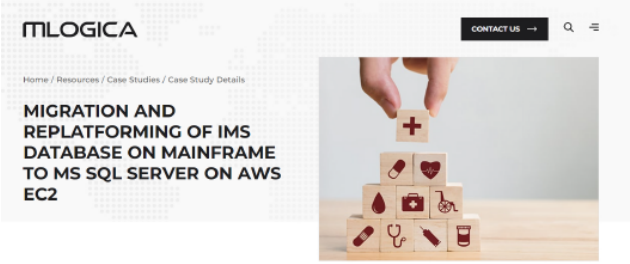
mLogica Migration and Replatforming of IMS Database on Mainframe to MS SQL Server on AWS EC2

Case Study



Industry: Insurance
Headquarters: Europe
Coverage: Europe

OUR CUSTOMER

Founded in 1824, the Customer is a European insurance company that offers an array of coverage for businesses and individuals, including life, auto, accident and more, in addition to supplementary pensions. They also have a distribution partner network of over 5,000, including brokers, agents and banks. With more than 4,000 employees, over 2.7 million retail customers and 245,000 corporate and self-employed clients, the company's operating profit in 2020 was €636.1 million.

THE CHALLENGE

To support their evolving day-to-day operations, the Customer was using diverse business applications on a legacy IBM IMS mainframe database. However to execute queries in IMS, programs had to be developed with a legacy language such as COBOL, which requires experienced resources. This cumbersome process increased time to market, as well as making it virtually impossible to extrapolate data in an agile manner—critical obstacles for a large financial institution. Meanwhile, operational, maintenance and support expenses for this legacy system were increasing every year.

The Customer wanted to migrate from their legacy hierarchical platform to a more modern relational database to simplify query development and processing, streamline process flow and reduce resource consumption. In addition, they wanted to move to a robust, agile cloud platform where they could continually optimize performance and integrate advanced technologies—driving innovation while cutting costs.

As a leading insurance provider, the Customer's databases had to maintain a high volume of sensitive information, as well as ensuring the company was always in compliance with complex governmental regulations regarding financial data and transactions. Therefore it was vital that they collaborated with a proven, trusted migration partner to move their databases securely off the mainframe and onto the cloud, while supporting continuous availability of all business applications.

Originally the Customer was in talks with a well-known enterprise software provider to execute this modernization initiative, however this firm was unable to fulfill a key requirement: migrating the Customer from their existing hierarchical database to a modern relational platform.

Fortunately, with our proprietary automated **LIBER²M Mainframe Modernization** software suite, mLogica was able to provide an end-to-end strategy for efficient, accurate workload migration, one that offered all the technical benefits and savings the Customer was looking for.

THE SOLUTION

mLogica employed an experienced, highly skilled team of consultants, solution architects and support resources to execute this mainframe modernization. We provided a comprehensive assessment, migration and operational support of their data and workloads from the source mainframe environment to a modern cloud platform, maintaining the COBOL while leveraging a new relational database management system (RDBMS).

After initial consultations with the Customer to determine their current and future requirements, it was decided to replatform their existing databases from a COBOL-based mainframe to an x86-based AWS EC2 environment platform with MS SQL Server database. This would allow them to integrate modern technologies while leveraging a larger, more affordable pool of programmers and coders who will be able to build enhanced capabilities into the new database on an ongoing basis.

Cost efficiencies would also be realized by upgrading database features to increase productivity and accelerate processing, as well as a dramatic reduction in support, licensing and maintenance expenses.

Tasks within the project's scope included:

- Comprehensive assessment and analysis of both the source and target database environments
- Migrating the mainframe-based IBM IMS database to MS SQL on AWS EC2
- Maintenance support for database applications throughout and after the migration

During the initial assessment stage our goal was to examine the existing data and business applications, analyzing interdependencies while planning for any risks that might arise throughout the mainframe modernization process.

MIGRATION AND REPLATFORMING OF IMS DATABASE ON MAINFRAME TO MS SQL SERVER ON AWS EC2

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Next, we deployed **LIBER*IRIS**, a module of our **LIBER*M Mainframe Modernization** automated software suite. **LIBER*IRIS** executed the existing COBOL to run on the new MS SQL database, allowing company staffers to continue using applications that appeared unchanged in interface and behavior, for a virtually seamless transition. **LIBER*IRIS** was then used to automatically migrate the IMS DB data structure and data to MS SQL.

As part of the scope of work, mLogica provided comprehensive maintenance support to the Customer's database applications to ensure they met agreed-upon performance SLAs.

THE BENEFITS

The success of this project enabled the Customer to achieve a host of operational and financial goals. First, it enabled them to modernize their databases and gain access to leading edge cloud technologies as they emerge, for continuously improved performance and accelerated service delivery.

Other key benefits include:

- The availability of third-party tooling on MS SQL, which gives the Customer a more powerful toolset to develop and run databases
- The Customer is now able to leverage a larger, more affordable labor pool of developers, coders and technology integrators, allowing them to continuously expand their technology stack to drive innovation and performance
- Migration to AWS EC2 reduced the overall operational costs, and provided advanced security features by utilizing TLS and AWS EBS

CONCLUSION

A database migration strategy that utilizes replatforming first requires a comprehensive assessment for deep visibility into the upstream and downstream dependencies within applications, databases and software. Such an analysis gives the Customer key insights into criticalities and risks, while allowing the project team to identify and remediate any issues the business might otherwise face during and after the project.

The next important task is the emulation and recompiling of codes, which lets an organization run databases, using the interface and behavior of the legacy environment, on a modern platform. Our **LIBER*M Mainframe Modernization** software suite was crucial to this effort. With our **LIBER*IRIS** module, the Customer was able to migrate their databases from cost-intensive IBM IMS to low-cost, high-value MS SQL and replatform to AWS EC2 for significant, ongoing operational and cost efficiencies.

TAGS

MS SQL | COBOL | IMS | Database | cloud migration | mainframe modernization

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