



Kaufpark

Migrating off the mainframe returns cost savings and performance benefits for Kaufpark

Challenge

German retail chain Kaufpark faced the task of migrating its business software off the mainframe. It used Micro Focus tools to move the applications onto Windows and now has faster and more flexible applications, and 40 percent lower operating costs.

Solution

- Mainframe Express® Enterprise Edition
- Micro Focus Server Enterprise Edition™

Kaufpark

Michael Brücken Kaufpark GmbH & Co OHG (Kaufpark) is a chain of grocery stores in North Rhine-Westphalia, Germany. It has more than 120 retail outlets, employs around 5,000 people and posts annual sales of over €800 million. The chain has been a member of the REWE-DORTMUND Grosshandel eG group since 1978 and is part of the Europe-wide REWE trading group.

Kaufpark's IT landscape included a number of company-specific applications, including product range planning, ordering, pricing and marketing applications on an IBM mainframe running the VSE operating system. This was hosted by the REWE DORTMUND Grosshandel eG data center. The aging system had reached the limits of its capabilities, though the applications themselves were fit for purpose, as the business processes had been mapped properly, and they performed well.

Greater flexibility required for lower cost

Running the applications on the VSE mainframe had become expensive in comparison to new server systems which could offer comparable performance and stability levels, for lower cost. It was also apparent that the VSE applications were not flexible enough for current requirements as connecting to other applications was a challenge. As typical mainframe applications they used the EBCDIC character set, which required data to be converted to suit the target systems. "That was always a cumbersome and error-prone process," George Schneider, IT Manager for Kaufpark recalls. When the data center in Dortmund indicated that it wanted to migrate the ERP system from the VSE mainframe at some point, it became clear to Kaufpark that its own system would have no future on the platform.

Highlights

- Operating costs reduced by 40%
- Improved productivity and performance
- Faster and more flexible technology for onward development

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George Schneider,
IT Manager, Kaufpark

Opportunity for change

This presented Kaufpark’s IT department with several alternatives for operating its own applications: deploying a packaged solution; rewriting for a server platform; or migrating the existing applications to a new platform. Buying a package would mean losing valuable business differentiating functionality. “Over the years, we had adapted our applications to precisely reflect our business processes,” Schneider explains. “So a standard solution would mean either living with significantly lower functionality, or a huge investment in customization.” Kaufpark also was not prepared to take the risk of developing a replacement from the ground up. With just three developers responsible for the company’s COBOL applications, completing a new development in a reasonable time would require outside support, yet external developers would not have been familiar with Kaufpark’s business processes.

Sizeable migration to a new platform

Schneider read about a successful VSE migration at the Austrian Bertelsmann subsidiary and contacted Micro Focus, the company behind the migration project. Kaufpark produced a feasibility study on porting its applications to a server system. An important consideration was that reprogramming the core of the applications – the business processes – would not be necessary. In consultation with Micro Focus, Kaufpark adopted a two-stage approach: first, the applications were ported to the Micro Focus environment using Mainframe Express, where they underwent rigorous functionality testing; then they were migrated to the Intel server platform where they now run in Micro Focus Server Enterprise Edition.

The migration project was sizeable: a total of 1,000 batch and 500 online programs consisting of more than two million lines of code, as well as 600 jobs and 25 databases with a total of 12,000 data fields were ported. To maintain its hierarchical structure, the database was integrated in a simulated DL/1 database – making reprogramming the applications’ database accesses unnecessary. Despite the use of conversion tools, data migration was still complex. The numerous packed data fields could not be converted automatically as certain fields appeared identically in both codes. “We therefore had to deal with each individual field and segment description,” explains Schneider.

Thorough testing period

Kaufpark allotted plenty of time to test the converted applications that had already been implemented on the new platform. The old system and new implementation ran in parallel for several months. Every day the complete data set was transferred from the VSE system to the new server to compare the results. This long-term test ensured that each batch application produced the correct results, both in data and program terms. The online applications were then also included successively. “Initially, we had an error rate of about ten percent,” says Schneider. “With systematic analysis and corrections, we soon reduced the errors and finally we were reliably receiving identical results over weeks at a time.”

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The complete set of programs and data was moved to the server platform over a long weekend in late 2010. The thoroughness of the test phase meant that the final changeover, including data migration, was carried out within 48 hours. Work on the VSE system was complete on Friday evening, and on Sunday evening the new system went into regular operation. The applications use Micro Focus Server Enterprise Edition as their runtime environment, running on a virtual system in Windows on three multi-core Dell servers. Net Express uses two of the processor cores.

The applications have been running flawlessly in the new environment since November 2010, and around 100 current online users have enjoyed a boost in speed since the migration. The data is now processed internally, without being sent to Dortmund, and the two processor cores of the dedicated Dell servers deliver the same performance as the old VSE mainframe – but now, Kaufpark no longer has to share that computing power with REWE DORTMUND Grosshandel eG. The bottom line is that the migrated applications have also gained in performance on the new platform. “If we ever experience waiting times these days, it’s because the SAN can’t keep up with storing the data,” explains Schneider.

Improvements to performance, availability and the bottom line

Overall, the migration project covered a period of more than four years. "That sounds like more than it actually is," Schneider notes. "First, we had to migrate truly extensive applications. Also, a core team of three staff members who were able to invest no more than 20 percent of their time did the work. In other words, we accomplished the complete platform change in only three man-years."

Not only have performance and availability benefitted due to exclusive use, the company's bottom line also improved significantly. Previously, Kaufpark had to contribute toward maintaining the REWE DORTMUND Grosshandel eG data center, whereas the cost of the new IT environment is around 40 percent lower.

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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