IBM

Sto's Web self-service cements relationships with building pros.

Overview

- **Challenge**

    Provide painters and masons more direct access to color-mixing application while protecting legacy systems; eliminate client software update and distribution costs

- **Solution**

    Web self-service site integrated with existing IBM AS/400® application

- **Why IBM**

    IBM demonstrated experience in integrated transactional e-business applications; capabilities of IBM products were perfect match for Sto's functional requirements; Sto had positive experience with IBM AS/400 servers and IBM DB2® database

- **Key Business Benefits**

    99% reduction in software maintenance costs; significant improvement in customer service; ability to handle unlimited growth in customer base without increasing call center staff

With a 25 percent market share in Germany, Sto is a world leader in external wall insulation systems. It also offers a full line of exterior coatings, render systems, concrete floor coverings and repair materials, and acoustic systems.

Appearances can be deceiving and often should be dismissed, but when constructing homes and other buildings, façade matters. Stucco, cement and chips, marble, brick veneer—these are the things that give character and individuality to a structure. That is why Stühlingen, Germany-based Sto AG—a manufacturer of interior and exterior coatings—makes it a point to offer its customers the widest range of quality materials. And being particular about how its products are applied, Sto prefers to sell

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–Harald Gross, IT Manager, Sto AG

business

Key Components

Software

- IBM WebSphere® Application Server, Advanced Edition
- IBM WebSphere Studio
- IBM WebSphere Host Publisher
- IBM WebSphere Host Publisher Studio
- IBM DB2 Universal Database™
- IBM VisualAge® for Java™

Servers

- IBM AS/400 Model 730
- IBM RS/6000® F50

Services

- IBM Application Integration Middleware (AIM) Software Services

"It is a huge relief not to be updating the client program and distributing CD-ROMs. It is also a major cost saving —annual software maintenance costs have shrunk 99 percent."

– Harald Gross

directly to the experts—architects and contractors in the painting and masonry trades—rather than through retail channels. This emphasis on quality has made Sto a well-known name across Europe, where it has 100 sales offices and a sales force of 600 working in Germany, Austria, Sweden, Switzerland, the United Kingdom and France.

Ironically, two of the most attractive features of Sto's products—color and texture—are also what can make them challenging to use. Successful results require the use of "recipes," detailing the exact quantities of materials needed to achieve a desired effect. Sto provides a sampling of basic recipes with its products. But since there are so many possible combinations of colors and textures, and since new products are developed continually, the company maintains an application called StoTint, which works with a database of products stored in IBM DB2 Universal Database, both running on an IBM AS/400 server. StoTint generates recipes on demand based on the products used, the effect desired and other input.

Until recently, when contractors wanted a recipe for a different effect, they either needed to access the StoTint application over a dial-up connection— using client software distributed by Sto on CD-ROM—or call the company's customer service centers. Neither option was optimal for Sto or its customers. "The problem was twofold," explains Sto AG IT Manager Harald Gross. "The simultaneous updates to the server and client portions of the application were too expensive and time consuming to maintain. And then it took so long to distribute the client updates that by the time customers received them, they were already outdated."

Customers who couldn't find a recipe using the dial-up software would contact a call center. The centers, however, were not equipped to handle a large volume of customer calls. As service suffered, Sto feared it was losing valued customers, and it moved quickly to improve access to the StoTint application.

IBM solution helps preserve legacy investments

While there was little doubt that a Web self-service site would be the most cost-effective and customer-friendly solution, Sto wasn't sure how to deliver Web access to StoTint while retaining the security of its internal information systems. The company also needed to deliver Web access in multiple languages, yet it didn't want to develop multiple language versions of the application, as it would have been forced to do with its PC client software.

Seeking a solution that met these needs, Gross solicited the advice of IT colleagues in other industries as well as one of Sto's most trusted vendors—IBM. A long-time user of the AS/400 platform, the company ran not only StoTint, but also its SAP R/3 system and other key business applications on AS/400 servers with DB2 Universal Database.

"At the time, there was no other vendor that could integrate our legacy AS/400 application with the Web functionality we wanted," Gross notes. "Other manufacturers we spoke to had developed similar functionality in-house, but it would have taken more time and money for us to do so. We needed a long-term, scalable solution, and we needed it quickly. That's why it made sense to work with IBM."

After evaluating various alternatives, Sto decided on a solution based on IBM WebSphere Application Server with IBM WebSphere Host Publisher, both running on an IBM RS/6000 server. "For security reasons, we didn't want to provide direct Web access to the AS/400 server," Gross explains. "With WebSphere Host Publisher and WebSphere Application Server translating the green screens into XML and then HTML, we are able to provide access to all of the AS/400 application's functionality without exposing the application itself."

Working with experts from IBM's Application Integration Middleware (AIM) Software Services in Stuttgart, Sto was able to develop the Web interface for StoTint within six weeks. The Web self-service site is now being used by nearly 100 contractors to instantly get the recipes they need. If a particular combination is not defined, they can use the Web site to submit a special request to Sto's product development lab.

"The fact that WebSphere software is designed to work with the AS/400 platform made the Web enablement process much easier."

–Harald Gross

Tracing its history back to the Weizen Cement and Lime Works established in 1835, Sto AG now epitomizes modern building and business practices with its e-business initiative.

By empowering customers with the self-service site, Sto's existing call center staff can easily handle the 20 percent growth in the company's customer base. But best of all, Sto's customers know they always have the latest information at their fingertips. "It is a huge relief not to be updating the client program and distributing CD-ROMs," Gross says. "It is also a major cost saving— annual software maintenance costs have shrunk 99 percent."

AIM Software Services provides head start on Java tools

After installing the WebSphere software, IBM showed Sto how to use IBM WebSphere Host Publisher Studio to define the AS/400 screens and menus that users would need to access through the Web. The screen fields are stored in XML format.

Using IBM WebSphere Studio, Sto created JavaServer Pages (JSP) that format the StoTint screens as HTML pages and display them on the users' Web browsers. Sto then used IBM VisualAge for Java to create the servlets that accept the data entered on a particular screen and forward it to special-purpose JavaBeans— called integration objects—in WebSphere Host Publisher. The integration objects contain macros that extract the appropriate response screen (XML data) and pass it to WebSphere Application Server, which calls the JSP that displays the response screen to the user.

"The fact that WebSphere software is designed to work with the AS/400 platform made the Web enablement process much easier," Gross notes.

Web enablement—first step towards international e-commerce

The Web site is currently available in German and English, and Sto may deploy it in additional languages as the online user base grows. "The AS/400 platform makes it easy to support different languages without affecting the program code," Gross says.

Encouraged by the ease and speed with which it has been able to provide Web access to StoTint, the company is considering integrating the Web site with Lotus® Notes® to capture customer information for its marketing team. Sto may also revive its efforts to enable online ordering. "We tried online ordering once before with another vendor, but it was a disappointing experience," Gross recalls. "Our positive experience with IBM may spark our enthusiasm about this once again."
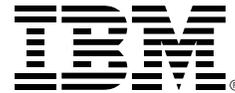
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G325-1894-00