

Case Study

» Client Background

Stericycle provides business and consulting services to more than 471,000 customers worldwide. Focusing on helping customers promote safety, improve regulatory compliance and manage risk. Based in Lake Forest, IL, operate in the US, United Kingdom, Ireland, Canada, Mexico, Argentina, Brazil, Chile, Portugal, and Romania.

SteriCycle services include medical waste disposal and sharps disposal management, product recalls and retrievals, OSHA compliance training, pharmaceutical recalls and medical device returns, hazardous waste disposal, healthcare integrated waste stream management, pharmaceutical waste disposal, medical safety product sales, and high volume notification services.

» EDI INTRODUCTION

Electronic data interchange (EDI) is the structured transmission of data between organizations by electronic means. It is used to transfer electronic documents or business data from one computer system to another computer system, i.e. from one trading partner to another trading partner without human intervention.

EDI can be formally defined as 'The transfer of structured data, by agreed message standards, from one computer system to another without human intervention'.

» EDI Components in BizTalk Server 2009

Microsoft BizTalk Server 2009 components used for EDI processing include the following:

- 1) The BizTalk EDI Application contains artifacts (including pipelines, orchestrations, and schemas) that are needed to process EDI documents.
- 2) The BizTalk EDI Receive Pipeline (EdiReceive pipeline) parses EDI-encoded documents, splits EDI batches, converts the EDI-encoded documents into XML encoding, performs EDI and XSD validation, and performs HIPAA X12 sub-document splitting.
- 3) The BizTalk EDI Send Pipeline (EdiSend pipeline) converts XML documents into X12 or EDIFACT encoding, serializes EDI-encoded documents, and performs EDI and XSD validation.
- 4) A schema repository includes X12, EDIFACT, HIPAA X12N 4010A XSD, EANCOM, and control schemas.

» Solution

Royal Cyber Inc. are now one step further in technology race and using BizTalk Server 2009 which providing sound Middle ware and Service Oriented Architecture (SOA) through which, within or between organizations integration and interaction become much easier as compare to past era.

Royal Cyber Inc. recently implemented BizTalk EDI feature in SteriCycle Project successfully. Detail overview of EDI and its implementation are given below to understand EDI in client project (SteriCycle).

» Objectives

The key objectives for projects are:

- Assistance with the implementation, setup, and configuration of the development BizTalk Environment
- Assistance with the setup, configuration, and deployment of the QA BizTalk environment
- Assistance with the setup, configuration, and deployment of the Production BizTalk Environment
- Conversion of the EDI 180 outbound to BizTalk 2009 for trading partner Johnson and Johnson (JNJ). Johnson and Johnson has two 180 processes, Trade and Samples. The process expects to Receive a 997 in return
- Conversion of the EDI 180 inbound to BizTalk 2009 for trading partner Johnson and Johnson (JNJ) with a returning 997
- Conversion of the EDI 812 inbound to BizTalk 2009 for trading partner Johnson and Johnson (JNJ) with a returning 997
- Conversion of the VMS Web Service Main orchestration to submit the 180 to client's system
- Create a build and deploy script using MSBuild
- Build BizUnit testing for a unit testing process

» Achieved Project's Milestones

The following areas are covered within the scope of this project:

- 1) Install and document the installation of BizTalk Server on the development, QA and ProductionServer
- 2) Provide information on how to create a QA and Production environments
- 3) Implement the EDI 180 Inbound process. Includes EDI batching and archiving
- 4) Implement the EDI 180 Outbound process. Includes EDI batching and archiving
- 5) Implement the EDI 812 Inbound process. Includes EDI batching and archiving
- 6) Implement the EDI 997 send and receive for the 180 processes
- 7) Convert the VMS Main submission orchestration to submit the 180 into Stericycle System
- 8) Setup EDI trading partner Johnson and Johnson
- 9) Setup standard ESB Toolkit 2.0 exception handling process. Create a build and deploy Script
- 10) Create a BizUnit test harness so that there is a repeatable testing process
- 11) Unit testing on the development environment
- 12) Integration testing, Partner testing, and Load Testing in the QA environment
- 13) Promotion of code to Production Server
- 14) Partner Connectivity Testing
- 15) Royal Cyber Inc. followed X12 standard