CNV-1196 TM Schedules

Status	Approved
Owner	OMER-ext, Mohammed
Stakeholders	

Purpose

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

Schedules define a sequence of transportation stops such as ports, airports, or gateways, that is valid for a specific period of time. Ships, trucks, or airplanes can move goods at recurring times along the whole sequence or any part of it.

The data for TM Schedules 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 TM Schedules in S/4HANA following the TM Schedules Master Data Design Standard. This includes:

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

Additional Information

Multi-language Requirement

Schedule description will be made available in English.

Multi language is supported for schedules (KDD055 provides guidelines on the supported languages). 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 Schedules 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 /D_SCHROT	SCH_ID	SCH_ID	Schedule ID	CHAR	40	Mandatory	
/SCMTMS /D_SCHDSC	DESCRIPTION	DESCRIPTION	Schedule Description	CHAR	40	Mandatory	
/SCMTMS /D_SCHROT	SCH_CAT	SCH_CAT	Schedule Category	CHAR	2	Mandatory	S=Schedule
/SCMTMS /D_SCHROT	VAL_FROM_DATE	VAL_FROM_DATE	Valid from date	NUM (DATE)	15	Mandatory	
/SCMTMS /D_SCHROT	VAL_TO_DATE	VAL_TO_DATE	Valid to date	NUM (DATE)	15	Mandatory	
/SCMTMS /D_SCHROT	SCH_TYPE	SCH_TYPE	Schedule type	CHAR	4	Mandatory	
/SCMTMS /D_SCHROT	MOT	MOT	Transportation mode code	CHAR	2	Mandatory	
/SCMTMS /D_SCHROT	PRD_TRANSP_ GRP	PRD_TRANSP_ GRP	Transportation Group	CHAR	4	Conditional	
/SCMTMS /D_SCHROT	TSP_AIRLC	TSP_AIRLC	Airline Code	CHAR	3	Conditional	
/SCMTMS /D_SCHROT	FLIGHT_NO	FLIGHT_NO	Flight Number	CHAR	5	Conditional	
/SCMTMS /D_SCHROT	AIRCRAFT_TC	AIRCRAFT_TC	Aircraft type	CHAR	3	Conditional	
/SCMTMS /D_SCHROT	TSP	TSP	Carrier	CHAR	16	Mandatory	
/SCMTMS /D_SCHROT	OPERATING_CA RRIER	OPERATING_CA RRIER	Executing carrier	CHAR	1	Conditional	
/SCMTMS /D_SCHROT	TSP_SCAC	TSP_SCAC	Carrier SCAC	CHAR	4	Conditional	
/SCMTMS /D_SCHROT	LOOP_ID	LOOP_ID	Loop	CHAR	40	Conditional	
/SCMTMS /D_SCHLOC	LOC_SEQ	LOC_SEQ	Sequence	NUM	5	Mandatory	
/SCMTMS /D_SCHLOC	LOC_TYPE	LOC_TYPE	Location Type Code	CHAR	4	Mandatory	
/SCMTMS /D_SCHLOC	LOC_ROLE	LOC_ROLE	Role of the Location in a Schedule	CHAR	2	Mandatory	
/SCMTMS /D_SCHLOC	LOC_ID	LOC_ID	Location	CHAR	20	Mandatory	
/SCMTMS /D_SCHLOC	LOG_LOCIATA	LOG_LOCIATA	International Air Transport Association: Location	CHAR	3	Conditional	
/SCMTMS /D_SCHLOC	TSP	TSP	Carrier	CHAR	16	Conditional	
/SCMTMS /D_SCHLOC	TSP_SCAC	TSP_SCAC	Standard Carrier Alpha Code	CHAR	4	Conditional	
/SCMTMS /D_SCHLOC	OPERATING_CA RRIER	OPERATING_CA RRIER	Executing Carrier of a Schedule	CHAR	1	Conditional	
/SCMTMS /D_SCHLOC	AIRCRAFT_TC	AIRCRAFT_TC	IATA Aircraft Type Code	CHAR	3	Conditional	
/SCMTMS /D_SCHLOC	TSP_AIRLC	TSP_AIRLC	IATA Airline Code	CHAR	3	Conditional	
/SCMTMS /D_SCHLOC	SERVICE_STOP _INDICATOR	SERVICE_STOP _INDICATOR	Service Stop	CHAR	1	Conditional	
/SCMTMS /D_SCHLOC	FLIGHT_NO	FLIGHT_NO	Flight Number	CHAR	5	Conditional	

/SCMTMS /D_SCHLOC	REL_CARG_CO	REL_CARG_CO	Relative Cargo Cut-Off	NUM	11	Conditional	
/SCMTMS /D_SCHLOC	CUT_OFF_DAYS	CUT_OFF_DAYS	Cargo Cut-Off (Offset in Days)	NUM	3	Conditional	
/SCMTMS /D_SCHLOC	CUT_OFF_TIME	CUT_OFF_TIME	Cargo Cut-Off Time	NUMC	6	Conditional	
/SCMTMS /D_SCHLOC	REL_DOC_CO	REL_DOC_CO	Relative Document Cut-Off	NUM	11	Conditional	
/SCMTMS /D_SCHLOC	DOC_CUT_OFF_ DAYS	DOC_CUT_OFF_ DAYS	Document Cut-Off (Offset in Days)	NUM	3	Conditional	
/SCMTMS /D_SCHLOC	DOC_CUT_OFF_ TIME	DOC_CUT_OFF_ TIME	Document Cut-Off Time	NUMC	6	Conditional	
/SCMTMS /D_SCHLOC	REL_DG_CO	REL_DG_CO	Relative Dangerous Goods Cut-Off	NUM	11	Conditional	
/SCMTMS /D_SCHLOC	DG_DOC_CUT_ OFF_D	DG_DOC_CUT_ OFF_D	Dangerous Goods Documents Cut-Off (Offset in Days)	NUM	3	Conditional	
/SCMTMS /D_SCHLOC	DG_DOC_CUT_ OFF_T	DG_DOC_CUT_ OFF_T	Dangerous Goods Document Cut-Off Time	NUMC	6	Conditional	
/SCMTMS /D_SCHLOC	AVAIL_REL	AVAIL_REL	Relative Availability Time	NUM	11	Conditional	
/SCMTMS /D_SCHLOC	AVAIL_DAYS	AVAIL_DAYS	Days to Availability	NUM	3	Conditional	
/SCMTMS /D_SCHLOC	AVAIL_TIME	AVAIL_TIME	Availability Time	NUM	6	Conditional	
/SCMTMS /D_SCHLOC	DISTANCE_KM	DISTANCE_KM	Distances for Schedule Stages	NUM	10,3	Conditional	
/SCMTMS /D_SCHLOC	PRECISION	PRECISION	Precision of Distance and Duration on Schedule Stages	CHAR	1	Conditional	
/SCMTMS /D_SCHLOC	TRANSIT_TIME	TRANSIT_TIME	Transit Time	NUM	11	Conditional	
/SCMTMS /D_SCHLOC	STAY_TIME	STAY_TIME	Length of Stay	NUM	11	Conditional	
/SCMTMS /D_SCHLOC	MOT	MOT	Transportation Mode Code	CHAR	2	Mandatory	
/SCMTMS /D_SCHLOC	MTR	MTR	Means of Transport	CHAR	10	Conditional	
/SCMTMS /D_SCHLOC	TZONE	TZONE	Time Zone	CHAR	6	Mandatory	
/SCMTMS /D_SCHLOC	ENTRY_PORT	ENTRY_PORT	Port of Entry	CHAR	1	Conditional	
/SCMTMS /D_SCHLOC	EXIT_PORT	EXIT_PORT	Port of Exit	CHAR	1	Conditional	
/SCMTMS /D_SCHLOC	LOC_POS	LOC_POS	Sequence Position	CHAR	1	Automatic	
/SCMTMS /D_SCHLOC	SCH_REF	SCH_REF	Schedule Reference	NUM	16	Conditional	
/SCMTMS /D_SCHLOC	STAGE_TYPE	STAGE_TYPE	Stage Type	CHAR	3	Conditional	
/SCMTMS /D_SCHDPR	RULE_ID	RULE_ID	Departure Rule	NUM	5	Mandatory	
/SCMTMS /D_SCHDPR	VAL_FROM	VAL_FROM	Validity Start	NUM (DATE)	8	Mandatory	
/SCMTMS /D_SCHDPR	VAL_TO	VAL_TO	Validity End	NUM (DATE)	8	Mandatory	Must be later than Valid From date.
/SCMTMS /D_SCHDPR	MONDAY	MONDAY	Monday	CHAR (Checkbox)	1	Optional but minimum 1 day must be selected	
/SCMTMS /D_SCHDPR	TUESDAY	TUESDAY	Tuesday	CHAR (Checkbox)	1	Optional but minimum 1 day must be selected	
/SCMTMS /D_SCHDPR	WEDNESDAY	WEDNESDAY	Wednesday	CHAR (Checkbox)	1	Optional but minimum 1 day must be selected	
/SCMTMS /D_SCHDPR	THURSDAY	THURSDAY	Thursday	CHAR (Checkbox)	1	Optional but minimum 1 day must be selected	
/SCMTMS /D_SCHDPR	FRIDAY	FRIDAY	Friday	CHAR (Checkbox)	1	Optional but minimum 1 day must be selected	

/SCMTMS /D_SCHDPR	SATURDAY	SATURDAY	Saturday	CHAR (Checkbox)	1	Optional but minimum 1 day must be selected	
/SCMTMS /D_SCHDPR	SUNDAY	SUNDAY	Sunday	CHAR (Checkbox)	1	Optional but minimum 1 day must be selected	
/SCMTMS /D_SCHDPR	VESSEL	VESSEL	Vessel	CHAR	35	Optional	Only available on Schedules having Type that allows Ocean Mode of Transport
/SCMTMS /D_SCHDPR	DEPARTURE_TIME	DEPARTURE_TIME	Departure Time	NUM (TIME)	6	Mandatory	

Data Cleansing

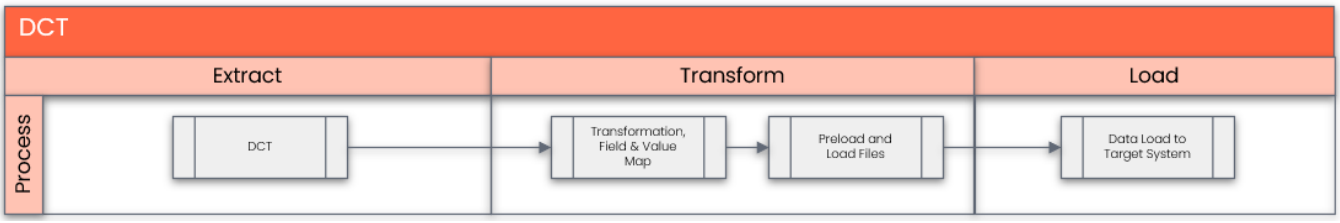
TM Schedules data will be populated directly in the Data Collection Template (DCT).

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)

Target Ready Data Collection Template will be created for TM Schedules 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 (main DCT page and another page for non English descriptions).

Field Name	Field Description	Rule

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 Schedules 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
1196-001	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	SCH_ID	Schedule ID	Direct Mapping	Will be auto generated by SAP (the Schedule ID in DCT is for uniquely tracking the record however at the time of record creation in SAP, new number will be generated)
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHDSC	DESCRIPTION	Schedule Description	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHDSC	LANGUAGE_CODE	Language Key	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	SCH_CAT	Schedule Category	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	VAL_FROM_DATE	Valid from date	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	VAL_TO_DATE	Valid to date	Direct Mapping	Must be later than Valid From date.
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	SCH_TYPE	Schedule type	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	MOT	Transportation mode code	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	PRD_TRANSP_GRP	Transportation Group	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	TSP_AIRLC	Airline Code	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	FLIGHT_NO	Flight Number	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	AIRCRAFT_TC	Aircraft type	Direct Mapping	

	DCT	N/A	zLegacySys	Field to capture legacy source system	SAP S/4 HANA	N/A	zLegacySys	Carrier Source system	This will be used together with legacy vendor (carrier) in determining the new (S4) BP number	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	TSP	Carrier	Value mapping: Use the legacy to SAP vendor mapping table to determine the new (S4) BP number	Carrier (Business partner) should exist in SAP.
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	OPERATING_CARRIER	Executing carrier	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	TSP_SCAC	Carrier SCAC	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHROT	LOOP_ID	Loop	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	LOC_SEQ	Sequence	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	LOC_TYPE	Location Type Code	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	LOC_ROLE	Role of the Location in a Schedule	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	LOC_ID	Location	Direct Mapping	Location should exist in SAP. Schedule must have at least two locations (item level data)
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	LOG_LOCIATA	International Air Transport Association: Location	Direct Mapping	
	DCT	N/A	zLegacySys	Field to capture legacy source system	SAP S/4 HANA	N/A	zLegacySys	Carrier Source system	This will be used together with legacy vendor (carrier) in determining the new (S4) BP number	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	TSP	Carrier	Value mapping: Use the legacy to SAP vendor mapping table to determine the new (S4) BP number	Carrier (Business partner) should exist in SAP.
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	TSP_SCAC	Standard Carrier Alpha Code	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	OPERATING_CARRIER	Executing Carrier of a Schedule	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	AIRCRAFT_TC	IATA Aircraft Type Code	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	TSP_AIRLC	IATA Airline Code	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	SERVICE_STOP_INDICATOR	Service Stop	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	FLIGHT_NO	Flight Number	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	REL_CARG_CO	Relative Cargo Cut-Off	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	CUT_OFF_DAYS	Cargo Cut-Off (Offset in Days)	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	CUT_OFF_TIME	Cargo Cut-Off Time	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	REL_DOC_CO	Relative Document Cut-Off	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	DOC_CUT_OFF_DAYS	Document Cut-Off (Offset in Days)	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	DOC_CUT_OFF_TIME	Document Cut-Off Time	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS/D_SCHLOC	REL_DG_CO	Relative Dangerous Goods Cut-Off	Direct Mapping	

	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	DG_DOC_ CUT_OFF _D	Dangerous Goods Documents Cut-Off (Offset in Days)	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	DG_DOC_ CUT_OFF _T	Dangerous Goods Document Cut-Off Time	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	AVAIL_REL	Relative Availability Time	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	AVAIL_DA YS	Days to Availability	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	AVAIL_TI ME	Availability Time	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	DISTANC E_KM	Distances for Schedule Stages	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	PRECISION	Precision of Distance and Duration on Schedule Stages	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	TRANSIT_ TIME	Transit Time	For preload file - include all three DCT fields (days, hours and minutes) For load file - Combine the three DCT fields (days, hours and minutes) and store in one target field (hhmmss)	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	STAY_TIME	Length of Stay	For preload file - include all three DCT fields (days, hours and minutes) For load file - Combine the three DCT fields (days, hours and minutes) and store in one target field (hhmmss)	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	MOT	Transportation Mode Code	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	MTR	Means of Transport	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	TZONE	Time Zone	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	ENTRY_P ORT	Port of Entry	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	EXIT_PORT	Port of Exit	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	SCH_REF	Schedule Reference	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHLOC	STAGE_T YPE	Stage Type	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	RULE_ID	Departure Rule	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	VAL_FROM	Validity Start	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	VAL_TO	Validity End	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	MONDAY	Monday	Direct Mapping	minimum 1 day must be selected
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	TUESDAY	Tuesday	Direct Mapping	minimum 1 day must be selected
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	WEDNES DAY	Wednesday	Direct Mapping	minimum 1 day must be selected

	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	THURSDAY	Thursday	Direct Mapping	minimum 1 day must be selected
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	FRIDAY	Friday	Direct Mapping	minimum 1 day must be selected
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	SATURDAY	Saturday	Direct Mapping	minimum 1 day must be selected
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	SUNDAY	Sunday	Direct Mapping	minimum 1 day must be selected
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	VESSEL	Vessel	Direct Mapping	
	DCT				SAP S/4 HANA	/SCMTMS /D_SCHD PR	DEPARTURE_TIME	Departure Time	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
TSP	Vendor Number	LIFNR: Old Vendor Code to New Vendor Code cross reference

Transformation Dependencies

List the steps that need to occur before transformation can commence

Item #	Step Description	Team Responsible
1	Dependent Master Data records for Locations and Carriers (business partners) are loaded	Functional Team (SCM) + Data Team (SCM)
2	Value Mappings are according to the latest design	Functional Team (SCM) + Data Team (SCM)
3	SAP Transportation management configuration for Schedules is complete	Functional Team (SCM) + Data 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 Schedule ID, Description, Schedule category, MOT, Locations, 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: 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
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). 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) via import from Microsoft Excel using the report /SCMTMS/SCH_UPLOAD or

ii)Function_Loader_Inlay program or

iii) Custom Migration Cockpit Object (LTMOM).

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

BAPI: /SCMTMS/BAPI_SCHEDULE_SAVEMULT

The program to generate flights/voyages might need to be executed once the schedules with rules have been created (tbd in build phase)

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 Schedules using Function_Loader_Inlay program or Custom Migration Cockpit Object.	Data Team (SCM)
4	Validate few records loaded by accessing standard transactions from S/4HNA E.g. Fiori app 'Display Schedule'.	Data Team (SCM)
5	Generate the post load reports in tool. The following fields should be used to form a key for postload comparison: /SCMTMS/D_SCHROT-SCH_CAT /SCMTMS/D_SCHROT-SCH_TYPE /SCMTMS/D_SCHROT-VAL_FROM_DATE /SCMTMS/D_SCHROT-VAL_TO_DATE /SCMTMS/D_SCHDSC-LANGUAGE_CODE /SCMTMS/D_SCHDSC-DESCRIPTION	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 Schedules data will be loaded in the pre-cutover window.

Configuration

Item #	Configuration Item
1	SAP Transportation management configuration MOT (Table & field: TVTR-VKTRA) Stage types (Table & field: /SCMTMS/C_STGTY-STAGE_TYPE) Schedule type (Table & field: /SCMTMS/C_SCHTY-TYPE (where CAT = S)) Aircraft type (Table & field: /SCMTMS/C_AIRCR-AIRCRAFTCODE)
2	T002 - Language Keys
3	Number range for schedules

Conversion Objects

Object #	Preceding Object Conversion Approach
1051	TM - Locations
3016	Business Partners - Transporters/Forwarders

Error Handling

As part of the TM Schedules 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 Schedules load.

Error Type	Error Description	Action Taken
Configuration	Invalid or missing MOT, Stage types, Schedule type	Engage Functional team to expedite and fix the error in the system
Formatting Errors	One or more key fields (e.g., TSP) are incorrectly formatted	Ensure formatting is done correctly (e.g., leading zeros for TSP). (Leading zero requirement will be confirmed when loading tool is available/tested)
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 'Display Schedule' 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 TM Schedules	Access the S/4HANA system (via Fiori app Display Schedule) to view loaded TM Schedules

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.
- TM Schedules 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. 22)	**Dec 10, 2025 20:22**	**OMER-ext, Mohammed**	Added fields for departure rules section following functional deep dive session (Jira # PDM-1023
v. 21	Oct 28, 2025 11:27	**OMER-ext, Mohammed**	Transportation group, Transit time, Port of Entry/Exit will become conditional fields based on late
v. 20	Oct 28, 2025 09:51	**VAN OS-ext, Nico**	
v. 19	Oct 20, 2025 17:01	**OMER-ext, Mohammed**	Field status in target design section following some clarifications from TM functional team
v. 18	Oct 17, 2025 12:52	**OMER-ext, Mohammed**	
v. 17	Oct 16, 2025 14:00	**OMER-ext, Mohammed**	
v. 16	Oct 16, 2025 13:54	**OMER-ext, Mohammed**	

v. 15	Oct 14, 2025 11:26	**OMER-ext, Mohammed**
v. 14	Oct 14, 2025 10:14	**OMER-ext, Mohammed**
v. 13	Oct 14, 2025 09:59	**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.

May 08, 2026	Actor	Type	Activity	Version
Approved	MCARDLE-ext, Edward	State	changed state to Approved at 11:14 am	v22
Revision under Review	MCARDLE-ext, Edward	State	gave *Minor change* approval at 11:14 am	
		State	changed state to Revision under Review at 11:14 am	v22
Mar 18, 2026				
Revision in Progress	WENNINGER-ext, Sascha	State	changed state to Revision in Progress at 5:45 pm	v22
Dec 10, 2025				
Edited following Approval	OMER-ext, Mohammed	Edit	updated the page at 8:22 pm *Added fields for departure rules section following functional deep dive session (Jira # PDM-1023)*	
		State	changed state to Edited following Approval at 7:22 pm	v22
Nov 03, 2025				
Approved	MUTHUSAMY-ext, Kunalan	State	changed state to Approved at 10:17 am (State override) *[PMO Comments] Conversion Spec completed as per CS register and functional review completed*	v21