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– Steve Mills, senior vice president and group executive, IBM Software Group

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Sincerely,

Sandy Carter
Vice President, IBM WebSphere Marketing

Customer / Partner	Solution Index	Location	Industry
Alenia Aeronautica SAP	e-business infrastructure Enterprise Resource Planning	EMEA Italy	Aerospace & Defense
Audi Hungaria Motor Kft. SAP	Business-to-Business Business Process Management Business Process Transformation Enterprise Resource Planning IT Optimization On Demand Business	EMEA Hungary	Automotive
Belgacom SA	Web Services	EMEA Belgium	Telecommunications
Boots Group PLC	Business-to-Business Business-to-Consumer Information Integration Knowledge Management On Demand Business On Demand Workplace	EMEA United Kingdom	Healthcare Retail
Brady Corp. SAP	e-business infrastructure Enterprise Resource Planning	NA Wisconsin - USA	Industrial Products
Brau Union R & R Software Rt.	On Demand Business Sales Force Automation	EMEA Hungary	Consumer Products Retail
Chr. Hansen	Business-to-Business On Demand Business Web Self Service	EMEA Denmark	Chemicals & Petroleum
Cirque du Soleil	Business Integration Wireless	NA Quebec - Canada	Media & Entertainment
Element-System Rudolf Bohnacker GmbH SAP	e-business infrastructure Enterprise Resource Planning	EMEA Germany	Industrial Products
Goodyear	Business-to-Business On Demand Business Web Self Service	NA Ohio - USA	Automotive
HypoVereinsbank BEGIS	Content Management On Demand Business	EMEA Germany	Banking
IBM Corporation SAP	e-business infrastructure Enterprise Resource Planning On Demand Business	NA New York - USA	Computer Services Industrial Products
KMD SAP	Content Management	EMEA Denmark	Government
Nibco SAP	e-business infrastructure Enterprise Resource Planning	NA	Industrial Products
Panasonic Consumer Electronics Company	Business-to-Business	NA New Jersey - USA	Electronics Retail
paysafecard.com	Transaction Payment	EMEA United Kingdom	Computer Services
Pure Fishing DSS eOneGroup		NA	Retail
Siemens Medical Solutions	Business Process Transformation Content Management On Demand Business	EMEA Germany	Healthcare Life Sciences

Customer / Partner	Solution Index	Location	Industry
Sto AG SAP	e-business infrastructure Enterprise Resource Planning	EMEA Germany	Consumer Products
United Technologies Corporation	Business-to-Business On Demand Business	NA Connecticut - USA	Aerospace & Defense
VHV Versicherung SAP	e-business infrastructure Enterprise Resource Planning Server Consolidation	EMEA Germany	Insurance
Volvo with Sync Business Process Integration AB		EMEA	Automotive

Alenia Aeronautica
SAP (Partner)

Category:	Case Study	Geography:	EMEA
Industry:	Aerospace & Defense	Country:	Italy
Solution Area:	e-business infrastructure, Enterprise Resource Planning	* Status:	Completed / External
Home Page:			

SAP and IBM deliver a high-flying solution for Alenia Aeronautica

... business solutions by IBM and SAP

"Reliability is the key issue for us. So we chose to run SAP in a pure zSeries environment, because it is quite simply the most reliable platform of all."
-- Vito Cammarota, IT Architecture and Application Manager, Alenia Aeronautica

Italian aerospace giant Alenia uses mySAP.com on IBM eServer zSeries to provide a comprehensive financial, sales and distribution solution, and is enjoying faster processes, improved data quality and better customer service as a result.

The advent of the Euro was a watershed for European industry, and rather than simply update its existing systems, Alenia decided to seize the opportunity to deploy a new integrated IT system. The company wanted to accelerate processes, improve data quality, ensure full integration between systems, and replace legacy applications.

Alenia chose the mySAP.com solutions as its e-business infrastructure for the future, and is now benefiting from faster, more accurate information across its operations. Vito Cammarota, IT Architecture and Application Manager, comments: "We chose SAP because it has the functionality to replace almost all of our legacy applications with an integrated framework. The service and support we are receiving from SAP is excellent, and user feedback on the quality of data is very positive. “Overall, we expect the SAP solution to massively accelerate our operations, and running it on IBM eServer zSeries will give us a rock-solid IT infrastructure."

Thinking ahead

Alenia is an aerospace and defense engineering company, and part of The Finmeccanica Group - the largest aerospace, defense, energy, transportation and IT company in Italy. The group has become a significant global player, with overseas sales accounting for 60% of total turnover. With ongoing overseas acquisitions and a growing commitment to R&D, it looks set to continue growing.

Prior to the installation of SAP, various interdependent sub systems slowed down processes, and users often had to wait for long periods of time for information to be returned from legacy systems. Batch processes were slow, and the net result was that Alenia was struggling to provide effective customer service. Simultaneously, the advent of the Euro meant Alenia needed a currency-proof IT infrastructure.

“Alenia saw this as a golden opportunity to migrate its legacy applications to SAP, to overcome the limitations and to explore new functionalities,” says Vito Cammarota. Alenia gradually replaced its legacy applications with the Financial Accounting (FI), Project System (PS), Material Management (MM), Sales and Distribution (SD), Asset Accounting (AA) and Controlling (CO) of the mySAP.com solution suite.

“The objective is to create a workflow of business events and processes across departments and functional areas. With SAP, employees receive the right information and documents at the right time,” comments Vito Cammarota. “Corporate headquarters, manufacturing plants and sales offices all merge for integrated handling of business processes. Accurate information flows quickly through Alenia, which increases the company's ability to service its customers' needs.”

Accurate, reliable, integrated data

Says Vito Cammarota, "The fundamental benefit of using SAP is the integration of data between systems: data is now more accurate and reliable. Previously, many man-hours were spent sourcing and cleaning data. The integrated SAP solution has greatly reduced this task, so our processes are now far more efficient."
The FI, AA and CO modules enable Alenia to monitor functions with any input to financial cycle while the SD, PS and MM logistics modules allow real-time monitoring of raw materials, finished goods, pending orders, units in production, and much more. Says Vito Cammarota. "The interface is also much better and more user-friendly than our legacy applications, and a further benefit is that the integration mechanism allows us to identify specific problems in legacy applications much more easily. As a result, we can rely on our integrated IT infrastructure to support our business activities, leaving us free to focus on our core business."

Smooth transition and seamless integration

mySAP.com gives Alenia the added benefit of migrating its legacy applications in stages to meet the specific requirements of its business. During the first phase of Alenia's SAP project, financial processes are managed entirely by the mySAP.com components, while logistics processes (including business partner inventories) are handled by legacy applications.

The SAP infrastructure is connected via a wide area network (WAN) to legacy systems and to all Alenia operational units across Italy. To handle the transportation of messages, Alenia installed components of the WebSphere MQ family (formerly known as MQ Series and MQ Link). WebSphere MQ is a family of integrated middleware that delivers the intelligence and infrastructure to drive rapid and flexible business change, transforming and integrating business applications and processes through the firewall across the extended enterprise.The software delivers secure, reliable communications between old and new systems to ensure consistent data throughout the migration phase. The solution also resolves specific requirements for data conversion and serialization of operations.

"The step-by-step policy adopted by Alenia for replacing legacy systems with the SAP environment requires data synchronization between application components," explains Vito Cammarota. "We were looking at the best way to integrate our IT infrastructure, and we chose WebSphere MQ as the framework for messaging between SAP and legacy applications. It helps us to ensure consistency of data during the migration phase, which is crucial to the smooth running of the business."

A future-proof solution with zSeries

Alenia has long relied on IBM zSeries as its platform for mission-critical applications, and it remained the automatic choice for the company's SAP system. Both database and application servers sit on the zSeries, meaning that each SAP system has its own OS/390 locial partition to run, and the two-tier environment resides on one box. This delivers unbeatable reliability and stability, guaranteeing full use of the improved data delivered by the SAP system, combined with the performance and high availability of the zSeries hardware.

"Reliability is the key issue for us," says Vito Cammarota. "We chose to run SAP in a zSeries environment, because it is quite simply the most reliable platform of all. There are currently 150 logged users on the SAP system and the scalability of zSeries means the solution will grow seamlessly with Alenia's future expansion," explains Vito Cammarota. "With the SAP system running on one box, we achieve an ease of management and administration, while keeping long-term cost of ownership as low as possible." For storage and data archiving, Alenia chose to rely on the IBM Enterprise Storage Server (ESS) system, with back up on VTS/3590.

The sky is the limit

Alenia's future plans include the further development of its mySAP.com solutions to fully exploit the functionalities. The company has started by implementing the SAP Business Warehouse , which gives it powerful data warehousing capabilities for budget management. “The SAP BW has given us both a forward-looking information management system and the means to optimise our business processes,” concludes Vito Cammarota. “The SAP BW is a powerful tool to turn information into knowledge and it will help us to make better business decisions. We are confident further deployment will boost Alenia's ability to service internal and external users seamlessly and efficiently.”

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Audi Hungaria Motor Kft.

SAP (Partner)

Category:	Case Study	Geography:	EMEA
Industry:	Automotive	Country:	Hungary
Solution Area:	Business-to-Business, Business Process Management, Business Process Transformation, Enterprise Resource Planning, IT Optimization, On Demand Business, Supply Chain Management, Systems & Network Management	* Status:	Completed / External
Home Page:	http://www.audi.hu		

Audi Hungaria Motor standardizes and integrates to overtake supply chain complexity

"We have achieved massive improvement in process acceleration and transparency as a result of the implementation of electronic invoicing and purchasing. This is an absolute advantage for the successful management of the company."

–Heinrich Franke, Chief Financial Officer, Audi Hungaria Motor

In addition to being the world's fourth largest engine manufacturing plant, Audi Hungaria Motor's Gyor facility assembles the popular Audi TT Coupe.

Overview

Challenge	With its role within the VW Group's supply chain growing, Audi Hungaria's business processes were becoming more complex, impeding future growth and optimization.
Why Become an On Demand Business?	With more business units depending on it, the company needed to ensure that it could respond rapidly to changes in the supply chain. This meant simplifying its processes and better integrating them with those of other business units in the VW Group.
Solution	Audi Hungaria worked with IBM Business Consulting Services to redesign and integrate its supply chain processes, all of it implemented under the umbrella of a new SAP solution. An automated systems management platform was deployed to make the system more flexible, robust and manageable.
Key Benefits	• Tenfold increase in the speed of its materials requirement planning cycle • Simplified systems management, reduces integration costs and improves IT productivity

A unit of European automotive giant Volkswagen, Audi Hungaria Motor Kft. was established in 1993 as one of several engine suppliers for the VW Group, whose business units include Volkswagen and Audi. In the short span since its founding, Audi Hungaria's daily engine production has grown from 100 to more than 6,500, making it the Group's largest engine supplier–and displaying a rate of acceleration that any carmaker would be proud of. In addition to growing its engine volume, Audi Hungaria has also expanded the scope of its production to include the assembly of Audi's TT Coupé and Roadster sports cars. Both of

these developments moved Audi Hungaria to the very center of VW's global supply chain. As Audi Hungaria's prominence in the VW supply chain has grown, so too have the scale of its operations and the degree to which its processes have become interdependent with those of other business units. One sign of increased scale is the rapid increase in the number of mechanical production and assembly lines it operates, which have made it the fourth largest engine plant in the world. Another is the large and growing network of warehouses used to store in-bound parts from suppliers as well as completed engines to be delivered to the Group's manufacturing plants around Europe. As it has become more connected, Audi Hungaria has experienced a quantum increase in the complexity of its business processes, the volumes of information flowing across its value chain and the demands placed upon its core systems.

Moving to the middle of the supply chain

By moving to the center of VW's supply chain, Audi Hungaria came under increased pressure to coordinate its engine production with the production needs of the business units. Given the tight timeframes built into Audi Hungaria's delivery practices, failure to provide a unit with needed parts would result in a costly and disruptive production shutdown in as little as two days. Compounding this pressure was a broader initiative within the Audi unit to cut the time required to turn around customer orders. With these steeper demands and tighter timeframes, one of Audi Hungaria's major challenges was to make its processes fluid enough to adapt quickly to upstream changes in each unit's vehicle demand, which in turn percolated down to engine demand and–ultimately–engine component demand from Audi Hungaria's suppliers.

On Demand Business Benefits

- Audi Hungaria's material requirements planning cycle is 10 times faster than under the previous solution.
- The flexibility of the new systems management framework facilitates Audi Hungaria's growing role in the VW supply chain by enabling rapid process integration and automation.
- The framework's single point of control simplifies systems management, reducing integration costs and improving IT productivity.
- Integrating supply chain processes end-to-end provides more visibility into key information flows—supporting decision-making.

The company's systems would prove critical to meeting these challenges. Though the performance and availability of Audi Hungaria's systems had always been important, the company's increasingly prominent role in the VW Group's supply chain made them even more so. Indeed, with more transactions coming from more sources, Audi Hungaria's systems were subjected to sharply increased volume–and the stakes for their successful performance were rising. With its future role expected to grow still further, Audi Hungaria also needed to ensure that its systems would facilitate–and not impede–its expansion. Thus, as it added new products, production lines, warehouses and suppliers, Audi Hungaria needed the ability to rapidly and seamlessly integrate them with existing processes like production planning and logistics. Finally, with these process connections becoming increasingly complex, the company also needed a way to simplify their management to keep systems running smoothly. Audi Hungaria's existing solution, built around the low-end ERP system it had started out with, had performed well but could not meet the company's new requirements. The company needed a way to sense changes up and down its growing supply chain–such as higher car demand from anywhere in the VW Group or lower parts capacity among any of its suppliers–and respond rapidly. This solution would also need to be inherently flexible and adaptive to meet the constant need to integrate new processes–even as the complexity of process integration grew. Finally, to keep this complexity from adversely impacting manageability and resiliency, ensuring a high degree of automation in areas like systems management, configuration and optimization was key.

Increased responsiveness through process integration

To achieve this goal, Audi Hungaria engaged IBM Business Consulting Services to fully redesign, standardize and integrate key processes like materials handling, warehouse management and logistics, and to implement them under a new end-to-end ERP platform. To improve sensing, RF barcode scanning devices were used by Audi Hungaria employees to automate the tracking parts shipments in an out of warehouses. To make the supply chain more responsive, IBM integrated forecasting, engine

production planning and MRP (material replenishment planning) in realtime, improving the tightness and precision of its capacity planning. To further streamline planning, Volkswagen's companywide supplier portal, www.vwgroupsupply.com, is used as a platform upon which Audi Hungaria and its suppliers collaborate on key planning parameters like volumes and dates. Also, by enabling the tracking of key supply chain data, the portal makes its more transparent to Audi Hungaria and its suppliers—and thus a more valuable decision-making tool. These improvements were complemented by the use of advanced imaging and document management technology to automate the routing, review and approval of purchase requisitions and invoices.

Key Components	
Software	● IBM Tivoli® Workload Manager ● IBM Tivoli Application Performance Management ● IBM WebSphere® MQ ● SAP R/3 ● SAP for Automotive ● SAP Business Information Warehouse
Servers	● IBM eServer™ pSeries® p650
Services	● IBM Business Consulting Services

While process redesign led to major efficiency improvements, long-term optimization required a flexible infrastructure for managing the integration of these processes—and overcoming the complexity that process integration was producing. To achieve this, IBM deployed a new systems management infrastructure that enables Audi Hungaria to add, manage, automate and connect all of its applications and processes through a single interface. Equally important is the solution's ability to pinpoint problems within a complex process flow, which facilitates rapid problem resolution and prevents potential bottlenecks from forming. Determined to have a single point of contact for the project, Audi Hungaria selected IBM Business Consulting Services on the basis of its business process and industry expertise, its experience in deploying complex ERP solutions and its expertise in such diverse technology areas as RF and document management. For the ERP core of the system, Audi Hungaria selected SAP R/3, SAP for Automotive and SAP Business Information Warehouse. For the systems management and automation, the company chose Tivoli Workload Manager, while Tivoli Application Performance Management was selected to monitor the performance of various solution components. Integration—a critical part of the solution—was performed using a combination SAP Exchange Infrastructure (to link core ERP components and processes) and IBM WebSphere MQ (to link the solution to various host systems running within VW Group business units). The entire solution runs on an IBM eServer pSeries p650 server, deployed within Audi Hungaria's Györ, Hungary headquarters.

"The project optimized Audi Hungaria 's processes in diverse ways . With the introduction of SAP R/3, we took an important step on the way to further future growth ."
–Heinrich Franke

With its new solution in place, Audi Hungaria is now better positioned to meet the rigorous demands of the VW supply chain. The fundamental benefit is a vastly improved ability to manage complexity among processes and systems, which has in turn enabled the company to optimize the efficiency of its supply chain. Perhaps the best example is the material requirements planning cycle. Now, when vehicle forecasts change at the top of the chain, the system produces component requirements for suppliers at the bottom of the chain 10 times faster than under the old system. It's a great example of how end-to-end process integration helps make the overall supply chain more responsive.

As Audi Hungaria becomes more deeply woven into the fabric of the VW supply chain–adding new production lines, warehouses and processes–its newfound flexibility has tamed the IT challenges of growing, managing and optimizing the system. As a result, IT productivity goes up, integration and management costs go down and IT staff are freed to focus on further optimizing business processes. Towards this end, Audi Hungaria created an internal Competency Center with just this aim. Audi Hungaria Chief Financial Officer Heinrich Franke notes that in the end the key benefit lies in the ease of future process optimization–which is the key to competitiveness. "With the newly implemented system landscape, we have a high performance basis for further optimization and continued growth that is secure in the future and fits perfectly into the standardization strategy of the [VW] Group."

For more information

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Belgacom SA

Category:	Case Study	Geography:	EMEA
Industry:	Telecommunications	Country:	Belgium
Solution Area:	Web Services	* Status:	Completed / External
Home Page:	http://www.belgacom.be		

Belgacom -- A leading supplier for global telecommunications solutions

Background: Belgacom - A leading supplier for global telecommunications solutions

Headquartered in Brussels, Belgacom SA is the leading supplier of global telecommunications solutions in the Belgian market. The company is owned by the Belgian state (51%) and ADSB Telecommunications (49%), which is an international consortium made up of SBC, Singapore Telecom, TDC and a group of investors from the financial sector.

The Belgacom group' services include local, intercity and international voice and data services, cellular telephone services, satellite services, carrier services and all Internet-related services. Its mobile subsidiary Belgacom Mobile had more than 4 million customers in December 2002. Belgacom has offered Belgacom World Solutions since 1996, which cover more than 220 countries and territories and through which customers can connect their various business centers based on a single telecom standard. At the end of 2002, the Belgacom Group had 19,003 employees.

Challenge: Improve customer service and streamline business processes

Some years ago, Belgacom started its Belgacom e-business Strategic Transformation (BeST) initiative, with the goal of becoming an e-business leader in Belgium. This transformation had an important impact for the Belgacom IT Department which was seeking to evolve into a high performance organization. By applying new technologies like J2EE and portal, to Web enable several of their internal applications, the company wanted self-service Web applications, to be integrated with their various legacy systems that managed supply chain processes like billing, provisioning and order fulfilment. The goal would be to offer business-to-consumer (B2C) and business-to-business (B2B) applications through its portal.

Since early 1995, the Belgacom IT Delivery organization has used an early concept of services by the adoption of a ‘Hub and Spoke’ model based on BEA Tuxedo technology. A central organization and central systems have been put in place to interconnect all front end applications or packages through middleware software to their back end systems and enterprise data.

Vincent Ghislain – Belgacom IT Strategy Manager says : “ With the emergence of new stable technologies like J2EE and Web services and with the vendor market tendencies to integrate them into an application server suite of products, we believe that our “Hub and Spoke” model can evolve in the coming years to a pure Service Oriented Architecture. We know it’s time to think about our new generation of application architecture.”

Solution: Web services technology to enable multi-systems integration with WebSphere Portal Server, SAP, PeopleSoft or .NET

One of Belgacom's first goals was to provide a common Web interface integration, with security managed by IBM Tivoli Access Manager, and then to begin the B2C project using IBM WebSphere Portal Server. Belgacom's IT management team selected IBM WebSphere and IBM WebSphere Portal because of their unsurpassed ability to support a horizontal Web integration. The company now has more than thirty WebSphere-based applications in production, which run on Sun Solaris servers.

The B2C application, which is designed to facilitate customer self service via the Web, uses IBM

WebSphere Portal Extend and supports more than 1 million households across Belgium. The B2B and supply chain solutions were designed to provide key services to more than 2,000 Belgacom business partners. The existing application is integrated with WebSphere using a proprietary middleware layer, which is based on BEA Tuxedo. Belgacom is using IBM WebSphere Studio Application Developer as the standard development tool for new J2EE applications.

Belgacom also uses an increasing number of Web services technologies -- such as Extensible Markup Language (XML), HTTP, Simple Object Access Protocol (SOAP) and Java Connectors -- to connect J2EE (Java 2 Platform, Enterprise Edition) applications with proprietary applications such as PeopleSoft, SAP and .NET.

“We believe the Web services standards to become pervasive in our industry. The technology can be used to well define components in application development and then to re-use these components. Web services are the basis for a Service-Oriented Architecture and can in such an architecture perform many application integration functions,” says René Dewil – Belgacom IT Strategy Manager.

IBM Web services will also be used in conjunction with WebSphere to integrate .NET packages (Office applications). The design of multi-tiered solution architectures is typically chosen to maximize the levels of data abstraction. One of the main reasons for this level of data abstraction is to enable flexibility within the architecture to take advantage of future technologies. SOAP provides this additional interoperability capability between MS .NET and J2EE business objects running on WebSphere.

“We build our future on a service-oriented way of developing applications and their integration on the Web services standards,” continues Mr Dewil. “The Web services will be the evolution of our hub-and-spoke application integration platform in which currently we use several other technologies.”

Benefit: Widening the B2B scope through web services

Belgacom expects numerous benefits from its IBM Web services solutions on WebSphere, including the following:

- Increased customer satisfaction as well as employee productivity as a result of Web self-service capabilities
- Increased sales over the Internet as a result of improved cross-selling capabilities, which can incorporate personalized promotions.
- Decreased integration effort between applications and packages
- Ease potential future end to end business processing integration

Last and not least, with the current architecture being closely aligned to Web services, it will be a straight forward conversion from the existing interfaces and messaging protocols to the relevant standard technologies. So with a relatively small effort, significant gains are expected by opening up the interface to widely accepted Internet standards.

“The use of Web services is a major part of our IT strategy; Web services will be used in our upcoming projects and we expect them also to integrate other technologies,” states Mr. De Backer, Vice President IT.

For additional information on Belgacom, please visit www.belgacom.be.

Boots Group PLC

Category:	Case Study	Geography:	EMEA
Industry:	Healthcare; Retail	Country:	United Kingdom
Solution Area:	Business-to-Business, Business-to-Consumer, Information Integration, Knowledge Management, On Demand Business, On Demand Workplace, Retail Store, Wireless	* Status:	Completed / External
Home Page:	http://www.boots-plc.com		

Boots transforms information flow to empower staff and strengthen the brand.

"Our customer appeal is founded on our heritage of expert service and advice. We're empowering our store managers and staff with the tools they need to drive our outstanding retail offering. IBM is providing us with a solution to improve customer service and drive revenue by empowering our staff."
– Brad Poulson, Director of Store Systems, Boots PLC

The Boots Company has 1,500 retail stores and 55,000 global employees, and also owns, deve markets consumer healthcare products in 130 countries around the world through Boots Healthc International.

Overview

Challenge	With retail competition intensifying, Boots needed to refocus on its core retail operations, improve the efficiency of store operations and thereby strengthen its brand.
Why Become an On Demand Business?	Large and decentralized, Boots realized that effective and efficient decision-making at the store level was the key to optimal store performance. By empowering its staff with information, Boots could become more responsive to its customers and address operational factors like stock management.
Solution	Boots engaged IBM to design, deploy and manage a new set of in-store systems and processes employing the IBM On Demand Workplace solution. A roles-based employee portal provides store managers with the information tools they need to improve the performance of their stores. In-store sensing capabilities—employing wireless technology—combined with benchmarking tools give managers and staff realtime access to sales and stock data to guide in-store practices.
Key Benefits	• Streamlined information delivery via Boots's On Demand Workplace

	portal supports more rapid and effective decision-making.

Based in Nottingham, Boots Group PLC (www.boots-plc.com) is the United Kingdom's largest pharmacy and health and beauty retailer and one of its best known brands. The company's 150-year-old retail pharmacy chain, Boots the Chemists, represents the core of its operations and the foundation of its brand strength. To further strengthen customer loyalty and expand its long-term revenue base, Boots sought to position itself in the marketplace as a chain capable of addressing the full range of its customers' health needs. This included ventures outside its core business designed to diversify its operations.

But while this was happening, the nature of its core retail business was changing. Competition was increasing, driven by an influx of new retail players. Some retailers, such as grocery chains, expanded laterally into pharmacy products, while other traditional pharmacy chains (both new and existing) adopted more targeted competitive strategies centered around low cost or specialization. Underlying these changes was a general trend toward deregulation, which effectively increased the number of licensed pharmacies serving the UK market. These shifts raised the competitive bar among Boots and its rivals. Increasing margin pressures made it harder to consistently grow profits. To adapt, retailers were forced to concentrate more intensively than ever on maximizing the performance of their stores, encompassing everything from employee productivity to effective merchandising and shelf-space utilization.

On Demand Business Benefits

- Streamlined information delivery via Boots's On Demand Workplace portal supports more rapid and effective decision-making at the store level.
- Performance benchmarking capability helps managers optimize store performance, reducing costs and increasing sales.
- More efficient access to information enables staff to spend more time with customers, improving satisfaction.
- Wireless stock management provides realtime information on stock levels, reducing stock outs and boosting sales.

Back to basics

Taking stock of its strategy, Boots saw the need to realign itself with this increasingly demanding environment by refocusing on its core retail operations which had been the wellspring of its brand equity. Even more important was the follow-up—a multi-pronged effort aimed at revitalizing the Boots brand by improving the efficiency of store operations and, by extension, the customer experience. A key premise behind the effort was the belief that effective and efficient decision-making at the store level was the root of optimal store performance. Thus, the more accessible, up-to-date and actionable the information was, the better managers could address everyday operational issues. The company's challenge was to remove the barriers to rapid, effective decision-making that had taken hold in its stores. Perhaps the most significant was the lack of an efficient means of giving store staff—especially the managers who make day-to-day decisions—the information they needed, when they needed it. Too often, store managers had to read through reams of data to get to the information that they could act on, hindering their overall effectiveness. Boots's research—which found employees spent an average of 45 percent of their time doing something other than helping customers—only confirmed this.

"We cannot sell to our customers if we don't have the goods on shelf. If we don't have effective operational processes, then we won't get the goods on shelf and we won't have service up to the standard we expect to provide to our customers."
--David Sutherland, Regional Director (East), Boots PLC

With change one of the few constants in retail, whether it's shifting customer tastes or staff turnover, Boots needed to configure its processes to maximize responsiveness where it mattered most—in its more than 1,500 stores. The key was to transform the bilateral flow of operational information between stores and the head office and, in turn, the way employees access and utilize this information. To help map this transformation, Boots engaged IBM on the strength of its retail track record, business process expertise and ability to deliver an end-to-end solution. The IBM team conducted an intensive, bottom-up review that

produced a strategic vision of where Boots as a brand wanted to be, as well as the kind of customer experience and operational capabilities it would need to provide to get there. On this foundation, the IBM team then laid out the processes—both new and transformed—that would be required to make it a reality.

Outsourcing for focus and flexibility

The result is an integrated retail On Demand Workplace solution that provides employees of Boots with timely, personalized and actionable information to support decision-making at the store level. To more closely track in-store performance, the team implemented a wireless stock management system that automatically gathers data on sales and stock levels and integrates it into store processes. This improved sensing capability is complemented by MyStore.Net, a new employee portal designed to increase the effectiveness and empowerment of retail managers through fast, efficient and convenient information delivery. The portal drives efficiency by presenting operational information in a comparative, exceptions-based format that highlights opportunities. This takes the burden off managers to glean actionable conclusions from reams of data, and gives them the latitude they need to put the information to work. By logging onto the system, for example, a busy manager can instantly benchmark his store's performance against an index of comparable stores. In cases where a store is underperforming, the system enables managers to drill down to more granular performance drivers (such as stock management or employee retention) and access detailed best practice, training and other materials to improve in-store processes—and the bottom line.

To boost top-line performance, the system provides managers with insights on untapped revenue opportunities by employing the same multi-store benchmarking approach to sales of various products or product groupings. Thus informed, managers can then respond to these opportunities through in-store efforts like merchandising, set specific sales goals and then track progress against these goals in realtime. Store managers can then quickly communicate to all store employees using the MyStoreNet messaging capability to direct activities. Also, the system's wireless stock tracking system automatically updates backend databases, while a new application known as Sales Tracker displays the data to managers via the portal or to associates through IBM 4690 POS devices (tills).

Key Components	
Software	● IBM WebSphere® Application Server ● IBM WebSphere Portal ● IBM Tivoli® Directory Server ● IBM Tivoli Storage Manager ● IBM DB2® Universal Database™ ● IBM WebSphere Edge Server ● IBM DB2 Connect™
Hardware	● IBM eServer™ p5 ● IBM eServer zSeries® ● IBM 4690 POS Terminal System
Software	● IBM Business Consulting Services ● IBM Retail Store Solutions ● IBM Wireless Solutions ● IBM Strategic Outsourcing ● IBM Software Labs

The Boots On Demand Workplace solution runs on a pair of high-end IBM eServer p5 servers, with each deployed in a separate customer data center supported by IBM Strategic Outsourcing. Within each server, processing functions are spread across four logical partitions (LPARs). IBM WebSphere Portal,

running on WebSphere Application Server, is the core platform for the MyStore.Net portal. Two parallel instances of Tivoli Directory Server provide systems management, while two clustered instances of IBM DB2 Universal Database (one live, one passive) house the solution's data and content. These databases are integrated with Boots's main data warehouse—running in SAP Business Warehouse on an IBM zSeries—via IBM DB2 Connect. To maximize performance and resiliency, the system employs IBM WebSphere Edge Server to allocate workload across processors and provide failover capability.

"We have a long-established relationship with IBM, so it was natural for us to work with IBM to create a complete vision for the in-store technology."
--Rob Fraser, Group IT Director, Boots PLC

By simplifying its processes and empowering its managers with realtime information, Boots has strengthened the collective ability of its stores to respond to a dynamic and increasingly demanding marketplace. With information richer and more accessible, Boots has equipped its store staff to optimize their operations by taking a proactive approach to sales growth and leveraging the knowledge base of the company as a whole. It has used intelligent information management to make itself nimbler, more efficient and more responsive—and thus a stronger competitor. For Rob Fraser, Boots Group IT Director, the successful deployment of the solution confirms his trust in IBM as a teammate, and testifies to the breadth and depth of IBM's expertise. "IBM is unique in its ability to deliver such a comprehensive, end-to-end solution and stand behind it for the long haul. Our new solution, and our ongoing relationship with IBM, puts us on a firm foundation for the future."

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Produced in the United States of America
3-05

Brady Corp.
SAP (Partner)

Category:	Case Study	Geography:	NA
Industry:	Industrial Products	State:	Wisconsin - USA
Solution Area:	e-business infrastructure, Enterprise Resource Planning	* Status:	Completed / External
Home Page:			

Brady goes global with SAP and IBM.

... Business solutions by IBM and SAP

Overview	
The Challenge	To increase internal efficiency and improve the quality and speed of information transfer; to gain a clear view of performance across global operations and code page conversion to exploit new SAP releases
The Solution	Industry: Industrial identification solutions Application: mySAP.com, SAP R/3, SAP BW, SAP EBP Software: WebSphere® Application Server, WebSphere Commerce Suite, Lotus® Domino™, Lotus Notes®, DB2® Universal Database™ Hardware: IBM eServer iSeries™ Services: Implementation done by IBM Business Consulting Services (BCS)
The Benefits	Improved visibility of data across global operations; faster, more accurate, more consistent reporting; greater internal efficiency; better response to customer needs; reduced procurement costs

Brady Corporation has increased internal efficiency and improved the speed and quality of decision making with a comprehensive SAP/IBM solution. Based around SAP R/3, the company's new e-business platform also incorporates transactional websites powered by IBM WebSphere Commerce Suite, and internal information portals running on Lotus Domino. The SAP system has provided a massive improvement in the visibility of key performance data, and delivered much-needed commonality across Brady's global operations.

Identifying the challenge

Based in Wisconsin, USA, Brady Corporation manufactures and markets a broad range of identification solutions, from high-performance labels and signs to label-application and data-collection systems. With about 50,000 products sold in more than 100 countries, and a global workforce of 3,000, Brady is a world leader in its market. Clients range from small manufacturing firms to global high-tech clients such as Nokia and Motorola, and nearly half of all Brady's revenues come from outside the US, underlining its commitment to a global business model. The company sells through several channels, and places particular significance on indirect distribution partners: it runs a worldwide network of 3,500 distributors and resellers.

Following internal growth and a number of acquisitions, Brady had accumulated 18 separate ERP systems across its global operations by the end of the 1990s. This fragmentation of IT went hand-in-hand with a lack of operational cohesion, and it was becoming clear that the impeded flow of information was an obstacle to more efficient business practices.
Brady set out to overhaul its global systems and processes, acknowledging that the ability to plan, deploy and execute strategy on a global basis was the key to maintaining growth and market leadership. By replacing its fragmented systems with a common e-business platform linking all parts of the enterprise both internally and externally, Brady aimed to increase efficiency and collaboration, and improve customer service. Brady selected SAP R/3 as its core ERP system, because of the vendor's leadership and long experience in the market. IBM Business Consulting Services assisted with the initial

implementation, and provided training to ensure that Brady could run the platform without relying on external consultants.

Global coverage

Brady's SAP system now covers 65% of all operations, and the company is continuing to roll the software out to new territories and business streams. The ultimate goal is not 100% coverage – some Brady offices are too small to sustain their own instances – but commonality across most operations is already delivering significant improvements in the visibility of data and the speed of internal information transfer. Prior to the implementation of SAP, the disjointed nature of information systems was a major drain on operational efficiency, and slowed down or prevented the delivery of key performance indicators to decision-makers. With its fully-integrated SAP R/3 system, Brady enjoys faster access to data, and has a common standard for communication between different business streams. Says Ann Nettesheim, Business Intelligence Manager, "Visibility is a huge plus. Previously, it might take anywhere from a week to a month to get a breakdown of sales figures for a particular product range across a particular region. Even then, differences in part-numbering and customer-numbering schemes meant that you couldn't be sure you had got back the information you requested. Reporting with mySAP Business Intelligence is much easier: simply phenomenal compared to what we had before!"

In addition, the new SAP system provides far more detail and speed in Brady's view of its global customers. Previously, it was difficult and time-consuming to summarise sales or profitability for global customers, because the relevant data was held in different formats in incompatible databases. The only commonality was at a very high level, so it was difficult for global account managers to make accurate or timely decisions. Now, decision-makers can act more quickly and on the basis of more accurate information.
With improved and accelerated information on sales and marketing, Brady also has a better understanding of its customers' current and past purchasing behaviour, enabling it to meet their needs more precisely and at lower cost.

mySAP SRM for procurement cost savings

Using SAP Enterprise Buyer Professional (SAP EBP), a component of the mySAP Supplier Relationship Management solution, Brady has transformed its procurement processes, saving money and freeing up employees to work on higher value-added projects. Its procurement portal enables office supplies and other non-manufacturing supplies to be sourced directly from pre-approved vendors, at specially-negotiated prices. The solution's use of evaluated receipt settlement (where no invoice is created, and payment is made following receipt of the product) makes the process faster and produces important administrative cost savings. Says Ann Nettesheim, "As part of the SAP EBP project, we were able to consolidate the number of vendors on our system, which has contributed to our cost savings. We now order almost all office supplies electronically without ever needing to raise a purchase order, and the system handles repeat purchasing automatically." The move to electronic procurement is part of a wider strategy which also aims to switch all in-bound ordering to EDI or the web.

mySAP Business Intelligence

A key component of Brady's SAP solutions is mySAP Business Intelligence (mySAP BI), which enables decision-makers to access fast and accurate reports on a number of aspects of performance. SAP Business Information Warehouse (SAP BW) gives users more reporting flexibility and power than they previously had, and reduces the strain on the main SAP R/3 systems. Some transactional reporting is still carried out in the SAP R/3 environment, but management reporting and summaries are handled exclusively in SAP BW. Brady's BW has recently been expanded to include more Sales & Marketing data, such as operational data at the level of order details and customer contact details. This has resulted in improved understanding of customer behaviour and greater efficiency and ease in direct marketing

campaigns.

Sharing the benefits of information

As part of its initiative to improve cohesion across the enterprise, Brady aims to maximise the utility of its SAP systems by deploying the information they contain both internally and externally. Knowledge is always an important currency in business, and Brady has invested heavily in ensuring its efficient transfer between employees and across departments and business streams. Using a number of employee portals built in Lotus Domino, the company has enabled increased collaboration between team members, driven up efficiency and freed up valuable employee time by automating administrative procedures. Externally, Brady is using IBM WebSphere Commerce Suite to power a number of customer- and supplier-facing e-business portals. The company's development strategy aims at easily-replicated solutions, adapting existing web offerings to new business streams and geographies in order to accelerate deployment and minimise development and support costs. Taking a modular approach with a single technological skill-set (WebSphere Commerce Suite) brings economies of scale and reduces training costs. Brady's distributor extranet provides registered users with 24-hour access to product pricing, availability data, order status and open invoice listings, and also enables them to place orders online. The solution has a front-end built on WebSphere Commerce Suite, and is seamlessly integrated with SAP R/3 at the back-end. A similar customer-facing website is also directly linked into back-end systems, ensuring seamless e-business and fast, accurate fulfilment.

Decoding the benefits

Brady wanted to upgrade from version 2.0B of SAP Business Information Warehouse to 3.0B, in order to take advantage of new functionality, particularly generic delta capabilities. The company also wanted to remain on its existing IBM AS/400® (now IBM® iSeries) platform, but the new release of SAP BW required double-byte (ASCII) coding, rather than the single-byte (EBCDIC) coding standard on the IBM AS/400. "To avoid moving off the IBM AS/400, which has always proved highly reliable and robust, we carried out a code-page conversion. We viewed it as a relatively low-risk task, certainly when compared to the alternative, which was to move away from our server platform of choice," comments Craig Welch, SAP Basis Manager at Brady.

With advice from SAP, Brady carried out an 'in-place conversion', rather than exporting and re-importing the whole system. The whole upgrade project, including the conversion, took just six weeks from development to production, and carrying it out in-place kept the risk to a minimum. Says Craig Welch, "I wouldn't consider the code page conversion to be a particularly difficult task – it would have been far more complex and costly to move away from our iSeries infrastructure. We were initially surprised when we realised we would have to move to ASCII to take advantage of the new release of BW, but the conversion went very smoothly and presented no major problems." Now that the conversion is complete, Brady benefits from the latest SAP BW features without sacrificing the reliability and scalability it has come to expect from its iSeries servers.

For more information

Learn more about WebSphere software at **ibm.com/websphere**

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Brau Union

R & R Software Rt. (Partner)

Category:	Case Study	Geography:	EMEA
Industry:	Consumer Products; Retail	Country:	Hungary
Solution Area:	On Demand Business, Sales Force Automation	* Status:	Completed / External
Home Page:			

Brau Union enriches IBM e-commerce solution with mobile sales force automation system.

"Producing great beers and ales isn't enough. We have to back up our products with better procedures for servicing our customers, or they won't be our customers for long."

--Károly Pirger, IT Manager, Brau Union

With nonstop access to customer information, Brau Union's sales reps work more productively in the field.

Challenge	Brau Union's outdated processes for managing customer accounts were preventing its sales force from sensing competitive changes in the marketplace, hindering its ability to compete effectively
Why Become an On Demand Business?	Brau Union needed to respond more efficiently to customer needs by providing its sales staff with instant and continuous access to product, customer and competitor information
Solution	Brau Union implemented a sales force automation solution that gives sales representatives mobile, realtime access to current business data
Key Benefits	Four times faster sales analysis due to automated data entry; increased customer satisfaction through more responsive sales representatives; improved competitiveness through more agile response to market trends

Residents of the small Hungarian town of Sopron at the foot of the Austrian Alps have a long history of enjoying locally produced ale and beer. This custom began more than 100 years ago, with the First Sopron Brewery and Malt Factory's inaugural shipment in 1896.

Today, Brau Union Hungaria Breweries Company (BUH) allows that tradition to continue with more than 820 employees producing nearly 41 million gallons of beer per year, generating 29.8 billion Hungarian Forints (US$141 million). Its flagship brand, Soproni Aszok, is renowned among beer connoisseurs worldwide, and is part of a product line sold throughout Hungary by more than 150 beer distributors. In fact, after its acquisition of the Heineken franchise, BUH (***www.brauunion.com***) became the country's

market-leading brewery.

On Demand Business Benefits
● Realtime, mobile access to business data enables sales representatives to close more sales through competitive pricing and better efficiency, increasing revenues annually ● Four times faster analysis of data collected in the field supports more agile response to market trends, increasing competitiveness ● Ability to respond to customers in a more timely and relevant manner has improved customer satisfaction ● Refined business processes have eliminated labor-intensive and error-prone manual procedures, thereby reducing overhead costs ● New integrated, open and scalable IT solution is both resilient and flexible

Manual system slowed corporate response
In the Hungarian beer market, BUH's success depends on maintaining excellent relationships with both its wholesale and direct customers. On the wholesale side, BUH had strengthened its competitiveness by implementing an e-commerce Web site enabling wholesale customers to easily order products and generate reports online.

The company's direct-sales processes, however, had grown outdated and Brau Union was quickly facing a competitive problem. It was feeling the pressure that its sales force was not able to sense competitive changes in the marketplace, because they had no way to access key business information while in the field. Compounding the situation, sales managers at the corporate office lacked up-to-date information about what the field force was accomplishing each day. These inefficient communications processes were hampering Brau Union's ability to maintain and grow its business.

"If a competing beer distributor discounts a particular product and our sales representatives don't know about it, the customer will buy from the competitor and we lose that business," says Károly Pirger, IT manager, Brau Union. "Even worse, our ongoing relationship with that customer can be jeopardized. Producing great beers and ales isn't enough. We have to back up our products with better procedures for servicing our customers, or they won't be our customers for long."

Faster information flow to and from the field
Brau Union realized it needed to implement a new business process that would provide its sales force with instant and continuous access to product, customer and competitive information--radically improving its responsiveness to the marketplace. Doing so would create a much more nimble and agile sales force, arming it with the tools needed to maintain a competitive edge. And, it needed a fast, accurate way to communicate account data back to the home office, where sales managers could determine business trends and respond with price changes and special offers.

Speedy, accurate electronic communication
To bolster its competitive advantage with a better information flow, Brau Union implemented a mobile sales force automation system that seamlessly connects the company's external and internal business processes. The system includes a mobile component that provides sales representatives with realtime access to information as well as capabilities such as lead tracking.

Now, BUH's mobile workers have the ability to handle scheduling, order entry, order status, promotions and pricing requests in realtime. The new solution provides field teams with uninterrupted access to sales, invoicing, inventory tracking, order fulfillment and other key customer-related information. As a result, the mobile system speeds the process of bringing customer issues and market trends to the attention of the sales managers, which helps BUH compete more effectively.

"With time-sensitive information, the sales managers get an up-to-date view of business accounts that

helps optimize decision-making in areas such as pricing and cross-sell/up-sell opportunities," says Pirger. "This is critical, because our competitors often make sudden changes that can affect our sales. Now we can move fast with pricing changes or special offers, and make the decisions that protect our market share."

PDAs bring remote data to integrated solution
BUH solved its sales force communication challenge by implementing a sales force automation (SFA) application based on FusionR SFA from IBM Business Partner R&R Software Rt. and IBM DB2® Universal Database(tm), with IBM DB2 Everyplace® client software, the version of DB2 that is designed to run on a mobile device.

On the client side, sales representatives use HP, Compaq and iPAQ systems running DB2 Everyplace. Using personal digital assistants (PDAs), 120 sales representatives in the field can now view and store changes on their PDA, eliminating the need for hand-written notes. New data on the PDA is replicated to the corporate server at least once a day, when the sales representatives synchronize their PDAs to the corporate network. Once the data is loaded onto the server, the company's 18 sales managers can access it through DB2 Universal Database, analyzing it using third-party decision-making tools.

The server side of the SFA application is based on IBM WebSphere® Application Server running on IBM @server® xSeries® at company headquarters. WebSphere Application Server provides the runtime environment for the application's J2EE technology-based business logic. DB2 Universal Database manages customer information, such as account history records. The entire implementation took only three months.

Key Components	
Software	● IBM WebSphere Application Server ● IBM DB2 Universal Database ● IBM DB2 Everyplace ● FusionR SFA
Servers	● IBM @server xSeries
Business Partner	● R&R Software Rt.

"We tested all major software vendors' applications and our developers recognized that, for massive data processing on the client side for tens of thousands of records, DB2 Everyplace is the only reliable client database solution."

--Károly Pirger

One of the most valuable components of the SFA application is its integration with the BUH SAP system. Business information collected by the sales representatives in the field is entered automatically into SAP. Since information collected from the e-commerce system is also integrated with SAP, the result is a powerful business management solution that helps BUH maintain a cohesive and informed organization.

IBM: the right solution
Since BUH was already an IBM customer, IBM was the logical choice to provide the mobile information management system for its SFA solution. However, in the interest of due diligence, BUH conducted tests which confirmed that IBM was the right solution. "We tested all major software vendors' applications and our developers recognized that, for massive data processing on the client side for tens of thousands of records, DB2 Everyplace is the only reliable client database solution," notes Pirger.

Open standards were also an important consideration when selecting IBM, as connectivity was central to the application. Explained Gabor Ila, e-business unit manager at R&R Software, “Openness is important to us because we develop platform-independent systems. IBM is an ideal partner.”

Low-cost application brings far-reaching return
All told, its SFA solution brings BUH the fast communication and timely data access it needs to be more competitive than ever. Sales representatives can maintain excellent relationships with customers, and sales managers can quickly analyze current data to make better decisions. “By automating our data entry process, we’ve eliminated up to one week of lag time in analyzing sales data,” says Pirger. “That means we can analyze customer information four times faster.”

In addition to the more efficient business management facilitated by electronic communications, BUH has achieved superior sales force efficiency because sales managers have a better understanding of each account. Specialized features, such as the ability to automatically balance sales force workloads, further increase efficiency. Finally, the integration with back-end e-commerce and SAP systems promote efficient business operations that reduce costs and increase profits.

“With improved efficiencies in both the field and corporate office, we expect BUH to be highly successful in providing fine beer and ale for at least the next 100 years,” declares Pirger.

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12-03

Chr. Hansen

Category:	Case Study	Geography:	EMEA
Industry:	Chemicals & Petroleum	Country:	Denmark
Solution Area:	Business-to-Business, On Demand Business, Web Self Service	* Status:	Completed / External
Home Page:	http://www.mychr-hansen.com		

Chr. Hansen aims to increase customer satisfaction with B2B e-commerce solution from IBM.

"Some of our customers wanted to access product information and submit orders at any time of the day or night. If we continued with business as usual, we could see ourselves falling behind and losing some of our market edge and customer base."

--Finn Kristensen, Director of e-business, Chr. Hansen

Chr. Hansen has development centers in Denmark, the U.S., France and Germany. In addition, Chr. Hansen is represented around the world by more than 25 affiliated companies, as well as 85 distributors and agents.

Challenge	Food additive producer Chr. Hansen needed an additional flexible and customer-oriented sales channel that would integrate with back-end systems and enable customers to order products 24/7
Why On Demand?	Chr. Hansen needed to enhance service and productivity by providing its customers with a responsive, automated system for transacting business around the clock
Solution	The company built an integrated e-commerce system that provides realtime self-service capabilities, enabling customers to browse product catalogs, submit and check orders, check product availability, print quality certificates and review account status
Key Benefits	One-time US$230,000 savings in operating costs; increased productivity of customer-facing employees; enhanced customer satisfaction

For a company that's been around for a while, tradition--and a history of success--can make business transformation an uphill battle. But the prospect of customer attrition can get things moving quickly.

Founded nearly 130 years ago, Denmark-based Chr. (pronounced “Christian”) Hansen is a leading producer of food additives and ingredients, such as enzymes, natural colors, and bacterial cultures for making yogurt and cheese. The company employs a workforce of 3,500 and posted nearly 3.7 billion Danish kroner (US$560 million) in net sales last year. According to Finn Kristensen, Director of e-business at Chr. Hansen (***www.mychr-hansen.com***), the company owes its leadership position to its long-standing commitment to innovation. “Alongside the many scientific discoveries and technological inventions Chr. Hansen has brought to the food industry, we’ve also built our business by making customer service and partnerships a top priority,” he says.

It was that spirit, according to Kristensen, that led the company to examine both the way it interacted with customers and its methods for supporting them. While its competitors were beginning to implement business systems that accommodated some customers’ preferred ways of operating, Chr. Hansen was still relying on traditional order processes to support its sales and customer service efforts. As a result, it was falling behind the competition because it could not do business with customers 24/7.

“Some of our customers wanted to access product information and submit orders at any time of the day or night,” Kristensen explains. “And they wanted to go online and easily view invoices and product availability or check pricing agreements with accuracy. Meanwhile, sales and customer service staff were spending too much time on order procedures and other administrative tasks, lowering their productivity and increasing our costs. If we continued with business as usual, we could see ourselves falling behind and losing some of our market edge and customer base.”

To provide customers with improved levels of service, Chr. Hansen needed to create a new, online sales channel based on a resilient, integrated and scalable infrastructure. “We needed to enhance service and productivity by providing customers with a responsive, automated system for transacting business around the clock,” says Kristensen.

On Demand Business Benefits
● One-time savings of US$230,000 in operating costs ● Increased ability for staff to focus on creating value-added services and support ● Increased customer satisfaction and enhanced brand identity as a result of more responsive service ● Open standards-based solution allows easy integration with back-end systems

Transacting business 24/7

Working with IBM Business Consulting Services, the customer deployed an integrated food ingredient ordering system that’s available to customers 24/7. Called the Customer Web Center, the solution represents a positive leap in customer responsiveness for Chr. Hansen, allowing it to stay ahead of competitors while keeping its costs low.

The ordering system provides realtime e-commerce capabilities and integrates seamlessly with the company’s core, back-end enterprise resource planning (ERP) system from IBM Business Partner SAP. Customers registered for the Chr. Hansen B2B system can browse product catalogs, submit and check orders, check product availability and review account status--all in realtime. Registered customers also can print quality certificates and specific production batch analysis to assure that products meet the manufacturing standards of the International Organization for Standardization. “Previously, these activities required speaking to a customer service agent during the day, so this is a huge move forward for our company,” says Kristensen.

Now, customer orders are entered directly into the SAP system with the correct prices and item numbers. SAP then automatically schedules the order for production and shipping. As a result of these streamlined processes, Chr. Hansen’s customer-facing employees are much more productive. “The employees now

have extra time to devote to value-added customer service and support activities like informing customers of new products and up-selling," says Kristensen. The company's goal is to process 20 percent of all its orders through the new solution within five years.

Delivering a powerful solution in minimum time
The B2B solution is based on IBM WebSphere® Commerce Professional Edition running on three IBM @server® xSeries® 330 systems. IBM WebSphere Application Server provides the foundation for this new responsive environment. IBM DB2® Universal Database™, also running on an xSeries server, provides the resilient underlying information management system.

IBM WebSphere MQ helps integrate the solution with several of Chr. Hansen's back-end systems to provide additional information to customers. For example, when customers use the company's Customer Web Center to order quality assurance reports about batches in production, a third-party laboratory information management system performs the analysis and creates the documentation in PDF format, using information delivery software from IBM Business Partner Business Objects. The solution then enables users to download the PDF files directly to their desktop systems. "The solid knowledge of e-commerce solutions and benefits of using WebSphere was our biggest reason for working with IBM," says Kristensen.

Key Components	
Software	• IBM WebSphere Commerce Professional Edition • IBM WebSphere Application Server • IBM WebSphere MQ • IBM DB2 Universal Database
Servers	• IBM @server iSeries(tm) • IBM @server xSeries®
Services	• IBM Business Consulting Services

> *"Thanks to IBM, we have strengthened our industry position and our image as an early adopter of emerging technologies and innovations that allow us to provide superior service through multiple sales channels."*
>
> --Finn Kristensen

WebSphere MQ also provides the integration path between the commerce applications and Chr. Hansen's SAP system, which runs on the company's line-of-business server, an IBM @server iSeries. This integration enables customers to access realtime information about invoices, pricing agreements, and shipment and delivery details.

Chr. Hansen has been an IBM customer for many years, so it was natural for the food-industry giant to approach IBM for its B2B solution, according to Kristensen. "We wanted an integrated solution from a single provider," he says. "Of all the vendors we evaluated, IBM was unique in its ability to deliver a comprehensive, scalable and cost-effective solution and deploy it quickly. IBM Business Consulting Services provided expert business consulting services, comprehensive technological knowledge and good industry experience. We received remarkable cooperation in working with the IBM consulting team."

Open standards deliver savings
According to Kristensen, Chr. Hansen's Web-based ordering system has clearly benefited the company. "The open standards at the foundation of WebSphere software have allowed us to enhance our Web site with excellent functionality from back-end systems in a way that is less costly than equivalent solutions," he says. "For instance, by using the open XML standard to access data from our own laboratory system,

we have earned a one-time savings of approximately US$230,000."

The food ingredients producer is saving in other ways too, Kristensen adds. "Because all our documentation is available for download on the Web, we have reduced our costs for printing and mailing."

But the benefit most crucial to Chr. Hansen's success is the value the portal has added to the company's brand identity and the quality of its customer service. Customers are now able to obtain detailed product information, submit orders, track their orders and check payments status at any time, and get an overview of their contractual price agreements--all online. "Thanks to IBM, we have strengthened our industry position and our image as an early adopter of emerging technologies and innovations that allow us to provide superior service through multiple sales channels."

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Cirque du Soleil

Category:	Case Study	Geography:	NA
Industry:	Media & Entertainment	Province:	Quebec - Canada
Solution Area:	Business Integration, Wireless	* Status:	Completed / External
Home Page:	http://www.cirquedusoleil.com		

Cirque du Soleil's productivity soars with IBM integration solution

"*We found the IBM solution to be more competitive in terms of its ability to integrate quickly and reliably with our portfolio of applications* ."
–Danielle Savoie, Vice President, Information Technologies, *Cirque du Soleil*

Overview

Challenge
As its business continued to grow rapidly, *Cirque du Soleil* needed more flexibility in its IT infrastructure so the company could reduce integration costs and speed time to market

Why IBM?
IBM offered a comprehensive and cost-effective integration solution with features based on best practices and price designed for small-to-medium-sized businesses, along with world-class software and services from a single vendor

Solution
An integration solution that would combine multiple business applications and back-end systems, providing employees with integrated information

Key Benefits
Reduction in time required to develop and maintain interfaces between applications to support business processes; *Cirque du Soleil* identified an improvement in the level of productivity of the IT development team

Key Components

Software
- IBM WebSphere Business Integration Server Express Plus
- WebSphere Everyplace® Access
- Adapter Capacity Pack for WebSphere Business Integration Server Express Plus

Servers
- IBM eServer® xSeries® 345 and 335

Services
- IBM Software Services for WebSphere
- IBM Wireless Solutions

"*WebSphere Business Integration Server Express Plus performs the magic in the background that enables applications to integrate and exchange information regardless of the supporting infrastructure. We could never have afforded such sophisticated technology without the pricing of this product* ."
–Danielle Savoie

"*IBM is enabling us to provide the technology that will help Cirque du Soleil remain even more focused on the business of fascinating audiences worldwide* ."

–Danielle Savoie

Voice. Movement. Music. From the awe-inspiring performance of the touring Saltimbanco to the heart-stopping dives of O in its dedicated theater in Las Vegas, *Cirque du Soleil* ® is in the business of thrilling audiences around the world with spectacles that combine acrobatics, visual arts, dance and music. A worldwide organization active in 20 countries, *Cirque du Soleil's* productions serve as models of innovation and quality in the performing arts.

Synchronizing global operations to maximize efficiency
Cirque du Soleil began with a very simple dream. A group of young entertainers got together to amuse audiences, see the world and have fun doing it. Since its founding in the early 1980s, the Montreal-based company has grown to 3,000 employees worldwide and has added television, merchandizing and licensing to its live performance business. As the company continued to grow, automating end-to-end business processes became a high priority.

As *Cirque du Soleil's* talent pool and management skills increased, the magic that *Cirque du Soleil* provides to mass audiences came to rely on as many as 180 information technology (IT) applications. These applications, which are essential to finance, procurement and merchandising, are also critical to the quality of shows and artistic products. They help casting, stage management and creative departments to meet deadlines for shows of ever-increasing complexity.

Integrating applications to sustain growth
Seeking to maintain a sustainable growth rate while keeping production standards and employee productivity on the rise, *Cirque du Soleil* decided to integrate its application environments onto a single standardized platform for access and development. The company also sought to take advantage of its SAP enterprise resource planning (ERP) environment and integrate many of its stand-alone applications to present a global vision of the information. By responding to employee needs via a single technology, *Cirque du Soleil* wanted to enable employees to perform their work more efficiently.

After evaluating IBM **WebSphere® Business Integration Server Express Plus,** the company chose IBM because of its ability to provide an open-standards, stable and price-competitive solution that would meet its current and future needs. "We found the IBM solution to be more competitive in terms of its ability to integrate quickly and reliably with our portfolio of applications. We also made this choice because IBM offers a price-competitive solution to mid-size companies," says Danielle Savoie, vice president, information technologies, *Cirque du Soleil* . "We could never have afforded such sophisticated technology without the pricing of this product. IBM also offered robust, tested and proven technology. WebSphere Business Integration Server Express Plus performs the magic in the background that enables applications to integrate and exchange information regardless of the supporting infrastructure.

The comprehensive packaging with the suite of adapters was seen as the right solution that could easily grow as the company's business grows. Working with a team from IBM Software Services for WebSphere at the IBM Toronto laboratory, *Cirque du Soleil* developed and implemented the IBM WebSphere Business Integration Server Express Plus solution on IBM eServer xSeries 345 and 335 systems.

"To support our business, we found that the diversity of our applications required a common language in order to enable the applications to integrate well with each other," says Savoie. "This common language and the solution to *Cirque du Soleil's* integration need became IBM WebSphere Business Integration Server Express Plus."

Integration boosts efficiency
The new WebSphere Business Integration Server Express Plus solution helps employees fly through the processes that support its onstage acrobatics. Without ripping out and replacing existing infrastructures, IBM Software Services for WebSphere showed IT staff members how to follow a top-down approach where business processes drive integration by mapping processes to underlying IT systems. Rules-driven business processes allow *Cirque du Soleil* to adapt to its growing needs.

As an example of the new efficiency, *Cirque du Soleil's* financial department has significantly streamlined the process of creating financial statements for its business units and key stakeholders. WebSphere Business Integration Server Express Plus provides smooth process integration between accounting's SAP application and the consolidation program used by the financial reporting department.

Cost-effective integration with third-party software
Using the SAP adaptor built into WebSphere Business Integrator Server Express Plus, *Cirque du Soleil* was able to integrate several applications into its SAP back end to put information where it was needed and cut down on duplicated data entry chores. "Integrating our production and creative systems with our core financial systems has helped our support teams to support Cirque du Soleil activities," says Savoie. "The quality and stability of the SAP adaptor are great features of the IBM solution."

New skills, new shows, new mobility
IBM Software Services for WebSphere was on hand to provide proof of concepts and a pilot, along with mentored workshops, skills transfer and implementation services. "Our link with IBM software experts has helped us move quickly to use the IBM product on our own," says Savoie. Realizing the increasing need for wireless mobility, *Cirque du Soleil* worked with IBM Wireless Solutions and IBM Software Services for WebSphere to develop and implement a pervasive computing solution to streamline communication between *Cirque du Soleil's* traveling operations and headquarters. The integrated system leverages the technology of IBM WebSphere Everyplace Access, Version 4.3 software as the integration infrastructure to synchronize the Microsoft Exchange, Version 5.5 e-mail application, calendar and contacts data on the PDA devices. "In a company such as ours that is nomadic and geographically distributed, the mobile technology has the potential to add value to our unique business environment. WebSphere Everyplace Access has allowed us to experiment on an always-connected working environment for our frequent travelers and executives," says Savoie. "IBM is enabling us to provide the technology that will help *Cirque du Soleil* remain even more focused on the business of fascinating audiences worldwide."

For more information
Please contact your IBM marketing representative, IBM Business Partner or IBM Direct at: 1800 IBM-CALL.

Visit our Web site at **ibm.com**/websphere

For more information about *Cirque du Soleil* , visit: www.cirquedusoleil.com

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Element-System Rudolf Bohnacker GmbH
SAP (Partner)

Category:	Case Study	Geography:	EMEA
Industry:	Industrial Products	Country:	Germany
Solution Area:	e-business infrastructure, Enterprise Resource Planning	* Status:	Completed / External
Home Page:	http://www.element-system.de		

Element-System Rudolf Bohnacker GmbH: New profile with IBM and SAP.

... business solutions by IBM and SAP

"The decision to deploy DB2 was a strategic one. The database is fully scalable, is ideally suited to our requirements, and shows its full potential under Linux."
-- Georgios Paltoglou, IT Manager, Element-System Rudolf Bohnacker GmbH

The Challenge
Realization of an integrated solution for all business processes; implementation of newly aquired businesses; optimization in the area of warehouse management and improved processing of goods

The Solution
Industry: ManufacturingApplication: mySAP.comSoftware: Linux®; Microsoft® Windows®; DB2®; Lotus Notes®; Lotus Domino™; WebSphere®; Tivoli®Hardware: IBM ^® xSeries™

The Benefits
Integration of all business processes; detailed anaylsis possibilities in controlling; productivity has risen by 25%; stocks and lead times have been reduced by 15%; project was realized with SAP Systemhaus Plaut Systems & Solutions GmbH

A simple system to bring order and give you space – this is the idea behind the shelf systems by the company Element-System Rudolf Bohnacker GmbH. Metal wall-rails and supports are linked together by a plug-in system, and provide the basis for solid and open shelves that are easy to assemble and disassemble. An extensive range of accessories enabling an infinite variety of shelf shapes and sizes completes the system. Founded in 1954, the company produces the 1,500 available components itself. In the do-it-yourself sector, distribution is managed by the wholesale trade. In 2001, Element-System Rudolf Bohnacker GmbH, which has 570 employees, generated revenues of EUR 46 million. Around 70% of its revenues are attributable to overseas markets: The shelf system is available in over 50 countries worldwide including the United States.

New SAP system for new challenges

In 1999, the company's business processes were completely reorganized, and the company was restructured. The existing ERP system was no longer adequate to meet the new corporate objectives. In March 2000, the company accepted an offer from the international management consultancy Plaut to implement SAP on the IBM ^ xSeries. Based on its core competencies – business management and IT – Plaut develops innovative business solutions characterized by flexible strategies, efficient organizational shapes, and powerful IT infrastructures. Plaut is an SAP global partner, and – with more than 1,400 SAP projects worldwide – is one of the most experienced consulting firms in SAP implementations. The project commenced in April 2000, when Element-System Rudolf Bohnacker GmbH was still manufacturing at its central location in Rottenacker and in Csòt in Hungary. During the project, a new plant was opened as a result of the company's expansion, which required integration into the current implementation. In the area

of production planning, conditions for made-to-order production are ideal, as a simplified production structure for all three plants is enabled. As a result of the expansion, the number of SAP users rose to 100; in Csòt alone, 25 users access the system via a leased line. A total of 15,500 material masters had to be transferred to a new numbering system. After this, nothing stood in the way of the project's successful completion on 1.1.2001.

The system offers integrated sales planning, which can be accurately calculated right through to individual shop floor areas. It also includes long-term planning for planning data simulation, which for Element-System Rudolf Bohnacker GmbH alone entails around 150,000 data records. Complete mapping of the plants is possible, and the handling of goods movement between them, supported by warehouse management systems, is simplified. Assignment and control of production machinery runs in production planning via a graphical control station, which prepares the detailed data optimally. The SAP system enables parallel planning and production for both made-to-order and mass production. Each variant has its own article number, enabling universal planning right down to materials, precise control of production orders for order entry, and exact availability checking. In controlling, detailed analysis of the target-actual situation can be performed, and product and customer data can be resolved via profitability analysis. Productivity has risen by 25% with the new system, while stocks and lead times have been reduced by around 15%. The transparent capacity situation also enables shift planning with a flexitime account.

New IT landscape with DB2, Linux, and xSeries

Two xSeries servers are used as platform for the SAP system. The production system runs on an IBM ^ xSeries 360. It is equipped with 2 Intel® Pentium® Xeon™ 1400 processors, 4GB RAM, and 140GB disk storage and being used as application server. The second system is also being used for test. On the production system the 80 GB DB2 database runs in a stable and well performing Linux environment. In the future, the two servers will be connected via Fibre Channel to a Storage Area Network (SAN) with 5 additional servers. In the start phase, the SAN will be used with 300GB, but is scalable to 2 TB. The SAN is controlled centrally via the Tivoli Storage Manager (TSM), which backs up the database online and the entire network automatically via an IBM Autoloader.

After a long history of Microsoft Windows, Element-System Rudolf Bohnacker GmbH is now gradually migrating to Linux. Besides the SAP systems also the Lotus Domino server and the file and proxy server run under Linux. Element-System Rudolf Bohnacker GmbH receives support in porting and ongoing operation of the IT systems from Plaut. The latter works with a Linux system on the xSeries, and accesses Element-System Rudolf Bohnacker GmbH's IT landscape.

Georgios Paltoglou, IT Manager, Element-System Rudolf Bohnacker GmbH, comments, "With Linux, we are opening up all possibilities: the simple administration, and the stability and scalability convince everyone. These features are best exploited on the xSeries servers. That's the reason for our goal: a server IT landscape running entirely under Linux on xSeries servers. The decision to deploy DB2 was a strategic one. The database is fully scalable, is ideally suited to our requirements, and shows its full potential under Linux."

New dimensions with WebSphere

Element-System Rudolf Bohnacker GmbH is planning next to implement a B2B platform using EDI for the field sales force and distribution in the United States. The company then plans to begin trading online with the IBM WebSphere Commerce Suite. Its configurator extends the new Internet presence to the 3D platform, and enables customers to design their actual room using all the component parts of the shelf system. All necessary individual components are automatically listed here and, in the case of an order, can be passed directly to the SAP system via interfaces.

Georgios Paltoglou said: "With the IBM WebSphere Commerce Suite, we have found a solution that enables us to design our own individual corporate presence. With it, we can offer our customers personal

service meeting our own quality claim. I would say it allows us to give our company a new profile."

IBM Deutschland GmbH
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Goodyear

Category:	Case Study	Geography:	NA
Industry:	Automotive	State:	Ohio - USA
Solution Area:	Business-to-Business, On Demand Business, Web Self Service	* Status:	Completed / External
Home Page:	http://www.goodyear.com		

Goodyear's Tire-HQ Portal: An on demand Solution Delivers Value and Satisfaction to Dealers

... An IBM On Demand Business Case Study by IDC

Becoming on demand	Goodyear, the world's largest tire manufacturer, responds to its dealers' information and transactional needs through Tire-HQ, a realtime tire ordering and information system. The highly resilient new system has enabled Goodyear to keep pace with robust transactions growth. As its dealers have registered big increases in productivity, their satisfaction with and loyalty to Goodyear have grown along with it. By outsourcing the managing of the system to IBM, Goodyear has been able to keep its costs low and variable while sticking to its core competency--selling tires.
Why IBM	"We saw IBM as a partner that could provide all the critical resources we needed to help us with the ongoing transformation of our business--from core technology to architecture development to the hosting of our e-business services."

The GOODYEAR SOLUTION at a Glance	
Business Drivers	**Customer Business Challenge** In the late 1990s, Goodyear dealers were unable to get the information on products, prices, specials, inventory availability and order status when they needed it. In the area of transactions, dealers spent too much time placing orders, and the turnaround for these orders was too slow. While Goodyear's first system addressed many of these challenges, it also spawned a second set of challenges that were linked to the rapid adoption of the system by its dealers. Later, heavy usage had begun to place pressure on the original solution which, as a Phase I effort, was designed with limited scalability and failover capacity making it vulnerable to downtime or diminished performance. The system's limited flexibility also posed a barrier to the execution of business-level strategies, most notably the expansion of channels, brands and products supported by the solution. **on demand Business Rationale** In the first phase of its on demand evolution, Goodyear needed to be more responsive to dealer requirements for more information, as well as the ability to conduct and manage transactions more efficiently. Moreover, Goodyear needed to provide these capabilities in a

	cost-effective way that allowed the company to focus its finite support resources. In the second phase, rapid adoption and increased usage led to the need for a more resilient solution. Goodyear also needed a more responsive system that was flexible enough to adapt to dynamic customer-driven and business-driven requirements.
Becoming on demand	**Business Process Adaptations** Goodyear's initial adaptation was to introduce a system that provided dealers with product and marketing information as well as the ability to place and track orders--all in realtime. By shifting a substantial volume of dealer requests from its call center and reducing its reliance on highly manual processes, the system improved efficiency and productivity for Goodyear and its dealers. The second adaptation--designed to address the need for resiliency and flexibility--was the deployment of a multi-tier solution whose robust routing and self-optimizing capabilities eliminated the original system's availability issues and made it more scalable. **on demand Operating Environment** The solution was implemented by IBM Business Consulting Services with the assistance of IBM Software Services for WebSphere and the IBM Global e-business Solution Center, and was hosted by IBM Global Services e-business Hosting Services. Its key elements include IBM WebSphere Application Server, IBM WebSphere Commerce, IBM DB2 Universal Database, IBM Lotus Notes, IBM Lotus Domino, IBM @server zSeries servers and IBM RISC-based processors.
on demand benefits	● The system handled a four-fold increase in volume while providing better than 99.9 percent uptime. ● By leveraging out-of-the-box functionality, the solution enabled Goodyear to lower application management costs. ● Employing a standardized solution enables Goodyear to rapidly and cost effectively respond to dealer requests for new services.

SITUATION ANALYSIS

Background

The Goodyear Tire and Rubber Company is the world's largest tire company, with revenues of approximately $14 billion and more than 90,000 employees worldwide. Its largest unit, North American Tire, provides original equipment and replacement tires for autos, motorcycles, trucks, farm, aircraft and construction applications in the United States, Canada and export markets. In addition to Goodyear brand tires, the company produces and sells tires under other popular brand names such as Dunlop and Kelly. Goodyear also manufactures other automotive rubber products and industrial chemicals, and operates more than 2,000 tire and auto service center outlets worldwide.

Over the past few years, the North American tire industry has witnessed a significant increase in competitive intensity. The combination of stepped up competition from low-cost manufacturers and a glut of manufacturing capacity has conspired to depress prices and cut margins industrywide. To strengthen their bottom lines, manufacturers have embraced measures targeted to both the revenue and the cost sides of the profitability equation. For Goodyear specifically, the ongoing adoption of on demand business elements--detailed below--has been a key part of its emerging competitive strategy.

Phase One: Being More Responsive to Dealers

Within Goodyear's overall business model, few components are as important as its extensive dealer channel. As its primary distribution channel, Goodyear's growing network of more than 5,000 independent

dealers, affiliated dealers and company-owned outlets represents the main interface to the customer and, as such, is key to the company's success in the marketplace. While the dynamics of Goodyear's dealer-related strategies may be complex, this much is simple--the easier it is for dealers to do business with Goodyear, the more likely they are to be satisfied and, ultimately, sell more Goodyear tires. With this principle in mind, Goodyear has long supported its dealers by providing them with an ever increasing array of Web-based services and information--delivered in an increasingly on demand way.

> *Dealers required an ability to get information on products, prices, specials, inventory availability and order status--when they needed it. On the transaction side, there was a concern that dealers spent too much time placing orders, while the turnaround for these orders was too slow.*

Goodyear's on demand story has unfolded in phases. Early on, dealers required an ability to get information on products, prices, specials, inventory availability and order status--when they needed it. On the transaction side, there was a concern that dealers spent too much time placing orders, while the turnaround for these orders was too slow. These inefficiencies made it harder for dealers to effectively serve their customers. In short, Goodyear needed to be more responsive to dealer requirements for more and fresher information, as well as the ability to conduct and manage transactions more efficiently. And it needed to do so in a cost-effective way that allowed the company to focus its finite support resources.

Goodyear's answer to this challenge was XPLOR, a highly successful order management and information delivery system hosted by IBM Global Services that provided dealers with realtime product and marketing information as well as the ability to place and track orders online. The XPLOR solution dramatically improved Goodyear's ability to respond to dealer needs for better service, more current information, and faster order turnaround. While helping to solidify dealer satisfaction, XPLOR also delivered a potent mix of internal benefits, including the elimination of significant communication and transaction costs related to its old PC-based EDI system. The XPLOR system also represented a powerful tool in Goodyear's ongoing effort to optimize the overall efficiency of its finite support resources. Because the system was able to process simple or routine transactions (such as order status inquiries and recurring purchases), Goodyear could now direct its support resources to helping dealers solve more complex problems--like configuring large orders or working out shipping dates--and to resolve these problems more quickly. The result was a win-win situation where dealers got the convenience, choice and responsiveness they needed, and Goodyear had a more efficient, flexible way to allocate its resources.

> *By outsourcing the hosting and management of the solution, Goodyear was able to adopt a financial strategy that minimized fixed costs and kept ongoing costs variable.*

The XPLOR solution also addressed the need for cost control, driven by industry competition, in two ways. First, the flexibility to allocate resources outlined above meant that Goodyear could increase its problem resolution "bandwidth" without having to add call center staff--an option that was not on the table. Second, by outsourcing the hosting and management of the solution, Goodyear was able to adopt a financial strategy that minimized fixed costs and kept ongoing costs variable. Outsourcing of hosting and management also freed up Goodyear staff to focus on the business end of dealer support.

Phase Two: Success Creates the Need to Adapt

Within the first few years of its introduction, XPLOR became a hit among Goodyear's dealers, with the number of dealer locations using the system more than doubling from 1999 to 2000. While the number of users grew quickly, the number of transactions processed by the system grew even faster--solid evidence that dealers had begun to meld XPLOR with their core processes. But the rapid adoption of the solution by Goodyear's dealers also began to spawn a series of new challenges, the most immediate of which was the increasing pressure that heavy usage had begun to place on the first-generation XPLOR solution. Satisfaction among dealers depends heavily on their ability to access the solution when they need it, as well as to get consistent, superior levels of performance even during periods of peak volume. While the solution easily met performance requirements in the early stages of its lifecycle, the projected growth of users and transaction volume posed a significant threat to the solution's performance. Indeed,

the risk of weakening satisfaction among dealers--at a time of fierce competition in the tire industry--made solution performance a top strategic issue.

Looking into the future, Goodyear also had concerns about the system's ability to adapt to changing business strategies. The first was the company's imminent plan to expand the brands covered by the XPLOR system from Goodyear (the initial brand) to Dunlop and Kelly. The second concern was the company's somewhat longer-term plan to expand the solution's availability from dealers to a new and diverse group of channels that included smaller OEMs (e.g., trailer manufacturers), national accounts, state and federal government and mass merchandisers. With these business strategy changes on the horizon, Goodyear's planners saw the XPLOR system as a potential bottleneck to their successful implementation. Among the most significant problems was a general lack of flexibility in the system, a product of its heavy reliance on customization and the fact that it wasn't standardized. As Goodyear sought to add new channels, this inflexibility threatened to make implementation and management prohibitively costly and time consuming.

The expected influx of new channels and brands running on XPLOR also posed a serious threat to the system's performance, which had already begun to show hairline cracks from the first generation of users. Adding channels and brands meant more products, more users and more transactions--all of which would put considerable pressure on the system's performance and availability. As VP of Supply Chain Patrick Hurley points out, the threat of diminished performance induced by broader channel and brand coverage ran headlong into rising expectations among existing dealer users, to whom XPLOR had become a valuable resource. "Dealers had begun telling us that 100 percent uptime was absolutely crucial to them," says Hurley, "and there was a growing number of dealers saying 'I can't function when the site goes down.' "In addition to these higher performance expectations, dealers had also begun clamoring for more features and functionality from XPLOR. Goodyear's efforts to meet dealers' emerging functionality requirements further accentuated the system's inflexibility.

> *"Dealers had begun telling us that 100 percent uptime was absolutely crucial to them, and there was a growing number of dealers saying 'I can't function when the site goes down.' "*
> --Patrick Hurley, Vice President, Supply Chain, Goodyear North American Tire

While XPLOR initially enabled Goodyear to be more responsive to dealers' information needs, this new set of factors underscored the need for more resiliency in the solution. With performance expectations on the rise and the system poised for a surge of new users, Goodyear needed a solution that could deliver both high availability and uncompromised performance. At the same time, Goodyear needed a platform that was flexible enough to adapt to the full range of customer-driven and business-driven requirements that were beginning to emerge. In short, the company needed a solution that, because it was standardized and integrated, was responsive at the system level to business-level requirements and opportunities--adding new channels, integrating new partners, delivering new features.

ACTION PLAN AND DECISION PROCESS

Business Process Adaptations

To address its looming challenges, Goodyear set out to transform its solution to deliver more resiliency, flexibility and functionality. To improve resiliency, Goodyear--working with IBM Business Consulting Services--instituted fundamental changes to the solution's architecture. While the initial two-server architecture had served Goodyear's dealers well in the first phase of the system's life, it clearly lacked the capacity to grow along with the company's burgeoning needs. In its place, IBM Business Consulting Services designed a multi-tier solution that provided robust routing and self-optimizing capabilities where none had existed before. This new architecture (running in IBM's Raleigh, NC e-business Hosting Center) eliminates the availability issues endemic to the original solution, while at the same time providing an unlimited degree of scalability. This latter attribute was critical, given the system's rapid growth and ambitious plans.

Upgrading the solution to a WebSphere Commerce Java-based solution laid the groundwork for a number of critical business process adaptations, both internal to Goodyear and among its dealers. Within Goodyear, the new system's flexibility has delivered the responsiveness its planners had envisioned. Newly standardized, the system is now easier to grow and manage. The system's newfound flexibility is seen in its ability to turn on a dime in responding to dealer requests for new features and functions. For example, when dealers asked for major modifications to report formats, Goodyear was able to make the changes quickly, delighting dealers and minimizing the drain on its internal staff.

The improved resiliency of the system has also supported the company's central business strategy of strengthening its market position through expanded dealer sales. This strategy rests on the time-tested assumption that more satisfied Goodyear dealers buy more Goodyear tires. While the system's features and functionality are major drivers of dealer satisfaction, the most fundamental underpinning is the system's reliability: that the system is there when a dealer needs it. By deploying a more resilient system--one that handles volume spikes smoothly and virtually eliminates downtime--Goodyear has solidified dealer loyalty and strengthened its revenues and market position. The new system has also bolstered the bottom line by improving the overall efficiency and productivity of the company's support resources. This has enabled Goodyear to serve a growing base of dealers without the need to add costly new support personnel. With tire manufacturers' ability to raise prices limited, these productivity increases represent an important source of margin support.

By deploying a more resilient system--one that handles volume spikes smoothly and virtually eliminates downtime--Goodyear has solidified dealer loyalty and strengthened its revenues and market position.

The system has also facilitated important process adaptations on the dealer side. With the addition of the Dunlop and Kelly brands, dealers now have a broader selection to sell to consumers and--as a result--expanded revenue opportunities. Moreover, the new solution has made dealers even more productive by promoting the rapid development and release of new features, functions and information. Perhaps best of all, dealers can access the solution 24 by 7 with no service interruptions and consistently high levels of performance. In sum, the new solution makes it considerably easier to do business with Goodyear.

Decision Process

Having established the need to make its system more resilient and responsive, Goodyear began looking for a partner who could deliver the technology, business process expertise and overall depth of experience to make it happen. Given IBM's longstanding relationship with the company--and the success of the initial system--the Goodyear team put IBM at the top of its list of partner candidates. According to Stephanie Wernet, Vice President of Information Technology and Chief Information Officer, Goodyear sought to work with a provider that not only knew its business, but also had a solid track record building on demand solutions that delivered real business results. "We saw IBM as a partner who could provide all the critical resources we needed to help us with the ongoing transformation of our business--from core technology to architecture development to the hosting of our e-business services," says Wernet. "IBM's leadership in the on demand business space was directly in line with our goals as a company."

While IBM's on demand credentials weighed heavily in Goodyear's decision, the company was also strongly influenced by specific elements of IBM's product portfolio. Of particular interest was the IBM WebSphere family of products, which the Goodyear team saw as a tight fit with its emerging needs. "IBM showed us how an architecture built around WebSphere Commerce and WebSphere Edge Server could deliver the kind of scalability, performance and robustness that we clearly needed," says Wernet. "We considered these products the ideal building blocks for the kind of flexible, resilient system we were trying to put in place for the future."

"We viewed the opportunity to evolve IBM's role to the next stage--to that of a provider of on demand solutions--as making a lot of sense for us."
--Stephanie Wernet, Vice President Information Technology and Chief Information

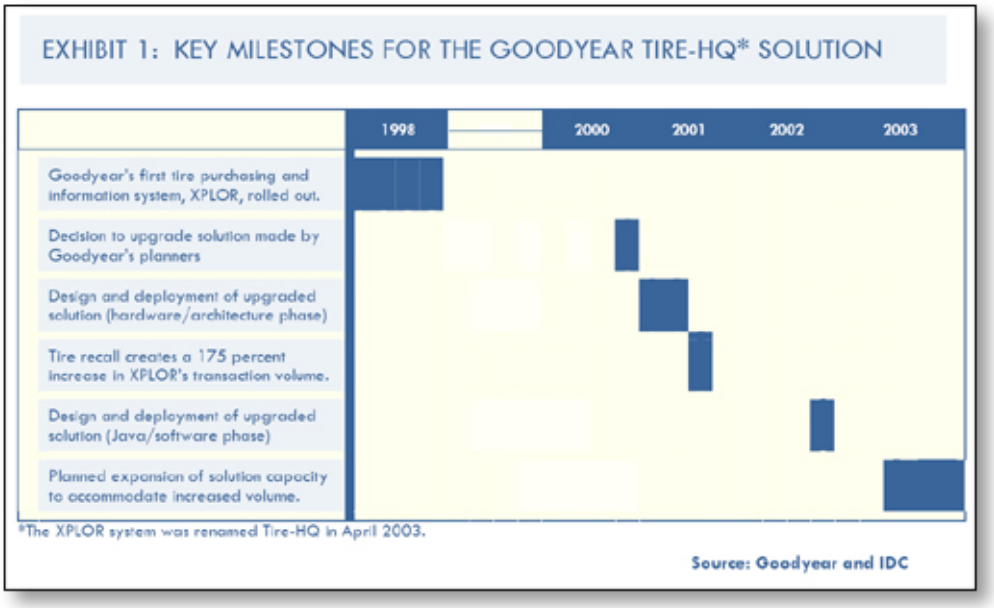
Officer, The Goodyear Tire and Rubber Company

A focus on the future was also a driver of the company's other key reason for its attraction to IBM WebSphere products--strong support for industry standards. Much of this need was tied to the need to integrate, both internally and externally. Typically, the addition of new brands, channels and services requires Goodyear to create or extend realtime integration to backend systems such as SAP or, increasingly, to third parties such as mass merchandisers. With these types of initiatives likely to dot its future strategic landscape, Goodyear viewed strong standards support as critical to making integration rapid, smooth and cost-effective. As Wernet points out, Goodyear viewed IBM's leadership in the standards space--exemplified by the strong support of its WebSphere products--as a source of security in the future. "We liked where IBM was taking its products vis-à-vis standards compliance because it kept our strategic options open," explains Wernet. "With e-business moving front and center for us, we viewed [investments in] IBM technology as a way to be more responsive to these opportunities."

SOLUTION PROFILE AND IMPLEMENTATION STRATEGY

Solution Deployment

Goodyear contracted with IBM to design and deploy the upgraded solution in early 2001. IBM's implementation team involved the resources of several organizations. IBM Business Consulting Services played the lead role in designing the solution, with strong involvement from the Enterprise Application Integration practice within IBM Business Consulting Services. Substantial design assistance was also provided by the IBM Software Services for WebSphere team located at IBM's Toronto lab, a group of some 150 developers focused on providing design and implementation support for WebSphere Commerce. Once the solution was designed, it was subjected to a due diligence analysis performed by the IBM Global e-business Solution Center--a Technical Core Competency Center focused on working with IBM customers worldwide to architect, integrate, and test leading-edge solutions. A key goal of the review was to ensure that the products proposed by IBM Business Consulting Services were optimal for the solution.



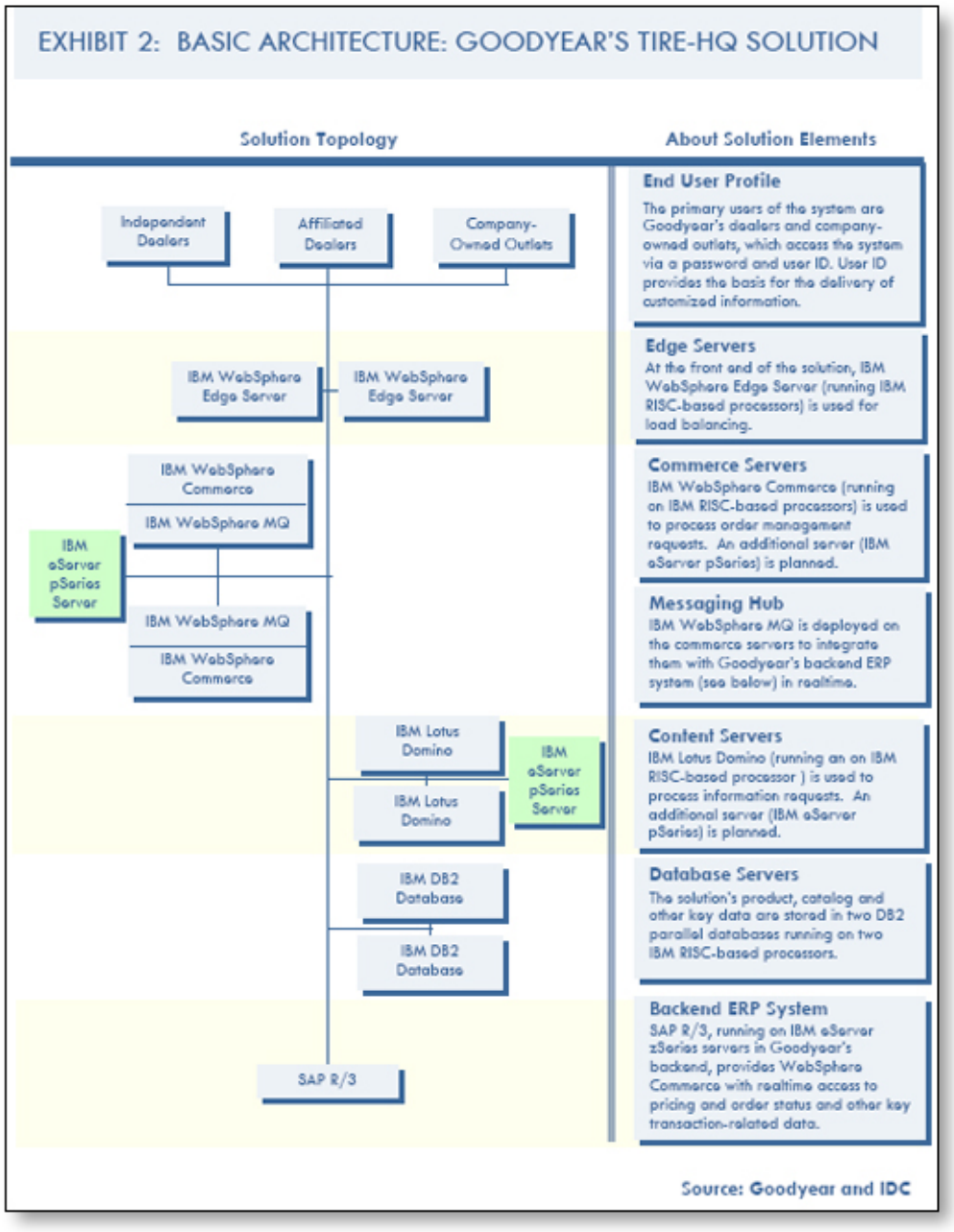
Once the design was approved, the solution was deployed by staff from IBM Business Consulting

Services and IBM Global Services e-business Hosting Services in Raleigh, NC. In parallel with this, IBM Business Consulting Services built a mirrored system at Goodyear's Akron, OH headquarters to perform application development and testing. This solution, along with the production solution in Raleigh, is managed by IBM Global Services. While IBM staff were the primary drivers of the development effort, Goodyear staff also worked in close collaboration, providing intellectual leadership on issues related to business rules and the solution's governance model. In addition to providing valuable input into the process, Goodyear's close involvement ensured that it could assume full control of development going forward. "This was not a 'throw-over-the-wall' kind of project," says Jim O'Neil of IBM Business Consulting Services. "It was from the start a partnership of working together."

Key Components	
Software	● IBM WebSphere Application Server ● IBM WebSphere Commerce ● IBM WebSphere MQ ● IBM WebSphere Edge Server ● IBM DB2 Universal Database ● IBM Lotus Domino and Notes
Servers	● IBM @server zSeries, pSeries ● IBM RISC-based Processors
Services	● IBM Business Consulting Services ● IBM Global Services: e-business Hosting Services ● IBM Software Services for WebSphere

The Solution in Action

Goodyear's upgraded solution, completed in 2Q01 and renamed "Tire-HQ" in 2Q03, is comprised of two sets of features. The so-called Information Delivery features, running on the Lotus Domino platform, enable dealers to view product and other dealer-specific information. In the area of information security, dealers define their employees' access privileges at their location, while Goodyear determines system-wide access privilege. [Goodyear also uses IBM Lotus Notes to manage content for the Tire-HQ solution, as well as for e-mail, scheduling, and collaboration across the company.] Dealers using the Order Management portion of the Tire-HQ solution can browse for specific products or search (by tire size and other parameters) through a product catalog. Dealers build their order by placing items in the "Tire Dolly," the solution's shopping cart. Prior to placing orders, dealers can check Goodyear warehouses within a given region (determined by the location of the dealer) for realtime price and product availability. During this query, the Tire-HQ system indicates the number of tires located at a particular warehouse, as well as the number of products in transit and/or on backorder. The solution also enables dealers to track order status, obtain post-sales service and view accounts payable information and invoices.



Transactions and information requests coming into the system are received by one of two RISC-based IBM servers running WebSphere Edge Server, which performs load balancing for the solution (see Exhibit 2). For transactions, the edge server intelligently routes the request (based on utilization levels) to either of two IBM servers running IBM WebSphere Application Server and WebSphere Commerce, which then extracts catalog data from a database server running IBM DB2 Universal Database. For transaction requests related to price and availability, the request is sent from WebSphere Commerce to a messaging hub running IBM WebSphere MQ that is integrated with Goodyear's SAP system. After issuing the request to SAP, the hub returns the request in realtime to the dealer. Information requests (e.g., product or marketing information) are routed from the edge servers to one of two Lotus Domino servers (also running on RISC-based IBM processors). These requests are also sent to the hub, which then issues them to SAP and sends the response back up the pathway. The messaging hub--so important to the Tire-HQ solution--also services requests from Goodyear's call center representatives seamlessly.

Resiliency in Action: *XPLOR Weathers a Recall-Driven Demand Surge*	By upgrading its dealer system, Goodyear is now well positioned to weather unpredictable changes in market conditions. One recent event bears this out in dramatic fashion. In May 2001, after one of Goodyear's competitors already had recalled 6.5 million tires, Ford announced it was replacing an additional 13 million tires, creating a huge--and unexpected--increase in demand for Goodyear's tires. This increase in turn led to a huge spike in demand for the upgraded XPLOR system, which experienced a 175 percent increase in transaction volume. The system's ability to handle this volume with no degradation in performance or reduction in availability attests to its resiliency.

BUSINESS RESULTS

Goodyear added more resiliency to the XPLOR solution to meet the sharp increases in usage it projected. Judging by the robustness of the solution's growth since that time, its planners were right on the mark. Since the upgraded XPLOR solution went live in March, 2001, the share of overall sales handled by the solution has experienced a four-fold rise--from 10 percent to 40 percent. From the end of 2002, the number of order management inquiries has also increased by a factor of four (from 90,000 to 360,000), while the number of monthly page views for the information delivery part of the solution more than doubled to 330,000. But the truest measure of success--indeed, the acid test--has been the solution' s ability to handle this robust volume while meeting its dealers' rising expectations for performance. As a sign of its commitment to meet them, Goodyear signed a hosting agreement that commits IBM Global Services e-business Hosting Services to 99.9% availability against financial penalties. The fact that the solution has met these rigorous requirements is a testament to the quality of the managed hosting service that IBM provides--and the foresight of the Goodyear/IBM team.

While added resiliency helped meet surging usage volume, recall that Goodyear also needed a system whose openness and flexibility would allow the company to more quickly respond to evolving dealer needs while at the same time keep cost increases in check. Upgrading the solution's commerce engine to WebSphere Commerce has delivered a wide range of benefits in this area. One of the most immediate benefits was the ability to replace a range of custom applications with WebSphere Commerce's out-of-the-box functionality, which enabled Goodyear to channel its resources to developing new services and applications. On the responsiveness front, WebSphere Commerce's strong J2EE support has allowed the company to rapidly and cost-effectively respond to dealer service requests by leveraging existing software assets and integration with SAP.

> *"Tire-HQ, our WebSphere software-based solution from IBM, is playing an important role in building dealer satisfaction and enhancing productivity across Goodyear's supply chain. Features like realtime communication and order management add value while streamlining business interactions."*
> --Patrick Hurley

By enabling Goodyear to be more responsive to dealers, the Tire-HQ solution has strengthened the company's relationship with them, while at the same time strengthening Goodyear's internal processes. Goodyear's Hurley explains: "Tire-HQ, our WebSphere software-based solution from IBM, is playing an important role in building dealer satisfaction and enhancing productivity across Goodyear's supply chain. Features like realtime communication and order management add value while streamlining business interactions." This increase in dealer satisfaction, adds Hurley, has had a measurable impact on the company's top-line results. "We've had dealers who were looking at both a Goodyear tire and a lower-priced competitor's offering and chose ours because they would rather use the Tire-HQ solution. It' s a function of the overall performance of the system, its efficient navigation and the fact that it's always

available to them--24 by 7."

EXHIBIT 3: BUSINESS RESULTS FOR GOODYEAR'S TIRE-HQ SOLUTION

Business-Level Benefits	Enabling Process Changes	Linkage to Solution
Increased Sales/ Higher Dealer Satisfaction	The system's ease of use has increased dealer satisfaction, leading to an increase in overall sales to the dealer channel.	The solution employs advanced navigation and offers the most extensive set of features and services in the industry.
Cost Avoidance	Goodyear's solution has led to annual print, postage and communication cost savings in excess of $1 million.	The solution delivers product, marketing and promotional material to dealers via the Web in realtime.
Improved Efficiency	Goodyear's call center staff is now better able to address more complex, value-added tasks.	The solution handles less complex inquiries and transactions.
Increased Responsiveness	Goodyear's solution has reduced dealers' order processing cycle time from overnight to realtime.	The solution is integrated in realtime with Goodyear's SAP ERP system.

Technology Benefits	Underlying Product or Attribute	Benefit in Action
Increased Resiliency	WebSphere Edge Server	The system handled a four-fold increase in volume while providing better than 99.9 percent availability.
Increased Flexibility	WebSphere Commerce	Employing WebSphere Commerce's out-of-the-box functionality has enabled Goodyear to reduce application management costs.
Increased Responsiveness	WebSphere Commerce	WebSphere Commerce's J2EE support has allowed the company to rapidly and cost-effectively respond to dealer service requests by leveraging existing software assets and SAP integration.

Source: Goodyear and IDC

CASE EPILOGUE

Going forward, Goodyear expects continued growth in the number and richness of its dealer services, as well as a broader range of products offered and channels served. In the area of new services, the company now offers dealers the opportunity to upload orders from their internal systems directly into Tire-HQ--making e-business even easier for dealers. Toward the end of expanding its channels, Goodyear has begun working with large mass merchandisers to allow consumers to buy directly through in-store kiosks. Consistent with Goodyear's e-business strategy, the solution's strong support for open standards was a major facilitator of the initiative, which relies on XML-based integration between Tire-HQ and retailers. Goodyear also plans to add several Channel Management capabilities that leverage WebSphere Commerce's out-of-the-box features, including enhanced order management (in conjunction with SAP), analytics related to site usage, dealer profile information and presentation of dealer pricing.

With still more growth in user volume expected, Goodyear has also mapped out plans to further expand its solution using IBM @server pSeries servers--taking advantage of the horizontal scalability the previous solution lacked. This includes a second DB2 database server as well as an additional server each running WebSphere Commerce and Lotus Domino. To further enhance the resiliency and performance of the solution, Goodyear plans to deploy advanced clustering software from IBM. Wernet

believes that the company's investments in such on demand initiatives will continue to strengthen Goodyear's relationship with its dealers and keep the company on course toward becoming an on demand business. "We've followed a steady upward trajectory toward becoming more responsive and easier to do business with," says Wernet. "Along the way, we've strongly benefited from IBM's leadership in the arena of on demand business."

02-04

HypoVereinsbank
BEGIS (Partner)

Category:	Case Study	Geography:	EMEA
Industry:	Banking	Country:	Germany
Solution Area:	Content Management, On Demand Business	* Status:	Completed / External
Home Page:	http://www.hypovereinsbank.de		

HypoVereinsbank gains realtime customer insight with IBM content management solution

"Our employees cringed when they had to tell a customer they couldn't answer a question immediately. We were literally placing our business in jeopardy by not giving our staff the tools they needed to work productively."

--Jana Bulkin, Senior Consultant for Archive and Workflow Solutions, HVBInfo GmbH

HypoVereinsbank leveraged IBM DB2 Content Manager to transform its customer-facing business processes.

Challenge	HypoVereinsbank's outdated business processes for managing customer account and human resources documents and data were placing it at risk of alienating both its employees and customers
Why Become an On Demand Business?	Because the company's outdated methods were thwarting its ability to compete effectively, it risked losing market share if it didn't find a way to become more responsive to its customers and increase employee productivity
Solution	The bank built an integrated enterprise content management system that transforms both its internal- and external-facing business processes, providing realtime access to customer account and employee information for improved service
Key Benefits	Significant annual cost savings; enhanced customer satisfaction and retention of clients; improved employee productivity and morale

Even in this era of ATMs and the Internet, many consumers still appreciate visiting their local bank to conduct financial transactions. For institutions that rely on these face-to-face interactions, delivering prompt, efficient service is a requirement for success.

The service-oriented staff at Munich, Germany-based HypoVereinsbank AG (HVB) would undoubtedly agree. With total assets of more than p505 billion, (US$623 billion) HVB (***www.hypovereinsbank.de***) is among the top three banks in Europe and is the continent's leading real estate financier. More than

61,700 employees serve nearly nine million customers in approximately 2,000 branches.

“Providing superior customer service is a top priority at HypoVereinsbank,” says Jana Bulkin, senior consultant for archive and workflow solutions, HVBInfo GmbH, an IT subsidiary of HVB. “It’s what adds value to our business and sets us apart from other banks.”

Although HVB consistently ranked high in customer satisfaction surveys, it saw potential problems with its current business processes for both customers and employees. The company’s labor-intensive procedures were driving down productivity, frustrating customers and preventing HVB from competing effectively. For example, new customers opening an account at a branch had to fill out significant amounts of paperwork, and then return after the forms had been processed and the signatures approved. When customers had questions about their accounts, branch employees had to search to find answers, at the expense of their efficiency--and their customers’ patience.

“Customer dissatisfaction is never tolerable, but it’s even more troublesome when business is conducted face to face,” says Bulkin. “Our employees cringed when they had to tell a customer they couldn’t answer a question immediately. We were literally placing our business in jeopardy by not giving our staff the tools they needed to work productively.”

At the same time, another issue was appearing in the Human Resources (HR) department. Although the staff used an enterprise business solution to manage its HR activities, employee records had never been integrated into this system, resulting in heavy archiving expenses and slow responses to questions. “An administrator needing information about an employee’s salary or performance history had no way of accessing the data electronically,” says Bulkin. “This caused a bottleneck in our HR administration, because of the time-consuming procedures that made employees and managers wait for answers to their simple queries.”

HVB recognized that if it didn’t act quickly to deliver better and faster service to its customers, they would take their unanswered questions--and their deposits--elsewhere. Also, a more efficient solution could boost its HR personnel’s productivity and morale. HVB needed to not only reduce its storage and paper administration expenses, but also empower HR and customer service staff with realtime access to employee and customer documents, which would help lower the cost of sending files by fax or post.

On Demand Business Benefits
● Substantial savings by eliminating paper-based administrative duties ● Significant savings through elimination of paper-based queries and reduction in paper storage ● By providing realtime access to customer and employee documents and data, HVB is boosting staff productivity and client satisfaction ● Users’ ability to concurrently access customer account information enhances efficiency and productivity ● Open standards enable easy integration with SAP ERP system ● New security capabilities allow HVB to meet German certification standards for bank IT systems ● Solution offers high scalability and positions HVB for future growth

Fast access to customer information

The bank knew that it could cut costs, boost staff productivity and build employee and customer satisfaction by providing its staff with instant access to the information they needed to do their jobs efficiently. To accomplish this, HVB replaced its current processes with an electronic search, retrieval, storage and archiving solution that makes realtime customer and employee information available whenever a staff member needs it, boosting employee productivity and customer satisfaction.

Users in the branch offices can access, search and view all current bank account information from their desktops the moment a customer requests information. Clients can instantly open an account because documents and signatures are scanned and sent electronically to the back office for immediate approval. When an account is closed, back office personnel can easily select documents to be deleted as well as those needing to be stored for possible external review by regulatory authorities.

At the same time, personnel administrators can easily find, review and update employee files, allowing them to work far more efficiently. Employees have secure access to their HR files through the company intranet, while multiple users can simultaneously review the same stored document. “Misplaced or lost documents are a thing of the past,” says Bulkin.

“By transforming our business processes to give employees realtime, electronic access to a common repository of comprehensive information, the bank is now meeting our very high standards for customer responsiveness,” says Bulkin. “We provide instant answers to customer or employee questions.”

Seamless integration with backend systems
HVB built an enterprise content management (ECM) system based on IBM DB2 Content Manager for OS/390® to store, search and retrieve all digitized customer account data. The solution runs on a single IBM @server® zSeries® and on nine IBM optical library systems. Approximately 15,000 users in the nine branches--including up to 1,200 concurrent users--access information from their Microsoft® Windows NT® client systems, resulting in about 13,000 queries daily. The system comprises almost 40 million images, with an additional 140,000 new images archived weekly.

“DB2 Content Manager can scale to meet our growing document management needs, while the zSeries provides us with near-zero downtime and helps assure that our key business data is always available,” says Bulkin. DB2 Information Integrator provides HVB with the ability to perform Web-based search and retrieval functions.

For HVB’s HR department, the company worked with IBM Business Partner BEGIS mbh to implement IBM DB2 CommonStore for SAP. The archiving and retrieval middleware solution runs on a resilient IBM @server pSeries powered by the IBM AIX operating environment. DB2 CommonStore is seamlessly integrated into the business processes of SAP R/3, providing HVB’s SAP users with a powerful multi-purpose archive solution that supports the entire spectrum of its HR operations. The company scanned more than 4.5 million existing documents into the system, adding 19,500 new pages each month. The 300 HR personnel who use the system access employee records through their existing SAP GUI, which runs on Windows NT desktops and is accessible over the Web.

Key Components	
Software	● IBM DB2 Content Manager for OS/390, Version 2.3 ● IBM DB2 CommonStore for SAP, Version 7.1 ● IBM DB2 Information Integrator for Content, Version 7.1 ● IBM AIX® Version 7
Servers	● IBM @server zSeries ● IBM @server pSeries®
Business Partners	● BEGIS mbh

“Our IBM content management system helped us to comply with regulations that call for information in closed accounts to be archived for 30 years, because now we can store and retrieve the information

more efficiently."
--Jana Bulkin

DB2 Content Manager addressed HVB's requirement for a secure, robust and open ECM solution. "We have relied on IBM systems for many years, so the selection of DB2 Content Manager was part of a natural progression," says Bulkin. "With our DB2 Content Manager and zSeries solution in place, turning to DB2 CommonStore to fully leverage our SAP HR system also made perfect sense. IBM and BEGIS provided excellent technical knowledge and guidance at every step, which freed us to go about our other business."

She adds, "In Germany, according to federal banking regulations, enterprise content management systems must be tested and certified by an independent third-party for their security. We had no doubt that IBM DB2 Content Manager would easily meet these standards for preventing unauthorized access, and it passed with flying colors. Our IBM content management system helped us to comply with regulations that call for information in closed accounts to be archived for 30 years, because now we can store and retrieve the information more efficiently."

Saving time and money
The new solution provides HVB with numerous benefits. Productivity has improved across the board, as customer-facing staff and HR administrators have relevant information at their fingertips. "The bank is delivering superior service because employees can respond immediately to their customers' needs," says Bulkin.

In addition, back-office staff work more productively and less expensively. HVB expects the solution to reap substantial savings as a result of eliminating paper-based queries. It also anticipates significant savings by eliminating work like copying, filing and administration of paper documents, and by reducing paper storage costs.

"IBM's exacting standards for excellence and responsiveness are very much aligned with our own," says Bulkin. "We are impressed, but not surprised, by IBM's ability to create integrated content management solutions that help us fully achieve our goals."

For more information
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For more information about BEGIS mbh, visit:
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IBM Corporation
SAP (Partner)

Category:	Case Study	Geography:	NA
Industry:	Computer Services; Industrial Products	State:	New York - USA
Solution Area:	e-business infrastructure, Enterprise Resource Planning, On Demand Business	* Status:	Completed / External
Home Page:	http://www.ibm.com/solutions/sap		

IBM - think big.

... business solutions by IBM and SAP

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"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."
Heinz Schröder, SAP Customer Competence Center

The Challenge	Worldwide optimization of business processes and IT structures throughout the organization. Unification and integration of highperformance 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.

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 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 availablilty 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 backend 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...”

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ibm.com/solutions/sap

KMD

SAP (Partner)

Category:	Case Study	Geography:	EMEA
Industry:	Government	Country:	Denmark
Solution Area:	Content Management	* Status:	Completed / External
Home Page:	http://www.kmd.dk		

KMD casts its vote for IBM Content Manager to support its e-government initiative.

"Our mission is to leverage our existing IBM products to create a system to facilitate contact between citizens and their local governments. In addition to traditional mail, fax and phone service, we want to provide a way for citizens to conduct daily business with their public agencies through e-mail and the Internet."

--Jan Månsson, Development Manager for Content Manager, KMD

As the capital and largest city in Denmark, Copenhagen is one of the key municipalities covered by KMD's IT infrastructure and technical services.

Application	E-government application to improve public service by managing interaction between citizens and government agencies
Business Benefits	Enhanced customer service; estimated 15-30% time savings due to increased operational efficiencies
Software	IBM DB2® Universal Database(tm); IBM Content Manager for z/OS® and OS/390®; IBM WebSphere® MQ
Hardware	IBM @server xSeries(tm); IBM @server zSeries(tm)

As the geographical link between Scandinavia and continental Europe, Denmark embodies a rich 1,000-year heritage. It is the world's oldest monarchy and--since its constitution was ratified over 150 years ago--one of the world's most democratic. In Denmark, the branch of government closest to the individual citizen is formed by the local governments, which manage many social services, such as social welfare and health. To do so, they rely on a strong IT infrastructure, provided in large part by government-owned Kommunedata (KMD).

KMD is the Government Data Center for 275 local governments in Denmark. The company is also a major commercial IT provider, supplying software, IT services and technical support on the open market. With 2,400 employees, KMD serves approximately 115,000 users and enjoys an 80 percent market share. Building on its core competencies of law-based IT solutions, internal administrative IT and technical management, the company is branching into a new growth area: electronic public service systems.

Danish citizens must call local government agencies to handle a variety of daily tasks--and spend

considerable time waiting on hold because there are limited communication channels. To help the local authorities manage this process more effectively, KMD is developing a hosted e-government solution, based on IBM DB2 Universal Database, IBM Content Manager and IBM WebSphere MQ, running on IBM @server xSeries and zSeries systems. KMD will provide improved customer service with an enhanced ability to handle difficult cases, while offering citizen self-service options for less complex matters. By consolidating its operations and serving citizens more efficiently without increasing resources, KMD estimates time savings of 15 to 30 percent.

Denmark's general public benefits from KMD's IT improvements for the public sector staff.

"By adding Content Manager to the scalable, secure and interoperable data management infrastructure provided by DB2, we will achieve a fully integrated document management solution."

--Jan Månsson

Leveraging technological excellence from IBM

KMD has developed a close working relationship of many years with IBM. According to Jan Månsson, development manager for Content Manager at KMD, "We have always derived great benefits from IBM hardware and software. Our mission now is to leverage the technological excellence of our existing IBM products to create a system to facilitate contact between citizens and their local governments. In addition to traditional mail, fax and phone service, our IBM solution will provide an effective way for citizens to conduct daily business with their public agencies through e-mail and the Internet."

KMD decided to create a public portal for CRM--which Månsson says is short for "Citizen Relationship Management"--based on DB2 and zSeries, which form the core of the company's local government data center. "By integrating structured and unstructured data into a single point of access for administrative employees and citizens, the CRM portal will help to streamline the interaction between citizens and their local governments," says Månsson.

KMD expects to provide this system to a number of municipalities handling millions of citizen contacts annually. The company envisions that its CRM portal will be a single gateway providing local governments a common, integrated view of their citizens and all of their interactions. Government service agents will no longer need to keep citizens waiting while they research their case histories, since the agents will have access to this information from their desktops.

Additionally, the portal will provide a centralized workflow that KMD believes will be very attractive to local governments. "Currently, governments are using a combination of old-fashioned paper workflows coupled with some automated applications," says Månsson. "So the application that we are building will bring it all together for greater efficiency and, ultimately, better service."

KMD offers a variety of IT business solutions that enable public sector staff to handle current legislative, administrative and customer service issues through highly cost- and time-efficient methods.

Integrated e-government solution
KMD has big plans for the new e-government initiative. In addition to the ability to handle e-mail, fax and Web communications, a key feature of the planned solution will be the digitization of communications. For instance, when a citizen writes a letter, administrative employees will scan it into the document management system. “We were looking for a system capable of handling large-scale implementations of 100,000 users and more than 600 million documents; so our requirements for scalability, performance and security were very high,” says Månsson.

According to Månsson, KMD evaluated products from IBM and Documentum for this part of its solution, and ultimately decided to implement IBM Content Manager, an open, easy-to-integrate enterprise content management solution. “By adding Content Manager to the scalable, secure and interoperable data management infrastructure provided by DB2, we will achieve a fully integrated document management solution,” he notes. “The new integrated system will actually be a document management and case management system all in one,” adds Bent Ernebjerg, senior system architect for Content Manager at KMD. To support its document management functionality, the system will include a custom message brokering and workflow system, using IBM WebSphere MQ, to route the document to DB2 for tracking and follow-up.

Developing the system architecture was the next step for KMD. It decided on a two-tier architecture powered by a zSeries server connected with Gigabit Ethernet to four IBM xSeries application servers. This backend will support the front-end CRM portal, while the front end also integrates with SAP® R/3®. KMD uses the payroll (PA), personnel planning (PP) and personnel development (PD) SAP solution components.

Down the road, KMD plans to leverage Content Manager, Version 8, to support its evolving system. “We are amazed with the new possibilities in Content Manager, Version 8, which supports a flexible data model that will benefit us greatly,” notes Ernebjerg. “IBM’s unparalleled variety of superior hardware and software solutions makes it easy to find the products to realize our main mission. And the responsiveness that IBM has shown over the years reassures us that it will continue to meet our needs in the future.”

For more information
Please contact your IBM marketing representative, IBM Business Partner or call IBM Direct at: 1 800 IBM-CALL.

Visit our Web site at:
ibm.com/software/data

For more information about KMD, visit:
www.kmd.dk

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10-02

Nibco
SAP (Partner)

Category:	Case Study	Geography:	NA
Industry:	Industrial Products	State:	
Solution Area:	e-business infrastructure, Enterprise Resource Planning	* Status:	Completed / External
Home Page:	http://www.nibco.com		

Nibco speeds information flow and boosts customer service with SAP

... business solutions by IBM and SAP

One of the primary reasons for picking the SAP and IBM solution was that we are a mid-size company that needs world-class performance."
- Chief Information Officer, Gary Wilson

Overview

Challenge

In a highly competitive global market, improve service to customers while reducing costs; becoming a demand-led business

Benefits

Inventory savings of better than $50 million; reduced order response from three days to ten hours; on-time deliveries now at 99%; reduced stock-outs from 11% to 2%; financial closing cycle reduced from ten days to two-and-a-half.

A constant and positive commitment to SAP and IBM is paying dividends for NIBCO, with faster customer order response times, improved information availability and lower costs. A single SAP instance provides centralized control and more customer-friendly access, too, keeping NIBCO ahead of the flow in a highly competitive industry.

Solution

Industry:
Manufacturing
Application:
mySAP® Business Suite; mySAP Business Intelligence
Hardware:
IBM ® pSeries®; IBM TotalStorage® Enterprise Storage Server®
Software:
IBM WebSphere® Application Server; Tivoli® Content Manager; Tivoli Storage Manager
Services:
IBM Business Consulting Services (BCS)

Tapping into business benefits.

NIBCO INC., based in Elkhart, IN, USA, manufactures advanced flow control systems, including valves, fittings and pipe supports. The company has sales of more than $400 million, and manufactures in twelve locations, in the US, Mexico and Poland. Over time, each NIBCO business unit had acquired its own computing systems, creating islands of information that were difficult to integrate. Chief Information Officer, Gary Wilson, comments, “We had something of a patchwork quilt of systems, linked only loosely, and you could get different numbers out of each system. After an intensive business review, we concluded that we needed to start over and select an ERP system. We chose the SAP solutions on IBM infrastructure as the best way to meet our needs for reliable, integrated business processes.”

Plumbing in the new solution.

The original SAP implementation was completed in December 1997. NIBCO is a mySAP Business Suite customer, running the solutions for Financials, Human Resources Management, Materials Management, Product Lifecycle Management, Logistics Execution System, Production Planning, Purchasing, Sales & Distribution, Supply Chain Management and Warehouse Management. This centralized system represents a dramatic shift from the previous environment. The SAP applications run on IBM ^ pSeries p610 servers, alongside IBM pSeries 660 database servers in a High Availability Cluster Multi Processing (HACMP) Environment. Within the NIBCO landscape there is also a separate pSeries server for the mySAP Business Intelligence solution. Storage is handled by an IBM TotalStorage Enterprise Storage Server, using Tivoli Storage Manager for backup control and Tivoli Content Manager for archiving essential data.

Smoothing the information flow.

The impact of the SAP and IBM solution has been dramatic: inventory savings of better than $50m, more efficient ways of working, and the ability to respond faster to customer orders – from a matter of three or so days to as low as ten hours. "We have provided improved customer service by using better processes supported by better technology. Product inventory has reduced by around 40%, plant inventory has reduced, and order processing costs have tumbled. We are quicker to respond to customer orders, and our Perfect Order metric has soared from around 30% complete to near 90%," says Wilson. NIBCO's business strategy is to be a demand-focused organization, as far as possible only making products to meet customer orders. More than half of all NIBCO's orders now arrive electronically, direct into the SAP systems through EDI or via the Web. Customer orders in effect pull inventory through the NIBCO systems, triggering replenishment production automatically. This integrated system not only matches production more accurately to demand, but has also reduced the financial closing cycle from ten to just over two days.

Creating a new outlet on the Web.
NIBCO is also fully Web-enabled through IBM WebSphere, as a complement to and integrated with its SAP systems. "WebSphere Application Server is superior and fits with our decision to use open systems such as J2EE wherever possible. Customers can do pretty much everything they need – enter orders, view status and check price purchases – through WebSphere direct to our systems. They have realtime access to information, giving them what they need, and it cuts costs and improves information visibility for NIBCO," explains Wilson.

Boosting information throughput.

The mySAP Business Intelligence solution is the latest extension to the system utilizing SAP Business Information Warehouse (SAP BW), designed to provide management with easy to use timely insight into trading performance and customer service. "By moving our inventory planning metrics into the SAP BW, we can do a better job on profitability analysis," says Wilson. "The SAP BW reduces the time taken to prepare and provide current information to management, and moves NIBCO closer to becoming a real-time enterprise."

"One of the primary reasons for picking the SAP and IBM solution was that we are a mid-size company that needs world-class performance."

High pressure, high power.

With the ongoing exploitation of SAP and IBM technologies, demands on data storage are growing dramatically. Product Data Management is now handled within the SAP applications, which includes storage of CAD engineering files, some of which can be very large. IBM TotalStorage Enterprise Storage Server 800, currently with 5.88TB of a possible 27.9TB installed. Tivoli Content Manager and Tivoli Storage Manager are fully integrated in the solution. "We now have a very homogeneous technology platform based on leveraging the IBM and SAP skill sets. The IBM hardware offers high performance at low cost, and that runs well from a NIBCO point of view. These two primary solution providers contribute significantly to our business results. IBM has a strong SAP practice, and help us leverage the SAP application as much as they can, which is good for us and good for our customers," concludes Wilson.

Further Information:
To learn more about how IBM and SAP alliance can help your business, please visit: **http://www.ibm-sap.com**

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Panasonic Consumer Electronics Company

Category:	Case Study	Geography:	NA
Industry:	Electronics; Retail	State:	New Jersey - USA
Solution Area:	Business-to-Business	* Status:	Completed / External
Home Page:	http://www.panasonic.com		

Panasonic energizes e-commerce strategy with IBM solution.

"To achieve economies of scale in terms of development time and software costs, we needed a single Web application server. Maintaining separate Microsoft and IBM platforms would not be a cost-effective strategy."

--Eric Keil, Director of e-business, Panasonic

Receiving nearly five million page views a day, Panasonic's Web site requires the scalability, availability and e-commerce functionality provided by IBM WebSphere Application Server.

Challenge	Distribute products more efficiently by developing cost-effective e-commerce strategy
Solution: Integrating Stage	New e-commerce infrastructure integrated with backend SAP applications
Why IBM	IBM offered total solution that met Panasonic's corporate standards while interoperating with other vendors' products; IBM solution also supports J2EE standards to speed development
Key Business Benefits	80% lower order-processing and call-center costs; projected 100% payback in less than one year; improved customer satisfaction; 92% reduction in new Web site development time and costs

From DVD players and High-Definition televisions to air-conditioning compressors and custom lithion ion batteries, the Panasonic name can be found on hundreds of thousands of consumer, business and industrial products.Panasonic's diverse product range is a sign of success for the 6,500-employee U.S. subsidiary of Matsushita Electric Industry Co.

Another indication of success is Panasonic's thriving business-to-business (B2B) Web site. But it took some savvy thinking for Panasonic to create an e-business strategy for efficiently distributing its products online.

Based in Secaucus, New Jersey, Panasonic previously supported its 20,000 dealers with B2B e-commerce Web sites built on IBM WebSphere Application Server. Three sites, one for each business sector, were integrated with Panasonic's SAP systems and other legacy applications, enabling dealers to log on to the Web and easily determine the status of their order or the availability of a product. Every online status check saved Panasonic the cost of servicing an inquiry through a call center.

At the same time, the company created B2C online stores for its employees, and for employees of large

companies that are valued partners of Panasonic. These sites, developed with Microsoft® Commerce Server and IIS, were not integrated with Panasonic's backend systems. Consequently, the company's call centers were overwhelmed with B2C order-status inquiries. "We couldn't integrate our Microsoft sites with our backend because Microsoft Commerce Server wouldn't talk to our corporate-standard databases and integration solutions," says Eric Keil, director of e-business at Panasonic. "Also, we wanted fully automated e-commerce functionality for all our sites, which dictated enhancements across the board. To achieve economies of scale in terms of development time and software costs, we needed a single Web application server. Maintaining separate Microsoft and IBM platforms would not be a cost-effective strategy."

Key Components	
Software	IBM WebSphere® Commerce Professional Edition, Version 5.1 IBM WebSphere Commerce Business Edition, Version 5.4 IBM WebSphere Application Server, Advanced Edition, Version 3.5 IBM WebSphere Personalization IBM DB2® Universal Database$_{(tm)}$ IBM HTTP Server IBM Tivoli® Distributed Monitoring for UNIX®
Servers	IBM RS/6000®

"Because of the reusable Java code supported by WebSphere Application Server, we've reduced the development time for new Web sites from three months to one week, saving 92 percent of the time and costs."

--Eric Keil

Total, open IBM solution

Panasonic reviewed proposals from both IBM and Microsoft and ultimately chose IBM because of its ability to provide a total solution with components that met Panasonic's corporate standards. IBM's solution was also more open to cross-platform integration and offered Panasonic a wider choice of future options for extending its e-business solution and achieving fast returns on investment. "With support in WebSphere Commerce for Java$_{(tm)}$ 2 Platform, Enterprise Edition (J2EE) technology," says Keil, "we also knew that the IBM solution would enable us to shorten development time."

IBM WebSphere Commerce Professional Edition, Version 5.1 functions as the commerce engine for Panasonic's new B2B Web sites. WebSphere Commerce Business Edition, Version 5.4 will be the basis for the B2C sites, which are currently under development.

Both B2B and B2C sites use IBM WebSphere Application Server as the runtime environment for JavaServer Pages (JSP) and servlets. IBM DB2 Universal Database functions as the commerce database, managing products, customers, user groups and applications for the Web sites. IBM HTTP Server is the Web server, and all the components run on IBM RS/6000 servers. IBM Tivoli Distributed Monitoring for UNIX is used to maximize the performance and availability on the RS/6000 servers. "There's no platform in the UNIX world like the RS/6000 for solving large, complex business problems," says Keil, "In terms of availability, manageability and price performance, RS/6000 is the ideal solution for us."

While the project is only partially complete, the benefits are clear. Panasonic has already eliminated 80 percent of order-processing and call-center costs. It projects 100 percent payback of its investment in less than one year and customer service ratings show marked improvement. "Moreover, we're saving tremendously on development costs," says Keil. "Because of the reusable Java code supported by

WebSphere Application Server, we've reduced the development time for new Web sites from three months to one week, saving 92 percent of the time and costs."

Panasonic developed the world's first consumer High-Definition television and ranks as one of the largest global manufacturers of DVD entertainment software.

"IBM is always more than a single product. It's a company that provides a technology direction, which enterprises like Panasonic can use to optimize their own development plans."

--Eric Keil

A single database supports many Web sites
Panasonic has recently created three B2B sites using the IBM solution. Dealers log onto the Web site with secure login names and passwords. IBM WebSphere Personalization uses business rules to match users with the Web content they are authorized to see. All the new Panasonic Web sites run off a common catalog managed by DB2 Universal Database. "DB2 runs all the data for more than 500,000 products for our B2B sector alone," says Keil. "Its performance is so fast and reliable we don't even know it's there."

After placing their orders on the site, dealers immediately receive e-mail confirmations and order numbers. The orders are processed through the SAP system and, since SAP is integrated with the site, dealers can check the status of their orders from the moment they're placed.

Technology that saves time and money
To enable realtime order entry, Panasonic uses Java classes to execute the business and presentation logic, and XML to exchange data with SAP. JSP components serve up HTML pages to the Web browser, and Java servlets transform the HTML into XML, which communicates with the backend. The XML is converted to the SAP IDoc format and sends a Business Application Program Interface (BAPI) call to the SAP database, which is an IBM Informix® Dynamic Server

To make the ordering process even more convenient for large dealers who also use SAP, Panasonic integrated its B2B functionality with these dealers' backend SAP applications. To enable this integration, Panasonic sends the dealers XML messages reformatted into predefined schemas.

Profitable path to the future
Panasonic decided to wait until WebSphere Commerce Business Edition, Version 5.4 was available to deploy its new B2C Web sites. "WebSphere Commerce Business Edition, Version 5.4 has robust models of sellers, buyers, contracts and buying policies that will help us to implement complex business rules in our commerce sites," says Keil. "IBM is always more than a single product. It's a company that provides a technology direction, which enterprises like Panasonic can use to optimize their own development plans."

For more information
Please contact your IBM marketing representative or IBM Business Partner.

Visit us at:
ibm.com/e-business

For more information about Panasonic, visit:
www.panasonic.com

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Produced in the United States of America
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paysafecard.com

Category:	Case Study	Geography:	EMEA
Industry:	Computer Services	Country:	United Kingdom
Solution Area:	Transaction Payment	* Status:	Completed / External
Home Page:	http://www.paysafecard.com		

Paysafecard.com Wertkarten AG: secure and simple payment on the Internet-and IBM e-business

"The first-class solution with its simple scalability means that we have excellent competitive advantages."

--Dr. Armin Sageder, founder and CEO, paysafecard.com Wertkarten AG

The Challenge	Rapid organisational and technical implementation of an existing business idea: the introduction of the prepaid card
The Solution	IBM Global Services developed the application design and configured the IT architecture. The entire production operation runs at IBM.
The Benefit	Independence from platforms, upward and downward scalability, security based on strict bank and industrial standards.

Micropayment made easy for all

The paysafecard.com Wertkarten AG in Vienna is a start-up company that has been in existence since April 2000. Its founder, Dr.Armin Sageder, had a revolutionary Internet business idea: 'paysafecard-the prepaid card for webshoppers'. He also had a clear concept for the desired functions as well as solid financing. The paysafecard makes it possible to pay even the smallest amounts on a cash-free basis across the Internet: with the lowest possible effort on the part of the buyer, safe arrival of the payment on the account of the Web shop operator, and without risk for the bank in the background.

Dr. Armin Sageder: "The paysafecard meets two essential needs of people: security and independence-and it is synonymous with the new ease in dealing with the Internet."

Although procedures such as credit card payment, direct debiting or the dispatch of invoices are common practice in e-commerce, small amounts often involve a good deal of effort and expense for providers, and are annoying for buyers. Dr. Sageder: "With the proven e-business skills of IBM, we have succeeded in bridging a gap in the market for providers and users: simple, secure micropayment across the Internet, whereby privacy remains completely intact." The card has been available in Austria since November 2000 and in Germany since June 2001.

Web shoppers can already shop in more than 1000 Web shops and pay without risk and without revealing personal data. The buyer rubs with a coin to uncover a 16-digit PIN code on the card. In the Web shop, he or she enters this code and the sum to be paid. The amount is debited from the card account. Cards of

different denominations upwards of 25 euros are available through a wide network of dealers. These include retailers from the telecommunications and IT field, gas stations, kiosks, tobacconists or lottery offices. A simple find function on the paysafecard.com home page shows the way to the nearest sales point. Web shop operators who want to offer their customers this convenient method of payment can choose one of the certified implementation partners to implement the paysafecard functions. To achieve this, a Web interface is created and adapted for the specific IT landscape of the e-commerce site.

Complex design, highest security

As this was a first of a kind system, three renowned IT companies were approached to design the IT architecture. The success criteria were: design of the application and hardware architecture, complete outsourcing, hosting and integration of the SAP modules. IBM Austria presented the most convincing concept. The experts at IBM Global Services-analysts, designers, architects and developers-together with the board of management of paysafecard.com, drew up a list of required specifications and designed the landscape.

"The first-class solution with its simple scalability means that we have excellent competitive advantages." --Dr.Armin Sageder, founder and CEO, paysafecard.com Wertkarten AG

Once entered, the PIN number is routed to the Web server of paysafecard.com and encrypted per SSL. Here, the input is checked by the application and routed to various databases. SAP runs offline to process and debit the payment.

Before the cards are produced and delivered, the system creates unique 16-digit numbers-exactly the same amount as cards ordered. Before the cards go to the distributor, they are loaded in the system. However, they are only activated when the distributor, for example, passes a small number of them to a dealer. This means that if the cards are stolen beforehand, they are worthless. This is one of the most important security factors of the concept.

The system currently runs in a UNIX/IBM @server pSeries environment. It is particularly important to the paysafecard.com company that the system can be scaled upwards or downwards at any time. It runs in both a mainframe environment and on a powerful PC platform. The IBM WebSphere Application Server is the basis for this platform independence: with its load balancing functions, it provides the option for almost unlimited growth.

The entire system is hosted in the highly secured IBM data centre at Vienna, with dual Internet Service Providers and with a shared firewall according to IBM standards. Firewalls are also installed at paysafecard.com itself to protect the PC clients, the main SAP server and the IBM service maintenance network. The internal paysafecard.com SAP experts now work directly in the IBM data centre. The heart of the system, the card database, runs offline via night-time batch processing.

With this offering, paysafecard.com acts almost as a bank-and banks as partners and financiers place very strong emphasis on the security architecture. In Austria, the paysafecard is managed and issued by the BAWAG Bank; in Germany by the Commerzbank. The partner banks were extremely impressed by the high security standard that IBM offers with the application and with the data centre. 7-day, 24-hour availability is a matter of course.

Extremely short time-to-market thanks to IBM

Start of the project with IBM in May 2000, operational start in October 2000: IBM completed the project (application production, hardware procurement, Internet connection, security facilities) in an extremely short time. The cooperation with paysafecard.com was outstanding. Areas for future development have already been decided: online sale of cards or reload capability.

For more information

To learn more about IBM Global Services contact your IBM sales representative, or visit:

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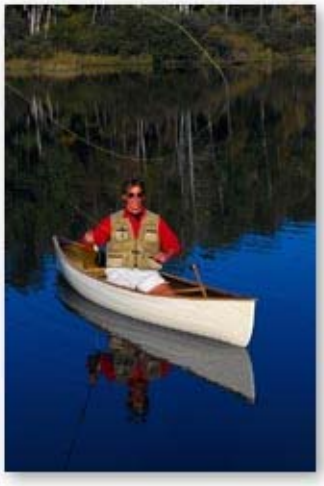
Pure Fishing
DSS
eOneGroup (Partner)

Category:	Case Study	Geography:	NA
Industry:	Retail	State:	
Solution Area:		* Status:	Completed / External
Home Page:	http://www.purefishing.com		

Distributed Systems Services and eOneGroup "tackle" on demand business for Pure Fishing



As one of the world's largest fishing tackle companies, Pure Fishing® has reeled in millions of loyal customers around the globe. The company fell hook, line and sinker for a Linux-based value network solution that IBM Premier Business Partners Distributed Systems Services, Inc., (DSS) and eOneGroup are designing to help it better serve these customers as an on demand business. What' s more, the on demand solution could translate into millions of dollars in new opportunity as the Business Partners cast their lines together for customers that, like Pure Fishing, are intent upon becoming an on demand business.

On demand business: What it means to DSS and eOneGroup

- New revenue opportunities as the firms go to market with repeatable solutions like the Pure Fishing extranet.
- Ability to re-engage with existing customers seeking to become an on demand business.
- Increased emphasis on teaming to deliver the end-to-end solutions customers require as they embark upon the on demand journey.

Based in Spirit Lake, Iowa, Pure Fishing is one of the leading companies in the $2-plus billion fishing tackle business. Fishing is more than a business for Pure Fishing: it's a pure passion the company shares with millions of anglers around the world. Out of this passion comes a burning desire to provide superior service to customers. So, while anglers that buy the company's products may enjoy recreational fishing, Pure Fishing is anything but leisurely in its drive to remain competitive and to provide the best products. In fact, about 10 years ago, the company embarked on a growth-through-acquisition strategy that has not only swollen its ranks of customers, but created the need to integrate and manage new companies and brands brought into the Pure Fishing fold.

Pure Fishing brands are among the top brands recognized and sought by anglers. While each acquisition expands the company's product line, it also creates unique challenges around integrating and unifying business processes. Moreover, each acquisition expands the network of customers that help place Pure Fishing products into the hands of consumers. The company feared that as this network expanded, its ability to remain responsive could be diminished.

"It was clear they needed transformative technology not only to unify their internal processes, but to

extend outwardly to their customers so they could help them to help themselves," says Craig Linthicum, vice president, DSS.

Additionally, the demographics of its customer base--literally thousands of sporting goods stores around the world--precluded Pure Fishing from providing individual attention to each customer and ensuring that shelves were well-stocked with Pure Fishing products. "It was becoming prohibitively expensive for them to service all of their customers," says Linthicum.

Because of their longtime business relationship, Pure Fishing approached Linthicum for advice. How could it deploy technology to address these issues and another challenge looming on the horizon? One of the largest retail channels for Pure Fishing products is a U.S.-based mega-retailer. Pure Fishing needed an infrastructure that would enable it to securely exchange item information with the retailer via the Internet and the UCCnet global registry.

A multifaceted solution

In order to deliver the multifaceted solution Pure Fishing needed, eOneGroup was brought onto the scene. The firm, an ISV and winner of the IBM PartnerWorld Beacon Award in the category of "Hot Linux Solutions" for 2004, has a winning track record in delivering integrated, commerce solutions. The match was made through IBM PartnerWorld's Small and Medium Business Advantage initiative.

Together, the Business Partners are delivering an extranet that will empower Pure Fishing's customer service and field sales with wide-ranging, self-service capabilities, including order entry and inquiry, shipment tracking, and account inquiry. The extranet will automate once manual business processes. The solution will also serve as the platform for SAP integration for Internet, extranet, and intranet functionality.

The multiphase solution creates an on demand operating environment for Pure Fishing. It is built upon eOneGroup's eOneCommerce offering and IBM Integrated Platform Express, a complete e-business infrastructure which is part of IBM's Express portfolio of solutions for midmarket. This Express offering includes WebSphere Application Server Express, and IBM @server™ xSeries with Linux. "The openness of Linux and its ability to scale easily to meet the needs of growing businesses," says eOneGroup Cofounder Dan Watson, "made it the right choice for Pure Fishing." The solution also leverages Pure Fishing's existing investment in SAP, and IBM eServer xSeries, by utilizing WebSphere Business Integrator to supply enterprise application connectivity.

Benefits expected from the solution include:

- Improved responsiveness to customers through self-service applications and streamlined business processes.
- Increased customer satisfaction as it becomes easier and faster to order and obtain products, as well as to communicate with the supplier.
- Standardized order processing across the company making it easier to integrate new brands and companies acquired by Pure Fishing.
- New levels of business flexibility as information is more accessible and can be shared across the enterprise with suppliers, dealers and management.

On demand business--why and how

On demand business not only represents a compelling opportunity for Pure Fishing, but also for DSS and eOneGroup as the firms go to market together and individually. Doors are opened on new opportunities among the firms' existing client base as these companies understand the agility, responsiveness and flexibility on demand business embodies. Also, reach is extended into new markets for both firms as they develop and deliver on demand solutions, jointly and independently.

Like Pure Fishing, DSS and eOneGroup are responding to the on demand imperative inside their firms and among other clients. "As an ISV, we are continually improving our family of software offerings so they deliver the agility, flexibility, the availability that our customers require," says Watson.

eOneGroup prides itself on its ability to meet--and exceed--the wide-ranging requirements of today's on

demand business, including integration with back-end systems, fast implementation and business process experience. Watson says this coupled with the firm's other strengths--its ability to engender trust and confidence among clients, attractive pricing, a flexible nature and unwavering customer focus--creates competitive advantage for eOneGroup.

Both DSS and eOneGroup take advantage of IBM's family of on demand assessment tools. If on demand is a journey, these sales tools, says Linthicum, help DSS determine each customer's exact whereabouts. "We use these tools to assess infrastructure, to assess applications, to assess business processes, so we know where they are today and where we can take them tomorrow," he says.

Both DSS and eOneGroup view strategic partnerships as essential to their ability to compete for and win on demand business. In fact, both Watson and Linthicum agree, partnering to deliver end-to-end solutions for the on demand operating environment enables the firms to better satisfy customer requirements. For this reason, teaming tools available through PartnerWorld's SMBA initiative and Business Partner Connections have been invaluable to the firms in plotting their collective course in this market. The Business Partners took advantage of the PartnerWorld tools to team more effectively and create a pipeline of sales opportunities through planned joint marketing activities.

"Skills are required in an on demand fashion today and they may vary from solution to solution," says Linthicum. "The best way to satisfy customers, to access requisite expertise and all of the unique components of a complex solution is through partnering."

Case in point: Although the solution provider had the skills in-house to develop the software Pure Fishing needed, Linthicum listened closely to his customer and realized that the client didn't want to undertake or subsidize a large, labor-intensive software development effort. It wanted an already-proven solution.

"We could have done the development, but it wouldn't have been the right way to address this opportunity," says Linthicum. "It's about what's good for the customer and the eOneGroup solution was a perfect fit for Pure Fishing. Always doing what's right for the customers--that's one of the values that we share with IBM and eOneGroup."

Plan of attack

The Pure Fishing extranet is only one example of new business DSS and eOneGroup are likely to generate together in the on demand operating environment. Integrated tools delivered through PartnerWorld such as IBM PartnerPlan and Campaign Designer are helping the IBM Premier Business Partners plan their attack on this market and identify new opportunities to pursue jointly. Both firms agree that Pure Fishing is one fish in a sea of opportunity.

For more information about eOneGroup, visit
http://www.eonegroup.com.

To learn more about DSS, go to
http://www.DSScorp.com.

Visit ***ibm.com/partnerworld*** to learn more about IBM PartnerWorld offerings.

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Siemens Medical Solutions

Category:	Case Study	Geography:	EMEA
Industry:	Healthcare; Life Sciences	Country:	Germany
Solution Area:	Business Process Transformation, Content Management, On Demand Business	* Status:	Completed / External
Home Page:			

Siemens Medical Solutions: Integrated Content Management Keeps Customers on the Cutting Edge

... An IDC business case study sponsored by IBM

Becoming on demand

Siemens Medical Solutions, a leading provider of medical imaging solutions, created a globally integrated publishing system to deliver critical and constantly changing information to customers faster--thus keeping customers on the leading edge. The company also responded to customers' needs for less complexity in the upgrade process by providing them with more personalized and dynamic information that is easier to act on.

Why IBM

"We want to push the envelope on what it means to be responsive to customers. IBM has the expertise and technology to help us make it happen."

The Siemens Medical Solutions Project at a Glance

BUSINESS DRIVERS

Customer Business Challenge

As a broad-line provider of solutions to the medical community, Siemens Medical Solutions needed to provide current and potential customers with convenient access to the most up-to-date information on products. This information was critical for medical customers trying to make purchase and upgrade decisions for extremely complex products. At the outset of the project, Siemens Medical Solutions sought to improve the way it delivered product and technology information. Key contributing factors included a diverse and manual set of content publishing processes and a high incidence of static information.

on demand Business Rationale

Siemens Medical Solutions wanted to become more responsive to information changes that affected customers, including product line changes. As part of this, the company wanted to deliver more dynamic and up-to-date information, thus keeping customers on the leading edge. To facilitate customer decision-making, Siemens Medical Solutions wanted to make it less complex for customers to articulate their needs, and easier to act on these needs. The company also wanted a resilient solution that could absorb seasonal or event-driven volume spikes and scale as-needed.

BECOMING ON DEMAND

Business Process Adaptations

Siemens Medical Solutions created a highly automated, globally integrated solution that streamlined the publishing cycle. The company also made its site content more dynamic by integrating it with backend systems. To facilitate complex decision-making, Siemens Medical Solutions incorporated sophisticated personalization capabilities into its customer site. The company also consolidated its systems and processes onto a single platform, making it more flexible and responsive to increased processing demands.

on demand Operating Environment
The design and development of the solution was performed by IBM Business Consulting Services and IBM Global Services: Application Management Services and the Architecture & Technology Center of Excellence. Its key elements include IBM WebSphere Application Server, IBM WebSphere Commerce and IBM HTTP Server.

ON DEMAND BENEFITS

- By providing stimulating purchases and upgrades, Siemens Medical Solutions expects the solution to lead to improved outcomes for hospitals, clinics and private practices.
- By providing cutting-edge information, the solution has improved customer satisfaction and strengthened the company's competitive position within the medical community.
- The solution enables more efficient, lower-cost content management processes.
- The solution's open-standards support facilitates the absorption of future acquisitions and its integration with other platforms
- By consolidating its systems, Siemens Medical Solutions can balance worldwide traffic over a single infrastructure, eliminating the logjams that had occurred at the local or regional level.
- An open, integrated infrastructure gives the company more freedom to increase or decrease capacity as needed, providing more variability in--and control over--infrastructure costs.

SITUATION ANALYSIS

Background
A unit of Siemens AG based in Erlangen, Germany, Siemens Medical Solutions is among the world's largest providers of medical equipment, software and services, with revenues of 7.6 billion euro (Mrd. €) and 31,000 employees worldwide. As the division's name implies, Siemens Medical Solutions specializes in delivering complete solutions to its customers, which include hospitals, clinics, home health agencies and doctors' offices. The core of these solutions is the division's state-of-the-art equipment products, which range from imaging systems (e.g., magnetic resonance imaging and mammography equipment) to therapy equipment. To complement its hardware line, Siemens Medical Solutions offers a series of software-based solutions designed to increase or optimize the performance of customers' systems. For instance, by upgrading the image processing software used by imaging devices, hospital customers can significantly improve the resolution of these devices, resulting in a physician realizing more powerful detection capabilities and--ultimately--improved clinical outcomes.

Business Drivers: Helping Customers Manage Complexity
One of the defining elements of the medical equipment industry is a near-continuous increase in product innovation, resulting in both new products and incremental improvements to existing products. From the perspective of the customer, this dynamism represents a double-edged sword. While the flood of innovations promises to improve outcomes, it also presents medical customers with an increasing complex decision environment. Keeping abreast of rapidly changing technologies and products in the marketplace is becoming an increasing challenge, as is the comparison of different products.

> While the flood of innovations promises to improve outcomes, it also presents medical customers with an increasing complex decision environment. Keeping abreast of rapidly changing technologies and products in the marketplace is becoming an increasing challenge.

Another dimension of this challenge is seen in the way hospital customers manage their installed base of medical equipment and software. To fully capitalize on the improved capabilities of new medical technologies, hospital decision-makers face a dual challenge--the need to track and manage existing systems across the hospital, while at the same identify the innovations in the marketplace that are

relevant to (i.e., can benefit the performance of) these systems. The challenge of performing this balancing act is often exacerbated by the decentralization of hospital assets and the hectic schedules of hospital decision-makers, which can range from clinical specialists and radiologists to CFOs and hospital administrators. Overall, the combination of these factors has led to a strong need in the medical community for assistance in navigating this increasingly dynamic and complex decision environment.

As a provider of medical solutions, Siemens Medical Solutions wanted to make it as easy as possible for its medical customers to be keep abreast of and fully capitalize on changes in medical technology. For Siemens Medical Solutions, the operational implications of this need were three-fold. First, the company wanted to minimize the cycle time required to publish product information, thus maintaining its role as the leading-edge source for clinical technology content. Second--and along the same thematic lines--Siemens Medical Solutions wanted to keep its content up-to-date, thus ensuring that its customers had access to only the freshest, most relevant information. Finally, Siemens Medical Solutions wanted to provide information in a way that added value to customers by actively supporting their decision-making. This meant presenting information within a strategic, customer-specific context that would help them be more responsive to changes in the medical technology environment.

To deliver information in a way that made its customers more responsive, Siemens Medical Solutions itself wanted to streamline and integrate its processes for managing product data. Under the company's existing process, content management was highly decentralized, making it hard for customers to navigate across product or subject areas. The management and publishing of dynamic information were also adversely impacted by decentralization. Under the previous approach, information on new products or changes in existing product information needed to pass through a series of time-consuming publishing processes, which sometimes delayed distribution of this information to the company's 125 country-specific operations. "To be a major player in the health care market, a vendor needs to offer products that solve today's problems," says the project's manager. "When it comes to information on medical equipment, doctors only want to deal with the newest information--any other information is a distraction."

Siemens Medical Solutions realized it needed to create a new business system that could provide its medical customers with the leading-edge information they required to perform at their best. This system would cut the time required to get new information out to customers in a timely fashion and--by delivering dynamic data--would ensure the freshness and relevancy of data. Finally, it would provide complex information in a convenient, personalized format that aided the customer decision process. As Ajit Singh, President & CEO of the company's Oncology Care Systems Group explains, the ability to deliver data in a dynamic and flexible way were seen as a must. "We operate in a very complicated and dynamic business," says Singh. "We needed a solution whose flexibility would enable us to reduce complexity for customers--while at the same time keeping up with the need for dynamic information."

ACTION PLAN AND DECISION PROCESS

Business Process Adaptations

To address its content management challenges, Siemens Medical Solutions created a globally integrated content management system that simplified the content review and approval cycle. Under the previous system, a substantial portion of content review was performed offline, which lengthened the already-lengthy process by which technical and product information was reviewed and approved. The new content management workflow streamlines the review process by introducing standardized processes and templates, and by consolidating what had been a series of country-specific platforms into a single globally integrated system. Because the new system allows Siemens Medical Solutions to publish in a more efficient way, its customers now receive information sooner. This capability strengthens the company's status in the industry as a provider of fresh, leading edge information for the medical imaging community.

Another major business challenge for Siemens Medical Solutions was to make it less complex for its customers to navigate a sea of product and technology information--thereby simplifying the dauntingly complex decision process for purchasing new or upgraded medical imaging devices. To meet this

challenge, the company fundamentally redesigned its customer Web site, making it easier for customers to find information through intelligent content links and personalized presentation of information. One of the most significant process adaptations was the addition of a solution finder tool, which--by presenting customers with purchase and upgrade options based on their existing installed base of medical imaging systems--enables them to cut through the complexity and make optimal clinical and business decisions.

In the same way its previous content publishing system made it harder to standardize processes, its dispersed Web infrastructure--each country essentially had it own--made it harder for the company to optimize the system's resiliency on a macro level. To remedy this, the company consolidated its far-flung systems into a single, unified architecture. Process improvements emanating from this consolidation include more coherent capacity planning and server provisioning, which in turn strengthens the resiliency of the company's overall infrastructure.

Decision Process

In 2001, after a comprehensive evaluation process, Siemens Medical Solutions selected IBM Global Services Business Consulting Services to build a solution using IBM WebSphere Application Server as its core application server. The company also selected IBM WebSphere Commerce's catalog functionality (running under WebSphere Application Server) to integrate product data from the company's backend SAP solution. Singh cites WebSphere Application Server's strong support for open standards like XML and J2EE as the dominant factor in its selection. "We were very comfortable with IBM's support for open standards, which not only makes our current integration [with the content management platform] easier, but also ensures us flexibility in the future," says Singh. "We were also impressed with WebSphere Application Server's ability to generate dynamic content." For the content management platform, Siemens Medical Solutions employed IBM Business Partner Interwoven's TeamSite$_{(tm)}$ product.

SOLUTION PROFILE AND IMPLEMENTATION STRATEGY

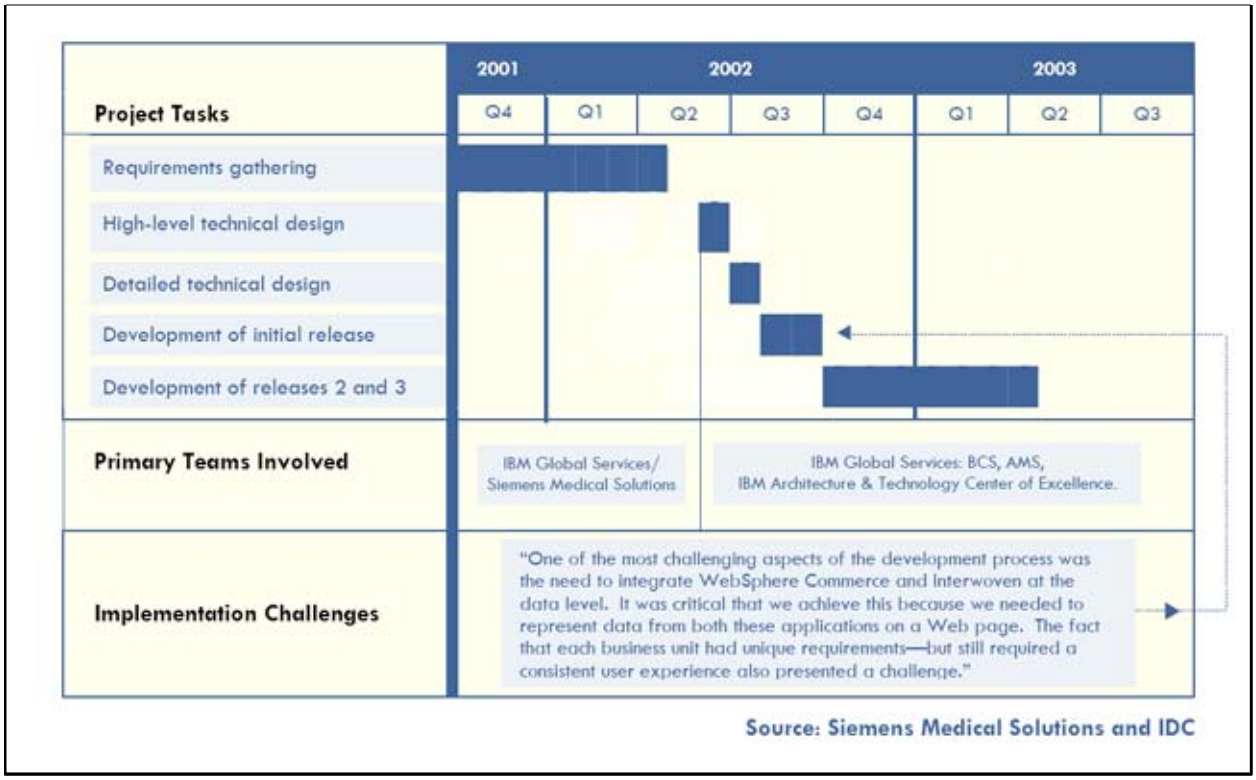
The Solution: Deployment Strategy and Overview

The design and development of the Siemens Medical Solutions platform was performed by an IBM Global Services engagement team made up of staff from Business Consulting Services, Applications Management Services (AMS) and the Architecture & Technology Center of Excellence. The team was divided into four subunits, each of which was focused on a component of the solution. These subunits were delineated as follows:

- Content Management Team, which was focused on the deployment of the Interwoven TeamSite platform.
- WebSphere Commerce Team, which focused on the deployment of the catalog portion of the solution.
- "Middle-Layer" Team, whose core task was to translate the content generated from the Interwoven platform and integrate it with WebSphere Application Server.
- Testing Team, which performed system testing in a variety of environments. [There was also a small group focused on administrative tasks such as software and hardware monitoring.]

The implementation of the solution unfolded in three phases. During the initial requirements gathering phase, begun in late 2001 and completed the following April, the team developed style guides for the Web site, as well as graphics, imaging, and branding. Having established the information elements that would be displayed on the site, the team began the technical design of the solution in June 2002, first at a high level (completed in late June) and then at a detailed level (completed in July). After beginning the development phase in August, the team rolled out the first release of the solution in September. Two subsequent releases (November 2002 and April 2003) featured incremental additions of content.

EXHIBIT 1: KEY MILESTONES: THE SIEMENS MEDICAL SOLUTIONS PROJECT



The solution employs a J2EE-based architecture, with IBM WebSphere Application Server providing Web and application server functionality. Within the WebSphere Application Server environment, Enterprise Java Beans (EJBs) are used to process user requests for dynamic data. In the backend of the solution, the ERP system (SAP) delivers an extract containing product and pricing data to an IBM WebSphere Commerce catalog (running on WebSphere Application Server) stored on a database server. This database server also houses Web content delivered from the Interwoven TeamSite server in XML format.

Key Components	
Software	• IBM WebSphere Application Server • IBM WebSphere Commerce • IBM HTTP Server • SAP R/3 • Interwoven TeamSite
Services	• IBM Business Consulting Services • IBM Global Services: Application Management Services • Architecture & Technology Center of Excellence

The Solution in Action

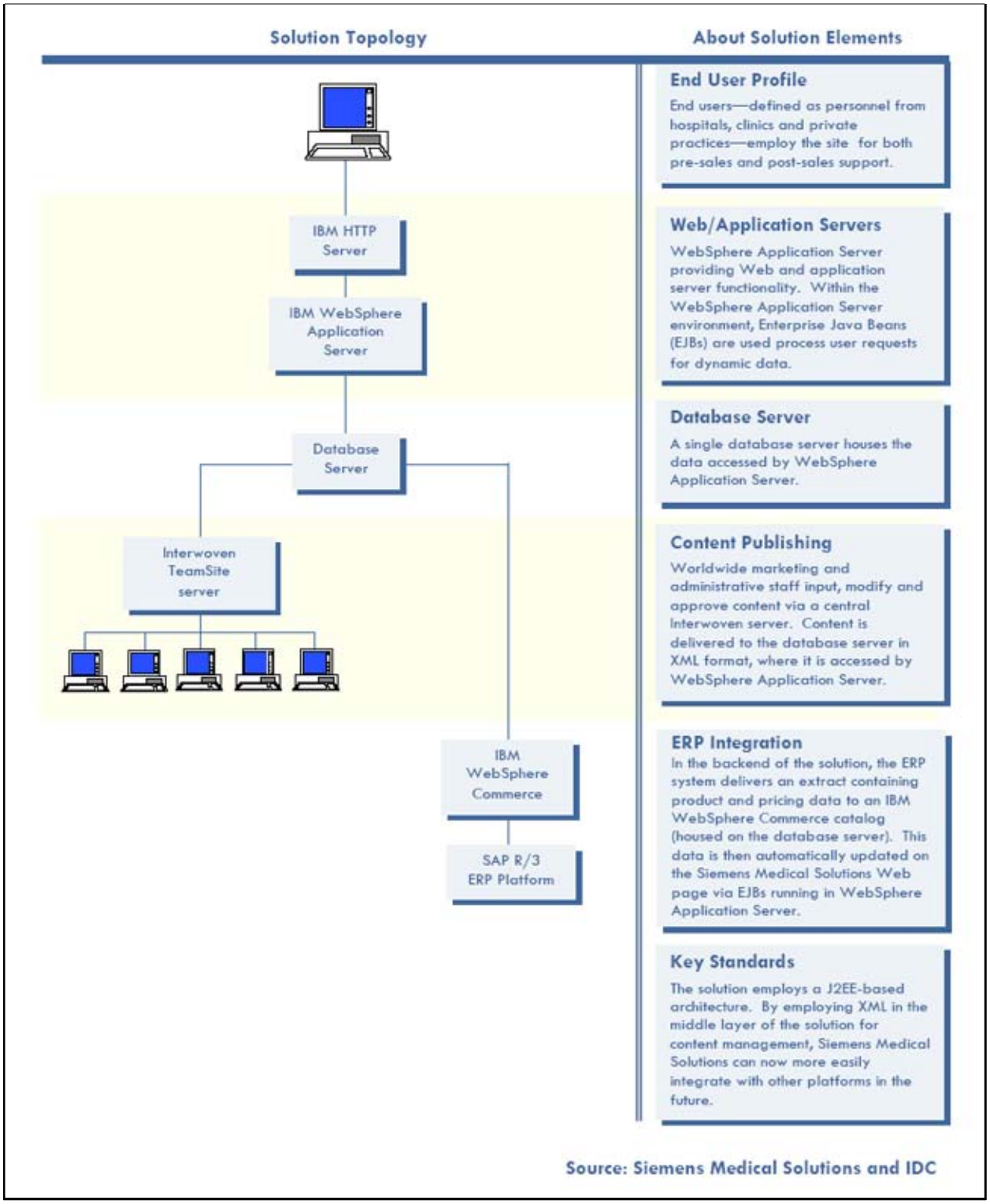
The solution in action can be viewed from two perspectives--customers using the site and employees using the content management solution. On the customer side, users--defined as personnel from hospitals, clinics and private practices--employ the site for both pre-sales and post-sales support. The site's pre-sales support features are primarily designed to provide potential customers with access to product-related subject-matters (e.g., oncology). To make the site easier to navigate, pages have been constructed with intelligent, dynamic links and sophisticated search capability. Once a user finds a product, they can use the site's configuration engine to specify features. Users seeking to purchase a product have the option of buying it online or using the site's request for proposal (RFP) functionality. As with the redesign of the site in general, the site's RFP request feature aims to make life easier for the

user--in this case, by shifting the burden of establishing contact from the user (say, a busy doctor calling off-hours) to Siemens Medical Solutions marketing staff.

The site also offers powerful information tools for existing customers, many of which are designed to help customers improve the performance of their existing Siemens Medical Solutions systems. One of the most common challenges for customers with large installations is obtaining a holistic view of their solutions and, based on this, determining their ability to upgrade and/or consolidate their systems. This challenge is heightened by the complexity of the typical installed base--which makes it harder to map upgrade paths--and the fact that many users are clinical or business-level (i.e., non-IT) staff. To address this challenge, the Siemens Medical Solutions Web site offers a "solution finder" that provides customers with upgrade data in a customized, context-specific fashion. At its most valuable, the solution finder allows customers to see options they might not otherwise have seen--improving imaging capabilities through a software release; reducing costs by consolidating and/or reconfiguring systems. Yet another site feature designed to help customers get the most out their investments are customer case study "communities" through which users of specific products or technologies can share lessons learned. These features have in common the goal of making customers better able to optimize the functional and/or financial performance of their systems.

On the employee side, the new content management solution streamlines and automates what had been a rather diverse and manual set of processes. This compromised the competitive differentiation of the Siemens Medical Solutions site by making it less responsive to customers' need for up-to-date information. The new solution addresses this by establishing a common, highly automated content publishing workflow across the enterprise. Under the new solution, content is captured from a variety of sources worldwide and stored in XML format (in the same database that holds the catalog-based product data from the ERP system). When a user requests dynamic data, WebSphere Application Server retrieves the data from the database via EJBs and processes the request.

EXHIBIT 2: BASIC ARCHITECTURE OF THE SOLUTION



BUSINESS RESULTS

"Having an open, integrated infrastructure gives us much more latitude to increase or decrease capacity as the need arises. This kind of cost variability would have been impossible to achieve under the previous solution."

--Britta Fuenfstueck, Siemens Medical Solutions

The most significant business-level benefit of the solution is that it made Siemens Medical Solutions more responsive to its customers' need for timely, actionable information delivered in a format that helps them capitalize on it. For Siemens Medical Solutions, this improved responsiveness promises to deliver a wide range of strategic benefits, starting with improved customer satisfaction and continued high marks from the medical community as a source of cutting-edge information. While much has been said of the solution's ability to rapidly absorb new content, it's also important to point out its resistance to "errors of inclusion"--displaying untimely or invalid data. As Karl Steigele, the IBM Global Services Project Executive on the engagement points out, maintaining vestigial or "cemetery" data is especially risky in the realm of medical services and solutions. "Having product information on the site dynamically linked to SAP all but eliminates the risk of providing outdated material--a risk that was high when it was a manual process," says Steigele. "This significantly cuts the chances of future liability for invalid data."

By providing a catalyst to customer upgrades, Siemens Medical Solutions also expects the solution to support advanced clinical outcomes for hospitals and clinics. As the Oncology Care Systems Group's Singh explains, the site's "solution finder" functionality provides a solid supplement to the company's core channels. "Assume for example that a new software upgrade for a CT scan becomes available," says Singh. "If through our normal sales channel we were able to get 200 hospitals from our installed base to do an upgrade--but because of this new platform we are able to get 300--then the system will have provided additional clinical value for our customers."

The solution also offers a range of technology benefits. The most important of these is an increased degree of resiliency resulting from the consolidation of the company's systems. By moving from a highly fragmented approach--with each country running its own infrastructure--Siemens Medical Solutions became much more flexible in terms of its ability to optimize infrastructure traffic. This newfound flexibility is seen in the way the company can now balance worldwide traffic over a single infrastructure, making logjams less likely. Having a unified infrastructure makes it much easier for Siemens Medical Solutions to forecast overall usage and procure server resources on an as-needed basis. Indeed, Fuenfstueck of Siemens Medical Solutions believes this increased flexibility makes the company better able to address seasonal surges in site volume. "The heaviest usage period for our site is between September and December, when medical professionals want to know what is new and what is available," says Fuenfstueck. "Having an open, integrated infrastructure gives us much more latitude to increase or decrease capacity as the need arises, which in turn gives us more variability in--and control over--our infrastructure costs. This kind of cost variability would have been impossible to achieve under the previous solution."

EXHIBIT 3: BUSINESS RESULTS FOR THE SOLUTION

Business-Level Benefits	Enabling Process Changes	Linkage to Solution
Improved Clinical/Operational Outcomes	By providing a catalyst to customer purchases and upgrades, Siemens Medical Solutions expects the solution to support advanced clinical/operational outcomes for hospitals, clinics and private practices.	The solution assists customers in determining their ability to upgrade and/or consolidate their systems.
Improved Customer Satisfaction/ Improved Competitive Position	By providing cutting-edge information, the solution has improved customer satisfaction and strengthened the company's competitive position within the medical community.	The solution provides timely, actionable information delivered in a format that helps customers capitalize on it.
Improved Efficiency/Lower Cost	The solution enables more efficient, lower-cost content management processes.	The solution streamlines and shortens the content management cycle within Siemens Medical Solutions's worldwide operations.
Improved Flexibility	The solution's open-standards support facilitates the absorption of future acquisitions and its integration with other platforms	The company relies heavily on industry standards such as XML and J2EE.

Technology Benefits	Underlying Product/Attribute	Benefit in Action
Increased Resiliency	Improved Load Balancing	By consolidating its systems, Siemens Medical Solutions can balance worldwide traffic over a single infrastructure, making logjams less likely.
Increased Resiliency	Optimized Peak Performance	Increased flexibility makes the company better able to address seasonal surges in site volume. The heaviest usage period for the site is between September and December, when medical professionals want to know what is new and what is available.
Increased Variability	Centralized Server Provisioning	Having an open, integrated infrastructure gives us much more latitude to increase or decrease capacity as the need arises, which in turn gives us more variability in—and control over—our infrastructure costs.

Source: Siemens Medical Solutions and IDC

CASE EPILOGUE

Reflecting on the future, Singh sees the content management project as part of a larger drive to increase process-level integration with customers, and in so doing provide them with more transparent access to information across the supply chain. "For us, transparency means providing relevant information, at the right time, in the right hands that supports business decisions," says Singh. "We see our investments in platforms like SAP, WebSphere and Interwoven as critical components of that strategy."

To advance this goal, Siemens Medical Solutions plans to add an array of rich functional enhancements that will bring the company closer to its customers. One of the company's first moves will be to further refine the solution's automated features by leveraging the strong messaging capabilities of the WebSphere Application Server platform. This will, for example, enable the solution to add various "push" features such as alerts triggered by content changes. Singh sees WebSphere Application Server's ability to support this functionality--a function of its strong support for J2EE--as evidence of the value of open standards. "We want to push the envelope on what it means to be responsive to customers," says Singh.

"IBM has the technology to help us make it happen."

02-04

Sto AG
SAP (Partner)

Category:	Case Study	Geography:	EMEA
Industry:	Consumer Products	Country:	Germany
Solution Area:	e-business infrastructure, Enterprise Resource Planning	* Status:	Completed / External
Home Page:			

More than just good looks: Sto AG enhances its IT

... business solutions by IBM and SAP

The Challenge
Medium-term, complete conversion to mySAP.com for business processes, worldwide usage from a central site; optimisation of the infrastructure;
code page conversion EBCDIC – ASCII for integrating Eastern European markets

The Solution
Upgrade and supplement the centralised iSeries platform.
Applikation: mySAP.com
Software: Lotus® Notes™, Domino™, WebSphere®, Tivoli®
Hardware: IBM eServer iSeries™, IBM eServer pSeries™, IBM Enterprise Storage Server™

The Benefits
The foundations for international SAP rollout have been put into place; for central administration of the worldwide standardised business processes; seamless, fast code page conversion; integration of the Eastern European subsidiary

Good looks, first class products

The glances of passers-by in Stühlingen-Weizen close to the Swiss border are inevitably drawn to Sto AG: firstly by the (world's largest) coloured sphere on its central warehouse building, and secondly by the exceptional architecture of the k-shaped communications building at the headquarter. The company 'Zement and Kalkwerk Weizen' in Stühlingen, southern Baden, Germany, founded in 1835, has now become an international group of companies that produces high quality paints and plasters and that, thanks to innovation in its core business of façade insulation systems in particular, has achieved a world ranking status. Still a small family company in 1948, its international interests were developed at an early stage under its long-serving Managing Director, Fritz Stotmeister; the company chalked up consistent market success, for example with the production of synthetic resin plaster, the development of the first façade insulation system, high production capabilities and a high level of service. In the middle of 2002, Sto AG took over ispo GmbH, thus strengthening its market position worldwide. Expected total turnover for the group in 2002 is 650 million euro. There are around 3,900 employees in Germany and in the subsidiary companies in Europe, the USA and Asia. Sto supplies to over 30,000 customers in the trade.

Conscious construction.

Whilst the StoDesign-Studios for example work decentrally in order to meet national and regional preferences, Sto AG has consistently built its IT infrastructure centrally, primarily based on IBM products. All 140 Sto sites in Europe are connected to the central site. This is based on a conviction that availability and reliability are indispensable. And standardisation: the strategic aim is to implement all the mySAP.com solutions and functions Europe-wide (and later worldwide) from a central site in Germany before the end of 2004. "We have been using sales and planning software developed in-house and known as VPS for the past 12 years for business processes", explains Philipp Bellhäuser, Head of IT and

Infrastructure at Sto AG. ”Secure, reliable systems at a central site are simply less demanding. Our experiences with the iSeries as a hardware platform have been very positive. The seamless integration of operating system and database is excellent. Increased simplicity means fewer sources of error, fewer administrative demands and therefore more efficient operation. We had just one minor failure in the whole 12 years – I know other operating systems that can only dream of comparable reliability.”
The future is mySAP.com for all countries.

To improve integration of the worldwide sales activities and the business partners, and to face the Year 2000 problem, Sto AG decided in 1999, after careful testing of the alternatives, to rely in future on solutions from SAP. ”In 2000 things ran precisely to schedule with the first modules in Germany, Austria and France in production”, reflects Philipp Bellhäuser. Shortly afterwards, SAP R/3 was rolled out into all European subsidiaries. Originally, the plan was also to cover the Eastern European code page in a second implementation for Poland. Running against the advantage of a highly integrative system such as the IBM iSeries was the uniqueness of the EBCDIC character set. Since 2001 SAP has been offering Global Language Support on the iSeries and now uses solely the ASCII character set. SAP R/3 Release 4.6C is the last release supporting EBCDIC and could be considered the intermediate point for the general implementation of ASCII code and the use of MDMP functionality for multiple code pages. 2002 was to be the year for intensifying SAP implementation activities. Upgrading to SAP R/3 Release 4.6C, commissioning new hardware components and the code page conversion were the main tasks for Philipp Bellhäuser’s team.

Seamless conversion – Global Language Support for Sto international.

”Since the take-over of ispo GmbH we have a significantly larger subsidiary in Poland than our former company there”, reports Philipp Bellhäuser. ”The integration of this subsidiary company was the event that finally got the code page conversion project moving forward for us.” Sto AG took a highly pragmatic approach to this Eastern European expansion of its business and consequently its linguistic environment. ”We viewed the conversion as a manageable, purely technology-related project, comparable to a release change”, remembers Philipp Bellhäuser. ”We held talks with IBM and SAP concerning the requirements, and received excellent support and highly detailed experiential values that bore out their statements.” From the production system, Bellhäuser’s team generated a stand-alone copy (sandbox) on which all the preparatory work was carried out. ”It quickly became clear that there would be no problems during the conversion”, said Philipp Bellhäuser. The advance assessments for the hardware expansions were even undercut in part. ”We needed, as anticipated, more disk capacity for the database, a little more RAM and marginally more CPU power, but thanks to the special expansion offers from IBM and the SAP migration tools provided, everything progressed very easily and quickly.” An IBM business partner undertook the process at the recommendation of SAP. After the pre-tests, a single weekend was all that was required to complete the system conversion, without interfering with production operations.

Business processes with a new lease of life: gradual implementation of mySAP.com.

If code page conversion was one of the major moves towards the goal of ‘comprehensive SAP usage’, the plans relating to the further usage of new mySAP.com solutions progressed at a rapid pace. In the final expansion stage, Sto AG will use the SAP solutions for all important business processes: finance and controlling, human resources, sales and distribution, production planning, materials and quality management. An especially important area for Sto AG in product lifecycle management (mySAP PLM) is formula management. A special developer cockpit is available where the complex mix and components of the paints and varnishes are managed and maintained. In the environment, health & safety sector, mySAP PLM has been deployed for risk evaluation management and materials classification. Philipp Bellhäuser: ”Our organisation survives on continuous, technological enhancements in matters on final coats for walls and now also for floors. The SAP solutions enable us to manage and enhance our products in the most optimum way.” The second major phase of the project is now in the critical phase. The quality management system was activated in January 2003. The Customer Relationship Management (mySAP CRM) solution is still in the pilot phase, but is to be used primarily for customer

management and acquisition. mySAP Business Intelligence is also meant to be simultaneously implemented and to enter productive operation during the course of 2003.

Sought, found: optimum configuration on the iSeries.

The long-term orientation of the IT strategy at Sto AG also set the conditions for the infrastructure and platform. A solution permitting the SAP system to be operated without large-scale retrofitting yet with the variety and bandwidth required in the final expansion stage was aimed at. And that means around 2,500 named users. At the end of 2002, the figure was around 500. Architecture and sizing expertise from IBM were in demand. ”IBM developed several alternatives for us for our future SAP platform”, states Philipp Bellhäuser. ”However, a solely Windows environment was not an option for us, much less a heterogeneous system environment. As we believe the iSeries is unbeatable in integration and administration, we decided to remain loyal and to expand and upgrade it.” The existing IBM iSeries 820 is the machine for the total of six test and development systems, SAP CRM 3.0, SAP BW 3.0 with 620 kernel, four SAP R/3 4.6C systems with 4.6D kernel – 3 of which with ASCII databases, and one with EBCDIC. All systems are running without trouble, and parallel on one partition. The i820 is very stable and upgrading is planned during the course of 2003 for performance reasons and as a production backup. An IBM iSeries 830 is used as the server for the in-house VPS, which will be superseded in the medium-term. The production system, a brand new IBM iSeries 890 with 24 processors and 48GB of main memory has been running since January 2003.

In all project phases, the IBM Premier Partner Fritz & Macziol GmbH has provided excellent service. The advantage here is the wide expertise available on all IBM platforms as well as storage in combination with infrastructure expansion and upgrading in the SAP environment. Philipp Bellhäuser is clear on one point: ” Our primary platform is and will remain iSeries. With its stability, reliability, and low administrative demands – only one staff member looks after all three systems – it forms the best basis for our business processes.”
In addition, Sto AG is utilising over a dozen IBM pSeries for the areas of plant control technology, warehouse management, logistics and Web applications. IBM WebSphere is used for Web applications. The entire Web presence and the Internet portal are based on the WebSphere application server. Also part of the IT landscape are approx. 40 servers for Lotus Notes and Lotus Domino in all larger Sto sites in Europe.

State-of-the-art data backup concept.

In data backup, too, Sto AG relies on quality. ”We have two IBM Enterprise Storage Servers (ESS)”, explains Philipp Bellhäuser. ”Both are designed for 3.2TB, and we can easily collect that much data. The mirror of our SAP systems alone on one of the two F20s amounts to over 1TB of data. And naturally we use this storage solution with the Tivoli Storage Manager for other data as well, such as for our central Domino server. Planned for the following year are file servers and the other non-SAP applications.” The two ESS have now been located in separate places for security reasons: well hidden within the extensive company site, directly connected to one another via fibre channel. During the course of 2003, the plan is to expand the system into a storage area network.

The best foundation for continued integration.

The Swiss subsidiary of Sto AG is set to begin the process on the 1st May 2003 with all the planned mySAP.com solutions with a big bang. For the parent company in Germany, the rollout date has been set for 01.01.04. The subject of linking and integrating business partners will be given priority, once the mySAP.com solutions have been implemented with full functionality everywhere in the company. ”Thanks to the standardisation of our business processes, we are now working much more economically and efficiently than when using the software solutions we developed ourselves. It is not just our business that profits; we in the IT area also benefit. With our clearly organised strategy and with good support from IBM

and SAP we are delivering better quality to our customers – and as you know, for us quality is very important," smiles Philipp Bellhäuser.

United Technologies Corporation

Category:	Case Study	Geography:	NA
Industry:	Aerospace & Defense	State:	Connecticut - USA
Solution Area:	Business-to-Business, On Demand Business	* Status:	Completed / External
Home Page:	http://www.utc.com		

United Technologies: Outsourcing procurement yields high efficiency and tight spending control.

"It had become clear that we needed to transform our procurement processes, but doing it the traditional way would have been expensive and disruptive. IBM presented us with a solution that gave us all the benefits without the pain."
—Kent Brittan, Senior VP, Supply Chain Management, United Technologies Corp.

With some 200,000 employees, UTC is a global technology corporation with a long history of pioneering innovation in aerospace, aviation, helicopter design, climate control, elevator design and hydrogen fuel cells. Pictured: the Sikorsky S-92.

Challenge	With its six business units employing their own procurement processes, United Technologies (UTC) was unable to optimize its indirect purchasing across the company as a whole.
Why Become an On Demand Business?	UTC saw the need to standardize its procurement processes to gain more control over them, but a high degree of decentralization made replacing them costly and complex. Thus, UTC needed to transform its purchasing model on a companywide scale, while minimizing cost and disruption within its business units.
Solution	UTC engaged IBM to create an outsourced procurement service that fully automated order processing from requisition to invoice payment. Tight integration with business unit ERP systems gives UTC realtime visibility into and control over purchasing activity.
Key Benefits	• 80% of procurement transactions require no buyer involvement; UTC expects this share to reach 90%. • UTC has saved in excess of $250 million from its total indirect procurement transformation program.

United Technologies Corp. (UTC) is by all measures an industrial powerhouse. Its six core business units generated revenues of $31 billion in 2003, making UTC (www.utc.com) one of America's largest manufacturers. A big part of UTC's success derives from the market leadership of its core business units–Sikorsky in helicopters, Pratt & Whitney in aircraft engines, Carrier in HVAC systems, Otis in elevators, UTC Power in fuel cells and Hamilton-Sundstrand in aerospace systems. But as a global

conglomerate, the company's success is equally dependent on its ability to harvest the potential efficiencies and economies of scale that lay within its worldwide operations. With more than $14.5 billion in annual purchases, UTC's procurement processes represent perhaps the richest vein of opportunity.

With competition intensifying in the late 1990s, UTC kicked off an exhaustive effort to identify opportunities for efficiency improvements in its procurement processes. Driving the initiative was Kent Brittan, who had been appointed UTC's first Senior VP of Supply Chain Management after serving as CFO in the Otis unit. Brittan envisioned a UTC that employed common sourcing processes across all business units. While UTC had negotiated strategic sourcing contracts for indirect supplies and services (such as travel, office supplies and MRO) across the company, the fact that there were no common control systems in place to enforce these agreements weakened their impact by making it impossible to curtail "maverick" purchasing. Thus, while cost reduction was a clear goal of the initiative, the more fundamental aim was to achieve greater control and visibility within the procurement process. Only then would the company as a whole be able to optimize its procurement processes. And with sourcing strategies optimized, cost reductions would follow.

On Demand Business Benefits
● With 80% of procurement transactions fully automated, workflow efficiency and transaction quality have risen substantially. ● UTC has saved in excess of $250 million from its total indirect procurement transformation program. ● More productive buyers now focus more on strategic sourcing issues and less on solving problems. ● Standardized procurement processes have lowered the share of off-contract purchases, improving UTC's ability to capture volume-based discounts and rebates—and thus lowered overall costs. ● Realtime control over purchasing has raised accountability and discouraged unnecessary spending and lowered supply inventory stocks across the company. ● Procurement as a service from IBM enabled UTC to avoid the cost and effort of implementing its own new systems and processes.

Taking a cue from IBM

But it didn't take long for UTC to conclude that major barriers stood in the way of this vision. As a result of UTC's decentralized business model, each business unit had deployed its own procurement systems and processes. Consolidating its sourcing processes would require UTC to essentially rebuild them from the ground up and, perhaps more challenging, reshape the entrenched cultures that evolved within each unit. Seeking more palatable options, the company began benchmarking the procurement practices of other large companies. Of the companies UTC reviewed, IBM—which had just completed a sweeping and successful redesign of its own procurement processes—stood out as a near-exact parallel in terms of its core problems and—Brittan suspected—a template for how UTC effectively could address them. UTC approached IBM with a straightforward proposal: "package your procurement process transformation and sell it to us as a service." Seeing UTC's proposal as an opportunity to capitalize on what had become a major strategic asset, IBM agreed to productize its procurement system and immediately began putting the pieces in place.

"For general procurement, we needed a system to make corporate deals with strategic suppliers and to drive compliance with corporate contracts."
—Kent Brittan

IBM's first step was to build a mirror of its own systems infrastructure, which included a mix of standard components such as the WebSphere® Application Server application infrastructure, DB2 Universal Database and SAP R/3, as well as customized applications like IBM's ReqCat procurement requisition system. IBM eServer p and xSeries servers provided the hardware platform. These systems were then integrated with each business unit's legacy ERP systems as well as key external points such as banks. With the infrastructure and integration groundwork in place, IBM shifted its focus to the meat of the project—the end-to-end transformation of UTC's procurement operations. The goal of this effort was to fully automate tactical purchasing—with little or no involvement of buyers—all the way from requisition to

payment.

Key Components	
Software	● IBM WebSphere Application Server ● IBM DB2® Universal Database™ ● IBM ReqCat ● IBM Lotus® Notes® ● SAP R/3
Servers	● IBM eServer™ xSeries® ● IBM eServer pSeries®
Services	● IBM Business Consulting Services ● IBM Global Services Service Delivery Center (Poughkeepsie) ● IBM Business Transformation Outsourcing

Transformation through outsourcing

In this phase, a team made up of IBM Business Consulting Services and UTC staff identified and mapped out the range of existing procurement processes, and then systematically replaced them with standardized processes across all units—a process that mirrored IBM's own successful transformation. But it was the way this was achieved that makes UTC's initiative stand out. By outsourcing all elements of its indirect procurement to IBM, UTC was able to achieve a "virtual centralization" of its companywide processes without having to embark on a complex, disruptive and costly investment in its own systems. A review of the details of the solution shows just how thoroughly UTC realized its vision of a completely service-based solution. The foundation of the solution is the complete outsourcing of all hardware and applications as well as application maintenance and support. The latter covers not only ongoing customization and tuning, but also the system changes related to the addition of new companies or facilities.

The heart of the solution is a tactical purchasing service under which IBM buyers source, negotiate and execute contracts and purchase orders for indirect supplies across all UTC business units. IBM also seamlessly handles the accounts payable side of these transactions—right up to the point of payment—and also provides comprehensive support for the thousands of UTC employees using these processes. Before UTC's transformation, its purchasing processes were anything but "hands-free," with paper-based forms, long manual approval cycles and drains on management time the rule. Now order processing is electronic and automated at every stage. After an employee selects from a catalog, the order is mapped into a requisition, routed to management and—if approved—triggers the issuance of a purchase order (PO) to the supplier. The supplier then sends an electronic invoice that is automatically posted to the SAP application at the core of the IBM system. Once the system confirms acceptable receipt of the order, it then triggers the appropriate general ledger entries into that business unit's own accounting system, and finally payment through the banking system. This tight integration—both within the IBM platform and out to business unit systems—is what makes the UTC solution truly end-to-end.

At the top of a long list of business results are major improvements in efficiency and control. With the process flow seamless and automated, administrative costs have fallen significantly, a development driven in large part by a huge increase in transaction quality. For instance, the fact that SAP generates POs and receives invoices from the same electronic data origin has made mismatched dollar amounts a thing of the past. This frees buyers from much of the nonproductive task of tracking down blocked invoices and enables suppliers to get paid more reliably. And with buyers freed from troubleshooting, they've been able to focus their time and effort on sourcing tasks, like negotiating and managing supplier contracts. The bottom line is that a more productive procurement organization can handle more "spend"

with a leaner, more focused staff. The system has also provided UTC with far greater control and visibility over its spending. In contrast to the rampant off-contract purchasing activity that characterized the old process, the new solution provides the ability to track spending activity from top-to-bottom in realtime. By encouraging purchasing accountability–and having the means to enforce buying guidelines–UTC is now far better positioned to leverage its purchase volumes. The company's world-class expense ratios and SG&A rates attest to its success in limiting out-of-contract purchases. Another dimension of UTC's increased control is an ability to literally "turn off" spending on specific commodities in response to a management imperative (e.g., the need to preserve working capital), fluctuations in supply costs, etc. The ability to track purchasing more tightly has also enabled the company to streamline its inventory of indirect supplies, thereby minimizing its carrying costs. All told, UTC has saved in excess of $250 million from its total indirect procurement transformation program.

"The biggest savings inherent in this system are the things that never get bought . It forces people to consider and justify their expenditures much more closely ."
– Kent Brittan

With a solid track record of savings behind it, Brittan sees procurement as just one part of a larger story unfolding at his company. "United Technologies is engaged in a continuous effort to drive savings to the bottom line by transforming all aspects of the company," says Brittan. "Our partnership with IBM is an essential part of that drive, and we look forward to working in tandem with them toward this goal."

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VHV Versicherung
SAP (Partner)

Category:	Case Study	Geography:	EMEA
Industry:	Insurance	Country:	Germany
Solution Area:	e-business infrastructure, Enterprise Resource Planning, Server Consolidation	* Status:	Completed / External
Home Page:	http://www.vhv.de/web/index.jsp		

Protect your Performance. Server Consolidation at VHV Versicherung

... business solutions by IBM and SAP

The Challenge
Construction of an integrated system base for the secure and efficient operation of complex insurance applications and future e-business services; reduction of
administrative effort and increase in performance and availability; platform and database migration for server consolidation and system harmonization.

The Benefits
Greater security and availability through stable, high-performance server technology; greater flexibility and scalability thanks to Capacity on Demand; standardization, simplification, and higher performance of the application systems; extensive, consistent development portfolio for e-business and web services; quick and cost-effective capacity adjustment on demand in case of changes in the workload; higher quality of service for brokers, customers, and employees.

The Solution
Application: mySAP¨ ERP
Hardware: IBM eServer¨ zSeries¨
Software: zLinux; z/OS¨; z/VM¨; IBM WebSphere¨ Application Server
Services: IBM Global Services; KPMG

The number of Intel servers running under Microsoft Windows NT¨ had increased to more than 150 in the last few years. File and print servers, servers for office and communication applications - new servers were always being installed.

The business applications of the SAP solution were however also being handled on this platform. "An ever more complex landscape. Costs and administration were permanently on the rise. The network became increasingly difficult to manage - and this with the same IT team." Peter Schadel, Director of IT Computer Center/Production at VHV Versicherungen, and his IT colleagues did not want to stand back and watch this go on any longer.

So the IT team members sat down with experts from IBM and partner company becom, and sought, found and developed a new solution: 'server consolidation based on the IBM ^ zSeries under Linux' is now their IT strategy.
"The already apparent advantages of the new solution reinforce our feeling that we are 'in good hands' with IBM," says Peter Schadel. He did not choose
the phrase 'in good hands' by accident - at VHV Vereinigte Hannoversche Versicherung a.G. this has a special meaning.

In good hands with the VHV.

This motto is a part of the company philosophy. Reliable, comprehensive insurance protection at a reasonable price. Quick and easy handling of
claims. Individual consultation, customtailored offerings. Competent, quick information - all this is to

ensure that customers feel they are 'in good hands'
with the VHV. And they do! The business results show it: No. 1 in the construction industry, No. 3 in the bonds trade, No. 5 in vehicle insurance, and, since the merger with Hannoversche Lebensversicherung in 2003, also No. 1 in direct sales of life insurance - this diversified specialty insurer occupies a strong position on
the German insurance market.

The company employs more than 2700 people, manages 5.7 million contracts, and achieved a total premium volume of approximately 2 billion in 2002.
Approximately 12,000 qualified agents cooperate with the VHV and, together with the employees at headquarters, provide outstanding customer service
in day-to-day business. Efficient, secure, and stable information and communication systems are a further key to success. Here, a new direction
has now been set.

With Linux into the wide-open future.

The starting point was the requirement for a cost-effective, yet also failsafe, easy to administer and flexible operating system. Linux fulfills many of
IT management's requirements. Especially in times of tight budgets, acquisition and operating costs play an important role. As freely available
open source software, Linux can be used without license expenditures. The source code is freely accessible. Thus the operating system can be
modified, expanded and optimized as required. Studies have shown that Linux servers experience significantly lower downtimes than NT servers. This
stability reduces costs and increases efficiency.

Linux is highly scalable - additional servers can be integrated easily. Due to its reliability and flexibility, it is very well suited for infrastructure services,
and also as an application server for the SAP solutions. However, all these arguments for Linux might not have convinced the people in charge of
IT at the VHV if there had not been something more: "A key decision factor for us was the commitment of IBM to Linux. This offers us the certainty that we are adopting futureoriented solutions," says Peter Schadel.

High availability at its best: IBM ^ zSeries.

With the decision in favor of Linux, the way to server consolidation on the mainframe was clear. As many applications as possible were to be integrated into the high-performance, highly available and secure system environment of the zSeries.

In the past, VHV had already relied on the IBM S/390¨ server architecture for its insurance applications. Now, in a first step the SAP solutions, which had previously been run on Intel servers, are also being moved onto the mainframe. Linux, the optimized architecture, and the excellent capacity of the zSeries make this possible - and sensible.

Peter Schadel is convinced: "Thus the SAP application environment also profits from the advantages of consolidation."
Here, server consolidation means a lot more than just the grouping of 'boxes.' It involves the optimization and simplification of the entire IT infrastructure. Software and services are also part of the consolidation, as are system management methods that combine all components into a whole.

An IBM ^ zSeries 900 and an IBM ^ zSeries 990 are used at VHV. Especially the z990, the new flagship of the IBM ^ family, with its innovative z/Architectureª provides the capability, storage capacity and

functionality that are necessary for growing volumes of transactions and data. Up to 30 logical partitions (LPARs) are supported on the Z990, and the newest version of z/VM offers the ability to set up hundreds of virtual Linux servers quickly and administer them effectively. Linux and the zSeries complement each other ideally.

For VHV, system availability plays a decisive role. As a study showed, the insurance applications must be up and running perfectly again within six hours of a total system failure. "Otherwise the company could incur damages in the millions, not to mention the loss of image," remarks Peter Schadel.

Now that a backup concept with mirrored disks, FICON connections between the storage systems and servers, and real-time exchange of production data between the two remote data center locations have been implemented, he feels much better. "We recently proved that the concept works by simulating a catastrophic situation," he says. The high availability of the zSeries is unquestioned. Nevertheless, Schadel wants to continue the upgrading of the Storage Area Network (SAN) with new technology in order to achieve even greater security for all system components.

More power - on demand.

The zSeries used at VHV have an individual processor capacity of 250 MIPS in the z900 and 450 MIPS in the z990. In the z900, five processors are available; in the z990 there are four. Is that enough? In normal operation, yes, but at peak times - at the beginning of January when bill transaction in the vehicle business occurs - things can get tight.

For Peter Schadel and his team, however, this will be no problem! 'Capacity on Demand' is the name of the solution. What it means is that processor capacity on the z990 server can be released temporarily - on demand, for the time required. Fees are charged only for the capacity actually used. "The on-demand solution is ideal for us," says Peter Schadel. "There are no unnecessary hardware, operating, or maintenance costs; instead, we can 'buy' the additional power precisely when we need it."

SAP for 2700 users.

At VHV, there are currently eleven large production, test, and development systems running the SAP solutions. These systems cover the entire range of business applications (financial accounting, cost accounting, controlling, inventory management, etc.) and personnel. And the mySAP Business Intelligence solution is used for the finance sector.

All 2700 employees have access to the SAP applications, if to varying extents: from power users who work with SAP daily, to casual users who use it e.g. to handle their travel expense invoices or book internal seminars. A self-developed portal providing easy access to the systems is available to all of them. "With the migration of the SAP solutions to our new zSeries/Linux environment, we will reduce costs and achieve a significant improvement in performance," says Peter Schadel.

After all, data traffic between the server partitions is handled via internal high-speed connections - this means: memory speed rather than network speed in communication between application servers and database!

The use of the DB2¨ information management software database on the zSeries also has decisive advantages compared to the previous Oracle solution: Schadel is convinced: "With the SAP solutions under Linux on zSeries, we have found a combination that is perfect for us."
In the SAP environment, IBM DB2 delivers optimal performance - as has been proved. Furthermore, DB2 is already the strategic database software at the VHV. Peter Schadel:"Our DB2 expertise is high and our experiences are positive. Therefore it is only logical and consistent that we should now also entrust the SAP
solutions to this database."

IBM WebSphere: a gateway for all employees.

For VHV, the server consolidation provides the impetus to further standardize and simplify system access in the workplace. This means not just browser-oriented portal solutions and web services for VHV employees, but also access to the systems for brokers: via the Internet. An access to the VHV was created especially for them - Makler-Extranet (broker extranet): VHV Max.Net - which provides a quick, direct access to the customer and inventory data they need, and simplifies the updating of this information.

An integral component and the technological basis of these solutions is the IBM WebSphere Application Server. This application server forms the basis of the IBM WebSphere software platform, and offers developers a complete portfolio of programming tools, and the associated transaction management and security routines, for the highest capability of the programs. These web services, which today are still running on distributed NT servers, will 'tomorrow' be moved to the zSeries in order to make even better use of the advantages of server consolidation.

Mr. Schadel looks to the future with confidence: "IIt's good to know that
we can now develop at precisely the speed and to precisely the extent that our business requires. We have created the necessary technical basis."

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Volvo with Sync Business Process Integration AB

Category:	Case Study	Geography:	EMEA
Industry:	Automotive	Country:	
Solution Area:		* Status:	Completed / External
Home Page:	http://www.volvo.com/&www.sync.se/		

Volvo with Sync Business Process Integration AB.

Volvo Group (Volvo)

Volvo is one of the world's largest producers of trucks, buses and construction equipment and holds a leading position in the fields of marine and industrial power systems and aircraft engine components. From 1999, Volvo focuses exclusively on transport equipment for commercial use, which creates the conditions for increased synergies and improved competitiveness.

Founded in 1927, Volvo today has 71,156 employees, production in 25 countries and operates on more than 185 markets. Volvo's total sales amounted to 177 billion SEK in 2002.

Volvo Construction Equipment (VCE)

VCE is one of the Volvo companies and a major international company developing, manufacturing and marketing equipment for construction and related industries. Its products, leaders in many world markets, include a comprehensive range of wheel loaders, hydraulic excavators, articulated haulers, motor graders and compact equipment.

VCE offers a broad range of quality, safe, environmentally adapted products, efficient worldwide service and a range of solutions in financing, used equipment and leasing to meet the construction equipment needs of demanding customers all over the world.

Within the business area, a total of more than 150 different models of excavators, wheel loaders, motor graders and articulated haulers are produced. Production plants are located in Sweden, Germany, France, the U.S, Canada, Brazil and Korea.

SYNC Business Process Integration AB (Sync)

Integration of business processes within or across organizations and collaboration between systems represents a huge opportunity to most industries today, in their search for increased efficiency and competitiveness. In today’s world of specialization and globalization, business processes are dependent on data and information from many existing applications and systems for efficient, consistent and customer friendly operations.

Sync offers a standard application for business integration and system collaboration via an automated routing and processing of business processes for instant tracking, global monitoring and automated event-based exception handling. The software suite, Sync SolutionsTM, offers a unique standard application for business process integration within the manufacturing industry (MRD). The standard application contains industry-specific functions that can be easily configured to reduce time, cost and risks for any integration effort.

Challenge: Managing expanded internal systems

To broaden their current product line, acquisition of new companies has been a significant part of VCE’s strategy over the past few years. This has created many new IT challenges for the equipment manufacturer, including expanded internal systems, which have grown in number and complexity. Due to the complexity of their systems, VCE needed for their spare parts business a way to manage multiple systems and pull together the distributed order process into a single order entry point for the dealers. The single order entry point allows a dealer to place a complete order to VCE and for VCE to efficiently and

automatically fulfill the same order from one or more of its parts warehouses. Specifically, more flexibility was required so that handling of a dealer order would no longer be tied to one specific warehouse, which resulted in a number of inefficiencies and limitations in the customer service.

The overriding goal was to allow VCE to work as “one company” and to improve the way in which the dealers could interact with the Company.

Solution: A single order interface provides a main point of entry for dealers

To establish a fully integrated web based solution, Sync was brought in to deliver the middle layer and the integration for the Single Order Interface (SOI).The SOI provides a single order entry point for the dealers when placing orders for spare parts from VCE.
The SOI application provides access to several different legacy systems. It allows dealers to connect over the Internet to VCE and initially manage up to 12 new processes that include, Order Status, Price and Availability, Part Information, Order placement and Order Details. In addition, the solution provides a much larger number of information services that could be used by other (front-end) applications.

The provided solution covers the B2B exchange between Volvo, their dealers and in some instances, their suppliers. Initially the system will support dealers in Europe and also include a pilot to a 3rd party supplier. Sync SolutionsTM, Sync’s software, provides a middle layer of out-of-the-box functionality, logic and integration on top of the existing systems, through which the existing back-office order systems can collaborate to form a unified order process and a single order entry point. New and existing systems can easily be connected or disconnected in a seamless and efficient way or made to collaborate in new ways as the order process changes.

VCE completed the testing in October and the first phase features the rollout to the European dealers. Before the end of the first quarter 2004, the SOI application will have been rolled out to most dealers in Europe and it will also include the connection to a 3rd party supplier. After this first phase, the solution will be deployed worldwide, including Australia, Singapore, North-America and other overseas markets.

Technology:

The SOI application is based on Web services technologies, utilizing SOAP protocol and XML vocabularies. The SOI solution benefits from Web services interoperability, re-using existing functionality in legacy systems and packaging the technology into new web based applications for order capture and customer support.

The integration is purely message driven. A “thin adapter” (i.e. no logic, no message transformation) approach is applied for connectivity with legacy systems, meaning limited (or no) adaptations and investments in existing systems. Legacy systems interact with the middle layer over MQSeries, using Volvo proprietary flat file formats or SAP IDocs. WMQIB transforms the proprietary formats to XML based common business objects in the middle layer. Sync SolutionsTM generates the service, i.e. all the required business rules and routing logic (e.g. split order) as well as translation of codes and vocabulary to/from a common business language.

Benefit: Implementation in half the time and cost than originally planned

The most important benefit for partners is a single interface, through which the dealers can access all of VCE’s spare parts warehouses. And instead of embarking on a long and expensive application migration/rewrite to legacy, the new application was implemented in little more than half a year and at a fraction of the cost for an ERP solution. This B2B solution, using web services, covers a mission critical area, as the item order for Volvo parts is vital for the dealer relationship and logistics operation.

VCE receives great benefits from improved customer service enhanced logistics for spare parts and a consistent order process. Earlier each dealer sometimes had to access several warehouse locations to place an order. Now, the dealers will have access to a central web based application that will enable an efficient delivery process of spare parts from any of the existing Volvo warehouses.

Sync worked closely with IBM who provided consulting advice on the use of Web services technology and products from the IBM Software Portfolio, including several products from the Websphere family e.g. ; WebSphere Business Integrator Message Broker, WebSphere Business Integration SAP-adapter, Websphere MQ and the IBM DB2 database.

“We appreciate the advice and expertise of the IBM team in the use and implementation of Web services technologies,” says Mr. Mats Svensson, Vice President Partnerships & Alliances Sync. “We hope that this project will be followed by many more and that we can continue to cooperate with the IBM jStart team on future customer projects.”

For more information,
http://www-306.ibm.com/software/ebusiness/jstart

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