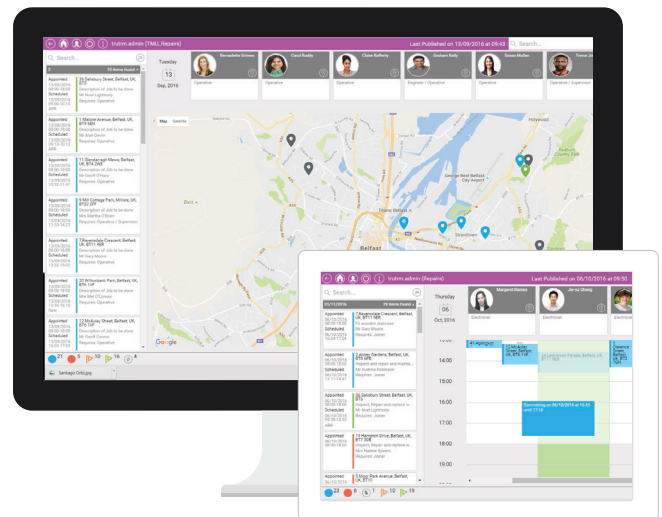# Optimise: Real world. Right schedule. Maximum Efficiency.

Totalmobile Optimise assists organisations in achieving efficient mobile workforce scheduling and the allocation of resources against planned or unpredictable work demands. At the heart of Optimise is **Mendel**, which is an artificial intelligence (AI) engine that enables organisations to solve even the most complex of scheduling challenges. Optimise delivers the following business benefits:

- **Maximise the time staff spend delivering service.** With the creation of efficient schedules, staff spend significantly less time planning their day and traveling between jobs. Staff spend more time with clients and less time on the road.

- **Reduce service costs.** Since the existing workforce of an organisation is undertaking more jobs per day, the need for temporary agency staff is reduced. Further savings are also generated through the reduction in fuel consumption, with staff spending minimal travel time between jobs.

- **Improvements in meeting SLAs.** A responsive and efficient workforce means your staff complete work in a timely manner. With the right people sent to the right job at the right time, more jobs are completed effectively and first time. Allowing a quicker turnaround and faster invoicing, helping your organisation meet those all-important SLA requirements and KPI targets.

- **Manage Unpredictability.** Dynamic scheduling that reacts to events as they happen. Changes to the scheduling problem, such as staff unavailability, prompts new solutions which do not include the missing worker. Responding to the working day as it unfolds has never been easier.

Optimise real time, dynamic scheduling takes the complexity out of real world scheduling and is designed for the world as it is, with maximum efficiency.

Totalmobile Optimise – Intelligent Adaptive Workforce Scheduling

Scheduling is difficult. In the real world, even the most experienced human schedulers find that it is a delicate balancing act, where jobs have different priority levels, or target completion dates; require multiple and diverse skills; jobs are interdependent or have a required sequence; jobs have "preferred staff" who are familiar with a client or site requirements; staff often have different working hours or start locations; and distances don't always determine which schedule is "best". It quickly becomes clear that organisations require a different approach to scheduling. Optimise from Totalmobile provides the ability for these requirements to be customised for each customer in an easy way using the following components:

Mendel is the artificial intelligence (AI) engine at the heart of Totalmobile Optimise. Mendel is an AI tool which acts as a decision-making assistant to several other Optimise functions – Schedule, Roster and Appointments. Mendel uses genetic algorithms to identify highly efficient plans which make best use of time and resources. Mendel is versatile, allowing a good deal of choice in the objectives

and constraints it considers when producing the "best" schedule. For example:

Objective	Constraint
Minimise travel time	Resource Availability
Minimise travel distance	Skill Matching
Minimise resources	Resource Location
Meet Service Level Agreement	Resource Range
Minimise disruption	Preferred or Mandatory Resource Allocation

There are always compromises between scheduling objectives. For example, there may be a trade-off between honouring service level agreements and costs. Our Mendel settings guide users on how to decide between an expensive solution that honours priorities perfectly, and a cheaper solution that honours almost all priorities.

Mendel settings allow you to choose your optimal scheduling automation level:

- **Fully dynamic.** Most valuable in dynamic and agile workforce environments where the artificially-intelligent schedule optimisation service dynamically responds and reschedules work as the day unfolds with minimal user intervention.

- **Intelligent assistant.** Most valuable in a less dynamic environment, where there is little reaction to the evolving day and users maintain a high degree of control over the workload. Mendel calculates efficient routing, assignment and sequencing of work within SLA constraints but still gives the user control over the working day.

- **Manual.** In this instance Mendel is disabled and all scheduling is done by the interactive user in the Optimise schedule. The user takes over responsibility for managing, allocating and scheduling the work and the user interface will warn the user if they break constraints such as skill matching or working hours.

These are not hard and fast categories of operation but points on a spectrum which are achieved by changing the settings of the system. Mendel does not dictate how you run your business – the system settings you control will determine how dynamically it will behave in any given deployment. Organisations can operate multiple Optimise 'Worlds' which can each run with their own settings and constraints.

- **Worlds.** An Optimise World is a self-contained scheduling solution. A World could represent an entire organisation or a department or team within an organisation. The use of Worlds means that a single organisation can apply different scheduling objectives and constraints to different parts of their organisation.

Mendel On-Demand (SaaS)

Mendel On-Demand is an add-on optimisation cloud service that allows customers to optimise multiple Worlds, while reducing the costs associated with scaling up local infrastructure. On-Demand services provided by Cloud computing lends itself to scheduling problems where computing loads may have processing peaks with high demand at specific times or where the structure of the organisation and associated Worlds is complex. In traditional local deployments, customers must deploy enough computing hardware to handle the peak load. Totalmobile are maximizing the use of elasticity and auto-scaling available in the Cloud to reduce costs and pass on these savings to our customers.

Mendel On-Demand is seamlessly bridged to your existing Totalmobile infrastructure, whether you are running Optimise on premise, hosted by a third party, or could be an add-on to our Optimise SaaS service if you want to add a more complex organisational set up. Mendel On-Demand provides flexible and scalable power behind Totalmobile Optimise.

Totalmobile Optimise – Uniquely suited to your needs

Optimise from Totalmobile is designed for an environment where mobile working is the norm and real-time information is always available. This means we can help you respond and evolve your schedule to meet real world events as they unfold.

- **Flexibility – one size does not fit all.** In an Optimise deployment customers choose their optimal automation level for Mendel either manual, intelligent assistant or fully dynamic.

- **Seamless Integration with Real Time information.** Optimise is designed to make the most of real time information provided by mobile working and relays real-time information to the schedule without the need for a browser refresh or the update of schedules in batch processes. Optimise with Mendel continuously optimises schedules in real time.

- **Enterprise by design** Optimise introduces the concept of Worlds to allow organisations to set different scheduling objectives for different business areas. A World is a self-contained scheduling problem.

- **Designed for the Cloud.** Mendel is designed to take advantage of the elasticity provided by Cloud computing, ideal for when scheduling loads are irregular. Mendel can be deployed in an on-demand environment offering reduced demands on your IT department, and the ability to scale up easily to meet growing optimisation and scheduling requirements.

About Totalmobile

Totalmobile transforms complex field service delivery in the Private Sector, Government, and Healthcare. Every day we help thousands of mobile workers stay focused on doing what they were trained to do, enabling them to do more of the work that matters. We provide them with everything they need to manage and record their work at all stages of their day, as well as at the crucial point of service delivery, all via one simple mobile app.

From engineers, nurses and social workers, to surveyors, inspectors and construction workers - over 250 organisations use our technology to keep their teams out of the office and in the field delivering outstanding service.

www.totalmobile.co.uk   www.totalmobile.co.uk/demo