

A major distributor

B2B Portal Development Using WebSphere Commerce Server

Case Study

Solution Overview

Industry

Supply Chain Management
Parts distribution

Business Solution

Custom Business-to-Business Application

Architecture

J2EE
WebSphere Commerce Server
WebSphere Application Server
DB2
SUSE Linux

Products Used

Java J2EE
WCS and WAS
Lotus Domino

Development Resources

Encore Consulting Services, Inc.

Development Time and Cost

Nine months, six-person team

Benefits

This custom-built B2B application allowed the entities with disparate systems participating in the supply chain to exchange business documents electronically.

A major distributor in Chicago is an international seller and supplier of systems, services, and products to the industrial, commercial, institutional, and government maintenance repair and replacement marketplace. The company also manufactures, sells and distributes production and specialized component parts to the original equipment marketplace including the automotive, appliance, aerospace, construction, and transportation industries.

The requirement that the client articulated was to develop a comprehensive enterprise-level B2B web application based upon technical infrastructure and desired web functionality. Such a web application would complement the corporate e-commerce strategy.

Solution Challenge

The mission of the project was to design, develop, and implement a business-to-business (B2B) application that would accomplish the following:

1. Provide an electronic integration medium for the distributors to place purchase orders and receive invoices from manufacturers
2. Create a common document schema for information interchange
3. Integrate with the manufacturers legacy systems with potentially different formatting needs
4. Eliminate point-to-point integration between the distributors and manufacturer's systems
5. Provide a secure and guaranteed communication hub for business document exchange
6. Provide an extensible framework that could be easily enhanced to integrate new distributors and manufacturers

The Solution

The solution was to build a custom B2B integration application on the J2EE platform using IBM WebSphere Commerce Server (WCS), WBI, and DB2 as the repository running under SUSE Linux Enterprise Server on IBM zOS.

The approach provided a centralized formatting and routing application that received purchase orders from the distributors in a predefined and agreed upon format. The format was created after

thorough analysis of all the distributor systems and the general needs of a supply chain ordering process. The purchase order then went through a pipeline of business processes including validation, database persistence, and EDI formatting before securely routing to the intended manufacturer via FTP.

Other monitoring and notification routines wrap around this core system to alert any discrepancies in the documents or delays in communication.

The Benefit

The project allowed successful communication of purchase orders and invoices between the distributors and manufactures.

1. Eliminated the point-to-point integration between each distributor and manufacturer by providing a single point of transfer
2. Reduced the manual effort required by the customer service staff to track, translate and manage the business documents
3. Eliminated duplication of entry
4. Eliminated the effort required by distributors and the manufacturers to satisfy specific formatting needs of each other
5. Provided a central repository for all queries and history
6. The design of the application provided easily extensible classes to customize the documents to the specific formatting and business needs of the intended recipient.
7. The application deployment was scaleable to handle increase in traffic