

DISHATRAK



API Integration Guide

REST API reference: authentication, shipments,
carriers, delivery exceptions, and webhooks.

1. Overview

Dishatrak's REST API lets a merchant create and track shipments, browse the courier catalog, manage their own carrier accounts, and resolve delivery exceptions programmatically — the same operations available in the dashboard, callable from your own backend.

Base URL: `https://<your-domain>/api/v1/`

All request and response bodies are JSON. There is one API version today (v1, in the URL path) — there is no separate version header to set.

Interactive docs: `/api/docs/` (Swagger UI — click Authorize, paste Api-Key `<key>`, then Try it out on any endpoint), `/api/redoc/` (reference view) and `/api/schema/` (raw OpenAPI 3). Those are generated from the code, so they always match the running version.

***Note:** This guide documents the API exactly as implemented in the current codebase. Field names and types are taken directly from the DRF serializers; example values (order references, AWB numbers, addresses) are illustrative.*

Conventions used in this guide

Symbol	Meaning
required	Field must be present in the request body.
optional	Field may be omitted; a default is used if so.
read-only	Field appears in responses; sending it in a request has no effect.

2. Authentication

Every endpoint under `/api/v1/` requires a merchant API key, sent as a bearer-style header:

```
Authorization: Api-Key <your_raw_key>
```

The permission check (`core.permissions.HasMerchantApiKey`) looks for the exact prefix `"Api-Key "` (with the trailing space) before the key. A missing or invalid key returns:

```
HTTP 403 Forbidden
{
  "detail": "Missing or invalid API key."
}
```

Getting a key

Generate one from the dashboard's **API Keys** page. The raw key is shown exactly once, at creation time — only a SHA-256 hash of it is stored server-side, so it cannot be recovered later if lost. If that happens, revoke the old key and generate a new one.

Every request that authenticates successfully scopes all data access to that key's merchant, and updates the key's `last_used_at` timestamp (visible on the API Keys page).

***Note:** Keys are not tied to a specific dashboard user — a key keeps working regardless of which team member created it or whether their own login is later removed.*

Rate limits

Each API key may make **300 requests per minute** by default (deployments can change this with `API_RATE_LIMIT`). Beyond that the API returns `429 Too Many Requests` with a `Retry-After` header; back off and retry after that many seconds.

```
HTTP 429 Too Many Requests
Retry-After: 42
{
  "detail": "Request was throttled. Expected available in 42 seconds."
}
```

3. Pagination & errors

Pagination

List endpoints (GET /shipments/, GET /carriers/, GET /carrier-accounts/, GET /exceptions/) return 25 results per page by default, in the standard DRF page-number shape:

```
{
  "count": 57,
  "next": "https://.../api/v1/shipments/?page=2",
  "previous": null,
  "results": [ ... ]
}
```

Request a later page with ?page=2, and a different page size with ?page_size=50 (maximum 100).

Error shape

Validation errors (missing/malformed fields) return 400 Bad Request with DRF's standard per-field error map:

```
{
  "weight_grams": ["This field is required."]
}
```

Every other error condition (a business-rule failure, not a malformed request) returns a flat shape:

```
{
  "detail": "<human-readable message>"
}
```

Status	Meaning in this API
400	Request body or query parameter failed validation.
401	Inbound carrier webhook signature did not match.
402	Your plan's shipment or courier allowance is used up (only where limits are enforced).
403	Missing or invalid API key.
404	Object not found, or not scoped to your merchant.
409	Conflicts with current state: e.g. cancelling an unbooked shipment, or an Idempotency-Key still in flight.
422	No connected courier can take the order, or an Idempotency-Key was reused with a different body.
429	Rate limit exceeded — see Rate limits.
502	The call to the underlying courier's own API failed.

4. Shipments

A shipment's lifecycle only ever moves forward through allocation and tracking events — there is no general update/delete endpoint. `set-awb` and `report-tracking` below are the two narrow, deliberate exceptions, and only make sense for a courier this deployment hasn't written a real API client for yet.

List shipments

GET `/api/v1/shipments/`

Paginated list of your shipments, newest first.

Auth: API key

Query parameters (all optional)

Parameter	Example	Notes
<code>status</code>	<code>in_transit</code>	One of the lifecycle states (§9). Anything else is a 400.
<code>awb</code>	<code>MOCK6AA0D4E0F1B2</code>	Exact AWB number.
<code>merchant_order_ref</code>	<code>ORDER-1042</code>	Your order reference.
<code>created_after</code>	<code>2026-10-01</code>	Created on or after this date (YYYY-MM-DD).
<code>page / page_size</code>	<code>2 / 50</code>	See Pagination. <code>page_size</code> max 100.

Create a shipment

POST `/api/v1/shipments/`

Creates an order and allocates + books it with a courier in one call.

Auth: API key

Request body

Field	Type	Required	Notes
merchant_order_ref	string	required	Max 255 chars, unique per merchant (a repeat is a 400).
pickup_address	object	one of	See Address object. Send this or warehouse, not both.
warehouse	uuid	one of	A saved pickup location's id (dashboard: Warehouses).
delivery_address	object	required	See Address object, below.
weight_grams	integer	required	1 to 10,000,000.
length_cm / width_cm / height_cm	decimal	required	0.01 to 1000, 2 decimal places.
declared_value	decimal	required	0 or more, 2 decimal places.
cod_amount	decimal	optional	Null/omitted for prepaid. Can't exceed declared_value.
tags	string[]	optional	Up to 20 labels for your own filtering.
export_type	string	optional	International: csb_iv (gifts/samples) or csb_v (commercial).
incoterm	string	optional	International: DDU (recipient pays duties) or DDP (you pay).
invoice_number	string	optional	International: commercial invoice number.
items	object[]	optional	International line items, up to 100: description, hs_code (4-10 digits), quantity, unit_value, country_of_origin.

Address object (pickup_address / delivery_address)

Field	Type	Required	Notes
contact_name	string	required	Max 255 chars.
phone	string	required	6-20 digits; spaces, dashes, brackets and a leading + allowed.
line1	string	required	Max 255 chars.
line2	string	optional	Max 255 chars, blank allowed.
city	string	required	Max 128 chars.
state	string	India: required	Max 128 chars. Optional outside India.
pincode	string	required	India: 6 digits, not starting with 0. Elsewhere up to 16 chars.
country	string	optional	2-letter ISO code, defaults to "IN".

Example request

```
POST /api/v1/shipments/
Authorization: Api-Key sk_live_3f9a...
Content-Type: application/json

{
  "merchant_order_ref": "ORDER-1042",
  "pickup_address": {
    "contact_name": "Warehouse Team",
    "phone": "9876500000",
    "line1": "Plot 14, Sector 18",
    "city": "Gurgaon",
    "state": "Haryana",
    "pincode": "122015"
  },
  "delivery_address": {
    "contact_name": "Aditi Rao",
    "phone": "9123456789",
    "line1": "22 MG Road",
    "city": "Mumbai",
    "state": "Maharashtra",
    "pincode": "400001"
  },
  "weight_grams": 850,
  "length_cm": "20.00",
  "width_cm": "15.00",
  "height_cm": "10.00",
  "declared_value": "1499.00",
  "cod_amount": null
}
```

Response — 201 Created

Field	Type	Notes
id	uuid	read-only
merchant_order_ref	string	read-only, echoes the request
awb_number	string	read-only, blank if allocation produced no AWB yet
label_url	string	read-only, blank if none
status	string	read-only, one of the 10 lifecycle states — see §9
allocation_reason	string	read-only, e.g. "rule 'High value orders' matched"
carrier	string or null	read-only, the allocated carrier's display name
quoted_cost	decimal or null	read-only, your rate card's price incl. GST at booking
tags	string[]	read-only
created_at	datetime	read-only
updated_at	datetime	read-only

```
{
  "id": "8f14e2a1-...",
  "merchant_order_ref": "ORDER-1042",
  "awb_number": "MOCK6AA0D4E0F1B2",
  "label_url": "",
  "status": "allocated",
  "allocation_reason": "rule 'High value orders' matched",
  "carrier": "Delhivery Surface",
  "created_at": "2026-09-18T06:12:03Z",
  "updated_at": "2026-09-18T06:12:04Z"
}
```

Error responses

Status	Body	When
400	{"<field>": ["..."]}	A field is missing, malformed, out of range or a duplicate reference.
402	{"detail": "..."}	Plan shipment limit reached (where limits are enforced).
409 / 422	{"detail": "..."}	Idempotency-Key in flight / reused with another body.
422	{"detail": "..."}	No connected courier can take the order (e.g. none deliver to the pincode).
502	{"detail": "..."}	The allocated carrier's own API call failed.

Safe retries: Idempotency-Key

Network timeouts happen. To retry a create without risking a second booking, send any unique string (up to 255 chars, e.g. your order id) as an Idempotency-Key header. Retrying with the same key and the same body returns the original 201 response with `Idempotent-Replayed: true` instead of creating another shipment. The same key with a different body is a 422; a retry while the first request is still running is a 409. A request that fails validation doesn't use up its key.

```
POST /api/v1/shipments/  
Authorization: Api-Key sk_live_3f9a...  
Idempotency-Key: ORDER-1042-attempt  
Content-Type: application/json
```

Retrieve a shipment

GET `/api/v1/shipments/{id}/`

Full detail for one shipment.

Auth: API key

Response body: same shape as the create response, above. 404 if the id doesn't exist or belongs to another merchant.

Get a shipment's tracking history

GET `/api/v1/shipments/{id}/tracking/`

Every tracking event recorded for this shipment, oldest first.

Auth: API key

Field	Type	Notes
id	uuid	read-only
carrier_status_raw	string	the courier's own status text/code, unmodified
normalized_status	string	one of the 10 lifecycle states
description	string	blank if the source didn't supply one
location	string	blank if the source didn't supply one
occurred_at	datetime	when the carrier says this happened
source	string	"webhook", "poll", or "manual"

```
[
  {
    "id": "0a1b2c3d-...",
    "carrier_status_raw": "OFD",
    "normalized_status": "out_for_delivery",
    "description": "Out for delivery",
    "location": "Mumbai Hub",
    "occurred_at": "2026-09-18T05:40:00Z",
    "source": "webhook"
  }
]
```

Cancel a shipment

POST `/api/v1/shipments/{id}/cancel/`

Requests cancellation from the allocated carrier.

Auth: API key

No request body. Response: the updated shipment (same shape as create) — status becomes cancelled only if the carrier confirms it.

Status	Body	When
409	{"detail": "Shipment has not been booked with a carrier yet."}	No carrier_account/AWB exists yet.
502	{"detail": "..."}	The carrier's cancel call failed.

Set a manual AWB

POST `/api/v1/shipments/{id}/set-awb/`

Attach an AWB you booked outside Dishatrak, for a not-yet-integrated courier.

Auth: API key

Field	Type	Required	Notes
awb_number	string	required	Max 64 chars.
label_url	string (URL)	optional	Blank allowed.

Status	Body	When
409	{"detail": "..."}	The shipment already has an AWB.

Report a manual tracking event

POST `/api/v1/shipments/{id}/report-tracking/`

Manually advance a shipment's status, for a courier with no webhook/poll integration.

Auth: API key

Field	Type	Required	Notes
status	string	required	One of the 10 lifecycle states — see §9.
description	string	optional	Max 255 chars, blank allowed.
location	string	optional	Max 255 chars, blank allowed.

Field	Type	Required	Notes
occurred_at	datetime	optional	Defaults to now if omitted.

Status	Body	When
409	{"detail": "..."} The shipment already has automatic (webhook/poll) tracking.	

5. Rates

Prices come from your own rate cards (dashboard: Rate Cards) — zone prices, weight slabs, surcharges and GST per courier account — plus live quotes from couriers that offer a rate API (Aramex today). Domestic zones: A within city, B within state, C metro to metro, D rest of India, E North-East, J&K, Ladakh and islands.

Quote a parcel across your couriers

POST `/api/v1/rates/quote/`

Every courier's price for one parcel, cheapest first.

Auth: API key

Field	Type	Required	Notes
warehouse	uuid	optional	Quote from a saved warehouse instead of origin_* fields.
origin_pincode / origin_city / origin_state	string	optional	Pickup location.
dest_pincode / dest_city / dest_state	string	optional	Delivery location (pincode or city+state for India).
dest_country	string	optional	2-letter code, default IN. Anything else uses international cards.
weight_grams	integer	required	1 to 10,000,000.
length_cm / width_cm / height_cm	decimal	optional	0 to 1000; used for volumetric weight.
declared_value	decimal	optional	For insurance (FOV) and duty estimates.
cod_amount	decimal	optional	Adds the COD fee; skips couriers without COD at the pincode.

Response — 200 OK

```
{
  "quotes": [
    {
      "carrier": "Delhivery", "rate_card": "Surface 2026", "source": "rate_card",
      "available": true, "zone": "D",
      "actual_grams": 1200, "volumetric_grams": 1800, "chargeable_grams": 1800,
      "charges": [{"label": "Freight", "amount": "196.00"}, {"label": "COD fee", "amount": "35.00"}],
      "taxable_value": "231.00", "taxes": [{"label": "IGST 18%", "amount": "41.58"}],
      "total": "272.58", "currency": "INR", "rto_estimate": "196.00",
      "destination_charges_estimate": []
    },
    {"carrier": "Blue Dart", "available": false, "reason": "Doesn't deliver to 302001."}
  ]
}
```

GST is CGST+SGST when the courier's GST state (set on the card) matches your GSTIN's state, otherwise IGST. International quotes add `destination_charges_estimate`: the recipient's likely import VAT/duty, paid by them unless you ship DDP. `rto_estimate` is what a return would cost; it isn't in the total.

6. Carriers & carrier accounts

List the courier catalog

GET `/api/v1/carriers/`

Every courier in the catalog, active only.

Auth: API key

Optional query params: `?country_scope=domestic|international|global` and `?courier_group=<slug>` (e.g. all of Delhivery's product variants together).

Field	Type	Notes
id	integer	read-only
code	string	read-only, e.g. "delhivery_surface"
name	string	read-only, e.g. "Delhivery Surface"
courier_group	string	read-only, e.g. "delhivery"
variant_label	string	read-only, e.g. "Surface"; blank if the courier has one product
country_scope	string	"domestic", "international", or "global"
credential_schema	array	list of {key, label, type, required} — see below
is_integrated	boolean	false if this courier has no real API client wired up yet

credential_schema field shape

```
[
  {"key": "api_token", "label": "API Token", "type": "password", "required": true}
]
```

type is one of: "text", "password", "email".

Get one courier

GET `/api/v1/carriers/{id}/`

Full detail for one catalog entry.

Auth: API key

List your carrier accounts

GET /api/v1/carrier-accounts/

Your own enrollments, scoped to your merchant.

Auth: API key

Enroll a carrier account

POST /api/v1/carrier-accounts/

Add a courier from the catalog with its credentials.

Auth: API key

Field	Type	Required	Notes
carrier	integer	required	The Carrier's id from §6.1. One account per carrier (a second is a 400).
credentials	object	required	Flat object of text values (max 20 fields, 2048 chars each) matching the carrier's credential_schema. Write-only — never echoed back.
priority	integer	optional	Default 100. Lower is preferred as the allocation fallback.
is_active	boolean	optional	Default true.

```
{
  "carrier": 4,
  "credentials": {"api_token": "abc123..."},
  "priority": 50
}
```

Response — 201 Created

Field	Type	Notes
id	uuid	read-only
carrier	integer	read-only, echoes the request
carrier_name	string	read-only
priority	integer	read-only
is_active	boolean	read-only
created_at	datetime	read-only

Status	Body	When
400	<code>{"credentials": ["..."]}</code>	Credentials aren't a flat object of text, or don't match the carrier's schema.
400	<code>{"carrier": ["..."]}</code>	You already have an account for this carrier.
402	<code>{"detail": "..."} </code>	Your plan's domestic/international courier allowance is used up (where limits are enforced).

Get one carrier account

GET `/api/v1/carrier-accounts/{id}/`

Full detail for one of your enrollments.

Auth: API key

Test a carrier account's connection

POST `/api/v1/carrier-accounts/{id}/test-connection/`

Calls that courier's own connection-check API with the stored credentials.

Auth: API key

```
{
  "success": true,
  "detail": "Connection OK."
}
```

Status	Body	When
502	<code>{"success": false, "detail": "..."} </code>	The carrier's own API call failed.

7. Delivery exceptions

Exceptions (NDR — a failed delivery attempt, or NPR — a failed pickup attempt) are created only by tracking ingestion, never directly through this API. This resource is read-only except for resolving one.

List exceptions

GET `/api/v1/exceptions/`

Your open and resolved exceptions.

Auth: API key

Optional query params: `?status=open|resolved` and `?kind=ndr|npr`.

Field	Type	Notes
id	integer	read-only
shipment	uuid	read-only, the shipment's id
awb_number	string	read-only
kind	string	"ndr" or "npr"
reason_code	string	read-only, carrier-supplied
reason_description	string	read-only
attempt_number	integer	read-only
raised_at	datetime	read-only
status	string	"open" or "resolved"
resolution_action	string	read-only, blank until resolved
resolution_note	string	read-only, blank until resolved
resolved_at	datetime	read-only, null until resolved
available_actions	array of strings	read-only — see below

available_actions by kind

kind	available_actions
ndr	retry, mark_rto, cancel
npr	reschedule_pickup, cancel

Get one exception

GET `/api/v1/exceptions/{id}/`

Full detail for one exception.

Auth: API key

Resolve an exception

POST `/api/v1/exceptions/{id}/resolve/`

Applies one of the exception's available `_actions`.

Auth: API key

Field	Type	Required	Notes
action	string	required	Must be one of that exception's <code>available_actions</code> .
note	string	optional	Max 255 chars, blank allowed.
updated_address	object	optional	Address object (§4) — e.g. when reattempting delivery to a corrected address.

Status	Body	When
409	<code>{"detail": "..."} </code>	The action doesn't fit this exception's kind.
502	<code>{"detail": "..."} </code>	The carrier's own API call for that action failed.

8. Webhooks

Inbound: carrier -> Dishatrak

POST `/api/webhooks/carriers/{carrier_code}/`

How a courier notifies Dishatrak of a tracking update.

Auth: Per-carrier signature (not an API key)

This endpoint has no merchant API key check — the caller is the courier, not a merchant. Trust is established by a carrier-specific signature check instead.

Mock carrier's signature scheme (used in development/demo)

Header: X-Mock-Signature

```
signature = HMAC_SHA256(MOCK_CARRIER_WEBHOOK_SECRET, raw_request_body).hexdigest()
```

A real courier integration would use whatever scheme that courier documents — the verification call is carrier-specific by design (`BaseCarrierClient.verify_webhook_signature`).

Field	Type	Required	Notes
awb_number	string	required	Must match an existing shipment for this carrier_code.
status	string	required	The carrier's own raw status text/code.
occurred_at	datetime (ISO)	optional	Defaults to now if omitted.
description	string	optional	
exception_kind	string	optional	"ndr" or "npr", if this event raises one.
reason_code	string	optional	Carrier's own reason code, if any.

Status	Body	When
400	<code>{"detail": "..."} </code>	Body isn't valid JSON, or awb_number is missing.
401	<code>{"detail": "Invalid signature."} </code>	Signature header didn't match.
404	<code>{"detail": "Unknown shipment for this carrier."} </code>	No shipment matches that AWB + carrier.
200	<code>{"detail": "ok"} </code>	Event recorded.

Outbound: Dishatrak -> your server

If you set a `tracking_webhook_url` on your merchant (from the dashboard's API Keys page), Dishatrak relays every tracking event to it — useful for a courier this deployment can't poll itself.

Field	Type	Notes
event	string	always "tracking.updated"
shipment_id	uuid	
merchant_order_ref	string	
awb_number	string	
status	string	one of the 10 lifecycle states
carrier_status_raw	string	the courier's own status text/code
description	string	
location	string	
occurred_at	datetime (ISO)	

```
{
  "event": "tracking.updated",
  "shipment_id": "8f14e2a1-...",
  "merchant_order_ref": "ORDER-1042",
  "awb_number": "MOCK6AA0D4E0F1B2",
  "status": "out_for_delivery",
  "carrier_status_raw": "OFD",
  "description": "Out for delivery",
  "location": "Mumbai Hub",
  "occurred_at": "2026-09-18T05:40:00Z"
}
```

Verifying the signature

If you also set a `tracking_webhook_secret`, every delivery includes:

```
X-Dishatrak-Signature: HMAC_SHA256(your_secret, raw_request_body).hexdigest()
```

Compare it using a constant-time comparison against the same HMAC computed over the raw request body you received.

***Note:** Delivery is best-effort: one attempt, a 5-second timeout, no retry queue. A failed delivery is logged (visible on your dashboard) but not retried automatically — if your endpoint is down, catch up via `GET /shipments/{id}/tracking/` once it's back.*

9. Shipment status reference

The status field on a shipment, and `normalized_status` on a tracking event, is always one of these 10 values:

Value	Meaning
<code>pending_allocation</code>	Order created, no courier chosen yet.
<code>allocated</code>	A courier has been chosen and the shipment booked with them.
<code>pickup_scheduled</code>	Courier has scheduled a pickup.
<code>in_transit</code>	Moving through the courier's network.
<code>out_for_delivery</code>	With the last-mile courier for delivery today.
<code>delivered</code>	Terminal — successfully delivered.
<code>return_in_transit</code>	Heading back to origin (after a failed delivery or client instruction).
<code>failed</code>	Terminal — delivery failed with no return in progress.
<code>cancelled</code>	Terminal — cancelled before or during transit.
<code>returned</code>	Terminal — completed its return to origin.

Note: A shipment's status never moves backward on a late or duplicate event — out-of-order tracking updates are ignored if they'd regress the status.