

Background

Qld Motorways is an internationally – recognised tolling infrastructure development company, specialising in building, owning and operating toll road and bridge infrastructure in South East Queensland. Qld Motorways operates 5 Tolling plazas in South East Queensland, with over 200,000 vehicles passing through the toll plazas every day. There is limited reporting on traffic statistics within Queensland Motorways, with data once obtained having to be manipulated in Excel.

As Queensland Motorways move towards Free Flow Tolling in June 2009, the need to have up to date information on the penetration of Electronic toll methods compared to the amount of traffic still paying with cash was essential along with the ability to analyse the effectiveness of E toll Transponder Marketing Campaigns.

Traffic Statistics

The Problem

Existing traffic reporting was available within Queensland Motorways but was in a format that was unsuitable to manipulating any further e.g. PDF. An existing operational system contained data that could be extracted for traffic statistics reporting, however extracting data from this system had a direct and significant operational impact on day to day operations and therefore such extract requests were only to be run over night. The data extracted from the operational system was different when compared to the existing reports in PDF.

As Traffic data is processed through a number of different systems – with each system showing the data at a different point in the process, the data reported from different systems varied. Hence there was no one source of the truth and no faith that the reporting the business was seeing was actually correct.

Solution

Catapult BI worked with the vendors of each source system to obtain each required extract. Catapult BI then implemented a data warehouse, using the extracts as inputs, providing a single place to hold all traffic statistics data. The data is refreshed daily providing business users with up to date information relating to Traffic Statistics – giving them access to data at the touch of a finger tip.

Catapult BI worked with the business to gain an understanding of their reporting needs, and provided an end user solution that afforded business users the capability to analyse data with the use of Cognos Cubes, the ability to create their own reports using Cognos Report Studio. Specific reports were also created for end users that enabled them to see, at a glance, how they were tracking towards achieving their E toll penetration goal and to identify the types of customers that were still using cash, e.g. the E toll penetration rate was lower on the weekends indicating that casual users were more likely to still pay with cash.

CatapultBI provided training that equipped QM users with the knowledge they required to use the tools, and the ownership of the end product and data.

Catapult BI assisted Queensland Motorways to significantly reduce the time required to prepare Traffic Statistics data through the development of the Data Warehouse and Cognos Reporting Solution.

Outcomes

The implementation of the Data Warehouse and Cognos Reports has dramatically reduced workload on IS & T, they no longer have to reinvent the wheel for each request that comes through to the department.

There is now a reduced waiting time for business users to access reports. Previously users had to wait up to two weeks to receive data from IS&T, upon receipt of the data the business would have to manipulate the data into excel to make the data usable – with the implementation of the Data Warehouse and Cognos Reporting the business has access to more timely information at a significantly reduced amount of effort.

Transponder Sales

The Problem

Transponder Sales data was available within Queensland Motorways, however the method of capturing this data was a combination of manual data entry from a report run from an existing operational system along with manually captured data from employee's processing sales requests. This data was then combined using a manual excel spreadsheet. There was already some level of distrust within the organisation in relation to these sales figures – along with no clear or agreed upon definition of what the sale of a transponder actually was.

The processing of the manual data and manual calculations was completed once a week by an admin officer from the Customer Services Team, taking approximately half a day to complete.

Solution

Catapult BI worked with a number of business units across the organisation to first define what a Transponder Sale was. Due to the number of business units involved, each with their own definition of what a sale was, some negotiating was required to ensure that the correct definition was defined and that each business unit was satisfied with this business definition.

Catapult BI worked with the business to also identify what the gaps were in their current reporting, to identify additional information that the business required.

Upon confirmation of the business rule of a Transponder Sale, Catapult BI commenced work on including the Transponder Sales Data in the Data Warehouse, along with building reports using Cognos 8.

It was identified that there were differences between the reports generated from Cognos and the already existing Transponder Sales Reports. Catapult BI identified the reasons for the differences and met with the staff member from Customer Services who created the existing reports to show the reasons for these differences, and why the existing report was incorrect. Catapult BI then worked with the business, including high level managers to explain the differences between the two

reports, the reasons for the differences, and the benefits of using the Transponder Sales reports from Cognos.

Outcomes

The Transponder Sales report generated from the Data Warehouse is now the one source of the truth for Transponder Sales within Queensland Motorways. The previous manual process is no longer used. Outcomes for Queensland Motorways are:

- The Cognos Report provides a much more accurate method of reporting.
- Reduced work load on the Customer Services team as they are no longer required to prepare the manual report. A saving of 4 hours per week.
- Business users now have access to Transponder Sales data at any time of any day of the week. They no longer have to wait until the beginning of the week to receive the report.
- The acceptance of the Cognos Report enabled additional analysis to be performed based on additional information that was able to be derived from the Data Warehouse. Increasing Queensland Motorways capability to more effectively analyze the effectiveness of their marketing campaigns.
- Most importantly – There is now one source of the truth within Queensland Motorways as to the number of Transponder Sales.