

# Cargoflux Customer v1 API

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## Authentication

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The Cargoflux API requires the user to authenticate each request with an API access token. This token can be generated under the 'API Access' tab once logged into Cargoflux.

### Token in URL parameter

The token can be included as a URL parameter by setting the `access_token` parameter.

### Token in HTTP header

Another way to provide the token is via a HTTP header by setting the `Access-Token` header.

### Token in JSON body

As part of the JSON body (for non-GET requests) you can also provide the token by setting the `access_token` key in the root JSON-element.

## Base URI

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Environment	Base URI
production	<code>https://api.cargoflux.com</code>

## JSON

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We use JSON for all API data. This means that you have to send the `Content-Type` header `Content-Type: application/json; charset=utf-8` when you're POSTing or PUTing data into Cargoflux.

## API endpoints

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### Get Shipment

- `GET /api/v1/customers/shipment/:shipment_id` returns detailed shipment data.

## Example response

```
{
  "id": "3-1-1163",
  "state": "booked",
  "awb": "1ZA1R6477353",
  "awb_link": "https://cargoflux.s3.amazonaws.com/assets/000/001/040/f561f892-e",
  "shipping_date": "2016-05-16",
  "description": "some description",
  "reference": "some customer ref",
  "remarks": "",
  "carrier_product": "UPS Express",
  "product_code": "upsex",
  "dutiabale": false,
  "price": "417.12528",
  "currency": "DKK",
  "package_dimensions": [
    {
      "height": 10,
      "length": 10,
      "width": 10,
      "weight": 5,
      "volume_weight": 0.2,
      "amount": 2,
      "goods_identifier": "CLL"
    },
    {
      "height": 2,
      "length": 5,
      "width": 2,
      "weight": 2,
      "volume_weight": 0.004,
      "amount": 1,
      "goods_identifier": "CLL"
    }
  ],
  "sender": {
    "company_name": "some company",
    "address_line1": "some street",
    "address_line2": "",
    "address_line3": "",
    "city": "Copenhagen",
    "zip_code": "2300",
    "country_name": "Denmark",
    "country_code": "dk",
    "phone_number": "33333333",
    "email": "example@gmail.com",
    "attention": "Jack ads"
  },
}
```

```
"recipient": {
  "company_name": "Some other company",
  "address_line1": "some other street",
  "address_line2": "",
  "address_line3": "",
  "city": "Berlin",
  "zip_code": "23001",
  "country_name": "Germany",
  "country_code": "de",
  "phone_number": "444444444",
  "email": "otherexample@gmail.com",
  "attention": "Georg asdae"
}
```

## Book Shipment

- `POST /api/v1/customers/shipments` books shipments through the Cargoflux platform.

To request a shipment booking, the following steps must be taken

1. The user sends an initial request with an `access_token` and a `callback_url` along with the additional parameters as described below.
2. Cargoflux performs initial validations and sends a response with the state of the booking request.
3. Once the booking request has been processed, Cargoflux will send a new request to the `callback_url` specified in (1). This request documents the final status of the booking. Further, if the booking failed, a list of errors will be attached.

## Request parameters

### Notes

A "C" in the "Req?" column indicates that the parameter is *conditional* - some carriers may require this field or it may depend on another field.

### Meta parameters

Req?	Field	Type	Description
*	access_token	String	API access token

Req?	Field	Type	Description
*	callback_url	String	URL to which Cargoflux will send a <code>POST</code> request to upon booking completion or errors . The URL must be reachable from the web.
	default_sender	Boolean	If true, the company address associated with the API token will be used as Sender. If this flag is set, the Sender should not be sent in the API request.

#### Shipment parameters

Req?	Field	Type	Description
*	shipping_date	String	Date of shipping (format: <code>YYYY-MM-DD</code> )
*	product_code	String	Cargoflux product code. These will be supplied by your CargoFlux contact.
	parcelshop_id	String	If specified and possible, the shipment will be sent to the the selected parcelshop. If not specified, the system will attempt to determine the closest parcelshop based off the recipient's address and use this instead.
	return_label	Boolean	If true, a return shipment will be booked instead

Req?	Field	Type	Description
*	package_dimensions	Array	Array of dimension objects for each package being shipped. Each object must specify width , height , length , weight and amount
*	package_dimensions/width	String	Width of package (kg)
*	package_dimensions/height	String	Height of package (cm)
*	package_dimensions/length	String	Length of package (cm)
*	package_dimensions/weight	String	Weight of package (cm)
*	package_dimensions/amount	String	The number of packages being sent in the shipment of the specified dimensions
	package_dimensions/goods_identifier	String	Identifies type/unit of package (possible values: CLL (default), PLL , HPL , QPL )
	number_of_pallets	Integer	The number of pallets needed for the shipment
*	dutiable	Boolean	Whether the shipment is dutiable
C	customs_amount	String	Customs amount. This field is required if the shipment is dutiable
C	customs_currency	String	ISO-4217 compliant currency code. This field is required if the shipment is dutiable

Req?	Field	Type	Description
C	customs_code	String	The customs code. This field is required if the shipment is dutiable
*	description	String	Description of the shipment
	reference	String	Customer specified reference
	remarks	String	Customer specified remarks
	delivery_instructions	String	Customer specified delivery instructions
	dgr	Object	Dangerous goods
	dgr/enabled	Boolean	Indicates that the shipment contains dangerous goods
	dgr/identifier	String	See supported values in the last part of the documentation in the "DGR" section
	pickup	Object	Pickup
	pickup/enabled	Boolean	Indicates that a pickup for the shipment should be booked
	pickup/from_time	String	The from-time the shipment can be picked up at. Formatted as "HH:MM" (e.g. "08:00", "13:00")

Req?	Field	Type	Description
	pickup/to_time	String	The to-time the shipment can be picked up at. Formatted as "HH:MM" (e.g. "08:00", "13:00")
	pickup/description	String	This field is mandatory for DHL shipments (e.g. "Warehouse")
	pickup/company_name	String	Defaults to the contact info of the customer creating the request
	pickup/attention	String	Defaults to the contact info of the customer creating the request
	pickup/address_line1	String	Defaults to the contact info of the customer creating the request
	pickup/address_line2	String	Defaults to the contact info of the customer creating the request
	pickup/address_line3	String	Defaults to the contact info of the customer creating the request
	pickup/country_code	String	ISO-3166 compliant country code
	pickup/city	String	Defaults to the contact info of the customer creating the request
	pickup/zip_code	String	Defaults to the contact info of the customer creating the request

Sender/recipient parameters

Both the sender and recipient object must be specified in the request, see example below.

Req?	Field	Type	Description
*	company_name	String	Name of company
*	attention	String	Name of contact person
*	address_line1	String	
	address_line2	String	
	address_line3	String	
*	country_code	String	ISO-3166 compliant country code
*	city	String	
*	zip_code	String	
	state_code	String	
C	phone_number	String	Contact phone number. Required by some carriers
C	email	String	Contact email. Required by some carriers

#### Example request

```
{
  "access_token": "5cb0e7db6cf8d2e46cbcf58010252b78465c151",
  "callback_url": "http://somedomain.com/bookings/callback",
  "return_label": false,
  "shipment": {
    "product_code": "upsx",
    "dutiabale": false,
    "package_dimensions": [{
      "amount": "1",
      "height": "10",
      "length": "10",
      "weight": "5",
      "width": "10"
    }],
    "description": "some customer description",
    "reference": "some customer reference",
    "shipping_date": "2015-08-03"
  },
  "sender": {
```



```

    "address_line1": "some street",
    "address_line2": "",
    "address_line3": "",
    "attention": "Jack",
    "city": "Copenhagen",
    "company_name": "Some company",
    "country_code": "DK",
    "email": "example@gmail.com",
    "phone_number": "33333333",
    "state_code": "",
    "zip_code": "2300"
  },
  "recipient": {
    "address_line1": "some other street",
    "address_line2": "",
    "address_line3": "",
    "attention": "George",
    "city": "Copenhagen",
    "company_name": "Some other company",
    "country_code": "DK",
    "email": "otherexample@gmail.com",
    "phone_number": "44444444",
    "state_code": "",
    "zip_code": "2300"
  }
}

```

## Initial response

An initial response to a booking request will return `200 OK` and the following parameters:

Field	Description
unique_shipment_id	Unique identifier for the created shipment
request_id	Unique identifier for the API request
status	Status on the created shipment ( <code>failed</code> , <code>booked</code> or <code>waiting_for_booking</code> )
callback_url	Echoing the <code>callback_url</code> specified in the user request;

## Example

```

{
  "unique_shipment_id": "3-1-1134",
  "request_id": "5839db1b-1c52-42ad-ad07-438c6b2c8425",

```

```
"status": "waiting_for_booking",
"callback_url": "http://somedomain.com/bookings/callback"
}
```

## Final response

This is the second response that Cargoflux will `POST` to the specified `callback_url` once the booking process has completed.

Field	Description
awb	AWB number
awb_asset_url	Downloadable URL for the returned awb document

## Example

```
{
  "unique_shipment_id": "3-1-1294",
  "status": "booked",
  "awb": "0005712696000001230015",
  "awb_asset_url": "https://cargoflux-development.s3.amazonaws.com/assets/000/0"
}
```

## Failed shipments

If a shipment was created in Cargoflux (the initial response was a successful one), but the booking process failed, the user should save the `unique_shipment_id` and refer to the **Retry Shipment** endpoint. The user should *NOT* book new shipments using the **Book Shipment** endpoint.

By doing this, the user can correct encountered errors by tweaking the request, thus updating the existing shipment, instead of creating a new shipment for each request.

## Error response

Cargoflux will perform initial data validations on shipment requests, and such errors will always have a CF-prefixed error code.

If no initial errors are found, the request will be forwarded to the end carrier (TNT, UPS etc.). Each carrier perform their own unique data validations and may return additional errors. These errors will be transferred back to Cargoflux, who will then forward these back to the user, unmodified, as part of the error response.

If problems are encountered, with errors not originating from Cargoflux, the user can refer to the carriers own API documentation for further assistance.

#### Example

Errors are returned with status `500 Internal Server Error` and a JSON response:

```
{
  "status": "failed",
  "errors": [
    {
      "code": "CF-API-003",
      "message": "invalid product_code"
    }
  ]
}
```

## Retry shipment

- `PUT /api/v1/customers/shipments` retries booking the shipment.

### Request parameters

#### Meta parameters

Req?	Field	Description
*	access_token	API access token
*	callback_url	URL to which Cargoflux will send a <code>POST</code> request upon booking completion or errors . The URL must be reachable from the web.
*	unique_shipment_id	The unique shipment id returned in the initial response and can also be viewed when logged into Cargoflux.

#### Other parameters

The Shipment and Sender/Recipient parameters are required under the same specifications as described under the **Book Shipment** endpoint.

#### Example request

```
{
  "access_token": "5cb0e7db6cf8d2e46cbcf58010252b78465c151",
  "callback_url": "http://somedomain.com/bookings/callback",
  "unique_shipment_id": "12-3-213",
  "shipment": {
    "product_code": "upsx",
    "dutiabile": false,
    "package_dimensions": [{
      "amount": "1",
      "height": "10",
      "length": "10",
      "weight": "5",
      "width": "10"
    }],
    "description": "some customer description",
    "reference": "some customer reference",
    "shipping_date": "2015-08-03"
  },
  "sender": {
    "address_line1": "some street",
    "address_line2": "",
    "address_line3": "",
    "attention": "",
    "city": "Copenhagen",
    "company_name": "Some company",
    "country_code": "DK",
    "email": "example@gmail.com",
    "phone_number": "33333333",
    "state_code": "",
    "zip_code": "2300"
  },
  "recipient": {
    "address_line1": "some other street",
    "address_line2": "",
    "address_line3": "",
    "attention": "George",
    "city": "Copenhagen",
    "company_name": "Some other company",
    "country_code": "DK",
    "email": "otherexample@gmail.com",
    "phone_number": "44444444",
    "state_code": "",
    "zip_code": "2300"
  }
}
```

## Response

Same response format as the **Book Shipment** endpoint.

## Error response

Same error response format as the **Book Shipment** endpoint.

## Shipment prices

- `POST /api/v1/customers/shipments/prices.json` calculates prices per available carrier according to the given parameters.

### Required parameters:

- `sender` is a JSON object with the following keys
  - `address_line1`
  - `address_line2` (optional)
  - `address_line3` (optional)
  - `zip_code`
  - `city`
  - `country_code`
  - `state_code`
- `recipient` is a JSON object with the following keys
  - `address_line1`
  - `address_line2` (optional)
  - `address_line3` (optional)
  - `zip_code`
  - `city`
  - `country_code`
  - `state_code`
- `package_dimensions` is a JSON array consisting of JSON objects with the following keys
  - `amount`
  - `height` (cm)
  - `length` (cm)
  - `width` (cm)
  - `weight` (kg)

### Optional parameters:

- `default_sender` can be set to `true` to use the default location information of the customer; in that case `sender` will not be a required parameter.
- `shipment_type` can be set to `Export` (default) or `Import` for import shipments.

#### Example JSON request

```
{
  "default_sender": true,
  "recipient": {
    "address_line1": "Njalsgade 17A",
    "address_line2": null,
    "address_line3": null,
    "zip_code": "2300",
    "city": "København S",
    "country_code": "DK",
    "state_code": null
  },
  "package_dimensions": [
    {
      "amount": 1,
      "height": 25,
      "length": 30,
      "width": 20,
      "weight": 1.5
    }
  ]
}
```

#### Example JSON response

If you have provided the required parameters we will return `200 OK` and a response body like the following:

```
[
  {
    "name": "DAO Direkte",
    "product_code": "daod",
    "transit_time": null,
    "price_amount": null,
    "price_currency": null
  },
  {
    "name": "DAO Pakkeshop",
    "product_code": "daop",
    "transit_time": null,
    "price_amount": null,
  }
]
```

```
    "price_currency": null
  },
  {
    "name": "GLS Business",
    "product_code": "glsb",
    "transit_time": null,
    "price_amount": "40.00",
    "price_currency": "DKK"
  },
  {
    "name": "GLS Pakkeshop",
    "product_code": "glsp",
    "transit_time": null,
    "price_amount": "56.12",
    "price_currency": "DKK"
  },
  {
    "name": "Post Danmark Erhvervspakke (Pacsoft)",
    "product_code": "pde",
    "transit_time": null,
    "price_amount": "25.07",
    "price_currency": "DKK"
  }
]
```

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## Country code

Country codes should be alpha-2 codes following the ISO-3166 standard. [See here for more documentation](#).

Examples:

- **DK** for Denmark
- **GB** for United Kingdom of Great Britain and Northern Ireland
- **US** for United States of America

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## State code

State codes are exclusively used for US and Canadian addresses.

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## DGR

Currently the following DGR options are supported (for DHL shipments):

Identifier	Description
dry_ice	Dry Ice UN1845
lithium_ion_UN3481_PI966	Ion PI966 Section I (LiBa with equipment)
lithium_ion_UN3481_PI967	Ion PI967 Section I (LiBa in equipment)
lithium_metal_UN3091_PI969	Metal PI969 Section I (LiBa with equipment)
lithium_metal_UN3091_PI970	Metal PI970 Section I (LiBa in equipment)