

# CNV-9053 TM-Freight Agreements

|              |                    |
|--------------|--------------------|
| Status       | Approved           |
| Owner        | OMER-ext, Mohammed |
| Stakeholders |                    |

## Purpose

The purpose of this document is to define the conversion approach to create TM-Freight agreements in S/4 HANA TM (Transportation management).

Freight agreements serve as contracts with companies providing transportation services, as well as service providers for transportation related services. They contain links to charge sheets for rates and validity dates. The parties involved in the contract are the purchasing organisation and the carrier.

The Freight Agreement represents the actual contract with the carrier/Freight forwarder. The Freight Agreement can have 1 to many Calculation Sheets, and each Calculation Sheet can have 1 to many Charge Types.

The data for freight agreements in S/4 would need to be constructed in data collection template (DCT).

## Conversion Scope

The scope of this document covers the approach for creating Freight Agreements in S/4HANA following the [TM-Freight Agreements Master Data Design Standard](#).

This includes:

- Capturing and using the Freight agreements data in data collection template (DCT).
- Applying transformation logic via Syniti to conform with the S/4 HANA data model.
- Loading the transformed data into SAP S/4 HANA while ensuring data integrity.

The data from legacy system includes:

1. N/A (Manual data collection)

The data from legacy system excludes:

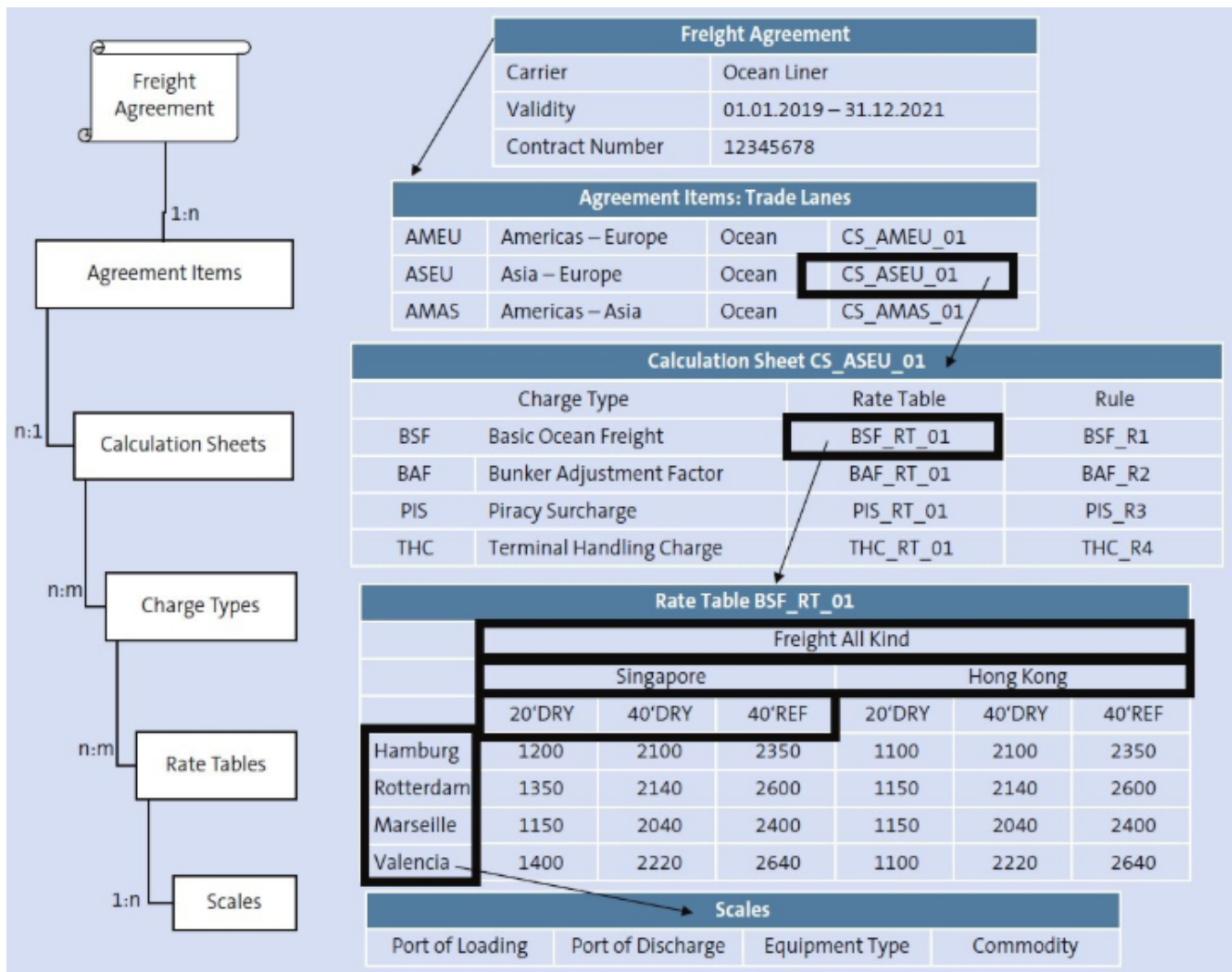
1. N/A (Manual data collection)

List of source systems and approximate number of records

| Source | Scope                             | Source Approx No. of Records | Target System | Target Approx No. of Records |
|--------|-----------------------------------|------------------------------|---------------|------------------------------|
| DCT    | Creation of TM Freight Agreements | TBD                          | S/4 HANA (TM) | TBD                          |
|        |                                   |                              |               |                              |
|        |                                   |                              |               |                              |
|        |                                   |                              |               |                              |

There are two key components i.e. Calculation sheet and Rate table which drive important functionality in Freight Agreement and they have to be created in DCT/SAP before they can be referenced in the Freight Agreement.

The below diagram shows the relationship between the different components (the data in the diagram is for illustration purposes).



[SAP Press Book: Transportation Management with SAP S/4HANA]

DCT pages should be built for the following components as part of 9053 Freight Agreement object.

- Freight Agreement header and items
- Calculation sheet header and items (this gets referenced in the agreement line item)
- Rate table header and items (this gets referenced in the calculation sheet)

There should be at least one calculation sheet and one rate table in the Freight Agreement.

TM functional team have mentioned that they would create the structure for rate tables in SAP S/4 system as a design activity. These would then be used for uploading the relevant rate table data in SAP using the excel integration feature (to download template and upload the populated data). Data team would create the Freight Agreement and calculation sheet data in SAP as part of data load activities.

The DCT design for rate tables would need to be reviewed at a later stage to see if any adjustments are required for the DCT as a result of the above described approach.

TM and Procurement data owner (business) would need to collaborate closely on maintaining the correct Outline Agreement (Purchase Contract) in the Freight Agreement DCT.

## Additional Information

### Multi-language Requirement

Not Applicable.

## Document Management

Not Applicable.

## Legal Requirement

Not Applicable.

## Special Requirements

Not Applicable.

## Target Design

The complete information of the key fields that hold the Freight agreements information follows the Master Data Standard document.

The technical design of the target for this conversion approach.

| Table                | Field            | Data Element     | Field Description          | Data Type     | Length | Requirement | Notes                                                                                                                  |
|----------------------|------------------|------------------|----------------------------|---------------|--------|-------------|------------------------------------------------------------------------------------------------------------------------|
| /SCMTMS<br>/D_FAGROT | FAGRMNTID044     | FAGRMNTID044     | Agreement                  | CHAR          | 20     | Required    | Agreement Name assigned by system or manually                                                                          |
| /SCMTMS<br>/D_FAGROT | FAGTYPEID103     | FAGTYPEID103     | Agreement Type             | CHAR          | 4      | Required    |                                                                                                                        |
| /SCMTMS<br>/D_FAGRTT | MNEMONIC         | MNEMONIC         | Agreement Description      | CHAR          | 30     | Required    |                                                                                                                        |
| /SCMTMS<br>/D_FAGROT | TIMEZONE         | TIMEZONE         | Time Zone                  | CHAR          | 6      | Required    |                                                                                                                        |
| /SCMTMS<br>/D_FAGROT | FAGUSAGEID105    | FAGUSAGEID105    | Agreement Usage            | CHAR          | 3      | Optional    | Default to 2                                                                                                           |
| /SCMTMS<br>/D_FAGROT | VALIDITY_START   | VALIDITY_START   | Start Date of Validity     | NUM<br>(DATE) | 8      | Required    |                                                                                                                        |
| /SCMTMS<br>/D_FAGROT | VALIDITY_END     | VALIDITY_END     | End Date of Validity       | NUM<br>(DATE) | 8      | Required    |                                                                                                                        |
| /SCMTMS<br>/D_FAGCTR | ORG_UNIT         | ORG_UNIT         | Purchasing Organization    | CHAR          | 8      | Required    |                                                                                                                        |
| /SCMTMS<br>/D_FAGPTY | PTYINTID_ID133_I | PTYINTID_ID133_I | Carrier                    | CHAR          | 10     | Required    |                                                                                                                        |
| /SCMTMS<br>/D_FAGROT | DOC_CURRENCY     | DOC_CURRENCY     | Document Currency          | CHAR          | 5      | Required    |                                                                                                                        |
| /SCMTMS<br>/D_FAGROT | STATUS           | STATUS           | Agreement Status           | CHAR          | 2      | Required    |                                                                                                                        |
| /SCMTMS<br>/D_FAGROT | EXTERNAL_FA_ID   | EXTERNAL_FA_ID   | External Freight Agreement | CHAR          | 35     | Optional    | Conditional. Needed only if the freight agreement also exists in the external system.                                  |
| /SCMTMS<br>/D_FAGROT | ZOUTAGR          | ZOUTAGR          | Outline Agreement          | CHAR          | 20     | Required    | ID of the contract negotiated by Procurement Team                                                                      |
| /SCMTMS<br>/D_FAGITM | ITEM_NO          | ITEM_NO          | Item number                | NUM           | 10     | Required    |                                                                                                                        |
| /SCMTMS<br>/D_FAGITM | TCCS_ID          | TCCS_ID          | Calculation Sheet          | CHAR          | 20     | Optional    | Conditional. Not necessary if Spot Tender.                                                                             |
| /SCMTMS<br>/D_FAGITM | MOT              | MOT              | Mode of Transport          | CHAR          | 2      | Optional    | Conditional. Necessary only if the forwarder has several different services to offer and hence different pack of rates |
| /SCMTMS<br>/D_TCCSRT | TCCS_ID047       | TCCS_ID047       | Calculation Sheet          | CHAR          | 20     | Required    |                                                                                                                        |
| /SCMTMS<br>/D_TCCSTX | DESCRIPTION      | DESCRIPTION      | Description                | CHAR          | 75     | Required    |                                                                                                                        |
| /SCMTMS<br>/D_TCCSRT | TCUSAGECD085     | TCUSAGECD085     | Charge Usage               | CHAR          | 3      | Required    |                                                                                                                        |
| /SCMTMS<br>/D_TCCSRT | TIMEZONE         | TIMEZONE         | Time Zone                  | CHAR          | 6      | Required    |                                                                                                                        |
| /SCMTMS<br>/D_TCCSIT | LINENR           | LINENR           | Line No.                   | NUM           | 6      | Required    |                                                                                                                        |
| /SCMTMS<br>/D_TCCSIT | TCET084          | TCET084          | Charge Type                | CHAR          | 15     | Required    |                                                                                                                        |

|                       |                      |                      |                                            |               |    |           |                                                                                                           |
|-----------------------|----------------------|----------------------|--------------------------------------------|---------------|----|-----------|-----------------------------------------------------------------------------------------------------------|
| /SCMTMS<br>/D_TCCSIT  | CURRCODE0<br>16      | CURRCODE0<br>16      | Currency                                   | CHAR          | 5  | Optional  | Conditional. Only used if manually input the amount.                                                      |
| /SCMTMS<br>/D_TCCSIT  | UUID026              | UUID026              | Rate Table                                 | CHAR          | 16 | Optional  | Conditional. Only used when charge type uses rate table to retrieve pricing                               |
| /SCMTMS<br>/D_TCCSIT  | AMOUNT               | AMOUNT               | Amount                                     | NUM           | 28 | Optional  | Conditional. Only used for fix price rates.                                                               |
| /SCMTMS<br>/D_TCCSIT  | MANUAL_EN<br>TRY     | MANUAL_EN<br>TRY     | Manual Charge Item                         | CHAR          | 1  | Optional  | Conditional. Only used when charge type is considered manually-input.                                     |
| /SCMTMS<br>/D_TCRATE  | RATE_ID              | RATE_ID              | Rate Table                                 | CHAR          | 20 | Required  |                                                                                                           |
| /SCMTMS<br>/D_TCRATTX | DESCRIPTION          | DESCRIPTION          | Description                                | CHAR          | 75 | Required  |                                                                                                           |
| /SCMTMS<br>/D_TCRATE  | TCUSAGECD<br>085     | TCUSAGECD<br>085     | Charge Usage                               | CHAR          | 3  | Required  |                                                                                                           |
| /SCMTMS<br>/D_TCRATE  | TIMEZONE             | TIMEZONE             | Time Zone                                  | CHAR          | 6  | Required  |                                                                                                           |
| /SCMTMS<br>/D_TCRATE  | RATE_SPLIT           | RATE_SPLIT           | Rate Validity Split                        | CHAR          | 1  | Required  |                                                                                                           |
| /SCMTMS<br>/D_TCRATE  | ARCHIVING_<br>STATUS | ARCHIVING_<br>STATUS | Archiving Status                           | CHAR          | 2  | Automatic | Not relevant for data collection                                                                          |
| /SCMTMS<br>/D_TCRATE  | MULTI_CHRG<br>_TYPE  | MULTI_CHRG<br>_TYPE  | Multiple Charges Types<br>Allowed          | CHAR          | 1  | Required  | Rate Table can be used for one single charge type or many. This flag controls it.                         |
| /SCMTMS<br>/D_TCRATE  | TCET                 | TCET                 | Charge Type                                | CHAR          | 15 | Optional  | Conditional. Only used if "Multiple Charge Types Allowed" is flagged.                                     |
| /SCMTMS<br>/D_TCRATE  | VAL_INDICAT<br>OR    | VAL_INDICAT<br>OR    | Value Type                                 | CHAR          | 1  | Required  | Absolute value or percentage values in Rate Table.                                                        |
| /SCMTMS<br>/D_TCRATE  | RATE_TAB_T<br>YPE    | RATE_TAB_T<br>YPE    | Rate Table Type                            | CHAR          | 4  | Required  |                                                                                                           |
| /SCMTMS<br>/D_TCRTSR  | DIMENSION_I<br>NDX   | DIMENSION_I<br>NDX   | Scale No.                                  | NUM           | 2  | Automatic |                                                                                                           |
| /SCMTMS<br>/D_TCRTSR  | GLOBAL_SCA<br>LE_ID  | GLOBAL_SCA<br>LE_ID  | Scale                                      | CHAR          | 20 | Required  | Variable type within the rate table that help determine the proper value.                                 |
| /SCMTMS<br>/D_TCRTSR  | CALC_BASE            | CALC_BASE            | Calculation Base                           | CHAR          | 15 | Required  | Variable base within the rate table that help determine the proper value. It has only one Scale.          |
| /SCMTMS<br>/D_TCRTSR  | SCATYP               | SCATYP               | Scale Type                                 | CHAR          | 1  | Required  |                                                                                                           |
| /SCMTMS<br>/D_TCRTSR  | CURRENCY_<br>REL     | CURRENCY_<br>REL     | Scale Relevant for<br>Currency Maintenance | CHAR          | 1  | Required  | Whether the scale used needs to have a specific currency out of the Header currency of the Rate Table     |
| /SCMTMS<br>/D_TCRTSR  | MINVAL_SUP<br>PORTED | MINVAL_SUP<br>PORTED | Minimum Value                              | CHAR          | 1  | Optional  | Conditional. Only for those cases where a minimum amount is to be paid                                    |
| /SCMTMS<br>/D_TCRTSR  | MAXVAL_SUP<br>PORTED | MAXVAL_SUP<br>PORTED | Maximum Value                              | CHAR          | 1  | Optional  | Conditional. Only for those cases where a maximum amount is to be paid                                    |
| /SCMTMS<br>/D_SCAH1   | SCALEBASE            | SCALEBASE            | Scale Base                                 | CHAR          | 6  | Automatic | Automatic. Set by the system once "Calculation Base" is selected.<br><br>Not relevant for data collection |
| /SCMTMS<br>/D_SCAIT2  | CALC_TYP             | CALC_TYP             | Calculation type                           | CHAR          | 1  | Required  |                                                                                                           |
| /SCMTMS<br>/D_SCAIT2  | UOM                  | UOM                  | Scale UoM                                  | CHAR          | 3  | Required  |                                                                                                           |
| /SCMTMS<br>/D_TCRTVP  | VALID_STAR<br>T_DT   | VALID_STAR<br>T_DT   | Valid-from date                            | NUM<br>(DATE) | 8  | Required  |                                                                                                           |
| /SCMTMS<br>/D_TCRTVP  | VALID_END_<br>DT     | VALID_END_<br>DT     | Valid-to date                              | NUM<br>(DATE) | 8  | Required  |                                                                                                           |
| /SCMTMS<br>/D_TCRTVP  | CURRENCY             | CURRENCY             | Currency                                   | CHAR          | 5  | Required  |                                                                                                           |

## Data Cleansing

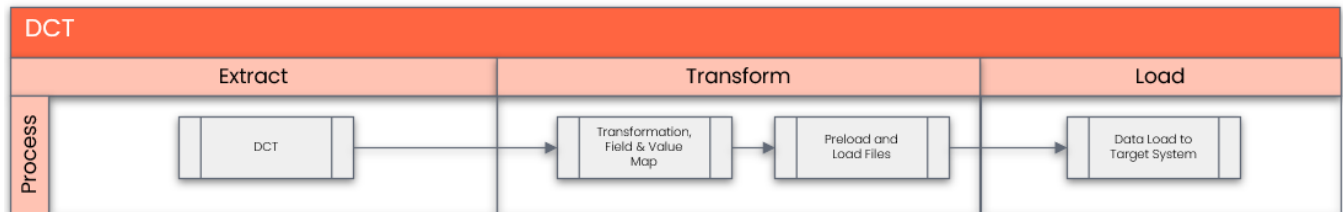
Freight agreements data will be populated directly in the Data Collection Template (DCT).

| ID | Criticality | Error Message/Report Description | Rule | Output | Source System |
|----|-------------|----------------------------------|------|--------|---------------|
|    |             |                                  |      |        |               |
|    |             |                                  |      |        |               |
|    |             |                                  |      |        |               |
|    |             |                                  |      |        |               |

## Conversion Process

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

Please note that the data may have to be loaded in multiple target systems (US instance, China instance and RoW).



## Data Privacy and Sensitivity

## Extraction

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

## Extraction Run Sheet

| Req # | Requirement Description                                                                                        | Team Responsible                         |
|-------|----------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1     | Data is populated in the DCT or uploaded from downloaded Excel template                                        | Data owner (Business)                    |
| 2     | If the data is uploaded to DCT in bulk via excel template, any upload errors need to be reviewed and corrected | Data owner (Business), Syniti/ Data Team |
| 3     | The data which has passed validation checks in DCT will be used for transformation/further processing          | Syniti                                   |
|       |                                                                                                                |                                          |

## Selection Screen

| Selection Ref Screen | Parameter Name | Selection Type | Requirement | Value to be entered/set |
|----------------------|----------------|----------------|-------------|-------------------------|
|                      |                |                |             |                         |
|                      |                |                |             |                         |
|                      |                |                |             |                         |
|                      |                |                |             |                         |

## Data Collection Template (DCT)

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

Please refer to the below Google sheet for the DCT rules.

| Field Name | Field Description | Rule |
|------------|-------------------|------|
|            |                   |      |
|            |                   |      |
|            |                   |      |
|            |                   |      |

## Extraction Dependencies

| Item # | Step Description | Team Responsible |
|--------|------------------|------------------|
|        |                  |                  |
|        |                  |                  |
|        |                  |                  |
|        |                  |                  |

## 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      | Capture the data for Freight agreements in DCT. Review and correct any errors if bulk uploading data via downloaded excel DCT template. | Business team                                 |
| 2      | Ensure the mapping tables which are needed during transformation have been reviewed and signed off by business.                         | Business team, Data Team (SCM)                |
| 3      | Obtain DCT Sign-off from Business                                                                                                       | Data Team (SCM)                               |
| 4      | Generate Pre-Load reports                                                                                                               | Data Team (Syniti)                            |
| 5      | Review and Validate Error and Preload Reports                                                                                           | Data Team (SCM)                               |
| 6      | Log errors as defects, if any and address resolutions.                                                                                  | Data Team (SCM)                               |
| 7      | Re-transform and re-validate the Pre-load reports if necessary.                                                                         | Data Team (SCM), Data Team (Syniti)           |
| 8      | Obtain preload validation sign-off from Business                                                                                        | Business + Functional (SCM) + Data Team (SCM) |
| 9      | Generate Load Files                                                                                                                     | Data Team (Syniti)                            |

## Transformation Rules

Please check the attached file for the complete source-to-target field mapping, validation checks and proposed error messages. The validation checks list is not exhaustive and may change over time as the design and configuration of the system evolves.

| Rule # | Source system | Source Table | Source Field | Source Description | Target System | Target Table | Target Field | Target Description | Transformation Logic | Notes |
|--------|---------------|--------------|--------------|--------------------|---------------|--------------|--------------|--------------------|----------------------|-------|
|--------|---------------|--------------|--------------|--------------------|---------------|--------------|--------------|--------------------|----------------------|-------|

|  |     |     |            |                                             |                 |                      |                      |                                  |                                                                                                                                                |                                                                                                   |
|--|-----|-----|------------|---------------------------------------------|-----------------|----------------------|----------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGROT | FAGRMNT<br>ID044     | Agreement                        | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGROT | FAGTYPEI<br>D103     | Agreement<br>Type                | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGRTT | MNEMONIC             | Agreement<br>Description         | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGROT | TIMEZONE             | Time Zone                        | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGROT | FAGUSAG<br>EID105    | Agreement<br>Usage               | Default to 2                                                                                                                                   |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGROT | VALIDITY_<br>START   | Start Date of<br>Validity        | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGROT | VALIDITY_<br>END     | End Date of<br>Validity          | Direct Mapping                                                                                                                                 | Must be later than<br>Valid From date.                                                            |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGCTR | ORG_UNIT             | Purchasing<br>Organization       | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT | N/A | zLegacySys | Field to capture<br>legacy source<br>system | SAP S/4<br>HANA | N/A                  | zLegacySys           | Carrier Source<br>system         | This will be used together with<br>legacy vendor (carrier) in<br>determining the new (S4) BP<br>number                                         |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGPTY | PTYINTID<br>_ID133_I | Carrier                          | Value mapping: Use the legacy<br>to SAP vendor mapping table to<br>determine the new (S4) BP<br>number                                         | Carrier (Business<br>partner) should<br>exist in SAP.                                             |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGROT | DOC_CUR<br>RENCY     | Document<br>Currency             | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGROT | STATUS               | Agreement<br>Status              | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGROT | EXTERNA<br>L_FA_ID   | External<br>Freight<br>Agreement | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGROT | ZOUTAGR              | Outline<br>Agreement             | Value mapping: Use the legacy<br>to SAP Purchase contract table<br>to determine the new (S4)<br>purchase contract /Outline<br>Agreement number | Outline Agreement<br>/Purchase<br>Contract should<br>exist in SAP.                                |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGITM | ITEM_NO              | Item number                      | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGITM | TCCS_ID              | Calculation<br>Sheet             | Direct Mapping                                                                                                                                 | Calculation sheet<br>has to exist in<br>SAP before it can<br>be referenced in<br>the FA line item |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_FAGITM | MOT                  | Mode of<br>Transport             | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCCSRT | TCCS_ID0<br>47       | Calculation<br>Sheet             | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCCSTX | DESCRIP<br>TION      | Description                      | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCCSRT | TCUSAGE<br>CD085     | Charge Usage                     | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCCSRT | TIMEZONE             | Time Zone                        | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCCSIT | LINENR               | Line No.                         | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCCSIT | TCET084              | Charge Type                      | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCCSIT | CURRCO<br>DE016      | Currency                         | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCCSIT | UUID026              | Rate Table                       | Direct Mapping                                                                                                                                 | Rate table has to<br>exist in SAP<br>before it can be<br>referenced here                          |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCCSIT | AMOUNT               | Amount                           | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCCSIT | MANUAL_<br>ENTRY     | Manual Charge<br>Item            | Direct Mapping                                                                                                                                 |                                                                                                   |
|  | DCT |     |            |                                             | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRATE | RATE_ID              | Rate Table                       | Direct Mapping                                                                                                                                 |                                                                                                   |

|  |     |  |  |  |                 |                      |                          |                                               |                |  |
|--|-----|--|--|--|-----------------|----------------------|--------------------------|-----------------------------------------------|----------------|--|
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTTX | DESCRIP<br>TION          | Description                                   | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRATE | TCUSAGE<br>CD085         | Charge Usage                                  | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRATE | TIMEZONE                 | Time Zone                                     | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRATE | RATE_SP<br>LIT           | Rate Validity<br>Split                        | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRATE | MULTI_CH<br>RG_TYPE      | Multiple<br>Charges Types<br>Allowed          | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRATE | TCET                     | Charge Type                                   | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRATE | VAL_INDI<br>CATOR        | Value Type                                    | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRATE | RATE_TA<br>B_TYPE        | Rate Table<br>Type                            | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTSR | DIMENSIO<br>N_INDIX      | Scale No.                                     | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTSR | GLOBAL_<br>SCALE_ID      | Scale                                         | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTSR | CALC_BA<br>SE            | Calculation<br>Base                           | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTSR | SCATYP                   | Scale Type                                    | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTSR | CURRENC<br>Y_REL         | Scale Relevant<br>for Currency<br>Maintenance | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTSR | MINVAL S<br>UPPORTED     | Minimum Value                                 | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTSR | MAXVAL_<br>SUPPORT<br>ED | Maximum Value                                 | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_SCAIT2 | CALC_TYP                 | Calculation type                              | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_SCAIT2 | UOM                      | Scale UoM                                     | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTVP | VALID_ST<br>ART_DT       | Valid-from date                               | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTVP | VALID_EN<br>D_DT         | Valid-to date                                 | Direct Mapping |  |
|  | DCT |  |  |  | SAP S/4<br>HANA | /SCMTMS<br>/D_TCRTVP | CURRENCY                 | Currency                                      | Direct Mapping |  |

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

## Transformation Mapping

| Field name                            | Mapping Table Name                       | Mapping Table Description                                    |
|---------------------------------------|------------------------------------------|--------------------------------------------------------------|
| /SCMTMS/D_FAGPTY-<br>PTYINTID_ID133_I | Vendor Number                            | LIFNR: Old Vendor Code to New Vendor Code cross<br>reference |
| /SCMTMS/D_FAGROT-ZOUTAGR              | Outline Agreement (Purchase<br>Contract) | TBD                                                          |
|                                       |                                          |                                                              |
|                                       |                                          |                                                              |

## Transformation Dependencies

List the steps that need to occur before transformation can commence

| Item<br># | Step Description                                                                                                      | Team Responsible                           |
|-----------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| 1         | Dependent Master Data records for Carriers (business partners) and Outline Agreements (Purchase Contracts) are loaded | Functional Team (SCM) + Data<br>Team (SCM) |
| 2         | Value Mappings are according to the latest design                                                                     | Functional Team (SCM) + Data<br>Team (SCM) |

|   |                                                                                |                       |
|---|--------------------------------------------------------------------------------|-----------------------|
| 3 | SAP Transportation management configuration for Freight agreements is complete | Functional Team (SCM) |
| 4 | Ensure DCT tables completeness                                                 | Data Team (SCM)       |

## Pre-Load Validation

### Project Team

#### Completeness

| Task                                                      | Action                                                                                                                                                 |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Check Values                                              | Validate the pre-load data confirming the values are aligned with target system format                                                                 |
| Validate template structure and required field population | Ensure mandatory fields like Agreement Type, Means of Transport, Description, Purchasing Organization, Carrier, validity dates are filled              |
| Verify Record Count                                       | SCM Data Team to verify that the total number of relevant records from the DCT is equal to the total number of records in the Preload and Load Sheets. |

#### Accuracy

| Task                                                           | Action                                                                                                                                                                                                                                           |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conversion Accuracy                                            | SCM Data Team to verify that all fields below meet pass the checks: <ol style="list-style-type: none"> <li>1. Mandatory Fields</li> <li>2. Field and Value Mapping Correctness</li> <li>3. Null Checks</li> <li>4. Text Length Checks</li> </ol> |
| Perform format validation (date, currency, decimal separators) | Standardize format to match SAP accepted input (e.g., YYYYMMDD for dates)                                                                                                                                                                        |
| Review Error Reports                                           | Review and correct the errors. Achieve a zero-error record count as much as possible. Raise defects for data remediated and requiring a correction in the source data.                                                                           |
| Conduct dry runs using LTMC or BAPIs and review logs           | Analyze load results and correct format or conversion errors                                                                                                                                                                                     |

### Business

#### Completeness

| Task                  | Action                                                                                                                                                             |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Provide relevant data | Business Data Owners to provide the required data in DCT which will be used in transportation planning and execution processes.                                    |
| Verify Record Count   | Business Data Owner/s to verify that the total number of relevant records from the the DCT is equal to the total number of records in the Preload validation file. |
|                       |                                                                                                                                                                    |

#### Accuracy

| Task                | Action                                                                                                                                                                                                                                                    |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conversion Accuracy | Business Data Owner/s to verify that all the data in the preload validation file is accurate as per endorsed transformation /mapping rules (and signed-off DCT data).<br><br>Review error reports in tool for any mismatch or missing transformed values. |

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## Load

The load process includes:

1. Execute the automated data load into target system using load tool or produce the load file 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 with side by side check of each fields in scope of the objects with fields to be displayed as XXXX\_DCT, XXXX\_S4HANA, XXXX\_MATCH ( As TRUE or FALSE) with an additional column denoting fields not matching and status of loading in S/4HANA as LOADED\_IN\_S4HANA ( As TRUE or FALSE)

Custom load tool will need to be developed for loading rate table, calculation sheet and Freight Agreement data. There is no known standard SAP mass upload tool for Freight Agreement.

The load file format can be finalized when the load tool is developed.

Please refer to the below SAP community post for more information.

<https://community.sap.com/t5/supply-chain-management-q-a/creation-of-freight-agreement-using-excel-integration/qaq-p/11756669>

## Load Run Sheet

| Item # | Step Description                                                                                                                | Team Responsible                    |
|--------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| 1      | Ensure the load tools are transported into the correct system/instance.                                                         | Data Team (SCM)                     |
| 2      | Ensure Pre-load sign-offs are obtained.                                                                                         | Data Team (SCM)                     |
| 3      | Execute upload of Freight agreements using custom load program.                                                                 | Data Team (SCM)                     |
| 4      | Validate few records loaded by accessing standard transactions from S/4HNA E.g. Fiori app 'Display Freight Agreement'.          | Data Team (SCM)                     |
| 5      | Generate the post load reports in tool.                                                                                         | Data Team (SCM), Data Team (Syniti) |
| 6      | Log errors as defects, if any and address resolutions. Close defects.                                                           | Data Team (SCM)                     |
| 7      | Resolve defects by reupload and re-generate post load reports if necessary.                                                     | Data Team (SCM), Data Team (Syniti) |
| 8      | Business to validate the post load files as part of post-load validation, raise data defects or provide the post-load sign-off. | Business team                       |
| 9      | Repeat steps 5 to 7 if necessary.                                                                                               | Data Team (SCM), Data Team (Syniti) |

## Load Phase and Dependencies

Freight agreements data will be loaded in the cutover window.

## Configuration

| Item # | Configuration Item                                                                                                                                                                                                                                                                                                          |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | SAP Transportation management configuration <ul style="list-style-type: none"> <li>• Freight Agreement type (/SCMTMS/C_FATYPE-FAGTYPEID103)</li> <li>• Rate table types (/SCMTMS/C_RATEY-RATE_TAB_TYPE)</li> <li>• Charge types (/SCMTMS/C_TCET-TCET084)</li> <li>• Calculation base (/SCMTMS/C_CBASE-CALC_BASE)</li> </ul> |
| 2      | SAP USER profile (SU3) Date and Decimal Notation Formats are in sync with the load format                                                                                                                                                                                                                                   |

|   |                                                              |
|---|--------------------------------------------------------------|
| 3 | Purchasing Organization configuration (Enterprise structure) |
|---|--------------------------------------------------------------|

## Conversion Objects

| Object # | Preceding Object Conversion Approach        |
|----------|---------------------------------------------|
| 3016     | Business Partners - Transporters/Forwarders |
| 1051     | TM Location                                 |
| 1052     | Transportation Zones                        |
| 1042     | Transportation Lanes                        |
| 9040     | Purchase Contracts                          |

## Error Handling

As part of the [Freight agreements](#) data load to S/4HANA using the Syniti data migration tool, various data quality, configuration, and technical challenges may arise.

The following table outlines the most commonly observed error types during data load, and the corrective actions typically taken to resolve them. This helps ensure consistency in issue handling, improves traceability during cutover, and supports smooth end-to-end execution of the transportation lanes load.

| Error Type                    | Error Description                                                | Action Taken                                                                                                                                              |
|-------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Configuration</b>          | Invalid or missing Freight agreement type (example)              | Engage Functional team to expedite and fix the error in the system                                                                                        |
| <b>Formatting Errors</b>      | One or more key fields (e.g., partner) are incorrectly formatted | Ensure formatting is done correctly (e.g., leading zeros for partner). (Leading zero requirement will be confirmed when loading tool is available/tested) |
| <b>Authorization Errors</b>   | Lack of access to execute load in target client/system           | Raised access request; obtained necessary authorizations                                                                                                  |
| <b>Transformation Miss</b>    | Required transformation logic not applied before load            | Re-applied transformation rules and revalidated source-target mapping                                                                                     |
| <b>Technical Load Failure</b> | File not processed due to syntax /format error or system issue   | Reviewed logs; regenerated file; re-executed load after resolving issue                                                                                   |

## Post-Load Validation

### Project Team

### Completeness

| Task                                             | Action                                                                                                                                                       |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Run Fiori app/tcode to check loaded data in SAP  | Run Fiori app 'Display Freight Agreement' to check if data has been loaded                                                                                   |
| Compare uploaded data against source file values | Use Custom reconciliation tools e.g. SQL Server or Excel based comparison tools to validate the number of records loaded against the load file record volume |
| Check for load errors in load tool               | Review custom load tool or Legacy Transfer Migration Cockpit LTMC logs for any failures                                                                      |

### Accuracy

| Task                                             | Action                                                                                                                                      |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Compare uploaded data against source file values | Use automated postload validation report or standard reports from S/4 HANA to validate field by field value match across all loaded records |
|                                                  |                                                                                                                                             |

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## Business

### Completeness

| Task                             | Action                                                                                                                                                         |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Verify Count                     | Download Postload validation reports from Syniti and verify that the record count loaded in the target S/4 HANA is the same count as of the endorsed load file |
| Review loaded Freight agreements | Access the S/4HANA system (via Fiori app Display Freight Agreement) to view loaded Freight agreements                                                          |
|                                  |                                                                                                                                                                |

### Accuracy

| Task                                            | Action                                                                                       |
|-------------------------------------------------|----------------------------------------------------------------------------------------------|
| Compare Against Approved Load File              | Cross-check data in S/4HANA against the final business-approved load file used for migration |
| Validate Accuracy of Converted/Transformed Data | Review any transformed fields (e.g., business partner number) for correctness                |
| Log and Report Discrepancies                    | Use provided discrepancy log format or defect management tool to report any findings         |

## Key Assumptions

- Master Data Standard is up to date as on the date of documenting this conversion approach and data load.
- Freight agreements is in scope based on data design and any exception requested by business.
- Data entries in DCT are target-ready data unless a specific transformation rule is stated for that field in the transformation rules.
- The list of validation checks in transformation section is not exhaustive and may change over time as the design and configuration of the system evolves.
- *Any additional key assumptions.*

## See also

## Change log

| Version                | Published          | Changed By                | Comment                                                                         |
|------------------------|--------------------|---------------------------|---------------------------------------------------------------------------------|
| <b>CURRENT (v. 22)</b> | Mar 08, 2026 17:07 | <b>OMER-ext, Mohammed</b> | Captured 5 additional fields needed for Scales in rate tables                   |
| v. 21                  | Mar 04, 2026 11:48 | <b>OMER-ext, Mohammed</b> | Corrected the transformation logic for field Outline Agreement to Value mapping |
| v. 20                  | Jan 09, 2026 17:25 | <b>OMER-ext, Mohammed</b> |                                                                                 |
| v. 19                  | Jan 09, 2026 17:02 | <b>OMER-ext, Mohammed</b> |                                                                                 |
| v. 18                  | Jan 05, 2026 16:30 | <b>OMER-ext, Mohammed</b> |                                                                                 |
| v. 17                  | Dec 19, 2025 08:06 | <b>OMER-ext, Mohammed</b> |                                                                                 |
| v. 16                  | Dec 17, 2025 15:38 | <b>OMER-ext, Mohammed</b> |                                                                                 |

|                       |                    |                                    |
|-----------------------|--------------------|------------------------------------|
| <a href="#">v. 15</a> | Dec 17, 2025 14:20 | <a href="#">OMER-ext, Mohammed</a> |
| <a href="#">v. 14</a> | Dec 17, 2025 09:48 | <a href="#">OMER-ext, Mohammed</a> |
| <a href="#">v. 13</a> | Dec 16, 2025 20:43 | <a href="#">OMER-ext, Mohammed</a> |

[Go to Page History](#)

## Workflow history

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

## Workflow history

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

| May 08, 2026                      | Actor                                                                                                                  | Type  | Activity                                                            | Version             |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------|---------------------|
| Approved                          |  <a href="#">MCARDLE-ext, Edward</a>  | State | changed state to <span>Approved</span> at 11:15 am                  | <a href="#">v22</a> |
| Revision under Review             |  <a href="#">MCARDLE-ext, Edward</a>  | State | gave <i>Minor change</i> approval at 11:15 am                       |                     |
|                                   |                                                                                                                        | State | changed state to <span>Revision under Review</span> at 11:15 am     | <a href="#">v22</a> |
| Mar 18, 2026                      |                                                                                                                        |       |                                                                     |                     |
| Revision in Progress              | <a href="#">WENNINGER-ext, Sascha</a>                                                                                  | State | changed state to <span>Revision in Progress</span> at 5:48 pm       | <a href="#">v22</a> |
| From Mar 04, 2026 to Mar 08, 2026 |                                                                                                                        |       |                                                                     |                     |
| Edited following Approval         |  <a href="#">OMER-ext, Mohammed</a> | Edit  | updated the page at 11:48 am                                        |                     |
|                                   |  <a href="#">OMER-ext, Mohammed</a> | State | changed state to <span>Edited following Approval</span> at 10:48 am | <a href="#">v21</a> |