



Case Study

STREAMS[®]
ITS platform



The challenge

As Transmax's road agency customers face the challenge of 'doing more with less' to manage their road networks, we work together to help achieve their ITS goals such as road safety and efficiency, economic productivity, and reducing traffic congestion and environmental impact.

Scenario

In 2006, the South Australian Department for Transport, Energy and Infrastructure (DTEI) - now the Department of Planning, Transport and Infrastructure (DPTI) - began its search for a new traffic management and control system that could monitor and control all ITS functions operated by its traffic management centre and provide a platform for the integration of all future ITS functions.

South Australia's traffic management was being managed through many disparate systems. This was having negative impacts on operator efficiency and preventing intelligent automation across the traffic network. Their aim was to search for a new traffic management and control system that could control all existing roadside devices and interface with other systems used by the traffic management centre.

Solution

Transmax's STREAMS ITS platform was selected as the preferred system. Transmax established an open, collaborative partnership approach to achieve the customer's end goal of a single, overarching system that integrated all of DPTI's existing ITS infrastructure and provided a platform to integrate future functions. STREAMS enables a road network to be managed as a whole rather than as a collection of separate components, and it is this unique capability that sets STREAMS apart from other systems.

2007 Transmax was engaged to deliver STREAMS as the integration platform for DPTI's traffic management and control system to operate and manage South Australia's road traffic network.

2008 Major stages of the project were implemented including the Adelaide Crafers Highway System, a STREAMS interface to SCATS® adaptive traffic control software and a video management system. The migration to STREAMS was deployed on live roads which minimised traffic disruption.

Cost effective and reliable, STREAMS enables customers such as DPTI to reduce operating costs, improve safety, and maximise the capacity of existing infrastructure. Along with realising the community benefits of optimising transport networks, the South Australian road authority is experiencing significant corporate benefits using STREAMS.

Delivering the **STREAMS** solution



Crafrers Highway (ACH), Heysen Tunnels

Control and monitoring of devices along the ACH and TMC initial deployment comprising SCATS® and CCTV interfaces.



Southern Expressway

Control and monitoring changeable message sign (CMS) and variable message sign (VMS) devices and interlocking for the reversible nature of the road.



Port River Expressway

Contains two opening bridges, one road and one rail. This final stage encompassed control and monitoring CMS and VMS devices and interfacing to the SCADA system along with the supply and delivery of a traffic management and control system for the Southern Expressway (commissioned in 2010) and the Port River Expressway (commissioned in 2011).

Outcomes

The move to STREAMS has been a major advancement for the operation of the South Australian road system. The successful implementation of STREAMS allows South Australian traffic management centre operators to use one system in place of 11 separate systems, one of their key ITS goals when they began their search for a new system. South Australia now has a single alarm manager and map-based access to all ITS equipment status and control including SCATS® signal control and CCTV.

Collected traffic measurements allow DPTI to maximise the use of their road infrastructure and seek smarter, more sustainable solutions to manage increasing traffic congestion. The partnership approach between DPTI and Transmax has worked exceptionally well and continues with the ongoing enhancement and operation of STREAMS.

Benefits

Transmax provided DPTI with a solution that improves efficiency, lowers cost and lowers risk. DPTI has realised significant benefits since the implementation of STREAMS more than a decade ago including:

Performance

Optimised performance across the entire road network

Economic

- Cost savings through simpler interface management
- Reduced training, maintenance and resourcing costs associated with a single ITS platform
- Reduced vehicle operating costs

Efficiency

Efficient data management through holistic network visibility

Safety

Improved safety

Measurements

Ability to accurately measure and compare performance of the road network

Environmental

Less carbon emissions

Mobility

- Reduced travel times
- Increased capacity

Synergy/Productivity

Synergy between existing systems and equipment


STREAMS in South Australia

DEPARTMENT OF PLANNING,
TRANSPORT AND INFRASTRUCTURE


- SCATS® interface
- Extensive use of STREAMS Strategy Manager
- Extensive use of response plans
- Remote signs via satellite Interface to tunnel management system



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About Transmax

Transmax is the solutions provider of the international award-winning ITS platform STREAMS. We exist to improve people's lives by providing industry-leading transport solutions and help move millions of commuters around Australian road networks every day.

STREAMS was first developed as part of Queensland's Department of Transport and now, as a government-owned entity, Transmax supports other transport departments around Australia and internationally to achieve safer and more reliable road journeys for people in the communities they serve.

We place our customers at the centre of everything we do and work collaboratively to ensure our ITS solutions meet their needs. Transmax offers customers systems engineering, software design and development, along with a range of consulting and support services throughout the entire ITS lifecycle, all delivered with customer service excellence.

With almost 50 years of ITS experience, we help our customers realise the community benefits of optimising transport networks by providing smarter, more sustainable ITS solutions.

