

The KBC financial services group in Belgium has for some time been using SAS/AF® data warehousing software to record and store the huge number of international banking transactions passing through its offices every day. Switching to a web-based system to make enquiries of the system has led to improvements in the system's performance, as well as a reduction in costs. SAS/IntrNet™ software and advice from SAS were the natural choice for the change.

KBC is one of Belgium's major financial services groups, offering a wide range of consumer and corporate banking and insurance services. Given the strong import-export profile of the Belgian economy, a sizeable proportion of company and private banking operations involve international transactions.

Back in 1987, KBC worked with EDS to set up a computerised system for carrying out and recording international transactions. The International Banking System (IBS) is now used by KBC international branches in Brussels, Rotterdam, London, Manila, Hong Kong, Singapore, Mumbai, Shenzhen, Shanghai, Taipei and Malaysia. The IBS provides front and back office functionality, accounting, message and payment handling, deal and credit registration, and a number of other functions for the KBC's professional and international banking activities. Because of the different jobs which need to happen when a transaction takes place, the IBS is divided into different subsystems, such as Forex money markets, capital markets, customer accounts, pay & receive, etc. Each international branch has its own IBS system. To give an idea of the volume of data handled by the system, a total of 216,678 lines were booked in the Brussels branch alone on one day in October 2000.

Managing large-scale, historical data

The system also records historical data going back some ten years. The most recent 25 months are directly accessible on disk, the rest is stored on tapes. This enables KBC staff to make enquiries: sometimes a figure needs to be checked, or more light shed on the

background to a series of transactions. Despite the large amount of data stored - the Brussels branch alone houses some 400 GB of data - SAS/AF® software ensures that the system can cope.

KBC was looking for a way of maintaining the high performance of its IBS system, but adding extra flexibility in the way it was arranged on its IT system. With the help of SAS, KBC became the first company in Belgium to harness the power of SAS/IntrNet™ software on a mainframe computer.

Web-based SAS/IntrNet™: flexibility and ease of use

There were a number of reasons for the change. A major drawback of the system previously used was the way it had been configured. A special user interface was required on each workstation, and the application codes for the system were stored on a server. The actual storage of data and processing of queries on the other hand were all stored on a mainframe computer. This configuration was not only time-consuming to maintain, but meant that when upgrades needed to be made to the system, the software needed to be distributed across several servers and PCs.

Pascal Verschaeve, who deals with IT development for the KBC's professional and international banking arms, oversaw the change: "We had the option of trying to migrate the existing database to a Unix system. But it was too large, so we opted for installing our application as close to the database as possible."



"You can stay with the power of SAS software if you decide to restructure the system you use: we discovered it was easy, it reduced operating costs, and it makes a great improvement to the system."

Pascal Verschaeve

Project Leader
"Web Enabled Viewers", KBC

Under the new system, each workstation simply requires a 'traditional' browser with TCP/IP. An enquiry passes from the workstation through a security server and a web server to the application server itself, which organizes the data with SAS/IntrNet™.

Reduced maintenance, reduced cost

Verschaeve: "The change did not affect the power and functionality of the system: it was a purely technical migration. There are however many advantages for KBC and the users: there are no longer connection problems, and there are cost savings on the workstations themselves, which no longer need to be such powerful machines. Maintenance costs have been reduced, as there is less maintenance to be done, and the application codes are stored in one central place, which means they are easier and less costly to adapt when required."

"What we have noticed since the change is that there are much fewer connection problems. You have access, the thing works, and that's it. And if you work two days a week in Brussels and three in Antwerp, you can easily access the same system - just use a different PC."

The migration was first tested within a restricted group. There have been one or two teething problems: browsers have a tendency to create 'time-out' problems, a difficulty which is being ironed out at the moment. Different browsers used also create different layouts on screen. Despite these minor difficulties, the new system has proved a big success, and its use has been rolled out to all KBC staff using the system - between 100 and 200 people. The new system was developed in 150 man days by SAS and LACO Information Services, one of the key SAS Quality Partners in Belgium.



KBC became the first company in Belgium to harness the power of SAS/IntrNet™ software on a mainframe computer, to add flexibility and ease of use to its IBS System.

The tricks of the trade

KBC has certainly benefited from migrating its IBS query system to a web-based format. As an initial taster for the IT services of other companies which might be contemplating changing the way they access their data warehouse, Pascal Verschaeve dwells on some of the tips and tricks he and his consultants used during the migration, and points out one or two of the problems they encountered.

We replaced the AF frames by HTML pages. We also decided to hold on to the main queries from the AF application to keep duplication to a minimum, to develop the new system more quickly, and to make the handover easier. We developed the system on PC, and then loaded it on to the mainframe once the system had been tested.

We also added a user ID to all queries when these created temporary datasetting. A regular clear-up for temporary datasets means these take up a minimum of workspace. A permanent work library is now used: SAS/Share® means this is available to all users.

As we used JavaScript for input control and validation, it was very important to test the application with a range of different browsers. There can be differences in layout - these problems took some time to overcome - or in the way JavaScript is executed. And of course, if you are dealing with older versions of browsers, they may not be able to support JavaScript at all.



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