

The Financial Times

Delivering an On Time, On Budget Data Center Relocation and Optimization Program



One of the world's most respected news organizations was making its own headlines last year, when the company undertook a comprehensive data center relocation and optimization program. Delivered on time and on budget under the professional stewardship of Symantec™ Consulting Services, the program enabled the Financial Times to mitigate risk by moving the technology infrastructure to two new data centers. During the relocation, Symantec Consulting Services ensured that all systems remained available during the move, with no unplanned downtime. It also resulted in a 49 percent reduction in the server footprint from 484 to 287; while enabling the company to take advantages of new technologies, such as virtualization; and it introduced a component level disaster recovery plan to maintain brand presence and production critical services.

ORGANIZATION PROFILE

The Financial Times, one of the world's leading business news organizations, is recognized internationally for its authority, integrity, and accuracy.

INDUSTRY

Media

SOLUTION

Data Center Relocation & Optimization

One of the World's Leading Business News Organizations

The Financial Times, one of the world's leading business news organizations, is recognized internationally for its authority, integrity, and accuracy. Providing extensive news, comment and analysis, the newspaper is printed at 24 print sites across the globe, has a daily circulation of 448,523 (ABC figures, November 2008) and a readership of 1.4 million people worldwide. FT.com is the definitive home for business intelligence on the web, providing an essential source of news, comment, data and analysis for the global business community. FT.com attracts 7.1 million unique users, generating 72 million page views (ABCe figures, March 2008).

The roots of the Financial Times' program lay in the need to take data availability to even greater heights, while simultaneously reducing risk, and streamlining operations. Specifically, The Financial Times was driven by a desire to remove production services from what was deemed to be a 'high risk' Central London location to remote data centers in 'lower risk' areas. The move would also accommodate the FT Business subsidiary at the free space in the London headquarters.

It didn't stop there. By re-locating the data center, the company would be poised to rationalize and consolidate its platform and build variations to improve availability and supportability. Simultaneously it offered the chance to exploit existing project initiatives to enhance capability, such as a Windows Server consolidation project. Alison FitzGerald is the head of service delivery at The Financial Times and for her the plan could not have arrived quickly enough. "We were challenged by the fact that business critical systems were running on aged hardware—and that was potentially leading

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Alison FitzGerald

Head of Service Delivery
The Financial Times

Symantec Global Services delivers large-scale data center relocation and optimization program on time and on budget.

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The Financial Times

to an increased level of operational risk,” she explains. “The business also had one arm tied behind its back when it came to taking advantages of new technology, such as virtualization. The bottom line was that we had a requirement for a component level disaster recovery implementation to maintain our brand presence.”

Depth of Knowledge, Clarity, and Insight

Clearly, a project of this magnitude demanded the involvement of specialist skills. The Financial Times has these in abundance, but it was considered necessary to engage a major global transformation vendor or an existing key supplier to assist with the data center relocation program. The question was—which one? FitzGerald takes up the story. “Our over-riding aim was to minimize the risk on the project,” she explains. “We shortlisted a number of vendors and Symantec joined the bidding process at quite a late stage. We didn’t have a long term experience of their work, but they impressed us with their knowledge and experience of the subject matter and from there the relationship grew. It was clear from the start that they were hell-bent on winning the business. They weren’t aggressive; they simply demonstrated an unswerving desire to partner with us on the project. They proved to us they could meet the tight deadlines; and we liked their methodology which molded itself to our processes. We were very impressed with their depth of knowledge, clarity, and insight. They’d clearly done this sort of thing before many times over. From that moment on, we knew Symantec was the right partner for the data center relocation.”

One of the initial and most important steps was to re-locate the FT Business technology infrastructure to the two new data centers hosted by Cable & Wireless (one in Park Royal and one in Watford). The integration of the FT Business’ IT infrastructure within the over-arching Financial Times infrastructure had two major benefits: first, it allowed FT Business to capitalize on opportunities to leverage existing solutions and merge business solutions; second, it provided access to a larger pool of skilled resources to enhance the overall support capability.

SOLUTION AT A GLANCE

Business Drivers

- Reduce risk, by removing production services from a ‘high risk’ location to remote data centers in ‘lower risk’ areas
- Streamline operations
- Expand free space to accommodate business subsidiary

Technology Challenges

- Take data availability to even greater heights
- Rationalize and consolidate its heterogeneous data center technologies
- Capitalize on new technology, such as virtualization

Solution

Data Center Transformation

Symantec Services

- Symantec Data Center Migration Service
- Symantec Data Center Standardization Service
- Symantec Consulting Services

Technology Environment

- Data centers: two hosted Cable & Wireless data centers
- Servers: 287 servers
- Storage: EMC® SAN, based on DMX
- Network: One gigabit Metropolitan Area Network (MAN)

In a related process, Symantec Consulting Services configured the two Cable & Wireless data centers. Drawing on their global resources, skills, and experience, the Symantec team prepared the two centers, implemented a one gigabit Metropolitan Area Network (MAN) with diverse routing, and introduced the Cable & Wireless Managed Service—which included enhanced monitoring of the infrastructure for around-the-clock cover. “Symantec saved the FT time by reducing the choices of technologies under consideration,” says FitzGerald. “As the program had a tight deadline, this was essential to enable us to meet the deadlines. There wasn’t time to evaluate all products in all technology classes and Symantec used their experience to offer shortcuts and reduced product consideration lists by leveraging what the industry and our other clients were doing in the space.”

Symantec Consulting Services Went the Extra Mile

An EMC storage infrastructure is a core component of the two data centers and here the Symantec team partnered with their EMC counterparts to build and configure the EMC platform and deliver cross-site replication (including a DMX platform re-fresh). An EMC storage and backup Managed Service is also in use to provide 24x7 cover. “This was an example of where Symantec Consulting Services really went the extra mile,” says FitzGerald. “The EMC Managed Service was an additional deliverable not included in the original business case—but the Symantec team did not balk at that; they simply took it in their stride and got on with the job in hand.”

The next phase was to move and consolidate the Microsoft Windows and Unix server estate to Park Royal and Watford in order to mitigate risk. Altogether, this consolidation exercise resulted in a 49 percent reduction in the server footprint from 484 to 287; while further decommissioning and optimization will result in a 50 percent overall reduction of the server estate. This server consolidation also provided the opportunity to exploit the investment in the new virtualized Windows environment. By employing clustering, partitioning, workload management and other virtualization

techniques to configure groups of servers into reusable pools of resources, The Financial Times is better positioned to respond to the changing demands the business places on those resources. Also, the technology offered the potential for a fundamental change in the way the company’s IT managers were thinking about computing resources: when managing individual boxes becomes less of a challenge, the focus of IT can shift from the technology to the services the technology can provide. Overall, the new streamlined virtual server estate reduced the physical footprint from 74 servers to 16.

A component level disaster recovery plan was also introduced to maintain brand presence and production critical services, including cluster failover testing. Each core system component was evaluated by the Symantec Consulting Services team to identify whether it was production critical and whether it was required for brand presence. A component level DR plan was then agreed for each system, highlighting any potential single points of failure—and ending in a hot standby capability for the brand presence services. “Each server was mapped to a system name,” says FitzGerald. “As servers were closed the percentage component DR plan was calculated according to the system name. For example, with Datafactory Syndication Services, nine out of ten were closed equating to a 90 percent component DR implementation for this system. This procedure was a major step in assuring the continued availability of our system in the unlikely event of a disaster.”

Reducing Operational Risk; Improving Availability, Reliability, and Supportability

While the project began as a large-scale data center relocation program, it was rapidly widened to absorb data center optimization. Again, Symantec Consulting Services was engaged on a number of crucial tasks. First, they introduced a standardized approach to builds, to reduce operational risk, improve availability, reliability, and supportability—and increase service level provision. Second, the Symantec team deployed a structured VLAN setup, removing the existing stretched VLANs in line with

BUSINESS VALUE AND TECHNICAL BENEFITS

- Integrated line of business IT infrastructure within the Financial Times infrastructure
- Ensured all systems remained available during the move, with no unplanned downtime
- Configured the two Cable & Wireless data centers
- Mitigated against risk by consolidating server estate to new data center infrastructure
- Resulted in a 49 percent reduction in the server footprint from 484 to 287 servers
- Exploited the investment in the new virtualized Windows environment.
- Enabled the company to respond more quickly and effectively to the changing demands of the business
- Introduced a component level disaster recovery plan for brand presence and production critical services, including cluster failover testing
- Introduced a standardized approach to builds, to reduce operational risk, improve availability, reliability, and supportability—and increase service level provision
- Enhanced network security
- Provided comprehensive configuration management

Pearson's (the holding company for the Financial Times) security policy and segregating the production and development LANs. Third, an enhanced network security policy was introduced. This involved the rationalization of The Financial Times' firewall rules and the documentation of the network topology at server and application level. Finally, Symantec partnered with the Financial Times team to provide comprehensive configuration management. As a result, the customer is benefiting from an accurate picture of its IT estate through a data center audit, an iCMDB (Configuration Management Database) for inventory tracking, and an accurate and detailed set of data center documentation.

Technical guidance and technical design authority was a key exercise—with Symantec setting up a technical design steering committee that met weekly. The relocation was used as a catalyst to look at all technologies used in the new data center and the opportunity was taken to re-evaluate all existing technologies whilst looking for optimization. Nothing went into the new data center unless it has been approved by the weekly session which Symantec hosted.

As many organizations have found, keeping the applications documentation up to date is challenging. In light of this, a major part of the program was to establish the application complexity and connectivity view: which application was connected/relied on which other applications or services and what impact would a failure in an application have on a service, both upstream and downstream. This spun off additional benefits to the business continuity program, which Symantec were then asked to assist with outside of the data center migration program.

At the outset, Symantec Consulting Services promised The Financial Times its wholehearted commitment to the data center relocation and optimization program. And it was true to its word. The entire program was completed within the agreed budget and timescales. Within two months of the project being signed off, the team had established a resilient network link between the Financial Times headquarters in Central London and Cable & Wireless Park Royal data center. One week later the first virtual server was migrated, followed a week after by the first physical server migration. Eleven days later the MAN was complete. All of these milestones were achieved with robust, workable service level agreements.

FitzGerald concludes, "Throughout this relocation program, Symantec Consulting Services were on our wavelength. They worked exceptionally well with our team with a 'one team mindset' and our challenges became their challenges. It was this level of passion and enthusiasm that distinguishes Symantec from many other vendors."