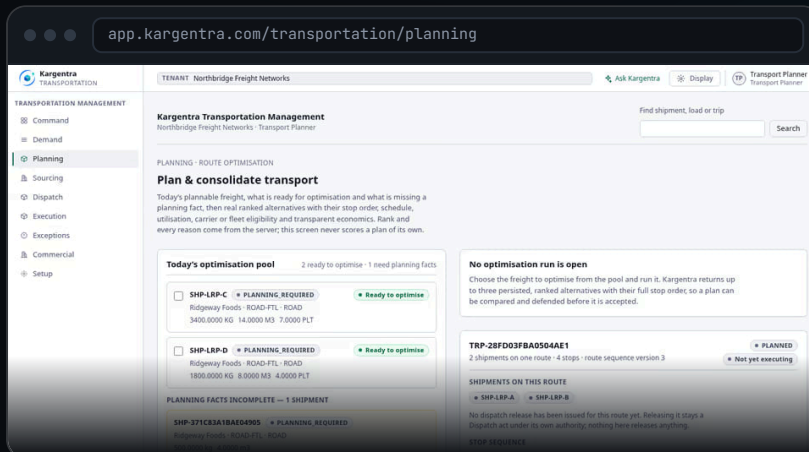


TRANSPORTATION MANAGEMENT • TMS

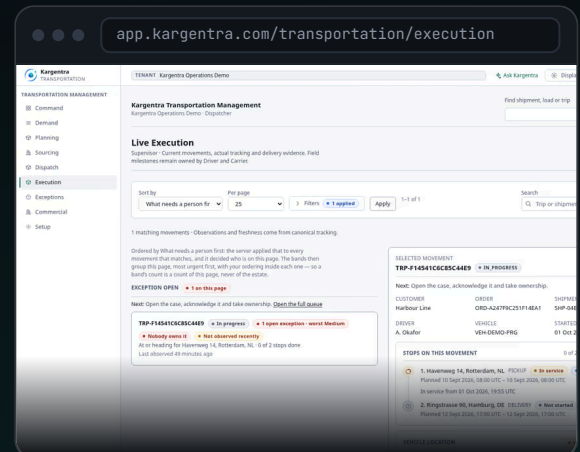
Transportation Management

A transportation management system from load planning to freight close

Kargentra TMS is a transportation management system that takes transport demand from orders, the warehouse or measured freight, plans it into loads and trips, sources the carrier or private fleet and releases only what is ready. Every movement is supervised through execution and recovery, then closed to a Finance handoff on the same record.



PLANNING • TRANSPORT PLANNER • ROUTE OPTIMISATION THAT EXPLAINS EVERY REFUSAL



LIVE EXECUTION • DISPATCHER • PLANNED WINDOWS KEPT DISTINCT FROM WHAT WAS OBSERVED

WHAT CHANGES FOR THE OPERATION

Plans people can trust

The optimiser proposes and the planner accepts. An unknown rate or feasibility is shown as unknown, never as zero.

Award is not a booking

Award, tender, acceptance, booking and dispatch are separate states, so nobody mistakes a quote for a truck.

Release only what is ready

Each movement is Ready, Blocked or Approval needed, with the exact failing check and what changed since.

Close with evidence

Delivered movements move from evidence to Billing ready to Finance handoff, with every blocker named.

WHAT TMS DOES

Transport Command

Each transport role starts on one prioritised list of situations drawn from planning, sourcing, dispatch, execution and recovery.

- Views for planner, carrier manager, dispatcher, fleet coordinator and supervisor
- Reason, impact, owner and time evidence on every item
- Opens the exact permitted workflow, then returns to refreshed facts

Demand and shipment formation

Transport demand comes from commercial orders, staged warehouse handling units or directly measured freight, then forms shipments.

- Residual demand pool with planning eligibility
- Measured weight, handling units and cargo compatibility group
- Order holds respected before any shipment is formed

Load and route planning

Find residual freight, run the internal optimiser and compare up to three ranked alternatives before accepting or replanning.

- Compare distance, travel time, capacity, rate and eligibility
- What-if runs that write nothing
- Rate unknown and Feasibility unknown shown explicitly

Road routing and stop order

With the tenant's own maps provider keys, calculate road routes and propose a better stop order or a multi-vehicle plan.

- Proposals stay read-only until a planner approves them
- Metered budget with confirmation before billed calls
- Missing durations are never treated as zero

Carrier and fleet sourcing

Compare private fleet feasibility, contracted carrier baselines and genuine spot quotes for one movement without mixing price bases.

- Agreement status: in force, scheduled, expired, terminated
- RFQs with append-only quote versions
- Award an exact quote version with a recorded reason

Routing guide and tender recovery

A per-lane routing guide sets carrier order, a not-to-exceed cap and an attempt limit for every tender.

- Rejected or lapsed tender: next carrier by rule, or a hold with a named reason
- No carrier is re-offered the same tender
- Tenders queue: awaiting an answer, lapsing within a day, lapsed unanswered

HOW IT FLOWS

One movement, from transport demand to Finance handoff

- 01 Form demand**
Orders, staged handling units or measured freight enter the demand pool with their planning eligibility. Owner: transport planner.
- 02 Plan the trip**
Shipments are consolidated into a load and a trip. The optimiser proposes; the planner accepts a version and the trip is created.
- 03 Source and award**
Private fleet, contracted or spot. The carrier manager awards an exact quote version with a reason. Award is not a booking.
- 04 Tender and book**
The tender is offered at a frozen price. The carrier accepts in its portal and the booking is confirmed, or the routing guide moves on.
- 05 Assign and evaluate readiness**
Driver, tractor and trailer are assigned. Readiness checks documents, insurance, facility service and exceptions: Ready, Blocked or Approval needed.
- 06 Release**
The dispatcher releases with a version check. Released is not acknowledged and not picked up; those facts belong to the driver and carrier.
- 07 Execute and recover**
Positions and stop events are observed. Detected risks open owned exception cases until the condition is verified clear. Owner: transport supervisor.
- 08 Close and hand off**
Evidence complete, then Billing ready, Closeout approved and Handed off to Finance, with an immutable handoff id.

ASK KARGENTRA IN TMS

“Explain these options”

Option B consolidates four shipments into one trip of 412 km, against 468 km for the two direct runs, and it fits the trailer by weight and floor space. The Rotterdam stop has no contracted rate on that lane, so the comparison shows the rate as unknown rather than zero. One driver is excluded from the shortlist because their duty hours are not confirmed.

PLAN COMPARISON · OPTION B · DISTANCE CHANGE

CAPACITY · FITS · WEIGHT AND FLOOR SPACE · RATE · UNKNOWN · LANE NL-RTM

HOURS OF SERVICE · NOT CONFIRMED · DRIVER EXCLUDED

PROPOSAL · APPROVED BY THE TRANSPORT PLANNER

Accept Option B for these four shipments and create trip TRIP-4410, then source the Rotterdam leg by spot RFQ.

Ask Kargentra reads only what your role can open, cites every fact and proposes. A named person approves; nothing is sent or executed on its own.

EXCEPTIONS AND EDGE CASES HANDLED

- A carrier declines a tender an hour before the deadline: the routing guide offers the next qualified carrier or holds with a named reason.
- The cheapest plan needs a driver whose duty hours are not confirmed: that combination is never offered as executable.
- A lane has no contracted rate: the comparison shows Rate unknown instead of pricing the option at zero.
- Freight changes after the Bill of Lading was issued: the document is flagged stale and a new version needs acknowledgement.
- A planner runs a what-if during a live day: it writes nothing, so the board and the accepted plan stay exactly as they were.
- A delivery is partial: the variance needs a recovery with a reason code before the movement can close.

CAPABILITY REFERENCE

Planning

- Residual demand pool with eligibility
- Internal optimiser with up to three ranked alternatives
- What-if runs without writes
- Capacity by weight, handling units and compatibility group
- Hours-of-service-aware private-fleet shortlist
- Road routes and stop-order proposals via a maps provider

Sourcing and tendering

- Private fleet, contracted and spot pathways
- Carrier agreements with status and dates
- RFQs with append-only quote versions
- Award with a recorded reason
- Per-lane routing guide with not-to-exceed cap
- Deterministic tender recovery and named holds

Dispatch

- Dispatch Board for trips and fleet movements
- Readiness checks with what changed and what to do
- Approval-needed warnings with approver decision
- Driver, tractor and trailer eligibility
- Version-checked release
- Bill of Lading versions with role acknowledgement

Execution and recovery

- Live Execution grouped by what needs a person
- Source-labelled tracking with freshness and quality
- Detected risks open owned exception cases
- Governed resource replacement and re-planning
- Recovery outcomes recorded as Worked or Did not work
- Immutable attempt history and reopen

Close and measure

- Delivery and Commercial Close stages
- Exact billing blockers per movement
- Sell, expected buy, actual cost, accessorials and margin
- Immutable Finance handoff id
- Manager health with numerator, denominator and scope
- Carrier, lane and delivery performance

Setup and deployment

- Curated operating profiles by region and industry
- Effective policy by tenant and customer scope
- TMS only, or connected with OMS and WMS
- Native, external or hybrid stage ownership
- External carriers, private fleet or both
- External TMS ownership of transport planning

STANDARDS AND CONNECTIONS

EDI X12 204 (004010) INBOUND

REST API (OPENAPI)

SIGNED WEBHOOKS

EVENT STREAMS (ASYNCAPI)

ELD AND TELEMATICS CONNECTIONS

MAPS PROVIDER: ROAD ROUTES AND STOP ORDER

CARRIER PORTAL

CONNECTOR HUB WITH REPLAY

QUESTIONS BUYERS ASK

What does a transportation management system do?

A transportation management system plans freight into loads and trips, chooses the carrier or private fleet, tenders and books capacity, releases movements to execution, supervises them and closes them commercially. Kargentra TMS runs every one of those steps on the same movement record, ending in a Finance handoff, so planning, dispatch, tracking and billing never disagree about what happened.

How does load and route optimisation work in Kargentra?

Planners select residual freight and run the internal optimiser, built on OR-Tools, which compares up to three ranked alternatives on distance, travel time, capacity, rate and eligibility. The optimiser returns a stop order, and the platform re-derives schedule, utilisation and economics before showing the plan. Nothing is committed until a planner accepts it, and what-if runs write nothing at all.



See Transportation Management on your own scenario

Bring a real lane, site or exception. More at www.kargentra.com/products/transportation-management/

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