

SmartTrans e-Route™

A Practical Description

“We not only achieved the anticipated benefits, but also managed payback on the initial investment in less than three months and more benefits continue to flow through.”



Intelligent Transport Solutions

Routing Optimisation Systems

Allocating a few orders to a small fleet is not difficult. When the number of vehicles and orders gets larger and the time to plan is small, the job of dispatching gets harder.

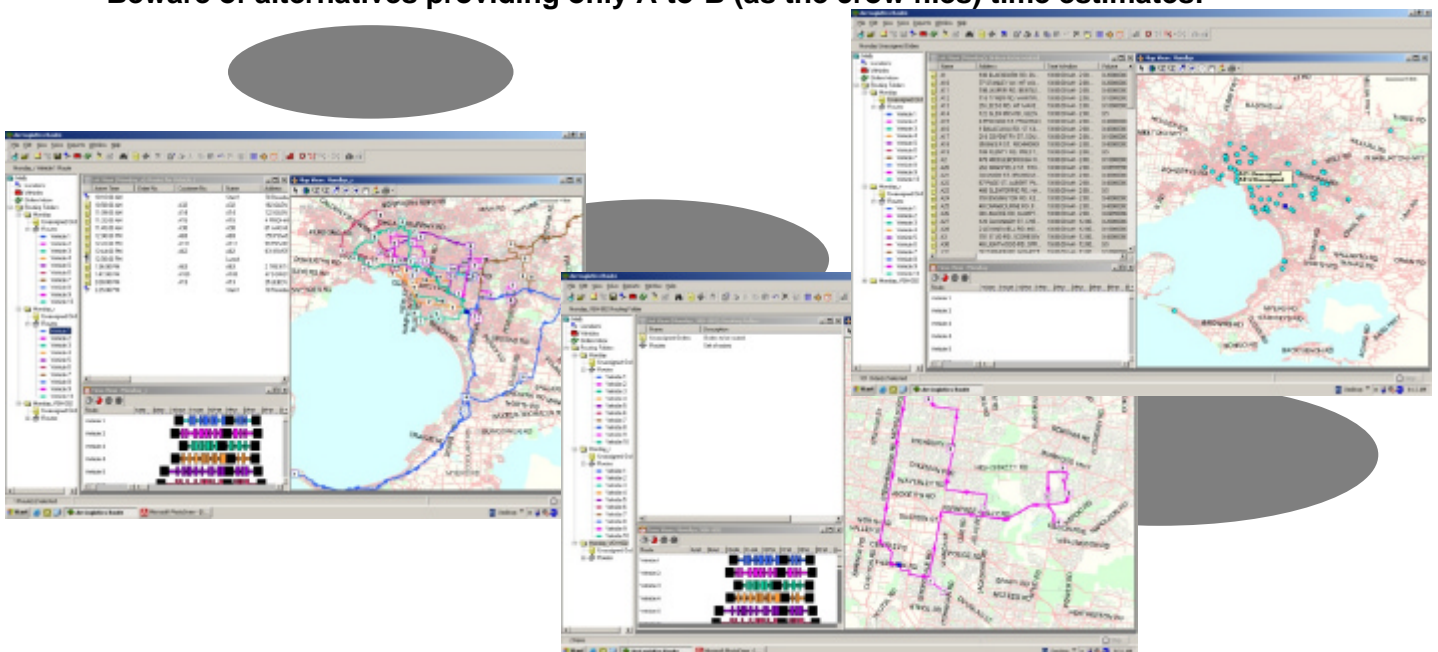
Many dispatchers do a great job balancing the volume of deliveries between vehicles, even with quite a large numbers of vehicles and orders. They do this by creating geographic delivery areas to reduce the complexity, but this in itself creates imbalances in the workload and may unintentionally create inefficiencies (for example extra kilometres travelled).

Add to this task the complexities of maximising vehicle capacity, estimating delivery times, minimising kilometres travelled in a day, meeting customer time windows & driver rest periods and reducing overtime and it gets well beyond human capacity and can only be truly optimised by complex computer programs.

Routing Optimisation programs are not new, but they have vastly improved over the last few years. This is due to a number of factors, particularly improved map data and the vast increase in processing power of computers. This has allowed the use of more complex computer algorithms and “real-road” solutions.

SmartTrans e-Route™ has been optimised over years to Australian road conditions and takes into account real-road conditions, such as freeway on/off ramps, bridge locations, median strips, speeds on different road types, etc. This avoids the problems that can occur in (for example) Sydney harbour, where two “close” points across the water can be many kilometres apart on actual roads.

Beware of alternatives providing only A-to-B (as the crow flies) time estimates!



SmartTrans e-Route™

SmartTrans e-Route takes the orders to be fulfilled and allocates them to vehicles, creating optimal routes that take account of vehicle capacity, customer time-windows, driver working times, etc. Alternative “real-road” solutions are created and evaluated until the system produces an optimal solution.

This solution can typically reduce the total cost of running a fleet by 20 to 30%.

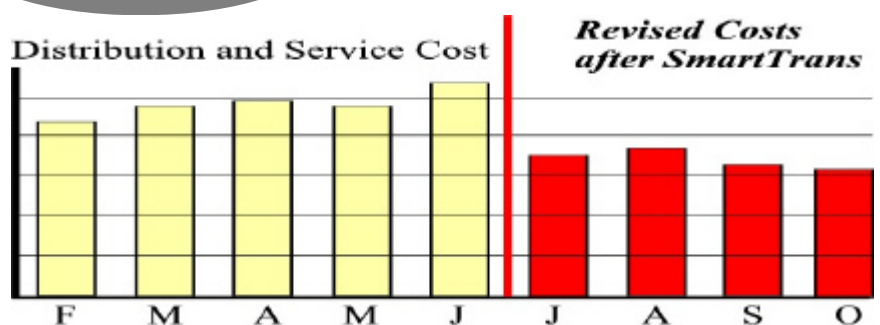
To work properly SmartTrans e-Route needs information on vehicle capacities, running costs and characteristics - it can take into account vehicle specialities such as crane, forklift, refrigerated and so on, which may be required for some deliveries. The system also needs to know driver working times, pay and overtime rates and start & end locations.

For each customer delivery, the system needs to know the exact location, converted to GPS co-ordinates from the customer address (geocoded). The details of the goods to be delivered are required and a customer time-window can be specified (such as “requires deliveries between 9am and 9:30am”).

A file of orders to be delivered is provided from your system and e-Route takes a few minutes to run through the millions of computations required to provide an optimal delivery plan.

The plan can be provided to drivers as a print-out (route manifest) or the information can be provided to the SmartTrans e-PoD™ mobile data and tracking product, to record actual deliveries as they happen against the provided plan. Summary reports for management can provide detail on costs per kilometre, costs per delivery, driver pay & overtime costs, etc. Access to the system is through a standard web browser and reports can be viewed at multiple locations in your company (or in selected customers' locations).

Although Routing Optimisation systems were developed to provide improved planning for the delivery of goods, exactly the same principles apply to the delivery of services or the collection of waste. Each industry has similar requirements when it comes to planning optimal routes, using scarce resources in the most efficient manner and meeting customer demands in the best possible way.



For illustration purposes only

e-Solution Integration with Existing Systems

IT Systems Integration

SmartTrans e-Solution is provided under an Applications Service Provider (ASP) model and allows you to run the system as often as required, allow access to multiple parts of your organisation (or to your key customers) and provides the security of off-site storage in a secure data centre with continual, uninterrupted operation.

Files can be uploaded or downloaded to your IT system in a number of formats, but we generally recommend a flat-file exchange to begin with, as this is easier and more controllable.

SmartTrans provides you with a template of required information and then works with your IT Department to determine the information to be provided in uploads and downloads.

Features and Benefits of e-Route

Feature	Benefits
Substantial Cost Savings	<ul style="list-style-type: none"> • Improved profitability
Calculates the best solution and creates a delivery plan	<ul style="list-style-type: none"> • Better vehicle and driver utilisation • Major reduction (20-30%) in logistics costs • Improved, faster planning
Offer customers time-windows	<ul style="list-style-type: none"> • Improved customer service, market share • Trade-off cost and customer service
Manage third party or contract vehicles	<ul style="list-style-type: none"> • Clear directions to third parties • No more "cost-plus" contracts
Provide comprehensive reports	<ul style="list-style-type: none"> • Delivery manifest for the driver • Web-based reports accessible from wherever they're needed • Full cost & performance reports
Clear, concise instructions for delivery personnel	<ul style="list-style-type: none"> • Balanced workload • Easy-to-follow plan

SmartTrans e-Solution, SmartTrans e-Route, SmartTrans e-PoD, SmartTrans e-CoR, SmartTrans e-Track and SmartTrans e-Sales are all trademarks of SmartTrans Limited, ACN 088 637 352

For further information, please contact the following:

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“Companies are not changing what they do, they are changing how they do it, by using mobile data, GPS and other smart applications to improve overall operations. SmartTrans provides its clients with a competitive advantage in their market place.”

Bryan Carr Chief Operating Officer 03 9866 7333

“New technology brings new opportunity for the logistics and service related industries, using intelligent systems and mobile data to improve productivity and reduce costs. SmartTrans provide data in real time, which has enabled us to be a leader in joint government initiatives such as the ground breaking Intelligent Access Project, which is set to revolutionise the logistics industry in terms of compliance.”

Stephen Walsh National Sales Manager 03 9866 7333 0425 703 892

“SmartTrans’ scope of services and product offering is unmatched in the market place. Our competitors strive to reach the level of collaboration we regularly engage with clients. We ensure we provide the client with a bespoke solution to their specific needs, which imparts the customer with information and knowledge to reduce costs, improve productivity and provide better service to their client base.”

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