

**Payment Center API**  
**WEBFORM/GATEWAY MODE (EN)**  
**v2.7.8**

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## Introduction

**Payment Center API** enables to perform the basic set of operation with payments by providing bank card details on the merchant's page.

- **WebPay (*webform*)** – one-step payment operation – funds are deducted from the card immediately after execution.
- **WebBlock (*webform*)** – two-step payment operation – funds are blocked on the card.
- **Pay (*gateway*)** – one-step payment operation – funds are deducted from the card immediately after execution.
- **Block (*gateway*)** – two-step payment operation – funds are blocked on the card.
- **Token (*gateway*)** – token generation for the payment operation via the link.
- **Charge (*webform/gateway*)** – funds deduction from the card within the two-step payment operation executed earlier.
- **Cancel (*webform/gateway*)** – unblock funds on the card (partial or full).
- **Refund (*webform/gateway*)** – funds refund operation to the card (partial or full), is possible only after funds deducting.
- **Rebill (*webform/gateway*)** – the operation of automatic funds deduction from a previously "linked" card.
- **Ack3DS (*gateway*)** – is used by one-step / two-step payment operation in case if the operation is performed using 3D Secure.
- **Status (*webform/gateway*)** – an operation for getting the payment status.
- **Unsubscribe (*webform/gateway*)** – unsubscribe from a recurring payment.
- **Check (*webform/gateway*)** – checking of a subscription to a recurring payment.
- **Limit (*webform/gateway*)** – check available balance operation for payout.

**Important!** Integration with any gateway is doing only after agreement with Payment Center. 3D Secure is mandatory by default (unless otherwise specified).

**Important!** When integrating, it is recommended to use the names of all parameters as **case-insensitive!**

## WebPay (*webform*)

One-step payment operation - funds are deducted from the card immediately after the operation is carried out. There is a possibility to specify a **rebillFlag** to pre-authorize a recurring payment.

The **WebPay** request format is: [https:// secured.payment.center/v2/webpay](https://secured.payment.center/v2/webpay) (POST-request).

Description of the **WebPay** request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>orderId</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>amount</b>	Int(12), symbol '.'	Yes	Amount to be paid. From 1 to 12 digits, can contain a decimal separator in the form of a dot '.'.
<b>currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB...). Characters (a-zA-Z).
<b>description</b>	String(250)	Yes	Transaction description.
<b>email</b>	String	No*	Email of the customer. Required for recurring payments. This email should not be sent to the bank. This email is to notify

			the Customer only. It is saved in the transaction.
<b>phone</b>	String(10-20), ahead '+'	No*	Phone of the customer. In the international format +79991231212 (with no spaces).
<b>lang</b>	String(2)	No	Language designation in ISO format (for example, en, ru...).
<b>customFields</b>	String(8096)	No	Extra fields of the transaction. Url encoded line, contains pairs of keys and their values command, separated by «;» (semicolon). Keys and values are separated by '=' (equal) and values are URL encoded. Example: "IP=207.46.197.32;Address=Moscow%20Central%20str.%20flat%201;avia=[{"PassengerName":"IVAN%20IVANOV","Departure%20Airport":"MSQ","ArrivalAirport":"HKG","FlightDate":"2017-11-01%2010:00"}];"
<b>extra</b>	String(2000)	No	Additional parameters. JSON array. It can contain parameters (the first 3 are required): <b>success_url</b> – the URL redirecting from the 'success' page; <b>decline_url</b> – the URL redirecting from the 'error' page; <b>cancel_url</b> – the URL to return back (button 'Back'); <b>account_id</b> – to return directly to the client's personal area. Example: {"success_url": "http://server1.com/", "decline_url": "http://server2.com/", "cancel_url": "http://server3.com/", "account_id": "1122aass112"} <i>In case of mode with automatic redirect of the buyer:</i> <b>success_url</b> - url to redirect in case of successful operation <b>decline_url</b> - url for redirect in case of unsuccessful operation
<b>rebillFlag</b>	Bit	No	A flag of a recurring payment. The possible values are 0 or 1.
<b>address</b>	String(200)	No	Address of the cardholder, indicated by registration of the card in bank. Can be present if verification of the cardholder's address is supported.
<b>town</b>	String(200)	No	City of the cardholder, indicated by registration of the card in bank. Can be present if verification of the cardholder's address is supported.
<b>zip</b>	String(20)	No	Zip code of the cardholder, indicated by registration of the card in bank. Can be present if verification of the cardholder's address is supported.
<b>country</b>	Int(3)	No	Country code in ISO format, specified by a card registration.
<b>mac</b>	String	No*	Digital signature. See section <a href="#">MAC</a> .

\* parameter is required depending on the gate (contact your manager for more information).

## WebBlock (webform)

The two-step payment operation – funds are blocked on the card. There is a possibility to specify a **rebillFlag** to pre-authorize a recurring payment.

The format of **WebBlock** request is: <https://secured.payment.center/v2/webblock> (POST request).

The list of parameters in a request is identical to the one in **WebPay** operation.

## Pay (gateway)

One-step payment operation – funds are deducted from the card immediately after execution. In addition, there is a possibility to specify a **rebillFlag** for pre-authorize of a recurring payment.

The **Pay** request format is: <https://secured.payment.center/v2/pay> (POST-request with the parameter **signature** in the header - digital signature, required parameter).

Description of **Pay** request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. From 1 to 12 digits with no spaces and delimiters.
<b>cardNumber</b>	Int(12-19)	Yes	Card number. From 12 to 19 digits without spaces.
<b>expMonth</b>	Int(2)	Yes	Month of card expiration. 2 digits with leading zero.
<b>expYear</b>	Int(2)	Yes	Year of card expiration. The last 2 digits of the year.
<b>cardHolder</b>	String(30)	Yes	The cardholder's name (on the front side of the card). Valid characters are [a-Z., -].
<b>cvc</b>	Int(3)	Yes	CVC2/CVV2. 3 digits.
<b>orderId</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>amount</b>	Int(12), symbol '.'	Yes	Amount to be paid. From 1 to 12 digits, can contain a decimal separator in the form of a dot '.'.
<b>currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB). Letters (a-zA-Z).
<b>description</b>	String(250)	Yes	Transaction description.
<b>email</b>	String	No*	Email of the customer. Required for recurring payments. This email should not be sent to the bank. This email is to notify the Customer only. It is saved in the transaction.
<b>phone</b>	Int(10-20), ahead '+'	No*	Phone of the customer. In the international format +79991231212 (with no spaces).
<b>lang</b>	String(2)	No	Language designation in ISO format (for example, en, ru...).
<b>customFields</b>	String(8096)	No*	Extra fields of the transaction. Url encoded line, contains pairs of keys and their values command, separated by «;» (semicolon). Keys and values are separated by '=' (equal) and values are URL encoded. Example: "IP=207.46.197.32;Address=Moscow%20Central%20str.%20fl at%201;avia=[{"PassengerName":"IVAN%20IVANOV","Depart ure%20Airport":"MSQ","ArrivalAirport":"HKG","FlightDate":" 2017-11-01%2010:00"}];"
<b>rebillFlag</b>	Bit	No	A sign of a recurring payment. The possible values are 0 or 1.
<b>address</b>	String(200)	No	Address of the cardholder, indicated by registration of the card in bank. Can be present if verification of the cardholder's address is supported.
<b>town</b>	String(200)	No	City of the cardholder, indicated by registration of the card in bank. Can be present if verification of the cardholder's address is supported.
<b>zip</b>	String(20)	No	Zip code of the cardholder, indicated by registration of the card in bank. Can be present if verification of the cardholder's address is supported.
<b>country</b>	Int(3)	No	Code of the country indicated by registration of the card in bank, in the ISO format.

\* parameter is required depending on the gate (contact your manager for more information).

The response format to the **Pay** request is: XML string with a node **<v2PayResponse>** (in the header the parameter **signature** – digital signature, required parameter).

Description of the response parameters to the **Pay** request:

Parameter	Format	Required	Description
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs, <b>3DS</b> – 3DS operation, <b>REDIRECT</b> – the response from the bank for a redirecting to the specified URL, <b>pending</b> - need check status via v2/status for getting final transaction status.
<b>orderId</b>	String(100)	Yes	Unique transaction ID in the Partner system.
<b>tranId</b>	Int(20)	Yes, in case of success=true	Transaction ID in the system.
<b>amount</b>	Int(12), symbol '.'	Yes, in case of success=true	Amount of payment. Is equal to the one sent in the request.
<b>currency</b>	String(3)	Yes, in case of success=true	The currency code in which the transaction was conducted in the bank.
<b>gateAmount</b>	Int(12), symbol '.'	Yes, in case of success=true	The amount of payment in the currency in which the transaction was conducted in the bank.
<b>gateCurrency</b>	String(3)	Yes, in case of success=true	The currency code in which the transaction was conducted in the bank.
<b>tranStatus</b>	Reserved values	Yes, in case of success=true	The current status of transaction. <a href="#">Check status description</a> .
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Yes, in case of success=false	Error description.
<b>rebillId</b>	Int(20)	Her	The transaction ID for which the money will be re-deducted.
<b>acsUrl</b>	String	Yes, in case of success=3DS	URL for redirect.
<b>paRes</b>	String	Yes, in case of success=3DS	Encrypted request.
<b>threeDSKey</b>	String	Yes, in case of success=3DS	Special attribute.
<b>redirectUrl</b>	String	Yes, in case of success=REDIRECT	URL for redirect.
<b>redirectParams</b>	String	Yes, in case of success=REDIRECT	A string of parameters to redirect. The string format is 'parameter_name_1 = parameter_value_1 & parameter_name_2 = value_of_parameter_2 & ...'
<b>redirectTransId</b>	String	Yes, in case of success=REDIRECT	Transaction ID in the bank system.

**Attention!** By using **3D-Secure** authentication the operation format will change as it is described in the paragraph **3D-Secure Authentication**.

## Block (gateway)

The two-step payment operation – funds are blocked on the card. There is a possibility to specify a **rebillFlag** to pre-authorize a recurring payment.

The format of **Block** request is: <https://secured.payment.center/v2/block> (POST-request with the parameter **signature** in the header - digital signature, required parameter).

The list of parameters in a request is identical to the one in **Pay** operation.

The format of the response to **Block** query is: xml string with node **<v2BlockResponse>** (in the header the parameter **signature** - digital signature, required parameter).

The list of parameters in the response is identical to **Pay** operation.

**Attention!** By using **3D-Secure** authentication the operation format will change as it is described in the paragraph **3D-Secure Authentication**.

## Token (webform)

Generating a **token** for processing payments through the link.

The format of **Token** request is: <https://secured.payment.center/v2/token> (POST-request).

The list of parameters in a request is identical to the one in **WebPay** operation.

The format of the response to **Token** request is: xml string with node **<v2TokenResponse>** (in the header the parameter signature - digital signature, required parameter).

Description of response parameters to the **Token** request:

Parameter	Format	Required	Description
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs.
<b>token</b>	String(32)	Yes, in case of success=true	Unique ID.
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Yes, in case of success=false	Error description.

### Examples:

```
<v2TokenResponse><success>true</success><token>948b81dc18d296b25622a016bfe25a0e</token></v2TokenResponse>
```

```
<v2TokenResponse><success>false</success><errcode>1</errcode><errmessage>Wrong parameters</errmessage></v2TokenResponse>
```

Using:

<https://secured.payment.center/v2/webpay/?token=948b81dc18d296b25622a016bfe25a0>

<https://secured.payment.center/v2/webblock/?token=948b81dc18d296b25622a016bfe25a0>

## Charge (gateway)

Deduction of funds from the card during the two-step payment operation executed earlier.

The format of the **Charge** request is: <https://secured.payment.center/v2/charge> (POST- request with the signature parameter in the header - digital signature, required parameter).

Description of **Charge** request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
<b>amount</b>	Int(12), symbol '.'	No	Payment confirmation amount. The parameter does not exist when the full amount is confirmed.
<b>currency</b>	String(3)	No	Currency in ISO format (USD, EUR, RUB...). Characters (a-zA-Z).

The response format to **Charge** request is: xml string with node **<v2ChargeResponse>** (in the header the parameter **signature** - digital signature, required parameter).

Description of response parameters to the **Charge** request:

Parameter	Format	Required	Description
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs, <b>pending</b> - need check status via v2/status for getting final transaction status.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
<b>amount</b>	Int(12), symbol '.'	Yes, in case of success=true	Payment amount. Corresponds to the one sent in the request.
<b>newAmount</b>	Int(12), symbol '.'	Yes, in case of success=true	Remaining amount. With full confirmation, it will be equal to 0.
<b>currency</b>	String(3)	Yes, in case of success=true	Currency code of the transaction that was processed by the bank.
<b>gateAmount</b>	Int(12), symbol '.'	Yes, in case of success=true	The payment amount in the currency of the transaction that was processed by the bank.
<b>gateCurrency</b>	String(3)	Yes, in case of success=true	Currency code of the transaction that was processed by the bank.
<b>tranStatus</b>	Reserved values	Yes, in case of success=true	The current status of transaction. <a href="#">Check status description</a> .
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Yes, in case of success=false	Error description.
<b>rebillId</b>	Int(20)	No	The identifier of a recurring payment. It represents a transaction ID in the system.

## Cancel (gateway)

Unblocking funds on card (partial or full).

The format of the **Cancel** request: <https://secured.payment.center/v2/cancel> (POST- request with the **signature** parameter in the header - digital signature, required parameter)

Description of **Cancel** request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
<b>amount</b>	Int(12), symbol '.'	Yes	Payment amount.
<b>currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB...). Characters (a-zA-Z).

The format of the response to the **Cancel** request is: xml a string with the node **<v2CancelResponse>** (in the header the parameter **signature** - digital signature, a required parameter).

Description of response parameters to the **Cancel** request:

Parameter	Format	Required	Description
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs, <b>pending</b> - need check status via v2/status for getting final transaction status.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
<b>amount</b>	Int(12), symbol '.'	Yes, in case of success=true	Payment amount. Corresponds to the one sent in the request.
<b>currency</b>	String(3)	Yes, in case of success=true	Currency code of the transaction that was processed by the bank.
<b>gateAmount</b>	Int(12), symbol '.'	Yes, in case of success=true	The payment amount in the currency of the transaction that was processed by the bank.
<b>gateCurrency</b>	String(3)	Yes, in case of success=true	Currency code of the transaction that was processed by the bank.
<b>tranStatus</b>	Reserved values	Yes, in case of success=true	The current status of transaction. <a href="#">Check status description</a> .
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Yes, in case of success=false	Error description.

## Refund (gateway)

Funds get refunded to the card (partial or full), is possible only after the funds get deducted.

The format of the **Refund** request is: <https://secured.payment.center/v2/Refund> (POST-request with the **signature** parameter in the header - digital signature, required parameter).

Description of **Refund** request parameters:

Parameter	Format	Required	Description
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<b>serviceld</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
<b>amount</b>	Int(12), symbol '.'	Yes	Refund amount.
<b>currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB...). Characters (a-zA-Z).

The format of response to the **Refund** request is: xml string with node **<v2RefundResponse>** (in the header the parameter **signature** - digital signature, required parameter).

Description of response parameters to the **Refund** request:

Parameter	Format	Required	Description
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs, <b>pending</b> - need check status via v2/status for getting final transaction status.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
<b>amount</b>	Int(12), symbol '.'	Yes, in case of success=true	Payment amount. Corresponds to the one sent in the request.
<b>currency</b>	String(3)	Yes, in case of success=true	Currency code of the transaction that was processed by the bank.
<b>gateAmount</b>	Int(12), symbol '.'	Yes, in case of success=true	The payment amount in the currency of the transaction that was processed by the bank.
<b>gateCurrency</b>	String(3)	Yes, in case of success=true	Currency code of the transaction that was processed by the bank.
<b>newAmount</b>	Int(12), symbol '.'	Yes, in case of success=true	Remaining amount.
<b>tranStatus</b>	Reserved values	Yes, in case of success=true	The current status of transaction. <a href="#">Check status description</a> .
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Yes, in case of success=false	Error description.

## Rebill (gateway)

An operation of automatic funds deduction from a previously "linked" card.

The format of the **Rebill** request is: <https://secured.payment.center/v2/Rebill> (POST-request with the **signature** parameter in the header - digital signature, required parameter).

Description of **Rebill** request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>orderId</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>amount</b>	Int(12), symbol '.'	Yes	Payment amount.
<b>currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB...). Characters (a-zA-Z).
<b>description</b>	String(250)	No	Transaction description.
<b>rebillId</b>	Int(20)	Yes	The identifier of a recurring payment. It represents a transaction ID in the system.
<b>usePaymentType</b>	Bit	No	Flag of using a payment type of the parent transaction.

			The possible values are (by default is '0'): '1' – use a payment type of the parent transaction (BLOCK/PAY), '0' – don't use a payment type of the parent transaction (always PAY).
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The format of response to the **Rebill** request is: xml string with node **<v2RebillResponse>** (in the header the parameter **signature** - digital signature, required parameter).

Description of response parameters to the **Rebill** request:

Parameter	Format	Required	Description
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs, <b>pending</b> - need check status via v2/status for getting final transaction status.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
<b>amount</b>	Int(12), symbol '.'	Yes, in case of success=true	Payment amount. Corresponds to the one sent in the request.
<b>currency</b>	String(3)	Yes, in case of success=true	Currency code of the transaction that was processed by the bank.
<b>gateAmount</b>	Int(12), symbol '.'	Yes, in case of success=true	The payment amount in the currency of the transaction that was processed by the bank.
<b>gateCurrency</b>	String(3)	Yes, in case of success=true	Currency code of the transaction that was processed by the bank.
<b>tranStatus</b>	Reserved values	Yes, in case of success=true	The current status of transaction. <a href="#">Check status description</a> .
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Yes, in case of success=false	Error description.
<b>rebillId</b>	Int(20)	No	The identifier of a recurring payment. It represents a transaction ID in the system.

## Ack3DS (gateway)

Is used by **Pay** or **Block** operations with 3DS Secure after receiving the results of authentication from the bank to complete a one-step\two-step payment operation.

The format of the **Ack3DS** request is: <https://secured.payment.center/v2/ack3ds> (POST-request with the signature parameter in the header - digital signature, required parameter).

Description of **Ack3DS** request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
<b>orderId</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>emitentResponse</b>	String	Yes	All parameters received from the issuing bank, packed in JSON as an associative array. Parameter's names received from the issuer bank should be kept as they are. The parameter must be passed <i>urlencoded</i> . example: EmitentResponse: '{"PaRes":"eJzNWWnP ... ilhtcXJf8FzwFIBA==" ,"MD":"1717179821"}'

The response format for the **Ack3DS** request is fully consistent with the response format for **Block** or **Pay** requests when using a non-3D Secure card.

## Status (*gateway*)

An operation for getting the status of the payment.

The format of the **Status** request is: <https://secured.payment.center/v2/status> (POST-request with the **signature** parameter in the header - digital signature, required parameter).

Description of **Status** request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.

The format of response to the **Status** request is: xml string with node **<v2StatusResponse>** (in the header the parameter **signature** - digital signature, required parameter).

Description of response parameters to the **Status** request:

Parameter	Format	Required	Description
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
<b>orderId</b>	String(100)	Yes, in case of success=true	Unique order identifier in the Partner system.
<b>amount</b>	Int(12), symbol ‘.’	Yes, in case of success=true	Payment amount. Corresponds to the one sent in the request.
<b>currency</b>	String(3)	Yes, in case of success=true	Currency code of the transaction that was processed by the bank.
<b>gateAmount</b>	Int(12), symbol ‘.’	Yes, in case of success=true	The payment amount in the currency of the transaction that was processed by the bank.
<b>gateCurrency</b>	String(3)	Yes, in case of success=true	Currency code of the transaction that was processed by the bank.
<b>tranStatus</b>	Reserved values	Yes, in case of success=true	The current status of transaction. <a href="#">Check status description.</a>
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Yes, in case of success=false	Error description.
<b>redirectMethod</b>	String	Yes, in case of success=true and tranStatus= WAITING_3DS_REDIRECT	HTTP method, used for redirect.
<b>redirectUrl</b>	String	Yes, in case of success=true and tranStatus= WAITING_3DS_REDIRECT	The URL for the redirect.

<b>redirectParams</b>	String	Yes, in case of success=true and tranStatus=WAITING_3DS_REDIRECT	A string of parameters with which to redirect. Row format: name_of_the_parameter_1=value_of_the_paramener_1 &name_of_the_parameter_2=value_of_the_paramener_2&...!.
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**Attention!** If you use **3D-Secure** authentication, the format of the operation will change as described in the **3D-Secure authentication** section of this document.

## Unsubscribe (*gateway*)

Unsubscribe from a recurring payment.

The format of response to the **Unsubscribe** request is: <https://secured.payment.center/v2/unsubscribe> (POST-request with the **signature** parameter in the header - digital signature, required parameter).

Description of **Unsubscribe** request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>rebillId</b>	Int(20)	Yes	The identifier of a recurring payment. It represents a transaction ID in the system.

The format of response to the **Unsubscribe**: xml string with node **<v2UnsubscribeResponse>** (in the header the parameter **signature** - digital signature, required parameter).

Description of response parameters to the **Unsubscribe** request:

Parameter	Format	Required	Description
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs.
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Yes, in case of success=false	Error description.

## Check (*gateway*)

Checking of a subscription to a recurring payment.

The format of response to the **Check** request is: <https://secured.payment.center/v2/check> (POST-request with the **signature** parameter in the header - digital signature, required parameter).

Description of **Check** request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>rebillId</b>	Int(20)	Yes	The identifier of a recurring payment. It represents a transaction ID in the system.

The format of response to the **Check**: xml string with node **<v2CheckResponse>** (in the header the parameter **signature** - digital signature, required parameter).

Description of response parameters to the **Check** request:

Parameter	Format	Required	Description
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs.
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Yes, in case of success=false	Error description.
<b>Status</b>	Reserved values	Yes, in case of success=true	Recurrent payment status. Possible values are: <b>ACTIVE</b> , <b>CANCELLED</b> , <b>NOT_EXISTS</b> .

## Limit (gateway)

Параметр	Формат	Обязат.	Описание
<b>serviceld</b>	Int(10)	Yes	Partner service ID. From 1 to 10 digits with no spaces and delimiters.

Check available balance operation for **Payout**.

The format of the request **Limit**: <https://{host}/v2/limit> (a POST request with the parameter signature in the header - the digital signature is required parameter)

Description of **Limit** query parameters:

Параметр	Формат	Обязат	Описание
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs,
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Да, в случае success=false	Error description.
<b>balance</b>	Int(12) and symbol `.'	Yes, in case of success=true	Available Payout amount at the time of request.
<b>currency</b>	String(3)	Yes, in case of success=true	The currency code that is available for the Payout operation.
<b>description</b>	String(250)	No	Additional information.

## Payout (gateway)

One-step payout operation – funds are credited to the card during **two bank days** after execution.

The **Payout** request format is: <https://secured.payment.center/v2/payout> (POST-request with the parameter signature in the header - digital signature, required parameter).

Description of **Payout** request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. From 1 to 12 digits with no spaces and

			delimiters.
<b>cardNumber</b>	Int(12-19)	Yes	Card number. From 12 to 19 digits without spaces.
<b>expMonth</b>	Int(2)	No*	Month of card expiration. 2 digits with leading zero.
<b>expYear</b>	Int(2)	No*	Year of card expiration. The last 2 digits of the year.
<b>cardHolder</b>	String(30)	No*	The cardholder's name (on the front side of the card). Valid characters are [a-Z, -].
<b>cvc</b>	Int(3)	No	CVC2/CVV2. 3 digits.
<b>orderId</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>amount</b>	Int(12), и symbol'.'	Yes	Amount to be paid. From 1 to 12 digits, can contain a decimal separator in the form of a dot '!'.
<b>currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB). Letters (a-zA-Z).
<b>description</b>	String(250)	No	Transaction description.
<b>email</b>	String	No	Email of the customer. Required for recurring payments. This email should not be sent to the bank. This email is to notify the Customer only. It is saved in the transaction.
<b>phone</b>	Int(10-20), ahead '+'	No*	Phone of the customer. In the international format +79991231212 (with no spaces).
<b>lang</b>	String(2-5)	No	Language designation in ISO format (for example, en, ru, es-mx...).
<b>customFields</b>	String(8096)	No	Extra fields of the transaction. Url encoded line, contains pairs of keys and their values command, separated by «;» (semicolon). Keys and values are separated by '=' (equal) and values are URL encoded. Example: "IP=207.46.197.32;Address=Moscow%20Central%20str.%20flat%201;avia=[{"PassengerName":"IVAN%20IVANOV","Departure%20Airport":"MSQ","ArrivalAirport":"HKG","FlightDate":"2017-11-01%2010:00"}];"
<b>address</b>	String(200)	No	Address of the cardholder, indicated by registration of the card in bank. Can be present if verification of the cardholder's address is supported.
<b>town</b>	String(200)	No	City of the cardholder, indicated by registration of the card in bank. Can be present if verification of the cardholder's address is supported.
<b>zip</b>	String(20)	No	Zip code of the cardholder, indicated by registration of the card in bank. Can be present if verification of the cardholder's address is supported.
<b>country</b>	Int(3)	No	Code of the country indicated by registration of the card in bank, in the ISO format.

\* parameter is required depending on the gate (contact your manager for more information).

The response format to the **Payout** request is: XML string with node **<v2PayoutResponse>** (in the header the parameter signature – digital signature, required parameter).

Description of response parameters to the **Payout** request:

Параметр	Формат	Обязат.	Описание
<b>success</b>	Reserved values	Yes	Flag of the operation success: <b>true</b> – if the operation succeeds, <b>false</b> – if an error occurs, <b>pending</b> - in processing, a status request is required to determine the status of the operation.

<b>orderId</b>	String(100)	Yes	Unique transaction ID in the Partner system.
<b>tranId</b>	Int(20)	Yes, in case of success=true	Transaction ID in the system.
<b>amount</b>	Int(12), и symbol:'	Yes, in case of success=true	Amount of payment. Is equal to the one sent in the request.
<b>currency</b>	String(3)	Yes, in case of success=true	The currency code in which the transaction was conducted in the bank.
<b>tranStatus</b>	Reserved values	Yes, in case of success=true	The current status of transaction. <a href="#">Check status description.</a>
<b>errCode</b>	Reserved values	Yes, in case of success=false	Error code.
<b>errMessage</b>	Reserved values	Yes, in case of success=false	Error description.

### 3D-Secure authentication

Applied for **3D-Secure**. Processing order - cardholder authentication by the issuing bank and communicating results to the gateway service.

**Step 1.** When receiving a request for payment in one or two-step operation, the acquirer bank verifies that the card has participated in 3D-Secure authentication. If 3D-Secure is active for the card both **Block** and **Pay** methods will contain '3DS' value in 'success' attribute of the response XML. You should expect **ACSUrl**, **PaReq** and **ThreeDSKey** attributes in the response as well.

**The Response** – xml-format string with a **v2PayResponse/v2BlockResponse** node.

Node attributes:

#	Parameter	Format	Required	Description
1	<b>success</b>	Reserved value	Yes	Flag of the operation success: <b>3DS</b> - 3DS operation.
2	<b>orderId</b>	String(100)	Yes	Unique order identifier in the Partner system.
3	<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
4	<b>acsUrl</b>	String	Yes	URL for redirect.
5	<b>paReq</b>	String	Yes	Encrypted request.
6	<b>threeDSKey</b>	String	Yes	Special attribute.

**Step 2.** After receiving the response from the system, the Partner redirects the user to the site of the issuing bank, for additional authentication.

**Redirect format** – POST-request to an address, specified in the value of **ACSUrl** attribute.

Request parameters:

#	Parameter	Format	Required	Description
1	<b>PaReq</b>	String	Yes	The value of <b>PaReq</b> (you have to do <code>urldecode</code> before the sending it on <b>ACSUrl</b> ).
2	<b>TermUrl</b>	String	Yes	The user will be returned to this address after passing the authentication on the website of the issuing bank.
3	<b>MD</b>	String	Yes	The value of the <b>ThreeDSKey</b> attribute.

**Step 3.** After passing the authentication on issuing bank's side, user will get redirected to the **TermUrl** address.

**Redirect format** – POST-request to an address, specified in the value of **TermUrl** attribute.

Request parameters:

#	Parameter	Format	Required	Description
1	<b>PaRes</b>	String	Yes	The value of the <b>PaRes</b> attribute.
2	<b>MD</b>	String	Yes	The value of the <b>ThreeDSKey</b> attribute, received from the payment gateway during initial request <b>Block</b> или <b>Pay</b> .

**Step 4.** After receiving authentication results from the issuing bank to complete the blockage or process a payment, Merchant should execute a request **Ack3DS**.

The format of the **Ack3DS** request is: <https://secured.payment.center/v2/ack3ds> (POST-request with the **signature** parameter in the header - digital signature, required parameter)

Request parameters:

Parameter	Format	Required	Description
<b>serviceld</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>tranId</b>	Int(20)	Yes	Transaction ID in the system.
<b>orderId</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>emitentResponse</b>	String	Yes	All parameters received from the issuing bank, packed in JSON as an associative array. Parameter's names received from the issuer bank should be kept as they are. The parameter must be passed <i>urlencoded</i> .

**Step 5.** Merchant receives a response with the results of the payment operation. The result of the **Ack3DS** request matches the results of **Block** or **Pay** requests when non-3D Secure card is using.

## Webhooks

HTTP POST-request from the system to the site (service) of a merchant is formed when certain events occur, if the partner has a URL configured and the sending of notifications is activated. All types of notifications contain in HTTP header parameter **signature** in which the verification value of the request is located, being calculated using the HMAC algorithm (an example of a signature formation can be viewed in the self-titled section).

**Attention!** To calculate HMAC the body content is used completely, without any transformation - **raw body**.

Depending on the configuration of the service, data is being sent in a different format:

- JSON (application/json) - *is not wrapped in the Request*.
- XML (application/xml) - *wrapped in the Request*.

## Payment

Is performed after a payment was successfully - issuer authorization was received. Provides information on the payment: the system is sending the request with payment information to the merchant's address, and the merchant service has to process this information.

Parameters are passed in the body of the request, the list is presented in the table below:

Parameter	Format	Required	Description
<b>Event</b>	Reserved value	Yes	<b>Payment</b>
<b>Transaction_Id</b>	Int(20)	Yes	Transaction ID in the system.
<b>Order_Id</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>Service_Id</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or

			delimiters.
<b>Amount</b>	Int(12), symbol '.'	Yes	Payment amount. Corresponds to the one sent in the request.
<b>Currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB...).
<b>DateTime</b>	DD.MM.YYYY hh24.mi.ss	Yes	Created date of the payment.
<b>CardMasked</b>	String(12-19)	Yes	Masked card number.
<b>IsTest</b>	Bit(0 или 1)	Yes	1 - test; 0 – production.
<b>Status</b>	String	Yes	The payment status after the authorization: <b>CHARGED</b> — for one-step payment operation, <b>BLOCKED</b> — for two-step payment operation.
<b>Cardholder</b>	String(30)	No	Cardholder name.
<b>Email</b>	String	No	Email of the customer.
<b>Phone</b>	String(10-20), ahead '+'	No	Phone of the customer.
<b>rebillId</b>	Int(20)	No	The identifier of a recurring payment. It represents a transaction ID in the system.
<b>Description</b>	String(250)	No	Transaction description in the request.
<b>CustomFields</b>	String(8096)	No	Extra fields of the transaction. Url encoded line, contains pairs of keys and their values command, separated by «;» (semicolon). Keys and values are separated by '=' (equal).
<b>ExpirationDate</b>	String	No	Expired date of the card in format MM/YY.
<b>RRN</b>	String	No	Registration number of the transaction in the bank.

## Fail

Performed if the payment was rejected and used for analyze the number and reasons of failures. It is worth considering that the fact of refusal to pay is not final - the user can pay from the second time. Also this notification is applied in the absence of 3DS authorization (DECLINED\_BY\_TIMEOUT).

Parameters are passed in the body of the request, the list is presented in the table below:

Parameter	Format	Required	Description
<b>Event</b>	Reserved value	Yes	<b>Fail</b>
<b>Transaction_Id</b>	Int(20)	Yes	Transaction ID in the system.
<b>Order_Id</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>Service_Id</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>Amount</b>	Int(12), symbol '.'	Yes	Payment amount. Corresponds to the one sent in the request.
<b>Currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB...).
<b>DateTime</b>	DD.MM.YYYY hh24.mi.ss	Yes	Created date of the payment.
<b>CardMasked</b>	String(12-19)	Yes	Masked card number.
<b>IsTest</b>	Bit(0 или 1)	Yes	1 - test; 0 – production.
<b>ErrorMessage</b>	String	Yes	Reason of refusal.
<b>Cardholder</b>	String(30)	No	Cardholder name.
<b>Email</b>	String	No	Email of the customer.
<b>Phone</b>	String(10-20), ahead '+'	No	Phone of the customer.
<b>Description</b>	String(250)	No	Transaction description in the request.
<b>CustomFields</b>	String(8096)	No	Extra fields of the transaction. Url encoded line, contains pairs of keys and their values command, separated by «;» (semicolon). Keys and values are separated by '=' (equal).
<b>ExpirationDate</b>	String	No	Expired date of the card in format MM/YY.
<b>RRN</b>	String	No	Registration number of the transaction in the bank.

## Refund

Is performed after a refund of previously charged funds (CHARGED) was made. Can be performed for a partial amount, but no more than the transaction amount. Fee-based operation, a commission will be charged. Provides information on the refund: the system is sending the refund request to the merchant's address, and the merchant service has to process this information.

Parameters are passed in the body of the request, the list is presented in the table below:

Parameter	Format	Required	Description
<b>Event</b>	Reserved value	Yes	<b>Refund</b>
<b>Transaction_Id</b>	Int(20)	Yes	Transaction ID in the system.
<b>Order_Id</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>Service_Id</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>Amount</b>	Int(12), symbol '.'	Yes	Refund amount (partial or full).
<b>NewAmount</b>	Int(12), symbol '.'	Yes	Remaining amount.
<b>Currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB...).
<b>DateTime</b>	DD.MM.YYYY hh24.mi.ss	Yes	Created date of the payment.
<b>CardMasked</b>	String	Yes	Masked card number.
<b>IsTest</b>	Bit(0 или 1)	Yes	1 - test; 0 - production.
<b>Cardholder</b>	String(30)	No	Cardholder name.
<b>Email</b>	String	No	Email of the customer.
<b>Phone</b>	String(10-20), ahead '+'	No	Phone of the customer.
<b>CustomFields</b>	String(8096)	No	Extra fields of the transaction. Url encoded line, contains pairs of keys and their values command, separated by «;» (semicolon). Keys and values are separated by '=' (equal).
<b>ExpirationDate</b>	String	No	Expired date of the card in format MM/YY.
<b>RRN</b>	String	No	Registration number of the transaction in the bank.

## Void

It is executed after a cancel of previously blocked funds (BLOCKED) was made. Can be performed for a partial amount, but no more than the transaction amount. Free operation, there is no a commission for it. Provides information on the cancel of the blocking: the system is sending the request to the merchant's address, and the merchant service has to process this information.

Parameters are passed in the body of the request, the list is presented in the table below:

Parameter	Format	Required	Description
<b>Event</b>	Reserved value	Yes	<b>Void</b>
<b>Transaction_Id</b>	Int(20)	Yes	Transaction ID in the system.
<b>Order_Id</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>Service_Id</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>Amount</b>	Int(12), symbol '.'	Yes	Payment amount. Corresponds to the one sent in the request.
<b>Currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB...).
<b>DateTime</b>	DD.MM.YYYY hh24.mi.ss	Yes	Created date of the payment.
<b>CardMasked</b>	String(12-19)	Yes	Masked card number.
<b>IsTest</b>	Bit(0 или 1)	Yes	1 - test; 0 – production.
<b>Cardholder</b>	String(30)	No	Cardholder name.
<b>Email</b>	String	No	Email of the customer.
<b>Phone</b>	String(10-20), ahead '+'	No	Phone of the customer.

<b>CustomFields</b>	String(8096)	No	Extra fields of the transaction. Url encoded line, contains pairs of keys and their values command, separated by «;» (semicolon). Keys and values are separated by '=' (equal).
<b>ExpirationDate</b>	String	No	Expired date of the card in format MM/YY.
<b>RRN</b>	String	No	Registration number of the transaction in the bank.

## Receipt

Is performed after a payment was successful. It informs that the payment was made successfully for further registration in the tax (online checkout) in the form of a check. The system sends a request to the address of the merchant with payment information, and the merchant service has to process this information.

Parameters are passed in the body of the request, the list is presented in the table below:

Parameter	Format	Required	Description
<b>Event</b>	Reserved value	Yes	<b>Receipt</b>
<b>Transaction_Id</b>	Int(20)	Yes	Transaction ID in the Payment Center system.
<b>Order_Id</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>Service_Id</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>Amount</b>	Int(12), symbol '.'	Yes	Payment amount. Corresponds to the one sent in the request.
<b>NewAmount</b>	Int(12), symbol '.'	Yes	Remaining amount.
<b>Currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB...).
<b>DateTime</b>	DD.MM.YYYY hh24.mi.ss	Yes	Created date of the payment.
<b>IsTest</b>	Bit(0 or 1)	Yes	1 - test; 0 – production.
<b>Status</b>	String	Yes	The payment status after the authorization: <b>CHARGED</b> — for deduction of the funds, <b>REFUNDED</b> — for refund of the funds.
<b>Email</b>	String	Yes	Email of the customer.
<b>Phone</b>	String(10-20), ahead '+'	Yes	Phone of the customer.
<b>Description</b>	String(250)	Yes	Transaction description in the request.
<b>CustomFields</b>	String(8096)	No	Extra fields of the transaction. Url encoded line, contains pairs of keys and their values command, separated by «;» (semicolon). Keys and values are separated by '=' (equal).

## Payout

Executed after the payout has been successfully completed. It serves to inform about the payment: the system sends a request to the address of the TSP with information about the payment, and the TSP service must record the fact of payment.

Parameters are passed in the body of the request, the list is presented in the table below:

Параметр	Формат	Обяз ат.	Описание
<b>Event</b>	Reserved value	Yes	<b>Payout</b>
<b>Transaction_Id</b>	Int(20)	Yes	Transaction ID in the Payment Center system.
<b>OrderId</b>	String(100)	Yes	Unique order identifier in the Partner system.
<b>Service_Id</b>	Int(12)	Yes	Partner service ID. 1 to 12 digits with no spaces or delimiters.
<b>Amount</b>	Int(12), symbol '.'	Yes	Payment amount. Corresponds to the one sent in the request.
<b>Currency</b>	String(3)	Yes	Currency in ISO format (USD, EUR, RUB...).
<b>DateTime</b>	DD.MM.YYYY	Yes	Created date of the payment.

	hh24.mi.ss		
<b>CardMasked</b>	String(12-19)	Yes	Masked card number.
<b>IsTest</b>	Bit(0 or 1)	Yes	1 - test; 0 – production.
<b>Status</b>	String	Yes	The payment status after the authorization: <b>NEW,</b> <b>TRUSTED,</b> <b>CHARGED,</b> <b>FILTERED,</b> <b>REJECTED,</b> <b>ERROR</b>
<b>Cardholder</b>	String(30)	No	Cardholder name.
<b>Email</b>	String	No	Email of the customer.
<b>Phone</b>	String(10-20) ahead '+'	No	Phone of the customer.
<b>Masked_PAN</b>	String(12-19)	No	Masked card number.
<b>Description</b>	String(250)	No	Transaction description in the request.
<b>CustomFields</b>	String(8096)	No	Extra fields of the transaction. Url encoded line, contains pairs of keys and their values command, separated by «;» (semicolon). Keys and values are separated by '=' (equal).
<b>RRN</b>	String	No	Registration number of the transaction in the bank.

## Repeating of webhook notifications

In response to the request, the system expects to receive a response with the status of HTTP 200. Upon received of another code, the system will continue to try to deliver the message within two days with an increasing interval between attempts.

## Signature

All types of messages contain a **signature** parameter in the HTTP header, which contains the verification value of the request, being calculated using the HMAC algorithm. See example below with the real intermediate values for debugging signature generation.

Example:

- Notifications are sent using POST request,
- The message is the value of the **body** request, for example:

```
"serviceId=1&tranId=88800&amount=50.00&currency=RUB"
```

- The **secret\_key** value of the service is used as the key, for example:

```
"secret_key_1"
```

- The hash is calculated by the **SHA256** function (we get the data in hexadecimal (!) encoding in lowercase):

```
"78e79b0052da99b32146527cc7c5ab13222a4e8a3ded3bd77254f271087cb2a3"
```

- The calculated value should be converted to the **base64** encoding:

```
"NzhlnZliMDA1MmRhOTliMzIxNDY1MjddjYzdjNWFiMTMyMjJhNGU4YTNkZWQzYmQ3NzI1NGYyNzEwODdjYjJhMw=="
```

### **Signature sample (Python):**

```
import hashlib
import hmac
import base64

def calc_signature(body, secret_key):
    message = body
    secret = bytes(secret_key).encode('utf-8')
    digest = hmac.new(secret, message, digestmod=hashlib.sha256).hexdigest()
    return base64.b64encode(digest)
```

### **Signature sample (PHP):**

```
$requestType = "charge"; // possible values: charge, refund, pay...
$requestUrl = "https://secured.payment.center/v2/" . $requestType;

// array for parameters
$bodyRequestArray = array(
    'serviceId' => "YOUR_SERVICE_ID",
    'cardNumber' => "CREDIT_CARD_NUMBER", // Without spaces, for example,
'4111008030004444'
    'expMonth' => "EXPIRED_MONTH", // 2 digits, for example, '04'
    'expYear' => "EXPIRED_YEAR", // 2 digits, for example, '20'
    'cardHolder' => "CARD_HOLDER_NAME",
    'cvc' => "CVC",
    'orderId' => "YOUR_ORDER_ID"
    'amount' => "AMOUNT", // digits and dot ('.'), for example, '3500.45'
    'currency' => strtoupper("CURRENCY"), // RUB|USD
    'description' => "DESCRIPTION",
);

$body = http_build_query($bodyRequestArray);
```

```

$signature = getSignature($body, "YOUR_SECRET_KEY");

$ch = curl_init();
curl_setopt($ch, CURLOPT_URL, $requestUrl);
curl_setopt($ch, CURLOPT_POST, 1);
curl_setopt($ch, CURLOPT_POSTFIELDS, $body); //Post Fields
curl_setopt($ch, CURLOPT_RETURNTRANSFER, true);
$headers = array(
    'signature:'.$signature
);
curl_setopt($ch, CURLOPT_HTTPHEADER, $headers);
$server_output = curl_exec ($ch);
curl_close ($ch);

function getSignature($body, $secretKey)
{
    // create signature
    $hash = hash_hmac('sha256', $body, $secretKey, false);
    return base64_encode($hash);
}

```

## MAC

MAC - a digital signature. Messages **WebPay**, **WebBlock** and **Token** can contain parameter **mac** (optional). At the desire of the client, the ability to verify the digital signature is specified in the service settings (by default it is disabled).

The signature is calculated according to the same rules as the signature (see Signature section) except that the original string is formed from certain fields, the value of each field is complemented by the front length of the value in bytes and all the fields are combined (concatenated) in the order specified in the corresponding description of the format ('serviceid', 'orderid', 'amount' and 'currency'). If a field does not contain a value, the '-' character is used.

Example:

- Incoming parameters:  
 'SERVICE\_ID' => '415',  
 'ORDER\_ID' => '22345670062',  
 'AMOUNT' => '15.35',  
 'CURRENCY' => 'RUB'.
- The string for coding:

```
"2411122345670062515.353RUB"
```

- The **secret\_key** value of the service is used as the key, for example:

```
"Vy34ZDpHyRcrZV4T"
```

- The hash is calculated by the **SHA256** function (we get the data in hexadecimal (!) encoding in lowercase)::

```
"432aab1d4314f4a9766539c2d22796c7edfe28d95e791f18fdbaa6d4f6952012"
```

- The calculated value should be converted to the **base64** encoding:

```
"NDMyYWFiMWQ0MzE0ZjRhOTc2NjUzOWMyZDIyNzk2Yzd1ZGZlMjhhOTVlNzkxZjE4ZmRiYWE2ZDRmNjk1MjAxMg=="
```

### MAC sample (PHP):

```
$checking_params = array(
    'serviceid' => "YOUR_SERVICE_ID",
    'orderid' => "YOUR_ORDER_ID",
    'amount' => "AMOUNT", // digits and dot ('.'), for example, '15.35',
    'currency' => strtoupper("CURRENCY"), // RUB|USD,
);
$string = "";
foreach ($checking_params as $key => $value) {
    if ($value == "") {
        $string = $string . "-";
    } else {
        $string = $string . strlen($value) . $value;
    }
}
$mac = hash_hmac('sha256', $string, $service->secretKey, false);
$mac = base64_encode($mac);
```

## Transaction statuses

Status	Value	Type	Possible operations
<b>BLOCKED</b>	successful block funds	final	Charge Cancel
<b>CHARGED</b>	successful payment	final	Refund
<b>VOIDED</b> <b>REFUNDED</b>	successful refund/cancel	final	-
<b>NEW</b>	incomplete - you should do	not final	-

<b>TRUSTED</b> <b>WAITING_3DS_REDIRECT</b> <b>WAITING_BANK</b> <b>DOING_BANK_AFTER_3DS</b> <b>DOING_BANK_STATUS_POLL</b> <b>DOING_CHARGE</b> <b>DOING_FULL_UNBLOCK</b> <b>DOING_REFUND</b> <b>DOING_AF</b> <b>DOING_REVERSE</b> <b>DOING_PAYOUT_LIMITS_CHECK</b>	Status request to get the result or wait Webhooks		
<b>WAITING_3DS</b>	incomplete	not final	-
<b>FILTERED</b> <b>REJECTED_INITIAL</b> <b>REJECTED_AFTER_3DS</b> <b>REJECTED_AFTER_BANK_WAIT</b> <b>REJECTED_CHARGE</b> <b>REJECTED_UNBLOCK</b> <b>REJECTED_REFUND</b>	failed operation (reject from bank)	final	-
<b>FAILED_AF</b> <b>FAILED_INITIAL</b> <b>FAILED_AFTER_3DS</b> <b>FAILED_AFTER_BANK_WAIT</b> <b>FAILED_CHARGE</b> <b>FAILED_UNBLOCK</b> <b>FAILED_REFUND</b> <b>DECLINED_BY_TIMEOUT</b>	failed operation (reject from the system)	final	-