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1 Introduction

The Payment-Gateway technical integration guide helps you, with the detailed steps you need to follow while installing and integrating.

HDFC payment integration kit allows merchants to instantly collect payments from their users using various payment modes like credit cards, debit cards, Wallet, net-banking, UPI, BQR etc.

The HDFC payment integration supports a seamless payment experience on your platform, while protecting your application from payment frauds and complexity related to various regulations.

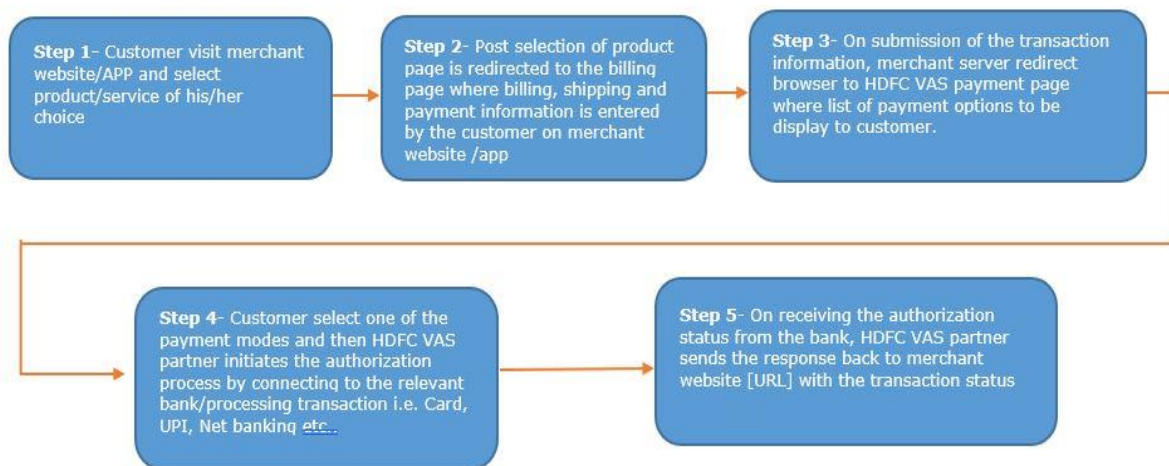


The guide covers below points:

- Detailed explanation of integration kit.
- Helps you plan the PG integration, implementation, testing & Go Live with your Team.
- End to end Payment-Transaction flow and Status API are briefly explained functionally & technically for your Technical Team.
- Parameters are well explained for building data exchange logic between PG platform and Merchant's platform.

2 Payment Integration

2.1 Transaction Flow



2.2 Request Parameters

Merchant to create string using parameter mentioned in below table

Required Parameters			
Name	Description	Type (length)	Mandatory [M] /Optional [O]

merchant_id	Merchant Id is a unique identifier generated by HDFC for each activated merchant.	Numeric	M
order_id	This ID is used by merchants to identify the order. Ensure that you send a unique id with each request. HDFC will not check the uniqueness of this order id. As it generates a unique payment reference number for each order which is sent by the merchant.	Alphanumeric (30) Characters allowed: Alphabet (A-Z), (a-z), Numbers,- (hyphen), / (slash), ,_ (underscore)	M
currency	Currency in which you want to process the transaction. INR – Indian Rupee USD – United States Dollar SGD – Singapore Dollar GBP – Pound Sterling EUR – Euro, official currency of Eurozone	Alphabets (3)	M
amount	Order amount	Numeric (12, 2)	M
redirect_url	HDFC will post the status of the order along with the parameters to this URL. If you do not send this value, order status will be sent back to the URL configured in dynamic event notifications module in your HDFC VAS account. If there is no URL configured in the HDFC VAS account, PG will display the status of the order on the HDFC confirmation page.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z), Numbers, / (slash),_ (underscore)	M
cancel_url	HDFC will redirect the customer to this URL if the customer cancels the	Alphanumeric (100)	M



	transaction on the billing page.	Characters allowed: Alphabet (A-Z), (a-z), Numbers, / (slash), _ (underscore)	
language	HDFC billing page is multi-lingual. Currently we are displaying the page in English (Code- EN).	Alphabet(5)	M

Merchant can send any of the following parameters in addition to the required parameters.

Billing and Shipping Information			
Name	Description	Type (length)	Mandatory [M] /Optional [O]
billing_name	Name of the customer	Alphabets (60) Characters allowed: Alphabet (A-Z), (a-z). Space in between words.	Optional

billing_address	Customer's billing address	Alphanumeric (150) Characters allowed: Alphabet (A-Z), (a-z). Numbers # (hash), Comma, circularbrackets, /(slash), dot, - (hyphen) Space in between words.	Optional
billing_city	Customer's billing city	Alphabets (30) Characters allowed: Alphabet (A-Z), (a-z). Space in between words.	Optional

billing_state	Customer's billing state	Alphabets (30) Characters allowed: Alphabet (A-Z), (a-z). Space in between words.	Optional
billing_zip	Customer's billing zip code	Alphanumeric (15) Characters allowed: Alphabet(A-Z), (a-z). Numbers	Optional
billing_country	Customer's billing country	Alphabets (50) Characters allowed: Alphabet (A-Z), (a-z). Space in between words.	Optional
billing_tel	Customer's phone number	Numeric (20)	Optional
billing_email	Customer's email address	Alphanumeric (70) Characters allowed: Alphabet (A-Z), (a-z). Numbers @ (at), dot, _ (underscore)	Optional
delivery_name	Recipient's name	Alphabets (60) Characters allowed: Alphabet (A-Z), (a-z). Space in between words.	Optional
delivery_address	Shipping address	Alphanumeric (150) Characters allowed: Alphabet (A-Z), (a-z). Numbers # (hash), Comma, circularbrackets, /(slash), dot, - (hyphen) Space inbetween	Optional

		words.	
delivery_city	Shipping city	Alphabets (30) Characters allowed: Alphabet (A-Z), (a-z). Space in between words.	Optional
delivery_state	Shipping state	Alphabets (30) Characters allowed: Alphabet (A-Z), (a-z). Space in between words.	Optional
delivery_zip	Shipping zip code	Alphanumeric (15) Characters allowed: Alphabet(A-Z), (a-z). Numbers	Optional
delivery_country	Shipping country	Alphabets (50) Characters allowed: Alphabet (A-Z), (a-z). Space in between words.	Optional
delivery_tel	Shipping phone number	Numeric (20)	Optional
merchant_param1	This parameter can be used for sending additional information about the transaction. PG will send this parameter in the reconciliation report.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z). Numbers # (hash), Comma, circularbrackets, /(slash), dot, - (hyphen)	Optional

merchant_param2	This parameter can be used for sending additional information about the transaction. PG will send this parameter in the reconciliation report.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z). Numbers # (hash), Comma, circularbrackets, /(slash), dot, - (hyphen)	Optional
merchant_param3	This parameter can be used for sending additional information about the transaction. PG will send this parameter in the reconciliation report.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z). Numbers # (hash), Comma, circularbrackets, /(slash), dot, - (hyphen)	Optional
merchant_param4	This parameter can be used for sending additional information about the transaction. PG will send this parameter in the reconciliation report.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z). Numbers # (hash), Comma, circularbrackets, /(slash), dot, - (hyphen)	Optional
merchant_param5	This parameter can be used for sending additional information about the transaction. PG will send this parameter in the reconciliation report.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z). Numbers # (hash), Comma, circularbrackets, /(slash), dot, - (hyphen)	Optional
promo_code	This parameter is used for sending the code of the promotion you have created [Not applicable in HDFC VAS Integration]	Alphanumeric (20) Characters allowed: Alphabet(A-Z), (a-z). Numbers	Optional
tid	This parameter is used for sending the unique identifier to identify uniqueness of the order. This is an optional parameter. Value for this	Numeric(17) Characters allowed: Only numbers	Optional



	parameter can be generated using the piece of code given in the integration kit. <i>The uniqueness of TID is valid for 24 hours only.</i>		
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2.3 Response Parameters

Name	Description	Type (length)
order_id	<p>This ID is used by merchants to identify the order. Ensure that you send a unique id with each request. HDFC Bank will not check the uniqueness of this order id. As it generated unique payment reference number for each order which is sent by the merchant</p> <p>Kindly ensure this value received in response is validated before providing services to end user.</p>	<p>Alphanumeric (30)</p> <p>Characters allowed: Alphabet(A-Z), (a-z), Numbers, #(hash), /(slash, - (hyphen)</p>
tracking_id	Unique payment reference number generated by HDFC Bank for each order.	Numeric (12)
bank_ref_no	Reference number generated by the bank for the transaction.	Alphanumeric
order_status	<p>Status of the order:-</p> <p>Success Failure Aborted Invalid</p>	Alphabets (15)

	Timeout	
failure_message	Reason for failure.	Alphanumeric
payment_mode	<p>The payment mode used by customer</p> <p>IVRS EMI Credit Card Net banking Debit Card Cash Card UPI Wallet</p>	Alphabets
card_name	Specifies the type of credit card, debit card, netbanking etc .	Alphanumeric
status_code	The status code for this transaction	Numeric (3)
status_message	The status message for this transaction.	Alphanumeric (150)
currency	<p>Currency code in which the transaction was processed.</p> <p>INR – Indian Rupee USD – United States Dollar SGD – SingaporeDollar GBP – Pound Sterling EUR – Euro, official currency of Eurozone</p> <p>Kindly ensure this value received in response is validated before providing services.</p>	Alphabets (3)
Amount	<p>Order amount</p> <p>Kindly ensure this value received in response is validated before providing services to end customer.</p>	Numeric (12, 2)
billing_name	Name of the customer	<p>Alphabets (60)</p> <p>Characters allowed: Alphabet(A-Z), (a-z). Spacein between words.</p>

billing_address	Customer's billing address	Alphanumeric (150) Characters allowed: Alphabet (A-Z), (a-z). Numbers# (hash),Comma, circular brackets, /(slash), dot, - (hyphen) Space in between words.
billing_city	Customer's billing city	Alphabets (30) Characters allowed: Alphabet(A-Z), (a-z). Spacein between words.

billing_state	Customer's billing state	Alphabets (30) Characters allowed: Alphabet(A-Z), (a-z). Space in between words.
billing_zip	Customer's billing zip code	Alphanumeric (15) Characters allowed: Alphabet(A-Z), (a-z). Numbers
billing_country	Customer's billing country	Alphabets (50) Characters allowed: Alphabet(A-Z), (a-z). Space in between words.
billing_tel	Customer's phone number	Numeric (20)
billing_email	Customer's email address	Alphanumeric (70) Characters allowed: Alphabet (A-Z), (a-z). Numbers @ (at), dot,_ (underscore)



delivery_name	Recipient's name	Alphabets (60) Characters allowed: Alphabet(A-Z), (a-z). Space in between words.
delivery_address	Shipping address	Alphanumeric (150) Characters allowed: Alphabet (A-Z), (a-z). Numbers# (hash), Comma, circular brackets, /(slash), dot, - (hyphen) Space inbetween words.

delivery_city	Shipping city	Alphabets (30) Characters allowed: Alphabet(A-Z), (a-z). Space in between words.
delivery_state	Shipping state	Alphabets (30) Characters allowed: Alphabet(A-Z), (a-z). Space in between words.
delivery_zip	Shipping zip code	Alphanumeric (15) Characters allowed: Alphabet(A-Z), (a-z). Numbers
delivery_country	Shipping country	Alphabets (50) Characters allowed: Alphabet(A-Z), (a-z). Space in between words.
delivery_tel	Shipping phone number	Numeric (22)

merchant_param1	This parameter can be used for sending additional information about the transaction. PG will send this parameter in the reconciliation report.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z). Numbers# (hash), Comma, circular brackets, /(slash), dot, - (hyphen)
merchant_param2	This parameter can be used for sending additional information about the transaction. PG will send this parameter in the reconciliation report.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z). Numbers# (hash), Comma, circular brackets, /(slash), dot, - (hyphen)
merchant_param3	This parameter can be used for sending additional information about the transaction. PG will send this parameter in the reconciliation report.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z). Numbers# (hash), Comma, circular brackets, /(slash), dot, - (hyphen)
merchant_param4	This parameter can be used for sending additional information about the transaction. PG will send this parameter in the reconciliation report.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z). Numbers# (hash), Comma, circular brackets, /(slash), dot, - (hyphen)
erchant_param5	This parameter can be used for sending additional information about the transaction. PG will send this parameter in the reconciliation report.	Alphanumeric (100) Characters allowed: Alphabet (A-Z), (a-z). Numbers# (hash), Comma, circular brackets, /(slash), dot, - (hyphen)

vault	This parameter can be used if merchant availing the vault option. On using vault functionality if card details are saved at HDFC VAS end value returned will be Y. If card details are not saved at HDFC VAS end the value returned for this parameter will be N	Character(1) Characters allowed: Y or N
offer_type	This parameter can be used for sending additional information if customer has used any discount or promotion while completing the transaction. If customer is using discount-coupon, value of this parameter would be discount. If customer is using promo-code, value of this parameter would be promotion.	Alphabets (9)
offer_code	This parameter can be used for sending additional information about the discount coupon and Promo code used while completing the transaction. If customer has used Discount the value sent would be Y or N accordingly. If customer has used Promotion the value sent would be Promo code	Alphanumeric (30)
discount_value	This parameter can be used for sending additional information about the discounted amount.	Numeric (12,2)
si_status	Status of the standing instruction request "0" denotes success. "1" denotes failure. This parameter is applicable for only for SI transactions.	Numeric
si_sub_ref_no	This is reference number created by HDFC VAS for each new subscription on the HDFC VAS system. This is the number that must be sent with each new "on demand" charge to identify the customer.	Alphanumeric (15)
si_mer_ref_no	This is the unique identifier send by the merchant in the request. E.G. For insurance – Policy number. It can also be a customer reference number.	Alphanumeric (30)



si_error_desc	Reason for failure to setup SI.	Alphanumeric (150)
si_created	SI is created or not (Optional in case of SI only) Value: Y - SI created N - SI not created	Character (1)
si_ref_no	SI Reference Number (Optional in case of SI only)	Alphanumeric (15)
retry	This parameter can be used if merchant availing the retry option. If the transaction is processed through retry attempt returned value will be Y. If the transaction is not processed through retry attempt returned value will be n.	Character(1) Characters allowed: Y or N
response_code	This parameter contains the code for each bank response message.	Numeric
bene_account	NEFT client code + tracking id (Optional in case of NEFT only)	Alphanumeric (35)
bene_name	NEFT client code (Optional in case of NEFT only)	Alphanumeric (20)
bene_ifsc	Beneficiary IFSC code (Optional in case of NEFT only)	Alphanumeric (20)
bene_bank	Beneficiary Bank code (Optional in case of NEFT only)	Alphanumeric (50)
bene_branch	Beneficiary Bank Branch (Optional in case of NEFT only)	Alphanumeric (255)
inv_mer_reference_no	Merchant reference number of invoice (Optional in case of invoice transaction only)	Alphanumeric (100)
trans_date	Transaction Completion Date	DateTime dd/MM/yyyy HH:mm:ss
mer_amount	In case of charge to customer model this amount is paid to the merchant.	Numeric (12, 2)
sub_account_id	This parameter returns the Sub Account ID sent by merchant while initiating the transaction.	Alphanumeric (20)
eci_value	ECI value as received from 3 D secure.	Numeric (2)



billing_notes	This parameter returns the billing notes entered by customer on the billing page.	Alphanumeric (150) Only letters, numbers, dot, &, circular brackets, slash, comma and hyphen are allowed.
bin_country	This parameter returns the entered Credit or Debit cards BIN country.	Alphanumeric(255)
customer_card_id	The identifier against which the card information is stored or retrieved. This is used in case of Vault transactions.	Numeric (12,2)
bin_supported	We support domestic and international cards. We can configure this in Merchant Settings as 'Domestic', 'International' or 'Both' to specify the supported BINs. Merchants have the ability to override this setting at runtime by passing a request parameter viz. D – Domestic – International B - Both	Alphabet (1)
trans_fee	Transaction fee applicable for the transaction.	numeric(12,2)
service_tax	Service Tax on fees chargeable to customers (Optional)	Numeric (12,2)

2.4 API Configuration Details

Merchant developer to update following values in sample code to complete the integration

API Configuration details

merchant_id <provided by bank for UAT integration > access_code <provided by bank for UAT integration> enc_key <provided by bank for UAT integration>
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2.5 Sample Reference API

<u>Generate Encryption value</u>



Merchant to create request as per format	Example merchant_id=123456&order_id=12345&amount=1.00¤cy=INR&redirect_url=https://www.abc.com&cancel_url=https://www.abc.com
string to be encrypted using AES-128 algorithm using key provided by bank.	Encryption Value 004ec0eae33771776608806679116d694d269ee8161a05b4c691c8780037071ebb1a8041c0b33d53c7c317506dd872f29959a166ee9e60d47f57aaa9f90526b4ca6313c664300d1b57a9011d46aa19108b58081f64ddc3c9bf6551ac3bf3159eb9ab85f2bbe1e80f463ae790e21ce8080314caaaa958f806714f2604f45b4d95

Redirection Post generating encryption merchant website to redirect customer to HDFC Bank URL	
UAT URL	https://test.ccavenue.com/transaction/transaction.do?command=initiateTransaction
Parameter	encRequest, access_code
Method	Post
Sample redirection URL	https://test.ccavenue.com/transaction/transaction.do?command=initiateTransaction&encRequest=004ec0eae33771776608806679116d694d269ee8161a05b4c691c8780037071ebb1a8041c0b33d53c7c317506dd872f29959a166ee9e60d47f57aaa9f90526b4ca6313c664300d1b57a9011d46aa19108b58081f64ddc3c9bf6551ac3bf3159eb9ab85f2bbe1e80f463ae790e21ce8080314caaaa958f806714f2604f45b4d95&access_code=AVZR45KC54CN06RZNC

2.6 List of Integration Kits

Development Platform	Technology
Web Integration	ASP.NET
	JSP
	Node JS
	Pearl

	PHP
	Phyton
	Ruby on Rail
Plugin's	Drupal_Commerce
	Drupal_Ubercart
	Joomla
	Magento
	Opencart
	Prestashop
	WordPress_Woocommerce
	Zencart
Mobile Development	Merchant to refer "Android without RSA" folder wherein bank have provided sample encryption code for encryption and decryption. Merchant can use the logic provided and can build the APP in respective platform i.e cordova , kotlin etc

2.7 List of Error Codes

Error Code	Error Description
10001	<p>The error code 10001 is because while requesting to HDFC Bank Payment Gateway getting an invalid encryption request.</p> <p>Merchant need to check the access code and the working key parameters that have passed in the ccavrequesthandler and ccavresponsehandler files and have to ensure that there are no spaces in that.</p>
10002	This error can be caused by an incorrect merchant _id an incorrect access_code, or request post on incorrect HDFC Bank post action URL . Make sure that all three of these values are correct. For your security, HDFC Bank payment gateway does not report exactly which of these three values might be in error. Merchant needs to pass correct API key's to avoid this error
10003	This error can be caused if there is no payment options are allocated for completing transaction. Ensure that merchant has payment options are allocated for completing transaction.
10004	To avoid this error, ensure that transaction amount for UPI payment option is not greater than threshold limit which is currently set to Rs.100000. This is set by NPCI.
21001	To avoid this error, ensure that the order_id parameter is not blank.
21002	To avoid this error, ensure that the currency parameter is not blank
21003	To avoid this error, ensure that the amount parameter is not blank.

41004

The mentioned error occurs when customer have clicked on Back/Refresh button on the browser. We suggest ask the customer to initiate a fresh transaction and not to click on back/refresh while transaction is taking place.

3 Status Enquiry Integration

3.1 Transaction Flow

Status Enquiry API implementation is mandatory & used for dual enquiry of transaction status, it will allow you to execute S2S enquiry API for dual verification of transaction status.

As PG does not have control over end user actions, there could possibilities of transaction drops cases wherein call-back URL (redirect_url) does not capture the transaction response in real-time.

To manage such cases, dual enquiry API can be implemented by Merchant's development team. This will also helpful in reconciliation process and eliminates manual intervention and transaction mismatch

3.2 Request Parameters

Name	Description	Note Parameters Datatype (Parameters max length)
enc_request (required)	AES encrypted request data	Merchant to pass encryption value generated using key. Example JSON <pre>{ "reference_no": "225013271813", "order_no": "33231644" }</pre> Example XML

		<pre><?xml version="1.0" encoding="UTF- 8"standalone="yes"?> <Order_Status_Query order_no="33231644" reference_no="225013271813"/></pre> <p>reference_no - HDFC VAS reference no. allocated to the transaction. Reference number is required if merchant do not share order_no.[Value which is return tracking_id in payment response]</p> <p>order_no- This is the merchant reference number for the transaction.</p> <p>Order number is required if merchant do not share reference_no.</p>
access_code (required)	<p>Unique HDFC access code which is generated when merchant registered their IP address.</p> <p>You must send this with each request.</p>	
request_type (required)	<p>API requests are accepted in XML, JSON or</p> <p>String. Specify the request type.</p>	<p>Possible value for request_type is</p> <p>"JSON" OR "XML"</p>
response_type (optional)	<p>API returns responses in XML, JSON or String format. If left blank, the response will be in</p> <p>the same format as request.</p>	<p>Possible value for response_type is "JSON" "XML"</p>
command (required)	<p>Command value specifies the API calls. You</p> <p>must send this with each request.</p>	<p>Value is "orderStatusTracker".</p>



Version(required)	Version parameter to be mentioned by merchant	Value is "1.2"
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3.3 Response Parameters

Merchant will be received below parameter in Status API call

Name	Description
enc_response	AES encrypted response containing format as per response_type.
enc_error_code	enc_error_code contains value if status is "1" please refer to below table for the error code.
status	This states whether the call was successful or not. If value of this parameter is "1" then you need not decrypt the enc_response as it will contain plain error message.

To get Status Inquiry status, Merchant Developer to decrypt **enc_response** value using Encryption key provided bank. Post decryption merchant will get below list of parameters

Name	Description	Note
status	This states whether the call was successful or not. If value of this parameter is "1" then you need not decrypt the enc_response as it will contain plain error message.	Value "0" denotes that the API call was successful. Value "1" denotes API call failure. On enc_response is plain text represents the error message.
enc_response	AES encrypted response containing format as per response_type	
order_amt	Amount for the transaction.	Decimal (12,2).
order_bill_address	Order billing address details for the order.	Possible value for address is Alphanumeric with special characters (space, hyphen, comma, ampersand (&), hash (#), circular brackets and dot)(315).
order_bill_city	Order billing City name for the order.	Possible value for city is Alphanumeric with special characters (space, comma, hyphen and dot)



		(30).
order_bill_country	Order billing Country for the Order.	Possible value for country is Alphanumeric with special characters (space)(30).
order_bill_email	Email Address of the Order for notifications.	Possible value for email ID is
		Alphanumeric with special characters (hyphen, underscore, dot, @) (70).
order_bill_name	Order billing name for the order.	Possible value for name is Alphanumeric with special characters (space, hyphen, apostrophe, underscore, dot) (60).
order_bill_state	Order billing state for the order.	Alphanumeric with special characters (hyphen, dot and space) (30).
order_bill_tel	Order billing telephone no. for the order.	Numeric (10)
order_bill_zip	Order billing address's pin code for the order.	Possible value for zip is Alphanumeric with special characters (hyphen and space) (15).
order_capt_amt	Captured amount for the transaction. Captured amount can be full or partial of transaction amount.	Decimal (12,2).
order_curr	Possible order Currency in which merchant processed the transaction.	String Examples: INR – Indian Rupee USD –United States Dollar SGD – Singapore Dollar GBP – Pound Sterling EUR – Euro, official currency of Eurozone
order_date_time	Order Generated Date & Time.	Date Time in IST (yyyy-MM-ddHH:mm:ss.SSS) format.

order_device_type	This is the type of device using which the transaction was processed.	Possible value for device type is IVRS/MOB/PC.
order_discount	This is Discount Value for the Order No.	Decimal (12,2).
order_fee_flat	Flat Fee for the Order No.	Decimal (12,2).
order_fee_perc	Provides the percentage fee for the same order No.	Decimal (12,2).
order_fee_perc_value	This attribute provides the percentage fee Value for the same order No.	Decimal (12,2).
order_fraud_status	Specify whether orders are valid or not.	String Possible Values are: 1) Value " High " denotes "HighRisk" 2) Value " Low " denotes "LowRisk" 3) Value " NR " denotes "NoRisk" Value " GA " denotes "Go Ahead" 5) Value " NA " denotes "NotApplicable"
order_gross_amt	Total transaction amount.	Decimal (12,2).
order_ip	Customer IP Address (i.e. from where transaction is being initiated)	IP V-4 Supported.
order_no	Order No. for the transaction.	Alphanumeric with special characters (hyphen and underscore) (30).
order_notes	Order information you wish to provide.	Alphanumeric with special characters (space, comma, dot, hyphen and underscore) (60).
order_ship_address	Shipping Address for the order.	Possible value for address is Alphanumeric with special characters (space, hyphen, comma, ampersand (&), hash (#), circular brackets and dot)(315)



order_ship_city	Shipping city name for the orders.	Possible value for city is Alphanumeric with special characters (space, comma, hyphen and dot) (30).
order_ship_country	Shipping country name for the orders.	Possible value for count is Alphanumeric with special characters (space) (30).
order_ship_email	Shipping email ID for the notifications of the transaction.	Possible value for email id is Alphanumeric with special characters (hyphen, underscore, dot, @) (70).
order_ship_name	Shipping Name of the Customer for the order.	Possible value for name is Alphanumeric with special characters (space, hyphen, apostrophe, underscore, dot) (60).
order_ship_state	Shipping state for the order.	Alphanumeric with special characters (hyphen, dot and space) (30).
order_ship_tel	Telephone no. for notifications of the transaction.	Numeric (10).
order_ship_zip	Order shipping address's pincode for the order.	Possible value for zip is Alphanumeric with special characters (hyphen and space) (15).

order_status	Status of the order. It can be single or multiple.	<p>Cancelled (transaction is cancelled by merchant)</p> <p>Invalid (Transaction sent to HDFC VAS with Invalid parameters, hence could not beprocessed further)</p> <p>Fraud (we update this during recon, the amount is different atbank 'send and at HDFC VAS due to tampering)</p> <p>Initiated (transaction just arrived on billing shipping page and not processed further)</p> <p>Refunded (Transaction is refunded.)</p> <p>Shipped (transaction is confirmed) Successful</p> <p>Systemrefund (Refunded by HDFC VAS for various findings of reversals by HDFC VAS)</p> <p>Unsuccessful (transaction is not successful)</p> <p>Timeout (The HDFC VAS paymentpage has a Timeout set at 15 minutes per session)</p>
order_status_date_time	This is the latest date and time when orderstatus is modified.	DateTime in IST(yyyy-MM-dd HH:mm:ss.SSS) format.
order_TDS	Amount of TDS (tax deducted at source) forthe Transaction.	Decimal (13,4)
order_tax	Tax Amount for the Transaction.	Decimal (13,4)



reference_no	HDFC VAS reference no. allocated to the transaction.	Numeric (25).
order_bank_ref_no	Unique reference number shared by Bank after successful transaction.	Numeric (25).
order_bank_response	Description about the transaction shared by the bank after transaction.	String
order_gtw_id	Unique payment option Bank name.	Alphabet (6)
order_card_name	Specify the card name for the transaction.	Possible value for card name is VISA, "MASTERCARD", "AMEX", "JCB", "DINERS CLUB".
order_option_type	Specify the payment option type for the order.	String Possible value for payment option type is: OPTCASHC-Cash card OPTCRDC - Credit Card OPTDBCRD-Debit Card OPTEMI-EMI OPTIVRS-IVRS OPTMOBP-Mobile Payments OPTNBK-Net Banking
Merchant_param1	parameters value update by merchant at transaction time for further use.	String
Merchant_param2	parameters value update by merchant at transaction time for further use.	String
Merchant_param3	parameters value update by merchant at transaction time for further use.	String
Merchant_param4	parameters value update by merchant at transaction time for further use.	String
Merchant_param5	parameters value update by merchant at transaction time for further use.	String
page_count	Total pages available based on no_of_records in the request.	Example: no_of_records



total_records	Total no.of orders matching the lookupcriteria.	sent inrequest was 100 total_records matching the lookup criteria were 1000 page_count will be 10 (total_records / no_of_records)rounded to the ceiling.
error_desc	Reason if search criteria did not find the ordersfor the transactions.	String. Please refer below table for failure message.
error_code	Error code for Failure reason.	String. Please refer below table forfailure message.

3.4 API Configuration Details

Merchant developer to update following values in sample code to complete the integration

access_code <provided by bank for UAT integration>

enc_key <provided by bank for UAT integration>

reference_no < Unique payment reference number generated by HDFC bank for each order. This value will be return to merchant **redirect_url** in payment response i.e. **"tracking_id"** parameter

order_no < Unique number generated from merchant system, this value will be return to merchant **redirect_url** in payment response i.e **order_id** parameter

3.5 Sample Reference API

<u>Merchant to create JSON/XML request</u>	
Merchant to create request as per format	<p>JSON Example</p> <pre>{ "reference_no": "311008295141", "order_no": "20220512055" }</pre> <p>XML Example</p> <pre><?xml version="1.0" encoding="UTF-8"standalone="yes"?></pre>



	<p><Order_Status_Query order_no="33231644" reference_no="225013271813"/></p> <p>NOTE- Merchant will have to encrypt the above json/XML request using AES-128 using key provided by bank and store in the "enc_request" parameter before sending it to HDFC Bank PG</p>
Sample encrypted value	<p>Encryption Value</p> <p>bdaacd8a3c61733862628c3f0de0041abb56a3021d3a8746f560b8e426b7f6048e6d65336ed90c04dc2c92f3f83d41fc0363b28e940a2d18227faa586458fa49</p>

server to server call	
UAT Posting URL	https://apitest.ccavenue.com/apis/servlet/DoWebTrans?
Parameter	encRequest, access_code , request_type , response_type, command, version
Method	Post
Sample Request	enc_request=bdaacd8a3c61733862628c3f0de0041abb56a3021d3a8746f560b8e426b7f6048e6d65336ed90c04dc2c92f3f83d41fc0363b28e940a2d18227faa586458fa49&access_code=AVJD76JC65CL08DJLC&request_type=JSON&response_type=JSON&command=orderStatusTracker&version=1.2

API Response	
Successful Response	<p>Sample API Response</p> <p>status=0&enc_response=63957FB55DD6E7B968A7588763E08B240878046EF2F520C44BBC63FB9CCE726209A473457E6B13721EC6D05ED13A0483ACFDD6F11F284AE79755D47E79687478F93CFCD3CD97510B67B961CDB5279F209F5C451F3039696F13C990B963854C8CADF730&enc_error_code=</p> <p>Merchant Developer to decrypt value received in enc_response</p> <p>Sample JSON Decrypted response</p> <pre>{ "reference_no": "311008295141", "order_no": "20220512055", "order_currncy": "INR", "order_amt": 10990,</pre>

```

"order_date_time": "2022-05-13 01:32:02.997",
"order_bill_name": "Vaidehi Narayanan",
"order_bill_address": "SSM",
"order_bill_zip": "600063",
"order_bill_tel": "498797",
"order_bill_email": "n.vaidu@gmail.com",
"order_bill_country": "India",
"order_ship_name": "Vaidehi Narayanan",
"order_ship_address": "SSM",
"order_ship_country": "India",
"order_ship_tel": "498797",
"order_bill_city": "Chennai",
"order_bill_state": "MH",
"order_ship_city": "Chennai",
"order_ship_state": "Tamil Nadu",
"order_ship_zip": "600063",
"order_ship_email": "",
"order_notes": "",
"order_ip": "61.6.9.51",
"order_status": "Shipped",
"order_fraud_status": "NA",
"order_status_date_time": "2022-05-13 01:32:48.383",
"order_capt_amt": 10990,
"order_card_name": "Visa",
"order_delivery_details": "",
"order_fee_perc": 0,
"order_fee_perc_value": 0,
"order_fee_flat": 0,
"order_gross_amt": 10990,
"order_discount": 0,
"order_tax": 0,
"order_bank_ref_no": "1652385598117",
"order_gtw_id": "AVN",
"order_bank_response": "Y",
"order_option_type": "OPTCRDC",
"order_TDS": 0,
"order_device_type": "PC",
"param_value1": "",
"param_value2": "",
"param_value3": "",
"param_value4": "",
"param_value5": "",
"error_desc": "",
"status": 0,
"error_code": ""
}

```

XML Decrypted response: -

```

<?xml version='1.0' encoding='UTF-8'?>
<Order_Status_Result error_code="">
  <error_desc></error_desc>
  <order_TDS>0.0</order_TDS>
  <order_amt>2.00</order_amt>

```



	<pre> <order_bank_ref_no>1628857641008</order_bank_ref_no> <order_bank_response>Y-0</order_bank_response> <order_bill_address>Near Post Office</order_bill_address> <order_bill_city>VPO Mukandpur Shahid Bhagat Si</order_bill_city> <order_bill_country>India</order_bill_country> <order_bill_email>smsjindwari@gmail.com</order_bill_email> <order_bill_name>PG TEST</order_bill_name> <order_bill_state>Punjab</order_bill_state> <order_bill_tel>9872076149</order_bill_tel> <order_bill_zip>144507</order_bill_zip> <order_capt_amt>2.0</order_capt_amt> <order_card_name>AvenuesTest</order_card_name> <order_currncy>INR</order_currncy> <order_date_time>2021-08-13 17:56:44.02</order_date_time> <order_delivery_details></order_delivery_details> <order_device_type>PC</order_device_type> <order_discount>0.0</order_discount> <order_fee_flat>0.0</order_fee_flat> <order_fee_perc>0.0</order_fee_perc> <order_fee_perc_value>0.0</order_fee_perc_value> <order_fraud_status>NA</order_fraud_status> <order_gross_amt>2.0</order_gross_amt> <order_gtw_id>AVN</order_gtw_id> <order_ip>106.196.123.236</order_ip> <order_no>21PJPGTEST006237B</order_no> <order_notes></order_notes> <order_option_type>OPTNBK</order_option_type> <order_ship_address>Near Post Office</order_ship_address> <order_ship_city>VPO Mukandpur Shahid Bhagat Si</order_ship_city> <order_ship_country>India</order_ship_country> <order_ship_email></order_ship_email> <order_ship_name>PG TEST</order_ship_name> <order_ship_state>Punjab</order_ship_state> <order_ship_tel>9872076149</order_ship_tel> <order_ship_zip>144507</order_ship_zip> <order_status>Shipped</order_status> <order_status_date_time>2021-08-13 17:57:21.29</order_status_date_time> <order_tax>0.0</order_tax> <reference_no>310007458009</reference_no> <status>0</status> </Order_Status_Result> </pre>
Failure Response	<p>Sample API Response</p> <p>status=1&enc_response=Access_code:Invalid parameter&enc_error_code=51407</p>

3.6 List of Integration Kits



Development Platform	Technology
Status API	ASP.NET
	JAVA
	PHP

3.7 List of Error Codes

Error code	Short Description	Long Description	Reason /Error description	Applicable to
51001	Missing Parameter	Reference Number: Required parameter missing	"Ensure that the Reference Number parameter is not blank."	Status API
51002	Invalid Parameter	Reference Number: Invalid Parameter	"Ensure that the Reference Number parameter is numeric."	Status API
51003	Invalid Parameter	Reference Number: Invalid Parameter	"Ensure that the Reference Number parameter does not exceed 25 characters."	Status API
51004	Invalid Parameter	Reference number/Order number: Invalid Parameter	"Ensure that reference number/order number is provided."	Status API

4 Merchant Security Audit

Post Integration is completed, the integration undergoes security audit on the platform on which integration is completed (Web, Android, IOS, etc). This is done as per the RBI advisory 1 & 4, 2018.

Before the security audit is started, please ensure the below points are taken care.



1) Maintain database to store the transaction details/ status and ensure database is not cleared until the testing is completed.

2) Services/ payment confirmation to customer/ user will be provided on basis of Database Status.

3) We perform multiple test transactions in Security Audit process. Kindly ensure login credentials are shared/ products are listed for testing/ links are available/ Prefilled forms are available, so we can expedite the security testing process.

4) Please ensure that provided UAT setup should be identical as per the production setup.

Audit table:

Please ensure the below details are shared while the integration undergoes security audit.

Audit table	
UAT URL to be tested:	
TRANSACTION URL is publicly accessible	(Yes/No), please make sure that the URL is publicly accessible for testing.
Link to download the android/iOS app (in case of mobile integration)	
Is the android/iOS APK TLS/SSL unpinned? (In case of mobile integration)	Please note, for mobile integration, the APK must be TLS/SSL mandatorily unpinned.
LOGIN ID and passwords: (if applicable)	Please share the login ID and password so we can expedite the testing.
RESPONSE URL:	URL on which response is being handled/ URL of the receipt page.
DEVELOPER CONTACT NO:	
DEVELOPER EMAIL ID:	
Programming Language	
Plugin Name and version (In case Plugin is being used)	
Please confirm if there would be multiple products to be tested with different amounts	(Yes/No)
Server to Server call Implementation	(Yes/No)



5 Steps to Go-live

Post merchant UAT Integration and Security Audit process completion, MRM sends Live Kit request to PGHD team with complete details i.e Live MIQ.

PGHD team validates the request and take it further with CC Avenue for onboarding purpose. Post onboarding, Live Kit/Credentials is released by PGHD team on merchant registered email ids.

Webhook:

Dynamic Event Notification (server to server call)- We do have server to server response call, If server to server call needs to be enable then kindly share us the URL where S2S response will be posted from our end to you.

For Live integration and production movement, Merchant has to follow below mentioned steps.

Go live Steps- (Web / IOS / Android)	
Steps	1. Merchant need to refer attached password protected excel file for live account details for live integrations. 2. Configure VAS Account ID, Access Code and Working Key provided by bank 3. Merchant to change post action URL as mentioned below
Payment URL	https://secure.ccavenue.com/transaction/transaction.do?command=initiateTransaction
Status Enquiry API	https://api.ccavenue.com/apis/servlet/DoWebTrans

Go live Steps for Plugin base integration



Steps	<ol style="list-style-type: none">1. Merchant need to refer attached (Excel) live account details for live integrations.2. Start the integration using Live VAS Account ID, Access Code and Working Key.3. Status of Sandbox and I-frame needs to disable in Production environment, As I-frame is not supported by CC Avenue and disabling sandbox will help merchant to get Post action url as "https://secure.ccavenue.com/"
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Merchant Dashboard	
Dashboard Link	https://dashboard.ccavenue.com/jsp/merchant/hdfcLogin.jsp
Steps download the transaction details from console:	<ol style="list-style-type: none">1) Click on the Orders > Order Lookup, to open the Order Lookup pop up.3) Choose the date range from the option available on the pop up window.4) click the 'Search' button, you will get all the transactions (Netbanking /Card/UPI/ Payzapp etc.) performed for the selected date range.
steps to get the API Keys	<ol style="list-style-type: none">1) Login into merchant console (Enter Username and Password).2) Goto settings>>API Keys.

6 Best Practices

- A. Merchant to implement the Integration first on their UAT website or APP should be accessible.
- B. The Merchant should mandatorily maintain logs for each transaction as mentioned below
 - The parameters before setting the values in the respective variable.
 - Request from the merchant server to HDFC VAS Payment Gateway
 - Response that is received from the HDFC VAS Payment
- C. The Merchant should have the latest SSL security certificate in the payment request and receive webpage, if any. Always ensure that the SSL certificate is valid and has not expired. Such certificates should be as per the approved list of the Acquiring Bank. Self-singed certificates are not supported by Payment Gateway in Test and Production Environment
- D. The Merchant should mandatorily complete the UAT and ensure all results are in line with the recommended response prior to going LIVE.
- E. Any changes in the pages would need to be tested before moving to Production after proper communication to the Bank personnel and receipt of approval. If the pages have a change in logic or transaction flow particularly, the Acquiring Bank's consent is



Mandatory

- F. The transaction request and Response Handling: For ease in integration, “Sample/Demo pages” provided in the integration document are essentially for representation purposes only. The actual pages have to be necessarily developed and implemented by the Merchant’s development team and used in both the Test and Production environment. The Sample demo pages are provided for the logical understanding and transaction flow only. An ideal logical flow for the merchant to process the customer input data is to collect the shopping details of the customer such as transaction amount, order id and other parameters and stored in a secure storage location and validated immediately against the details of shopping cart module.
- G. Maintenance of Transaction Logs: It is essential for the transaction logs to be maintained in a secure storage location within the environment. This is crucial in order to trace transaction history in case of a dispute raised by a customer or even internal audit purposes. These logs should ideally include the customer IP address as well apart from the other transaction details
- H. Authorization Response Receipt and Management: HDFC VAS Payment Gateway responds on the Merchant Receipt URL (redirect_url & cancel_url) and the merchant MUST ensure that the response received on this URL from PG is validated against the actual request and then recorded in the merchant’s system’s database. The Merchant should validate the transaction amount and order_id [Generated from merchant system] received from the Payment Gateway in response against merchant order id and amount for which the transaction was requested and if both match THEN ONLY merchant should proceed to the next level of transaction processing. Any mismatch should result in a transaction decline by the merchant.
 - a) As and when merchant received response from HDFC VAS Payment gateway on return URL, merchant should initiate Status API immediately and capture the response in database i.e status, Amount, order id . Merchant should ensure that all values used for generating final receipt /confirmation taken from database and not from values send on browser response.