

# Seamless EMI Integration v2.0

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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
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UAT	<a href="https://uat.pinepg.in/api/v2/scheme/validation">https://uat.pinepg.in/api/v2/scheme/validation</a>
Production	<a href="https://pinepg.in/api/v2/scheme/validation">https://pinepg.in/api/v2/scheme/validation</a>

### 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

## 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.
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 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 108-Product discount 112-Subvention discount
is_scheme_valid	Bool	Is scheme is valid

### 3.2.2.2 Sample Request for All Credit cards , Axis and ICICI debit 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": [
            {
              "scheme_id": 1683,
              "program_type": 105,
              "is_scheme_valid": true
            }
          ],
          "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

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 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 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

Payment data against transaction will be passed in this call.

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](#)

### 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
        }
      ]
    }
  }
}
```

```
"":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=LMlBhf7p8dFcu3K0%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

#### 4.2.6.1.1 Content Type & URL's

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

**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
<b>order_confirmation_response</b>		

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 Paise
		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 be 0 or 1 0- Pre cash back 1- Post cash back
emi_total_discount_cashback_amount_in_paisa	Long	Total discount or cashback amount applicable in EMI transaction in paisa
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 paisa
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_paisa	Long	Issuer fixed discount or cashback amount applicable in EMI transaction in paisa
txn_additional_info	String	Base64 encoded string
merchant_return_url	String	Merchant return url
emi_processing_fee	long	Processing fee amount in paisa.
captured_amount_in_paisa	long	Captured amount for a transaction



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_message	String	Parent txn response message
issuer_name	String	Issuing bank name .