

CNV-1195 TM Resources

Status	Approved
Owner	OMER-ext, Mohammed
Stakeholders	

Purpose

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

Resources play a central role in planning and execution within SAP Transportation Management. The Transportation Resources represent Vehicles, Containers and Calendars. They are created as objects where to put the Freight Units. The combination of both results in a Freight Order or Freight Booking. Resources can have different capacity dimensions, can contain shifts, and are always assigned to a means of transport.

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

Conversion Scope

The scope of this document covers the approach for creating TM Resources in S/4HANA following the TM Resources Master Data Design Standard. This includes:

- Capturing and using the TM Resources 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 Resources	TBD	S/4 HANA (TM)	TBD

Additional Information

Multi-language Requirement

Location description will be made available in English.

Multi language is supported for locations. Login via a different language will show the description displayed in the logon language if the language key is maintained.

Document Management

Not Applicable.

Legal Requirement

Not Applicable.

Special Requirements

Not Applicable.

Target Design

The complete information of the key fields that hold the TM Resources 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
/SAPAPO /RES_HEAD	NAME	NAME	Name of Resource	CHAR	40	Mandatory	
/SCMB /RESTMS HD	RES_CL ASS	RES_CLASS	Resource Class	NUMC	2	Mandatory	
/SAPAPO /RES_HEAD	TYPE	TYPE	Resource Type	NUMC	2	Mandatory	
/SAPAPO /RES_TXT	TEXT	TEXT	Resource Description	CHAR	60	Mandatory	
/SAPAPO /RES_HEAD	TRATY	TRATY	Means of Transport	CHAR	10	Mandatory	
/SAPAPO /RES_HEAD	TZONE	TZONE	Time Zone	CHAR	6	Mandatory	
/SAPAPO /RES_HEAD	DIMENSI ON	DIMENSION	Continuous Dimension	CHAR	6	Mandatory	Max amount dimension per vehicle or container. Mass, Volume etc
/SAPAPO /RES_HEAD	NOINDIV RES	NOINDIVRES	Capacity	NUM	13,3	Mandatory	Max amount value per vehicle or container. Provided by Carrier.
/SAPAPO /RES_HEAD	NOINDIV RES_UNIT	NOINDIVRES_UNIT	Unit	CHAR	3	Mandatory	Max amount unit per vehicle or container. Provided by Carrier.
/SAPAPO /RES_HEAD	CALENDAR	CALENDAR	Factory Calendar	CHAR	2	Mandatory	
/SCMB /RESTMS HD	VALID_F ROM	VALID_FROM	Valid from date	NUM (DATE)	15	Conditional	Validity from Date for the resource (This determines if the vehicle is used for Syensqo for this validity from date)
/SCMB /RESTMS HD	VALID_TO	VALID_TO	Valid to date	NUM (DATE)	15	Conditional	Validity to Date for the resource (This determines if the vehicle is used for Syensqo for this validity To date)
/SCMB /RESTMS HD	EQUITYPE	EQUITYPE	Equipment Group	CHAR	3	Conditional	Equipment group represents the groups of Equipment Types. In Road is TRK and in Ocean is CN for example. Inside those Equipment Groups we will have a list of available Equipment Types
/SCMB /RESTMS HD	EQUISZTP	EQUISZTP	Equipment Type	CHAR	10	Conditional	Equipment type would represent the type of truck or the type of container
/SCMB /RESTMS HD	EXT_TTY PE_FLG	EXT_TTYPE_FLG	Multiresource	CHAR	1	Conditional	This would be checked to show the unlimited use of resources
/SCMB /RESTMS HD	EXT_TTY PE_NUM	EXT_TTYPE_NUM	Number of Individual Resources	NUMC	4	Conditional	

Data Cleansing

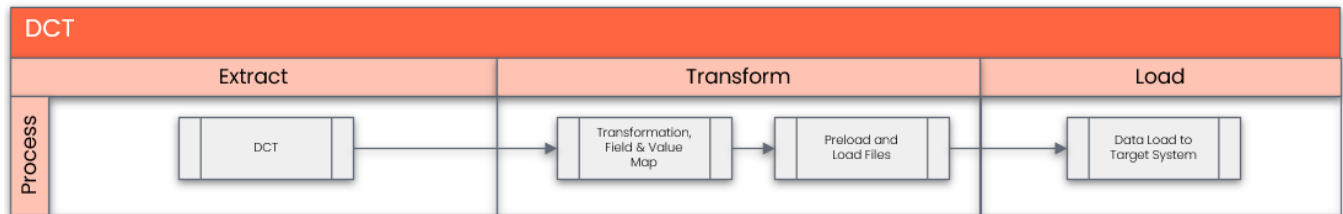
TM Resources data will be populated directly in the Data Collection Template (DCT).

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 Migrate. This is to be conducted using DCT (Data Collection Template) in Syniti Migrate.

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

Extraction Run Sheet

Req #	Requirement Description	Team Responsible
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)

A Target Ready Data Collection Template will be created for the required data, except for fields that need transformation as per the defined transformation rules. It will follow the format required by the target S/4HANA TM Resources.

Please find below the DCT details.

DCT Rules

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

Field Name	Field Description	Rule
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Extraction Dependencies

Not applicable.

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 Syniti platform to make the data Target ready:

1. Perform value mapping and data transformation rules.
 - a. Legacy values are mapped to the to-be values (this could include a default value)
 - b. Values are transformed according to the rules defined in Syniti platform
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 TM Resources 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
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1195-001	DCT				SAP S/4 HANA	/SAPAPO /RES_HEAD	NAME	Name of Resource		
	DCT				SAP S/4 HANA	/SCMB /RESTMSHD	RES_CLASS	Resource Class		
	DCT				SAP S/4 HANA	/SAPAPO /RES_HEAD	TYPE	Resource Type		
	DCT				SAP S/4 HANA	/SAPAPO /RES_TXT	TEXT	Resource Description		
	DCT				SAP S/4 HANA	/SAPAPO /RES_HEAD	TRATY	Means of Transport		
	DCT				SAP S/4 HANA	/SAPAPO /RES_HEAD	TZONE	Time Zone		
	DCT				SAP S/4 HANA	/SAPAPO /RES_HEAD	DIMENSION	Continuous Dimension		
	DCT				SAP S/4 HANA	/SAPAPO /RES_HEAD	NOINDIVRES	Capacity		
	DCT				SAP S/4 HANA	/SAPAPO /RES_HEAD	NOINDIVRES_UNIT	Unit		
	DCT				SAP S/4 HANA	/SAPAPO /RES_HEAD	CALENDAR	Factory Calendar		
	DCT				SAP S/4 HANA	/SCMB /RESTMSHD	VALID_FROM	Valid from date		
	DCT				SAP S/4 HANA	/SCMB /RESTMSHD	VALID_TO	Valid to date		
	DCT				SAP S/4 HANA	/SCMB /RESTMSHD	EQUITYPE	Equipment Group		
	DCT				SAP S/4 HANA	/SCMB /RESTMSHD	EQUISZTP	Equipment Type		
	DCT				SAP S/4 HANA	/SCMB /RESTMSHD	EXT_TTYPE_FLG	Multiresource		
	DCT				SAP S/4 HANA	/SCMB /RESTMSHD	EXT_TTYPE_NUM	Number of Individual Resources		

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

Transformation Mapping

Mapping Table Name	Mapping Table Description

Transformation Dependencies

List the steps that need to occur before transformation can commence

Item #	Step Description	Team Responsible
1	Ensure DCT tables completeness	Data Team (SCM)
2	Value Mappings are according to the latest design	Functional Team (SCM) + Data Team (SCM)
3	SAP Transportation management configuration for TM Resources is complete	Functional Team (SCM) + Data Team (SCM)

Pre-Load Validation

Project Team

Completeness

Task	Action
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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 Resource type, Name, Class, Description, Means of Transport, Time zone, Continuous dimension, Capacity, Unit, Factory calendar 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: 1. Mandatory Fields 2. Field and Value Mapping Correctness 3. Null Checks 4. Text Length Checks
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
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). Review error reports in tool for any mismatch or missing transformed values.

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)

The following options will need to be explored during data migration build to select the best possible solution:

i)Function_Loader_Inlay program or

ii) /scmtms/rescp ('Copy from template' transaction) or

ii) Custom Migration Cockpit Object (LTMOM).

The load file format can be finalized when development system is available.

BAPI: BAPI_RSSRVSCMB_SAVEMULTI2

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 TM Resources using the chosen load method	Data Team (SCM)
4	Validate few records loaded by accessing standard transactions from S/4HNA E.g. Fiori app 'Define Resource'.	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

TM Resources data will be loaded in the pre-cutover window.

Configuration

Item #	Configuration Item
1	SAP Transportation management configuration Resource class (Table: /SCMB/C_RESCLS) Means of Transport (Table: /SAPAPO/TRTYPE) Factory calendar (Table: TFACD) Equipment group (Table: /SCMB/EQUI_TYPE) Equipment type (Table: /SCMB/EQUI_CODE)
2	T002 - Language Keys

Conversion Objects

Object #	Preceding Object Conversion Approach
N/A	

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Error Handling

As part of the TM Resources 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 TM Resources load.

Error Type	Error Description	Action Taken
Configuration	Invalid or missing Resource class, Means of Transport, Factory calendar, Equipment group and Equipment type	Engage Functional team to expedite and fix the error in the system
Formatting Errors	One or more key fields are incorrectly formatted	Ensure formatting is done correctly
Authorization Errors	Lack of access to execute load in target client/system	Raised access request; obtained necessary authorizations
Transformation Miss	Required transformation logic not applied before load	Re-applied transformation rules and revalidated source-target mapping
Technical Load Failure	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 'Define Resource' 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

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 Default routes	Access the S/4HANA system (via Fiori app Define Resource) to view loaded TM Resources

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 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.
- TM Resources 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.

See also

Change log

Version	Published	Changed By	Comment
CURRENT (v. 12)	Oct 03, 2025 10:22	OMER-ext, Mohammed	Change 5 fields from Required to Optional in the DCT - Resource class, Means of Transport, Di
v. 11	Nov 17, 2025 16:54	OMER-ext, Mohammed	Added a DCT logic for field Multiresource based on functional deep dive session
v. 10	Oct 09, 2025 09:56	OMER-ext, Mohammed	
v. 9	Oct 06, 2025 06:06	OMER-ext, Mohammed	
v. 8	Oct 06, 2025 03:41	OMER-ext, Mohammed	
v. 7	Oct 06, 2025 02:24	OMER-ext, Mohammed	

v. 6	Oct 06, 2025 01:55	OMER-ext, Mohammed
v. 5	Oct 01, 2025 16:40	OMER-ext, Mohammed
v. 4	Sept 30, 2025 17:05	OMER-ext, Mohammed
v. 3	Sept 29, 2025 14:56	OMER-ext, Mohammed

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Workflow history

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

From Nov 17, 2025 to Feb 03, 2026	Actor	Type	Activity	Version
Approved	 OMER-ext, Mohammed	Edit	updated the page at 4:54 pm	
Nov 03, 2025				
	 MUTHUSAMY-ext, Kunalan	State	changed state to Approved at 10:20 am (State override) <i>[PMO Comments] Conversion Spec completed as per CS register and functional review completed</i>	v10
Oct 09, 2025				
Peer Review	 OMER-ext, Mohammed	Edit	updated the page at 9:56 am	
Oct 06, 2025				
	 RAYUDU-ext, Narasimha Kumar	State	gave <i>Peer Review</i> approval at 9:36 am	
	 OMER-ext, Mohammed	Edit	updated the page at 6:06 am	
		State	assigned approval <i>Peer Review</i> to  VAN NIEKERK-ext, ivan at 4:08 am	
		State	assigned approval <i>Peer Review</i> to  RAYUDU-ext, Narasimha Kumar at 4:08 am	
		State	changed expiry date to '10 Oct, 2025 04:07 am' at 4:07 am	
		State	changed state to Peer Review at 4:07 am	v9