Belgian Ministry of Finance

The Belgian Ministry of Finance leverages and extends its existing platform with Micro Focus

Challenge

The Belgian Ministry of Finance needed a low cost, low risk solution to modernize its user interface for critical applications.

Solution

- Micro Focus Net Express®
- Micro Focus Application Server®

Belgian Ministry of Finance

As information technology has evolved, many applications have been through several generations of IT solutions. They have kept their value and are still used on a daily basis. The COBOL programming language has been appreciated for decades for its quality, efficiency and power. Nearly 75 percent of all enterprise data worldwide is still being processed using COBOL. However, applications and environments need to be modernized and integrated with newer technologies. This was the challenge facing the Belgian Ministry of Finance which, for the last twenty years, has used COBOL as the programming language for most of its core applications, including the dossier and credit management of the Department of Personnel and Automation. Today, thanks to the efficient reuse and modernization of existing assets coupled with new COBOL development, this department uses a modern and centralized information computing technology infrastructure that is compliant with its new standards.

This effective transformation would not have been possible without Micro Focus Net Express which provided an efficient and productive environment for new COBOL development, and was also the solution for reusing a substantial and proven existing COBOL investment at the Ministry and extending it to the web.

Rejuvenating COBOL applications a priority

With the arrival of the internet, intranets and easily accessible web interfaces, the Belgian Ministry of Finance decided to rejuvenate its COBOL platforms in order to deliver key functionality through user-friendly and modern HTML-interfaces.

“Thanks to the Micro Focus solution it is possible to reuse, modernize and extend our existing COBOL code to evolve with the most recent technologies. We are also saving on additional training costs for our IT staff since we are able to maintain COBOL as our core platform...”

Francis Dries,
Director of HR Application Development, Belgian Ministry of Finance
After meeting Micro Focus and seeing Net Express, the Ministry’s IT department knew it had found the right partner to help conduct a smooth transition to HTML-interfaces. By implementing Micro Focus Net Express many of the existing COBOL modules could be reused. This meant that the COBOL-base could be maintained and developed with the programmers’ existing knowledge. Using the Micro Focus toolset reduced risk for the Ministry while saving time and money which would otherwise have gone into code rewriting and training staff in new and unfamiliar environments.

“The question of what to do with our COBOL applications in the future was crucial, since it concerned proven applications and data built over several decades. It would not have been logical or efficient to discard this investment and choose a completely new platform,” says Francis Dries, director of HR application development at the Ministry. “Thanks to the Micro Focus solution it is possible to reuse, modernize and extend our existing COBOL code to evolve with the most recent technologies. We are also saving on additional training costs for our IT staff since we are able to maintain COBOL as our core platform. This is an important factor, especially when you take into account that we have over thirty programmers working for the Ministry of Finance.”

Successful pilot led to modernizing other applications

The pilot project was launched as a “file follow-up” system. This system is an application for the office of the secretary to the Chairman of the Committee of Direction of the FPS Finance. As well as controlling the database of all information presented to the Chairman, it contains all the relevant information for the follow-up of each particular file. With this system the secretary’s office can retrieve information and request a status on any file at any given time. The system was fully developed with Micro Focus Net Express. Although the programmers took some time to adjust to their new way of working, this first encounter with Micro Focus’ applications and expertise was very successful. A positive evaluation of this project led to the next step: an accountancy application on Oracle-databases.

The old accountancy system was a hybrid PC and Bull mainframe application. Built with Visual Basic accessing a Microsoft Access database it connected through middleware to business functionality running on the mainframe. The PC element of the application was installed on three separate, unconnected PCs. Before the pilot the credit managers had requested switching to a network setup. Initially, it was decided to use a Visual Basic solution on Oracle in the first phase. Over time it appeared that there were regular conflicts and installation problems due to internal differences between PCs and the difficult installations for each client.

When Micro Focus came in, this project was replaced with a new scheme to reuse the mainframe COBOL modules, migrating them to Windows running with Micro Focus Application Server. Microsoft Access was still migrated to Oracle, while the previous mainframe green-screen user interface was replaced with an HTML interface.

Extending the value of the COBOL environment

“The programmers are very satisfied with the look and feel of the HTML-screens,” says Jan Ghesquiere, IT specialist for HR application development at the Ministry. “Working with Micro Focus has allowed us to continue enjoying the advantages that a programming language such as COBOL has to offer. COBOL continues to be a very comprehensible language that is a lot more accessible and maintainable than other languages, such as Java. We have also noticed that Net Express has really led to an internal rejuvenation process about COBOL appealing for the first time to the more junior programmers in our department. This proves to us that COBOL is not dead,” he concludes.

“Working with Micro Focus has allowed us to continue enjoying the advantages that a programming language such as COBOL has to offer ... Net Express has really led to an internal rejuvenation process about COBOL appealing for the first time to the more junior programmers in our department.”

Jan Ghesquiere, IT specialist for HR application development, Ministry of Finance

The implementation of Micro Focus software has delivered several additional significant advantages. Net Express can be integrated with different environments and programming languages (COBOL, Java, .NET). This means that the Communication Centre for Federal Fiscal matters (CCFF), a technical platform based on open
standards which provides the necessary software and hardware environment for developing and hosting internet applications using services and data on the mainframes, can now also be used for COBOL applications. As Net Express is able to integrate with Java modules, COBOL applications can also be compliant with the CCFF standard for the ministries.

The Automization Department of the Ministry chose a modular approach from the start and this, combined with Micro Focus Net Express, optimizes various modules, including the frequently used ‘dating module’ which can simply be recycled. In fact only one module on the mainframe required rewriting. While it was formerly impossible to connect the different databases via the Bull mainframe (GCOS 8), Micro Focus’ software now enables the Ministry of Finance to create interaction between the Bull server and the different Oracle databases.

**Complete migration and greater access planned**

The IT department aims to remove as many applications from the mainframe as possible in the future. A complete migration is being considered for the HR applications, the largest and oldest within the department. If the decision is made, Micro Focus’ solutions could also guarantee stability and interoperability during the switch to a new development platform. Significant advantages have already been realized through the migration of the accountancy and budget applications from the Bull mainframe. The Ministry’s ultimate goal is to grant more access to its information using Web services and other technologies. With the implementation of Net Express, the Belgian Ministry of Finance has made an important move towards web enablement and Web services.

**About Micro Focus**

Micro Focus, a member of the FTSE 250, provides innovative software that allows companies to dramatically improve the business value of their enterprise applications. Micro Focus Enterprise Application Modernization, Testing and Management software enables customers’ business applications to respond rapidly to market changes and embrace modern architectures with reduced cost and risk.