



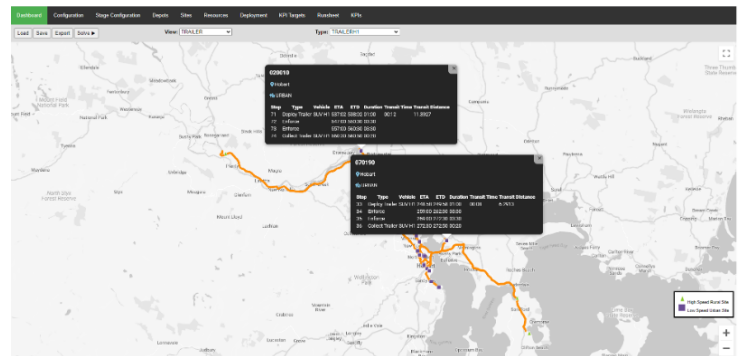
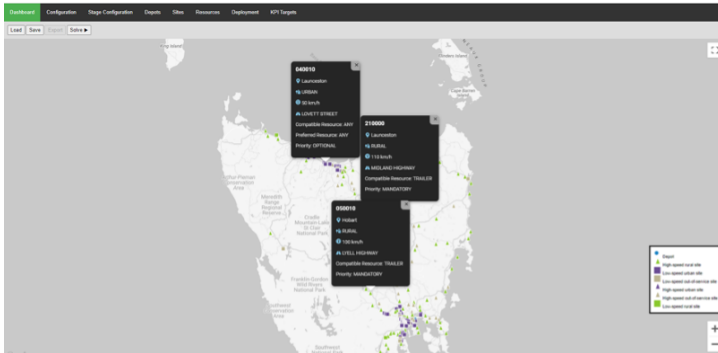
## Dynamic Transport Optimisation - Sensys Gatso

### Background

The Sensys Gatso Group (SGG) provides traffic safety solutions, primarily for autonomous traffic enforcement, by way of systems, software, and services. SGG assists the Department of State Growth of the Tasmanian Government in enforcing road speeds under its Safer Road Use program. SGG must achieve minimum enforcement hours in several categories each month and year. Opturion was approached at the start of the project to help achieve these targets at the lowest cost.



The second unusual aspect was that enforcements varied in duration, with a minimum and maximum enforcement duration being set (which could differ by the type of location). Due to some targets being more challenging than others, the system created maximum duration enforcements where it mattered, and at least minimal length (but longer if possible) elsewhere.



SGG operate two types of resources to enforce speed limits: one that can perform enforcements but is limited by working hours and other requirements; another operates 24/7 but needs to be manually moved between locations. There were several features that made this particular problem non-standard and challenging.

Firstly, there were two types of resources and a requirement to coordinate movements. Opturion has done this type of modelling before, where sometimes multiple vehicles had to meet at a coordinated time and place. However, due to this requirement, some locations only accepted one type of enforcement resource.

### Solution

Opturion used a customised version of its Dynamic Transport Optimiser (DTO) to perform the optimisation task. DTO is a revolutionary approach to support transport decisions such as load planning, routing and scheduling, and can be applied in the strategic, tactical and operational contexts to provide compliant decisions, provide customer service, and minimise cost.

Due to these features a standard optimisation package was unlikely to be able to model this type of operation. However, Opturion has full control over its optimisation engine, and it is built to be customised, thus, we were able to create an effective optimisation for this problem.



Optimisation criteria was set up to deliver maximum camera productivity, minimise travel and set-up times, and optimise the deployment of cameras based on a rota or schedule. Re-optimisation was based on availability, short-term requirements and campaigns, enforcement hours achieved versus KPI, and availability of enforcement locations. There was also the option to deploy to achieve KPI's, handle compliance rules, re-calibrate KPIs using weighted historical data on infringements, and integrate staff rostering and vehicle maintenance schedules with the operational optimisation.

SGG uses the optimisation system on a regular basis to maximise resource utilisation and minimise non-enforcement activity. Additionally, when monitoring progress on enforcement hours, the resources required are kept to the minimum whilst ensuring that KPI's are met.

## Further Information

Please contact Opturion for a demonstration, or give us some data that we can use to identify potential benefits.



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