Quickguide For API Integration

Basic Actions

Table of contents

Transsmart has 2 active API versions. They are labeled API/v1 and API/v2.
The document below only describes how to integrate with the most recent version API/v2.

Transsmart also has 2 publicly available environments:
1. user acceptance with base URL https://accept-api.transsmart.com
2. production with base URL https://api.transsmart.com
The examples in the documentation below will always reference the user acceptance environment.

1 Authentication

The API/v2 uses token based authentication. This means that before any request can be sent a new token needs to be retrieved and used for sending the subsequent requests.

1.1 Token retrieval

Before a token can be retrieved you need to have a valid user name and password. Speak with your Transsmart contact if you have not yet received any.

Connect to https://accept-api.transsmart.com/login with basic authentication.

The response will be a JSON formatted text containing a single name/value pair.

```
{"token": "eyJhbGciOiJIUzUxM...FHPrZw"}
```

1.2 Token usage

Every other request that you send to the API/v2 will need to contain a specific HTTP header field: Authorization.

The value of this field needs to be the token value, prefixed with `"Bearer "`.

1.3 Token lifetime

Tokens have a limited lifetime of 24 hours.

For applications integrating with our platform this is irrelevant, because typically tokens are retrieved at the beginning of a application process (e.g. book and print a shipment), used for the subsequent calls (e.g. book shipment, check status, issue label print) and dropped after the process has completed.

2 Booking a shipment

By booking a shipment your system sends all relevant information to our API/v2, the Transsmart platform then does its magic and a number of things happen, all depending on the actual configuration of your account.

Below are some examples of actual use cases:

1. information is forwarded to the carrier, carrier responds with label information, label information is returned to your system as part of the response
2. information is stored in Transsmart and only forwarded to the carrier in a Manifest at a fixed point during the day, but the response will nevertheless contain a label to be printed
3. Information is stored in Transsmart and used to make a label. All relevant information which the carrier needs is filtered out and put in a barcode which generates a Label. The prining of the barcode will actually transfer the information to the carrier
4. Information is stored in Transsmart and no information is send to a carrier and only a label is generated, this is used for postlabels or own transport

2.1 Request content

A booking consists of several information blocks. Most of the information in those blocks comes from your application, the others parts typically are Transsmart codes for carriers, service levels, etc.

There is one exceptional field : the shipment reference. The content of this field needs to be unique throughout all of the shipments that you do. In most cases this will be an autonumber value from your application.

Besides the basic shipment information (addresses, pickup date and time, package information, etc) there are a number of optional fields that will need to contain values depending on the selected carrier/service level/service option/…

In the next paragraphs we will highlight the most important parts of the shipment information. At the end a complete example request is included.

2.1.1 Shipment details

This is the first part in the request.
```
"reference": "TESTv2",
"carrier": "EEX",
"value": 25,
```

```
"valueCurrency": "EUR",
"pickupDate": "2017-09-25",
"service": "NON-DOCS",
"serviceLevelTime": "EUROPLUS",
"serviceLevelOther": "",
"incoterms": "CPT",
"numberOfPackages": 1,
"measurements": {
    "length": 30.0,
    "width": 20.0,
    "height": 10.0,
    "weight": 1.0,
    "linearUom": "CM",
    "massUom": "KG"
    }
```

field	description
reference	Your unique shipment reference.
carrier	The selected carrier.
value	The shipment value.
valueCurrency	The shipment value currency.
pickupDate	The requested pickup date for the carrier.
service	Indicating if the shipment consist of documents or non-documents Allowed values are DOCS and NON-DOCS.
serviceLevelTime	The selected carrier service level.
serviceLevelOther	The selected carrier service level option.
incoterms	The incoterm condition under which the shipment is sent.
numberOfPackages	The number of packages in the shipment.

2.1.2 Address information

Next are the addresses. Basically the carrier needs to know where the shipment has to be picked-up and where it has to be delivered. These address segments are called the SEND and RECV addresses, from sender and receiver respectively.

There are 2 additional address types: INV for the invoicee and 3PTY for the 3rd party billing details.

Regardless of the type, every address can contain the same data fields

```
"addresses": [
        {
        "type": "RECV",
        "name": "Transsmart",
        "addressLine1": "Ellen Pankhurststraat",
        "addressLine2": "2de etage",
        "houseNo": "1c",
        "city": "Tilburg",
        "zipCode": "5032MD",
        "country": "NL",
        "contact": "Jan Voorbeeld",
        "email": "jan@test.com"
        }, {
        "type": "SEND",
        "name": "Transsmart B.V.",
        "addressLine1": "Ellen Pankhurststraat",
        "addressLine2": "1e verdieping Entrada",
        "houseNo": "1A",
        "city": "Tilburg",
        "zipCode": "5032 MD",
        "country": "NL",
        "contact": "Piet Voorbeeld",
        "email": piet@voorbeeld.nl
        }
    ]
```

field	description
type	The address type. Allowed values are SEND, RECV, INV or 3PTY.
Name	Name of the address.
addressLine1	First address line, usually filled with street name.

addressLine2	Second address line, used for additional address information, e.g. building name, floor, etc.
houseNo	The house number.
city	The city.
zipCode	The zip code.
country	The country in ISO 2 notification, more explanation: https://en.wikipedia.org/wiki/ISO_3166-1_alpha-2
contact	The name of the contactperson.
email	The email address.

2.1.3   Package details

The next block is for the package details and contains one line for every kind of collo.
A package contains the actual information of the collo you are shipping. A package can be of several types, for example a pallet or a box.
A single package is also referred to as a shipment line. You can set your own identifier to the package in the field shipmentLineId.
The quantity is the amount of unique packages you are shipping. For example, if you are shipping 2 identical boxes with the same measurements you can set quantity to 2. This will generate 2 labels with 2 different airwaybills. Please note, that a response will always give a shipmentline per package although you have provided quantity 2. This is because every package will have his own unique airwaybill (or barcode).

```
"packages": [
        {
        "lineNo": 1,
        "packageType": "BOX",
        "description": "Doos",
        "shipmentLineId": "4567",
        "quantity": 1,
        "measurements": {
            "length": 30.00,
            "width": 20.00,
            "height": 10.00,
```

```
                         "weight": 1.00,
                         "linearUom": "CM",
                         "massUom": "KG"
                         }
            ]
```

field	description
lineNo	The line number of the collo. Must be an integer value and increment without gaps for all subsequent lines.
packageType	The type of package. The basic values are BOX, PARCEL, PALLET.
description	The description of the package type for your own purpose.
shipmentLineId	Your identifier for this shipment line.
quantity	The number of collo that have the exact same specification.
length	The length of the package.
width	The width of the package.
height	The height of the package.
weight	The weight of the package.
linearUom	The unit of measurement for the length, width and height. Allowed values are: CM, FT, IN, YD
massUom	The unit of measurement for the weight. Allowed values are: KG, LB, OZ

2.1.4   Delivery note information

Every package can contain delivery note information. This information is not mandatory, but might be needed in particular situations for cross-border shipments or when Transsmart has to make additional documentation like invoices or packslips.

2.2   Request example

Below is a complete example of what a single booking request could look like.

```
{
"reference": "TESTv2",
"carrier": "EEX",
"value": 25,
"valueCurrency": "EUR",
"pickupDate": "2017-09-25",
"service": "NON-DOCS",
"serviceLevelTime": "EUROPLUS",
"serviceLevelOther": "",
"incoterms": "CPT",
"numberOfPackages": 1,
"measurements": {
        "length": 30.0,
        "width": 20.0,
        "height": 10.0,
        "weight": 1.0,
        "linearUom": "CM",
        "massUom": "KG"
    },
"addresses": [
        {
        "type": "RECV",
        "name": "Transsmart",
        "addressLine1": "Ellen Pankhurststraat",
        "addressLine2": "2de etage",
        "houseNo": "1c",
        "city": "Tilburg",
        "zipCode": "5032MD",
        "country": "NL",
        "contact": "Jan Voorbeeld",
        "email": "jan@test.com"
        }, {
        "type": "SEND",
        "name": "Transsmart B.V.",
        "addressLine1": "Ellen Pankhurststraat",
        "addressLine2": "1e verdieping Entrada",
        "houseNo": "1A",
        "city": "Tilburg",
        "zipCode": "5032 MD",
        "country": "NL",
        "contact": "Piet Voorbeeld",
        "email": "piet@voorbeeld.nl"
        }
        ],
    "packages": [
        {
        "lineNo": 1,
        "packageType": "BOX",
        "description": "Doos",
        "shipmentLineId": "4567",
```

```json
        "quantity": 1,
        "measurements":
            {
            "length": 30.00,
            "width": 20.00,
            "height": 10.00,
            "weight": 1.00,
            "linearUom": "CM",
            "massUom": "KG"
            }
        }
        ]
}
```

3 Printing the label

The description below is valid for both labels and all other transport documents that are related to your shipments.

3.1 Trigger the print action

There are three ways to print the documents:

1. for an existing shipment, retrieve the actual documents and send them to your application printer
2. for an existing shipment, send a separate print request and print via SmartPrint
3. for a new shipment, send a booking request including a print action and print via SmartPrint

Every option is elaborated below.

At the end of the chapter there is some additional information about SmartPrint, the Transsmart printing tool.

3.1.1 Document retrieval

Retrieving the documents for a specific shiment is easy.

Simply send a request to `v2/prints` as described in the developer documentation and set the `rawJob` parameter to `true`.

The response will contain a base64 encoded string. The actual content can be zpl code or a pdf document, depending on your account configuration.

3.1.2 Send print request

This works exactly as in the previous paragraph, except for the `rawJob` parameter that needs to be set to `false`.

This way the documents to be printed are queued within Transsmart, picked up by SmartPrint installed in your network and sent to your printers via that way.

3.1.3 Give a print action together with the booking and print via the Transsmart tools.

Have a look at the booking request details as described in the developer documentation.

To automatically trigger a print action at the moment of sending the booking request, you need to change the path `v2/shipments/BOOK` to `v2/shipments/PRINT`.

3.2 SmartPrint

SmartPrint is the Transsmart printing tool that consists of 2 components:

1. SmartPrint itself
2. QZ Tray 2.0.4 (or higher)

You can download these via MyTranssmart. Once you're logged in click the printer icon and select the desired download.
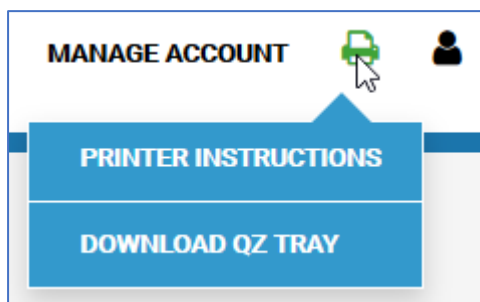

The tools need to be installed and accessible from where you are printing, in other words on your local machine if the printers are installed locally or on the print server if your printers are installed there.

3.2.1 SmartPrint configuration

The SmartPrint tool needs your user credentials in order to pick the correct document from the Transsmart printing queue.

Therefore, once you have installed SmartPrint perform these actions on that specific machine:

1. hit Start and type %APPDATA%
2. a Windows Explorer will open, go to the SmartPrint folder
3. open the config file in a text editor and configure your user, your account and the environment (either accept or production), save and exit
4. restart SmartPrint, go to the right corner in your taskmenu. Click on smartprint and click on exit. Then restart it via your startmenu.
5. log into MyTranssmart, click the persona icon and select My Details
6. on the Printing tab, check "Print with SmartPrint"
7. select the available connection, the printers where you want to print to and click Save
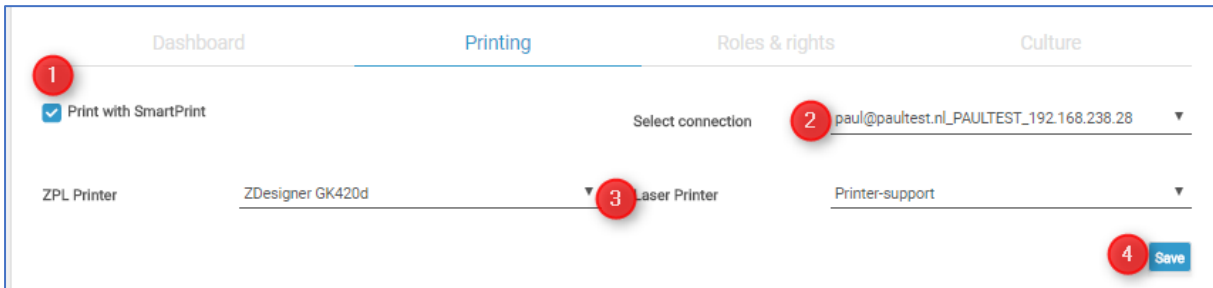
You can define a different set of printers for each user, although they are all use the same SmartPrint connection.