

# DATABridge™ Frees Client's Data for UK Stockbrokers

By Dr. Penny Birdseye

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*Hans Stocker,  
Senior Manager for PC Development*

Pershing Ltd. In the UK provides "back office" services to stockbroking firms. The company has quadrupled in the past four years, handling 7,000 transactions per day for its 70 clients. A key to its success centers around its brokers' quick and easy access to client information in the Unisys A Series. Attachmate® DATABridge enables Pershing's brokers to access data replicated every 15 seconds from the mainframe DMSII database. Using DATABridge, Pershing has implemented a "straight through processing" system for information on the brokers' desktop for everything associated with a client's account.

Established in London almost a decade ago by leading American stockbrokers Donaldson, Lufkin, & Jenrette Securities, Pershing Limited's core business was originally the provision of back office services to UK stockbroking firms. Behind its glamorous image, the stockbroking business relies heavily on efficient administration. Brokers need sound, up-to-date market information on which to base their advice to clients; bargains must be transacted quickly and recorded accurately; payments must be made on time; and throughout, conformity with the strict regulatory requirements placed on the sector must be demonstrable.

Where once large numbers of clerical staff provided these services, sophisticated IT has gradually taken over. Outsourcing this part of the business has become a realistic option, especially attractive to smaller brokers whose levels of activity may not justify the fixed costs of keeping it all in house. The use of a specialist backoffice services supplier, who can spread these costs over a high volume of business and keep pace with changing technologies and regulatory requirements, has become commonplace in America, but Pershing is unique in offering this service in the UK. The idea is clearly catching on; over the last four years Pershing's staff has quadrupled to 400. The company now handles 7,000 transactions a day for some 70 clients - around 12 percent of the activity on the London Stock Exchange - and has an annual turnover of £30 million, up from £3.8 million.

Even with such a strong market position, Pershing knows there is no room for complacency. If the business is to go on growing, it must constantly enhance the service offered to its clients. When Hans Stocker, Senior Manager for PC Development, joined the company four years ago it was soon clear to him that there was one area in particular which was ripe for improvement. Central to Pershing's service is their

powerful Unisys A Series mainframe - a Clear Path NX4800-62 - that powers their settlement system and holds a massive 60 GB of data in a DMSII database, (which they call G2). "This is our communications hub, linked to all the major stock market settlement systems throughout the world and highly efficient at transaction processing," says Stocker, "but for our customers, wanting ready access to their clients' data, it was something of an obstacle. For example, a broker about to speak to a client, might well want to familiarize himself with the current state of that client's portfolio; accessing G2 would give him a very restricted view - a limited and pre-determined range of data, navigable in only one direction. And if he wanted to analyze the information in any way, he'd have either to download it and reload it into his PC (an overnight process) or even get a paper print-out for re-entering or manual analyses."

It was clear to Stocker that this was becoming increasingly unsatisfactory for the brokers. Used to a Windows based environment on their desktops, they wanted to be able to access and manipulate their clients' data through familiar spreadsheet packages to produce the management information they needed easily and quickly. "Their data was locked in our mainframe. Our challenge was how to free it for use in a dynamic open system environment - to give our customers the flexibility of data they expect from a relational database, and can't get from a mainframe."

Stocker's solution was to build a classic three-tier client/server model on an NT platform, with Microsoft SQL Server 6.5, and Transaction Server middleware that would give their clients all the functionality they wanted. But how were they to get the data from the mainframe onto this new platform?

"We considered writing COBOL programs to copy the data across, but this would have been a nightmare to create and a nightmare to maintain. The data wouldn't have been up-to-date or resistant to database reorganization; and we would have needed an army of programmers."

Then one of their third-party tool suppliers, Affinité Europe, introduced them to DATABridge, and they knew they had found the right solution. DATABridge, from

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Attachmate, selectively replicates DMSII data onto alternative platforms and keeps it current through periodic updates from an A Series or ClearPath NX host. This is exactly what Pershing needed. Much of their G2 database is a big nominal ledger that fills up the discs, slows the system down, and is of little interest to the brokers. Using DATABridge, Pershing can select the 12GB or so of information the brokers do want, and replicate just this from G2 on to their SQL Server database. And from there, it's a short step via the client/server software, which Pershing have branded 'Nucleus', to the broker's desktop.

"Once the data are on the NT side, with Nucleus we are able to provide our brokers with all the manipulation, query and reporting facilities they want. SQL gives them the freedom to choose what data they see and how it is presented," says Stocker. "And at the same time, because of DATABridge, all the essential business which goes on in the mainframe, can proceed uninterrupted."

DATABridge also copes brilliantly with data that are frequently changing, an essential factor for Pershing where client and transaction data are being modified almost continuously. After the replication database has been established the host DATABridge components (those on the mainframe side) track the DMSII audit files to determine records that have been modified, added or deleted. Records that match specifications for the target database (the NT side) are then pulled by the DATABridge client, and the database updated.

Stocker explains, "We 'ask' DATABridge to examine and update the data every 15 seconds which, because of the frequency with which our information changes, means virtually continuous updating. It's impressively fast. This is as near to real-time replication as anyone will ever get - and certainly much faster than we could have achieved doing it in COBOL." And changes can go both ways. If the broker at his desk modifies some data the changes can go back, via Nucleus, from the NT side to the mainframe.

With links through to the Stock Exchange and Merrill Lynch, Nucleus facilitates electronic trading from the broker's desk, which was not possible with the mainframe. Once executed, details of the deal go back via Nucleus and DATABridge to G2, and the client's contract documentation is produced and the necessary information transmitted to the relevant settlement system. "Straight through

processing" - the ability for one person to do everything associated with a deal from his desk top without involving teams of people - is the ultimate in operational efficiency for the stockbroker. Thanks to DATABridge and Nucleus, Pershing is able to give its clients exactly that service.

Stocker says he cannot overstate how important moving Pershing's service away from the mainframe onto the desktop is for the company. "This is not a case of doing something we've always done a bit more efficiently - this is re-inventing our core business. As well as keeping our existing customers satisfied, being able to offer this service is opening up a whole new market for us amongst the major companies who were not interested when all we could offer was to take the traditional backoffice functions off their hands. Stockbroking businesses have always competed for top client executives through the commission rates they pay; but now the desktop systems they can provide for these executives are becoming almost as important.

DATABridge is central to Nucleus' performance. Stocker freely admits that, however good a job they'd made of Nucleus, it simply wouldn't have worked without a reliable, cost-effective mechanism for getting the data out of the mainframe. DATABridge gives them just that. And there are more benefits to come. Pershing recognizes that, although they provide the Nucleus client server and software free, their customers do have to invest several thousands on routers and network devices, as well as the annual cost of the leased line. Such costs might be prohibitive to companies with a low level of business - the smallest brokers, financial advisers, or those for whom only a small percentage of their business is in the UK. A low cost route into selected services could be provided via a browser interface, which with the data replicated on to an NT server, should be relatively simple to provide. Again, the combination of DATABridge and Nucleus will open up a new market for Pershing.

"DATABridge is a great enabler. It has given us the ability to keep our powerful mainframe system and build exciting new services from new technologies, which are in turn opening up new markets for us. I now find it hard to imagine any suppliers of mainframe-based software surviving unless they also provide a PC based service. And the only really viable way to do that is to create a proper three-tier client/server model and use DATABridge to get the data out of the mainframe. It seems so obvious now!"