Features of ERIP payments

General provisions

“The “Raschet” system is an automated information system of a single settlement and information space (ERIP) created by the National Bank of the Republic of Belarus in order to simplify the organization of accepting payments from individuals and legal entities.

Payment via ERIP allows you to pay for a purchase from your card account using Internet banking, ATMs and information kiosks of many banks in the Republic of Belarus. You can pay in cash through ERIP at bank cash desks or through cash-in devices.

This document is intended for merchants wishing to accept payments for goods/services on their websites using ERIP. Organization of payment using ERIP is carried out through IPS Assist.

Using ERIP, you can make payments by request or advance payments.

For payments by request, you can use E-POS - a universal method for accepting payments through ERIP. To accept payments using the E-POS method, there is no need for a payment terminal and its maintenance. E-POS is suitable for online stores, courier deliveries, small retail outlets, and service enterprises.

Payments made via ERIP (including E-POS) can be cancelled if necessary.

Payments by request

Payments by request are made by the customer at a time when buying a product/service. To enable and configure this feature, please contact our technical support team.

Payment against an invoice issued using a web service

The web service for creating a bill accepts bill parameters (HTTP POST/SOAP formats) and returns (if the bill is created successfully) the payment token/ID corresponding to this bill. IPS Assist sends a notification via E-mail to the customer's address specified in the parameters with the order number (payment token/ID) for payment in the ERIP system.

Subj	**The bill has been invoiced for payment**
Text	Hello, *Test Testov*, We inform you that bill *#15912778124* on amount of *88.80 ч BYN* You can pay it till *11.09.2020 16:36:55 (GMT +03:00)*. To pay the bill, use the “Raschet” system (ERIP). To quickly search, use the ERIP service code (481287) Order number in the ERIP system: *15912778124* Please address *internet-shop #1* at *shop 1@ testpost . by* in case of any questions concerning about this bill. _______________ With best regards, ASSIST Customer Service Team www.belassist.by

The notification template must be discussed with support service (support@belassist.by).

The customer can pay the bill in the ERIP system at any time within the specified period. To set up a due date for paying bills, the merchant should contact the technical support service (support@belassist.by).

Request URL to create a bill:

https://<SERVER-NAME>/bill/createbill.cfm

List of request parameters:

Parameter	Mandatory field	Adopted values	Default value	Description
merchant_Id	Yes	Number		The merchant identifier in IPS Assist
login	Yes	8 - 20 characters		Login (Latin letters, digits and symbol _)
password	Yes	8 - 20 characters		Password (Latin letters and digits)
bill	Yes/No*	30 characters (digits and latin letters)		Unique bill number (in creating order will be used as *orderNumber*, and also as a number for payment in ERIP)
bill_Amount	Yes	Number		Bill amount (*orderAmount* in order)
bill_Currency	Yes	String		Bill currency (*orderCurrency* BYN only)
bill_Comment	No	String		Comment (*orderComment* in order)
customer_Name	No	String		Customer's name (*firstName* in order>)
customer_LastName	No	String		Customer's last name (*lastName* in order)
customer_MiddleName	No	String		Customer's middle name (*middleName* in order)
customer_Email	Yes/No **	String		Customer's e-mail (*email* in order)
customer_Phone	No	String		Customer's phone number (*homePhone* in order)
customer_Mobile	No	String		Customer's mobile phone number (*mobilePhone* in order)
language	No	RU EN	Setting of basic merchant account language	Language of authorized pages
pay_Until	No	Date/time	1 day	Expire date of bill payment (date and time in GMT): YYYYMMDDThhmm, when parameter is not passed then its value is calculated based on merchant settings
sendNotification	No	Number	Depending on merchant settings	Bill sending by E-mail: 0 – not send, 1 – send by E-mail
checkValue	Yes	String		Request validation code***

*parameter *bill* is not mandatory in case when automatic bill numbering is switched on.

**If the value of the E-mail address is not sent, sending the bill by E-mail is not possible and the *sendNotification* value is ignored.

***Check value is calculated by following formula:

> uppercase(md5(uppercase(md5(SALT) + md5(X)))), where SALT – secret word; X – result of string concatenation (with semicolon (;) as delimiter) of the request parameters in order as they located in table from top to bottom excluding *delayPayment, sendNotification, checkValue and customerNumber*, '+' – string concatenation.

When bill with the same number is already exist then new bill is not created and an error is returned: " *Bill with the specified number already exists* ".

If request doesn't contain mandatory parameters or wrong data format provided the new bill is not created and an error is returned (similar to the error of order creation with not enough or wrong parameters).

When unique payment token/ID cannot be created the new bill is not created and an error is returned: " *Unique payment token/ID cannot be created* ".

Example of bill creation request (HTTP POST):

```
<FORM ACTION="https://<SERVER-NAME>/bill/createbill.cfm" method="POST">
<INPUT TYPE="hidden" NAME="Merchant_ID" VALUE="Your Merchant_ID">
<INPUT TYPE="hidden" NAME="Login" VALUE="Your login">
<INPUT TYPE="hidden" NAME="Password" VALUE="Your password">
<INPUT TYPE="hidden" NAME="Bill" VALUE="Bill number">
<INPUT TYPE="hidden" NAME="Bill_amount" VALUE="Bill amount">
<INPUT TYPE="hidden" NAME="Bill_currency" VALUE="Bill currency">
<INPUT TYPE="hidden" NAME="Bill_comment" VALUE="Bill comment">
<INPUT TYPE="hidden" NAME="Customer_Name" VALUE="Customer name">
<INPUT TYPE="hidden" NAME="Customer_Lastname" VALUE="Customer lastname">
<INPUT TYPE="hidden" NAME="Customer_Middlename" VALUE="Customer middlename">
<INPUT TYPE="hidden" NAME="Customer_Email" VALUE="Customer Email">
<INPUT TYPE="hidden" NAME="Customer_Phone" VALUE="Customer phone">
<INPUT TYPE="hidden" NAME="Customer_Mobile" VALUE="Customer mobile phone">
<INPUT TYPE="hidden" NAME="Language" VALUE="Language of authorized pages">
<INPUT TYPE="hidden" NAME="Pay_until" VALUE="Expire date of bill payment">
<INPUT TYPE="hidden" NAME="SendNotification" VALUE="Bill sending flag">
<INPUT TYPE="hidden" NAME="Checkvalue" VALUE="Request validation code">
<INPUT TYPE="Submit"></FORM>
```

List of response parameters:

Parameter	Value
hash	Payment token/bill ID

Example of return parameter in CSV format:

```
Hash: xKPWpz4ZzDe5A9anPhnN
```

In XML format:

```
<?xml version='1.0' encoding='utf-8' standalone='yes'?>
<result
   firstcode="0"
   secondcode="0"
   count="1">
      <return>
          <Hash>akPWp08t84MTQ9anTy30</Hash>
      </return>
</result>
```

SOAP web-service description:

https://<SERVER_NAME>/bill/createbill.wsdl

Example of bill creation request:

```
<Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<Header/>
    <Body>
        <CreateBill>
            <Bill>
                <merchant_id>423422</merchant_id>
                <login>login</login>
                <password>password</password>
                <bill>123456</bill>
                <bill_amount>100.00</bill_amount>
                <bill_currency>BYN</bill_currency>
                <bill_comment></bill_comment>
                <customer_name>Test</customer_name>
                <customer_lastname>Testov</customer_lastname>
                <customer_middlename>Testovich</customer_middlename>
                <customer_email>test@testpost.by</customer_email>
                <customer_phone></customer_phone>
                <language>RU</language>
                <pay_until>20150611T1212</pay_until>
                <sendnotification>0</sendnotification>
                <checkvalue> AA3BC3F48B7FE23988044B53AA98F169</checkvalue>
            </Bill>
        </CreateBill>
    </Body>
</Envelope>
```

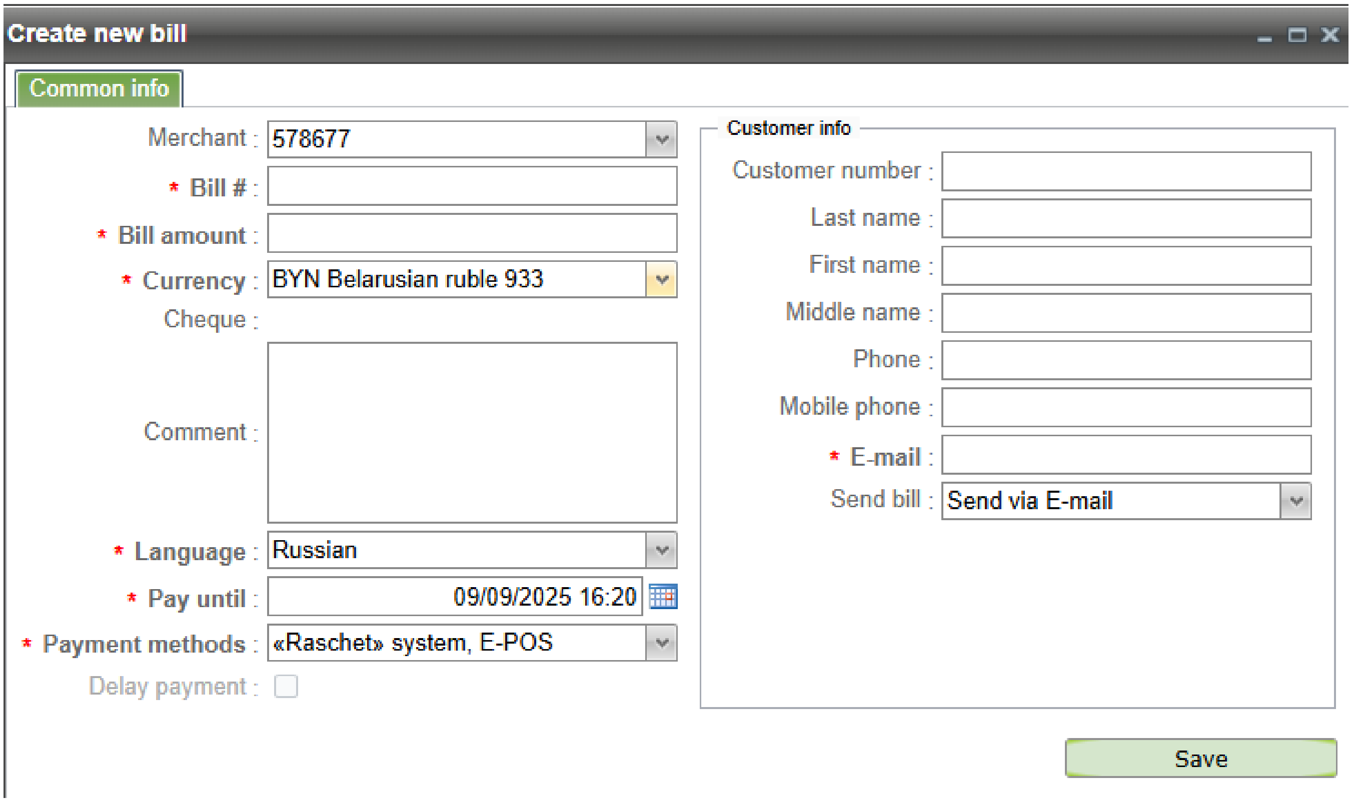
Example of request result:

```
<soapenv:Envelope
SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Body SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
        <ASS-NS:BillResponse xmlns:ASS-NS="http://www.paysecure.ru/ws/">
            <return xsi:type="si:SOAPStruct" xmlns:si="http://www.paysecure.by/type/">
                <Hash xsi:type="xsd:string">6CPV7F4a0aWQg9XsXhrS</Hash>
            </return>
        </ASS-NS:BillResponse>
    </SOAP-ENV:Body>
```

Payment according to a bill issued from the Personal Account of IPS Assist

The *Bills* section is designed to obtain information about invoiced and paid bills; the section also allows you to create new bills, cancel invoiced bills, send issued bills by email to customers, pay invoiced bills and receive other necessary information about the bills and bill payments.

Separate button "*Create new bill*" allows the operator to create new bill directly from your personal account. Clicking this button opens a window for bill creation. Required parameters are marked with asterisks.



Bill creation window

List of the parameters for creating a new bill

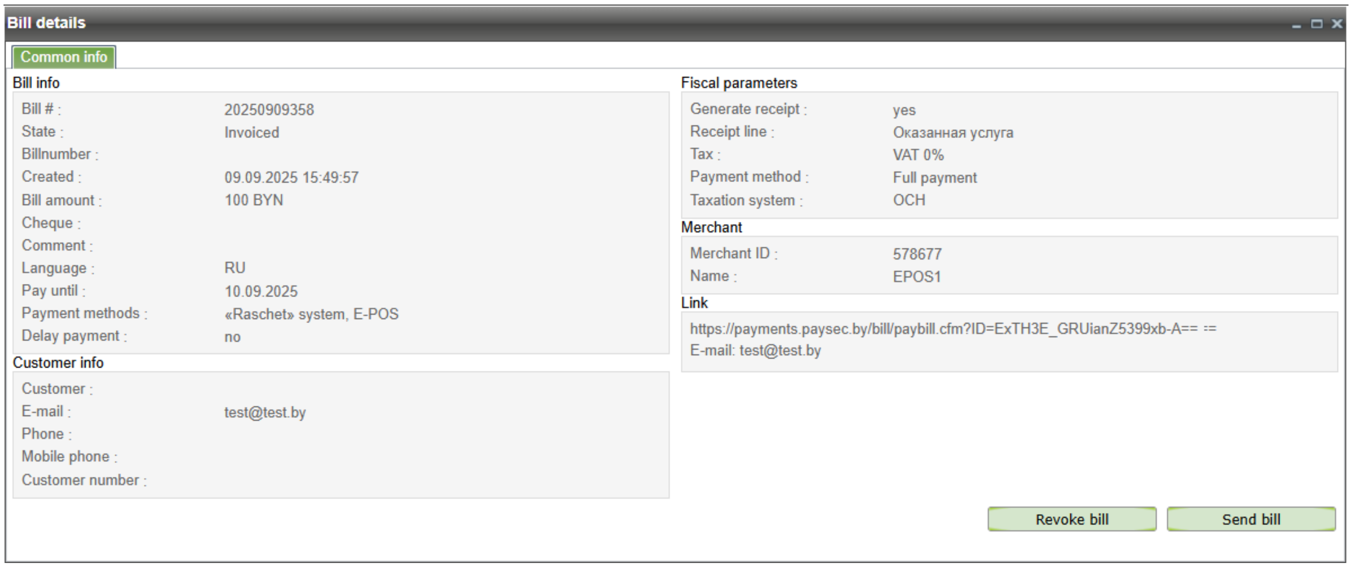
Name	Description
Common info	
Merchant	Select from the drop down list available merchants for the current user.
Bill #	The bill number that is defined by the enterprise. When bill auto-numbering is switched on IPS Assist side then this field can be empty.
Bill amount	Bill amount
Currency	Bill currency (select from the drop down list of currency codes).
Comment	Bill comment
Language	Customer language, which is used for E-mail messages and payment page (language of the merchant by default).
Pay_until	Expire date of bill payment (date and time in GMT), by default 1 day.
Payment methods	Select from the drop-down list - "*Raschet system*" or *E-POS*; multiple selection is possible.
DelayPayment*	Check box. Attribute of a credit card authorization for the double-stage operation mode: 0- one-stage operation, 1 - double-stage operation.
Customer info	
Customer Number	Merchant's internal customer identification
Last name*	Customer's last name
First name*	Customer's name
Middle Name	Customer's middle name
Phone	Customer's phone number
Mobile phone	Customer's mobile phone number

E-mail	Customer's E-mail address
Send bill*	Drop-down list: *Don't send, Send via E-mail*, *Send via Email and SMS*.

*The parameter value can be set by default. In this case, the bill creation window will be opened with the already filled default values. During creating a bill, the values of these parameters can be changed by user. Please, contact support team (support@belassist.by) to set the default parameters.

All changes are applied after pressing *Save* button.

If you select the *'View bill'* option in the bill's context menu then the window *Bill details* appears with selected bill. If you select the *Edit bill* option in the bill's context menu you can also edit the bill parameters. Work in this window is carried out in the same way as in the *Create new bill* window.



Bill details window

Attention! If a template for notifying the customer about invoicing the bill for payment in the ERIP system is configured for the merchant (see example), then the customer will be able to pay the bill within the specified period using ERIP. If the merchant uses a standard notification template, the customer will receive a link to pay the bill using not only ERIP, but also other payment means. At the same time, no more than 48 hours are given for payment using ERIP. The operator transmitting the bill link to the customer in any way will lead to the same result.

Payments by request from the Personal Account of IPS Assist

Payments by request via payment pages

In order for the IPS Assist server to accept a payment authorization request, the merchant must send the following parameters:

- **merchant_Id** – the merchant identifier in IPS Assist;
- **orderNumber** – order number in the merchant's payment system corresponding to this payment;
- **orderAmount** – purchase amount.

This is a minimum set of payment parameters that is transmitted from the merchant when the customer is redirected to the IPS Assist server, after which the customer enters personal data (full name, address, Email, telephone, etc.) and information about the payment means on the IPS Assist authorization pages.

An example of a button with all necessary parameters:

```
<FORM ACTION="https://<SERVER-NAME>/pay/order.cfm" METHOD="POST">
<INPUT TYPE="HIDDEN" NAME="merchant_Id" VALUE="Your Merchant_ID">
<INPUT TYPE="HIDDEN" NAME="orderNumber" VALUE=" B20042011_27">
<INPUT TYPE="HIDDEN" NAME="orderAmount" VALUE="205.50">
<INPUT TYPE="HIDDEN" NAME="orderComment" VALUE="Example of an order payment">
<INPUT TYPE="SUBMIT" NAME="submit" VALUE="Buy">
</FORM>
```

A customer, however, often enters his/her personal information (name, address, e-mail etc.) on the enterprise pages during registration. The merchant can send this information along with the payment parameters. In this case a customer enters on IPS Assist pages only the payment means data.

Example of a button with the payment parameters and the customer's personal data:

```
<FORM ACTION="https://<SERVER-NAME>/pay/order.cfm" METHOD="POST">
<INPUT TYPE="HIDDEN" NAME="merchant_Id" VALUE="Your Merchant_ID">
<INPUT TYPE="HIDDEN" NAME="orderNumber " VALUE="A03032011_26">
<INPUT TYPE="HIDDEN" NAME="orderAmount" VALUE="66.66">
<INPUT TYPE="HIDDEN" NAME="orderCurrency" VALUE="BYN">
<INPUT TYPE="HIDDEN" NAME="firstName" VALUE="Test">
<INPUT TYPE="HIDDEN" NAME="lastName" VALUE="Testov">
<INPUT TYPE="HIDDEN" NAME="email" VALUE="test@belassist.by">
<INPUT TYPE="HIDDEN" NAME="orderComment" VALUE="Example of an order payment">
<INPUT TYPE="SUBMIT" NAME="submit" VALUE="Pay">
</FORM>
```

URL of the authorization request is:

https://<SERVER-NAME>/pay/order.cfm

The full list of the authorization request parameters is given in table below:

Parameter	Mandatory field	Adopted values	Default value	Description
merchant_Id	Yes	Number		The merchant identifier in IPS Assist
orderNumber	Yes	128 characters		Order number in the merchant payments system
delay	No	0 – one-stage operation 1 – double-stage operation	0	Attribute of a bankcard authorization for the double-stage operation mode.
language	No	RU – Russian, EN – English	Language of legal entity /enterprise	Language of authorized pages
orderComment	No	4000 characters		Comment.
orderAmount	Yes	Number, 15 digits, two digits after the delimiter (delimiter '.')		Payment amount, in original currency (e.g., 10.34).
orderCurrency	No	3 characters	Currency of legal entity /enterprise	Code of currency of the *orderAmount* .
lastName	No	70 characters		Customer's last name.
firstName	No	70 characters		Customer's first name.

middleName	No	70 characters		Customer's middle name.
email	No	128 characters		Customer's e-mail.
address	No	256 characters		Customer's address.
homePhone	No	64 characters		Customer's home phone number.
workPhone	No	20 characters		Customer's work phone number.
mobilePhone	No	20 characters		Customer's mobile phone number.
fax	No	20 characters		Customer's fax number.
country	No	3 characters		Customer's country.
state	No	3 characters		Customer's region.
city	No	70 characters		Customer's city.
zip	No	25 characters		Customer's post zip code.
url_Return	No	256 characters		Page URL, to where a customer should return after performing his/her payment in the system (option "*Go to the shop page*" should be enabled in merchant's settings in Personal account).). It is recommended to use HTTPS protocol for secure communication.
url_Return_Ok	No	256 characters	URL_RETURN parameter value, or, if none, return URL parameter after successful authorization, specified in Personal account	Page URL, to where a customer should return after successful performing his/her payment in IPS Assist (option "*Go to the shop page*" should be enabled in merchant's settings in Personal account)). It is recommended to use HTTPS protocol for secure communication.
url_Return_No	No	256 characters	URL_RETURN parameter value, or, if none, return URL specified in Personal account	Page URL, to where a customer should return if the payment is not performed in IPS Assist or payment is still in progress (current payment status "*In Progress*"), see details. The option "*Go to the shop using return URL*" should be enabled in merchant's settings in Personal account. It is recommended to use HTTPS protocol for secure communication.
cardPayment	No	1 – pay using bankcard; 0 – without using bankcard	1	A customer can perform his/her payment using bankcard, if parameter value 1 has been sent, or the parameter is missing (and bankcard payments are enable for the enterprise)
eripPayment	No	1 – use ERIP payment system, 0 – without using ERIP	1	A customer can perform his/her payment using ERIP payment system, if parameter value 1 has been sent, or the parameter is missing (and ERIP payments are enable for the merchant)
eposPayment	No	1 – use E-POS payment, 0 – without E-POS	1	A customer can perform his/her E-POS payment, if parameter value 1 has been sent, or the parameter is missing (and E-POS payments are enable for the merchant)
googlePayPayment	No	1; 0	0	Payment via Google Pay attribute (=1)
applePayPayment	No	1; 0	0	Payment via Apple Pay attribute (=1)

samsungPayPayment	No	1; 0	0	Payment via Samsung Pay attribute (=1)
signature	No*	String		The string is joined according the determined rules. Then the MD5 hash prepared from this string. Hash is signed by private RSA key of the merchant. Key length - 1024. Received bit sequence is a signature. Signature is transferred BASE64 coded string. Attention! The parameter is necessary in order to protect the transmitted data from the possibility of their substitution by intruders. You should also enable the setting for check value or signature in the Personal account.
checkValue	No*	String		Request validation code. The string has to be generated as follows: uppercase(md5 (uppercase(md5(SALT) + md5(X)))), where SALT – secret word; X – the string joined according the determined rules. **Note.** If the merchant uses request validation code without delimiters, please, contact the support team support@belassist.by Attention! The parameter is necessary in order to protect the transmitted data from the possibility of their substitution by intruders. You should also enable the setting for check value or signature in the Personal account.
recurringIndicator	No	1 – recurrent payment 0 – nonrecurrent payment	0	Recurring payment indicator
recurringMinAmount	No/Yes	Number, 15 digits, two digits after the delimiter (delimiter '.')		Min amount of recurrent payments. Mandatory if recurringIndicator = 1
recurringMaxAmount	No/Yes	Number, 15 digits, two digits after the delimiter (delimiter '.')		Max Amount of recurrent payments. Mandatory if recurringIndicator = 1
recurringPeriod	No/Yes	Number, 3 digits		Frequency of recurrent payments in days. Mandatory if recurringIndicator = 1
RecurringMaxDate	No/Yes	Date as string in DD.MM.YYYY format		The end date of recurrent payments. Mandatory if recurringIndicator = 1
Disable3DS	No	0 - perform 3D-Secure authorization according to the merchant settings; 1 - fulfill payment without 3-D Secure.	0	Flag of disabling 3-D Secure. The use of this operating mode is possible in agreement with Assist. To configure it, you need to contact the support service (support@belassist.by). When using this parameter, it must also be added to the order signature, which is built according to determined rules.

* In order to protect the transmitted data from the possibility of their substitution by intruders, one of the parameters (*signature* or *checkValue*) must be passed, and the settingfor the check value (or signature) in the Personal account must also be enabled.

If more than one parameter specifying the type of payment means (*cardPayment* etc.) has value 1, a customer can choose a method of payment on the payments page of IPS Assist. If these parameters are not sent, a user can also select a method of payment on IPS Assist payment page from all those available for this enterprise. If all these parameters have the value 0, then it results to error.

An example of a button with all necessary parameters:

```
<FORM ACTION="https://<SERVER-NAME>/pay/order.cfm"METHOD="POST">
<INPUT TYPE="HIDDEN" NAME="merchant_Id" VALUE=" Merchant_ID">
<INPUT TYPE="HIDDEN" NAME="orderNumber" VALUE="A20042011_28">
<INPUT TYPE="HIDDEN" NAME="orderAmount" VALUE="237.40">
<INPUT TYPE="HIDDEN" NAME="orderCurrency" VALUE="USD">
<INPUT TYPE="HIDDEN" NAME="delay"VALUE="0">
<INPUT TYPE="HIDDEN" NAME="language"VALUE="RU">
<INPUT TYPE="HIDDEN" NAME="email"VALUE="test@test.by">
<INPUT TYPE="HIDDEN" NAME="orderComment" VALUE="  28-A">
<INPUT TYPE="HIDDEN" NAME="url_Return_Ok" VALUE="http://www.URL.by/yes">
<INPUT TYPE="HIDDEN" NAME="url_Return_No" VALUE="http://www.URL.by/no">
<INPUT TYPE="HIDDEN" NAME="eripPayment"VALUE="1">
<INPUT TYPE="SUBMIT" NAME="submit"VALUE="">
</FORM>
```

After completing the request, a payment receipt is displayed on the payment page, which indicates the payment status as “*In Process*”. The customer is invited to use the ERIP “Raschet” system to complete the payment. At the same time, a letter with the ERIP order number and instructions for completing the payment is sent to the customer’s email address.

Payments by request via web service

A special web service allows a merchant to generate an order in ERIP without going to the payment page.

To work in this mode, the *makeorder* web service is provided.

Request URL for creating an order in ERIP:

https://<SERVER-NAME>/pay/makeorder.cfm

List of request parameters for creating an order in ERIP:

Parameter	Mandatory field	Adopted values	Default value	Description
merchant_Id	Yes	Number		The merchant identifier in IPS Assist
orderNumber	Yes/No	30 characters		Order number in the merchant payments system
orderAmount	Yes	Number, 15 digits, two digits after the delimiter (delimiter '.')		Payment amount, in original currency (e.g., 10.34).
orderCurrency	Yes	3 characters	Currency of legal entity/merchant	Code of currency of the *orderAmount*.
orderComment	No	256 characters		Comment
language	No	RU – Russian EN – English	Language of legal entity/merchant	Language of authorized pages
lastname	Yes	30 characters		Customer's last name.
firstname	Yes	>30 characters		Customer's first name.
middlename	No	30 characters		Customer's middle name.
email	Yes	128 characters		Customer's e-mail.
address	No	>90 characters		Customer's address in the format: st. <30 characters>, h. <10 characters>, bldg. <10 characters>, apt. <10 characters>
city	No	30 characters		Customer's city.

signature	No*	String		The string is joined according the determined rules. Then the MD5 hash prepared from this string. Hash is signed by private RSA key of the merchant. Key length - 1024. Received bit sequence is a signature. Signature is transferred BASE64 coded string. Attention! The parameter is necessary in order to protect the transmitted data from the possibility of their substitution by intruders. You should also enable the setting for check value or signature in the Personal account.
checkValue	No*	String		Request validation code. The string has to be generated as follows: uppercase(md5 (uppercase(md5(SALT) + md5(X)))), where SALT – secret word; X – the string joined according the determined rules. **Note.** If the merchant uses request validation code without delimiters, please, contact the support team support@belassist.by Attention! The parameter is necessary in order to protect the transmitted data from the possibility of their substitution by intruders. You should also enable the setting for check value or signature in the Personal account.

***Must be send if the merchant uses the parameter for common orders.

An example of HTTP POST request

```
<FORM ACTION="https://SERVER-NAME/pay/makeorder.cfm " method="POST">
<INPUT TYPE="hidden" NAME="merchant_Id" VALUE="Your Merchant_ID">
<INPUT TYPE="hidden" NAME="orderNumber" VALUE="011001-10">
<INPUT TYPE="hidden" NAME="orderAmount" VALUE="22">
<INPUT TYPE="hidden" NAME="orderCurrency" VALUE="BYN">
<INPUT TYPE="hidden" NAME="orderComment" VALUE="Order payment 011001-10">
<INPUT TYPE="hidden" NAME="language" VALUE="RU">
<INPUT TYPE="hidden" NAME="lastName" VALUE="Customer's last name">
<INPUT TYPE="hidden" NAME="firstName" VALUE="Customer's first name">
<INPUT TYPE="hidden" NAME="middleName" VALUE="Customer's middle name">
<INPUT TYPE="hidden" NAME="email" VALUE=" Customer's Email">
<INPUT TYPE="hidden" NAME="address" VALUE="Customer's address">
<INPUT TYPE="hidden" NAME="homephone" VALUE="Customer's phone number">
<INPUT TYPE="hidden" NAME="city" VALUE="Customer's city">
<INPUT TYPE="Submit"></FORM>
```

List of response parameters:

Название	**Значение**
ordernumber	Order number in the merchant payments system
expirationtime	Expire date of payment (date and time in GMT): DD.MM.YYYY HH:MM:SS
orderstate	Order state
eripordernumber	Order number in the ERIP system (the customer must enter it to complete the payment)

An example of a response in JSON format after a successful order creation:

```
{"ordernumber":"ABC123", "expirationtime":"04.08.2017 13:06:00", "orderstate": "In Process", "eripordernumber":"
21923958"}
```

An example of a response in JSON format after unsuccessful order creation or problems with parameters:

```
{"errorCode":"51", "errorMessage":"Customer first name must be specified"}
```

Advance payments

An merchant can receive either advance payments or payments by request through ERIP, depending on the system settings.

Advance payments are made to the customer’s personal account in the merchant’s payments system. The merchant informs the customer via email or SMS message the personal account number that the customer uses when paying in ERIP. Next, upon request from ERIP, a corresponding order is created in IPS Assist.

After successful payment by the customer to the specified personal account in ERIP, the paid order will be displayed in the order monitoring of Personal account IPS Assist.

To use advance payments, the merchant needs to send to IPS Assist a register of current personal accounts and customer debts. The registry is transferred as a csv file containing the following parameters.

Parameter	Mandatory field	Adopted values	Description
merchant_Id	Yes	Number	The merchant identifier in IPS Assist
personalAccount	Yes	30 characters	Personal account number, customer ID, etc. in the merchant system (the use of special characters is not allowed). **Note.** All alphabetic characters contained in the personal account number are converted into capital letters when loaded into IPS Assist. Therefore, account numbers must be generated in such a way as to exclude the possibility of non-unique account numbers appearing (for example, sequences of characters in the account number - ABC, abc, Abc, etc. will be considered the same).
debt	No	Number	Debt amount (12.2 – two digits after the delimiter, delimiter ',').
lastName	No	30 characters	Customer's last name.
firstName	No	30 characters	Customer's first name.
middleName	No	30 characters	Customer's middle name.
email	Yes	128 characters	Customer's e-mail.
city	No	30 characters	Customer's address city.
street	No	>30 characters	Customer's address street.
house	No	18 characters	Customer's address house
building	No	10 characters	Customer's address building.
apartment	No	10 characters	Customer's address apartment.
infoLine*	No	999 characters	Additional information – contract, commentary, etc. (the text from this field will be displayed to the customer upon payment).
date	No	DDMMYYYY HHMMSS	Date of the register

*For *Info* in ERIP nesting is allowed, one line should not exceed 999 characters, all together 2000.

The first line of the file should list the names of the parameters, the next lines should list their values. Data delimiter is semicolon. The currency is always Belarusian rubles BYN.

Example data in a file

```
MERCHANT_ID;PERSONALACCOUNT;DEBT;SURNAME;FIRSTNAME;EMAIL;INFOLINE
500069;DFG4567;100.01;Testov;Test;test@assist.by;contract 454566
```

Transfer of a file with a register of current personal accounts is carried out by agreement with the merchant at a certain frequency or upon request.

If, when making an advance payment, the personal account number is not exist in the register of current ERIP personal accounts in IPS Assist, the payment will be completed with an error.

At the request of the merchant, using the “*Enable to pay for the arbitrary personal account in ERIP*” setting, the IPS Assist technical support service can make enable payment for such personal accounts, at the same time with payment, the personal account will be added into the register of current ERIP personal accounts in IPS Assist automatically.

The prepared file with the register can be downloaded in the *Customers* section in the IPS Assist Personal Account.

Advance payments with customer verification on the merchant side

The merchant can organize replenishment of the client’s personal wallet through ERIP. The customer of the merchant will be able to use the wallet funds for subsequent payment of the order. To identify a customer, you can use a phone number, email address or other client ID. Verification is carried out using a pre-agreed ID (the customer must know what exactly needs to be used as an ID on the ERIP side to start top up his wallet).

Payment is carried out as follows:

- the customer finds the merchant in the ERIP catalog and enters his ID;
- ERIP sends a request to IPS Assist with the specified customer ID;
- IPS Assist sends a request to the merchant asking whether it has a customer with this ID;
- the customer specifies the amount to top up the wallet and begins the payment process through ERIP;
- ERIP sends a request to IPS Assist, then payment is made according to the existing advance payment scenario (the order number is generated automatically), the customer table is not used if there is verification from the merchant;
- after payment is made through ERIP, IPS Assist sends the authorization result to the merchant server with the customer ID and credit amount, the order/operation number in a result allows you to exclude duplicates on the merchant side.

To ensure client verification, the following verification service must be implemented on the merchant side:

Authorization:	*login/password* in the request body or BasicAuth - based on *login/password* in the request header
Request:	HTTP POST
Data transmission format:	JSON

Request parameters

Parameter	Mandatory field	Format	Description
account	Yes	String	Customer ID (personal account number)
login	No	String	Authentication login
password	No	String	Authentication password
amount	No	Number	Amount (value 0 is sent in the request)

Merchant server response

- *HTTP 200* if the request was processed successfully. The response must contain the following fields:

Parameter	Mandatory field		Description
status	Yes		Processing status: • *OK* – account is found; • *NotFound* – the specified account does not exist; • *Error* – an error occurred (additional information about the error must be provided).
amount	No		Optional block with information on the amount.
	editable	Yes	Permission to edit the amount: • *true* - the amount can be edited; • *false* - the amount cannot be edited.
	arrears	Yes	Amount of debt, number.
	min	No	Minimum amount, number, makes sense only if *editable=true*, if *editable=false* the field is ignored.
	max	No	Maximum amount, number, makes sense only if *editable=true*, if *editable=false* the field is ignored.
accountInfo	No		Optional block of parameters with information about the customer, all parameters are of string type up to 30 characters long.

	fName	No	First name, string up to 30 characters long.
	lName	No	Last name, string up to 30 characters long.
	mName	No	Middle name, string up to 30 characters long.
	personalNumber*	No	Identification number of payer, string 14 characters, 09, A-Z, А-Я.
	birthDate*	No	Date of birth, string 8 characters, YYYYMMDD.
addressInfo	No		Optional parameter block with customer address.
	country*	No	Payer's country code, string 3 characters (ISO 3166-1 numeric).
	city	No	City, string up to 30 characters long.
	street	No	Street, string up to 30 characters long.
	house	No	House, string up to 10 characters long.
	building	Нет	Building, string up to 10 characters long.
	apartment	Нет	Apartment, string up to 10 characters long.

*Must be send if the merchant requires payer verification within ERIP.

- *HTTP 400* in case of incorrect input parameters. The response must contain the following fields:
  status - string: "Error";
  errorMessage - string: error description text;
- *HTTP 401* Unauthorized request (authorization failed):
  status - string: "Error";
  errorMessage - string: error description text;
- *HTTP 403* in case of problems with request execution. The response must contain the following fields:
  status - string: "Error";
  errorMessage - string: error description text.

Example of a request to a web service:

```
{"account":"TEST400_1","login":"test","password":"test1","amount":0}
```

Example of a successful response:

```
{{
"status":"Ok",
"amount" :
{"editable": true, "arrears": 100.00, "min": 1.00, "max":100.00}
,
"accountInfo" :
{"fName" : "First name","lName": "Last name","mName": "Middle name"}
,
"addressInfo" :
{"city": "City","street": "Street","house": 8,"building":"2","apartment":"34"}
}}
```

An example of a response with an error:

```
{"status":"Error","errorMessage":"error 400 description text"}
```

An example of a response if there is no personal account:

```
{"status":"NotFound","errorMessage":"account not found"}
```

Payment notifications

To notify the merchant about the payment result in real time, the IPS Assist system provides a service for synchronously sending payment results to the merchant server. After the buyer completes payment for the order (using a bank card or one of the of electronic cash payment means), a message with payment parameters is sent to the merchant server using the HTTP POST or SOAP method.

You can set up sending in your Personal account by specifying the URL for sending results, protocol type (POST or SOAP), signature type and secret word.

After activating and configuring the service, the results of operations (payments, confirmations, cancellations - depending on the settings) will be sent to the merchant server. The results of payment transactions completed due to a timeout are not sent.

In the results of transactions for advance payments sent using the service, the *personalaccount* parameter is added (by request to the support service support@belassist.by) so that the merchant could determine to which personal account the payment was made.

Read more about sending payment results to the merchant server in the corresponding section of the documentation.

Attention! If a merchant receives daily registers of completed transactions from IPS Assist, for such registers it is also possible to indicate personal accounts in ERIP for which payments were made (if the merchant has advance payments). To configure such registries, you should contact IPS Assist technical support service (support@belassist.by).

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