API Documentation
EAZYPAY2.0

API Gateway-Integration

Contents

Introduction:

- This document describes Merchant and ICICI Bank Integration through API Gateway for Eazy-Pay Services.
- Customer journey, API specification and security implementation for Merchant integration.

API Details

1. API Name: Create Mandate

Description: Below API will be used by Payee to Create, Update and Revoke Mandate based on the flag and parameters passed in the Request packet

UAT Endpoint: https://apibankingonesandbox.com/api/MerchantAPI/UPI2/v1/CreateMandate

PROD Endpoint: https://apibankingone.com/api/MerchantAPI/UPI2/v1/CreateMandate

Method : POST

Input Parameters

Name	Type	Description	Mandatory (Y/N)
merchantId	Number	Merchant Identification Number	Y
subMerchantId	Number	Sub Merchant Identification Number of Merchant	Y
terminalId	Number	Needs to send Merchant category code (MCC code). [Default MCC-5411]	Y
merchantName	String	Name of the Merchant	Y
subMerchantName	String	Sub Merchant Name of the Merchant	Y
payerVa	AlphaNumeric	Alias name with which the payer can be identified by his registered entity.	Y
Amount	Number	Amount to be debited.(In Rupees, Integer value with 2 decimal) E.g. : 200.00 / 300.12	Y
Note	AlphaNumeric	Remarks entered by the payer for his reference.	Y
collectByDate	DATE TIME	Format : dd/mm/yyyy HH:MM AM/PM	Y
merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.	Y
billNumber	AlphaNumeric	Bill Number	Y
requestType	String	Upi mandate request flag "C"-mandate creation request "U"-Mandate update "R"- Mandate Revoke	Y
validityStartDate	DATE	Start date of UPI mandate validity period (Ex : DD/MM/YYYY)	Y

validityEndDate	DATE	End date of UPI mandate validity period (Ex : DD/MM/YYYY)	Y
amountLimit	String	Amount Limit flag to notify limit of amount to be debited F=Fixed amount as per amount parameter	Y

		M=Maximum till amount parameter	
Frequency	String	Frequency of mandate. OT=one time, DL=Daily, WK=Weekly, BM=bi-monthly, MT=monthly, QT=Quarterly, HY=half yearly, YR= yearly, AS= As-presented	Y
Remark	AlphaNumeric		Y
autoExecute	AlphaNumeric	"N"- Merchant will send mandate execute request between validity period as per requirement	Y
debitDay	Numeric	Value will be -1-7 when frequency is WK -1-15 when frequency is BM -1-30/31 when frequency is MT, QT, HY and YR -NA for OT,DL,AS	Y
debitRule	String	Debit to be done with respect to start date ON= on, BF= before, AF= After NA if frequency is OT,DL,AS	Y
Revokable	Character	Y – If Payer is given authority to Revoke N – If Payer is not allowed to Revoke	Y
Blockfund	Character	Y – If fund needs to be blocked N – if fund shouldn't be blocked	Y
Purpose	String	If it is one time mandate then OT, if it is Recurring then RECURRING.	Y
UMN (Applicable if requestType=U,R)	AlphaNumeric	UPI Mandate number <32 character>@<PSP Handle>	Y

Sample Request

```
{
  "merchantId": "118449",
  "subMerchantId": "118449",
  "terminalId": "5411",
  "merchantName": "Testmerchant",
  "subMerchantName": "Test",
  "payerVa": "testo@icici",
  "amount": "5.00",
  "note": "collect-pay-request",
  "collectByDate": "08/11/2019 06:30 PM",
  "merchantTranId": "p0nillp0k9lqlp091p17",
  "billNumber": "sdf1po111b",
  "validityStartDate": "08/11/2019",
  "validityEndDate": "20/11/2019",
```

```
    "amountLimit": "M",
    "remark": "MandateRequest",
    "requestType": "C",
    "frequency": "MT",
    "autoExecute": "N",
    "debitDay": "10",
    "debitRule": "ON",
    "revokable": "N",
    "blockfund": "N",
    "purpose": "RECURRING"
}
```

Output Parameters

Name	Type	Description
Response	Number	Response Code
merchantId	Number	Merchant Identification Number
subMerchantId	Number	Sub Merchant Identification Number of Merchant
terminalId	Number	MCC
Success	String	Result of the API Call
Message	String	Response Code Description
merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.
BankRRN	Number	Reference Number generated by Bank
Amount	Number	Amount

Sample Response

```
{
    "response": "92",
    "merchantId": "118449",
    "subMerchantId": "118449",
    "terminalId": "5411",
    "Amount": "2.80",
    "success": "true",
    "message": "Transaction Initiated",
    "merchantTranId": " p0nillp0k9lqlp091p17",
    "BankRRN": "931013011368"
}
```

2. API Name: Execute Mandate

Description: This API will be used by the Payee to Execute Mandate and Debit the Amount from Payer's Account and Credit into Payee's Account based on UMN Number

UAT Endpoint: https://apibankingonesandbox.com/api/MerchantAPI/UPI2/v1/ExecuteMandate
PROD Endpoint: https://apibankingone.com/api/MerchantAPI/UPI2/v1/ExecuteMandate

Method : POST

Input Parameters

Name	Type	Description	Mandatory (Y/N)
merchantId	Number	Merchant Identification Number	Y
subMerchantId	Number	Sub Merchant Identification Number of Merchant	Y
terminalId	Number	Needs to send Merchant category code (MCC code). [Default MCC-5411]	Y
merchantName	String	Name of the Merchant	Y
subMerchantName	String	Sub Merchant Name of the Merchant	Y
merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.	Y
Amount	Number	Amount to be debited.(In Rupees, Integer value with 2 decimal) E.g. : 200.00 / 300.12	Y
Remark	AlphaNumeric	Remarks entered by the payer for his reference.	Y
billNumber	AlphaNumeric	Bill Number	Y
retryCount	Numeric	Its incremental number for financial txn, for original txn its 0,first retry=1,second retry=2...so on... It is mandatory if purpose is Recurring	C
mandateSeqNo	Numeric	Execution Sequence Number. It is mandatory if purpose is Recurring	C
UMN	AlphaNumeric	UPI Mandate number generated at manage mandate request <32 character>@<PSP Handle>	Y
Purpose	String	If it is one time mandate then OT, if it is Recurring then RECURRING.	Y

Sample Request

```json
{
    "merchantId": "118449",
    "subMerchantId": "118449",
    "terminalId": "5411",
    "merchantName": "Testmerchant",
    "subMerchantName": "Test",
    "amount": "5.00",
    "merchantTranId": "p0nillp0k9lqlp091p17",
    "billNumber": "sdf1po111b",
    "remark": "MandateRequest",
    "retryCount": "0",
    "mandateSeqNo": "3",
    "UMN": "8fbadaeb18ff49fdbae7793faa8178d3@upi",
    "purpose": "RECURRING"
}
```

Output Parameters

Name	Type	Description
Response	Number	Response Code
merchantId	Number	Merchant Identification Number
subMerchantId	Number	Sub Merchant Identification Number of Merchant
terminalId	Number	MCC
Success	String	Result of the API Call
Message	String	Response Code Description
merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.
BankRRN	Number	Reference Number generated by Bank
Amount	Number	Amount

Sample Response

```json
{
    "response": "0",
    "merchantId": "118449",
    "subMerchantId": "118449",
    "terminalId": "5411",
    "Amount": "2.80",
    "success": "true",
    "message": "Transaction Successful",
    "merchantTranId": " p0nillp0k9lqlp091p17",
    "BankRRN": "931013011368"
}
```

3. API Name: Mandate Notification

Description: This API will be used by Merchant at-least 24 hours prior to Execution to notify the Payer

UAT Endpoint: https://apibankingonesandbox.com/api/MerchantAPI/UPI2/v1/MandateNotification
PROD Endpoint: https://apibankingone.com/api/MerchantAPI/UPI2/v1/MandateNotification

Method : POST

Input Parameters

Name	Type	Description	Mandatory (Y/N)
merchantId	Number	Merchant Identification Number	Y
subMerchantId	Number	Sub Merchant Identification Number of Merchant	Y
terminalId	Number	Needs to send Merchant category code (MCC code). [Default MCC-5411]	Y
merchantTranId	AlphaNumeric	This will be a Transaction ID generated at the time of request.	Y
merchantName	String	Name of the Merchant	Y
subMerchantName	String	Sub Merchant Name of the Merchant	Y
payerVA	AlphaNumeric	Alias name with which the payer can be identified by his registered entity.	Y
Amount	Number	Amount to be debited.(In Rupees, Integer value with 2 decimal) E.g. : 200.00 / 300.12	Y
Note	String	Remarks entered for reference	Y
executionDate	Date	Format : dd/mm/yyyy HH:MM AM/PM	Y
mandateSeqNo	Number	Execution Sequence Number	Y
Key	AlphaNumeric	Fixed Value = **UMN**	Y
Value	AlphaNumeric	UMN number to be passed	Y

Sample Request

```
{
    "merchantId": "118449",
    "subMerchantId": "12234",
    "terminalId": "5411",
    "merchantName": "Testmerchant",
    "subMerchantName": "Test",
    "payerVa": "9811924582@upi",
```

```
    "amount": "8.80",
    "note": "request",
    "executionDate": "30/10/2019 08:30 PM",
    "merchantTranId": "13s325789",
    "mandateSeqNo": "1",
    "key": "UMN",
    "value": "305eaee068c74e0db1fe87e02f0b9230@upi"
}
```

Output Parameters

Name	Type	Description
response	Number	Response Code
merchantId	Number	Merchant Identification Number
subMerchantId	Number	Sub Merchant Identification Number of Merchant
terminalId	Number	MCC
Success	String	Result of the API Call
message	String	Response Code Description
merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.
BankRRN	Number	Reference Number generated by Bank
Amount	Number	Amount

Sample Response

```
{
    "response": "0",
    "merchantId": "106161",
    "subMerchantId": "12234",
    "terminalId": "5411",
    "BankRRN": "615519221396",
    "merchantTranId": "612411454593",
    "amount": "12",
    "success": "true",
    "message": "Transaction Successful"
}
```

4.API Name: Transaction Status

Description: This API will be used by Merchant to get the status of the transaction based on merchantTranID

UAT Endpoint: https://apibankingonesandbox.com/api/MerchantAPI/UPI2/v1/TransactionStatus
PROD Endpoint: https://apibankingone.com/api/MerchantAPI/UPI2/v1/TransactionStatus

Method : POST

Input Parameters

Name	Type	Description	Mandatory (Y/N)
merchantId	Number	Merchant Identification Number	Y
subMerchantId	Number	Sub Merchant Identification Number of Merchant	Y
terminalId	Number	Needs to send Merchant category code (MCC code). [Default MCC-5411]	Y
merchantTranId	AlphaNumeric	This will be a Transaction ID generated at the time of original request.	Y

Sample Request

```
{
    "merchantId": "118449",
    "subMerchantId": "118449",
    "terminalId": "5411",
    "merchantTranId": "p0nillp0k9lqlp091p17"
}
```

Output Parameters

Name	Type	Description
Response	Number	Response Code
merchantId	Number	Merchant Identification Number
subMerchantId	Number	Sub Merchant Identification Number of Merchant
terminalId	Number	MCC
Success	String	Result of the API Call
Message	String	Response Code Description

merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.
OriginalBankRRN	Number	Reference Number generated by Bank
Amount	Number	Amount

Status	AlphaNumeric	Status of the transaction
UMN	AlphaNumeric	UPI Mandate number generated at manage mandate request <32 character>@<PSP Handle>

Sample Response

```
{
    "response": "0",
    "merchantId": "106161",
    "subMerchantId": "12234",
    "terminalId": "5411",
    "OriginalBankRRN": "615519221396",
    "merchantTranId": "612411454593",
    "amount": "12",
    "success": "true",
    "message": "Transaction Successful",
    "status": "SUCCESS",
    "UMN": "8fbadaeb18ff49fdbae7793faa8178d3@upi"
}
```

Status for Non-Financial Transactions

CREATE-SUCCESS/CREATE-FAILURE/CREATE-INITIATED
UPDATE-SUCCESS/UPDATE-FAILURE/UPDATE-INITIATED
SUSPEND-SUCCESS/SUSPEND-FAILURE/SUSPEND-INITIATED
REACTIVATE-SUCCESS/REACTIVATE-FAILURE/REACTIVATE-INITIATED
REVOKE-SUCCESS/REVOKE-FAILURE/REVOKE-INITIATED

Status for Financial Transactions

SUCCESS/FAILURE/INITIATED/PENDING

5. API Name: Transaction Status by Criteria

Description: This API will be used by Merchant to get the status of the Mandate by passing correct transaction Type

UAT Endpoint:
https://apibankingonesandbox.com/api/MerchantAPI/UPI2/v1/Transactionstatusbycriteria

PROD Endpoint: https://apibankingone.com/api/MerchantAPI/UPI2/v1/Transactionstatusbycriteria

Method : POST

Input Parameters

Name	Type	Description	Mandatory (Y/N)
merchantId	Number	Merchant Identification Number	Y
subMerchantId	Number	Sub Merchant Identification Number of Merchant	Y
terminalId	Number	Needs to send Merchant category code (MCC code). [Default MCC-5411]	Y
transactionType	Alphabet	Flag to identify type of original transaction (M – Mandate)	Y
merchantTranId	AlphaNumeric	This will be a Transaction ID generated at the time of original request.	C
transactionDate	Date	Date of the Transaction	C
BankRRN	Number	Bank Reference Number of the original transaction	C
refID	AlphaNumeric	Reference Number passed in QR/Intent Call	C
UMN	AlphaNumeric	UPI Mandate number generated at manage mandate request <32 character>@<PSP Handle>	C

Sample Request

```
{
    "merchantId": "118449",
    "subMerchantId": "118449",
    "terminalId": "5411",
    "transactionType": "M",
    "merchantTranId": "p0nillp0k9lq1p091p17"
}
```

Output Parameters

Name	Type	Description
Response	Number	Response Code
merchantId	Number	Merchant Identification Number
subMerchantId	Number	Sub Merchant Identification Number of Merchant
terminalId	Number	MCC
Success	String	Result of the API Call
Message	String	Response Code Description
merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.
OriginalBankRRN	Number	Reference Number generated by Bank
PayerVA	AlphaNumeric	Virtual Payment Address of the Payer
Amount	Number	Amount
Status	AlphaNumeric	Status of the transaction
TxnInitDate	Date and Time	Date and time on which the transaction was initiated
TxnCompletionDate	Date and Time	Date and time on which the transaction was completed
UMN	AlphaNumeric	UPI Mandate number generated at manage mandate request <32 character>@<PSP Handle>

Sample Response

```json
{
    "response": "0",
    "merchantId": "106161",
    "subMerchantId": "12234",
    "terminalId": "5411",
    "OriginalBankRRN": "615519221396",
    "merchantTranId": "612411454593",
    "Amount": "12",
    "payerVA": " testing1@imobile ",
    "success": "true",
    "message": "Transaction Successful",
    "status": "SUCCESS",
    "TxnInitDate": "20160715142352",
    "TxnCompletionDate": "20160715142352",
    "UMN": "8fbadaeb18ff49fdbae7793faa8178d3@upi"
}
```

Status for Non-Financial Transactions
CREATE-SUCCESS/CREATE-FAILURE/CREATE-INITIATED
UPDATE-SUCCESS/UPDATE-FAILURE/UPDATE-INITIATED

SUSPEND-SUCCESS/SUSPEND-FAILURE/SUSPEND-INITIATED
REACTIVATE-SUCCESS/REACTIVATE-FAILURE/REACTIVATE-INITIATED
REVOKE-SUCCESS/REVOKE-FAILURE/REVOKE-INITIATED

Status for Financial Transactions
SUCCESS/FAILURE/INITIATED/PENDING

6. API Name: Refund

Description: This API needs to be used by Merchants to initiate refunds of the transactions. Both offline and online refunds are supported in the same API.

UAT Endpoint: https://apibankingonesandbox.icicibank.com/api/MerchantAPI/UPI2/v1/Refund

Prod Endpoint: https://apibankingonesandbox.icicibank.com/api/MerchantAPI/UPI2/v1/Refund

Method : POST

Input Parameters

Name	Type	Description
merchantId	Number	Merchant Identification Number
subMerchantId	Number	Sub Merchant Identification Number of Merchant
terminalId	Number	MCC Code
merchantTranId	AlphaNumeric	Refund Transaction Id
originalmerchantTranId	AlphaNumeric	Merchant TranID of Refund Transaction Id
originalBankRRN	Number	Reference Number generated by Bank
PayerVA	AlphaNumeric	Virtual Payment Address of the Payer
refundAmount	Number	Amount to be debited.(In Rupees, Integer Y value with 2 decimal)E.g. : 200.00 / 300.12
payeeVA	AlphaNumeric	Alias name with which the payee can be N identified by his registered entity.
Note	AlphaNumeric	Remarks entered by the payer for his Y reference.

onlineRefund	String	Refund request mode – Online or Offline refund – 'Y' for online refund and 'N' for Offline refund

Sample Request

```
{
    "merchantId": "106092",
    "subMerchantId": "12234",
    "terminalId": "2342342",
    "originalBankRRN": "622415338172",
    "merchantTranId": "88442047",
    "originalmerchantTranId": "202020202021",
    "payeeVA": "yatin@imobile",
    "refundAmount": "10.00",
    "note": "refund-request",
    "onlineRefund": "Y"
}
```

Output Parameters

Name	Type	Description
Response	Number	Response Code
merchantId	Number	Merchant Identification Number
subMerchantId	Number	Sub Merchant Identification Number of Merchant
terminalId	Number	MCC
Success	String	Result of the API Call
Message	String	Response Code Description
merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.
OriginalBankRRN	Number	Reference Number generated by Bank
Amount	Number	Amount

Sample Response

```
{
    "merchantId": "106092",
    "subMerchantId": "12234",
    "terminalId": "2342342",
```

```
    "success": "true",
    "response": "0",
    "status": "SUCCESS",
    "message": "Transaction Successful",
    "originalBankRRN": "622415338172",
    "merchantTranId": "88442055"
}
```

```
    "success": "true",
    "response": "0",
    "status": "SUCCESS",
    "message": "Transaction Successful",
    "originalBankRRN": "622415338172",
    "merchantTranId": "88442055"
```

7.API Name: QR

Description: This QR API will be used to fetch refid from ICICI system to generated dynamic QR/ intent.

UAT Endpoint: https://apibankingonesandbox.icicibank.com/api/MerchantAPI/UPI2/v1/QR

Prod Endpoint: https://apibankingonesandbox.icicibank.com/api/MerchantAPI/UPI2/v1/QR

Method : POST

Input Parameters

Name	Type	Description
merchantId	Number	Merchant Identification Number
terminalId	Number	MCC Code
amount	Number	QR API will be used to fetch refid from ICICI system to generated dynamic QR/ intent.
merchantTranId	AlphaNumeric	Merchant Transaction ID
billNumber	AlphaNumeric	
validatePayerAccFlag	String	Y or N
payerAccount	Number	When validatePayerAcc Flag is Y then it is mandatory
payerIFSC	AlphaNumeric	When validatePayerAcc Flag is Y then it is mandatory
signedIntentFlag	String	Y or N

Sample Request

```
{
    "amount": "5.00",
    "merchantId": "118449",
    "subMerchantId": "118449",
    "terminalId": "5411",
    "merchantTranId": "p0nillp0k9lqlp091p17",
    "billNumber": "sdf1po111b",
    "validatePayerAccFlag": "Y",
    "payerAccount": "0405012740",
    "payerIFSC": "IC00000",
```

```
    "signedIntentFlag": "Y"
}
```

Output Parameters

Name	Type	Description
Response	Number	Response Code
merchantId	Number	Merchant Identification Number
subMerchantId	Number	Sub Merchant Identification Number of Merchant
terminalId	Number	MCC
Success	String	Result of the API Call
Message	String	Response Code Description
merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.
OriginalBankRRN	Number	Reference Number generated by Bank
Amount	Number	Amount

Sample Response

```
{
    "merchantId": "106092",
    "subMerchantId": "12234",
    "terminalId": "2342342",
    "success": "true",
    "response": "0",
    "status": "SUCCESS",
    "message": "Transaction Successful",
    "originalBankRRN": "622415338172",
    "merchantTranId": "88442055"
}
```

8.API Name: Collect Pay

Description: This QR API will be used to fetch refid from ICICI system to generated dynamic QR/ intent.

UAT Endpoint: https://apibankingonesandbox.icicibank.com/api/MerchantAPI/UPI2/v1/CollectPay

Prod Endpoint: https://apibankingonesandbox.icicibank.com/api/MerchantAPI/UPI2/v1/CollectPay

Method : POST

Input Parameters

Name	Type	Description	Mandatory (Y/N)
merchantId	Number	Merchant Identification Number	Y
subMerchantId	Number	Sub Merchant Identification Number of Merchant	Y
terminalId	Number	Needs to send Merchant category code (MCC code). [Default MCC-5411]	Y
merchantTranId	AlphaNumeric	This will be a Transaction ID generated at the time of request.	Y
merchantName	String	Name of the Merchant	Y
subMerchantName	String	Sub Merchant Name of the Merchant	Y
payerVa	AlphaNumeric	Alias name with which the payer can be identified by his registered entity.	Y
Amount	Number	Amount to be debited.(In Rupees, Integer value with 2 decimal) E.g. : 200.00 / 300.12	Y
Note	String	Remarks entered for reference	Y
collectByDate	Date	Format : dd/mm/yyyy HH:MM AM/PM	Y
mandateSeqNo	Number	Execution Sequence Number	Y
billNumber	AlphaNumeric	Bill Number / Order Number	Y
validatePayerAccFlag	String	"Y" for validating debit a/c ,"N" for non-validation	O
payerAccount	Number	When 'validatePayerAcc' Flag is 'Y' then it is mandatory. Payer Account number is required to be entered.	O

payerIFSC	AlphaNumeric	When 'validatePayerAcc' Flag is 'Y' then it is mandatory. Payer IFSC number is required to be entered.	O

Sample Request

```json
{
    "amount": "5.00",
    "merchantId": {
        "payerVa": "testo@icici",
        "amount": "5.00",
        "note": "collect-pay-request",
        "collectByDate": "08/11/2019 06:30 PM",
        "merchantId": "118449",
        "merchantName": "Testmerchant",
        "subMerchantId": "118449",
        "subMerchantName": "Test",
        "terminalId": "5411",
        "merchantTranId": "p0nillp0k9lqlp091p17",
        "billNumber": "sdf1po111b",
        "validatePayerAccFlag": "Y",
        "payerAccount": "0405012740",
        "payerIFSC": "ICI00012345"
    }
}
```

Output Parameters

Name	Type	Description
Response	Number	Response Code
merchantId	Number	Merchant Identification Number
subMerchantId	Number	Sub Merchant Identification Number of Merchant
terminalId	Number	MCC
Success	String	Result of the API Call
Message	String	Response Code Description
merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.
OriginalBankRRN	Number	Reference Number generated by Bank
Amount	Number	Amount

Sample Response

```
{
    "merchantId": "106092",
    "subMerchantId": "12234",
    "terminalId": "2342342",
    "success": "true",
    "response": "92",
    "status": "SUCCESS",
    "message": "Transaction Successful",
    "originalBankRRN": "622415338172",
    "merchantTranId": "88442055"
}
```

9.API Name: Validate Voucher

Description:

Validate Voucher API is used by merchants to validate UPI Prepaid Vouchers. A merchant has to pass Customer UUID/UMN, same will be validated and OTP will be sent to the customer when this API is invoked.

UAT: *https://apibankingonesandbox.icicibank.com/api/MerchantAPI/UPI2/v1/ValidateVoucher*

Production: *https://apibankingone.icicibank.com/api/MerchantAPI/UPI2/v1/ValidateVoucher*

Method : POST

Request Packet:

```
{
    "merchantId": "987123",
    "merchantName": "Testmerchant",
    "subMerchantId": "987123",
    "subMerchantName": "Test",
    "terminalId": "5411",
    "MCC": "1980",
    "merchantTranId": "2309MQR003",
    "amount": "147.89",
    "txnNote": "Voucher validation Request",
    "validityStartDate": "11/10/2019",
    "validityEndDate": "30/10/2019",
    "amRule": "MAX",
    "UMN": "11",
    "pa": "UUID Number",
    "sign": "",
```

```
    "orgId": "0000000",
    "mode": "13",
    "purpose": "00"
}
```

Input Parameters:

Name	Date Type	Length	Description	Mandatory(Y/N)
merchantId	N	10	Merchant Identification Number	Y
subMerchantId	N	10	Sub Merchant Identification Number of Merchant	Y
terminalId	N	10	Needs to send Merchant category code (MCC code)	Y
merchantName	AN	50	Name of the Merchant	Y
subMerchantName	AN	50	Sub Merchant Name of the Merchant	N

MCC	N	10	Needs to send Merchant category code (MCC code)	Y	
merchantTranId	AN	35	This will be a Transaction ID generated by the API	Y	
amount	N	20	Voucher Amount to be used. (In Rupees, Integer value with 2 decimal) E.g. : 200.00 / 300.12	Y	
txnNote	AN	50	Remarks	Y	
validityStartDate	Date		Format : dd/mm/yyyy HH:MM AM/PM	N	
validityEndDate	Date		Format : dd/mm/yyyy HH:MM AM/PM	N	
amRule	AN	5	MAX/EXACT	N	
UMN	AN	50		N	
pa	AN	50	UUID Number(SMS) / UMN(QR)	Y	
sign	AN		Mandatory only if QR Scan.Digital signature needs to be passed In this tag	N	
orgId	N	10	If the transaction is initiated by any PSP app then the respective orgID needs to be passed. For merchant initiated intent pass '000000'	N	
mode	N	3	13= mandate qr(default) 16,17,18 = futureuse	Y	
purpose	N	3	00 – Default 09- Gifting 19 – Pre-Paidvoucher	Y	

Response Packet:

Success:

```
{
    "merchantId": "106088",
    "subMerchantId": "12234",
    "terminalId":
    "5411","success":
    "true",
    "response": "0",
    "message": "Voucher
    Validated","BankRRN":
    "615519221396",
```

Failure:

```
{
    "merchantId": "106088",
    "subMerchantId": "12234",
    "terminalId":
    "5411","success":
    "false",
    "response": "11",
    "message": "Voucher
    Expired","BankRRN":
    "615519221396",
```

10.API Name: Redeem Voucher

Redeem Voucher API is used by merchants to redeem UPI Prepaid Vouchers. Merchant has to pass the OTP received by the Customer along with UUID/UMN. OTP will be validated and on successful validation the customer voucher willbe redeemed and merchant account will be credited when this API is invoked.

UAT: *https://apibankingonesandbox.icicibank.com/api/MerchantAPI/UPI2/v1/RedeemVoucher*

Production: *https://apibankingone.icicibank.com/api/MerchantAPI/UPI2/v1/RedeemVoucher*

Request Packet:

```
{
    "merchantId": "987123",
    "merchantName":
    "Testmerchant",
    "subMerchantId": "987123",
    "subMerchantName": "Test",
    "terminalId": "5411",
    "MCC": "1980",
    "merchantTranId":
    "2309MQR003","amount":
    "147.89"
```

Input Parameters:

Name	Date Type	Length	Description	Mandatory(Y/N)
merchantId	N	10	Merchant Identification Number	Y
subMerchantId	N	10	Sub Merchant Identification Number of Merchant	Y
terminalId	N	10	Needs to send Merchant category code (MCC code)	Y
merchantName	AN	50	Name of the Merchant	Y
subMerchantName	AN	50	Sub Merchant Name of the Merchant	N
MCC	N	10	Needs to send Merchant category code (MCC code)	Y
merchantTranId	AN	35	This will be a Transaction ID generated by the API	Y
amount	N	20	Voucher Amount to be used. (In Rupees, Integer value with 2 decimal) E.g. : 200.00 / 300.12	Y
txnNote	AN	50	Remarks	Y
UUID	AN	50		Y
UMN	AN	50		Y
OTP	N	10	OTP Sent to Customer	Y

Response Packet:

Success:

```
{
"merchantId": "106088",
"subMerchantId": "12234",
"terminalId":
"5411","success":
"true",
"response": "0",
"message": "Payment
Success","BankRRN":
"615519221396",
```

11.API Name: Mandate QR API

<u>Description</u>:

 Mandate QR API will be used to fetch 'refid' from ICICI system. This 'refid' will beused in tr field to generate QR/ intent string.

<u>UAT Endpoint</u>:
https://apibankingonesandbox.icicibank.com/api/MerchantAPI/UPI2/v1/MandateQR

<u>PROD Endpoint</u>:
https://apibankingone.icicibank.com/api/MerchantAPI/UPI2/v1/MandateQR

Input Parameters:

SNO	Parameter Name	Length	Data Type	Description	Mandatory/Optional/Conditional
1	merchantId	10	N	Merchant Identification Number	M
2	subMerchantId	10	N	Sub Merchant Identification Number of Merchant	M
3	terminalId	10	N	Needs to send Merchant category code (MCC code). [Default MCC-5411]	M
4	merchantName	50	AN	Name of the Merchant	M
5	subMerchantName	50	AN	Sub Merchant Name of the Merchant	M
6	amount	20	N	Amount to be debited.(In Rupees, Integer value with 2 decimal) E.g. : 200.00 / 300.12	M
7	merchantTranId	35	AN/	This will be a Transaction ID generated by the API.	M
8	billNumber	50	AN		M
9	requestType	1	A	Upi mandate request flag "C"-mandate creation request "U"-Mandate update	M
10	validityStartDate (Applicable if requestType=M)	NA	DATE	Start date of UPI mandate validity period (Ex : DD/MM/YYYY)	M

11	validityEndDate (Applicable if requestType=M)	NA	DATE	End date of UPI mandate validity period (Ex : DD/MM/YYYY)	M

12	amountLimit (Applicable if requestType=M)	1	A	Amount Limit flag to notify limit of amount to be debited F=Fixed amount as per amount parameter M=Maximum till amount parameter	M
13	frequency (Applicable if requestType=M)	2	A	Frequency of mandate. OT=one time, DL=Daily, WK=Weekly, BM=bi-monthly, MT=monthly, QT=Quarterly, HY=half yearly, YR= yearly, AS= As-presented, FN=Fortnightly	M
14	remark(Applicable if requestType=M)	50	AN-/\		M
15	autoExecute	1	AN	"Y"-Mandate will be auto executed on start date "N"- Merchant will send mandate execute request between validity period as per requirement	M
16	UMN (Applicable if requestType=E)	70	AN.-@	UPI Mandate number <32 character>@<PSP Handle>	C
17	debit-day	3	AN	Value will be -1-7 when frequency is WK -1-15 when frequency is FN -1-31 when frequency is MT, BM, QT, HY, YR -NA for OT,DL,AS	C

| 18 | debit-rule | 2 | A | Debit to be done with respect to start date

ON= on, BF= before, AF= After

NA if frequency is OT,DL,AS | C |

19	revokeable	1	A	Defines mandate revokeabililty Y – If Payer is given authority to Revoke N – If Payer is not allowed to Revoke	M
20	block-fund	1	A	The field "block-fund" is used for intimating remitter bank to block the necessary fund against customer account. Y – If fund needs to be blocked N – if fund shouldn't be blocked	O
21	purpose	9	AN	If it is one time mandate then OT, if it is Recurring then RECURRING.	M
22	ValidatePayerAccFlag	1	A	This field is used to validate the payer account in after payer has authorised the mandate. By default it's considered as N. Y – If Payer Account need to be validated N – If Payer Account doesn't need to be validated	O

| 23 | payerAccount | 150 | N\| | This field need to be sent if ValidatePayerAccFlag is Y

Multiple accounts can be sent in pipe-separated format(Max accounts allowed are 5) | C |
| 24 | payerIFSC | 150 | AN\| | This field need to be sent if ValidatePayerAccFlag is Y | C |

					Multiple IFSCs can be sent in pipe-separated format(Max IFSCs allowed are 5)	

Sample Request:

```json
{
    "amount": "1.00",
    "amountLimit": "M",
    "autoExecute": "N",
    "billNumber": "sd321nen1k5s21cd1a134",
    "blockfund": "N",
    "debitDay": "",
    "debitRule": "",
    "frequency": "AS",
    "merchantId": "400899",
    "merchantName": "Testmerchant",
    "merchantTranId": "MerMandateQR10152",
    "purpose": "RECURRING",
    "remark": "Mandate787Request",
    "requestType": "C",
    "revokable": "Y",
    "UMN": "",
    "subMerchantId": "987123",
    "subMerchantName": "Test",
    "terminalId": "5411",
    "validityEndDate": "27/08/2022",
    "validityStartDate": "20/09/2021",
    "ValidatePayerAccFlag": "N",
    "payerAccount": "126401097401|126401097402|126401097403|126401097404|126401097405",
    "payerIFSC": "ICIC0001104|ICIC0001105|ICIC0001106|ICIC0001107|ICIC0001108"
}
```

Output Parameters:

Name	Type	Description
ActCode	Number	Response Code
merchantId	Number	Merchant Identification Number

subMerchantId	Number	Sub Merchant Identification Number of Merchant

terminalId	Number	MCC
Success	String	Result of the API Call
Message	String	Response Code Description
merchantTranId	AlphaNumeric	This will be a Unique Transaction ID generated by the Merchant.
Amount	Number	Amount
refID	Alphanumeric	Value to be put in tr field of Mandate QR String if String is created by merchant.
SignedQRData	Alphanumeric and Special Chars	QR String used for QR creation.

Response

```
{
    "merchantId": "400899",
    "subMerchantId": "400899",
    "SignedQRData":
"upi%3A%2F%2Fmandate%3Fpa%3Dinvaciauat%40icici%26pn%3DInvacia+Labs%26tr%3DEZM20210827122902000256 85%26am%3D1.
00%26cu%3DINR%26orgid%3D400011%26mc%3D5411%26purpose%3D14%26tn%3DMandate787Requ est%26validitystart%3D20092021
%26validityend%3D27082022%26amrule%3DMAX%26Recur%3DASPRESENTED%26Re curvalue%3D%26Recurtype%3D%26Rev%3DY%26Sha
re%3DY%26Block%3DN%26umn%3Dnull%26txnType%3DCREATE
%26mode%3D11%26sign%3DMEUCIAtMZuy%2FjPOQPnjWChguRtmRN3HCUq3zM3BPBOJaBX9zAiEAiL26PBlMuGgygeQ K1kzJ8VAscY7b3l5K4
AYODgETdAY%3D",
"refId": "EZM20210827122902000256 85",
    "ActCode": 0,
    "terminalId": 5411,
    "message": "Transaction Successful",
    "Amount": 1,
    "merchantTranId": "MerMandateQR10152",
    "success": true
}
```

Error Codes

Code	Description	Reasons
500	Internal Server Error	Internal Server Error
401	Unauthorized	APIkey,IP whitelisting or SSL not present
403	Forbidden	Request not proper.
429	Too Many Requests	Too Many Requests
8002	INVALID_JSON.	INVALID_JSON.
8003	INVALID_FIELD FORMAT OR LENGTH	Field is not in the format mentioned
8004	MISSING_REQUIRED_FIELD	Mandatory field is missing
8006	INVALID_FIELD_LENGTH	Length of field exceeds defined length
8007	Invalid JSON, OPEN CURLY BRACE MISSING	Open Brace missing in JSON
8008	Invalid JSON,END CURLY BRACE MISSING	Closing Brace missing in JSON
8009	Internal Server Error	White space characters
8010	INTERNAL_SERVICE_FAILURE	The system had an internal exception
8011	BACKEND_HOST_NOT_FOUND	The Server referenced in the URL cannot be reached.
8012	BACKEND_CONNECTION_TIMEOUT	Cannot connect to service
8013	BACKEND_READ_TIMEOUT	Cannot read from service
8014	BACKEND_BAD_URL	The URL is incorrect.
8017	INVALID JSON	Improper JSON
8016	Decryption Fail	Request not properly Encrypted
5000	Invalid Request	if the request is failed with some other reasons
5001	Invalid Merchant ID	If the merchant Id is not valid
5002	Duplicate Merchant TranId	Transaction is already initiated with merchant transaction id
5003	Merchant Transaction Id is mandatory	If merchant transaction id null
5004	Invalid Data	invalid packet
5005	Collect By date should be greater than or equal to Current date	If given collect by date is less than current date
5006	Merchant TranId is not available	No transaction initiated with given transaction id based on merchant id

5007	Virtual address not present	If merchant entered invalid customer VPA
5008	PSP is not registered	If merchant entered wrong PSP handler
5009	Service unavailable. Please try later.	Default error response for unexpected internal failures.
5010	Technical Error	If any technical error.
5011	Duplicate merchant TranId	Transaction is already initiated with merchant transaction id
5012	Request has already been initiated for this transaction	If request is initiated already for this transaction.
5013	Invalid VPA	If VPA does not exits
5014	Insufficient amount	If Original amount is less than refund amount
5015	Invalid Original TranId	If original transaction Id is not available
5016	Payee VA should not be Merchant VA	Should not be Merchant Virtual Address
5017	Sorry you can't initiate refund request	Merchant can initiate online refund only if online refund flag is enabled
5018	Merchant VPA and Reference ID is not match	
5019	Invalid Terminal Id	
5020	No response from Beneficiary Bank. Please wait for recon before initiating the transaction again.	For Deemed approved transactions or timed out requests
5021	Transaction Timed out. Please check transaction status before initiating again.	OSB Timed out for collect request
5022	Terminal Id is mandatory	
5023	Multiple transactions against given parameter. Please provide bank RRN	
5024	Record not found against given parameters	
5025	Please enter valid refund amount	
5026	Invalid Consumer number	
5027	Invalid merchant prefix	
5028	Virtual Address Already Exists	
5029	No Response From Switch	

5030	Please try again	In case Check VPA return actCode 950 from Switch
5031	Validity start date should not be less than current date	If Validity start date is less than current date

5032	Validity end date should not be less than validity start date	If Validity end date is less than validity start date
5033	Mandate request not created	Without initiating the manage mandate
5034	No Approved Mandates are available	If manage mandate request are not in SUCCESS state
5035	Mandate expired	If mandate validity period is completed
5036	Mandate amounts mis-matched	If manage mandate is EXACT and different amount given in execute mandate
5037	Execution amount exceeded to Mandate approved amount	If manage mandate is MAX and execution amount crossed in execute mandate
5038	Invalid Validate Payer Account Flag	If validate payer account flag is other than Y and N
5039	Invalid Payer Account	If Payer Account is null, empty or invalid pattern
5040	Invalid Payer IFSC	If Payer IFSC is null, empty or invalid pattern
5041	Invalid Sequence Number	
5042	Duplicate Sequence Number	
5043	Invalid Unique Merchant ReferenceId	
5044	Invalid Merchant Name	
5045	Invalid Marketing Name	
5046	Invalid Bank Assigned MerchantId	
5047	OSB Timeout	
5048	New Unique Merchant ReferenceId	
5049	Failed at switch. Please try registering again.	
5050	Details of Bank Assigned MerchantId not found	
5051	Duplicate Unique Merchant ReferenceId	

Security

a. API Key needs to be passed in every request in the header and merchant IP will also be required for IP whitelisting.

b. API Key needs to be passed in the parameter name: **apikey**

c. API request and response to Merchant is secured using advanced and agreed upon encryption algorithm agreed to maintain data confidentiality and integrity.

d. API Gateway uses the standard authenticating and authorizing process for the incoming request from merchant and for maintaining the integrity and confidentiality we apply state of art Encryption/ Decryption algorithm.

Encryption & Decryption Process

For Encryption of a payload at Client's end.

encryptedKey = Base64Encode(RSA/ECB/PKCS1Encryption(SesionKey,ICICIPubKey.cer))
Session key is nothing but randomly one time generated string of length 16 (OR 32).
encryptedData = Base64Encode(AES/CBC/PKCS5Padding(Response,SessionKey))

1. Generate 16-digit random number (session key). Say RANDOMNO.
2. Encrypt RANDOMNO using RSA/ECB/PKCS1Padding and encode using Base64. Say ENCR_KEY.
3. Perform AES/CBC/PKCS5Padding encryption on request payload using RANDOMNO as key and iv- initialization vector. Say ENCR_DATA.
4. Now client may choose to send IV in request from one of below two options.
   a. Send Base64 Encoded IV in "iv" tag. (Recommended Approach)
   b. Send IV as a part of ENCR_DATA itself.

   > bytes[] iv = IV;
   >
   > bytes[] cipherText = symmetrically encrypted Bytes (step3)
   > bytes[] concatB = iv + cipherText;
   >
   > ENCR_DATA = B64Encode(concatB);

5. Now in the complete request, Client needs to send encrypted request in below format.

   ```
   {

       "requestId": "<request-id for tracking purpose>",
       "service": "AccountCreation",

       "encryptedKey": "<ENCR_KEY>",
       "oaepHashingAlgorithm": "NONE",
       "iv": "<IV>",

       "encryptedData": "<ENCR_DATA>",
       "clientInfo": "",

       "optionalParam": ""

   }
   ```

For Decryption of a response at Client's end.

IV= getFirst16Bytes(Base64Decode(encryptedData)

SessionKey = Base64Decode(RSA/ECB/PKCS1Decryption(encryptedKey,ClientPrivateKey.p12,)) Session key is nothing but randomly generated string of length 16 (OR 32) .

Response = Base64Decode (AES/CBC/PKCS5Padding Decryption(encryptedData,SessionKey, IV))

1. Get the IV- Base64 decode the encryptedData and get first 16 bytes and rest is encryptedResponse.

   bytes[] IV= getFirst16Bytes(Base64Decode(encryptedData)

2. Decrypt encryptedKey using algo (RSA/ECB/PKCS1Padding) and Client's private key.

   sessionKey = B64Decode(RSA/ECB/PKCS1Decryption(encryptedKey,ClientPrivateKey.p12,))

3. Decrypt the response using algo AES/CBC/PKCS5Padding.

   Response = Base64Decode
   (AES/CBC/PKCS5Padding
   Decryption(encryptedData,SessionKey, IV))

4. You need to skip first 16 bytes of response, as it contains IV.