

WHITE PAPER

MICROSOFT DYNAMICS AX

The Complexities of System Integration

When it comes to your EDI solution, one of the most critical projects after you've become EDI compliant with your trading partners is integrating your back-office ERP and EDI systems. This integration process often comes with lots of questions.

- When should I consider integrating these two business critical systems?
- What are the largest risk factors I need to consider when planning to upgrade or switch my current ERP solution?
- How can I retain control and visibility into my EDI data transactions?

This whitepaper will help you answer many of the questions we often hear when scoping out projects to integrate a client's EDI and ERP business critical systems and we'll share some of our best practices integrating with Microsoft Dynamics AX from our 25+ years of experience.

Getting Informed

ERP Integration Benefits

Many companies first exposure to EDI is the result of a large trading partner requiring their business document transactions to use a certain EDI standard. However once EDI is being used for a significant volume of their business transactions, they stand to gain significant financial and operational benefits by integrating these electronic transactions with their Microsoft Dynamics AX ERP system.

- Reduced order to cash cycle time improving cash flows as a result of quicker document turnarounds
- Reduced process ordering time by automating re-entry document processes
- Virtually eliminated human data entry errors with data automation
- Better customer service relationships by resolving order and billing tickets with quick and accurate information since data is aggregated into a single location
- Ability to utilize data cross reference lookups between your ERP and EDI solutions so both your trading partner and ERP system receive the data it needs to execute the business transaction. For example, the UPC code your trading partner expects can be automatically converted into the internal reference code your Microsoft Dynamics AX system needs to fulfill the order.

Focus Areas for a Successful Integration

Every business is unique which almost always necessitates some degree of customization to your back-office systems. Therefore it is necessary to architect how your business critical systems will “talk” and exchange data with each other to mitigate unnecessary risk. This upfront planning will create a set of business systems and processes that can be more easily updated and maintained for the long term.

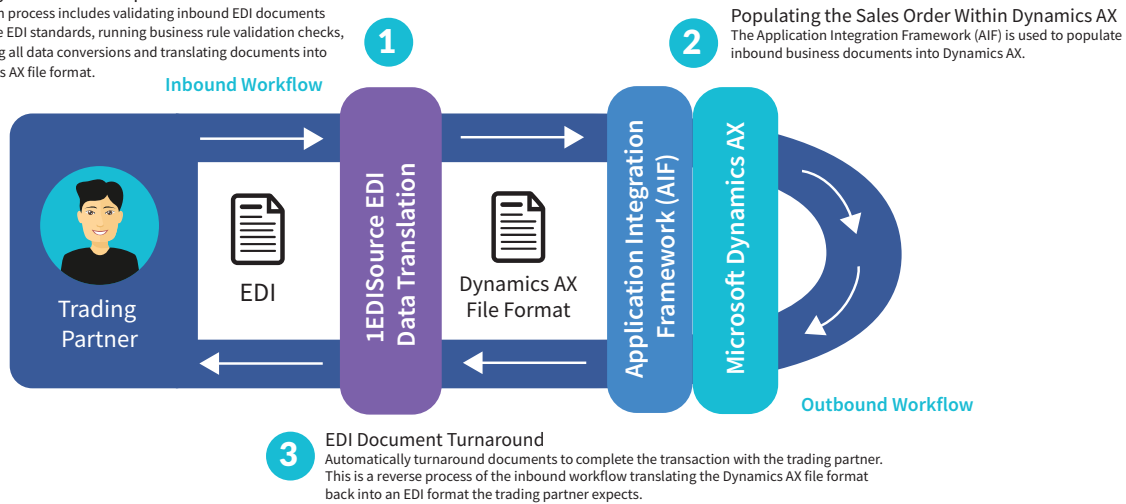
Integrating Microsoft Dynamics AX and your EDI system is no exception. There are three focus areas that should be fully explored when integrating these two systems.

- The integration communication method between your EDI and ERP systems
- What type of business rule validation processes are run when business documents are translated and how error handling and reporting will be managed
- Where business document transaction data is stored including data cross reference lookup tables and turnaround data

Successful EDI Integration Focus Areas

Translating Inbound Purchase Order EDI Documents into a Dynamics AX Compliant Format

Translation process includes validating inbound EDI documents against the EDI standards, running business rule validation checks, completing all data conversions and translating documents into a Dynamics AX file format.



Integration Process with Microsoft Dynamics AX

1EDISource can integrate with back-office systems through a number of transfer methods including RESTful web services, XML over SOAP, direct ODBC connections, and file based transfers such as CSV or other flat file formats. In a standard fulfillment sales lifecycle as shown above, an EDI purchase order from a trading partner is translated into a specifically formatted XML file that can be automatically picked up within Dynamics AX to populate a new sales order using the Application Integration Framework (AIF). The AIF framework is the common third party integration tool with Microsoft Dynamics AX as it supports both asynchronous and synchronous data transport methods using their File and Web service based transport methods, respectively.

Manage by Exception

One of the core benefits of integrating your Dynamics AX and EDI solution is the ability to manage your EDI transactions by exception where validated transactions can be automatically processed and only the failed transactions have to be manually 'touched'. Since transactions are being automatically processed, it's important to have in place robust error handling procedures, personalized error alerts, and error reporting capabilities that are tailored to your business's operations so inaccurate transactions are flagged and stopped before they are fully processed. This error handling includes validation against an EDI standard in addition to business rule validation checks specific to your operations. Setting up these validation checks before the data enters Dynamics AX helps to ensure only 'clean' orders are populated.

Handling Turnaround Data

To be in compliance with your trading partner on outbound EDI documents, it's important to understand how 'turnaround' data will be stored and recalled. Turnaround data is defined as any information that is required by your trading partner on an outbound document but isn't required within Dynamics AX to process and fulfill the order internally. It is best practice to store and recall this information within the EDI solution and not within Dynamics AX since this data is pertinent to the EDI transaction and not your back-office systems. It's often possible to store this turnaround information in designated custom tables within the ERP system, but it might require future ERP updates due to unanticipated changes with your trading partners.

Success Stories

How Other Companies Have Benefited

To ensure data can be accurately mapped, recalled, and stored between your EDI and Microsoft Dynamics systems, it's critical to have a flexible EDI data mapping solution with an implementation team that has extensive EDI and ERP experience to create a tailored solution unique to your business processes. Here is a great example of the flexible and creative solutions 1EDISource provides. The customer had inbound transactions that were coming from a remote ordering system that used a completely different set of customer ID and location codes than their Microsoft Dynamics system. A cross reference table was built within 1EDISource's HQ system so a customer ID could be matched to its associated vendor ID stored within Microsoft Dynamics. A validation check was run within the EDI HQ system using this referenced vendor ID to make sure the order was marked as being set up with Microsoft Dynamics before sending the outbound fulfillment documents to the trading partner. If this validation check failed, the documents would not be sent and an automatic error notification event would be sent to the appropriate persons. Having a flexible data mapping solution coupled with custom tailored business rule validation checks and proper error alerting provided this customer the confidence they needed to integrate and automate their EDI business transaction lifecycle.

Gaining Industry Expertise

1EDISource has performed hundreds of back-office system integrations. For every one of these customers we take the time to truly understand how you can use EDI to empower your business. This includes a complete review of your unique business processes and stakeholders, current EDI requirements imposed by your trading partners, and the potential integration needs by reviewing all your back-office systems that utilize your EDI business documents. We also take the time to learn how we can help with any current EDI challenges you might be facing such as vendor chargebacks, days sales outstanding visibility, and vendor/partner strains due to EDI solution limitations.

We have one of the most flexible EDI solutions on the market and coupled with our 25+ years of industry experience, we can provide a solution that can be adapted to your unique business needs. The expectation we set with every customer is your EDI solution should be much more than simply translating EDI documents—It should lead to stronger customer relationships, increased operational efficiency and automation, and better visibility into your EDI processes across the organization.

About 1EDISource

For over 25 years, we have focused on being the finest choice for superior, cost-effective EDI solutions. 1EDISource has designed an elite suite of EDI data exchange, translation, compliance and integration solutions to meet the needs of businesses of all sizes across any industry.

We solve complex EDI business issues with our superior product suite, unrivaled in-house customer support, comprehensive outsourcing, training and consulting services delivered by our team of experts with years of in-depth EDI knowledge and experience.

For further information about our products and services, please visit www.1EDISource.com.

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Empowering your EDI

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