



IBM – think big.

Business transformation, business process re-engineering, system harmonization, consolidation and integration – for many companies today, these are not just buzzwords, but real projects they are working on in order to control costs and stay competitive. Customer requests need to be fulfilled quickly, and business developments require instant reactions. Variable cost structures are required in conjunction with a concentration on core competencies. In addition companies want to be well prepared for potential changes and risks. Quick to respond, variable, focused and robust – these attributes describe a company whose target is the realization of On Demand Business, thus entering a new phase.

IBM has already gone a good part of the way. Processes and structures have been changed dramatically. Whereas ten years ago 16,000 applications were deployed internally by IBM, the number has now been reduced to 5,000. An investment of 5.6 billion USD was necessary for this huge business transformation process. This is offset by a cost saving potential of three times that amount, corresponding to a TCO (Total Cost of Ownership) reduction of almost 11 billion USD.

Consolidation, unification and integration of the IT landscape clearly contribute significantly to this result. “The SAP solutions we use play a decisive role”, says Dr. Jan Schaumburg, Manager World Wide Beta Test Site at IBM Global Services. And his colleague Heinz Schröder from the SAP Customer Competence Center adds: “Regarding the costs for our SAP solutions, which we consolidated from originally 30 to 16 today, we were also able to achieve savings of 20 percent every year.” Reducing the TCO is a “never ending story” for IBM, just as it is for many of its clients. IBM plans on further integration and consolidation steps for the future with an end vision of no more than 6 SAP R/3 instances, then running a substantial part of the worldwide IBM business.

IBM: think big

With a turnover of around 90 billion USD in 2003, IBM is the largest provider in the area of information technology, and leading in on demand solutions. The company has approximately 318,000 employees, with sites in over 170 countries. IBM is today the only company in the IT sector offering its customers the entire product range of modern information technology. Within its worldwide company structure and division of labor, IBM maintains 24

Overview

■ The Challenge

Worldwide optimization of business processes and IT structures throughout the organization. Unification and integration of high-performance ERP systems on the basis of standardized software.

■ The Solution

Industry: IT/High Tech

Application: SAP® R/3® Enterprise and SAP® for HighTech

Hardware: IBM @server® zSeries, pSeries and IBM TotalStorage®

Software: WebSphere®, DB2®, Tivoli®

Services: IBM Global Services

■ The Benefits

Simplified business processes and extensive system harmonization have resulted in dramatic reductions in costs, and offer an ideal basis for further integration projects.





production sites, 18 development laboratories and eight research centers.

With a turnover of 42 billion USD in 2003 –almost half the total turnover of IBM – IBM Global Services is the world's largest provider of IT services. With 150,000 employees and a unique combination of industry expertise and technological competence, this line of business supports companies of every size and sector in continuously improving their competitive position. The range of services runs from strategy counselling, through consulting, implementation, and business transformation services, all the way to application management, hosting, and outsourcing.

The company underwent a decisive transformation in the mid 90s. The organization of the corporation, previously geared towards individual national companies, was radically restructured. IBM became a global enterprise with unified processes, comprehensive IT systems and integrated support structures. The "new IBM" was strategically realigned and its transformation initiated by the corporation's highest levels of management.

The introduction of SAP

Just as the interaction of management and business processes needed to be intensified, a global harmonization of IT structures was also necessary - a task for IBM Global Services. "No question about it - that was a pretty tough challenge," Dr. Schaumburg remembers with a smile.

The great business transformation at IBM began in the mid-90s, when the decision was made to introduce SAP R/3 as the central ERP solution. For Schaumburg and Schröder, the reasons were obvious - and they are still valid today: "The functionality of the SAP solutions is comprehensive. Their integration capabilities with other applications correspond to our requirements. And with our best-of-breed strategy, we have a strong partner in SAP as the leader in the ERP market."

In the important core business processes of IBM - production, fulfillment, procurement and finance – the SAP solutions have proved their value in the meantime, and support around 30,000 named users worldwide in their daily work. And this figure is far from representing the full scope of the current application environment. As the SAP solutions,

being the most important back-end solution within IBM, are integrated with other applications and with the WebSphere and Lotus products, users often don't even realise that they are actually accessing SAP data. "Almost everyone of the 318,000 IBM employees accesses our SAP systems in one way or another," says Heinz Schröder. "From order processing to production, from accounting to office supplies ordering, there's almost always an SAP system behind it." For the most part, the systems are at SAP R/3 release level 4.6 or 4.7. The largest systems are deployed in production (approximately 13,000 users) and in fulfillment (approximately 8,000 users). In addition, the SAP industry solution SAP for HighTech is also used. The transformation result is remarkable: around 11,000 legacy applications were replaced successfully.

From 30 to 6:

Consolidation reduces TCO

Following the basic business process re-engineering and the associated adjustment of the application management portfolio, extensive IT harmonization was initiated.

A conscious decision was made at the outset to establish approximately 30 SAP R/3 systems for the transition, more than were strictly necessary. "We wanted to replace many legacy systems as quickly as possible, in order to achieve rapid unification and a fast return on investment", says Dr. Schaumburg. Further problems, such as year 2000 readiness and the introduction of the euro, also had to be solved. In the old system environment this would have required immense effort and costs.

Integration and consolidation were advanced steadily. New, more powerful servers were deployed, the number of computing centers reduced to only two – Poughkeepsie (USA) and

Portsmouth (England) –, maintenance was simplified, and automation was improved through suitable tools. “In recent years, we were able to reduce the costs for our SAP landscape by about 10-20 percent a year”, says Schröder. An impressive result, considering that investments are constantly being made into the latest technologies, and many new products are also tested within project work on the Beta Test Site. Today, the number of SAP systems has been reduced to 16. But IBM sees further potential for optimization: the target is six SAP production systems.

Low costs, high availability, optimal performance: IBM @server

Trouble-free operation of the SAP solutions is guaranteed by an ideally coordinated server and storage configuration. The database servers are mostly based on IBM zSeries @server, IBM pSeries @server are deployed as application servers. Along with the costs, stability and availability are the decisive factors in

the choice of platform; in some areas (e.g. in production) a sophisticated high availability solution is of course required.

The Storage Area Network consists of several IBM TotalStorage Enterprise Storage Servers, which today handle a data volume of over five terabytes in the production area. Naturally, Tivoli is used for systems management. With the automated “FlashCopy” function, online “hot” backups of databases (which can easily reach a volume of 1,2 terabytes in the manufacturing area) can be carried out without interfering with production operations. The benefits are clear: automated processes, a consistent database and secure recovery in an emergency.

Integration with WebSphere

The SAP systems ensure continuous support of the most important back-end business processes at IBM. However, equally important is the seamless connection of the remaining applications - after all, there are still almost 5,000 of these. The ideal solution: IBM WebSphere. WebSphere offers a complete coordinated portfolio of software products for the fast development, adaptation, installation and integration of on demand applications. IBM WebSphere thus offers a broad range of solutions - from application integration to business process integration, from registering and modelling business processes to automation through workflows. The WebSphere Business Integrator makes it possible to create a comprehensive unit from isolated applications and processes. Business integration adapters ensure smooth interaction with SAP and non-SAP applications, and offer a user-friendly interface for all Web applications. Data exchange between the applications occurs via WebSphere MQ (formerly the MQ Series products, which have been

deployed as integration solutions by customers with heterogeneous application landscapes for more than 15 years).

Dr. Schaumburg is certain: “The use of WebSphere solutions as a front-end with SAP applications in the back-end is a leading-edge combination. We achieve the highest measure of integration and can connect all our systems to each other. Thanks to WebSphere, interoperability and compatibility aren't issues for us. After all, hardly any company has a homogeneous landscape, something or other always has to be connected.”



He has repeatedly found that the SAP competence attained in his area is highly valued. After all, IBM is one of the Top 10 customers of SAP. And employees of the Customer Competence Center - which is, of course, certified by SAP - frequently take part in client projects in order to share their experience with other companies.

Heinz Schröder sums up the experiences of the last few years: „In our case, it really is true: we use what we sell. That's why we know exactly how it feels to be an IBM and SAP customer, after all we've been through it all ourselves...”





IBM Deutschland GmbH
D-70548 Stuttgart
ibm-sap.com

IBM, the IBM logo, e logo, Enterprise Storage Server, Tivoli, Tivoli Enterprise and pSeries are trademarks or registered trademarks of IBM Corporation in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others.

This case study illustrates how one IBM customer uses IBM and/or Business Partner technologies/services. Many factors have contributed to the results and benefits described. IBM does not guarantee comparable results. All information contained herein was provided by the featured customer and/or Business Partner. IBM does not attest to its accuracy.

© Copyright IBM Corporation 2004
All rights reserved.



© Copyright 2004 SAP AG
SAP AG
Neurottstraße 16
D-69190 Walldorf

SAP, the SAP logo, mySAP and all other SAP products and services mentioned herein are trademarks or registered trademarks of SAP AG in Germany and several other countries.