



OPTICAL COMPANY SHARPENS FOCUS ON CUSTOMER SERVICE WITH AN SOA

Challenge

Loyal to its promise of providing “far more than glasses,” Apollo-Optik strives to serve customers with high-quality products and on-time delivery. To meet this goal in a highly competitive market, Apollo-Optik decided to evolve its IT landscape into a Service-Oriented Architecture (SOA). An SOA would enable the company to be more flexible in designing processes that are spanning across various back-end systems and, in turn, improve service delivery.

Solution

Working with Apollo-Optik, Software AG’s Global Consulting Services designed an architecture concept and implemented a pre-configured, virtual SOA platform based on the webMethods suite. The solution enabled Apollo-Optik to improve its order-quality service, which interacts with different back-end systems. Opticians initiate the service when placing orders into Adabas/Natural-based point-of-sale systems to assure customers get precisely the right lenses.

Benefits

- Ability to deliver the right product the first time
- Improved customer satisfaction and better store image
- Reduced costs due to fewer lens rejections
- Fast response—tens of thousands of requests processed daily, each in under two seconds
- Future proof—extremely scalable SOA platform will support ongoing enhancements
- Competent support from Global Consulting Services



With 700 stores, Apollo-Optik has more retail locations in Germany than any other optical company. It features a wide selection of eyeglasses, contact lenses and fashionable frames. Apollo-Optik’s goal is to provide customers with the best possible optical products and services. The company has been part of the Pearle Europe Group, Europe’s largest provider of optical products and services, since 1998 and a Software AG customer since 1993.

Get There Faster.™

“The SOA platform realized with webMethods by Software AG is suitable for small and medium-sized firms through and through. The cost-benefit ratio is right. Tangible results are achieved quickly. And, the platform runs well under pressure.”

Erich Ehbauer | Head of IT | Apollo-Optik

Focused on providing “far more than glasses”

More than 10 million pairs of glasses are sold each year in Germany. That translates into annual industry revenue of some three billion Euros, including associated services. This revenue is shared by several thousand independent businesses and a number of chains, including Apollo-Optik.

This highly competitive environment is dominated by small and medium-sized businesses. That’s why Apollo-Optik, as Germany’s largest retail chain, operates by the motto “far more than glasses.”

In other words, it aims to provide the highest level of quality in customized eyeglasses on time, every time. To accomplish this, Apollo-Optik relies on several different back-end systems and corresponding business processes.

From application silos to SOA

Alongside the central Microsoft Dynamics NAV (formerly Navision) standard ERP system with relational data storage, the company has two other customized IT solutions at headquarters in Schwabach, Germany.

The first is a data warehouse developed with Software AG’s Adabas and Natural. The data warehouse contains customer, order and inventory information from all stores.

The second is an intranet solution based on Java, which provides retail stores access to the data warehouse as well as forms and documents, such as product and order data, texts and images.

Apollo-Optik also has a highly integrated point-of-sale (POS) system that runs on local Linux

servers. That system serves locations in Germany and also 90-plus Pearle-Optik stores of its Austrian sister company. Also developed with Adabas and Natural, the POS system has been running reliably since 1993. With 4,700 end-user clients, it offers stores a very high level of automation, from the entry of orders and payment to store-specific inventory, management data and support for marketing campaigns.

One problem with this heterogeneous landscape, however, is redundancy in data and functionality, explained Erich Ehbauer, head of IT. For example, instead of one call retrieving all the data on a customer, many relevant functions in different systems have to be called upon. This is one reason why Apollo-Optik began to focus on transitioning to a more efficient SOA and implementing re-usable services across all systems.

Setting its sights on SOA

With Software AG, Apollo-Optik saw how to benefit from an SOA without risk. In a joint workshop, experts from Apollo-Optik and Software AG Global Consulting Services developed an architecture concept that met all the requirements. By using webMethods, the industry’s leading SOA and Business Process Management (BPM) suite, GCS was able to create and implement a pre-configured, virtual SOA platform for service development, testing and production.

In its first phase, the SOA platform consisted of:

- Hosting or provision and control of services
- Monitoring of the run-time environment
- Integration of one service into the company’s IT
- Data storage

The SOA platform is based on a flexible, cost-benefit-oriented business model. Using webMethods doesn’t require rigid license parameters, such as

hardware classes. Furthermore, end users don’t need in-depth knowledge to operate the SOA. All that was needed—consulting from Software AG to help get the solution up and running faster and cost effectively.

Looking to improve order quality

Apollo-Optik has high expectations for quality. So it first looked at improving its order-quality service.

Here’s why: The weight of lenses can impact the comfort of a pair of eyeglasses. If an optician orders lenses that are too thick for a customer’s frames, the finished lenses—even if they look the same—can feel heavy and uncomfortable.

If the customer is uncomfortable, those lenses will land in the reject pile—a waste of materials and labor, whether those lenses were made at the central production lines in Schwabach or at the workshop in the retail center.

Apollo-Optik’s order-quality service prevents this problem. That’s because, as soon as an optician enters an order, the service is defined specifically to check lens thickness. It automatically retrieves this information via the Internet from headquarters using webMethods EntireX.

The service is hosted and controlled by the webMethods Integration Server and has access to a number of “internal services.” These include communication with databases containing information on all frames as well as lens types carried by Apollo-Optik and a Java-based “logical service.”

Using a specific algorithm, the service compares all relevant data while taking into account the order specifications on how the lens must be ground and finished for the customer. More than

4,000 factors influence these complex dependencies. In the event the chosen lens is too thick, the employee receives a warning message and can correct the selection before the customer leaves the store.

The service coordinates tens of thousands of requests from POS systems every day from the hundreds of store locations. Each request is answered in less than two seconds—helping to ensure customer satisfaction in a timely way.

The SOA platform “makes the solution very scalable,” Ehbauer said. “This is especially important because our stores don’t have a steady flow of customers throughout the day but they have to deal with busy peak times.”

Vision for the future

The results of the first project impressed all involved, including management, because of tangible savings from fewer lens rejections as well as the “soft” factors of higher customer

satisfaction and an improved image for the Apollo-Optik brand.

The company plans to build on this improvement, according to Thomas Erdmann, project coordinator in charge of SOA and quality assurance. For example, by adding another internal service, opticians could instantly receive information on lens alternatives in addition to the warning message.

Until now, Apollo-Optik has used webMethods Business Activity Monitoring (BAM) technology for technical run-time analysis. In the future, Apollo-Optik may look to use BAM to measure Key Performance Indicators (KPIs)—for example, on which stores receive the most warning messages. With this data in hand, the company would know which stores need more training.

Erdmann also noted the order-quality service is perfectly suited for use by other Pearle Group companies as a globally shared business service.

Implementing more services in the future will depend on the actual business needs at Apollo-Optik. Yet the company can look confidently to the future because of its scalable webMethods-based SOA platform.

For example, when the number of services increases, Apollo-Optik can add the CentraSite™ Business Service Repository, a part of the webMethods suite, to store new configuration items. CentraSite gives developers and business analysts one place to store, find and re-use all service and process assets.

Apollo-Optik also sees BPM as a way to design efficient business processes based on existing services. In this context, Erdmann wants to explore using the webMethods Business Process Management Suite (BPMS) to “wrap” existing applications, turning workflow silos into services for cross-system business processes.

“Our initial success with the SOA platform and the order-quality service confirms that we have found a solution strategy suitable for small and medium-sized firms and which will lead our own SOA and BPM projects to success,” Ehbauer said.



Apollo-Optik’s order-quality service on an SOA platform was a decisive first step toward building cross-system business processes to support future SOA and BPM initiatives.

KEY COMPONENTS

webMethods Integration Server, Software AG's Enterprise Service Bus (ESB), provides the foundation for an SOA and features comprehensive functionality for the design, creation and orchestration of services in heterogeneous IT environments.

With **webMethods EntireX**, heterogeneous applications can be integrated for bi-directional data exchange.

webMethods Broker guarantees fast and reliable delivery of any volume of messages across the webMethods ESB.

webMethods Optimize for Infrastructure is a Business Activity Monitoring (BAM) solution that offers real-time insight into the performance of webMethods Integration Server and Broker—the servers they run on and the applications they're hosting.

webMethods Optimize for Process is a BAM solution that offers real-time, actionable insight into process activity.

webMethods BPMS unites leading BPM and SOA capabilities to offer a comprehensive set of fully integrated tools for automating and managing processes.

Adabas is the world's most comprehensive database management system.

Natural is a development environment to build business-critical software solutions that must meet extremely high demands in transaction security, performance and availability.

Global Consulting Services from Software AG combine in-depth product and project expertise to execute BPM and SOA projects according to agreed timeframes, budgets and quality specifications. Software AG consultants use the exclusive GEAR (Gather, Explore, Assemble and Roll-out) methodology and draw on best practices from a wide array of industries.

ABOUT SOFTWARE AG

Software AG is the global leader in Business Process Excellence. Our 40 years of innovation include the invention of the first high-performance transactional database, Adabas; the first business process analysis platform, ARIS; the first B2B server and SOA-based integration platform, webMethods. We are unique in offering the world's only end-to-end — and easiest to use — business process management (BPM) solutions, with the lowest Total-Cost-of-Ownership.

Our industry-leading brands, ARIS, webMethods, Adabas, Natural and IDS Scheer Consulting, represent a unique portfolio for; process strategy, design, integration and control, SOA-based integration and data management, process-driven SAP implementation, and strategic process consulting and services. Our comprehensive software and services solutions allow companies to continuously achieve their business results faster.

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