

# Paymark

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— Richard Tims,  
CIO, ETSL

## INDUSTRY

- Financial Services

## KEY BENEFITS

- Improves query performance by more than 90%
- Provides compression levels above 70%
- Improves storage of historical data at no extra costs
- Provides unprecedented insights in retail market through reporting accuracy and reliability

## SYBASE TECHNOLOGY

- Sybase® IQ

New Zealand is unique in that the majority of real-time payment transactions, from consumer to retailer, are conducted using a centralized network. Paymark EFTPOS, the system provided by Electronic Transaction Services Ltd (ETSL), accepts debit cards from ETSL's four owner banks and some 40 other financial institutions, as well as credit cards and proprietary cards from many other issuers. Paymark was launched four years after electronic funds transfer at point of sale (EFTPOS) was introduced at petrol stations across the country. Its founding members, ASB Bank, Westpac, and the National Bank of New Zealand committed to securing EFTPOS transactions through a centralized system. Now, Paymark processes approximately 80 percent of all EFTPOS transactions in New Zealand. ETSL saw its 2 billionth transaction pass through the system in November 2000 and 6 billionth transaction mid-2007, indicating rapid growth in adoption and use. More than 65,000 merchants and 80,000 terminals are currently connected to the network, all while assuming the utmost in information security. Richard Tims, CIO of ETSL explains, “Encrypted with Triple DES (Data Encryption Standard) and compliant with the international standard for chip card interoperability, New Zealand has probably the most reliable and secure EFTPOS network in the world. Trusting in cashless payments, we New Zealanders use EFTPOS twice as much as any other country.” Paymark's EFTPOS system's reporting and analytics are powered by Sybase IQ.

## LOOKING FOR DATA IN REAL-TIME

Due to the high volume of transactional data processed every day, data recording and analytics had outgrown ETSL's reporting practice. The organization stored the records of its HP mainframe in a secure tape facility approximately 20km away from the office. The mainframe, a highly specialized machine processing more than 140 transactions per second, can only store records for the last fourteen days.

“To compile historical performance reports, someone from the IT department had to physically pick up the tape at the storage facility, and load it back into the mainframe,” recalls Richard Tims. “Typically this happened several times per day. It was a time-consuming and cumbersome exercise.”

ETSL was looking for a server-based solution to cope with the high volume of data and provide real-time performance insights to executive management. After conducting an in-depth trial before Christmas, traditionally the busiest time of the year for the retail sector, ETSL chose Sybase IQ as the foundation of its new business intelligence (BI) system.

## THE RESULTS WERE HARD TO BELIEVE

Designed from the start as an analytics server, Sybase IQ produces its incredible results because of a unique architecture combining a column-based data structure with patented indexing and a scalable grid. Compatible with standard hardware platforms and leading analytics applications, Sybase IQ offers extraordinarily high performance at a lower cost than alternatives. Sybase IQ also reduces storage and server requirements compared to traditional database management systems.

Sybase IQ's track record in business intelligence—more than 1,200 organizations use it globally, including 200 of the world's leading financial institutions—prompted Paymark to select Sybase IQ as the foundation for its reporting and analytics solution.

As proof of concept, Sybase IQ processed three years of transactional data in one week, utilizing no more than a quad-core Windows server.

"We went from zero to a near-production system in one week. In fact, one of the most remarkable outcomes was the ability to query the server with amazingly accurate results, while we were loading the data, which usually is not possible," says Jason Gill, manager, Solutions and Support at ETSL.

Sybase's software engineers also installed a dashboard solution provided by Melbourne-based business partner YellowFin, to complement the analytical backend solution with a front-end interface for executive users.

"The sales pitch was a little hard to believe but Sybase IQ did everything they said it would and more," summarizes Tims. "We now do reports in minutes that used to take days in reloading data from tape, report design and report running."

### **SYBASE IQ: A POWERFUL ENGINE**

Since installing Sybase IQ, ETSL loads daily transactional data into the database within minutes. Compared to the previous, tape-based system, average query performance improved by more than 90 percent.

With compression levels above 70 percent, the analytical solution has also significantly increased the amount of historical data stored at no extra storage costs. "With Sybase IQ, we've added an incredibly powerful engine to our system," says Richard Tims. "Sybase IQ's accuracy and reliability in high-volume real-time analytics is unrivalled and supports our rapid growth in the retail market."

### **ACCOMMODATING FUTURE DEMANDS**

ETSL's management team currently connect to Sybase IQ through YellowFin's dashboards, providing rich reporting across vast data stores. Encouraged by the positive feedback from both the IT department and these executive users, ETSL intends to extend the BI system to additional users later this year, including potentially customers and partners. As Sybase IQ is purchased per Central Processing Unit (CPU), ETSL's analytical server can easily scale up to future demand without extra licensing costs.

"We're planning to double our IT infrastructure, and want to integrate more internal and also external users into the system," says Tims. "Real-time market insights will enable our stakeholders and partner organizations to optimize their retail campaigns in a competitive environment."