

KDD066 - EDI platforms in the future solution

Status	Approved
Owner	NARAHARI-ext, Bhargavi
Stakeholders	

Issue

Syensqo has multiple EDI setups using various applications. EDI (Electronic Data Interchange) involves the electronic exchange of standardized business documents between organizations (B2B). This KDD aims to analyze the EDI applications used for each process and provide recommendations for the applications.

Recommendation

It is recommended to proceed with **Option A—simplifying and standardizing the EDI systems**. Under this approach, a primary EDI application will be designated for each process, serving as the default system for onboarding any new external businesses. Secondary EDI applications will be allowed only on an exception or case-by-case basis.

By establishing a default application, all new external businesses will be onboarded using this system, ensuring a consistent and streamlined approach to electronic data interchange. This consistency is crucial for enhancing efficiency, improving data accuracy, and facilitating smoother integration with partners. By allowing secondary applications selectively, the organization can accommodate unique partner needs or specific scenarios that the primary EDI system may not address, while still prioritizing simplification and standardization.

Following are the next steps recommended as part of this option:

- Business to come up with a strategy on how they want to transact with the external business partner per each process
- Finalise the primary and secondary EDI based on business strategy during detailed design

Background & Context

EDI stands for Electronic Data Interchange. It is a standardized method for exchanging business documents between organizations electronically. EDI enables companies to send and receive documents such as purchase orders, invoices, and shipping notices in a structured format, which improves efficiency, reduces errors, and speeds up transaction processing. By using EDI, businesses can automate their communications and streamline their operations.

Following are different classifications of EDIs

1. Direct EDI

- Direct exchanges between trading partners without intermediaries.

2. EDI via Value-Added Network (VAN)

- A third-party service for document exchange, providing additional features like encryption and data translation and/or
- Outsourced services where a provider handles all aspects of EDI operations for a business.

3. Web-Based EDI

- Accessing EDI services through a web portal, allowing users to upload and download documents easily and/or
- EDI solutions hosted in the cloud, providing scalability and reduced IT infrastructure needs.

4. API-Based EDI

- Utilizes application programming interfaces for real-time data exchange, suitable for modern applications and e-commerce and/or
- Uses file transfer protocols (FTP/SFTP) for sending and receiving EDI documents securely.

Following are the key EDI systems in Syensqo along with the type of EDI

EDI	Activity	Type of EDI
Bank Portals	For Payments to Vendors / Credit notes to Suppliers	Web based EDI
Citibank	Card statement for employee cards	Direct EDI

COMEX	Customs integration	Web / API based EDI
E-Invoicing	For Sending and Receiving Invoices and Logistics transactions to government portals	EDI via Value-Added Network (VAN)
Elemica	EDI system for exchanging transactions to Customers and Vendors	EDI via Value-Added Network (VAN)
Jet	Customs integration	Web / API based EDI
Keelvar	Sourcing events	Web based EDI
OpenText	Vendor Invoice scanning and creation	Web / API based EDI
ProMaster	Supplier Invoice integration	Web / API based EDI
Synchro	Supplier Invoice integration	Web / API based EDI
TMS /CHEMLOGIX (Same as BluJay)	Freight Invoice / Payments	Direct EDI
Tungsten	Sales transactions integration (customer)	Web / API based EDI
Xerox	Supplier Invoice integration	EDI via Value-Added Network (VAN)
Ariba Catalogs	Catalog management	Web / API based EDI
Ariba Network	Procurement transactions integration (Supplier)	Web / API based EDI
Ariba Sourcing	Sourcing events	Web / API based EDI
BluJay	Transportation management with Carriers	Direct EDI
CASS	Freight Invoice / Payments	Web / API based EDI
Esker	Scan and create Sales Orders from customers	Web / API based EDI
Fedex	Cargo Invoices	Direct EDI
SalesForce	Sales transactions integration (customer)	Web / API based EDI
Seeburger	Customs integration	Web / API based EDI
Swift	Payments	Direct EDI
Arcese (3PL)	Inventory management, including goods receipt, stock transfer, goods issue, stock reconciliation etc.	Direct EDI
Katoen Natie (3PL)	Inventory management, including goods receipt, stock transfer, goods issue, stock reconciliation, including sending deliveries and PO from SAP to 3PL system etc.	Direct EDI
Sunland Infor (3PL)	Inventory management, including goods receipt, stock transfer, goods issue, stock reconciliation etc.	Direct EDI
Kenco (3PL)	Inventory management, including goods receipt, stock transfer, goods issue, stock reconciliation etc.	Direct EDI
Mitsui Soko (3PL)	Inventory management, including goods receipt, stock transfer, goods issue, stock reconciliation etc.	csv file from SAP / download from SAP & upload to 3PL WMS
PML CN (3PL)	Inventory management, including goods receipt, stock transfer, goods issue, stock reconciliation etc.	No EDI/WM interface, currently IM warehouse. Potential EDI interface.
DHL CN (3PL)	Inventory management, including goods receipt, stock transfer, goods issue, stock reconciliation etc.	No EDI/WM interface, currently IM warehouse. Potential EDI interface.
Selfy Core	Provide relevant SAP documents, such as delivery and shipment, as well as material info for truck check-in and check-out activities.	Web / API based EDI
Simba	Provide relevant SAP documents, such as delivery and shipment, as well as material info for truck check-in and check-out activities.	Web / API based EDI
Selfy Weighbridge	Update actual weight in shipment	Web / API based EDI
LAS (Loading Automation System)	Update actual truck weight	Web / API based EDI
Transwide	Transportation management with Carriers	Direct EDI
ARKHINEO	Archiving of customer invoices in Europe for compliance reasons.	EDI via Value-Added Network (VAN)

EDI based on the transactions:

Area	Transaction	EDI's
Sales	Quotation	Salesforce
	Sales Contract	Salesforce
	Sales Order	Esker, Elemica
	Billing	Elemica, E-Invoicing, Tungsten, ARKHINEO
	Complaints	Salesforce
Procurement	RFx	Ariba Sourcing, Keelvar
	Catalogs	Ariba Catalogs
	Contracts	Ariba Sourcing
	Purchase Orders	Ariba Network, Elemica, Emails
	Order Confirmation	Ariba Network, Elemica, Emails
	ASN	Ariba Network, Elemica
	Service Entry Sheet	Ariba Network, Elemica
	Invoice	Fedex , OpenText, ProMaster , Synchro, Xerox, Ariba Network, E-Invoicing, Citibank
TM	Freight Orders / Freight Bookings	BluJay , Transwide, etc..
	Invoices	CASS, TMS/CHEMLOGIX
	Truck Weight Update	Weighbridge Systems: Selfy Weighbridge, LAS, Weightbridge - Tecsidel, APAC Weighbridge Systems, Qbit Portaria
	Truck Check-in, Check-out	Selfy Core, Simba
Logistics	Inventory Management (Including inbound, outbound, and internal warehouse processing for IM managed storage locations)	3PLs: Arcese, Katoen Natie, Sunland Infor, Kenco, Mitsui Soko, PML CN (potential EDI in To-Be), DHL CN (potential EDI in To-Be)
	Inbound	Elemica (scope to be confirmed)
	Outbound	Elemica (scope to be confirmed)
	Goods Receipt	Elemica (scope to be confirmed)
Finance	Payment	Swift, Bank Portals
GTS	Customs	Seeburger, COMEX, Jet etc..

Assumptions

The EDI tools which facilitate B2B connections are considered in this KDD. Tools with additional functionalities than EDI i.e. Ariba Source , Salesforce etc.. are excluded

Constraints

None identified at the time of writing the document

Impacts

Strategy Definition: Business (Per GBU) needs to establish a clear strategy for transacting with external partners, taking into account industry-specific requirements. This strategy will outline how transactions are conducted, including the selection of technology and processes that best meet those needs. It will be instrumental in defining the primary and secondary EDI systems for Syensqo, ensuring that the chosen systems align with operational goals and facilitate effective collaboration with partners. By confirming this strategy, Syensqo can enhance efficiency, maintain compliance, and adapt to evolving market demands.

Changes in Downstream systems: Modifications to downstream systems are necessary to facilitate the migration to the defined Primary EDI for the process. This involves updating interfaces, workflows, and data handling procedures to ensure seamless integration with the new EDI system

Change Management: Coordinating with external business partners to onboard them onto the newly confirmed EDI application and facilitate smooth transactions.

Training: Equipping both internal teams and external business partners with the knowledge and skills needed to effectively utilize the new EDI process. Additionally, training should include troubleshooting procedures to empower users to resolve common issues independently. Ongoing support resources, such as documentation and helpdesk access, should also be provided

Business Rules

New external businesses must be onboarded to the designated primary EDI system for the relevant processes, unless they meet specific exception criteria.

Options considered

Option A: Simplify and standardize the EDI systems

As part of this approach, the EDI systems are consolidated for each process to minimize complexity. A primary EDI and a secondary EDI are established, with the primary EDI serving as the strategic system where all new businesses are onboarded. The secondary EDI is utilized only on a case-by-case basis.

NOTE: The primary and secondary EDI should be determined as part of the Business Strategy by Business. The below table is based on the limited understanding during the conceptual design phase and needs to be updated based on the business strategy which is a pre-requisite before implementing this option.

Area	Transaction	Primary EDI*	Secondary EDI*
Sales	Quotation	None	
	Sales Contract	None	
	Sales Order	Elemica	Esker
	Billing	Customer Portal	Elemica , Tungsten, E-Invoicing, ARKHINEO
	Complaints	None	
Procurement	RFx	None	
	Catalogs	Ariba Catalogs	
	Contracts	None	
	Purchase Orders	Ariba Network	Elemica
	Order Confirmation	Ariba Network	Elemica
	ASN	Ariba Network	Elemica
	Service Entry Sheet	Ariba Network	Elemica
	Invoice	Ariba Network	Fedex , ProMaster , Synchro , Xerox , Ariba Network , E-Invoicing , Citibank , OpenText
TM	Freight Orders	None	BluJay , Transwide, CASS
	Invoices	None	CASS , TMS/CHEMLOGIX
	Truck Weight Update	None	Weighbridge Systems: Selfy Weighbridge, LAS, Weightbridge - Tecsidel, APAC Weighbridge Systems, Qbit Portaria
	Transport Event Update (via SAP BNL)	None	Selfy, Simba, Project 44, FDTMS
Logistics	Inventory Management (Inc. Goods Receipt, Stock Transfer, Goods Issue, Stock on Hand etc.)	3PL Template Interfaces	Arcese, Katoen Natie, Sunland Infor, Kenco, Mitsui Soko, PML CN, DHL CN

	Inbound	None	Elemica
	Outbound	None	Elemica
	Goods Receipt	None	Elemica
Finance	Payment	Swift	Swift , Bank Portals
GTS	Customs	None	Seeburger , COMEX , Jet etc..

Option B: Implement the As-Is EDI systems

As part of this option, the current EDI approach continues without any formal definitions of Primary or Secondary EDI systems. This means that there is a flexible onboarding process where external businesses are integrated into the EDI framework according to their specific preferences and requirements. Each partner can choose the EDI method that best suits their operations, allowing for a more tailored approach to data exchange. This adaptability can foster stronger relationships with partners, as they have the freedom to dictate how they engage with the EDI system. However, this lack of standardization may lead to increased complexity in managing diverse systems and processes, potentially resulting in challenges related to data consistency and integration over time.

Evaluation

	Option A: Simplify and standardize the EDI systems	Implement the As-Is EDI systems
Cost	 Reduces operational costs by minimizing redundancy.	 Higher operational costs due to redundancy in processes.
Complexity	 Increased complexity due to combining multiple integration requirements to one EDI	 Increased complexity in managing various systems.  Flexibility to tailor systems to specific needs.
Integration	 Simplifies integration as the number of EDI systems is minimized  There might be challenges integrating with the Legacy systems	 Integration to multiple systems can be challenging.
Data Consistency	 Improved data consistency across transactions as the number of EDI systems is limited	 Multiple EDI's might compromise the data consistency (Especially the Inbound EDI's) due to different mapping rules
Scalability	 Easily scalable - Any new requirements can be implemented faster due to the limited number of EDI applications  Can reduce the organization's agility in adapting to changes in the market or specific partner needs, leading to potential operational inflexibility.	 Difficult to Scale as any new requirement should be implemented in multiple EDI systems
Change Management	 Change management effort is low as there any new business is onboarded into the existing EDI	 Change management effort is high due to multiple EDI systems

See also

File	Modified
PDF File Workspace Mail - Fwd_ FOR APPROVAL - KDD066 - EDI platform.pdf	Nov 06, 2024 by FALL-ext, Cheikh
File FOR APPROVAL - KDD066 - EDI platform.eml	Nov 05, 2024 by NARAHARI-ext, Bhargavi
File KDD066 EDI review confirmation.eml	Oct 24, 2024 by NARAHARI-ext, Bhargavi
File Business Review of Endorsed KDD_ EDI platforms in the future solution(Meeting minutes).eml	Oct 24, 2024 by NARAHARI-ext, Bhargavi
PDF File Workspace Mail - Re_ KDD066 EDI review confirmation.pdf	Oct 24, 2024 by HALL-ext, Simon

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Change log

Version	Published	Changed By	Comment
CURRENT (v. 37)	Jan 15, 2025 05:52	WENNINGER-ext, Sascha	
v. 36	Dec 04, 2024 08:45	NARAHARI-ext, Bhargavi	
v. 35	Oct 24, 2024 20:36	NARAHARI-ext, Bhargavi	
v. 34	Oct 24, 2024 07:18	VAN OS-ext, Nico	
v. 33	Oct 23, 2024 14:56	HE-ext, Cindy	
v. 32	Oct 23, 2024 14:53	HE-ext, Cindy	
v. 31	Oct 22, 2024 16:25	VAN OS-ext, Nico	
v. 30	Oct 22, 2024 16:21	VAN OS-ext, Nico	
v. 29	Oct 07, 2024 12:26	WENNINGER-ext, Sascha	
v. 28	Oct 04, 2024 13:19	WENNINGER-ext, Sascha	

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Workflow history

Title	Last Updated By	Updated	Status
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Workflow history

This view shows the 5 most recent entries. The complete workflow log is available from the 'Document Activity' menu item.

Jan 15, 2025	Actor	Type	Activity	Version
Approved	WENNINGER-ext, Sascha	Edit	updated the page at 5:52 am	
		State	changed state to Approved at 4:52 am	v37
Edited following Approval	WENNINGER-ext, Sascha	State	gave <i>Minor update</i> approval at 4:52 am	
		State	changed state to Edited following Approval at 4:52 am	v37
Dec 04, 2024				
Approved	 NARAHARI-ext, Bhargavi	Edit	updated the page at 8:45 am	
		State	changed state to Approved at 7:46 am	v36
Edited following Approval	 NARAHARI-ext, Bhargavi	State	gave <i>Minor update</i> approval at 7:46 am	
			Updated based on the feedback from GTS team	

		State	changed state to	Edited following Approval at 7:45 am	v36
Nov 05, 2024					
Approved	 NARAHARI-ext, Bhargavi	State	changed state to	Approved at 3:29 pm	v35