

ONTARIO'S WORKERS COMPENSATION BOARD

Ontario, Canada

- ▶ Tool — Entera
 - ▶ Industry — Government
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RECEIVES BIG BENEFITS FROM ENTERA

Like many large organizations, the Workers' Compensation Board (WCB) in Ontario, Canada, found itself entering the decade with a mountain of legacy mainframe databases that couldn't share information with each other.

It wasn't that the organization hadn't tried. But attempts to unify the disparate systems by standardizing on one DBMS had met with no success, as had efforts to implement data dippers. Conversions had been ruled out. Not only are they costly, but "they take forever," says Valerie Adamo, director of Rapid Application Development. Each of the massive databases the WCB maintains would have required an estimated two years of conversion work, and the \$3-billion organization didn't have that kind of time.

Getting the databases to talk to each other is a key ingredient in conforming to recent changes made to the WCB by the Ontario government. The changes required Worker's Compensation to shift its practice of paying injured workers lifetime pensions to focus instead on rehabilitation, reviewing each individual's case after two and five years. To comply, the organization needed easily accessible databases.

The WCB found the solution it needed in Borland's Entera intelligent middleware. Using Entera, the organization quickly opened its databases and created new three-tiered distributed applications that make it easy for employees to get the information they need.

The open client/server systems are not only more efficient-- allowing investigators to eliminate potential fraudulent claims from the backlog--they're also spurring employee productivity. Field auditors recently requested network access hours be extended later into the evening, a sure sign that the WCB is reaping big benefits from the new systems. What's more, with developers now able to reuse many of the Entera-built components, recent application development has been whittled to just five months.

In addition, the three-tiered application's division of application, presentation, and database logic enables developers to make quick enterprise-wide changes--a boon to farflung organization like the WCB, which has 13 offices throughout Ontario. To bring more data to clients, the developers change only the data server and the SQL statement, then run Entera's *SQLMake* utility and go into production. "I can change the entire application in one day," says WCB's RAD specialist Roger Bournival, "and I don't have to worry about changing the clients all over the province."

The WCB's efforts have attracted plenty of attention: Its open client/server system was named the best in international government by UniForum. In August, it received the Canadian Information Productivity Award of Distinction from Canadian Business. The organization was also a finalist for the Smithsonian Institution's award for innovative use of information technology. In addition, CIO Canada magazine named the WCB chief information officer Kerry Long CIO of the Year in the public sector.

STOVEPIPE SYSTEMS

In the past, however, the WCB's information-systems had been anything but attention-getters. Headquartered in Toronto and governed by the Ontario Workers' Compensation Act, the organization is charged with collecting and paying compensation and benefits to injured workers.

Over the years, each of the WCB's 12 major sectors had each developed its own mainframe databases. The result was a series of "stovepipe" systems that had been developed using such varied tools as CICS, COBOL, SAS, and FOCUS, and had data sitting in standalone databases like VSAM, S2K, and Supra. In the Information Services Division (ISD), the burden of servicing all those systems was considerable. The 300-person ISD staff was responsible for providing service to WCB's 4,500 staff.

Their systems showed little efficiency. To identify whether a company was complying with the Act, for example, auditors would access an application in S2K, a hierarchical mainframe database. To determine whether the same company had ever filed a claim, the claims department would check its records, stored in Supra. Neither department had easy access to the other's information, and there was no efficient way for one department to check on the activities of another.

CONNECTING THE SYSTEMS

"We needed to take a cross-functional view of the process and the data," says Adamo. Working with IBM Consulting Group in Toronto helped the WCB gain that perspective. The organizations signed on as a licensed user of IBM's Rapid Solutions Delivery Methodology, which became key to the new systems they were building. "But we still couldn't find a technology that would let us connect the legacy data stores."

In late 1993, they found it. CIO Long attended an education forum at which Entera was presented. He returned to Toronto convinced that the tools were the way for the WCB to reduce the critical issue of time-to-market. "What clicked for me was the ability to link our technologies without redeveloping them," says Long. "You hear about downsizing, going to client/server, or going to DB2. But we didn't think you had to do that, and the demo I saw indicated that we were right."

Another important tool in the opening of the WCB's data was Information Builders, Inc.'s EDA/SQL. The powerful and popular gateway product enabled WCB developers to connect Entera's tools with the various back-end databases.

To convince management to fund the new solution and get the distributed UNIX-based technologies out to the user community, ISD began laying the groundwork for a pilot. Its plan was to target an acute business need and then convince senior management to approve a short-term pilot. Once senior managers gave the project their blessing, ISD would spend 6 to 8 weeks working with the internal client to create enough of a solution to prove the problem could be solved and that the solution would produce the value it had promised.

CHOOSING A PILOT PROJECT

The pilot application had to meet two criteria: Its emphasis had to be compelling enough to matter to senior management, and it had to focus on an internal client in need of new systems. The Special Investigation Branch (SIB) met both those criteria. The department is the WCB's main unit for ferreting out fraud, which had been identified as one of the organization's top strategic issues. The idea for the SIB application was to free investigators from the outdated mainframe systems they had been using and give them access to as much information as they needed to complete their investigations.

After securing management's approval, ISD went to work. In January, 1994, developers began creating a foundation application that retrieves data dynamically from the mainframe-based Supra, S2K, and VSAM backend databases and displays it graphically. In July, they introduced the new Windows-based application to SIB's investigators. Along the way, the developers integrated more than 40 subsystems in addition to the three database technologies. For the SIB investigators, the result was pure simplicity: From their IBM desktop computers and Toshiba laptops, they logged on just once to access the three backend databases simultaneously.

Reaction to the new application was incredible, says Adamo. The prototype's demonstration to a group that included WCB's executive officer elicited both a collective "wow" and approval for further development.

REUSING DATA COMPONENTS

Fresh from that success, the developers immediately went to work creating the WCB's first three-tiered application, a DB2/6000 application that aids investigators in managing their caseloads and tracking down suspect claims, employers, and providers. Partnering with Borland to fine-tune the initial application, ISD rolled out the new program in just five months.

Next, by reusing most of the fraud application's Entera's software servers and business functions, ISD introduced another new application--this one to the Employer Audit department--after just five months in development and more than 18 months ahead of the expected installation date.

"Reusing the client and server stubs makes it a lot simpler for the developers," says Bournival. "There's no need to worry about the communication from the client to the Entera server to the mainframe. Instead, it's all taken care of by the abstract interface in Borland's tools."

In an organization long accustomed to clumsy databases, ISD's new three-tiered applications have sparked end-users' imaginations. "They're like creative thinking tools," says Adamo. "Once you see the data onscreen, it helps you understand what else you need." For example, auditors using the new application uncovered injured workers who were receiving payment even though, records showed, their employers hadn't fully paid into the system. What the auditors didn't know--because the information wasn't available to them--was that the collections department had already contacted the employers and worked out a payment plan. Only by using the new application had the auditors discovered how integrating the collections department's data would aid their work.

The success of the new systems bears out the wisdom of avoiding the conversion route, says Adamo. Other departments at the WCB are now clamoring to get in line for applications. "It takes two years to convert a database, but in two years, I'll have delivered 12 systems," she says. The WCB is now committed to three-tiered applications and rapid-application development. To speed the rollout of new applications, two developers are assigned full-time to Entera server development. In June, 1994, ISD created a branch devoted to RAD activities.

Adamo sees dedicated front-end development tools carrying the confines of existing legacy systems to smaller platforms. "We keep the processing on the RS/6000 using Entera, and focus on using Windows-based development tools to give our users a powerful, friendly interface," she says.

Through its work with Borland, WCB is avoiding the pitfalls of processing on the desktop and keeping prepped for the changing future of computing, at an affordable price.
