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# Transportation Management System Capability Guide

for Logistics Service Provider



# Capability Guide. Logistics Service Provider

If you are a **Logistic Service Provider (LSP)** whose business involves the delivery of third-party goods, managing the transportation process and may also have its own fleet of vehicles and drivers or use services of third-party carriers. In this scenario, the mechanism for cost control and transparency in the invoicing process for transportation is crucial.

- ✓ Order Management
- ✓ Multi-stage transportation
- ✓ Billing & Invoicing
- ✓ Settlement
- ✓ Charges Allocation
- ✓ Third-Party Carriers management
- ✓ Rest API for External Systems
- ✓ Power BI Integration
- ✓ Routing

# Capability Guide. How it works



Core entities of the TMS module ensure flexibility in implementing any transportation model.

## Forwarding Order

The central document in TMS, it is a request for transportation from either an external client or the company itself. It specifies WHAT needs to be transported, where to pick up and deliver the item(s), identifies the shipper and consignee, outlines the logistic units being shipped, the relevant dates, and who will cover the costs, etc.

It answers the question: what will be transported.

## Logistic Units

Logistics unit is an item of any composition intended for transportation. Logistic units take many forms: a single box containing a limited number of products, a pallet with multiple products, or an intermodal container containing multiple pallets.

  
This unites two documents.  
To deliver something, we must package it.

## Freight Order

This document details HOW the transportation will be executed, indicating who will actually carry it out. It specifies the carrier and the driver involved. The Freight Order reflects the actual journey of a truck or carrier.

It answers the question: how will it be transported.



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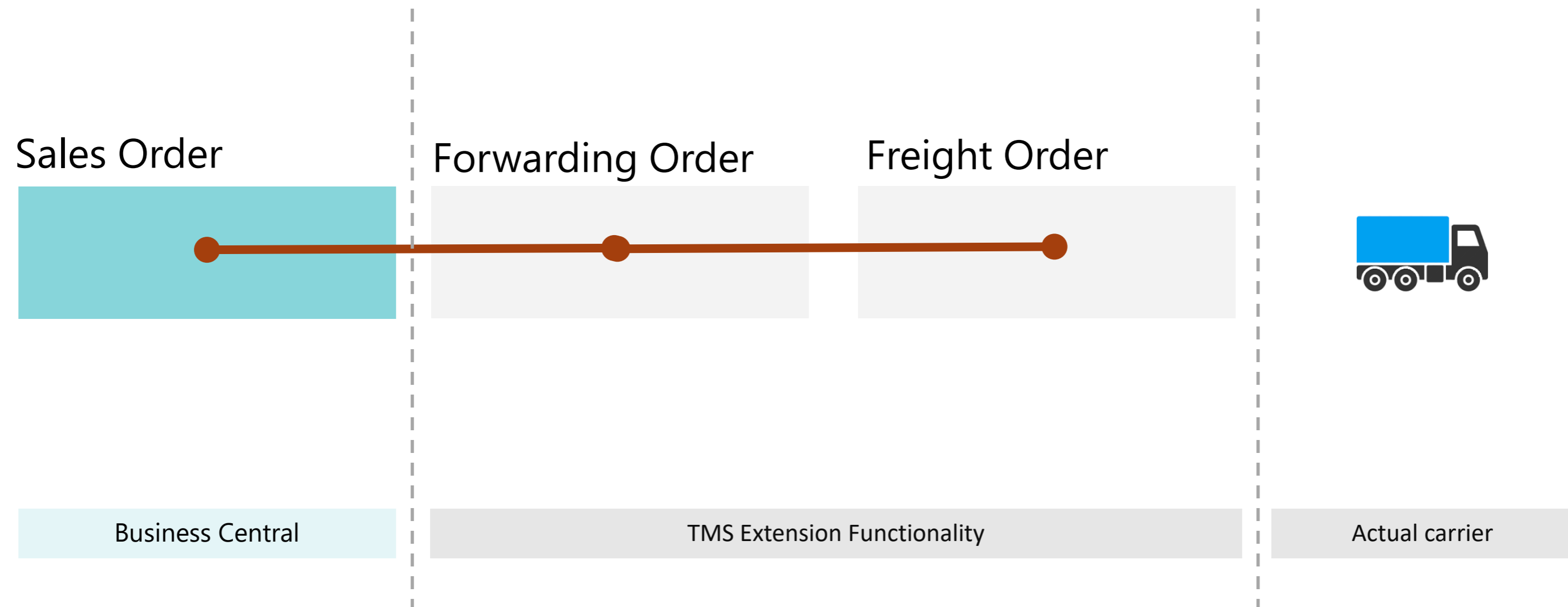
# Transportation Management System Capability Guide

Supported TMS operation scenarios



# Capability Guide. Shipper Scenario

Delivery of a single order by one truck. TMS facilitates the transfer of a sales order to delivery by creating a Forwarding Order directly from the sales order and managing the transportation (with either own drivers or third-party carriers) using the Freight Order document.





# Capability Guide. Shipper Scenario

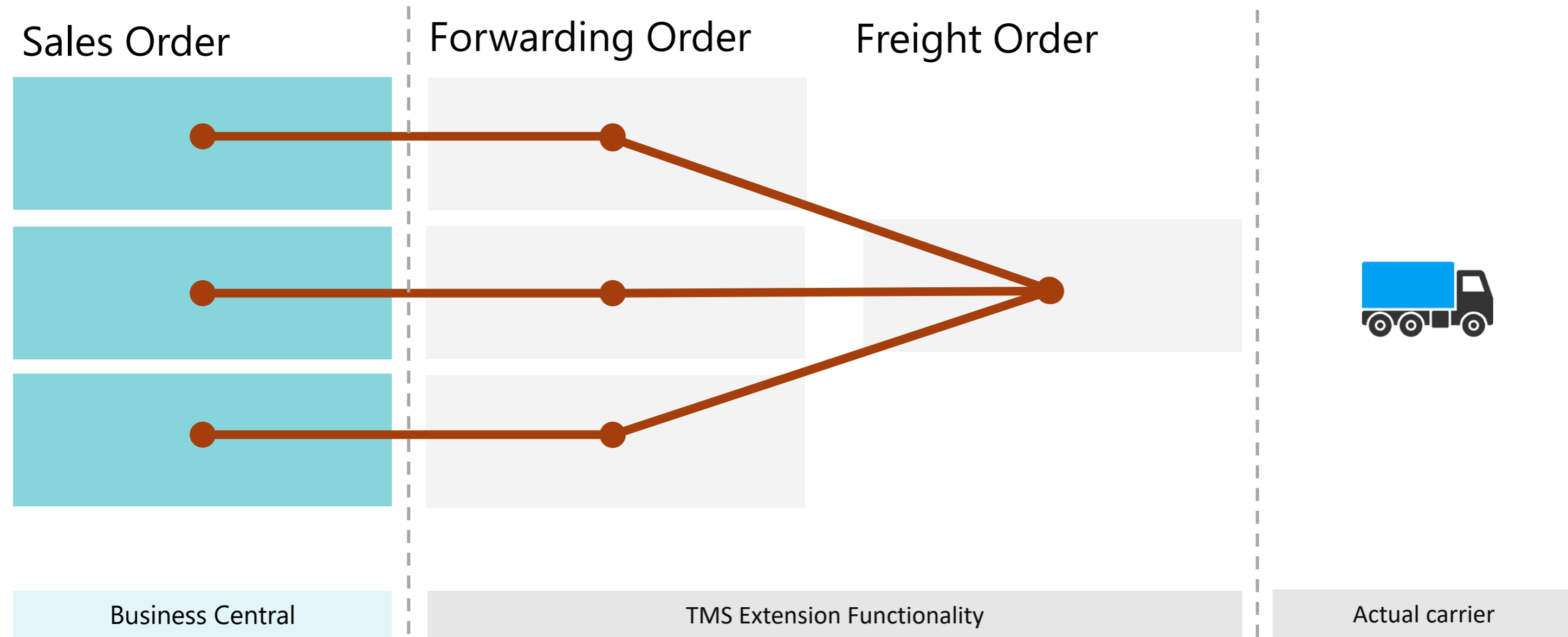
Delivery of a large order by multiple carriers or trucks. TMS enables the transfer of a large sales order for transportation by creating a Forwarding Order and generating as many Freight Orders as needed to deliver the large sales order.





# Capability Guide. Shipper Scenario

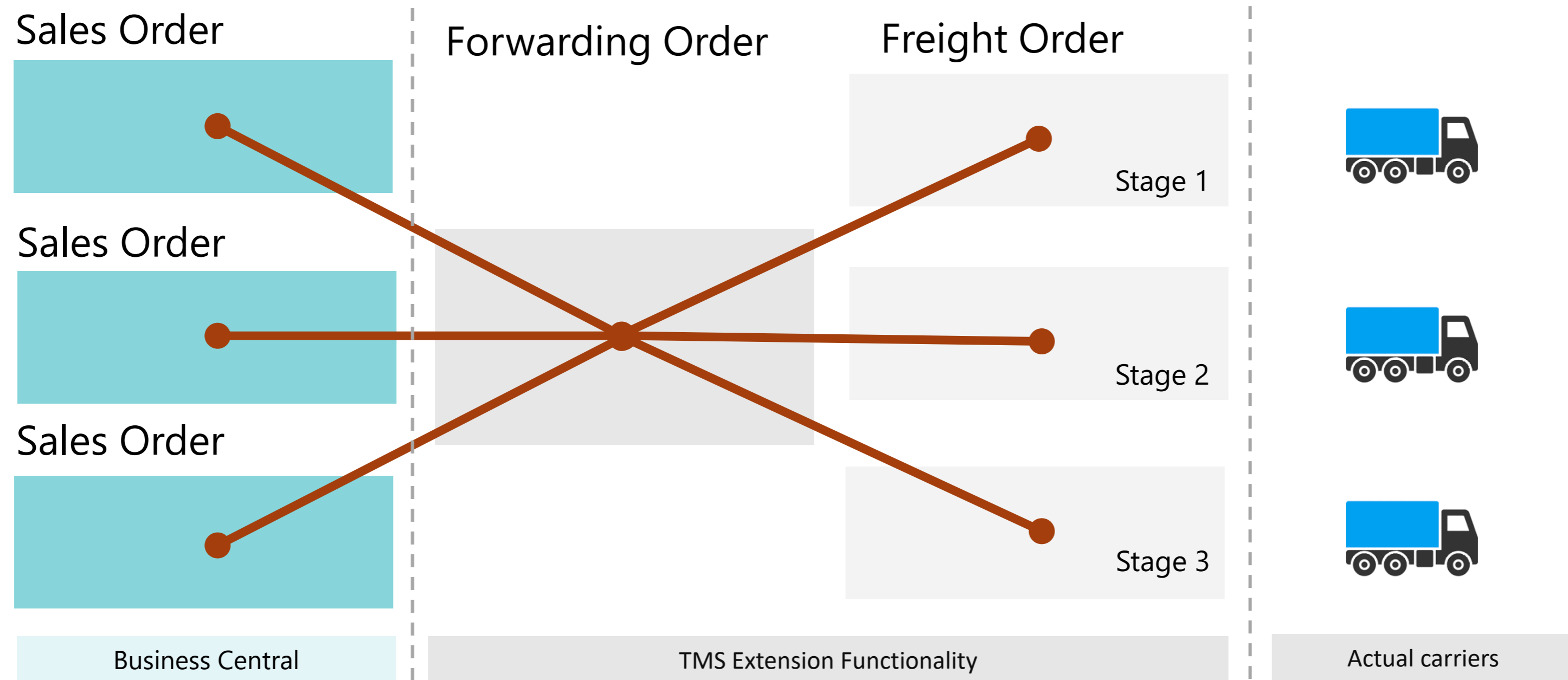
Organization of delivery for multiple orders by one truck or carrier. TMS employs tools such as Freight Load Management for distributing sales orders among trucks, considering weight and volume limitations.





# Capability Guide. LSP Scenario

Organization of multi-stage, multi-step transportation. TMS facilitates the division of complex transportation processes into stages, with each stage or leg being executed by a separate carrier. It also allows for the monitoring of revenues and expenses within a unified transportation process.

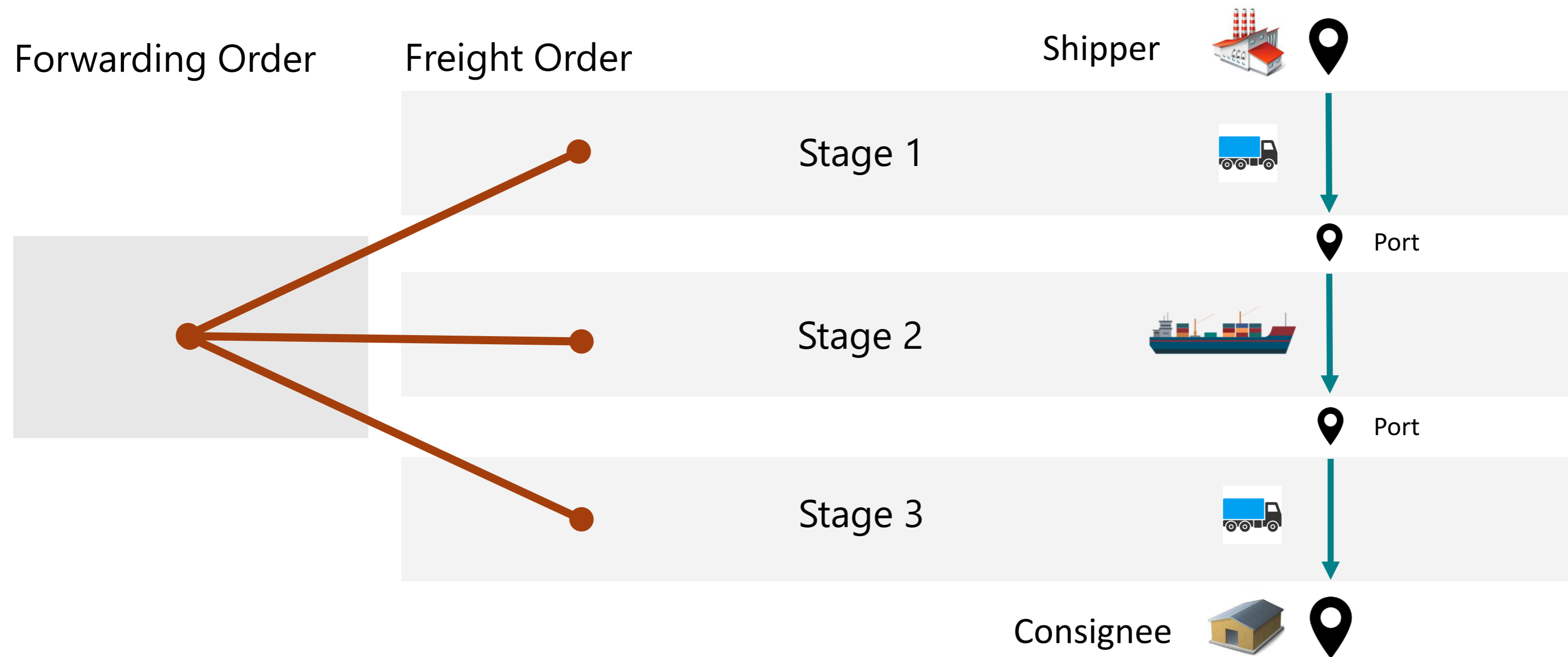






# Capability Guide. LSP Scenario

Organization of multi-stage, multi-step transportation. TMS enables the planning of stages, their loading and unloading dates in relation to each other, setting and monitoring the transportation time for the entire process and each stage individually.





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# Transportation Management System Capability Guide

## Forwarding Order



# Capability Guide. Forwarding Order

Request for transportation from either an external client or the company itself. It specifies WHAT needs to be transported, where to pick up and deliver the item(s), identifies the shipper and consignee, outlines the logistic units being shipped, the relevant dates, and who will cover the costs, etc.

General information concerning the document and its references to other systems.

The screenshot displays the 'Forwarding Order (TMS)' interface for document 100009, INTERMODAL, for Adatum Corporation. The interface is divided into several sections:

- General:** Includes fields for Type (INTERMODAL), Status Code (1.NEW), References (External Tracking Number, Master Waybill, House Waybill, Consol Number, Reference No.), Dates (Document Date: 1/10/2024, Posting Date: 1/10/2024), Comment, and Route No.
- Ordering Party:** Includes fields for Order Party Type (Customer), Order Party No. (C00020), Order Party Name (Adatum Corporation), Order Party Address (Station Road, 21), Currency Code, Salesperson Code (JO), and Incoterm.
- Details:** Includes Attachments (0) and Order Party Detail.
- Order Party Detail:** Lists Order Party Type (Customer), Order Party No. (C00020), Order Party Name (Adatum Corporation), Balance (12,296.40), and Credit Limit (100,000.00).
- Invoicing Detail:** Shows Ongoing Invoices (11), Ongoing Invoices by FWO (1), Invoices Amount Inc. VAT (LCY) (6,000.00), Invoices VAT Amount (LCY) (1,000.00), FWO Amount (LCY) (5,000.00), FWO Profit Amount (LCY) (2,351.18), and Posted Information (Invoiced Amount: 0.00).

The document status system allows for the formalization of the processing procedure in accordance with the business process adopted by the company.

Detailing and history of interactions with clients ordering this transportation.

Information about the client who ordered the transportation. This could be a client or the company itself if it is organizing the transportation. If the ordering party is a client, an invoice for the transportation is issued in the selected currency.



# Capability Guide. Forwarding Order

Request for transportation from either an external client or the company itself. It specifies WHAT needs to be transported, where to pick up and deliver the item(s), identifies the shipper and consignee, outlines the logistic units being shipped, the relevant dates, and who will cover the costs, etc.

Detailed information about the shipper and consignee. These can be customer, vendor, and contacts within the Business Central system, with the option for adjustments in this order.

Setting the requested and promised dates for cargo pickup and delivery.

The screenshot shows the 'Forwarding Order (TMS)' interface for '100009 · INTERMODAL · Adatum Corporation'. The interface is divided into several sections:

- Shipper & Consignee:** This section is split into two columns. The left column is for the 'Shipper' and the right for the 'Consignee'. Both have dropdown menus for 'Shipper Type' and 'Consignee Type' (both set to 'Customer'). The 'Shipper No.' is '30000' and the 'Consignee No.' is 'C00020'. The shipper name is 'School of Fine Art' and the consignee name is 'Adatum Corporation'. The shipper's load address is '10 High Tower Green, Miami' and the consignee's unload address is 'Station Road, 21, Cambridge'. There are 'Show on Map' buttons for both.
- Plan:** This section contains date pickers for 'Start' and 'End'. Under 'Start', there are fields for 'Requested Pick-up Datetime', 'Planned Start Datetime', and 'Actual Start Date'. Under 'End', there are fields for 'Requested Delivery Datetime', 'Planned End Datetime', and 'Actual End Date'.
- Order Party Detail:** This section shows 'Order Party Type' as 'Customer', 'Order Party No.' as 'C00020', and 'Order Party Name' as 'Adatum Corporation'. It also displays 'Balance' as '12,296.40' and 'Credit Limit' as '100,000.00'.
- Invoicing Detail:** This section shows 'Ongoing Invoices' as '11' and 'Ongoing Invoices by FWO' as '1'. It also lists 'Invoices Amount Inc. VAT (LCY)' as '6,000.00', 'Invoices VAT Amount (LCY)' as '1,000.00', 'FWO Amount (LCY)' as '5,000.00', and 'FWO Profit Amount (LCY)' as '2,351.18'.
- Posted Information:** This section shows 'Invoiced Amount' as '0.00', 'Currency Code' as '-', and 'Paid %' as '0.00'.

Expand the information block to obtain detailed information or make adjustments.

Display of this address on the map using TMS.



# Capability Guide. Forwarding Order

Request for transportation from either an external client or the company itself. It specifies WHAT needs to be transported, where to pick up and deliver the item(s), identifies the shipper and consignee, outlines the logistic units being shipped, the relevant dates, and who will cover the costs, etc.

Content to be transported. The content may include: goods, logistic units, types of logistic units, or products. Products refer to the TMS system's cargo type directory. If the transportation order is created from a sales order, the goods from the sales order will be copied into the Forwarding Order.

Created logistic units. SSCC, Containers. TMS enables the packaging of transported goods into pallets, boxes, or containers. These logistic units are then transferred to the Freight Order for transportation execution.

Forwarding Order (TMS) 100009 · INTERMODAL · Adatum Corporation

Home Logistic Units Print/Send Invoicing Navigate More options

Lines Manage Line

New Line Delete Line

Type	No.	Description	Freight Class	Quantity	Unit of Measure Code	Gross Weight per Unit of Measure	Weight Unit of Measure
→ Unit Type	C40DC	40' Dry freight container		1.00		10,000	KG

Total Gross Weight (kg) 10,000.00 Total Volume (m³) 67.62

Total Chargeable Weight (kg) 10,000.00 Number of Packages 1

Logistic Units

No. ↑	Description	SSCC	Type Code	Parent Unit No.	Content Volume (Base) (m³)	Weight (Base) (kg)	Volume (Base) (m³)
(There is nothing to show in this view)							

Details Attachments (0)

Order Party Detail

Order Party Type	Customer
Order Party No.	C00020
Order Party Name	Adatum Corporation
Balance	12,296.40
Credit Limit	100,000.00

Invoicing Detail

Ongoing Invoices	11
Ongoing Invoices by FWO	1
Invoices Amount Inc. VAT (LCY)	6,000.00
Invoices VAT Amount (LCY)	1,000.00
FWO Amount (LCY)	5,000.00
FWO Profit Amount (LCY)	2,351.18

Posted Information

Invoiced Amount	0.00
Currency Code	-
Paid %	0.00



# Capability Guide. Forwarding Order

Request for transportation from either an external client or the company itself. It specifies WHAT needs to be transported, where to pick up and deliver the item(s), identifies the shipper and consignee, outlines the logistic units being shipped, the relevant dates, and who will cover the costs, etc.

Any set of transportation process steps can be specified using stage profiles. This could include single-stage delivery as well as multi-stage cross-border transportation.

Process of reconciling and finalizing all financial transactions associated with a particular transportation.

Transportation Profitability Assessment. TMS operates with vendors in any currency.

The screenshot displays the 'Forwarding Order (TMS)' interface for order 100009, INTERMODAL, Adatum Corporation. The interface is divided into several sections:

- Stages:** A table with columns: Stage Code, Stage Description, Mode of Transport, Parallel, Start Date Time, Duration, Wait Duration, and En. The stages listed are:

Stage Code	Stage Description	Mode of Transport	Parallel	Start Date Time	Duration	Wait Duration	En
→ 100	Precarriage	ROAD	<input type="checkbox"/>				
200	Main carriage	OCEAN	<input type="checkbox"/>				
300	Delivery	ROAD	<input type="checkbox"/>				
- Settlement:** A table with columns: Type, Code, Description, Quantity, Unit of Measure Code, Price, Currency Code, and Am. The settlement entries are:

Type	Code	Description	Quantity	Unit of Measure Code	Price	Currency Code	Am
→ Income	FR	Freight	1.00		5,000.00	-	5.00
Cost	FREIGHT	Freight	1.00		-648.82	-	-64
Cost	FREIGHT	Freight	1.00		-2,000.00	-	-2.00
- Summary:** Total Income (LCY) 5,000.00, Total Profit (LCY) 2,351.18, Total Cost (LCY) -2,648.82.
- Order Party Detail:** Order Party Type: Customer, Order Party No.: C00020, Order Party Name: Adatum Corporation, Balance: 12,296.40, Credit Limit: 100,000.00.
- Invoicing Detail:** Ongoing Invoices: 11, Ongoing Invoices by FWO: 1, Invoices Amount Inc. VAT (LCY): 6,000.00, Invoices VAT Amount (LCY): 1,000.00, FWO Amount (LCY): 5,000.00, FWO Profit Amount (LCY): 2,351.18.
- Posted Information:** Invoiced Amount: 0.00, Currency Code: -, Paid %: 0.00.



# Capability Guide. Forwarding Order

The TMS attachment control system allows for the configuration of types of documents to be attached, such as CMR, AWM, Bill of Lading, Proof of Delivery, and assigns this type at the time of file upload. This enables the verification that all necessary documents are collected throughout the transportation process.

List of transportation processes (Forwarding Orders).

No. ↑	Post...	Ordering Party Name	Document Date	Status Code	Posting Date	Type	Attachments	Invoice	CMR	Custom Decl	AWB
DLV.00001	<input type="checkbox"/>	Trey Research	1/27/2023	1.NEW	1/27/2023	DELIVERY	1	-	1	1	-
DLV.00004	<input type="checkbox"/>	Expedito	1/31/2023	1.NEW	1/31/2023	DELIVERY	-	-	-	-	-
DLV.00005	<input type="checkbox"/>	Expedito	1/31/2023	2.CONFIRM...	1/31/2023	MULTILOAD2	-	-	-	-	-
DLV.00006	<input type="checkbox"/>	Expedito	1/31/2023	2.CONFIRM...	1/25/2023	MULTILOAD2	-	-	-	-	-
DLV.00007	<input type="checkbox"/>	Expedito	1/31/2023	2.CONFIRM...	1/31/2023	MULTILOAD2	4	-	2	4	1
DLV.00009	<input type="checkbox"/>	Expedito	1/31/2023	2.CONFIRM...	1/31/2023	MULTILOAD2	-	-	-	-	-

Controlled document types.

Number of attachments.



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# Transportation Management System Capability Guide

## Freight Order



# Capability Guide. Freight Order



This document details HOW the transportation will be executed, indicating who will actually carry it out. It specifies the carrier and the driver involved. The Freight Order reflects the actual truck run or side carrier.

General parameters and links to external systems.

Who we will be paying for the transportation, TMS allows specifying the carrier who will perform the transportation and the vendor to whom we will be paying, for example, this could be a carrier's agent.

The screenshot shows a web interface for a Freight Order (TMS) with ID FO-00026. The form is divided into two main sections: 'General' and 'Pay-to'. The 'General' section includes fields for No. (FO-00026), External Tracking Number (RT), Flight Number, Document Date (11/24/2022), Posting Date, Comment, Freight Order Type (FO), Status Code (1.PLAN), Loading Bay, Load Priority (8), Load Date And Time (8/15/2023 11:00 PM), and Route No. (070-001). The 'Pay-to' section includes fields for Pay-to Vendor No., Pay-to Vendor Name, House Waybill, VAT Registration No., Payment Terms Code, Cost Amount (Expected) (0.00), and Currency Code. The interface also features a top navigation bar with a back arrow, edit, share, add, and delete icons, and a 'Saved' status indicator.

Details on the loading process, including gate assignment, priority, date, and time.

Route number, an important parameter if there are restrictions on using certain trucks only on specific routes. The route number can also be used for grouping orders by customer addresses.

# Capability Guide. Freight Order



This document details HOW the transportation will be executed, indicating who will actually carry it out. It specifies the carrier and the driver involved. The Freight Order reflects the actual truck run or side carrier.

Information on the actual carrier, which could be our own logistics or leased.

Information on the driver and truck.

Freight Order (TMS)  
FO-00026

Home Print/Send Navigate More options

**Carrier** Show less

Carrier No.	OWN LOG.	Tracking Information	
Carrier Name	Own Logistics	Master Waybill	
Carrier Name 2		Consol Number	
Mode of Transport	ROAD	Freight Agreement No.	

**Vehicle and Driver** Show less

<b>Vehicle</b>	<b>Driver</b>
Vehicle No.	Driver No.
Vehicle Name	Driver Name
Vehicle Unit Type Code	
Vehicle Unit Type Description	
Footage	0.00
Internal Volume	0.00
Payload Weight	3,000.00
Temperature	0.00



# Capability Guide. Freight Order

This document details HOW the transportation will be executed, indicating who will actually carry it out. It specifies the carrier and the driver involved. The Freight Order reflects the actual truck run or side carrier.

The content of the Freight Order is the route, i.e., the list of Forwarding Orders in order of priority. Each stage of this route has initial and final Map Locations, start time, duration, and an estimated distance assessed using the Google Maps engine.

Freight Order (TMS)  
FO-00026

Home Print/Send Navigate More options

Route Line Process

Transfer Lines Detach Forwarding Order Stage Entries

Priority/Dr... No. ↑	Sim... Load	Forwarding Order No. ↑	Source Document No.	Mode of Transport	Start Date Time	Duration	Distance (km)	From Location	From Country/R... Code	From City	From Address
→ 10	<input checked="" type="checkbox"/>	OD.00040	101020	ROAD	5/24/2022 12:00 ...	23 minutes 3 seconds	27.24	M0000029	CA	Candiac	201 Rue de Strasboi
20	<input checked="" type="checkbox"/>	OD.00038	101018	ROAD	5/24/2022 12:00 ...	1 hour 2 minutes 42 s...	49.65	M0000029	CA	Candiac	201 Rue de Strasboi
30	<input checked="" type="checkbox"/>	OD.00039	101019	ROAD	5/24/2022 12:00 ...	1 hour 29 minutes 37 ...	71.45	M0000029	CA	Candiac	201 Rue de Strasboi
40	<input checked="" type="checkbox"/>	OD.00041	101021	ROAD	5/24/2022 12:00 ...	2 hours 5 minutes 33 ...	118.30	M0000029	CA	Candiac	201 Rue de Strasboi
100	<input type="checkbox"/>	OD.00040	101020	ROAD	5/24/2022 12:23 ...		0.00	M0000028	CA	Longueuil	3315 Chem. de Cha

Logistic Units Delete Line

Type ↑	No. ↑	Description	No. of Packages	Forwarding Order No. ↑	SSCC	Freight Class	Gross Weight (base) (kg)	Volume (base) (m³)
(There is nothing to show in this view)								

From Location is the Map Location of the corresponding address, in this case, the company's warehouse address. Duration and distance are calculated by the Google Maps service.

List of logistic units (pallets, containers, boxes) that will be delivered by this Freight Order.

Priority - the sequence of order delivery can be set manually or by using an optimization mechanism to find the optimal sequence, minimizing either the distance or the delivery time.

# Capability Guide. Freight Order



Freight Order includes a tool for optimal route creation by identifying the shortest total distance or delivery time.

Google Map interface showing a route starting at Candiac (CA, Candiac, CA-QC J5R 0B4, 201 Rue de Strasbourg) and passing through several stops (A, B, C, D, E) in the Montreal area. The map shows the route in blue and includes standard map controls like zoom and pan.

Route Optimization Wizard dialog box. It shows the start location as M0000029 and the optimization goal set to Distance. The dialog includes a gear icon for settings and a close button (X).



Google Map interface showing the optimized route from Candiac to Montreal. The route is highlighted in blue and passes through stops A, B, C, D, and E. The map shows the route in blue and includes standard map controls like zoom and pan.



# Capability Guide. Freight Order

Expense control/charges in Freight Order.

TMS enables the allocation of transportation-related costs (carrier's bill) to the orders delivered within that specific transportation. Costs can be distributed based on the weight of orders, number of logistic units, evenly, or arbitrarily.

Costs distributed across Forwarding Orders

The screenshot displays the SAP TMS Freight Order (FO-00090) interface. The main view shows the 'Logistic Units' table with two entries: PLT0043 (Pallet EU) and PLT0045 (Pallet EU), both with a quantity of 1. Below this, the 'Charges' section is active, showing a 'Freight' charge with a quantity of 1.00 and a direct unit cost of 400.00 SAR. A 'Select Allocation' dialog box is open, showing the 'Selected Lines Amount' as 400.00. The 'Distribution Type' dropdown is set to 'By Number Of Logistic Units'. The dialog also shows a table of charges to be allocated:

Select	Charges Distribution Ratio	No. ↑	Order Name	Logistic Units	Weight
<input checked="" type="checkbox"/>	0.50	OD.00055	CRONUS U...	1	140.3
<input checked="" type="checkbox"/>	0.50	OD.00057	New Custo...	1	133.92

The dialog also includes buttons for 'OK' and 'Cancel'.



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# Transportation Management System Capability Guide

## Freight Load Management



# Capability Guide. Freight Load Management

Freight Load Management is a tool for planning and managing the distribution of orders among trucks. It facilitates resource need assessment, truck reservation for orders, and dispatching of leased transportation.

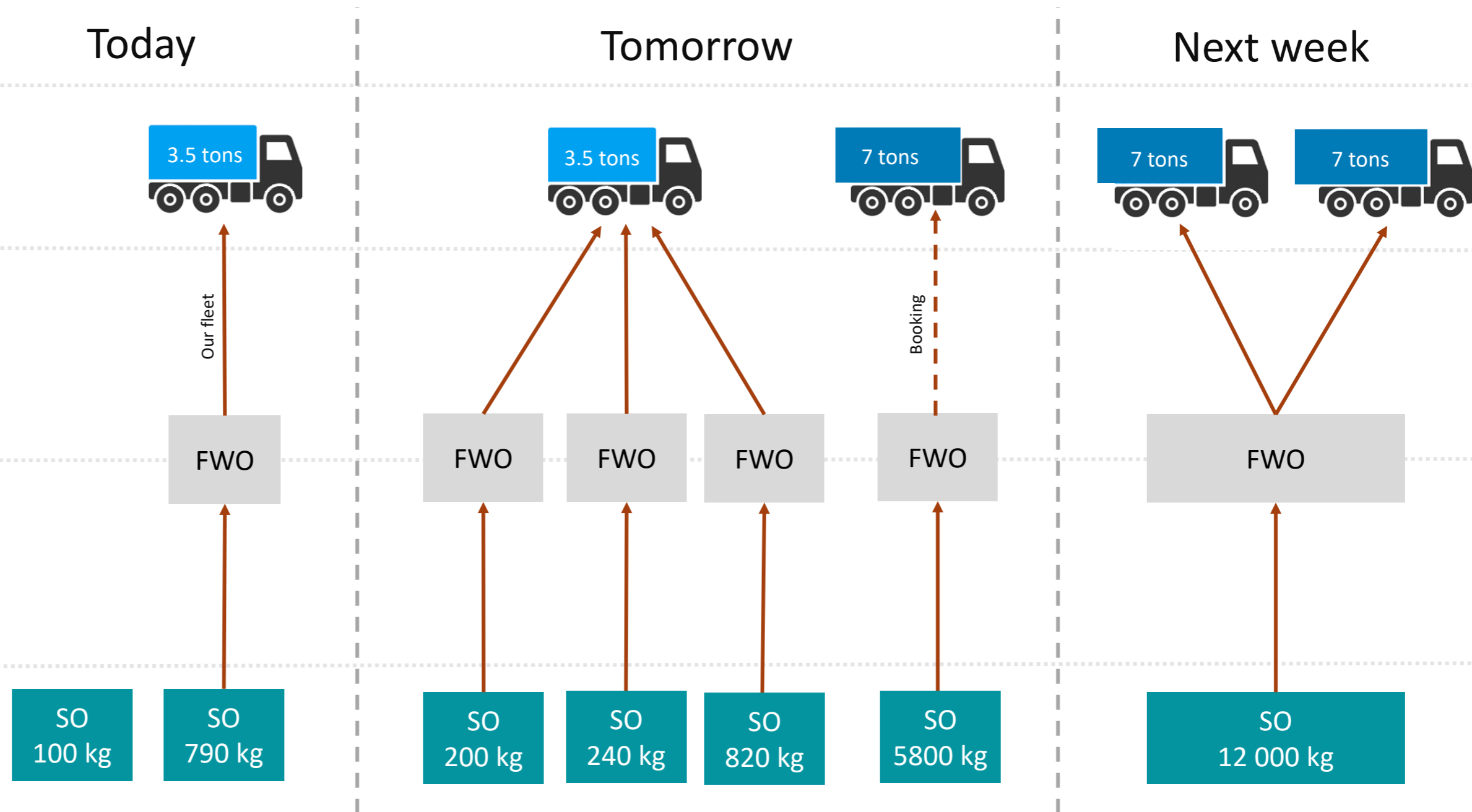
Schedule

Truck trips  
Freight Orders

Transportation is  
planned for the orders

Ready for delivery  
Forwarding Orders

List of orders to be  
delivered  
Sales Orders (SO)





# Capability Guide. Freight Load Management

Freight Load Management is a tool for planning and managing the distribution of orders among trucks. It facilitates resource need assessment, truck reservation for orders, and dispatching of leased transportation.

Load monitoring, specifying where, when, at what time, and with what priority the loading will be conducted, etc.

Transferring transportation orders between trucks or removing them from a truck.

Freight Load Management

Show/Hide Date Filters Previous Period Next Period Update

View by Week Date Filter 12/04/23..12/10/23

Freight Orders Manage Print

New Freight Order Create Warehouse Shipment Open Warehouse Shipment

No.	Loading Bay	Load Priority	Load Date And Time	Load Time	Document Date	Carrier No.	Carrier Name	Vehicle Unit Type Code	Route No.	Warehouse Documents
→ FO-00117	:	0			12/5/2023	UPS	United Parcel Service of Ameri...	TRUCK		-
FO-00118		0			12/5/2023	UPS	United Parcel Service of Ameri...	TRUCK		-
FO-00119		0			12/5/2023	MAERKS	Maerks	TRUCK		-
FO-00121		0			12/5/2023	SUBCONTRA...	Subcontractor	TRUCK		-
FO-00122		0			12/5/2023	SUBCONTRA...	Subcontractor	TRUCK		-
FO-00123		0			12/5/2023	SUBCONTRA...	Subcontractor	TRUCK		-

Freight Order Details Create Warehouse Shipment Transfer Detach Forwarding Order

Priority/Dr... No. ↑	Forwarding Order No. ↑	Stage Description	Source Document No.	Consignee Notes	Shipper Notes	Comment	Consi. Comm
→	100008	Delivery	-				No

Planning Window. The period within which we conduct planning.

List of Freight Orders (trucks) within the selected period among which order distribution is conducted.

Contents of the selected Freight Order, i.e., the list of Forwarding Orders that will be delivered by this Freight Order (truck).





# Capability Guide. Freight Load Management

Freight Load Management is a tool for planning and managing the distribution of orders among trucks. It facilitates resource need assessment, truck reservation for orders, and dispatching of leased transportation.

Placing a transportation order into a truck. Partial reservation of an order is possible, for example, 2/3 of the order travels in one truck and 1/3 in another.

Pool of unassigned transportation orders (Forwarding Order) for the selected period.

Reference to the original order that served as the basis for the transportation order.

Freight Load Management

Show/Hide Date Filters ◀ Previous Period ▶ Next Period ↻ Update

FO-00118		0		12/5/2023	UPS	United Parcel Service of Ameri...	TRUCK		-
FO-00119		0		12/5/2023	MAERKS	Maerks	TRUCK		-
FO-00121		0		12/5/2023	SUBCONTRA...	Subcontractor	TRUCK		-
FO-00122		0		12/5/2023	SUBCONTRA...	Subcontractor	TRUCK		-
FO-00123		0		12/5/2023	SUBCONTRA...	Subcontractor	TRUCK		-

Freight Order Details >

Forwarding Orders | Functions

← Add to Freight Order

Filter: All

No. ↑	Document Date	Route No.	Source Docu...	No. of Packages	Total Gross Weight	Total Volume	Estimated Footage	Planned Reserved Weight	Planned Reserved Volume	Planned Reserved Footage	Shipper Name	Load / Count Code
OD.00084	12/5/2023		101101	2	397.9	12	0.00	0.00	0.00	0.00	CRONUS UK Ltd.	CA
OD.00085	12/5/2023		101102	2	280.6	9	0.00	280.60	9.00	0.00	CRONUS UK Ltd.	CA
OD.00086	12/5/2023		101103	1	397.9	12	0.00	397.90	12.00	0.00	CRONUS UK Ltd.	CA
OD.00087	12/5/2023		101104	2	397.9	12	0.00	397.90	12.00	0.00	CRONUS UK Ltd.	CA
OD.00088	12/5/2023		101105	1	98.35	1.3	0.00	98.35	1.30	0.00	CRONUS UK Ltd.	CA
→ OD.00089	12/5/2023		101098	1	9.55	0.25	0.00	9.55	0.00	0.00	CRONUS UK Ltd.	CA

Control of distribution across trucks.

Order parameters.



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# Transportation Management System Capability Guide

## Settlement



# Capability Guide. Settlement

TMS supports a process of reconciling and finalizing all financial transactions associated with a particular service or operation.

- **Determining Income:** Identifying the total amount that will be billed to the client for the transportation services provided. This involves calculating the charges for all the services rendered during the transportation process, including freight charges, fuel surcharges, and any other additional services.
- **Calculating Costs:** Accounting for all the expenses incurred by the company in the process of providing these services. This could include payments made to third-party service providers, carriers, fuel costs, and any other operational expenses.
- **Final Reconciliation:** The settlement process ensures that all income and expenses are accurately recorded, reconciled, and the net amount (profit or loss) is determined. This step is crucial for financial reporting, budgeting, and financial management within the company.
- **Billing and Payment Processing:** As part of the settlement, invoices are generated for clients based on the determined charges, and payments are processed for any third-party services utilized during the transportation process.

In essence, settlement is a comprehensive financial review and closure process that ensures all monetary aspects of a transportation order are accounted for, from the initial calculation of charges to the final payment and invoicing, ensuring transparency and financial integrity.



# Capability Guide. Settlement

**Determining Income:** Identifying the total amount that will be billed to the client for the transportation services provided. This involves calculating the charges for all the services rendered during the transportation process, including freight charges, fuel surcharges, and any other additional services.

TMS features its own service directory for billing clients, with a linking mechanism to service-type items of the standard Business Central module.

Forwarding Order (TMS) 100009 · INTERMODAL · Adatum Corporation

Settlement | Manage | Calculation | Functions | Prices | Charge Allocation

New Line | Delete Line

Type	Code	Description	Qua...	Price	Curr... Code	Amount	Amount (LCY)	Document Type	Document No.	Document Posting Date	Invoice Line Type	Invoice Line No.	Freight Order No.
Income	FR	Freight	1.00	5,000.00		5,000.00	5,000.00	Invoice	102240	1/10/2024	Item	TMS1001	-
Income	HNDL	Handling	2.00	678.00		1,356.00	1,356.00		-		Item	TMS1000	-
Cost	FREIGHT	Freight	1.00	-648.82		-648.82	-648.82	Invoice	107230	12/5/2023			FO-00118
Cost	FREIGHT	Freight	1.00	-2,000.00		-2,000.00	-2,000.00	Invoice	107226	12/5/2023			FO-00119

Total Income (LCY) ..... 6,356.00      Total Profit (LCY) ..... 3,707.18  
Total Cost (LCY) ..... -2,648.82

Control over whether invoices have been issued for all services, with a link to the line of the specific document.

Display of expected profit converted into local currency.



# Capability Guide. Settlement

**Calculating Costs:** Accounting for all the expenses incurred by the company in the process of providing these services. This could include payments made to third-party service providers, carriers, fuel costs, and any other operational expenses.

TMS has its own charges directory for controlling costs arising during the transportation process, with a mechanism for linking to service-type goods of the standard Business Central.

Forwarding Order (TMS) 100009 · INTERMODAL · Adatum Corporation

Settlement | Manage | Calculation | Functions | Prices | Charge Allocation

Purchase Invoice Line | Posted Purchase Invoice Line | Credit-Memo Line | Delete Allocation

Type	Price	Curr... Code	Amount	Amount (LCY)	Document Type	Document No.	Document Posting Date	Invoice Line Type	Invoice Line No.	Freight Order No.	Customer/Vendor Name	Calc. Qty. as Dist...
Income	5,000.00		5,000.00	5,000.00	Invoice	102240	1/10/2024	Item	TMS1001	-		<input type="checkbox"/>
Income	678.00		1,356.00	1,356.00	0	-		Item	TMS1000	-		<input type="checkbox"/>
Cost	-648.82		-648.82	-648.82	Invoice	107230	12/5/2023	*		FO-00118		<input type="checkbox"/>
Cost	-2,000.00		-2,000.00	-2,000.00	Invoice	107226	12/5/2023	*		FO-00119		<input type="checkbox"/>
→ Cost	500.00		0.00	0.00		-					Fabrikam, Inc.	<input type="checkbox"/>

Total Income (LCY) ..... 6,356.00      Total Profit (LCY) ..... 3,707.18  
 Total Cost (LCY) ..... -2,648.82

Assignment and distribution of transportation-related costs enable control over the allocation of purchase invoices to specific transportation orders.

Cost distribution can occur either through the Freight Order or directly. In this scenario, Freight Order expenses for transportation services can be evenly distributed among the orders contained within the Freight Order, or proportionally based on weight, or the number of logistic units in them.



# Capability Guide. Settlement

**Final Reconciliation:** The settlement process ensures that all income and expenses are accurately recorded, reconciled, and the net amount (profit or loss) is determined. This step is crucial for financial reporting, budgeting, and financial management within the company.

The screenshot shows the Dynamics 365 Business Central interface for 'CRONUS UK Ltd.' with a navigation menu including Finance, Cash Management, Sales, Purchasing, and TMS. The main area displays a table of 'Forwarding Orders' with the following data:

No. ↑	Number of packages	Total Income (LCY)	Total Cost (LCY)	Estimated Profit (LCY)	Invoiced Amount (LCY)	Paid %	Total Income (USD)	Total Cost (USD)	Estimated Profit (USD)	Uninvoiced Amount (LCY)
<a href="#">DLV.00001</a>	1	1,000.00	-800.00	200.00	0.00	0.0%	1,541.25	-1,233.00	308.25	200.00
DLV.00004	0	0.00	-100.00	-100.00	0.00	0.0%	0.00	-154.13	-154.13	-100.00
DLV.00005	5	190.00	0.00	190.00	0.00	0.0%	292.85	0.00	292.85	190.00
DLV.00006	0	190.00	0.00	190.00	0.00	0.0%	292.85	0.00	292.85	190.00
DLV.00007	0	190.00	0.00	190.00	0.00	0.0%	292.85	0.00	292.85	190.00
DLV.00009	0	190.00	-190.00	0.00	0.00	0.0%	292.85	-292.84	0.01	0.00

For these orders, expenses have not been accounted for or allocated.

Calculation of profitability metrics in an additional reporting currency.

Order control function for managers for services rendered but not yet invoiced to clients.



# Capability Guide. Settlement

**Billing and Payment Processing:** As part of the settlement, invoices are generated for clients based on the determined charges.

One-click invoicing directly from the Forwarding Order. The invoice will be issued to the client in the currency defined in the Ordering Party section and will include all not-invoiced lines with the type "Income."

The screenshot shows the 'Forwarding Order (TMS)' interface for 'DLV.00005 · MULTILOAD2 · Coca Cola Ltd'. The 'Invoicing' menu is highlighted, showing options: 'Create Sales Invoice', 'Create Credit Memo', and 'Update Lines'. A tooltip indicates: 'Create sales order or invoice for customer. The forwarding order must have a status that allows creates invoices.' Below the menu, there are tabs for 'Settlement', 'Manage', 'Calculation', 'Functions', 'Prices', and 'Charge Allocation'. A table lists charges with columns: Type, Code, Description, Qua..., Price, Currency Code, Amount, Amount (LCY), Document Type, Document No., Document Posting Date, Invoice Line Type, Invoice Line No., and Fre No.

Type	Code	Description	Qua...	Price	Currency Code	Amount	Amount (LCY)	Document Type	Document No.	Document Posting Date	Invoice Line Type	Invoice Line No.	Fre No
→ Income	FR	Freight	1.00	100.00		100.00	100.00		-		Item	TMS1001	-
Income	FRE	Freight Express	1.00	60.00		60.00	60.00	0	-		Item	TMS1003	-
Income	HNDL	Handling	1.00	30.00		30.00	30.00	0	-		Item	TMS1000	-

Summary values at the bottom:

- Total Income (LCY) ..... 190.00
- Total Profit (LCY) ..... 190.00
- Total Cost (LCY) ..... 0.00



Customized invoices for the client using Word templates.



Payments are entered into the system and applied to invoices using the standard application functionality of Business Central.



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# Transportation Management System Capability Guide

## Maps





# Capability Guide

The MAP Locations mechanism is a control feature for pinpointing exact locations on a map by utilizing geocoding and address lookup. This allows for more precise identification of the delivery point than by address alone.

Customer Card

C00020 · Adatum Corporation

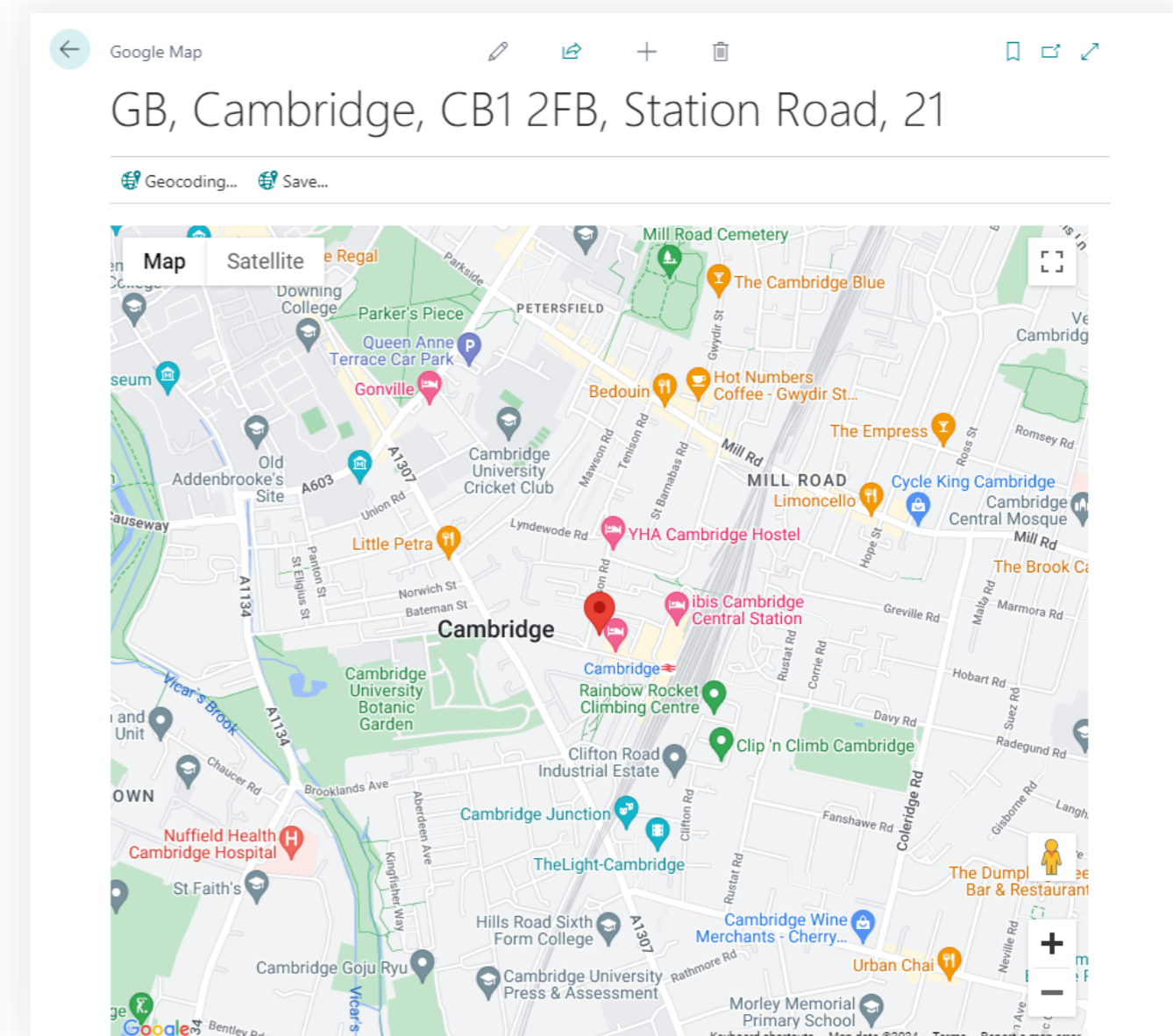
Home Request Approval New Document Prices & Discounts Customer Report Actions Related Reports Automate Fewer options

Contact Apply Template Merge With... Send Email

IC Partner Code		Document Sending Profile	DIRECTFILE
Balance (LCY)	12,296.40	Total Sales - Fiscal Year	
Balance (LCY) As Vendor	0.00	Costs (LCY)	
Balance Due (LCY)	12,296.40	Profit (LCY)	
Credit Limit (LCY)	100,000.00	Profit %	
Blocked		Last Date Modified	1/10/2024
Privacy Blocked	<input type="checkbox"/>	Disable Search by Name	<input type="checkbox"/>
Salesperson Code	JO		

**Address & Contact**

<b>Address</b>		Phone No.	
Address	Station Road, 21	Mobile Phone No.	
Address 2		Email	robert.townes
Country/Region Code	GB	Home Page	
City	Cambridge	<b>Contact</b>	
County		Contact Name	Robert Towne
Post Code	CB1 2FB		

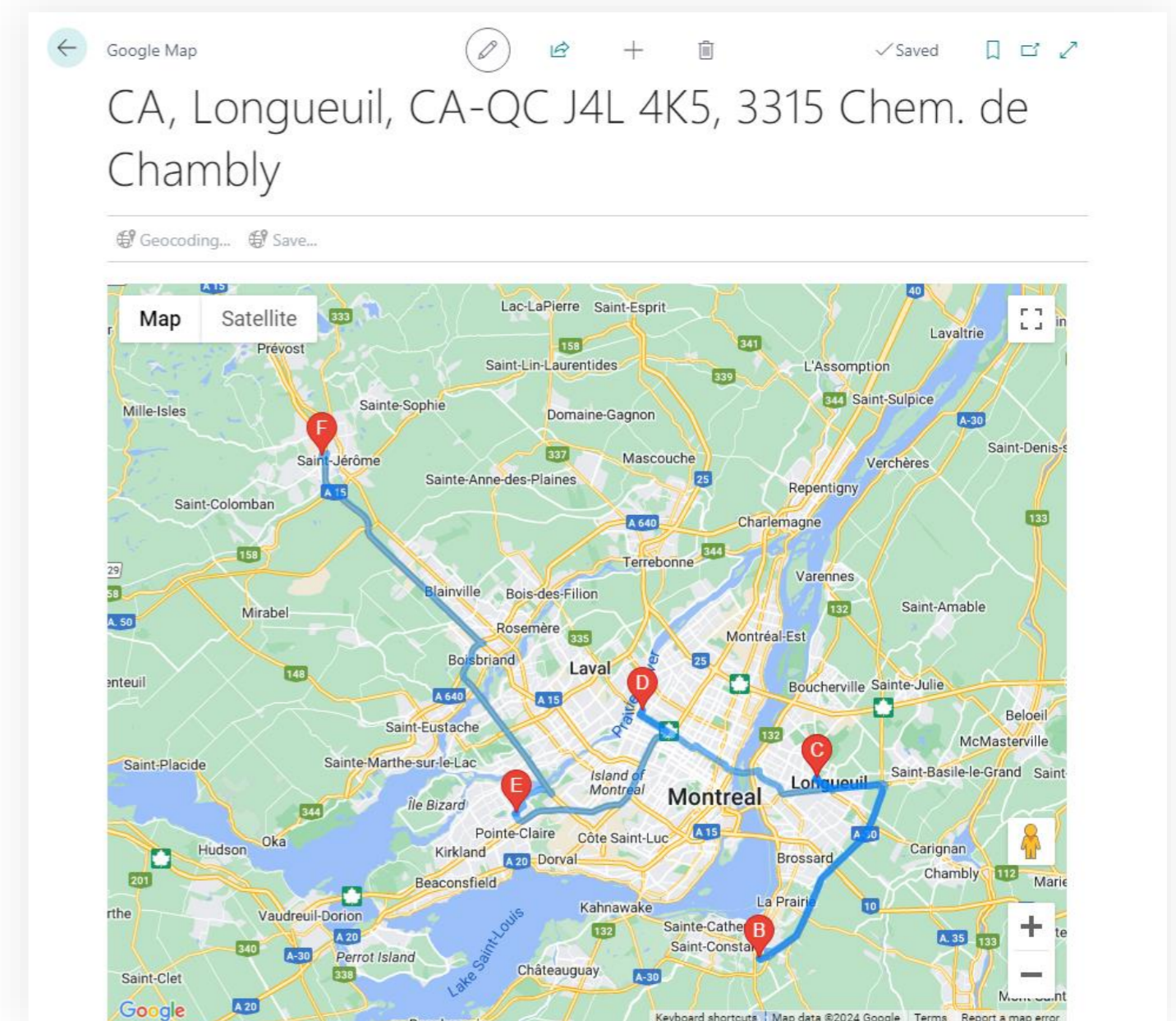
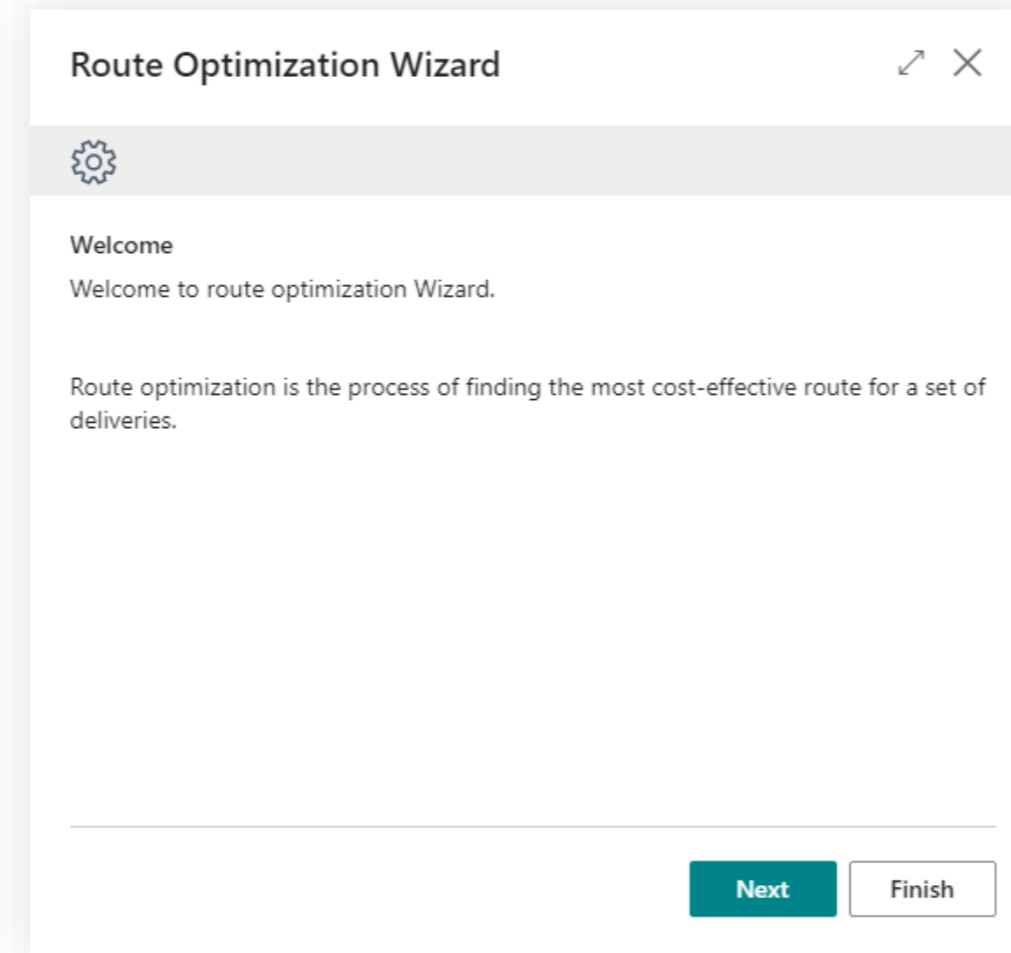




# Capability Guide

Integration with Google Maps for constructing the optimal delivery route between MAP locations with the capability for optimization based on distance or duration criteria.

## Freight Order\*



\*The Freight Order is a TMS system document that controls HOW the cargo will be transported.



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# Transportation Management System Capability Guide

## Proof of Delivery



# Capability Guide. Proof of Delivery

The integrated Proof of Delivery system allows for the monitoring of the current status of freight order execution within the system. Drivers, using a mobile application, provide updates on the delivery process stage or report on non-standard situations.

The screenshot displays a TMS interface for a Freight Order (FO-00026). The interface includes a header with navigation options (Home, Print/Send, Navigate, More options) and a 'Vehicle and Driver' section showing 'Kenworth C509', 'BIG\_TRUCK', and 'EHENDERSON'. Below this is a table of transfer lines with columns for Priority/Driver No., From Country/R... Code, From City, and From Address. A mobile app view is overlaid on the screen, showing a 'Freight Order' summary with fields for Number (FO-00024), Document Date (24.05.2022), Load DateTime (01.01.1 2:30), Load Priority (0), Status (1.PLAN), Driver (EHENDERSON), and Comment (Load 5pm Gate1). The mobile app also shows a 'Route' section with three legs of the journey, including dates, times, and addresses.

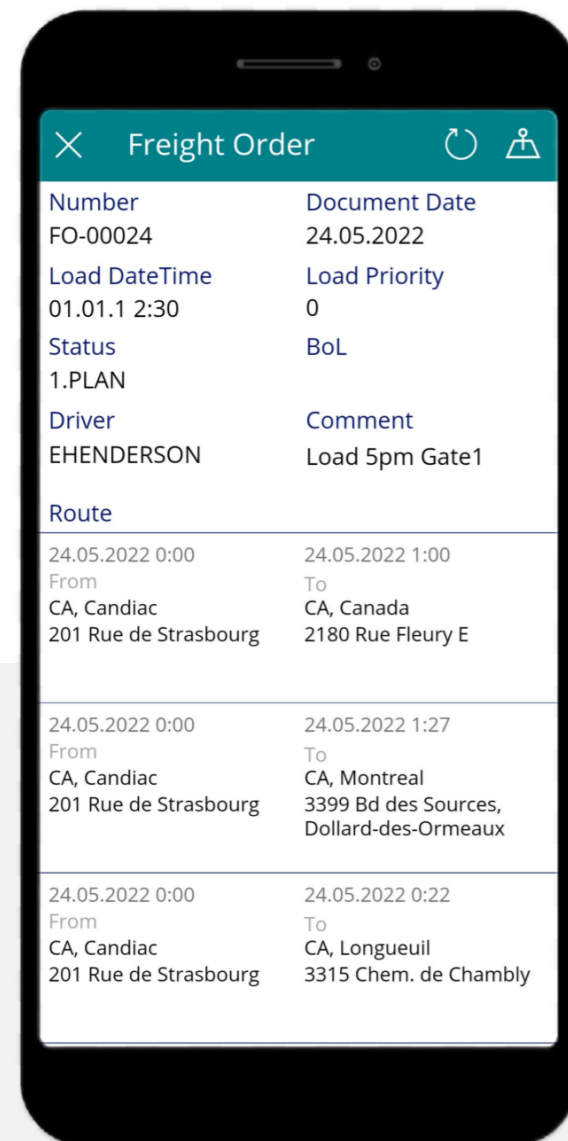
Priority/Dr... No. ↑	From Country/R... Code	From City	From Address
→ 10	CA	Candiac	201 Rue de Strasbourg
20	CA	Candiac	201 Rue de Strasbourg
30	CA	Candiac	201 Rue de Strasbourg
40	CA	Candiac	201 Rue de Strasbourg
100	CA	Longueuil	3315 Chem. de Chambly

To City	To Address	Execution Status Code
Longueuil	3315 Chem. de Chambly	05.DELIVERED
Canada	2180 Rue Fleury E	ERR.EXCEPTI...
Montreal	3399 Bd des Sources, Dollard-...	05.DELIVERED ERR.EXCEPTION
Saint-Jérôme	298 Rue de Martigny O	
Candiac	201 Rue de Strasbourg	ERR.FAILED A...

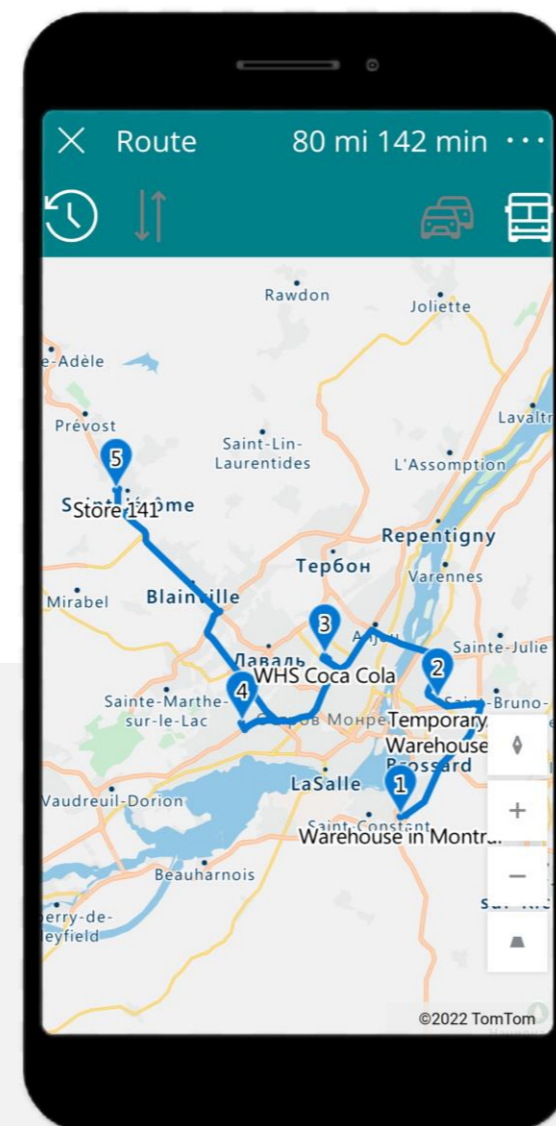
# Capability Guide. Proof of Delivery



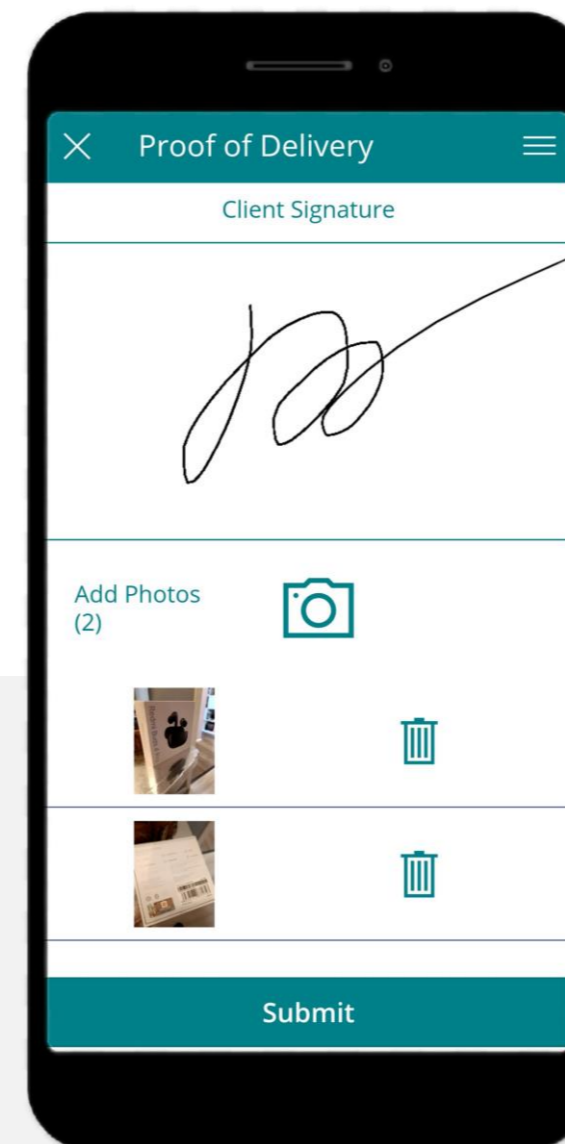
## Proof of Delivery Built-in App



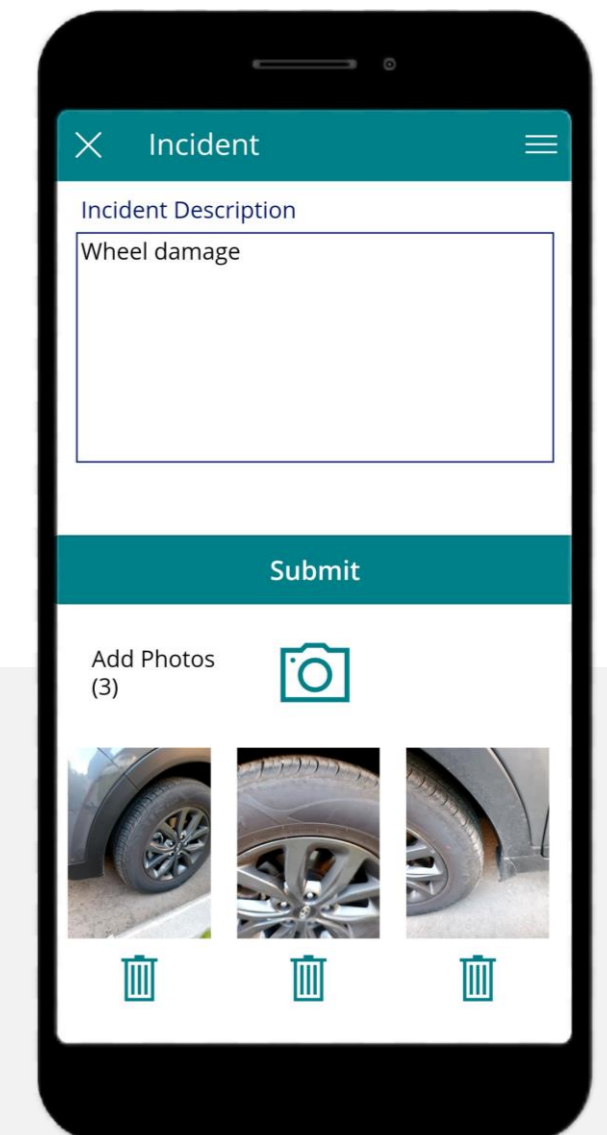
Drops



Routing



Sing on Glass



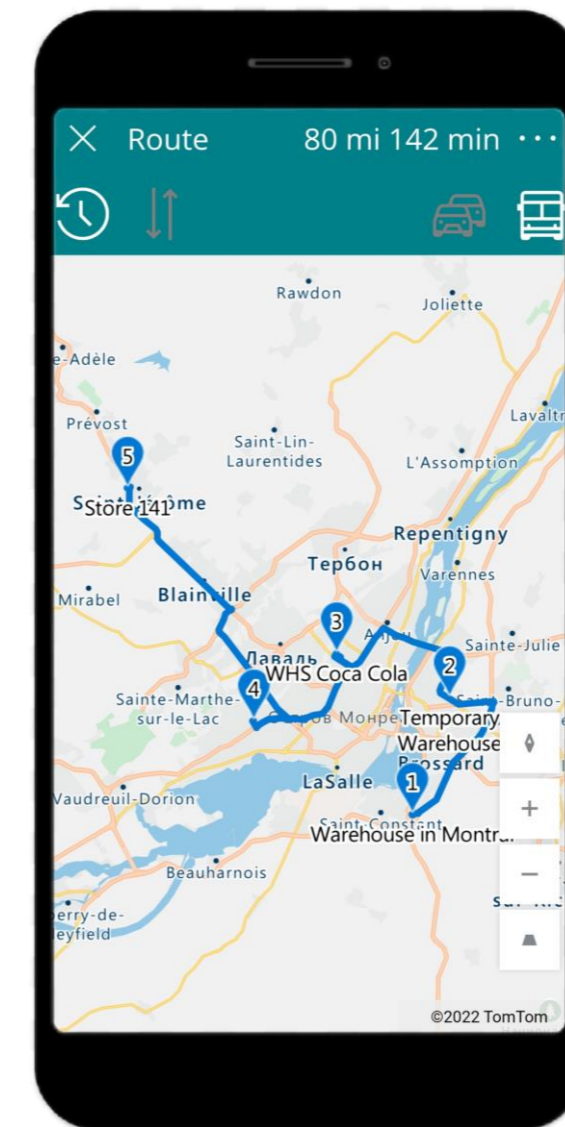
Incidents

# Capability Guide. Proof of Delivery



## Key Highlights

- TomTom maps engine, which is informed about road accessibility for trucks.
- Unified Microsoft technology stack.
- Microsoft PowerApps development platform.
- Fully open-source code for client customization.
- Single Microsoft licensing system.



PowerApps



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# Transportation Management System Capability Guide

Other

# Our logistics solutions stack

Logistics	Process	Documents	TMS	Logistic Units	WMS
Inbound	External	Transportation	✓		
	Internal	Purchase order	✓	✓	
Warehouse Receipt				✓	
Warehouse (Bins)		Warehouse Put-away			✓
		Inventory Put-away			✓
		Logistic Units ops.		✓	✓
		Inventory Pick			✓
		Warehouse Pick			✓
		Warehouse Shipment			✓
Outbound	Internal	Sales order	✓	✓	
	External	Transportation	✓		