Network Publishing Group

Media Information Solutions

Network Group

Project key facts

Customer requirements
- IT infrastructure that meets the Group's business needs
- Increased data storage capacity
- Powerful database to allow multiple-user access
- Improved email service and increased protection

The MIS solution
- Implement Apple OS X Xserve to provide high performance network services, increased storage and robust email application
- Develop fully relational, scaleable and robust database application in FileMaker Pro Version 7, capable of supporting over 250 users and managing very large data files (up to 2.4TB)
- Replace Windows PCs with Apple Mac G5s in the studio, achieving significant performance increases

Technical benefits
- Greatly improved network performance
- Increased hard-disk file storage space
- Greater integration of Macs and Windows PCs
- Email services operating in a secure, robust environment supporting comprehensive virus and spam filtering
- Faster hardware running UNIX OS
- Greater stability of IT systems

Business benefits
- Improved printing and workflow speeds
- Efficiencies realised through reduced downtime and designer frustrations.
- Decrease in production and colour-proofing costs
- Greater inter-operability with external bureaux and service-providers
- Greater functionality from a more stable email system at no additional capital expenditure
- Support for as many database users as the business requires without any denial of service

Partners and technologies
- Adobe: Creative Suite software
- Apple Computer: network and email services
- D-Link: high speed gigabit network switch
- FastNet International: ISP services
- GretagMacbeth: colour calibration

Founded in 1989, Network Group comprises four companies: Network Lifestyle, Network Jewellery, Network Artwork & Design and Network Photography. Network Lifestyle produces high-profile, glossy magazines for hotels and restaurants in the UK and the rest of the world, including members of the prestigious Relais & Châteaux group. Network Jewellery produces high quality lifestyle magazines for leading independent jewellers in the UK and Ireland. The inclusion of Network Artwork & Design and Network Photography within the Group means it can run the publishing operation even more smoothly and efficiently.

Together, as one team, the Network Group work to provide their clients with the highest quality lifestyle magazines for their guests, customers, colleagues and industry friends.

The situation

The Network Group had several business issues that were hampering its development.

Firstly, the studio, responsible for the design and layout of the titles published by Network Lifestyle and Network Jewellery, was operating with legacy systems that needed replacing. As the engine behind the publishing group's business, the priority was to ensure that the studio was equipped with the correct systems to enable Network Lifestyle and Network Jewellery to maintain the quality of their published titles. The growing technical demands however of high resolution digital photography, provided by the Network Photography team, meant that it was becoming increasingly difficult for the Group's IT systems to successfully meet the needs of the business.

An unbranded server running Windows 2000 Server was struggling to cope with the data transfer of large graphical images and the modest hard-disk-space availability in the ageing server was continually running dangerously low. Not only did this undermine the security of business data, and therefore business continuity, but it also took a great deal of day-to-day management to regulate the data storage, ensuring that disk-space limits were not exceeded. This problem was compounded by the Windows Server running a VPOP email server application and providing file and print services for the entire group of 20 users. With the exception of a single Apple Power Macintosh G4 connected to a high resolution drum scanner in the studio, all desktop-systems were a mix of branded and unbranded laptops and PCs, and all network devices were connected over an unswitched structured Ethernet cable network.

"The joined-up approach adopted by MIS demonstrated how one piece of kit – a server solution – resolved multiple business and technology issues with no additional capital expenditure"

Peter Marshall
Publisher and managing director
Network Publishing Group

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The problems encountered by the team included:
- Poor speed performance of the network when opening files from the server or when printing
- Shortage of disk space (blamed largely on the rapidly increasing needs of the studio)
- Very poor performance of the studio PCs when manipulating large files
- Very poor colour accuracy when working with photographic images
- Poor integration of the studio Macintosh with the Windows systems.

In addition to the server limitations, the database managing the workflow of the Group's commercial processes was failing. This database, dating from the early days of the company, was written in Microsoft Access 97, a database tool that was never designed to support multiple users simultaneously accessing a large database file. The database was responsible for tracking all elements of the publications: advertising opportunities and revenues, editorial content and studio design work. Consequently, the database had to record significant amounts of data, ranging from client and supplier contacts to sales and production-job-bag information. With sales, management, administration and marketing teams all trying to access the database simultaneously, they were faced with the following problems:
- Users being locked out of the database via runtime errors
- An increasing number of users unable to launch the database when their old PCs were replaced with Windows XP systems
- A number of reporting functions failing
- Regular application and systems crashes

The final major impediment to the Network Group's development was their email services which were inadequate and insufficiently developed to meet the needs of the Group. A VPOP email application running on the Windows 2000 Server provided basic email services via an ADSL account with BT Openworld.

The shortcomings identified with this email system were:
- No virus protection (virus infection was widespread across the network)
- No support for IMAP (users' email was not secured on the server, nor was it possible to recreate the user folder structure on the server)
- No webmail support (remote- or home-workers were unable to collect email without complicated forwarding routines to personal email accounts)
- No spam filtering (users were inundated with unsolicited emails)
- No out-of-office reply rules supported

Additional benefits include the support for open standards in OS X, such as ICC colour profiles, which enabled MIS to accurately calibrate displays thus achieving greater colour accuracy in the finished product. The subsequent decrease in the number of inaccurate colour proofs generated significant cost savings.

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The MIS solution

Presented with such a range of business and technical issues, MIS had to propose a solution that would address them all in the most cost- and time-efficient manner, with minimal disruption to the business processes.

The installation of an Apple OS X Server resolved the network performance, storage and email issues. The immediate impact was an increase of the storage space available to the Group from 36GB to 500GB, presented in a secure, fault tolerant RAID 5 disk array. The increase in storage space meant that the studio was able to store more data online; making it quickly and readily accessible, without the need to restore files from an archive. A gigabit network switch was installed and the two Xserve on-board gigabit network connections were connected to two ports on the switch; the studio traffic was directed via one port with all the non-studio users connecting via the other. Consequently, both 'segments' of the network (the studio and all others) now enjoy significantly higher network speeds allowing the workflow to move faster and without interruption.

Further improvements to the studio's production processes were achieved by replacing the Windows PCs with Apple Power Macintosh G5s. Adoption of the industry-standard computing platform in the studio has meant that significant performance increases have been realised through the use of dual processor Macintosh. Manipulating large graphics files is no longer a slow process. Additionally, a move from Quark Xpress to Adobe's Creative Studio has meant that designers have been able to leverage the tight integration between Photoshop, Illustrator and InDesign to achieve greater efficiencies in production within a more intuitive creative environment. Since the studio are long term users of Adobe Photoshop and Illustrator, the move from Quark Xpress to Adobe InDesign was neither disruptive in cultural terms, nor did it require any new training. Additional benefits include the support for open standards in OS X, such as ICC colour profiles, which enabled MIS to accurately calibrate displays thus achieving greater colour accuracy in the finished product. The subsequent decrease in the number of inaccurate colour proofs generated significant cost savings.

A result of the tight integration between the OS X systems and the Windows environment, is that Windows users are able to connect to the OS X Server and the OS X client G5s are now able to connect to the Windows 2000 Server without the need to run Services for Apple in W2K Server. To further enhance data security, MIS also set up a back-up of the Windows Server to the OS X Server.

Following detailed discussions with the team, MIS proposed that the most effective solution to comprehensively address the issues associated with the Access 97 database was to rewrite the database in FileMaker Pro Version 7. This enabled MIS to design and build a powerful relational database with the

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capacity to support many users (in excess of 250) and meet the growing needs of the Group's business through the support for very large data files (up to 2.4TB). FileMaker Pro Server runs on the OS X Server, bringing stability and scalability to the database. It can also now be accessed by both Windows and Macintosh clients so that the studio users are able to track workflow progress on screen. Runtime errors are now a past problem, the application has not crashed in six months of use to date and the reporting functions have been extended and are available to all; the database now meets the needs of the Group's business, and will do so for many years to come.

The email solution for the Network Group was a straightforward choice as it was already in place, delivering network services - the OS X Server implemented by MIS. In addition to providing network services, the Mac OS X Server combines the most robust technologies from the open source community to deliver comprehensive, easy-to-use mail server solutions. Full support for Internet mail protocols - internet message access protocol (IMAP), post office protocol (POP), and simple mail transfer protocol (SMTP) - ensures compatibility with standards-based mail clients on Mac, Windows, and Linux systems.

Implementing OS X Mail out of the box has provided the Network Group with a highly robust and scaleable email solution. Support for IMAP means that all users' email is secured on the server. Webmail support means that home or on-the-road users can view, create and send email and have all of the functionality of their PC email client directly on the server via any web browser. The industry-standard security features of OS X Mail mean that access to email is secure and password controlled and the built in anti-spam applications include an improved filtering engine, offering better accuracy and providing more powerful protection against spammers. Anti-virus measures built into OS X Mail ensure that, even without ISP based mail filters, OS X Mail users are protected against virus and malicious code attack. With virus definitions updated every 30 minutes, high levels of protection are maintained.

As OS X Mail is an integral part of Apple OS X Server, the Network Group has been able to meet their email needs without incurring any additional capital cost.

The future
Through the installation of Apple OS X Server which offers massive headroom for growth in data storage, the Network Group has been provided with an upgrade path that will meet the increasing needs of the business for years to come. Additionally, since OS X Mail is built around Unix open standards, MIS is able to develop extended email functions such as out-of-office replies and groupware (shared calendars and contacts). This functionality is under development for implementation in the next quarter as is the expansion of email clients (at no additional cost).

Further information

For more information on how MIS can help your business achieve its objectives, or for general enquiries, please contact us.

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