MQSeries Three Tier enables software layering approach at Royal Insurance UK

Application	To build robust software applications that meet the requirements of the business, and use a combination of new technologies and 'best of breed' tools in an increasingly customer-focussed environment
Software	IBM MQSeries Three Tier IBM DB2 IBM CICS, IMS, MVS IBM OS/2 IBM MQSeries
Hardware	Two IBM mainframes PCs

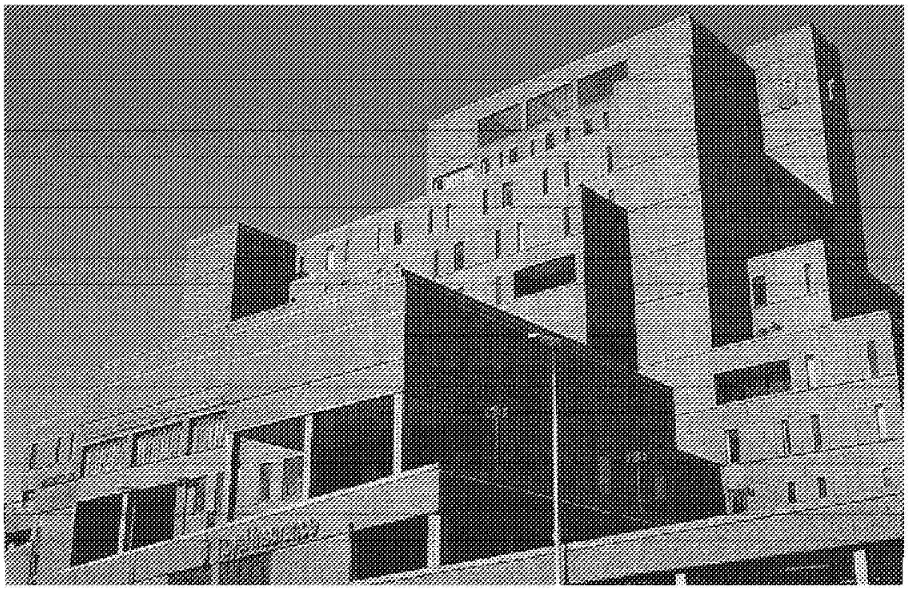
Technology integration for better customer service

For any well-established organisation, the ability to integrate existing centralised computer systems with newer distributed technologies at the end-user/customer interface is crucial to competitive success.

Technology integration is playing an increasingly critical role in helping Royal Insurance UK's general insurance operation meet its objective of providing the highest levels of customer service. Formed in Liverpool, England 150 years ago, this well-established company maintains a significant presence in each of the three main general insurance markets in the UK - broker, financial services and the fastest growing sector, direct sales - with an income from general insurance premiums of around £1.7 billion pounds.

As part of a major business reengineering process, the company is moving from area-based operations to a 'centre of excellence' structure, bringing regional parts of the business back together to maximise people skills and exploit new technologies to the benefit of its customers. Mark Borthwick, IT Strategy Manager, Royal Insurance UK, explained the business thinking behind the company's strategy: "Businesses today want solutions that don't require them to design their own technology infrastructures. We recognise the importance of using existing skills and evolving, thus maintaining a high degree of investment protection. We want to be able to build robust software applications that meet the requirements of the business, and use a combination of new technologies and 'best of breed' tools in an increasingly customer-focused environment."

No newcomer to the world of client/server, the company started to migrate from a centralised 'filing cabinet' approach to a client/server-based distributed model four years ago. In developing an integrated systems architecture, the company found it lacked the vital 'glue layers' between applications running on heterogeneous platforms. Building on its long-term relationship with IBM, Royal Insurance subsequently became involved in contributing to the early development and later deployment of IBM's MQSeries Three Tier.



MQSeries Three Tier is facilitating the structuring of applications at Royal Insurance

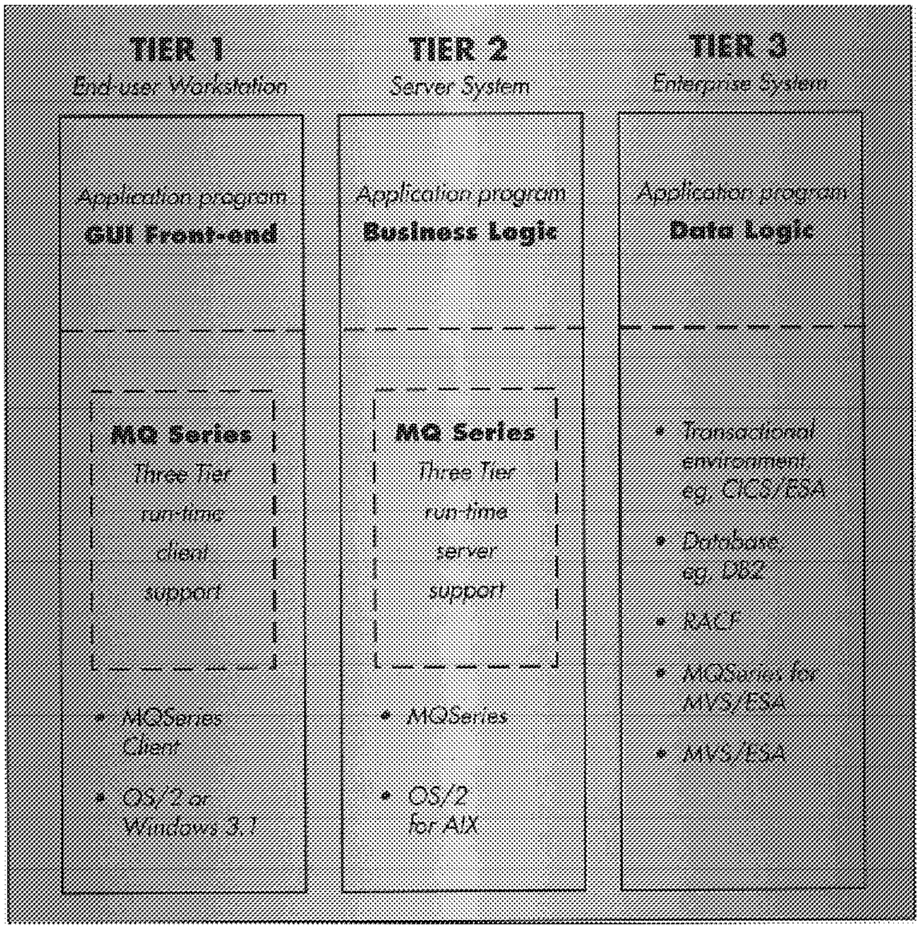
IBM's MQSeries Three Tier

MQSeries Three Tier is a new object-based product that includes a number of components aimed at reducing the risk and cost of developing distributed software applications. It aids development in a client/server environment by facilitating the structuring of applications into presentation, business and data logic.

Mark Borthwick explained Royal Insurance's transition towards a layered approach to software development: "We tend to work on well architected, well thought out designs, built over time a consistent but evolutionary way. Going back years, we built our last generation of systems around IMS, with a single corporate store in the middle. So we had policy, claims and accounts systems that were the same for all our business, whether it was motor, household or whatever.

"As our systems have evolved, we have set out to carefully layer our applications and to move towards an object-based development strategy. We see the value of workstation developments supporting more easy to use GUIs and new technologies, such as image processing, CTI (computer telephone integration) and PC tool integration. We still have a need to maintain a central, single corporate database that manages the data and safeguards it with store and retrieval transactions to ensure integrity."

Mark Borthwick does not see client workstations as always initiating requests and working on applications in isolation - eg, a telephone may well trigger work. This has led the company towards messaging architectures and a distributed process client/server model. "Like many businesses, until now we have had to develop our own infrastructure to fully support our needs, scale and reliance," he added. "With MQSeries Three Tier this has now changed and IBM has recognised the additional workstation components that developers need to produce medium-to-large scale, complex client/server developments. Underlying this is the power of MQSeries, giving assured message delivery across platforms and built with volume and performance in mind."



IT infrastucture

Royal Insurance's IT infrastucture is split into four core areas, including: customer service help desks maintenance; a traditional data centre that supports and maintains operations; a strategic development team responsible for building on existing systems exploiting client/server technology; and a strategy team which looks at positioning higher risk projects and is responsible for building the infrastructure and corporate data model. Mark Borthwick is responsible for the latter. Currently, Royal manages a team of around 250 developers across a whole range of projects.

The company has two IBM mainframes, in Liverpool and Northampton (but currently plans to reduce to one in the next 12 months) running MVS, IMS, CICS and DB2. The number of 'dumb' terminals attached to the mainframes are being reduced in favour of workstations, predominantly running OS/2 and Windows. MQSeries is running on the company's mainframe and OS/2 workstations.

Royal Insurance's specific IT need is for an environment that is complete and supports application execution, development and systems management. "MQSeries Three Tier supports all three," added Mark Borthwick, "allowing us to utilise a variety of application development tools for specific jobs. The good thing is that there is no 'lock in' to the tools - they can be extended to a wider set as technology evolves.

"The application development environment we have has been designed with our development teams very much in mind and allows us to learn and use a relatively small number of APIs, together with the neccessary testing facilities and other tools.

"The systems management side is supported by a few special add-ons inside MQSeries Three Tier and relies on existing system management products to complete the overall solution environment."

Task-based activities
"The company is determined to move from IT solutions based on 'filing cabinet' approaches towards task-based activities. We want to empower our business colleagues and enable them to focus more on the customer and deal with the business aspects of the job, rather than grapple with the technicalities of the computer system. That will lead to increased efficiency and quality of service to the customer," added Mark Borthwick.

MQSeries Three Tier architecture mirrors the direction Royal Insurance wants to go in. In effect, it provides an extensible architecture which should allow the company to 'pick and mix' packages and products as it needs to without having to complicate the programming environment.

According to Mark Borthwick, many companies are dabbling in client/server via GUIs and distributed databases, but doing little more than that. "To exploit client/server properly you need an extensible middleware infrastructure," he added. "With MQSeries Three Tier I don't have to build and maintain my own infrastucture, but I can build on existing skills to exploit this new technology."

Simplicity is the key, according to Mark Borthwick. "We need to keep the environment for our development team as simple as possible because their objective is to analyse business problems and build solutions. If they have to become specialists and get more involved in technical complications, then basically we are not going to make the progress we need to. This is what differentiates MQSeries from other middleware solutions - some look at factors such as object-oriented programming, scalability and so on, but very few have started with the perspective of making it as simple as possible from the programmers perspective.

"Reducing the learning curve down to days and hours, rather than weeks and months, means they can be more productive and we can manage the process more effectively."

Next generation systems
"We see this base line architecture as key to the development of our next generation systems," said Mark Borthwick. "Obvious applications are in the direct sales, customer service and support side. The importance of message queuing to us is it gives us the reliance to know when you capture things you never lose them, whatever happens to the system. Ensuring a message gets there in time is critical to efficient customer service. The next generation core back office systems can fully exploit GUIs and re-use components through the object facilities within MQSeries Three Tier."

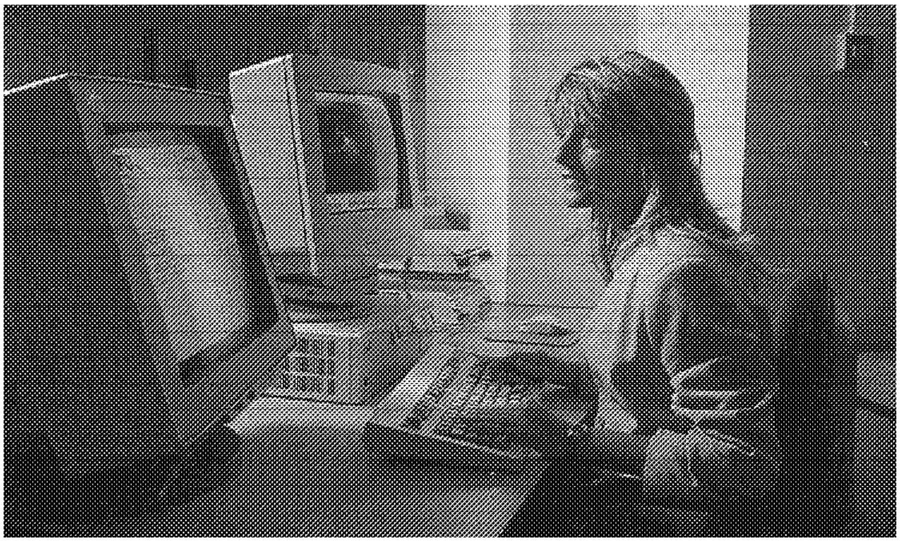
Royal Insurance has used MQSeries Three Tier to build a number of prototypes in combination with other technologies, such as workflow and CTI (computer telephone integration). The company has also built 'proof of concept' models for certain key projects, some of which are already well underway.

"There are very few companies around who can produce the 'glue layer' and who have the 'clout' to make it a de facto standard - IBM is the exception," said Mark Borthwick. "With MQSeries Three Tier we can now get to the point where core components and products are based around an MQSeries approach. From a programmer's perspective, if you want to get at the image processing technology or the print sub-system you can put out a message and you don't have to worry about how it happens. You have an assured delivery approach. MQSeries is based on the principles which made IMS and CICS such successes, enabling organisations to focus on the business requirements and solutions, and not support large teams of technical people."

Mark Borthwick and his team have been working very closely with the MQSeries development team at IBM and have established "mutual respect" He added: "The service from IBM has been exceptional."

He concluded: "We were looking for a facility which could help us exploit our people's skill and increase the speed of development towards exploiting MQSeries Three Tier technology in a major way as we go towards object-oriented and more adventurous client/server applications. MQSeries Three Tier provides a greatly simplified and programming oriented approach and we will be working closely with IBM to exploit that technology in earnest over the next 12 months or so.

"MQSeries Three Tier offers the potential for great extensibility as other software vendors lock onto this base line technology and build their tools on top. The combined power of all of this technology will then be available to customers without them having to resort to using a 'string and ceiling wax' approach to constructing integrated solutions. It is now up to customers and suppliers to unlock MQSeries' potential."



For more information please contact

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The IBM software home page can be found on the internet at http://www.software.ibm.com

The MQSeries software home page can be found in the Internet at http://www.hursley.ibm.com/mqseries

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