



# ROUTE BUILDER

## ROUTE PLANNING & OPTIMIZATION

Sunstone offers a world class system which is engineered to maximize efficiencies by identifying the most cost and time effective routes

Route ID	Start Time	Stops
N212773W-143	06 AM	SHOPRITE NAMIBIA (PTY)LTD T/A(0001015179) → SWC 9186 WECHE & VOIGT → SWC 9186 TOPS N
N21407W-1	06 AM	Dpt-N100 → SEVEN SE → JND → BANDI → ROP → Cellzon → DISQ → SOU → TAL → SIL → PER → MED
N175094W-3	06 AM	Dpt-N100 → MED → HAFI → GAFB → WIM → VET → WET → B → BORN → THE → AT → HUF → HAF → TH
N202977W-10	06 AM	WOERMANN B → SHOPRITE NAMIBIA (PTY)LTD T/A(0001010581) → CATALYST → AGRA → SHOPR
N201782W-11	06 AM	HOC → ZANG
N150763W-13	06 AM	PICK 'N PAY RETAILERS (PTY) LTD(0001017567) → JONH → AGR → DE → Dpt
N135296W-17	06 AM	Dpt-N100 → MCO → OSHA → SHON → FENC → HALU → SPEC → MAYT → ANRU → OKASA → SE
N203498W-95	06 AM	PICK 'N PAY RETAILERS (PTY) LTD(0001010029) → Dpt-N100
N203180W-12	06 AM	Dpt-N100 → BAZA → AIR Q → PICK 'N PAY RETAILERS (PTY) LTD(0001010915)
N185512W-117	06 AM	Dpt-N100 → GARD → MADER → RUSSPA → ABAY → WAL → HARI → DTS → WOERMANN B
N45368W-119	06 AM	Dpt-N100 → DELHI MINI MARKET & BA → FLOP → THE H → CLID → JONH → WOERMANN BRO
N57720W-118	06 AM	Dpt-N100 → STEL → OSH → OSH → WOERMANN BROOK LUXURY



FUEL CONTROL    DIGITAL JOURNEY    FLEET PRO    CONTROL HUB





# ROUTE BUILDER

Reduce  
transport  
distribution costs  
by up to **22%**  
when  
combined with



CONTROL  
HUB

Developed by Sunstone Logistic Systems, RouteBuilder is a dynamic route optimization suite, built for the cloud, enabling enterprise wide scalability and measurable logistics savings.

RouteBuilder provides complete visibility of your entire fleet, schedules and service tasks from a single interface and allows for centralized primary, secondary & multi-wave planning to take place over multiple sites.

Our costing model is geared towards ensuring affordability, because it operates on a monthly subscription and pay-for-what-you-use basis, with no upfront fees. Our Software as a Service (SaaS) model negates the need for hardware- and traditional business software installations, and added IT infrastructure costs. This is a further cost saving measure, which also enables wide scale accessibility.

## Why Choose RouteBuilder?

### Optimized Efficiencies and Reduced Costs

This world class system is engineered to maximize efficiencies by identifying the most cost and time effective routes. Efficiencies are achieved through accurate resource modelling, reducing the number of resources used for deliveries, collections and service tasks, which in turn leads to reductions in fuel consumption, harmful emissions, running and maintenance costs and overtime costs, furthermore a significant reduction in total time to schedule.

### Real World Constraints

The automatic Scheduler factors in the following when dynamically optimizing each route:

- historical and up to date traffic conditions
- location of visits
- customer prioritization
- customer resource restrictions
- receiving time at customers
- product and vehicle capacity restrictions
- site operating hours

# ROUTE BUILDER DNA

The Scheduler has been designed for a modern and scalable enterprise; Scheduling can be conducted for single day or a planning horizon that spans over multiple days, accommodating for multiple modes of delivery (internal transfers between sites, and site-to -customer tasks). Resources can be shared between sites which provides opportunity for consolidation of fleets. The Scheduler can be configured to the distribution or service environment, giving the user flexibility to conduct multiple waves of planning to efficiently allocate tasks to the available resources.

## Key Features:

### Multi-Functional Scheduler

RouteBuilder is an all in one planning system that caters for multi-day, multi-depot and multi-tier (Primary & Secondary Distribution). This allows the users to plan for different sites and load types over multiple days from a single system without needing to logout.

### Wave Planning

RouteBuilder caters for wave planning which allows the users to pre-plan tasks and lock them on a vehicle for second round planning.

### Delivery & Drive Windows

RouteBuilder adheres to multiple pre-set scheduling rules such as no-drive windows and customer delivery windows.

### Depot Dispatch Bay Modelling

RouteBuilder allows for automated despatch bay modelling, eliminating the need to calculate the optimization of dispatch bays.

### Reporting

RouteBuilder provides a rich set of actionable reports that can be tailored to the requirements of the client.

## Architecture Advantages:

### Cloud Hosted

RouteBuilder is a cloud hosted solution, designed for enterprise wide scalability and centralised planning.

### User Interface

RouteBuilder has a user friendly intuitive interface with visual cues and status indicators that enables the user to learn quickly and use efficiently.

### Administration & Support

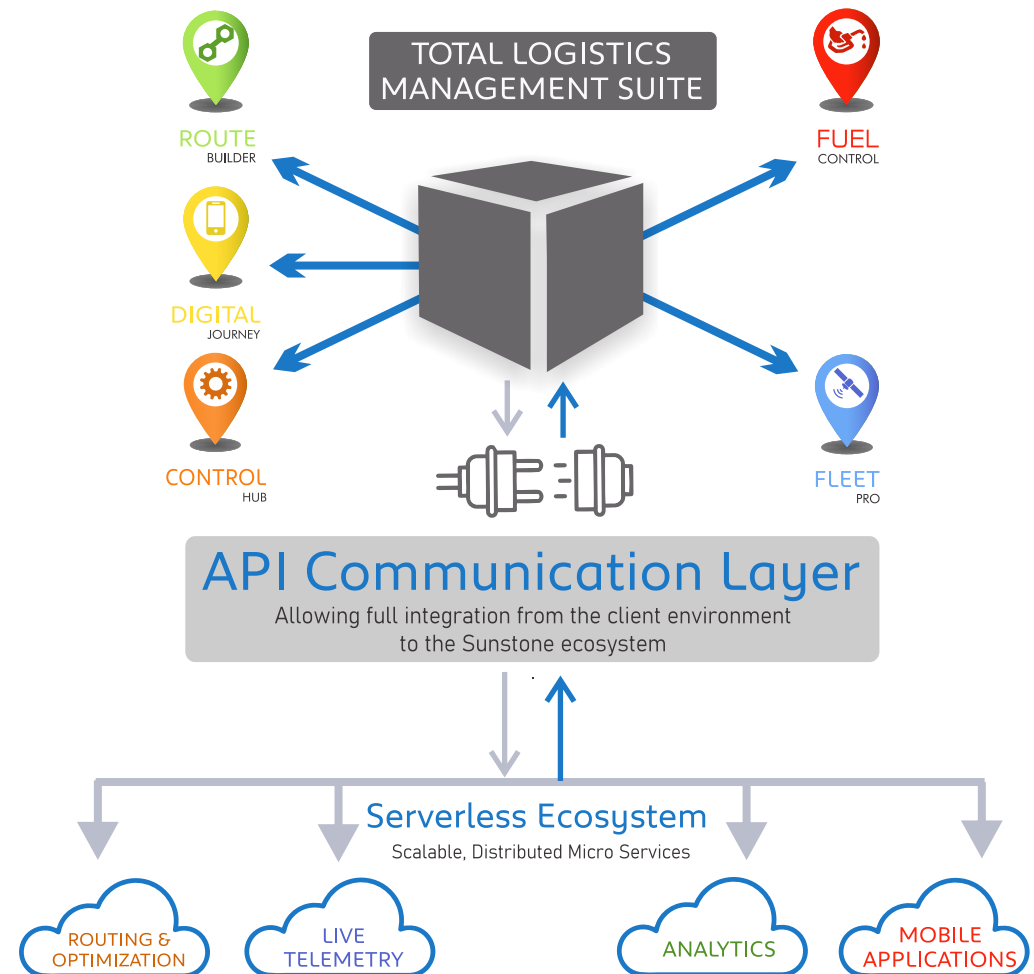
RouteBuilder has a full 24 hr support team that is willing to help at any time. Going beyond to build relationships with our customers.

### Rich & Powerful Integration

A comprehensive API offers live activity and status updates, 256-bit SSL security/encryption, and bi-directional integration with a variety of 3rd-party systems.

### Multi-Core Processing

Sunstone deploys an elastic cloud processing infrastructure environment, which supports unrivalled schedule output times whilst maintaining the highest levels of optimization quality.





## Dynamic Mapping :

### Advanced Mapping

RouteBuilder uses a hybrid mapping engine which incorporates Google and Sunstone mapping technologies to determine the best route at the time of planning.

### Visualisation

RouteBuilder integrates with the Google Maps interfaces to provide live traffic, POI visibility and satellite imagery.

### Traffic and Road Speeds

Realistic travel time and distance predictions are calculated using recent road speed and traffic conditions.

### Multiple Transport Modes

Through Google Maps, RouteBuilder caters for different transport modes to be used in the routing algorithm, allowing the user to plan for multiple modes of delivery.



## The Power of the Scheduler

RouteBuilder has a powerful scheduling engine, taking into account multiple capacity / size parameters for resources and products to ensure optimal selection of resources to conduct delivery, collection or service tasks. Customer restrictions such as visit windows, visit priority, visit durations and customer-resource restrictions are inherently supported by the scheduling engine.

The objective of the scheduler clustering algorithm is to group and sequence tasks that may be conducted by the same resources in similar geographical areas, thereby reducing total travel time and distance. The scheduler is therefore dependent on accurate GPS coordinates and customer restrictions to efficiently meet the need of the environment.

Tasks are imported on a transactional basis, detailing the specifics of the delivery, collection or service task. Customer level restrictions are assumed if task level restrictions are not provided. This provides a high level of flexibility for modern customer-centric enterprises, to meet the ever changing requirements of their customer base. The RouteBuilder algorithm considers fixed / variable driver and vehicle costs, providing efficient routing and scheduling that is feasible and **minimises total cost to serve.**

