WORLD'S FIRST UNDERGROUND MULTILANE FREE FLOW

Sydney Cross City Tunnel (SCCT)

Q-FREE_CASE_SYDNEY

5. Sydney

In 2004, Q-Free Australia won the contract to supply the Electronic Toll Collection (ETC) System for the SCCT. It was the world's first Multilane Free Flow tolling system to be installed in an underground tunnel. The system, including a complete Back Office, went live in August 2005.

CHALLENGE

The Cross City Tunnel was a challenge for Q-Free, because it was the first ETC System anywhere to be installed in a tunnel environment. It was also Q-Free's first implementation of a Multilane Free-Flow system. The system incorporated a complete Casual User Back Office System with customer accounting and bank interfaces, backed by colour video enforcement OCR (Optical Character Recognition) processing and vehicle classification.

The Cross City Tunnel is links to other Motorways and toll roads in Sydney, and another initial requirement was to achieve interoperability with other tolling systems.

A related challenge was to achieve integration between the old manual, coin machine-based tolling and the new ETC system. In Australia the tolling market had been relying upon a "plaza based" tolling system using both electronic and coin machines. These toll ways are now being migrated to fully electronic MLFF systems. The advantage of a MLFF system is the absence of toll booths which guarantees a much higher traffic throughput. This takes up less real estate, is more convenient for the public and removes a considerable amount of pollution in a tunnel environment where this is particularly concentrated and harmful.

FAST FACTS

NAME OF CUSTOMER
CrossCity Motorway (CCM)
COUNTRY
Australia
COMPLETION DATE
August 2005

FOR MORE INFORMATION

SALES DEPARTMENT
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STRATEGY

Q-Free Australia's task was to supplying a groundbreaking roadside and back office system, compromising tag administration and casual user (LPN based) revenue collection systems.

REALISATION

Cross City Motorways, the owner of the tunnel, purchased 100,000 OBUs (tags) for the project.

IMPLEMENTATION

This system was the first Multi-Lane Free Flow (MLFF) system to be installed in a tunnel environment. The overall goal for the central system was to provide high performance and the highest possible degree of operational automation.

ROADSIDE SOLUTION

FOUR SUB-SYSTEMS
Vehicle Detection System (VDS)
Vehicle Enforcement System (VES)
ETC Radio System (ETCRS)
ETC Roadside Controller (ETCRC)

CENTRAL SYSTEM

Video Retrieval System (VRS)
Visual User System
Customer Contract Management
Tag Administration System (TAS)

TESTIMONIALS

Full testimonials for this project and its system componenents are available on request.