

CNV-1037 Cross Selling

Status	Approved
Owner	LIU-ext, Ekawati
Stakeholders	

Purpose

The purpose of this document is to define the data conversion approach to create Cross Selling records in S/4 HANA.

Cross selling is a sales technique where a customer is offered related or complementary products to what they have already purchased or are purchasing. The system can automatically suggest these items during sales order creation, potentially increasing sales volume and customer satisfaction.

The structure and usage of Cross Selling in S/4HANA remain consistent as the records in ECC are maintained at sales organization level.

This conversion aims to migrate active and relevant cross selling records from existing ECC systems into S/4HANA by applying required transformation logic using Syniti as the data migration and transformation platform. The converted records will be loaded into the target S/4HANA system using standard SAP mechanisms such as IDOCs, BAPIs, or direct table loads where applicable.

Conversion Scope

The scope of this document covers the approach for converting active Cross Selling from Legacy Source Systems into S/4HANA following the Cross Selling Master Data Design Standard: DD-FUN-050 Master Data Standard_1037-Cross selling.

From the current system landscape, Cross Selling records only exist in the legacy systems - WP2. Harmonization and validation are required to ensure accurate and consolidated data in S/4HANA. While WP2 serve as source systems, a mapping and transformation logic will be necessary to produce properly formatted load templates in line with the target design.

The data from legacy system includes:

1. All active Cross Selling, where "valid to date is beyond S/4HANA Go-Live date" AND each of the below as per table combination:
 - a. Sales organization in scope of S/4HANA
 - b. Material sales view migrated as per CNV-2003 Materials - Sales view with sales long text.

The data from legacy system excludes:

1. Invalid Cross Selling, e.g. table KOTD904 (sales organization/ distribution channel/ customer) and KOTD905 (sales organization/ distribution channel)

20260227-Eka: Refer to CR0279 - Update Conversion Specs to remove mention of CUI System

20260316-Eka: refer to the latest update on MDS DD-FUN-050 Master Data Standard_1037-Cross selling on 13-Mar-2026, this conversion specs is also updated with "cross-selling is only applicable for Composite GBU".

List of source systems and approximate number of records

Source	Scope	Source Approx No. of Records	Target System	Target Approx No. of Records
WP2	Cross Selling table: KOTD906, KONDD, KONDDP	150	S/4HANA ROW	150
WP2	Cross Selling table: KOTD906, KONDD, KONDDP	75	S/4HANA China	75
WP2	Cross Selling table: KOTD906, KONDD, KONDDP	150	S/4HANA-CUI	150
PF2	Cross Selling	N/A	S/4HANA ROW/ China/ CUI	N/A

Additional Information

Multi-language Requirement

N/A

Document Management

N/A

Legal Requirement

N/A

Special Requirements

Due to compliance requirement, there will be one SAP instance for Rest of the World (ROW) and one for China ~~and one for CUJ~~. Based on the sales organization the cross selling records will be migrated to respective SAP instances.

Target Design

The technical design of the target for this conversion approach.

Table	Field	Data Element	Field Description	Data Type	Length	Requirement
KOTD900	KSCHL	KSCHD	Material determination type	CHAR	4	Mandatory
KOTD900	VKORG	VKORG	Sales Organization	CHAR	4	Mandatory
KOTD900	DATBI	KODATBI	Validity end date of the condition record	DATS	8	Mandatory
KOTD900	DATAB	KODATAB	Validity start date of the condition record	DATS	8	Mandatory
KONDD	SMATN	SMATN	Substitute material This is for Main/ sales material	CHAR	18	Mandatory
KONDD	MEINS	SUBME	Substitute unit of measure	UNIT	3	Mandatory
KONDD	LSTACS	LSTACS	Cross-selling delivery control	CHAR	1	Optional
KONDDP	KPOSN	CNUM3	Seq. number	CHAR	3	Mandatory
KONDDP	SMATN	SMATN	Substitute material This is for Cross-selling material	CHAR	18	Mandatory
KONDDP	MEINS	SUBME	Substitute unit of measure	UNIT	3	Mandatory
KONDDP	LSTACS	LSTACS	Cross-selling delivery control	CHAR	1	Optional

Data Cleansing

All data cleansing should take place in the data source system as defined in this document, unless system limitations prevent it.

20260316-Eka: as Cleansing Reports are considering relevancy rule, the new update on MDS - "cross-selling is only applicable for Composite GBU", has to be applied too.

ID	Criticality	Error Message /Report Description	Rule	Output	Source System
1037-001	C1	Material with flag for deletion	Flag for deletion at client level (MARA-LVORM) OR flag for deletion at distribution chain level (MVKE-LVORM) is 'X' - Yes	Material No./ Material Description/ Sales Organization/ Sales Organization Name/ Distribution Channel/ Distribution Channel Name/ Flag for deletion at client level/ Flag for deletion at distribution chain level/ Tag - Main or Substitute Material	WP2
1037-002	C1	Material with distribution-chain material status	Cross-distribution-chain material status (MARA-MSTAV) OR Distribution-chain-specific material status (MVKE-VMSTA) is NOT BLANK	Material No./ Material Description/ Sales Organization/ Sales Organization Name/ Distribution Channel/ Distribution Channel Name/ Cross-distribution-chain material status code and the description/ Distribution-chain-specific material status code and the description/ Tag - Main or Substitute Material	WP2

How to clean: Main/ sales material - Data cleanser to change the valid to date to before S/4HANA go-live, Cross-selling material - Data cleanser to delete the cross-selling material.

Conversion Process

The high-level process is represented by the diagram below:

The ETL (Extract, Transform, Load) process is a structured approach to data migration and management, ensuring high-quality data is seamlessly transferred across systems. Here's a breakdown of its key components:

1. Extraction

The process begins with extracting metadata and raw data from source systems, i.e. Syensqo ECC system WP2. The extracted data is then staged for transformation.

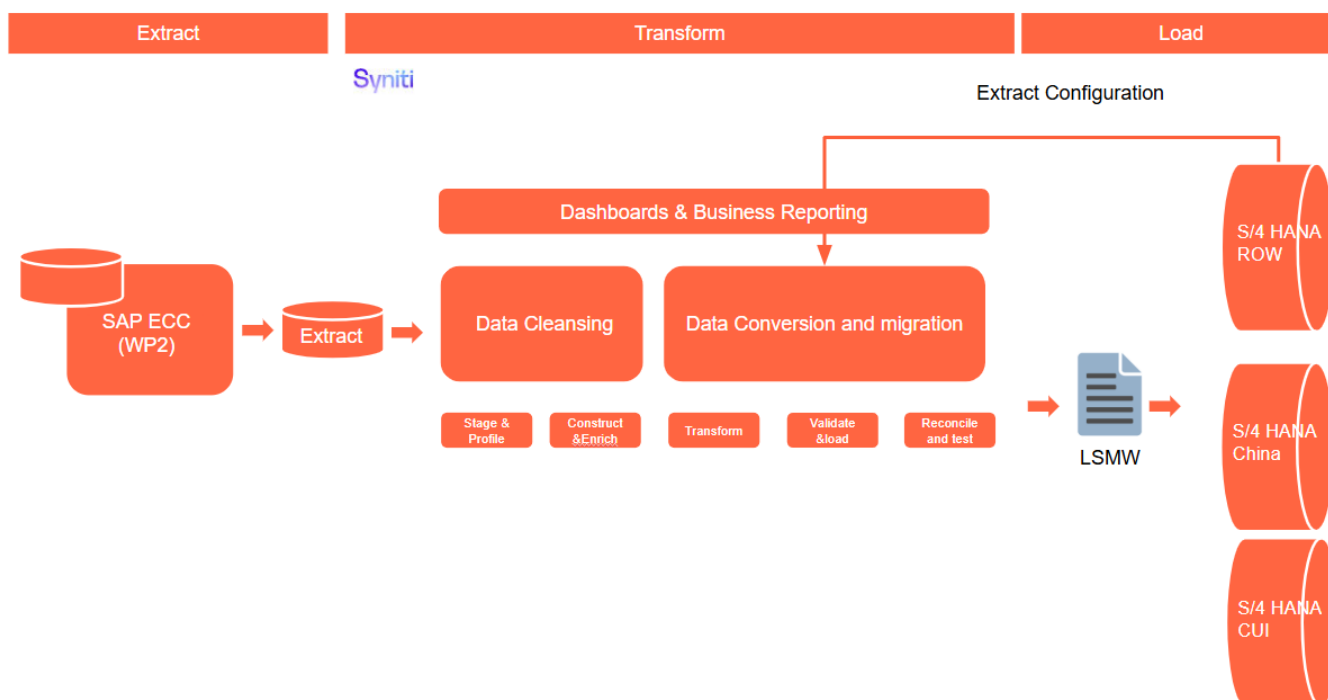
2. Transformation

Once extracted, the data undergoes cleansing, consolidation, and governance. This step ensures data integrity, consistency, and compliance with business rules. The transformation process includes:

- Data validation to remove inconsistencies.
- Standardization to align formats across datasets.
- Business rule application to refine data for operational use.

3. Loading

The transformed data is then loaded into the target S/4HANA system.



Data Privacy and Sensitivity

N/A

Extraction

Extract data from a SAP ECC WP2 into Syniti Migrate for S/4HANA. Syniti Migrate connects to the source and loads the data into Syniti Migrate. There are 2 possibilities:

1. The data exists. Syniti Migrate connects to the source and loads the data into Syniti Migrate. There are 3 methods:
 - a. Perform full data extraction from relevant tables in the source system(s).
 - b. Perform extraction through the application layer.
 - c. Only if; Syniti Migrate cannot connect to the source, data is loaded to the repository from the provided source system extract/ report.

- The data does not exist (or cannot be converted from its current state). The data is manually collected by the business directly in Syniti Migrate. This is to be conducted using DCT (Data Collection Template) in Syniti Migrate.

The agreed Relevancy criteria is applied to the extracted records to identify the records that are applicable for the Target loads

Extraction Run Sheet

Req #	Requirement Description	Team Responsible
1037-001	<ul style="list-style-type: none"> - Identify the source systems (WP2) and databases involved. - Define the data objects (tables such as KOTD906, KONDD, KONDDP, fields, records) to be extracted. - Establish business rules for data selection. 	Syniti / LTC Data team
1037-002	<ul style="list-style-type: none"> - Specify the extraction approach (full, incremental, or delta extraction). - Determine the tools and technologies used. - Define data filtering criteria to exclude irrelevant records. 	Syniti
1037-003	<ul style="list-style-type: none"> - Establish execution timelines and batch processing schedules. - Assign responsibilities for extraction monitoring. - Document dependencies on other migration tasks. 	Syniti
1037-004	<ul style="list-style-type: none"> - Define error handling mechanisms for extraction failures. 	Syniti

Selection Screen

Selection Ref Screen	Parameter Name	Selection Type	Requirement	Value to be entered/set
	Valid To Date	Single	Select Data that are valid from this (Valid to) date	Date
	Sales Organization	Multiple	Valid Sales organization for extraction	In-Scope Sales Organizations

Data Collection Template (DCT)

Target Ready Data Collection Template will be created for data with exception of some fields which require transformation as mentioned in the transformation rule.

DCT Rules

Field Name	Field Description	Rule
N/A		

Extraction Dependencies

Item #	Step Description	Team Responsible
1	Source System Availability <ul style="list-style-type: none"> • Ensure that the source database or application is accessible. • Confirm that necessary credentials and permissions are granted 	Syensqo IT
2	Data Structure <ul style="list-style-type: none"> • Identify relationships between tables, views, and stored procedures. 	Syniti

3	Referential Integrity <ul style="list-style-type: none"> Ensure dependent records are extracted together. 	Syniti
4	Extraction Methodology <ul style="list-style-type: none"> Define whether extraction is full, incremental, or delta-based. Establish batch processing schedules for large datasets. 	Syniti
5	Performance and Scalability Considerations <ul style="list-style-type: none"> Optimize extraction queries to prevent system overload. Ensure network bandwidth supports data transfer volumes. 	Syniti
6	Security and Compliance <ul style="list-style-type: none"> Adhere to regulatory standards for sensitive information if applicable 	Syniti

Transformation

The Target fields are mapped to the applicable Legacy field that will be its source, this is a 3-way activity involving the Business, Functional team and Data team. This identifies the transformation activity required to allow Syniti Migrate to make the data Target ready:

- Perform value mapping and data transformation rules.
 - Legacy values are mapped to the to-be values (this could include a default value)
 - Values are transformed according to the rules defined in Syniti Migrate
- Prepare target-ready data in the structure and format that is required for loading via prescribed Load Tool. This step also produces the load data ready for business to perform Pre-load Data Validation

Transformation Run Sheet

Item #	Step Description	Team Responsible
1	Identify target S/4HANA fields and determine applicable legacy source fields from ECC system (WP2)	Functional Team (L2C) + Data Team (L2C)
2	Map legacy field values to S/4HANA target values (including field-level mapping and technical names)	Data Team (L2C), Data Team (Syniti)
3	Define value mapping rules for fields requiring standardization or harmonization across the source systems	Functional Team (L2C) + Data Team (L2C)
4	Identify and agree on default values where legacy data is incomplete or inconsistent	Business Team + Functional Team (L2C)
5	Configure transformation rules in Syniti Migrate	Data Team (Syniti)
6	Review transformation logic and mappings with Business for confirmation	Business Team + Functional Team (L2C)
7	Perform initial transformation run and generate draft target-ready dataset	Data Team (Syniti)
8	Review draft target-ready data for structure and completeness	Data Team (L2C), Functional Team (L2C)
9	Share transformed data with Business for Pre-load Validation	Business Team
10	Incorporate feedback from Business and refine mappings or transformation logic as needed	Data Team (L2C)
11	Finalize and approve transformed data as Target Ready Load File	Business + Functional (L2C) + Data Team (L2C)
12	Handover final file to Load Team or trigger the load via Syniti Load Workbench	Data Team (Syniti), Data Load Team

Transformation Rules

Rule #	Source system	Source Table	Source Field	Source Description	Target System	Target Table	Target Field	Target Description	Mapping Table	Transformation Logic
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Cross Selling Condition Records

Data Extraction Logic for Cross Selling Conditions

1. Identify Relevant Condition Types

ECC WP2 using standard Cross Selling condition type, i.e. CS01 and the same available in S/4HANA. To select active entries for condition type - CS01.

2. Process by Source System

Perform the extraction steps from source system, i.e. WP2.

3. Extract Condition Records Number

Extract condition records number from condition table - KOTD906 with the following filters:

Validity Date (DATBI): include only records with validity greater than the cut-off date defined for the current conversion cycle (as specified on the selection screen).

Sales Organization (VKORG): include only records for in-scope Sales Organizations provided in the parameter list.

4. Extract the Main Material (Sales Material)

For each condition records number from table KOTD906 above, get the material number, unit of measure and cross-selling delivery control from table - KONDD (Material Substitution - Data Division).

For fields related to Material Master, include records only if the corresponding migrated target value exists in the target system.

5. Extract the Cross Selling Material

For each condition records number from table KOTD906 above, get the sequence number, material number, unit of measure and cross-selling delivery control from table - KONDDP (Conditions: Additional Materials for Material Determination).

For fields related to Material Master, include records only if the corresponding migrated target value exists in the target system.

1037-001	WP2	KOTD906	KSCHL	Material determination type	S/4HANA	KOTD900	KSCHL	Material determination type		Copy Material determination type
1037-002	WP2	KOTD906	VKORG	Sales Organization	S/4HANA	KOTD900	VKORG	Sales Organization	MAP_VKORG	Map sales organization from Source to Target using Mapping table defined here. Only consider S/4 sales organization in TCSPF-VKORG (Cross-Selling: Profile Determination - Sales Organization).
1037-003	WP2	KOTD906	DATBI	Validity end date of the condition record	S/4HANA	KOTD900	DATBI	Validity end date of the condition record		Copy valid to date
1037-004	WP2	KOTD906	DATAB	Validity start date of the condition record	S/4HANA	KOTD900	DATAB	Validity start date of the condition record		Copy valid from date
1037-005	WP2	KOTD906	KNUMH	Condition record number	S/4HANA	KOTD900	KNUMH	Condition record number		Temporary number of target condition record. The record will be renumbered in the S/4HANA system. This condition records number are required to link the 3 tables: KOTD906, KONDD, KONDDP.
1037-006	WP2	KONDD	KNUMH	Condition record number	S/4HANA	KONDD	KNUMH	Condition record number		Temporary number of target condition record. The record will be renumbered in the S/4HANA system. This condition records number are required to link the 3 tables: KOTD906, KONDD, KONDDP.
1037-007	WP2	KONDD	SMATN	Main Material/ Sales Material	S/4HANA	KONDD	SMATN	Substitute material	MAP_MATNR	Map material no. from Source to Target using Mapping table defined here.
1037-008	WP2	KONDD	MEINS	Main/ sales material unit of measure	S/4HANA	KONDD	MEINS	Substitute unit of measure	MAP_MEINS	Map unit of measure from Source to Target using Mapping table defined here.
1037-009	WP2	KONDD	LSTACS	Main/ sales material delivery control	S/4HANA	KONDD	LSTACS	Cross-selling delivery control		Copy cross-selling delivery control
1037-010	WP2	KONDDP	KNUMH	Condition record number	S/4HANA	KONDDP	KNUMH	Condition record number		Temporary number of target condition record. The record will be renumbered in the S/4HANA system. This condition records number are required to link the 3 tables: KOTD906, KONDD, KONDDP.
1037-011	WP2	KONDDP	KPOSN	Seq. number	S/4HANA	KONDDP	KPOSN	Seq. number		Internally assign based on the sequence of material in the upload file.
1037-012	WP2	KONDDP	SMATN	Cross-selling Material	S/4HANA	KONDDP	SMATN	Substitute material	MAP_MATNR	Map material no. from Source to Target using Mapping table defined here.
1037-013	WP2	KONDDP	MEINS	Cross-selling material unit of measure	S/4HANA	KONDDP	MEINS	Substitute unit of measure	MAP_MEINS	Map unit of measure from Source to Target using Mapping table defined here.
1037-014	WP2	KONDDP	LSTACS	Cross-selling material delivery control	S/4HANA	KONDDP	LSTACS	Cross-selling delivery control		Copy cross-selling delivery control.

List of Custom Target Reports for this object is maintained here: [Conversion Specification - Custom Reports Register](#).

Transformation Mapping

Mapping Table Name	Mapping Table Description
MAP_VKORG	ECC (PF2/ WP2) to S/4AHANA Sales Organization Mapping Table
MAP_MATNR	ECC (PF2/ WP2) to S/4AHANA Material No. Mapping Table
MAP_MEINS	ECC (PF2/ WP2) to S/4AHANA Unit of Measure Mapping Table

Transformation Dependencies

List the steps that need to occur before transformation can commence

Item #	Step Description	Team Responsible
1	Source Data Integrity - Ensure extracted data is complete, accurate, and consistent. - Validate that data types and formats align with transformation requirements.	Syniti
2	Referential Integrity - Ensure dependent records are transformed together or in advance	Syniti
3	Transformation Logic and Mapping - Define data mapping rules between source and target schemas.	Data Team
4	Performance and Scalability Considerations - Optimize transformation processes for large datasets. - Ensure system resources can handle transformation workloads	Syniti
5	Logging and Error Handling - Maintain detailed logs of transformation activities. - Define error-handling procedures for failed transformations	Syniti

Pre-Load Validation

Project Team

The following pre-load validations will be performed by the Project Team.

Completeness

Task	Action
Compare Data Counts	<ol style="list-style-type: none"> 1. Verify row counts in the source databases. 2. Identify missing or duplicated records.
Validate the mandatory fields	Validate there is value for all the mandatory fields
Validate Primary Keys and Unique Constraints	<ol style="list-style-type: none"> 1. Check for duplicate or missing primary key values, i.e. if there is same sales organization, Main material number and Cross-selling material number. 2. Ensure unique constraints are maintained.
Test Referential Integrity	Confirm dependent records exist in related tables, such as material master, unit of measure in S/4HANA.

Accuracy

Task	Action
Validate the transformation	Validate the fields which require transformation have the value after transformation instead of the original field value
Check Data Consistency	<ol style="list-style-type: none"> 1. Compare field values across systems 2. Validate data formats and structures

Business

The following pre-load validations will be performed by the business.

Completeness

Task	Action
Compare Data Counts	<ol style="list-style-type: none">1. Verify row counts in the source databases.2. Identify missing or duplicated records.
Review populated templates for missing or incorrect values	Use checklists to verify completeness and correctness before submission.

Accuracy

Task	Action
Conversion Accuracy	Business Data Owner/s to verify that all the data in the load table/ file is accurate as per endorsed transformation/ mapping rules (and signed-off DCT data).

Load

The load process includes:

1. Execute the automated data load into target system using load tool or produce the load file as per format in Transformation Rule section if the load must be done manually.
2. Once the data is loaded to the target system, it will be extracted and prepared for Post Load Data Validation

Load Run Sheet

Item #	Step Description	Team Responsible
1	Confirm readiness of final approved data sets for ECC source system - WP2	Business / Functional Team
2	Validate transformation rules and mappings in Syniti tool	Data Team (L2C-Data)
3	Generate target-ready load files based on S/4HANA cross selling condition table format	Data Team (Syniti)
4	Review and approve load files before execution	Business / Functional Team
5	Execute the upload program in the S/4HANA system	Data Load Team
6	Monitor load progress and capture load statistics (records loaded, errors, duplicates, etc.)	Data Team (Syniti) / Technical Team
7	Extract loaded data from S/4HANA for post-load validation	Data Team (Syniti)
8	Perform post-load data validation (compare target data with source/approved files) for all loaded cross selling condition records	Data Team (L2C-Data)
9	Log and resolve any data load errors or mismatches identified during validation	Data Team (L2C-Data) + Functional Team + Data Team (Syniti)
10	Obtain business sign-off on successful load and validation	Business Team
11	Archive load logs, error reports, and validation results for audit/compliance	Data Team (L2C-Data) / Data Team (Syniti) / PMO

Load Phase and Dependencies

The Cross Selling will be loaded in the pre-cutover period.

Before loading, it will have dependency on the configuration and data objects in the S/4HANA. The configuration needs to be transported into the respective system first.

Configuration

Item #	Configuration Item
1	Sales Organization
2	Cross Selling Condition Table
12	Cross Selling Access Sequence
4	Cross Selling Condition Type
5	Cross Selling Procedure
6	Define Sales Document Types
7	Define Customer Procedures for Cross Selling
8	Define Document Procedures for Cross Selling
9	Assign Document Procedure for Cross Selling to Sales Document Types
10	Define Cross Selling Profile
11	Assign Cross Selling Profile
12	Maintain Procedure Determination (Online) for Product Proposal

Conversion Objects

Object #	Preceding Object Conversion Approach
2003	Materials - Sales view with sales long text

Error Handling

Error Type	Error Description	Action Taken
Configuration/ Data Transformation	The value XXX for field XXX doesn't exist	<ol style="list-style-type: none"> 1. Check the mapping/ conversion is done properly in the loading file 2. Validate the target value is configured/ transported in the target system 3. Reach out to functional team to validate the configuration
Data Error	The Material Master is not defined	Validate the Material Master relevancy rule and maintain the material master if it is in migration scope.

Post-Load Validation

Project Team

The following post-load validations will be performed by the Project Team.

Completeness

Task	Action
Validate Record count	Validate all tables has the same records as the loading file
Perform Source-to-Target Comparisons	<ol style="list-style-type: none"> 1. Validate that migrated data matches source records count. 2. Check for discrepancies in numerical values, text fields, and timestamps.

Accuracy

Task	Action
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Conduct Post-Migration Reconciliation	Generate reports comparing pre- and post-migration data; and the field value are identical.
Perform Manual Testing	Pick up a few random Sales Organization and Material, and run t-code: VB43 to validate the Cross Selling can be displayed with correct records.

Business

Post-load validation is a critical step in data migration, ensuring that transferred data is accurate, complete, and functional within the target system.

1. Ensuring Data Integrity

After migration, data must be consistent with its original structure. Post-load validation checks for missing records, incorrect mappings, and formatting errors to prevent discrepancies.

2. Business Continuity

Faulty data can disrupt operations, leading to financial losses and inefficiencies. Validating post-load data ensures that applications function as expected, preventing downtime.

3. Error Detection and Resolution

By validating data post-migration, businesses can detect anomalies early, reducing the cost and effort required for corrections

Completeness

Task	Action
Perform Source-to-Target Comparisons	Validate that migrated data matches source records count.
Conduct Post-Migration Reconciliation	Go through post-load validation reports comparing pre- and post-migration data.

Accuracy

Task	Action
Perform Manual Testing	Conduct manual spot-checks for additional assurance.

Key Assumptions

- Cross Selling Master Data Standard is up to date as on the date of documenting this conversion approach and data load.
- Cross Selling is in scope based on data design and any exception requested by business.
- There will be 3 SAP instances, one for ROW and one for China ~~and one for CUJ only~~.

See also

Change log

Version	Published	Changed By	Comment
CURRENT (v. 20)	Mar 16, 2026 05:56	LIU-ext, Ekawati	
v. 19	Feb 27, 2026 07:53	LIU-ext, Ekawati	
v. 18	Oct 23, 2025 09:44	LIU-ext, Ekawati	
v. 17	Oct 16, 2025 16:44	LIU-ext, Ekawati	
v. 16	Oct 16, 2025 16:42	LIU-ext, Ekawati	
v. 15	Oct 14, 2025 12:38	LIU-ext, Ekawati	
v. 14	Oct 14, 2025 12:27	LIU-ext, Ekawati	

v. 13	Oct 09, 2025 08:22	LIU-ext, Ekawati
v. 12	Oct 08, 2025 15:09	LIU-ext, Ekawati
v. 11	Oct 08, 2025 12:19	LIU-ext, Ekawati

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Workflow history

Title	Last Updated By	Updated	Status
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