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Helvetia Insurance Uses SOA For Global Integration

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By Jill Gambon

After buying insurance businesses in France, Italy, Spain, Austria and Germany over the last eight years, Helvetia Insurance entered the 21st century with the breadth and reach to become a bigger player in the pan-European market.

The Swiss insurer's information systems, though, weren't up to the same challenge.

The acquisitions left the St. Gallen, Switzerland-based company with incompatible computer systems. Subsidiaries in all six countries operated like isolated islands in an archipelago, each developing and supporting its own product lines, maintaining its own systems and using its own business practices. "The situation was very inefficient from a cost point of view," says Didier Beck, chief executive of Helvetia's eCenter Solutions, a subsidiary in Switzerland that runs the company's e-business operations and strategy.

Helvetia turned in 2000 to what at the time was an unproven technology to solve its integration headaches: service-oriented architecture (SOA). It discovered, as a number of other insurers and banks have found since, that SOA offered an efficient, cost-effective means of overcoming its big integration hurdles.

Helvetia found that its SOA project provided benefits well beyond integration--an important lesson for other chief information officers looking at using the technology. The project served as a platform to launch new business applications and made it possible to open up new sales channels, such as selling insurance products in partnership with banks.

Helvetia's SOA initiative is a part of a larger growth strategy that includes acquisitions, tight cost controls and new sales partnerships; the results to date have been impressive.

Profits soared more than 35% in 2005 to $232 million U.S., the highest ever for the company, which offers life, health, property, automotive, liability and accident coverage. So far this year, the healthy financial performance has continued, with higher-than-expected half-year profits of $131.5 million reported in September.

SOA has become a hot topic in the banking and insurance industries, primarily as a way of integrating large, dependable legacy systems, and for leveraging those systems in new ways, such as e-commerce. In short, SOA is a computing architecture that allows an enterprise to make its applications and computing resources, such as databases, available as "services" that can be called upon when necessary. SOA leverages standard mechanisms, such as eXtensible Markup Language, to simplify the process of exchanging data.

In an industry like insurance, this means a provider can take an existing application, such as a program for filing a request for coverage, and make that program available as a service that can be utilized by other applications.

"This was truly a game-changing opportunity for them," says Timothy Guyre, chief executive of Thoughtware Worldwide, a San Francisco consulting practice that measured the results of the Helvetia implementation. According to Thoughtware, which works with clients such as Hewlett-Packard to develop cost-return analyses of technology projects, Helvetia achieved a 59% drop in operational costs of its SOA platform, called the eBusiness Center, from 2003, the first year the project was fully up and running, to 2005.

However, the project came with some challenges. Helvetia's technology staff, particularly in its subsidiaries, didn't have the Internet and Java programming skills needed to build and support an SOA platform and the applications to run on it, says Nick Stefania, managing director of the eCenter Solutions subsidiary. To overcome that, the company had to undertake an extensive training program so the staff could get up to speed. In addition, long-standing business processes that relied on manual work had to change, and the subsidiaries, accustomed to their independence, had to accept centralized development and management of their business applications.

The project, in effect, was nothing less than a complete overhaul of the way the company conducted business.

As a first step, Helvetia selected Hewlett-Packard from a short list of 10 vendors to supply the software and consulting services to build an SOA e-business platform. One reason for choosing HP was its Nimius Solution Framework, a bundle of software components and a set of guidelines for developing secure Web applications aimed at the financial services industry. It is a three-tier platform based on Java and J2EE and includes application programming interfaces for implementing business logic, a data store, and development tools.

According to Beck, two of Helvetia's Swiss banking partners were using Nimius, which gave the insurer comfort that the framework would be flexible, able to operate at high volumes and provide the security that the company wanted. Another factor in HP's favor was its willingness to break the project into six-month phases, with clear milestones and deadlines. And it was a pay-as-you-go deal, unlike some vendors' proposals that called for lump-sum payments up front, according to Helvetia.

After gathering the business requirements, architecting the system and developing the applications, the eBusiness Center went live in 2002. The SOA platform includes BEA Systems' WebLogic as its application server and an Oracle database. All the applications are written in Java and accessed via Web browsers.

The platform uses Web services open standards such as XML and Simple Object Access Protocol (SOAP), a way for a program running in one type of operating system, such as Windows 2000, to communicate with a program in another operating system. It integrates data from the subsidiaries' various back-end systems, which run a mix of OS/390, OS/400, Windows and Linux operating systems. It also includes a user-management system that allows the company to grant access based on users' profiles. With that kind of control, the company can give varying levels of data access to customers, brokers and bank representatives selling insurance for Helvetia, and independent agents.

Helvetia has developed modules, or components, that make up the applications employees and partners use to sell products. The modules perform tasks such as calculations, data entry and claims processing. They are issued as Web services and can be reused, reconfigured and integrated with data from outside sources, such as calculation tools or information tables, to create new applications. For instance, in the Swiss market, the PartnerNet application, which brokers, agents and banking partners use to sell individual life-insurance policies, integrates a third-party financial consulting module for investment and pension planning. This gives the salesperson an extra tool when trying to close a sale.

To manage the software modules, Helvetia borrowed the bill-of-materials concept from the manufacturing industry, building into its eBusiness platform a "catalog" that acts as a central container for organizing the components. With software organized and stored by its function, such as data entry or claims, developers can pick the pieces of code they need to build new applications. This system has speeded up application development, with new Web-based products being churned out as much as four times faster than before the eBusiness Center's debut, thanks to the reuse of components and the ease of distribution, Beck says. In some cases, the development cycle has been trimmed from seven or eight months to two.

Part of the 59% in operational savings came from lower transaction costs, the result of automating much manual labor, according to Thoughtware's study. "Sales teams were spending a disproportionate amount of time on paper processes, which was taking them away from dealing with customers," Thoughtware's Guyre says.

In 2004, for example, the volume of insurance premiums being processed by the eBusiness Center shot up 133%, according to Thoughtware. With the eBusiness Center, the company expanded the number of people selling its insurance plans without adding employees, through partnerships with banks and independent agents. In 2000, before the SOA program was launched, the company had 5,022 employees selling $3.45 billion worth of premiums. In 2005, 4,700 employees sold $3.9 billion worth of premiums.

According to eCenter Solutions executive Beck, each Helvetia subsidiary has added up to three distribution channels. For instance, one Swiss banking partner, which Beck did not want to name, integrates a property insurance sales module from Helvetia into its mortgage process, so bank customers have the option of buying Helvetia insurance when they apply for a mortgage.

Helvetia uses Web services to integrate its sales application with the bank's intranet.

Opening up its enterprise to outside parties not only helps sales, but also allows customers to access their accounts for self-service. Customers can log in and update their account information. Before the eBusiness Center platform, such updates were made on paper or on floppy disk and then mailed or faxed to Helvetia, where a data-entry clerk made the changes.

Helvetia declines to disclose how much it spent developing the e-business platform, except to say it was a "multimillion-dollar" investment. Overall, the company achieved 210% return on its investment over six years, according to Thoughtware's analysis.

When the eBusiness Center project was getting started, the SOA concept and related technology skills were new to many Helvetia employees, especially in the subsidiaries.

To prepare for the change, employees lived in Zurich for up to six months, learning SOA, Java programming and Web services skills. The rapport built among the staff during training was critical to the success of the project, Stefania says. With staff from six different countries, there were cultural differences, language barriers and divergent skills.

Things didn't always go as expected. The eBusiness Center group initially planned to develop the business modules and distribute them to the subsidiaries. It was impossible, Beck says, to gather the subsidiaries' requirements for designing the applications and get consistent quality of information at the same time. Helvetia ended up creating three different project teams to work with the subsidiaries. The modules for different countries are similar but not identical, based on the unique needs or insurance industry regulations in each market.

An ongoing challenge for the insurer is managing the traffic increase for the eBusiness Center. While Helvetia has 4,700 employees, 12,000 people are logging in, including independent brokers, banking partners and customers. From January 2003 to January 2006, traffic jumped 2,448%, according to Beck. Earlier this year, the company moved from HP-UX-based servers to AMD-based servers running Linux. This will allow the company to scale up as needed at a lower cost, he says.

Industrywide Challenge

The business challenges facing Helvetia are not unique. Many insurers have been around for decades, often supporting an overwhelming number of administrative processes such as claims management, billing and policy management. Products developed at different times are often isolated in legacy systems, which limits the amount of account and financial information available in real time and hinders a company's ability to collaborate with external partners, says Barry Rabkin, senior research analyst at Financial Insights, a consulting firm that advises the financial-services industry on technology.

"You can't be agile with six to 12 core administrative systems," he says. By using the SOA approach of open, standards-based systems and making use of reusable components to build applications, insurers can streamline operations and be better prepared to pounce on new business opportunities, Rabkin says. While some U.S. insurers such as The Hartford, Fireman's Fund Insurance and St. Paul Travelers have adopted SOA with some success, few European insurers have gone that route, he adds.

Helvetia Insurance Base Case

Headquarters: Dufourstrasse 40, CH-90001 St. Gallen, Switzerland
Phone: 41 71 493 51 11
Business: Individual and group life, property and casualty insurance, reinsurance and private pension plans. Its customer base is mainly private individuals and small and midsize businesses.
CEO: Erich Walser
CEO, eCenter Solutions subsidiary: Didier Beck
Financials in 2005: The company generated $3.9 billion in
premiums, up 6.5% over 2004, and profits of $232 million, up 35.6% over 2004.
Challenge: Lower costs, streamline operations and position
the company for growth by leveraging service-oriented architecture technology to improve collaboration between subsidiaries in six countries, external partners such as banks, and customers.

BASELINE GOALS:
- Grow the value of premiums written annually, with an increase from $3.45 billion in 2000 to $3.9 billion in 2005.
- Reduce time-to-market cycle for new insurance products, in some cases from 8 months to 2, by

using SOA's software-component development and reuse features and Web distribution.

- Achieve sustained profitability. It grew profits from $127.8 million in 2000 to $232 million in 2005, a company record.