

# Technology You Can Bank On

From HSBC's impressive office tower at Canary Wharf in London, the bank's ten-strong creative team — part of the marketing and branding department — design and manage around 3,000 items of literature for the bank's UK organisation. These assets range from terms and conditions of products and services to brochures for specific campaigns, approximately 1,600 of which need to be permanently accessible by the bank's employees.

The importance of running this part of the organisation on reliable and secure technology is clear: the idea of missing a campaign deadline due to lost or corrupted files is untenable. "We have contingencies in place to manage such situations", notes departmental head James Sawyer, "but we don't want to reach that scenario, so it's great to have Apple technology at the heart of our processes".

HSBC don't just use Macs for their design work; since 2003, the department's server and storage environment has been based on Apple technology. With a single file averaging 500MB, and a project file — comprising work in progress and final designs for single campaigns — weighing in at around 1.5GB, it was clear the department required its own Storage Area Network (SAN) resource, separate from the rest of the bank's systems. The challenge was to create a network that would improve the department's workflow while also meeting HSBC's necessarily stringent disaster recovery standards. When the bank moved to its new building, it was given the perfect opportunity to update its technology infrastructure.

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In order to achieve their vision, HSBC turned to Viewdata, an Apple Solution Expert for Server and Storage. Apple Solution Experts are independent service providers who specialise in helping businesses large and small purchase, install, learn and support Apple-based solutions. HSBC's solution is disarmingly simple: a dual processor Xserve attached to a 7TB Xserve RAID sits within the office tower itself, and an identical set-up sits at a secure location off-site. Whatever happens on the system at the office is mirrored on the external resource via a 100Mb link, providing off-site back-up should anything happen to the systems or building in London. As and when circumstances dictate, the technology gives the bank's employees access to their marketing collateral from any external location.

In addition, both the server and the RAID have been configured to handle system problems or human errors that might interfere with the network. "There are multiple drives, so if anything happens, it will switch to the second drive in the server and continue to work", explains Paul Scott, technical sales manager at Viewdata. "The RAID has also been split in half so one side will continue to provide data if there's a problem with the other side". In the event of a major hardware failure, or the loss of both RAID drives, the second off-site server will deliver data through the same IP address. For Sawyer and his colleagues, this means they will experience unbroken service no matter what happens. And in the event of a major problem, they can recover their work from just one hour ago.



## Challenges

Creating an Apple-based server and storage facility that satisfies HSBC's stringent (PC-based) disaster recovery requirements.

Managing high volumes of large files in transit and storage.

Enhancing workflow for Apple-based department.

## Solutions

### Client side:

- 50+ client-installed Apple computers — mix of Power Macs, Mac Pros, Macbook Pros
- Adobe Creative Suite
- QuarkXPress
- Apple Remote Desktop

### Server side:

- 2x Xserves
- 2x 7TB Xserve RAIDs — configured to mirror each other: one on-site, one off-site; linked through existing corporate LAN and WAN offering 100Mb feed between sites

## For More Information

- [HSBC](#)
- [Viewdata](#)
- [Apple Solution Experts](#)



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The new SAN is independent from the main bank's resource but, crucially, it is connected to the rest of the bank's network, allowing smooth communication between departments and around the branches. Where previously the interplay between PC and Macs had produced issues around multiple files and long file names, the new network offers smooth sharing and saving of files across the board. "We have been able to move from a system that was running separately from the rest of the network and to its own standards, to something that integrates with the network and provides comparable standards", says Sawyer.

"We're running Lotus Notes and Mac versions of other PC applications without any problem", he continues. "We can log into any of the PC networks in the bank, so if I want to share a file, there's no problem. If a PC user needs access to a particular directory in marketing, they can do that as well".

Sawyer insists that the HSBC system has only been made possible by recent advances in the Mac's networking and communication capabilities. As well as this, the past few years has seen a change in attitude among technology and network administrators within the bank itself. "Moving to the new building in Canada Square was a catalyst for working with the IT department and Viewdata on this project", explains Sawyer. "To the IT department's credit, they've taken on board our requirements and discovered that it's not that difficult to integrate Macs into a conventional PC environment. We're now reaping the benefits of having an integrated solution while still exploring ways to bring the bank's core standards into everything we do. What's interesting is that the IT department are now opening their eyes to a potential new supplier".

Meanwhile, within the design and marketing department itself, it is no surprise to find that Sawyer and his colleagues have required virtually no additional training in order to get the most from their Mac systems. Indeed, with an automated back-up system, Sawyer notes the only training required has been to instruct the relevant managers in the retrieval process, should they need to recover earlier material.

While the Apple-based SAN represents a significant spend for HSBC, Sawyer notes his department's investment in Apple technology is ongoing, with upgrades and updates for machines scheduled as and when required. At the same time, very little of their existing technology goes to waste — as machines are replaced, they tend to work their way down the 'food chain' to find useful applications elsewhere. Sawyer notes that some of their Apple machines have been running non-stop for close to eight years, and were shut down only for the time it took to move to the new offices. There is no doubt that the company is gaining maximum value from every piece of new investment.

Sawyer notes that regardless of industry sector or business, if there is design work to be done, it is probable that a Mac will be there to carry out the work. However, HSBC's SAN demonstrates that these enclaves of design-dedicated machines need not be viewed as special cases or separate networks — they can be integrated with wider business networks and used with all their strengths as part of a high-performance business solution. "Today there really is nothing you can't do with a Mac", says Sawyer. "We can run compliant networks, with comparable high security standards and provide access between machines. It's a fantastic opportunity and often the main challenge is communicating that opportunity to other people".



## Benefits

High level of security built into Mac OS X — the solution starts from a very high security level prior to creating the SAN and implementing custom-built security features.

Simple installation: in-depth testing of demo system to test resilience and security, six weeks on-site testing, four days final installation.

Low maintenance for bank and no adverse impact on performance of existing systems for other functions in HSBC.

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