



arvato Systems reduces IT operating costs by 40%

At a Glance: arvato Systems

In its role as a system integrator, arvato Systems has been successfully implementing projects for well-known companies in a wide range of sectors for over 30 years. In 2012, approx. 2,500 employees at 25 locations around the world generated a turnover of EUR 308 million.

Challenge

Providing applications cost-effectively is essential for an IT service provider like arvato Systems. As such, the high costs associated with the existing infrastructure and 3rd party software needed to be reduced. Arvato looked for an alternative cost model which would also allow application standardization across the corporation.

Solution*

- > Micro Focus Enterprise Developer
- > Micro Focus Enterprise Server

Successful modernisation

By moving the ERP application to a Linux platform, arvato Systems achieved a 40% reduction in IT operating costs. Leveraging Micro Focus solutions, the extensive project was successfully completed within just a year and a half.

The company, which is part of the arvato network belonging to the Bertelsmann Group, provides consulting, system integration and infrastructure services. Based in Gütersloh, Germany, the arvato Systems portfolio includes providing complete data center services for various Bertelsmann divisions. Among the company's range of tasks is responsibility for hosting the HC3 application, one of the Group's own developments. HC3 is an enterprise resource planning (ERP) sales support system, used by Bertelsmann in the direct marketing of media such as encyclopaedias. The system provides all the relevant functions required to sell products: from order recording to address management and contract processing, right the way through to providing support to the publishing partner. Interfaces for accounting and controlling systems are also included. Some 300 users currently work with the system.

Highlights

- > 40% reduction in IT operating costs
- > Increase in performance: Run-time improvements from 20% to 50%
- > Functional enhancements
- > Support of new technologies such as web applications

"The specific challenge with this project was its extremely high level of complexity. We are therefore delighted that, in spite of this, we have succeeded in launching the solution on schedule. Above all, this success is thanks to the cooperative and constructive partnership we shared with Micro Focus."

Heike Rikus,
 Manager at arvato Systems

Previously, arvato Systems ran the complex ERP application in a traditional mainframe environment, to ensure a high level of performance and stability.

“We did not want to bear the sharply rising costs associated with the mainframe long term”, says Heike Rikus, Manager at arvato Systems. “Our aim was to move the HC3 ERP system from the mainframe to another platform, to enable us to run the application in a flexible and, above all, cost-effective environment with the future in mind. From a business point of view, running this established application on a host system with CICS dialogs and after-hours processing is simply not in keeping with modern practices.”

There was also a good case for implementing a modernization project from a functional point of view. For example, with the existing system there was no scope to evaluate or work with new technologies such as web applications

arvato Systems chooses of Micro Focus

When selecting the technology partner for the introduction of this new solution, the decision fell in favour of Micro Focus, a company with which arvato Systems had already successfully worked on other projects. “It was a relatively quick decision”, says Heike Rikus. “One of the crucial factors behind the decision was the many years of experience Micro Focus has in the successful implementation of similarly complex projects. What’s more, with its Enterprise Server, Micro Focus boasts a market-leading solution for the deployment of mainframe systems to open environments — a solution that offers all the tools and technologies needed for a rehosting project such as this.”

The project goals for arvato Systems were clearly defined, both with regard to the project itself and in terms of future operation. The aim was to achieve a direct transfer of the ERP application from IBM MVS with an Adabas database to Linux with an Oracle database as much as possible. The business logic was to remain unchanged during the modernization. In order to minimize the risk of errors, it was also required that only minimal changes be made to the application, and the level of outlay for moving the programs be kept low. What’s more, the period for carrying out the transfer was to be kept as brief as possible. Operationally, the main aim was to achieve a significant reduction in costs. Heike Rikus: “However, one thing was clearly defined at the start of the project: We did not want the new solution to negatively impact the stability or performance of the application. This also meant that the runtimes should, as a minimum, be kept the same — any kind of deterioration was not acceptable for us in this regard.”

Rapid project implementation despite high level of complexity

The entire transfer was completed within around a year and a half. arvato Systems spent around 1,200 man days on the project in total. Together with the final shutdown of the mainframe, go-live of the new infrastructure was achieved on schedule.

A brief look at the figures makes the scope and challenge presented by the modernization project clear. The following technologies and quantity structures had to be taken into account when transferring the ERP system:

- COBOL programming language
- 3,500 COBOL programs, including approx. 200 CICS screens
- Adabas database
- 1,500 jobs involved in after-hours processing (using the arvato control system, BAGJAS)
- 1,000 generation files

Incorporating a comprehensive range of tools and services for mainframe and COBOL application modernization, the Micro Focus solutions were crucial to the successful implementation of the project. Using these tools and services, platform changes can be carried out extremely efficiently, not least because interventions in the applications and business processes can be kept to a minimum. During the transfer, the Micro Focus Enterprise Developer solution served as a graphically-oriented development tool.

As part of the modernization project, the ERP system was transferred from IBM MVS and Adabas to Suse Linux and an Oracle database. The data was also moved to the new target platform in the form of file formats or mainframe-based databases. The necessary data conversion was automated as much as possible with Micro Focus tools and converters. The transfer of the control and scripting languages could also be done with minimal manual adjustments required. The same also applied to the CICS transaction monitor, which is supported by Micro Focus rehosting tools. Last but not least, Uniserv products were transferred as part of the project, and naturally, PL/I and assembler programs were ported to COBOL.

Well equipped for the future

Today, at the very center of this new infrastructure is Micro Focus Enterprise Server, an application server that acts as a runtime environment for the HC3 ERP system on Suse Linux. The server also offers all the necessary operational functions — in the same way as the mainframe did in the past. In addition, an Oracle database with newly developed central database interfaces is now used for the COBOL programs. The previous job processing system runs using Linux scripts, controlled by the Streamworks solution from arvato Systems. The generation files are reproduced using shell scripts. Linux makes use of the CICS range of functions, meaning all host dialogs can still be used in full.

Since going live, the new infrastructure at arvato Systems has been stable and delivering a high level of performance. No system failure has been recorded to date, and it has even been possible to enhance the level of performance offered by the application. Depending on the process in question, runtimes have been improved by between 20% and 50%. “And what is really positive here: We have been able to reduce operating costs by about 40%”, notes Heike Rikus in summary.

About Micro Focus

The solutions and services provided by Micro Focus in the fields of enterprise application modernisation, testing and software management allow companies to modernise and optimise their applications. By integrating new technologies or using more up-to-date platforms, IT costs can be permanently reduced.

Micro Focus is listed on the London Stock Exchange in the FTSE 250 Index. Today, the company employs a staff of 1200 around the world. The company’s headquarters are in Newbury, Great Britain; the German branch is located in Ismaning in Munich. Further information can be found at www.microfocus.com.

*Micro Focus Enterprise Server and Enterprise Developer are the current names of products used in this project.

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