API Description

05/12/2022

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1 Interaction Protocol

1.1 What do you need to connection

You need to connection to our API:

- **Shared Key** (provided by our company, it must be use to sign the transmitted messages)
- **Key Id** (do **kid** provided by our company)
- **URL** (base API url)

1.2 Message structure

We use similarREST. And our API provides its own endpoint for each method.

1.3 Similar REST description

Message structure

1. Transport message - JWS (RFC 7515)
   a. Business data

1.3.1 Levels description

Level 1: Transport message - JWS (RFC 7515)

We use JWS Compact Serialization. On this level you need to use next parameters:

- "protected", with the value BASE64URL(UTF8(JWS Protected Header))
- "payload", with the value BASE64URL(JWS Payload UTF-8)
- "signature", with the value BASE64URL(JWS Signature)

protected

For "protected" you can use next variants:

- alg:
  - HS256 (when Shared key has long 256)
  - HS384 (when Shared key has long 384)
  - HS512 (when Shared key has long 384)
- kid - string
- signdate - datetime
- cty:
  - application/json (SimilarREST)

Example

```
{
    "alg": "HS256",
    "kid": "236f8eada2304c6283320b4c858f0741",
    "signdate": "2022-08-09T10:55:42.8017883Z",
    "cty": "application/json"
}
```

payload

Parameter "payload" contains business data. Business data must be in JSON format.

Message structure has the following parameters:

- Payload - required
- WithCryptogram - not required, default **false**

Example for similar REST

```
{
    "EchoString":"TestString"
}
```

Error messages

ⓘ **Information**

In case of error business data (payload) contains the parameter "error" that contains two fileds: "code: and "message"

Error example

```
{
    "Error": {
        "Code": "TestError",
        "Message": "This is the test error"
    }
}
```

1.3.2 Signature

Signature Creation Algorithm

Signature verification

1.3.3 Example

SimilarREST original message example

```
{
    "EchoString": "TestString"
}
```

Example of a transmitted message

eyJhbGciOiJIUzI1NiIsImtpZCI6IjIzNmY4ZWFkYTIzM
DRjNjI4MzMyMGI0Yzg1OGYwNzQxIiwic2lnbmRhdGUiOi
IyMDIyLTA4LTA5VDEwOjU1OjQyLjgwMTc4ODNaIiwiY3R
5IjoiYXBwbGljYXRpb24vanNvbiJ9.eyJFY2hvU3RyaW5
nIjoiVGVzdFN0cmluZyJ9.TmEfEE4pnoGzhmTXAHy3Jf7
25FBZUPLqYKXd1GuOSqw

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Original message header example

```
{
    "alg": "HS256",
    "kid": "236f8eada2304c6283320b4c858f0741",
    "signdate":
"2022-08-09T10:55:42.8017883Z",
    "cty": "application/json"
}
```

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Used in example Shared Key:
M2ckG6tkkI5goj1A9a2NJMgZRN9c52ZxHYGabLKvQmq6tiJts 1PvEAxcEYhv5ezHj7W1qAqQ4VCRu0YUgV+mSA==

2 Available methods

2.1 for Cards

2.1.1 "Direct" method (the same as Rebill)

Url

URL/cards/direct

Payload fields in the incoming request

Field	Description
MerchantId **REQUIRED**	string Merchant's unique transaction ID. From 1 to 120 characters.
Amount **REQUIRED**	integer <int64> The amount is indicated in the minimum currency units. For example, if a customer pays $150.45, the amount should be passed as 15045.
Currency **REQUIRED**	string Currency in ISO format (USD, EUR, GBP), 3 letters.
RebillId **REQUIRED**	integer <int64> Linked card ID (which is used for recurring payments)

Success response

Field	Description
OrderId	integer <int64> Unique transaction number in the payment system.

Field	Description
MerchantId	string Merchant's unique transaction ID.

2.1.2 "Pay" method

Url

URL/cards/pay

Payload fields in the incoming request

Field	Description
MerchantId **REQUIRED**	string Merchant's unique transaction ID. From 1 to 120 characters.
Amount **REQUIRED**	integer <int64> The amount is indicated in the minimum currency units. For example, if a customer pays $150.45, the amount should be passed as 15045.
ReturnUrl **REQUIRED**	string Url address to which the customer will be redirected after the operation is completed. From 1 to 256 characters.
Description	string Transaction description. From 1 to 250 characters.
Currency **REQUIRED**	string Currency in ISO format (USD, EUR, GBP), 3 letters.
FromCard **REQUIRED**	object Customer's card data

Success response

Field	Description
OrderId	integer <int64> Unique transaction number in the payment system.

Field	Description
PaymentUrl	string Url address where the customer needs to go to continue the payment process. From 1 to 256 characters.

2.1.3 "Payout" method

Url

URL/cards/payout

Payload fields in the incoming request

Field	Description
MerchantId **REQUIRED**	string Merchant's unique transaction ID. From 1 to 120 characters.
Amount **REQUIRED**	integer <int64> The amount is indicated in the minimum currency units. For example, if a customer pays $150.45, the amount should be passed as 15045.
Currency **REQUIRED**	string Currency in ISO format (USD, EUR, GBP), 3 letters.
ToCard **REQUIRED**	object Customer's card data

Success response

Field	Description
OrderId	integer <int64> Unique transaction number in the payment system.
MerchantId	string Merchant's unique transaction ID.

2.1.4 "Refund" method

Url

URL/cards/refund

Payload fields in the incoming request

Field	Description
MerchantId **REQUIRED**	string Merchant's unique transaction ID. From 1 to 120 characters.
Amount **REQUIRED**	integer <int64> The amount is indicated in the minimum currency units. For example, if a customer pays $150.45, the amount should be passed as 15045.
ParentMerchantId **REQUIRED**	string The unique transaction ID of the original transaction from the Merchant's side, which needs to be refund. From 1 to 120 characters.
Description	string Transaction description. From 1 to 250 characters.

Success response

Field	Description
OrderId	integer <int64> Unique transaction number in the payment system.
MerchantId	string Merchant's unique transaction ID.

2.1.5 "Reversal" method

Url

URL/cards/reversal

Payload fields in the incoming request

Field	Description
MerchantId **REQUIRED**	string Merchant's unique transaction ID. From 1 to 120 characters.
ParentMerchantId **REQUIRED**	string The unique transaction ID of the original transaction from the Merchant's side, which needs to be reversal. From 1 to 120 characters.

Field	Description
Description	string Transaction description. From 1 to 250 characters.

Success response

Field	Description
OrderId	integer <int64> Unique transaction number in the payment system.
MerchantId	string Merchant's unique transaction ID.

2.1.6 "P2P" method

Url

URL/cards/p2p

Payload fields in the incoming request

Field	Description
MerchantId REQUIRED	string Merchant's unique transaction ID. From 1 to 120 characters.
Amount REQUIRED	integer <int64> The amount is indicated in the minimum currency units. For example, if a customer pays $150.45, the amount should be passed as 15045.
ReturnUrl REQUIRED	string Url address to which the customer will be redirected after the operation is completed. From 1 to 256 characters.
Description	string Transaction description. From 1 to 250 characters.
Currency REQUIRED	string Currency in ISO format (USD, EUR, GBP), 3 letters.

Field	Description
FromCard **REQUIRED**	object Customer's card data (where to withdraw money from)
ToCard **REQUIRED**	object Customer's card data (where to deposit money)

FromCard

Field	Description
Pan **REQUIRED**	string Card Number. From 16 to 19 digits (without spaces).
Holder **REQUIRED**	string Valid characters are [a-Z.,-]. The field must contain the Name and Surname in Latin letters, separated by a space.
ExpYear **REQUIRED**	string Expiry year of the card. 4 digits.
ExpMonth **REQUIRED**	string The month in which the card expires. 2 digits
CVV **REQUIRED**	string Card validation code (CVC2/CVV2), 3 digits.

ToCard

Field	Description
Pan **REQUIRED**	string Card Number. From 16 to 19 digits (without spaces).
Holder	string Valid characters are [a-Z.,-]. The field must contain the Name and Surname in Latin letters, separated by a space.

Success response

Field	Description
OrderId	integer <int64> Unique transaction number in the payment system.
PaymentUrl	string Url address where the customer needs to go to continue the payment process. From 1 to 256 characters.

2.2 Transaction Status

2.2.1 Url

URL/transaction/status

2.2.2 Payload fields in the incoming request

Field	Description
MerchantId **REQUIRED**	string Merchant's unique transaction ID. From 1 to 120 characters.

2.2.3 Success Response

Field	Description
Order	object Payment transaction data
RebillId	integer <int64> Linked card ID (which is used for recurring payments)
Error	object Error data (Filled in in case of an error)
Card	object Customer Card data
Customer	object Customer data

Field	Description
Bin	object BIN card

2.3 Common DTO

2.3.1 Bin DTO

Field	Description
Brand	string The name of the international payment system. From 1 to 128 characters.
IssuingBank	string The bank that issued the card. From 1 to 128 characters.
CountryName	string The country in which the card was issued. From 1 to 128 characters.
CardType	string Card type. From 1 to 128 characters.
CardLevel	string Card level (privilege). From 1 to 128 characters.

2.3.2 Card DTO

Field	Description
Pan	string Card Number. From 16 to 19 digits (without spaces).
Holder	string Valid characters are [a-Z.,-]. The field must contain the Name and Surname in Latin letters, separated by a space.
ExpYear	string Expiry year of the card. 4 digits.

Field	Description
ExpMonth	string The month in which the card expires. 2 digi
CVV	string Card validation code (CVC2/CVV2), 3 digits.

2.3.3 Customer DTO

Field	Description
PhoneNumber	integer <int64> Phone number. In international format +447440538471 (without spaces).
Email	string E-mail address. From 1 to 128 characters.

2.3.4 Order DTO

Field	Description
OrderId	integer <int64> Unique transaction number in the payment system.
MerchantId	string Merchant's unique transaction ID. From 1 to 120 characters.
CreateDate	string <2021-03-17T14:46:34.227313> Transaction creation date and time.
ExecDate	string <2021-03-17T17:46:34> Transaction execution date and time.
Amount	integer <int64> The amount is indicated in the minimum currency units. For example, if a customer pays $150.45, the amount should be passed as 15045.
Currency	string Currency in ISO format (USD, EUR, GBP), 3 letters.

Field	Description
Status	string Transaction status. From 1 to 128 letters.
StatusDescription	string Status description. From 1 to 2000 letters.

Transaction statuses

Status	Description	Type
New	New transaction	INTERMEDIATE STATUS
InProcess	Transaction in progress	INTERMEDIATE STATUS
Canceled	Transaction canceled	FINAL STATUS
Completed	Transaction completed	FINAL STATUS

3 Callbacks

The request is resubmitted depending on the status of the received response code. The response to the callback must be with status code 200. In case of a response with a different status code or timeout, the callback will be retried. In total, the request can be sent 5 times.

Also, the callback can be resent by request.

3.1 Callback parameters

Field	Description
Order	object Transaction data
RebillId	integer <int64> Linked card ID (which is used for recurring payments)
Rrn	string Unique bank transaction ID
Error	object Error data (Filled in in case of an error)

Field	Description
Card	object Customer card data
Customer	object Customer data
Bin	object Card BIN

4 Test cases

4.1 Unsuccess Cases

Method	Description	Incoming parameters	Result
Pay	Operation rejected	amount: 33333	"57", "Operation rejected"
Payout	Credit operation is forbidden	amount: 33333	"201", "Credit operation is forbidden"
Direct	Authorization denied. Contact the issuing bank	amount: 33333	"01", "Authorization denied. Contact the issuing bank"
Refund	Authorization denied. Contact the issuing bank	amount: 44444	"01", "Authorization denied. Contact the issuing bank"
Reversal	Authorization denied. Contact the issuing bank	amount: 44444	("01", "Authorization denied. Contact the issuing bank"

4.2 Success cases

> ⚠ **Note**
>
> Requests with amounts different from those presented in unsuccessful cases must be successful