

Export Development Canada on the road to SOA



Export Development Canada (EDC) is Canada's export credit agency, offering innovative commercial solutions to help Canadian exporters and investors expand their international business. EDC uses ACBS, a largely LANSA-based commercial lending and trading system, and using LANSA Integrator, has recently delivered two successful SOAP Web services integration solutions. EDC also uses LANSA to customize and extend ACBS to meet specific requirements.

Paul Kriz, program delivery manager business solutions & delivery, EDC, says, "What really helped us to deliver our integration solutions fast, is that we partnered with LANSA and had a senior developer on site for three weeks. In that period we were able to create the main structure, a proof of concept, for our Web services. We want our organization to move to a Service Oriented Architecture with Web services. LANSA is part of that plan whenever we need to integrate with ACBS."

Streamline and Automate

EDC's mandate is to grow and develop Canada's trade and export. EDC does so by providing financial services both on the financing side to the foreign companies who purchase Canadian goods and on the insurance side by protecting companies against loss and other risks. EDC works in partnership with both government agencies and the private sector to increase the competitiveness and success of Canadian companies abroad.

Kriz explains, "Because we operate both as an insurer and a bank, we have a variety of systems and platforms. Most of the solutions you find at large banks and insurance companies, you will find here too."

EDC's systems consists of in-house developed

solutions as well as purchased applications. Their preferred development platform is Microsoft.NET and SQL Server. Packaged solutions include Advanced Commercial Banking System (ACBS), a mostly LANSA-based commercial lending and trading system from Fidelity National Information Services running on an IBM i, PeopleSoft Financial and HR as well as Siebel CRM, running on Windows with the Oracle database.

"We wanted to streamline and automate processes that go across multiple systems and open up the ACBS iSeries platform for two-way communication using SOAP Web services. We looked at potential solutions and briefly considered another product, but going down that path would have required



Nearly 7,000 Canadian exporters and their global customers use EDC's services each year.

specific development. We wanted something that could work out-of-the-box and decided that LANSA Integrator would suit our needs best."

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Smooth Disbursement Procedures

EDC's first Web services project was to automate the disbursement process, as it involves multiple business areas.

When a customer requests funding on their contract, several checks and actions are put in place. When conditions are met and the final approval is given, the disbursement information is sent to EDC's corporate banking division, which is then responsible for actually funding the transaction.

Previously the disbursement notification to the corporate banking team was a manual procedure that was prone to delays and required rekeying of information.

"We wanted to have the business event of approving a disbursement, which happens in the ACBS system, automatically trigger the sending of the actual instruction to our corporate banking team. Similarly, we wanted our loan team to receive an automated confirmation back that their request for disbursement had been received and processed by the banking team," says Kriz.

Using LANSA Integrator, EDC has integrated the disbursement process across systems. "Now, as soon as approval is given, that information is transferred automatically and immediately to the corporate banking function, without the need for rekeying and without any delays," says Kriz. In addition EDC designed a SOAP service that includes extensive validation and error checking to relay information back into ACBS about the proof of delivery.

Some of the challenges for the project were to develop a standardized Web service framework that can integrate with applications external to the iSeries; enable multiple integration protocols like Web services and XML along with multiple transport protocols such as HTTP, FTP and email and develop a generalized design for logging and error handling. →

Behind the scenes a Web service, composed with LANSA Integrator, consumes the information that goes from ACBS through EDC's Enterprise Services Bus (ESB) messaging service to GDS (Generation document and Dispatch Services). GDS invokes an Adobe engine to compose the disbursement request in PDF format, archives it in a database and sends an Outlook email notification with the PDF attachment to corporate banking.

"The streamlined process eliminates the need to enter the disbursement twice. Secondly, we have greatly improved the timeliness of the delivery of information," says Kriz.

Improved Customer Statements

EDC's second LANSA Integrator project has improved the technical delivery method of customer statements.

Previously ACBS produced printed account statements that were manually mailed or faxed to customers. As most lending is to the customers of the Canadian exporters, EDC has many foreign organizations it deals with and fax is in most cases the preferred communication method.

Using LANSA, EDC consolidates ACBS invoices into customer statements. But instead of sending these statements to the printer for manual faxing, EDC now uses a Web service that invokes the creation of a graphical PDF document, which is then automatically dispatched to an electronic fax facility.

"We have improved the quality and efficiency of the delivery method. Instead of manually sending an ordinary text based statement, we now electronically fax nice looking customer-friendly documents. Using LANSA Integrator, a SOAP Web service is triggered with XML containing formatting and dispatching information. We were able to reuse the SOA framework and meta data developed for the disbursement process."

"The same Web service is used to handle both real-time adhoc statement requests, as well as statements generated in our end-of-day procedures"

The dispatch service has email capability as well, but email is not viewed as secure enough to guarantee confidentiality. Many countries still rely on faxes.

Extended Functionality

EDC purchased ACBS in 1997 and has a team of three LANSA-trained developers who take care of ACBS extensions, integration and



Export Development Canada streamlined and automated processes across multiple systems using LANSA Integrator.

"Partnering with LANSA has put the right footing in place."

support. EDC wanted to avoid changing the solution's core logic and the ACBS architecture lends itself very well for extensions.

Kriz and his team followed the same framework within Visual LANSA for client presentation as used by ACBS, so the look and feel of EDC's extensions is the same as the core ACBS application.

As a specific example of a fairly extensive customization, EDC has extended ACBS in the area of Bank-Borrower relationships. Because EDC has a relationship with the Canadian exporter, as well as with the customers of the exporter, ACBS needs to understand this triangular relationship.

"Both Visual LANSA and LANSA for the iSeries work well for us," explains Kriz. "We had no problems with LANSA and have always been very pleased with the training and support. We have not yet fully leveraged LANSA's tight integration with .NET, that's an area I may want to explore."

On the Road to SOA

"What really helped us to deliver our integration solutions fast, is that we partnered with LANSA," says Kriz.

"We had a senior developer from LANSA's

Toronto office on site for three weeks and in that period we were able to create the main structure and proof of concept for our Web services. We were not just leveraging LANSA's expertise in technology, but also bounced off ideas and leveraged their experience in similar projects."

"Partnering with LANSA and having them participate at the early stages of the project in design and development has put the right footing in place. At the same time, it provided our developers with guidelines and prototypes, so they didn't have to start from scratch. To me it has been a very successful model, it helped us deliver our projects more rapidly."

"The next project where we plan to use LANSA Integrator is integration between our Siebel CRM and the loans and financing information in ACBS. We want to integrate these two solutions far more tightly and use the same Web services concept to expose ACBS information where it is needed."

"We want our organization to move to a Service Oriented Architecture (SOA) with Web services. We want to create new functionality, better integration and improved delivery mechanisms for our clients. Going in the SOA direction, we should eventually be able to just orchestrate these services into new business functions or applications and leverage the reuse aspect of the design. LANSA is part of that plan whenever we need to integrate with ACBS," concludes Kriz. ■

COMPANY AND SYSTEM INFORMATION

- Export Development Canada (EDC), a government owned Crown corporation, is Canada's export credit agency. EDC is financially self-sustaining and does not rely on tax dollars for its operations.
- Nearly 7,000 Canadian exporters and their global customers use EDC's services each year. For more information visit: www.edc.ca