



MODERNSYSTEMS

CASE STUDY

COMPANIES HOUSE

MOVING FROM IDMS TO UNIX PLATFORM WITH ORACLE DATABASE

Introduction

Companies House is Britain's government bureau with responsibility for recording and storing all information that the country's 1.8 million limited companies must share with the public. For years Companies House gathered this information in their customized IDMS application. Recently, they elected to move this system to a Unix platform running Oracle in order to curb costs, streamline development work on the application, and simplify user access to data via the web.

Solution Breakdown

A key challenge the organization faced early in this initiative was how to "extract, transform, and load" (ETL) all of the data from IDMS to their new relational database. Companies House sought a product that could accurately translate the IDMS constructs and drop the data into the right tables. Modern Systems' Mainframe DataShare solution could rebuild their hierarchical database in whatever relational model they chose (Oracle, DB2, SQL Server). Then, it would load the data quickly into the new target database.

Companies House realized that Modern Systems' technology would save significant time and effort by taking care of building an Oracle database that was perfectly consistent with their existing IDMS database.

Furthermore, Modern Systems met another key criteria. Carl Allen, Technical Architect for Companies House, explained that, "Modern Systems could give us a continuous refresh of the data right out of the box." Daily data updates are important to Companies House because of the need for public access to newly added registrations and filings.

Project Details

First Modern Systems exported the IDMS schema, subschema, records, and other database components from the IDMS Data Dictionary on the mainframe to the Mainframe DataShare System Dictionary on a staging platform. Since all of the conversion work was then performed on this staging platform, and did not impact the mainframe, Companies House was able to continue with its normal end user and IT activities throughout the project.

Once these components were in the dictionary, Mainframe DataShare's powerful mapping language converted the data model in three basic steps. First, it translated Companies House's IDMS Records, Elements, and Sets to relational tables, columns, and foreign key constraints. Second, it took the IDMS data constructs and created the appropriate relational data types. Third, it generated all of the necessary XML, XSLT scripts, and SQL scripts which then built the target Oracle database.

This initial relational database was a precise replica of the IDMS database. However, Modern Systems' mapping between the two gave Companies House the option of making changes to the new data model – such as merging or splitting tables, adjusting naming conventions, and filtering out certain sensitive records – without "breaking" the map. Revised data models were simply generated as needed, until Companies House had defined the exact database model they wanted.



Project Details, continued

The same mapping logic was used in the data load, ensuring both that the data ended up in the right place and the inter-relationships within the IDMS data were maintained in the new database. Modern Systems used Oracle's native bulk load utilities to speed the process.

Modern Systems successfully migrated 80 GB of data to the fully functional Oracle database it had created. Companies House also greatly appreciated the speed of Modern Systems' automated Mainframe DataShare technology. **Custom-built, manual migrations generally take months and months to complete. Companies House database migration was done in a matter of weeks.**

“**We could not be happier with the Modern Systems team. They have done all that we've asked and more to make sure things have gone smoothly.**”

Carl Allen, Technical Architect
Companies House



Current Status

Modern Systems provided Companies House with a viable, secure way to convert its critical business data from a 20 year old IDMS system to a modern relational database. In addition, Modern Systems made it simple to keep the database up to date with the newly arriving information. The new system resulted in meaningful financial benefits for Companies House and faster service for its customers.

One important aspect of this success has been synchronizing the Oracle database with the new data arriving in the IDMS system each day.

Modern Systems helped Companies House set up the daily refresh so that it is totally automatic. The scheduled process that switches the mainframe journal files each day also triggers a series of scripts that update the Oracle database with the changes.

Having the refresh automated this way ensures there is no intrusion upon the mainframe. “Without the automation,” says Mr. Allen, “you'd add unwanted risk.” For example, some changes on the mainframe side would require inserting bits of COBOL code or creating database hooks in IDMS to capture the daily transactions.”

When asked how Modern Systems' support had been both during the initial transformation and on an ongoing basis, Carl Allen replied, “We could not be happier with the Modern Systems team. They have done all that we've asked and more to make sure things have gone smoothly.”


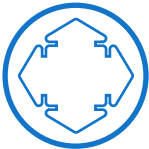






Modernize Without Compromise

Transitioning away from legacy systems is a complex undertaking. It's different from application to application, and business to business. Modern Systems provides a flexible, incremental approach that balances cost, risk and time in a way that meets each customer's unique requirements. Our services have been leveraged by the world's biggest brands including:



Our Services

SERVICE	WHY?	BENEFITS
 Legacy Forensics	Know the details, reduce the risk, set the roadmap.	<ul style="list-style-type: none"> Identify and document technical inventory and use cases Identify and remove dead code from legacy applications Identify and evaluate choices for modernization strategy Modernization option selection, cost and timeline roadmap
 Mainframe DataShare	Share mainframe data across the enterprise without migration.	<ul style="list-style-type: none"> Integrate legacy databases with SQL server, Oracle or DB2 Drastically reduce report delivery time Reduce MIPS consumption by moving reporting off mainframe Keeps data up-to-date, no mainframe footprint
 Batch Off The Mainframe	Reduce mainframe cost up to 40% without disrupting applications or users.	<ul style="list-style-type: none"> Leverage off-mainframe processing power, reduce batch costs Doesn't impact process, performance or end user experience Incremental step towards overall application modernization Applicable to COBOL applications
 Mainframe Rehosting	Get off mainframe, modernize data, maintain legacy application codebase.	<ul style="list-style-type: none"> Preserve existing application with cobol or natural Preserve existing resource/support model Integrate data tier Eliminate licensing costs of mainframe
 Automated Conversion	Stay on or get off mainframe, modernize data, update application codebase to Java or C#.	<ul style="list-style-type: none"> Preserve existing application with modern Java or C# codebase Leverage robust Java or C# dev community Integrate data tier Eliminate licensing costs of mainframe
 Target State Management	Ensure long-term success for your modernization efforts.	<ul style="list-style-type: none"> Architectural validation Options for managed infrastructure and applications Enables internal it teams to focus on supporting business Predictable, controlled cost