



**Cardium Solutions**  
IT CONSULTANCY & SOLUTION PROVIDERS

# CASE STUDY

**H.J. Heinz**

## **Server Rationalisation**



## Project Overview

H J Heinz's' (Europe) operation in the UK incorporates two major locations, supporting several smaller offices located throughout the country.

The file and print server infrastructure comprised a combination of Windows NT 4.0 and Microsoft LAN Manager servicing an installation including Windows NT 4.0 and Windows for Workgroups workstation platforms.

The requirement is to remove the forty-five departmental LAN Manager based servers, and replace them with two high performance and highly resilience NT 4.0 servers.

## Project Objectives

There are multiple objectives to this server rationalisation project.

- Reduce number of office located server installations
- Provide centralised and secure server management
- Improve file and print performance and reliability
- Eliminate non-Y2K compliant hardware and software components
- Eliminate the need for end user involvement in the migration process
- Eliminate redundant data
- Simplify and standardise network printer installation and configuration

The main objective was to provide a standard, optimised and documented NT 4.0 build, incorporating Y2K compliance, performance optimisation and fault tolerant capabilities

Included in this process was the introduction of printer naming conventions and network installation standards to eliminate unnecessary network protocols and minimise administration.

## Project Approach

To allow the seamless migration between old and new file servers an SMS installer application; installed and maintained via logon scripts; allowed client connections to be “silently” moved between servers. The most important advantage of this approach was that the resources visible to the end user appeared unchanged. However, in fact file server resources could be moved between servers, and share points could be modified. Therefore providing the administrator with complete control.

Due to the nature of the project -migrating live data, close attention had to be paid to the business requirements of the customer and its end users. Consequently much of the work was completed overnight. However, steps were undertaken to fragment the migration process, with the aim of ensuring data integrity at each stage. This fragmentation allowed progress to be planned over several days and eliminate any disruption posed to the customer.

To ensure minimum system outages and accuracy of data migration two main methods of data migration were implemented.

The first utilised a simple network file copy. However this approach had several limitations.

1. It was only possible to progress during times of system outage
2. Data migration speed was limited by the limited network performance of the legacy systems supplying the data.

This was circumvented by using a two stage data backup approach; employing the proven reliability, performance and manageability of Seagate Backup Exec and an HP SureStore / Quantum DLT 7000 backup device.

The first stage involved a complete backup of the data target, with a reset of the file archive bit. This can be completed while the server is still active. Files that are open are skipped and files that are subsequently modified or created have their archive bit set.

This backup can then be restored to its new location, whilst the original location is still in its live state.

This is then followed by a second backup, which copies only the changed and skipped files. This does require the server to be devoid of users and all files to be closed. However, due to the previous full backup having already migrated the static files, the size of the restore is now much smaller and much quicker, allowing a much smaller outage window.

Following this data migration process the server based control files were updated to redirect client resources to their new locations the next time they logon to the network.

Many of the legacy servers also performed printing functions. The opportunity was therefore taken to use dedicated print servers and adopt new naming and configuration standards.

This approach provides the benefits of rationalising the network protocols used for print servers and the new naming convention allowed information such as printer location, department and model to be obtained easily.

## Summary

Following the successful installation Cardium Solutions provide complete documentation relating to all work carried out. This includes NT server build standards and details of the other product packages installed such as BackupExec.

This process has been successfully applied to both main office locations. In addition an identical procedure has been applied to the smaller locations. Here the flexibility of the approach has allowed the seamless migration to NT 4.0 file servers to be accomplished quickly, reliably and error free.

Post completion Cardium always undergo a project closedown meeting to obtain feedback from the client, shown below is the clients comments;

*Alan,*

*I will arrange a formal response from myself and Nic Sears.*

*In a word the service was excellent.*

*Could you pass on my personal thanks and appreciation to the whole team from Cardium.*

*John*

*IT Technical Analyst and Support Manager*

# Contacting Cardium

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