IBM

SWL builds Belgian Wallonne region with housing project extranet.

Overview

■ **Challenge**

Improve project management and communications efficiencies among housing agencies, reduce paperwork and operational costs

■ **Solution**

A three-tier Java™ technology-based extranet for housing agencies and SWL employees who oversee housing projects

■ **Why IBM?**

IBM recommended a Java-compliant solution, was perceived as best able to deliver long-term technical support and offered proven expertise in Java technology

■ **Key Business Benefits**

100% ROI in 36 months; 30%-40% improvement in productivity; reduction in data-entry costs; ability to generate reports for public review within minutes as opposed to weeks

Recognizing the importance of a solid technology foundation for its complex workflow processes, SWL selected an IBM e-business solution.

The worst of times become easier to bear with a secure roof over your head. But rapid urbanization and the rising costs of housing are making it increasingly difficult for governments to ensure an adequate supply of affordable and safe housing for everyone. In the predominantly French-speaking Wallonne region of Belgium, with a total population of 4.5 million, this is the responsibility of Société Wallonne du Logement (SWL)—the region's bureau of housing and urban development.

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—Marc Campana, IT Manager, Société Wallonne du Logement

e business

Key Components

Software

- IBM WebSphere® Application Server, Advanced Edition, Version 3.5
- IBM DB2® Universal Database™ for HP-UX, Version 7.2
- IBM VisualAge® for Java

Services

- IBM Global Services

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– Marc Campana

Every year, SWL supervises the construction of 1,000 new dwellings on average, and the renovation of approximately 15,000 of the 100,000 existing homes in Wallonnie. Operating through a network of 130 independent agencies, it must ensure that its annual budget (FY2000) of eight billion Belgian Francs (US$200 million) is equitably distributed among all its constituents. SWL must also manage every stage of the building project. For example, it supervises the allotment of contracts to construction companies and oversees every stage of the construction projects. Such oversight includes ensuring that building and safety codes are followed, legal obligations—such as warranties—are fulfilled and payments to suppliers and contractors are made in a timely manner.

Until recently, all of this was managed through a labor-intensive process that generated copious quantities of technical, financial and legal documents. A single tender for a construction contract, for instance, could result in as many as 10 bids from contractors, each running 40 to 50 pages long. The regional offices would evaluate the bids and narrow the selection to two or three proposals, which would be routed to the head office for the final selection.

Marc Campana, SWL's IT manager, recalls: "We faced all the problems inherent in a paper-based system—keeping track of the paper trail, delays due to missing or incorrectly filed documents, lack of timely reporting and so on. To improve efficiency and reduce operational costs, it was imperative that we create a universally accessible, low-maintenance system that would improve project management and communications among all agencies."

e-business evolution leads to extranet
In 1999, SWL worked with IBM to set up a Web site to provide the Belgian public with statistics on housing development programs. The success of this project gave SWL the confidence to evolve its e-business capabilities from static information presentation to dynamic information access and transaction processing. SWL envisioned using these capabilities to establish an extranet that would improve the efficiency of its interactions with housing agencies.

The same year, SWL initiated a competitive bid process to select a technology provider and development partner for its extranet. With five vendors on its short list, SWL ultimately chose IBM. "We were looking for a solution based on scalable, state-of-the-art technology that would grow with our needs," Campana says. "That's why a server-side Java technology-based architecture made sense to us. IBM WebSphere software was not only the most cost-effective solution we evaluated, but also the most Java-compliant, which we felt would reduce our total cost of ownership in the long run."

SWL also pondered what database should serve as the data repository for its extranet. Previous applications had used another data store, but now SWL opted for IBM DB2 Universal Database. "Using DB2 helps optimize performance because it supports database access standards such as JDBC [Java Database Connectivity]," Campana notes. "Other data access methods would have hampered response time."

Beyond meeting the technical criteria, SWL sought a solution provider that had the resources to deliver technical support throughout the project lifecycle —which was expected to take up to 15 months. IBM Business Innovation Services—part of IBM Global Services—fit the bill. "This project was the first of its kind in Belgium," Campana explains, "so IBM Global Services' ability to call on its Java technology experts from France and England provided a critical advantage."

The extranet, which went live in April 2001, has improved SWL employee productivity by 30 to 40 percent, enabling the housing agencies to start their construction projects earlier. By minimizing paper handling, SWL expects to reduce data entry errors and the associated costs. The centralized system also helps track contractor invoice payments more accurately, reducing payment inaccuracies. Since the latest status of each project is always readily available, SWL can generate statistics for the public Web site much faster—in minutes as opposed to weeks. As a result of all these improvements, SWL expects to achieve a full return on its investment within 36 months.

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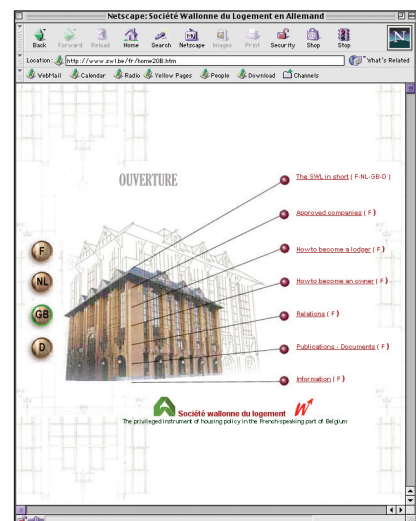
SWL's Web site helps prospective renters, buyers and the general public understand how the housing program works.

A multiplatform architecture

Approximately 200 users at SWL and another 300 in the housing agencies log on to the extranet using Web browsers. Project managers at the housing agencies can submit their proposed construction projects, check the status of funding for each project, view the latest list of approved contractors, submit their final bids to SWL for approval, file inspection documents and more. Supervisors at SWL use the extranet to review incoming proposals, allocate funds to the various projects and oversee the agencies' use of those funds.

At the outset of the extranet project, SWL presented these activities and other functional requirements to IBM Business Innovation Services, relying on IBM to architect, develop and deploy the application. Based on SWL's requirements, IBM created an object model, then used IBM VisualAge for Java to develop an application framework to generate the Java objects that drive the various business processes. The Java objects are contained in WebSphere Application Server, Advanced Edition, Version 3.5, residing on a Microsoft® Windows NT® server. Since WebSphere Application Server already provides all the system-level functions of the application, IBM developers were free to focus on the business logic and presentation components, shortening the development cycle.

Whenever a process requires access to the database, the business logic uses JDBC to connect with DB2 Universal Database for HP-UX. "The fact that DB2 runs on multiple platforms was greatly appreciated in the development phase," Campana says. "We were able to use Windows NT workstations, and then deploy the application in a higher-performance UNIX® environment."

Exceeding public expectations

High performance will become a key requirement as SWL opens the extranet to access by contractors (through the agencies) and other housing authorities in the Wallonne government. "Public agencies in Belgium—as in much of the world—are heavily scrutinized," Campana explains. "Taxpayers want to see results for their money. Consequently, this e-government solution—the first of its kind in the public sector in Belgium—was as much about improving our image as it was about managing specific processes. Having IBM by our side was a significant step in that direction."

For more information about

Société Wallonne du Logement visit:
www.swl.be

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