

LibraPay implementation manual

Content:

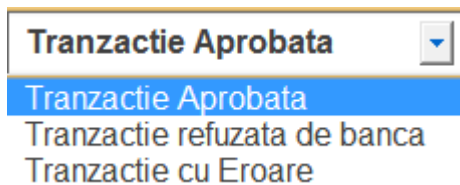
I. Technical Details (GET-POST messages).....	2
II. Merchant Data - example form.....	4
III. Pay-response flow	5
a) Synchronous flow.....	5
b) Asynchronous flow (IPN - Instant Payment Notification).....	5
IV. Description fields	6
IV.1. List fields	6
IV.2. DATA_CUSTOM : ProductData (Ordered Products Data).....	7
IV.3. DATA_CUSTOM : UserData (Client Data).....	7
IV.4.1 P_SIGN fields for authorization request	9
IV.4.2 P_SIGN fields for authorization response	10
V. Response codes and messages for online payment.....	13

Card Number: 4012888888881881
Expiry date: [Random Date]
Card Type: VISA
Name: [Random Name]
Security Code: [Random Number]

or

Card Number: 555555555554444
Expiry date: [Random Date]
Card Type: MASTERCARD
Name: [Random Name]
Security Code: [Random Number]

The tests should include all response scenarios:



- F.** After tests completion, before switching to Live mode, the merchant must confirm:
- the email address that will be used for order reception and payment completion alerts
 - the person that will have access to the LibraPay module from Internet Banking
- G.** Switching to Live mode can take minimum 2 days depending on the VISA & MASTERCARD response for Live activation.

In Live mode, LibraPay's URL for POST messages is: https://secure.librapay.ro/pay_auth.php

For final Live tests, the merchant will create a product/service of 1 RON that can be traded with a real card.

III. Pay-response flow

a) Synchronous flow

1. From the merchant site, using POST method, the merchant data (see chapter IV. Description Fields) is sent to LibraPay URL, and the payment form is displayed.
2. The card data is inserted into the LibraPay payment form.
3. After payment processing, the client is redirected to the URL specified in:

```
<input type="hidden" name="BACKREF" value="http://www.client-website.ro/raspuns" />
```

This is the address that is used to receive the synchronous response (at payment processing), where the merchant implements the order processing flow, for various types of response.

Generally, the data is received by GET method at the specified URL in BACKREF variable, but in case BACKREF already contains variables that are set for GET, the response is received by POST method.

b) Asynchronous flow (IPN - Instant Payment Notification)

The response can also be received asynchronous, at a specified URL agreed with the merchant. The asynchronous response is identical with the synchronous one and it is sent by POST repeatedly until the merchant's server responds with the message "1" (e.g. in PHP: echo "1";).

** In order to set this option, please contact the support team.*

IV. Description fields

IV.1. List fields

Name	Type	Length	Mandatory	Description
AMOUNT	Number	1-12	*	Payment total amount. It must contain exactly 2 decimals separated by dot. Thousands must NOT be separated by comma. Valid examples: 11203.83 or 30.00 Invalid examples: 11,203.83 or 30
CURRENCY	String	3	*	Payment currency. It must always be "RON".
ORDER	Number	6-19	*	Order ID. It must have at least 6 and maximum 19 numeric chars, must be unique for every order and it must not contain leading zero (valid example: 100001)
DESC	String	1-50	*	Order description displayed in the LibraPay. Authorization interface (internetbanking.ro)
TERMINAL	String	8	*	Merchant website identifier (provided by LibraPay)
TIMESTAMP	String	14	*	gmdate("YmdHis") The order will be rejected if the difference between GMT time and sent time is more than 1 hour. Format: YYYYMMDDHHMMSS
NONCE	String	32	*	Random generated number for security check e.g. md5("librabank_".rand(99999,999999));
BACKREF	String	1-80	*	The URL where the user is redirected after payment validation. The response is usually send via GET, but if BACKREF has GET variables the response is sent via POST
DATA_CUSTOM	String	NA	*	Encrypted serialized array of custom data: base64_encode(serialize(array(ProductData => array, UserData => array));
P_SIGN	String	40	*	Message's security code. It will be computed for every message.

BillingIDNumber	String	1-10	ID number for individuals	
BillingEmail	String	1-100	client billing email	*
BillingName	String	1-100	company name for companies, client name for individuals	*
BillingAddress	String	1-255	client billing address	
BillingPhone	String	1-50	client billing phone(s)	*
BillingIssuedBy	String	1-100	client billing ID issuer	
BillingCity	String	1-50	client billing city	*
BillingPostalCode	String	1-50	client billing postal code	
BillingDistrict	String	1-50	client billing district	
BillingCountry	String	1-50	client billing country	*
ShippingID	String	1-15	CUI for companies, ID serial number for individuals	
ShippingIDNumber	String	1-10	ID number for individuals	
ShippingEmail	String	1-100	client shipping e-mail	*
ShippingName	String	1-100	company name for companies, client name for individuals	*
ShippingAddress	String	1-255	client shipping address	*
ShippingPhone	String	1-50	client shipping phone(s)	*
ShippingIssuedBy	String	1-100	client shipping ID issuer	
ShippingCity	String	1-50	client shipping city	*
ShippingPostalCode	String	1-50	client shipping postal code	
ShippingDistrict	String	1-50	client shipping district	
ShippingCountry	String	1-50	client shipping country	*

IV.4. PSIGN Computation:

The standard algorithm for P_SIGN computation is HMAC-SHA1 using the following procedure:

1. an array with all fields of the table is formed (depending on the desired message)
2. in front of each field is attached the length of the field (numeric)
3. the fields with NULL value will be replaced with a dash (-) and will not have the length attached
4. the encryption key converts the array to a hexadecimal value (pack ('H *', \$ key))
5. encryption function is applied (HMAC-SHA1) which results in a hexadecimal value with a length of 40 digits
7. the result is modified so that all letters appear in capitals (strtoupper (\$ p_sign))
8. the result is sent along with the other fields from the table

It is very important for the merchant to verify and validate the value of P_SIGN sent by LibraPay for every message.

IV.4.1 P_SIGN fields for authorization request

Name	Type	Length	Description
AMOUNT	Number	1-12	Payment total amount. It must contain exactly 2 decimals separated by dot. Thousands must NOT be separated by comma. Valid examples: 11203.83 or 30.00 Invalid examples: 11,203.84 or 30
CURRENCY	String	3	Payment currency. It must always be "RON".
ORDER	Number	6-19	Order ID. It must have at least 6 and maximum 19 numeric chars, must be unique for every order and it must not contain leading zero (valid example: 100001)
DESC	String	1-50	Order description displayed in the LibraPay Authorization interface (internetbanking.ro)
MERCH_NAME	String	1-50	Merchant name provided with the LibraPay demo-kit
MERCH_URL	String	1-50	Merchant website URL provided with the LibraPay demo-kit
MERCHANT	Number	15	Merchant identifier provided with the LibraPay demo-kit (0000000 + Terminal).
TERMINAL	Number	8	Merchant website identifier provided with the LibraPay demo-

Example of P_SIGN computation for an authorization request

Given the following values:

<i>Name</i>	<i>Length</i>	<i>Value</i>
AMOUNT	5	11.48
CURRENCY	3	USD
ORDER	6	771446
DESC	16	IT Books. Qty: 2
MERCH_NAME	17	Books Online Inc.
MERCH_URL	14	www.sample.com
MERCHANT	15	123456789012345
TERMINAL	8	99999999
EMAIL	19	pgw@mail.sample.com
TRTYPE	1	1
COUNTRY	0	(NULL)
MERCH_GMT	0	(NULL)
TIMESTAMP	14	20030105153021
NONCE	16	F2B2DD7E603A7ADA
BACKREF	33	https://www.sample.com/shop/reply

The result string is:

511.483USD677144616IT Books. Qty: 217Books Online
Inc.14www.sample.com1512345678901234589999999919pgw@mail.sample.com11--
142003010515302116F2B2DD7E603A7ADA33<https://www.sample.com/shop/reply>

The encryption key used is: 00112233445566778899AABBCCDDEEFF

HMAC-SHA1 algorithm result is: FACC882CA67E109E409E3974DDEDA8AAB13A5E48

V. Response codes and messages for online payment

After receiving authorization requests, LibraPay will respond with certain codes and messages. Depending on the code, it can be determined whether or not the transaction has been successfully completed. The most common codes and the associated messages are listed in the table below:

RC	MESSAGE
00	AUTHORIZED
Anything else: ERROR due to various reasons. For example:	
- 19	AUTHENTICATION FAILED
51	INSUFFICIENT FUNDS

For LibraPay implementation, depending on the development environment, the technical team will provide one of the following modules:

- » .NET demo-kit
- » PHP standard demo-kit
- » PHP ecommerce platforms (each one with its own Install Guide):
 - ✓ CsCart
 - ✓ InterSpire
 - ✓ Magento
 - ✓ OpenCart
 - ✓ PrestaShop
 - ✓ osCommerce

Contact us by phone: 021 209 56 66

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