CNV-3004 Attachment for customer master data

Status	Approved
Owner	RUAN-ext, Eric
Stakeholders	CIRULE, Anita

Purpose

The purpose of this document is to define the conversion approach to migrate Attachment for customer master data in S/4 HANA.

Attachments in SAP ECC are typically stored using Generic Object Services (GOS), which allow users to link files to master data objects such as customers (via transaction codes like XD02). Attachments in SAP S/4HANA are linked using the Attachment List Service (also used in Fiori apps). This conversion specification will capture the details on how to migrate the attachments for those customers in migration scope into S4 Hana to keep the business continuity.

Conversion Scope

The scope of this document covers the approach for converting Attachment for active Customer master data from SAP ECC into S/4HANA following the document "DD-FUN-050 Master Data Standard_3004-Attachment for customer master data".

The data from legacy system includes:

1. This conversion specification focuses on the migration of ECC customer attachment only (business object is KNA1)
2. The customer general data has to be in the migration scope.
3. There is attachment maintained in legacy ECC system (WP2/PF2) for the active customers. The attachment relationship type includes note, private note, attachment.

The data from legacy system excludes:

1. Attachment for customer outside of migration scope.
2. Non-SAP ECC (WP2/PF2) attachment

List of source systems and approximate number of records

Source	Scope	Source Approx No. of Records	Target System	Target Approx No. of Records
WP2	Attachment for customer master data	473	S4 Hana ROW/China /CUI	473
PF2	Attachment for customer master data	72	S4 Hana ROW/China /CUI	72

Additional Information

Multi-language Requirement

N/A

Document Management

The DMS approach is elaborated in KDD "KDD085 - Document Management in the SyWay Solution". The migration approach for the attachment will follow the DMS approach approved in this KDD.

Legal Requirement

CMMC 2.0 is a mandatory DoD cybersecurity certification for contractors handling Controlled Unclassified Information (CUI) and Federal Contract Information (FCI). CUI includes sensitive technical data (e.g., design specs, system info) related to U.S. military and space applications. The Composites Business handles CUI and is therefore within CMMC scope. Without certification, the business risks disqualification from existing and future DoD programs.
It is mandatory to implement CMMC-compliant systems and processes to for all the organizations that are dealing with CUI.

For this data object, if there is CUI related information, it will be handled by the US based consultants to meet the compliance requirement.

Special Requirements

N/A

Target Design

The technical design of the target for this conversion approach.

Table	Field	Data Element	Field Description	Data Type	Length	Requirement
SRGBTBREL	CLIENT	CLIENT	Client	C	3	Internal
SRGBTBREL	BRELGUID	BRELGUID	GUID	X	16	Internal
SRGBTBREL	RELTYPE	RELTYPE	Relationship type	C	10	Mandatory
SRGBTBREL	INSTID_A	INSTID_A	Instance ID	C	70	Mandatory
SRGBTBREL	TYPEID_A	TYPEID_A	Object Type	C	32	Mandatory
SRGBTBREL	CATID_A	CATID_A	Object Category	C	2	Internal
SRGBTBREL	INSTID_B	INSTID_B	Instance ID	C	70	Internal
SRGBTBREL	TYPEID_B	TYPEID_B	Object Type	C	32	Internal
SRGBTBREL	CATID_B	CATID_B	Object Category	C	2	Internal
SRGBTBREL	LOGSYS_A	LOGSYS_A	Logical System	C	10	Not in use
SRGBTBREL	ARCH_A	ARCH_A	Object Archived	C	1	Not in use
SRGBTBREL	LOGSYS_B	LOGSYS_B	Logical System	C	10	Not in use
SRGBTBREL	ARCH_B	ARCH_B	Object Archived	C	1	Not in use
SRGBTBREL	UTCTIME	UTCTIME	Short Time Stamp	P	8	Internal
SRGBTBREL	HOMESYS	HOMESYS	Logical System	C	10	Not in use
SOOD	OBJTP	OBJTP	Document class	C	3	Internal
SOOD	OBJYR	OBJYR	Object year	C	2	Internal
SOOD	OBJNO	OBJNO	Object number	C	12	Internal
SOOD	OBJLA	OBJLA	Doc. language	C	1	Internal
SOOD	OBJSRT	OBJSRT	Sort field	C	10	Not in use
SOOD	OBJNAM	OBJNAM	Document Name	C	12	Internal
SOOD	OBJDES	OBJDES	Document title	C	50	Mandatory
SOOD	OWNTP	OWNTP	Owner type	C	3	Internal
SOOD	OWNYR	OWNYR	Owner year	C	2	Internal
SOOD	OWNNO	OWNNO	Owner number	C	12	Internal
SOOD	OWNNAM	OWNNAM	Owner name	C	12	Internal
SOOD	CROTP	CROTP	User Type	C	3	Internal
SOOD	CROYR	CROYR	User year	C	2	Internal
SOOD	CRONO	CRONO	User number	C	12	Internal
SOOD	CRONAM	CRONAM	Created by	C	12	Internal
SOOD	CRDAT	CRDAT	Date created	D	8	Internal
SOOD	CRTIM	CRTIM	Created at	T	6	Internal
SOOD	FILE_EXT	FILE_EXT	File extension	C	3	Mandatory

Data Cleansing

ID	Criticality	Error Message/Report Description	Rule	Output	Source System
N/A					

Conversion Process

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

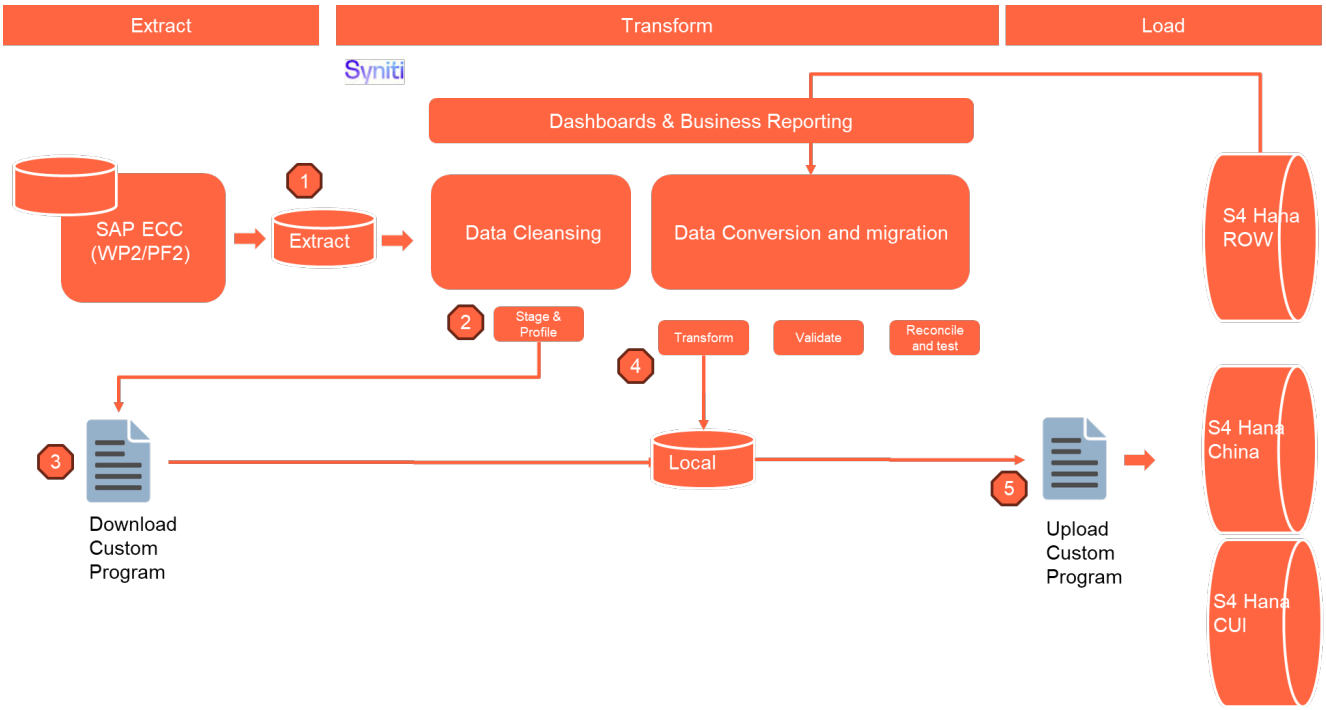
The ETL (Extract, Transform, Load) process is a structured approach to data migration and management, ensuring high-quality data is seamlessly transferred across systems. Here's a breakdown of its key components:

1. **Extraction**
The process begins with extracting metadata and raw data from source systems, such as Syensqo ECC system (i.e., WP2/PF2) periodically. 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 S4 Hana system. For attachment, it will be migrated via a custom program. The table below captures the major steps to perform this ETL process.

Step	Step Description	Owner	Remarks
1	Extract the table SRGBTBREL / SOOD for attachment information (such as attachment type, file name etc.)	Syniti	The Attachment is saved in the content server, this is just to capture the link between the attachment and customer master data.
2	Apply the relevancy rule and define the scope of attachment to be migrated	Syniti	The output will be an excel file includes the ECC attachment information relevant for migration
3	Based on Step 2, download the attachment to local		A custom program will be developed in ECC (WP2/PF2). By reading the excel file in step 2, it will download the attachments to local
4	Perform transformation, i.e., convert the ECC customer number to S4 BP number	Syniti	The output will be an excel file includes the S4 data object and the attachment information (i.e., file name from step 2)
5	Based on Step 4, upload the attachment in S4		A custom program will be developed in S4. By reading the excel file in step 4, it will upload the attachment from local (saved from Step 3)



Data Privacy and Sensitivity

N/A

Extraction

Extract data from SAP ECC table SRGBTBREL into Syniti Migrate. Syniti Migrate connects to SAP ECC (wp2/pf2) and loads the data into Syniti Migrate. Then perform full data extraction from relevant tables in the source system(s).

Extraction Run Sheet

Req #	Requirement Description	Team Responsible
3004-001	- Identify the source systems WP2/PF2 and databases involved. - Define the data objects (tables SRGBTBREL / SOOD) to be extracted. - Establish business rules for data selection.	Syniti
3004-002	- Specify the extraction approach (full extraction). - Determine the tools and technologies used. - Define data filtering criteria to exclude irrelevant records.	Syniti /
3004-003	- Establish execution timelines and batch processing schedules. - Assign responsibilities for extraction monitoring. - Document dependencies on other migration tasks.	Syniti /
3004-004	- Define error handling mechanisms for extraction failures.	Syniti /
3004-005	Run custom program based on the template below to download the attachments to local. Syniti will generate the file after applying the relevancy rule before extraction.	L2C Data

Sample template to download the attachment from SAP (final template to be confirmed by technical team)

System ID	Object Type	Object Key	GUID	File Name	MIME Type

WP2	KNA1	0000803515	DOC123456	invoice.pdf	application/pdf

Selection Screen

Selection Ref Screen	Parameter Name	Selection Type	Requirement	Value to be entered/set
N/A				

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** • Ensure that the source database SAP ECC PF2/WP2 is accessible. • Confirm that necessary credentials and permissions are granted	Syensqo IT
2	**Data Structure** • Identify relationships between tables KNA1/SRGBTBREL/SOOD, views, and stored procedures.	Syniti /
3	**Referential Integrity** • Ensure dependent records are extracted together.	Syniti /
4	**Extraction Methodology** • Define whether extraction is full, incremental, or delta-based. • Establish batch processing schedules for large datasets.	Syniti /
5	**Performance and Scalability Considerations** • Optimize extraction queries to prevent system overload. • Ensure network bandwidth supports data transfer volumes.	Syniti /
6	**Security and Compliance** • 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:

1. Perform value mapping and data transformation rules.
    a. Legacy values are mapped to the to-be values (this could include a default value)
    b. Values are transformed according to the rules defined in Syniti Migrate
2. 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 both ECC systems WP2, PF2	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 two source systems WP2, PF2	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), Data Team (L2C)
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	Transformation Logic
1	WP2/PF2	SRGBTBREL	CLIENT	Client	S4 Hana	SRGBTBREL	CLIENT	Client	Internal -
2	WP2/PF2	SRGBTBREL	BRELGUID	GUID	S4 Hana	SRGBTBREL	BRELGUID	GUID	For download template Copy - this will be used in the download template GUID field For upload template Not in use
3	WP2/PF2	SRGBTBREL	RELTYPE	Relationship type	S4 Hana	SRGBTBREL	RELTYPE	Relationship type	Internal
4	WP2/PF2	SRGBTBREL	INSTID_A	Instance ID	S4 Hana	SRGBTBREL	INSTID_A	Instance ID	For download template, copy the value For upload template, apply Mapping - MAP_KUNNR map ECC customer number to S4 BP number for upload template
5	WP2/PF2	SRGBTBREL	TYPEID_A	Object Type	S4 Hana	SRGBTBREL	TYPEID_A	Object Type	Default for both download/upload template - for customer master data, the value is KNA1
6	WP2/PF2	SRGBTBREL	CATID_A	Object Category	S4 Hana	SRGBTBREL	CATID_A	Object Category	Internal
7	WP2/PF2	SRGBTBREL	INSTID_B	Instance ID	S4 Hana	SRGBTBREL	INSTID_B	Instance ID	Internal -

8	WP2/PF2	SRGBTBREL	TYPEID_B	Object Type	S4 Hana	SRGBTBREL	TYPEID_B	Object Type	Internal
9	WP2/PF2	SRGBTBREL	CATID_B	Object Category	S4 Hana	SRGBTBREL	CATID_B	Object Category	Internal
10	WP2/PF2	SRGBTBREL	LOGSYS_A	Logical System	S4 Hana	SRGBTBREL	LOGSYS_A	Logical System	Not in Use -
11	WP2/PF2	SRGBTBREL	ARCH_A	Object Archived	S4 Hana	SRGBTBREL	ARCH_A	Object Archived	Not in Use -
12	WP2/PF2	SRGBTBREL	LOGSYS_B	Logical System	S4 Hana	SRGBTBREL	LOGSYS_B	Logical System	Not in Use -
13	WP2/PF2	SRGBTBREL	ARCH_B	Object Archived	S4 Hana	SRGBTBREL	ARCH_B	Object Archived	Not in Use -
14	WP2/PF2	SRGBTBREL	UTCTIME	Short Time Stamp	S4 Hana	SRGBTBREL	UTCTIME	Short Time Stamp	Internal -
15	WP2/PF2	SRGBTBREL	HOMESYS	Logical System	S4 Hana	SRGBTBREL	HOMESYS	Logical System	Not in Use -
16	WP2/PF2	SOOD	OBJTP	Document class	S4 Hana	SOOD	OBJTP	Document class	Internal. SOOD can be joined with SRGBTBREL using SRGBTBREL-INSTID_B field, the underscore part in below sample value. FOL25000000000004EXT41000000440415
17	WP2/PF2	SOOD	OBJYR	Object year	S4 Hana	SOOD	OBJYR	Object year	Internal. SOOD can be joined with SRGBTBREL using SRGBTBREL-INSTID_B field the underscore part in below sample value. FOL25000000000004EXT41000000440415
18	WP2/PF2	SOOD	OBJNO	Object number	S4 Hana	SOOD	OBJNO	Object number	Internal. SOOD can be joined with SRGBTBREL using SRGBTBREL-INSTID_B field, the underscore part in below sample value. FOL25000000000004EXT41000000440415
19	WP2/PF2	SOOD	OBJLA	Doc. language	S4 Hana	SOOD	OBJLA	Doc. language	Internal
20	WP2/PF2	SOOD	OBJSRT	Sort field	S4 Hana	SOOD	OBJSRT	Sort field	Not in use
21	WP2/PF2	SOOD	OBJNAM	Document Name	S4 Hana	SOOD	OBJNAM	Document Name	Internal
22	WP2/PF2	SOOD	OBJDES	Document title	S4 Hana	SOOD	OBJDES	Document title	Copy for both upload and download template
23	WP2/PF2	SOOD	OWNTP	Owner type	S4 Hana	SOOD	OWNTP	Owner type	Internal
24	WP2/PF2	SOOD	OWNYR	Owner year	S4 Hana	SOOD	OWNYR	Owner year	Internal
25	WP2/PF2	SOOD	OWNNO	Owner number	S4 Hana	SOOD	OWNNO	Owner number	Internal
26	WP2/PF2	SOOD	OWNNAM	Owner name	S4 Hana	SOOD	OWNNAM	Owner name	Internal
27	WP2/PF2	SOOD	CROTP	User Type	S4 Hana	SOOD	CROTP	User Type	Internal
28	WP2/PF2	SOOD	CROYR	User year	S4 Hana	SOOD	CROYR	User year	Internal
29	WP2/PF2	SOOD	CRONO	User number	S4 Hana	SOOD	CRONO	User number	Internal
30	WP2/PF2	SOOD	CRONAM	Created by	S4 Hana	SOOD	CRONAM	Created by	Internal
31	WP2/PF2	SOOD	CRDAT	Date created	S4 Hana	SOOD	CRDAT	Date created	Internal
32	WP2/PF2	SOOD	CRTIM	Created at	S4 Hana	SOOD	CRTIM	Created at	Internal
33	WP2/PF2	SOOD	FILE_EXT	File extension	S4 Hana	SOOD	FILE_EXT	File extension	Rule. For both download and upload template "MIME Type" field, Concatenate 'application/' & this field value

Transformation Mapping

Mapping Table Name	Mapping Table Description
MAP_KUNNR	BP Customer 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, such as CNV-3007 Business Partner General and DMS server migration	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

Completeness

Task	Action
Compare Data Counts	1. Verify counts between source and target 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	1. Check for duplicate or missing primary key values, i.e., if there is same BP number. 2. Ensure unique constraints are maintained.
Test Referential Integrity	Confirm dependent records exist in related tables

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	1. Compare field values across systems 2. Validate data formats and structures

Business

Completeness

Task	Action
Compare Data Counts	1. Verify counts between source and target databases. 2. Identify missing or duplicated records.

Accuracy

Task	Action
Check Data Consistency	1. Compare field values across systems 2. Validate data formats and structures

Load

The load process includes:

1. Execute the data load into target system using load tool
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 each ECC source system WP2 and PF2	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 condition table format	Data Team (Syniti)
4	Review and approve load files before execution	Business / Functional Team
5	Execute the custom loading 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 attachments.	Data Team (L2C-Data)
9	Log and resolve any data load errors or mismatches identified during validation	Data Team (L2C-Data) + Functional Team
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

This object will be loaded via a custom program. The custom program will use the upload template below. (final template to be confirmed by technical team)

Object Type	Object Key	File Path (to-be filled by uploader)	File Name	MIME Type

KNA1	BP Number	C:\GOS\invoice.pdf local directory	invoice.pdf	application/pdf file type

Load Phase and Dependencies

The Attachment for customer master data will be loaded in the pre-cutover period.

Before loading, it will have dependency on the DMS server set up.

Configuration

Item #	Configuration Item
N/A	

Conversion Objects

Object #	Preceding Object Conversion Approach
3007	Business Partners - General (Role 000000)

Error Handling

Error Type	Error Description	Action Taken
Technical	There is error message when using the upload program	Raise ticket to the technical team

Post-Load Validation

Project Team

Completeness

Task	Action
Validate the data count in the database	SE16N to do record count based on table SRGBTBREL, Object Type KNA1, then compare the source data count
Validate the attachment in the BP	1. Open the Manage Business Partner App in Fiori and open the Attachment tab, then validate the number of attachments with the number in ECC

Accuracy

Task	Action

Compare uploaded data against source file	1. Open the Manage Business Partner App in Fiori and open the Attachment tab, then display the attachment content with the ECC attachment content for consistency

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
Verify the attachment count	1. Open the Manage Business Partner App in Fiori and open the Attachment tab, then validate the number of attachments with the number in ECC
Validate the post load report	Check the Syniti post-load report to see if there is error

Accuracy

Task	Action
Compare uploaded data against source file	1. Open the Manage Business Partner App in Fiori and open the Attachment tab, then display the attachment content with the ECC attachment content for consistency

Key Assumptions

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

See also

Change log

Version	Published	Changed By	Comment
CURRENT (v. 24)	**Feb 22, 2026 13:44**	**RUAN-ext, Eric**	*20260222 remove CUI
v. 23	Nov 06, 2025 13:48	**RUAN-ext, Eric**	
v. 22	Oct 08, 2025 11:46	**RUAN-ext, Eric**	
v. 21	Sept 17, 2025 08:44	**RUAN-ext, Eric**	
v. 20	Sept 15, 2025 07:01	**RUAN-ext, Eric**	
v. 19	Sept 15, 2025 06:59	**RUAN-ext, Eric**	
v. 18	Sept 13, 2025 14:28	**RUAN-ext, Eric**	
v. 17	Sept 13, 2025 10:44	**RUAN-ext, Eric**	
v. 16	Sept 13, 2025 07:40	**RUAN-ext, Eric**	
v. 15	Sept 13, 2025 07:28	**RUAN-ext, Eric**	

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Workflow history

Title	Last Updated By	Updated	Status
There are no pages at the moment.			