

NEW DATA COLLECTION SYSTEM HELPS MIS KEEP CLOSER TRACK OF RETAIL

Anglia Business Solutions' three-phase solution for retail price monitoring service MIS has provided a real shot in the arm for the company's efficiency, and has helped reduce its carbon footprint

MARKET INTELLIGENCE Services (MIS) is a wholly owned subsidiary of the Processed Vegetable Growers' Association. Based in Louth, Lincolnshire, it has more than 10 years' experience monitoring retail prices. MIS produces numerous weekly reports that offer a snapshot of the retail prices at the major supermarkets, convenience stores and discounters around the country.

Using a manual paper-based collection process, MIS invested significant amounts of time and labour in compiling the correct questionnaires for each of the required data collection jobs. It also had to ensure that these reached the right data collection agent in the post. This labour-intensive process took a whole working day to complete. Then, each agent would be required to carry out various data collection jobs across multiple retailers and product lines. A separate paper questionnaire had to be produced for each job.

The agent would visit the appropriate retailer to manually complete the questionnaires, which were then faxed back to MIS. The newly collected information would be manually typed in to update the legacy MIS system. This data would be cleaned and reformatted to enable production of each individual customer's report. The finished reports in Excel spreadsheet format were then emailed to the customer.

MIS wanted to improve the quality and range of products it offered its clients, having come to realise that whereas in the past it had concentrated on recording price and country of origin, there were now many other points of information that were valuable to their clients. These included such things as sell-by dates, packaging type, and space allocation. Delivering that information to them in a faster, more up-to-date format was critical. In addition, the system was to provide easy trend analysis of the data. Another overall business need was to improve the efficiency and speed of collecting and distributing the vast quantities of data collected each week. MIS also wanted to improve the accuracy of the data while reducing the administrative burden and associated postage costs.

A further aim of this project was the elimination of paper usage. MIS was becoming increasingly aware of the environmental impact of its paper

consumption.

The three-phase solution was built using a combination of the latest Microsoft .NET and Windows Mobile technologies, Microsoft SQL 2005 and Anglia's own suite of .NET development tools and applications.

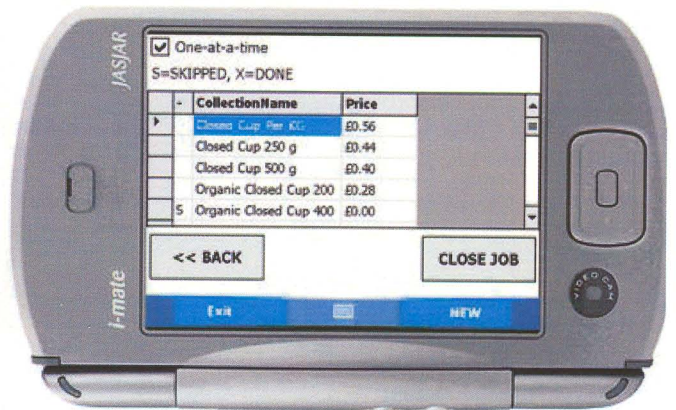
- **Phase I** – This involved the design and development of a powerful administration console at the core of the solution. This configured the parameters that define each data collection job. It also configured and maintained the captured data, while managing the customer account and subscription information. The console also performed the role of a customer relationship management system. This handled all of the engagement interactions with the customer, including logging all of the customers' activities while engaging with the website, which could be viewed by MIS administrative staff. The console also gathers information on stores while assigning store groups to them. It facilitates the collection of manual data posted directly to the system.
- **Phase II** – This involved the design and development of an easy-to-use mobile application. It was designed to be used by non-IT-literate personnel. This provided the data-collecting agents with an electronic questionnaire on a handheld device that was used to physically capture the information. The mobile solution is then used to electronically transmit the data to the administrative console. This automatically updates the MIS database without further intervention by MIS staff.

As a communications device, the mobile application can also be used to transmit messages between MIS and the data collection agents.

- **Phase III** – A web application to generate reports and enable customers to log in and view reports to which they have subscribed.

Anglia undertook a solution model exercise before any development work was started. The aim of the solution model is for both parties to clearly understand the scope of the proposed project. The deliverable from this exercise is a documented blueprint for the project together with budgets and timescales.

The project was implemented using a three-phase approach; the admin back office, the mobile data collection application and the web interface. This



gradual approach consisted of an iterative development phase, using application prototypes as proof of concepts. Involving users in the design phase assisted in gaining users buying in to the solution. It also shortened the training cycle as users became familiar with the system concepts during the testing phase.

A key part of the deployment was the availability of a unique set of sophisticated application development aids. Over the past four years, Anglia has invested in the creation of a suite of re-useable .NET development tools, designed to reduce the time and cost of advanced mobile solutions.

Anglia's Drizzle Technology (DT) is used to enable the synchronisation of data captured on the mobile devices with the central database. DT's store and forward functionality enables data capture to continue, even when the loss of mobile network coverage means the link to the database is not available. Anglia's DataMaker technology is used to rapidly replicate the required data repository on the mobile devices. Anglia's AutoUpdate technology is used to automatically roll out any software updates to the handheld devices, wherever they are.

Implementing this sophisticated mobile solution has provided MIS with a significant range of business benefits. These include the ability to quickly capture any relevant points of data in store, and ensure that the data can be processed and made available to the clients in a much shorter timeframe. It also enables MIS to make it a more "live" system, by monitoring information throughout the week, rather than just taking a snapshot on a Monday

The time to capture and analyse the

data has been greatly reduced.

Whereas previously the arrival of the completed questionnaires caused massive workload peaks, staff now only have to verify and correct a small proportion of data prior to releasing it to the core system. This has enabled personnel to focus on enhancing client service.

Automating the production of the questionnaires has significantly reduced administration costs. It has also eliminated transcription errors, leading to improved accuracy. Apart from reducing stationery and postage costs, the replacement of vast quantities of paper has enabled MIS to reduce its carbon footprint.

As the data store builds, the analytical tools available through the SQL reporting services enable the company to analyse industry trends.

The success of the project means that MIS is ideally placed to extend the system to meet other data capture opportunities. One unplanned gain was that the system provides a useful performance evaluation mechanism on its data-collecting agents.

Business development manager David Tebbutt said: "Investing in this innovative solution has provided us with a significant commercial advantage. We are delighted to have found the ideal partner to work with on this project. We spent a lot of time looking at what it is now possible to do with the new technology, and the opportunities are very exciting. Our state-of-the-art system will enable us to offer a much improved and more comprehensive service."

The MIS solution won IT Solution of the Year at the 2007 IT Channel Network Awards, held in London on October 11. ○