BizTalk Implementation for
Enhanced Flexibility & Agility in EDI Transactions

Client Overview

The client is a global leader in the electronics manufacturing industry – with over 19,000 team members across 30+ locations, providing product design, manufacturing, supply chain and aftermarket services for more than 40 years.

The Business Situation

The client faced several challenges while using their prior EDI solution with trading partners. Data exchange with trading partners who were not EDI enabled was not possible. With only 300+ suppliers & 15+ customers being EDI enabled among their huge trading partner base, they struggled with disparate processes and manual consolidation of transactions from different sources like VAN, Email, FTP, etc. Onboarding a trading partner on the existing EDI solution solution was a cumbersome process. The certificate repository was scattered & resource dependent. The legacy suite had specific resource requirements and necessitated a niche skilled workforce. The EDI solution could not integrate with other applications, and was rigid since it did not provide customization options.

The Solution

GAVS migrated the client to BizTalk, enabling agility & flexibility in dealings with suppliers, customers, and banks.

- Migration of all EDI (X12 & EDIFACT) and banking transactions

- Establishment of B2B communications gateway – transaction messaging, mapping, transformation, tracking

- Migration of communication setup, retaining existing EDI standard/version - support for most communication protocols like FTP, SFTP, OFTP, REST API, VAN, AS2

- Migration of maps, incl. acknowledgement maps

- Integration of BizTalk with other applications like web portals, ERPs, leveraging BizTalk capabilities

- One-click onboarding with windows application to automate Trading Partner Management (TPM)

- APIs in Azure API Management Portal for partners not EDI-enabled; APIs for real-time ERP access

- Exclusive connectivity for core business transaction processing

- Miscellaneous:
    - Decoupled architecture – external, EDI, ERP applications
    - Intuitive web application for end-to-end certificate management
    - Bulk email notifications for certificate renewal, downtime etc.
    - Automated alert emails for transaction errors, latency etc.
    - OAuth 2.0 token-based authentication & session persistence
    - Connection closure tracking with ack. like MDN, HTTP response code
    - Several reports & dashboards - with advanced search
    - Support for most security protocols like 3DES, AES-256, AES-256-CBC, SHA-1, SHA-256
    - On-demand load-testing tool with dynamic variables
    - Enhanced archival mechanisms

Challenges

- Data exchange limited to EDI-enabled trading partners
- Disparate, manual, error-prone transaction consolidation
- Separate, time consuming on-boarding process
- Unavailability of consolidated certificate repository
- Increased costs due to specific hardware & skill requirements
- Integrations with other enterprise applications not possible
- Not customizable for specific needs

Solution Highlights

- Phased implementation for seamless transition
- APIs to handle all levels of EDI capabilities
- Migration of all maps for data flow between EDI & ERP systems
- Separate connections for core processes for high uptime
- BizTalk integration with enterprise applications
- One-click onboarding through automation
- Centralized certificate repository & management, enabling dynamic content change
- Development of customized tools, reports/dashboards, automated workflows

Solution Outcomes

- **30% reduction in IT overhead costs** since BizTalk does not have specific resource needs
- **30% cost reduction in project execution** with application integrations and one-box solution
- **80% effort reduction** through one-click onboarding
- **Unified enterprise application environment** due to integrations
- **High availability of enterprise applications,** tending towards zero downtime

> *One-click onboarding X12 will be very useful and save time when setting up trading partners. I am looking forward to have our IT resources become familiar with it so that they can be more independent when on-boarding suppliers.*
>
> *Software Developer Sr.*

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