MQSeries Three Tier sets the standard at Standard Life

Application	Introduction of a three-tier client/server architecture based on connectivity between mainframe-based data systems and layers serving business functionality and presentation at the customer interface
Software	IBM MQSeries Three Tier for OS/2 Version 1.0, IBM DB2, IBM IMS Transaction Manager/Database Manager
Hardware	Three mainframes PC-based LANs

Increased competition in the insurance sector

The life assurance industry has been through a sea-change in recent years, with new direct marketing companies competing with the large and well-established life assurance institutions for a share of the financial services marketplace.

While many of the established companies have a track-record of financial stability and integrity, some have sought to reorganise their business processes to improve the customer interface and provide an expanding range of products and services.

One example is Standard Life. Established in Edinburgh in 1825, it has grown to become Europe's largest mutual assurance company, with over two million policyholders in the UK and assets of over &lsterling.36 billion. Three years ago, the company embarked upon an ambitious and innovative programme of business-led change which involved streamlining organisational procedures, and distributing decision making to individuals throughout the organisation.

Recognising that speed, accuracy, efficiency and flexibility are the fundamentals of good customer service, particularly in the fast-moving direct marketing of insurance services, Standard Life had to ensure that its information systems architecture supported these significant changes in business processes, and providing flexibility for future growth.

Standard Life has a track record of working closely with IBM and agreed to become an early adopter of a new IBM object-oriented middleware solution, MQSeries Three Tier which would enable the company's mainframe based data system and layers serving business functionality and presentation at the customer interface.

Object-oriented approach

Standard Life's three mainframe systems include two IBM and one Hitachi which are harnessed together to help maximise processing power. David Gisbey, a systems consultant at Standard Life's information systems (IS) development department in Edinburgh, explained more about the company's computer systems strategy and

MQSeries Three Tier is supporting business change at Standard Life the types of applications that are in use: "The mainframe systems are running IMS Transaction Manger against DB2 and IMS Database Manager data stores, and are processing bespoke financial applications developed by Standard Life. The IS development department's role is to work on a small number of major projects, to develop new systems and replace or bring the old ones up to date. We have been through a cycle of refurbishing the legacy applications and producing new front ends - attacking the problems from both ends, in other words. Now we're redefining that that approach, starting right in the middle. Our target is to implement a business object framework that can be reassembled in different ways to allow us to develop new products and services."

Standard Life recognised the importance of having a back-bone for business level object communications. "Basically there is a gap in terms of what we want to build between the mainframe-based infrastructure and the business process level," added Gisbey. "Both of these things have to deal with messages and queues - the natural thing is to provide a link between these two levels that fits the model we understood quite well. That's one of the main reasons we were attracted to IBM's MQSeries Three Tier, because we are used to IMS and a message queuing model." Our business works by departments passing data from one to another, essentially using a queuing mechanism."

MQSeries Three Tier is a new object-oriented product from IBM that facilitates the structuring of applications into presentation, business and data logic in a distributed, Client/Server environment. In the case of Standard Life, it provides a gateway tp developing flexible, object-oriented Client/Server applications without sacrificing the run-the-business data the company has built up over the years.

Added Gisbey: "The fact that we wanted to provide business-object level, reusable units made MQSeries Three Tier attractive to us. It provides a programming model and allows us to send messages from an object to an object, rather than from an abstract queue to another somewhere. The data logic layer is important because so much of our business is long term - the data that we have to keep tends to outlive our computer systems, so we need to have a data layer that can move forward to make use of new technology."

One of the key drivers towards the company's drive towards a three-tier Client/Server environment is the need to provide high-quality customer service in a competitive market, particularly to those customers who want a fast-response service via telephone - one of the growing requirements in this sector. "We need to be able to provide a 'one-stop shop', which means that there has to be a greater level of information provided to the person who is answering the 'phone," added Gisbey. "That led us to the conclusion that we needed a fairly sophisticated graphical user interface. That is something we decided to design and build here, with help from IBM."

The concept is a simple one. When the customer calls, the information on that customer is called up by the end-user - it is completely transparent where it comes from, and any of the financial services offered by Standard Life can then be accessed and information passed on to the customer. "The current front-end project has been on the go for a year and a half now and we expect to produce a substantial application by the end of this year, using a distributed messaging approach."

Importance of message queuing

Interestingly, Standard Life were moving in a slightly different direction before adopting MQSeries Three Tier. Gisbey added: "We did a comparison between using messaging and queuing and using the traditional Client/Server approach of doing everything in a synchronous manner. We concluded that this approach is not suitable for large scale business-oriented use. Messaging and Queuing is a better match to the type of business that we run."

Gisbey explained what he regards as the most likely benefits to Standard Life's business of using MQSeries Three Tier : "We will be able to provide new systems that can be redeployed by reassembling components from the business object layer, so we should be able to convert new business requirements into new systems faster than using traditional methods. The idea of taking an object-oriented approach using messaging is that we can identify quickly which objects need to change, and express new requirements in terms that our business people can understand. In addition, the benefit of using messaging and queuing is we get a model for rolling out a system that our IT people are familiar and comfortable with."

For more information please contact

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The IBM software home page can be found on the internet at
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G511-3632-00 / G5113632