

Seamless EMI Integration v2.1

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1 Overview

This document explains how to integrate the multiple product EMI solution in seamless mode.

2 Implementation Details

Following apis are required to be integrated :

1. EMI Calculator
2. Scheme Validation
3. Initiate Payment
4. Process Payment
5. Browser redirect response

3 API Contracts

3.1 EMI Calculator

Api details can be found in [EMI Calculator v2.0.pdf](#)

3.2 Scheme Validation

It checks the validity of selected offer on a card number

3.2.1.1 Content Type & URL's

Content Type	application/json
UAT	https://uat.pinepg.in/api/v2/scheme/validation
Production	https://pinepg.in/api/v2/scheme/validation

3.2.2 Request

3.2.2.1 Body Params

Parameter Name	Type	Description
merchant_data	Object	It contains information about merchant.
payment_data	Object	It contains information about payment
card_data	Object	It contains information about card data
emi_data	Object	It contains information about emi data

merchant_data

Parameter Name	Type	Description	Mandatory(M)/Optional
merchant_id	int	Merchant id provided by pine labs	M
merchant_access_code	string	Merchant access code provided by pine labs	M

payment_data

Parameter Name	Type	Description	Mandatory(M)/Optional
amount_in_paisa	long	Total sum of products amount present in cart.	M

card_data

Parameter Name	Type	Description
card_number	String	Card number
card_expiry_year	String	Card expiry year having format YYYY
card_expiry_month	String	Card expiry month having format MM
card_holder_name	String	Card holder name

tokenize_card_data

Parameter Name	Type	Description
token	String	Card token received from token requestor
expiration_month	String	Card expiry month having format MM
expiration_year	String	Card expiry year having format YYYY
last4Digit	String	Last 4 Digit of Card

emi_data

Parameter Name	Type	Description
offer_scheme	Object	It contains information about offer applicable on each product
tenure_id	Int	Tenure Id specified at pine labs end
tenure_in_month	String	Tenure name specified at pine labs end
monthly_installment	Long	Emi amount in paise
bank_interest_rate	Long	Interest rate for which bank emi is calculated. Its value is percentage multiplied by 10000
interest_pay_to_bank	Long	Interest pay to bank in paise
total_offered_discount_cashback_amount	Long	Total sum of discount applicable on cart. It is in paise.
loan_amount	Long	Amount in paise on which loan will be booked
auth_amount	Long	Bank authorization amount in paise.

offer_scheme

Parameter Name	Type	Description
product_details	Array of objects	It contains information about product.
emi_scheme	Object	It contains information about bank EMI scheme.

product_details

Parameter Name	Type	Description
product_code	String	Product code
product_amount	Long	Product amount in paise
subvention_cashback_discount	Long	Subvention discount cashback amount in paise. Only applicable when subvention is present.
subvention_cashback_discount_percentage	Long	Subvention discount cashback percentage. Its value is percentage multiplied by 10000.
product_discount_percentage	Long	Product discount cashback percentage. Its value is percentage multiplied by 10000.
subvention_type	Int	It tells offer type. 1-No cost EMI 2-Low cost EMI 3-Standard EMI
additional_cashback	String	Additional cashback text
bank_interest_rate	Long	Amount in paise
bank_interest_rate_percentage	Long	Percentage multiplied by 10000
schemes	Array of objects	It contains list of program applicable on product.

emi_scheme

Parameter Name	Type	Description
scheme_id	Long	It tells scheme id applicable on product
program_type	Int	It tells scheme of which type. 105-Bank EMI 106- Brand EMI 108-Product discount 112-Subvention discount
is_scheme_valid	Bool	Is scheme is valid

Schemes

Parameter Name	Type	Description
scheme_id	Long	It tells scheme id applicable on product
program_type	Int	It tells scheme of which type. 105-Bank EMI 106- Brand EMI 108-Product discount 112-Subvention discount
is_scheme_valid	Bool	Is scheme is valid

3.2.2.2 Sample Request for All Credit cards

```
{
  "merchant_data": {
    "merchant_id": 3473,
    "merchant_access_code": "57e39383-b053-4db9-a708-26d8971886e7"
  },
  "payment_data": {
    "amount_in_paisa": 1100000
  },
  "card_data": {
    "card_number": "4012001037141112",
    "card_expiry_year": "2020",
    "card_expiry_month": "09",
    "card_holder_name": "harsh"
  },
  "emi_data": {
    "offer_scheme": {
      "product_details": [
        {
          "schemes": [
            {
              "scheme_id": 1682,
              "program_type": 112,
              "is_scheme_valid": true
            }
          ],
          "product_code": "SM-G975FCWG",
          "product_amount": 550000,
          "subvention_cashback_discount": 11705,
          "product_discount": 0,
          "subvention_cashback_discount_percentage": 21500,
          "product_discount_percentage": 0,
          "subvention_type": 1
        },
        {
          "schemes": [],
          "product_code": "40",
          "product_amount": 550000,
          "subvention_cashback_discount": 0,
          "product_discount": 0,
          "subvention_cashback_discount_percentage": 0,
          "product_discount_percentage": 0
        }
      ],
      "emi_scheme": {
        "scheme_id": 1683,
        "program_type": 105,
        "is_scheme_valid": true
      },
      "tenure_id": "3",
      "tenure_in_month": "3",
      "monthly_installment": 370652,
      "bank_interest_rate": 130000,
      "interest_pay_to_bank": 23661,
      "total_offered_discount_cashback_amount": 11705,
      "loan_amount": 1088295,
      "auth_amount": 1088295
    }
  }
}
```

3.2.3 Response

3.2.3.1 Params

Parameter Name	Type	Description
response_code	int	It notifies the result of api processing. Value 1 denotes success.
response_message	string	It denotes the message corresponding to above code
offer_scheme	Object	It contains information about offer applicable on each product. <i>This tag will come in response only in case of failure.</i>

offer_scheme

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Parameter Name	Type	Description
product_details	Array of objects	It contains information about product.
emi_scheme	Object	It contains information about bank EMI scheme.

product_details

Parameter Name	Type	Description
product_code	String	Product code
product_amount	Long	Product amount in paise
subvention_cashback_discount	Long	Subvention discount cashback amount in paise. Only applicable when subvention is present.
product_discount	Long	Product discount amount in paise. Only applicable if product discount is present
subvention_cashback_discount_percentage	Long	Subvention discount cashback percentage. Its value is percentage multiplied by 10000.
product_discount_percentage	Long	Product discount cashback percentage. Its value is percentage multiplied by 10000.
subvention_type	Int	It tells offer type. 1-No cost EMI 2-Low cost EMI 3-Standard EMI
additional_cashback	String	Additional cashback text
bank_interest_rate	Long	Amount in paise
bank_interest_rate_percentage	Long	Percentage multiplied by 10000
schemes	Array of objects	It contains list of program applicable on product.

emi_scheme

Parameter Name	Type	Description
scheme_id	Long	It tells scheme id applicable on product
program_type	Int	It tells scheme of which type. 105-Bank EMI 106- Brand EMI 108-Product discount 112-Subvention discount

is_scheme_valid	Bool	Is scheme is valid
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Schemes

Parameter Name	Type	Description
scheme_id	Long	It tells scheme id applicable on product
program_type	Int	It tells scheme of which type. 105-Bank EMI 106- Brand EMI 108-Product discount 112-Subvention discount
is_scheme_valid	Bool	Is scheme is valid
reasons	Array of object	Description for failure of schemes

Reasons

Parameter Name	Type	Description
reason_code	int	It denotes the reason code
reason_message	String	It denotes the reason message again the code

3.2.3.2 Sample Response

Success response

```
{
  "response_code": 1,
  "response_message": "SUCCESS",
}
```

Failure response

```
{ "offer_scheme": { "product_details": [ { "schemes": [ { "scheme_id": 8055, "program_type": 112,
"is_scheme_valid": true }, { "scheme_id": 8042, "program_type": 108, "is_scheme_valid": false,
"reasons": [ { "reason_code": -298, "reason_message": "OUTDATED_SCHEME_PRESENT" } ] } ],
"product_code": "SM-G950FZKDINS", "product_amount": 550000, "subvention_cashback_discount":
9675, "product_discount": 100000, "subvention_cashback_discount_percentage": 21500,
"product_discount_percentage": 100000, "subvention_type": 1 }, { "schemes": [], "product_code":
"6504", "product_amount": 4500000, "subvention_cashback_discount": 0, "product_discount": 0,
"subvention_cashback_discount_percentage": 0, "product_discount_percentage": 0 } ], "emi_scheme":
{ "scheme_id": 8056, "program_type": 105, "is_scheme_valid": true } }, "response_code": -289,
```

```
"response_message": "SCHEME VALIDATION FAILED" }
```

3.3 Initiate Payment

It initiates the transaction. Merchant has to pass unique merchant txn reference number ,amount and other parameters.

Api details can be found in [Payment API v2.0.pdf](#)

3.4 Process Payment

For Card transaction payment data against transaction will be passed in this call

Payment Token received in previous call needs to be part of this call
api/v2/process/payment?token=eWat4peytZfFi5h586HKpA%3d%3d"

API details can be found in [Payment API v2.0.pdf](#)

For TPAN transaction, merchants need to process the payment data against the transaction through this API for tokenized card (TPAN) credential only.

Payment Token received from the accept payment API response must be sent across in the process payment API request

api/v2/process/payment/card/tokenize?token=
ubrjAgbVaJVrGz67y%2fZCjCveYWNymE7ULAIOO7FCbz4%3d

API details can be found in [Tokenization Payment Processing API v1.1.pdf](#)

NOTE: Currently Debit EMI transaction is not supportable through the TPAN

3.5 Browser Redirect Response

Details can be found in [Payment API v2.0.pdf](#)

4 HDFC Debit EMI

4.1 Implementation Details

Following apis are required to be integrated

1. EMI Calculator
2. Scheme Validation
3. Initiate Payment
4. Process Payment
5. Validate OTP
6. Order confirmation

4.2 Api Contracts

4.2.1 EMI Calculator

Refer section 3.1

4.2.2 Scheme validation

Refer section 3.2.

4.2.2.1 Sample Request

```
{"merchant_data":{"merchant_id":3413,"merchant_access_code":"1c295f88-4477-4cd3-b5ac-e76148545a3e"},"payment_data":{"amount_in_paisa":1000000},"card_data":{"card_number":"401200103778404"},"emi_data":{"offer_scheme":{"product_details":[{"schemes":[],"product_code":"40","product_amount":1000000,"subvention_cashback_discount":0,"product_discount":0,"subvention_cashback_discount_percentage":0,"product_discount_percentage":0,"subvention_type":3,"bank_interest_rate_percentage":160000,"bank_interest_rate":47180}],"emi_scheme":{"scheme_id":3449,"program_type":105,"is_scheme_valid":true}}},"tenure_id":"6","tenure_in_month":"6","monthly_installment":174530,"bank_interest_rate":160000,"interest_pay_to_bank":47180,"total_offered_discount_cashback_amount":0,"loan_amount":1000000,"auth_amount":1000000}}
```

4.2.3 Accept Payment

Refer section 3.3

4.2.4 Process Payment

Refer section 3.4

4.2.4.1 Sample Request

```
{"card_data":{"card_number":"401200103778404"},"additional_data":{"mobile_no":"9553441115"},"emi_data":{"offer_scheme":{"product_details":[{"schemes":[],"product_code":"40","product_amount":1000000,"subvention_cashback_discount":0,"product_discount":0,"subvention_cashback_discount_percentage":0,"product_discount_percentage":0,"subvention_type":3,"bank_interest_rate_percentage":160000,"bank_interest_rate":47180}],"emi_scheme":{"scheme_id":3449,"program_type":105,"is_scheme_valid":true}}},"tenure_id":"6","tenure_in_month":"6","monthly_installment":174530,"bank_interest_rate":160000,"interest_pay_to_bank":47180,"total_offered_discount_cashback_amount":0,"loan_amount":1000000,"auth_amount":1000000}}
```

```
"":1000000,"subvention_cashback_discount":0,"product_discount":0,"subvention_cashback_discount_percentage":0,"product_discount_percentage":0,"subvention_type":3,"bank_interest_rate_percentage":160000,"bank_interest_rate":47180}],{"emi_scheme":{"scheme_id":3449,"program_type":105,"is_scheme_valid":true}},{"tenure_id":"6","tenure_in_month":"6","monthly_installment":174530,"bank_interest_rate":160000,"interest_pay_to_bank":47180,"total_offered_discount_cashback_amount":0,"loan_amount":1000000,"auth_amount":1000000}}}
```

4.2.4.2 Sample Response

```
{"api_url":"https://environment/api/v2/validate/otp?token=ARmxNsSVcACtsLan00dljumLJJX5ST8ea13nLZD8iHM%3d","response_code":1,"response_message":"SUCCESS"}
```

Application needs to use the url for calling the validate OTP api

4.2.5 Validate OTP

4.2.5.1 Request

4.2.5.1.1 Content Type & URL's

Content Type	application/json
--------------	------------------

Url: use the url received in previous api response.

4.2.5.1.2 Body Params

Parameter Name	Type	Description	Mandatory/Optional/Conditional
Otp	string	OTP	M

4.2.5.1.3 Sample Request

```
{"otp":"123456"}
```

4.2.5.2 Response

4.2.5.2.1 Params

Parameter Name	Type	Description
response_code	int	It notifies the result of api processing. Value 1 denotes success.
response_message	string	It denotes the message corresponding to above code
validate_otp_response	Object	It contains response received from Bank.
api_url	String	Url on which you need to make subsequent api calls

validate_otp_response

Parameter Name	Type	Description
customer_name	String	Customer name
interest_rate	Long	Interest rate
merchant_name	String	Merchant name at bank end
total_amount_in_paise	Long	Total amount in paise
emi_amount_in_paise	Long	Emi amount in paise
Address	String	Customer address at bank's end
tenure_in_months	int	Tenure
last6digitaccountnumber	String	Last 6 digit of account number

4.2.5.2.2 Sample response

```
{
  "api_url": "https://environment/api/v2/order/confirmation?token=LMIBhf7p8dFcu3K0%2fvntrY1URugF3sPS0bjPL71RDYE%3d",
  "validate_otp_response": {
    "customer_name": "Kamal Chowla",
    "interest_rate": 160000,
    "merchant_name": "PINELAB",
    "total_amount_in_paise": 1000000,
    "emi_amount_in_paise": 174530,
    "address": "INSURANCE REGULATORY AND DEVELOPMENT AUTXXXXXXXXXXXXXXXXXDELHI110001",
    "tenure_in_months": 6,
    "last6digitaccountnumber": "077958"
  },
  "response_code": 1,
  "response_message": "SUCCESS"
}
```

4.2.6 Order confirmation

4.2.6.1 Request

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4.2.6.1.1 Content Type & URL's

Content Type	application/json
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Url: use the url received in previous api response.

Sample url:

http://hostname:port/api/v2/order/confirmation?token=848RFsu%2bRnNcSsaZdzEgkeosvCc2o5lKTV4uKJF%2fcjE%3d

Application needs to do http post on the above url.

4.2.6.2 Response

4.2.6.2.1 Params

Parameter Name	Type	Description
response_code	int	It notifies the result of api processing. Value 1 denotes success.
response_message	string	It denotes the message corresponding to above code
order_confirmation_response	Object	It contains transaction response

order_confirmation_response

Key	Value	Details
merchant_id	Integer	In response you can see the merchant id which you have sent as one of the parameter in Pine Labs payment gateway API request parameters.
merchant_access_code	String	In response you can find the merchant access code which you have sent as one of the parameter.
unique_merchant_txn_id	String. Max length 99	In response you can find the merchant unique transaction Id which you have sent as one of the parameter.
pine_pg_txn_status	Integer	Transaction status

txn_completion_date_time	DateTime	The date-time of the transaction completion at Pine Labs payment gateway server.
amount_in_paisa	Long	It is the amount for which payment transaction is being done.
txn_response_code	Integer	Represent the response of the API request and response code is returned based on the transaction result.
txn_response_msg	String	Transaction response
acquirer_name	String	Acquirer Bank
pine_pg_transaction_id	Long	Unique transaction id generated by Pine Labs
payment_mode	Integer	Payment mode chosen at landing page.
is_bank_emi_txn	Bool	Flag to indicate Bank EMI transaction
is_brand_emi_txn	Bool	Flag to indicate Brand EMI transaction
emi_tenure_month	Integer	Tenure month of EMI transaction
emi_principal_amount_in_paisa	Long	Principal EMI amount in Paisa
		Monthly Installment

emi_amount_payable_each_month_in_paisa	Long	
emi_interest_rate_percent	Integer	Interest rate charged by bank multiplied by 10000
emi_cashback_type	Integer	Its value will 1-Pre-cashback 2-Post Cashback 3-Instant Discount
emi_total_discount_cashback_amount_in_paisa	Long	Total discount or cashback amount applicable in EMI transaction in paise
emi_total_discount_cashback_percent	Integer	Total discount or cashback percent applicable in EMI transaction multiplied by 10000
emi_merchant_discount_cashback_percent	Integer	Merchant discount or cashback percent applicable in EMI transaction multiplied by 10000
emi_merchant_discount_cashback_fixed_amount_in_paisa	Long	Merchant fixed discount or cashback amount applicable in EMI transaction in paise
emi_issuer_discount_cashback_percent	Integer	Issuer discount or cashback percent applicable in EMI transaction multiplied by 10000

emi_issuer_discount_cashback_fixed_amount_in_paise	Long	Issuer fixed discount or cashback amount applicable in EMI transaction in paise
txn_additional_info	String	Base64 encoded string
merchant_return_url	String	Merchant return url
emi_processing_fee	long	Processing fee amount in paise.
captured_amount_in_paise	long	Captured amount for a transaction
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refund_amount_in_paisa	long	Refund amount for a transasction
parent_txn_status	Integer	Parent txn status
parent_txn_response_code	Integer	Parent txn response code
parent_txn_response_mess age	String	Parent txn response message
issuer_name	String	Issuing bank name .

