



# *CERA Bank's 100% Pure Java mortgage calculator adds customers, subtracts costs*

CERA Bank, the sixth largest bank in Belgium, now provides an Internet banking solution that has improved customer service and expanded its marketing reach. CERA's new 100% Pure Java-based interactive online mortgage loan calculator gives its retail banking clients instant access to loan information over the Internet, while making it easy for CERA to update interest rates and other financial data.

*"IBM was very important to the success of this project. We've always been a 'Big Blue' bank. This application allows us to take advantage of new technologies such as Java."*

*—Rudi Peeters, Electronic Banking Officer, CERA Bank*

CERA Bank has provided electronic banking services to its customers since 1989. The bank developed a software package currently used by 20,000 small- to medium-size retail enterprises and 12,000 private customers throughout Europe. While its online banking service made it convenient for users to download account information, this client/server-based program was inherently expensive to maintain, requiring new diskettes to be shipped to all existing users with each software upgrade, and necessitating extensive software support for new installations.

## **IBM helps CERA Bank expand services on the Internet**

In addition to improving its current online services, CERA wanted to develop an informative, interactive, platform-independent Web site, where customers could obtain financial information and take advantage of other banking services. Rudi Peeters, electronic banking officer for CERA Bank, says, "The Internet holds great potential for improving the services we offer to our customers and for extending the walls of our enterprise. To take advantage of electronic business solutions, we knew that it would be necessary to make the transition from our traditional client/server model to a true network computing model."

CERA Bank worked with the IBM Global Technical Projects Team that acts as a catalyst

### **Application**

100% Pure Java™ interactive online mortgage loan calculator

### **Software**

IBM® OS/2® Warp Server  
IBM Internet Connection Server for OS/2

### **Services**

IBM Global Technical Projects Team  
IBM Global Network™  
IBM Global Services

for accelerating the development of mission-critical business applications based on network computing initiatives. The IBM team



*CERA Bank's headquarters in Leuven, Belgium.*

implemented a Web server solution that integrates seamlessly with the bank's current system. They installed an OS/2 Warp Server running IBM Internet Connection Server for OS/2 and developed a JavaScript and HTML application to allow clients to access their bank accounts from the Web server. Customers can check account balances or transfer funds between their accounts.

In addition, the IBM team developed a platform-independent, 100% Pure Java-based mortgage loan calculator applet that enables CERA's clients to estimate their mortgage loan payments by visiting the bank's Web site at [www.CERA.be](http://www.CERA.be). Clients can download CERA's mortgage loan calculator in Dutch, French, or German and calculate amortization tables locally on their PCs. Factors such as length of loan, amount, and interest rate are entered, and a table is generated showing the loan payment schedules for different loan models. Armed with this information, the client can then go back to the bank and negotiate the best financial terms.

In addition to the reduced time to market and lower maintenance costs, Peeters was impressed with the applet's data protection. "Java's security feature blocks applications from accessing system resources, such as system files and hardware components. Microsoft's ActiveX currently provides no protection against affecting critical system resources. For example, executable ActiveX-based applications could corrupt a user's hard disk."

CERA's interactive online mortgage loan application has saved the bank and its clients both time and money. For example, Java is designed to be platform independent, so it can be used with the various software packages that CERA's customers use. In addition, because the mortgage calculator program is downloaded from the server, CERA can change the look and feel of the applet, add more functionality, or even change how different formulas are applied to certain calculations, without having to reproduce or redistribute the software and deliver it to branch locations and customers.

This new network computing model also enables CERA to quickly add new applications at significantly reduced development costs than would be possible with a traditional client/server model. Plus, this scalable application allows for expansion to future network computing possibilities, including online services such as deposit, withdrawal, fund transfer, and bill payment options.

"IBM was very important to the success of this project," says Peeters. "We've always been a 'Big Blue' bank. This application allows us to take advantage of new technologies such as Java."

### **New services draw many new customers**

Peeters says the introduction of CERA's interactive online services, including the mortgage loan calculator, has increased its number of new customers from two a day to almost 100 a day, with many coming from rival banks. Peeters is confident that CERA Bank can add 24,000 new customers by the end of the year—an impressive figure for a bank with only 950 branches throughout Belgium and a total of 4,600 employees.

As motivation for customers without Internet access, CERA provides an online service kit, including a Web browser and IBM dial-up, TCP/IP, and security software. In just the first few months since it's been available, over 3,000 customers have requested the kit, which includes one free hour of Internet access through IBM Global Network. Customers requiring additional Internet time or services can purchase IBM Global Services through CERA.

### **Enabling online transactions with Java**

Pleased with the success of the mortgage loan calculator, CERA Bank plans to expand its investment in Java technology to enable online loan approval, money transfer and bill payment. It is also exploring other possibilities, such as offering services directly to the customer's home through interactive television using set-top boxes, and to business customers over mobile phones and personal digital assistants (PDAs).

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