



MediSolution

ISV Cuts Time to Market 35 Percent, Integrates .NET Solution with Oracle Database

Overview

Country or Region: Canada

Industry: Healthcare

Customer Profile

MediSolution, based in Montreal, Canada, is a leading healthcare and service sector information technology company, providing software and services to customers across North America.

Business Situation

MediSolution wanted to update its Oracle-based Virtuo Revenue Cycle Management solution, giving it a visually appealing Windows®-based front end while retaining its Oracle database.

Solution

The company used Microsoft® Visual Studio®2005 and DevForce from IdeaBlade.

Benefits

- Time to market cut by 35 percent
- Developers focus on business logic, not infrastructure
- Logic is more accurate, consistent, facilitating use
- Contemporary Windows UI extends Oracle data environment

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Dean Tessman, Director of Development, MediSolution

MediSolution, a leading healthcare and service sector software provider, wanted to re-architect its Virtuo Revenue Cycle Management/Patient Billing system and move the user interface from legacy Oracle Forms technology to the Microsoft® .NET Framework, while permitting customers to continue to use the Oracle databases they'd been using for years. The company's solution: Update its software using Microsoft Visual Studio® 2005 and DevForce™ from Microsoft Gold Certified Partner IdeaBlade. These development tools cut MediSolution's time to market by 35 percent, automating the creation of much of the application infrastructure, so MediSolution developers could focus on adding value through business logic. The resulting system has more consistent code, making it easier for developers to maintain and for customers to use.

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Situation

Hospitals, reference laboratories, physician billing organizations and healthcare specialty providers throughout the country rely on MediSolution's Virtuo Revenue Cycle Management/Patient Billing system. The solution has long been known for streamlining billing processes, maximizing collections, reducing receivables, and improving cash flow.

The Virtuo Revenue Cycle Management is an Oracle-based solution. The user interface and application had been developed using Oracle Developer 2000 Forms 6i and had been running on the Microsoft® Windows® operating system. The back end ran on an Oracle database. Oracle had been a conservative choice for the many hospitals and other healthcare providers looking for a scalable, reliable solution, and now MediSolution and its customers had invested significantly in the database software.

But MediSolution saw a need to update the application from a hard-to-maintain client-server model to a modern, n-tier architecture, and to refresh the user interface. It wanted the Virtuo Revenue Cycle Management solution to be visually appealing to users accustomed to the most sophisticated Windows software. It wanted to provide Web-enabled capability to support use over intranets and the Internet. And it wanted to do this without requiring seismic changes or investments on the part of its current customers.

“We try to continually extend the lifespan of our applications by incrementally upgrading and adding functionality to our existing systems,” says Dean Tessman, Director of Development, MediSolution. “That way, our customers don't need to rip and replace systems to gain access to the latest technologies.”

And for MediSolution and its customers, the “latest technologies” meant the Microsoft® .NET Framework.

“MediSolution made a strategic, companywide decision to focus new development on the .NET platform,” says Tessman. “It had been getting harder to find developers for Oracle applications. We didn't want the expense of supporting two development environments. We didn't think Oracle on the front end was a secure platform for the future.”

Solution

To migrate its user interface and application to the Microsoft .NET Framework, and to enable its customers to access their Oracle databases through a visually appealing, contemporary Windows front end, MediSolution chose to use Microsoft Visual Studio® 2005 and DevForce from Microsoft Gold Certified Partner IdeaBlade.

DevForce is an enterprise development framework for the .NET Framework that enables developers to rapidly build smart-client and rich Internet applications. DevForce provides the “plumbing” and infrastructure needed to build an enterprise application, so developers can focus on writing their business logic. The solution consists of an enterprise-class persistence layer, user interface (UI) databinding support for .NET code and third-party controls, a set of tools and components that are integrated with Microsoft Visual Studio, and a business object server for n-tier Internet deployments.

The persistence layer creates mobile business objects that can move to the client computer for execution, improving the responsiveness of the solution because the application doesn't need to continually request data over the network or over the Internet. The UI databinding layer binds the mobile business objects to the application UI,

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automatically synchronizing data in the UI with the business objects and saving the developer from having to write and debug complex UI eventing code.

“We knew we wanted an object relational mapping (ORM) tool to help us move our business logic out of the database and into its own business logic layer,” says Tessman. “Getting the hardcoded SQL statements out of the database would also enable our solution to work cross-platform on both Oracle and Microsoft SQL Server™ databases, giving our customers additional choice. We looked around and found DevForce to be the best ORM tool out there.”

Using DevForce, generating the user interface for the new version of Virtuo Revenue Cycle Management was largely a “drag and drop” process, according to Tessman. The full development and testing process was completed in 24 person-months and the resulting .NET-connected Virtuo Revenue Cycle Management solution has 125 forms, 145 business objects, and consolidates four separate databases into a single, consistent database.

Benefits

Thanks to Visual Studio and DevForce, MediSolution created the .NET-connected version of Virtuo Revenue Cycle Management in just two-thirds the time it would have taken using any other set of tools.

“We saw great time to market with Visual Studio and DevForce,” says Tessman. “This was the fastest way to create the .NET version of our solution. DevForce handles so much of the development processes—object caching, reading and writing to the database, and basic structures—that make up 20 percent of the core application, that we don’t have to worry about. DevForce’s UI generation and binding to data objects are tremendous time savers for us. We can focus

on creating great business code rather than the ‘plumbing.’ DevForce saved us many months of development time.”

Another key to the greater speed of development with DevForce is the framework’s immediate feedback on query errors, which enables developers to correct their work prior to compiling and running the code. “The sooner we can spot errors in code, the sooner we can correct them and move on,” says Tessman. “DevForce enables us to do that.”

Also, because developers are no longer writing queries directly to the database, they no longer need to be experts on database query languages and dialects. “Not every developer is a pro at writing SQL queries,” says Tessman. “Getting the logic out of the database, which DevForce helps us to do, is another way the tool enables us to code faster and better.”

One way that DevForce has helped MediSolution to enhance the .NET version of its solution is by standardizing the business logic. “Now, if you’re accessing a particular object, such as an employee, you’re always accessing it the same way,” says Tessman. “There aren’t different ways to access it based on the screen you happen to be in. That’s a benefit for our users in making the solution easier to learn and use, and it’s a benefit for our developers in making the application easier to create and maintain.”

And the resulting .NET-connected version of Virtuo Revenue Cycle Management meets MediSolution’s two key goals for the project: It provides a fully contemporary, visually appealing Windows user interface, and it enables customers to take advantage of that interface while continuing to access and use their Oracle data.

For More Information

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For more information about MediSolution products and services, visit the Web site at: www.medisolution.com

“Our user interface now looks like a standard Windows front end,” says Tessman. “Anyone who knows Microsoft Office will know how to be productive with it immediately. That’s what our customers want—but many of them want that benefit without having to rip out and replace the investment they’ve built up in their Oracle databases. We enable customers to extend the reach and useful lives of their Oracle databases while taking advantage of .NET functionality and the Windows interface. It’s the best of both worlds. And DevForce helped to make it possible.”

Microsoft Solutions for the Healthcare Industry

Healthcare and life sciences organizations are under tremendous pressure to meet regulatory requirements, improve patient care, and reduce the time it takes to develop drugs and take them to market. To meet this challenge, Microsoft and its partners have developed cost-effective solutions that enable healthcare organizations to streamline and automate daily processes that improve productivity and deliver information whenever and wherever it is needed. The result is enhanced productivity, safety, and quality.

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