

CASE STUDY

IFS

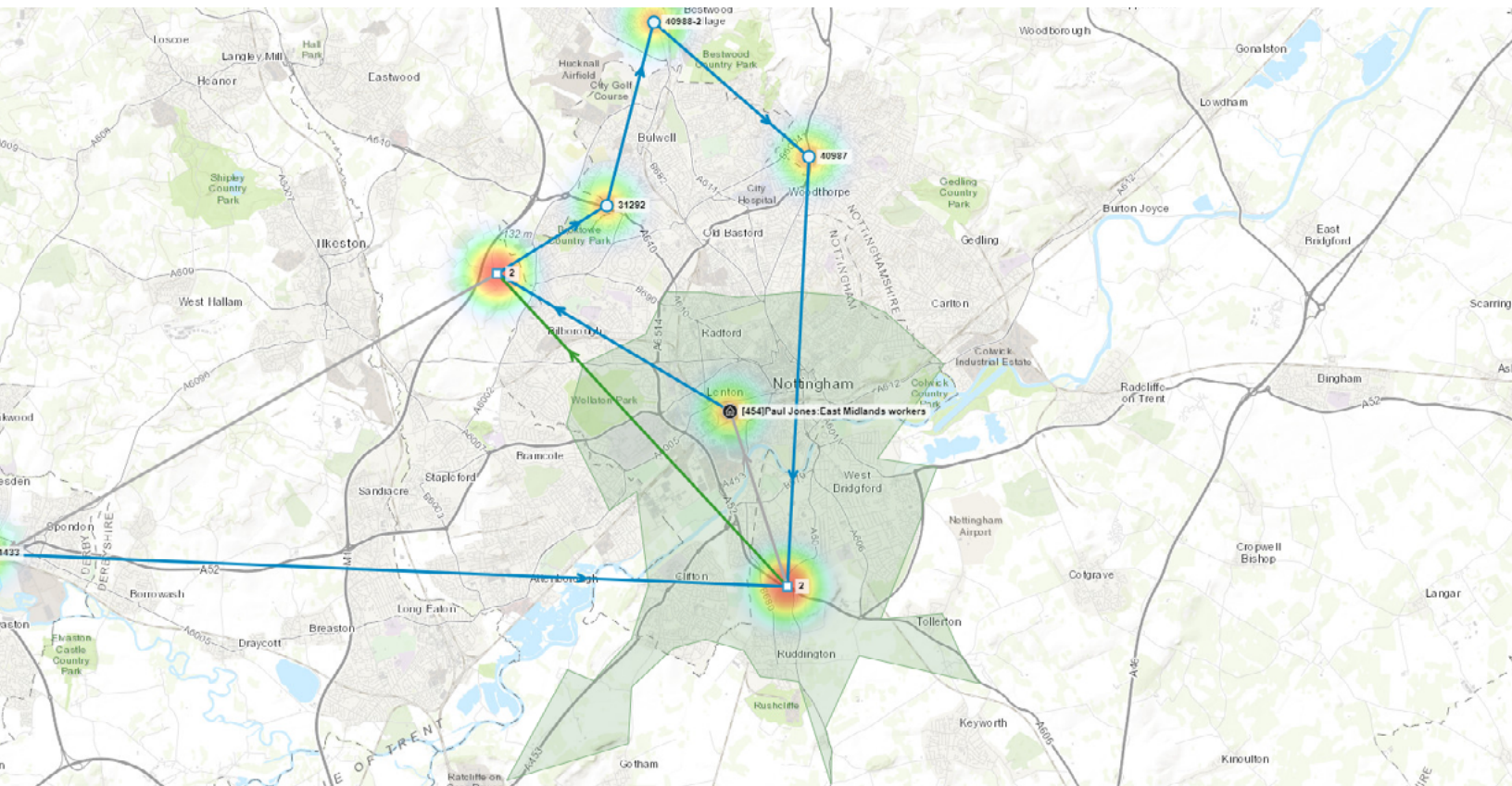
How IFS optimized planning & scheduling using TomTom location insights

Location	Product/Service
London, England	TomTom map data – Asset Management / Fleet & Logistics (MultiNet for Asset Management Application Service Provider with global coverage).

The Overview

IFS develops and delivers enterprise software for customers around the world who manufacture and distribute goods, maintain assets and manage service-focused operations.

IFS partnered with location technology expert TomTom for access to global map data that is consistent and high-quality. This location data is provided in a standard format for automated processes to consume and generate the data artifacts required for the optimization engines.



There are many different ways enterprise software for service management provides business value. Some common examples include: a client's truck needs new parts in order to be repaired, a plumber needs to be sent to a certain address, maintenance is due at the plant, or an appointment window needs to be committed for an urgent repair job. To make it all happen smoothly and on time, you need optimized planning and scheduling.

The Challenge

You have workers on the move delivering services to your clients and you're responsible for their schedules. Your manager has just informed you that your company has received two urgent requests for field service where immediate action is required, so you'll need to quickly adjust schedules to accommodate these priority changes. This is not an easy task as you manage hundreds of field service calls each day and hundreds of fleets, engineers and drivers.

How will you maintain your budget, yet ensure your customer demands are met?

Compounding the issue, the planning and scheduling world revolves around a set of variables. Often, these variables are fluid in nature:

- Service Level Agreements (SLA's) need to be met. These SLA's may change over time, especially when weather disrupts work schedules, month-end financial reporting approaches, or changes occur in the supply chain. These SLA's can range from 45 minutes on the same day – to several days, often requiring tight appointment windows (2 hours) and can entail strict penalties in the contract. Hence, meeting the SLA commitment is critical.
- There are concerns about drive time from the warehouse to the job site. Drive time is a key element of service request costs. Factors that influence drive time are physical distance between service request locations, preferred routes along the road network, and varying fuel costs.
- Are there available staff with the right skill set or certification to meeting requirements of the service request? Your foreman just took another job, so to backfill his position, you plan to promote a technician. How will this impact your technician schedule?

Tens or even thousands of decisions need to be made to address all possible change scenarios.

The Solution

IFS develops and delivers enterprise software integrated with TomTom location technology. The IFS Planning & Scheduling Optimization (PSO) solution processes a collection of activities in the form of customer requests such as emergency repair, an installation appointment, or a planned maintenance visit. These activities contain certain criteria such as needed resources and SLA's to required and available skill sets. Each activity contains an associated geolocation, defining staff and job locations. These requirements are then passed into the IFS software system. Then, the customer defines a series of metrics including cost of staff and cost of travel. These metrics are then entered into the IFS software system, and this data set is used by IFS to create an optimization plan. The plan includes staff assignments, work shifts, costs of travel and timelines.

The IFS PSO solution provides world-class artificial intelligence (AI) based on route, resource and business value optimization for field service. Travel distance, costs, value and time are important elements driving the optimization algorithms. The resulting output can only be achieved with accurate mapping data and technology.

IFS incorporated TomTom MultiNet map data for use in the Asset Management Application Service Provider model. They inserted a series of nodes over their network, calculated distances and synthesized the results into their database. Using TomTom map data, IFS can now deliver accurate and up-to-date travel time calculations and optimized plans to its customers in real time.

"We evaluate and optimize many millions of routes per day for field service calls with accurate travel times from TomTom," states Paul Bouchier, Director Programme Development at IFS.

Since incorporating TomTom location technology into the IFS solution, the consistency and reliability of the TomTom map data has been excellent, enabling substantial automation of many internal processes. TomTom also provides exceptional cooperative pre-sales support, enhancing the ability of IFS to secure future business.

The Results

The PSO solution enhanced with TomTom location technology enables IFS customers to achieve:

- Improved customer satisfaction
- Increased agility of field service operations
- Better visibility into SLA status and achievement
- Dynamic scheduling of field resources, in real time
- Reduced drive time leading to improved operational costs.

For long-term planning used in business development, the IFS PSO solution, powered by TomTom location technology creates a business model to accommodate varying project requirements:

- Reduce the distance traveled by the mobile workforce
- Decrease the number of sub-contractors which need to be hired each day
- Arrive at all jobs on time, within the agreed time limits
- See where everyone is, their status, and what they're doing.

Using the IFS solution, field service scheduling results in:

- Instant business updates – leading to complete service network visibility
- Better decision-making – leading to cost efficiencies
- Actionable alerts for specified events – leading to improved customer satisfaction.

IFS believes that, by working with trusted partner TomTom, its innovative ideas and disruptive approach will maximize operational cost savings and improve customer satisfaction for truck drivers, fleets, and field service and logistics companies around the world.

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