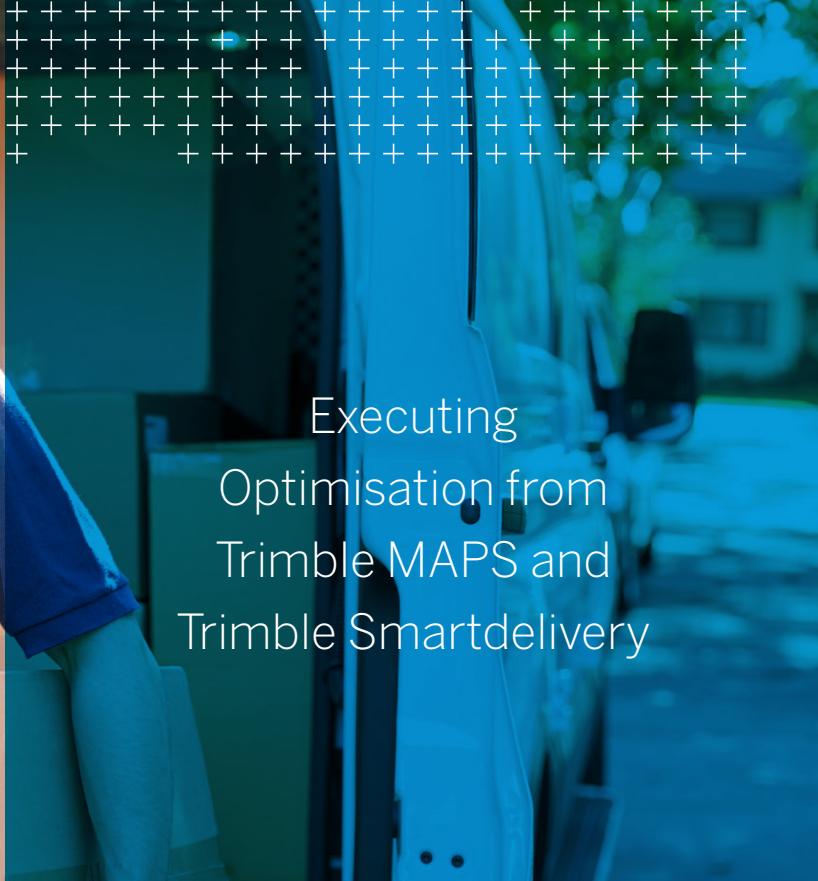




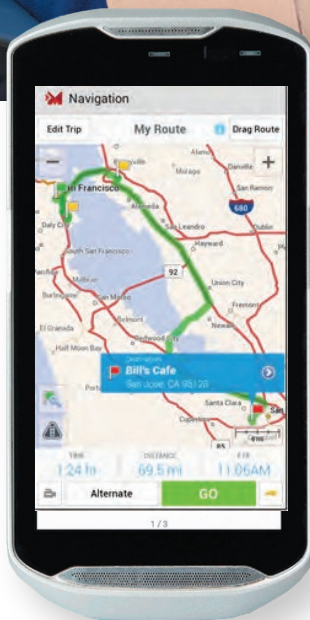
Delivering the Efficient Last Mile



Orchestrate every step
in the delivery chain



Executing Optimisation from Trimble MAPS and Trimble Smartdelivery



The Situation

According to a report from McKinsey¹, 50 percent of parcel delivery cost is directly attributable to the last mile. Only first time delivery makes the journey profitable. How can organisations improve their rates of successful first time delivery? Already deployed within the postal and logistic service provider industry, Trimble MAPS and Trimble Smartdelivery provide a scalable, trusted delivery planning, route optimisation, analysis and execution solution that secures last mile performance while simplifying the process and motivating delivery personnel.

THE BUSINESS CHALLENGES

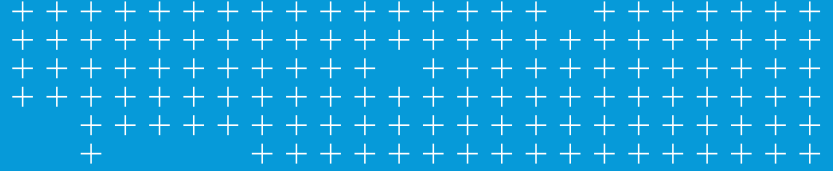
- ▶ A continuous need to reduce cost per stop
- ▶ Must optimise to improve Customer Experience
- ▶ Maintaining and motivating a driver workforce
- ▶ Seamless operation between legacy and new technology

SOLUTIONS FOR EVERY DELIVERY STAGE

- ▶ Solutions for Every Delivery Stage
- ▶ Smartdelivery Webportal
- ▶ Smartdelivery/Trimble MAPS
- ▶ Smartdelivery Dashboard
- ▶ Smartdelivery Mobile system
- ▶ Advanced Route Optimisation
- ▶ CoPilot Professional GPS navigation

THE BUSINESS BENEFITS

- ▶ Up to 50% reduction in last mile delivery cost
- ▶ Significant first time delivery success
- ▶ A trusted suite of proven solutions within the post parcel sector



Solutions for Every Stage

Delivery Planning

Prior to the start of the driver's shift, the routing for a pre-sorted and optimised manifest is visualised in Smartdelivery, which uses a fully integrated version of Trimble MAPS. The same mapping data source is used by CoPilot on the driver's device so ensuring in advance that the delivery schedule is achievable and that each driver has a full load. This practice can also flag any outliers for the manager to address before the drivers arrive. This process provides managers with a great deal of flexibility. For example, if a driver is taken ill or it's discovered that a delivery truck has mechanical issues, then it is easy to change, simply by redistributing the manifest. Each driver's device is then loaded with the electronic delivery manifest, factoring in SLA information and any other Key Performance Indicators.

The route for the shift is then optimised within CoPilot navigation on the device, allowing the driver to shuffle the original manifest order based upon their personal stops (breaks and other commitments) as well as route experience. The route is then re-optimised, taking these daily preferences into account.

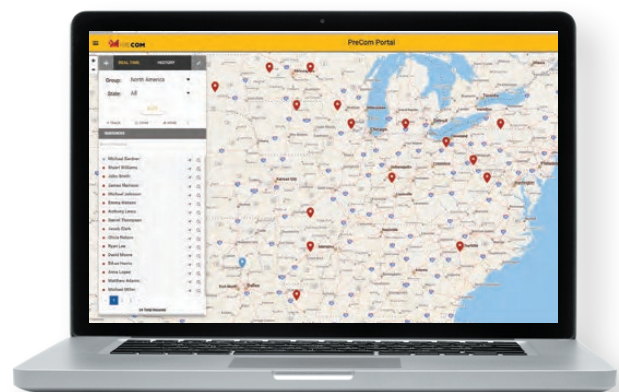
Once the driver has settled on their route, a final check can be made within Smartdelivery/Trimble MAPS to compare optimal route with the driver modified route to ensure it fits within given distance or time based parameters. If it falls outside of these, approval is required by the driver's manager prior to committing to the route.

ETAs created by the optimisation process can either be passed to the back office and from there, relayed to the end customer via email or SMS. Or alternatively, it can be left to the driver to communicate directly with the customer through SMS.

With thought to increasing the efficiency of timing within the last mile, the vehicle is reverse loaded and verified on the driver's device powered by the Smartdelivery system.

Before the driver leaves the terminal, the dispatcher still has further options. Through the Smartdelivery Web Portal, they can visualise and adjust the optimised route using Smartdelivery/Trimble MAPS, identifying any potential conflicts. Covering all eventualities, the dispatcher can add consignments and even swap the vehicle or driver at this point.

Experience within the parcel delivery space has demonstrated that prior communication of ETAs can result in successful first time delivery rates of up to 98%.



PLAN

DRIVE

ANALYSE



Driving the Route

CoPilot provides the navigation on the optimised route. Out on the road, ad-hoc pickups can be dispatched to and accepted by the driver. Real-time changes to ETAs are supported during the day. Any deliveries in jeopardy of breaching an ETA can be flagged to dispatchers to enable them to take the appropriate action.

This functionality adds a significant company advantage. Dynamic, real-time routing optimisation based on committed time windows to meet SLAs still remain, while also providing the facility to react to changes in work orders and take on ad hoc work, thereby utilising any potential driver slack time between deliveries. In comparison, other organisations continue to be restricted to pre-planned routing prepared at the beginning of the shift.

Back in the terminal, the dispatcher can monitor in real-time completed routes and progress, as well as estimated time of completion and any routing deviations. Utilising driver knowledge can further enhance last mile routing.

Shortcuts to a location, once identified and verified, can be updated within Smartdelivery/Trimble MAPS and deployed fleet wide, into the driver's navigation. Shortcuts identified this way have the potential to save both significant time and fuel.

Delivery, Collection and Other Tasks

To complete the delivery, the driver can effectively use many different options, like sign on glass, personalised pin code or photo identification. Often the driver needs to do more tasks than just handover the parcel. Detailed object instructions and checklists are provided as a part of their guided workflows, when they scan the barcodes on the parcel. They may need to bring back package wrapping, or handle payment on the doorstep.

When a non-planned incident occurs, they can easily use the deviation reporting in the system and flag, as an example, if the customer was not available to receive their package. They can document deliveries using the camera on their device, then attach a photo to the package information in the system.

Driving Continuous Improvement

The Smartdelivery Dashboard in conjunction with Smartdelivery/Trimble MAPS can monitor all drivers and the tasks up to signature capture at each drop off point. Based on the driver's current performance and routing profiles, real-time ETAs and location data can be pulled from the navigation and taken into the back office.

As a consequence, if a driver is behind schedule, preemptive action can be taken, such as informing a customer of a delay and providing an updated ETA.

Collaborative De-Briefing

On the return to the terminal, a profile of the entire time out can be used as an effective form of driver debriefing, with actual routing compared to the optimal route versus the driver modified route and any subsequent impact on SLAs and ETAs.

With a focus on driver retention, companies looking to create a more collaborative approach are encouraging supervisors to leave their office and meet the drivers in the terminal.

Equipped with tablets, the supervisor can then review the driver's routing versus the planned route, providing immediate feedback. Using real-time functionality in Smartdelivery/Trimble MAPS the supervisor can even work with the driver on "what-if" situations to encourage best practices and maintain driver motivation.

Improving this profile will ensure that future ETAs and route optimisation calculations are even more accurate, improving the end-customer's experience as well as reducing costs for the business.





Customising Routing, Improving Mapping

Geofencing – Direct to the Point. Geofencing functionality within Smartdelivery and Smartdelivery/Trimble MAPS can pinpoint precise pickup and drop off locations, ideal for drivers on large scale sites or where the delivery point is different to the postal address. It also takes into account additional parameters, such as restrictions on vehicle type and time of day access.

When there is limited postal data available, geofencing can create accurate ETAs. Compact 'Micro Postal Zones' can be created by combining historical and traditional postal route data with Trimble Mapping and routing optimisation.

Geofencing also enables quick updates to address variables such as changing site entrances and exits, for example, during the life cycle of a building project. Likewise, if there are any changes identified while driving, these can be saved as new locations as a lat/long coordinate within CoPilot and then updated in Smartdelivery/Trimble MAPS for a full fleet deployment.

For supervisors, geofencing can also provide the advantage of automated alerts if a driver enters/leaves a pre-defined or restricted area.

Handling the Past and the Future

Providing a cost effective and smooth bridge between legacy and innovation, Trimble MAPS and Trimble Smartdelivery are helping the postal industry transition their business processes.

Due to a variety of factors, established postal companies may at any time have a range of different handsets active in the field, working in tandem with a complex arrangement of back office systems and applications.

Trimble MAPS and Trimble Smartdelivery remove the complexity by bringing current end-to-end delivery optimisation within the parameters of an existing IT infrastructure.

The result is that delivery personnel do not have to consider different processes while they work, leaving them to concentrate on their job while the linking of current technology with legacy systems is handled by entirely by Trimble MAPS and Trimble Smartdelivery.





Intelligise Your Mobile Workflows!

ABOUT TRIMBLE SMARTDELIVERY

Trimble Smartdelivery is the leading supplier of intelligent mobile workflow solutions for companies with field personnel. Our target groups are companies active within postal services & logistics, security & surveillance, and field services.

Smartdelivery is our solution, a scalable mobility platform that is optimised to fit our customer's business procedures, but still based on a standard system. Smartdelivery was built for complex, business-critical procedures with high requirements on adaptability, usability and integration with a variety of ERP and support systems. Every day, we provide many businesses and over 100,000 users with a powerful mobile tool that simplifies work procedures, reduces administration and boosts productivity.

Our reference customers include global companies such as Royal Mail, New Zealand Post, Schenker, G4S, Securitas, DHL, DSB, DSV, Volvo and EITel. Founded in 2000, Trimble Smartdelivery has its head office in Stockholm, Sweden, a development center in Sri Lanka, and an international network of implementation partners.

Trimble Smartdelivery is a Business Unit in the Field Service Management division of Trimble Inc. (NASDAQ:TRMB). Trimble applies technology to make field and mobile workers in businesses and government significantly more productive. Founded in 1978, Trimble is headquartered in Sunnyvale, California, USA.

Read more: [Smartdelivery.trimble.com](https://smartdelivery.trimble.com)



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