**TerraPay Payment Gateway**

**Merchant Integration Kit Guidelines**

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# ****Document History****

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| 0.1 | 06-05-2022 | Girmiti Software | Initial draft |
| 0.2 | 09-05-2022 | Girmiti Software | Updated post feedback |
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| 1.0 | 30-11-2023 | Girmiti Software | For order and billing data added State field for the transactions request where billing country is US and Canada. |
| 1.1 | 13-12-2023 | Girmiti Software | Added :processCheckout and postCarddetails,processTokenPayment.   1. authSuccessCallbackUrl 2. authDeclineCallbackUrl 3. authTimeoutCallbackUrl |
| 1.2 | 27-03-2024 | Girmiti Software | Added Browser Information and DeviceChannel, email id , cardHolderName and phone number in the request. |

# ****Introduction****

TerraPay works with multiple customers and merchants to provide payment facilities across the globe.

TerraPay provides solution to support their customers, Merchants and Partners with easy interface to plugin to their existing Payment application to perform seamless payment transactions connecting to various connectors.

Further, to ensure the cardholder details are secured during the transaction and after, tokenization services are provided through TerraPay’ s Payment Gateway ecosystem.

## **Purpose**

TerraPay provides merchant seamless integration to Platform connecting to various connectors to perform Payment transactions.

Merchant Integration Kit provides technical integration point to TerraPay PG.

# ****Merchant Integration****

TerraPay PG provides an API called processCheckout which needs to be invoked by merchants who would like to integrate with TerraPay PG.

**Note:** If the Merchant wants to use TerraPay PG provided Card entry page, use the processCheckout API.

## processCheckout API spec

|  |  |
| --- | --- |
| **Transaction** | processCheckout |
| **URL** | https://<IP\_Address>:8045/txn-service/processCheckout |
| **Method** | **POST** |
| **Content Type** | application/json |

**Note:** A Sandbox URL will be provided for the Merchants to perform the testing and before going live.

### Request Parameters

| **Parameter Name** | **Data Type** | **(M/O/C)** | **Description** |
| --- | --- | --- | --- |
| merchantId | String | M | Alphanumeric string without special characters, 1-10 in length |
| remittanceId | String | C | Alphanumeric string received from remittance platform. 16 characters in length. For remittance transaction this has value has to be sent, for pure acquiring this value can be left empty. |
| address1 | String | M | Alphanumeric string without special characters. If any will be URL encoded. |
| city | String | M | 1-30 characters |
| state | String | C | For US and Canada, state has to be passed |
| country | String | M | ISO country code, 1-3 characters |
| email | String | M | Alphanumeric string without special characters, except allowed email characters, 1-100 in length. |
| firstName | String | M | Alphanumeric string without special characters, 1-22 in length |
| lastName | String | M | Alphanumeric string without special characters, 1-22 in length |
| phoneNumber | String | M | Number without country code, 1-13 in length. |
| postalCode | String | M | Alphanumeric string without special characters, 1-13 in length |
| currency | String | M | 3 letter ISO currency code |
| totalAmount | String | M | Amount in cents without decimals, 1-10 in length |
| embeded\_system | String | C | “yes” if merchant wants to embed the card details page in his webpage. Else do not send this. “no” if merchant does not want to embed the card details page in his webpage. |
| partnerImtTxnRefno | String | M | Alphanumeric string. This is the merchant transaction reference id which merchant needs to generate and pass. |
| partnerImtTxnAuthCode | String | M | Alphanumeric string (Can send the same value as remittanceId) |
| paymentType | String | M | Value should be “card” for card payment.  Value should be “token” when using saved token for payment. |
| authSuccessCallbackUrl | String | O | A valid URL has to be provided by the merchant, if merchant wishes to receive auth success response on a particular URL. If this field does not have a value, auth success response will be sent on the callback url provided when the merchant onboarding was done. |
| authDeclineCallbackUrl | String | O | A valid URL has to be provided by the merchant, if merchant wishes to receive auth failure response on a particular URL. If this field does not have a value, auth failure response will be sent on the callback url provided when the merchant onboarding was done. |
| authTimeoutCallbackUrl | String | O | A valid URL has to be provided by the merchant, if merchant wishes to receive auth timeout response on a particular URL. If this field does not have a value, auth timeout response will be sent on the callback url provided when the merchant onboarding was done. |
| tokenNumber | String | C | token value should be sent if paymentType = “token”, else should be empty. |
| deviceChannel | String | C | As transaction provide web-view. Set Value of Device Channel as “Browser”. |
| **browserInfo** | **JSON**  **Object** |  |  |
| browserLanguage | String | O | Value represents the browser language as defined in IETF BCP47.  Example:en-US |
| acceptHeader | String | O | Value of the Accept header sent by the client’s web browser. |
| screenWidth | String | O | Total width of the cardholder's screen in pixels. Example: 1536. |
| javaEnabled | String | O | A Boolean value that represents the ability of the cardholder browser to execute Java.  Value is returned from the navigator.javaEnabled property. Possible Values:True/False |
| browserIpAddress | String | O | Browser IP Address |
| screenHeight | String | O | Total height of the Cardholder's scree in pixels, example: 864. |
| browserName | String | O | Value of the User-Agent header sent by the client’s web browser. |
| timeDifference | String | O | Time difference between UTC time and the cardholder browser local time, in minutes, Example:300 |
| colorDepth | String | O | Value represents the bit depth of the color palette for displaying images, in bits per pixel. |
| contentType | String | O | content type of the HTTP accept header. |
| jsEnabled | String | O | A Boolean value that represents the ability of the cardholder browser to execute JavaScript. Possible Values:True/False.  Note: Merchants should be able to know the values from fingerprint details of cardholder's browser. |
| browserEmail | String | O | Send the same value as email. Alphanumeric string without special characters, except allowed email characters, 1-100 in length |

### Request Header

| **Parameter Name** | **Data Type** | **(M/O/C)** | **Description** |
| --- | --- | --- | --- |
| authorization | String | O | SHA 256 hash value of the JSON request body; encrypted with a predefined key. Encryption algo to be used: AES/ECB/PKCS5Padding |

\* **M**- Mandatory; **O**- Optional; **C-** Conditional

**Note**:

The predefined key is shared to the merchant during merchant onboarding.

Merchants are required to post the above parameters to processCheckout API of TerraPay PG. The key issued will be an AES 256 key, the key issued will be base64 encoded string, which should be decoded first and then be used for encryption. Algorithm used to encrypt the card details should be AES/ECB/PKCS5Padding.

Sample request to be built by Merchant.

{"authorization":"qoi96Yv4FeAXUta6OOzCTICTvq7mE79edxwKGGTXFRfJ6H1\/s+X+dv350aljNx+XLMWCH3XkJZtjVxoy8HyqmWZaYamttq\/BP\/pcxovE8vk=","data":[{"lastName":"C","country":"US","city":"California","address1":"13150 Abana","postalCode":"90703","partnerImtTxnRefno":"PARTNWEIMT345","deviceChannel":"Browser","embeded\_system":"yes","payment\_link":"yes","paymentType":"card","authDeclineCallbackUrl":"http://testPG.in/decline","firstName":"Raghu","totalAmount":"1","authTimeOutCallbackUrl":"http://testPG.in/timeout","phoneNumber":"7829936352","remittanceId":"REMITTANCE34567","merchantId":"614967544947403","partnerImtTxnAuthCode":"1200","authSuccessCallbackUrl":"http://testPG.in/success","currency":"USD","state":"CA","email":"raghu.chakali@girmiti.com","browserInfo":{"browserEmail":"raghu.chakali@girmiti.com","browserLanguage":"en-US","screenWidth":1920,"acceptHeader":"text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,\*/\*;q=0.8,application/signed-exchange;v=b3;q=0.7","javaEnabled":false,"screenHeight":839,"browserIpAddress":"49.204.88.98","browserName":"Google Chrome","colorDepth":24,"timeDifference":-330,"jsEnabled":true,"contentType":"application/x-www-form-urlencoded"}}]}

Then this whole request should be Base64 Url encoded and sent to PG via a form submit.

Below is the sample Base64 url encoded data.

element=

### Recommended Approach

We would recommend merchant to post the billing and order data in encrypted format to an API in the merchant application. This API should in turn call the processCheckout API provided by TerraPay PG over https.

To invoke TerraPay PG API over https, TerraPay PG will provide SSL certificates for handshake.

There are 2 ways to get the card details page.

* Embedding the html content sent by PG.
* Redirecting to PG server.

#### Embedding

Merchant can embed the html content sent by processCheckout API onto his web page. This can be done by adding an iFrame element on his webpage and setting the html content received from PG to the iFrame.

Once the content is loaded in iFrame, user can enter the card details and submit the form, if challenge is required the OTP page is displayed to the user, once user enters OTP and submits the form, PG will check if authentication is successful, if authentication is successful, PG will initiate authorization, once PG gets the authorization response, PG will send back the response in the form of html to the merchant.

Response will be base64 encoded, merchant has to decode the data and fetch the details. Below is a sample response. The field transation\_response will have the base64 encoded transaction response, which should be decoded by merchant to get the authorization details.

{

"event\_id":"event.completed",

"message":"completed",

"transaction\_response":"",

"status":true

}

To receive the response sent by PG, merchant has to add the below listener to his page.

window.addEventListener("message", function(event) {

console.log('simple listener');

console.log(event.origin);

  if (event.origin === "url will be provided") {

    console.log(event.data);

  }

}, false);

#### Re-direction method

Another way of using card details page provided by TerraPay PG is to do a form submit to TerraPay PG provided endpoint, TerraPay PG server will display the card details page and subsequently will handle the complete process of displaying the challenge flow page to the customer. Once the TerraPay PG receives the result of authorization, the same will be posted to merchant callback url and remittance callback url. Once the merchant receives the result of authorization, merchant can then decide and display appropriate message to the customer.

Merchant is required to provide a callback URL to TerraPay PG during onboarding. This callback URL will be invoked by TerraPay PG to inform merchant about the result of authorization request.

**Note:** Merchant who is using his own card details page. He should be invoking the postCardDetails API instead of above processCheckout API.

For redirection to work merchant has to add the authorization data in the request body as shown in the sample request, and has to do the form submit.

## postCardDetails API

Below are the parameters that need to be sent by merchant when invoking API.

### Request Parameters

| **Parameter Name** | **Data Type** | **(M/O/C)** | **Description** |
| --- | --- | --- | --- |
| merchantId | String | M | Alphanumeric string without special characters, 1-10 in length |
| remittanceId | String | C | Alphanumeric string received from remittance platform. 16 characters in length. For remittance transaction this has value has to be sent, for pure acquiring this value can be left empty. |
| address1 | String | M | Alphanumeric string without special characters. If any will be URL encoded. |
| city | String | M | 1-30 characters |
| state | String | C | For US or Canada billing countries required state field to be passed for both CyberSource and Valitor Transactions. |
| country | String | M | ISO country code, 1-3 characters |
| email | String | M | Alphanumeric string without special characters, except allowed email characters, 1-100 in length |
| firstName | String | M | Alphanumeric string without special characters, 1-22 in length |
| lastName | String | M | Alphanumeric string without special characters, 1-22 in length |
| phoneNumber | String | M | Number without country code, 1-13 in length |
| postalCode | String | M | Alphanumeric string without special characters, 1-13 in length |
| currency | String | M | 3 letter ISO currency code |
| amount | String | M | Amount with 2 decimal places |
| partnerImtTxnRefno | String | M | Alphanumeric string. This is the merchant transaction reference id which merchant needs to generate and pass. |
| partnerImtTxnAuthCode | String | M | Alphanumeric string (Can send the same value as remittanceId) |
| CardNumber | String | M | Encrypted card number |
| CVV | String | M | Encrypted CVV |
| expiryMonth | String | M | Encrypted expiryMonth |
| expiryYear | String | M | Encrypted expiryYear |
| paymentType | String | M | Value should be “card” |
| saveCard | String | M | Value should be “true” if card has to be tokenized.  Value should be “false” if card does not have to be tokenized. |
| authSuccessCallbackUrl | String | C | When the request contains authSuccessCallbackUrl parameter and if the transaction got authorized we will send transaction response in decode format to the authSuccessCallbackUrl url.  If the request doesn’t contains authSuccessCallbackUrl we will send the transaction response to onboarded merchant callback url. |
| authDeclineCallbackUrl | String | C | When the request contains authDeclineCallbackUrl parameter and if the transaction got authorized we will send transaction response in decode format to the authDeclineCallbackUrl url.  If the request doesn’t contains authDeclineCallbackUrl we will send the transaction response to onboarded merchant callback url. |
| authTimeoutCallbackUrl | String | C | When the request contains authTimeoutCallbackUrl parameter and if the transaction got authorized we will send transaction response in decode format to the authTimeoutCallbackUrl url.  If the request doesn’t contains authTimeoutCallbackUrl we will send the transaction response to onboarded merchant callback url. |
| embeded\_system | String | C | “yes” if merchant wants to embed the card details page in his webpage. Else do not send this. “no” if merchant does not want to embed the card details page in his webpage. |
| deviceChannel | String | C | As Transaction provide web-view. Device Channel will Value should be “Browser”. |
| cardHolderName | String | M | While performing the transaction, it is required to pass the card holder name in encryted format. |
| **browserInfo** | **JSON**  **Object** |  |  |
| browserLanguage | String | O | Value represents the browser language as defined in IETF BCP47.  Example:en-US |
| acceptHeader | String | O | Value of the Accept header sent by the client’s web browser. |
| screenWidth | String | O | Total width of the cardholder's screen in pixels. Example: 1536. |
| javaEnabled | String | O | A Boolean value that represents the ability of the cardholder browser to execute Java.  Value is returned from the navigator.javaEnabled property. Possible Values:True/False |
| browserIpAddress | String | O | Browser IP Address |
| screenHeight | String | O | Total height of the Cardholder's scree in pixels, example: 864. |
| browserName | String | O | Value of the User-Agent header sent by the client’s web browser. |
| timeDifference | String | O | Time difference between UTC time and the cardholder browser local time, in minutes, Example:300 |
| colorDepth | String | O | Value represents the bit depth of the color palette for displaying images, in bits per pixel. |
| contentType | String | O | content type of the HTTP accept header. |
| jsEnabled | String | O | A Boolean value that represents the ability of the cardholder browser to execute JavaScript. Possible Values:True/False.  Note: Merchants should be able to know the values from fingerprint details of cardholder's browser. |
| browserEmail | String | O | Send the same value as email. Alphanumeric string without special characters, except allowed email characters, 1-100 in length |

### Request Header

| **Parameter Name** | **Data Type** | **(M/O/C)** | **Description** |
| --- | --- | --- | --- |
| authorization | String | M | SHA 256 hash value of the JSON request body; encrypted with a predefined key. |

Merchant has to use the API key shared with them after onboarding, to encrypt the card details. The key issued will be an AES 256 key, the key issued will be base64 encoded string, which should be decoded first and then be used for encryption. Algorithm used to encrypt the card details should be AES/ECB/PKCS5Padding.

Terrapay PG will validate the request parameters, decrypt the card number, cvv, expiry month and expiry year with the API key that was shared with the merchant.

If challenge flow is demanded by the Issuer, postCardDetails API will return the form content which needs to be displayed by the merchant by displaying the form content in an iframe.

Below is the sample iframe snippet for reference

<div id=*"iframeDiv"* style="display: *none*;" class=*"center"* class=*"wrapper"*>

<iframe id=*"iframeId"* name=*"iframeName"* height=*"400"* width=*"400"* frameBorder=*"0"*></iframe>

</div>

Below is the code that can be used to load the form content into iframe.

document.getElementById(*iframeId* ').src = "data:text/html;charset=utf-8,"+ escape(data);

Below is an example of form content that will be sent for the merchant to load into an iframe.

<html class="no-js" lang="en" xmlns="http://www.w3.org/1999/xhtml">

<head>

<META http-equiv="Content-Type" content="text/html; charset=utf-8">

<meta http-equiv="Content-Type" content="text/html; charset=utf-8">

<meta charset="utf-8">

<title>3D Secure Processing</title>

<link href="https://mpi.xyz.com/mdpaympi/static/mpi.css" rel="stylesheet" type="text/css">

</head>

<body>

<div id="main">

<div id="content">

<div id="order">

<h2>3D Secure Processing</h2>

<script src="https://mpi.xyz.com/mdpaympi/static/red.js" defer>/\* needed for xsl to xhtml \*/</script>

<div id="spinner">

<img src="https://mpi.xyz.com/mdpaympi/static/preloader.gif" alt="Please wait.."></div>

<img src="https://mpi. xyz.com/mdpaympi/static/mc\_idcheck\_hrz\_ltd\_pos\_103px.png" alt="MasterCard ID Check">

<div id="formdiv"><div>

<form id="webform0" name="ddcoll" method="POST" action="https://mpi.xyz.com/mdpaympi/MerchantServer" accept\_charset="UTF-8">

<input type="hidden" name="txid" value="213583741">

<input type="hidden" name="TDS2\_Navigator\_language" value="">

<input type="hidden" name="TDS2\_Navigator\_javaEnabled" value="">

<input type="hidden" name="TDS2\_Navigator\_jsEnabled" value="">

<input type="hidden" name="TDS2\_Screen\_colorDepth" value="">

<input type="hidden" name="TDS2\_Screen\_height" value="">

<input type="hidden" name="TDS2\_Screen\_width" value="">

<input type="hidden" name="TDS2\_Screen\_PixelDepth" value="">

<input type="hidden" name="TDS2\_TimezoneOffset" value="">

<input type="hidden" name="digest" value="BDTSh8vu5NYbpQcq2rs1cLJNiUrCtrFTMbIKkbO809Q=" readonly="true">

<input type="hidden" name="transientData" value="">

<input type="submit" name="submitBtn" id="submitBtn" value="Please click here to continue">

</form>

</div>

</div>

<noscript>

<div align="center"><b>Javascript is turned off or not supported!</b><br></div>

</noscript>

</div>

<div id="content-footer"></div>

</div>

</div>

</body>

</html>

## Callback Response to Merchant application

TerraPay PG will send the response of transaction processing back to merchant application to the preconfigured call back url in below format.

Please note this response is in the same format from both processCheckout and postCardDetails API

| **Response Parameter** | **Description** |
| --- | --- |
| status | Transaction status |
| paymentId | Network payment identifier |
| authorizedAmount | Amount authorized |
| totalAmount | Total amount |
| currency | 3 letter ISO currency code |
| txnRefNum | TerraPay PG internal reference number |
| merchantId | TerraPay PG merchant ID |
| remittanceId | Incoming remittance ID |
| partnerImtTxnRefno | Incoming transaction ref Id |
| partnerImtTxnAuthCode | Incoming transaction auth Id |
| tokenCard | Tokenized card |

Sample success response

{

"transactionId" : "100000020767",

"status" : "AUTHORIZED",

"authorizedAmount" : "100",

"totalAmount" : "100",

"currency" : "ISK",

"txnRefNum" : "227809789099",

"remittanceId" : "QR037CK3KVGSYR4CE",

"merchantId" : "650715952301812",

"tokenCard" : {

"tokenPAN" : "ce0f1459-bbf4-4c59-8fcb-9e72dc549162",

"maskedPAN" : "476134XXXXXX0399"

},

"partnerImtTxnAuthCode" : "QR037CK3KVGSYR4CE",

"partnerImtTxnRefno" : "ea1ff362-6e52-45f3-b235-9bf65f2730c3"

}

Tokenization

Introduction

So as to ensure that cardholder sensitive information, especially the PAN is secured during a payment transaction, the PAN is tokenized by TerraPay’ s Payment Gateway ecosystem. This token, which is unique and mapped to each individual card the first time the card is used to perform a payment at an online merchant location, is subsequently used for secure transaction processing from then on.

TerraPay’ s Payment Gateway provides the tokenization services for online merchants and the following section details how the tokenization and related services have to be invoked during the online payment transaction.

## processTokenPayment API spec

|  |  |
| --- | --- |
| **Transaction** | **Process Token Payment** |
| **URL** | https://<IP\_Address>:8045/txn-service/eComm/processTokenPayment |
| **Method** | **POST** |
| **Content Type** | application/json |

**Note:** A Sandbox URL will be provided for the Merchants to perform the testing and before going live.

processTokenPayment API is used to initiate a token-based transaction. The merchant needs to send the token number along with the details mentioned in the below tables.

### Request Parameters

| **Parameter Name** | **Data Type** | **(M/O/C)** | **Description** |
| --- | --- | --- | --- |
| merchantId | String | M | Alphanumeric string without special characters, 1-10 in length |
| remittanceId | String | C | Alphanumeric string received from remittance platform. 16 characters in length. For remittance transaction this has value has to be sent, for pure acquiring this value should be empty. |
| currency | String | M | 3 letter ISO currency code |
| amount | String | M | Amount with 2 decimal places |
| virtualCard | String | M | Tokenized card that is created when the customer opts for tokenizing his card |
| tokenType | String | M | Parameter for signifying if it is a recurring, installment or single transaction.  Takes values of R (Recurring), I (Installment), C (Customer initiated), M (Merchant initiated) transaction. |
| partnerImtTxnRefno | String | M | Alphanumeric string. This is the merchant transaction reference id which merchant needs to generate and pass. |
| partnerImtTxnAuthCode | String | M | Alphanumeric string (Can send the same value as remittanceId) |
| state | String | C | For US or Canada state has to be provided. |
| authSuccessCallbackUrl | String | C | When the request contains authSuccessCallbackUrl parameter and if the transaction got authorized we will send transaction response in Base64 encoded format to the authSuccessCallbackUrl url.  If the request doesn’t contains authSuccessCallbackUrl we will send the transaction response to onboarded merchant callback url. |
| authDeclineCallbackUrl | String | C | When the request contains authDeclineCallbackUrl parameter and if the transaction got authorized we will send transaction response in Base64 encoded format to the authDeclineCallbackUrl url.  If the request doesn’t contains authDeclineCallbackUrl we will send the transaction response to onboarded merchant callback url. |
| authTimeoutCallbackUrl | String | C | When the request contains authTimeoutCallbackUrl parameter and if the transaction got authorized we will send transaction response in Base64 encoded format to the authTimeoutCallbackUrl url.  If the request doesn’t contains authTimeoutCallbackUrl we will send the transaction response to onboarded merchant callback url. |
| firstName | String | M | Alphanumeric string without special characters, 1-22 in length |
| lastName | String | M | Alphanumeric string without special characters, 1-22 in length |
| address1 | String | M | Alphanumeric string without special characters. If any will be URL encoded. |
| city | String | M | 1-30 characters |
| country | String | M | ISO country code, 1-3 characters |
| postalCode | String | M | Alphanumeric string without special characters, 1-13 in length |
| email | String | M | Alphanumeric string without special characters, except allowed email characters, 1-100 in length |
| phoneNumber | String | M | Number without country code, 1-13 in length |
| embeded\_system | String | C | “yes” if merchant wants to embed the card details page in his webpage. Else do not send this. “no” if merchant does not want to embed the card details page in his webpage. |
| deviceChannel | String | O | As Transaction provide web-view. Device Channel value should be “Browser”. |
| **browserInfo** | **JSON**  **Object** |  |  |
| browserLanguage | String | O | Value represents the browser language as defined in IETF BCP47.  Example:en-US |
| acceptHeader | String | O | Value of the Accept header sent by the client’s web browser. |
| screenWidth | String | O | Total width of the cardholder's screen in pixels. Example: 1536. |
| javaEnabled | String | O | A Boolean value that represents the ability of the cardholder browser to execute Java.  Value is returned from the navigator.javaEnabled property. Possible Values:True/False |
| browserIpAddress | String | O | Browser IP Address |
| screenHeight | String | O | Total height of the Cardholder's scree in pixels, example: 864. |
| browserName | String | O | Value of the User-Agent header sent by the client’s web browser. |
| timeDifference | String | O | Time difference between UTC time and the cardholder browser local time, in minutes, Example:300 |
| colorDepth | String | O | Value represents the bit depth of the color palette for displaying images, in bits per pixel. |
| contentType | String | O | content type of the HTTP accept header. |
| jsEnabled | String | O | A Boolean value that represents the ability of the cardholder browser to execute JavaScript. Possible Values:True/False.  Note: Merchants should be able to know the values from fingerprint details of cardholder's browser. |
| browserEmail | String | O | Send the same value as email. Alphanumeric string without special characters, except allowed email characters, 1-100 in length |

### Header Parameter

| **Parameter Name** | **Data Type** | **(M/O/C)** | **Description** |
| --- | --- | --- | --- |
| Authorization | String | M | SHA 256 hash value of the JSON request body; encrypted with a predefined key. |

**Note**: The predefined key is shared to the merchant during merchant onboarding.

### Response Parameters

| **Response Parameter** | **Description** |
| --- | --- |
| status | Transaction status |
| authorizedAmount | Amount authorized |
| totalAmount | Total amount |
| currency | 3 letter ISO currency code |
| transactionId | TerraPay PG internal reference number |
| merchantId | TerraPay PG merchant ID |
| remittanceId | Incoming remittance ID |
| partnerImtTxnRefno | Incoming transaction ref Id |
| partnerImtTxnAuthCode | Incoming transaction auth Id |
| tokenCard | Token number sent by merchant |

Sample success response

{

"transactionId": "100000020765",

"status": "AUTHORIZED",

"authorizedAmount": "100",

"totalAmount": "100",

"currency": "ISK",

"txnRefNum": "227809869994",

"remittanceId": "QR037IZJJEMNZ3Q20",

"merchantId": "650715952301812",

"tokenCard": {

"tokenPAN": "ea789781-91a1-4b5f-937a-cb875d19c12d"

},

"partnerImtTxnAuthCode": "QR037IZJJEMNZ3Q20",

"partnerImtTxnRefno": "ea1ff362-6e52-45f3-b235-9bf65f2730c3"

}

## Error Codes

| **Error Code** | **Description** | **Comments** |
| --- | --- | --- |
| TP100 | Invalid merchant code | Should exist in the TerraPay PG system |
| TP101 | Invalid remittance Id | Should be a valid UUID, if present |
| TP102 | Invalid address |  |
| TP103 | Invalid city |  |
| TP104 | Invalid country | Should be a valid ISO country code |
| TP105 | Invalid email |  |
| TP106 | Invalid first name |  |
| TP107 | Invalid last name |  |
| TP108 | Invalid phone number |  |
| TP109 | Invalid postal code |  |
| TP110 | Invalid currency | Should be a valid ISO currency code |
| TP111 | Invalid amount | Should be positive without currency separators |
| TP500 | Generic system error | Any TerraPay PG server error will be trapped and responded. |
| TP510 | Network system error | Any Network error will be processed and responded. |
| TP520 | Network timeout error |  |
| M5-A | Wrong Currency Code. |  |
| 05-I | Do not honor. |  |
| 14-I | Invalid card number. |  |
| AF-A | Invalid CardVD. |  |
| 400 | 400 Bad Request |  |
| TXN\_R8 | BIN not configured : This card cannot be used for this transaction |  |
| TP105 | Card Authentication error |  |
| TimeOut | Authentication timed out |  |
| TP\_119 | RemittanceId unexpected for non-remittance transactions. |  |

## Status Check API

Status check API can be used by merchant to get the current status of a transaction. Merchant can pass either transactionId or remittanceId or partnerImtTxnRefNo with merchantId to statusCheck API to fetch the details of a transaction.

Merchant has to use the API key shared with them after onboarding, to encrypt the card details. The key issued will be an AES 256 key. Algorithm used to encrypt the card details should be AES/ECB/PKCS5Padding.

|  |  |
| --- | --- |
| **Transaction** | **Status Check** |
| **URL** | https://<IP\_Address>:8045/txn-service/eComm/statusCheck |
| **Method** | **POST** |
| **Content Type** | application/json |

### Request Parameters

| **Parameter Name** | **Data Type** | **(M/O/C)** | **Description** |
| --- | --- | --- | --- |
| merchantId | String | M | Alphanumeric string without special characters, 1-10 in length. |
| remittanceId | String | C | Alphanumeric string received from remittance platform. 16 characters in length. This value will be available only for remittance transactions. |
| partnerImtTxnRefno | String | C | This is the merchant transaction reference id |
| transactionId | String | C | Transaction Id sent by payment gateway in the response to merchant |

### Request Header

| **Parameter Name** | **Data Type** | **(M/O/C)** | **Description** |
| --- | --- | --- | --- |
| authorization | String | M | SHA 256 hash value of the JSON request body; encrypted with a predefined key. Encryption algo to be used: AES/ECB/PKCS5Padding |

Sample Request

{

"merchantId”: 614415553564066,

"remittanceId”: "TP345655464646",

"transactionId": "100000696288",

"partnerImtTxnRefno": "354364574576"

}

Sample Response

{

"transactionId": "100000696288",

"status": "AUTHORIZED",

"authorizedAmount": "56.23",

"currency": "ISK",

"terraPayIMTTxnRef": "TP345653453454646",

"authProcessedTime": "16-01-2023 21:31:00",

"authReceivedTime": "16-01-2023 21:31:00",

"partnerImtTxnRefno": "354364574576"

}

### Transaction Status in TerraPay PG

1. In-Progress: Transaction has IN-PROGRESS status when PG has received the request and PG is yet to initiate Authentication process.
2. In-Verification: If transaction status is “In-Verification”, then it denotes that the authentication response has not been received by payment gateway or authentication is in progress.
3. In-Authorization: If transaction status is “In-Authorization”, then it denotes that the authentication is successful and payment gateway has initiated authorization and it is in progress.
4. Authorized: If transaction status is “Authorized”, then it denotes that the authorization request was successful.
5. Declined: If transaction status is “Declined”, then it denotes that the authorization request was not successful.