

# **GLS Web API for Parcel Processing**

**Developer Documentation** 

GLS IT Customer Solution Support +33 532 810 140 - supportitclients@gls-france.com

# **Document information**

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# Content

	Docun	nent	information	I
	Docun	nent	version history	I
1	Ove	rviev	<i>y</i> 6	
	1.1	Res	ources Structure	6
	1.2	Hea	der Structure	7
	1.3	Bas	c Data Formats	7
	1.4	Me	dia Types	8
	1.5	Con	nmon Status Codes	8
	1.6	Erro	r Messages	8
	1.1	Tes	ing Environment	10
2	Res	ource	es11	
	2.1	POS	T –Shipment	11
	2.1.	1	Shipment Request	11
	2.1.	2	Shipment Request Parameter Description	12
	2.1.	3	GLS France Products & Services	13
	2.2	Ans	wer in Base64	13
	2.2.	1	Shipment Response Attributes	13
	2.2.	2	GLStrackID and URL Link:	14
	2.2.	3	Label Format	15
3	App	endi	ces16	
	3.1	Exa	mples of requests for GLS France products&services	16
	3.1.	1	Standard Shipment without additional service (1 parcel)	16
	3.1.	2	Standard shipment without additional (2 parcels)	17
	3.1.	3	Standard shipment without additional service (with optional shipment informations)	18
	3.1.	4	Shipment with FlexdeliveryService (FDS)	19
	3.1.	5	Shipment with ShopDeliveryService (parcelshop choosen by customer)	20
	3.1.	6	Shipment with ShopDeliveryService (ParcelShop choosen by API)	21
	3.1.	7	Shipment with ShopReturnService (with one way and return labels)	22
	3.1.	8	Shipment with ShopReturnService (with only one return label):	23
	3.1.	9	Pick&ReturnService request	24
	3.1.	10	Pick&ShipService request	24
	3.2	Inco	term Code	25
	3.3	Exa	mples of labels sizes: A6, A5 or A6	25
	3.3.	1	A6 label:	25

3.3.	.2	A5 label:	. 26
3.3.	.3	A4 label:	. 26
3.4	Eme	ergency Label UNISHIP	. 27

# 1 Overview

- API Performance: 300ms 1500ms / label.
- Requests should be executed sequentially.
- One request per shipment.
- A maximum of 30 labels can be created with one request.
- The shipment and labels are created with the same request. Since the API does not support to retrieve the label at a later time the label must be saved by the requesting application for later use.
- Some services return more than one label per parcel (e.g. ShoReurnService)
- Requests with *Pick&ShipService* and *Pick&ReturnService* do not return a label since the label will be printed in the depot.
- The test system creates labels that are marked with a "DEMO"-banner to make sure they are not used in production.
- Today, this API manage our GLS France standard products (BusinessParcel, Euro and Global BusinessParcel)
  and our following services: FlexDeliveryService, ShopDeliveryService, ShopReturnService as part of a round
  trip, Pick&Ship and Pick&Return services.

For more detail, see chapter 2.1.3 in page 11.

### 1.1 Resources Structure

Name	Description
Base URL	https://api.gls-group.eu/public/v1/
Resource	shipments
Authentication	RFC 2617 ( https://www.ietf.org/rfc/rfc2617.txt )

### 1.2 Header Structure

Name	Content
Authorization:	Basique <base64-encoded username:password=""></base64-encoded>
Accept-Language:	en
Accept-Encoding:	gzip,deflate
Accept:	application/json
Content-Type:	application/json



User login and password will be created specifically for the use of the Web API GLS, please contact us if you do not know them yet.

Ensure that your user login used is setup with shipperId used for shipment labelling.

### **Example**

```
METHODE POST /public/v1/shipments (HTTP/1.1)
Host: api.gls-group.eu
Accept-Language: en
Accept-Encoding: gzip,deflate
Accept: application/json
Content-Type: application/json
Authorization: Basic <Replace with valid credentials>
```

- The optional "Accept-Language" (Default value "en") value determines the language of the label.
- Accepted languages are given as ISO 3166-2 2-letter code: "de", "dk", "fr", etc.

### 1.3 Basic Data Formats

Name	Description
Encoding	UTF-8
Date/Timestamp	ISO 8601 YYYY-MM-DDThh:mm:ss+hh:mm or YYYY-MM-DDThh:mm:ssZ

# 1.4 Media Types

The current version of the API solely supports the media type "application/json".

### 1.5 Common Status Codes

Code	Text	Description
201	Created	The request was successful.
400	Bad Request	The request is incomplete or has an invalid structure.
401	Unauthorized	The authentication information that was sent is either missing or invalid. Authentication may be retried.
403	Forbidden	Authentication was successful, but authorization wasn't. The user is not allowed to access the requested resource. Also sent as response for every request of a user account that gets locked out.
404	Not Found	The requested resource does not exist.
405	Method Not Allowed	The HTTP method is not supported for this resource; f. e. a GET on the shipments collection resource must yield this status code.
406	Not Acceptable	The request header contains an accept parameter with an unsupported content type.
500	Internal Server Error	Used to indicate there was a server-side processing failure of some kind. Use this when no other description in the 5xy-range makes sense.
503	Service Unavailable	The API is overloaded currently, try again later. The API sends this code when the systems it depends on are down or react sluggish.

# 1.6 Error Messages

Name	Description
errors	An array holding error objects.
exitMessage	The short error message.
description	A more verbose description of the error.
exitCode	The error code.

# **Example:**

HTTP code	Code	Message	Description
429	0001	Rate limit exceeded	The user has exceeded the rate limit (%s).
403	0002	User account blocked	The user account was blocked.
403	0003	Missing rights	The user is allowed to access the API, but lacks necessary rights (account registration incomplete).
400	0004	Input validation error	An error occurred when validating input: %s.
400	0005	Missing input parameter	An input parameter is missing: %s.
400	0006	Address not supported	The shipment cannot be delivered to or from a given address, details: %s.
406	0008	Not acceptable	The content-type of the POST request is not acceptable.
401	0009	Not authorized	The user is not authorized (wrong username or password).
404	0010	Page not found	The requested resource was not found.
400	0011	Parcel weight limit exceeded	A parcel weight limit was exceeded, details: %s.
405	0011	The HTTP method is not supported for this resource.	The method specified in the Request-Line is not allowed for the resource identified by the Request-URI.
500	9999	Unexpected error	There was a server-side processing failure of some kind.



GLS shipment API does not control if zipcode exists or if couple zipcode / City is OK.

It is up to you to take care of data validity

# 1.1 Testing Environment

For development and testing purposes please use this Base URL:

Name	Description
Base URL	https://api-qs.gls-group.eu/public/v1/
Resource	shipments

# User login for test:

• Login : **250test** 

Password : 250testpwd

### ShipperId for test:

CustomerID: 2505400034ContactID: 250aaawbn6

# 2 Resources

### 2.1 POST -Shipment

Name	Description
Base URL	https://api.gls-group.eu/public/v1/
Resource	shipments

### 2.1.1 Shipment Request

### Header

```
POST https://api.gls-group.eu/public/v1/shipments HTTP/1.1
Accept-Encoding: gzip, deflate
Accept-Language: de
Accept: application/json
Content-Type: application/json
Authorization: Basic <Replace with valid credentials>
```

### **Body**

# 2.1.2 Shipment Request Parameter Description

N°	Nodes	Attributes	Values	Description	Lenght	Standard	FDS SL	Servic	es P&S P&R
1	shipperId	>>>	>>>	CustomerID <blank>ContactID (provided by GLS - ex: "2500011329 250000007B")</blank>	21		FD3 3F	כאכ שו	ras Pak
2	shipmentDate	>>>	>>>	Shipment date in format AAAA-MM-JJ (ex: "2017-11-06"). Current date if not provided.	10				
3	references	>>>	>>>	2 possible references separated by a comma (will appear in the field "Note1" on the label <u>AND</u> will be visible on refsup1 and refsup2 in our GLS France tools <u>AND</u> they can be used for track&trace research on our Website YourGLS) ex: ["Reference1", "Reference2"]	20max/Ref				
1	addresses	>>>	>>>	Container node for all addresses	,				
-4	>>>	delivery	>>>	Delivery address	1				
6		alternativeShipper	>>>	Optional address, if you want another sender name and address to appear on the label in the sender box.	/				
7	>>>	return	>>>	Adress for the return of the parcel	/				
8	>>>	pickup	>>>	Adress for the pickup of the parcel, in case of service ShopReturnService, it is the address of the contact who returning the parcel.	/				
9	>>>	>>>	id	Adress ID (useful reference for track&trace research on our Website YourGLS)	0 to 20				
10	>>>	>>>	name1	Company name or consignee name	2 to 35				
11	>>>	>>>	name2	Additional address	0 to 35				
12	>>>	>>>	name3	Additional address	0 to 35				
13	>>>	>>>	street1	Primary adress => if multiple lines adress, provide the street name HERE.	3 to 35				
14	>>>	>>>	blockNo1	Number of the house or building in the street - appear after the field "Street1" on the label - <b>Provide ONLY</b> if no indicated in the data in the field "Street1".	1 to 10				
15	>>>	>>>	country	Two letters for the country code -> ISO 3166-1-alpha-2 (ex: "FR")	2				
16	>>>	>>>	zipCode	Postal code (in case of Ireland the province)	1 to 10				
17	>>>	>>>	city	City	2 to 35				
18	>>>	>>>	province	Mandatory for addresses located in Ireland.	2 to 35	IR			
19	>>>	>>>	contact	Contact name	2 to 35				pickup pickup
20	>>>	>>>	email	E-mail - /!\Mandatory for BtoC	3 to 100				
21	>>>	>>>	phone	Phone number /!\ One of the two is mandatory en BtoC	0 to 20				
22 23	>>>	>>>	mobile incoterm	International Commercial Terms (Incoterm) code. (see table in appendix 3.1 - ex: 10)	0 to 20				
24	parcels	>>>	>>>	Container node for the package data	1				
25	>>>	weight	>>>	Weight of the package, decimal separator "." (ex: 2.5)	3 à 5				
26		references	>>>	2 possible references separated by a comma /!\ Unvailable in the GLS France tools - ONLY DISPLAY ON THE LABEL in the field "Ref. No" ex: ["Reference1", "Reference2"]	20max/Ref				
27	>>>	comment	>>>	Comment (display on the label in the field " <b>Note2</b> " - unvailable in the GLS France tools)	0 à 35				
28	>>>	services	name	Name of the additional service, mandatory <u>only</u> for the services: <b>FlexDeliveryService</b> , <b>ShopDeliveryService</b> , <b>ShopDeliveryService</b> , <b>ShopReturnService</b>					
29		infos	name	Additional information for the service. Mandatory for the ShopDeliveryService: parcelshopid					
30			value	ID of the parcel shop for the ShopDeliveryService					
31	returns	>>>	>>>	Node to indicate the weight <b>IF</b> the attribute "return" was chosen in the node "addresses".	/				
32		weight	>>>	Weitht of the parcel for return, decimal spearator "." (ex: 2.5)	5		10 10 10 10 10 10 10 10 10 10 10 10 10 1		
33	labelFormat	>>>	>>>	PDF or PNG (PDF by default)					
34	labelSize	>>>	>>>	A6, A5 or A4 (A6 by default)					
							Mandat Optiona	ıl	

not allowed

### 2.1.3 GLS France Products & Services

### • Standard delivery:

National or international shipments without additional services. GLS API calculate automatically the correct product depending of delivery's country: BP (Business Parcel), EBP (Euro Business Parcel) ou GBP (Global Business Parcel).

- Services (covered by GLS France)
  - FDS: FlexDeliveryService => BtoC shipment. Email and SMS are sent to consignee for delivery informations. Consignee can give a redirection order online.
  - SHD: ShopDeliveryService => BtoC shipment. To deliver a parcel in a parcel-shop
  - SRS: ShopReturnService => BtoC shipment. The consignee brings back the parcel to a parcel-shop and the parcel is delivered back to the Shipper
  - P&S: Pick&ShipService => BtoB shipment. Order is given to GLS to pickup a parcel at a chosen address and to deliver it to another consignee's address
  - P&R: Pick&ReturnService => BtoB shipment. Order is given to GLS to pickup a parcel at a chosen address and to deliver it back to the shipper

### 2.2 Answer in Base64

### 2.2.1 Shipment Response Attributes

# DESCRIPTION OF PARAMETERS FOR CODED ANSWERS IN BASE64

N°	Nodes	Attributes	Description		
1	labels	>>>	Body of label(s) encoded in Base64		
2			Node for informations of the parcel(s).		
	parcels	>>>	Only this part is to decode in Base64 to get the		
			label(s).		
3	>>>	parcelNumber	GLStrackID if the parcel is for France or GP number if		
	///	parcemuniber	it is for International.		
4	>>>	trackId	GLStrackID= unique parcel number		
5	>>>	location	URL link to track the parcel		
6	returns	>>>	Node for informations of the SRS parcel(s) in return.		
7	>>>	parcelNumber	GLStrackID for the SRS parcel in return.		
8	>>>	trackId	GLStrackID= unique parcel number for the SRS in		
0	///	LIACKIU	return.		
9	>>>	location	URL link for the parcel SRS		
			URL link to track the parcel(s), all parcels in the		
10	location	>>>	answer will be in this link separated by a coma and		
			they will be present on the Web page.		
11	consignmentId	>>>	ID for the adress consignment		

### 2.2.2 GLStrackID and URL Link:

It can be important for our customers to collect the GLStrackID in order to implement them in their own database (ID unique of the parcel in the GLS network) for distribution to their after-sales service and/or their consignees.

For this, you can retrieve this information in the "parcels" node behind the "trackId" attribute.

In the same way, you can directly retrieve the parcel tracking URL link behind the "location" attribute either in the "parcels" node for a URL link per parcel, or in the "returns" node for a multi-URL links for all parcels.



In case of many labels with just only one request, take care to collect all GLStrackID for all parcels.



In case of the use of a services combination with generating several labels (ex: shipping a standard delivery parcel with SRS return), the GLStrackID of the return label will only be in the "returns" node and not in the "parcels" node.

### 2.2.3 Label Format

- PDF format: all shipment's labels, base64 encoded, are in the same PDF file, one label per page.
- PNG format: each label of the shipment, base64 encoded, is in a separate array occurrence See array "label" from [1] to [x].

Example of associative array for an answer in PNG: ¢ Q ⊟ 🎲 res <MembreVariant> 🖃 👔 labels **(1)** iVBORw0KGgoAAAANSUhEUgAABNUAAAbWCAIAAAAavxbCAAAACXBIWXMAAC4jAAAuIwF4pT92AAIIL0IEQVR4XuydO5IuNbZGzxgYQFtYuBWBhdUDaAuLAZR1rI [2] parcels <MembreVariant> ± 🌼 [2] <MembreVariant> returns location https://gls-group.eu/track/00B10ZUX,00B10ZUY consignmentId 00B10ZUX



# 3 Appendices

# 3.1 Examples of requests for GLS France products&services

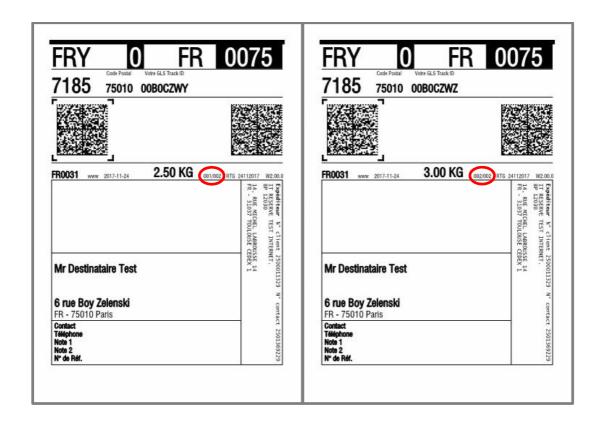
3.1.1 Standard Shipment without additional service (1 parcel)



### 3.1.2 Standard shipment without additional (2 parcels)



In case of multiple parcels in shipment, add as many weight information ["weight": x.x] in "parcels" node.

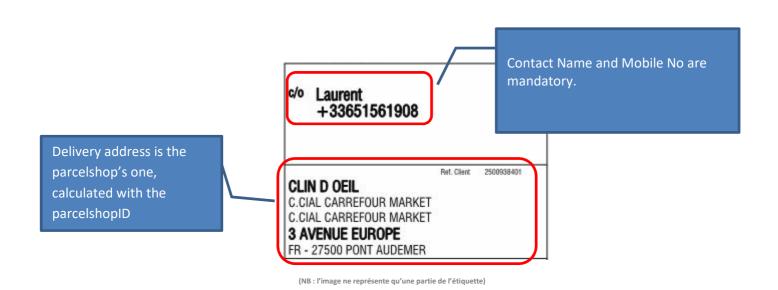


### 3.1.3 Standard shipment without additional service (with optional shipment informations)

### 3.1.4 Shipment with FlexdeliveryService (FDS)



### 3.1.5 Shipment with ShopDeliveryService (parcelshop choosen by customer)



### 3.1.6 Shipment with ShopDeliveryService (ParcelShop choosen by API)

In this case, GLS WEB API calculate the nearest parcelshop depending of the consignee 's address (delivery address in json file)

### 3.1.7 Shipment with ShopReturnService (with one way and return labels)







### 3.1.8 Shipment with ShopReturnService (with only one return label):



The generation og a return label only (through a parcel drop by the consignee in a relay point) is done by adding to the body about sending parameter "return" in the node "addresses" and by adding "services": "name": "shopreturnservice" AND adding one node "infos": "name": "retrunonly", "value": "Y".

### 3.1.9 Pick&ReturnService request



Only Pickup address is needed, the delivery address is the shipper one (calculated from shipperId information). No label in answer because in this case the label is printed by GLS depot.

### 3.1.10 Pick&ShipService request



No label in answer because in this case the label is printed by GLS depot

### 3.2 Incoterm Code

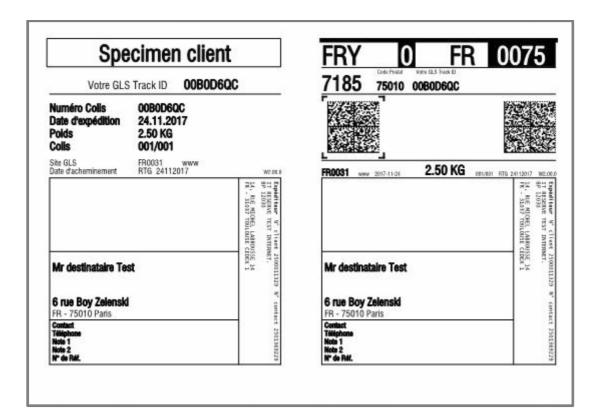
Code	Text	Abbreviation
10	Delivered free, duty paid, taxed	DDP
20	Delivered free, duty unpaid, untaxed	DAP
30	Delivered free, duty paid, untaxed	DDP, VAT unpaid
40	Delivered free, no duty, no taxes	DAP, cleared
50	Delivered free, duty paid, low value exemption clearance (german "Freischreibung")	DDP

# 3.3 Examples of labels sizes: A6, A5 or A4.

### 3.3.1 A6 label:



### 3.3.2 A5 label:



### 3.3.3 A4 label:



# **Emergency Label UNISHIP** In case of no communication with our Web API, we can offer you several connectionless printing solutions. Contact us for more informations about them.