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Transportation Management System Capability Guide

Capability Guide



Base use scenarios

The TMS solution is ideal for two usage scenarios:

- if you are a Shipper company that manages the transportation process of its sales (and purchase) orders and uses either its own transport with its drivers or hires, as well as uses third-party carriers.
- 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 utilize services of third-party carriers. In this scenario, the mechanism for cost control and transparency in the invoicing process for transportation is crucial.

Capability Guide. Features



Key Features

- ✓ Order Management
- ✓ Fleet Management
- ✓ Carrier Management
- ✓ Driver Management
- ✓ Multi-stage transportation
- ✓ LTL / Shared Truckload
- ✓ Billing & Invoicing
- ✓ Settlement
- ✓ Routing
- ✓ Microsoft Dynamics 365 Business Central Technological Platform
- ✓ Seamless integration with Business Central functionality (Finance, Bank, Payments, Sales, Purchase modules)
- ✓ Google MAPs
- ✓ Rest API for External Systems
- ✓ Power BI Integration

Capability Guide. How it works



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

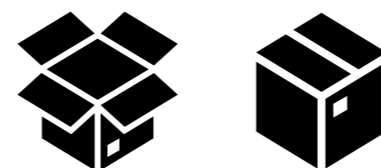
Forwarding Order

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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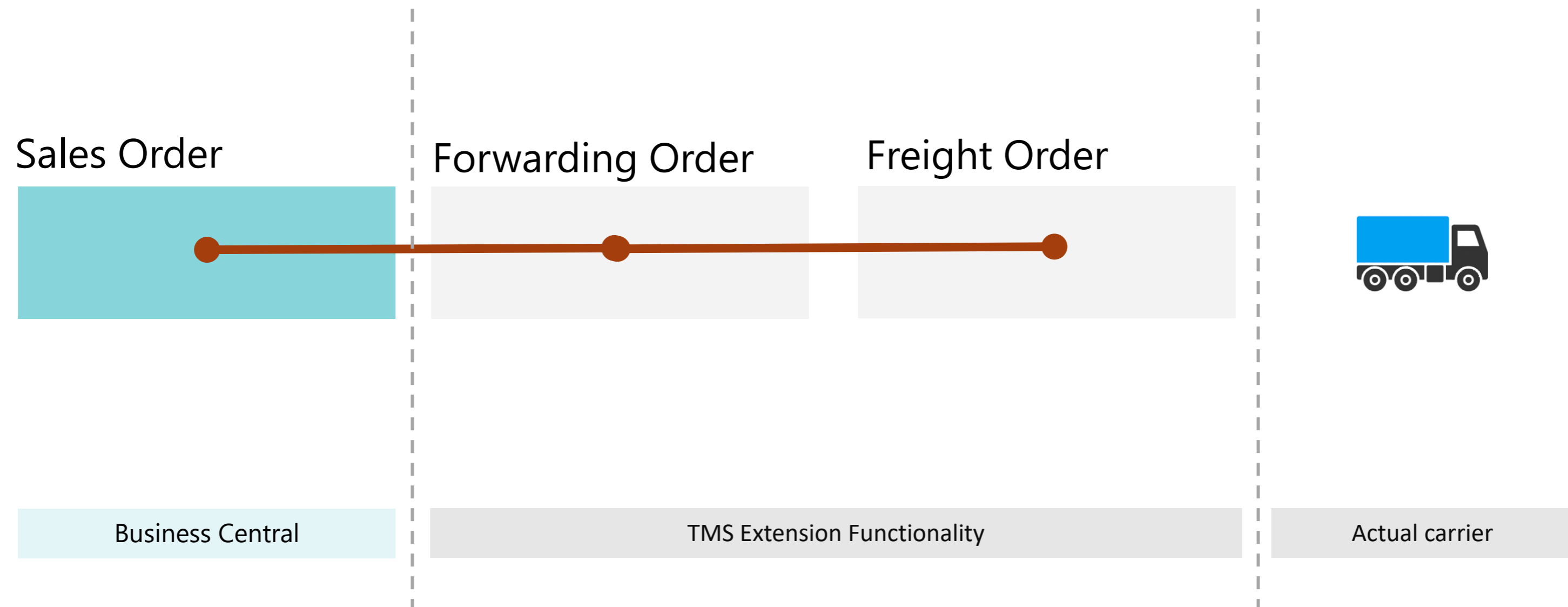
Transportation Management System Capability Guide

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

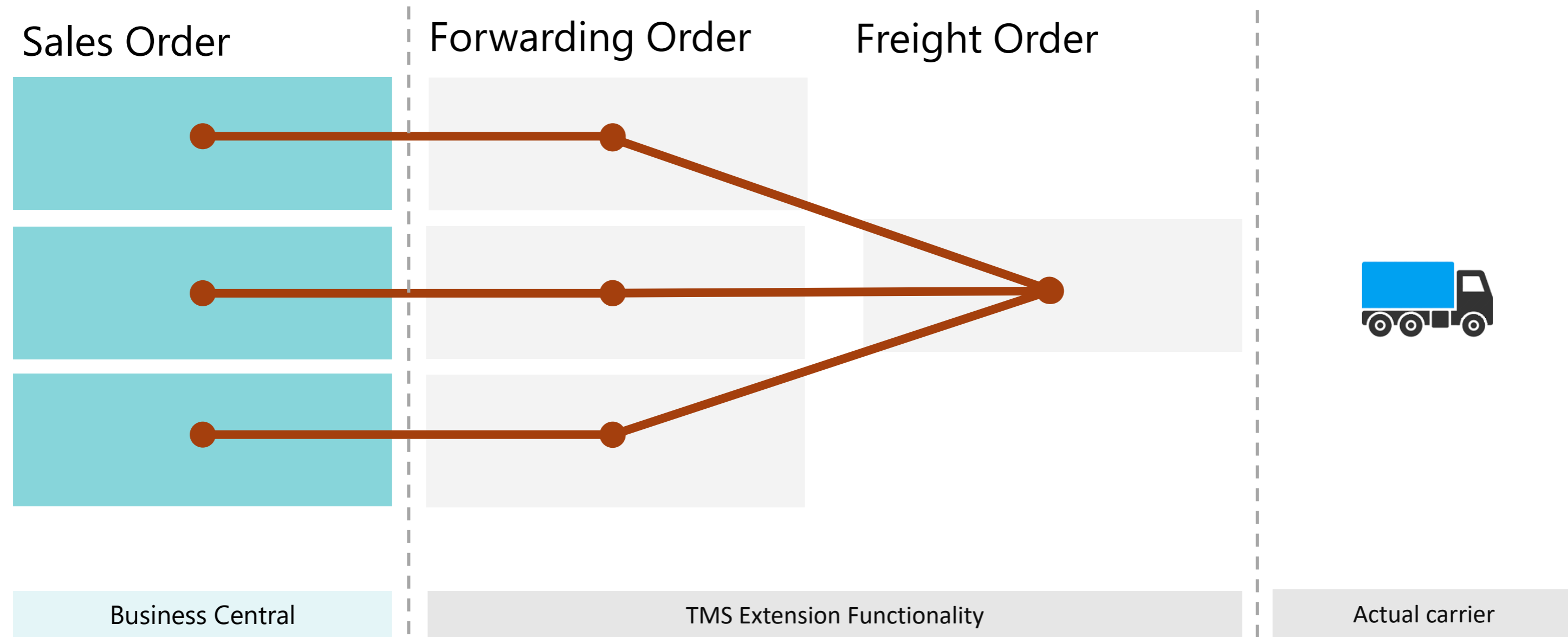
Delivery of a large order by multiple carriers or trucks. TMS enables the transfer of a large sales order for transportation by creating a Forwarding Order and generating as many Freight Orders as needed to deliver the large sales order.





Capability Guide. Shipper Scenario

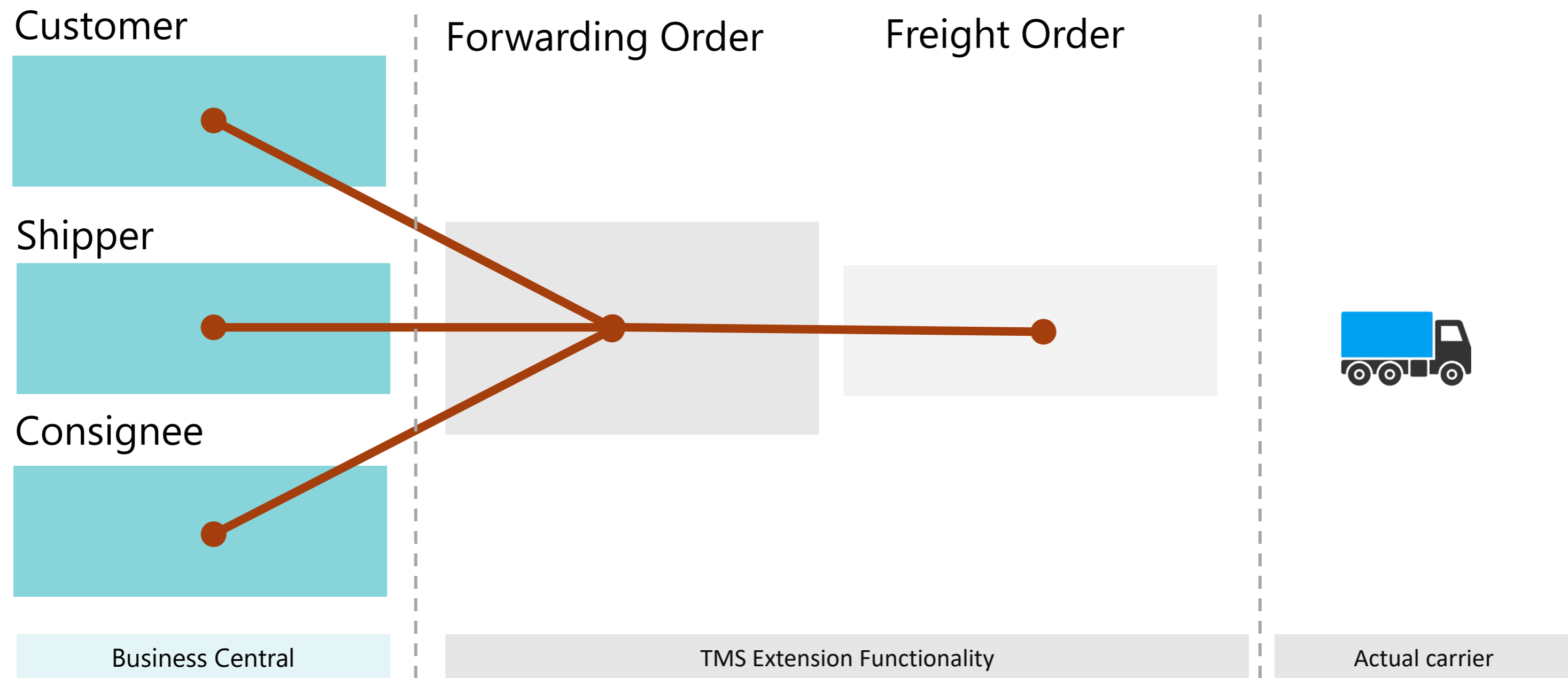
Organization of delivery for multiple orders by one truck or carrier. TMS employs tools such as Freight Load Management for distributing sales orders among trucks, considering weight and volume limitations.





Capability Guide. LSP Scenario

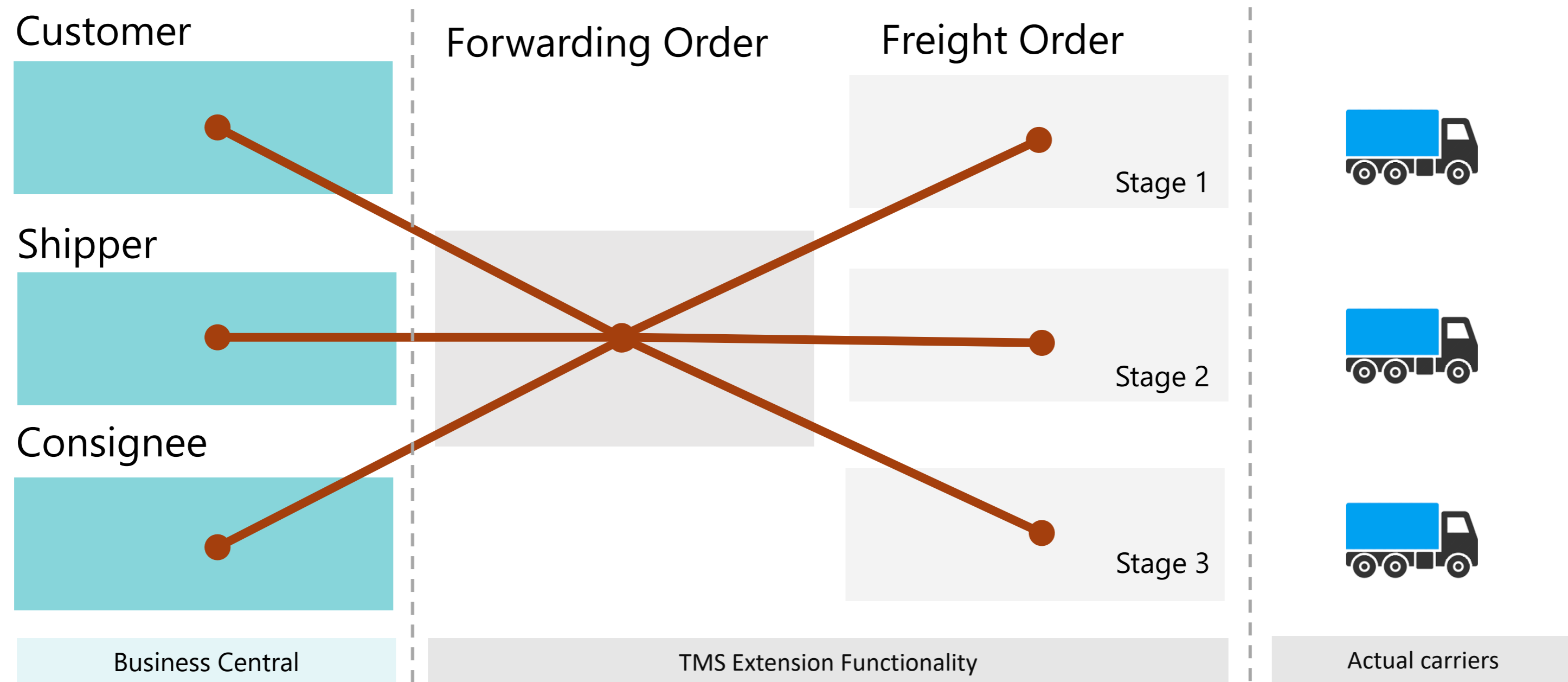
Management of the client cargo delivery process using own or leased transportation from other carriers. TMS enables the establishment of a business process for logistics companies that manage the transportation of their clients' cargo.





Capability Guide. LSP Scenario

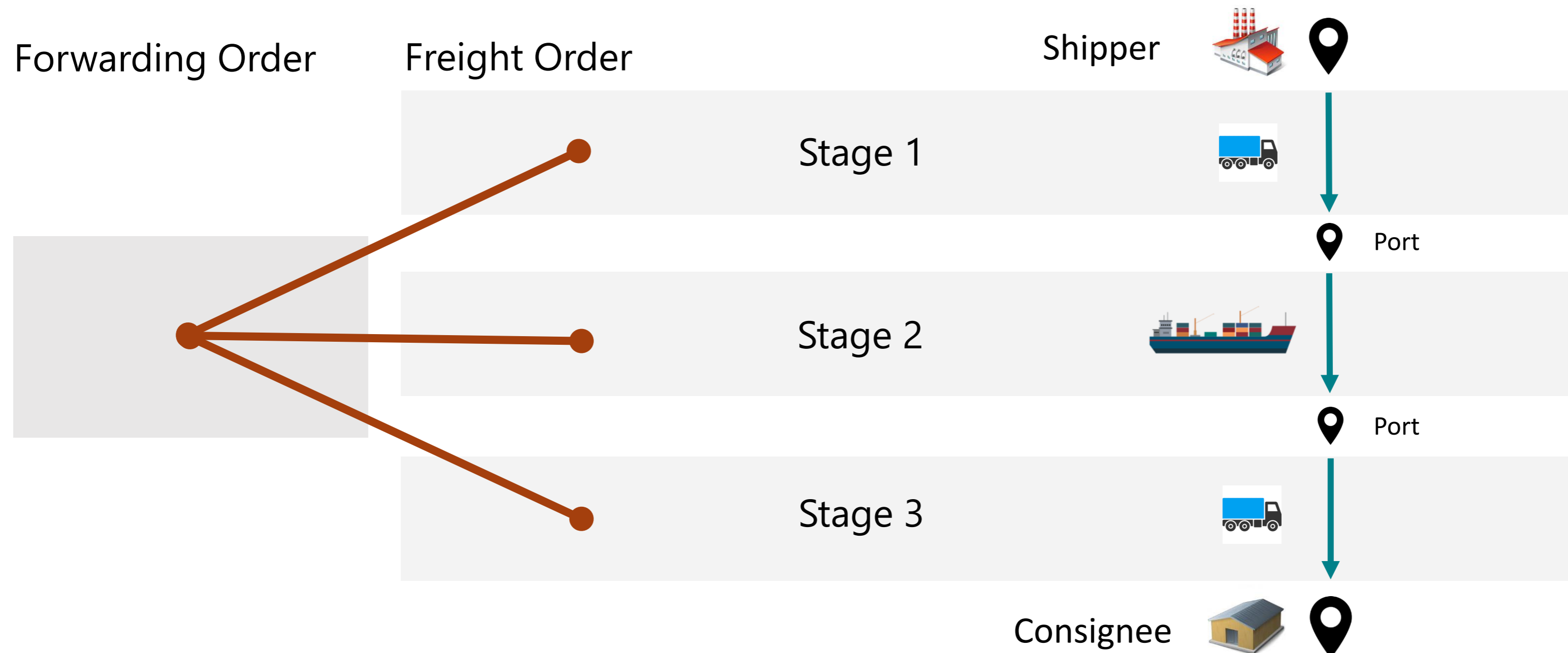
Organization of multi-stage, multi-step transportation. TMS facilitates the division of complex transportation processes into stages, with each stage or leg being executed by a separate carrier. It also allows for the monitoring of revenues and expenses within a unified transportation process.





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.

Forwarding Order (TMS)
100009 · INTERMODAL · Adatum Corporation

Home Logistic Units Print/Send Invoicing Navigate More options

General

Type: INTERMODAL Status Code: 1.NEW

References

External Tracking Number: [] Document Date: 1/10/2024

Master Waybill: [] Posting Date: 1/10/2024

House Waybill: [] Comment: []

Consol Number: [] Route No.: []

Reference No.: []

Ordering Party

Order Party Type: Customer Currency Code: []

Order Party No.: C00020 Salesperson Code: JO

Order Party Name: Adatum Corporation Incoterm: []

Order Party Address: Station Road, 21

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

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.

Forwarding Order (TMS)
100009 · INTERMODAL · Adatum Corporation

Home Logistic Units Print/Send Invoicing Navigate More options

Shipper & Consignee Show more

Shipper

Shipper Type Customer

Shipper No. 30000

Shipper Name School of Fine Art

Load Address Code

Load Address 10 High Tower Green

Load Address, City Miami

Shipper Notes

Show on Map

Consignee

Consignee Type Customer

Consignee No. C00020

Consignee Name Adatum Corporation

Unload Address Code

Unload Address Station Road, 21

Unload Address, City Cambridge

Consignee Notes

Show on Map

Plan

Start

Requested Pick-up Datetime

Planned Start Datetime

Actual Start Date

End

Requested Delivery Datetime

Planned End Datetime

Actual End Date

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

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 'Freight Order (TMS)' form for 'FO-00026'. The form is divided into two main sections: 'General' and 'Pay-to'. The 'General' section contains 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 contains 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'. Annotations with red lines point to the 'No.' field, the 'Pay-to Vendor No.' field, the 'Load Priority' field, and the 'Route No.' field.

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.

Carrier		Tracking Information	
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		Driver	
Vehicle No.	KENWORTH	Driver No.	EH
Vehicle Name	Kenworth C509	Driver Name	EHENDERSON
Vehicle Unit Type Code	BIG_TRUCK		
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 major roads and landmarks.

Route Optimization Wizard dialog box. The "Start MAP Location" is set to M0000029. The "Optimize by" dropdown is set to "Distance". The "Best result" is 118,343.00. The "Optimize by" dropdown is also set to "Distance". Buttons for "Back", "Next", and "Finish" are visible at the bottom.

Google Map interface showing the optimized route starting at Candiac (CA, Candiac, CA-QC J5R 0B4, 201 Rue de Strasbourg) and passing through stops A, B, C, D, and E in the Montreal area. The route is highlighted in blue. The map shows major roads and landmarks.





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 window 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 visible, showing a 'FREIGHT' charge with a quantity of 1.00 and a direct unit cost of 400.00 SAR. An 'Allocation' dialog box is open, titled 'Select Allocation - OD.00055 · OUT.DELIVERY · Village des Valeurs'. The dialog shows a 'Selected Lines Amount' of 400.00 and a 'Distribution Type' dropdown menu with options: 'By Number Of Logistic Units', 'Equal', 'By Gross Weight', 'Selected Forwarding Orders', and 'By Footage'. The 'By Number Of Logistic Units' option is selected. Below the dropdown, a table lists the allocation details for two forwarding orders:

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 Cust...	1	133.92

The dialog also includes 'OK' and 'Cancel' buttons at the bottom right.



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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.

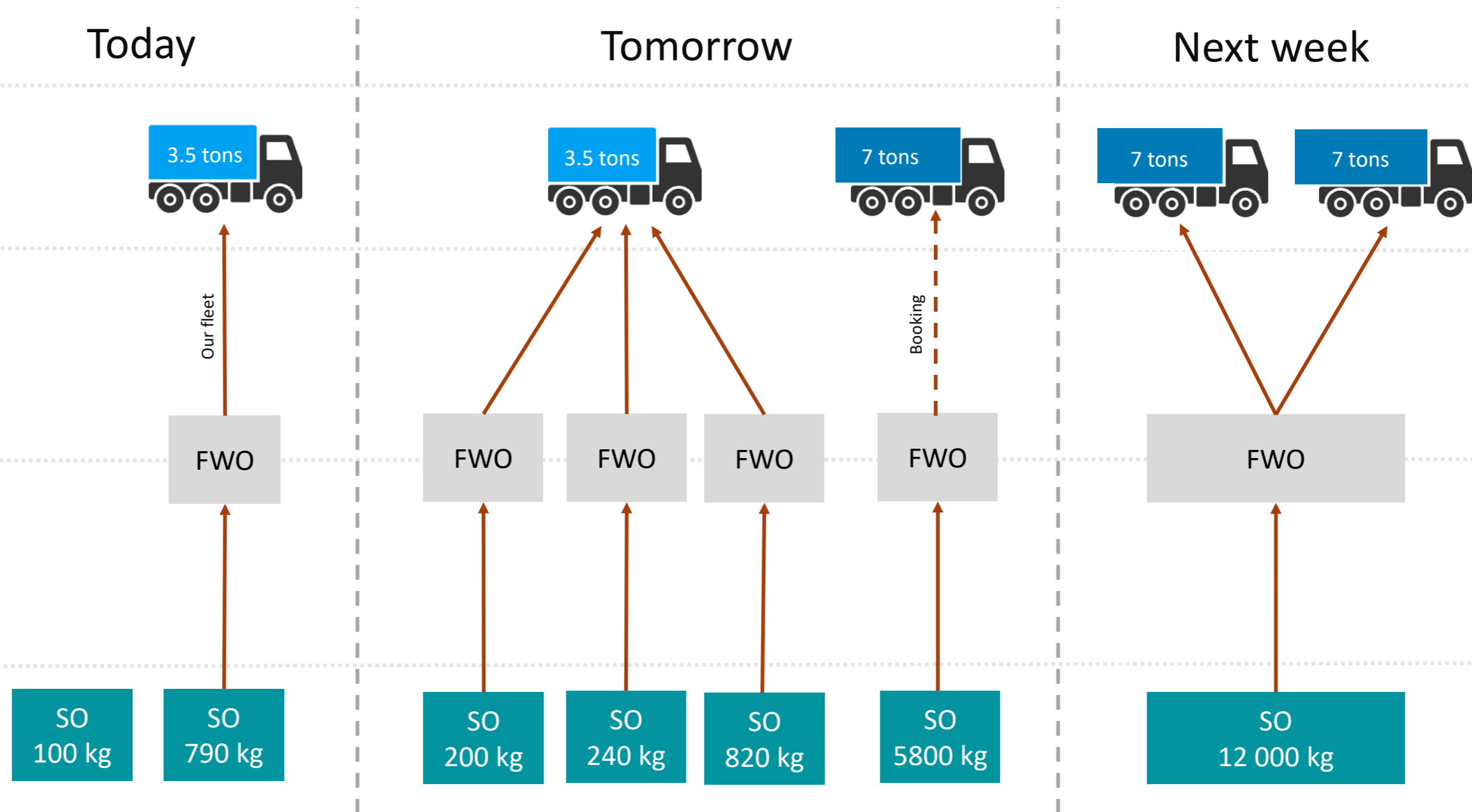
Schedule

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.

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.

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)
DLV.00001	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 for 'Create Sales Invoice', 'Create Credit Memo', and 'Update Lines'. Below the menu is a table of charges with the following data:

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 of the interface:

- 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

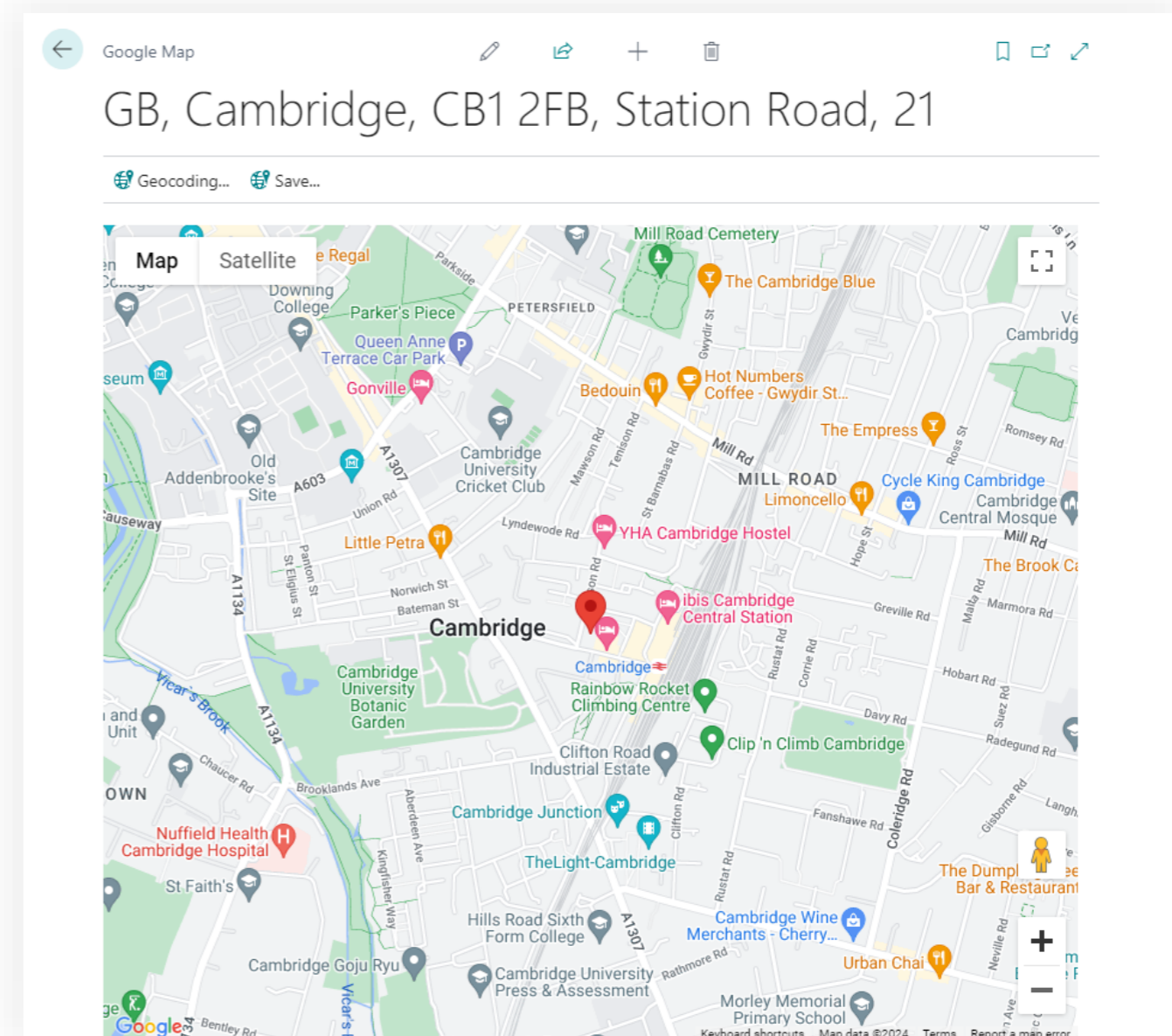
Home Request Approval New Document Prices & Discounts Customer Report Actions Related Reports Automate Fewer options

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

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

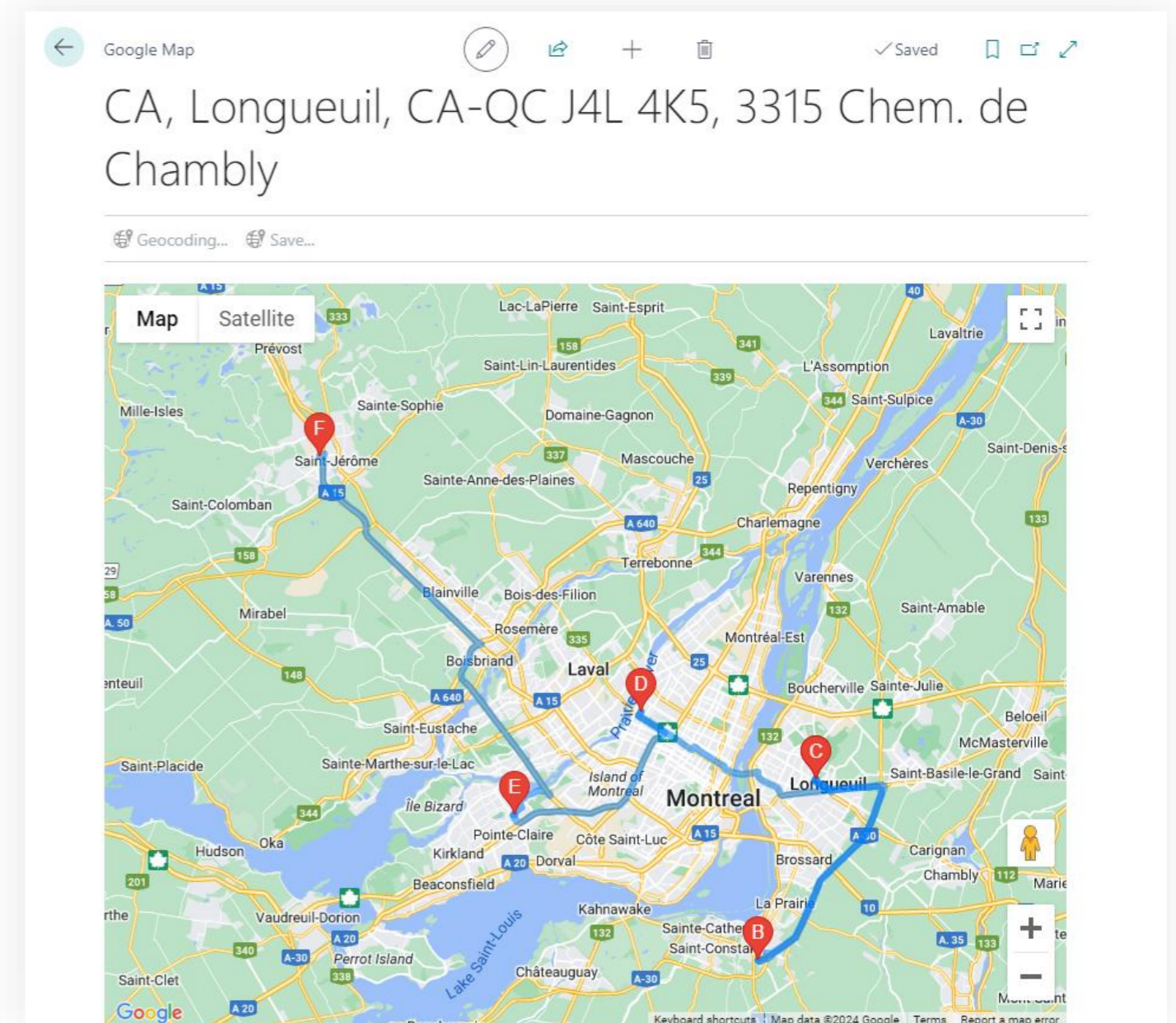
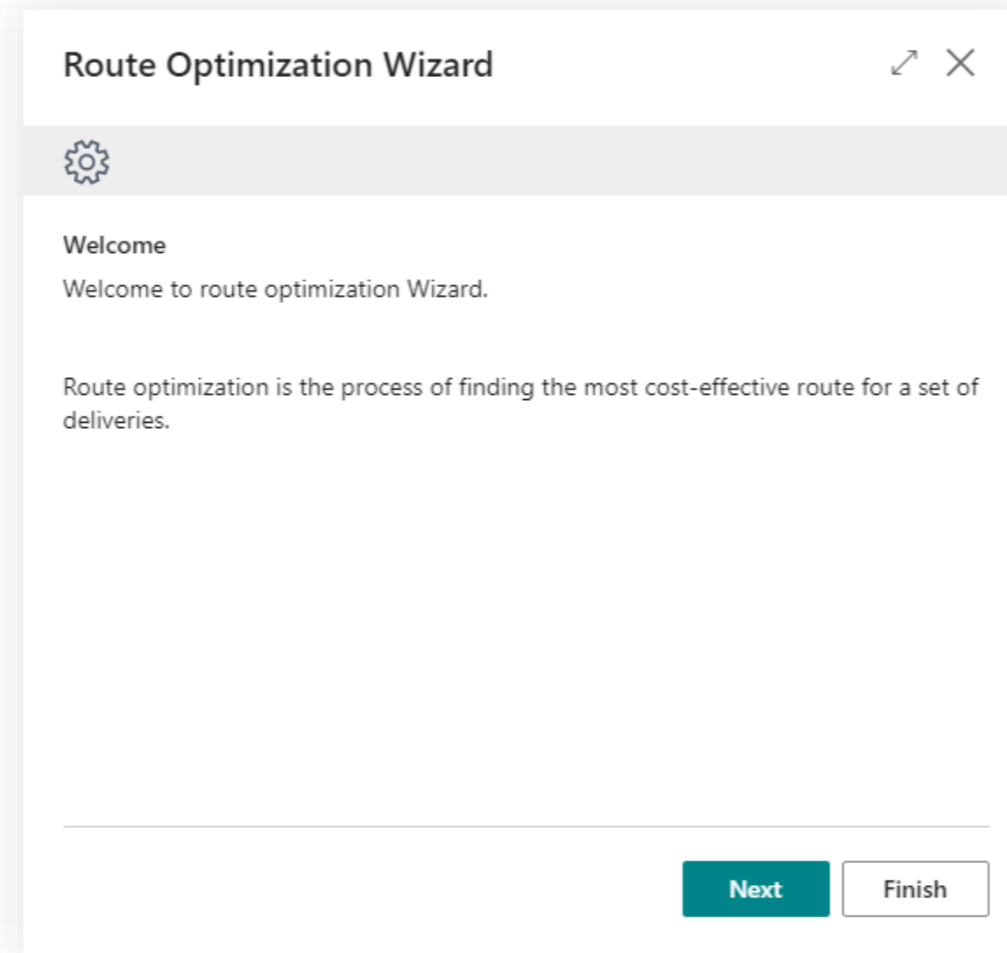


Capability Guide



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 route 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 details for the Freight Order, including 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.

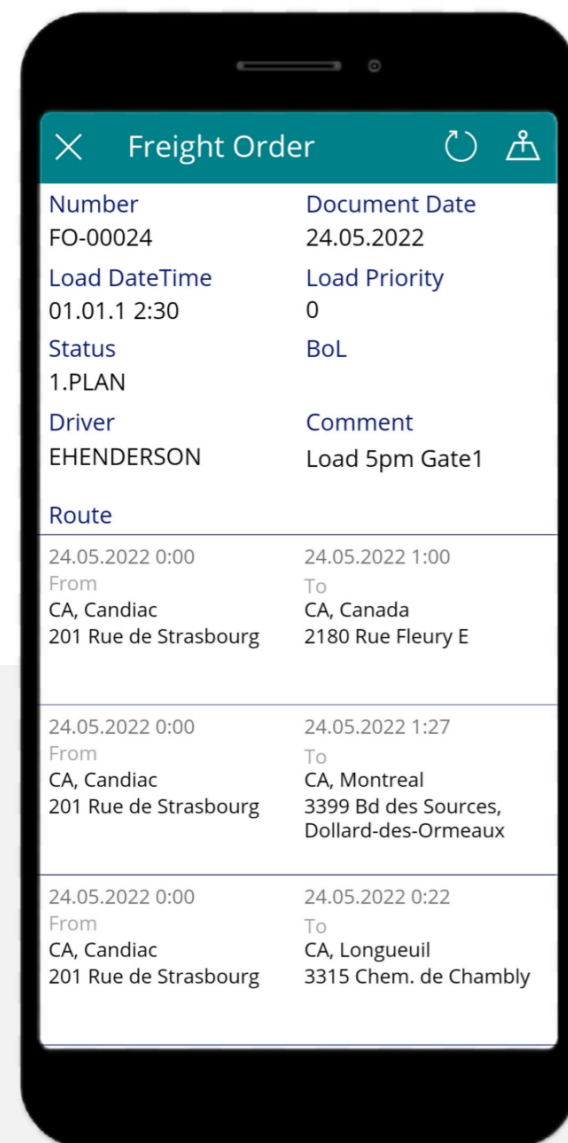
Priority/Dr... No. ↑	From Country/R... Code	From City	From Address
→ 10	CA	Candiac	201 Rue de Strasbourg
20	CA	Candiac	201 Rue de Strasbourg
30	CA	Candiac	201 Rue de Strasbourg
40	CA	Candiac	201 Rue de Strasbourg
100	CA	Longueuil	3315 Chem. de Chambly

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...

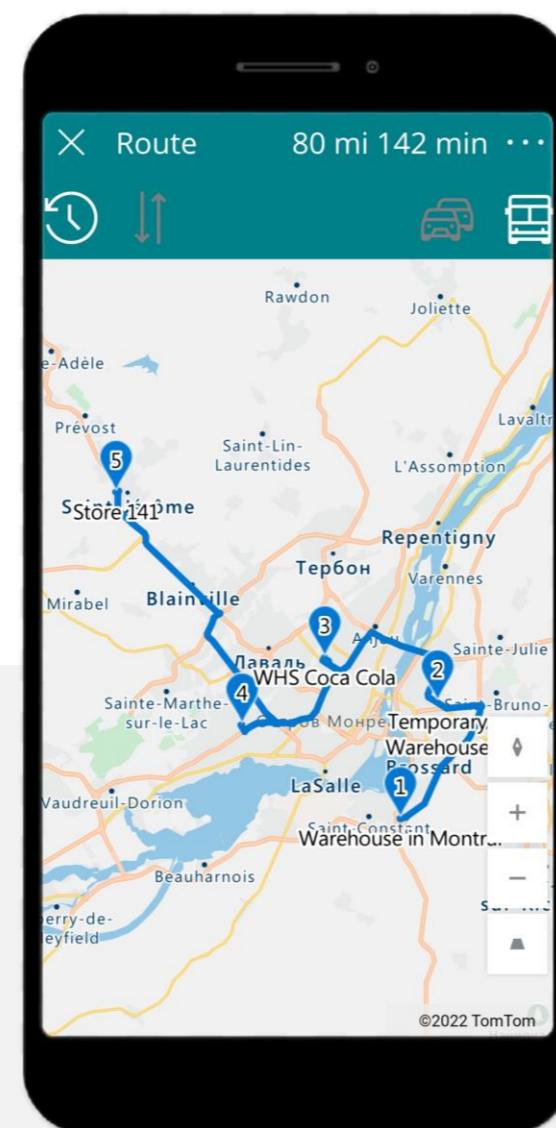
Capability Guide. Proof of Delivery



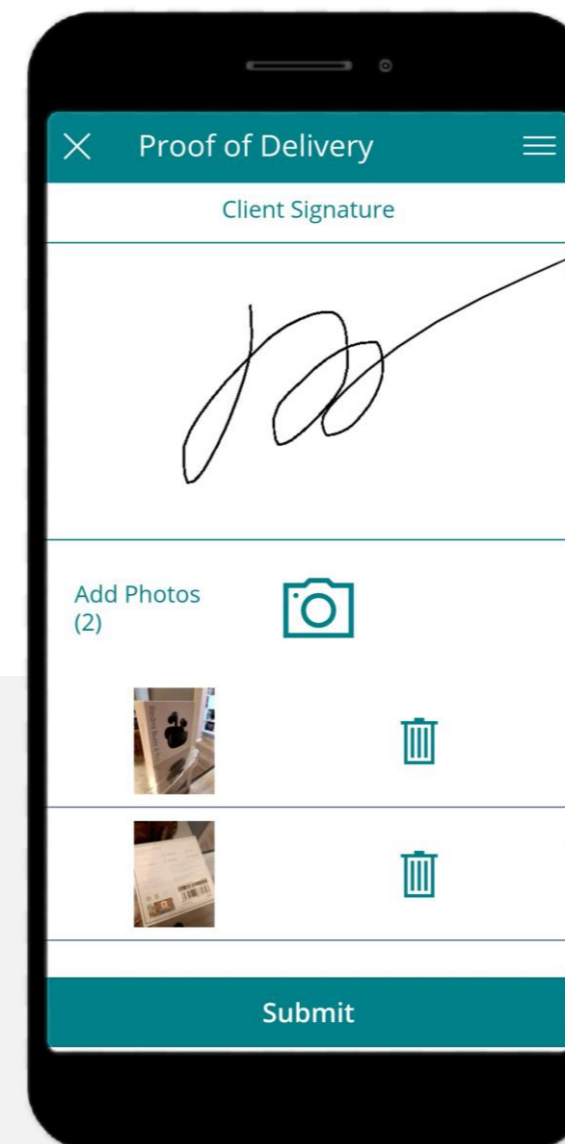
Proof of Delivery Built-in App



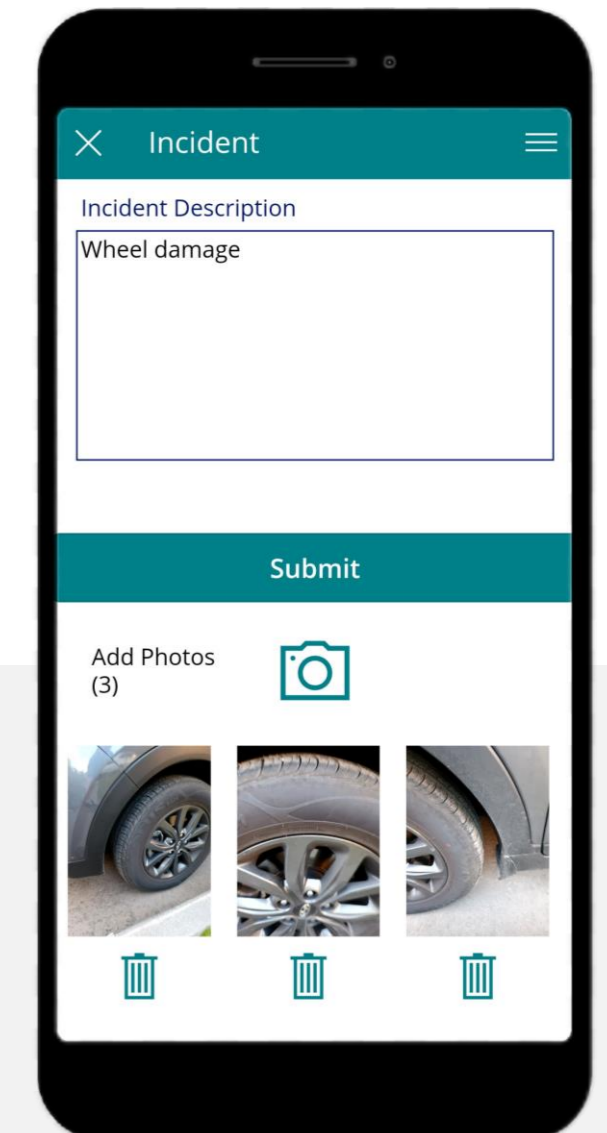
Drops



Routing



Sing on Glass



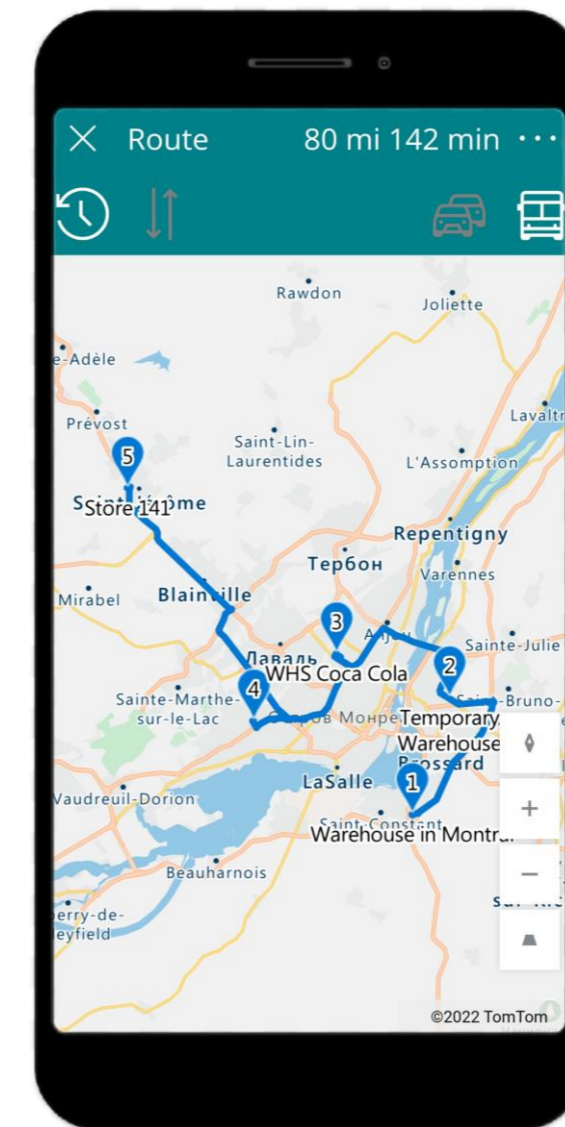
Incidents

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	✓		