Citrus Payment Solutions Pvt. Ltd.

Merchant Integration Kit

PHP Driver (v 1.0)

**Proprietary Notice**

*This document contains proprietary and confidential information of CITRUS PAYMENT*

*SOLUTIONS PRIVATE LIMITED and is to be used only by for the purpose of review. No part*

*of this document may be reproduced, transmitted, stored in a retrieval system, nor translated*

*into any human or computer language, in any form or by any means, electronic, mechanical,*

*optical, chemical, manual, or otherwise, without the prior written permission of the owners.*

*The respective owners own all trademarks.*

Table of Contents

[Citrus Payment Solutions Pvt. Ltd. 1](#_Toc339020794)

[Merchant Integration Kit 1](#_Toc339020795)

[PHP Driver (v 1.0) 1](#_Toc339020796)

[Prerequisites 5](#_Toc339020797)

[Payment Gateway Flow 6](#_Toc339020798)

[Integrated Application Structure 7](#_Toc339020799)

[Installation Guide 8](#_Toc339020800)

[Install Common Library 9](#_Toc339020801)

[Test Environment Setup 11](#_Toc339020802)

[Merchant Integration 12](#_Toc339020803)

[Authentication 12](#_Toc339020804)

[Request Signature 12](#_Toc339020805)

[Response Signature 13](#_Toc339020806)

[Errors 13](#_Toc339020807)

[API Details (Moto Integration) 19](#_Toc339020825)

[Transactions 20](#_Toc339020826)

[Transaction Enquiry 23](#_Toc339020827)

[Transaction Search 24](#_Toc339020828)

[Refund 25](#_Toc339020829)

[SSL Integration 26](#_Toc339020830)

[Appendix A 31](#_Toc339020831)

[Bank (Issuer) Details 31](#_Toc339020832)

[Credit/Debit Card Details 33](#_Toc339020833)

**Revision History**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Rationale for Change** | **Comments** |
| 1.0 | May 2, 2012 | Vaibhav Ranglani | Initial Draft |  |
| 2.0 | October 26, 2012 | Vaibhav Ranglani | Revision 1.0 |  |

# Prerequisites

The merchant server, where the Citrus Payment Merchant Kit will be installed, should have the following softwares already installed:-

1. PHP 5.2 or above
2. Apache 2.2 or above Application Server

# Payment Gateway Flow

**Merchant Site**

**Citrus Payment Gateway Library**

**Merchant Web Server**

 HTTPS & HMAC Encryption

Citrus Payment Gateway

Internet

Bank 1/2

Bank 1

Bank 2



End Users (Consumers)

# Integrated Application Structure

Web Site

Merchant Site Pages and Folders

www

lib

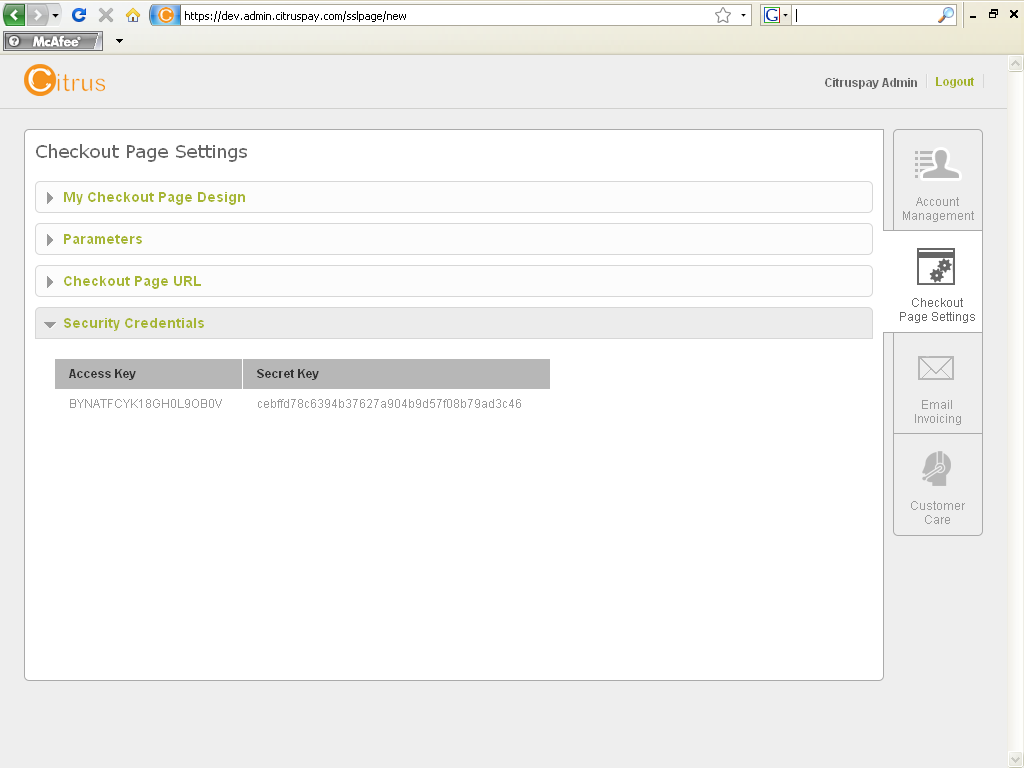
Citruspay/  
Zend/  
CitrusPay.php  
Loader.php

Lo

# Installation Guide

Perform the steps below to integrate with Citrus Payment Gateway:-

1. Login to **Citrus Payment account** using user id and password and navigate to Checkout **Page Settings** page as shown below :-



1. Open up the **Security Credentials** section. This section will display the system generated unique access key and **Secret key**. Keep the secret key secret as the merchants will have to use this key to encrypt the data while sending any request to Citrus Payment Gateway.
2. The PHP Driver bundle consists of two folders :-
   1. **lib** Directory: -

This directory contains all the files required to integrate with CitrusPay Payment Solutions.

* 1. **test** Directory:-

This directory contains sample html files which will illustrate how you can integrate with the CitrusPay Payment Solutions Pvt. Ltd.

## 

## Install Common Library

Follow the steps below to configure the common library in your application: -

1. Copy the zip file and extract the zip files to a temporary location.

Ex. Temporary location on the merchant directory is /home/merchant/Temp

1. The extracted zip file will contain the following Directories and files:-
   * 1. lib/

The lib/ directory contains the following directories and files

* + - 1. Citruspay/Util/CitrusPaySet.php
      2. Citruspay/CitrusPayApiConnectionError.php
      3. Citruspay/ CitrusPayApiError.php
      4. Citruspay/ CitrusPayApiRequestor.php
      5. Citruspay/ CitrusPayApiResource.php
      6. Citruspay/ CitrusPayAuthenticationError.php
      7. Citruspay/ CitrusPayError.php
      8. Citruspay/ CitrusPayInvalidRequestError.php
      9. Citruspay/ CitrusPayObject.php
      10. Citruspay/ CitrusPayRequestData.php
      11. Citruspay/ Enquiry.php
      12. Citruspay/ EnquiryCollection.php
      13. Citruspay/ Refund.php
      14. Citruspay/ Transaction.php
      15. Citruspay/ Transactionsearch.php
      16. Citruspay/ TransactionsearchCollection.php
      17. Citruspay/ Util.php
      18. Zend/Crypt/DiffieHellman/Exception.php
      19. Zend/Crypt/Hmac/Exception.php
      20. Zend/Crypt/Math/BigInteger/ Bcmath.php
      21. Zend/Crypt/Math/BigInteger/ Exception.php
      22. Zend/Crypt/Math/BigInteger/Gmp.php
      23. Zend/Crypt/Math/BigInteger/Interface.php
      24. Zend/Crypt/Math/BigInteger.php
      25. Zend/Crypt/Math/Exception.php
      26. Zend/Crypt/Rsa/Key/Private.php
      27. Zend/Crypt/Rsa/Key/Public.php
      28. Zend/Crypt/Rsa/Exception.php
      29. Zend/Crypt/Rsa/Key.php
      30. Zend/Crypt/DiffieHellman.php
      31. Zend/Crypt/Exception.php
      32. Zend/Crypt/Hmac.php
      33. Zend/Crypt/Math.php
      34. Zend/Crypt/Rsa.php
      35. Zend/Crypt.php
      36. Zend/Exception.php
      37. CitrusPay.php
      38. Loader.php
    1. test/
       1. testEnquiry.php
       2. testRefund.php ()
       3. testTransaction.php
       4. testTS.php
       5. testSSL.php

Note: - The **lib/** directory contains the core components and functionality to interact with the Citrus Payment Gateway. The APIs exposed at the Citrus Payment Gateway are RESTfull API and all the communications are over HTTPS. The core API also encrypts the data for communication using merchant specific key to achieve additional security of the data exchanged.

1. Copy the **lib**/ directory to merchant website \ www \ lib folder (or web servers common library folder, ex. Tomcat \ Common \ lib, for more details, please refer section “ Integrated Application Structure”)

## Test Environment Setup

Copy the directory **lib/** and **test/** under the www or public\_html directory of your web server.

Note:- Remember the **lib/** and **test**/ directory should be under the same parent directory.

# Merchant Integration

CitrusPay supports two types of integrations -

1. [Moto Integration](#_API_Documentation(Moto_Integration))
2. [SSL Integration](#_SSL_Integration)

Citrus Payment Moto API is organized around REST. The API is designed to have predictable, resource-oriented URLs, uses HTTP response codes to indicate API errors and built-in HTTP features like, HTTP verbs can be understood by off-the-shelf HTTP clients. JSON/XML will be accepted as request and returned in all responses from the API, including errors.

## Authentication

Authentication to Citrus Payment Gateway REST API happens by providing the secret key in the request header. Provide your API key as the basic auth username. You do not need to provide a password. All API requests must be made over HTTPS. Calls made over plain HTTP will fail. You must authenticate for all requests.

Every request must have the following parameters in the request header

|  |  |  |  |
| --- | --- | --- | --- |
| **Header Name** | **Applicable API** | **Value** | **Comments** |
| **access\_key** | All | Merchant Access Key from Checkout Settings Page | access\_key must be a part of the request header |
| **signature** | Refund  Transaction | Request Signature (generated using signature utility) | signature must be a part of request header |
| **Content-Type** | All | application/xml or application/json | Depending on required content type |
| **Accept** | All | application/xml or application/json | Depending on required content type |

## Request Signature

Refund and Transaction API requires a request signature to be generated for security reasons. Request signature is a HMAC signature generated using SHA-1 algorithm. To generate the signature, merchant access key, transaction id and amount are mandatory parameters.

Example of request signature text is -

*merchantAccessKey=****HS6Q0E1N40OUSYCJXMX5****&transactionId=****62194401****&amount=****1.0***

Where characters marked in bold will be replaced by actual values.

A utility is included along with the merchant kit to generate signature.

Sample code snippet -

**function** generateHmacKey($data, $apiKey=**null**){

$hmackey = Zend\_Crypt\_Hmac::*compute*($apiKey, "sha1", $data);

**return** $hmackey;

}

*$secSignature = generateHmacKey($data,CitrusPay::getApiKey());*

Here ***data*** is the request signature text (as mentioned above). To generate the request signature text, please make sure that Zend Encryption Utility is in the include path. We provide this utility embedded in the lib folder which automatically includes this in the include path.

## Response Signature

A HMAC signature, based on response data will be sent as part of transaction response. This signature is generated using the transaction information. It is expected that the signature is regenerated using same parameters at merchant end and validated against the value received in the response. This is a security measure to ensure that there is no data tampering in transit.

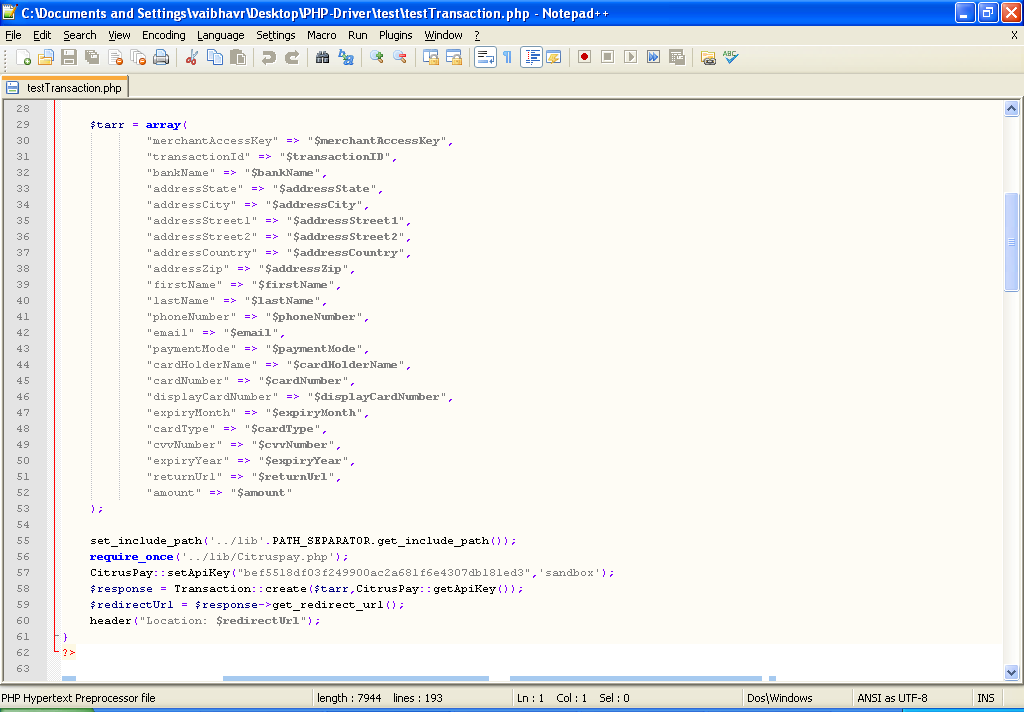
You can refer to Response.php for the implementation.

## Errors

## Following is the list of error messages which come in the response Object. The instance variable containing the response object will be resp\_code. The message will be in the instance variable resp\_msg.

|  |  |
| --- | --- |
| Response Code | Response Message |
| 6 | Could not connect to CitrusPay. Please check your internet connection and try again. If this problem persists, let us know at support@CitrusPay.com. |
| 7 |
| 28 |
| 60 | Could not verify CitrusPay's SSL certificate. Please make sure that your network is not intercepting certificates. (Try going to apiBase in your browser.) If this problem persists, let us know at support@CitrusPay.com. |
| 400 | Bad Request |
| 401 | Bad Request:Invalid Merchant authentication key |
| 404 | Merchant Not found |
| Any Other Error Code | Invalid response object from API: <Response Body> (HTTP response code was <Response Code>) |

1. **testTransaction.php**

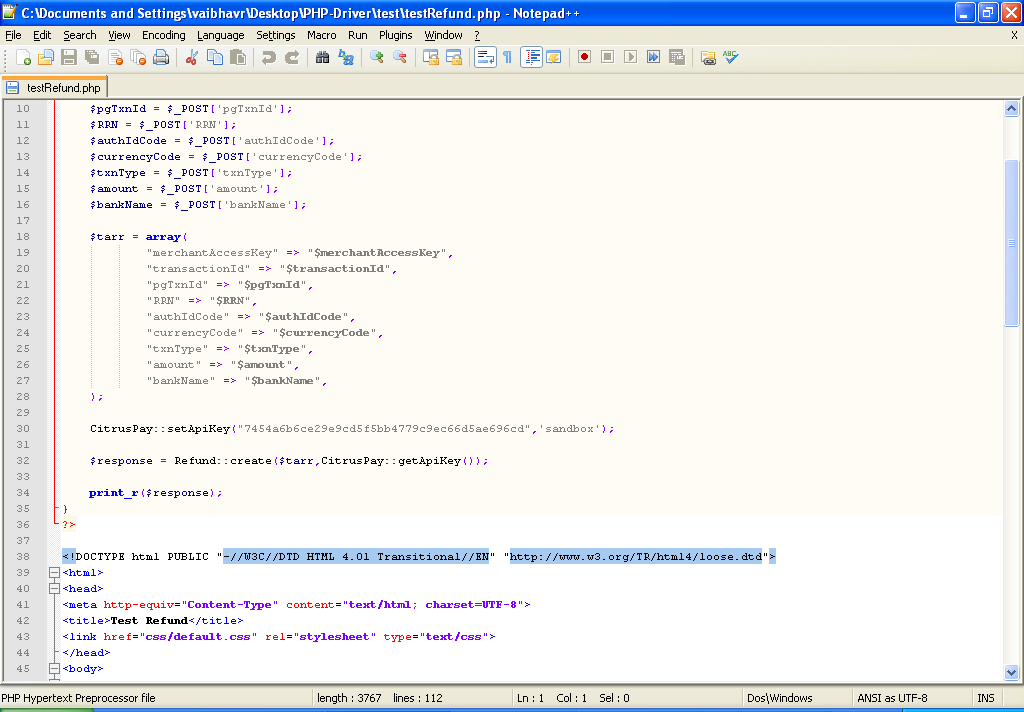


CitrusPay Env to connect to

Merchant Key used for encryption

This is the relative path of lib/ directory. The lib/ dir is included in the Path.

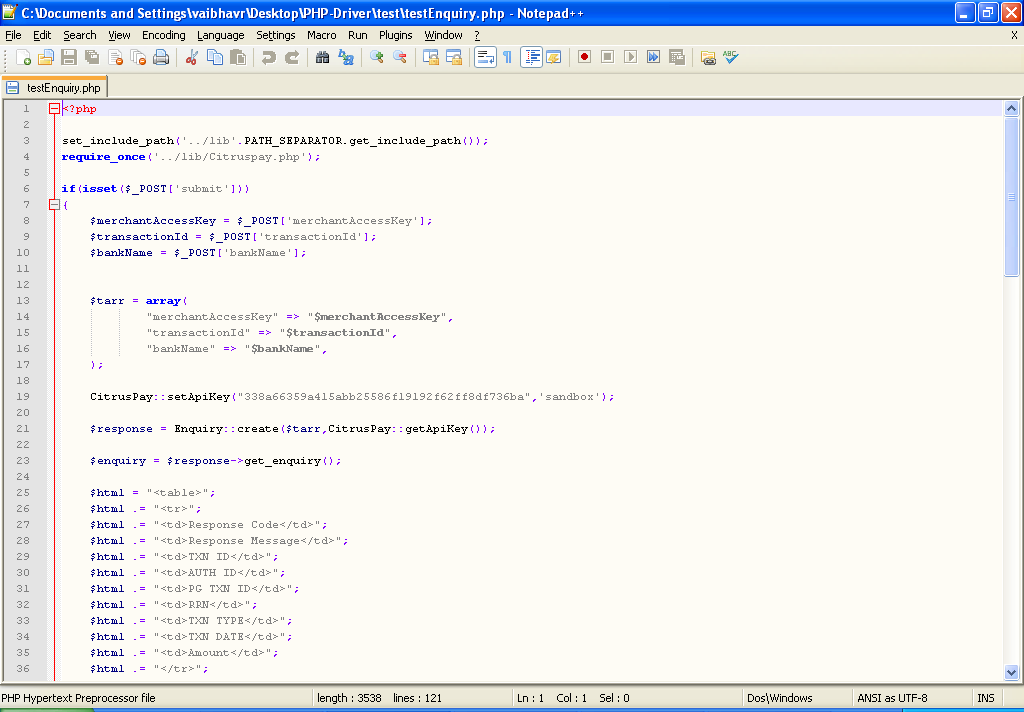
1. **testRefund.php**



CitrusPay Env to connect to

Merchant Key used for encryption

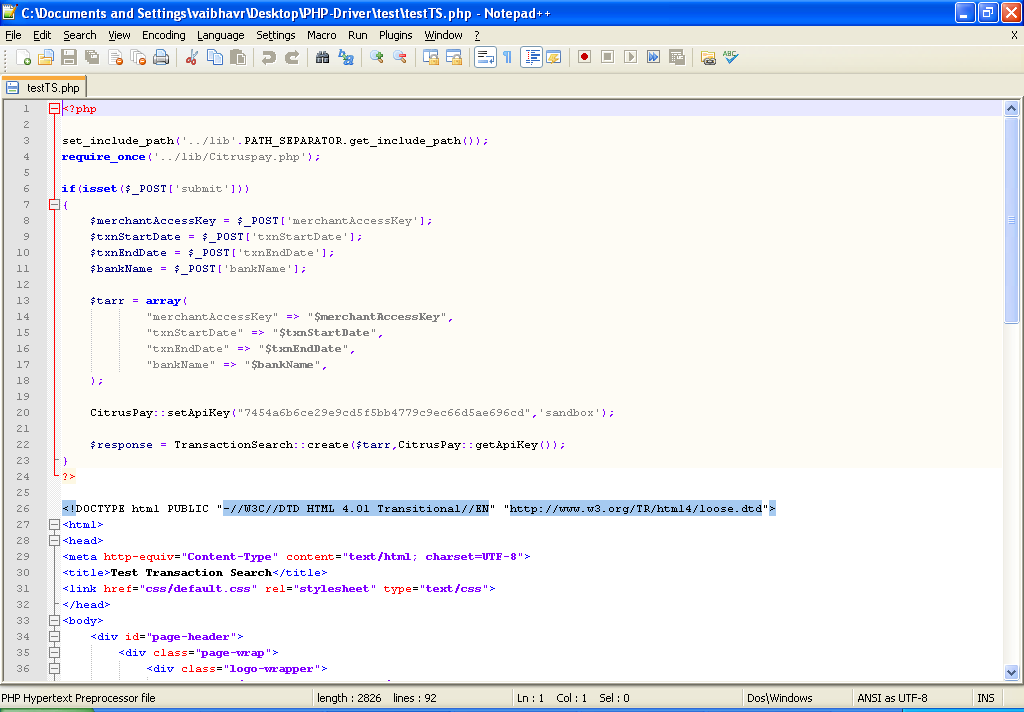
1. **testEnquiry.php**

****

CitrusPay Env to connect to

Merchant Key used for encryption

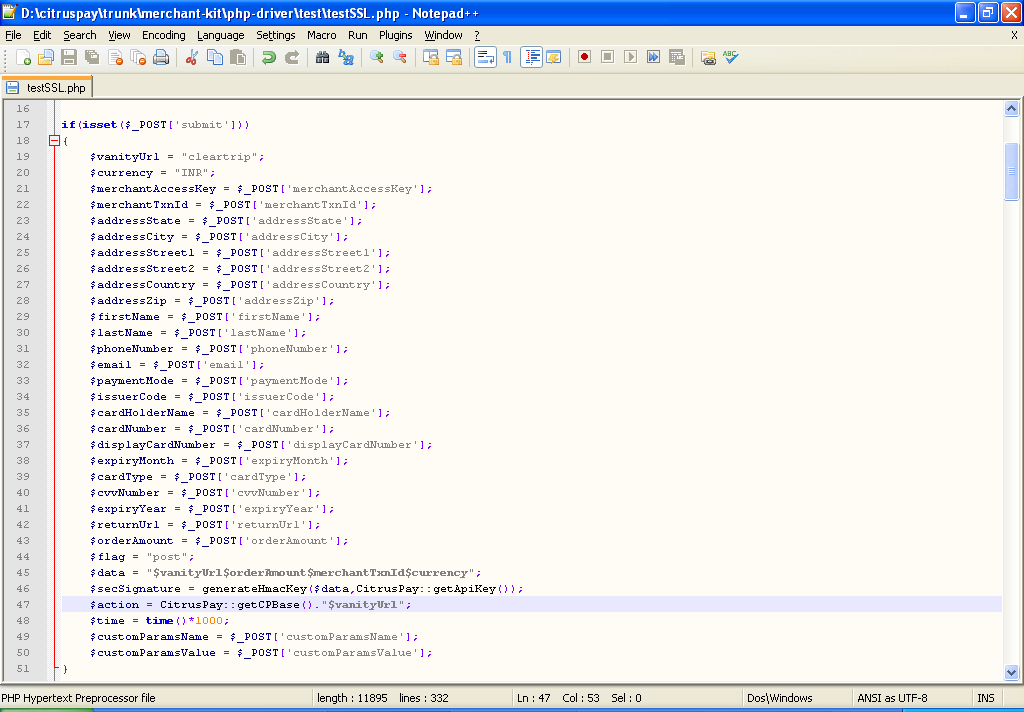
1. **testTS.php (Used for Transaction Search)**

****

CitrusPay Env to connect to

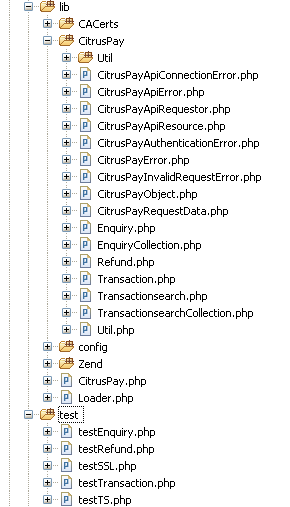
Merchant Key used for encryption

1. **testSSL.php**

****

Vanity Url of the merchant.   
  
Retreive this from checkout settings page.

The sample client web app will have the below file structure inside the webapps of your web server: -



# API Details (Moto Integration)

CitrusPay API supports the following four types of operations. Content types supported are JSON and XML.

|  |  |  |
| --- | --- | --- |
| **Operation** | **URL** | **Method** |
| Transaction | <https://sandboxadmin.citruspay.com/api/v2/txn/create> | POST |
| Enquiry | [https://sandboxadmin.citruspay.com/api/v2/txn/enquiry/{txn\_id}](http://localhost:8080/citruspay-admin-site/api/v2/txn/enquiry/%7btxn_id%7d.%7bjson/xml%7d) | GET |
| Search | <https://sandboxadmin.citruspay.com/api/v2/txn/search> | POST |
| Refund | <https://sandboxadmin.citruspay.com/api/v2/txn/refund> | POST |

**Note:**-

**The URLs mentioned here are for sandbox and used only for testing purpose. For live environment, please get in touch with CitrusPay Operations and Support team**.

### Transactions

Transaction API is a MOTO API, used to make a transaction in CitrusPay system for Net Banking, Debit or Credit Card. The API accepts JSON or XML request and gives JSON/XML response.

**Input Parameter:**

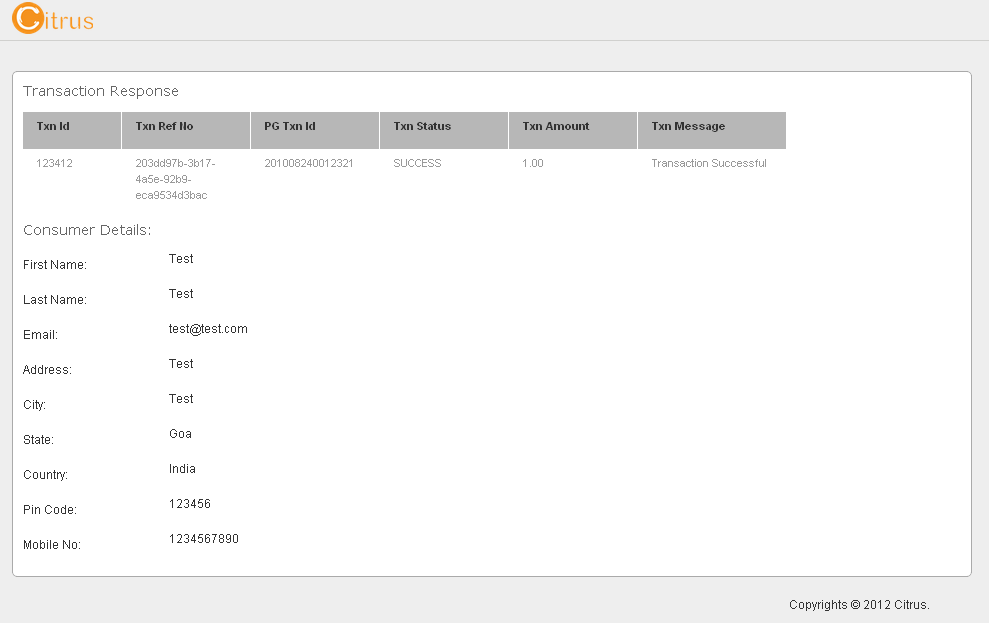
For authentication, **access\_key** and **signature** must be added in request header as described in [authentication](#_Authentication) section**.**

Transaction API supports the following input parameters -

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter Name** | **Required** | **Test Value** | **Comments** |
| **paymentMode** | Y | Desired payment mode NET\_BANKING or CREDIT\_CARD or DEBIT\_CARD | Use NET\_BANKING or CREDIT\_CARD or DEBIT\_CARD to indicate Net Banking, Credit Card or Debit Card respectively if sending the payment mode. |
| **issuerCode** | N | Issuer code for net banking payment | Refer to [Appendix A](#_Bank_(Issuer)_Details) for issuer code list.  **Note: Mandatory for Net Banking payment** |
| **merchantTxnId** | Y | Alpha numeric merchant transaction id. | Merchant Transaction Id |
| **amount** | Y | <<xxx.xx>> transaction amount | Transaction Amount |
| **returnUrl** | Y | Merchant redirect URL | Redirect merchant URL |
| **email** | N | Consumer email address | Consumer email address |
| **firstName** | Y | Consumer first name | Consumer First name |
| **lastName** | Y | Consumer last name | Consumer Last name |
| **mobile** | N | Consumer phone no | Consumer Phone Number |
| **address** | N | Consumer address | Consumer Address |
| **addressCity** | N | Consumer address city | Consumer address city |
| **addressState** | N | Consumer Address state | Consumer Address State |
| **Address\_zip** | N | 6 digit Consumer Address Zip Code | Consumer Address Zip Code |
| **cardHolderName** | N | Consumer/Card Holder Name | Consumer/Card Holder Name |
| **cardNumber** | N | Debit Card/Credit Card No for Transaction | Debit Card/Credit Card No for Transaction |
| **cardType** | N | Debit Card/Credit Card Type  (Master/Visa/Maestro) | Refer to [Appendix A](#_Credit/Debit_Card_Details) for card type list.  **Note: Mandatory for card payment** |
| **cvvNumber** | N | Debit Card/Credit Card CVV Number | Debit Card/Credit Card CVV Number |
| **expiryMonth** | N | Format : 1(JAN) to 12 (DEC) | Expiry Month of Debit Card/Credit Card |
| **expiryYear** | N | Format : YYYY | Expiry Year of Debit Card/Credit Card |

**Payment Response**: -

On successful/failed transaction , below response page will be displayed.



**Output Parameter:**

|  |  |
| --- | --- |
| **Parameter Name** | **Description** |
| **TxId** | Merchant Transaction Id |
| **TxRefNo** | CitrusPay Transaction Id for payment |
| **pgTxnNo** | Gateway transaction id |
| **TxStatus** | Transaction Status (SUCCESS, FAIL) |
| **amount** | Transaction amount |
| **TxMsg** | Success or failure message |
| **firstName** | Consumer first name |
| **lastName** | Consumer last name |
| **email** | Consumer email address |
| **addressStreet1** | Consumer address |
| **addressCity** | Consumer address city |
| **addressZip** | Consumer address Zip |
| **mobileNo** | Consumer Mobile no |
| **signature** | HMAC signature of response data to validate the response data on merchant end. See details at [Response Signature](#_Response_Signature) Section. |

### Transaction Enquiry

Transaction enquiry API helps merchant to do some investigation for a particular transaction.

For authentication, **access\_key** must be added in request header as described in [authentication](#_Authentication) section**.**

**Input Parameter**:

Enquiry API requires sending the transaction id in the URL itself

**Output Parameter**:

|  |  |  |
| --- | --- | --- |
| **Parameter**  **Name** | **Field Value** | **Comments** |
| **respCode** | 2xx, 4xx, 5xx | 2xx : Like 200 means communication successful.  4xx: Request Parameter error or invalid request parameter.  5xx: Error at the payment gateway. |
| **respMsg** | Transaction Successful or any custom message for failure. | Transaction Successful or any custom message for failure. |
| **txnId** | Merchant Transaction Id | Merchant Transaction Id |
| **pgTxnId** | Payment Gateway Transaction Id. | Only for successful transactions |
| **authIdCode** | Authentication Id Code for this transaction | Only for successful transactions |
| **RRN** | Issuer Reference No | Only for successful transactions |
| **txnType** | Sale: for sales transaction  Refund: for refund | Only for successful transactions |
| **txnDateTime** | Transaction Date | Transaction Date |
| **amount** | Transaction Amount | Transaction Amount |
| **totalRefundAmount** | Total Amount Refunded against a SALE Transaction | Total Amount Refunded(Returned only if transaction was done using AMEX PG) |

Signature check is not required for Enquiry API

### Transaction Search

Transaction List API helps merchant s to get the transaction details between start and end date. For authentication **access\_key** must be added in request header as described in [authentication](#_Authentication) section**.**

I**nput Parameter:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter Name** | **Required** | **Test Value** | **Comments** |
| **txnStartDate** | Y | Transaction Start Date | Transaction start date in YYYYMMDD format |
| **txnEndDate** | Y | Transaction End Date | Transaction end date in YYYYMMDD format |

**Note: - Transaction end date must be greater that start date and within 30 days of start date**.

**Output Parameter:**

|  |  |  |
| --- | --- | --- |
| **Parameter Name** | **Field Value** | **Comments** |
| **respCode** | 2xx, 4xx, 5xx | 2xx : Like 200 means communication successful.  4xx: Request Parameter error or invalid request parameter.  5xx: Error at the payment gateway. |
| **respMsg** | Transaction Successful or any custom message for failure. | Transaction Successful or any custom message for failure. |
| **merchantTxnId** | Merchant Transaction Id | Merchant Transaction Id |
| **txnId** | Merchant Transaction Id | Merchant Transaction Id |
| **pgTxnId** | Payment Gateway Transaction Id. | Only for successful transactions |
| **authIdCode** | Authentication Id Code for this transaction | Only for successful transactions |
| **RRN** | Issuer Reference No | Only for successful transactions |
| **txnType** | Sale: for sales transaction  Refund: for refund | Only for successful transactions |
| **txnDateTime** | Transaction Date | Transaction Date |
| **amount** | Transaction Amount | Transaction Amount |

### Refund

Refund API helps merchant refund processing for successful transaction. For authentication **access\_key** and **signature** must be added in request header as described in [authentication](#_Authentication) section**.**

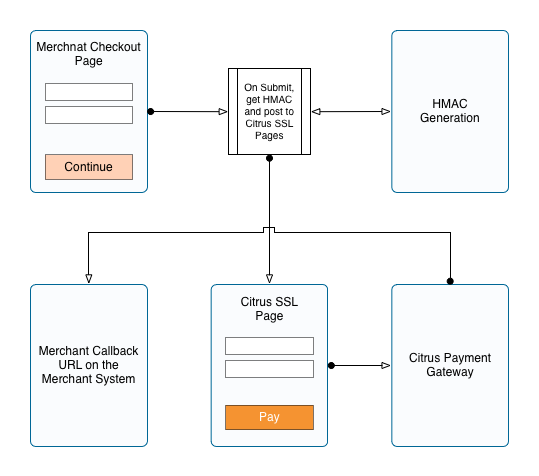
**Input Parameter:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter Name** | **Required** | **Test Value** | **Comments** |
| **merchantTxnId** | Y | Any alphanumeric merchant transaction id for refund processing | Merchant Transaction ID against which a transaction was made. |
| **pgTxnId** | Y | Payment Gateway transaction id | Gateway transaction No |
| **RRN** | Y | Issuer reference number for successful payments. | Issuer Reference No |
| **authIdCode** | Y | Issuer auth id code. | Issuer auth Id code for the transaction |
| **currencyCode** | Y | INR | INR for Indian currency |
| **txnType** | Y | R for refund | Transaction type value will be R to indicate a refund |
| **Amount** | Y | Amount to be refunded | Refund Amount |

**Response Parameter:**

|  |  |  |
| --- | --- | --- |
| **Filed Name** | **Field Value** | **Comments** |
| **respCode** | 0: Transaction successful.  1: Error at issuer (bank) site.  2: Transaction failure. | 0: Transaction successful.  1: Error at issuer (bank) site.  2: Transaction failure. |
| **respMsg** | Transaction Successful or any custom message for failure. | Transaction Successful or any custom message for failure. |
| **merchantTxnId** | Merchant Transaction Id | Merchant Transaction Id |
| **transactionId** | CitrusPay Transaction Id | CitrusPay Transaction Id |
| **pgTxnId** | Payment Gateway Transaction Id. | Payment Gateway Transaction Id. |
| **authIdCode** | Authentication Id Code for Transaction | Authentication Id Code for Transaction |
| **RRN** | Issuer Reference No | Issuer Reference No |
| **txnType** | R for refund | Transaction type value will be R to indicate a refund |
| **amount** | Transaction Refund Amount | Transaction Refund Amount |

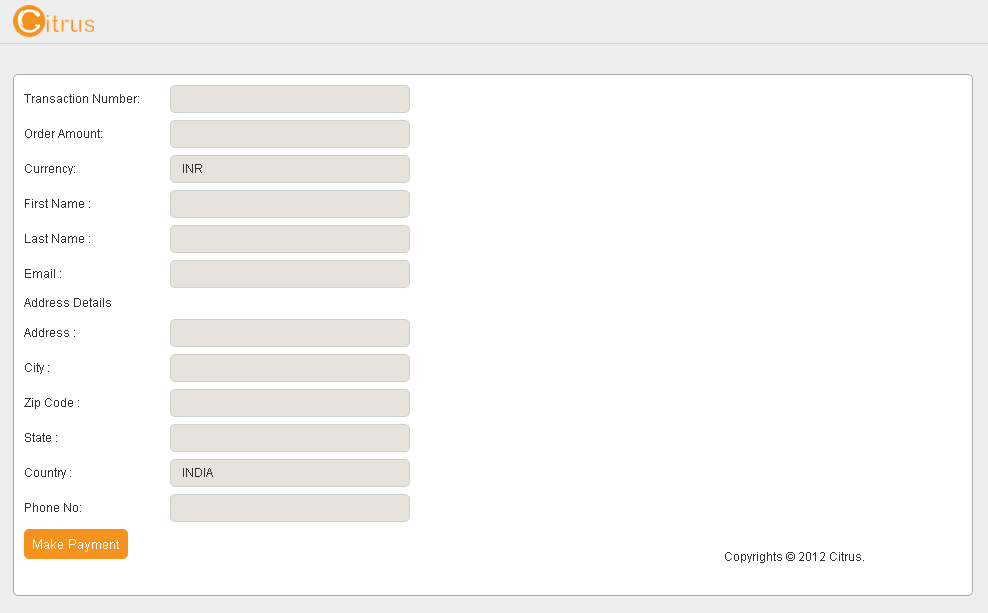
### SSL Integration



SSL Integration helps merchant to integrate their shopping cart with CitrusPay SSL page and allows consumer to select different payment options such as, Net banking /Debit Card / Credit Card. Along with transaction details, Consumer details (Name, Address etc.) and Payment details (Bank Name, Card Number etc) can also be passed to Citrus Payment (SSL) Page.

Following steps are needed for SSL Integration:

1. Create a HMAC signature based on parameters that are to be passed to SSL page. These parameters are merchant vanity URL part, transaction amount, merchant transaction id and currency. (Sample given below)
2. Post the transaction details parameters, signature along with other optional parameters to SSL Page as a POST request
3. On SSL Page, consumer will complete the transaction. Response of the transaction will be sent back on return URL to merchant. This response will also contain a signature that can be used to validate response
4. ***SSL Page Example:***
5. After deploying the sample site, URL <http://host:port/sample-site/test/testSSL.>php in the browser will take you to the following page –



After entering all the details if “Make Payment” is clicked, the consumer will be redirected to Citruspay SSL Payment Details page.

***Integration Steps***

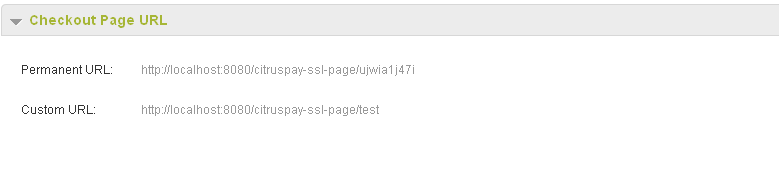
1. Open **testSSL.php** page and modify the value of the key with the merchant secret key from **Checkout Page Settings** page of Admin application.



Change the value of $vanityurl with the value from checkoutpage settings

Update with merchants secret key

In this example “***test***” is the vanity URL

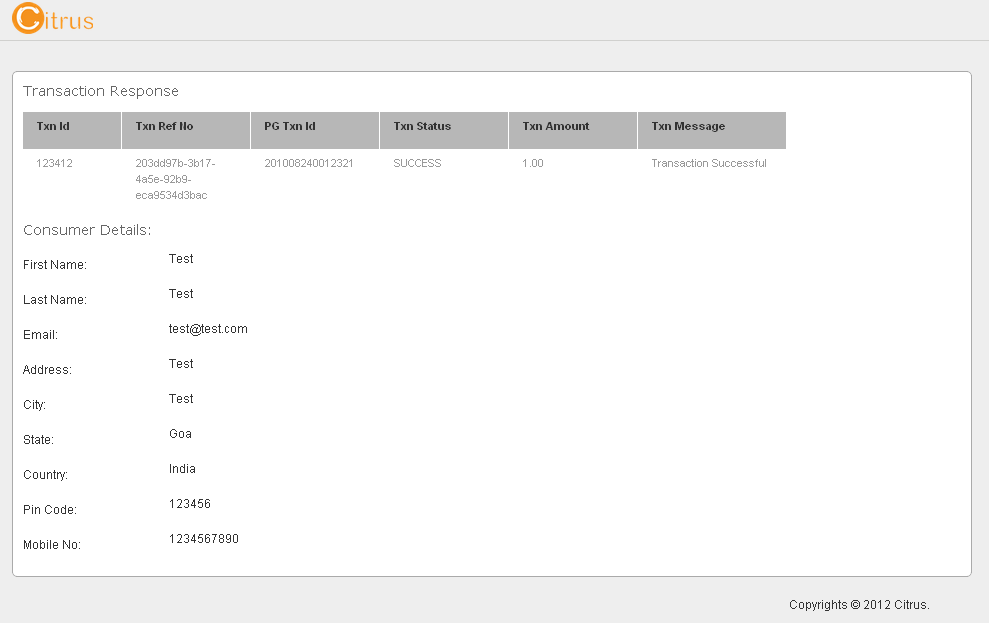


***Input Parameters:***

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter Name** | **Required** | **Test Value** | **Comments** |
| **Key** | Y | As mentioned in step 1. | Merchant Secret Key |
| **merchantURLPart** | Y | As mentioned in step 2. | Merchant SSL Page URL from checkout settings page |
| **merchantTxnId** | Y | Any alphanumeric value less than 255 character | Merchant Transaction No |
| **orderAmount** | Y | xxx.xx (100.00) | Order Amount |
| **Currency** | Y | INR | Currency (INR) |
| **firstName** | N | <<Test>> | Consumer First Name |
| **lastName** | N | <<Test>> | Consumer Last Name |
| **Email** | N | <[test@test.com](mailto:test@test.com)> | Consumer Email address |
| **addressStreet1** | N | <<address>> | Consumer Address Street |
| **addressCity** | N | <<city>> | Consumer Address City |
| **addressZip** | N | <<6 digit zip code>> | Consumer Address Zip Code |
| **addressState** | N | <<state>> | Consumer Address State |
| **phoneNumber** | N | <<+91xxxxxxxxxx>> or  <<+91 xxxxxxxxxx>> or  <<xxxxxxxxxx>> or | Consumer Phone Number |
| **secSignature** | Y | Alpha numeric value generated in the java script code of the TestSSL.jsp page | This is the encrypted data for security checking |
| **returnUrl** | Y | <<url>> | Merchant Redirect url after payment processing/failure |
| **customParams[0].name** | N | <<custom parameter if any>> | Custom parameter name defined by merchant if any |
| **customParams[0].value** | N | <<custom parameter value if any>> | Value of the custom parameter if any |
| **paymentMode** | N | NET\_BANKING/ CREDIT\_CARD/ DEBIT\_CARD | NET\_BANKING/ CREDIT\_CARD/ DEBIT\_CARD |
| **issuerCode** | N | Issuer code for net banking payment | Refer to [Appendix A](#_Bank_(Issuer)_Details) for issuer code list |
| **cardNumber** | N | Debit/Credit card no | Credit/Debit Card Number |
| **cardType** | N | Debit/Credit card Type | Refer to [Appendix A](#_Credit/Debit_Card_Details) for card type list |
| **cvvNumber** | N | CVV no | Debit Card/Credit Card CVV Number |
| **expiryMonth** | N | Format : 1(JAN) to 12 (DEC) | Expiry Month of Debit Card/Credit Card |
| **expiryYear** | N | Format : YYYY | Expiry Year of Debit Card/Credit Card |
| **Reqtime** | Y | Current UTC millesecond value to check the request time | Request Timestamp. Used for checking the request validity for 5 minutes. After that request will be invalidated for security reasons.  Note: - **reqTimemust be the current UTC time in mille seconds** else it might give request is too old to be processed error |
| **COD** | N | Y/N | If the merchant checks the “check incoming flag” for COD Settings on CitrusPay Site under PG Management Tab, then a COD option is displayed to the guest user, if the value is ‘Y’. |

***Payment Response:***

On successful/failed payment by the consumer the below response page will be displayed.



***Output Parameters:***

|  |  |
| --- | --- |
| **Parameter Name** | **Description** |
| **TxId** | Merchant Transaction Id |
| **TxRefNo** | Citruspay Transaction Id for payment |
| **pgTxnNo** | Gateway transaction id |
| **TxStatus** | Transaction Status (SUCCESS, FAIL) |
| **amount** | Transaction amount |
| **TxMsg** | Success or failure message |
| **firstName** | Consumer first name |
| **lastName** | Consumer last name |
| **Email** | Consumer email address |
| **addressStreet1** | Consumer address |
| **addressCity** | Consumer address city |
| **addressCountry** | Consumer Address country |
| **addressZip** | Consumer address Zip |
| **mobileNo** | Consumer Mobile no |
| **signature** | HMAC signature of response data to validate the response data on merchant end. See details at [Response Signature](#_Response_Signature) Section. |

# Appendix A

## Bank (Issuer) Details

Below is the list of Banks and their corresponding issuer code.

Note: Only Banks 1 to 15 are applicable for Moto APIs.

|  |  |  |
| --- | --- | --- |
| **S.No** | **Bank Name** | **Issuer Code** |
| 1 | ICICI Bank | CID001 |
| 2 | AXIS Bank | CID002 |
| 3 | Citibank | CID003 |
| 4 | YES Bank | CID004 |
| 5 | SBI Bank | CID005 |
| 6 | Deutsche Bank | CID006 |
| 7 | Union Bank | CID007 |
| 8 | Indian Bank | CID008 |
| 9 | Federal Bank | CID009 |
| 10 | HDFC Bank | CID010 |
| 11 | IDBI Bank | CID011 |
| 12 | State Bank of Hyderabad | CID012 |
| 13 | State Bank of Bikaner and Jaipur | CID013 |
| 14 | State Bank of Mysore | CID014 |
| 15 | State Bank of Travancore | CID015 |
| 16 | Andhra Bank | CID016 |
| 17 | Bank of Bahrain & Kuwait | CID017 |
| 18 | Bank of Baroda Corporate Accounts | CID018 |
| 19 | Bank of India | CID019 |
| 20 | Bank of Baroda Retail Accounts | CID020 |
| 21 | Bank of Maharashtra | CID021 |
| 22 | Catholic Syrian Bank | CID022 |
| 23 | Central Bank of India | CID023 |
| 24 | City Union Bank | CID024 |
| 25 | Corporation Bank | CID025 |
| 26 | DCB Bank ( Development Credit Bank ) | CID026 |
| 27 | Indian Overseas Bank | CID027 |
| 28 | IndusInd Bank | CID028 |
| 29 | ING Vysya Bank | CID029 |
| 30 | Jammu & Kashmir Bank | CID030 |
| 31 | Karnataka Bank | CID031 |
| 32 | KarurVysya Bank | CID032 |
| 33 | Kotak Mahindra Bank | CID033 |
| 34 | Lakshmi Vilas Bank NetBanking | CID034 |
| 35 | Oriental Bank of Commerce | CID035 |
| 36 | Punjab National Bank Corporate Accounts | CID036 |
| 37 | South Indian Bank | CID037 |
| 38 | Standard Chartered Bank | CID038 |
| 39 | Syndicate Bank | CID039 |
| 40 | Tamilnad Mercantile Bank | CID040 |
| 41 | United Bank of India | CID041 |
| 42 | Vijaya Bank | CID042 |

## Credit/Debit Card Details

|  |  |
| --- | --- |
| Card Type | Code |
| Visa | VISA |
| Master Card | MCRD |
| Maestro Card | MTRO |