

Case Studies – BI

International organisation empowered to produce and control key business information and metrics with Business Intelligence

Although the existing system met the requirements, advances in technology meant that it was possible to streamline processes and reduce costs at a global government organisation. Key for the organisation was the ability to produce enterprise level, detailed reports faster and in a more efficient way. With the implementation of new financials and customer relationship management (CRM) systems underway (Microsoft Dynamics AX and Dynamics CRM, respectively), the next step was to address the reporting system. The client selected the Microsoft Business Intelligence suite of products to provide a comprehensive, dynamic and highly flexible reporting solution for its international user base.

Business Needs

With a network of around 600 employees across the globe, the agency works to provide advice and assistance to New Zealand companies trading internationally. Processing transactions from offices in approximately 35 different locations around the world, creates significant volumes of data which has to be securely stored, managed and readily accessed for reporting.

Historically new reports were created from source systems. When staff members requested new reports, they were designed from scratch to provide the specific information. New reports were written by developers with specialist knowledge and then tested by the users to make sure the requirements were correct. These reports were difficult to construct and the process was time consuming.

Being an international organisation, they deal with multiple foreign currencies that update daily – the legacy system made it challenging to produce reports that catered for the complexities of foreign currency variations and fluctuations.

“Technology is constantly evolving, and we knew there was now an easier way to provide our people with the information that they needed and simultaneously reduce costs for the department,”

The management team had a vision to implement organisation-wide Key Performance Indicator (KPI) dashboards, incorporating data from multiple systems. Implementing a Microsoft SQL Server platform and developing a comprehensive Business Intelligence solution was a step on the path to achieving that goal.

Solution

The process of building a data warehouse solution began by extracting meaningful data and providing flexible reporting capability to the team. A data mart was created over a six-month period

The first step was to build the Extract, Transform and Load (ETL) procedures using SQL Server T-SQL. They then went on to create the Online Analytical Processing (OLAP) cubes and dimensional models using T-SQL and Server Analysis Services (SSAS). Once the cubes were up and running, the required reports were created using SQL Server Reporting Services (SSRS).

Next, the deployment and server infrastructures were set up. Finally, using business specific KPI's, the digital scorecards were designed and implemented using Microsoft SharePoint and Excel.

“This is a business that is constantly changing. Creating digital dashboards is a change to rationalize the whole business. Key managers and decision makers need to have immediate access to the information that is important to them,”

With so many staff members and international locations, the sheer volume of data is a constant challenge. The data warehouse was designed and constructed using extremely efficient SQL techniques. Every ten minutes the system wipes the entire database and re-writes it again, continuously refreshing over a million records.

“The data warehouse is structured in such a way that if the whole thing disappeared, it could be built again in 15 minutes, meaning I can sleep at night,”

Benefits

The SQL Server Business Intelligence solution has provided many benefits that were instantly available, including:

- Enterprise level reporting
- Self-service Business Intelligence capabilities
- Multiple, flexible reporting options
- Time savings
- Increased staff productivity
- Sophisticated security settings
- Improved data quality

With the legacy reporting system, they had difficulty producing reports to reflect the performance of the whole organisation. The ability to determine the success or impact of a

managerial initiative was also a challenge. The new system allows users to easily report on multiple criteria, across the organisation, and pull out selected information as required. The impact of new initiatives is now clearly visible and easily monitored.

The team has been empowered with self-service access to the cube. This means that users have the ability to design and create reports directly in response to requests for new information. If further detail is required, the extra functionality such as 'drag and drop' and 'drill down' allow the user instant access to view the additional information they need, arming them to make better business decisions.

"The ability for users to create their own reports saves us at least two to three days per report. This will have a major impact on productivity and allow the technical staff to focus on other business-critical projects for the business,"

The new system easily copes with the complexities involved in reporting and managing budgets across multiple foreign currencies and different time zones. It allows managers around the world to see budgets tracking in whatever currency they are working in, and the information can be viewed in New Zealand dollars by the management team in New Zealand.

The digital dashboard function instantly alerts managers to potential budget over-runs. The traffic light system displays a highly visible alert – which instantly informs the manager of an impending problem.

The new system has a major impact on productivity and efficiency, now that users can run their own reports – the delays with requests for information have been eliminated.

"Reports are easy to create now and very fast. A lot of the frustration associated with people struggling to get the right information has gone away too which is really great."

A major benefit has been personalized reporting through role-based security.

"This function is very sophisticated – finance can give people all the information they need and still control what they see, essentially users see their own personalized view of the data which works really well for us."

The structure of the new system means analysts have greater visibility of the data, and therefore issues with the quality of the data can be easily identified. Overall, this leads to much cleaner data and ultimately builds confidence in the information that is reported to the users.

Using CAD4Data this essential government organisation has implemented an intelligent and sophisticated Business Intelligence solution. The organisation now can independently create reports, deal with the complexities of multiple currencies and provide users with the monitoring functionality of Digital Dashboards. They are now moving forward to the vision of organisation-wide KPI's.