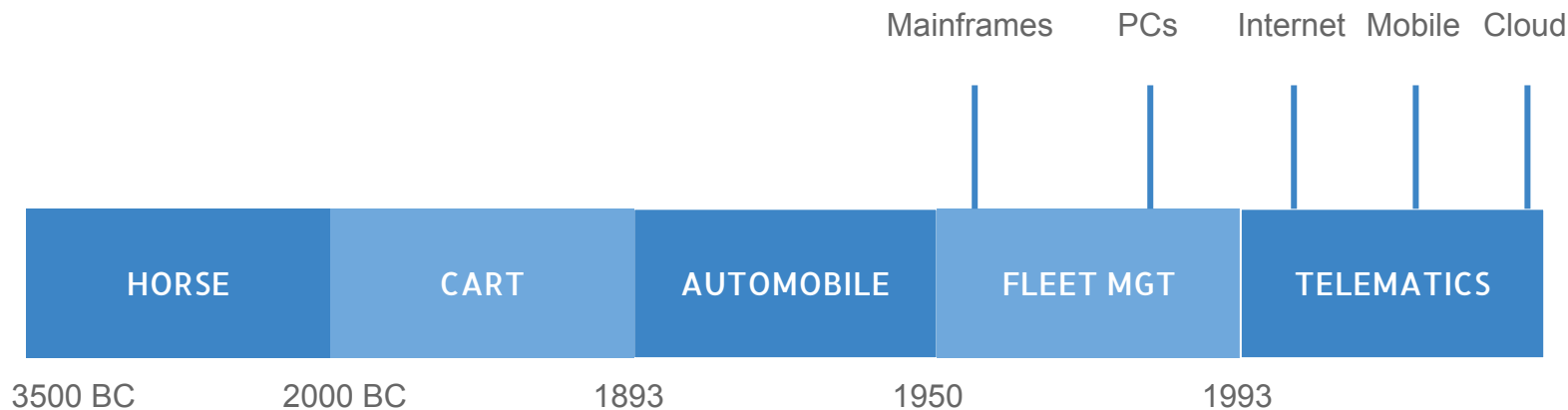
DATA ANALYTICS

# MAPS



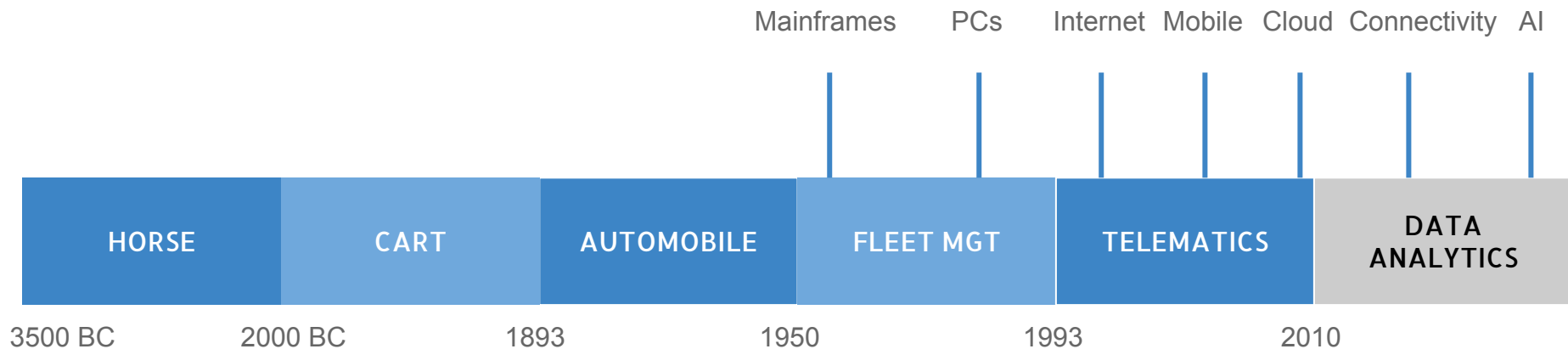
## DISTRIBUTION

Change of landscape in distribution  
due to external innovation.

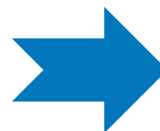
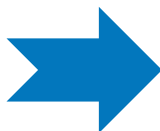


## DISTRIBUTION

The next phase of Data Analytics  
has already begun.

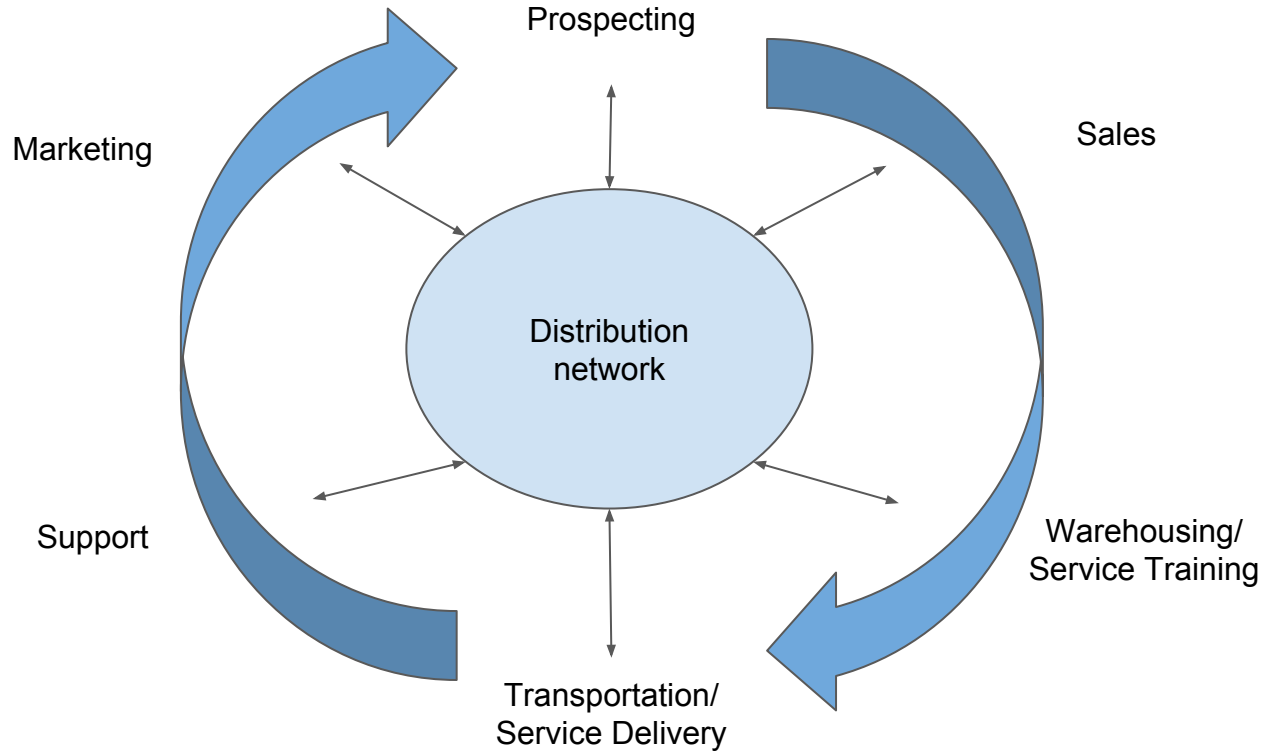


# DATA ANALYTICS





## THE PROBLEM(S)



# CASE STUDY #1

## 1. Original Routes

The original routing plan was generated following "good rules of thumb", but it is sub-optimal in terms of distance and fleet costs.

[Show Original Routes](#)

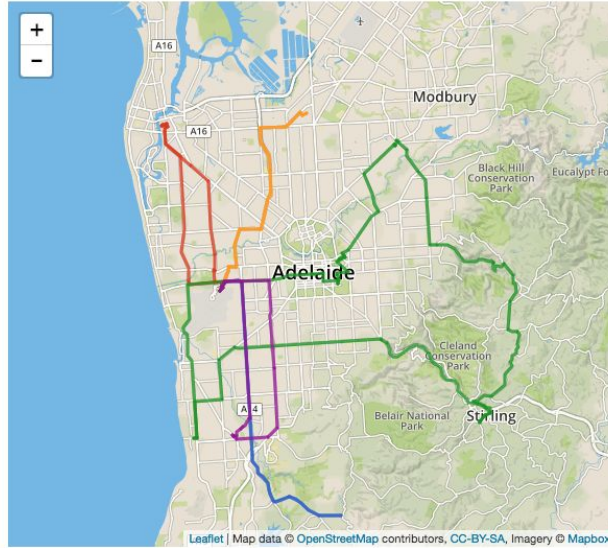
## 2. Optimised Routes

Using automated optimisation algorithms, we can reduce the total distance travelled, saving fuel and time.

[Show Optimised Routes](#)

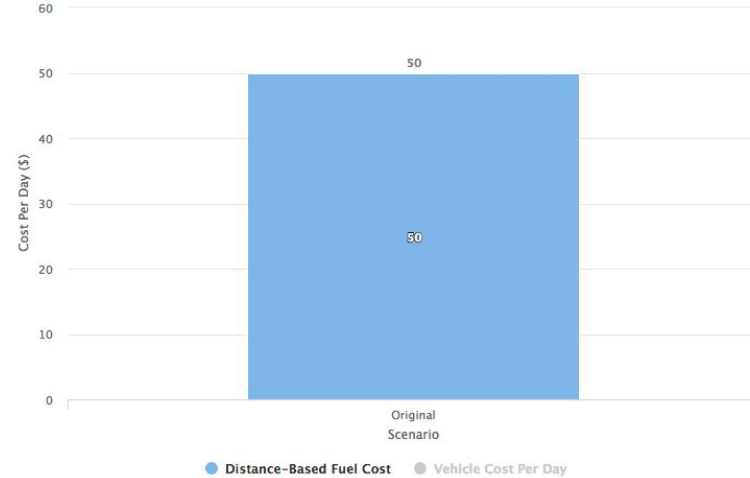
## 3. Optimised Fleet

We can take optimisation a step further by considering fleet composition as well as routing, saving on total cost of ownership and operation.

[Add Fleet Optimisation](#)

Summary		
Number of Vehicles	5	
Total Route Distance (km)	210.8	
Total Orders Delivered	107	
Vehicle	Distance (km)	Orders Delivered
Vehicle 1	39.9	12
Vehicle 2	30.5	15
Vehicle 3	26.2	10
Vehicle 4	27.1	30
Vehicle 5	87.2	40

## Scenario Cost Per Day



## Scenario comparison

Scenario	Num Vehicles	Fuel Cost (\$ Per Litre)	Total Distance (km)	Vehicle Cost Per Day (\$)	Distance-Based Fuel Cost (\$)	Total Cost Per Day (\$)
Original	5	1.20	210.8	251	50	301

# CASE STUDY #1

## 1. Original Routes

The original routing plan was generated following "good rules of thumb", but it is sub-optimal in terms of distance and fleet costs.

[Show Original Routes](#)

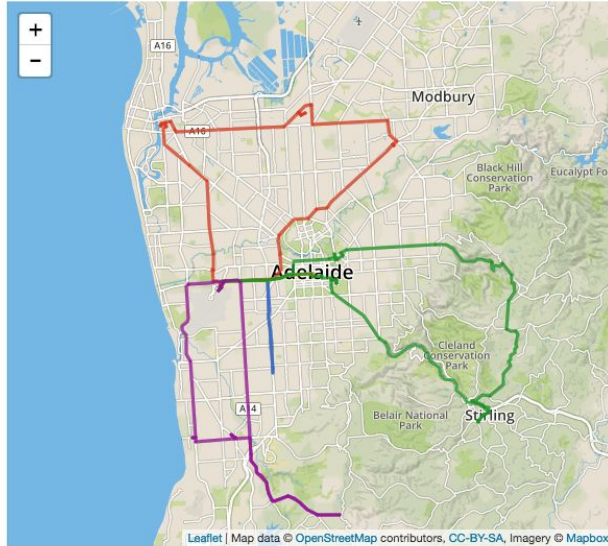
## 2. Optimised Routes

Using automated optimisation algorithms, we can reduce the total distance travelled, saving fuel and time.

[Show Optimised Routes](#)

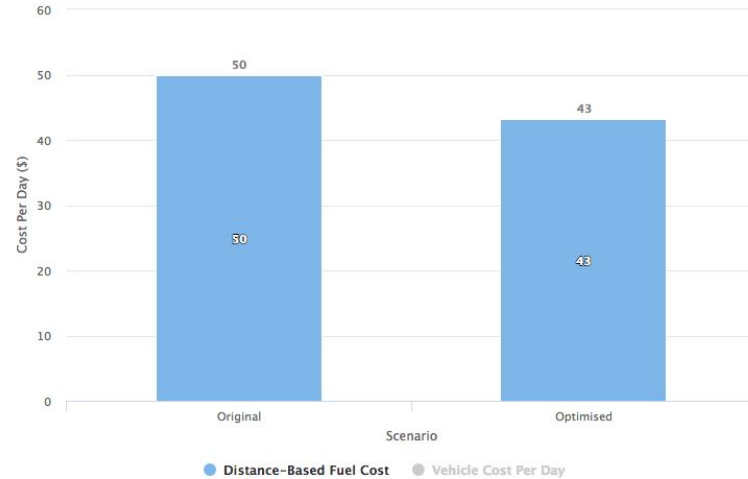
## 3. Optimised Fleet

We can take optimisation a step further by considering fleet composition as well as routing, saving on total cost of ownership and operation.

[Add Fleet Optimisation](#)

Summary		
Number of Vehicles	5	
Total Route Distance (km)	181.5	
Total Orders Delivered	107	
Vehicle	Distance (km)	Orders Delivered
Vehicle 1	18.0	10
Vehicle 2	12.5	13
Vehicle 3	47.1	33
Vehicle 4	45.6	36
Vehicle 5	58.3	15

## Scenario Cost Per Day



## Scenario comparison

Scenario	Num Vehicles	Fuel Cost (\$ Per Litre)	Total Distance (km)	Vehicle Cost Per Day (\$)	Distance-Based Fuel Cost (\$)	Total Cost Per Day (\$)
Original	5	1.20	210.8	251	50	301
Optimised	5	1.20	181.5	251	43	294

# CASE STUDY #1

## 1. Original Routes

The original routing plan was generated following "good rules of thumb", but it is sub-optimal in terms of distance and fleet costs.

[Show Original Routes](#)

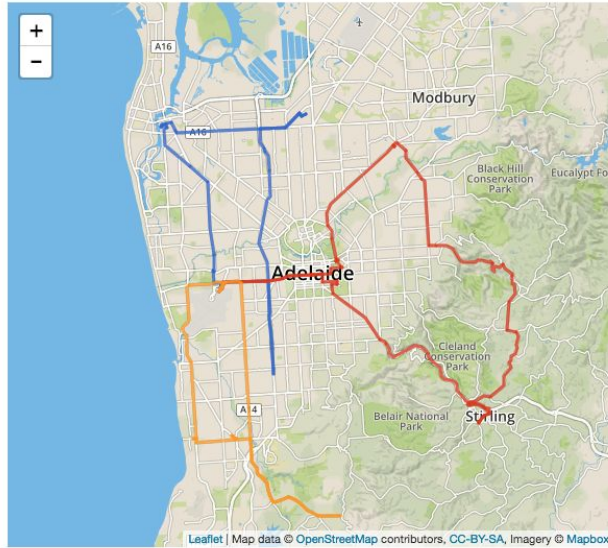
## 2. Optimised Routes

Using automated optimisation algorithms, we can reduce the total distance travelled, saving fuel and time.

[Show Optimised Routes](#)

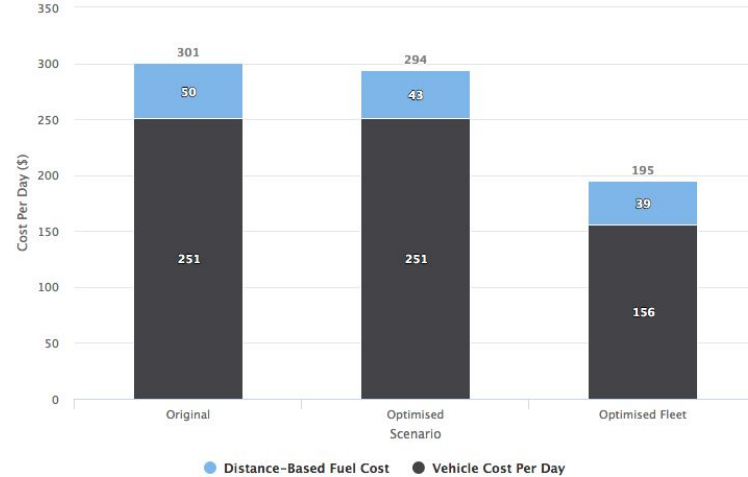
## 3. Optimised Fleet

We can take optimisation a step further by considering fleet composition as well as routing, saving on total cost of ownership and operation.

[Add Fleet Optimisation](#)

Summary		
Number of Vehicles	3	
Total Route Distance (km)	164.2	
Total Orders Delivered	107	
Vehicle	Distance (km)	Orders Delivered
Vehicle 3	49.6	35
Vehicle 4	45.6	36
Vehicle 5	69.0	36

Scenario Cost Per Day



Scenario comparison

Scenario	Num Vehicles	Fuel Cost (\$ Per Litre)	Total Distance (km)	Vehicle Cost Per Day (\$)	Distance-Based Fuel Cost (\$)	Total Cost Per Day (\$)
Original	5	1.20	210.8	251	50	301
Optimised	5	1.20	181.5	251	43	294
Optimised Fleet	3	1.20	164.2	156	39	195

## CASE STUDY #2

### Truck Visit Analytics v1.0.1 - Demo

Scorecard

Not Visited

Achievement

Utilisation

Stops

Plan - View

Plan - Entry

Exceptions

Definitions

#### >7 Days

TA-Ship-to	Last Visit (days)	Avg Mth Qty	Avg Mth \$
S1510 Meeveo	11	5	368
S1396 Realblab	11	2	166
S1673 Demivee	12	1	102
S1884 Blogpad	12	1	85
RTM2756 Aivee	11	1	58

#### >14 Days

TA-Ship-to	Last Visit (days)	Avg Mth Qty	Avg Mth \$
S1584 Zoomzone	19	3	224
S1186 Realbuzz	18	2	184
S0336 Divanoodle	20	1	76
C28274 Twiyo	22	1	61
C25583 Tagfeed	19	1	61
S1615 Edgewire	28	1	60

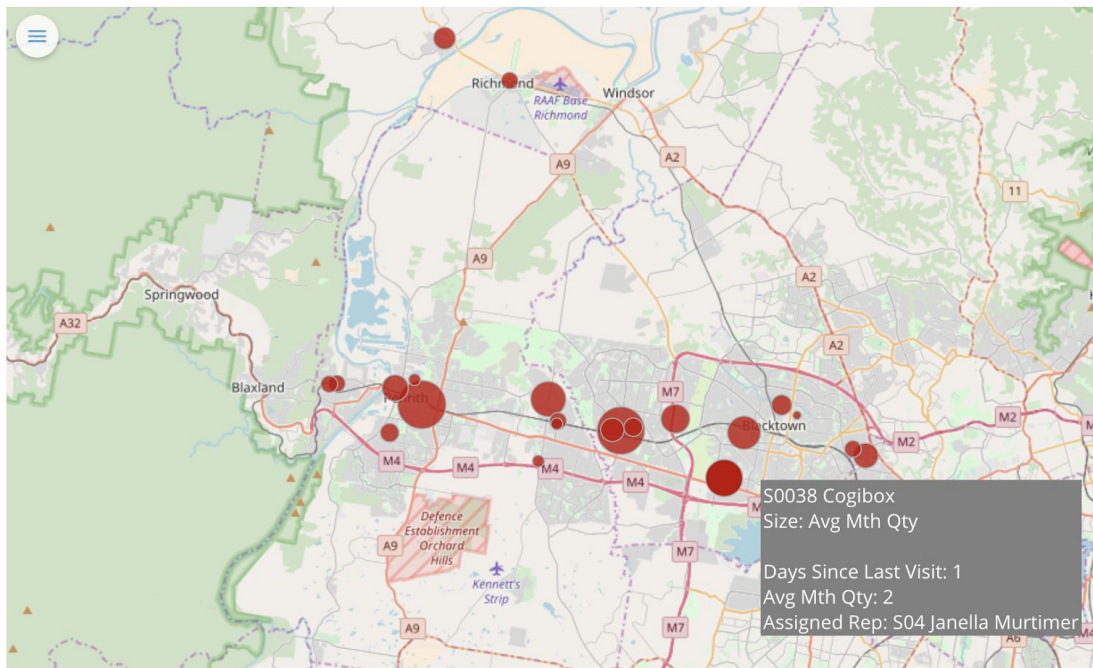
#### >30 Days

TA-Ship-to	Last Visit (days)	Avg Mth Qty	Avg Mth \$
S1826 Meevee	39	1	205
S1790 Rooxo	34	1	63
S1487 Feedfire	39	1	61
S0777 Eidel	35	0	31
C20319 Zoonoodle	32	0	26
C23618 Eidel	35	0	17

=<7 Days

State : NSW

Assigned Rep : S04 - Janelia Murtimer

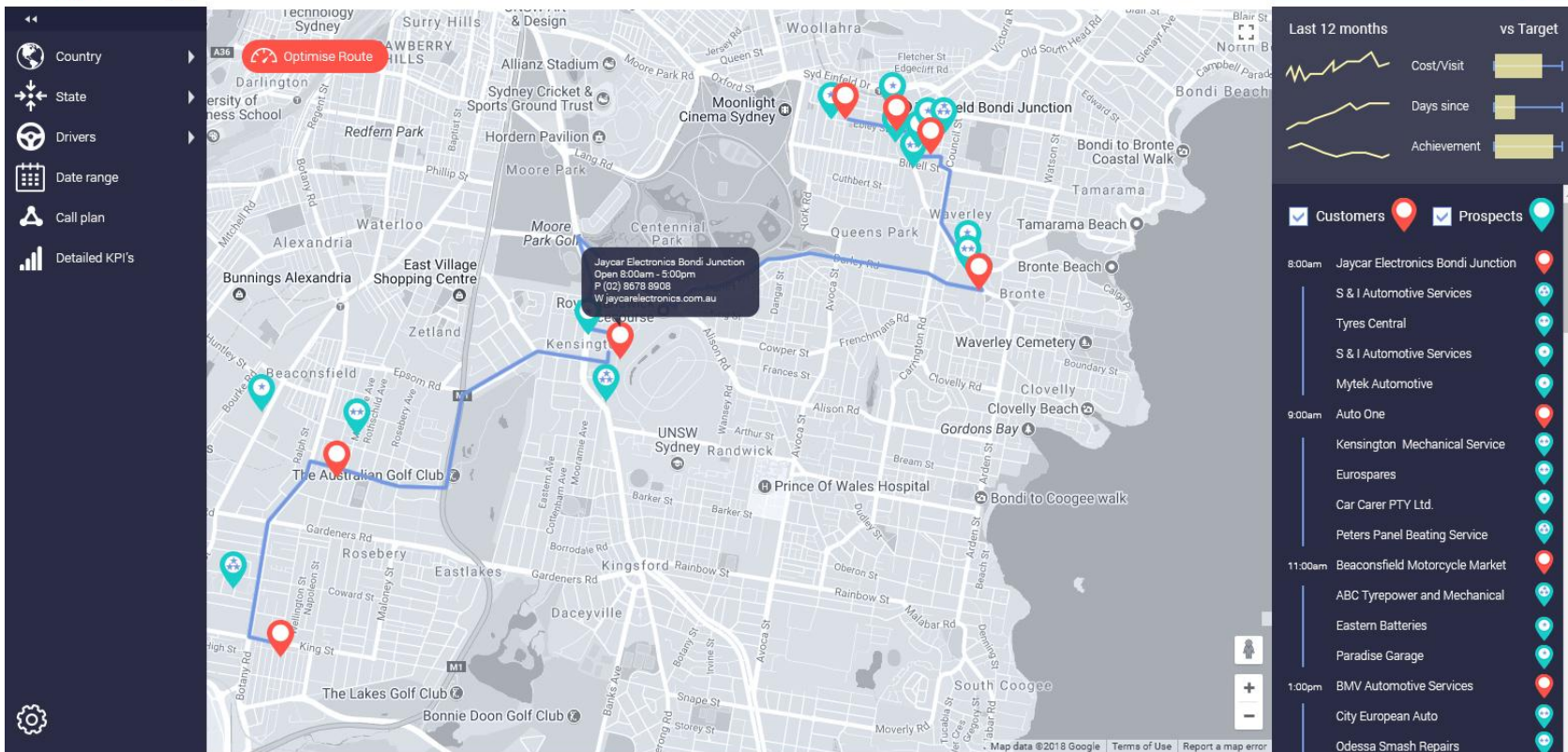




# CASE STUDY #3

MapRunner

Hello George



- Convergence of enablers
- Unstructured data provides “infinite contextual layer”
- Time is now for data analytics or lose competitive advantage

THE END

Thank you.

Kale Needham | CEO & Founder

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