

The Co-operative Bank smiles on Fibernet

For any financial institution being able to access real-time information at the touch of a button is a fundamental requirement and The Co-operative Bank is no exception.

The bank's five call centres all need real-time updates and its clearing centre in London, which manages overseas financial services, needs constant connection to other banks around the world and quick access to clients' data. In short, it is vital that the bank can rely on the infrastructure in place to support its requirements, particularly in a competitive environment.

The Co-operative Bank remains a fully functional 'customer focused' bank with an ethical approach, and it is this approach that has seen it establish itself throughout the UK, effectively cornering key niche markets. It is the bank's ability to be particularly innovative when it comes to aspects of technology that has seen its customer base double over the last few years, because of the range of services it offers.

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mind, Peter Brooks, The Co-operative Bank's Network Design Developer began planning the upgrade of the bank's infrastructure. He knew he needed a network which could support these applications and stand up to the pressures that a 24x7 operation placed on it. Brooks says: "The business can be as innovative as it likes, but it has to have a solid manageable technology behind it."

Customers are key to the bank and this is borne out by the managed services it strives to provide.

The Co-operative Bank is also a bank with foresight; several months ago the senior management began to look at the introduction of multimedia services, such as streaming video. With this in



The business driver

It was fourteen years ago that Peter Brooks put in the original time division multiplexing (TDM) and router wide area network (WAN) infrastructure, manufactured by US-based company Infotron. However, with the routing equipment no longer upgradeable or supported, and not having the capacity to cope with the increased traffic the bank was creating, users were beginning to make criticisms levelled at the network's low response time, i.e. the amount of time it took to transfer or download files. Brooks and his team had the tools to monitor traffic across the network and could see that it was only a matter of time before network congestion increased the bottlenecks in the system. The short term view and

only option open to Brooks at that time was to wind up the bandwidth, upgrading from 1 to 2 megastreams, "which was about all the NX routers could take," Brooks explained.

The network was linked to channel extension technology, originally implemented for disaster recovery purposes. This system again was long in the tooth, and Brooks knew that a more efficient way of managing the bank's disaster recovery process was a critical factor which needed to be addressed. Brooks

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knew that ultimately the outdated infrastructure of the networks would need to be replaced entirely, so in June last year he began to research his options.

Already aware of the equipment capability and reliability of manufacturer Cisco Systems, and having got

Executive approval to use Cisco equipment as the defacto standard, Brooks had several meetings with the company before deciding that their router capability was right for the bank. He then needed to find a partner with a good cultural fit to work with him to build a network infrastructure, based on the right technology. Initially Fibernet was one of six partners Cisco proposed to Brooks, and it has now become the bank's preferred supplier. He says: "Fibernet was a good cultural and ethical fit for us, their people were extremely helpful and friendly and of the highest calibre."

Brooks admits that he was surprised by the diversity of the solutions proposed by the three partners that bid. "It was a bit like comparing the equivalent of Betamax with VHS and DVD, Fibernet being the DVD," he says.



One of the bank's incumbent network suppliers, a large telecoms company, bid an Asynchronous Transfer Mode (ATM) solution. While this might have addressed the bank's immediate requirement, ridding them of bottlenecks, and bolting on the TDM network could have eliminated the need for immediate migration, it was a solution that would have been extremely expensive to upgrade as the bank

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continued to need the bandwidth to grow its business. The second operator offered a Gigabit Ethernet metropolitan area network (MAN) that was not a viable option because of its lack of resilience. Fibernet's solution, a fully resilient and managed optical network, offered the bank the latest in new, but reliable technology. "Fibernet's solution was the more innovative of the three," commented Brooks. "And because we were starting with a green site situation, the option of linking all our main sites with IP connectivity was the best option for us," he continued. "This combined with the flexibility and scalability which can only be achieved via an optical network provides us with a WAN solution that is instantly scaleable upwards to 1Gbps and beyond."

The proposed physical network will link the five Northern sites of Balloon Street - the bank's principal call centre and debt management site. Salford -The bank's main computer centre, and a 125 seater call centre for business customers. 'Pennylands House' - a 40-seat call centre which is a fraud operations site, and is also responsible for the bank's programming and development. 'Delf House', Skelmersdale - a 24hour, 600 seater call centre for personal customers, and 'The Pyramid' in Stockport - a 600 seater call centre for customers and home of Smile, via 2 x 100Mbps fibre connections, back to TANet, Fibernet's national fibre optic backbone. It then extends out to the bank's clearing centre and overseas financial services buildings in Prescott Street, London, providing 2 x 4Mbps connections and a 45Mbps tail to Hoddesden, the bank's disaster recovery site. In total, upwards of 6,000 users across the sites will use the new network.

"There is a massive interchange of data between the buildings because the call centres are very highly integrated. Our voice and data technology interrelate very heavily with CTI," explains Brooks. "In excess of 56% of users dialling in will use our IVR function, and

will therefore not need to talk to an agent.” This level of service accounts for the bank’s heavy usage of bandwidth and Brooks knows that this will only increase. “The vital factor for the bank’s continued expansion and consolidation is bandwidth on demand in terms of scalability, and Fibernet’s VPN has provided just that.” For Brooks though it was not a matter of simply throwing bandwidth at the project, it was the need to provide them multicasting capabilities and quality of service (QoS) for streaming video, an application the bank is considering for the future. Brooks makes clear that budget was also a very high consideration in choosing the right solution.

He knew that he must be focused on what his technology team was there to do - deliver managed services to the business. “The new network has to be costable, we are here to deliver managed services to

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the business, not buy IT for IT’s sake! So we used a tight model for budgeting purposes.”

He also explains that the managed service provided by Fibernet represents a radical new approach for the bank that in the past had invested in its own

WAN infrastructure only to find that expensive equipment could become obsolete. “We wanted a service delivered to us, we wanted to effectively rent a service that was cost effective i.e. we only pay for the bandwidth we use, and we don’t have the worry of managing it. The combination of Fibernet’s managed VPN and our ability to still control our local area network (LAN) environment, means that we have a reliable team behind us to react quickly to any problems on the WAN, leaving us free to maintain control of a sometimes volatile LAN.”



The Co-operative Bank currently deploys a Token Ring (TR) LAN topology, running at 16Mbps, using now obsolete 3Com hubs. Brooks inherited this legacy and is quite obviously keen to see this upgraded in-line with the WAN implementation plans. Brooks says: “The LAN is the volatile bit, the bit that changes constantly as the business dictates. We can react to these changes as long as we have sufficient bandwidth and head room,” he explains. “It is a case of build in technology refresh, so we have gone for an install and maintain Cisco solution – and a Gigabit Ethernet backbone and 100Mbps Fast Ethernet to the desk has been proposed by Fibernet, who were very happy to operate on this basis for us.”

As part of the proof of concept currently taking place, Brooks hopes to also test IP telephony to see how it compares in quality to the inherent Infinity system.



It is likely though to be a future because the current bespoke OS2 system is heavily integrated into all services the bank offers, so it would mean a complete re-write of the system software. Brooks would, however, like to see the introduction of VoIP between the sites, because with the bandwidth he will have available, he knows it will save him money in the long-term.

Joint ventures & future plans

Various components of the UK’s Co-operative Movement have continued to converge in order to achieve scale and performance in their respective marketplaces. The Co-operative Wholesale Society and The Co-operative Retail Society came together in April 2000. In 2002 The Co-operative Bank and The Co-operative Insurance Society are being merged under a single strategic leadership. The Information and Communication Technology functions of the bank and the CIS will be among the first management services to be delivered at integrated group level and it is likely that the Fibernet platform will be exploited still further in this context.

Business benefits

When asked about the business benefits Brooks was expecting to see from the new infrastructure, he explained that it was the problem of resilience which has moved the project forward quicker than anything else. "Our new network is resilient, whereas the problem with the current network is everything hubs through Salford, it is the single point of failure. The bank could lose hundreds of thousands of pounds in an hour if even a fuse was to blow and take down one of the routers."

Reliability is another chief factor, with state of the art equipment from Cisco now a defacto standard, The Co-operative Bank is assured reliability. "For us, a reliable network will make a tremendous difference to how we work and our peace of mind," said Brooks.

Flexibility and scalability of the network were perhaps the most important aspects of Brook's choice of solution. "With a network inherently scalable and

able to provide us with bandwidth on demand, we have the confidence to deliver the managed services the business expects."

Faster response times should also in time become apparent. "If we can shave off a percentage of the transmission time it will improve peoples' flexibility," Brooks comments. "Our centralised help desk will also start to see less calls." However, for Brooks, stability was vital. "Ultimately it's reliable, stable and durable. The fact that we can throw things at the network and it will take it. We now also have a test bed environment across the wide area that we can use, this will help us deliver and manage the roll out of other new and innovative projects – we can practically facilitate unlimited projects within the VPN, in a controlled manner."

Now that the investment has been justified and approved by the bank's Executive, Fibernet's IP solution is currently going through consolidation and deliverables for proof of concept. Roll out of the project code named 'Nautilus', is on target to complete at the end of the bank's third quarter.

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