

Australian government uses SQLstream's streaming analytics platform for LIVE TRAFFIC CONTROL

AT A GLANCE

Company
Roads & Maritime Services (RMS)

Industry
Government

Country
Australia

Users
Roads & Maritime Services administrators and commuters in the Sydney metro area

Website
www.rms.nsw.gov.au/

BACKGROUND

Roads and Maritime Services (RMS) is the Australian government agency responsible for managing transportation and delivering customer- focused services, in a cost-effective manner, to people who use roads, harbors and waterways- in total, over 2 Million travelers in the New South Wales region.

When population and business sector growth in Sydney has led to a sharp increase in road network congestion (threatening with financial losses upwards of \$4B), the agency realized that traditional traffic monitoring platforms would not deliver significant or cost-effective reductions.

The system helps the agency to provide motorists with the most up to date information about their journey. The ability to deliver high quality, critical information to the travelling public in real time will help to improve the journey experience, reducing frustration and increasing productivity.

GENERAL MANAGER, ROADS AND MARITIME SERVICES

NEEDS

RMS needed a real-time link between transportation sensor networks and traveler information, in order to gain instant actionable insight into performance, congestion, incidents and behavior. The requirements for the joint solution were:

- Low-latency, real-time traffic analytics
- Continuous, real-time integration of historic data, application data, social media and existing databases
- Streaming and joining of all available data sources: GPS, heavy fleet sensors, Twitter, traffic lights
- Unique architecture for all real-time operations applications
- A low-cost, accurate and reliable solution with 100% network coverage
- High-quality, user-friendly visualization of journey management information.

SOLUTION

The TT5 application is helping RMS to significantly reduce the cost of meeting congestion reduction targets, and to improve commuter travel times, through real-time traffic analytics and congestion detection, continuous integration of real-time GPS sensor and historical trend data, and continuous visualization and reporting based on real-time interface for Google Earth and Google Maps. The system provides accurate, reliable traffic flow and congestion information over the entire road network, by focusing on the important arterial routes while still integrating data from other systems.

Technology and data sources: TT5 (application) built on the SmartApp template for smart cities, and powered by SQLstream Blaze.

TT5 collects GPS data transmitted from government vehicles, captured in real-time to an accuracy of every 10m road segment, with over 7 million road segments in the network. This is integrated and analyzed together with:

- Railroad data
- Emergency deployment systems (first-response Telecom systems)
- Green energy projects (other Smart City applications)
- Shipping (routing and fleet management data)
- Transportation (schedules, routing, and user behavior data)
- Logistics system data.

RESULTS

- Fast rollout with zero road network disruption
- Reduced congestion rates
- Enhanced traveler experience with the aid of real-time operational intelligence
- Millions of dollars cost savings per year in initial system deployment costs, and in on-going maintenance over the lifetime of the system.