NSW Transport Roads & Maritime Services

> These **systems have become a template** for how vehicle movement data should be collected nationally.
>
> **Transport for NSW Roads and Maritime Services**

ORGANISATION
NSW Roads and Maritime Services

INDUSTRY
Road and Vehicle Transport

COUNTRY
Australia

SOLUTION
Custom-built solution

BENEFITS AT A GLANCE

Enhanced value for money
Identify and deliver enhancements over and above the scope of the original requirement on whole-of-life basis

High level of integrity and accuracy
Provided by rigorous data validation processes and deep understanding of regulatory expectations for government

Streamlined processes
Integration of other hardware deployed for various compliance purposes

Competitive procurement process
Interaction with multiple equipment manufacturers to deliver a vendor agnostic solution

Helping NSW to drive point-to-point enforcement in just two years

Roads and Maritime Services (RMS, now Transport NSW Roads and Maritime Services) is the NSW Government agency charged with delivering safe and efficient journeys throughout NSW. Prompted by a series of serious accidents involving heavy vehicles, in 2008 the NSW Government decided to introduce average speed enforcement as part of an expanded risk-based enforcement program, centred on the successful Safe-T-Cam® model. The challenge was to deliver a fully operational and robust solution covering 25 enforcement zones on major highways in just two years.

Their duties involve managing the road network, optimising travel times, providing capacity and maintenance solutions for road and maritime infrastructure, educating and licencing drivers and vessel operators, registering and inspecting vehicles and vessels and improving both road and maritime safety.

RMS projects and programs improve the safe and reliable movement of people and goods by various transport modes, including through the road freight network, NSW waterways, public transport network and active transport such as cycling and pedestrian areas.

Objective (formerly Itree) has partnered with RMS to deliver transport technology solutions for over a decade, providing software that uses data captured by a network of over 400 devices for compliance and enforcement.

Objective developed software for RMS that also manages the devices – cameras, height and weight measurement systems and other road sensors – processing the data captured to extend the analysis of vehicle movements and incidents more broadly.

INTRODUCING AVERAGE SPEED ENFORCEMENT

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GREAT GOVERNANCE ▶▶▶ BETTER BUSINESS

Objective

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> **Transport for NSW Roads and Maritime Services**
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ABOUT OBJECTIVE CORPORATION

Objective Corporation (ASX:OCL) creates information and process governance solutions that are effortless to use and enable organisations to confidently advance their own digital transformation.

Designed for regulated industries, these solutions turn the imperative of compliance, accountability and governance into an opportunity to streamline business processes and deliver the innovative services that customers expect.

With a heritage in Enterprise Content Management (ECM), Objective's expanded solutions extend governance across the spectrum of the modern workplace; underpinning information, processes and collaborative work-spaces.

Through a brilliant user experience, people access the information they need to progress processes from wherever they choose to work.

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Average speed enforcement measures the time it takes for a vehicle to travel between two points to calculate its average speed, measuring against the speed limit for that length of road. Research has shown a 50% reduction in serious crashes following the introduction of average speed or zone enforcement.

The challenge was to deliver a fully operational and robust solution covering 25 enforcement zones on major highways in just two years. The solution had to process images from multiple camera suppliers, analyse large amounts of data with minimal human involvement, and deliver evidential material to the high legal standards required by courts and measurement organisations.

Objective, which had been the RMS prime technology partner for development and maintenance of the Safe-T-Cam® software from inception, was tasked with redeveloping the software platform to meet the requirements of automated average speed enforcement.

DELIVERING A FULLY OPERATIONAL AND ROBUST SOLUTION COVERING 25 ENFORCEMENT ZONES

The Average Speed and Fatigue monitoring system was implemented using an existing network of cameras and other monitoring devices. Known as Safe-T-Cam®, this state-wide network had been used to monitor vehicles and operators speed and fatigue compliance.

In the absence of off-the-shelf solutions, but with the benefits of its deep experience in building camera-based data capture systems, Objective began by working with RMS staff to define the requirements, business rules and priorities. This was used to develop a business case, on the strength of which the project was approved.

The development was characterised by significant legal and reputational risk for RMS, which operates in a high-profile sector.

The technical requirements reflected these risks, and the solution used a complex set of algorithms to process the data, coupled with intensive validation processes to ensure security and integrity.

Following initial development, the Objective team provided camera integration and testing services, then developed simulation software to allow load testing to be performed in a laboratory environment.

The solution was progressively implemented across various speed zones, completing within the project budget and on time. The rigorous testing and progressive deployment enabled RMS to meet the Government's deadlines with the confidence that the system would cater effectively with the demands of real traffic.

DELIVERING ENHANCEMENTS OVER AND ABOVE THE SCOPE OF THE ORIGINAL REQUIREMENT

Objective's deep knowledge of the road transport sector, in addition to broad expertise in regulatory systems, enabled the business to identify and deliver enhancements over and above the scope of the original requirement. This provided enhanced value for money, especially on a whole-of-life basis.

The project provided significant value to RMS, by utilising Objective's deep understanding of the regulatory expectations of government. For example, the need for rigorous data validation processes to provide the high level of integrity and accuracy required for evidentiary information.

Since 2010, RMS has expanded the platform to include more enforcement zones and has integrated other hardware deployed for various compliance purposes, including the option of a distributed multipoint average speed calculation. The Objective solution interacts with multiple equipment manufacturers to deliver a vendor agnostic solution that enables a more competitive procurement process.