



PUBLIC

Implementation Guide for Tracking via Tracking Unit and Reference Document in the TM Scenario

SAP Logistics Business Network, Global Track and Trace Option

July 2022

THE BEST RUN



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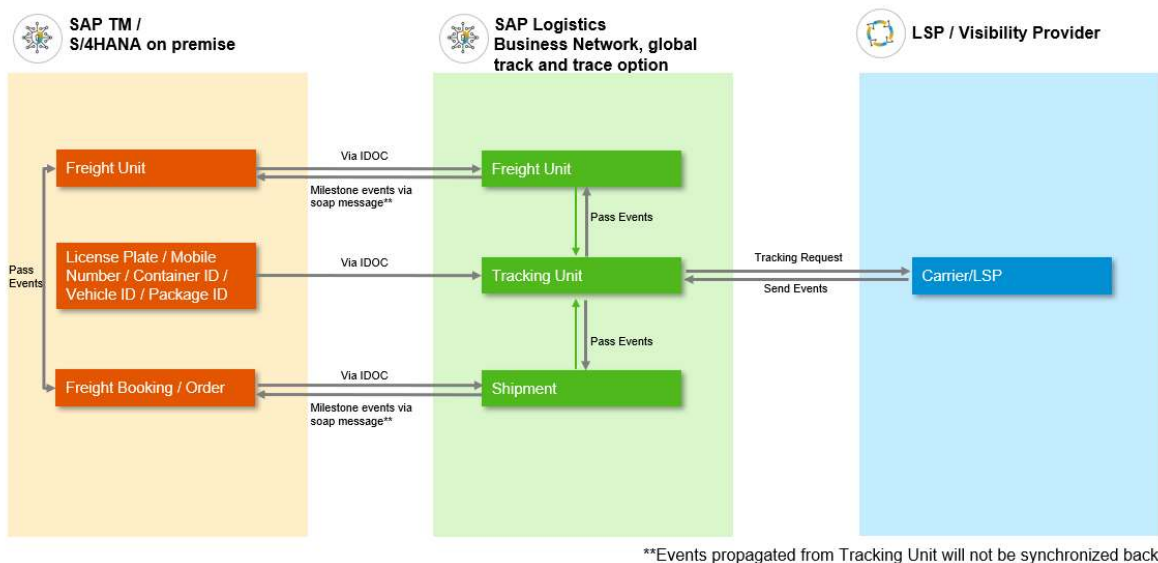
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1. TRACKING VIA TRACKING UNIT

In the TM scenario, you can track the shipments and freight units via tracking unit. The tracking unit is introduced as a standard tracked process in the GTT system, referring to the tracked objects that will be sent to visibility providers for tracking the shipments and freight units, such as license plate, container ID, external package ID, etc. Both freight unit and freight order/freight booking observe the tracking unit. The process integration flow is as follows:

TM Scenario

Process integration



To track via tracking units, you need to configure extractor settings and maintain tracking objects information on freight documents in SAP TM.

Prerequisite

Before you can maintain tracked objects information on freight documents in SAP TM, you must introduce new text types **CONT**, **MOBL** and **EPKG**. To do so, you must perform the following:

- Navigate to the **Text Type** section in **Customizing for Cross-Application Components**, under **Processes and Tools for Enterprise Applications > Reusable Objects and Functions for BOPF Environment > Dependent Object Text Collection > Maintain text Schema**.
- Create entries with the **Text Type** and **Description** as follows:

| Text Type | Description |
|-----------|---------------------|
| CONT | Container ID |
| MOBL | Mobile Phone |
| EPKG | External Package ID |

- Navigate to the **Text Schema** section.

- d. Select the **DEFAULT** text schema for **CONT** and **MOBL** text types, and **TORITM** text schema for **EPKG** text type.
- e. Navigate to the **Text Type to Text Schema Assignment** section.
- f. Check if you have assigned the text type **CONT** and **MOBL** to the **DEFAULT** text schema, and **EPKG** to the **TORITM** text schema. If they are not yet assigned, assign them with the following attributes:
Deselect the following checkboxes:
 - Mandatory
 - Access Seq
 - Reference
 - Exit Class
 - Internal
 - Lang. Text
- g. Save your entries.

1.1 FTL/LTL Tracking

- Configure Extractor Settings
 - Enter the T-code "ZGTT_TRACK_CONF".
 - Set "Maintain Tracked Objects on Freight Order/Freight Booking" for relevant freight unit and freight order document types.

< **SAP** Display View "GTT Tracking Scenario Configuration Table":

More ▾

GTT Tracking Scenario Configuration Table

| Doc. Type | Scenario | |
|-------------------------------|--|---|
| <input type="checkbox"/> ZTR5 | 02 Maintain Tracked Objects on Freight Order/Freight Booking | ▾ |
| <input type="checkbox"/> ZTU5 | 02 Maintain Tracked Objects on Freight Order/Freight Booking | ▾ |
| <input type="checkbox"/> | | |

- Maintain Tracked Objects Information on Freight Order
You can do either of the following:
 - In the **Registration Country/Region No.** field of the **General Data** tab, fill in the license plate.
 - In the **Content** column of the **Notes** tab, fill in the mobile number.

SAP Display SOF Standard Freight Order Type AccAWS 6100068007

Edit Refresh Copy Other Copy Options ▾ Check ▾ Follow Up ▾ Scheduling ▾ Subcontracting ▾ Create Service Order Schedule ▾ Set Status ▾

General Data Business Partner Items Stages Utilization Subcontracting Document Flow Charges Execution Notes Attachments Statuses ...

Truck

Means of Transport:

Vehicle:

Registration Country/Region No.:

Total/Consumed/Remaining Capacity: 300 KG

Total/Consumed/Remaining Capacity: 3 M3

Maximum Utilization: 0%

Cargo Information

Cargo Weight: 300 KG

Trailer

Means of Transport:

Trailer:

Registration Country/Region No.:

Total/Consumed/Remaining Capacity:

Total/Consumed/Remaining Capacity:

Maximum Utilization: 0%

Capacity

Total/Consumed/Remaining Capacity: 300 KG

AP Edit SOF Standard Freight Order Type AccAWS 6100068007

Edit Refresh Copy Other Copy Options Check Follow Up Scheduling Subcontracting Create Service Order Schedule Set Status

General Data Business Partner Items Stages Utilization Subcontracting Document Flow Charges Execution Notes Attachments Statuses

Insert

| Text Type | Language | I... | Content | Created ... | Created On |
|--------------|----------|------|---------------|-------------|-------------------------|
| Mobile Phone | English | | 0013474462377 | HUEV | 07.06.2022 08:26:15 ... |

1.2 Parcel Tracking

- Configure Extractor Settings
 - Enter the T-code "ZGTT_TRACK_CONF".
 - Set "Maintain Tracked Objects on Freight Unit" for relevant freight unit and freight order document types.

Display View "GTT Tracking Scenario Configuration Table":

GTT Tracking Scenario Configuration Table

| Doc. Type | Scenario |
|-------------------------------|---|
| <input type="checkbox"/> YTR1 | 03 Maintain Tracked Objects on Freight Unit |
| <input type="checkbox"/> YTU1 | 03 Maintain Tracked Objects on Freight Unit |

- Maintain Tracked Objects Information on Freight Unit
 - For SAP S/4HANA 1909 SP03 to SAP S/4HANA 2020 FPS01, in the **Notes** tab under the **Items** table, fill in the external package ID of each freight unit's package.

Display GTT Standard FU Type Demo 4100077248

Save Cancel Edit Follow Up Check Direct Shipment Split/Merge Unassign Default Route Remove Unplanned Stages Fixing Cancel Document Customs Display Settings

Items

| Items | Item | Item Cate... | Package ID | Product | Gross Volu... | Gross Volu... UoM | Gross Weight | Gross Weight UoM | Qua... | Qua... Unit of Mea... | Packa... Mat. Type | Transp. Unit Resource | Equip... Group | Equipment Type | Item Description |
|---------|------|--------------|------------|-----------|---------------|-------------------|--------------|------------------|--------|-----------------------|--------------------|-----------------------|----------------|----------------|------------------|
| Package | 50 | Package | 1000000010 | ZTMPACK01 | | | 30 KG | | 1 EA | Pallet | | | | | Pack materials01 |
| Product | 30 | Product | | ZTM_MAT01 | | | 10 KG | | 1 EA | | | | | | Test material 01 |
| Product | 40 | Product | | ZTM_MAT02 | | | 20 KG | | 2 EA | | | | | | Test material 02 |

Package Details Quantities Business Partner Content Identification Discrepancies Notes

Insert

| Text Type | Language | I... | Content | Created By | Created On Date/Time |
|---------------------|----------|------|----------------|------------|----------------------|
| External Package ID | English | | EXT_1000000010 | | |

- For SAP S/4HANA 2020 FPS01 or onwards, in the **HU Identification 2** field, fill in the external package ID of each freight unit's package, and it will be updated to the **External Package ID** column of the **Items** table.

The screenshot shows the SAP 'Detailed Data for Handling Unit 1000021200' interface. On the left, a table lists handling units:

| Identification | Material | Quantity | Unit |
|----------------|------------|----------|------|
| 1000021201 | ZTMPACK02 | | |
| 20 | DH_TM_MAT2 | 3 | EA |
| 1000021200 | ZTMPACK01 | | |
| 10 | DH_TM_MAT1 | 1 | EA |

On the right, the 'HU Identification' section shows:

- HU Identification: 1000021200
- Identification Type: E
- Packaging Materials: ZTMPACK01
- Pack materials01
- HU Identification 2: 1000021200_EXT** (highlighted in red)
- Cust. S: ☐
- Sort: 0

Below this, there are tabs for 'W/Vol./Dim.', 'Status', 'PackgMatls', 'Addit. Data', 'Conts.', 'History', 'General Info', and 'Custom Fields'. The 'HU-specific data' section includes fields for System Status (PHEX WHSE), User status, HU storage number, Storage status (Blank), Current assignment (0080272338), HU storage loc. (Handling unit without inventory management), and Contents.

The screenshot shows the SAP 'Display GTT Standard Freight Unit Acc-Parcel 300009300' interface. The 'Items' table is displayed with the following data:

| Item Hierarchy | Item | Item Type | Product | Package ID | External Package ID | Gross Vol... | Gross Vol... UoM | Gross Wei... | Gross Wei... UoM | Qu... | Qu... UoM |
|--|---------|-----------|------------|------------|--|--------------|------------------|--------------|------------------|-------|-----------|
| Freight Unit 300009300 | 1000000 | | | | | | | | | 2 | EA |
| Package 30 Pack materials01 1000021200 | 30 | | ZTMPACK01 | 1000021200 | 1000021200_EXT (highlighted in red) | 2 | M3 | 200 | KG | 1 | EA |
| Product 10 DH_TM_MAT1 | 10 | | DH_TM_MAT1 | | | 2 | M3 | 200 | KG | 1 | EA |
| Package 40 Pack materials02 1000021201 | 40 | | ZTMPACK02 | 1000021201 | 1000021201_EXT | 3 | M3 | 300 | KG | 1 | EA |
| Product 20 DH_TM_MAT2 | 20 | | DH_TM_MAT2 | | | 3 | M3 | 300 | KG | 3 | EA |

Note:

If multiple packages are assigned to one freight unit, only when all packages are completed, the freight unit is set to "Completed" and then impacts the status of the relevant delivery items.

1.3 Ocean Tracking

There are three options:

Option One: If one freight booking only has one container ID or one freight booking has multiple container IDs and you do not know which freight unit is assigned to which container, do the following:

- Configure Extractor Settings
 - Enter the T-code "ZGTT_TRACK_CONF".

- Set “Maintain Tracked Objects Information on Freight Order/Freight Booking” for relevant freight unit and freight order document type.

< **SAP** Display View "GTT Tracking Scenario Configuration Table"

More ▾

GTT Tracking Scenario Configuration Table

| Doc. Type | Scenario | |
|-------------------------------|--|---|
| <input type="checkbox"/> ZT07 | 02 Maintain Tracked Objects on Freight Order/Freight Booking | ▾ |
| <input type="checkbox"/> ZTU7 | 02 Maintain Tracked Objects on Freight Order/Freight Booking | ▾ |
| <input type="checkbox"/> | | |

- Maintain Tracked Objects Information on Freight Booking
 - In the **Content** field of the **Notes** tab, fill in the container ID. If there are multiple container IDs, they need to be separated with the semicolon.

SAP Display Standard Ocean Booking AccAWS-TU2 6500010361

Edit Refresh Copy Other Copy Options ▾ Schedule ▾ Follow Up ▾ Check ▾ Subcontracting ▾ Create Service Or

▾ General Data Business Partner Items Document Flow Execution Notes Attachments Statuses

Insert

| <input checked="" type="checkbox"/> Text Type | Language | I... | Content |
|--|----------|--------------------------|-------------------------|
| <input checked="" type="checkbox"/> Container ID | English | <input type="checkbox"/> | CBHU3202732;EISU9138027 |

Option Two: If one freight booking has multiple container IDs and you know which freight unit is assigned to which container, do the following:

- Configure Extractor Settings
 - Set “Maintain Tracked Objects on Freight Unit” for relevant freight unit and freight order document types.

< **SAP** Display View "GTT Tracking Scenario Configuration Table"

More ▾

GTT Tracking Scenario Configuration Table

| Doc. Type | Scenario | |
|-------------------------------|---|---|
| <input type="checkbox"/> YTR1 | 03 Maintain Tracked Objects on Freight Unit | ▾ |
| <input type="checkbox"/> YTU1 | 03 Maintain Tracked Objects on Freight Unit | ▾ |
| <input type="checkbox"/> | | |

- Maintain Tracked Objects Information on Freight Unit
 - In the **Content** field of the **Notes** tab, fill in the container ID.

SAP Edit SOF Standard Freight Unit Type AccAWS 4100059458

Edit Refresh Follow Up Check Direct Shipment Split/Merge Unassign Default Route Remove Unplanned Stages Fixing Cancel Document Display Settings

General Data Business Partner Stages Document Flow **Notes** Attachments Direct Shipment Options Statuses Administrative Data Execution Customs

Insert

| Text Type | Language | I... | Content | Created ... | Created On |
|--|----------|--------------------------|-------------|-------------|-------------------------|
| <input checked="" type="checkbox"/> Container ID | English | <input type="checkbox"/> | TEXU3605231 | HUEV | 07.06.2022 08:33:51 ... |

Option three (Recommended): If you use the container unit to consolidate freight units in SAP TM, do the following:

- Configure Extractor Settings
 - Set “Maintain Tracked Objects on Container Unit” for relevant freight unit, container unit and freight order document types.

SAP Display View

More

GTT Tracking Scenario Configuration Table

| Doc. Type | Scenario |
|-------------------------------|---|
| <input type="checkbox"/> CFU1 | 04 Maintain Tracked Objects on Container Unit |
| <input type="checkbox"/> CT01 | 04 Maintain Tracked Objects on Container Unit |
| <input type="checkbox"/> CTU1 | 04 Maintain Tracked Objects on Container Unit |

- Maintain Tracked Objects Information on Container Unit
 - In the **Items** tab, select the container item. In the **Container Number** field of its **Details** tab below, fill in the container ID.

Display GTT Standard Container Unit AccAWS 4500011808

Edit Refresh Copy Multiple Copies Check Follow Up Unassign Default Route Remove Unplanned Stages Set Status Load/Unload Plan Status (Stop) Execution Status Fixing

General Data
Items
Stages
Notes
Statuses
Execution
Document Flow
Attachments

All Items

Standard
Change Hierarchy: All Items
Insert: (Choose Item Type)
Insert
Create
Adjust Subitems

| Item Hierarchy | Item Type | Item Type (Description) | Qu... | Qu... UoM | Gross Wei... | Gross Wei... UoM | Gross Vol... | Gross Vol... UoM | Product | Package ID |
|--|-----------|-------------------------|-------|-----------|--------------|------------------|--------------|------------------|------------|------------|
| ✓ 123CUIYUW Container 1000000 | | | 1 | EA | 300 | KG | 3 | M3 | | |
| ✓ GTT Standard Freight Unit AccAWS CU 4100059669 | | | 2 | EA | 300 | KG | 3 | M3 | | |
| Product 10 DH_TM_MAT1 | | | 1 | EA | 200 | KG | 2 | M3 | DH_TM_MAT1 | |
| Product 20 DH_TM_MAT2 | | | 1 | EA | 100 | KG | 1 | M3 | DH_TM_MAT2 | |

123CUIYUW Container 1000000

Details
FWO Data
Quantities
Notes
Business Partner
Content Identification
Document References
Customs
Seals
Service Orders
Discrepancies

General Data

Item Type:

Description:

Container:

Container Number:

Capacity

Maximum Payload Weight:

Cubic Capacity:

Length:

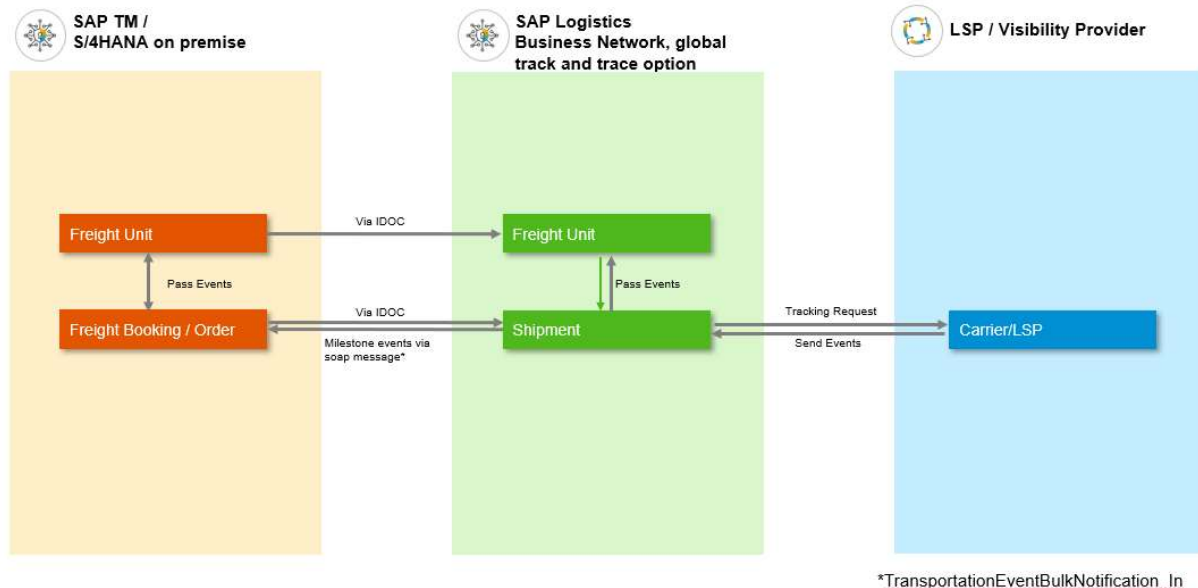
Width:

2. TRACKING VIA REFERENCE DOCUMENT (LEGACY VERSION)

You can still track the shipments and freight units via carrier reference document, such as Bill of Lading, Master Bill of Lading, Master Airway Bill, Reference number of Carrier. In this way, the shipment will be sent to visibility providers. The process integration flow is as follows:

TM Scenario

Process integration



To track via reference document, you need to configure extractor settings and maintain reference document information on freight documents in SAP TM as follows:

2.1 Configure Extractor Settings

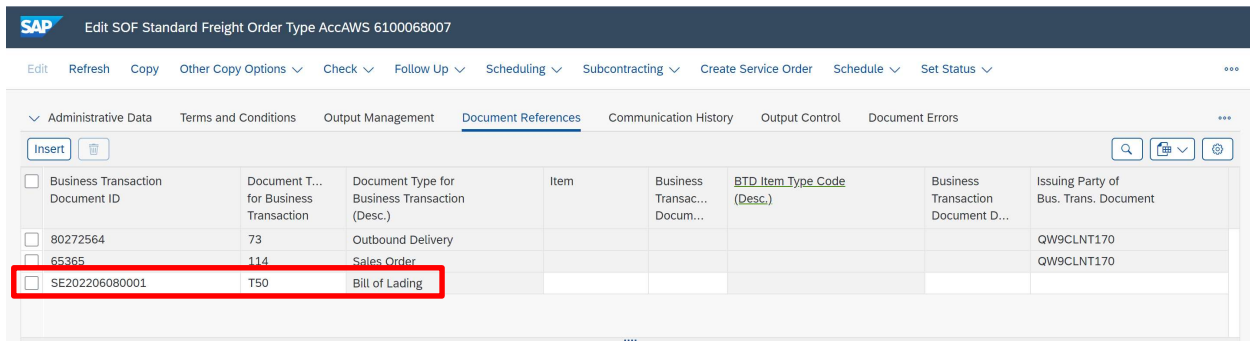
By default, the freight unit and the freight order are tracked via reference document. In this case, you do not need to configure the extractor settings. But you can still set "Maintain Reference Document on Freight Order/Booking" for relevant freight unit and freight order document types.

| GTT Tracking Scenario Configuration Table | |
|---|---|
| Doc. Type | Scenario |
| <input type="checkbox"/> STR1 | 01 Maintain Reference Document on Freight Order/Freight Booking |
| <input type="checkbox"/> STU1 | 01 Maintain Reference Document on Freight Order/Freight Booking |
| <input type="checkbox"/> | |

2.2 Maintain Document No. on Freight Documents

To maintain the Document No. on different freight documents in SAP TM, do the following:

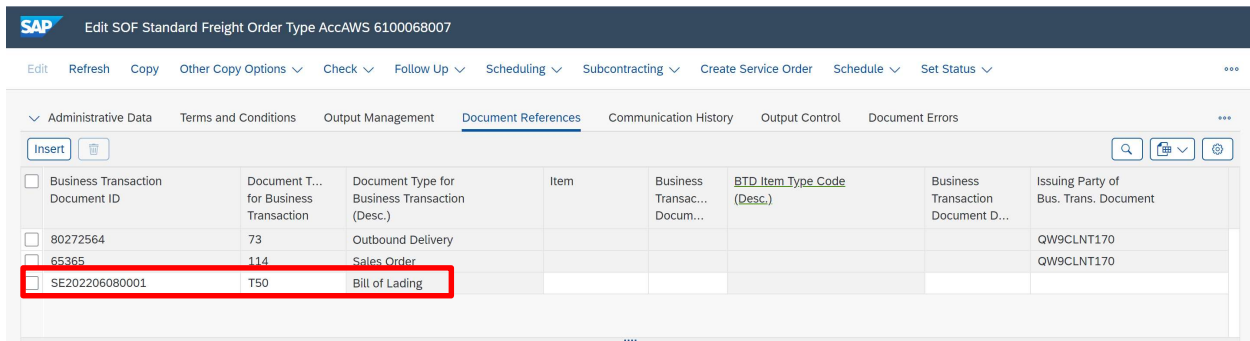
- For FTL: on Freight Order, in the **Document References** tab, fill in the Bill of Lading (T50) on Freight Order.



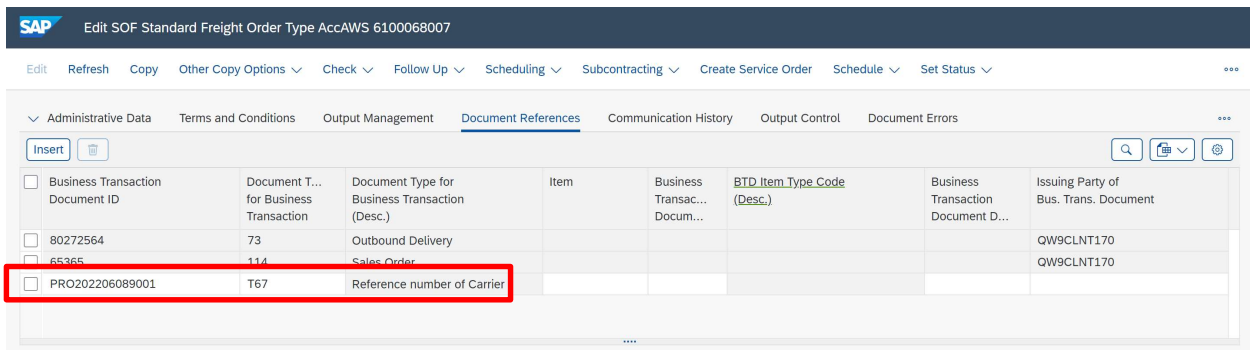
The screenshot shows the SAP TM interface for editing a Standard Freight Order (AccAWS 6100068007). The 'Document References' tab is active, displaying a table with columns: Business Transaction Document ID, Document T... for Business Transaction, Document Type for Business Transaction (Desc.), Item, Business Transac... Docum..., BTD Item Type Code (Desc.), Business Transaction Document D..., and Issuing Party of Bus. Trans. Document. The row for 'SE202206080001' with Document Type 'T50' and Description 'Bill of Lading' is highlighted with a red box.

| Business Transaction Document ID | Document T... for Business Transaction | Document Type for Business Transaction (Desc.) | Item | Business Transac... Docum... | BTD Item Type Code (Desc.) | Business Transaction Document D... | Issuing Party of Bus. Trans. Document |
|----------------------------------|--|--|------|------------------------------|----------------------------|------------------------------------|---------------------------------------|
| 80272564 | 73 | Outbound Delivery | | | | | QW9CLNT170 |
| 65365 | 114 | Sales Order | | | | | QW9CLNT170 |
| SE202206080001 | T50 | Bill of Lading | | | | | |

- For LTL: on Freight Order, in the **Document References** tab, fill in the Bill of Lading(T50) and Reference Number of Carrier (T67).



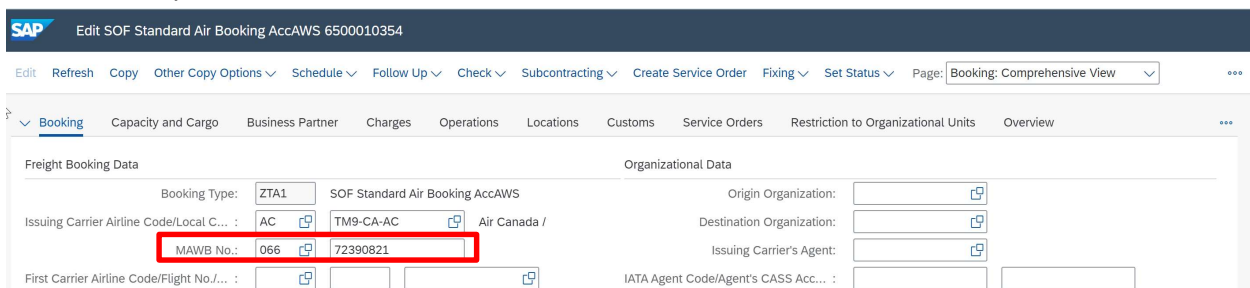
This screenshot is identical to the previous one, showing the 'Document References' tab for the same Freight Order. The row for 'SE202206080001' with Document Type 'T50' and Description 'Bill of Lading' is highlighted with a red box.



This screenshot shows the 'Document References' tab for the same Freight Order, but with a different row highlighted. The row for 'PRO202206089001' with Document Type 'T67' and Description 'Reference number of Carrier' is highlighted with a red box.

| Business Transaction Document ID | Document T... for Business Transaction | Document Type for Business Transaction (Desc.) | Item | Business Transac... Docum... | BTD Item Type Code (Desc.) | Business Transaction Document D... | Issuing Party of Bus. Trans. Document |
|----------------------------------|--|--|------|------------------------------|----------------------------|------------------------------------|---------------------------------------|
| 80272564 | 73 | Outbound Delivery | | | | | QW9CLNT170 |
| 65365 | 114 | Sales Order | | | | | QW9CLNT170 |
| PRO202206089001 | T67 | Reference number of Carrier | | | | | |

- For Air Tracking: on Freight Booking, in the **MAWB No.** field of the **Booking** tab, fill in the Master Airway Bill number.



The screenshot shows the SAP TM interface for editing a Standard Air Booking (AccAWS 6500010354). The 'Booking' tab is active, displaying fields for Booking Type (ZTA1), Issuing Carrier Airline Code/Local C... (AC), and MAWB No. (066). The MAWB No. field is highlighted with a red box. Other fields include SOF Standard Air Booking AccAWS, TM9-CA-AC, Air Canada /, Origin Organization, Destination Organization, Issuing Carrier's Agent, and IATA Agent Code/Agent's CASS Acc....

| Booking Type: | SOF Standard Air Booking AccAWS |
|--|---------------------------------|
| ZTA1 | TM9-CA-AC |
| Issuing Carrier Airline Code/Local C... : AC | Air Canada / |
| MAWB No.: 066 | 72390821 |
| First Carrier Airline Code/Flight No./... | |

- For Ocean Tracking: on Freight Booking, in the **Carrier's Master Bill of Lading Number** field of the **General Data** tab, fill in the Master Bill of Lading number.

SAP Edit SOF Standard Ocean Booking AccAWS 6500010350

Edit Refresh Copy Other Copy Options Schedule Follow Up Check Subcontracting Create Service Order Fixing Set Status Load/Unload Plan Status (Stop)

General Data Business Partner Items Document Flow Execution Notes Attachments Statuses Blocking Information Subcontracting Carrier Ranking Charges

Freight Booking Data

Booking Type: ZTO1 SOF Standard Ocean Booking AccAWS

Carrier: SCAC:

Executing Carrier: SCAC:

Communication Party:

Steamship Line Booking Number:

Carrier's Master Bill of Lading Number: 20220609001

Booking Confirmation Status: 1 Not Sent to Carrier

Capacity Requirements

Container Count:

Confirmed Container Count:

Cargo Capacity: TEU

Confirmed Cargo Capacity: TEU

Organizational Data

Purchasing Organization:

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