

ERP-2324 OrderChange Message from Elemica - System Interface S/4

Status	Approved
Owner	ABOLAJI-ext, Luqman
Stakeholders	GONZALVEZ-ext, Antonio
Jira Request ID	 ERP-1424 - Jira project doesn't exist or you don't have permission to view it.
Jira Development ID	 ERP-2324 - Jira project doesn't exist or you don't have permission to view it.

High- Level Specification

Implementing System	SAP S/4HANA
Invoked by/Invokes	ERP-2325 OrderChange Message from Elemica - Integration Process
Business Process Reference	02.04.02.01. Manage Standard Sales Order

Functional Overview

The functional design of the system interface defines the API to be provided or consumed.

EDI customers sends their Sales Order change message through Elemica to Syensqo. Elemica sends the OrderChange XML to SAP CPI. SAP CPI then triggers a custom API to compare a predefined subset of the OrderChange fields with their corresponding subset of fields in the existing Sales Order fields and identifies the fields that the OrderChange message is requesting to change. The Sales Order and the fields where new values are sent in the OrderChange message are then sent to the Order Modification Fiori App for CSR review and approval / rejection. A notification is also sent to the CSR on the sales order with the changes requested by the customer.

The purpose of this functional specification is to create the custom API for the identification of the changes to a sales order requested by the customer and sending notification of the changes to the CSR. This will be done by using

1. data directly available in the Elemica XML
2. data derived from S/4HANA based on data in the Elemica XML (e.g. using the Purchase Order Number in Elemica XML to find the Sales Order Number in S/4HANA)
3. data directly pulled from S/4HANA (e.g. Sales Order Number and specific sales order fields)

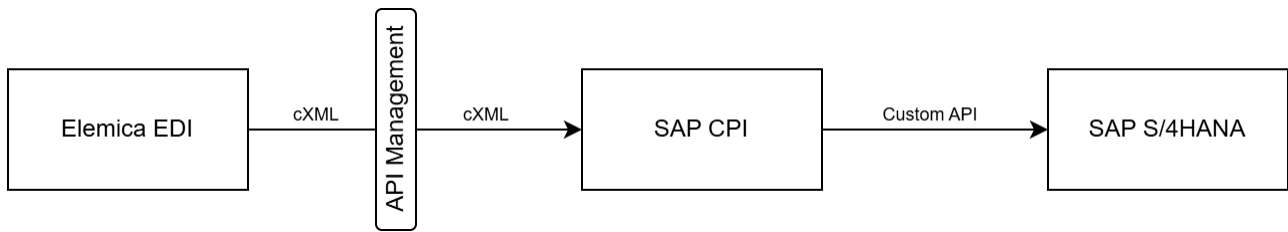
Scope and Objectives

This System Interface, a custom implementation in SAP S/4HANA,

- consumes the OrderChange data from SAP CPI
- maps this data into a structure to compare with existing sales order in SAP S/4HANA
- transform some data OrderChange message from SAP CPI into the Sales Order structure in S/4HANA
- performs lookup of specified data (as applicable) in S/4HANA
- stage certain data from OrderChange message from SAP CPI into a S/4HANA custom table

The standard SAP Sales Order Change API is unable to support the above functions, hence the need for a custom API.

Process Flow Diagram



Step	Description	Comment
1	Elemica sends OrderChange message to SAP CPI via API Management	1. No system interface functional specification is required for Elemica as the approach is to keep as-is the process on the Elemica side for the SyWay project. 2. API Management is for security/routing and do not change the message structure or format
2	SAP CPI receives the OrderChange XML message from Elemica and maps to SAP Sales Order in S/4HANA. To identify the fields on the sales order the OrderChange message wants to make, SAP CPI calls the custom API	This is covered in Integration Process functional specification ERP-2325 OrderChange Message from Elemica - Integration Process
3	The Sales Order to be changed in SAP S/4HANA is identified based on the custom API calling SAP S/4HANA. The API also collates the fields in the sales order that needs to be changed and sends this to both the Order Modification Fiori App and as a Fiori Launchpad notification to the CSR	Order Modification Fiori App to be built in ERP-2326 New Order Modification Fiori App

Assumptions

1. The custom Sales Order Change API will be called from SAP CPI and be able to lookup data from SAP S/4HANA to feed the target structure of the sales order
2. The source object and S/4HANA System target field mappings, including custom fields, will be updated based on mapping requirements in S /4HANA System.
3. The Custom API should be able to map all source and target mappings to successfully create a sales order
4. The custom API should be able to send Fiori launchpad notifications to CSR identified on the sales order

Dependencies

1. All configurations in S/4HANA from where the custom API should look up values should already be implemented before the interface is deployed.
2. Connection between SAP CPI and S/4HANA already set up
3. Required master data in S/4HANA already loaded
4. Part of the staging table is updated based on outcome of user interface processing per [ERP-2326 New Order Modification Fiori App](#)

Security, Integrity and Controls

- Required authorisations to execute the custom API need to be defined.
- Existing secure connectivity for communication between SAP S/4HANA and SAP CPI will be applied.

Configuration Requirements

N/A

Special Requirements

N/A

Design Rationale

API Use

Custom API based on API_SALES_ORDER_SRV_0001

Data Structure

The following fields will be used to provide the required data structure of the interface:

Field mapping is mentioned on [ERP-2097](#).

A_SalesOrderHeader	1				
		DocumentIdentifier		N	String
		DocumentIdentifierDateTime		N	DateTime
		RequestingDocumentIdentifier		N	String
		RequestingDocumentDateTime		N	DateTime
		SenderPartnerName		Y	String
		SenderDUNS		Y	String
		SenderContactName		N	String
		SenderContactDescription		N	String
		SenderTelephoneNumberTelecomCountryCode		N	String
		SenderTelephoneNumberTelecomAreaCode		N	String
		SenderTelephoneNumberPhoneNumber		N	String
		SenderFaxNumberTelecomCountryCode		N	String
		SenderFaxNumberTelecomAreaCode		N	String
		SenderFaxNumberPhoneNumber		N	String
		SenderEmailAddress		N	String
		SenderAlternativeCommunicationMethod		N	String
		SenderAddressLine		N	String
		SenderCityName		N	String
		SenderStateProvince		N	String
		SenderPostalCode		N	String
		SenderPostalCountry		N	String
		SenderLocationCode		N	String
		SenderTaxIdentifierNumber		N	String
		SenderJurisdiction		N	String
		SenderTaxCertificateType		N	String

		SenderTaxCertificateNumber		N	string
		SenderTaxBasis		N	string
		SenderTaxRate		N	string
		SenderSenderURL		N	string
		ReceiverPartnerName		Y	string
		ReceiverDUNS		Y	string
		ReceiverContactName		N	string
		ReceiverContactDescription		N	string
		ReceiverTelephoneNumberTelecomCountryCode		N	string
		ReceiverTelephoneNumberTelecomAreaCode		N	string
		ReceiverTelephoneNumberPhoneNumber		N	string
		ReceiverFaxNumberTelecomCountryCode		N	string
		ReceiverFaxNumberTelecomAreaCode		N	string
		ReceiverFaxNumberPhoneNumber		N	string
		ReceiverEmailAddress		N	string
		ReceiverAlternativeCommunicationMethod		N	string
		ReceiverAddressLine		N	string
		ReceiverCityName		N	string
		ReceiverStateProvince		N	string
		ReceiverPostalCode		N	string
		ReceiverPostalCountry		N	string
		ReceiverLocationCode		N	string
		ReceiverTaxIdentifierNumber		N	string
		ReceiverJurisdiction		N	string
		ReceiverTaxCertificateType		N	string
		ReceiverTaxCertificateNumber		N	string
		ReceiverTaxBasis		N	string
		ReceiverTaxRate		N	string
		ReceiverSenderURL		N	string
		PurchaseOrderTypeCode		Y	string

		CustomerPurchaseOrder	Customer reference number that the customer uses to uniquely identify a purchasing document (for example, a sales inquiry or a purchase order)	Y	String
		CustomerPurchaseOrderDate		Y	DateTime
		TransactionCurrency	The currency that applies to the sales order	N	String
		ContractNumber	Customer reference number that the customer uses to uniquely identify a purchasing document (for example, a sales inquiry or a purchase order)	N	String
		LanguageCode		N	String
		RevisionNumber		N	String
		ReleaseNumber		N	String
		IncotermsClassification	Commonly used trading terms that comply with the standards established by the International Chamber of Commerce (ICC)	N	String
		IncotermsLocation1	Provides additional information for the primary Incoterm	N	String
		CustomerPaymentTerms		N	String
		DiscountPercentage		N	String
		DiscountAmount		N	String
		DiscountDaysDue		N	String
		DiscountsDueDate		N	DateTime
		DeferredAmount		N	String
		DeferredDueDate		N	DateTime
		PercentDeferredPayable		N	String
		Penalty		N	String
		ShipWithPurchaseOrder		N	String
		CountryOfFinalDestination		N	String
		MarketPlaceIdentifier		N	String
		MarketPlaceDocumentIdentifier		N	String
		MarketPlaceReferenceItem		N	String
		MarketPlaceSellerIdentifier		N	String
		InvoiceCommunicationMode		N	String
		BillingScheduleCode		N	String
		BuyerPartnerName	The customer who orders the goods or services. The sold-to party is contractually responsible for sales orders.	Y	String
		BuyerPartnerCode		Y	String
		BuyerContactName		N	String

		BuyerContactDescription		N	String
		SellerPartnerName		N	String
		SellerPartnerCode		Y	String
		SellerContactName		N	String
		SellerContactDescription		N	String
		ShiptoPartnerName		N	String
		ShipToPartnerCode		Y	String
		PayerPartnerName		N	String
		PayerPartnerCode		N	String
		BilltoPartnerName		N	String
		BillToPartnerCode		N	String
		ShipperPartnerName		N	String
		ShipperPartnerCode		N	String
		ShipFromPartnerName		N	String
		ShipFromPartnerCode		N	String
		CarrierPartnerName		N	String
		CarrierPartnerCode		N	String
		BuyerTelephoneNumberTelecomCountryCode		N	String
		BuyerTelephoneNumberTelecomAreaCode		N	String
		BuyerTelephoneNumberPhoneNumber		N	String
		BuyerFaxNumberTelecomCountryCode		N	String
		BuyerFaxNumberTelecomAreaCode		N	String
		BuyerFaxNumberPhoneNumber		N	String
		BuyerEmailAddress		N	String
		BuyerAlternativeCommunicationMethod		N	String
		BuyerAddressLine		N	String
		BuyerCityName		N	String
		BuyerStateProvince		N	String
		BuyerPostalCode		N	String
		BuyerPostalCountry		N	String

		BuyerLocationCode		N	String
		BuyerExternalReference		N	String
		BuyerTaxIdentifierNumber		N	String
		BuyerJurisdiction		N	String
		BuyerTaxCertificateType		N	String
		BuyerTaxCertificateNumber		N	String
		BuyerTaxBasis		N	String
		BuyerTaxRate		N	String
		BuyerSenderURL		N	String
		ShipToTelephoneNumberTelecomCountryCode		N	String
		ShipToTelephoneNumberTelecomAreaCode		N	String
		ShipToTelephoneNumberPhoneNumber		N	String
		ShipToFaxNumberTelecomCountryCode		N	String
		ShipToFaxNumberTelecomAreaCode		N	String
		ShipToFaxNumberPhoneNumber		N	String
		ShipToEmailAddress		N	String
		ShipToAlternativeCommunicationMethod		N	String
		ShipToAddressLine		N	String
		ShipToCityName		N	String
		ShipToStateProvince		N	String
		ShipToPostalCode		N	String
		ShipToPostalCountry		N	String
		ShipToLocationCode		N	String
		ShipToExternalReference		N	String
		ShipToTaxIdentifierNumber		N	String
		ShipToJurisdiction		N	String
		ShipToTaxCertificateType		N	String
		ShipToTaxCertificateNumber		N	String
		ShipToTaxBasis		N	String
		ShipToTaxRate		N	String

		ShipToSenderURL		N	String
		PayerTelephoneNumberTelecomCountryCode		N	String
		PayerTelephoneNumberTelecomAreaCode		N	String
		PayerTelephoneNumberPhoneNumber		N	String
		PayerFaxNumberTelecomCountryCode		N	String
		PayerFaxNumberTelecomAreaCode		N	String
		PayerFaxNumberPhoneNumber		N	String
		PayerEmailAddress		N	String
		PayerAlternativeCommunicationMethod		N	String
		PayerAddressLine		N	String
		PayerCityName		N	String
		PayerStateProvince		N	String
		PayerPostalCode		N	String
		PayerPostalCountry		N	String
		PayerLocationCode		N	String
		PayerExternalReference		N	String
		PayerTaxIdentifierNumber		N	String
		PayerJurisdiction		N	String
		PayerToTaxCertificateType		N	String
		PayerTaxCertificateNumber		N	String
		PayerTaxBasis		N	String
		PayerTaxRate		N	String
		PayerSenderURL		N	String
		AccountHolderName		N	String
		AccountNumber		N	String
		FinancialInstitution		N	String
		FinancialInstitutionDFINumber		N	String
		CreditCardNumber		N	String
		CreditCardType		N	String
		CreditCardExpirationDate		N	DateTime

		BillToTelephoneNumberTelecomCountryCode		N	String
		BillToTelephoneNumberTelecomAreaCode		N	String
		BillToTelephoneNumberPhoneNumber		N	String
		BillToFaxNumberTelecomCountryCode		N	String
		BillToFaxNumberTelecomAreaCode		N	String
		BillToFaxNumberPhoneNumber		N	String
		BillToEmailAddress		N	String
		BillToAlternativeCommunicationMethod		N	String
		BillToAddressLine		N	String
		BillToCityName		N	String
		BillToStateProvince		N	String
		BillToPostalCode		N	String
		BillToPostalCountry		N	String
		BillToLocationCode		N	String
		BillToExternalReference		N	String
		BillToTaxIdentifierNumber		N	String
		BillToJurisdiction		N	String
		BillToTaxCertificateType		N	String
		BillToTaxCertificateNumber		N	String
		BillToTaxBasis		N	String
		BillToTaxRate		N	String
		BillToSenderURL		N	String
		ShipFromTelephoneNumberTelecomCountryCode		N	String
		ShipFromTelephoneNumberTelecomAreaCode		N	String
		ShipFromTelephoneNumberPhoneNumber		N	String
		ShipFromFaxNumberTelecomCountryCode		N	String
		ShipFromFaxNumberTelecomAreaCode		N	String
		ShipFromFaxNumberPhoneNumber		N	String
		ShipFromEmailAddress		N	String
		ShipFromAlternativeCommunicationMethod		N	String

		ShipFromAddressLine		N	String
		ShipFromCityName		N	String
		ShipFromStateProvince		N	String
		ShipFromPostalCode		N	String
		ShipFromPostalCountry		N	String
		ShipFromLocationCode		N	String
		ShipFromExternalReference		N	String
		ShipFromTaxIdentifierNumber		N	String
		ShipFromJurisdiction		N	String
		ShipFromTaxCertificateType		N	String
		ShipFromTaxCertificateNumber		N	String
		ShipFromTaxBasis		N	String
		ShipFromTaxRate		N	String
		ShipFromSenderURL		N	String
		CarrierTelephoneNumberTelecomCountryCode		N	String
		CarrierTelephoneNumberTelecomAreaCode		N	String
		CarrierTelephoneNumberPhoneNumber		N	String
		CarrierFaxNumberTelecomCountryCode		N	String
		CarrierFaxNumberTelecomAreaCode		N	String
		CarrierFaxNumberPhoneNumber		N	String
		CarrierEmailAddress		N	String
		CarrierAlternativeCommunicationMethod		N	String
		CarrierAddressLine		N	String
		CarrierCityName		N	String
		CarrierStateProvince		N	String
		CarrierPostalCode		N	String
		CarrierPostalCountry		N	String
		CarrierLocationCode		N	String
		CarrierExternalReference		N	String
		CarrierTaxIdentifierNumber		N	String

		CarrierJurisdiction		N	String
		CarrierTaxCertificateType		N	String
		CarrierTaxCertificateNumber		N	String
		CarrierTaxBasis		N	String
		CarrierTaxRate		N	String
		CarrierSenderURL		N	String
		ShipperTelephoneNumberTelecomCountryCode		N	String
		ShipperTelephoneNumberTelecomAreaCode		N	String
		ShipperTelephoneNumberPhoneNumber		N	String
		ShipperFaxNumberTelecomCountryCode		N	String
		ShipperFaxNumberTelecomAreaCode		N	String
		ShipperFaxNumberPhoneNumber		N	String
		ShipperEmailAddress		N	String
		ShipperAlternativeCommunicationMethod		N	String
		ShipperAddressLine		N	String
		ShipperCityName		N	String
		ShipperStateProvince		N	String
		ShipperPostalCode		N	String
		ShipperPostalCountry		N	String
		ShipperLocationCode		N	String
		ShipperExternalReference		N	String
		ShipperTaxIdentifierNumber		N	String
		ShipperJurisdiction		N	String
		ShipperTaxCertificateType		N	String
		ShipperTaxCertificateNumber		N	String
		ShipperTaxBasis		N	String
		ShipperTaxRate		N	String
		ShipperSenderURL		N	String
A_SalesOrderText	1 to many				
		CustomerRequiredInstructions		N	String

		ShipperInstructions		N	String
		ConsigneeInstructions		N	String
		CarrierInstructions		N	String
		ImportInstruction		N	String
		CustomerServiceInstructions		N	String
		RoutingInstruction		N	String
A_SalesOrderItem	1				
		LineItemNumber		N	String
		PurchaseOrderLineItemNumber		N	String
		LineItemHandlingInstruction		N	String
		MaterialByCustomer		Y	String
		MaterialByCustomerDescription		N	String
		ProductDescription		N	String
		ProductGradeDescription		N	String
		Material		M	String
		MaterialDescription		N	String
		ProductDescription		N	String
		ProductGradeDescription		N	String
		CustomerPurchaseOrderNumber		N	String
		ReferenceItem		N	String
		RequestedQuantity	The number or volume of materials specified for an item	N	String
		RequestedQuantityISOUnit		N	String
		PackagingQuantity		N	String
		PackagingQuantityISOUnit		N	String
		EngineeringChangeOrderIdentifier		N	String
		BatchNumber		N	String
		CountryOfOriginCode		N	String
		IncotermsClassification		N	String
		IncotermsLocation1		N	String
		TransportMethodCode		N	String
		LineItemPurposeCode		N	String

		BalanceItemFlag		N	String
		ActionRequest		N	String
		DeliveryTolerancesLowerLimit		N	String
		DeliveryTolerancesUpperLimit		N	String
		DeliveryTolerancesUnitofMeasure		N	String
		ItemShipToPartnerName		N	String
		ItemShipToPartnerCode		Y	String
		ItemBillToPartnerName		N	String
		ItemBillToPartnerCode		N	String
		ItemShipperPartnerName		N	String
		ItemShipperPartnerCode		N	String
		ItemShipFromPartnerName		N	String
		ItemShipFromPartnerCode		N	String
		ItemCarrierPartnerName		N	String
		ItemCarrierPartnerCode		N	String
		ItemShipToTelephoneNumberTelecomCountryCode		N	String
		ItemShipToTelephoneNumberTelecomAreaCode		N	String
		ItemShipToTelephoneNumberPhoneNumber		N	String
		ItemShipToFaxNumberTelecomCountryCode		N	String
		ItemShipToFaxNumberTelecomAreaCode		N	String
		ItemShipToFaxNumberPhoneNumber		N	String
		ItemShipToEmailAddress		N	String
		ItemShipToAlternativeCommunicationMethod		N	String
		ItemShipToAddressLine		N	String
		ItemShipToCityName		N	String
		ItemShipToStateProvince		N	String
		ItemShipToPostalCode		N	String
		ItemShipToPostalCountry		N	String
		ItemShipToLocationCode		N	String
		ItemShipToExternalReference		N	String

		ItemShipToTaxIdentifierNumber		N	String
		ItemShipToJurisdiction		N	String
		ItemShipToTaxCertificateType		N	String
		ItemShipToTaxCertificateNumber		N	String
		ItemShipToTaxBasis		N	String
		ItemShipToTaxRate		N	String
		ItemShipToSenderURL		N	String
		ItemBillToTelephoneNumberTelecomCountryCode		N	String
		ItemBillToTelephoneNumberTelecomAreaCode		N	String
		ItemBillToTelephoneNumberPhoneNumber		N	String
		ItemBillToFaxNumberTelecomCountryCode		N	String
		ItemBillToFaxNumberTelecomAreaCode		N	String
		ItemBillToFaxNumberPhoneNumber		N	String
		ItemBillToEmailAddress		N	String
		ItemBillToAlternativeCommunicationMethod		N	String
		ItemBillToAddressLine		N	String
		ItemBillToCityName		N	String
		ItemBillToStateProvince		N	String
		ItemBillToPostalCode		N	String
		ItemBillToPostalCountry		N	String
		ItemBillToLocationCode		N	String
		ItemBillToExternalReference		N	String
		ItemBillToTaxIdentifierNumber		N	String
		ItemBillToJurisdiction		N	String
		ItemBillToTaxCertificateType		N	String
		ItemBillToTaxCertificateNumber		N	String
		ItemBillToTaxBasis		N	String
		ItemBillToTaxRate		N	String
		ItemBillToSenderURL		N	String
		ItemShipFromTelephoneNumberTelecomCountryCode		N	String

		ItemShipFromTelephoneNumber TelecomAreaCode		N	String
		ItemShipFromTelephoneNumber PhoneNumber		N	String
		ItemShipFromFaxNumberTeleco mCountryCode		N	String
		ItemShipFromFaxNumberTeleco mAreaCode		N	String
		ItemShipFromFaxNumberPhone Number		N	String
		ItemShipFromEmailAddress		N	String
		ItemShipFromAlternativeCommu nicationMethod		N	String
		ItemShipFromAddressLine		N	String
		ItemShipFromCityName		N	String
		ItemShipFromStateProvince		N	String
		ItemShipFromPostalCode		N	String
		ItemShipFromPostalCountry		N	String
		ItemShipFromLocationCode		N	String
		ItemShipFromExternalReference		N	String
		ItemShipFromTaxIdentifierNumb er		N	String
		ItemShipFromJurisdiction		N	String
		ItemShipFromTaxCertificateType		N	String
		ItemShipFromTaxCertificateNum ber		N	String
		ItemShipFromTaxBasis		N	String
		ItemShipFromTaxRate		N	String
		ItemShipFromSenderURL		N	String
		ItemCarrierTelephoneNumberTel ecomCountryCode		N	String
		ItemCarrierTelephoneNumberTel ecomAreaCode		N	String
		ItemCarrierTelephoneNumberPh oneNumber		N	String
		ItemCarrierFaxNumberTelecomC ountryCode		N	String
		ItemCarrierFaxNumberTelecomA reaCode		N	String
		ItemCarrierFaxNumberPhoneNu mber		N	String
		ItemCarrierEmailAddress		N	String
		ItemCarrierAlternativeCommunic ationMethod		N	String
		ItemCarrierAddressLine		N	String

		ItemCarrierCityName		N	String
		ItemCarrierStateProvince		N	String
		ItemCarrierPostalCode		N	String
		ItemCarrierPostalCountry		N	String
		ItemCarrierLocationCode		N	String
		ItemCarrierExternalReference		N	String
		ItemCarrierTaxIdentifierNumber		N	String
		ItemCarrierJurisdiction		N	String
		ItemCarrierTaxCertificateType		N	String
		ItemCarrierTaxCertificateNumber		N	String
		ItemCarrierTaxBasis		N	String
		ItemCarrierTaxRate		N	String
		ItemCarrierSenderURL		N	String
		ItemShipperTelephoneNumberTelecomCountryCode		N	String
		ItemShipperTelephoneNumberTelecomAreaCode		N	String
		ItemShipperTelephoneNumberPhoneNumber		N	String
		ItemShipperFaxNumberTelecomCountryCode		N	String
		ItemShipperFaxNumberTelecomAreaCode		N	String
		ItemShipperFaxNumberPhoneNumber		N	String
		ItemShipperEmailAddress		N	String
		ItemShipperAlternativeCommunicationMethod		N	String
		ItemShipperAddressLine		N	String
		ItemShipperCityName		N	String
		ItemShipperStateProvince		N	String
		ItemShipperPostalCode		N	String
		ItemShipperPostalCountry		N	String
		ItemShipperLocationCode		N	String
		ItemShipperExternalReference		N	String
		ItemShipperTaxIdentifierNumber		N	String
		ItemShipperJurisdiction		N	String

		ItemShipperTaxCertificateType		N	String
		ItemShipperTaxCertificateNumber		N	String
		ItemShipperTaxBasis		N	String
		ItemShipperTaxRate		N	String
		ItemShipperSenderURL		N	String
A_SalesOrderItemText	1 to many				
		CustomerRequiredInstructions		N	String
		ShipperInstructions		N	String
		ConsigneeInstructions		N	String
		CarrierInstructions		N	String
		ImportInstruction		N	String
		CustomerServiceInstructions		N	String
		RoutingInstruction		N	String
A_SalesOrderItemPrElement	1				
		PricePerUnit		N	String
		PriceCurrencyCode		N	String
		PriceBasis		N	String
		PriceBasisUnitofMeasure		N	String
A_SalesOrderScheduleLine	1				
		ScheduleDateRequestedDeliveryOn		N	DateTime
		ScheduleDateConfirmedPickUpOn		N	DateTime

Calculation and Validation

N/A

eDocument mapping

N/A

General					Syensqo XML (Intermediate Target)		SAP eDoc Standard Mapping (Source)		Custom Mapping (Source)	
S-NR	Flow (SD/FI/MM/ALL)	Target Field	Target Field Details	Condition	Syensqo XML Node	Syensqo XML Field	SAP eDoc Standard Node	SAP eDoc Standard Field	Fixed Value	Custom Logic

Processing Logic

1. Receive OrderChange API
2. Look up the sales order number of the change using the Purchase Order number in OrderChange API (see **Sales Order Look Up Logic**)
 - a. If sales order is found, go to step 3
 - b. if sales order is not found, generate error message 'no sales order found for PO number' and update in AIF. Follow **Error Handling** procedure
3. For each line item (A_salesOrderItem_ PurchaseOrderLineItemNumber) on the OrderChange API, check if A_SalesOrderItem_ActionRequest = DELETED exists
 - a. If yes – find the corresponding line item(s) on the sales order from 2a, extract **Order Items View** data and update **Line Status** as 'DELETED'
 - b. If A_SalesOrderItem_ActionRequest = DELETED does not exists, go to step 4.
4. For each line item (A_salesOrderItem_ PurchaseOrderLineItemNumber) on the OrderChange XML, find the corresponding sales order line item and compare the data as per '**Fields for Comparison**' table. If there are differences between them, populate the '**Staging table**'

Sales Order Look Up Logic using Purchase Order Number

Purchase Order Field in API structure	Logic to Fetch Sales Order
A_SalesOrderHeader_CustomerPurchaseOrder	Sales Order = VBAK-VBELN where VBAK-BSTNK = A_SalesOrderHeader_CustomerPurchaseOrder

Order Items View (To be used in [ERP-2326 New Order Modification Fiori App](#))

Line	Product Details	Quantity in PU	Due Date	Pricing	Line Status
VBAP- POSNR	Buyer: <VBAP- KDMAT> Seller: <VBAP- MATNR>	VBAP-KWMENG " " VBAP- VRKME	<VBEP-EDATU> where: VBEP-VBELN = VBAK- VBELN VBEP-POSNR = VBAP- POSNR VBEP-BMENG <> 0 or blank	NetPrice: VBAP-NETPR " " VBAP- KPEIN	See Line Status Logic

Line Status Logic

1. Check delivery status of the sales order line item.
 - a. If VBAP-LFGSA=A (not yet processed), set Line status = Modif (can be done manually in SAP)
 - b. If VBAP-LFGSA = B or C, set Line status = Modif (delivery already done in SAP)
2. Check rejection if the sales order line item is rejected or not (VBAP-ABGRU = blank)
 - a. if the sales order line item is not rejected, VBAP-ABGRU = blank, Modif (can be done manually in SAP)
 - b. if the sales order line item is rejected, VBAP-ABGRU is not blank, Modif (item is rejected in SAP)

How to find changes requested from the OrderChange XML from Elemica

Comparison is made between a subset of the OrderChange XML fields and their corresponding values in the Sales Order. For the fields where the activation flag is ticked, where there is a difference, these fields are collated into a staging table (a database table) and passed into the Order Modification Fiori App ([ERP-2326 New Order Modification Fiori App](#)) structured into both a Fiori Launchpad notification (see notification logic section) and to update the App with the specific data of the sales order that needs to be changed

Fields for Comparison: OrderChange API vs Sales Order Line Item Fields

API Field	Sales Order Field	Activation Flag
A_SalesOrderItem_RequestedQuantity	VBAP-KWMENG	X
A_SalesOrderItem_RequestedQuantityISOUnit	VBAP-VRKME	X

A_SalesOrderItemPrElementPricePerUnit	VBAP-NETPR	X
A_SalesOrderItemPrElementPriceCurrencyCode	VBAP-KPEIN	X
A_SalesOrderScheduleLine_ScheduleDateRequestedDeliveryOn	VBEP-EDATU	X

Staging table

This will be a database table, not user maintained but programmatically maintained with the sales order and the new values of the fields to be changed. This will be used by the [ERP-2326 New Order Modification Fiori App](#) to generate the sales orders where customer has requested changes and the new values

Content of this table older than 30 (tbc) days should be automatically deleted (program to do this to be defined by Technical team as part of general house keeping)

Sales Order Number (VBAK-VBELN)	Sales Order Line Item (VBAP-POSNR)	Modification Request Date (Date API XML is received)	Quantity (VBAP-KWMENG)	Unit of Measure (VBAP-VRKME)	Delivery Date (VBEP-EDATU)	Price (VBAP-NETPR)	Price Currency (VBAP-KPEIN)	Processed flag	Processed Date	Processing Status	Processing Status Rejection Reason
1234	10	01.01.2027	2300			1220		x	02.01.2027	Modif: Processed	
1234	10	01.01.2027		KG				x	02.01.2027	Modif: Rejected	Delivery
4567	10	01.02.2027			01.03.2027			x	02.02.2027	Modif: Processed	

Additional Notes related to Staging Table

- For each Sales Order and Sales Order line items, values in columns Sales Order Number, Sales Order Line Item, Modification Request Date, Changed Field and New Value are used to update the Order Items contents in App Detailed View of the User Interface built in [ERP-2326 New Order Modification Fiori App](#)
- For each Sales Order and Sales Order line items, values in columns the Processed flag, Processed Date, Processing Status and Processing Status Rejection Reason text are updated from [ERP-2326 New Order Modification Fiori App](#)

Notification Logic

For every OrderChange message received, trigger a Fiori Launchpad notification to the CSR

Logic to find CSR for a sales order

Read VBPA-PERNR (get SAP user ID from this) where::

VBPA-VBELN = Sales order number

VBPA-PARVW = 'SE' for Sales Employee

Notification text:

Title: EDI Order Modification Notice

Subtext: A modification for Order <Sales Order> has been received

Clicking on the notification should take CSR into the details of the requested change (details in [ERP-2326 New Order Modification Fiori App](#))

Delta or Full Load Requirements

Interface Alert & Monitoring

The Odata service will be monitored through AIF as part of the monitoring strategy for the project.

Language Requirements

N/A

User Interface Requirements

N/A

Sequencing

N/A

Volumetrics

Approximately 300 Order Change requests per month

Performance Consideration

The design of the interface and related custom table(s) must be able to support the volume of messages received.

Error Handling

Error handling for this interface to align with the error handling process for interfaces as defined for SyWay (exact approach / process yet to be defined and below are indicative only to be refined based on the defined approach)

Integration errors:

All errors occurring during mapping rule execution and during posting to be added to the application log and AIF in a readable and user understandable format. These errors should trigger incident creation in SyRa (tbc)

Data errors or errors in S4 during translation, logic execution etc:

These should trigger a Fiori launchpad notification to the CSR highlighting the error in an understandable format in addition to logging the error in AIF (to be defined exactly how users will access and reprocess these failed messages)

Testing

How to Test

Test Conditions and Expected Results

ID	Condition	Expected Results
1	OrderChange XML received from SAP CPI	Custom API processes received OrderChange XML into the specified data structure
2	OrderChange XML from SAP CPI maps to Custom API structure	Custom API structure is mapped successfully from received OrderChange XML
3	Custom API executes defined logics and lookups in S /4HANA and returns a sales order	Defined logics and lookups in S/4HANA executed correctly and sales order is found and returned
4	OrderChange XML received for a sales order not yet created in SAP S/4HANA	Look up logic executed but no sales order is returned. Follow error handling procedure for sales order not found
5	OrderChange XML received having line with ActionRequest = DELETED	Order Item View generated with line status set as DELETED
6	Sales Order found from OrderChange message has line items that is not rejected	In Order Item View, Line Status is set as Modif (change can be updated in SAP)
7	Sales Order found from OrderChange message has line items that is rejected	In Order Item View, Line Status is set as Modif (item is rejected in SAP)
8	Sales Order found from OrderChange message has line items that is delivered	In Order Item View, Line Status is set as Modif (delivery already done in SAP)

9	Sales Order found from OrderChange message has line items that is not yet delivered	In Order Item View, Line Status is set as Modif (change can be updated in SAP)
10	OrderChange XML is received with data that is same as the existing sales order (i.e. no change)	Comparison results in no difference between the OrderChange message and existing sales order. No data is passed on to staging table

Test Considerations/Dependencies

Other Information

Development Details

Package

Package Name	Parent Package

Other Development Objects

Object Type	Object Name	Purpose/High Level Logic	Design Rationale Reference

Appendix

See also

File	Modified
No files shared here yet.	

Change log

Version	Published	Changed By	Comment
CURRENT (v. 27)	Apr 28, 2026 12:31	TORRES-ext, Benedict	
v. 26	Apr 28, 2026 12:12	TURAN-ext, Mert	
v. 25	Apr 28, 2026 07:30	ABOLAJI-ext, Luqman	
v. 24	Apr 22, 2026 16:27	ABOLAJI-ext, Luqman	
v. 23	Apr 21, 2026 16:02	ABOLAJI-ext, Luqman	
v. 22	Apr 21, 2026 15:08	ABOLAJI-ext, Luqman	
v. 21	Apr 09, 2026 12:03	ABOLAJI-ext, Luqman	
v. 20	Apr 09, 2026 11:52	WEINERT-ext, Patrick	
v. 19	Apr 07, 2026 20:21	ABOLAJI-ext, Luqman	

[Go to Page History](#)

Workflow history

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

May 05, 2026	Actor	Type	Activity	Version
Approved	 FARIA-ext, Joana	State	changed state to Approved at 2:36 pm	v27
Lead Approval	 FARIA-ext, Joana	State	gave <i>POD Lead Review</i> approval at 2:36 pm	
Apr 28, 2026				
	 TORRES-ext, Benedict	State	changed expiry date to '05 May, 2026 12:31 pm' at 12:31 pm	
		State	changed state to Lead Approval at 12:31 pm	v27
Tech Review	 TORRES-ext, Benedict	State	gave <i>Tech Review</i> approval at 12:31 pm	
From Apr 21, 2026 to Apr 28, 2026				
	ABOLAJI-ext, Luqman , TURAN-ext, Mert and TORRES-ext, Benedict	Edit	multiple updates from  ABOLAJI-ext, Luqman ,  TURAN-ext, Mert and  TORRES-ext, Benedict	