

EDI Implementation in Supply chain Industry

EDI (Electronic Data Interchange) is the electronic interchange of business information using a standardized format. a process which allows one company to send information to another company electronically rather than with paper. Business entities conducting business electronically are called trading partners.

Challenges involved.

Digital transformation

Digital transformation through adopting technologies such as IoT, AI, drones and robotics is necessary to improve supply chain operations. However, the major challenge of supply chain management lies in implementing these technologies across existing supply chain operations.

Automate processes.

Increased automation will help balance inventory levels, warehousing costs, and customer demand. Automation of forecasting helps optimize inventory, minimize overhead costs, and obviate the possibilities of stockouts and inventory shortages.

Partner with industry peers

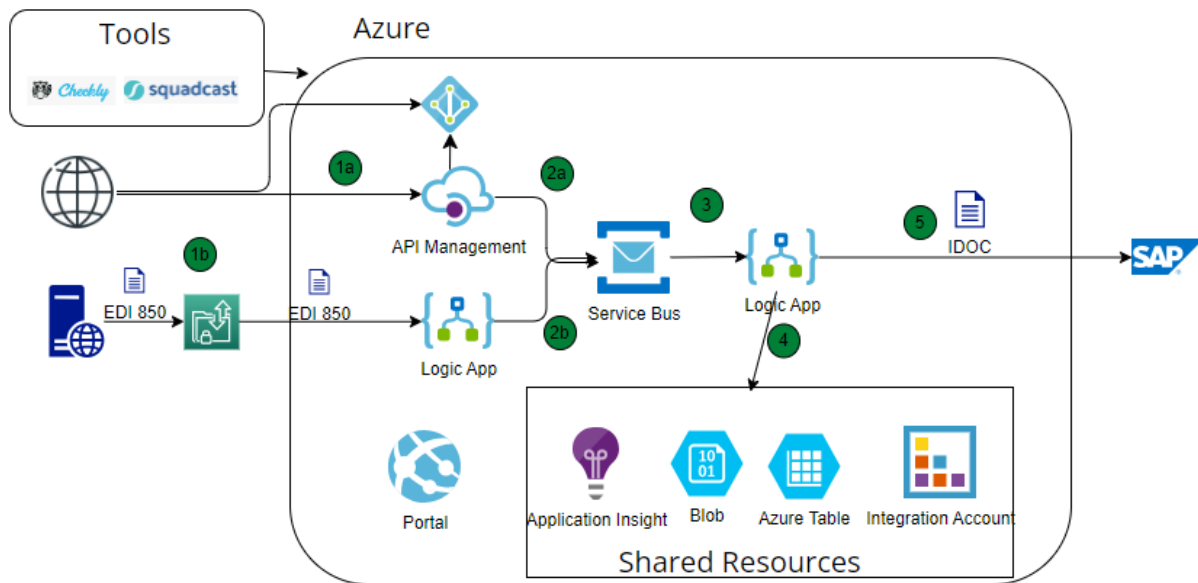
Considering the complexity of the modern supply chain, the traditional methods of operating with excel spreadsheets will not work. Ongoing and continuous collaboration with industry peers, vendors, regulators, manufacturers, financiers and logistics teams is imperative to keep the supply chain in motion. Software tools with automated permissions, alerts, information-rich dashboards and real-time updates will make these partnerships feasible and easy.

End-to-end visibility

To effectively control supply chain operations, you must have end-to-end process visibility, from procurement of raw materials from suppliers to delivery to the customers. This can be achieved by tracking and monitoring the supply chain with data logging. The analysis of the data obtained enables effective control over the process.

Technical Details and Implementation of the Solution

We used Azure stack for technical implementation



Dataflow

- 1.a** - Customers (web or Mobile) can send the purchase order in Json or xml format.
 Organisation use Azure AD to provide bearer token and validate the customer request.
- 1.b** – Customers which are based on EDI can send the purchase order (EDI 850) to SFTP location.
- 2.a** – API management validate the request using o-auth and convert request into canonical xml format and send to service bus topic.
- 2.b** – Logic App receives the EDI from SFTP using connector, converts into canonical xml format and send to service bus Topic.
- 3** – Logic App picks the xml from service bus topic based on subscription, converts the xml into IDOC format
- 4** – Logic App archives the request, also stores data for auditing purposes.
- 5** – Logic App send the IDOC to SAP using SAP connector.

Components

Implementing Electronic Data Interchange (EDI) in Azure involves leveraging various Azure services and tools to enable the exchange of structured business documents between trading partners in a standardized format. Azure provides a robust cloud infrastructure that can be used to build scalable and reliable EDI solutions. Here is a general guide on implementing EDI in Azure:

Azure Logic App –

Azure Logic app is used as integration solution to transform EDI to IDOC and connect with SAP using SAP Connector. Azure Logic Apps can be used to build workflows that automate EDI document processing and transformation.

API Management –

APIM allows organisations to expose orders API. APIM implements O-auth 2.0 to authorize the request of customers. The API's

Checkly –

Checkly is monitoring tool to monitor the API. It is used to maintain the SLAs of API's.

Squadcast –

Squadcast is incident management tool to manage the incident and incident response.

It allows team to track and respond the incident based on their priorities.

Azure Service Bus –

Azure Service Bus is used to implement the pub-sub architecture pattern.

Application Insight –

Application insight use to track the key metrics of organisation processes and help in monitoring the transactions.

Azure Blob Storage

Store processed EDI documents in Azure Storage or Azure Blob Storage for archival and auditing purposes.

Business Benefits

Reduce Effort -

By using automation, organisations can reduce manual effort and save time. This allows them to focus on other tasks, such as customer service, product development, and innovation.

Visibility-

Organisation can use portal to view end to end transaction tracking.

Incident Management –

Organisation increase the turn around time for incident management response