A Complete Solution for Accurate and Efficient Bi-Directional Electronic Data Interchange
Table of Contents

EDI Overview 3
EDIConnect Benefits 3
EDIConnect - A Complete Solution 4
Key Technologies 5
  Translator 5
  Transaction Builder 7
  Key Transformations 8
  Validator 11
  Partner Manager 11
  Repository Manager 12
  Automation and Process Orchestration 12
  Job Scheduler 12
EDI Overview

Electronic data interchange (EDI) is widely-used technology for the automated (computer to computer) exchange of business documents from different sources in a standard electronic format. It enables businesses to exchange purchase orders, invoices, advance ship notices, and other business documents directly from one business system to the other, without human resources. Proven advantages are operational cost savings, increased processing speed, reduced errors, and improved relationships with business partners.

EDICconnect Benefits

Speed, Accuracy & Efficiency

EDICconnect is a complete solution for bi-directional EDI data integration. Key benefits are ease-of-use, speed, accuracy, and efficiency. Paper transactions that used to take five days for manual input can now be completed in less than an hour, with the virtual elimination of human error. The automation of paper-based tasks frees up staff to concentrate on higher-value tasks and provides them with the tools to be more productive. Research reports as much as a 50 percent saving on human resources from the use of EDI tools.

Key Features

- Intuitive user interface with visual tools to build bi-directional integration
- Incoming file translation and ingestion with built-in transaction sets
- Advanced data mapping, validation, and correction capabilities to better manage data ingestion
- Fast and easy outgoing transaction construction
- Acknowledgement generation
- Automation, process orchestration, and job scheduling

The manual paper transaction process

Transaction process simplified through EDI
Strategic Business Impact

Perhaps the biggest benefits of EDIConnect come from its strategic business impact. Real-time visibility into transaction status enables faster decision-making and improved responsiveness to changing customer and market demands, enabling businesses to be more proactive. EDIConnect shortens new product lead times and helps businesses enter new markets and territories through the standardized EDI language that enables business communication worldwide.

Environmental Responsibility

Finally, EDIConnect promotes corporate environmental responsibility by obsoleting wasteful paper-based processes with electronic alternatives. This not only promotes a greener environment and cuts CO2 emissions, it saves money because EDI costs less than paper-based processes.

EDI Connect - A Complete Bi-Directional-Solution

Astera’s EDI Connect offers a complete bi-directional EDI data integration solution, from trade partner management to customized transaction management to the diverse process of building EDI messages and sending them to partners. EDIConnect has been designed using Astera’s core expertise in extract/transform/load (ETL) technology specifically for efficiently and cost-effectively processing EDI data.

EDIConnect parses or constructs EDI data from a wide array of files and other data sources using built-in capabilities for incoming file translation, outgoing transaction construction, acknowledgement generation, and process orchestration and scheduling.

Incorporating Astera’s unique data transformation and validation technologies, EDIConnect surpasses other EDI tools by enabling any data format to be read or constructed using specially designed EDI language components. All versions of the EDI Accredited Standards Committee (ASC) X12 specification are supported, including Health Insurance Portability and Accountability Act (HIPAA) data (see EDIConnect for HIPAA Transaction Integration Datasheet for details).

EDIConnect delivers the advanced technology, power, and scalability to meet the most demanding business needs and fulfill the promise of EDI technology.
Key Technologies

Translator

EDIConnect translates data from irregular, enterprise-specific forms into an ordered and standardized structure that is compliant with EDI standards. Because EDIConnect is integrated with Astera's Centerprise data integration platform, it eliminates time-consuming and error-prone manual processes by automatically converting data into a format that is acceptable by the company's ERP or accounting system and then automatically routing the data to that system.

The EDIConnect Translator reads incoming EDI files containing single or multiple transactions, parses the transactions, and then translates the data and makes it available for mapping, transformation, and writing to the destination.

Key EDIConnect Translator features include:

- High-performance streaming EDI translator delivers performance and scalability to efficiently process all sizes of data volumes
- Drag-and-drop visual mapping interface designed specifically for complex hierarchical structures like EDI and extensible markup language (XML)
- Integrated validator to perform standard and custom validations
Transaction Builder

EDI standards are used to determine how EDI transactions, or messages, should be formatted. The implementation of EDI is important for companies as it can significantly reduce the cost of sending documents. A paper purchase order requires resources to print the PO, fax it, or post it to the vendor. EDI automatically sends the electronic document to the vendor, reducing the cost of sending the PO.

The EDICheck Transaction Builder is one of the most powerful and intuitive EDI transaction builders on the market.

Key Transaction Builder capabilities include:

- Building of complex, hierarchical EDI transactions using a visual, drag-and-drop designer
- Instant preview for viewing data at every step to quickly correct any mapping errors in real time
- Validation of outgoing messages against partners’ requirements
- Data extraction from a wide assortment of data sources
- Hundreds of built-in transformations and functions to map data to EDI formats
EDI Key Transformations

Hierarchical data overview

Today’s EDI transactions often use complex hierarchical structures that must be parsed and validated and response structures must be built. EDIConnect enables users to process hierarchical data of any complexity using unique transformations developed specifically for complex structures.

Scoped Transformations

Scoped Transformations that can be applied to specific nodes in a hierarchical tree. For instance, a specific tree collection can be sorted or filtered, or used to join two nodes within the same tree. This approach makes it possible to perform sophisticated transformations on complex data trees.
**Tree Join Transformations**

Tree Join Transformations enable users to construct complex hierarchical documents by joining multiple disparate data sources. This feature enables creation of a tree structure to be built within the dataflow and then that tree can be mapped to a destination using Centerprise mapping features.

![EDIConnect Tree Join Transformation](image)

**Detached Transformations**

Detached Transformations provide the ability to designate selected transformations as detached. Detached Transformations such as file lookup, database lookup, expression, subflow, and others can be used to create powerful validation and conversion functionalities.

![EDIConnect Detached Transformation](image)
FLWOR
The For-Let-Where-Order-Return (FLWOR) Transformation is used to perform specific operations on a tree structure.

ApplyToAll
This transformation applies a single function to multiple fields. It can be used to remove unwanted characters, perform a specific lookup, convert all values to a string, and parse dates using a specific logic, among other things.

Expression List Transformation
The Expression List Transformation enables creation of multiple expressions in a single action. This reduces clutter and streamlines dataflows.

Source as Transformation
Selected data sources can now be used as transformations. This feature enables processing of multiple small files within a single dataflow. It is useful for situations where a large number of relatively small files are received that must be processed quickly.
Validator

Your data and ultimately your business is only as good as its quality and reliability. EDIConnect’s validator enables users to perform a wide array of standard and custom validations for both incoming and outgoing transactions and scales to meet even the most challenging of data volumes. EDIConnect’s EDI Validator key features include:
- Integrated with data translator and transaction builder functions for validation of incoming and outgoing EDI transactions
- High-performance design features that enable efficient processing of large data volumes
- “Error as data” feature exposes validation errors as mappable objects, enabling creation of custom destinations
- Fine-grained control of validations for each partner
- Generates technical and functional acknowledgement of incoming files

Partner Manager

The EDI Partner Manager enables users to define EDI partner information and build inbound and outbound customer transaction maps. Features include:
- Transaction parsing and information building such as terminators and date/time formats
- Association of custom transaction sets
- Validation settings
Repository Manager

EDIConnect provides a built-in repository manager that offers a wide array of standard transactions sets and stores customized transaction sets, segments, composite elements, and elements created in EDIConnect.

- An intuitive user interface for creation of custom transaction sets to meet every partner’s requirements
- Define custom validations

Automation and Process Orchestration

- Defines simple and complex workflows using the workflow designer
- Defines process orchestration for incoming and outgoing EDI files
- Orchestration can be used to download or upload files, generate acknowledgements, invoke data maps, send emails, and much more

Job Scheduler

- Full-featured scheduler enables automation of EDI exchange at scheduled intervals
- These intervals can be hourly, weekly, daily, and monthly, or more complex
EDICconnect Benefits

Seamless, Unified Environment
A single unified platform for EDI source extraction, translation, acknowledgement generation, verification, and sending data to its destination.

High Performance
High-performance, parallel-processing engine designed to handle extremely large volumes of data.

Easy to Use
Visual drag-and-drop, code-free environment designed especially for non-technical business users.

Easy to Configure
Enables customization of transactions, segments, elements, and validations.