5. Functional Specification

1. Functional Description

This interface facilitates the transmission of calibration results from the CMX system to the SAP system, supporting various business transactions within the Enterprise Asset Management (EAM) processes. The key functions include:

a. Maintenance Order Time Confirmation: Capturing the time spent on work performed during the calibration process.

b. Transfer of Calibration Results: Transmitting the calibration results into the Maintenance Notification data as Maintenance Notification Activities.

c. Maintenance Order Status Updates: Automatically updating the User Status and System Status of the Maintenance Order based on the calibration results.

d. Maintenance Notification Status Updates: Automatically updating the User Status and System Status of the Maintenance Notification based on the calibration results.

e. Technical Object Status Updates: Modifying the User Status of the Technical Object (either Functional Location or Equipment) in accordance with the calibration results.

The following steps ensure that the integration of calibration results data from CMX into SAP is executed smoothly:

Data Transfer from CMX to SAP via Integration Suite:

When a Maintenance Order is marked as finished in CMX, the corresponding data is transferred to SAP via Integration Suite. This is an all-or-nothing transfer, meaning either all data required for the order is transferred, or none at all. This ensures consistency and integrity of the data. CMX shall prepare maintenance order data and calibration results in such a way that iSuite can consume and retrieve data without missing any single maintenance order.

Data transfer from CMX include:

- Calibration results, entered in the notification activities
- Time confirmation

Status Change of SAP Objects via Integration Suite:

When the calibration results data had been posted in SAP, the interface will set the User Status and System Status accordingly for the 3 objects (Maintenance Order, Maintenance Notification and Technical Objects of either Functional Location or Equipment).

Data Processing Steps:

The interface (iSuite) will be triggered every 5 minutes to establish communication to CMX, using the CMX message type RETURN for the data exchange.

The internal status is applied based on English language in SAP. This determines how status information is displayed in the system.

Detailed Workflow:

4.1.1 After a Maintenance Order is marked as finished in CMX, the iSuite initiates a GET request every 5 minutes to retrieve the following calibration results:

- Calibration Passed
- As Found Passed
- As Left Passed
- Calibration Certificate Number
- Calibration Date and Time
- Calibration User ID
- Working Hours
- Discrepancy Number

- Functional Location
- Maintenance Order

4.1.2 The Maintenance Notification associated with the Maintenance Order is retrieved via the API_MAINTENANCEORDER_002 entity MaintenanceOrder.

The retrieved calibration data is then posted to SAP using the following APIs and entities:

- API_MAINTNOTIFICATION:
  - MaintenanceNotificationItem
  - MaintenanceNotificationItemActivity

Transfer Maintenance Notification Data/Results:

The Maintenance Notification Activities section of the notification will hold the calibration date/results using the Catalog Profile, Code Groups and Codes.

Catalog Profile:

The." LPB-001 “Global Lonza Catalog Profile” catalog profile is used for the notification.

Code Group:

The code group CMX-CONF "CMX Confirmation/Result" will be used for the notification with the following codes:

- 0001: Calibration Passed
- 0002: As Found Passed
- 0003: As Left Passed
- A002: Calibration Certificate Number
- B002: Calibration Date and Time
- B007: Discrepancy Number

- API_MAINTENANCEORDER_002:
  - SetMaintOrdToMainWorkComplete

Field	Requirement	Description
MaintenanceOrder	Mandatory	
MainWorkCompletedDateTime	Mandatory	Refer to the Calibration date and time from CMX result.
MainWrkCmpltdDateTimeIsUsed	Mandatory	Should be always true

4.1.3 When a calibration task is performed in CMX in reference to a maintenance order, the relevant confirmation data is transmitted to SAP through the SAP Integration Suite. This process uses SAP's standard API, API_MAINTORDERCONFIRMATION, to post confirmation records directly to the corresponding maintenance order and operation. Each confirmation includes details such as the execution time frame, actual work hours, activity type, and the technician who performed the task. If the confirmation is marked as final, SAP will automatically update the status of the order or operation accordingly.

The interface captures several key pieces of information during the confirmation process:

Work Center: Identifies the work center responsible for performing the calibration.

Actual Work Hours: Reflects the actual time spent on the calibration, as provided by CMX. Hours are sent in decimal format (e.g., 1.5 = 1 hour and 30 minutes) and are converted into SAP's unit of measure (e.g., HR).

Activity Type: Indicates the classification of the work performed, retrieved from the maintenance order operation data in SAP.

Final Confirmation: Each confirmation is marked as final to indicate completion of the calibration activity.

Technician/User ID: The user ID from CMX is used to identify the technician and is mapped to a valid SAP personnel number. This mapping is handled through a custom API based on the CDS view I_BUSINESSUSERVH, which links external CMX user IDs with SAP usernames and personnel numbers.

Actual Start Date and Time: Represents when the calibration activity began. This data is retrieved from SAP based on the related operation's earliest date and time on which the execution of this operation can start.

Actual End Date and Time: Reflects when the calibration task was completed, provided by CMX.

To ensure accurate processing, the maintenance order number received from CMX must match an open or released order in SAP. The corresponding operation number is also extracted from CMX and validated against the maintenance order using the API_MAINTENANCEORDER. Once validated, all relevant data, including timing, personnel, work hours, and activity type, are submitted via the interface to ensure the calibration is properly and accurately recorded in SAP.

4.1.4 After the data posting is completed, iSuite triggers a BAPI to update the relevant User Statuses in SAP based on the calibration result:

- If Calibration Passed = true:
  - User Status CMXC is set on the Maintenance Order (E0010) and Maintenance Notification (E0004).
  - User Status RLSD (E0002) is set on the Technical Object.
- If Calibration Passed = false:
  - User Status CMXC is set on the Maintenance Order (E0010) and Maintenance Notification (E0004),
  - User Status OSNC (E0003 Out of Service – Not Calibrated) is set on the Technical Object.

4.1.5 Status Monitoring and Completion Logic

A different iSuite-iFlow runs every 5 minutes to monitor the processing completion status by calling the API_MAINTENANCEORDER_002 entity MaintenanceOrder. It checks for the presence of both:

- System Status: OMWC ("Main Work Completed", a new System Status in S4 for the phase-based model)
- User Status: CMXC (E0010)

If both statuses are confirmed, iSuite then triggers the SetMaintOrdToTechCompleted operation via the same API (API_MAINTENANCEORDER_002) to mark the order as Technically Completed (TECO).

The following fields must be populated to ensure that the associated Maintenance Notification is also properly marked as Notification Completed (NOCO).:

Field	**Requirement**	**Description**
AssignedMaintNotifIsToBeClosed	Mandatory	If this checkbox is selected, all notifications associated with the maintenance order are closed.
MaintenanceOrder	Mandatory	
MaintOrderReferenceDateTime	Mandatory	User Main Work Completed date and time for the technical completion
MainWrkCmpltdDateTimeIsUsed	Mandatory	If this checkbox is selected, the Main Work Completed date and time are used for the technical completion.

Error Handling:

- A log must be readily accessible to Lonza IT S/4HANA PM support team to facilitate error identification during message transmission. It should support diagnostic capabilities by clearly indicating the point of failure (e.g., SAP, iSuite, CMX).
- On error detection, an automated email notification should be triggered to a predefined distribution list (e.g., IT support team)

- Reprocessing functionality should be available for transfers that ended in error.
- One unique point of access to display all errors for the different CMX outbound and inbound interfaces should be made available

User requirement:

To better perform the evaluation, the Business requests a custom report like **ZMVI0116** in the ECC System. This will be tackled on a different RICEFW.

List of APIs to be used:

- Standard APIs
  - API_MAINTENANCEORDER_002
  - API_MAINTNOTIFICATION
  - API_MAINTORDERCONFIRMATION

- Custom APIs
  - I_BUSINESSUSERVH (ZZ1_A2R_CMX_BUSERVH_CDS)

SAP and Integration Logic

SDes. crip Ntion o.	SA P Ba ck en d Ta bl e	SAP Field	SAP API/Entity	SAP OData Field	Logic

1	Maintenance Order Message Status		'RETURN‘			
2	Technical Object Number	IFLOS/EQUI	STRNO / EQUNR	API_MAINTENANCEORDER_002/MaintenanceOrder	FunctionalLocation Equipment	These fields will be retrieved concatenated with “_” separator from CMX. Use this value to retrieve the MaintenanceNotification if needed.
3	Technical Object Internal Number	IFLOT/EQUI	OBJNR	API_MAINTENANCEORDER_002/MaintenanceOrder	MainObjInternalID	
4	Maintenance Order	VIAUFKS	AUFNR	API_MAINTENANCEORDER_002/MaintenanceOrder	MaintenanceOrder	For Maintenance Notification Activity: These fields will be retrieved concatenated with “_” separator from CMX. Use this value to retrieve the

5	Operation Number	VIAFVC	VORNR	API_MAINTENANCEORDER_002/MaintenanceOrder/to_MaintenanceOrderOperation	MaintenanceOrderOperation	MaintenanceNotification especially the MaintenanceOrder For Maintenance Order Time Confirmation: GET the MaintenanceOrder and MaintenanceOrderOperation to be used in POST call for API/Entity API_MAINTORDERCONFIRMATION/MaintOrderConfirmation
6	Maintenance Notification	VIAUFKS	QMNUM	API_MAINTENANCEORDER_002/MaintenanceOrder	MaintenanceNotification	The MaintenanceNotification will be retrieved from API call GET using the MaintenanceOrder
7	Calibrated Passed	QMA	FENUM MNGRP QPCD KURZTEXT MNCOD MATXT	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate	Retrieve the NotifActivityCodeText, MaintNotificationActivityCode and MaintNotifActyTxt from CMX based on the MaintenanceNotification query above, then call the API_MAINTNOTIFICATION to POST the retrieved results: e.g: - MaintNotificationActivityCode: "0001"(CMX)

					PlannedStartTime PlannedEndDate PlannedEndTime	-MaintNotifActyTxt: "true"(CMX) -PlannedStartDate: “ “ (BLANK) -PlannedStartTime: “ “(BLANK) -PlannedEndDate: "/Date(1755043200000)/" (CMX 2025-08-13) -PlannedEndTime: "PT14H28M53S " (CMX T14:28:53) - MaintNotifItemText: "CMX confirmation/result" (fixed value) - MaintNotificationItemActivity: “1” (fixed value) - MaintNotifActivityCodeGroup: "CMX-CONF" (fixed value)
8	As Found Passed	QMMA	FENUM MNGRP	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem	Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are:

		QPCD	KURZTEXT MNCOD MATXT		MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate PlannedStartTime PlannedEndDate PlannedEndTime	-MaintNotificationActivityCode: "0002"(CMX) -MaintNotifActyTxt: "true"(CMX)
9	As Left Passed	QMMA QPCD	FENUM MNGRP KURZTEXT MNCOD MATXT	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate PlannedStartTime PlannedEndDate	Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: -MaintNotificationActivityCode: "0003"(CMX) -MaintNotifActyTxt: "true"(CMX)

					PlannedEndTime	
10	Calibration Certification Number	QMA QPCD	FENUM MNGRP KURZTEXT MNCOD MATXT	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate PlannedStartTime PlannedEndDate PlannedEndTime	Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: -MaintNotificationActivityCode: "A002"(CMX) -MaintNotifActyTxt: "LONZA-425895-CMX"(CMX)
11	Calibration Date and Time	QMA QPCD	FENUM MNGRPKURZTEXT MNCOD	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup	For Maintenance Notification Activity: Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: -MaintNotificationActivityCode: "B002"(CMX)

			MATXT		MaintNotificationActivityCode	-MaintNotifActyTxt: "2025-08-13T14:28:53"(CMX)
					PlannedStartDate PlannedStartTime	The Calibration date and time will be used to POST in the fields:
					PlannedEndDate	-PlannedStartDate = “ “ (BLANK)
					PlannedEndTime	-PlannedStartTime = “ “ (BLANK)
						-PlannedEndDate = MaintNotifActyTxt: "2025-08-13” (Get Date)
						-PlannedEndTime = MaintNotifActyTxt: “T14:28:53” (Get Time)
				API_MAINTENANCEORDER_002/MaintenanceOrder/to_MaintenanceOrderOperation API_MAINTORDERCONFIRMATION/MaintOrderConfirmation		For Maintenance Order Time Confirmation: The Calibration Date and Time value will be mapped to OperationConfirmedEndDate and OperationConfirmedEndTime of the API/Entity API_MAINTORDERCONFIRMATION/MaintOrderConfirmation while the OperationConfirmedStartDate and OperationConfirmedStartTi
					OpErlstSchedldExecStrtDte OpErlstSchedldExecStrtTme	

				API_MAINTENANCEORDER_002/SetMaintOrdToMainWorkComplete	OperationConfirmedStartDate OperationConfirmedStartTime OperationConfirmedEndDate OperationConfirmedEndTime IsFinalConfirmation	me to be mapped to OpErlstSchedldExecStrtDte and OpErlstSchedldExecStrtTme that is retrieve data from API/Entity API_MAINTENANCEORDER_002/MaintenanceOrder/to_MaintenanceOrderOperation. Set also the IsFinalConfirmation = true for POST call.
				API_MAINTENANCEORDER_002/ SetMaintOrdToTechCompleted	MainWorkCompletedDateTime	For Maintenance Order: This Calibration date and time will also be used for the MainWorkCompletedDateTime in setting the order system status to Main Work Completed which will be further be used as the reference date for the Technical Completion of the order and notification.

					MaintOrderReferenceDateTime	
12	Calibrated By User ID	QMA QPCD PA0105 AFRU	FENUM MNGRPKURZTEXT MNCOD MATXT UNAME PERNR LEARR	API_MAINTNOTIFICATION/MaintNotificationItemActivity I_BUSINESSUSERVH exposed this CDS View as a Custom API ZZ1_A2R_CMX_BUSERVH_CDS API_MAINTORDERCONFIRMATION/MaintOrderConfirmation API_MAINTENANCEORDER_002/MaintenanceOrder/to_MaintenanceOrderOperation	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate PlannedStartTime PlannedEndDate PlannedEndTime UserID BusinessPartner PersonnelNumber ActivityType	For Maintenance Notification Activity (to be ignored, code is deactivated) Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: - MaintNotificationActivityCode: "B003"(CMX) -MaintNotifActyTxt: "need sample"(CMX) For Maintenance Order Time Confirmation: The retrieved Calibration By User ID data will be mapped to UserID then GET the BusinessPartner number in the Custom API call for ZZ1_A2R_CMX_BUSERVH_CDS. The BusinessPartner value will be used in the field PersonnelNumber of API/Entity API_MAINTORDERCONFIRMATION/MaintOrderConfirmation.

						GET as well the ActivityType from the API call API_MAINTENANCEORDER_002/MaintenanceOrder/to_MaintenanceOrderOperation and mapped it to ActivityType of API_MAINTORDERCONFIRMATION/MaintOrderConfirmation for POST call.
13	Calibration Incomplete	QMMA QPCD	FENUM MNGRPKU RZTEXT MNCOD MATXT	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate PlannedStartTime PlannedEndDate PlannedEndTime	For Maintenance Notification Activity (to be ignored, code is deactivated) Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: -MaintNotificationActivityCode: "B004"(CMX) -MaintNotifActyTxt: "need sample"(CMX)

14	Max Error	QMA QPCD	FENUM MNGRPKU RZTEXT MNCOD MATXT	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate PlannedStartTime PlannedEndDate PlannedEndTime	For Maintenance Notification Activity (to be ignored, code is deactivated) Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: -MaintNotificationActivityCode: "B005"(CMX) -MaintNotifActyTxt: "need sample"(CMX)
15	Working Hours	QMA QPCD	FENUM MNGRPKU RZTEXT MNCOD MATXT	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode	For Maintenance Notification Activity (to be ignored, code is deactivated) Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: -MaintNotificationActivityCode: "B00**6**"(CMX)

		AFRU	ISMNW	API_MAINTORDERCONFIRMATION/MaintOrderConfirmation	PlannedStartDate PlannedStartTime PlannedEndDate PlannedEndTime ActualWorkQuantity	-MaintNotifActyTxt: "need sample"(CMX) For Maintenance Order Time Confirmation: The retrieved Working Hours data will be mapped to ActualWorkQuantity of API/Entity API_MAINTORDERCONFIRMATION/MaintOrderConfirmation for the POST call.
16	Discrepancy Number	QMMA QPCD	FENUM MNGRP KURZTEXT MNCOD MATXT	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate PlannedStartTime PlannedEndDate PlannedEndTime	Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: -MaintNotificationActivityCode: "B007"(CMX) -MaintNotifActyTxt: " "(CMX)

17	Single Use Standard Reference nce	QMMA QPCD	FENUM MNGRPKURZTEXT MNCOD MATXT	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate PlannedStartTime PlannedEndDate PlannedEndTime	For Maintenance Notification Activity (to be ignored, code is deactivated) Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: -MaintNotificationActivityCode: "B00**8**"(CMX) -MaintNotifActyTxt: "need sample"(CMX)
18	Single User Standard Expiration Date	QMMA QPCD	FENUM MNGRPKURZTEXT MNCOD MATXT	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate	For Maintenance Notification Activity (to be ignored, code is deactivated) Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: -MaintNotificationActivityCode: "B009"(CMX)

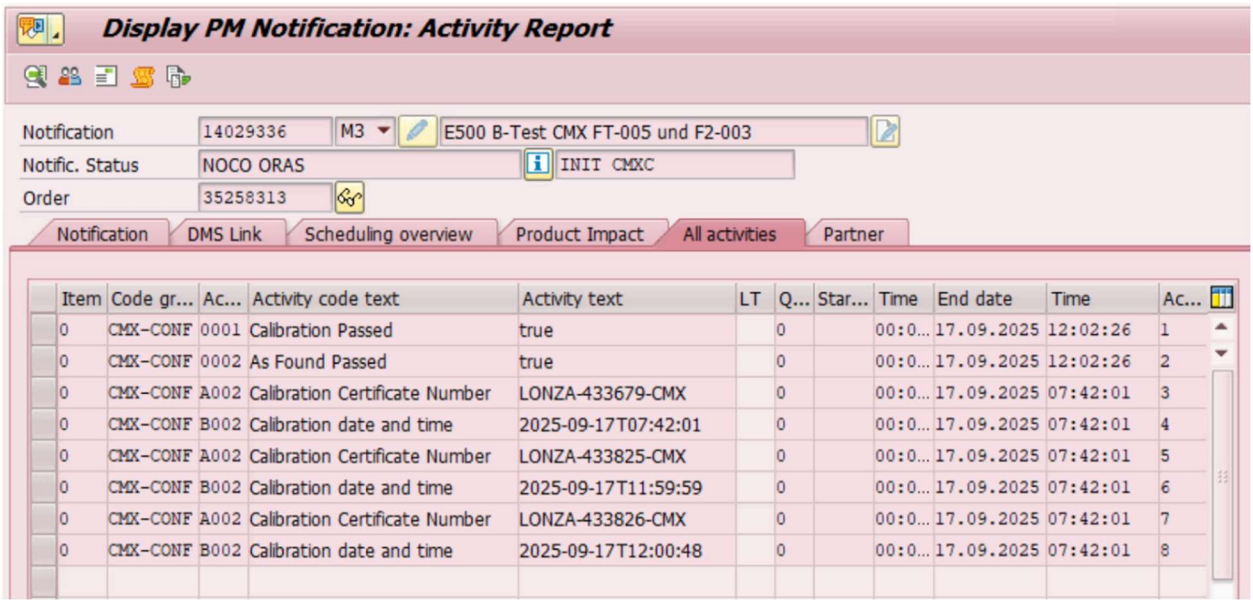
					PlannedStartTime PlannedEndDate PlannedEndTime	-MaintNotifActyTxt: "need sample"(CMX)
19	Request 2nd Approval	QMMA QPCD	FENUM MNGRPKU RZTEXT MNCOD MATXT	API_MAINTNOTIFICATION/MaintNotificationItemActivity	MaintenanceNotification MaintenanceNotificationItem MaintNotifActyTxt MaintNotifActivityCodeGroup MaintNotificationActivityCode PlannedStartDate PlannedStartTime PlannedEndDate PlannedEndTime	For Maintenance Notification Activity (to be ignored, code is deactivated) Referring to step 7 for logic with variable fields based on retrieve values from CMX for this activity are: -MaintNotificationActivityCode: "B012"(CMX) -MaintNotifActyTxt: "need sample"(CMX)
20	Order System Stat	JEST VIAU	OBJNR STAT	API_MAINTENANCEORDER_002/MaintenanceOrder	SetMaintOrdToMainWorkComplete	If Calibration Passed had retrieved value, then call the API_MAINTENANCEORDER_002 to POST SetMaintOrdToMainWorkCo

	us – Main Work Completed	FKS	INACT	API_MAINTENANCEORDER_002/SetMaintOrdToMainWorkComplete	MainWorkCompletedDateTime MainWrkCmpltdDateTimeIsUsed	mplete with the MainWorkCompletedDateTime equals to the Calibration date and time from CMX and MainWrkCmpltdDateTimeIsUsed = true
21	Order User Status - CMXC	JEST VIAUFKS	OBJNR STAT INACT	N/A	N/A	After the calibration result is posted, iSuite triggers a BAPI to update the User Statuses in Maintenance Order User Status based on the calibration result: If Calibration Passed = retrieved value, then set CMXC.
22	Notification User Status - CMXC	JEST VIQMEL	OBJNR STAT INACT	N/A	N/A	After the calibration result is posted, iSuite triggers a BAPI to update the User Statuses in Maintenance Notification User Status based on the calibration result: If Calibration Passed = retrieved value, then set CMXC.
23	Technical Object User	JEST IFLOT	OBJNR STAT INACT	N/A	N/A	After the calibration result is posted, iSuite triggers a BAPI to update the User Statuses in Maintenance Notification User Status based on the calibration result:

	Status - CMXC	EQUI				If Calibration Passed = true, then set CMXC else if false, then set ONSC
24	Order System Status – Technically Completed (TECO)	JEST VI AUFK	OBJNR STAT INACT	API_MAINTENANCEORDER_002/MaintenanceOrder API_MAINTENANCEORDER_002/ SetMaintOrdToTechCompleted	SetMaintOrdToTechCompleted MaintOrderReferenceDateTime	iSuite to perform API call GET to check the System Status-OMWC and User Status-CMXC in the API_MAINTENANCEORDER_002 entity MaintenanceOrder, if both present then make an API call to POST to SetMaintOrdToTechCompleted = true, MaintOrderReferenceDateTime equals to the MainWorkCompletedDateTime, and AssignedMaintNotifIsToBeClosed = true (to set the Notification System Status – Notification Completed (NOCO)
25	Notification System Status – Notification Completed (NO	JEST VI QMEL	OBJNR STAT INACT	API_MAINTENANCEORDER_002/ SetMaintOrdToTechCompleted	AssignedMaintNotifIsToBeClosed	

	CO)					

Note: In certain scenarios, CMX may send more than one or two calibration records. The interface must be capable of processing and posting all received records accordingly.



Item	Code gr...	Ac...	Activity code text	Activity text	LT	Q...	Star...	Time	End date	Time	Ac...
0	CMX-CONF	0001	Calibration Passed	true		0		00:0...	17.09.2025	12:02:26	1
0	CMX-CONF	0002	As Found Passed	true		0		00:0...	17.09.2025	12:02:26	2
0	CMX-CONF	A002	Calibration Certificate Number	LONZA-433679-CMX		0		00:0...	17.09.2025	07:42:01	3
0	CMX-CONF	B002	Calibration date and time	2025-09-17T07:42:01		0		00:0...	17.09.2025	07:42:01	4
0	CMX-CONF	A002	Calibration Certificate Number	LONZA-433825-CMX		0		00:0...	17.09.2025	07:42:01	5
0	CMX-CONF	B002	Calibration date and time	2025-09-17T11:59:59		0		00:0...	17.09.2025	07:42:01	6
0	CMX-CONF	A002	Calibration Certificate Number	LONZA-433826-CMX		0		00:0...	17.09.2025	07:42:01	7
0	CMX-CONF	B002	Calibration date and time	2025-09-17T12:00:48		0		00:0...	17.09.2025	07:42:01	8

Important:

Result Existence and Duplication Checks

The interface must have the capability to check for existing records in the Maintenance Notification Item Activity before posting new entries, in order to prevent duplication. The Calibration Certificate Number should be used as the unique identifier to detect duplicate records.

Result Retrieval and Handling Checks

The interface should also validate that:

- It is retrieving the appropriate result data from CMX.
- The results are successfully handled without errors during processing.

CMX Fields and SAP Fields Mapping

S. No.	Description	CMX Fields	SAP Field	SAP OData Field	Sample
1	Maintenance Order Message Status	RETURN	N/A	N/A	N/A
2	Technical Objects – Functional Location or Equipment	MaintOrder_Floc	STRNO	FunctionalLocation	Y11_F6_SC21111_IF000000000000000000033 Or 10000119_IE000000000010000119
3	Maintenance Object	MaintOrder_Floc	OBJNR	MainObjInternalID	

	Internal Number				
4	Maintenance Order	MaintOrder_OperationNum	AUFNR	MaintenanceOrder	000060000150_0010
5	Operation Number	MaintOrder_OperationNum	VORNR	MaintenanceOrderOperation	
6	Calibrated Passed Catalog: E&M-CACMX / CMX-CONF / 0001	Code0001_CalibratedPassed	FENUM MNGRP KURZTEXT MNCOD MATXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	true or false
7	As Found Passed	Code0002_AsFoundPassed	FENUM MNGRP KURZTEXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	true (or false)

	Catalog: E&M-CACMX / CMX-CONF / 0002		MNCOD MATXT		
8	As Left Passed Catalog: E&M-CACMX / CMX-CONF / 0003	Code0003_AsLeftPassed	FENUM MNGRP KURZTEXT MNCOD MATXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	true (or false)
9	N/A	A001_Function	N/A	N/A	(to be ignored, code is deactivated)
10	Calibration Certification Number	A002_Certificate_Number	FENUM MNGRP KURZTEXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	LONZA-425895-CMX

	Catalog: E&M-CACMX / CMX-CONF / A002		MNCOD MATXT		
11	N/A	B001_EventType	N/A	N/A	(to be ignored, code is deactivated)
12	Calibration Date and Time Catalog: E&M-CACMX / CMX-CONF / B002	B002_CalibrationDate_Time	FENUM MNGRP KURZTEXT MNCOD MATXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	2025-08-13T14:28:53
13	Calibrated By User ID	B003_CalibratedBy_UserID	FENUM MNGRP KURZTEXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	(to be ignored, code is deactivated) Only use the value ci12789 for time confirmation

			MNCOD MATXT		
14	Calibration Incomplete Catalog:	B004_Calibration_Incomplete	FENUM MNGRP KURZTEXT MNCOD MATXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	(to be ignored, code is deactivated)
	Max Error	B005_MaxError	FENUM MNGRP KURZTEXT MNCOD MATXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	(to be ignored, code is deactivated)

15	Working Hours	B006_WorkingHours	FENUM MNGRP KURZTEXT MNCOD MATXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	(to be ignored, code is deactivated) Only use the value ci12789 for time confirmation
16	Discrepancy Number Catalog: E&M-CACMX / CMX-CONF / B007	B007_DiscrepancyNumber	FENUM MNGRP KURZTEXT MNCOD MATXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	TW1415024
17	Single Use Standard	B008_SingleUseStandard_ref	FENUM MNGRP	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode	(to be ignored, code is deactivated)

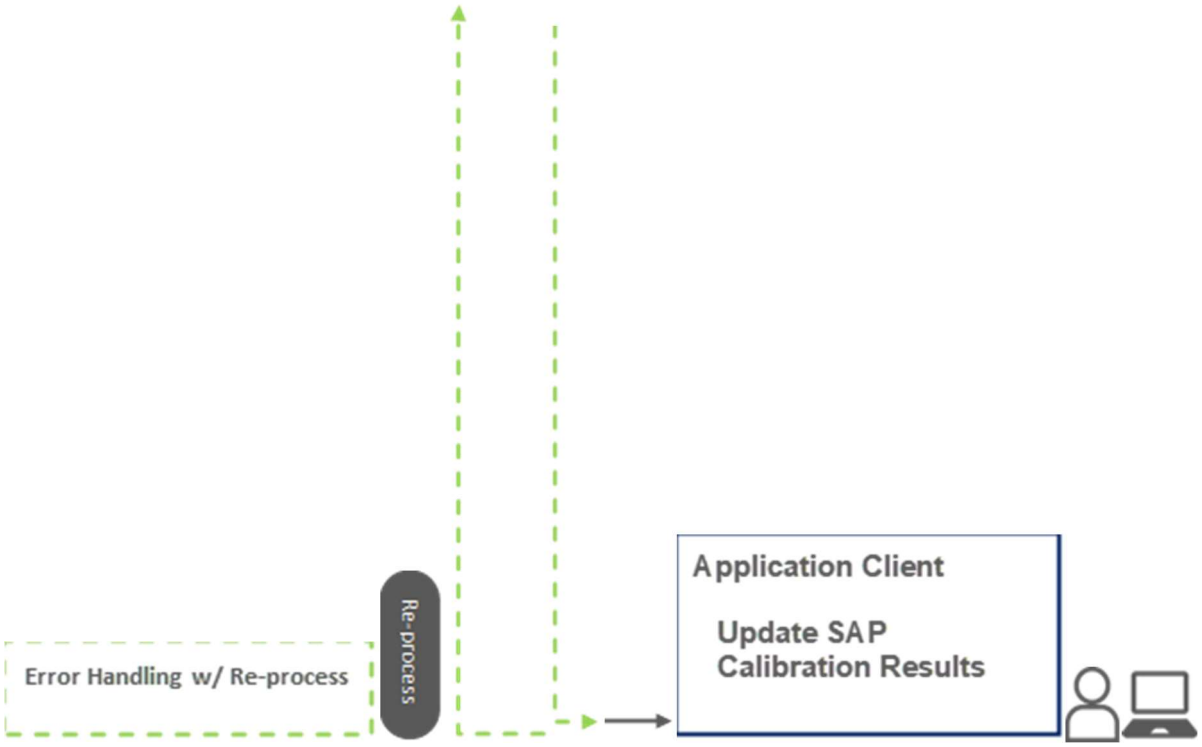
	Reference		KURZTEXT MNCOD MATXT	NotifActivityCodeText	
18	Single User Standard Expiration Date	B009_SingleUseStandard_ExpDate	FENUM MNGRP KURZTEXT MNCOD MATXT	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	(to be ignored, code is deactivated)
19	Request 2nd Approval	B012_Request_2ndApproval	FENUM MNGRP KURZTEXT MNCOD	MaintNotifActyTxt MaintNotifActivityCodeGroup NotifActivityCodeGroupText MaintNotificationActivityCode NotifActivityCodeText	(to be ignored, code is deactivated)

			MAT XT		

2. Flow Diagram

BEAMEX

SAP INTEGRATION SUITE


Application Client
Update SAP
Calibration Results
Re-process
Error Handling w/ Re-process

SAP® S/4HANA

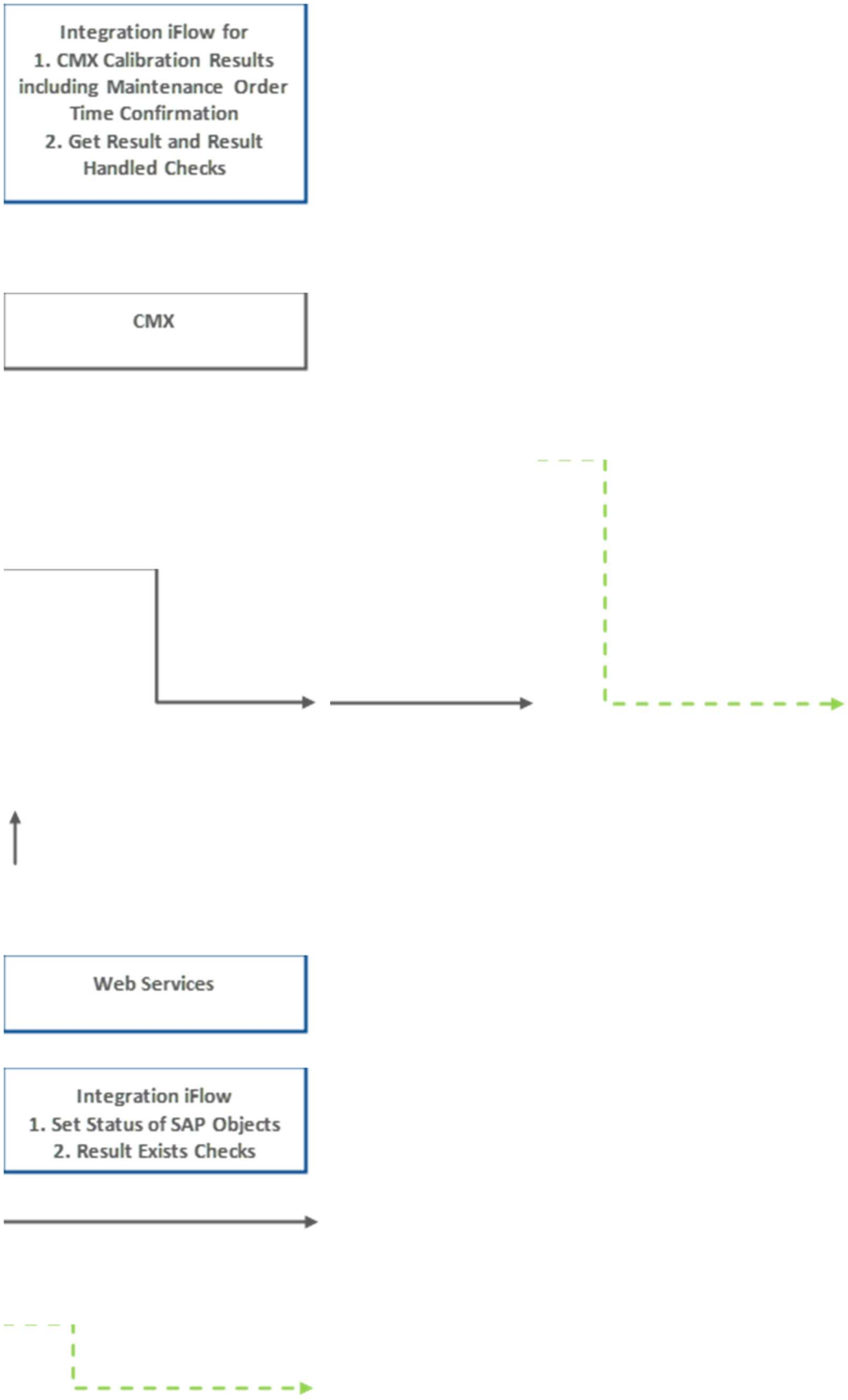
End User

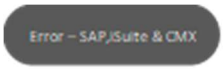
BAPI call to update the User Status of Maintenance Order, Maintenance Notification and Technical Object based on Calibration Results sent by CMX.
- User Status (BAPI)

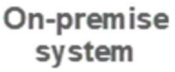
TECO/NOCO

Standard API containing the calibration results and status set:

- cal_passed
- found_pass
- left_pass
- cal_cert_num
- cal_date_time
- discr_num
- System Status
- Time Confirmation


Integration iFlow for
1. CMX Calibration Results including Maintenance Order Time Confirmation
2. Get Result and Result Handled Checks
CMX
Web Services
Integration iFlow
1. Set Status of SAP Objects
2. Result Exists Checks





Note: Error Handling with re-processing will be tackled on a different FDS consolidating all CMX Interfaces.

3. Unit Testing

<<<Provide step by step example for unit testing >>>

4.3.1. Test Case 1

Scenario: A completed maintenance order from CMX containing a single calibration record with Calibration Passed = TRUE (i.e., only one calibration certificate), and time posted.

Expected Result:

- The interface will create a single record in the Maintenance Notification Activity (with multiple activity codes).
- A Maintenance Order Time Confirmation will be posted.
- The User and System Status will be updated accordingly.

4.3.2. Test Case 2

Scenario: A completed maintenance order from CMX containing two calibration records (i.e., two calibration certificates), each of them with indication of the time worked.

Expected Result:

- The interface will create two records in the Maintenance Notification Activity.

- Two Maintenance Order Time Confirmations will be posted.
- The User and System Status will be updated accordingly.

Note: In certain scenarios, CMX may send more than one or two calibration records. The interface must be capable of processing and posting all received records accordingly.

4.3.3. Test Case 3

Scenario: A completed maintenance order from CMX where the calibration records already exist in SAP (i.e., duplicate calibration certificate records).

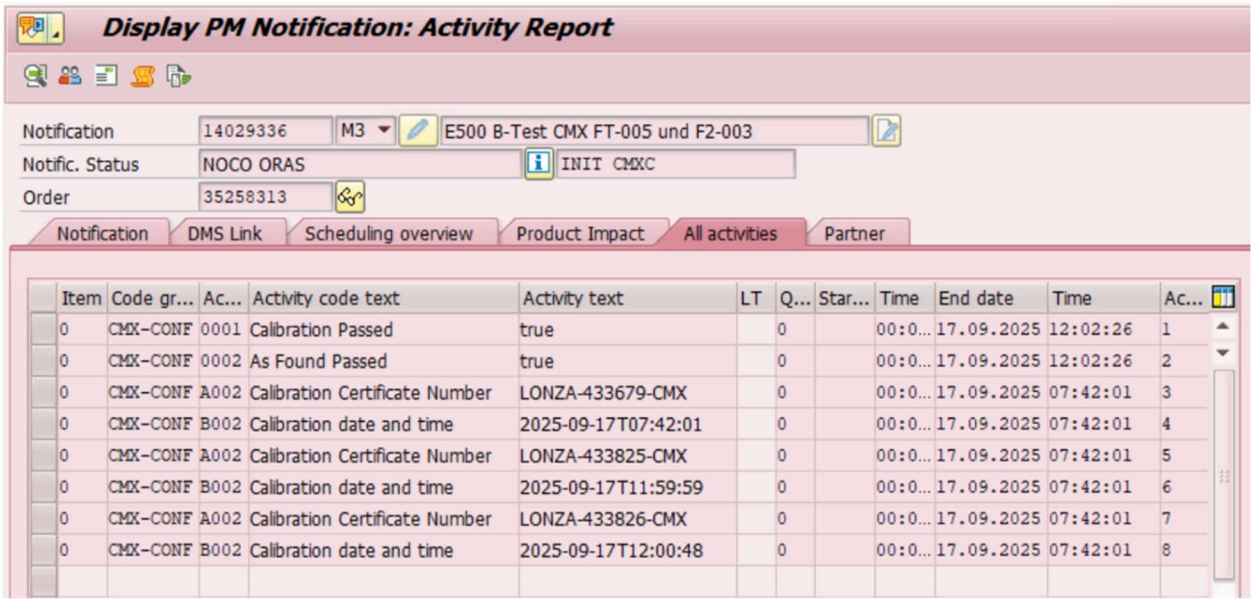
Expected Result:

The interface will not create duplicate.

4.3.4. Test Case 4

Scenario: A completed maintenance order from CMX containing a single calibration record, but lacking required values in the result set. **(Note: 0001, 0002, A002, B002 are mandatory.)**

For Example:



Item	Code gr...	Ac...	Activity code text	Activity text	LT	Q...	Star...	Time	End date	Time	Ac...
0	CMX-CONF	0001	Calibration Passed	true		0		00:0...	17.09.2025	12:02:26	1
0	CMX-CONF	0002	As Found Passed	true		0		00:0...	17.09.2025	12:02:26	2
0	CMX-CONF	A002	Calibration Certificate Number	LONZA-433679-CMX		0		00:0...	17.09.2025	07:42:01	3
0	CMX-CONF	B002	Calibration date and time	2025-09-17T07:42:01		0		00:0...	17.09.2025	07:42:01	4
0	CMX-CONF	A002	Calibration Certificate Number	LONZA-433825-CMX		0		00:0...	17.09.2025	07:42:01	5
0	CMX-CONF	B002	Calibration date and time	2025-09-17T11:59:59		0		00:0...	17.09.2025	07:42:01	6
0	CMX-CONF	A002	Calibration Certificate Number	LONZA-433826-CMX		0		00:0...	17.09.2025	07:42:01	7
0	CMX-CONF	B002	Calibration date and time	2025-09-17T12:00:48		0		00:0...	17.09.2025	07:42:01	8

Code group	Activity code	Activity code Text	Activity Text
CMX-CONF	0001	Calibration Passed	TRUE
CMX-CONF	0002	As Found Passed	FALSE
CMX-CONF	0003	As Left Passed	TRUE
CMX-CONF	A002	Calibration Certificate Number	LONZA-434852-CMX
CMX-CONF	B002	Calibration date and time	2025-09-22T04:24:31
CMX-CONF	B007	Discrepancy number	TW1415024

Expected Result:

- The interface will not create any record in the Maintenance Notification Activity.
- No Maintenance Order Time Confirmation will be posted.
- No changes will be made to the User or System Status.

4.3.5. Test Case 5

Scenario: A completed maintenance order from CMX containing two calibration records, where one record is missing required values (refer to Test Case 4 for reference). (Note: Confirm with Lonza which fields must always be present.)

Expected Result:

- The interface will not create any records in the Maintenance Notification Activity.
- No Maintenance Order Time Confirmation will be posted.
- No changes will be made to the User or System Status.

4.3.6. Test Case 6

Scenario: A completed maintenance order from CMX containing a single calibration record with Calibration Passed = TRUE, like Test Case 1. However, the maintenance order is being opened by a user at the time the interface attempts to post the result.

Expected Result:

- During actual testing, verify whether the data is still posted successfully, or if an error occurs in iSuite.
- If an error occurs, it should be captured and managed through the error handling process.

4.3.7. Test Case 7

Scenario: A completed maintenance order from CMX with valid calibration data, but the maintenance notification is being opened by a user at the time the interface attempts to post the result.

Expected Result:

- During actual testing, verify whether the data is still posted successfully, or if an error occurs in iSuite.
- If an error occurs, it should be captured and managed through the error handling process.

4.3.8. Test Case 8

Scenario: A completed maintenance order from CMX with valid calibration data, but the technical object (e.g., equipment or functional location) is being opened by a user at the time the interface attempts to post the result.

Expected Result:

- During actual testing, verify whether the data is still posted successfully, or if an error occurs in iSuite.
- If an error occurs, it should be captured and managed through the error handling process.

4.3.9. Test Case 9

Scenario: A completed maintenance order from CMX containing a single calibration record with Calibration Passed = FALSE (i.e., only one calibration certificate), and time posted.

Expected Result:

- The interface will create a single record in the Maintenance Notification Activity (with multiple activity codes).
- A Maintenance Order Time Confirmation will be posted.
- The User and System Status will be updated accordingly.

6. Design Specification

1. Configuration

<<< Rename Section 5.1.1 "Configuration reference" with the configuration node and repeat it for each unique configuration item.

- *Specify the SPRO configuration required for this custom development >>>*

1. Configuration reference

N/A

Configuration path (IMG, table, …)	

1. Purpose of configuration

<<< Describe here the purpose and relevant information related to the configuration. >>>

2. Workflow

1. Technical Reference

<<< Technical Object References (class, program, t-code, …) >>>

N/A

Object Name	Object Type	Object Description

2. Flow Diagram

<<< *Please provide the technical process flow diagram* >>>

N/A

3. Steps Description

<<< *Process steps should be descriptive in nature. The aim of the process step is to describe the overall technical process* >>>

N/A

4. Technical Details

N/A

Trigger Mechanism	Mention the start condition for the workflow, e.g. on creation of a purchase document, batch program etc. s
Start Condition	Example – The workflow should start only for certain document type, workflow should start only if credit amount is greater than 250000 etc.
Business Object	Mention the business object, if possible. Otherwise indicate the object in general terms (e.g., Purchase Requisition)
Standard Workflow Task / Template	In case of enhancement required for delivery workflow is required.

Level of Approval Required	
Agent Determination Technique	Role - Security Role Org Unit - HR Org Structure Custom Table - Agents in custom table Distribution Lists Unspecified - To be decided in Functional Specification Other <use to elaborate on a selection of "Other"> If the agent determination technique is different for each foreground step then please repeat this section.
Mention Logic for Agent Determination (if any)	
Notification Destination	Internal User (Mail Inbox) External User (email address)
Workflow Notifications Text	If any specific work item text/work item subject to be used.
Escalation Handling (if any)	If any deadline monitoring is to be done. Example: If approver does not approve for 3 business days notify his supervisor.
Integration with Portal	
Configuration Dependencies	Example setting up a new organization structure.

Error Handling (if any)	An exception situation could occur if workflow routes to a one position is vacant/not available (i.e. no user is assigned to that position.) If a specific report or additional information is required. Add attachment if necessary.
Substitution	

5. **Authorization**

<<< Explain which roles should be added or used to approve/reject and execute workflow items. Enter any custom authorization required >>>

N/A

No	Business Catalog	Authorization Parameter	Parameter Value

3. **Report**

1. **Technical Reference**

<<< Technical Object References (class, program, t-code, ...) >>>

N/A

Object Name	Object Type	Object Description

2. Selection Screen Details

<<< The functional designer should be able to detail exactly what he/she wants at the selection screen merely by using this table. The programmer will be able to construct the screen directly from the details in this table. Some technical knowledge will be needed for the complete production of this table>>>

N/A

Name	Type	Parameter or Select Option	Comments (Range, Single/Multiples selections, Patterns Mandatory etc.)	Default Value
	Table-Field Check Box Radio Button with Group	Parameter Select Option		
	Table-Field Check Box Radio Button with Group	Parameter Select Option		

3. Desired Screen Design

<<< Enter attachment if necessary >>>

N/A

4. Technical Details

<<< Information like relevant database tables, data retrieval logic, type of report like (simple list report or ALV), sorting order, detail functionality, other display attributes, special interaction on clicking one or more columns etc. can mentioned here >>>

N/A

5. **Starting Conditions**

<<< When should the report be run? Does an interface need to be run before the report is valid, and (more commonly), should it be a batch only program (with added security) or is it needed on-line as well?

E.g. 'This program will be run after month-end billing.

E.g. 'This program will be run each time a sales order is saved >>>

N/A

6. **Data Mapping Tables**

<<< List of all the fields along with their details are to be mentioned here. Look and feel wise, a desired report design can also be specified here >>>

N/A

Field Name	Field Description	Output Length	Output Type	Format	Position	Screen No / Field Name

7. **Report Example**

<<< Use Attachment if necessary >>>

N/A

8. **Authorization**

<<< Explain which roles should be added or used for these reports. Enter any custom authorization if required >>>

N/A

No	Business Catalog	Authorization Parameter	Parameter Value

4. Interface

1. Technical Reference

<<< Technical Object References (class, program, t-code, ...) >>>

Object Name	Object Type	Object Description

2. Technical Details

Interface Name	
Direction (with respect to this system)	Inbound Outbound other If other, please specify exactly
Interface Type	Batch near real-time real-time other If other, please specify exactly
Interface Frequency	Hourly Details: Daily Details: Weekly Details: Monthly Details:

	Quarterly Details: Yearly Details: On-Demand Details: Other Details:
Type of Records Sent	Delta Fields Delta full-record other If other, please specify exactly
Volume (per single execution)	Average Volume: <Volume> records per interface execution Peak Volume: <Lower Volume – Upper Volume>

3. Flow logic

<<< Please explain any flow logic, calculations, rules, etc.. that should be implemented in this interface >>>

4. Interface Data Layout

<<< Please list the source and destination data elements, plus any mapping that will be required for this interface. If IDOC, include segment name in structure column. Excel matching this format can be attached in place of this table. >>>

Source Structure	Source Field	Description	Data Type	Length	Transformation	Target Structure	Target Field	Description	Data Type	Length	Mand/ Opt.	Comments/Remarks

5. Mapping Rules & Conversion Criteria

<<< This section should contain any additional mapping rules and conversion criteria not covered in the previous section. >>>

6. Special Case: Bi-Directional Real-Time Interface

<<< If you know this interface will be a bi-directional real-time interface (i.e. the "Source" system sends and receives data in the same execution), then a second data mapping is required. If applicable, duplicate the table from Section 4.4.4 and capture the "return data" mapping rules for the "Source" system >>>

7. Sample Data

<<< Please provide two attachments of sample source data with the expected target data after this interface is executed. Please supply the sample data in the native format or .csv, and preferably zipped >>>

8. Data Retention

<<< In file based interfaces a "backup" copy of interface data can be retained in the middleware for each execution. This can be useful for reconciliation purposes. Please indicate the retention period for this interface. If not file based, then the source or target system must fill any data retention requirements >>>

Selection	Comments

	None	
	7 Days	
	15 Days	
	30 Days	
	Other	

9. Middleware Solution

<<< This section should contain an outline of the chosen middleware solution and the processes involved. Middleware specific configuration should be specified >>>

10. Interface Scheduling

<<< Please describe any requirements around the timing of this interface >>>

11. Authorization

<<< Explain which roles should be created / added or users / IT for reprocessing errors or ad hoc requests. Enter any custom authorization if required. Enter the file path or folder structure to which users/IT will need access to >>>

No	Business Catalog	Authorization Parameter	Parameter Value

12. Other system documentation

<<< Reference the other system's documentation, when relevant >>>

5. Conversion

1. Technical Reference

<<< Technical Object References (class, program, t-code, …) >>>

N/A

Object Name	Object Type	Object Description

2. Technical Details

N/A

Conversion Name	

3. Conversion Data Layout

<<< Please list the source and destination data elements, plus any mapping that will be required for this conversion. If uploading from file, source structure can be omitted. Excel matching this format can be attached in place of this table. >>>

N/A

Source Structure	Source Field	Description	Data Type	Length	Transformation	Target Structure	Target Field	Description	Data Type	Length	Mand/ Opt.	Comments/Remarks

4. **Mapping Rules & Conversion Criteria**

<<< This section should contain any additional mapping rules and conversion criteria not covered in the previous section. >>>

N/A

5. **Sample Data**

<<< Please provide two attachments of sample source data with the expected target data after this conversion is executed. Please supply the sample data in the native format or .csv, and preferably zipped >>>

N/A

6. **Authorization**

<<< Explain which roles should be created/added or used for loading data. Enter any custom authorization if required >>>

N/A

No	Business Catalog	Authorization Parameter	Parameter Value

6. **Enhancement**

1. **Business Add-Ins (BADIs)**

NA

BADI Property	Value/Object

System	*<<< BTP, S/4 HANA, …>>>*
Transaction	
Enhancement Spot	
BADI Name	
Enhancement Implementation	
BADI Implementation	
Class	
Method	
Filter	
OData Service	

2. **Implicit Enhancement**

N/A

Property	**Value/Object**
Transaction	
Enhanced Object	
Implementation	

3. **User-Exits**

N/A

Property	**Value/Object**
Transaction	

Main Program	
Includes	
Form Routines	

4. **CDS Views Extension**

1. **Technical Reference**

N/A

Property	**Value/Object**
Original CDS View Name	
Extended CDS View Name	
Purpose of Extension	
Extension Type	☐CDS View Extension ☐Custom CDS consuming Standard CDS ☐View with Additional Associations or Joins ☐Metadata Extension
Odata Exposure	☐Yes ☐No
Input Field Parameters	
Service Definition	
Service Binding	

2. **Fields Added**

Field Name	Data Element	Source Table	Description	Annotations

5. **Function Exits**

N/A

Property	Value/Object
Transaction	
Enhancement	
Function Module Name	
Includes	

6. **Field Exits**

N/A

Property	Value/Object
Enhancement	
Main Program Name	
Function Module Name	
Field Exit Id	
Screen Number	

Screen Field Name	
Conditions for execution	

7. **Menu Exits**

N/A

Property	Value/Object
Enhancement	
Menu/Path	
Function/Transaction Code	

8. **Screen Exits**

N/A

Property	Value/Object
Enhancement	
Main Program Name	
Screen Number	
Program Name & Sub-Screen Number	

9. **Search Help Exits**

N/A

Field Name	Field Description	Import / Export (I/E)	Key Field (Y/N)	Data Element	Type (CHAR, NUMC)	Length	Default Value

10. Search Help assignment

N/A

Property	Value/Object
Standard Search Help	
Collective Search Help	
Elementary Search Help	

11. Business Transaction Events (BTE)

N/A

Property	Value/Object
Transaction	
BTE Number	
Product Name	
Function Module	

12. Custom Transaction

<<< Functional details of custom transaction can be incorporated here. Number of screens required and flow diagram can be included and provide the selection screen shot along with the table name and field name and screen shot for the required output >>>

N/A

13. Requirement routine

N/A

Menu/Submenu	
Routine number	
Business logic required	

14. Substitution

N/A

Validation Description	Fields required for validation	Point of Validation	Table used in validation	Business Rules

Substituted Field	Derived from Field	Table used in Substitution	Business Rules

15. Flow logic

<<< Please explain any flow logic, calculations, rules, etc that should be implemented in this enhancement >>>

N/A

16. Authorization

<<< Which authorization object should be used for controlled execution? Enter any custom authorization if required >>>

N/A

No	Business Catalog	Authorization Parameter	Parameter Value

7. Form

1. Technical Reference

<<< Technical Object References (class, program, t-code, ...) >>>

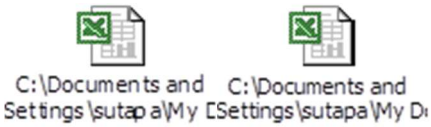
N/A

Object Name	Object Type	Object Description

2. Form Layout

<<< Refer to the following for an output samples for Window mapping, Label Description and Field mapping >>>

N/A



3. Layout Windows

N/A

Reference	Print on page	Label Position
		X : Y :
		X : Y :
		X : Y :
		X : Y :
		X : Y :
		X : Y :
		X : Y :

4. **Field Mapping**

N/A

Field	Field Description	Functionality	Logic	Print on page	Font	Font Format	Window

5. **Standard Texts / Text Modules**

N/A

Reference	Text	Print on page	Label Position	Font	Output Format	Font Format

6. **Translation**

N/A

Reference	Description of use (in Language1)	Description of use (in Language2)	Description of use (in Language3)	Text Module Name	Notes

7. **Layout Details**

N/A

Position of Left Margin (specify unit)	
Position of Right Margin (specify unit)	
Position of Logo (specify unit)	
Logo (specify logo)	
Position of Main Window (specify unit)	

8. Flow logic

<<< Please explain any flow logic, calculations, rules, etc that should be implemented in this form >>>

N/A

9. Authorization

<<< Explain which roles should be created/added or used for printing and testing forms. Enter any custom authorization if required >>>

N/A

No	Business Catalog	Authorization Parameter	Parameter Value

8. Fiori Application

1. Header Information

N/A

Application Title	
Application ID	
Type of Enhancement	☐Custom Application ☐ Standard Application
Development Type	*<<<Fiori Elements App ….Free Style UI5 App>>>*
Application Type	*<<<List Report, Object Page , Over view Page ,etc >>>*
UI Enhancements	☐Custom Fields Added ☐UI Layout Modified ☐Extensibility Hook Used ☐Fragments or Views Introduced

2. Technical Reference

N/A

Object Name	Object Type	Object Description
<<< Odata Object >>>		
<<< CDS View >>>		
<<< Custom Fields >>>		

<<< Catalogs >>>		
<<< Rules >>>		

3. Desired Screen Design

<<< Enter attachment if necessary >>>

N/A

4. Technical Details

<<< Information like relevant database tables,CDS Views,ODATA services , data retrieval logic, detail functionality, other display attributes, special interaction on clicking one or more columns etc. can mentioned here >>>

N/A

5. Authorization

<<< Enter Authorization Objects/fields, to be used and specific user Groups >>>

N/A

No	Business Catalog	Name of Space (L2)	Name of Page (L3)	Name of Section (L4)	Name of App/Tile(L5)	Authorization Parameter	Parameter Value

7. Custom Tables/Structure

<<< This section should detail the attributes of any new custom table created for one of the above sections, and the properties of its fields.

NB: Existing Data Elements and/or Domains should be used whenever possible when creating custom table fields, in order to avoid unnecessary typos. In this instance, the data table row for that field should not be completed beyond 'Domain', as the remaining attributes will be default values for the selected Domain. >>>

N/A

Table Name	
Short text	
Size category	
Table maintenance allowed	
Maintenance Type	Manual / Automatic Maintenance (application table) Transportable Maintenance (customizing table)
Data class	
Buffering	
Table maintenance generation	
Authorization Group	
Change Log Enabled (Y/N) *(mandatory for GxP related table)*	
SPRO Path *(mandatory for customizing tables)*	

Field Name	**Data Element**	**Domain**	**Type**	**Length**	**Check Table-Field**	**Key Field**	**Foreign Key**	**Description**

Comments								

8. Error Handling

<<< Provide Error Handling details here. Job run notifications, error notifications, E-Mail messaging, custom programming, etc. may be required >>>

1. Error Messages

<<< Describe the expected error messages for different error conditions >>>

Note: Error Messages S = SAP Origin, I = Integration Origin, C = CMX Origin

Error Message Number	Error Message Text (70 characters)	Error Conditions
01S		
02S		
03S		
04I		
05C	Maintenance Order 000060000150. Records already exist. Please report to CMX.	Interface has not created a record due to identified records already existed.

06C	Maintenance Order 000060000150. Relevant calibration result/s value contains no value. Please report to CMX.	One or more of the relevant results for calibration data contains no value.
07C		

9. Validation

1. Test Case References

<<< List the Test Case(s) used to validate the functionality / configuration covered in this document (IQ / OQ). >>>

Test Case ID	Test Case	Comment