Customer Solution Case Study

Microsoft SharePoint 2010

WILLSON
Unmatched Service Across Borders

Customs Broker Avoids Millions of Paper Documents a Year with New ECM Solution

Overview

Country or Region: Canada
Industry: Professional services

Customer Profile
Willson International provides customs brokerage services to companies that ship goods between Canada and the United States. It has 14 locations along the eastern U.S.-Canada border and 160 employees.

Business Situation
Willson's business was mired in paper, which was expensive to store and manage. It wanted to find a cost-effective way to create an enterprise content management system that met its needs.

Solution
Willson created an enterprise content management system by using Microsoft SharePoint Server 2010, Microsoft SQL Server 2008, and Windows Azure Blob Storage.

Benefits
- Enhanced customer service
- Paper storage savings of U.S.$100,000 annually
- Cost avoidance of $200,000
- Productivity increase of 25 percent

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Arik Kalininsky, Vice President, Information Technology, Willson International

Willson International handles customs paperwork for companies that move goods between Canada and the United States. Willson wanted to find a more efficient way to handle millions of paper documents generated each year. First, it used Microsoft Office SharePoint Server 2007 to convert incoming customer faxes to digital files. Then, itupgraded to Microsoft SharePoint Server 2010 to create a complete enterprise content management (ECM) system that eliminates all the paper associated with shipments. Willson has improved customer service by retrieving archived shipment documents in minutes rather than days. Customers will even be able to serve their own document requests by using a customer extranet. Willson will ultimately slash paper storage costs by U.S.$100,000 annually. It has also improved employee productivity by 25 percent and can process increasing volumes with existing staff.

DataBind Solutions

Microsoft

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Situation

Willson International provides customs clearance services for companies that ship goods between Canada and the United States. It handles truck- and land-based freight as well as air, ocean, and rail, and helps customers in a variety of industries.Willson has 12 branch locations, mostly at border crossings, plus a customer service center in Stoney Creek, Ontario, and headquarters office, in Mississauga, Ontario. It employs 160 people.

Demand for Fast Processing

A customs broker's job is to handle the extensive paperwork associated with cross-border shipments. It has to be familiar with regulations associated with multiple government agencies, recognize customs rules pertaining to specific products, and facilitate communication between the importers and exporters and with various government agencies. Of course, time is always of the essence.

"The border never shuts down, so our business operates 24 hours a day, 365 days a year," says Arik Kalininsky, Vice President of Information Technology at Willson International. "Customs requires all information about a shipment two hours before the truck crosses, but sometimes we may only receive the information from our customer two hours and five minutes before the crossing. That means we have five minutes to process the information and get it to customs. So our business is more and more becoming a real-time business."

Bogged Down in Paper

Unfortunately, response to the demand to go fast was increasingly being slowed down by rising tides of paper. Many Willson customers use fax machines to communicate with Willson rather than transmitting shipment data to Willson electronically. This means that most customer shipments generate lots of paper—five to seven multipage documents per shipment. A typical document set includes the incoming customer fax, which can contain bills of lading, invoices, packing slips, and other documents required by customs.The document setalso includes content generated by WDB, the Willson shipment processing system that createsthe electronic customs invoice and the actual customs entries. When the corresponding billing invoice is generated by the Willson financial system, it is inserted to the document set as well.

A small army of import analysts at Willson manually keyed data from customer faxes into the WDB, and then photocopied the fax plus the associated shipment paperwork. One copy of the shipment paperwork was sent to the customer and another was sent to an external storage facility.

High Cost of a Paper Process

The paper was literally piling up. "Each of our 12 branch locations had three or four fax machines spitting out paper around the clock," says Kalininsky. "We handle a large amount of shipments annually, which amounts to millions of paper documents each year. Plus, we have to retain those documents for six years for regulatory compliance, which meant we were storing tens of millions of documents in a third-party service and paying more than[U.S.]$100,000 a year to do so."

In addition to the cost of storing all that paper, there was the cost of manually transferring data from the paper faxes

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into WDB. Working with paper faxes was cumbersome, requiring extreme diligence and supervision of the manual process. This process affected efficiency, which Willson measured using ametric called entries per man-hour (EPMH), a measure of how many shipments one person can rate in one hour.

Of greatest concern,however, was how paper-based processes affected customer service. "We understood that our customers had to communicate with us using paper, but once that paper hit our operations, it really slowed things down," Kalininsky says. "About once a week, we had to retrieve documents from the off-site facility to resolve questions about a past shipment, and this could take weeks. We wanted to digitize all this paper and put it in one place where we and our customers could access it easily."

Solution

By 2008, Willson realized that it had to get the "paper monster" under control. Kalininsky began looking at leading enterprise content management (ECM) systems, including industry leaders Laserfiche, OpenText, and Documentum. However, none were just right for Willson. "They typically bundle many features in a big but expensive package, requiring that we spend a great deal of money on functionality we didn't need," Kalininsky says. "If you needed customization, the programming resources were scarce and expensive. We ultimately determined that our requirements were not going to be met by off-the-shelf solutions and that we needed an easy, low-cost way to create our own ECM system."

At a previous job, Kalininsky had worked extensively with Microsoft Office SharePoint Server 2007 for portal and collaboration functionality. "What I liked about Office SharePoint Server was the fact that it didn't promise to be everything to everyone but instead provided a great set of building blocks that you could easily customize to your needs," says Kalininsky. "It worked with Microsoft .NET, for which resources are widely available, and we could use it to cost-effectively roll out functionality on a pay-as-you-go basis."

Phase 1: WEFAX

In late 2008, Willson used Office SharePoint Server 2007 to tackle the first phase of its ECM project: converting incoming customer faxes to electronic files. Kalininsky's internal team created this solution, called WEFAX, in three months and deployed it in early 2009.

The team used Open Text Fax ServerRightFax Edition to digitize the faxes and send them toOffice SharePoint Server as .tif files. It used Microsoft Office SharePoint Designer 2007 to create the document repository and the user interface. On WEFAX, faxes were stored in SharePoint libraries corresponding to each branch office.

"What was important about WEFAX was the fact that we didn't make our customers change their business processes at all; they continue to send us faxes," Kalininsky says. "We just created a better way to deal with the paper faxes once they hit our company."

The big win with WEFAX was increasing the speed of transferring information from customer faxes into WDB. Although import analysts still needed to scan each shipment and enter the data into WDB, Willson was able to reduce paper-related errors, rework, and supervision. It was

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also able to move documents electronically between branches when needed, better distribute workload between branches, and give employees the ability to work remotely if needed. The WEFAX system helped Willson increase its EPMHby 25 percent, a significant improvement. This enabled Willson to cope with the financial downturn by reducing operational cost while responding to customer inquiries much faster.

However, Willson still had to print and store all the paper related to each shipment due to the need to keep all the shipment documentation together and the fact that Office SharePoint Server 2007 could not accommodate the document volumes that Willson required. Until it could digitize all shipment paperwork, it had to continue copying and storing this paperwork as a set.

Phase 2: Full ECM Solution

In early 2010, when Microsoft released Microsoft SharePoint Server 2010, Willson realized that it could move forward with creating a complete, and completely paperless, ECM system. SharePoint Server 2010 delivered multiple content management enhancements, including the ability to store much larger document volumes, more powerful metadata tagging abilities, and more sophisticated search capabilities.

"Another key feature for us was document sets, which were the equivalent of our customs folders—a bunch of documents bound by certain criteria," Kalininsky says. "In our case, we created document sets bound by the same shipment number. It mimicked our paper environment exactly and was a revolutionary feature for us." Document sets in SharePoint Server are groups of related documents to which organizations can assign common behaviors and appearances using metadata, workflows, or customized visual experiences.

Other technologies that came on the scene in early 2010 and were critical to Willson moving forward with its ECM system were Windows Azure Blob Storage—a service in the Windows Azure platform that provides online storage of large binary data (blobs)—and the Remote Blob Storage (RBS) feature in Microsoft SQL Server 2008 data management software. Remote Blob Storage is a library application programming interface set that is designed to move blob data from database servers to external storage solutions.

With the arrival of these Microsoft technologies, Willson had the tools that it had been looking for; it just needed help in putting everything together. It engaged DataBind Solutions, a Canadian member of the Microsoft Partner Network with Gold and SharePoint competencies. "One of the challenges in building a document repository like Willson wanted was the sheer scale," says Mike Hellinga, President of DataBind. "In addition to needing a way to store millions of documents, we needed a database that could also accommodate millions of documents without ballooning out of control. SQL Server RBS solved this problem, and SharePoint Server 2010 took advantage of RBS."

Windows Azure Blob Storage was the perfect place to put the RBS data. "Willson would need to either purchase several storage area networks and store the documents on-premises, or put it in

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the cloud," Hellinga continues. "With the introduction of Windows Azure Blob Storage, we had an ideal endpoint for RBS. We can use RBS to get information out of the databases and use Windows Azure to store the data in the cloud. As Willson requires more storage and its document repository continues to grow, it can just buy more cloud storage."

Willson and DataBind worked together for six months to create the ECM system. While much of the system was built using native SharePoint Server 2010 capabilities, which were customized using SharePoint Designer, DataBind also used Microsoft Visual Studio 2010 to construct a set of webparts, workflows, and event handlers specifically targeted at Willson's business needs.Datasheet and inline editing interfaces are used throughout the system to allow quick edits of metadata, and custom search webparts are integrated at key points in the user interface to allow rapid search of shipment information by barcode and other metadata.

Event handlers move shipment documents through the system based on a metadata field that indicates their lifecycle state. "Operational efficiency is paramount, so optimizing the user interface and automating steps where possible is crucial. SharePoint Server gives our developers the flexibility we need to achieve this," says Hellinga.

Willson runs its ECM system on five virtual machines hosted on three Dell PowerEdge R10 physical servers. All servers run the Windows Server 2008 R2 operating system. The database is Microsoft SQL Server 2008 R2 data management software.

No More Paper

Willson deployed its new ECM system in April 2011; WEFAX was folded into it and eliminated as a standalone tool. Before, all WDB and WEFAX documents had to be printed, photocopied, and placed in physical folders corresponding to each shipment; now, they are stored electronically in SharePoint document sets and libraries.

Of course, storing documents electronically is not much use without a way to retrieve them. Willson uses the built-in search capabilities in SharePoint Server 2010, in conjunction with the Microsoft Business Connectivity Services in SharePoint Server 2010, to retrieve information from the WDB database and customer faxes. Business Connectivity Services provide a way to connect SharePoint Server to external applications and data sources. Willson can search all the documents stored in SharePoint Server and WDB using rich metadata.

Even better, Willson is able to give customers the same online access to and search of their electronic shipment documents. If a customer is looking for the data related to a particular shipment, it can search by shipment number or even a date range, border crossing location, or other information.

Benefits

With its new enterprise content management system, Willson International has been able to improve customer service and satisfaction, significantly reduce the costs related to managing and storing paper, increase employee productivity, and reduce its environmental impact.

"With our new ECM, we have eliminated the need to store millions of documents off-site each year, which will ultimately amount to a $100,000 annual savings."

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Enhanced Customer Service
With its ECM solution, Willson can better respond to the increasingly real-time pace of its business. "The faster we can process customer paperwork, the sooner we can clear shipments," Kalininsky says.

Also, converting paper to electronic records opens up new customer service offerings for Willson. "All our documents will be online in a customer extranet, where customers can immediately access them using an intuitive graphical interface," Kalininsky says. "Larger customers especially don't want to deal with paper, and they want vendors that have an ECM system. It's becoming a criteria for getting business. So our ECM solution not only helps us do a better job servicing the business we have, it is helping us attract new business."

Ultimate Paper Storage Savings of $100,000 Annually
Willson has also eliminated the need to print and store millions of paper documents each year. "With our new ECM, we have eliminated the need to store millions of documents off-site each year, which will ultimately amount to a $100,000 annual savings," Kalininsky says. Existing paper documents already in storage will be left there, but when the last document reaches its six-year regulatory retention age and is destroyed, Willson will have eliminated the need to have tens of millions of documents sitting in a Canadian warehouse.

Cost Avoidance of More Than $200,000
By creating its ECM system using SharePoint Server, Willson also realized asignificant cost avoidance in purchasing an expensive off-the-shelf ECM solution. "We realized a $200,000 up-front cost avoidance by not purchasing solutions such as Laserfiche or Documentum, plus 15 percent annual maintenance and customization costs," Kalininsky says. "Over time, the maintenance and customization costs often exceed the original purchase price."

Employee Productivity Increase of 25 Percent
By digitizing faxes with WEFAX, Willson took an important step toward increasing its EPMH by 25 percent. With this increase in staff productivity, Willson was able to weather an organizational downsizing brought on by the economic recession. Even with a reduced import analyst staff entering shipment data, Willson is able to perform the same amount of work with a far smaller staff.

Also, staff members can work remotely now that their jobs no longer involve collecting, copying, and processing paper. All the customer documents that they need are available online, freeing them to work from other locations.

Environmental Benefits
Digitizing paper documents also has a big environmental benefit. "Hundreds of millionsof pages over the years is a lot of trees," Kalininsky says. "It's a significant environmental contribution."

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Microsoft SharePoint Server 2010

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