IPG Gateway

TOKENIZE v 3.0 May 1, 2019

Table of Contents

Document Purpose

The purpose of this document is to describe the TOKENIZE API Operation to enable merchant developers to integrate their webpages with the IPG Gateway. Refer to the *IPG Gateway – 0 – Overview* document for how this API Operation is used in the merchant processes.

The TOKENIZE API Operation provides a hexadecimal string to the merchant, that represents the customer's payment card in the IPG Gateway. The card details are stored in a PCI Level 1 compliant environment, in which the card details are encrypted. The Card Token is used in all operations, except the TOKENIZE API Operation.

The Card Token is the only card identifier accepted as an input when a payment operation takes place.

1　Session Token API Operation

1.1 Session Token Request

1.1.1　Format

POST Request to Session Token Request URL (see Section 3 of the *IPG Gateway – 0 – Overview* document)

1.1.2　Definition

Parameter	Data Type	Mandatory	Description
merchantId	Integer (18)	Y	The identifier for the merchant in the IPG Gateway provided at on-boarding
password	String (64)	Y	The merchant's password to the IPG Gateway provided at on-boarding
Action	String (enum)	Y	Must be "TOKENIZE"
timestamp	Integer (13)	Y	Milliseconds since 1970-01-01 00:00:00
allowOriginUrl	String (253)	Y	The merchant's URL that will make the Tokenize Request (section 2.1) Cross-Origin Resource Sharing (CORS) headers will allow only this origin.
customerId	String (20)	N	Customer identifier in merchant system. If the parameter is omitted or no value is provided, the IPG Gateway will generate a value, which will be returned in the Session Token Response - Processed (see section 1.2). The received or generated value is stored against the card token.
cardDescription	String (50)	N	Free form text field for the merchant's use that is used for reconciliation e.g. merchant's internal card's sequence id

1.1.3　Example

merchantId=111111&password=klw74U6yt40mNo&action=TOKENIZE&timestamp=1459767453376&allowOriginUrl
=www.merchantsite.com&customerId=CUST1234&cardDescription=Customer ID 123456

1.2 Session Token Response - Processed

1.2.1　Format

JSON

1.2.2　Definition

Parameter	Data Type	Description
Result	String (40)	Will always be "success"
merchantId	Integer (18)	The *merchantId* value received in the Session Token Request (see Section 1.1)
Token	String (40)	The Session Token that is a one-time use, hexadecimal string The Session Token that must only be used for the Tokenize Request (section 2.1) Session tokens are valid for 3600 second (1 hour) after which they expire Any requests with expired session tokens will be rejected
resultId	String (40)	Hexadecimal string that is to be used in any support request calls
processingTime	Integer (6)	The time in seconds for the process to complete
additionalDetails	Array	Not used – will always be "{}" or not included

1.2.3 Example

```
{
    "result": "success",
    "resultId": "f52cc38a-7815-4f8c-8687-662cc63d56e9",
    "merchantId": "890490",
    "additionalDetails": {},
    "processingTime": 0,
    "token": "96b7d82e-349f-4880-9b8a-928636437c75"
}
```

1.3 Session Token Response – Not Processed

1.3.1 Format

JSON

1.3.2 Definition

Parameter	Data Type	Description
result	String (40)	Will always be "failure"
errors	String Array	List of issues
resultId	String (40)	Hexadecimal string that is to be used in any support request calls
processingTime	Integer (6)	The time in seconds for the process to complete
additionalDetails	Array	Not used – will always be "{}" or not included

1.3.3 Example

```
{
    "result": "failure",
    "resultId": "bb248d1d-d657-4dbe-9f04-a279b384872c",
    "additionalDetails": {},
    "errors": [
        {
            "messageCode": "This field is required in [REQUEST]",
            "fieldName": "password"
        }
    ],
    "processingTime": 2
}
```

2   TOKENIZE API operation

2.1 Tokenize Request

2.1.1   Format

POST Request to Action Request URL (see Section 3 of the *IPG Gateway – 0 – Overview* document)

2.1.2   Definition

Parameter	Data Type	Mandatory	Description
merchantId	Integer (18)	Y	The identifier for the merchant in the IPG Gateway provided at on-boarding This must be the same as that sent in the Session Token Request (section 1.1)
token	String (40)	Y	Session Token received in the Session Token Response - Processed (section 1.2)
Number	String (100)	Y	The payment card number, primary account number (PAN), or simply a card number for the payment card being tokenised The card number must be a single string of numbers, with no spaces, dashes or other characters
nameOnCard	String (150)	Y	Cardholder name as written on the payment card
expiryMonth	String (2)	Y	Card expiration month as a number, e.g. "04"
expiryYear	String (4)	Y	Card expiration year as a number, e.g. "2020"
cardDescription	String (50)	N	Free form text field for the merchant's use that is used for reconciliation e.g. merchant's internal card's sequence id
startMonth	String (2)	C	Card issued month as a number, e.g. "04" **Condition**: Only used for some card types Required for: Maestro; Optional for all other cards
startYear	String (4)	C	Card issued year as a number, e.g. "2014" **Condition**: Only used for some card types Required for: Maestro; Optional for all other cards
issueNumber	String (2)	C	Card issue number **Condition**: Only used for some card types Required for: Maestro; Optional for all other cards

2.1.3   Example

merchantId=111111&token=abcde12345abcde12345&number=4111111111111111&nameOnCard=NAME+OF+CARD+OWNER&expiryMonth=04&expiryYear=2020&cardDescription=Customer ID 123456

2.2 Tokenize Response – Processed

2.2.1 Format

JSON

2.2.2 Definition

Parameter	Data Type	Description
result	String (40)	Will always be "success"
merchantId	Integer (18)	The *merchantId* value received in the Session Token Request (section 1.1)
cardToken	String (100)	The Payment Card Token – hexadecimal string
customerId	String (20)	The *customerId* value from Session Token Request (section 1.1)
cardType	Integer (enum)	A code defining the payment card type, see Appendix A - Tokenize Response – Processed *cardType* values
cardIssuer	String (100)	The name of the card issuer, determined from the Issuer Identification Number (IIN)
country	String (enum)	The country in which the payment card was issued, determined from the Issuer Identification Number (IIN) The value is the alpha-2 code from the ISO 3166 standard
resultId	String (40)	Hexadecimal string that is to be used in any support request calls
processingTime	Integer (6)	The time in seconds for the process to complete
additionalDetails	Array	Not used – will always be "{}" or not included

2.2.3 Example

```
{
        "result": "success",
        "country": "GB",
        "resultId": "e086f9ad-6a78-4c56-b4e7-059764246811",
        "merchantId": "890490",
        "cardType": "400",
        "customerId": "testTokenize",
        "additionalDetails": {},
        "cardToken": "5512732598811111",
        "processingTime": 1000,
        "cardIssuer": null
}
```

2.3 Tokenize Response – Not Processed

2.3.1 Format

JSON

2.3.2 Definition

Parameter	Data Type	Description
result	String (40)	Will always be "failure"
errors	String Array	List of errors
resultId	String (40)	Hexadecimal string that is to be used in any support request calls
processingTime	Integer (6)	The time in seconds for the process to complete
additionalDetails	Array	Not used – will always be "{}" or not included

2.3.3 Example

```
{
	"result": "failure",
	"resultId": "4e879e03-9ff1-481e-9611-b5155328a53f",
	"additionalDetails": {},
	"errors": [
	    {
		    "messageCode": "This field is required in [REQUEST]",
		    "fieldName": "number"
	    }
	],
	"processingTime": 8
}
```

Appendix A   Tokenize Response – Processed *cardType* values

Value	Card Type Description
100	Maestro
200	MasterCard Credit
300	MasterCard Debit
400	Visa Credit
500	Visa Debit
600	Visa Electron
700	American Express
6100	EntroPay
900	Diners
8100	JCB
4100	Solo
4200	Laser
1000	NCP B2B
1100	NCP SEASON