

HDFC INTEGRATION GUIDE

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# 1. INTRODUCTION

This document works as a guide for Merchants on understanding the payment gateway

Integration. This integration will allow the Merchant to have the Payment option Selection.

# 2. SALE PROCESS FLOW

* Customer selects to check out on the Merchant Website.
* Merchant Website will redirect the Customer to the Payment Page.
* Customer Selects Payment Method (Credit Card, Debit Card, Net banking) and Payment option on the Merchant Website. If the Customer selects Credit or Debit cards, he will be asked to provide the credit card number or the debit card number respectively.
* Customer is redirected to respective bank for processing.
* Customer is redirected back to Merchant Website with the final transaction status.

**Status Details:**

1. **Authorized Payments–**Payments which are completed successfully
2. **Captured –** Payments captured by the Merchant.
3. **Refund –**Payments refunded by the Merchant to the Customer.

# 3. MERCHANT WEBSITE INTEGRATION

## i. Integration Mode

* Standard mode: In this mode, all the payment details would be collected on the hosted payment page for payment transaction.

## ii. Request Parameter Details

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter** | **Description** | **Type** | **Min** | **Max** | **Mandatory** |
| channel | The payment channel.  Give ‘10’ for Standard | numeric | 1 | 2 | YES |
| account\_id | Your Account ID generated by HDFC Bank | numeric | - | - | YES |
| reference\_no | Your Unique Reference Number for every txn | char | 1 | 20 | YES |
| amount | Total Sale Amount | decimal | 1 | 14,2 | YES |
| mode | Mode of payment should be LIVE | char | LIVE | LIVE | YES |
| currency | Currency INR | Char | 3 | 3 | YES |
| currency\_code | Displays the type of currency | Char | 3 | 3 | YES |
| description | Detail description of the sale | char | 1 | 255 | YES |
| return\_url | This is the url you want the payment gateway to return back after transaction is successful | char | 1 | 255 | YES |
| name | Customer billing Name | char | 1 | 128 | YES |
| address | Customer billing address | char | 1 | 255 | YES |
| city | Customer billing city | char | 1 | 32 | YES |
| state | Customer billing state | char | 1 | 32 | NO |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| country | Customer billing country.  [3 Digit ISO3 country code- refer Appendix C] | char | 3 | 3 | YES |
| postal\_code | Customer billing postal code | char | 1 | 10 | YES |
| phone | Customer billing phone | char | 5 | 20 | YES |
| email | Customer billing email | char | 1 | 100 | YES |
| ship\_name | Customer delivery Name | char | 1 | 255 | NO |
| ship\_address | Customer delivery address | char | 1 | 255 | NO |
| ship\_city | Customer delivery city | char | 1 | 32 | NO |
| ship\_state | Customer delivery state | char | 1 | 32 | NO |
| ship\_country | Customer delivery country[3 Digit ISO3 country code- refer Appendix C] | char | 3 | 3 | NO |
| ship\_postal\_code | Customer delivery postal code | char | 1 | 10 | NO |
| ship\_phone | Customer delivery phone | char | 5 | 20 | NO |
| bank\_code | Bank code provided by HDFC | char | 1 | 5 | NO |
| name\_on\_card | Name of the card holder.  Only for Direct mode | char | 1 | 20 | YES |
| card\_number | Credit card number. Only for  Direct mode | numeric | 13 | 19 | YES |
| card\_expiry | Expiry date of the credit card. [Format: MMYY]  Only for Direct mode. | numeric | 4 | 4 | YES |
| payment\_option | Payment option code provided by the payment gateway . Only for standard mode | char | 1 | 5 | NO |
| payment\_mode | Give 1 for Credit Card , 2 for  Debit Card,3 for Net Banking,  5 for Credit Card – EMI | numeric | - | - | NO |
| card\_brand | Give 1 for VISA, 2 for MasterCard, 3 for Maestro, 4 for Diners Club, 5 for American Express and 6 for  JCB | numeric | - | - | NO |
| emi | EMI period like 3, 6,9,12 etc. for Credit Card. | char | 1 | 2 | NO |
| page\_id | The id of the customized page | char | 1 | 2 | NO |
| card\_cvv | CVV number of the credit card. Only for Direct mode. | numeric | 3 | 4 | YES |
| secure\_hash | Hash value calculated | char | 32 | 32 | YES |

## iv. Sample HTML form For Standard Mode

The link between Merchant website and Payment page has to be maintained on the last page of the shopping basket on Merchant website.

Below are the parameters to be posted to the payment page.

<form method="post" action=”https://secure.ebs.in/pg/ma/payment/request” name="frmTransaction" id="frmTransaction" > <input name=”channel” type=”hidden” value=”0” />

<input name="account\_id" type="hidden" value=" XXXX " />

<input name="reference\_no" type="hidden" value=" XXXX " />

<input name="amount" type="hidden" value=" XXXX " />

<input name="mode" type="hidden" value=" XXXX " />

<input name="currency" type="hidden" value="INR" />

<input name="description" type="hidden" value=" XXXX " />

<input name="return\_url" type="hidden" value=" XXXX " />

<input name="name" type="hidden" value=" XXXX " />

<input name="address" type="hidden" value=" XXXX " />

<input name="city" type="hidden" value=" XXXX " />

<input name="state" type="hidden" value=" XXXX " />

<input name="country" type="hidden" value=" XXXX " />

<input name="postal\_code" type="hidden" value=" XXXX " />

<input name="phone" type="hidden" value=" XXXX " />

<input name="email" type="hidden" value=" XXXX " />

<input name="ship\_name" type="hidden" value=" XXXX " /> <input name="ship\_address" type="hidden" value=" XXXX " /> <input name="ship\_country" type="hidden" value=" XXXX " />

<input name="ship\_state" type="hidden" value=" XXXX " />

<input name="ship\_city" type="hidden" value=" XXXX " />

<input name="ship\_postal\_code" type="hidden" value=" XXXX " />

<input name="ship\_phone" type="hidden" value=" XXXX " />

<input name=”secure\_hash” type=”hidden” value=” XXXX” />

<input value=”Submit” type=”submit” />

## v. BIN Restrictions

Using this Integration Model, Merchant can also provide BIN restriction (used primarily for Bank promotional offers to their Customers).

Prerequisite will be, Merchant should share the Bank Name and BIN Range corresponding to the Bank. On providing these details, the payment gateway will provide a bank code which should be posted under the parameter name bank\_code.

Posting this value will allow the Customer to transact only through the specified Bank Credit or Debit card.

## vi. Payment Page Customization

The main feature of this version is, the merchant can change the Look & Feel of the payment page by doing some settings on the backend and then sending the *page\_id* parameter with the payment parameters.

The *page\_id* parameter will take care of the layout of the payment page, the hashing algorithm (MD5, SHA1, and SHA512), the http method (GET or POST) in which response is to be sent etc.

If you are not sending any *page\_id* value, the default will be taken as the configuration for your payment page.

## vii. Payment Response

In this Response page, you have to replace the key with your secret key.

Please contact PG Helpdesk for resetting secret key. PG Helpdesk can be reached on the following coordinates. [pghelpdesk@hdfcbank.com](mailto:pghelpdesk@hdfcbank.com) or call on 022-42162811 / 13

Login to the Merchant Account.

Go to “Settings”. In the Account settings you can view the secret key.

According to the http method set on the merchant backend page customization section, the response will be sent back to the return URL. If GET method is selected, the response is given as query string appended to the return URL. One secure\_hash parameter also will be sent along with the other parameters. The secure hash will be calculated according to the hash algorithm mentioned in the backend configuration of the payment page.

## viii. Payment Response Parameters

Response in case all the validations are passed.

|  |  |  |
| --- | --- | --- |
| **S.No** | **Parameter** | **Description** |
| 1 | ResponseCode | Whether the payment is successful or not 0  =>Successful |
| 2 | ResponseMessage | Appropriate message explaining about successful or un successful payment |
| 3 | DateCreated | payment happened date |
| 4 | PaymentID | For that particular payment a id will be created for our reference |
| 5 | MerchantRefNo | Merchants reference number |
| 6 | Amount | Payment Amount |
| 7 | Mode | LIVE |
| 8 | BillingName | Customer billing Name |
| 9 | BillingAddress | Customer billing address. |
| 10 | BillingCity | Customer billing city. |
| 11 | BillingState | Customer billing state. |
| 12 | BillingPostalCode | Customer billing postal code. |
| 13 | BillingCountry | Customer billing country. |
| 14 | BillingPhone | Customer billing phone. |
| 15 | BillingEmail | Customer billing email. |
| 16 | DeliveryName | Customer delivery Name |
| 17 | DeliveryAddress | Customer delivery address. |
| 18 | DeliveryCity | Customer delivery city. |
| 19 | DeliveryState | Customer delivery state |
| 20 | DeliveryPostalCode | Customer delivery postal code. |
| 21 | DeliveryCountry | Customer delivery country. |
| 22 | DeliveryPhone | Customer delivery phone. |
| 23 | IsFlagged | YES or NO |
| 24 | TransactionID | Authorized Transaction ID of the generated payment ID. Each Payment ID will have different transaction id for each actions. For ex: Capture, Cancel, Refund, etc |
| 25 | SecureHash | The hashed value of the response parameters. |
| 26 | AccountID | Your Account ID |

Response in case all the validations are failed.

|  |  |  |
| --- | --- | --- |
| **S.No** | **Parameter** | **Description** |
| 1 | SecureHash | The hashed value of the response parameters. |
| 2 | Error | Error Message |
| 3 | ResponseCode | Response Code of the error |

**Recommended validation in the response file to avoid duplication of records in your backend**

1. Pass your unique orderid in the reference\_no parameter and in response file, check whether MerchantRefNo and your orderid matches.
2. Check if the amount of the order and the "amount" parameter in the response is equal.

If both the conditions results as true, insert order in your backend, which nullifies the duplications.

**Response Message:**

Transaction Successful Transaction Failed

Invalid parameters

Invalid Account ID

Invalid Secure Hash

Amount cannot be less than 1

Invalid Payment Option

Invalid payment request

Invalid mode selected

Selected payment method is NOT available now

Invalid Response

# APPENDIX A – SECURE HASH VALIDATION

Secure hash is a technology to check for the authenticity of the parameters posted to the payment gateway. The secure hash value is posted along with other post parameters. The received parameters are hashed at the payment gateway and compared against the Secure hash value received from Merchant.

In a Similar way, the merchant can hash the received values and compare it with secure hash value received from HDFC while taking the payment response.

The Hash Algorithm depends on the *page\_id* parameter which you sent while the payment request is sent to HDFC.

In case of non-conformity, the payment is failed and further processing is stopped.

**Procedure to implement the Secure Hash:**

**Step 1 - Implement the code for Secure hash validation**

Sample Code using MD5 Hashing Algorithm in PHP

$secret\_key = ’ ’; //Provide your HDFC Account’s Secret Key

$hashData = $secret\_key; // Intialise with Secret Key

ksort ($\_POST); // Sort the post parameters in alphabetical order of parameter names.

//Append the posted values to $hashData

foreach($\_POST as $key => $value) {

//create the hashing input leaving out any fields that has no value and by concatenating the values using a ‘|’ symbol.

if (strlen($value) > 0) {

$hashData .= '|'.$value;

}

}

// Create the secure hash and append it to the Post data

if (strlen($hashData) > 0) {

$hashvalue = strtoupper(md5($hashData));

}

$SecureHash = $hashvalue;

**Step 2 – Posting the Hash Value**

Merchant need to generate Secure Hash and pass this value along with other payment request Parameters. Parameter Name for Secure Hash is "secure\_hash"

*<input name="secure\_hash" type="hidden" value="abcdefghijklmnopqrstuvwxyz012345" />*

# APPENDIX C – ISO3 COUNTRY NAME

|  |  |  |  |
| --- | --- | --- | --- |
| **ISO 3** | **Country Name** | **ISO 3** | **Country Name** |
| ABW | Aruba | BVT | Bouvet Island |
| AFG | Afghanistan | BRA | Brazil |
| AGO | Angola | BRN | Brunei Darussalam |
| AIA | Anguilla | BFA | Burkina Faso |
| ALA | Aland Islands | CAF | Central African Republic |
| ALB | Albania | CAN | Canada |
| AND | Andorra | CCK | Cocos (Keeling) Islands |
| ANT | Netherlands Antilles | CHE | Switzerland |
| ARE | United Arab Emirates | CHL | Chile |
| ARM | Armenia | CHN | China |
| ASM | American Samoa | CIV | Cite d'Ivoire |
| ATA | Antarctica | CMR | Cameroon |
| ATF | French Southern Territories | CYM | Cayman Islands |
| ATG | Antigua and Barbuda | CYP | Cyprus |
| AUS | Australia | CZE | Czech Republic |
| AUT | Austria | COD | Democratic Republic of the Congo |
| AZE | Azerbaijan | COK | Cook Islands |
| BDI | Burundi | COL | Colombia |
| BEL | Belgium | COM | Comoros |
| BGD | Bangladesh | CPV | Cape Verde |
| BGR | Bulgaria | CRI | Costa Rica |
| BHR | Bahrain | CUB | Cuba |
| BHS | Bahamas | CXR | Christmas Island |
| BRB | Barbados | DEU | Germany |
| BIH | Bosnia and Herzegovina | DJI | Djibouti |
| BLR | Belarus | DMA | Dominica |
| BLZ | Belize | DNK | Denmark |
| BEL | Belgium | DOM | Dominican Republic |
| BEN | Benin | DZA | Algeria |
| BMU | Bermuda | ECU | Ecuador |
| BTN | Bhutan | ESH | Western Sahara |
| BOL | Bolivia | ESP | Spain |
| BWA | Botswana | EST | Estonia |

|  |  |  |  |
| --- | --- | --- | --- |
| **ISO 3** | **Country Name** | **ISO 3** | **Country Name** |
| ETH | Ethiopia | KIR | Kiribati |
| FIN | Finland | KNA | Saint Kitts and Nevis |
| FJI | Fiji | KOR | Korea, Republic of Korea |
| FLK | Falkland Islands (Malvinas) | KWT | Kuwait |
| EGY | Egypt | LAO | Lao People`s Democratic Republic |
| ERI | Eritrea | LBN | Lebanon |
| FRA | France | LBR | Liberia |
| FRO | Faroe Islands | LBY | Libyan Arab Jamahiriya |
| FSM | Federated States of Micronesia | LCA | Saint Lucia |
| GAB | Gabon | LIE | Liechtenstein LKA |
| GBR | United Kingdom | LKA | Sri Lanka |
| GEO | Georgia | LSO | Lesotho |
| GUF | French Guiana | LTU | Lithuania |
| GUM | Guam | LUX | Luxembourg |
| GUY | Guyana | LVA | Latvia |
| HUN | Hungary | MAC | Macao |
| IDN | Indonesia | MAF | Saint Martin (French part) MAR |
| IMN | Isle of Man | MAR | Morocco |
| IND | India | MCO | Monaco |
| IOT | British Indian Ocean Territory | MDA | Moldova |
| IRL | Ireland | MDG | Madagascar |
| IRN | Iran, Islamic Republic of Iran | MDV | Maldives |
| IRQ | Iraq | MNP | Northern Mariana Islands MOZ |
| ISL | Iceland | MOZ | Mozambique |
| ISR | Israel | MRT | Mauritania |
| ITA | Italy | MSR | Montserrat |
| JAM | Jamaica | MTQ | Martinique |
| JEY | Jersey | MUS | Mauritius |
| JOR | Jordan | MWI | Malawi |
| JPN | Japan | MYS | Malaysia |
| KHM | Cambodia | MYT | Mayotte |
| KAZ | Kazakhstan | NAM | Namibia |
| KEN | Kenya | NCL | New Caledonia |
| KGZ | Kyrgyzstan | NER | Niger |

|  |  |  |  |
| --- | --- | --- | --- |
| **ISO 3** | **Country Name** | **ISO 3** | **Country Name** |
| NFK | Norfolk Island | SHN | Saint Helena |
| NGA | Nigeria | SJM | Svalbard and Jan Mayan |
| NIC | Nicaragua | SLB | Solomon Islands |
| NIU | Niue | SLE | Sierra Leone |
| NLD | Netherlands | SLV | El Salvador |
| NOR | R Norway | SMR | San Marino |
| NPL | Nepal | SOM | Somalia |
| NRU | Nauru | SPM | Saint Pierre and Miquelon |
| NZL | New Zealand | SRB | Serbia |
| OMN | Oman | STP | Sao Tome and Principe |
| PAK | Pakistan | SUR | Suriname |
| PAN | Panama | SVK | Slovakia |
| PCN | Pitcairn | SVN | Slovenia |
| PER | Peru | SWE | Sweden |
| PHL | Philippines | SWZ | Swaziland |
| PLW | Palau | SYC | Seychelles |
| PNG | Papua New Guinea | SYR | Syrian Arab Republic |
| POL | Poland | TCA | Turks and Caicos Islands |
| PRI | Puerto Rico | TCD | Chad |
| PRK | Korea, Democratic People`s Republic | TGO | Togo |
| PRT | Portugal | THA | Thailand |
| PRY | Paraguay | TJK | Tajikistan TKL |
| PSE | Palestinian Territory, Occupied | TKL | Tokelau |
| PYF | French Polynesia | TKM | Turkmenistan |
| QAT | Qatar | TLS | Timor |
| REU | Run ion | TON | Tonga |
| ROU | Romania | TTO | Trinidad and Tobago |
| RUS | Russian Federation | TUN | Tunisia |
| RWA | Rwanda | TUR | Turkey |
| SAU | Saudi Arabia | TUV | Tuvalu |
| SDN | Sudan | TWN | Taiwan, Province of China |
| SEN | Senegal | TZA | Tanzania, United Republic of |
| SGP | Singapore | UGA | Uganda |
| SGS | South Georgia and the South Sandwich Islands | UKR | Ukraine |

|  |  |
| --- | --- |
| **ISO 3** | **Country Name** |
| UMI | United States Minor Outlying Islands |
| URY | Uruguay |
| USA | United States |
| UZB | Uzbekistan |
| VAT | Holy See (Vatican City State) |
| VCT | Saint Vincent and the Grenadines |
| VEN | Venezuela |
| VGB | Virgin Islands, British |
| VIR | Virgin Islands, U.S. |
| VNM | Viet Nam |
| VUT | Vanuatu |
| WLF | Wallis and Futuna |
| WSM | Samoa |
| YEM | Yemen |
| ZAF | South Africa |
| ZMB | Zambia |
| ZWE | Zimbabwe |

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