



## **Setting Up Merchant (Shop) Communication with TWEC PG**

## Contents

<b>1</b>	<b>Introduction.....</b>	<b>3</b>
<b>2</b>	<b>Conventions and Abbreviations.....</b>	<b>4</b>
<b>3</b>	<b>Internet Shop Communication.....</b>	<b>5</b>
3.1	Authorization Result Notification.....	6
<b>4</b>	<b>Administrative Operations.....</b>	<b>12</b>
4.1	Message Formats.....	13
4.1.1	Create Order.....	13
4.1.2	Get Order Status.....	29
4.1.3	Payment Reversal.....	31
4.1.4	Totals Reconciliation.....	33
4.1.5	Refund .....	35
4.1.6	Get TWEC PG Transaction Log.....	38
4.1.7	Get Order Information.....	40
4.1.8	Get Orders List.....	44
4.1.9	Purchase.....	48
4.1.10	Signed Receipt Format.....	54
4.1.11	Capture .....	55
4.2	Order Status Graph.....	57
<b>5</b>	<b>Appendixes.....</b>	<b>59</b>
5.1	Standard Procedures for Executing TWEC PG Operations.....	59
5.1.1	Purchasing.....	59
5.1.2	Recurring Payment.....	60
5.1.3	Automatic Recurring Payment.....	61

## 1 Introduction

The document hereunder provides instructions on setting up the merchant communication with the **TranzWare e-Commerce Payment Gateway** module (being a part of the **TranzWare e-Commerce** system) implementing the **3D Secure v1.0** and **EMV 3-D Secure v2.x** (including v2.0 and v2.1) acquiring functionality.

The document is intended for technicians responsible for **TWEC PG** integration.

## 2 Conventions and Abbreviations

### Conventions

Convention	Example	Applies to
Italic	When creating an order, specify the <i>P2PTransfer</i> value in the <b>OrderType</b> parameter.	Names of files, parameter values
Bold	<b>TWEC PG</b> -to-Internet shop server communication protocol is based on the two-way (with the client and server certificates) <b>TLS</b> protocol.	Introduced terms; paths; names of SPs, operations, order statuses, parameters, fields, sections, tags, protocols, services, transactions
Underlined	The parameter is mandatory for <u>automatic recurring payments</u> .	Links to topics / subsections / pages in the document
Bold Underlined	For details, refer to <u><b>Create Order</b></u> .	Links to sections / operation descriptions / attribute descriptions in the document
Text enclosed in < >	The <b>&lt;AddParams&gt;</b> section is optional, the set of additional parameters is user-defined.	Variables, section names

### Abbreviations

<b>4DBC</b>	4-Digit Batch Code
<b>AAV</b>	Accountholder Authentication Value (Mastercard SecureCode, Mastercard Identity Check)
<b>AEVV</b>	American Express Verification Value
<b>ACS</b>	Access Control Server
<b>CAVV</b>	Cardholder Authentication Verification Value (VISA VbV, JCB J/Secure)
<b>CVC2</b>	Card Validation Code 2
<b>CVV2</b>	Card Verification Value 2
<b>DB</b>	Database
<b>DSRP</b>	Digital Secure Remote Payment
<b>IPS</b>	International Payment System
<b>PAReq</b>	Payer Authentication Request
<b>PARes</b>	Payer Authentication Response
<b>PS</b>	Payment System
<b>TLS</b>	Transport Layer Security
<b>URL</b>	Uniform Resource Locator
<b>VEReq</b>	Verification Enrollment Request
<b>VERes</b>	Verification Enrollment Response
<b>XML</b>	Extensible Markup Language

### 3 Internet Shop Communication

**TWEC PG**-to-Internet shop server communication protocol is based on the two-way **TLS** protocol (with the client and server certificates). The application data is transmitted via **HTTPS** as XML messages. Requests from the Internet shop server are transmitted as POST messages containing XML requests; responses are transmitted as XML messages (Content-type: text/xml). The data is transmitted in the UTF-8 encoding.

**Attention!** The Internet shop web server request for purchase ([CreateOrder](#), [Purchase](#) operations) can be transmitted to **TWEC PG** from the Internet shop website using the integration plug-in.

**TWEC PG**-to-Internet shop server communication:

1. The Internet shop server generates an XML request based on the [Create Order](#) administrative operation and sends it to **TWEC PG** using **HTTPS** (POST method) via `https://<host>:<port>/Exec` or `https://<host>:<port>/ExecPasswordAuth`.

2. **TWEC PG** checks the request format and availability of the Internet shop with the specified ID and matches it against the value of the **Common Name** field in the certificate.

**Attention!** If the Internet shop server sends the XML request to **TWEC PG** using **HTTPS** (POST method) via `https://<host>:<port>/ExecPasswordAuth`, the Internet shop ID will not be matched against the value of the **Common Name** field in the certificate.

3. Once the procedures described in item 2 are successfully completed, **TWEC PG** generates an order ID and session ID and creates an XML response containing the generated data and **URL** the customer will be redirected to by the Internet shop server.

4. The Internet shop server receives an XML response to the *Create Order* operation and redirects the customer browser to the address received in the **<Order>/<URL>** parameter. It is required to fill the **POST** or **GET** protocol fields:

- **OrderID** – order ID received in the **<Order>/<OrderID>** parameter
- **SessionID** – session ID received in the **<Order>/<SessionID>** parameter

It is possible to specify the following additional fields on the page used to enter the card data:

- **expm** – card expiration month (in the **mm** format)
- **expy** – card expiration year (in the **yy** format)

**Attention!** The **expm** and **expy** parameters must be specified together. If one of the parameters is not defined, the value of the other parameter will not be analyzed.

- **BIN** – first digits of the card number

Call by the **GET** method:

`https://TWPG.bank.com/index.jsp?`

`ORDERID=10253&SESSIONID=1661DD2BD23BC67D6CBF84FE847B369F&expm=05&expy=17`

5. The customer pays for the order via **TWEC PG**. The payment method depends on the card issuer capabilities and **TWEC PG** security settings for a particular Internet shop and card prefix.

6. **TWEC PG** redirects the customer to one of the following URL addresses obtained from the XML request for order creation:
  - **CancelURL** if the customer cancels payment
  - **DeclineURL** if the operation is declined (e.g. due to the issuer refusal or **TWEC PG**/ authorization system errors)
  - **ApproveURL** if the operation is approved
7. **TWEC PG** sends the [XMLOut message](#) to the customer.
8. If the customer goes to any of the URL addresses specified in the request, the Internet shop must perform the [Get Order Information](#) or [Get Order Status](#) operation for the security purposes and decide whether to provide the service or not depending on the **TWEC PG** response.
9. If the customer has not been redirected to the Internet shop server during the specified period, the Internet shop server requests the order status and decides whether to provide the service or not depending on the response (or contacts the customer if the service cannot be provided by reason of disconnection from **TWEC PG**).

## 3.1 Authorization Result Notification

### Notification of Transaction Authorization Result

If the transaction is successful, the customer returns to the URL defined in the outgoing message or default settings. The following parameters are transmitted using the POST method:

Parameter	Mandatory	Example	Description
Version*	Yes	1.0	Protocol version. Current - 1.0.
Message*	Yes		Document in the XML format

### XML Message Parameters

Parameter	Mandatory	Example	Description
OrderID	Yes	4584-87854	Unique order number
OrderIDEncrypted	No	@encrypted@1@039F750B64668D86	Encrypted order number
TransactionType	Yes	Purchase	Operation type
OrderStatus	Yes	APPROVED or DECLINED	Order status
OrderStatusScr	Yes	APPROVED or DECLINED	Order status text description
PAN	Yes	455555XXXXXX5487	Masked card number
PAN2	No	425555XXXXXX5544	Masked number of the payee card (parameter is required only for transfers)

Parameter	Mandatory	Example	Description
Brand	Yes	VISA MC AmEx JCB	Payment system
Language	No	RU – Russian, EN – English, UK – Ukrainian, etc.	Customer interface language. Filled with the RFC 1766-compliant two-letter code of the interface language.
PurchaseAmount	Yes	15210	Transaction amount (transmitted by the merchant) in the minimum units of the transaction currency (RUR – kopecks, USD – cents, etc.). For the transaction adjustment, it is the adjusted transaction amount.
PurchaseAmountScr	Yes	152,10	Transaction amount formatted for display to the customer
Fee	No	100	Fee amount in the minimum units of transaction currency (RUR – kopecks, USD – cents, etc.)
FeeScr	No	1,00	Fee amount formatted for display to the customer (RUR - Russian Rouble, USD - United States Dollar, etc.)
Currency	Yes	840 - US Dollar 643 - Russian Rouble	Transaction currency code
CurrencyScr	Yes	US Dollar, Russian Rouble, etc.	Transaction currency text description
Name	No	John Smith	Customer name
TranDateTime	Yes	15/02/2003 15:37	Transaction date and time
ApprovalCode	Yes	548789	Approval code (receipt number)
ApprovalCodeScr	Yes	548789	Approval code
ThreeDSVerificaion	Yes	Y, N, U, A	Card verification through 3D Secure technology flag. The transactions execution status ("U"/"A") is contained in the PAREs message.
RezultOperation	Yes	Operation result	Operation execution result

Parameter	Mandatory	Example	Description
ThreeDSStatus	No	APPROVED or DECLINED	Status of verification through the 3D Secure technology. It is defined if verification is required.
ResponseCode	No	0402	Transaction execution result code. If the system cannot establish connection to the authorization system, the ResponseCode=001 parameter value is returned.
ResponseDescription	No	Insufficient funds	Description of the authorization decline (in the customer interface language). Specified if the transaction is declined.
Response_g	No	Russia	Text field where the additional information is displayed (e.g. account currency and number, cardholder country, etc.). The value is received from the authorization system.
AcqFee	No	100	Acquiring fee amount in the minimum units of transaction currency (RUR – kopecks, USD – cents, etc.)
AcqFeeScr	No	1,00	Acquiring fee amount formatted for display to the customer (RUR – Russian Rouble, USD – United States Dollar, etc.)
MerchantTranID	No	31333435373837393038 37343030303030303030	Unique transaction number (generated by <b>TWEC PG</b> )
OrderDescription	No	Purchase	Order text description
Response_f	Yes	123456	Prepaid code
RRN	Yes	700593	External transaction ID or external debit transfer transaction ID / debit transfer transaction number assigned to it in the authorization system. The value is received from the authorization system.
RRN2	Yes	700594	External credit transfer transaction ID / credit transfer transaction



Parameter	Mandatory	Example	Description
			number assigned to it in the authorization system. The value is received from the authorization system. The parameter is required for transfers.
ShopOrderId	No	87854	Number assigned to the order by the merchant
AuthorizationResponse Code	Yes	1	Authorization host response code

The document is signed by the Bank certificate (depending on the settings).

Example of the final XML message notifying the shops of the transaction authorization result:

```
<Message date="25/01/2017 10:15:58">
  <Version>1.0</Version>
  <OrderID>5973</OrderID>
  <TransactionType>Purchase</TransactionType>
  <RRN>713091</RRN>
  <PAN>4555XXXXXX1903</PAN>
  <PurchaseAmount>5000</PurchaseAmount>
  <Fee>100</Fee>
  <FeeScr>1,00</FeeScr>
  <Currency>840</Currency>
  <TranDateTime>25/01/2017 10:15:58</TranDateTime>
  <ResponseCode>001</ResponseCode>
  <ResponseDescription>Transaction is successful</ResponseDescription>
  <Brand>VISA</Brand>
  <OrderStatus>APPROVED</OrderStatus>
  <ApprovalCode>340623 A</ApprovalCode>
  <AcqFee>0</AcqFee>
  <AcqFeeScr>0</AcqFeeScr>
  <RezultOperation>Operation result</RezultOperation>
  <MerchantTranID>3133343537383739303837343030303030303030</MerchantTranID>
  <OrderDescription>xxxxxxx</OrderDescription>
  <ApprovalCodeScr>340623</ApprovalCodeScr>
  <PurchaseAmountScr>50,00</PurchaseAmountScr>
  <CurrencyScr>US Dollar</CurrencyScr>
  <OrderStatusScr>Approved</OrderStatusScr>
  <ThreeDSVerificaion>Y</ThreeDSVerificaion>
  <ThreeDSStatus>Approved</ThreeDSStatus>
  <Name>John Smith</Name>
  <ShopOrderId>40727</ShopOrderId>
  <OrderIDEncrypted>@encrypted@1@039F750B64668D86</OrderIDEncrypted>
  <AuthorizationResponseCode>1</AuthorizationResponseCode>
</Message>
```

**Attention!** If the facility to add an external card to the authorization system DB (upon successful completion of the payment/transfer transaction) is used, the **<CardRegistrationResponse>** section will be added to the final XML message:

```
<CardRegistrationResponse>
  <MaskedPAN>123456*****3452</MaskedPAN>
  <CardUID>9215EA569F97E711842****5056B3006F</CardUID>
  <Brand>MC</Brand>
</CardRegistrationResponse>
```

where:

- **MaskedPAN** – masked number of the payer/transfer sender card
- **CardUID** – payer/transfer sender card ID
- **Brand** – name of the payer/transfer sender card payment system

## E-Mail Notification of Transaction Authorization Result

E-mail notification with the transaction authorization result is automatically sent to the merchant. XML document with the payment parameters is attached to the notification.

Parameter	Mandatory	Example	Description
OrderID	Yes	4584-87854	Unique order number
OrderStatus	Yes	APPROVED or DECLINED	Order status
PAN	Yes	45555XXXXXX5487	Masked card number
Brand	Yes	Visa MC AmEx JCB	Payment system
Language	No	RU – Russian, EN – English, UK – Ukrainian etc.	Customer interface language. Filled with the RFC 1766-compliant two-letter code of the interface language.
PurchaseAmount	Yes	15210	Transaction amount (transmitted to the merchant) in the minimum units of the transaction currency (RUR – kopecks, USD – cents, etc.). For the transaction adjustment, it is the adjusted transaction amount.
CorrAmount	No	25210	Amount being adjusted (initially entered amount). It is used in the Adjustment only.
Currency	Yes	643 - Russian Rouble, 840 - US Dollar	Transaction currency code
Name	No	John Smith	Customer name on the card
TranDateTime	Yes	15/02/2003 15:37	Transaction date and time
ApprovalCode	Yes	548789	Approval code (receipt number)
ThreeDSVerificaion	Yes	Y or N	Card verification using 3D Secure technology flag
ThreeDSStatus	No	APPROVED or	Status of verification

Parameter	Mandatory	Example	Description
		DECLINED	through 3D Secure technology. It is defined if verification is required.
ResponseCode	No	0402	Transaction execution result code
ResponseDescription	No	Insufficient funds	Description of the authorization decline (in the customer interface language). Specified if the transaction is declined.
AuthorizationResponse Code	Yes	1	Authorization host response code

The document is signed by the Bank certificate.

**Attention!** E-mail notifications with the authorization result are sent in a separate thread to ensure on-time order payment in case of the e-mail notification delay.

### Notification of Order Status Change

To send a notification of the order status change using **HTTPS / HTTP**, in the **TWEC PG** settings and/or in the **ChangeStatusURL** additional order parameter specify URL to which the GET request with the **OrderID**, **SessionID** and **Status** parameters will be sent once the order status changes.

### Notification of Mismatch between Customer IP Address from Which Order is Paid and One from Which Order Is Expected to Be Paid

To send a notification using **HTTPS**, in the additional order parameters define the [ClientIP](#) parameter and in the **TWEC PG** settings and/or in the [RejectURL](#) additional order parameter specify URL to which the GET request with the **OrderID**, **SessionID** and **Status** parameters will be sent in case the IP address of the customer paying the order mismatches the one from which the order is expected to be paid.

## 4 Administrative Operations

The section below lists **TWEC PG** administrative operations for working with orders:

- [Create Order](#)
- [Get Order Status](#)
- [Payment Reversal](#)
- [Totals Reconciliation](#)
- [Refund](#)
- [Get \*\*TWEC PG\*\* Transactions Log](#)
- [Get Order Information](#)
- [Purchase](#)
- [Get Orders List](#)
- [Capture](#)

Also, the section provides the description of the [signed receipt format](#).

**Attention!** It is possible to work with the administrative protocol:

- Using different encodings.
- By executing requests and receiving responses via **HTTPS** (POST method).
- By executing requests and receiving responses in the JSON format. The **ExecJSON** access point operates similarly to **Exec**.

**Example** of the request code in the JSON format:

```
{"TKKPG":{"Request":{"Operation":"CreateOrder","Language":"EN","Order":{"OrderType":"Purchase","Merchant":"POS_1","Amount":"2500","Currency":"840","Description":"xxxxxxx","ApproveURL":"/testshopPageReturn.jsp","CancelURL":"/testshopPageReturn.jsp","DeclineURL":"/testshopPageReturn.jsp"}}}}
```

Correspondent to XML request:

```
<TKKPG>
  <Request>
    <Language>EN</Language>
    <Operation>CreateOrder</Operation>
    <Order>
      <Amount>2500</Amount>
      <ApproveURL>/testshopPageReturn.jsp</ApproveURL>
      <CancelURL>/testshopPageReturn.jsp</CancelURL>
      <Currency>840</Currency>
      <DeclineURL>/testshopPageReturn.jsp</DeclineURL>
      <Description>xxxxxxx</Description>
      <Merchant>POS_1</Merchant>
      <OrderType>Purchase</OrderType>
    </Order>
  </Request>
</TKKPG>
```

## 4.1 Message Formats

### 4.1.1 Create Order

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) using **HTTPS** (POST method) via the following link: `https://<host>:<port>/Exec`
- From the Internet shop server or from the customer browser using **HTTPS** (POST method) via the following link: `https://<host>:<port>/ExecPasswordAuth` When creating an order, it is possible to:
  - Save additional order parameters (e.g. customer e-mail, phone number) to the **TWEC PG** DB. The set of parameters is specified in the **<Order>/<AddParams>** section of the **CreateOrder** request. The **<AddParams>** section is optional, the set of additional parameters is user-defined.
  - Define the value of the **OrderType** parameter defining the financial transaction that will be created. Possible values:
    - *Purchase* (by default)
    - *P2PTransfer*

To enable automatic payment confirmation for an order with the **AUTH-APPROVED** status, specify the following additional parameter in the **<Order>/<AddParams>** section when creating the order:

Parameter	Description
AutoCaptureTime	Time period (in minutes) between the moment when the order is created and the moment when the automatic order payment confirmation is initiated. By default – 60.  If the parameter is not specified, the value of the parameter of the same name defined in the <b>TWEC PG</b> settings will be used.

When creating an order for recurring payments/transfers, in the **<Order>/<AddParams>** section, specify additional parameters:

Parameter	Description
Purchase.Recur.frequency	Minimum count of days between recurring payments/transfers. The parameter value is numeric and must be 1-4 characters long.
Purchase.Recur.endRecur	End date after which authorization will not be performed. The parameter format is YYYYMMDD. <b>TWEC PG</b> fills this parameter with the card expiration date when a PAREq message is sent to ACS, if: <ul style="list-style-type: none"><li>• Format of the parameter value received from the merchant does not comply with that of the parameter (e.g. 0 or -1).</li><li>• Card expiration date occurs before the date set by the merchant in the <b>Purchase.Recur.endRecur</b> parameter.</li></ul> <b>Attention!</b> The parameter value is verified when the order for an automatic recurring payment/transfer is created. If the date specified in the parameter occurs before the order creation date, the <b>Create Order</b> operation will not be performed.

Parameter	Description
Purchase.Recur.period	Time period after which the next recurring payment will be made. The parameter format is MI-H-D-M-Y. The minimum value is 1 minute, the maximum is 1 year. <b>Attention!</b> The parameter is mandatory for <a href="#">automatic recurring payments</a> .
Purchase.Recur.removeOnDecline	Indicator of a repeated attempt to pay for the order if the order status was set to <b>DECLINED</b> . Available values: <ul style="list-style-type: none"> <li>• <i>true</i> – another attempt is made to pay for the order and delete it from the list of recurring payments.</li> <li>• <i>false</i> (by default) – no other attempt is made to pay for the order.</li> </ul> <b>Attention!</b> The parameter is optional and used for <a href="#">automatic recurring payments</a> .
Recurring.UpdateDescription	Facility to update the order description when making a recurring payment/transfer. Available values: <i>true</i> , <i>false</i> (by default). <b>Attention!</b> If the <b>Recurring.UpdateDescription</b> parameter is not specified, the value of the parameter of the same name defined in the <b>TWEC PG</b> settings will be used.
Recurring.ReplaceOriginalDescription	Mode of updating the order description when making a recurring payment/transfer. Available values: <ul style="list-style-type: none"> <li>• <i>false</i> (by default) – new description is added to the current one.</li> <li>• <i>true</i> – new description replaces the current one.</li> </ul> <b>Attention!</b> If the <b>Recurring.ReplaceOriginalDescription</b> parameter is not specified, the value of the parameter of the same name defined in the <b>TWEC PG</b> settings will be used.
MoneySendEnabled	Facility to make recurring payments via the <b>Mastercard Loan Repayment</b> service. Available values: <i>true</i> , <i>false</i> (by default). <b>Attention:</b> <ul style="list-style-type: none"> <li>• The parameter is optional and used for <a href="#">automatic recurring payments</a>.</li> <li>• If the parameter is not specified, the value of the parameter of the same name defined in the <b>TWEC PG</b> settings will be used.</li> </ul>
MITAttributes	Indicators of the transaction initiated with the card data (or its counterpart) entered from the merchant data storage. The parameter is used to specify a decimal number corresponding to a binary number generated according to the bit mask in the following format: <ul style="list-style-type: none"> <li>• bit 1 – Merchant Initiated Transaction, Credential on file entry mode. Indicator of the transaction initiated by the merchant with the card data (or its counterpart) entered from the merchant data storage.</li> <li>• bit 2 – Customer Initiated Transaction, Credential on file entry mode. Indicator of the transaction initiated by the cardholder with the card data (or its counterpart) entered from the merchant data storage.</li> <li>• bit 3 – Credential on file Initial transaction. Indicator of the initial transaction for which the merchant saves the card data (or its counterpart) to be used in further transactions.</li> <li>• bit 4 – Deferred operation. Indicator of the deferred operation.</li> <li>• bit 5 – Terminated. Indicator of the cancelled subscription.</li> </ul>

Parameter	Description
	<p>For example, to indicate the initial transaction, in the <i>MITAttributes</i> attribute specify the number 4 in the decimal representation that corresponds to the binary number 00100.</p> <p><b>Attention!</b> The parameter should be defined by merchants that use recurring payments/transfers.</p>

For transfer transactions, when creating an order, specify the following additional parameters in the **<Order>/<AddParams>** section:

Parameter	Description
SenderName	Sender name in the upper case Latin characters
ResidentCityInLatin	Sender city of residence in the upper case Latin characters
ResidentCountry	Sender country code according to ISO 3166-1 Numeric
SenderPostalCode	Sender postal code
Address	Sender address
RecipientName	Recipient name in Latin characters
IdentificationType	Identity document type
IdentityNumber	Identity document number
SenderType	<p>Sender type. Possible values:</p> <p>0 – unknown</p> <p>1 – on-us</p> <p>2 – resident</p> <p>3 – foreign</p>
ResidentState	Code of the sender state of residence

For transfer transactions, specify the following additional parameters in the **<Order>/<AddParams>** section:

Parameter	Description
RFirstName	Recipient name
RSurname	Recipient last name
ReMail	Recipient e-mail
RPhone	Recipient mobile phone number
SFirstName	Sender name
SSurname	Sender last name
SeMail	Sender e-mail
SPhone	Sender mobile phone number
SAddress	Sender address
SCountry	Sender country
OrigAmount	Transfer original amount in the minimum units of the original currency

Parameter	Description
OrigCurrency	Transfer original currency
SPANBegin	Leftmost digits of the sender card number <b>Attention!</b> If the parameter is filled and the default payment/transfer template is used, on the page used to enter the card data the first digits of the card number will be predefined in the <b>Card Number</b> field, and the customer will have to enter only the missing digits.
SPANEnd	Rightmost digits of the sender card number <b>Attention!</b> If the parameter is filled and the default payment/transfer template is used, on the page used to enter the card data the last digits of the card number will be predefined in the <b>Card Number</b> field, and the customer will have to enter only the missing digits.
SPANLen	Sender card number length
RPANBegin	Leftmost digits of the recipient card number <b>Attention!</b> If the parameter is filled and the default transfer template is used, on the page used to enter the card data the first digits of the card number will be predefined in the <b>Card Number</b> field, and the customer will have to enter only the missing digits.
RPANEnd	Rightmost digits of the recipient card number <b>Attention!</b> If the parameter is filled and the default transfer template is used, on the page used to enter the card data the last digits of the card number will be predefined in the <b>Card Number</b> field, and the customer will have to enter only the missing digits.
RPANLen	Recipient card number length
<b>Attention!</b> <ul style="list-style-type: none"> <li><b>SPANBegin</b> and <b>RPANBegin</b> cannot be defined unless <b>SPANLen</b> and <b>RPANLen</b> are defined.</li> <li>It is possible to transmit the entire number of the sender/recipient card in the <b>SPANBegin</b> and/or <b>RPANBegin</b> parameter(s), respectively. To do that, leave <b>SPANEnd</b> and/or <b>RPANEnd</b> unspecified.</li> </ul>	
RecipientCardUID	Transfer recipient card ID ( <b>CardUID</b> ) generated upon the card being added to the authorization system DB. The parameter can be defined only for orders of the <i>P2PTransfer</i> type.  If the parameter is defined, the recipient card number will be received from authorization system and displayed masked on the page used to enter the card data instead of the field used to enter the card number.

**Attention!** The values of additional order parameters will be displayed on the pages used to enter the card data when making a transfer, provided that the display of the respective fields is set up in the template.

For payment transactions, define the following additional order parameters in the **<Order>/<AddParams>** section:

Parameter	Description
SubMerchantId	Merchant ID <b>Attention!</b> If the parameter is not defined, the value of the same-name parameter defined in the <b>TWEC PG</b> settings will be used.
SubMerchantName	Merchant name



Parameter	Description
	<b>Attention!</b> If the parameter is not defined, the value of the same-name parameter defined in the <b>TWEC PG</b> settings will be used.
SubMerchantCity	Merchant city <b>Attention!</b> If the parameter is not defined, the value of the same-name parameter defined in the <b>TWEC PG</b> settings will be used.
SubMerchantCountryCode	Merchant country code <b>Attention!</b> If the parameter is not defined, the value of the same-name parameter defined in the <b>TWEC PG</b> settings will be used.
SubMerchantPostalCode	Merchant postal code <b>Attention!</b> If the parameter is not defined, the value of the same-name parameter defined in the <b>TWEC PG</b> settings will be used.
SubMerchantStreetAddress	Merchant address <b>Attention!</b> If the parameter is not defined, the value of the same-name parameter defined in the <b>TWEC PG</b> settings will be used.
PaymentMethod	Facility to allow the customer to select the order payment method (by card identifier (CardUID) or by card number) on the page used to enter the card data when making payment. Available values: <ul style="list-style-type: none"> <li><i>PAN</i> (by default) – page used to enter the card data displays the standard fields, i.e. <b>Card Number, Month/Year, Cardholder, CVV2/CVC2/4DBC</b>.</li> <li><i>CardUID</i> – page used to enter the card data displays the <b>Token</b> field intended to enter the card identifier and does not display the <b>Card Number, Month/Year, Cardholder, CVV2/CVC2/4DBC</b> fields.</li> <li><i>BOTH</i> – page used to enter the card data displays the field used to select the order payment method from the drop-down list of available values (either <i>Token</i> or <i>Card Number</i>).</li> </ul> <b>Attention!</b> If the parameter is not defined, the value of the same-name parameter defined in the <b>TWEC PG</b> settings will be used.
PayMethod	Facility to automatically redirect the customer to the <b>Alipay</b> website to pay for the order without the payment system selection screen being displayed. To use the facility, set the parameter to <b>ALIPAY</b> . <b>Attention!</b> If the <b>PayMethod</b> parameter is not defined, the value of the respective attribute defined in the <b>TWEC PG</b> settings will be used.

To enable fraud analysis by means of fraud analyzing systems, define the following additional order parameter in the **<Order>/<AddParams>** section:

Parameter	Description
FA-DATA	The parameter is used by the fraud analyzing systems of the processing center. The parameter content will be transmitted to the host system.  The <b>FA-DATA</b> parameter is comprised of the semicolon-separated fields of the <i>Parameter=Value</i> type. Possible parameter values: <ul style="list-style-type: none"> <li><b>ShippingCountry</b> – ISO code of the delivery country</li> </ul>

Parameter	Description
	<ul style="list-style-type: none"> <li>• <b>ShippingCity</b> – name of the delivery city in Latin</li> <li>• <b>ShippingState</b> – name of the delivery state/region in Latin</li> <li>• <b>ShippingZipCode</b> – delivery zip code</li> <li>• <b>ShippingAddress</b> – delivery address (street, building) in Latin</li> <li>• <b>DeliveryPeriod</b> – estimated delivery period (in days)</li> <li>• <b>Phone</b> – payer phone number</li> <li>• <b>Email</b> – payer e-mail address</li> <li>• <b>MerchantOrderID</b> – order ID in the electronic system of the merchant</li> </ul> <p>It is strongly recommended that the merchant include the following fields into the <b>FA-DATA</b> parameter content: <b>ShippingCountry</b>, <b>ShippingCity</b>, <b>Phone</b>, <b>Email</b> and <b>MerchantOrderID</b>. Additionally, the payer browser IP address that was used to connect to <b>TWEC PG</b> can be sent to the host system of the processing center. The data specified above (the recommended <b>FA-DATA</b> tags and the payer IP address) is necessary for the fraud analysis by means of the fraud analyzing systems.</p> <p><b>Example</b> of the <b>FA-DATA</b> parameter content:</p> <pre>&lt;FA-DATA&gt;Email=user@yandex.ru; Phone=322223; ShippingCountry=156; ShippingCity=X City; DeliveryPeriod=32; MerchantOrderID=E643C1426056;&lt;/FA-DATA&gt;</pre>

For payment and transfer transactions, the following additional order parameters can be defined in the **<Order>/<AddParams>** section:

Parameter	Description
CheckRegisterCardOn	Facility to set/unset the <b>Register Card</b> flag by default on the page used to enter the card data. The flag, when set, indicates that the card must be added to the authorization system DB upon successful completion of the payment/transfer transaction (without using a separate service). Available values: <i>true</i> , <i>false</i> (by default). If the parameter is not specified, the value of the parameter of the same name defined in the <b>TWEC PG</b> settings will be used.
CardHolderName	Cardholder name. If the parameter is defined, the field used to enter the cardholder name on the page used to enter the card data will be unavailable for editing.
SenderCardUID	Payer/transfer sender card ID ( <b>CardUID</b> ) generated upon the card being added to the authorization system DB.  If the parameter is defined, the card number of the payer/transfer sender will be received from authorization system and displayed masked on the page used to enter the card data instead of the field used to enter the card number.
FormAutoSubmit	Indicator of whether the automatic customer redirection from the page used to enter the card data to the ACS page is enabled. Available values: <i>true</i> , <i>false</i> (by default).  If the parameter is set to <i>true</i> , the <b>SenderCardUID</b> parameter (for payment/transfer) and <b>RecipientCardUID</b> (for transfer) must be defined in the additional order parameters.  <b>Attention!</b> If the card number entry is mandatory or some

Parameter	Description
	mandatory parameters were not defined at the order creation (e.g. <b>SenderCardUID</b> ), the customer will not be automatically redirected from the page used to enter the card data and the fields required to be filled will be highlighted red.
DSRPFlag	Indicator that the transaction is initiated via the mobile version ( <b>DSRP</b> technology). Possible values: <ul style="list-style-type: none"> <li>0 (by default) – transaction is initiated without using the <b>DSRP</b> technology.</li> <li>1 – transaction is initiated using the <b>DSRP</b> technology (<b>UCAF</b> will be generated on the merchant side using the mobile application).</li> </ul>
PartialShipmentFlag	Indicator that the order amount is partially charged after the order shipment. Possible values: <ul style="list-style-type: none"> <li>0 (by default) – order amount will be charged in full after the full order shipment.</li> <li>1 – order amount will be charged in part (per separate order items) after the partial order shipment.</li> </ul>
POSTerminalLocation	POS terminal location. Available values: <ul style="list-style-type: none"> <li>0 – on the premises of the merchant accepting the card to execute the transaction</li> <li>1 – off the premises of the merchant accepting the card to execute the transaction (remote POS terminal location)</li> <li>2 – off the premises of the merchant accepting the card to execute the transaction (POS terminal of the cardholder, including a home PC, mobile phone or PDA)</li> <li>3 – POS terminal is not employed (voice authorization, ARU authorization)</li> <li>4 – on the premises of the merchant accepting the card to execute the transaction (POS terminal of the cardholder, including a home PC, mobile phone or PDA)</li> </ul>
TokenRequestorId	Unique identifier of the token requestor assigned by the tokenization service provider and used in the tokenization system.
TokenAssuranceLevel	Confidence level of the token to the card number / cardholder binding.
Fee	Fee amount in the minimum currency units (e.g. kopeck, cent)
isMobile	Indicator of forced <b>TWPG</b> functioning in the mobile version mode irrespective of other conditions. Possible values: <i>true</i> , <i>false</i> (by default).  If the parameter value is <i>true</i> , and the mobile template for the page is absent, the system uses the template of the application standard version.
DescriptionHtml	Order description with HTML markup. If the field is specified, its value will be displayed on the page used to enter the card details instead of the <b>Description</b> order parameter value. <b>Example</b> of the <b>Description</b> parameter content: <pre>&lt;DescriptionHtml&gt;&lt;strong&gt;Order&lt;/strong&gt; &lt;i&gt;Description&lt;/i&gt;&lt;/DescriptionHtml&gt;</pre>
MasterPassWalletId	<b>Masterpass</b> digital wallet ID. The parameter is used when interacting with the <b>Masterpass Standard Checkout</b> service.

To transmit merchant ID and name in the PAREq/VEReq messages, when creating an order, specify the following additional parameters in the **<Order>/<AddParams>** section:

Parameter	Description
TDSVendorMerID	Merchant ID. The value will be used in the PAREq/VEReq messages.
TDSVendorName	Merchant name. The value will be used in the PAREq message.

To transmit the **Purchase.desc** field in PAREq, when creating an order, specify the following additional parameter in the **<Order>/<AddParams>** section:

Parameter	Description
ThreeDSDescription	Operation short description. The maximum value is 125 characters. If the parameter is not defined, the <b>Purchase.desc</b> field will not be transferred in the PAREq message.

To ensure generation of the unique **ChangeStatusURL** for each particular order, when creating an order, specify the following additional parameter in the **<Order>/<AddParams>** section:

Parameter	Description
ChangeStatusURL	<p>URL to which the GET request is sent via <b>HTTPS / HTTP</b> upon the order status change. The following macros can be used to fill in the parameter:</p> <ul style="list-style-type: none"> <li>• <b>%ORDERID%</b> – upon URL generation the macro is replaced by the order ID.</li> <li>• <b>%SESSIONID%</b> – upon URL generation the macro is replaced by the session ID.</li> <li>• <b>%STATUS%</b> – upon URL generation the macro is replaced by the order status.</li> </ul> <p>If the parameter is not specified, the value of the parameter of the same name defined in the <b>TWEC PG</b> settings will be used.</p>

To ensure assignment of the **DECLINED** status to the order in case of mismatch between the IP address of the customer paying for the order and the one from which it is expected to be paid and sending of the respective notification to the Internet shop by the GET method, specify the following additional parameters in the **<Order>/<AddParams>** section when creating the order:

Parameter	Description
ClientIP	Customer IP address the order payment is expected from
RejectURL	<p>URL to which the GET request with the <b>OrderID</b>, <b>SessionID</b> and <b>Status</b> parameters will be sent in case the IP address of the customer actually paying the order mismatches the one from which the order is expected to be paid. The following macros can be used to fill in the parameter:</p> <ul style="list-style-type: none"> <li>• <b>%ORDERID%</b> – upon URL generation the macro is replaced by the order ID.</li> <li>• <b>%SESSIONID%</b> – upon URL generation the macro is replaced by the session ID.</li> <li>• <b>%STATUS%</b> – upon URL generation the macro is replaced by the order status.</li> </ul> <p>If the parameter is not specified, the value of the parameter of the same name defined in the <b>TWEC PG</b> settings will be used.</p>

To display additional fields on the page used to enter the customer card data, when creating the order, to the **<Order>/<AddParams>** section add the **<CustomFields>** subsection containing one or several **Param** parameter(s):

Parameter	Description
CustomFields	<p><b>Example</b> of the <b>&lt;CustomFields&gt;</b> subsection content:</p> <pre>&lt;CustomFields&gt;   &lt;Param name="year" defvalue="0000" title="Year of birth" html="number" regexp="[0-9]{4}" errormessage="The field value is incorrect. It must contain four digits."/&gt;   &lt;Param name="count" options="i1:1;i2:2;i3:3;i4:4" multiply="false" defvalue="i2" html="select" title="Number of persons"/&gt;   &lt;Param name=""phone"" defvalue="" title=""Phone number"" html=""number"" mask=""(+7)000-000-0000"" placeholder=""(+7) - - - ""/&gt; &lt;/CustomFields&gt;</pre> <p>If the additional fields display setting is not defined, the value of the setting of the same name defined in the <b>TWEC PG</b> settings will be used.</p>

It is possible to perform other administrative operations on the created order, such as [purchase](#).

As a result of the **CreateOrder** operation execution, the order is created in **TWEC PG** and a session is opened. In the response, **TWEC PG** transmits the following parameters to the merchant:

- **OrderID** (unique order number)
- **SessionID** (session ID)

**Attention!** The **OrderID** and **SessionID** values can be included into the **TWEC PG** response to the merchant either in the encrypted form or in clear.

The order status is set to **CREATED**.

Depending on the **TWEC PG** settings and the **OrderType** parameter value in the **CreateOrder** operation request, the following operations are available:

- [Request for Purchase](#)
- [Request for P2P Transfer](#)

#### 4.1.1.1 Request for Purchase

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of:
  - **HTTPS** (POST method) via the following link: *https://<host>:<port>/Exec*
  - **HTTPS** via the integration plug-in
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: *https://<host>:<port>/ExecPasswordAuth*

To perform the purchase operation, create an order and redirect the customer to the respective URL to make payment.

When creating an order, specify the *Purchase* value in the **OrderType** parameter.

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>CreateOrder</Operation>
    <Language></Language>
    <Order>
      <OrderType>Purchase</OrderType>
      <Merchant></Merchant>
      <Amount></Amount>
      <Currency></Currency>
      <Description></Description>
      <ApproveURL></ApproveURL>
      <CancelURL></CancelURL>
      <DeclineURL></DeclineURL>
      <phone></phone>
      <AddParams>
        <FA-DATA></FA-DATA>
        <SenderPostalCode></SenderPostalCode>
        <UserEmail></UserEmail>
        <AcctType></AcctType>
        <TranAddendums></TranAddendums>
        <TranAddendumsVISA></TranAddendumsVISA>
        <TranAddendumsMC></TranAddendumsMC>
        <TranAddendumsAMEX></TranAddendumsAMEX>
        <TranAddendumsJCB></TranAddendumsJCB>
        <OrderExpirationPeriod></OrderExpirationPeriod>
        <OrigAmount></OrigAmount>
        <OrigCurrency></OrigCurrency>
      </AddParams>
      <Fee></Fee>
    </Order>
  </Request>
</TKKPG>
```

### Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>CreateOrder</Operation>
    <Language>RU</Language>
    <Order>
      <OrderType>Purchase</OrderType>
      <Merchant>POS_IKEA_2</Merchant>
      <Amount>123456</Amount>
      <Currency>840</Currency>
      <Description>xxxxxxx</Description>
      <ApproveURL>/testshopPageReturn.jsp</ApproveURL>
      <CancelURL>/testshopPageReturn.jsp</CancelURL>
      <DeclineURL>/testshopPageReturn.jsp</DeclineURL>
      <AddParams>
        <FA-DATA>Email=user@yandex.ru; Phone=22211444</FA-DATA>
        <AcctType>4</AcctType>
        <TranAddendums>PFRyYW5BZGRlbnR1bXM+DQogIDxFeHQ
+dGV4dDdwvRXh0Pg0KPC9UcmFuQWRkZW5kdW1zPg0K</TranAddendums>
        <OrderExpirationPeriod>30</OrderExpirationPeriod>
        <UserEmail>user@yandex.ru</UserEmail>
      </AddParams>
      <Fee></Fee>
    </Order>
  </Request>
</TKKPG>
```

## Request parameters definition:

Parameter	Mandatory	Description
Language	Yes	<b>TWEC PG</b> interface language. Filled with the RFC 1766-compliant two-letter code of the interface language (e.g. <i>RU</i> – Russian language, <i>EN</i> – English language, <i>UK</i> – Ukrainian language, etc). By default, <i>EN</i> .
OrderType	No	Order type. The financial transaction to be created. Specify the <i>Purchase</i> value to perform the purchase.
Merchant	Yes	Internet shop ID in <b>TWEC PG</b> . <b>Attention!</b> The parameter value must not contain [ or ] symbols.
Amount	Yes	Transaction amount in the minimum units of the transaction currency
Currency	Yes	Transaction currency code (e.g. 643 – Russian Rouble, 840 – US Dollar)
Description	Yes	Text description of the order. It is displayed to the customer during payment in <b>TWEC PG</b> .
ApproveURL	No	URL to redirect the customer to if the operation is approved. If the parameter is not defined, its value will be taken from the parameter of the same name specified in the <b>TWEC PG</b> settings.
CancelURL	No	URL to redirect the customer to if the operation is cancelled (by clicking the <b>Cancel</b> button) in <b>TWEC PG</b> . If the parameter is not defined, its value will be taken from the parameter of the same name specified in the <b>TWEC PG</b> settings.
DeclineURL	No	URL to redirect the customer to if the payment operation is declined. If the parameter is not defined, its value will be taken from the parameter of the same name specified in the <b>TWEC PG</b> settings.
phone	No	Customer telephone number (additional parameter) that will be saved to <b>TWEC PG</b> DB
FA-DATA	No	<p>The parameter is used by the fraud analyzing systems of the processing center. The parameter content will be transmitted to the host system.</p> <p>The <b>FA-DATA</b> parameter is comprised of the semicolon-separated fields of the <i>Parameter=Value</i> type. Possible parameter values:</p> <ul style="list-style-type: none"> <li>• <b>ShippingCountry</b> – ISO code of the delivery country</li> <li>• <b>ShippingCity</b> – name of the delivery city in Latin</li> <li>• <b>ShippingState</b> – name of the delivery state/region in Latin</li> <li>• <b>ShippingZipCode</b> – delivery zip code</li> <li>• <b>ShippingAddress</b> – delivery address (street, building) in Latin</li> <li>• <b>DeliveryPeriod</b> – estimated delivery period (in days)</li> <li>• <b>Phone</b> – payer phone number</li> <li>• <b>Email</b> – payer e-mail address</li> <li>• <b>MerchantOrderID</b> – order ID in the electronic system of the merchant</li> </ul>

Parameter	Mandatory	Description
		<p>It is strongly recommended that the merchant include the following fields into the <b>FA-DATA</b> parameter content: <b>ShippingCountry</b>, <b>ShippingCity</b>, <b>Phone</b>, <b>Email</b> and <b>MerchantOrderID</b>. Additionally, the payer browser IP address that was used to connect to <b>TWEC PG</b> can be sent to the host system of the processing center. The data specified above (the recommended <b>FA-DATA</b> tags and the payer IP address) is necessary for the fraud analysis by means of the fraud analyzing systems. <b>Example</b> of the <b>FA-DATA</b> parameter content:</p> <pre>&lt;FA-DATA&gt;Email=user@yandex.ru; Phone=22211444; ShippingCountry=156; ShippingCity=X City; DeliveryPeriod=32; MerchantOrderID=E643C1426056;&lt;/FA-DATA&gt;</pre>
UserEmail	No	Customer e-mail address (additional parameter) that will be saved to <b>TWEC PG</b> DB
AcctType	No	<p>Cardholder account type. Possible values:</p> <ul style="list-style-type: none"> <li>• 1 – Checking</li> <li>• 2 – Savings</li> <li>• 4 – Credit</li> <li>• 8 – Bonus</li> </ul>
TranAddendums	No	<p>String representation of the XML document (in the Base64 encoding) containing the transaction details.</p> <p>If the card data is entered on the bank page (i.e. the shop is not aware of the payment system being used), it is possible to specify the parameters for each PS (<b>TranAddendumsVISA</b> / <b>TranAddendumsMC</b> / <b>TranAddendumsAMEX</b> / <b>TranAddendumsJCB</b>) instead of one <b>TranAddendums</b> parameter, the data in these parameters is specified in compliance with PS rules. When transferring data to authorization system, the <b>TranAddendums&lt;CardBrand&gt;</b> parameter value is analyzed first, where <b>CardBrand</b> is the name of card payment system.</p> <p>If the parameter for the respective PS is not filled, the data from the <b>TranAddendums</b> parameter is used.</p> <p><b>Attention!</b> The XML document should be created according to the <i>tranAddendum.xsd</i> schema.</p>
TranAddendumsVISA		
TranAddendumsMC		
TranAddendumsAMEX		
TranAddendumsJCB		
OrderExpirationPeriod	No	<p>Order lifetime (min). If the specified period expires while the order with the <b>CREATED</b>, <b>ON-LOCK</b> or <b>ON-PAYMENT</b> status is checked, the order status will change to <b>EXPIRED</b> and, when performing the payment, the customer will be redirected to <b>DeclineURL</b>.</p> <p><b>Attention!</b></p> <ul style="list-style-type: none"> <li>• If the parameter is not defined at the order creation, the value of the analogous parameter defined in the <b>TWEC PG</b> settings will be used.</li> <li>• If the value contains a syntax error or is not specified, the parameter will be set to its default value (30 minutes).</li> <li>• If the parameter value is negative or 0, the order expiration time will not be checked.</li> <li>• The order expiration time will be checked again once authentication in ACS is completed.</li> </ul>



Parameter	Mandatory	Description
OrigAmount	No	Transaction original amount in the minimum units of the original currency
OrigCurrency	No	Transaction original currency
Fee	No	Acquiring fee

**TWEC PG** response format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Response>
    <Operation>CreateOrder</Operation>
    <Status>00</Status>
    <Order>
      <OrderID>828</OrderID>
      <SessionID>ECDE79578768ECFBF2897A0F44CC0CEF</SessionID>
      <URL>PayGateURL</URL>
    </Order>
  </Response>
</TKKPG>
```

Response parameters definition:

Parameter	Mandatory	Description
Status	Yes	Request execution result: <ul style="list-style-type: none"> <li>00 – successfully</li> <li>30 – invalid message format (no mandatory parameters etc.)</li> <li>10 – Internet shop has no access to the <b>CreateOrder</b> operation (or the Internet shop is not registered)</li> <li>54 – invalid operation</li> <li>72 – empty POS driver response</li> <li>96 – system error</li> <li>97 – POS driver connection error</li> </ul>
OrderID	Conditionally	Unique order number to be referred to by the Internet shop server
SessionID	Conditionally	Session ID used along with the order number to initiate payment, cancel the operation, get order status, etc.
URL	Conditionally	URL the user must be redirected to. Redirection is implemented using the GET method to the URL address specified in the response with the <b>SessionID</b> and <b>OrderID</b> parameters (taking the values of the session ID and the order number, respectively) added to it.

**Attention!** If the order is declined, the decline reason will be written to the **ErrorDescription** field in the **TWEC PG** DB.

#### 4.1.1.2 Request for P2P Transfer

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/Exec`
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/ExecPasswordAuth`.

To perform the P2P transfer operation, create an order and redirect the customer to the respective URL to make a P2P transfer.

When creating an order, specify the *P2PTransfer* value in the **OrderType** parameter.

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>CreateOrder</Operation>
    <Language></Language>
    <Order>
      <OrderType>P2PTransfer</OrderType>
      <OrderSubType></OrderSubType>
      <Merchant></Merchant>
      <Amount></Amount>
      <Currency></Currency>
      <Description></Description>
      <ApproveURL></ApproveURL>
      <CancelURL></CancelURL>
      <DeclineURL></DeclineURL>
      <AddParams>
        <RFirstName></RFirstName>
        <RSurname></RSurname>
        <ReMail></ReMail>
        <RPhone></RPhone>
        <SFirstName></SFirstName>
        <SSurname></SSurname>
        <SeMail></SeMail>
        <SPhone></SPhone>
        <SAddress></SAddress>
        <SCountry></SCountry>
        <OrigAmount></OrigAmount>
        <OrigCurrency></OrigCurrency>
        <SPANBegin></SPANBegin>
        <SPANEnd></SPANEnd>
        <SPANLen></SPANLen>
        <RPANBegin></RPANBegin>
        <RPANLen></RPANLen>
        <isMobile></isMobile>
        <DescriptionHtml></DescriptionHtml>
        <Fee></Fee>
      </AddParams>
    </Order>
  </Request>
</TKKPG>
```

#### Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>CreateOrder</Operation>
    <Language>RU</Language>
    <Order>
      <OrderType>P2PTransfer</OrderType>
```

```
<OrderSubType>SplitP2P</OrderSubType>
<Merchant>POS_IKEA_2</Merchant>
<Amount>123456</Amount>
<Currency>840</Currency>
<Description>xxxxxxx</Description>
<ApproveURL>/testshopPageReturn.jsp</ApproveURL>
<CancelURL>/testshopPageReturn.jsp</CancelURL>
<DeclineURL>/testshopPageReturn.jsp</DeclineURL>
</Order>
</Request>
</TKKPG>
```

Request parameters definition:

Parameter	Mandatory	Description
Language	Yes	<b>TWEC PG</b> interface language. Filled with the RFC 1766-compliant two-letter code of the interface language (e.g. <i>RU</i> – Russian language, <i>EN</i> – English language, <i>UK</i> – Ukrainian language, etc.). By default, <i>EN</i> .
OrderType	No	Order type. The financial transaction that will be created. Specify the <i>P2PTransfer</i> value to perform the funds transfer.
OrderSubType	No	Indicator of the split P2P transfer (i.e. <b>P2PCredit</b> and <b>P2PDebit</b> transactions executed separately in terms of one order). To facilitate the split P2P transfer, set the parameter to <i>SplitP2P</i> .
Merchant	Yes	Internet shop ID in <b>TWEC PG</b> . <b>Attention!</b> The parameter value must not contain [ or ] symbols.
Amount	No	Transaction amount in the minimum units of the transaction currency. If the parameter is not defined, the page used to enter the card data will display the respective field to enter the transaction amount in.
Currency	Yes	Transaction currency code (e.g. 643 – Russian Rouble, 840 – US Dollar)
Description	Yes	Transfer text description. It is displayed to the customer in the course of transfer in <b>TWEC PG</b> .
ApproveURL	No	URL to redirect the customer to if the operation is approved. If the parameter is not defined, its value will be taken from the parameter of the same name specified in the <b>TWEC PG</b> settings.
CancelURL	No	URL to redirect the customer to if the operation is cancelled (by clicking the <b>Cancel</b> button) in <b>TWEC PG</b> . If the parameter is not defined, its value will be taken from the parameter of the same name specified in the <b>TWEC PG</b> settings.
DeclineURL	No	URL to redirect the customer to if the transfer operation is declined. If the parameter is not defined, its value will be taken from the parameter of the same name specified in the <b>TWEC PG</b> settings.
OrigAmount	Yes	<AddParams> section can be added to the request to define additional order parameters. For their description, refer to <a href="#">Create Order</a> .
OrigCurrency	Yes	
RFirstName	Yes	
RSurname	Yes	

Parameter	Mandatory	Description
ReMail	Yes	
RPhone	Yes	
SFirstName	Yes	
SSurname	Yes	
SeMail	Yes	
SAddress	Yes	
SCountry	Yes	
SPhone	Yes	
SPANBegin	No	
SPANEnd	No	
SPANLen	No	
RPANBegin	No	
RPANEnd	No	
RPANLen	No	
Fee	No	
isMobile	No	
DescriptionHtml	No	

**TWEC PG** response format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Response>
    <Operation>CreateOrder</Operation>
    <Status>00</Status>
    <Order>
      <OrderID>828</OrderID>
      <SessionID>ECDE79578768ECFBF2897A0F44CC0CEF</SessionID>
      <URL>PayGateURL</URL>
    </Order>
  </Response>
</TKKPG>
```

## Response parameters definition:

Parameter	Mandatory	Description
Status	Yes	Request execution result: <ul style="list-style-type: none"> <li>00 – successfully</li> <li>30 – invalid message format (no mandatory parameters etc.)</li> <li>10 – Internet shop has no access to the <b>Create Order</b> operation (or the Internet shop is not registered)</li> <li>54 – invalid operation</li> <li>72 – empty POS driver response</li> <li>96 – system error</li> <li>97 – POS driver connection error</li> </ul>

Parameter	Mandatory	Description
OrderID	Conditionally	Unique order number to be referred to by the Internet shop server
SessionID	Conditionally	Session ID used along with the order number to initiate transfer, cancel the operation, get order status, etc.
URL	Conditionally	URL the user must be redirected to. Redirection is implemented using the GET method to the URL address specified in the response with the <b>SessionID</b> and <b>OrderID</b> parameters (taking the values of the session ID and order number, respectively) added to it.

Once the **CreateOrder** operation is executed and the values of the **OrderID** and **SessionID** parameters are received, the funds are transferred.

### 4.1.2 Get Order Status

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of **HTTPS** (POST method) via the following link: *https://<host>:<port>/Exec*
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: *https://<host>:<port>/ExecPasswordAuth*

The operation is used to get the order status.

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>GetOrderStatus</Operation>
    <Language></Language>
    <Order>
      <Merchant></Merchant>
      <OrderID></OrderID>
    </Order>
    <SessionID></SessionID>
  </Request>
</TKKPG>
```

#### Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>GetOrderStatus</Operation>
    <Language>RU</Language>
    <Order>
      <Merchant>POS_IKEA_2</Merchant>
      <OrderID></OrderID>
    </Order>
    <SessionID></SessionID>
  </Request>
</TKKPG>
```

Request parameters definition:

Parameter	Mandatory	Description
Language	Yes	<b>TWEC PG</b> interface language. Filled with the RFC 1766-compliant two-letter code of the interface language (e.g. <i>RU</i> – Russian language, <i>EN</i> – English language, <i>UK</i> – Ukrainian language, etc.). By default, <i>EN</i> .
Merchant	Yes	Internet shop ID in <b>TWEC PG</b> . <b>Attention!</b> The parameter value must not contain [ or ] symbols.
OrderID	Yes	Order ID
SessionID	Yes	Session ID earlier assigned to the order with the respective <b>OrderID</b>

**TWEC PG** response format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Response>
    <Operation>GetOrderStatus</Operation>
    <Status>30</Status>
    <Order>
      <OrderID></OrderID>
      <OrderStatus></OrderStatus>
    </Order>
    <AdditionalInfo>
      <Receipt>BASE64-encode-info</Receipt>
    </AdditionalInfo>
  </Response>
</TKKPG>
```

Response parameters definition:

Parameter	Mandatory	Description
Status	Yes	Request execution result: <ul style="list-style-type: none"> <li>00 – successfully</li> <li>30 – invalid message format (no mandatory parameters etc.)</li> <li>10 – Internet shop has no access to the <b>Create Order</b> operation (or the Internet shop is not registered)</li> <li>54 – invalid operation</li> <li>72 – empty POS driver response</li> <li>96 – system error</li> <li>97 – POS driver connection error</li> </ul>
OrderID	Yes	Order ID on which status is requested
OrderStatus	Yes	<a href="#">Order status</a>
AdditionalInfo	No	Additional information on the order
Receipt	No	Signed receipt (bank guarantee) confirming authorization (BASE64-encoded) (for the format description, refer to <a href="#">Signed Receipt Format</a> ).

### 4.1.3 Payment Reversal

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/Exec`
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/ExecPasswordAuth`

The operation is used to reverse (cancel) the payment if the funds to the amount of operation were put on hold in the account and the order status was set to **APPROVED** or **PREAUTH-APPROVED**. **Attention!** If the recurring payment parameters (**Purchase.Recur.frequency** and **Purchase.Recur.endRecur**) were specified in the **<Order>/<AddParam>** section at the order creation, the order status is not changed to **REVERSED** when the payment is reversed and it is possible to execute other operations on the order.

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>Reverse</Operation>
    <Language></Language>
    <Order>
      <Merchant></Merchant>
      <OrderID></OrderID>
    </Order>
    <Amount></Amount>
    <Description></Description>
    <SessionID></SessionID>
    <PAN></PAN>
    <CardUID></CardUID>
    <TranId></TranId>
  </Request>
</TKKPG>
```

**Example:**

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>Reverse</Operation>
    <Language>RU</Language>
    <Order>
      <Merchant>POS_IKEA_2</Merchant>
      <OrderID></OrderID>
    </Order>
    <Amount>10</Amount>
    <Description>xxxxxxx</Description>
    <SessionID></SessionID>
    <PAN></PAN>
    <TranId></TranId>
  </Request>
</TKKPG>
```

Request parameters definition:

Parameter	Mandatory	Description
Language	Yes	<b>TWEC PG</b> interface language. Filled with the RFC 1766-compliant two-letter code of the interface language (e.g. <i>RU</i> – Russian language, <i>EN</i> – English language, <i>UK</i> – Ukrainian language, etc.). By default, <i>EN</i> .

Parameter	Mandatory	Description
Merchant	Yes	Internet shop ID in TWEC PG. <b>Attention!</b> The parameter value must not contain [ or ] symbols.
OrderID	Yes	ID of the order to be reversed
Amount	No	Transaction amount (in the minimum units of the transaction currency) <b>Attention:</b> <ul style="list-style-type: none"> <li>The transaction amount must be less than the order amount (total of all payments/purchases made in terms of the order).</li> <li>The parameter should not be defined when reversing the order payment in full.</li> </ul>
Description	No	Text description of the transaction displayed to the customer during the transaction execution in <b>TWEC PG</b> . If the parameter is defined, the transaction text description will be added to the text description of the order (specified in the <b>Description</b> parameter at the order creation) and saved to the <b>Description</b> field of the order in the <b>TWEC PG</b> DB.
SessionID	Yes	Session ID earlier assigned to the particular order with the respective <b>OrderID</b>
PAN	No	Card number
CardUID	No	Card ID can be specified instead of the card number. If the parameter is defined, before executing the transaction, <b>TWEC PG</b> requests the unmasked PAN from the authorization system by means of the <b>Get Card Info</b> transaction / <b>Get Card by UID</b> transaction. <b>Attention!</b> If the header of the <b>Get Card by UID</b> transaction contains the <b>Retailer Name</b> field, <b>TWEC PG</b> requests in the authorization system the unmasked PAN of the card owned by the merchant specified in the header field.
TranId	No	Identifier of the transaction to be reversed. If the parameter is not filled, the last executed transaction is reversed. The parameter should be filled when executing recurring payments/transfers. Copy the parameter value from the <b>&lt;Order&gt;/&lt;row&gt;/&lt;OrderOperations&gt;/&lt;row&gt;/&lt;twoid&gt;</b> parameter of the response to the <a href="#">Get_Order Information</a> operation.

**TWEC PG** response format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Response>
    <Operation>Reverse</Operation>
    <Status>30</Status>
    <Order>
      <OrderID></OrderID>
    </Order>
    <Reversal>
      <RespCode></RespCode>
      <RespMessage>Authorization_system_text_message</RespMessage>
    </Reversal>
  </Response>
</TKKPG>
```



Response parameters definition:

Parameter	Mandatory	Description
Status	Yes	Request result: <ul style="list-style-type: none"> <li>00 – successfully; if <b>CREATED</b>, the order status turns to <b>DECLINED</b></li> <li>95 – <b>ON-PAYMENT</b> or <b>LOCKED</b>, status is the same</li> <li>30 – invalid message format (no mandatory parameters etc.)</li> <li>10 – Internet shop has no access to the <b>Order Reversal</b> operation (or such Internet shop is not registered)</li> <li>54 – invalid operation</li> <li>72 – empty POS driver response</li> <li>96 – system error</li> <li>97 – POS driver connection error</li> </ul>
OrderID	Conditionally	ID of the order being reversed
RespCode	Conditionally	Authorization system response code
RespMessage	Conditionally	Authorization system text response

#### 4.1.4 Totals Reconciliation

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/Exec`
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/ExecPasswordAuth`

To reconcile the totals of a particular merchant, the operation is executed at the end of the Internet shop business day (totals reconciliation between **TWEC PG** and the authorization system).

**Attention!** Certain system settings can cause the totals differ by the amount of authorization transactions.

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>Reconcile</Operation>
    <Language></Language>
    <Merchant></Merchant>
    <TerminalID></TerminalID>
  </Request>
</TKKPG>
```

**Example:**

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>Reconcile</Operation>
    <Language>RU</Language>
    <Merchant>POS_IKEA_2</Merchant>
    <TerminalID>TERM_1</TerminalID>
```

```
</Request>
</TKKPG>
```

Request parameters definition:

Parameter	Mandatory	Description
Language	Yes	<b>TWEC PG</b> interface language. Filled with the RFC 1766-compliant two-letter code of the interface language (e.g. <i>RU</i> – Russian language, <i>EN</i> – English language, <i>UK</i> – Ukrainian language, etc.). By default, <i>EN</i> .
Merchant	Yes	Internet shop ID in TWEC PG. <b>Attention!</b> The parameter value must not contain [ or ] symbols.
TerminalID	Conditionally	Name of the terminal for which the totals reconciliation and the business day closure are performed (the parameter is present only if several terminals are used).

**TWEC PG** response format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
<Response>
<Operation>Reconcile</Operation>
<Status>00</Status>
<Reconciliation>N</Reconciliation>
<Totals>
<Debit>
<Count>0000</Count>
<Amount>000000000000000000</Amount>
</Debit>
<Credit>
<Count>0000</Count>
<Amount>000000000000000000</Amount>
</Credit>
</Totals>
</Response>
</TKKPG>
```

Response parameters definition:

Parameter	Mandatory	Description
Status	Yes	Request execution result: <ul style="list-style-type: none"> <li>00 – successfully</li> <li>30 – invalid message format (no mandatory parameters etc.)</li> <li>10 – Internet shop has no access to the <b>Create Order</b> operation (or the Internet shop is not registered)</li> <li>54 – invalid operation</li> <li>72 – empty POS driver response</li> <li>96 – system error</li> <li>97 – POS driver connection error</li> </ul>
Reconciliation	No	<ul style="list-style-type: none"> <li>Y – totals matched</li> <li>N – totals not matched</li> </ul>
Debit.Count	No	Count of debit operations (available only if <b>Reconciliation</b> =N)

Parameter	Mandatory	Description
Debit.Amount	No	Debit operations total amount (available only if <b>Reconciliation=N</b> )
Credit. Count	No	Count of credit operations (available only if <b>Reconciliation=N</b> )
Credit.Amount	No	Credit operations total amount (available only if <b>Reconciliation=N</b> )

### 4.1.5 Refund

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/Exec`
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/ExecPasswordAuth`

The operation is used to cancel and refund payment on a certain order if the order status was set to **APPROVED** and the funds were debited from the account in case of the payment successful execution.

**Attention!** If the recurring payment parameters (**Purchase.Recur.frequency** and **Purchase.Recur.endRecur**) were specified in the **<Order>/<AddParam>** section at the order creation, the order status is not changed to **REFUNDED** when the payment reversal is performed and it is possible to execute other operations on the order.

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>Refund</Operation>
    <Language></Language>
    <Order>
      <Merchant></Merchant>
      <OrderID></OrderID>
      <AddParams></AddParams>
    </Order>
    <Description></Description>
    <SessionID></SessionID>
    <Refund>
      <Amount></Amount>
      <Currency></Currency>
      <WithFee></WithFee>
    </Refund>
    <PAN></PAN>
    <CardUID></CardUID>
    <TranId></TranId>
  </Request>
</TKKPG>
```

**Example:**

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>Refund</Operation>
    <Language>RU</Language>
```

```

<Order>
  <Merchant>POS_IKEA_2</Merchant>
  <OrderID></OrderID>
  <AddParams></AddParams>
</Order>
<Description>xxxxxxx</Description>
<SessionID></SessionID>
<Refund>
  <Amount>10</Amount>
  <Currency>840</Currency>
  <WithFee>>false</WithFee>
</Refund>
<PAN>477777000000720</PAN>
<TranId></TranId>
</Request>
</TKKPG>

```

Request parameters definition:

Parameter	Mandatory	Description
Language	Yes	<b>TWEC PG</b> interface language. Filled with the RFC 1766-compliant two-letter code of the interface language (e.g. <i>RU</i> – Russian language, <i>EN</i> – English language, <i>UK</i> – Ukrainian language, etc.). By default, <i>EN</i> .
Merchant	Yes	Internet shop ID in TWEC PG.  <b>Attention!</b> The parameter value must not contain [ or ] symbols.
OrderID	Yes	ID of the order requiring the refund
Description	No	Text description of the transaction displayed to the customer during the transaction execution in <b>TWEC PG</b> . If the parameter is defined, the transaction text description will be added to the text description of the order (specified in the <b>Description</b> parameter at the order creation) and saved to the <b>Description</b> field of the order in the <b>TWEC PG</b> DB.
SessionID	Yes	Session ID which was earlier assigned to the order
Amount	Yes	Amount of refund (in the minimum units of the transaction currency)  <b>Attention!</b> The refund amount must be less than the order amount (total of all order payments/purchases made in terms of the order).
Currency	Yes	Refund currency
WithFee	No	Indicator of the acquiring fee refund. Possible values: <ul style="list-style-type: none"> <li><i>false</i> (by default) – acquiring fee amount is refunded.</li> <li><i>true</i> – acquiring fee amount is not refunded.</li> </ul> If the parameter was set to <i>true</i> and a fee was charged when making the payment/transfer (the <b>Fee</b> parameter of the order was defined), the acquiring fee will be added to the refund amount. <b>Attention!</b> If the <b>Refund</b> transaction is re-executed on the order, the acquiring fee will not be added to the refund amount.
PAN	No	Card number  <b>Attention!</b> The parameter is used if the original transaction is not recorded in the authorization system DB.

Parameter	Mandatory	Description
CardUID	No	Card ID can be specified instead of the card number. If the parameter is defined, prior to executing the transaction, <b>TWEC PG</b> requests the unmasked PAN from the authorization system by means of the <b>Get Card Info</b> transaction / <b>Get Card by UID</b> transaction. <b>Attention!</b> If the header of the <b>Get Card by UID</b> transaction contains the <b>Retailer Name</b> field, <b>TWEC PG</b> requests in the authorization system the unmasked PAN of the card owned by the merchant specified in the header field.
TranId	No	Identifier of the transaction to be cancelled. If the parameter is not filled, the last executed operation is reversed. The parameter should be filled when reversing recurring payments/transfers. Copy the parameter value from the <b>&lt;Order&gt;/&lt;row&gt;/&lt;OrderOperations&gt;/&lt;row&gt;/&lt;twoid&gt;</b> parameter of the response to the <a href="#">Get Order Information</a> operation.

The **<Order>/<AddParams>** section can be included into the response to define additional order parameters. For their description, refer to [Create Order](#).

**TWEC PG** response format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Response>
    <Operation>Refund</Operation>
    <Status>30</Status>
  </Response>
</TKKPG>
```

Response parameters definition:

Parameter	Mandatory	Description
Status	Yes	Request execution result: <ul style="list-style-type: none"> <li>00 – successfully</li> <li>30 – invalid message format (no mandatory parameters etc.)</li> <li>10 – Internet shop has no access to the <b>Create Order</b> operation (or the Internet shop is not registered)</li> <li>54 – invalid operation</li> <li>72 – empty POS driver response</li> <li>96 – system error</li> <li>97 – POS driver connection error</li> </ul>

#### 4.1.6 Get TWEC PG Transaction Log

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of **HTTPS** (POST method) via the following link: *https://<host>:<port>/Exec*
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: *https://<host>:<port>/ExecPasswordAuth*.

The transaction log of a particular merchant for the last closed business day is posted upon request.

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>TransactionLog</Operation>
    <Language></Language>
    <Merchant></Merchant>
    <TerminalID></TerminalID>
  </Request>
</TKKPG>
```

**Example:**

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>TransactionLog</Operation>
    <Language>RU</Language>
    <Merchant>POS_IKEA_2</Merchant>
    <TerminalID>TERM_1</TerminalID>
  </Request>
</TKKPG>
```

Request parameters definition:

Parameter	Mandatory	Description
Language	Yes	<b>TWEC PG</b> interface language. Filled with the RFC 1766-compliant two-letter code of the interface language (e.g. <i>RU</i> – Russian language, <i>EN</i> – English language, <i>UK</i> – Ukrainian language, etc.). By default, <i>EN</i> .
Merchant	Yes	Internet shop ID in TWEC PG. <b>Attention!</b> The parameter value must not contain [ or ] symbols.
TerminalID	Conditionally	Name of the terminal by which the <b>TWEC PG</b> transaction log is obtained (the parameter is present only if several terminals are used).

**TWEC PG** response format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Response>
    <Operation>TransactionLog</Operation>
    <Status>00</Status>
    <Operations>
      <Count>1</Count>
      <Order ID="771">
        <Time>27122010203624</Time>
        <Amount>123456</Amount>
        <Currency>840</Currency>
        <Type>PAYMENT</Type>
      </Order ID>
    </Operations>
  </Response>
</TKKPG>
```

```
<Status>DECLINED</Status>
<OperType>11</OperType>
<OperName>Purchase</OperName>
<twoId>123456</twoId>
</Order>
</Operations>
</Response>
</TKKPG>
```

Response parameters definition:

Parameter	Mandatory	Description
Status	Yes	Request execution result: <ul style="list-style-type: none"> <li>00 – successfully</li> <li>30 – invalid message format (no mandatory parameters etc.)</li> <li>10 – Internet shop has no access to the <b>Create Order</b> operation (or the Internet shop is not registered)</li> <li>54 – invalid operation</li> <li>72 – empty POS driver response</li> <li>96 – system error</li> <li>97 – POS driver connection error</li> </ul>
Operations.Count	Conditionally	Number of operations in the log (posted if <b>Status</b> = 00)
Operations.Order (ID)	Conditionally	Order ID obtained at the payment registration (posted if <b>Operations.Count</b> > 0)
Operations.Order.Time	Conditionally	Operation date and time in the DDMMYYYYHH24MISS format (posted if <b>Operations.Count</b> > 0)
Operations.Order.Amount	Conditionally	Transaction amount in the minimum units of the transaction currency (posted if <b>Operations.Count</b> > 0)
Operations.Order.Currency	Conditionally	Transaction currency (posted if <b>Operations.Count</b> > 0)
Operations.Order.Type	Conditionally	<a href="#">Order type</a> (posted if <b>Operations.Count</b> > 0)
Operations.Order.Status	Conditionally	<a href="#">Order status</a> (posted if <b>Operations.Count</b> > 0)
Operations.Order.OperType	Conditionally	Operation type code: <ul style="list-style-type: none"> <li>11 – payment</li> <li>21 – reverse</li> <li>22 – refund</li> </ul>
Operations.Order.OperName	Conditionally	Operation name
Operations.Order.twoid	Conditionally	ID of the transaction executed in the authorization system according to the last operation in terms of the order
Operation.Order.Refund.Amount	Conditionally	Amount of refund operations for the current order in the minimum units of the transaction currency (posted if <b>Operations.Order.Status</b> = <b>REFUNDED</b> )
Operation.Order.Refund.Currency	Conditionally	Currency of refund operations for the current order (posted if <b>Operations.Order.Status</b> = <b>REFUNDED</b> )

Parameter	Mandatory	Description
Operation.Order.Additional Info	No	Additional information
Operation.Order.Additional Info.Receipt	No	Signed receipt containing the order data (BASE64-encoded). The same receipt should be used as on obtaining the order status (receipt must not be signed repeatedly). For the format description, refer to <a href="#">Signed Receipt Format</a> .

### 4.1.7 Get Order Information

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of **HTTPS** (POST method) via the following link: *https://<host>:<port>/Exec*
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: *https://<host>:<port>/ExecPasswordAuth*

The operation is used to get full information on the order and view all the additional parameters and executed operations.

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>GetOrderInformation</Operation>
    <Language></Language>
    <Order>
      <Merchant></Merchant>
      <OrderID></OrderID>
    </Order>
    <SessionID></SessionID>
    <ShowParams></ShowParams>
    <ShowOperations></ShowOperations>
    <ClassicView></ClassicView>
  </Request>
</TKKPG>
```

**Example:**

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>GetOrderInformation</Operation>
    <Language>RU</Language>
    <Order>
      <Merchant>POS_IKEA_2</Merchant>
      <OrderID>69110</OrderID>
    </Order>
    <SessionID>3C4ABA5872192DD82D33D7A870A3AD8E</SessionID>
    <ShowParams>true</ShowParams>
    <ShowOperations>true</ShowOperations>
    <ClassicView>true</ClassicView>
  </Request>
</TKKPG>
```



Request parameters definition:

Parameter	Mandatory	Description
Language	Yes	<b>TWEC PG</b> interface language. Filled with the RFC 1766-compliant two-letter code of the interface language (e.g. <i>RU</i> – Russian language, <i>EN</i> – English language, <i>UK</i> – Ukrainian language, etc.). By default, <i>EN</i> .
Merchant	Yes	Internet shop ID in <b>TWEC PG</b> . <b>Attention!</b> The parameter value must not contain [ or ] symbols.
OrderID	Yes	Order ID
SessionID	Yes	Session ID which earlier assigned to the order with the respective <b>OrderID</b>
ShowParams	No	Facility to view the additional parameters of the order. Possible values: <ul style="list-style-type: none"> <li><i>true</i> – response will include the <b>&lt;OrderParams&gt;</b> section containing the names and values of additional order parameters.</li> <li><i>false</i> (by default) – response will not include the <b>&lt;OrderParams&gt;</b> section.</li> </ul>
ShowOperations	No	Facility to view the entire list of operations on the order. Possible values: <ul style="list-style-type: none"> <li><i>true</i> – response will include the <b>&lt;OrderOperations&gt;</b> section containing the list of operations on the order.</li> <li><i>false</i> (by default) – response will not include the <b>&lt;OrderOperations&gt;</b> section.</li> </ul>
ClassicView	No	Display of the response in the standard format. Possible values: <ul style="list-style-type: none"> <li><i>true</i> – response will be displayed in the standard format (i. e. the <b>&lt;TKKPG&gt;/&lt;Response&gt;</b> tag containing other response tags will be present).</li> <li><i>false</i> (by default) – response will be displayed without the <b>&lt;TKKPG&gt;/&lt;Response&gt;</b> tag (i. e. all the response tags will be contained in the <b>&lt;Order&gt;</b> tag).</li> </ul>

**TWEC PG** response format depends on the **ClassicView** parameter value in the request:

- If the **ClassicView** value is not specified or is *false*:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <row>
    <id>69110</id>
    <SessionID>3C4ABA5872192DD82D33D7A870A3AD8E</SessionID>
    <createDate>2012-04-26 14:18:29</createDate>
    <lastUpdateDate>2012-04-26 14:19:12</lastUpdateDate>
    <payDate>2012-04-26 14:19:36</payDate>
    <MerchantID>test</MerchantID>
    <Amount>2500</Amount>
    <Currency>840</Currency>
    <OrderLanguage>EN</OrderLanguage>
    <Description>xxxxxxx</Description>
    <ApproveURL>/testshopPageReturn.jsp</ApproveURL>
    <CancelURL>/testshopPageReturn.jsp</CancelURL>
    <DeclineURL>/testshopPageReturn.jsp</DeclineURL>
    <Orderstatus>APPROVED</Orderstatus>
    <Receipt></Receipt>
    <twoId>904061</twoId>
    <RefundAmount>0</RefundAmount>
  </row>
</Order>
```

```

<RefundCurrency>null</RefundCurrency>
<ExtSystemProcess>0</ExtSystemProcess>
<OrderType></OrderType>
<Fee>0</Fee>
<RefundDate>0000-00-00 00:00:00</RefundDate>
<TWODate>120426</TWODate>
<TWOTime>141936</TWOTime>
<OrderOperations>
  <row>
    <id>320474</id>
    <PackageId>118</PackageId>
    <createDate>2012-04-26 14:18:30</createDate>
    <MerchantID>test</MerchantID>
    <OperType>0</OperType>
    <OperName>CreateOrder</OperName>
    <OrderId>69110</OrderId>
    <Amount>0</Amount>
    <Currency></Currency>
    <Approval></Approval>
    <twoId></twoId>
  </row>
  <row>
    <id>320475</id>
    <PackageId>118</PackageId>
    <createDate>2012-04-26 14:19:12</createDate>
    <MerchantID>POS_1</MerchantID>
    <OperType>11</OperType>
    <OperName>Purchase</OperName>
    <OrderId>69110</OrderId>
    <Amount>2500</Amount>
    <Currency>840</Currency>
    <Approval>182975 A</Approval>
    <twoId>904061</twoId>
  </row>
</OrderOperations>
</row>
</Order>

```

- If the **ClassicView** value is *true*:

```

<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Response>
    <Operation>GetOrderInformation</Operation>
    <Status>00</Status>
    <Order>
      <row>
        <id>9074</id>
        <SessionID>B5EF753375C69B3A30700A82A43811E8</SessionID>
        <createDate>2014-02-14 14:15:37</createDate>
        <lastUpdateDate>2014-02-14 14:33:26</lastUpdateDate>
        <payDate>null</payDate>
        <MerchantID>test</MerchantID>
        <Amount>2500</Amount>
        <Currency>840</Currency>
        <OrderLanguage>EN</OrderLanguage>
        <Description>xxxxxxx</Description>
        <ApproveURL>/testshopPageReturn.jsp</ApproveURL>
        <CancelURL>/testshopPageReturn.jsp</CancelURL>
        <DeclineURL>/testshopPageReturn.jsp</DeclineURL>
        <Orderstatus>EXPIRED</Orderstatus>
        <Receipt/>
        <twoId/>
        <RefundAmount>0</RefundAmount>
        <RefundCurrency>null</RefundCurrency>
        <ExtSystemProcess>0</ExtSystemProcess>
        <OrderType>Purchase</OrderType>
      </row>
    </Order>
  </Response>
</TKKPG>

```

```

<Fee>0</Fee>
<RefundDate>0000-00-00 00:00:00</RefundDate>
<TWODate>null</TWODate>
<TWOTime>null</TWOTime>
<OrderParams>
  <row>
    <PARAMNAME>TranAddendums</PARAMNAME>
    <VAL>PFRyYW5BZGRlbnR1bXM+DQogIDxFeHQ
+dGV4dDdwRXh0Pg0KPC9UcmFuQWRkZW5kdW1zPg0K</VAL>
  </row>
</OrderParams>
<OrderOperations>
  <row>
    <id>11721</id>
    <PackageId>1</PackageId>
    <createDate>2014-02-14 14:15:37</createDate>
    <MerchantID>test</MerchantID>
    <TERMINALID/>
    <OperType>0</OperType>
    <OperName>CreateOrder</OperName>
    <OrderId>9074</OrderId>
    <Amount>0</Amount>
    <Currency/>
    <Approval/>
    <twoId/>
  </row>
</OrderOperations>
</row>
</Order>
</Response>
</TKKPG>

```

Response parameters definition:

Parameter	Mandatory	Description
id	Yes	Unique order number
SessionID	Yes	Session ID. It is a one-time password used along with the order number to initiate payment, get order status, etc.
createDate	Conditionally	Order creation date
lastUpdateDate	Conditionally	Date of the order last modification
payDate	Conditionally	Date of the first payment in terms of the order
MerchantID	Conditionally	Merchant ID in <b>TWEC PG</b>
Amount	Conditionally	Order amount
Currency	Conditionally	Order currency
OrderLanguage	Conditionally	Interface language for the order. Filled with the RFC 1766-compliant two-letter code of the interface language (e.g. <i>RU</i> – Russian language, <i>EN</i> – English language, <i>UK</i> – Ukrainian language, etc.).
Description	Conditionally	Order description
ApproveURL	Conditionally	URL to redirect the customer to if the operation is approved. If the parameter is not defined in the <a href="#">Create Order</a> operation, its value will be taken from the parameter of the same name specified in the <b>TWEC PG</b> settings.
CancelURL	Conditionally	URL to redirect the customer to if the operation is cancelled (by clicking the <b>Cancel</b> button).

Parameter	Mandatory	Description
		If the parameter is not defined in the <a href="#">Create_Order</a> operation, its value will be taken from the parameter of the same name specified in the <b>TWEC PG</b> settings.
DeclineURL	Conditionally	URL to redirect the customer to if the payment operation is declined. If the parameter is not defined in the <a href="#">Create_Order</a> operation, its value will be taken from the parameter of the same name specified in the <b>TWEC PG</b> settings.
OrderStatus	Yes	<a href="#">Order status</a>
Receipt	No	Signed receipt (BASE64-encoded) confirming authorization. For the format description, refer to <a href="#">Signed Receipt Format</a> .
twoid	Conditionally	ID of the transaction executed in the authorization system according to the last operation in terms of the order
RefundAmount	Conditionally	Total amount of refund operations
RefundCurrency	Conditionally	Currency of refund operations
ExtSystemProcess	Conditionally	Indicator of whether an external system is used to process transactions
OperType	Conditionally	<a href="#">Order type</a>
Fee	No	Acquiring fee
RefundDate	Conditionally	Refund date
TWODate	Conditionally	Date on the receipt
TWOTime	Conditionally	Time on the receipt
OrderParams	No	Names and values of additional order parameters
OrderOperations	No	Entire list of operations in terms of the order

### 4.1.8 Get Orders List

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/Exec`
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/ExecPasswordAuth`

The **Get Orders List** administrative operation allows filtering and sorting the merchant orders.

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>GetOrders</Operation>
    <Language></Language>
    <Merchant></Merchant>
    <OrdersFilter>
      <Period>
        <Start></Start>
        <End></End>
      </Period>
    </OrdersFilter>
  </Request>
</TKKPG>
```

```

</Period>
<LastCount></LastCount>
<StartFrom></StartFrom>
<Status></Status>
<Amount>
  <Min></Min>
  <Max></Max>
</Amount>
<Currency></Currency>
<Description></Description>
<AddParams>
  <Item id=" val=" />
</AddParams>
<OrderBy></OrderBy>
<OrderingDirection></OrderingDirection>
<OrderId></OrderId>
</OrdersFilter>
</Request>

```

### Example:

```

<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>GetOrders</Operation>
    <Language>RU</Language>
    <Merchant>POS_1</Merchant>
    <OrdersFilter>
      <Period>
        <Start>2012-01-31 00:00:00</Start>
        <End>2012-02-29 23:59:59</End>
      </Period>
      <LastCount>2</LastCount>
      <StartFrom>1</StartFrom>
      <Status>CREATED</Status>
      <Amount>
        <Min>1500</Min>
        <Max>3500</Max>
      </Amount>
      <Currency>840</Currency>
      <Description>xxxxxxx</Description>
      <AddParams>
        <Item id='PAN' val=" />
        <Item id='ResidentCityInLatin' val=" />
      </AddParams>
      <OrderBy>createDate</OrderBy>
      <OrderingDirection>ASC</OrderingDirection>
      <OrderId>145</OrderId>
    </OrdersFilter>
  </Request>
</TKKPG>

```

Request parameters definition:

Parameter	Mandatory	Description
Language	Yes	<b>TWEC PG</b> interface language. Filled with the RFC 1766-compliant two-letter code of the interface language (e.g. <i>RU</i> – Russian language, <i>EN</i> – English language, <i>UK</i> – Ukrainian language, etc.). By default, <i>EN</i> .
Merchant	Yes	Internet shop ID in <b>TWEC PG</b> . <b>Attention!</b> The parameter value must not contain [ or ] symbols.

Parameter	Mandatory	Description
OrdersFilter.Period	Yes	Order creation period
OrdersFilter.Period.Start	Conditionally	Order start date. The parameter is optional if the <b>OrdersFilter.LastCount</b> parameter is defined.
OrdersFilter.Period.End	No	Order end date
OrdersFilter.LastCount	Conditionally	Number of records to be displayed after filtering. The parameter is optional if the <b>OrdersFilter.Period.Start</b> parameter is defined. <b>Attention!</b> If the <b>OrdersFilter.LastCount</b> value is not specified or exceeds that of the respective parameter in <b>TWEC PG</b> used to define the number of operations returned in the response to the <a href="#">GetOrders</a> operation request, the latter value will be used.
OrdersFilter.StartFrom	No	Item starting from which the records are displayed
OrdersFilter.Status	No	<a href="#">Order status</a>
OrdersFilter.Amount	No	Transaction amount in the minimum units of the transaction currency
OrdersFilter.Amount.Min	No	Transaction minimum amount
OrdersFilter.Amount.Max	No	Transaction maximum amount
OrdersFilter.Currency	No	Transaction currency code (e.g. 643 – Russian Rouble, 840 – US Dollar)
OrdersFilter.Description	No	Text description of the order
OrdersFilter.AddParams	No	<a href="#">Additional order parameters</a>
OrdersFilter.OrderBy	No	Orders sorting by one of the following parameters: <ul style="list-style-type: none"> <li>• id</li> <li>• SessionID</li> <li>• createDate</li> <li>• lastUpdateDate</li> <li>• payDate</li> <li>• MerchantID</li> <li>• Amount</li> <li>• Currency</li> <li>• OrderLanguage</li> <li>• Description</li> <li>• ApproveURL</li> <li>• CancelURL</li> <li>• DeclineURL</li> <li>• Orderstatus</li> <li>• Receipt</li> <li>• RefundAmount</li> <li>• RefundCurrency</li> <li>• RefundDate</li> <li>• Fee</li> </ul> <b>Attention!</b> Sorting by several parameters is not supported.

Parameter	Mandatory	Description
OrdersFilter.OrderingDirection	No	Sorting order. Possible values: <ul style="list-style-type: none"> <li>ACS (by default) - ascending sorting</li> <li>DESC - descending sorting</li> </ul>
OrdersFilter.OrderId	No	Order number

### TWEC PG response format:

```
<?xml version="1.0" encoding="UTF-8"?>
<Orders>
  <row>
    <id>68408</id>
    <SessionID>F174B16CDB192D4FFA4808979826F4D3</SessionID>
    <createDate>2012-02-03 13:30:46</createDate>
    <lastUpdateDate>null</lastUpdateDate>
    <payDate>null</payDate>
    <MerchantID>test</MerchantID>
    <Amount>2500</Amount>
    <Currency>840</Currency>
    <OrderLanguage>EN</OrderLanguage>
    <Description>xxxxxxx</Description>
    <ApproveURL>/testshopPageReturn.jsp</ApproveURL>
    <CancelURL>/testshopPageReturn.jsp</CancelURL>
    <DeclineURL>/testshopPageReturn.jsp</DeclineURL>
    <Orderstatus>CREATED</Orderstatus>
    <Receipt/>
    <twoId/>
    <RefundAmount>0</RefundAmount>
    <RefundCurrency>null</RefundCurrency>
    <PaidWithMobicash>1</PaidWithMobicash>
    <RefundDate>null</RefundDate>
    <ExtSystemProcess>0</ExtSystemProcess>
    <OrderType/>
    <Fee>0</Fee>
  </row>
  <row>
    <id>68409</id>
    <SessionID>94A3AFBAF25D90E627C1718E993CF686</SessionID>
    <createDate>2012-02-06 10:22:43.0</createDate>
    <lastUpdateDate>null</lastUpdateDate>
    <payDate>null</payDate>
    <MerchantID>test</MerchantID>
    <Amount>2500</Amount>
    <Currency>840</Currency>
    <OrderLanguage>RU</OrderLanguage>
    <Description>xxxxxxx</Description>
    <ApproveURL>/testshopPageReturn.jsp?a=1</ApproveURL>
    <CancelURL>/testshopPageReturn.jsp?a=5</CancelURL>
    <DeclineURL>/testshopPageReturn.jsp?a=6</DeclineURL>
    <Orderstatus>CREATED</Orderstatus>
    <Receipt/>
    <twoId/>
    <RefundAmount>0</RefundAmount>
    <RefundCurrency>null</RefundCurrency>
    <PaidWithMobicash>1</PaidWithMobicash>
    <RefundDate>null</RefundDate>
    <ExtSystemProcess>0</ExtSystemProcess>
    <OrderType/>
    <Fee>0</Fee>
  </row>
</Orders>
```

```
</row>
</Orders>
```

For details on the parameters, refer to [Get Order Information](#). The response also contains the **PaidWithMobiCash** parameter indicating whether the order was paid via the **MobiCash** service.

### 4.1.9 Purchase

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of:
  - **HTTPS** (POST method) via the following link: `https://<host>:<port>/Exec`
  - **HTTPS** via the integration plug-in
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/ExecPasswordAuth`

The operation is used to make a purchase on the basis of the order of the *Purchase* type created earlier.

**Attention!** When the operation is executed, the order amount is increased by the amount of purchase (specified in the **Amount** parameter).

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>Purchase</Operation>
    <Order>
      <Merchant></Merchant>
      <OrderID></OrderID>
      <AddParams>
        <FA-DATA></FA-DATA>
        <MasterPassWalletId></MasterPassWalletId>
      </AddParams>
    </Order>
    <SessionID></SessionID>
    <Amount></Amount>
    <Currency></Currency>
    <PAN></PAN>
    <CardUID></CardUID>
    <ExpDate></ExpDate>
    <CVV2></CVV2>
    <!-- 3D Secure protocol approval code -->
    <CAVV></CAVV>
    <!-- TWEC indicator code -->
    <eci></eci>
    <DraftCaptureFlag></DraftCaptureFlag>
    <IP></IP>
    <isMOTO></isMOTO>
    <IncreaseOrderAmount></IncreaseOrderAmount>
    <ResponseFormat></ResponseFormat>
  </Request>
</TKKPG>
```

**Example:**

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>Purchase</Operation>
```



```

<Order>
  <Merchant>POS_IKEA_2</Merchant>
  <OrderID>771</OrderID>
  <AddParams>
    <FA-DATA>Email=user@yandex.ru; Phone=22211444</FA-DATA>
    <MasterPassWalletId></MasterPassWalletId>
  </AddParams>
</Order>
<SessionID>F4EC88045573D2832E9A12628C3F058C</SessionID>
<Amount>123456</Amount>
<Currency>840</Currency>
<PAN>4555550000111489</PAN>
<ExpDate>1407</ExpDate>
<CVV2></CVV2>
<!-- 3-D Secure protocol approval code -->
<CAVV> 833 </CAVV>
<!-- TWEC indicator code -->
<eci></eci>
<DraftCaptureFlag></DraftCaptureFlag>
<IP></IP>
<isMOTO>>false</isMOTO>
<IncreaseOrderAmount>>true</IncreaseOrderAmount>
<ResponseFormat>TKKPG</ResponseFormat>
</Request>
</TKKPG>

```

Request parameters definition:

Parameter	Mandatory	Description
Merchant	Yes	Internet shop ID in TWEC PG. <b>Attention!</b> The parameter value must not contain [ or ] symbols.
OrderID	Yes	ID of the order to be paid for
FA-DATA	No	<p>The parameter is used by the fraud analyzing systems of the processing center. The parameter content will be transmitted to the host system.</p> <p>The <b>FA-DATA</b> parameter is comprised of the semicolon-separated fields of the <i>Parameter=Value</i> type. Possible parameter values:</p> <ul style="list-style-type: none"> <li>• <b>ShippingCountry</b> – ISO code of the delivery country</li> <li>• <b>ShippingCity</b> – name of the delivery city in Latin</li> <li>• <b>ShippingState</b> – name of the delivery state/region in Latin</li> <li>• <b>ShippingZipCode</b> – delivery zip code</li> <li>• <b>ShippingAddress</b> – delivery address (street, building) in Latin</li> <li>• <b>DeliveryPeriod</b> – estimated delivery period (in days)</li> <li>• <b>Phone</b> – payer phone number</li> <li>• <b>Email</b> – payer e-mail address</li> <li>• <b>MerchantOrderID</b> – order ID in the electronic system of the merchant</li> </ul> <p>It is strongly recommended that the merchant include the following fields into the <b>FA-DATA</b> parameter content: <b>ShippingCountry</b>, <b>ShippingCity</b>, <b>Phone</b>, <b>Email</b> and <b>MerchantOrderID</b>. Additionally, the payer browser IP address that was used to connect to <b>TWEC PG</b> can be sent</p>

Parameter	Mandatory	Description
		to the host system of the processing center. The data specified above (the recommended <b>FA-DATA</b> tags and the payer IP address) is necessary for the fraud analysis by means of the fraud analysis systems. <b>Example</b> of the <b>FA-DATA</b> parameter content: <pre>&lt;FA-DATA&gt;Email=user@yandex.ru; Phone=22211444; ShippingCountry=156; ShippingCity=X City; DeliveryPeriod=32; MerchantOrderID=E643C1426056;&lt;/FA-DATA&gt;</pre>
MasterPassWalletId	No	Masterpass digital wallet ID. The parameter is used when interacting with the <b>Masterpass Standard Checkout</b> service.
SessionID	Yes	Order session ID
Amount	Yes	Order transaction amount
Currency	Yes	Transaction currency code (e.g. 643 – Russian Rouble, 840 – US Dollar)
PAN	No	Card number
CardUID	No	Card ID can be specified instead of the card number. If the parameter is defined, prior to executing the operation, <b>TWEC PG</b> requests the unmasked PAN from the authorization system by means of the <b>Get Card Info</b> transaction / <b>Get Card by UID</b> transaction. <b>Attention!</b> If the header of the <b>Get Card by UID</b> transaction contains the <b>Retailer Name</b> field, <b>TWEC PG</b> requests from the authorization system the unmasked PAN of the card belonging to the merchant specified in the header field.
<b>Attention!</b> One of the parameters must be specified in the request: <b>PAN</b> or <b>CardUID</b> .		
ExpDate	Conditionally	Card expiration date in the YYMM format. The parameter is not mandatory if the <b>CardUID</b> parameter is defined.
CVV2	Yes	CVV2
CAVV	Yes	CAVV used in 3D Secure transaction
eci	Yes	TWEC indicator code
DraftCaptureFlag	No	Indicator of the financial approval of the transaction. If the parameter is not present in the <b>Request</b> section, the prefix settings will be used.
IP	Yes	Customer IP
isMOTO	No	Executing transaction with the code 03 (order by mail or phone). Possible values: <ul style="list-style-type: none"> <li><i>true</i> – MOTO transaction will be executed.</li> <li><i>false</i> – (by default) transaction with the code 00 will be executed (sale).</li> </ul>

Parameter	Mandatory	Description
IncreaseOrderAmount	No	Indicator of the order amount increase by the value contained in the <b>Amount</b> parameter of the purchase operation. Available values: <ul style="list-style-type: none"> <li><i>true</i> (by default) – order amount is increased by the amount of purchase.</li> <li><i>false</i> – order amount is not increased.</li> </ul>
ResponseFormat	No	Generation of the <b>TWEC PG</b> response in the standard format. If the parameter is defined (set to <i>TKKPG</i> ), the response will return in the standard format (i.e. with the <b>&lt;TKKPG&gt;/&lt;Response&gt;</b> tag containing other response tags).

The **<Order>/<AddParams>** section can be included into the response to define additional order parameters. For their description, refer to [Create Order](#). It is possible to specify the **<RC\_XXX>** tag in the **<Order>/<AddParams>** section when executing the operation. If the tag is specified, the additional parameters of the operation will be linked to the financial transaction ID and the following additional parameters will be added to the order:

- **RC\_XXX** – authorization system response code (ResponseCode)
- **TI\_XXX** – authorization system transaction ID (twoid)

Also, the **RC\_XXX** and **TI\_XXX** additional parameters are displayed when the [Get Order Information](#) operation with the **<ShowParams>true</ShowParams>** tag is performed.

In the **Purchase** operation, the value format of the **CAVV** parameter used to transmit **CAVV** for **VISA / JCB**, **AVV** for **Mastercard** and **AEVV** for **American Express** is as follows:

- Subfield 1:
  - For **VISA, American Express – Merchant Tran Id**. The fixed value length is 40 characters (ASCII).
  - For **Mastercard, JCB – Merchant Tran Id**. The fixed value length is 40 characters (BASE64).
- Subfield 2:
  - For **Visa – CAVV (VISA BASE-I F.126.9)**. The fixed value length is 40 characters.
  - For **JCB – CAVV (JCB 48.1)**. The fixed value length is 40 characters.
  - For **American Express – AEVV (Network Specifications, POS Authorization Request (1100), Bit 61.6)**. The fixed value length is 40 characters.
  - For **Mastercard – AAV (Mastercard DE 48 SE 43)**. The variable value length is no more than 40 characters.

The **eci** parameter contains the transaction execution condition. The parameter can take the following values:

- 00 – Normal Presentment
- 01 – Customer not Present
- 02 – Unattended Terminal Able to Retain Card
- 03 – Merchant Suspicious

- 05 – Customer Present, Card not Present
- 08 – Mail or Telephone Order
- 10 – Customer Identity Verified
- 51 – Verification Only
- 52 – Recurring Payment
- 53 – Installment Payment
- 59 – VSEC Request, Public Network, Unknown Encryption
- 61 – Recurring Payment – Secure VSEC
- 62 – Recurring Payment- Non-Secure VSEC
- 65 – Installment Payment – Secure VSEC
- 66 – Installment Payment – Non-Secure VSEC
- 71 – Referral
- 72 – Hardware Cryptographic Customer Authentication
- 73 – Software Cryptographic Customer Authentication
- 81 – 3D Secure Supported Only by Acquirer
- 82 – 3D Secure
- 83 – Non-Authenticated SET without Cardholder Certificate, Chip Cryptogram Used
- 84 – Secure SET with Cardholder Certificate, Chip Cryptogram Used
- 85 – Secure SET with Cardholder Certificate
- 86 – Non-Authenticated SET without Cardholder Certificate
- 87 – Channel Encrypted VSEC
- 88 – Non-Secure VSEC
- 89 – Channel Encrypted VSEC, Chip Cryptogram Used
- 91 – EMV Chip

If the parameter value is unknown, it is considered to be "00".

The request length is fixed and limited to 2 bytes (optionally).

The response length is fixed and limited to 2 bytes (optionally). The value transmitted in the request is duplicated in the response.

When a 3D Secure transaction is executed, the **CAVV** and **eci** parameters can be written to the **TWEC PG** DB under the **POS\_CAVV** and **POS\_eci** names, respectively. If the **CAVV** and **eci** parameters are not specified in the request when the **Purchase** transaction is performed, the values saved earlier will be used. If the **eci** parameter value is 82, the **CAVV** parameter will be filled with the **POS\_CAVV** value.

**TWEC PG** receives the response from POS terminal driver.

```
<?xml version="1.0" encoding="UTF-8"?>
<out>
  <l name="ResponseCode" value="000"/>
  <f name="F" value="322829 A"/>
  <f name="J" value="999986559415"/>
  <f name="R" value="D"/>
  <f name="a" value="&C810#&R01#"/>
  <f name="h" value="0010010730"/>
  <f name="t" value="295629"/>
</out>
```

**TWEC PG** sends to the merchant a response that includes the response received from the POS terminal driver and an XMLOut message. **TWEC PG** response format depends on whether the **ResponseFormat** field is present in the request:

- If the **ResponseFormat** parameter is not present:

```
<?xml version="1.0" encoding="UTF-8"?>
<out>
  <l name="ResponseCode" value="000"/>
  <f name="F" value="322829 A"/>
  <f name="J" value="999986559415"/>
  <f name="R" value="D"/>
  <f name="a" value="&C810#&R01#"/>
  <f name="h" value="0010010730"/>
  <f name="t" value="295629"/>
  <XMLOut>
    <Message date="29/04/2014 13:26:23">
      <Version>1.0</Version>
      <OrderID>143</OrderID>
      <TransactionType>Purchase</TransactionType>
      <PAN>4555XXXXXX1903</PAN>
      <PurchaseAmount>233</PurchaseAmount>
      <PurchaseAmountScr>2.33</PurchaseAmountScr>
      <Currency>643</Currency>
      <TranDateTime>29/04/2014 13:26:23</TranDateTime>
      <ResponseCode>001</ResponseCode>
      <ResponseDescription>Transaction is successful</ResponseDescription>
      <Brand>MC</Brand>
      <OrderStatus>APPROVED</OrderStatus>
      <ApprovalCode>473499 A</ApprovalCode>
      <AcqFee>100</AcqFee>
      <AcqFeeScr>1,00</AcqFeeScr>
      <MerchantTranID>31343835332233375433373593630303030303030</MerchantTranID>
      <OrderDescription>xxxxxxx</OrderDescription>
      <ApprovalCodeScr>473499</ApprovalCodeScr>
      <CurrencyScr>Russian Rouble</CurrencyScr>
      <OrderStatusScr>APPROVED</OrderStatusScr>
      <RezultOperation></RezultOperation>
    </Message>
  </XMLOut>
</out>
```

- If the **ResponseFormat** parameter value is *TKKPG*:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Response>
    <Operation>Purchase</Operation>
    <Status>00</Status>
  </Response>
  <XMLOut>
    <Message date="29/04/2014 13:26:23">
      <Version>1.0</Version>
      <OrderID>143</OrderID>
      <TransactionType>Purchase</TransactionType>
      <PAN>4555XXXXXX1903</PAN>
      <PurchaseAmount>233</PurchaseAmount>
      <PurchaseAmountScr>2.33</PurchaseAmountScr>
      <Currency>643</Currency>
      <TranDateTime>29/04/2014 13:26:23</TranDateTime>
      <ResponseCode>001</ResponseCode>
      <ResponseDescription>Transaction is successful</ResponseDescription>
      <Brand>MC</Brand>
      <OrderStatus>APPROVED</OrderStatus>
      <ApprovalCode>473499 A</ApprovalCode>
      <AcqFee>100</AcqFee>
      <AcqFeeScr>1,00</AcqFeeScr>
    </Message>
  </XMLOut>
</TKKPG>
```

```

<MerchantTranID>313438353322333754333735936303030303030
<OrderDescription>xxxxxxx</OrderDescription>
<ApprovalCodeScr>473499</ApprovalCodeScr>
<CurrencyScr>Russian Rouble</CurrencyScr>
<OrderStatusScr>Approved</OrderStatusScr>
<RezultOperation></RezultOperation>
</Message>
</XMLOut>
<POSResponse>
  <out>
    <l name="ResponseCode" value="000"/>
    <f name="F" value="322829 A"/>
    <f name="J" value="999986559415"/>
    <f name="R" value="D"/>
    <f name="a" value="C810#&R01#"/>
    <f name="h" value="0010010730"/>
    <f name="t" value="295629"/>
  </out>
</POSResponse>
</Response>
</TKKPG>

```

#### 4.1.10 Signed Receipt Format

The signed receipt generation mode is enabled/disabled for a particular merchant by the system administrator.

Receipt format:

Field	Format	Description
Format version	N4	0001
Payment gateway order ID	N16	
Transaction date and time	DDMMYYYYHH 24MISS	
Operation code	N2	00 – payment 20 – refund
Authorization amount	N12	In the minimum units of the transaction currency
Authorization currency	N3	Authorization currency code
Issuer authorization code	ANS6	
Order description	ANS64	Text description of the order (if the length of the order description exceeds 64 chars, it is truncated)

A receipt is signed by "Crypto-Pro CSP" ISEM (Information Security Encryption Means) (PKCS7/CMS), saved to RKCS7 certificate container, converted into BASE64 format and inserted in the XML element of **Operation.Order.AdditionalInfo.Receipt**. The receipt is generated only for the authorization and refund operations.

#### 4.1.11 Capture

The request is posted to **TWEC PG**:

- From the Internet shop server (without using the customer browser) by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/Exec`
- From the Internet shop server or from the customer browser by means of **HTTPS** (POST method) via the following link: `https://<host>:<port>/ExecPasswordAuth`.

The operation is used to confirm payment of:

- Individual order of the *Purchase* type placed with a merchant and assigned the **AUTH-APPROVED** status
- All orders of the *Purchase* type placed with a merchant and assigned the **AUTH-APPROVED** status

Order payment is performed in two steps:

1. Authorization transaction is executed. It puts a hold on the customer account to the operation amount; the parameters of the original transaction are saved to the reservation table: InvoiceNumber, SequenceNumber, ApprovalCode. If the authorization transaction is executed successfully, the order status is set to **AUTH-APPROVED**.
2. Authorization is completed using the **Capture** administrative operation.

When the **Capture** operation is executed, the order status is checked. If the order status is not **AUTH-APPROVED**, the **Capture** transaction is not executed and the error 30 is returned (invalid message format). If the **Capture** operation is successful, the **CAPTURED** status is set. This is how the [order status](#) is changed.

XML request format:

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>Capture</Operation>
    <Order>
      <Merchant></Merchant>
      <OrderID></OrderID>
    </Order>
    <SessionID></SessionID>
    <Amount></Amount>
    <CaptureAll></CaptureAll>
  </Request>
</TKKPG>
```

**Example:**

```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Request>
    <Operation>Capture</Operation>
    <Order>
      <Merchant>PosMega1</Merchant>
      <OrderID>831415</OrderID>
    </Order>
    <SessionID>06D42118DA76CF762E8C7BB54DF6D9EE</SessionID>
    <Amount>534</Amount>
    <CaptureAll>true</CaptureAll>
  </Request>
</TKKPG>
```

Request parameters definition:

Parameter	Mandatory	Description
SessionID	Conditionally	Session ID earlier assigned to the order with the respective <b>OrderID</b> . The parameter is mandatory if the <b>CaptureAll</b> parameter is not defined or set to <i>false</i> .
OrderID	Conditionally	ID of the order requiring payment confirmation. The parameter is mandatory if the <b>CaptureAll</b> parameter is not defined or set to <i>false</i> .
Merchant	Yes	Internet shop ID in <b>TWEC PG</b> . <b>Attention!</b> The parameter value must not contain [ or ] symbols.
Amount	No	Transaction amount (in the minimum units of the transaction currency). <b>Attention!</b> If the transaction amount is less than the order amount (total of all order payments/purchases in terms of the order), the payment will be partially reversed.
CaptureAll	No	Indicator of whether all orders placed with the merchant and assigned the <b>AUTH-APPROVED</b> status must be confirmed. Available values: <i>true</i> , <i>false</i> (by default).

**TWEC PG** response format:

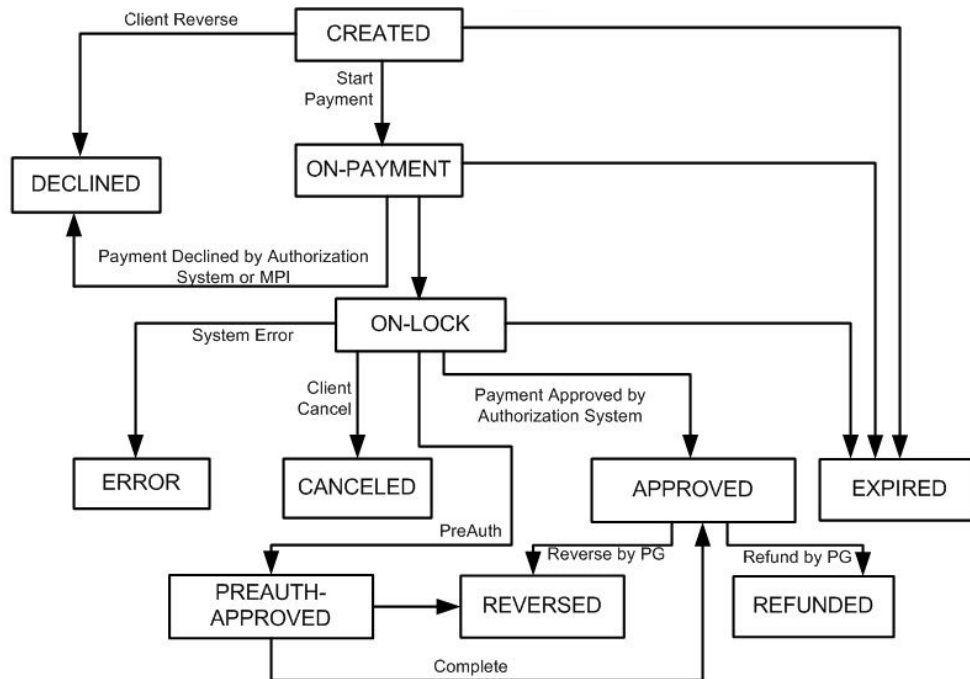
```
<?xml version="1.0" encoding="UTF-8"?>
<TKKPG>
  <Response>
    <Operation>Capture</Operation>
    <Status>00</Status>
  </Response>
</TKKPG>
```

## Response parameters definition:

Parameter	Mandatory	Description
Status	Yes	Request execution result: <ul style="list-style-type: none"> <li>00 – successfully</li> <li>10 – Internet shop has no access to the <b>Capture</b> operation (or the Internet shop is not registered)</li> <li>20 – no order waiting for payment confirmation by the merchant is found</li> <li>30 – invalid message format (no mandatory parameters etc.)</li> <li>54 – invalid operation</li> <li>72 – empty POS driver response</li> <li>96 – system error</li> <li>97 – POS driver connection error</li> </ul>



## 4.2 Order Status Graph



The order can have the following statuses:

- **CREATED** (assigned after the **OrderID** and **SessionID** parameters are generated and remains unchanged until the order is paid)
- **ON-LOCK** (assigned to avoid duplicate payment)

### Attention!

- **ON-LOCK** status is assigned to the order when the **PayOrder** procedure is initiated and remains unchanged until the authorization process is completed. After that, it is changed either to **APPROVED** or to **DECLINED**.
- **ON-LOCK** status is assigned to the order when the post-authorization operation is initiated and remains unchanged until the post-authorization is completed. After that, it is changed either to **APPROVED** or to the original order status (in case the operation is not successful).

- **ON-PAYMENT** (payment is in process)

**Attention!** The **ON-PAYMENT** status is assigned to the order after the card data is entered.

- **APPROVED**
- **CANCELED** (operation execution is interrupted by customer)
- **DECLINED** (e.g. the *Prefix not found* error occurred)
- **REVERSED**
- **ON-REFUND** (status is locked until the refund is completed to avoid duplicate refund)

**Attention!** The **ON-REFUND** status is assigned to the order when the [Refund](#) administrative operation is initiated and remains unchanged until it is completed. After that, it is changed either to **REFUNDED** or to the original order status (in case the operation is not successful).

- **REFUNDED**
- **PREAUTH-APPROVED** – preauthorization is completed (funds are put on-hold in the account to execute operation)
- **AUTH-APPROVED** – authorization is completed (funds are put on hold in the account to execute operation, and order payment confirmation is expected from the merchant)
- **P2PDEBIT-APPROVED** – debit part of the transfer is completed (**P2PDebit** transaction is completed)
- **CAPTURED** (order payment has been confirmed by the merchant)
- **EXPIRED** (order lifetime has expired)
- **ERROR** (error connecting to **TWEC PG** DB, POS driver or TPTP terminal)

## 5 Appendixes

### 5.1 Standard Procedures for Executing TWEC PG Operations

The section describes standard procedures for executing the following operations:

- [Purchasing](#)
- [Recurring Payment](#)
- [Automatic Recurring Payment](#)

#### 5.1.1 Purchasing

Purchase is performed as follows:

- Merchant initiates the [Create Order](#) operation in **TWEC PG**. The **TWEC PG** response contains values of the **OrderID**, **SessionID**, **URL** parameters.  
**Attention!** The [Create Order](#) operation can be initiated in **TWEC PG** from the Internet shop website using the integration plug-in.
- Merchant redirects the customer to the **TWEC PG** page whose address is specified in the **URL** parameter to make payment.
- Merchant requests the order status by executing the [Get Order Status](#) operation every 3-5 sec.
- If the 3D Secure authentication is enabled in the **TWEC PG** settings, **TWEC PG** executes the VEReq/PAReq requests and receives the VERes/PARes responses from ACS.
- Further steps depend on the 3D Secure authentication results:
  - If the authentication is unsuccessful (data entered by the customer is incorrect), the order is assigned the **DECLINED** status and **TWEC PG** redirects the customer to the page with **DeclineURL**.
  - If the authentication is successful or the 3D Secure authentication is disabled in the **TWEC PG** settings, **TWEC PG** sends the **Purchase** transaction to the authorization system.
- POS driver returns Response Code depending on which **TWEC PG** assigns **APPROVED/DECLINED** status to the order and redirects the customer to the page with the respective URL (**ApproveURL/DeclineURL**).
- **TWEC PG** sends the **XMLOut** message to the customer.
- Merchant receives the **APPROVED/DECLINED** status in the response to the **GetOrderStatus** operation, executes the [GetOrderInformation](#) operation and displays the order details on the website.

To continue working with the order, the following operations can be executed: [Refund](#), [Reverse](#), [GetOrderInformation](#), [GetOrderStatus](#).

### 5.1.2 Recurring Payment

**Attention!** The procedure for performing the first payment differs from that for performing every next one.

The first payment is performed as follows:

- Merchant initiates in **TWEC PG** the [Create Order](#) operation with the **OrderExpirationPeriod**, **recurringExpiry** and **recurringFrequency** additional parameters defined in the **<AddParams>** section (for the parameters description, refer to [Create Order](#)). The operation response contains values of the **OrderID**, **SessionID**, **URL** parameters.
- Merchant redirects the customer to the **TWEC PG** page whose address is specified in the **URL** parameter to make payment.
- Merchant requests the order status by executing the [Get Order Status](#) operation every 3-5 sec.
- If the 3D Secure authentication is enabled in the **TWEC PG** settings, **TWEC PG** executes the VEReq/PAReq requests and receives the VERes/PARes responses from ACS.
- Further steps depend on the 3D Secure authentication results:
  - If the authentication is unsuccessful (the data entered by the customer is incorrect), the order is assigned the **DECLINED** status and **TWEC PG** redirects the customer to the page with **DeclineURL**.
  - If the authentication is successful or the 3D Secure authentication is disabled in the **TWEC PG** settings, **TWEC PG** sends the **Purchase** transaction to the authorization system.
- POS driver returns Response Code depending on which **TWEC PG** assigns **APPROVED/DECLINED** status to the order and redirects the customer to the page with the respective URL (**ApproveURL/DeclineURL**).
- **TWEC PG** sends the *XMLOut.xml* message to the customer.
- Merchant receives the **APPROVED/DECLINED** status in the response to the **GetOrderStatus** operation, executes the [GetOrderInformation](#) operation and displays the order details on the website.

Every next payment is performed as follows:

- Merchant initiates the [Purchase](#) administrative operation in **TWEC PG** and specifies:
  - **OrderID**, **SessionID** of the previously executed payment
  - Card **PAN** and expiration date
  - Code of the **TWEC** identifier - **eci** parameter. The parameter value must be 52 (Recurring Payment).

The values of other parameters (**CAVV**, **IP** etc.) are defined based on the original payment transaction. **Attention!** The **PAN** parameter is optional.

- **TWEC PG** sends the **Purchase** transaction to the authorization system.
- POS driver returns Response Code depending on which **TWEC PG** assigns **APPROVED/DECLINED** status to the order.

To continue working with the order, the following operations can be executed: [Refund](#), [Reverse](#), [GetOrderInformation](#), [GetOrderStatus](#).

### 5.1.3 Automatic Recurring Payment

Automatic recurring payments are allowed only for the [Purchase](#) operation.

The first payment is performed as follows:

- Merchant initiates in **TWEC PG** the [Create Order](#) operation with the **OrderType** parameter set to *Purchase* and the **OrderExpirationPeriod**, **Purchase.Recur.frequency**, **Purchase.Recur.endRecur**, **Purchase.Recur.period** and **Purchase.Recur.removeOnDecline** additional parameters defined in the **<AddParams>** section (for the parameters description, refer to [Create Order](#)). The operation response contains values of the **OrderID**, **SessionID**, **URL** parameters. **Attention!** The **Purchase.Recur.removeOnDecline** additional parameter of the **<AddParams>** section is not mandatory.
- Merchant redirects the customer to the **TWEC PG** page whose address is present in the **URL** parameter to make payment.
- Merchant requests the order status by executing the [GetOrderStatus](#) operation every 3-5 sec.
- If the 3D Secure authentication is enabled in the **TWEC PG** settings, **TWEC PG** executes the VEReq/PAReq requests and receives the VERes/PARes responses from ACS.
- Further steps depend on the 3D Secure authentication results:
  - If the authentication is unsuccessful (the data entered by the customer is incorrect), the order is assigned the **DECLINED** status and **TWEC PG** redirects the customer to the page with **DeclineURL**.
  - If the authentication is successful or the 3D Secure authentication is disabled in the **TWEC PG** settings, **TWEC PG** sends the **Purchase** transaction to the authorization system.
- POS driver returns Response Code depending on which **TWEC PG** assigns the **APPROVED/DECLINED** status to the order and redirects the customer to the page with the respective URL (**ApproveURL/DeclineURL**).
- **TWEC PG** sends the **XMLOut** message to the customer.
- Merchant receives the **APPROVED/DECLINED** status in the response to the [GetOrderStatus](#) operation, executes the [GetOrderInformation](#) operation and displays the order details on the website.

Every next payment in terms of the order will be made automatically, upon expiration of the period specified in the **Purchase.Recur.period** additional parameter of the **<AddParams>** section when creating the order.