topay.pro

Description of the payment gateway protocol (REST API)

2022

Request format

The website generates POST request by HTTP protocol to host. «Content-Type» the type must be: «application/json; charset=UTF-8». Heading «Content-Length» must contain the correct value. If the request was sent by a method other than POST, he will be rejected. Requests are JSON-message.

Response format

The result of executing the request is placed in the body of the response to the HTTP request. The data format is similar to the request format, the response is a JSON message. «Content-Type»: «application/json; charset=UTF-8». The "Content-Length" header must contain the correct values.

MAC (Message Authentication Code)

For the operation "Payout" - the request must have an HTTP header "X-MAC" containing MAC (Message Authentication Code). MAC is calculated using the SHA256 algorithm. The resulting binary array is converted to "hex". The key for MAC generation is issued on a separate request.

Example on PHP:

```php
<?php
	$data; //json string
	$secret_key; //secret key
	$sign = hash_hmac('sha256', $data, $secret_key); //signature generation
?>
```

Purchase.

Endpoint: https://**{host}**/api/v1/terminals/**{uuid}**/orders/**{reference}**/pay
Method: POST

Name of the parameter	Type	Description
uuid	UUID	The unique identifier of the terminal (Partner), issued by the payment gateway
reference	String	The unique identifier of the order in the Partner's system.

JSON document structure, request.

Name of the parameter	Type	Description
expiration	Date, time zone UTC "yyyy-MM-dd'T'HH:mm:ss.SSS'Z'"	The maximum time for which it is possible to confirm the order.
amount.value	Float	The amount of the order. Format: a positive number with "." as a separator, no more than two digits after the dot.
amount.currency	String	The currency of the order, three digits currency code (ISO-4217).
url_success	String	URL, to which the user will be redirected in case of successful payment.
url_error	String	URL, to which the user will be redirected in case of unsuccessful payment.
url_callback	String	URL, for callback message.
Customer Information		
customer.first_name	String Mandatory	Customer's first name.
customer.last_name	String Mandatory	Customer's last name.
customer.country	String Mandatory	Customer's country(two-letter country code).
customer.state	String Mandatory	Customer's state . Please see Two-Letter Country Codes for a list of valid state codes. Mandatory for USA, Canada and Australia.
customer.city	String Mandatory	Customer's city.
customer.address1	String Mandatory	Customer's address line 1.
customer.zip_code	String Mandatory	Customer's ZIP code
customer.phone	String Mandatory	Customer's full international phone number, including country code.
customer.email	String Mandatory	Customer's email address.

Example of a JSON document, request:

```
{
    "expiration":"2021-09-11T10:45:15.000Z",
    "amount":{
        "currency":"USD",
        "value":3456
    },
    "customer":{
        "first_name":"Alex",
        "last_name":"Lee",
        "country":"US",
        "city":"Miami",
        "address1":"Main st 1",
        "zip_code":"690001",
        "phone":"+1850708888",
        "email":"117405@gmail.com"
    },
    "url_success":"https:\/\/test.com\/success",
    "url_error":"https:\/\/test.com\/error",
    "url_callback":"https:\/\/test.com\/callback.php"
}
```

The structure of the JSON document, the response.

Field name	Field type	Description
id	UUID	The unique identifier of the order in the payment gateway gateway.
reference	String	The number of the order in the "Partner" system to which the response was generated
type	String	The type of order to which the response is generated (Pay).
amount.value	Float	The amount of the order. Format: a positive number with "." as a separator, no more than two digits after the dot.
amount.currency	String	Currency of the order, three digits currency code (ISO-4217).
fee_amount.value	Float	The amount of the commission (if status.code = "Approved"). Format: a positive number with "." as a separator, no more than two digits after the dot.
fee_amount.currency	String	The currency of the commission.
status.code	String	Order processing status code: • **Approved** – the operation was successful. • **Declined** – the operation was refused. • **Pending** – the operation is in processing, it is necessary to redirect the client to the address in «**url**».
status.discription	String	Description of the order processing status in case of an error.
url	String	URL, to redirect the client to the

		payment page.

Example of a JSON document, response:

```
{
   "id": "84a85287-68fe-4119-b114-194a56064939",
   "reference": "3",
   "amount": {
     "currency": "USD",
     "value": "3456.00"
   },
   "status": {
     "code": "Pending"
   },
   "url":
"https://sandbox.topay.pro:443/order?uuid\u003d84a85287-68fe-
4119-b114-194a56064939",
   "type": "Pay"
}
```

Payout,

X-MAC – required.

Endpoint: https://**{host}**/api/v1/terminals/**{uuid}**/orders/**{reference}**/payout

Method: POST

Payout method: Card / Crypto coin / Neteller / Skrill

Name of the parameter	Type	Description
uuid	UUID	The unique identifier of the terminal (Partner), issued by the payment gateway
reference	String	The unique identifier of the order in the Partner's system.

JSON document structure, request.

Name of the parameter	Type	Decription
timestamp	Date, time zone UTC "yyyy-MM-dd'T'HH:mm:ss.SSS'Z'"	Partner host time, a difference of +/- 30 minutes from the exact time is allowed.
expiration	Date, time zone UTC "yyyy-MM-dd'T'HH:mm:ss.SSS'Z'"	The maximum time for which it is possible to confirm the order.
amount.value	Float	The amount of the order. Format: a positive number with "." as a separator, no more than two digits after the dot.
amount.currency	String	The currency of the order, three digits currency code (ISO-4217).
url_callback	String	URL, for callback message.
If payout to a payment card		
card.pan	String	Customer's credit card number. (16-19 digits).
If payout to skrill account		
skrill.account	String	
If payout to neteller account		
neteller.account	String	.
If payout to crypto coin		
wallet.chain	String	
wallet.address	String	
wallet.contract	String	
If set manual payout confirmation		
auth.user	String	Login from the merchant account
auth.otp	Integer	One-time password from the merchant account
Customer Information		
customer.first_name	String	Customer's first name.
customer.last_name	String	Customer's last name.
customer.country	String	Customer's country(two-letter country code).
customer.state	String	Customer's state . Please see Two-Letter Country Codes for a list of valid state codes. Mandatory for USA, Canada and

		Australia.
customer.city	String	Customer's city.
customer.address1	String	Customer's address line 1.
customer.zip_code	String	Customer's ZIP code
customer.phone	String	Customer's full international phone number, including country code.
customer.email	String	Customer's email address.

Example of a JSON document, request:

```
{
    "timestamp":"2021-09-11T10:45:15.000Z",
    "expiration":"2021-09-11T10:45:15.000Z",
    "amount":{
        "currency":"USD",
        "value":3456
    },
    "card": {
        "pan": "4111111111111111"
    },
    "customer":{
        "first_name":"Alex",
        "last_name":"Lee",
        "country":"US",
        "city":"Miami",
        "address1":"Main st 1",
        "zip_code":"690001",
        "phone":"+1850708888",
        "email":"117405@gmail.com"
    },
    "url_callback":"https:\/\/test.com\/callback.php"
}
```

The structure of the JSON document, the response.

Field name	Field type	Description
id	UUID	The unique identifier of the order in the payment gateway system.
reference	String	The number of the order in the "Partner" system to which the response was generated
type	String	The type of order (Payout).
amount.value	Float	The amount of the order. Format: a positive number with "." as a separator, no more than two digits after. The dot.
amount.currency	String	The currency of the order, three digits currency code (ISO-4217).
fee_amount.value	Float	The amount of the commission (if status.code = "Approved"). Format: a positive number with "." as a separator, no more than two digits after the dot.
fee_amount.currency	String	The currency of the commission, three digits currency code (ISO-

			4217).
status.code	String	Order processing status code: **Approved** **Declined** **Pending**
status.discription	String	Description of the order processing status in case of an error.

Example of a JSON document, response:

```
{
  "id": "84a85287-68fe-4119-b114-194a56064939",
  "reference": "3",
  "amount": {
    "currency": "USD",
    "value": "3456.00"
  },
  "status": {
    "code": "Approved"
  },
  «type»: «Payout»
}
```

Refund.

Endpoint: https://**{host}**/api/v1/terminals/**{uuid}**/orders/**{reference}**/refund
Method: POST

Name of the parameter	Type	Description
uuid	UUID	The unique identifier of the terminal (Partner), issued by the payment gateway.
reference	String	The unique identifier of the order in the Partner's system.

JSON document structure, request.

Name of the parameter	Type	Description
order	UUID	The unique identifier of the order in the payment gateway system that needs to be canceled.
amount.value	Float	The amount of the order. Format: a positive number with "." as a separator, no more than two digits after the dot.
amount.currency	String	The currency of the order, three digits currency code (ISO-4217).
url_callback	String	URL, for callback message.

Example of a JSON document, request:

```
{
    "order":"53fe0245-2488-4836-98bc-edf15ed23dcb",
    "amount": {
        "value": 3456,
        "currency": "USD"
    },
    "url_callback":"https:\/\/test.com\/callback.php"
}
```

The structure of the JSON document, the response.

Field name	Field type	Description
id	String	The unique identifier of the order in the payment gateway.
reference	String	The number of the order in the "Partner" system to which the response was generated
type	String	The type of order (Refund).
amount.value	Float	The amount of the order. Format: a positive number with "." as a separator, no more than two digits after the dot.
amount.currency	String	The currency of the order, three digits currency code (ISO-4217).
fee_amount.value	Float	The amount of the commission (if status.code = "Approved"). Format: a positive number with "." as a separator, no more than two digits after the dot.
fee_amount.currency	String	The currency of the commission, three digits currency code (ISO-

			4217).

status.code	String	Order processing Status Code:
		   • **Approved**
		   • **Declined**
		   • **Pending**

status.discription	String	Description of the order processing status in case of an error

Example of a JSON document, response:

```
{
    "id": "53fe0245-2488-4836-98bc-edf15ed23dcb",
    "reference":"3",
    "type": "Refund",
    "amount": {
        "value": 3456,
        "currency": "USD"
    },
    "fee_amount": {
        "value": 10,
        "currency": "USD"
    },
    "status": {
        "code": "Approved"
    }
}
```

Order status.

Endpoint: https://**{host}**/api/v1/terminals/**{uuid}**/orders/**{reference}**/status
Method: GET

Name of the parameter	Type	Description
uuid	UUID	The unique identifier of the terminal (Partner), issued by the payment gateway
reference	String	The unique identifier of the order in the Partner's system.

The structure of the JSON document, the response.

Наименование поля	Тип поля	Описание
id	String	Unique identifier of the order in the payment gateway.
reference	String	Unique identifier of the order in the partner host system.
type	String	The type of the order: • **Pay** • **Payout** • **Refund**
amount.value	Float	The amount of the order. Format: positive number with "." as a separator.
amount.currency	String	Order currency, three digits currency code (ISO-4217).
status.code	String	Order processing status code: • **Declined** • **Pending** • **Approved**
status.discription	String	Description of the order processing status on Declined

Пример JSON документа, ответ:

```
{
    "id": "53fe0245-2488-4836-98bc-edf15ed23dcb",
    "type": "Refund",
    "amount": {
        "value": 3456,
        "currency": "USD"
    },
    "fee_amount": {
        "value": 10,
        "currency": "USD"
    },
    "status": {
        "code": "Approved"
    },
    "reference": "10"
}
```

Callback

To confirm the payment / refund, an interserver feedback message is sent from the payment gateway to the Partner's website. The data is transmitted by an HTTP POST request to the address of the Partner's website, for authorize the message, all requests contain the **"X-MAC" HTTP header**.

The structure of the JSON document, the request.

Name of the parameter	Type	Description
id	String	The unique identifier of the request in the payment gateway system.
reference	String	The unique identifier of the request in the "Partner" system.
type	String	The type of request that was generated callback: • **Pay** – purchase • **Payout** – payout • **Refund** – refund
amount.value	Float	The amount of the order. Format: a positive number with "." As a separator, no more than two digits after the dot.
amount.currency	String	The currency of the order, three digits currency code (ISO-4217).
fee_amount.value	Float	The amount of the commission (if status.code = "Approved").
fee_amount.currency	String	The currency of the commission, three digits currency code (ISO-4217).
status.code	String	Request processing Status Code: • **Approved** • **Declined** • **Pending**
status.discription	String	Description of the request processing status.
When crediting to the client's crypto wallet		
customer.uuid	UUID	The unique identifier of the customer in the payment gateway.
When operating using cryptocurrency		
wallet.chain	String	The currency of the crypto wallet to which the funds are credited
wallet.address	String	The address of the crypto wallet to which the funds are credited.
org_amount.currency	String	The currency of the crypto operation.
org_amount.value	Float	The amount in the currency of the crypto operation.
When operating using a payment card		
card.uuid	String	The unique ID of the card in the payment gateway (payment token).

card.exp	String	The validity period of the card.
card.pan	String	Masked card number.
card.holder	String	The name of the cardholder.

Example of a JSON document, request:

```
{
    "id":"53fe0245-2488-4836-98bc-edf15ed23dc",
    "type": "Pay",
    "amount": {
        "value": 3456,
        "currency": "USD"
    },
    "fee_amount": {
        "value": 1,
        "currency": "USD"
    },
    "status": {
        "code": "Approved"
    },
    "wallet": {
        "chain": "BTC",
        "address": "bc1q93t3wzuttnfr9y3082agmuqqduu7anh4kuwada"
    },
    "org_amount": {
        "value": 1,
        "currency": "ETH"
    },
    "customer": {
        "uuid": "84a85287-68fe-4119-b114-194a56064939"
    },
    "card": {
        "exp": "12/23",
        "pan": "545293*****0752",
        "holder": "32132 t3rgt54",
        "uuid":"7d8df693-608e-4786-9014-e976ba9e03e7"
    },
    "reference": "6"
}
```

Partner host should respond with an empty message with a status code 200, a status other than 200 is interpreted as an error processing the request, a retry request is made every 5 minutes for 24 hours.

Test cards:

Pan	Exp	Cvv	3ds	status
4551708161768059	04/23	444	any	Approved
5100538637530152	04/23	111	any	Decline
5111053459429167	04/23	555	any	Decline
4534410925317008	04/23	333	any	Decline
4919107570913512	04/23	222	any	Decline