WHITE PAPER

The Last Mile, Handled: Route Planning & Proof of Delivery with ERPNext Delivery Trips

How ERPNext's Delivery Trip turns a pile of Delivery Notes into a driver's route — with stops, estimated arrival times, route optimisation and a clean record of what was delivered.

For logistics & distribution leaders · **8 min read**

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EXECUTIVE SUMMARY

For a distributor, the goods leaving the warehouse is the easy part. The hard part is the last mile — which orders go on which vehicle, in what order the driver visits them, when each customer can expect their delivery, and proof that it actually arrived. Most Indian distributors run this on a WhatsApp group and the driver's memory. This paper explains how ERPNext's Delivery Trip doctype handles it inside the same system that already holds your orders and stock: it groups submitted Delivery Notes into a single driver-and-vehicle route, sequences them as delivery stops, and — using the Google Maps Direction API — optimises the route and estimates arrival time for each stop. It closes the loop with customer email notifications and a per-stop record of what was delivered, so dispatch stops being a black box between 'invoiced' and 'the customer called to ask where it is'.

The last-mile problem for Indian distributors

Ask any FMCG, pharma or building-materials distributor where their day goes, and it isn't picking or invoicing — it's dispatch. A dozen orders are ready, three vehicles are in the yard, and someone in a chair is deciding, from memory, which orders go on which truck and in what order the driver should hit them. That plan lives on a paper chit or a WhatsApp voice note, and the moment the vehicle leaves the gate, the office is blind until the driver calls in.

The cost of that blindness is real and daily. Customers ring the sales desk asking where their delivery is, and nobody can answer. Drivers backtrack across the city because the load wasn't sequenced. A drop gets missed and surfaces only when the customer complains the next morning. And when a delivery is disputed — 'we never received that' — the proof is a signed paper somewhere in the cab, if it exists at all. None of this is a people problem; it's that the dispatch step lives outside the system. The order is in ERPNext, the stock movement is in ERPNext, but the journey in between — route, sequence, timing, confirmation — happens in a blind spot.

ERPNext closes that gap with a purpose-built document, the Delivery Trip, that sits directly on top of the Delivery Notes you're already raising.

- Which orders go on which vehicle — decided from memory, recorded nowhere the office can see.
- In what sequence the driver visits — unplanned, so vehicles backtrack and waste fuel and hours.
- When each customer can expect delivery — unknown, so the sales desk can't answer 'where is it?'.
- Proof it was delivered — a paper signature in the cab, if that, and nothing linked to the order.

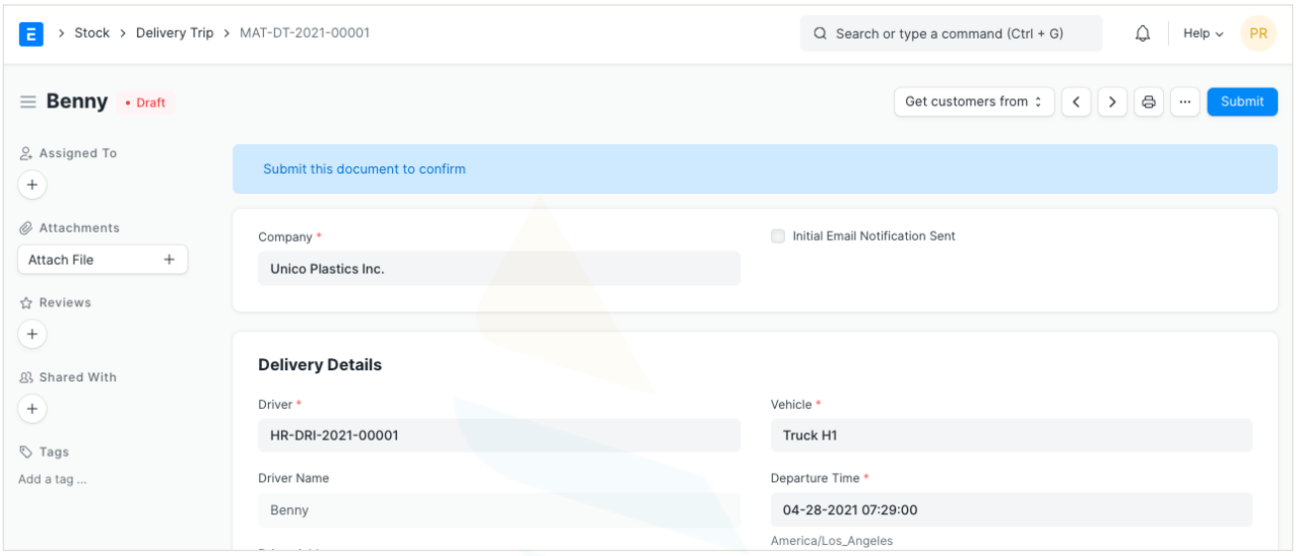
What a Delivery Trip actually is

In ERPNext, a Delivery Trip is a single submittable document that represents one vehicle's run: one driver, one vehicle, a departure time, and an ordered list of stops. It lives in the Stock module alongside the Delivery Note, and it's designed to be created after your Delivery Notes are raised — the trip is the plan for actually getting those already-picked orders to customers.

The header carries the essentials of the run. You pick the Driver (linked to ERPNext's Driver record, which pulls in the driver's name, email and address), the Vehicle, and the Departure Time. The document tracks a status that moves through a clear lifecycle — Draft, Scheduled, In Transit,

Completed, Cancelled — so at a glance anyone can see whether a trip is still being planned, out on the road, or done. Because it's a proper ERPNext document, it's permissioned (Delivery User, Delivery Manager, Stock and Fulfillment roles), printable, and fully linked back to the orders it serves.

- One document per vehicle run — a single Driver, Vehicle and Departure Time.
- Driver pulled from ERPNext's Driver master — carrying name, email and address automatically.
- A lifecycle status — Draft, Scheduled, In Transit, Completed, Cancelled — visible to the whole office.
- A first-class, permissioned, printable document inside the Stock module — not a side spreadsheet.



A Delivery Trip in ERPNext — one driver, one vehicle and a departure time define a single vehicle's run.

Grouping Delivery Notes into a route of stops

The heart of the Delivery Trip is its table of Delivery Stops. Each stop represents one drop on the route, and each is tied to a customer, a delivery address, and — crucially — the Delivery Note being fulfilled at that address. That link is what makes the trip more than a to-do list: every stop is connected to the actual order document, its grand total and its contact, so the driver's route and your stock records are the same data, not two copies that drift apart.

You build the route by adding stops, and ERPNext helps populate them from existing Delivery Notes rather than making you retype addresses — the customer's address is fetched from records you already hold. Each stop carries the fields dispatch actually needs: the customer and contact, the delivery address, the linked Delivery Note and its value, an Estimated Arrival time, and the distance for that leg. Stops are ordered, so the table is the driver's itinerary top to bottom. Once the plan is right, you submit the trip and it moves out of Draft into its scheduled/in-transit life — a single screen that answers 'what's on this vehicle, going where, in what order, worth how much'.

- Each Delivery Stop links a customer, a delivery address and the specific Delivery Note being fulfilled.
- Addresses are fetched from existing customer records — no retyping, no transcription errors.
- Every stop carries its Estimated Arrival, leg distance, contact and the linked order's grand total.
- The ordered stop table is the driver's itinerary — and it's the same data as your stock ledger.

The ERPNext Delivery Trip flow, end to end

1. **Raise Delivery Notes**
   pick and dispatch the day's orders as usual in the Stock module.

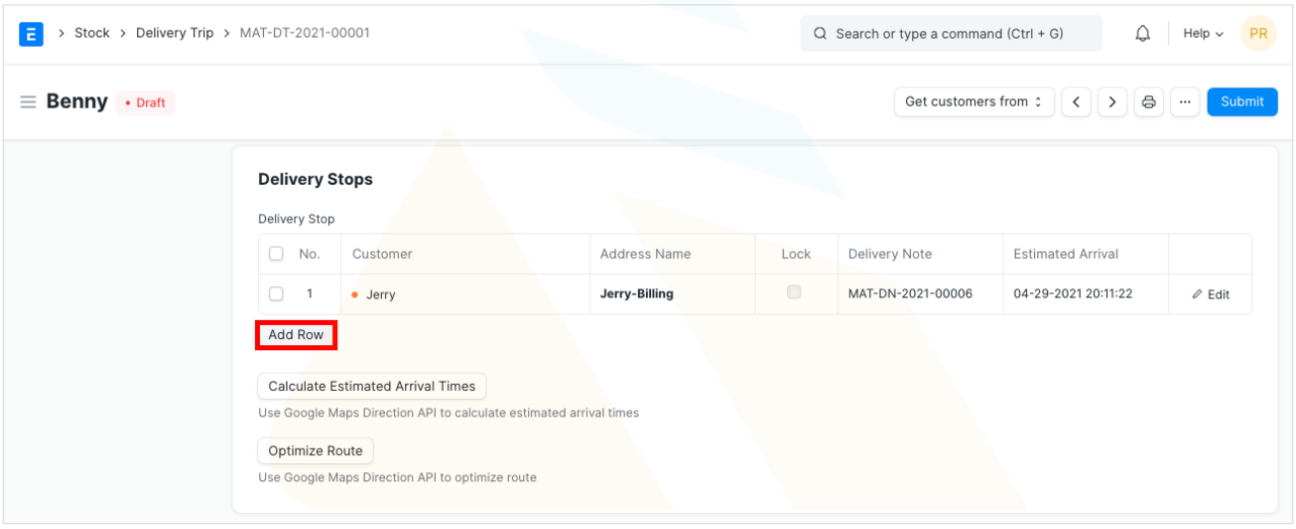
2. **Create a Delivery Trip**
   choose the Driver, Vehicle and Departure Time for one vehicle's run.

3. **Add Delivery Stops**
   each links a customer, a delivery address and the Delivery Note being fulfilled.

4. **Optimise & estimate**
   Google Maps re-sequences the stops and computes an ETA and distance per drop.

5. **Notify & dispatch**
   submit the trip; customers on the route receive an email notification.

6. **Confirm delivery**
   mark each stop visited; the trip completes and stays linked to every order.



The Delivery Stops table: each stop links a customer, address and Delivery Note, with Google Maps buttons to optimise the route and estimate arrival times.

Route optimisation, arrival times & driver notifications

This is where the Delivery Trip earns its place. ERPNext integrates with the Google Maps Direction API to do two things a dispatcher can't do reliably by hand. First, Calculate Estimated Arrival Times: given the driver's starting address and the sequence of stops, it computes a realistic estimated arrival for each drop and the total distance of the run — so you can tell a customer a window instead of 'sometime today'. Second, Optimize Route: rather than driving the stops in the order they were entered, ERPNext asks Google Maps for the best sequence and reorders the stops accordingly, so the vehicle takes an efficient path instead of criss-crossing the city.

The trip also drives customer communication. When the trip is dispatched, ERPNext can send an email notification to the customers on the route — the document tracks whether that initial notification has been sent, and records the address each stop's email went to — so the people waiting for goods hear it from the system, not from a sales rep chasing the driver. (These map features rely on a Google Maps API key being configured, and the notifications on your email being set up — an experienced implementation gets both wired in so the buttons simply work.)

- Calculate Estimated Arrival Times — Google Maps computes a realistic ETA per stop and the total trip distance.
- Optimize Route — Google Maps re-sequences the stops into an efficient path instead of entry order.
- Customer email notifications — sent from the trip, with the system tracking whether the initial notice went out.
- Both map features need a Google Maps API key configured — worth setting up once, correctly.

Proof of delivery: closing the loop

A route plan is only half the value; the other half is knowing the drops actually happened. On a submitted Delivery Trip, each Delivery Stop carries a Visited flag that marks that drop as completed, and a details field for notes about the stop. As stops are marked visited and the run finishes, the trip's status reflects reality — a Completed trip is a run where the goods reached the customers. Because every stop is linked to its Delivery Note, that confirmation ties straight back to the order and the stock movement: the Delivery Note itself is your legal document that goods left your premises, and the trip is the record of the journey that delivered them.

Be clear-eyed about what's in the box. Core ERPNext gives you the structured proof — which order, to which customer, on which vehicle and driver, marked delivered — plus the printable Delivery Note that customers sign. Richer field capture like a photo of the delivered goods or a captured digital signature on a phone isn't part of the core Delivery Trip; it's a common, well-trodden extension (a mobile app or a custom field against the stop) that a partner adds when a distributor needs it. The honest framing: ERPNext handles the record and the routing; signature-and-photo capture on the doorstep is an add-on, not a stock feature.

- Each Delivery Stop has a Visited flag and a details field — a structured record that the drop happened.
- The linked Delivery Note is the legal proof goods left your premises — and the customer's printable copy.
- A Completed trip status reflects a run where the goods actually reached the customers.
- Photo / digital-signature capture on the doorstep is a common extension — not part of the core doctype.

Getting the last mile running well

The Delivery Trip is genuinely useful out of the box, but the value shows up when the pieces around it are set up properly. The map features need a Google Maps API key configured before the optimise-route and arrival-time buttons do anything. Driver and Vehicle masters have to be maintained so trips pull clean data. Customer addresses need to be accurate and geocodable, or the routing has nothing good to work with. And the working rhythm matters — raising Delivery Notes first, then building the

day's trips from them, and marking stops visited so the record stays true. None of this is hard; it just rewards being set up deliberately rather than discovered mid-season.

As an official ERPNext partner working with Indian distributors, we wire the Delivery Trip into how your dispatch actually runs — the Google Maps integration, driver and vehicle masters, address quality, customer notifications, and, where you need it, the mobile proof-of-delivery capture that core ERPNext leaves as an extension. The result is a last mile that lives in the same system as your orders and stock, so 'where is my delivery?' has an answer on a screen instead of a phone call to a driver. If dispatch and delivery are a real part of your business, that's the difference between ERPNext being a system of record and a system that runs your day.

KEY TAKEAWAYS

1. The Delivery Trip is a single ERPNext document for one vehicle's run — a driver, a vehicle, a departure time and an ordered list of delivery stops.
2. Each stop links a customer, a delivery address and the actual Delivery Note being fulfilled, so the driver's route and your stock records are the same data.
3. Google Maps integration optimises the stop sequence and estimates an arrival time and distance for each drop — a real window instead of 'sometime today'.
4. Customers on the route can be emailed automatically, and each stop's Visited flag plus its linked Delivery Note gives structured proof the delivery happened.
5. Doorstep photo and digital-signature capture aren't in the core doctype — they're a common partner-added extension on top of the trip.

FAQ

What is a Delivery Trip in ERPNext?
A Delivery Trip is a submittable ERPNext document, in the Stock module, that represents one vehicle's delivery run — a single driver, a vehicle and a departure time, plus an ordered table of delivery stops. Each stop links a customer, a delivery address and the Delivery Note being fulfilled, so a trip turns a set of already-picked orders into a planned, trackable route with a lifecycle status of Draft, Scheduled, In Transit, Completed or Cancelled.

Can ERPNext optimise the delivery route and estimate arrival times?
Yes. The Delivery Trip integrates with the Google Maps Direction API. 'Optimize Route' re-sequences the stops into an efficient order rather than the order they were entered, and 'Calculate Estimated Arrival Times' computes a realistic estimated arrival for each stop along with the total trip distance. Both features require a Google Maps API key to be configured in ERPNext, which is a standard part of setting the module up.

Does ERPNext notify customers when their delivery is on the way?
The Delivery Trip can send email notifications to the customers on the route when the trip is dispatched. The document tracks whether the initial notification has been sent and records the email address each stop's notice went to, so customers hear from the system rather than from a sales rep chasing the driver. This relies on your ERPNext email settings being configured.

Does ERPNext Delivery Trip capture proof of delivery with a signature or photo?
Core ERPNext gives you structured proof: each delivery stop has a Visited flag and a details note, every stop is linked to its Delivery Note (the legal document that goods left your premises and the customer's printable copy), and a completed trip records that the goods reached the customers. Richer doorstep capture — a delivery photo or a digital signature on a phone — isn't part of the core Delivery Trip; it's a common extension a partner adds via a mobile app or custom fields when a distributor needs it.

Talk to a real ERPNext expert.
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