CNV-3031 Vendor Doc Attachments

Status	Approved
Owner	SICONOLFI-ext, Michael
Stakeholders	

Conversion Scope

The GOS functionality is set up to store documents into an ECM (Enterprise Content Management) system. This is a separate system from ECC and S4/HANA, but is natively integrated to ECC.

The scope of this document covers the approach for migrating 'Attachments' linked to Vendors from Legacy to S4 HANA.

Relevancy Rules

The data from legacy system includes:

1. attachments linked to Vendors inscope for migration based on 'Relevancy rules' referenced in CNV-3007 Business Partner - General Section (0000)
2. type of documents listed in (approved Documents types)

The data from legacy system excludes:

1. Vendors 'Attachments' not in (approved Documents types) will not be attached to Vendor in S4HANA.
2. Old/obsolete attachments which are not valid for Vendor

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 Vendors - data linkage	418	S4 HANA	418
PF2	Attachment for Vendors- data linkage	265	S4 HANA	265
GOS - ECM	Physical attachment storage for PF2 and WP2	683	New GOS or SAP Opentext - (**TBC**) **PDM-543**	683

Additional Information

Multi-language Requirement

N/A

Document Management

Generic Object Services (GOS) is a functionality that allows users to attach documents, notes, and other objects to business objects like vendors . It provides a standard way to manage and access these attachments within various SAP transactions, including those related to vendors.

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.

Therefore, there will be one SAP instance specifically for CUI related entities. The migration for CUI related entities will be covered by US based data consultant using separate tools.

Special Requirements

N/A

Open Points

1) Jira PDM-543

> ⚠ PDM-543 - Jira project doesn't exist or you don't have permission to view it.

2) Jira ticket PDM-688: What are 'Approved Document Types' which should be attached to Vendor?

> ⚠ PDM-688 - Jira project doesn't exist or you don't have permission to view it.

Target Design

The technical design of the target for this conversion approach.

Table	Field	Data Element	Field Description	Data Type	Length	Requirement	Format
SRGBTBREL	CLIENT	CLIENT	Client	C	3	Internal (Mandatory)	Three digit client number (Linked SAP table **T000**)
SRGBTBREL	BRELGUID	BRELGUID	GUID	X	16	Internal (Mandatory)	RAW: Binary data — used here for GUID; generally used internally.
SRGBTBREL	RELTYPE	RELTYPE	Relationship type	C	10	Mandatory	Check table **MDOBLREL** (ensures only valid relationship types are used)
SRGBTBREL	INSTID_A	INSTID_A	Instance ID	C	70	Mandatory	Length 70 (CHAR)
SRGBTBREL	TYPEID_A	TYPEID_A	Object Type	C	32	Mandatory	Length 32 (CHAR)
SRGBTBREL	CATID_A	CATID_A	Object Category	C	2	Mandatory	Length 2 (CHAR)
SRGBTBREL	INSTID_B	INSTID_B	Instance ID	C	70	Internal (Mandatory)	Length 70 (CHAR)
SRGBTBREL	TYPEID_B	TYPEID_B	Object Type	C	32	Internal (Mandatory)	Length 32 (CHAR)
SRGBTBREL	CATID_B	CATID_B	Object Category	C	2	Internal (Mandatory)	Length 32 (CHAR)
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 (Mandatory)	Format YYYYMMDDhhmmss
SRGBTBREL	HOMESYS	HOMESYS	Logical System	C	10	Not in use	
Table	**Field**	**Data Element**	**Field Description**	**Data Type**	**Length**	**Requirement**	**Format**
SOOD	OBJTP	OBJTP	Document class	C	3	Internal	Length 3 (CHAR) Linked SAP table **TSOTD for ref data**
SOOD	OBJYR	OBJYR	Object year	C	2	Internal	Length 2 (CHAR)
SOOD	OBJNO	OBJNO	Object number	C	12	Internal	Length 12 (CHAR)
SOOD	OBJLA	OBJLA	Doc. language	C	1	Internal	Length 1 (LANG)
SOOD	OBJSRT	OBJSRT	Sort field	C	10	Not in use	
SOOD	OBJNAM	OBJNAM	Document Name	C	12	Internal	Length 12 (CHAR)

SOOD	OBJDES	OBJDES	Document title	C	50	Mandatory	Length 50 (CHAR)
SOOD	OWNTP	OWNTP	Owner type	C	3	Internal	Length 12 (CHAR) Linked SAP table **TSOTD for ref data**
SOOD	OWNYR	OWNYR	Owner year	C	2	Internal	Length 2 (CHAR)
SOOD	OWNNO	OWNNO	Owner number	C	12	Internal	Length 12 (CHAR)
SOOD	OWNNAM	OWNNAM	Owner name	C	12	Internal	Length 22 (CHAR)
SOOD	CROTP	CROTP	User Type	C	3	Internal	Length 3 (CHAR) Linked SAP table **TSOTD for ref data**
SOOD	CROYR	CROYR	User year	C	2	Internal	Length 2 (CHAR)
SOOD	CRONO	CRONO	User number	C	12	Internal	Length 12 (CHAR)
SOOD	CRONAM	CRONAM	Created by	C	12	Internal	Length 12 (CHAR)
SOOD	CRDAT	CRDAT	Date created	D	8	Internal	Length 8 (DATE) YYYYMMDD
SOOD	CRTIM	CRTIM	Created at	T	6	Internal	Length 6 (TIME) hhmmss
SOOD	FILE_EXT	FILE_EXT	File extension	C	3	Mandatory	Length 3 (CHAR)

Data Cleansing

ID	Criticality	Error Message/Report Description	Rule	Output	Source System
1	High	Old/obsolete attachments which are not valid for Vendor	Exclude from load file or manually 'Remove' link with Vendor.	Obsolete attachments removed from vendors	PF2/WP2
2	High	Attached 'Documents' which are not in (approved Documents types) list	Exclude from load file or manually 'Remove' link with Vendor.	Non approved 'Document types' are not linked to Vendors inscope for migration	PF2/WP2

Conversion Process

SAP's document migration process involve three parts:

1. Moving the documents to a storage area.
2. Creating the entries in the S4 HANA system, such as vendors, etc.
3. Linking the attachments to the vendor.

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.

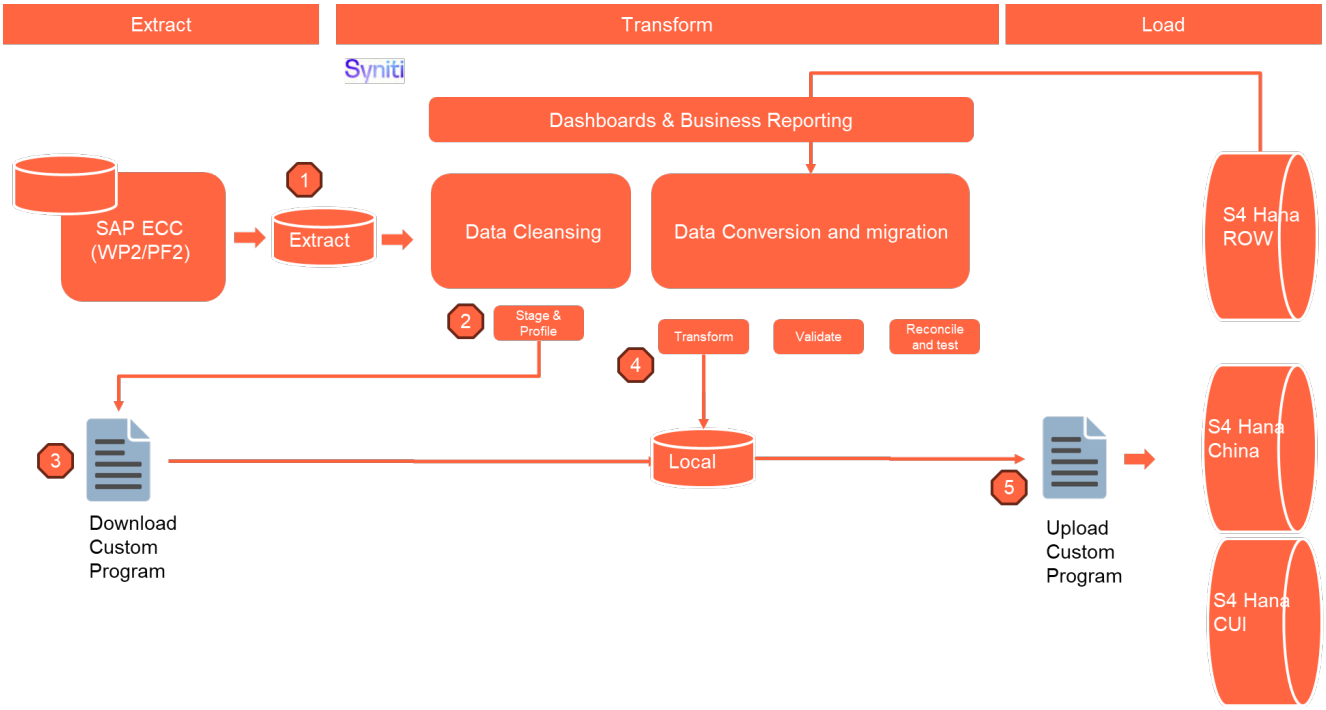
2. **Transformation**
Once extracted, the data undergoes cleansing, consolidation, and governance. This step ensures data integrity, consistency, and compliance with business rules. The transformation process includes:
- Data validation to remove inconsistencies.
- Standardization to align formats across 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 vendor 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 vendor 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)

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



Data Privacy and Sensitivity

N/A

Extraction

Extract data from a source systems into ADMM:

1. The vendor documents exist in the GOS environment and have to be extracted and transferred to the target system ECM.
2. The files are linked to the data objects via the SAP data tables. These records need to be extracted and migrated to the S4H environment
    a. Perform full data extraction from relevant tables from the PF2/WP2 source system(s), using Syniti ADMM.
    b. Stage data in SQL server

All records need to be extracted according to the agreed Relevancy criteria contained in the previous section of this document.

Key tables for Attachments are:

Table	**Name**	**What is the table for?**	**To be included in migration?**
SRGBTBREL	Relationship Table for GOS Objects	This table links the GOS Object (like a vendor) to the actual attached document, storing the object type, instance ID, and document details.	YES

SOOD	Object definition	The SOOD table consists of various fields, each holding specific information or linking keys about SAPoffice: Object definition data available in SAP. These include OBJTP (Code for document class), OBJYR (Object: Year from ID), OBJNO (Object: Number from ID), OBJLA (Language in Which Document Is Created).	YES
TOJTB	Business object repository: Basic data	The TOJTB table consists of various fields, each holding specific information or linking keys about Business object repository: Basic data data available in SAP. These include ACTIVE (Object type generated), ACTIVELANG (Language Key), PARENT (Supertype), PROGNAME (Implementation program)...	Yes
SOFFCONT1	SOFF: Table for Document Contents (import/export)	The SOFFCONT1 table consists of various fields, each holding specific information or linking keys about SOFF: Table for Document Contents (import/export) data available in SAP. These include RELID (Region in IMPORT/EXPORT Data Table), PHIO_ID (Physical document), SRTF2 (Next record counter in EXPORT/IMPORT data tables), PH_CLASS (Physical document class)	Yes
MDOBLREL	Model data: Relationship types	The MDOBLREL table consists of various fields, each holding specific information or linking keys about Model Data: Relationship Types data available in SAP. These include ROLEA (Role That an Object Takes in the Relationship), ROLEB (Role That an Object Takes in the Relationship), CARDA (Role Cardinality), CARDB (Role Cardinality)	Yes
LFA1	Vendor master (General Section)	GOS info is linked to this table	NO
LFB1	Vendor master (Company Code)	GOS info is linked to this table	NO
LFM1	Vendor master record purchasing organization data	GOS info is linked to this table	NO

TABLE LINKS

Link between the SOOD and SRGBTREL tables.

SRGBTBREL's `INSTID_B` field, often by parsing it to extract the document type, year, and number, to then retrieve the corresponding record from the SOOD table.

1. **Identify the Attachment Link:**

   In the SRGBTBREL table, the fields `INSTID_A` and `TYPEID_A` identify the business object (e.g., a sales order), and `INSTID_B` identifies the attachment.
2. **Parse the Attachment Information:**

   The `INSTID_B` field in SRGBTBREL contains the key information for the SOOD table. This field needs to be parsed to extract the document's attributes, including:
   - **OBJTY (Object Type):** For example, 'URL' or 'K' (for KPRO objects).
   - **OBJYR (Object Year):** A two-character field.
   - **OBJNO (Object Number):** A twelve-character field.
3. **Link to SOOD:**

   Use the parsed values to find the corresponding record in the SOOD table.
   - `SOOD-OBJTY = SRGBTBREL-INSTID_B+17(3)`
   - `SOOD-OBJYR = SRGBTBREL-INSTID_B+20(2)`
   - `SOOD-OBJNO = SRGBTBREL-INSTID_B+22(12)`

Extraction Run Sheet (for data extraction portion)

Req #	Requirement Description	Team Responsible
1	- 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
2	- Specify the extraction approach (full extraction). - Determine the tools and technologies used. - Define data filtering criteria to exclude irrelevant records.	Syniti
3	- Establish execution timelines and batch processing schedules. - Assign responsibilities for extraction monitoring. - Document dependencies on other migration tasks.	Syniti
4	- Define error handling mechanisms for extraction failures.	Syniti
5	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.	Syniti

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

System ID	Relationship Type	Object Type	Object category	Object Key	GUID	Instance ID	File Name	MIME Type
WP2	ATTA	LFA1	BO	0000091278	011249526B2AE102E10000000A8F7697	FOL27000000000004EXT38000000696606	ENDRESS+HAUSER.pdf	application/pdf

The Instance ID - SRGBTBREL.INSTID_B contains the details to link the SOOD table. It needs to be parsed into the following.

OBJECT DOC TYPE = EXT

OBJECT YEAR - 38

OBJECT NUMBER: 000000696606

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.

Field Name	Field Description	Rule
N/A		

Extraction Dependencies

Item #	Data Structure	Team Responsible
	• Identify relationships between tables LFA1/SRGBTBREL/SOOD, views, and stored procedures.	
1	**Source Systems Availability** • Ensure that the source database or application is accessible. • Confirm that necessary credentials and permissions are granted	Syensqo IT
2	**Extraction Methodology** • Define whether extraction is full, incremental, or delta-based. • Establish batch processing schedules for large datasets.	Syniti

3	**Data Structure** • Identify relationships between tables LFA1/SRGBTBREL/SOOD, views, and stored procedures.	Syniti
4	**Performance and Scalability Considerations** • Optimize extraction queries to prevent system overload. • Ensure network bandwidth supports data transfer volumes.	Syniti
5	**Security and Compliance** • Adhere to regulatory standards for sensitive information if applicable	Syniti
6	**Referential Integrity** • Ensure dependent records are extracted together.	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 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
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 (S2P)+ Data Team (S2P)
2	Map legacy field values to S/4HANA target values (including field-level mapping and technical names)	Data Team (S2P), Data Team (Syniti)
3	Define value mapping rules for fields requiring standardization or harmonization across the two source systems WP2, PF2	Functional Team (S2P)+ Data Team (S2P)
4	Identify and agree on default values where legacy data is incomplete or inconsistent	Business Team + Functional Team (S2P)
5	Configure transformation rules in Syniti Migrate	Data Team (Syniti), Data Team (S2P)
6	Review transformation logic and mappings with Business for confirmation	Business Team + Functional Team (S2P)
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 (S2P), Functional Team (S2P)
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 (S2P)
11	Finalize and approve transformed data as Target Ready Load File	Business + Functional (S2P) + Data Team (S2P)
12	Handover final file to Load Team or trigger the load via Syniti Load Workbench	Data Team (Syniti), Data Load Team

Transformation Rules

⚠ PDM-688 - Jira project doesn't exist or you don't have permission to view it.

Rule #	Source system	Source Table	Source Field	Source Description	Add Info about field	Target System	Target Table	Target Field	Target Description	Transformation Logic
1	PF2/WP2	SRGBTBREL	CLIENT	Client	Internal (Mandatory)	S4H	SRGBTBREL	CLIENT	Client	System generated
2	PF2/WP2	SRGBTBREL	BRELGUID	GUID	Internal (Mandatory)	S4H	SRGBTBREL	BRELGUID	GUID	System generated
3	PF2/WP2	SRGBTBREL	RELTYPE	Relationship type	Mandatory	S4H	SRGBTBREL	RELTYPE	Relationship type	Copy (Standard Value = **ATTA**)
4	PF2/WP2	SRGBTBREL	INSTID_A	Instance ID	Mandatory	S4H	SRGBTBREL	INSTID_A	Instance ID	Copy
5	PF2/WP2	SRGBTBREL	TYPEID_A	Object Type	Mandatory	S4H	SRGBTBREL	TYPEID_A	Object Type	Copy Will include **LFA1, LFB1, LFM1**
6	PF2/WP2	SRGBTBREL	CATID_A	Object Category	Mandatory	S4H	SRGBTBREL	CATID_A	Object Category	Copy (Std value = **BO**)
7	PF2/WP2	SRGBTBREL	INSTID_B	Instance ID	Internal (Mandatory)	S4H	SRGBTBREL	INSTID_B	Instance ID	Copy ⚠ PDM-688 - Jira project doesn't exist or you don't have permission to view it.
8	PF2/WP2	SRGBTBREL	TYPEID_B	Object Type	Internal (Mandatory)	S4H	SRGBTBREL	TYPEID_B	Object Type	Copy (Std value = **MESSAGE**)
9	PF2/WP2	SRGBTBREL	CATID_B	Object Category	Internal (Mandatory)	S4H	SRGBTBREL	CATID_B	Object Category	Copy (Std value = **BO**)
10	PF2/WP2	SRGBTBREL	LOGSYS_A	Logical System	Not in use	S4H	SRGBTBREL	LOGSYS_A	Logical System	N/A
11	PF2/WP2	SRGBTBREL	ARCH_A	Object Archived	Not in use	S4H	SRGBTBREL	ARCH_A	Object Archived	N/A
12	PF2/WP2	SRGBTBREL	LOGSYS_B	Logical System	Not in use	S4H	SRGBTBREL	LOGSYS_B	Logical System	N/A
13	PF2/WP2	SRGBTBREL	ARCH_B	Object Archived	Not in use	S4H	SRGBTBREL	ARCH_B	Object Archived	N/A
14	PF2/WP2	SRGBTBREL	UTCTIME	Short Time Stamp	Internal (Mandatory)	S4H	SRGBTBREL	UTCTIME	Short Time Stamp	System generated
15	PF2/WP2	SRGBTBREL	HOMESYS	Logical System	Not in use	S4H	SRGBTBREL	HOMESYS	Logical System	N/A
16	WP2/PF2	SOOD	OBJTP	Document class	Internal (Mandatory)	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. FOL250000000000004EXT41000000440415

17	WP2/PF2	SOOD	OBJYR	Object year	Internal (Mandatory)	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. FOL250000000000004EXT410000004404 15
18	WP2/PF2	SOOD	OBJNO	Object number	Internal (Mandatory)	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. FOL250000000000004EXT410000004404 15
19	WP2/PF2	SOOD	OBJLA	Doc. language	Internal (Mandatory)	S4 Hana	SOOD	OBJLA	Doc. language	System generated (linked to table T002)
20	WP2/PF2	SOOD	OBJSRT	Sort field	Not in use	S4 Hana	SOOD	OBJSRT	Sort field	N/A
21	WP2/PF2	SOOD	OBJNAM	Document Name	Internal (Mandatory)	S4 Hana	SOOD	OBJNAM	Document Name	System generated
22	WP2/PF2	SOOD	OBJDES	Document title	Mandatory	S4 Hana	SOOD	OBJDES	Document title	Copy for both upload and download template
23	WP2/PF2	SOOD	OWNTP	Owner type	Internal (Mandatory)	S4 Hana	SOOD	OWNTP	Owner type	System generated
24	WP2/PF2	SOOD	OWNYR	Owner year	Internal (Mandatory)	S4 Hana	SOOD	OWNYR	Owner year	System generated
25	WP2/PF2	SOOD	OWNNO	Owner number	Internal (Mandatory)	S4 Hana	SOOD	OWNNO	Owner number	System generated
26	WP2/PF2	SOOD	OWNNAM	Owner name	Internal (Mandatory)	S4 Hana	SOOD	OWNNAM	Owner name	System generated
27	WP2/PF2	SOOD	CROTP	User Type	Internal (Mandatory)	S4 Hana	SOOD	CROTP	User Type	System generated
28	WP2/PF2	SOOD	CROYR	User year	Internal (Mandatory)	S4 Hana	SOOD	CROYR	User year	System generated
29	WP2/PF2	SOOD	CRONO	User number	Internal (Mandatory)	S4 Hana	SOOD	CRONO	User number	System generated
30	WP2/PF2	SOOD	CRONAM	Created by	Internal (Mandatory)	S4 Hana	SOOD	CRONAM	Created by	System generated
31	WP2/PF2	SOOD	CRDAT	Date created	Internal (Mandatory)	S4 Hana	SOOD	CRDAT	Date created	System generated
32	WP2/PF2	SOOD	CRTIM	Created at	Internal (Mandatory)	S4 Hana	SOOD	CRTIM	Created at	System generated
33	WP2/PF2	SOOD	FILE_EXT	File extension	mandatory	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_LIFNR	BP Vendor 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 row 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
Count and Completeness check	Verify that vendors with attachments still have the applicable attachments

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.
Check vendors attachments found after transformation	Verify that vendors with attachments still have the applicable attachments

Accuracy

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

Relevant T-Codes for validation against Legacy

Vendor Type	Tcode	Function Module (Mass extraction /viewing)	Instructions
General	XK03	BDS_GOS_CONNECTIONS_GET (attachment details GOS_EXECUTE_SERVICE (display or add doc) SO_OBJECT_READ (view content) SO_OBJECT_DOWNLOAD (download) BINARY_RELATION_CREATE_COMMIT (link document)	1. **Navigate** to the transaction code of the relevant vendor. 2. **Open** the "Services for Object" menu by right-clicking on the document or using the menu icon. a. **Download Attachments:** Click on an attachment to open it, then select the save option to download it to your local system
Finance	FB03	BDS_GOS_CONNECTIONS_GET (attachment details GOS_EXECUTE_SERVICE (display or add doc) SO_OBJECT_READ (view content) SO_OBJECT_DOWNLOAD (download) BINARY_RELATION_CREATE_COMMIT (link document)	1. **Identify the Document:** Find a relevant business document, such as a vendor invoice, using a transaction code like FB03 (Display FI Document). 2. **Access Attachment List:** In the transaction screen, click on the Services for object icon (often a small paperclip). 3. **Select Attachment List:** From the dropdown menu, choose Attachment list to see all attached files for that specific document. 4. **Download Attachments:** Click on an attachment to open it, then select the save option to download it to your local system

Load

The load process includes:

1. Execute the automated 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	Verify Attachment files are available in source system to be copied	Data Specialist/Functional - S2P/GOS
2	Verify copy tool & scripts are operational	Data Specialist/Functional - S2P/GOS
3	Verify Target System ready to receive files	Data Specialist/Functional - S2P/GOS
4	Verify file count.	Data Specialist/Functional - S2P/GOS
5	Approval to copy	Functional/Data Owner - S2P

6	Copy files	Data Specialist/Functional - S2P/GOS
7	Verify files copied in target	Data Specialist/Functional - S2P/GOS
8	Verify data extracted is ready - agree volume	Data Specialist/Functional - S2P
9	Verify Config is in the system **TBC**	Data Specialist/Functional - S2P
10	Verify other necessary data has been loaded int he system (**TBC**)	Data Specialist/Functional - S2P
11	Release - Load signoff and go-ahead by Functional/Data Owner	Functional/Data Owner - S2P
12	Approval to stage/Pre-stage steps	Functional/Data Owner - S2P
13	Extraction from source	Developer - Syniti or Data Specialist - S2P
14	Generate target-ready load files based on S/4HANA condition table format"	Developer - Syniti or Data Specialist - S2P
15	Stage data for transformations	Developer - Syniti or Data Specialist - S2P
16	Run transforms	Developer - Syniti or Data Specialist - S2P
17	Execute pre-load report	Data Specialist/Functional - S2P
18	Validate preload report - release when signed off	Data Specialist - S2P
19	Pre-load verification and approval to load	Functional/Data Owner - S2P
20	Load to S4 See section below for possible load sequence**	Syniti
21	Complete Jira steps, Volumes and Timings	All - where applicable
22	Execute post-load report	Developer - Syniti or Data Specialist - S2P
23	Post-load report verification/validation	Data Specialist/Functional/Data Owner - S2P
24	Object load completion approval	Data Owner - S2P

**Technical Load Sequence and Function modules for Vendor attachments

Step	Step description	BAPI/Function Module	Step details
1	**Determine Object Type and Key**		First, identify the object type (e.g., vendor) and the specific object key for the vendor you are attaching the document to.
2a	**Get Folder ID**	**SO_FOLDER_ROOT_ID_GET**	Use the function module SO_FOLDER_ROOT_ID_GET to retrieve the folder ID where the document will be stored.
2b	**For uploading Multiple Attachments at once**	**TMP_GUI_DIRECTORY_LIST_FILES**	For uploading multiple attachments at once, you can build an ABAP report that: Uses TMP_GUI_DIRECTORY_LIST_FILES to scan a local directory for files. • Passes the individual file paths to CL_GUI_FRONTEND_SERVICES=>GUI_UPLOAD (step below) to read the file content. • Follows the steps above (convert to XSTRING (step below), get folder ID, insert object, commit relation) for each file.
3	**Convert File to XString/Binary**	**CL_GUI_FRONTEND_SERVICES=>GUI_UPLOAD** or **SCMS_BINARY_TO_XTRING**	If the file is already on the server or being uploaded from a local machine, use functions like CL_GUI_FRONTEND_SERVICES=>GUI_UPLOAD or SCMS_BINARY_TO_XTRING to read the file content and convert it into the XSTRING format.
4	**Insert the Object**	**SO_OBJECT_INSERT** and possibly **SO_CONVERT_CONTENTS_BIN**	Use the SO_OBJECT_INSERT function to insert the document. You might need to use SO_CONVERT_CONTENTS_BIN to convert the content to binary for this step.
5	**Create the Attachment Relation**	**BINARY_RELATION_CREATE_COMMIT**	Finally, use the BINARY_RELATION_CREATE_COMMIT function module to create and commit the binary relation, which registers the attachment to the specific object.

This object might be/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
LFA1	BP Vendor Number*	C:\GOS\ENDRESS+HAUSER.pdf local directory	ENDRESS+HAUSER.pdf	application/pdf file type

*The transformation involved will need to translate the old vendor number to the new vendor number.

Load Phase and Dependencies

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

Configuration

DMS server set up is required before load'

Conversion Objects

Object #	Preceding Object Conversion Approach
1	Business Partners - General (3007)
2	Business Partners - 3rd Party Supplier (FLVN01) (3026)
3	Business Partners - Plants/Intercompany Suppliers (3027)

Error Handling

Error Type	Error Description	Action Taken
Technical	GOS system not available	Contact standby GOS system support
Technical	Copy tool and scripts fails, due to access issues or volumes	Developers to fix the error
Data	Load fails	Fix and retry load
Data	Duplicates	Fix incorrect data or missing entries
Data	Transformation misses	Build transformation and retry.
Load	Authorization errors	Apply for the applicable authorization permission and retry
Load	Technical load failures	Investigate error and rectify. Retry simulation and/or in case of error Defect/Ticket' will be raised to Tech team
Load	Missing config	Set up config check validation jobs
Technical	Unable to create the link between attachment and object	Verify system is functional, data correct and access is valid.

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 LFA1, then compare the source data count
Validate the attachment in the BP	1. Open the BP Vendor in SAP GUI, navigate to the object list and check to see if the attachment has come through correctly. 2. Open the Manage Business Partner App in Fiori and open the Attachment tab, then validate the number of attachments with the number in ECC
Conversion accuracy	Data team to verify that the data staged in the preload tables are correct in terms of the mapping rules. This will be done via Syniti reports/SAP reports
File quantity	Verify the quota quantities are correctly migrated
Verify count	The number of records presented in the preload needs to be compared to the post load. – Syniti report
Missing data	Check missing data which was supposed to be loaded
Reconciliation	Participate in Post-load walkthroughs

Accuracy

Task	Action
Verify count	The number of records presented in the preload needs to be compared to the post load. – Syniti report
Field by field check	Compare source data to target data.
Verify count	Verify copied file count

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
Conversion accuracy	Data team to verify that the data staged in the preload tables are correct in terms of the mapping rules. This will be done via Syniti reports/SAP reports
File quantity	Verify the vendor attachment are correctly migrated
Verify count	The number of records presented in the preload needs to be compared to the post load. – Syniti report
Missing data	Check missing data which was supposed to be loaded
Reconciliation	Participate in Post-load walkthroughs

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
Load failures	Value presented for load must be in the system
Copy failures	Verify all files are copied and attachments available in target

Key Assumptions

- Master Data Standard is up to date as on the date of documenting this conversion approach and data load.
- Attachment for vendor 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.

Additional information

Attachment Functionality at Syensqo

The GOS functionality is set up to store documents into an ECM (Enterprise Content Management) system. This is a separate system from ECC and S4/HANA, but is natively integrated to ECC.

Assumption

KDD085 recommends the use of OpenText ECM for storage of documents attached to transactions in SAP, e.g. via GOS if supported. The KDD doesn't cover whether this should be a new instance of ECM, or reuse the existing ECM, or implement a totally new SaaS offering from OpenText; this is a more complex topic which also requires consideration of regulatory requirements and cybersecurity, which needs a separate design document.

However this determines what kind of migration is needed - for example do we leave the documents in-situ and only migrate the open items from ECC and their metadata links? Or do we also need to physically move the documents as well?

Attachment Functionality in SAP ECC

- Storage Method: Attachments are typically stored using Generic Object Services (GOS), which allow users to link files to vendor documents (via transaction codes like ME21N, ME22N, ME23N).
- Technical Reference: The attachments are managed via the Business Object Repository (BOR) object. The Business Object Repository (BOR) in SAP is a central access point for SAP business object types and their corresponding Business Application Programming Interfaces (BAPIs). It provides an object-oriented view of data and processes within an SAP system and is crucial for integrating SAP with external applications. The BOR also plays a role in SAP Business Workflow, ArchiveLink, and output control.

The following are the key concepts for Vendors.

Attachment Management:

GOS enables users to add attachments (like PDFs, Word documents, etc.) to vendors, either directly within the transaction or through a separate DMS (Document Management System) if configured.
Viewing Attachments:

GOS also allows users to view the attachments associated with a specific vendor.
Object Relationships:

GOS can also show relationships between the vendor and other objects, like IDocs, workflows, or other related documents.
Toolbar/Button:

The GOS functionality is typically accessed through a toolbar button or a menu option within the vendor transaction (e.g., XK01, XK02, XK03).
Customization:
In some cases, the GOS button or functionality might need to be activated for specific transactions or user roles using customizing settings.
Other:
GOS also allows for other functions like adding private notes, sending the object to another user, or viewing related workflows.

The Business Object Repository (BOR) in SAP is a central access point for SAP business object types and their corresponding Business Application Programming Interfaces (BAPIs). It provides an object-oriented view of data and processes within an SAP system and is crucial for integrating SAP with external applications. The BOR also plays a role in SAP Business Workflow, ArchiveLink, and output control.

Key aspects of the BOR and Vendor:

Centralized Access:

The BOR acts as a single point of access for all business objects and their associated BAPIs.
Object-Oriented View:

It provides an object-oriented perspective of business processes, allowing for modular and reusable components.
Vendor Object:

The vendor business object (type LFA1) is a key object within the BOR, representing Vendor data.
BAPIs and Methods:

BAPIs, which are remote-enabled ABAP function modules, are used to implement the methods of business objects. For example, a BAPI might be used to change or retrieve vendor details.
Attributes and Parameters:

Business objects have attributes that store object properties (e.g., vendor) and methods use import/export parameters to pass data between different parts of the system.
BOR Browser:

The Business Object Repository Browser (transaction code SWO1) allows users to browse, display, and maintain business objects and their components.
Integration:

The BOR facilitates the integration of SAP with other systems, such as through middleware.
Workflow and Other Services:
The BOR is used in SAP Business Workflow, ArchiveLink, output control, and other generic object services.

The DMS approach is elaborated in KDD "Document Management in the SyWay Solution".

Change log

Version	Published	Changed By	Comment
CURRENT (v. 53)	**Feb 11, 2026 10:24**	**SICONOLFI-ext, Michael**	
v. 52	Dec 03, 2025 12:42	**SICONOLFI-ext, Michael**	
v. 51	Nov 25, 2025 12:48	**SICONOLFI-ext, Michael**	
v. 50	Nov 25, 2025 10:20	**SICONOLFI-ext, Michael**	
v. 49	Nov 25, 2025 10:10	**SICONOLFI-ext, Michael**	
v. 48	Oct 04, 2025 09:44	**MADHOK-ext, Jasleen**	
v. 47	Oct 03, 2025 10:35	**MADHOK-ext, Jasleen**	
v. 46	Oct 03, 2025 09:59	**MADHOK-ext, Jasleen**	
v. 45	Oct 03, 2025 09:51	**MADHOK-ext, Jasleen**	
v. 44	Oct 03, 2025 09:41	**MADHOK-ext, Jasleen**	

Go to Page History

Workflow history

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

From Nov 25, 2025 to Feb 11, 2026	Actor	Type	Activity	Version
Approved	SICONOLFI-ext, Michael	Edit	updated the page at 10:10 am	
Oct 21, 2025				
	WILLIAMS-ext, Julie	State	changed state to Approved at 2:12 pm	v48
Lead Approval	WILLIAMS-ext, Julie	State	gave *POD Lead Review* approval at 2:12 pm	

	MUTHUSAMY-ext, Kunalan	State	changed expiry date to '28 Oct, 2025 02:47 pm' at 1:47 pm	
		State	changed state to Lead Approval at 1:47 pm (State override)	v48
Oct 09, 2025				
Approved	JAIN-ext, Gaurav	State	changed state to Approved at 5:59 am	v48