

URL: [www.barmenia.de](http://www.barmenia.de)  
 Industry: Insurance  
 Country: Germany  
 Partner: adesso



## Barmenia

### Barmenia realigns its IT infrastructure with Micro Focus

#### Challenge

Barmenia needed to migrate a number of applications from a mainframe platform to more cost-effective distributed systems within a six-month timeframe, while protecting its COBOL assets.

#### Solution

- > Micro Focus Studio Enterprise Edition™
- > Micro Focus Server Enterprise Edition™

#### Barmenia

Headquartered in Wuppertal, Germany, Barmenia is one of the major independent insurance groups in Germany. The company's product range includes health and life insurance, accident and vehicle insurance right through to liability and property insurance. Almost 3,300 internal and field staff, as well as a multitude of brokers, oversee a portfolio of more than 1.95 million insurance policies.

As one of the major independent insurance groups in Germany and one of the market leaders in health insurance, Barmenia is regarded as one of the pioneers in insurance IT. Since the 1970s the company has built up an extensive application system on a mainframe platform.

#### Realigning the IT infrastructure

As part of work to modernize the Barmenia IT infrastructure, implementing a new architecture was central to strategic plans. This new concept involved a "differentiated" migration of applications onto different technologies and target platforms, which were selected for their suitability to the application's business function. The application landscape was highly sophisticated in terms of functionality and gave Barmenia valuable competitive advantage in the health insurance sector. Parts were to be migrated onto a new mainframe platform without any functional changes. Other areas were to be completely reprogrammed-independently of the legacy application- in Java, while others still were to be replaced by a standard software solution.

On this basis, Barmenia built up and expanded a differentiated infrastructure. The mainframe would contain core applications such as the inventory system, benefits system and claims system for health, life and property insurance. SAP would be used for accounting, human resources management and provisioning. Applications for the sales department would be based on servers, and there would be special solutions for data warehousing and communication.

#### Highlights

- > Mainframe shut down as planned
- > Substantial annual savings in operating costs
- > ROI within 12 months

"We can be extremely pleased with this result of the project."

**Lutz Subel,**

IT Service Management, Barmenia

### From mainframe to mainframe

The mainframe was initially intended to remain a component of the strategy, with a key role planned for the new mainframe platform operating alongside the legacy system. During the SMILE BK project (System Migration Leistung Barmenia Krankenversicherung) a major component of the core applications was to be migrated to this platform.

However the world of IT had moved on by then, and to those responsible for the project the idea of simply switching between mainframe platforms did not offer the kind of advantages that other platforms could deliver. In scrutinizing its IT costs, Barmenia discovered that the new mainframe was a significant cost factor. Increasing performance demands meant that the company would also see a further hike in operating costs. "We did not want to bear the growing costs for the mainframe long term," explains Lutz Subel, Project Manager in the IT Service Management Department at Barmenia. "We had also brought local architectures into operation by that point, for example for field staff, and were now looking for ways to run our health insurance applications at a lower cost in such an infrastructure too."

In mid-2010, the decision was taken to change plans to use the mainframe as a platform for actuarial applications and to port some applications to distributed systems. Migration targets included the inventory and claims system for accident insurance, printing output management and part of the accounting system for health insurance – a core application used by around 200 administrators during periods of high transaction volumes. The new infrastructure would comprise AIX, Oracle as the database, and hardware designed to scale up to meet upcoming requirements.

Porting had to take place at relatively short notice as mainframe extension contracts were approaching, and the system would also need to be expanded to meet changing business demands. Barmenia wanted to avoid the associated costs of this. "The renewed change in platform definitely posed a challenge for IT," explains Subel. "Within six months we had to procure new hardware, establish a new infrastructure and ultimately migrate, test and bring the affected applications into operation. However, the platform change was cost-effective and appeared to be technically feasible, so we set ourselves the challenge."

### Porting with Micro Focus

For the migration, Barmenia used solutions from Micro Focus to modernize and port its COBOL applications. These enable porting to be carried out extremely efficiently, not least because interference with the applications and business processes is kept to a minimum. At the heart of these tools is Micro Focus Server Enterprise Edition, an application server that runs on UNIX and acts as a runtime environment for Barmenia's application systems. This provides all the functions required to operate the applications productively, a task previously performed by the mainframe infrastructure.

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**Lutz Subel,**

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Over the course of the porting process, COBOL application development was also migrated to a graphical tool. Having developed natively on the mainframe to date, Barmenia now uses the Micro Focus development environment running on Windows. Developer tests are also performed in this environment. For the subsequent test phases, the programs are ported to the AIX environment where further changes can be made as required without the need for a graphical interface. The use of a mixed system in the development cycle underlines the successful integration of the Windows development environment and UNIX production system into the Micro Focus environment.

The porting process was implemented by Dortmund-based IT service provider adesso. As a partner of Micro Focus, adesso has considerable experience of migration projects.

The work already completed during the migration of the legacy system was useful when it came to porting from the mainframe to UNIX. For example, mechanisms for encapsulating data access rights had already been implemented in the applications, so to a large extent the programs were structured according to a three-layer model. Finally, the hierarchical data management system was migrated to a relational database. This meant that preliminary work put in during the first phase of the migration helped shorten the second phase.

#### **Return on investment within a year**

At the start of 2011, Barmenia was able to shut down one mainframe platform as scheduled. Since then, all applications that were in productive use on this platform in 2010, have run in the AIX environment with the high level of stability and performance required - the platform change had no negative impact on the specialist areas affected. Today, the company uses just one mainframe platform, the legacy system. Around 80% of the applications still run on this mainframe, but its days are numbered. "Of course, we still aim to stop using the mainframe altogether," says Subel. "The successful migration from mainframe to local systems has encouraged us to continue with the tasks we set ourselves."

Further parts of the applications still running on the legacy system will follow suit. The system for processing health insurance benefits will continue to be based on COBOL, but will operate fully in a distributed environment. "COBOL remains a standard for Barmenia as we have

a lot of expertise in this area and because with COBOL we can develop high-performance and extremely stable applications. Integrating other systems also works well; at the moment there is no reason why we shouldn't use this platform."

During the realignment it was important for Barmenia to reduce the substantial mainframe costs within an extremely tight timeframe. Annual savings are significant, and the migration project will pay for itself in less than one year. Given that the expenditure still affected the figures for 2010, the project is already showing significant profit for 2011. "We can be extremely pleased with this result of the project," concludes Subel.

#### **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.

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