

metaware.

the complete IT modernization solution



Caisse Nationale

Success Story

LEGACY ENVIRONNEMENT

- IBM 9672 and Bull DPS9000 Mainframes
- IBM OS/390 and GCOS8
- 12,000 MIPS

TARGET ENVIRONNEMENT

- IBM System p 660 32CPU
- IBM AIX 5.1
- Oracle Database
- Oracle Tuxedo, JOLT
- AcuCOBOL-GT
- ORSYN \$Universe

MIGRATED APPLICATIONS

- 3,500 mainframe COBOL programs to AcuCOBOL-GT
- 3,000+ CICS concurrent connections migrated to Oracle Tuxedo
- 4,600 JCL jobs to Korn Shell
- 9,000+ VSAM & UFAS files and 650 DB2 & IDS2 tables to Oracle Database
- 20% Code Optimization and Enhancements re-integrated before switch-over to Unix
- Payback in 12 Months

BENEFITS

- Annual Hardware and Software costs reduced by \$55 million
- Daily batch processing cut by 8 hours
- Improved development and maintenance productivity
- Transition to Java for new development while retaining valuable legacy COBOL assets

The French National Health Insurance Agency, CNAM, saved \$55 million per year in hardware and software spending by migrating 12,000 MIPS of legacy mainframe applications to less costly Unix servers

CNAM, the French Health Insurance Agency, handles 1.1 billion health care claims for 50 million beneficiaries and issues €110 billion in reimbursement payments per year. In 2002 the agency decided to move its legacy mainframe applications to Open Systems in order to achieve significant savings on infrastructure, transition to newer software development methods, and improve its ability to react rapidly to new regulations and government mandates.

CNAM's legacy mainframe application portfolio consisted of 3,500 COBOL programs, 4,600 JCL jobs and 270 TB of data running on 10 IBM and Bull mainframes with a total capacity of 12,000 MIPS. Today the entire portfolio has been successfully migrated to 9 IBM System p UNIX servers with 32 CPUs each.

LOWER COSTS, MORE EFFICIENCY, MORE FLEXIBILITY

CNAM's mainframe legacy project has yielded both financial and organizational benefits. Prior to the migration CNAM spent \$65 million per year on its mainframe operations, including hardware, software and maintenance. After migration the annual budget for the migrated applications has fallen to only \$10 million per year, yielding annual savings of \$55 million.

The migration from mainframes to open systems has allowed CNAM to consolidate from nine data centers down to five, and it ultimately expects to operate just two. In addition to cost savings, the more modern and more flexible open systems architecture delivers significant organizational benefits. The daily batch window has been reduced by eight hours, making possible the introduction of new Smartcard applications on the same infrastructure. The open systems also support new load-balancing and fail-over capabilities between data centers. Last but not least, the migration allowed CNAM to move to component-based development using Java extensions to the migrated COBOL applications, which in turn has led to an IT system that can respond more rapidly to changing business requirements.

To summarize, the key benefits of the migration included:

- > **Cost savings:** \$55 million a year.
- > **Reduction of daily batch window:** 8 hours, allowing introduction of new Smartcard services on the same systems.
- > **Improved reliability and availability:** load-balancing and fail-over capabilities across multiple data-centers.
- > **Business flexibility:** thanks to component-based development in Java, facilitating IT skill evolution and a more flexible IT system.

ORACLE STACK + METAWARE = NO RISK

Tuxedo was designed from the beginning for high availability and for extremely scalable COBOL, C and C++ applications. In addition, Tuxedo can support thousands of transactions per second on widely available distributed server platforms. Tuxedo was selected to serve as the foundation for CNAM's move to component-based development based on Java extensions to existing COBOL applications.

Tuxedo's robust transactional infrastructure combined with Metaware's fully automated conversion and regression testing tools resulted in an error-free project delivered on time and on budget.

A PROJECT ONLY REFNE COULD HANDLE

After a rigorous competitive evaluation complemented by proof-of-concepts, CNAM selected Metaware because of its global recognition, proven technology, and the ability of its professional service teams to support the project.

CNAM's evaluation determined that Metaware's Refine® was a key differentiator that would:

- > deliver the project within the tight schedule,
- > minimize residual problems
- > accelerate testing and provide predictable results, easy to re-run for incremental maintenance

Based on Metaware's extensive experience with IBM and Bull mainframe migrations, it has built into Refine® the ability to transform mainframe assets such as COBOL programs, relational and pre-relational data stores, JCL, and proprietary transaction CICS and TP8 transaction environments into distributed system equivalents.

MISSION-CRITICAL SYSTEM MIGRATION

Claim and reimbursement payments are at the core of CNAM's mission. Metaware's proven methodology focused on risk mitigation was an essential ingredient for migrating CNAM's mission critical systems. The process included:

- > A comprehensive discovery and inventory of the mainframe environments, including cross references, supported interfaces, functional and technical dependencies.
- > A pilot migration to validate coverage of Refine®'s automated migration rules for each class of mainframe asset (code, data, JCL, etc.).
- > Deployment and testing of the pilot on the target architecture. Regression testing included automated capture of test cases from the production environment and comparison of results from the migrated applications with the mainframe baseline to guarantee the 100% functional equivalence. Performance testing validated that test libraries met performance and other SLA requirements for the target system.
- > Automated migration and regression testing of the entire portfolio of mainframe assets, after validation of results from the pilot.
- > Integration of the migrated applications into the target production environment, including training and support for development and production teams.

metaware.

the complete IT modernization solution

www.metaware.fr

Tel. +33 1 30 15 60 00

Fax. +33 1 30 15 06 71

contact@metaware.fr

1. Parc des Grillons

60, route de Sartrouville

78230 Le Pecq Cedex – FRANCE