Epoint.az

Electronic payment platform

Solution for payment on site

Contents

The Epoint system provides the possibility to connect a payment reception to your site.
To add a payment button to your application you need to connect the payment service in your personal office on our site.

To configure the merchant in our system you will need to provide us with the following information:
- your website address;
- url page of successful payment - `success_url`;

- url page to display information about unsuccessful payment - `error_url`;
- url to send payment result - `result_url`.

After checking this information, will be given the access keys: `public_key` - the merchant ID in our system and `private_key` - the secret access key to the API.

Epoint Payment Principle

1. You must create an Epoint API request based on technical documentation.
2. As a result of the execution of the request the client will be redirected to the bank payment page
3. The customer fills in the card details and confirms the payment.
4. In case of successful payment, the customer will be redirected to `success_url` or `error_url` otherwise.
5. The payment result with payment details will be sent to `result_url.`

Forming a request to API

To call the Epoint API, you must transmit the `data` and `signature` parameters by the POST method to the https://epoint.az/api/1/request address or redirect the user by the POST method to the https://epoint.az/api/1/checkout address, where:

`data` - json string with APIs parameters encoded `base64`, `base64_encode( json_string )`,

`signature` - is the unique signature of each `base64_encode( sha1( ` **private_key** ` + data + ` **private_key,** ` 1) )`,

`base64_encode` - returns a string encoded in MIME base64 format,

`sha1` - returns a hash line with 20 characters.

Forming data and signature

`json_string` parameters call api:

Parameter	Required	Type	Description
public_key	Required	String	Public key is the identifier of the created merchant. For example: i000000001
amount	Required	Number	Payment amount. For example, 100, 20.50
currency	Required	String	Payment of currency. Possible values: AZN
language	Required	String	Page Display Language. Possible values: az, en, ru.
order_id	Required	String	Unique operation ID in your application. Maximum length 255 characters.

description	Optional	String	Payment description. Not more than 1000 characters.
success_redirect_url	Optional	String	Redirect link of a successful payment.
error redirect url	Optional	String	Redirect link of a unsuccessful payment
other_attr	Optional	Array	Additional payment parametres

`json_string` example:

json_string = {"public_key":"i000000001","amount":"30.75","currency":"AZN","description":"test payment","order_id":"1"}

Example of `data` obtained as result of encoding `json_string` by `base64_encode` function:

data = eyJwdWJsaWNfa2V5IjoiaTAwMDAwMDAwMSIsImFtb3VudCI6IjMwLjc1IiwiY3VycmVuY3kiOiJBWk4iLCJkZXNjcmlwdGlvbiI6InRlc3QgcGF5bWVudCIsIm9yZGVyX2lkIjoiMSJ9

Concatenation is required to form signature `private_key + data + private_key`. It'll look as following:

sgn_string = d3hjsl38sd8kdfhbcea0be04eafde9e8e2bad2fb092deyJwdWJsaWNfa2V5IjoiaTAwMDAwMDAwMSIsImFtb3VudCI6IjMwLjc1IiwiY3VycmVuY3kiOiJBWk4iLCJkZXNjcmlwdGlvbiI6InRlc3QgcGF5bWVudCIsIm9yZGVyX2lkIjoiMSJ9d3hjsl38sd8kdfhbcea0be04eafde9e8e2bad2fb092d

`base64_encode(sha1(sgn_string, 1))` should be used for obtained string. The result will be as following:

signature = a76GNudqblZtV8qF199hctA+cG0=

Sending request

To send a request to the Epoint page you need to create a form

```
<form method="POST" action="https://epoint.az/api/1/checkout" accept-charset="utf-8">
  <input type="hidden" name="data"
value="eyJwdWJsaWNfa2V5IjoiaTAwMDAwMDAwMSIsImFtb3VudCI6IjMwLjc1IiwiY3VycmVu
```

```
Y3kiOiJBWk4iLCJkZXNjcmlwdGlvbiI6InRlc3QgcGF5bWVudCIsIm9yZGVyX2lkIjoiMSJ9"/>
  <input type="hidden" name="signature" value="a76GNudqblZtV8qF199hctA+cG0="/>
  <input type="image" src="//epoint.az/images/wpb_ru.svg"/>
</form>
```

Or send obtained `data` and `signature` to url https://epoint .az/api/1/request:

```php
// PHP code sample
$postfields = http_build_query(array(
  'data' => $data,
  'signature' => $signature
));
$ch = curl_init();
curl_setopt($ch, CURLOPT_URL, $url);
// curl options
...
// curl options
curl_setopt($ch, CURLOPT_POSTFIELDS, $postfields);

$server_output = curl_exec($ch);
```

In this case, a json-string with the value `status (success|error)` and `redirect_url` will be returned to which the user must be redirected to enter card data.

After entering the card data, the status of the operation will be sent to `result_url`.

Processing Callback Functions

After processing the operation with Epoint service and receiving payment status from the bank, a POST request with two `data` and `signature` parameters will be sent to your server (`result_url`)

To authenticate the request from Epoint server you need:
   1. To form `signature` on your server side, using the response from Epoint `data` and your `private_key`.

```
signature = base64_encode(sha1(private_key + data + private_key))
```

   2. The obtained `signature` should be compared with the received `signature` from Epoint , if `signature` matches you have obrained the genuine response from the Epoint server, that can not be changed by others.
To decode the `data` value you must execute:

```
result = json_decode(base64_decode(data))
```

To obtain the transaction status use API payment status, that can be obtained anytime you want.

Payment result parameters

Parameter	Description
order_id	Unique operation ID in your application.
status	Result of success or failed operation
code	Bank response code
transaction	Epoint service transaction
bank_transaction	Bank payment transaction
card_name	The username specified on the payment page
card_mask	User card mask in 9*************9999 format
amount	Payment amount
operation_code	001 – card registration 100 – user payment
rrn	Retrieval Reference Number – unique transaction id. Presents only for a successful transaction

Bank response codes:

Code	Description
0	Approved
100	Decline, general, no comments
101	Decline, expired card
102	Decline, suspected fraud
103	Decline, card acceptor contact acquirer (usually returns a transaction intermediary or the Card Publisher Bank, in non On-Us

	operations)
107, 108	Decline, refer to card issuer (usually returns the Card Publisher Bank, in non On-Us operations)
110	Decline, invalid amount
111	Decline, invalid card number
116	Decline, not sufficient funds
118	Decline, no card record
119	Decline, transaction not permitted to cardholder
120	Decline, transaction not permitted to terminal
122	Decline, security violation
125	Decline, card not effective
129	Decline, suspected counterfeit card
400	Accepted (for reversal)
500	Status message, reconciled, in balance
501	Status message, reconciled, out of balance
907	Decline, card issuer or switch inoperative
908	Decline, transaction destination cannot be found for routing
909	Decline, system malfunction
911	Decline, card issuer timed out
912	Decline, card issuer unavailable
914	Decline, reversal original not found

Verification of payment status

To call the Epoint's payment status check, you must pass `data` and `signature` parameters by the POST method to the address https://epoint.az/api/1/get-status where:
  `data` - json string with APIs parameters encoded `base64`, `base64_encode( json_string )`,

`signature` - is the unique signature of each request of `base64_encode(sha1(` **`private_key`** `+ data +` **`private_key,`** `1).`

`json_string` sample:

json_string = {"public_key":"i000000001","order_id":"1"}

Also you can use the Epoint transaction as the operation key

json_string = {"public_key":"i000000001","transaction":"tw0000000101"}

Example of `data` obtained by encoding `json_string` with `base64_encode`: function:

data = eyJwdWJsaWNfa2V5IjoiaTAwMDAwMDAwMSIsIm9yZGVyX2lkIjoxNX0=

To form a signature, you must concatenate `private_key + data + private_key.` In our case, this will look as following:

sgn_string =
d3hjsl38sd8kdfhbcea0be04eafde9e8e2bad2fb092deyJwdWJsaWNfa2V5IjoiaTAwMDAwMDAwMSIsIm9yZGVyX2lkIjoxNX0=d3hjsl38sd8kdfhbcea0be04eafde9e8e2bad2fb092d

You need to use `base64_encode(sha1(sgn_string, 1))` for the obtained string. The result will be as following:

signature = bH9cG854p/wHLf5j6pp6LBI+wBs=

```php
// PHP code sample
$postfields = http_build_query(array(
  'data' => $data,
  'signature' => $signature
));
$ch = curl_init();
curl_setopt($ch, CURLOPT_URL, $url);
// curl options
...
// curl options
curl_setopt($ch, CURLOPT_POSTFIELDS, $postfields);

$server_output = curl_exec($ch);
```

Answer options:
- `order_id` - Unique operation ID in your application;
- `transaction` – the transaction of the Epoint service ;
- `status` – payment status;
- `message` - error message.

Status of payment:
- `new` - payment is registered in Epoint system;
- `success` – successful payment;
- `returned` - payment is refunded;
- `error` - error occurred during payment;
- `server_error` - status check error.

Saving card to make payments without card entry

To call the Epoint API, you must transmit the `data` and `signature` parameters by the POST method to the address https://epoint.az/api/1/card-registration

`json_string` parameters to call api:

Parameter	Required	Type	Description
`public_key`	Required	String	Public key is the ID of the created merchant. For example: i0000001
`language`	Required	String	Page display language. Possible values: az, en, ru.
`refund`	Optional	Number	Card type: 0 - Debit card; 1 - Payment card.
`description`	Optional	String	Payment description. Not more than 1000 characters.
`success_redirect_url`	Optional	String	Redirect link in case of successful payment.
`error_redirect url`	Optional	String	Redirection reference in case of unsuccessful payment

As a result of executing the request, a json-string with the value `status (success|error)` and redirect_url will be returned to which the user must be redirected to enter card data and card_id is a unique card identifier that will need to be used to make payments.

As a result of executing request the customer will be redirected to the bank payment page. The customer fills in card details and confirms the payment.
In case of successful payment, the client will be redirected to **success_url** or **error_url** otherwise (`success_redirect_url` and `error_redirect_url`, if mentioned).
After processing the operation with Epoint service and receiving payment status from the bank, POST request with two `data` and `signature` parameters will be sent to your mentioned `result_url`

To authenticate a Epoint server request, you must create `signature` on your server side using the Epoint `data` response and your `private_key`.

```
signature = base64_encode(sha1(private_key + data + private_key))
```

The obtained `signature` should be compared with the received `signature` from Epoint , if `signature` matches you have obtained the genuine response from the Epoint server, that can not be changed by others.

To decode the `data` value you must execute:

```
result = json_decode(base64_decode(data))
```

Response parameters

Parameter	Description
status	Result of `success` or `failed` operation
code	000- is a successful operation, 500 - error
card_id	Unique card identifier that will be used to execute the payment
bank_transaction	Bank payment transaction
operation_code	001 – card registration 100 – user payment
rrn	Retrieval Reference Number – unique transaction id. Presents only for a successful transaction
card_mask	User card mask in 9*************9999 format

Executing payment with saved card

To make a payment with a saved card, you must send `data` and `signature` parameters by POST method to the address https://epoint.az/api/1/execute-pay.

`json_string` parameters to call API:

Parameter	Required	Type	Description
public_key	Required	String	Public key is the ID of the created merchant. For example: i0000001
language	Required	String	Page display language. Possible values: az, en, ru.
card_id	Required	String	Card ID obtained by saving the card.
order_id	Required	String	Unique operation ID in your application. Maximum length 255 characters.
amount	Required	Number	Payment amount. For example: 100, 20.50
currency	Required	String	Payment currency. Possible values: AZN
description	Optional	String	Payment description. Not more than 1000 characters.

After processing the transaction with Epoint and receiving the payment status from the bank, will be returned the response with the following parameters:

Parameter	Description
status	Result of `success` or `failed` operation
transaction	Transaction ID in Epoint system.
bank_transaction	Bank payment transaction
rrn	Retrieval Reference Number – unique transaction id. Presents only for a successful transaction
card_mask	User card mask in 9************9999 format
amount	Payment amount
message	Error message.

Saving a card for making payments without entering card data with the first payment.

By using this type of payment, along with the registration of the card, the specified amount will be paid. To call API you must send POST request to the https://epoint.az/api/1/card-registration-with-pay address with `data` and `signature` parameters.

`json_string` parameters to call API:

Parameter	Required	Type	Description
public_key	Required	String	Public key is the ID of the created merchant. For example: i0000001
language	Required	String	Page display language. Possible values: az, en, ru.
order_id	Required	String	Unique operation ID in your application. Maximum length 255 characters.
amount	Required	Number	Payment amount. For example: 100, 20.50
currency	Required	String	Payment currency. Possible values: AZN
description	Optional	String	Payment description. Not more than 1000 characters.
success_redirect_url	Optional	String	Redirect link in case of successful payment.
error_redirect_url	Optional	String	Redirect link in case of unsuccessful payment

As a result of executing the request, a json-string with the value `status (success|error)` and `redirect_url` will be returned to which the user must be redirected to enter card data and `card_id` is a unique card identifier that will need to be used to make payments.

The customer fills in card details and confirms the payment.

In case of successful payment, the client will be redirected to **success_url** or **error_url** otherwise (`success_redirect_url` and `error_redirect_url,` if mentioned).
After processing the operation with Epoint service and receiving payment status from the bank,

POST request with two `data` and `signature` parameters will be sent to your mentioned `result_url`

To authenticate a Epoint server request, you must create `signature` on your server side using the Epoint `data` response and your `private_key`.

```
signature = base64_encode(sha1(private_key + data + private_key,1))
```

The obtained `signature` should be compared with the received `signature` from Epoint , if `signature` matches you have obtained the genuine response from the Epoint server, that can not be changed by others.

To decode the `data` value you must execute:

```
result = json_decode(base64_decode(data))
```

Response parametres

Parameter	Description
status	Result of success or failed operation
code	000- is a successful operation, 500 - error
card_id	Unique card identifier that will be used to execute the payment
order_id	Unique identification of payment in your application
transaction	Transaction ID in the Epoint system
bank_transaction	Bank payment transaction
operation_code	200 - registration of the card with the execution of the first payment
rrn	Retrieval Reference Number – unique transaction id. Presents only for a successful transaction
card_mask	User card mask in format 9 *********** 9999
card_name	Cardholder's name
amount	Payment amount

Request for payment

To refund you must send POST request to the `https://epoint.az/api/1/refund-request` address with `data` and `signature` parameters.

`json_string` parameters to call API:

Parameter	Required	Type	Description
public_key	Required	String	Public key is the ID of the created merchant. For example: i0000001
language	Required	String	Page display language. Possible values: az, en, ru.
card_uid	Required	String	Card ID obtained by saving the card.
order_id	Required	String	Unique operation ID in your application. Maximum length 255 characters.
amount	Required	Number	Payment amount. For example: 100, 20.50
currency	Required	String	Payment curreny. Possible values: AZN
description	Optional	String	Payment description. Not more than 1000 characters.

After processing the transaction with Epoint and receiving the payment status from the bank, will be returned the response with the following parameters:

Parameter	Description
status	Result of operation `success` or `failed`
transaction	Transaction ID in Epoint system.

bank_transaction	Bank payment transaction
rrn	Retrieval Reference Number – unique transaction id. Presents only for a successful transaction
card_mask	User card mask in 9*************9999 format
amount	Payment amount
message	Error message.

Cancelling operation

To cancel the operation, send a POST request to the https://epoint.az/api/1/reverse address with `data` and `signature` parameters.

`json_string` parameters to call API:

Parameter	Required	Type	Description
public_key	Required	String	Public key is the ID of the created merchant. For example: i0000001
language	Required	String	Page display language. Possible values: az, en, ru.
transaction	Required	String	Transaction ID in Epoint system.
amount	Optional	Number	Payment amount. For example: 100, 20.50. You can specify a partial refund.
currency	Required	String	Payment currency. Possible values: AZN

After processing the transaction with Epoint and receiving the payment status from the bank, will be returned the response with the following parameters:

Parameter	Description
status	Result of `success` or `failed` operation

message	Error message.