



CIB API Specification document

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1. INTRODUCTION

1.1 Brief

API Banking is considered to be one of the biggest advancements in the banking industry. It has provided businesses and consumers easy access to custom banking services while also ensuring complete safety and enhanced efficiency.

Corporate API suite brings to you a bouquet of APIs, selected specially keeping the evolving needs of the corporates in mind. We carefully studied the journey and needs of a corporate and came up with all the APIs that would make banking seamless for them with automated reconciliation.

In context to this document, we are introducing the “Corporate API suite” that will ensure your timely vendor/salary payments through FT, NEFT, RTGS & IMPS. API will also include the transaction status check API, Balance fetch, Fetch bank statement API and beneficiary services APIs for Nodal account holding merchants.

These APIs can be directly integrated into client business management software/ERP and the client can directly carry out the transactions/account services from the ERP. Response will be reconciled automatically into the ERP through synchronous response.

The Corporate API suite APIs are hosted on the API Gateway. APIGEE will route any request of API to the respective system of the payment mode. ICICI Bank provide separate integration environment for UAT & Production environment testing. UAT environment where client can test all the possible scenario's & post client confirmation, client can be moved to Production/Live environment.

1.2 Structure of payments

1.2.1 CIB Registration*

This is a **mandatory one-time registration API** (CIB User specific) that is required to access the host of banking services through APIs. CIB is the data base for Corporate APIs to authenticate whether request is routed through valid credentials which are already approved through CIB registration API.

1.2.2 Beneficiary Registration**

This API is for merchants holding the Nodal/Escrow account. After CIB registration API is fired, this API is required to be fired which shall register beneficiaries on the fly to the CIB database.

1.2.3 Beneficiary Validation***

The bene validation service is a part of Nodal/Escrow account transactions. Payment API is hit by the client; at the bank's end the bene validation service will be called first by APIGEE which will check if the bene is registered in the CIB database. If the validation is successful, the transaction leg is called which processes the transaction basis the payment mode. If the validation fails, the transaction is declined. The client is shown an appropriate error code as response that the beneficiary is not registered and the transaction is declined. Please note, this beneficiary validation leg will only be enabled for the Nodal/Escrow account holding merchants only.

1.3 Technical Pre-requisite required from client's end***

IP Address (Mandatory)	Client's public IP needs to be whitelisted at our end to ensure the security.
4096 Bits Public Key Certificate (Mandatory)	<p>API will follow encryption and decryption mechanism to send and receive request & response from client's end. Client will use ICICI Bank's public key certificate and encrypt the payment request. ICICI Bank will decrypt the payment request using our private key certificate and then process the API request. After the request has been processed, ICICI Bank will encrypt the response using client's public key certificate and post it back. Client will use their corresponding private key certificate to decrypt the response received.</p>
	<p>Certificate should be in 4096 bit and format should be X.509 and extension should be (.cer or .crt). And certificate content should be like bellow: Certificate start with "-----BEGIN CERTIFICATE-----" and end with "-----END CERTIFICATE-----"</p>
	<p>These certificate files are available with third party vendors. A self-signed certificate for UAT is acceptable, but for live environments a CA signed certificate is mandatory. If client don't have CA signed certificate for UAT then client can use Open SSL command for creating public key certificate at their end for UAT. (Steps to install certificate from open SSL are given in the end of the document).</p>
Callback (Non-mandatory)	<p>Callback URL need to be developed at client end and share with us. By using this URL we will send status for successful transaction. Transaction callback will trigger every 30 min & Registration callback will trigger every 10 min. This is automated process.</p>
SSL certificate (Only if Callback service is required)	<p>This will be used for secured callback communication.</p>

***Please note, we require the technical pre-requisites lists in both UAT and Production environment.

1.4 Brief Summary of APIs in Corporate API Suite

Types	APIs	Summary
CIB Registration	Registration	This API is used for registration of company account with partner/aggregator.
	Registration Status	This API is used to check status of registration of company account with partner/aggregator
Account Services	Beneficiary Addition	This API is used to Register a Beneficiary in the Current Account
	Beneficiary Validation	This API is used to validate beneficiary details of corporate user id
	Fetch Account Balance	This API is used for checking account balance.
	Fetch Account Statement	This API is used to get bank statement.
	Pagination API	This API is used to populate details in multiple records
	Mobile Fetch	This API is used for fetching the mobile number linked to the account
CIB PAYMENTS	CIB OTP API	This API is used to create OTP which is used for transaction.
	Transaction without OTP	This API is used to make payment with-in bank and outside bank (RTGS, NEFT, IMPS) without OTP.
	Transaction with OTP	This API is used to make payment with-in bank and outside bank (RTGS, NEFT, IMPS).
	Transaction Status Inquiry	This API is used for transaction inquiry.
	NEFT Incremental Status API	This API is used to check NEFT Status
BBPS (COU)	Get Category List	This API is used to fetch the categories of the BBPS billers
	Get Biller List	This API is used to fetch a biller from a selected category
	Get Sub-Biller List	This API is used to fetch the derived biller list
	Check Bill Fetch Support	This API is used to determine whether biller supports Bill Fetch and/or Adhoc payments only.
	Get Biller Customers Parameters	This API is used to fetch the Customer parameter fields for a selected leaf node biller
	Pay Only	This API is developed for paying the bill only
	Fetch Bill	This API is developed to Fetch Bill based on input details
	Fetch & Pay	This API is developed to fetch pay based on the request packet
	Calculate Tax	This API is developed to calculate the tax
	BBPS Transaction History	This API is developed to get transaction history based on the request packet.
	BBPS Transaction Inquiry	This API is developed to inquire on CIB transaction based on input details

1.5 API DETAILS

Important notes:

- All the requests and responses will be encrypted
- Requests would be sent using POST method. Please find below the sample format
- Please note that all the requests and response will be in JSON Format
- Requests would be sent using POST method. Please find below the sample format:
[GatewayURL(Base64Encode(RSA_Encrypt(JSON_Object{Field_Elements(field1,field2,...)})))]
- The JSON Request Object is mentioned below where complete payload is encrypted using the public key provided by ICICI Bank.
- The encryption logic is to be built by the Partner/Partner as per their convenience.

```
{  
Base64Encode(RSA_Encrypt( { "CORPID" : "CIBNEXT", "USERID" : "ERPUSER", "REQUESTTYPE" :  
"AGREG", ...,... })))  
}
```

Encryption needs to be done using RSA 4096 bits public key provided by ICICI Bank.

Input Headers: While sending the request, few header (enumerated below) should to be added in code to communicate with the gateway. Please find below the sample.

```
Headers:  
accept: */*,  
content-length:684,  
content-type:text/plain,  
apikey:value,  
host:api.icicibank.com:8443,  
x-forwarded-for: IP
```

1.6 SECURITY

- **Public IP:** Client need to share public IPs from where Bank will receive API request. Bank will whitelist these IPs at bank end & request will be processed only if received from these whitelisted IPs.
- **API Key:** *to be shared by ICICI team.* This will be unique for a client & act as one of the security feature. Separate API key will be shared for UAT & for live to ensure safety
- API request and response to Merchant is secured using advanced and agreed upon RSA encryption algorithm agreed to maintain data confidentiality and integrity.
- **URN:** Unique client id will be passed by client at the time of hitting registration API which will act as security feature for all future API request.
- Please refer below given steps for Encryption & Decryption process.

2. Encryption & Decryption Process

ICICI Bank follow asymmetric encryption for CIB APIs. API request and response to merchant is secured using advanced and agreed upon encryption algorithm agreed to maintain data confidentiality and integrity.

AES-128-CBC
Algorithm Name: RSA
Mode: ECB
Padding: PKCS1Padding
RSA/ECB/PKCS1Padding

Payload content-type will be in text/plain. Base64 encoded encrypted Cipher will be passed as a payload.

*oG5mU1JJNBuwQaSLKb3wfrZks/cT2Vo2yBNNuqjNHDWEC144WxC8iKqBpJAgq7reFKC4sHNUmNPRD
ya1AvmQ7x1L+3EAdEs9FEWNurZuWTvZpk4y7JrGhg0rz9KptBf+JfJUKSMo7NR3SaxeI6EYtckkDr3AG
W7WJZmhCeoAMMXRws/hLVmaNHC/nOjCnqqBd4IOOAzdJh/HADRVl+YAJKT8dE4x9NTI+UX1zAoo
Whza+TsWEHfxzQla7zai7WSa/wiJD3uD7mk5vT1WY/fKJBquCuzM7I35vigDhmb7dLVLuX8VMiNQtErW
NI0uVaag1jg+uZUtyDSxjPFi5yEpKVvc7+T503IDnCvkCFDyggasDsPL24qOjYk4XavTZvwGuPAdYNNkVn
LzVEIEhg4zS2ye+fa/8fZiMt/3fwYeN9dgn9i5R6VOFbXSuzJYPSci9k0oqz73h1nzFtps60rUEDoGlkGvm9w
aJU3W78VH5mldGfGvvJjiKluVHmi/huzEX9v4w3mW7RDGgmOuKlImkqki+XWgyB0JvVmsLdO+cBaym/
seZP3+zdfhO9AWSI2tDLd4Vf0jDjzoDSFN2mzUFgHK9mbtbXgvsrReoGqx/KsivzmZNLmDmtg8eR4Z9Ln
Lni4rl4OtkDv5y/mxMtL3MBUUUajkw6OS6NnhEG895yo*

For encryption of request at ICICI:

Encrypted_Payload = Base64Encode(RSA/ECB/PKCS1Encryption(payload,ICICIPubKey.cer))

For encryption of response at ICICI:

Encrypted_Payload = Base64Encode(RSA/ECB/PKCS1Encryption(payload,ClientPubKey.cer))

For decryption of response at Client:

plainResponse = Base64Decode(RSA/ECB/PKCS1Decryption(encPayload,ClientPrivateKey.p12))

Encryption Process:

1. Asymmetric Encryption (RSA_Encrypt) with RSA 4096 bit Public Key(Certificate), with mode/padding as ECB/PKCS1.
2. Base64Encode.
3. In Encryption Process Partner should use ICICI Public Key Certificate

Decryption Process:

1. Base64Decode
2. Asymmetric Decryption(RSA_Decrypt) by using Partner private Key certificate.

Decryption Process (Only for Bank statement): Decryption logic for account statement

- step 1: Decrypting the encrypted key using client private key.
- step 2: Base 64 decode encrypted data,
- step 3: Retrieving iv from step 2(first 16 characters)
- step 4: Doing symmetric key decryption on encrypted data, by using key from step 1 and iv from step 3

SessionKey = RSA/ECB/PKCS1Decryption(Base64Decode(encryptedKey),B2C.cer)

Data = AES/CBC/PKCS5Padding((Base64Decode(encryptedData),SessionKey)

3. CIB REGISTRATION

3.1 CIB Registration: This API is used for registration of company account with partner/aggregator.

UAT API End point: <https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/Registration>

Live API End point: <https://apibankingone.icicibank.com/api/Corporate/CIB/v1/Registration>

Request Parameter

Parameter	Datatype	Length	Min	Max	Mandatory	Remarks
AGGRNAME	NVARCHAR2 (256)	256	NA	NA	Y	ICICI to hardcode a Name
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y	ICICI to hardcode a one ID
CORPID	NVARCHAR2 (32)	32	NA	NA	N	This is the Client ID in CIB
USERID	NVARCHAR2 (32)	32	NA	NA	N	This user id under client ID in CIB
URN	NVARCHAR2(40)	40	NA	NA	Y	This a unique value that partner will assign to each registration from his end for security and recon.
ALIASID	NVARCHAR2 (32)	32	NA	NA	N	Please pass CORPID & USERID. If user created Alias id before registration, then user need to pass ALIASID parameter in Registration API

Important notes

- * Registration is one-time mandatory activity before using other APIs.
- * User need to create URN (Unique Reference Number) and should pass same when using other APIs.
- * There can be only Successful registration request or failed.
- * Aggregator ID and Aggregator Name will be provided by ICICI to partner

REQUEST PACKET

```
{
  "AGGRID": "",
  "CORPID": "",
  "USERID": "",
  "URN": "",
  "AGGRNAME": " ",
  "ALIASID": ""
}
```


Response Parameter

Name	Type	Description
RESPONSE	char	Response SUCCESS or FAILURE.
Message	nvarchar	Response message.
CORPID	nvarchar	Client ID in Corporate Internet Banking.
USERID	nvarchar	Customer ID under Client ID in Corporate Internet Banking.
AGGRID	nvarchar	ID of the partner to be assigned by ICICI Bank offline and used by partner in the request packet.
AGGRNAME	nvarchar	Name of the partner to be provided by ICICI Bank offline and used by partner in the request packet.
URN	nvarchar	Unique ID provided by partner for each registered.

RESPONSE: SUCCESS

```
{
  "MESSAGE": "User details are saved successfully and pending for self-approval."
  "RESPONSE": "SUCCESS"
  "CORP_ID": ""
  "USER_ID": ""
  "AGGRID": ""
  "AGGRNAME": ""
  "URN": ""
}
```

RESPONSE: FAILURE

```
{
  "MESSAGE": "REGISTRATION FAILED.CORPORATE ALREADY REGISTERED."
  "ERRORCODE": "995109"
  "RESPONSE": "FAILURE"
}
```

Output Response

Registration completed with all validations passed	<p>Message to the Partner "User registration is pending for approval with ref id as [XXXX]"</p> <p>RESPONSE – SUCCESS</p>
Corporate id is not present or not sent in registration URL.	<p>Message to the Partner "REGISTRATION FAILED.CORPID IS MANDATORY"</p> <p>RESPONSE - FAILURE</p>
User id is not present or not sent in registration URL.	<p>Message to the Partner "REGISTRATION FAILED.USER ID IS MANDATORY"</p> <p>RESPONSE - FAILURE</p>

Blank AGGR NAME	<p>Message to the Partner "REGISTRATION FAILED.PARTNER NAME IS MANDATORY"</p> <p>RESPONSE - FAILURE</p>
Blank AGGR ID	<p>Message to the Partner "REGISTRATION FAILED.PARTNER ID IS MANDATORY"</p> <p>RESPONSE - FAILURE</p>
Unique Partner id not sent in registration URL.	<p>Message to the Partner "Registration failed unique Partner id not available"</p> <p>RESPONSE - FAILURE</p>
Password Expired/Login Disabled	<p>Message to the Partner "You cannot logon at this time. Please contact the bank for further information."</p> <p>RESPONSE - FAILURE</p>
User Already Registered	<p>Message to Partner "REGISTRATION FAILED.CORPORATE ALREADY REGISTERED"</p> <p>RESPONSE - FAILURE</p>

Important notes:

- * While firing the registration request, the user has to use the same Corporate ID and User ID which he uses for logging into CIB. The user would get a SUCCESS/FAILURE response along with a message.
- * This service will be called by the Partner to register the user at E Banking.
- * If the registration already completed E Banking application will provide the "Registration Already Completed" message to the Partner.
- * If registration is complete then SUCCESS message would be sent to the Partner.
- * The registration request will stay in E-Banking for further self-approval

3.2 CIB Registration Status: This API is used to check status of registration of company account with partner/aggregator

UAT API End point:

<https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/RegistrationStatus>

Live API End point:

<https://apibankingone.icicibank.com/api/Corporate/CIB/v1/RegistrationStatus>

Request Parameter

Parameter	Datatype	Length	Min	Max	Mandatory	Remarks
AGGRNAME	NVARCHAR2 (32)	32	NA	NA	N	ICICI to hardcode a Name

AGGRID	NVARCHAR2 (100)	100	NA	NA	Y	ICICI to hardcode a one ID
CORPID	NVARCHAR2 (32)	32	NA	NA	Y	This is the Client ID in CIB
USERID	NVARCHAR2 (32)	32	NA	NA	Y	This user id under client ID in CIB
URN	NVARCHAR2(40)	40	NA	NA	Y	URN will be same what user are provided at Registration time.

REQUEST PACKET

```
{
  "CORPID": "",
  "USERID": "",
  "AGGRNAME": "",
  "AGGRID": "",
  "URN": ""
}
```

Response Parameter

Name	Type	Description
Status	nvarchar	Registered/ Rejected/ Pending for Self Approval/ Deregistered
ResponseCode	numeric	Error Code.
RESPONSE	char	Response SUCCESS or FAILURE.

Expected Response: Registered/ Rejected/ Pending for Self Approval/ Deregistered

4. CIB PAYMENTS

4.1 Transaction without OTP API (FT/NEFT/RTGS/IMPS): This API is used to make payment with-in bank and outside bank (RTGS, NEFT, IMPS) without OTP.

UAT API End point: <https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/Transaction>

Live API End point: <https://apibankingone.icicibank.com/api/Corporate/CIB/v1/Transaction>

Request Parameter

Parameter	Datatype	Length	Min	Max	Mandatory	Remarks
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y	
AGGRNAME	NVARCHAR2 (32)	32	NA	NA	Y	
CORPID	NVARCHAR2 (32)	32	NA	NA	Y	
USERID	NVARCHAR2 (32)	32	NA	NA	Y	
URN	NVARCHAR2(40)	40	NA	NA	Y	Same as passed in registration request by Partner

						Recon should be done on "unique id " first 15 character (Bank Statement Debit narration captures first 15 character). Value is passed by partner. For every Transaction initiated it should be unique.
UNIQUEID	NVARCHAR2(40)	40	NA	NA	Y	35 chars unique captured for FT/NEFT/RTGS
DEBITACC	NVARCHAR2(34)	34	NA	NA	Y	
CREDITACC	NVARCHAR2(34)	34	NA	NA	Y	
IFSC	NVARCHAR2(32)	32	NA	NA	Y	For all ICICI FT the IFSC to be static as ICIC0000011. For virtual payments "VAP" IFSC should be ICIC0000103,ICIC0000104,ICIC0000106
AMOUNT	NUMBER(18,3)	18 (Upto 2 decimal points)	NA	NA	Y	
CURRENCY	NVARCHAR2(3)	3	NA	NA	Y	
TXNTYPE	CHAR(11)	11	NA	NA	Y	Enter RTG for RTGS, RGS for NEFT, IFS for IMPS, OWN for Own to Own & TPA for Own to external payments. For Virtual A/c payments Txn_type should be " VAP " & " RGS " and IFSC should be ICIC0000103, ICIC0000104 & ICIC0000106 depending on the client codes created for the service of virtual account number based collection. This is communicated during setup of this service for any client. IMPS & RTGS txn will not allowed for virtual payments.
PAYEENAME	NVARCHAR2(80)	80	NA	NA	Y	special character not allowed.
REMARKS	NVARCHAR2(255)	255	NA	NA	N	Not Mandatory & special character not allowed. For NEFT Maximum 32 Character only we are allowing.
WORKFLOW_REQD	CHAR(1)	1	NA	NA	N	MANDATORY when to bypass the Txn Workflow. NO Approval required.
BENLEI	NVARCHAR2(20)	20	NA	NA	N	Non Mandatory field for Beneficiary LEI. Required to be passed for non-individual beneficiary for NEFT & RTGS above INR 50Cr

REQUEST PACKET

```
{
  "AGGRID": "5770092488949760",
  "AGGRNAME": "Randy Blair",
  "CORPID": "7341264808706048",
  "USERID": "Lois",
  "URN": "jklulwizaj",
  "UNIQUEID": "6618853561860096",
```

```

"DEBITACC": "5175875755441725",
"CREDITACC": "6304942213508412",
"IFSC": "utua",
"AMOUNT": 8.35031448,
"CURRENCY": "SZL",
"TXNTYPE": "hoet",
"PAYEENAME": "Bruce Fisher",
"REMARKS": "luggigmukdej",
"WORKFLOW_REQD": "N"
}

```

Response Parameter Details

Name	Type	Description
RESPONSE	char	SUCCESS/FAILURE
RESPONSE CODE	numeric	Response code.
MESSAGE	nvarchar	Status message of request.
URN	NVARCHAR2(40)	Unique reference number passed by partner for each transaction..
UNIQUEID	NVARCHAR2(40)	Same as passed in registration request by partner.
REQID	NVARCHAR2 (11)	
STATUS	NVARCHAR2(20)	Status of the transaction.
UTRNUMBER	NVARCHAR2(32)	Bank reference number after transaction is initiated.

Response Parameter: Success (UAT)

Parameter	Datatype
URN	NVARCHAR2(40)
UNIQUEID	NVARCHAR2(40)
REQID	NVARCHAR2 (11)
UTRNUMBER	NVARCHAR2(32)
STATUS	NVARCHAR2(20)
RESPONSE	CHAR(10)

Response Parameter: Success (Live)

Parameter	Datatype
AGGR_ID	NVARCHAR2 (100)
AGGR_NAME	NVARCHAR2 (32)
CORP_ID	NVARCHAR2 (32)
USER_ID	NVARCHAR2 (32)
URN	NVARCHAR2(40)
UNIQUEID	NVARCHAR2(40)
UTRNUMBER	NVARCHAR2(32)
REQID	NVARCHAR2 (11)
STATUS	NVARCHAR2(20)
RESPONSE	CHAR(10)

Response Parameter: Failure

Parameter	Datatype
RESPONSECODE	NUMBER(40)
ERRORCODE	NUMBER(40)
MESSAGE	NVARCHAR2(255)
STATUS	NVARCHAR2(20)
RESPONSE	CHAR(10)

STATUS	SUCCESS	When txn got process	
	FAILURE	When txn not process	
	PENDING	When txn is SUSPECT	Please Try inquiry after 2 hours of transactions to get the final terminal status.
	Pending For Processing	If txn initiated after CUT Off(Only for NEFT & RTGS)	
	Pending For approval	If txn went for approval	
	DUPLICATE	If same unique id used for 2nd txn. Which one already used	
	Processing	If transaction done post cutoff & status check done during cutoff time	
	Reversed	If RTGS transaction reversed within 2 hours	

Output Response

Transaction Success(WITHOUT WORKFLOW)	Message to the Partner "Transaction with reference id XXXX processed successfully."
	RESPONSE - SUCCESS
Transaction Success(WITH WORKFLOW)	Message to the Partner "Transaction with reference id XXXX submitted successfully and is pending for Processing"
	RESPONSE - SUCCESS
Invalid Corpid/User Id/ Partner id	Message to the Partner "Invalid Corp Id or User Id or Partner Id is passed"
	RESPONSE - FAILURE
Unregistered User	Message to the Partner "User is not registered"
	RESPONSE - FAILURE
Debit account not passed	Message to the Partner "Debit Account is mandatory"
	RESPONSE - FAILURE
Invalid Debit account Passed	Message to the Partner "Debit Account is invalid"
	RESPONSE - FAILURE
Credit Account not passed	Message to the Partner "Credit Account is mandatory"

	RESPONSE - FAILURE
IFSC code not passed	Message to the Partner "Bank Identifier is mandatory for adhoc payment"
	RESPONSE - FAILURE
Amount not passed	Message to the Partner "Amount not entered"
	RESPONSE - FAILURE
Currency not passed	Message to the Partner "Invalid Currency"
	RESPONSE - FAILURE
Invalid Txn date format	Message to the Partner "Entered Date Format is Invalid"
	RESPONSE - FAILURE
Txn type not passed	Message to the Partner "Transaction Type is mandatory"
	RESPONSE - FAILURE
Payee name not passed	Message to the Partner "Payee name is mandatory"
	RESPONSE - FAILURE
Partner Id not passed	Message to the Partner "Invalid Corp Id or User Id or Partner Id is passed"
	RESPONSE - FAILURE
REQUESTFROM or REQUESTTYPE not passed	Message to the Partner "Invalid Partner Request"
	RESPONSE - FAILURE
Special Characters In BENE LEI	Message to the Partner "Field can contain numbers or alphabets."
	RESPONSE - FAILURE
20 characters not passed in BENE LEI	Message to the Partner "Please enter a valid 20 digit Alphanumeric Beneficiary LEI."
	RESPONSE - FAILURE
Remitter LEI - not available in bank records / not 20 chars / Expired	Message to the Partner "Large value transaction of more than INR 5000000000 can't be processed as Legal entity identifier is not available/expired as per bank records. Kindly visit nearest ICICI Bank branch to update the same in your account"
	RESPONSE - FAILURE

Important Points:

- * E Banking application will validate whether the user is registered or not and transaction will be done if user is registered. If user is not registered, then failure will be sent.
- * Once the transaction request is processed and reference number will be sent to Partner and message will be sent as approvals pending, if approvals are pending as per the associated workflows.
- * Workflow for the user would be same as the ones configured at CIB.
- * If workflow is associated transaction will be available in CIB for the approvers to approve. Approvers should login into E Banking application and do the approvals.
- * If for some reason, the user did not receive response from CIB, he can fire the same request again and he will get the reference ID from CIB with appropriate status.

- * Duplicate transactions will not be posted.
- * The transaction flow will be as per the associated configurations done in E Banking like network properties, network maintenance, debit account number validations, credit account number validations, transaction type validations associated for the initiating user.
- * Transaction status will be provided to the user either through a Transaction Status Update batch or Transaction Inquiry web service.

Workflow	Transaction Processing response in CIB				Remarks
	NEFT	RTGS	FT	IMPS	
STP	Synchronous	Synchronous	Synchronous	Synchronous	The Responses are only for the account debit but if txn fails at RBI/NPCI/destination bank the account is credited back manually, however CIB is not updated back and will continue to show success
NON STP	Asynchronous	Asynchronous	Asynchronous	Asynchronous	

4.2 CREATE OTP API: This API is used to create OTP which is important parameter in Transaction With OTP API.

UAT API End point: <https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/Create>
 Live API End point: <https://apibankingone.icicibank.com/api/Corporate/CIB/v1/Create>

REQUEST PARAMETER

Parameter	Datatype	Length	Min	Max	Mandatory
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y
AGGRNAME	NVARCHAR2 (32)	32	NA	NA	Y
CORPID	NVARCHAR2 (32)	32	NA	NA	Y
USERID	NVARCHAR2 (32)	32	NA	NA	Y
URN	NVARCHAR2(40)	40	NA	NA	Y
UNIQUEID	NVARCHAR2 (40)	40	NA	NA	Y
AMOUNT	NUMBER(18,3)	18 (Upto 2 decimal points)	NA	NA	N

Important Points

- * UNIQUEID will be same when USER initiate Transaction
- * AMOUNT is new field added in OTP API for transaction amount verification in the SMS. This is non-mandatory

field. If client pass this tag in OTP request, then amount will be verifying in txn API with unique id and OTP. Unique id and amount should be same in CIB OTP & Txn with OTP API. If any client doesn't want amount in SMS or not passed amount field in CIB OTP API then amount will not show in OTP SMS. Sample SMS content is mentioned below.

REQUEST PACKET

```
{
  "URN": "2634AB",
  "CORPID": "CIBNEXT",
  "USERID": "CIBTESTXXXX",
  "AGGRID": "AGGR00XX",
  "AGGRNAME": "MMSOFT",
  "UNIQUEID": "IXX"
}
```

Request Parameter Details

Name	Type	Description
MESSAGE	NVARCHAR2(255)	Status message of request.
RESPONSE CODE	NUMBER(40)	Response code.
RESPONSE	CHAR(10)	Response SUCCESS or FAILURE.

SUCCESS RESPONSE

```
{
  "ResponseCode": "0000",
  "MESSAGE": "SUCCESS",
  "RESPONSE": "SUCCESS"
}
```

Note: This is for OTP creation. If OTP created successfully. Then User get SUCCESS and Response Code is "0000"

Sample SMS content:	
With Amount SMS Content:	XXXXXX is OTP for transaction of Rs 2.22 initiated on ICICI Bank from <Merchant Name>. OTPs are SECRET. DO NOT disclose it to anyone. Bank NEVER asks for OTP.
Without Amount SMS Content:	Dear Customer, OTP for transaction initiated on ICICI Bank from <Merchant Name> is XXXXXX. OTPs are secret. DO NOT disclose it to anyone. Bank NEVER asks for OTP.

4.3 Transaction with OTP API (FT/NEFT/RTGS/IMPS)

UAT API End point:

<https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/TransactionOTP>

Live API End point:

<https://apibankingone.icicibank.com/api/Corporate/CIB/v1/TransactionOTP>

Request Parameter

Parameter	Datatype	Length	Min	Max	Mandatory
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y

AGGRNAME	NVARCHAR2 (32)	32	NA	NA	Y
CORPID	NVARCHAR2 (32)	32	NA	NA	Y
USERID	NVARCHAR2 (32)	32	NA	NA	Y
URN	NVARCHAR2(40)	40	NA	NA	Y
UNIQUEID	NVARCHAR2 (40)	40	NA	NA	Y
DEBITACC	NVARCHAR2(34)	34	NA	NA	Y
CREDITACC	NVARCHAR2(34)	34	NA	NA	Y
IFSC	NVARCHAR2(32)	32	NA	NA	Y
AMOUNT	NUMBER(18,3)	18 (Upto 2 decimal points)	NA	NA	Y
CURRENCY	NVARCHAR2(3)	3	NA	NA	Y
TXNTYPE	CHAR(11)	11	NA	NA	Y
OTP	NUMBER(6)	6	NA	NA	Y
PAYEENAME	NVARCHAR2(80)	80	NA	NA	Y
REMARKS	NVARCHAR2(255)	255	NA	NA	Y
CUSTOMERINDUCED	CHAR(1)	1	NA	NA	N
WORKFLOW_REQD	CHAR(1)	1	NA	NA	N
BENLEI	NVARCHAR2(20)	20	NA	NA	N

Important Points

- * URN: Same as passed in registration request by Partner
- * UNIQUEID: Same as passed in create OTP API
- * IFSC: For all ICICI FT the IFSC to be static as ICIC0000011. For virtual payments "VAP" IFSC should be ICIC0000103, ICIC0000104, ICIC0000106
- * Amount: If amount passed in CIB OTP then ,Same AMOUNT & UNIQUE ID should be pass for transaction with OTP API as our system will verify all 3 field unique id , amount, OTP before processing the transactions
- * TXNTYPE: Enter RTG for RTGS, RGS for NEFT ,IFS for IMPS ,OWN for Own to Own & TPA for Own to external payments. For Virtual A/c payments Txn_type should be "VAP" & "RGS" and IFSC should be ICIC0000103, ICIC0000104 & ICIC0000106 depending on the client codes created for the service of virtual account number based collection. This is communicated during setup of this service for any client. IMPS & RTGS txn will not allowed for virtual payments.
- * OTP: Same OTP has to pass. Those are created through OTP create API.
- * PAYEENAME: Special character not allowed.
- * Remarks: Mandatory & special character not allowed. For NEFT Maximum 32 Character only we are allowing.
- * CUSTOMERINDUCED: MANDATORY when to bypass the OTP.
- * WORKFLOW_REQD: MANDATORY when to bypass the Txn Workflow. NO Approval required.
- * BENLEI: Non Mandatory field for Beneficiary LEI. Required to be passed for non-individual beneficiary for NEFT & RTGS above INR 50Cr.
- * For ICICI as beneficiary bank use IFSC as ICIC0000011 and 'txnType' as "TPA" and for Non-ICICI Beneficiaries use IFSC as DLXB0000092 and 'txnType' as "IFS or RGS" & for RTGS use IFSC code SBIN0003060" & txn type as "RTG"
- "AMOUNT": "1"
- For RTGS: Amount: 2,00010
- * Enter RTG for RTGS, RGS for NEFT ,IFS for IMPS ,OWN for Own to Own & TPA for Own to external payments.

REQUEST PACKET

```
{
  "AGGRID": "",
  "CORPID": "",
  "USERID": "",
  "URN": "",
  "AGGRNAME": "",
  "DEBITACC": "",
  "CREDITACC": "000705001225",
}
```

```

"IFSC": "ICIC0000011",
"AMOUNT": "1.00",
"CURRENCY": "INR",
"TXNTYPE": "OWN",
"PAYEENAME": "",
"UNIQUEID": "",
"REMARKS": "",
"OTP": "",
"CUSTOMERINDUCED": "N"
}

```

Response Parameter

Name	Type	Description
RESPONSE	char	SUCCESS/FAILURE
RESPONSE CODE	numeric	Response code.
MESSAGE	nvarchar	Status message of request.
URN	NVARCHAR2(40)	Unique reference number passed by partner for each transaction.
UNIQUEID	NVARCHAR2(40)	Same as passed in registration request by partner..
REQID	NVARCHAR2 (11)	
STATUS	NVARCHAR2(20)	Status of the transaction.
UTRNUMBER	NVARCHAR2(32)	Bank reference number after transaction is initiated.

Response: Success(UAT)

URN	NVARCHAR2(40)
UNIQUEID	NVARCHAR2(40)
REQID	NVARCHAR2 (11)
UTRNUMBER	NVARCHAR2(32)
STATUS	NVARCHAR2(20)
RESPONSE	CHAR(10)

Response: Success(Live)

AGGR_ID	NVARCHAR2 (100)
AGGR_NAME	NVARCHAR2 (256)
CORP_ID	NVARCHAR2 (32)
USER_ID	NVARCHAR2 (32)
URN	NVARCHAR2(40)
UNIQUEID	NVARCHAR2(40)
UTRNUMBER	NVARCHAR2(32)
REQID	NVARCHAR2 (11)
STATUS	NVARCHAR2(20)
RESPONSE	CHAR(10)

Response: Failure

RESPONSECODE	NUMBER(40)
ERRORCODE	NUMBER(40)
MESSAGE	NVARCHAR2(255)

STATUS	NVARCHAR2(20)
RESPONSE	CHAR(10)

RESPONSE: SUCCESS

```
{
  "AGGRID":"","
  "AGGRNAME":"","
  "CORPID":"","
  "USERID":"","
  "RESPONSE": "SUCCESS",
  "URN":"","
  "REQID":"","
  "STATUS":"SUCCESS",
  "UNIQUEID":""
}
```

STATUS	SUCCESS	When txn got process	
	FAILURE	When txn not process	
	PENDING	When txn is SUSPECT	Please Try inquiry after 2 hours of transactions to get the final terminal status.
	Pending For Processing	If txn initiated after CUT Off(Only for NEFT & RTGS)	
	Pending For approval	If txn went for approval	
	DUPLICATE	If same unique id used for 2nd txn. Which one already used	
	Processing	If transaction done post cutoff & status check done during cutoff time	
	Reversed	If RTGS transaction reversed within 2 hours	

Output Response

Transaction Success(WITHOUT WORKFLOW)	Message to the Partner "Transaction with reference id XXXX processed successfully."
	RESPONSE - SUCCESS
Transaction Success(WITH WORKFLOW)	Message to the Partner "Transaction with reference id XXXX submitted successfully and is pending for Processing"
	RESPONSE - SUCCESS
Invalid Corpid/User Id/ Partner id	Message to the Partner "Invalid Corp Id or User Id or Partner Id is passed"
	RESPONSE - FAILURE
Unregistered User	Message to the Partner "User is not registered"
	RESPONSE - FAILURE

Debit account not passed	Message to the Partner "Debit Account is mandatory"
	RESPONSE - FAILURE
Invalid Debit account Passed	Message to the Partner "Debit Account is invalid"
	RESPONSE - FAILURE
Credit Account not passed	Message to the Partner "Credit Account is mandatory"
	RESPONSE - FAILURE
IFSC code not passed	Message to the Partner "Bank Identifier is mandatory for adhoc payment"
	RESPONSE - FAILURE
Amount not passed	Message to the Partner "Amount not entered"
	RESPONSE - FAILURE
Currency not passed	Message to the Partner "Invalid Currency"
	RESPONSE - FAILURE
Invalid Txn date format	Message to the Partner "Entered Date Format is Invalid"
	RESPONSE - FAILURE
Txn type not passed	Message to the Partner "Transaction Type is mandatory"
	RESPONSE - FAILURE
Payee name not passed	Message to the Partner "Payee name is mandatory"
	RESPONSE - FAILURE
Partner Id not passed	Message to the Partner "Invalid Corp Id or User Id or Partner Id is passed"
	RESPONSE - FAILURE
REQUESTFROM or REQUESTTYPE not passed	Message to the Partner "Invalid Partner Request"
	RESPONSE - FAILURE
Special Characters In BENE LEI	Message to the Partner "Field can contain numbers or alphabets."
	RESPONSE - FAILURE
20 characters not passed in BENE LEI	Message to the Partner "Please enter a valid 20 digit Alphanumeric Beneficiary LEI."
	RESPONSE - FAILURE
Remitter LEI - not available in bank records / not 20 chars / Expired	Message to the Partner "Large value transaction of more than INR 500000000 can't be processed as Legal entity identifier is not available/expired as per bank records. Kindly visit nearest ICICI Bank branch to update the same in your account"
	RESPONSE - FAILURE

Important Points

- * E Banking application will validate whether the user is registered or not and transaction will be done if user is registered. If user is not registered, then failure will be sent.
- * Once the transaction request is processed and reference number will be sent to Partner and message will be sent as approvals pending, if approvals are pending as per the associated workflows.
- * Workflow for the user would be same as the ones configured at CIB.
- * If workflow is associated transaction will be available in CIB for the approvers to approve. Approvers should login into E Banking application and do the approvals.
- * If for some reason, the user did not receive response from CIB, he can fire the same request again and he will get the reference ID from CIB with appropriate status.
- * Duplicate transactions will not be posted.
- * The transaction flow will be as per the associated configurations done in E Banking like network properties, network maintenance, debit account number validations, credit account number validations, transaction type validations associated for the initiating user.
- * Transaction status will be provided to the user either through a Transaction Status Update batch or Transaction Inquiry web service.

Workflow	Transaction Processing response in CIB				Remarks
	NEFT	RTGS	FT	IMPS	
STP	Synchronous	Synchronous	Synchronous	Synchronous	The Responses are only for the account debit but if txn fails at RBI/NPCI/destination bank the account is credited back manually, however CIB is not updated back and will continue to show success
NON STP	Asynchronous	Asynchronous	Asynchronous	Asynchronous	

4.4 Transaction Status Inquiry API: This API is used for transaction inquiry

UAT API End point:

<https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/TransactionInquiry>

Live API End point: <https://apibankingone.icicibank.com/api/Corporate/CIB/v1/TransactionInquiry>

Request Parameter

Parameter	Datatype	Length	Min	Max	Mandatory
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y
CORPID	NVARCHAR2 (32)	32	NA	NA	Y
USERID	NVARCHAR2 (32)	32	NA	NA	Y
UNIQUEID	NVARCHAR2(40)	40	NA	NA	Y
URN	NVARCHAR2(40)	40	NA	NA	Y

REQUEST PACKET

```
{
  "AGGRID": "",
  "CORPID": "",
  "USERID": "",
  "UNIQUEID": "",
  "URN": ""
}
```

Response Parameter

Response: Success	
URN	NVARCHAR2(40)
UNIQUEID	NVARCHAR2(40)
STATUS	NVARCHAR2(20)
RESPONSE	CHAR(10)
UTRNUMBER	NVARCHAR2(32)

Response: Failure	
MESSAGE	NVARCHAR2(255)
STATUS	NVARCHAR2(20)
RESPONSE	CHAR(10)

RESPONSE SUCCESS

```
{
  "RESPONSE": "SUCCESS",
  "STATUS": "SUCCESS",
  "URN": "",
  "UNIQUEID": "",
  "UTRNUMBER": ""
}
```

STATUS

SUCCESS	When txn got process	
FAILURE	When txn not process	
PENDING	When txn is SUSPECT	Please Try inquiry after 2 hours of transactions to get the final terminal status.
Pending For Processing	If txn initiated after CUT Off(Only for NEFT & RTGS)	
Pending For approval	If txn went for approval	
DUPLICATE	If same unique id used for 2nd txn (Already used unique ID)	
Processing	If transaction done post cutoff & status check done during cutoff time	

Reversed	If RTGS transaction reversed within 2 hours	
REVERSED	NEFT transaction rejected at internally will be auto reversed to client's account	
UNCERTAIN Applicable for FT, NEFT & RTGS.	If status of transaction could not be retrieved	Fund transfer - Do not re-initiate transaction if amount is debited. NEFT/RTGS – If amount is debited same will be reversed

Important Points

- * CORP id & user id will not be Passed. Instead the URN can be used to establish the linkage.
- * This service will be used to get the transaction status for the transaction done in E-Banking.
- * USERID will be validated whether it is registered or not.
- * Status of the transaction will be sent as output.
- * Response for incorrect details in input packet will be sent in "Response"

4.5 NEFT Incremental Status API

UAT API End point: <https://apibankingone.icicibank.com/api/v1/CIBNEFTStatus>

Live API End point: <https://apibankingonesandbox.icicibank.com/api/v1/CIBNEFTStatus>

Request Parameters

Parameter	Datatype	Length	Min	Max	Mandatory
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y
CORPID	NVARCHAR2 (32)	32	NA	NA	Y
USERID	NVARCHAR2 (32)	32	NA	NA	Y
UTRNUMBER	NVARCHAR2(32)	32	NA	NA	Y
URN	NVARCHAR2(40)	40	NA	NA	Y

REQUEST PACKET

```
{
  "CORPID": ""
  "USERID": ""
  "AGGRID": ""
  "UTRNUMBER": ""
  "URN" : ""
}
```

Response Parameters

Response: Success		
STATUS	NVARCHAR2(32)	IF Txn API terminal STATUS is Success & Pending, Then pass same UTR no in this API to know the real time NEFT status as incremental wise. Status can be 1. Posted to RBI(At initial state) 2. Amount credited to Beneficiary(After posted to bene bank & amount credited to bene Account) 3. Amount refunded to Remitter(In case of bene details wrong, verified by bene bank)
UTRNUMBER	NVARCHAR2(32)	When txn terminal status is success and UTR is generated, then pass same UTR no to know the status. If txn status is 'Pending for processing' due to Authentication pending or NEFT cut off time. In this case After process txn, get the UTR from normal txn inquiry API. Then pass same UTR no here to know the actual status.
Credit Date	NVARCHAR2(32)	At what time amount credited to bene bank account DD,MM,YYYY HH:MM:SS AM/PM
Response	CHAR(10)	Success/Failure
Reason	NVARCHAR(256)	Reason for "Amount refunded to Remitter" or status Reversed

Response: Failure	
STATUS	NVARCHAR2(32)
Error Code	NUMBER(40)
Message	NVARCHAR2(255)
Response	CHAR(10)

Response

Initial State

```
{
  STATUS:"Posted to RBI",
  UTRNUMBER:"XXXXXXXXXX",
  CreditDate:"",
  Response:"SUCCESS"
}
```

When request sent to Bene bank from RBI & Amount credited to bene Account

```
{
  STATUS:"Amount credited to Beneficiary.",
  UTRNUMBER:"XXXXXXXXXX",
  CreditDate:"DD,MM,YYYY HH:MM:SS AM/PM",
  Response:"SUCCESS"
}
```

When Amount refunded to Remitter account, Due to Bene bank details found wrong or wrong packet is posted

```
{
  STATUS:"Amount refunded to Remitter",
  UTRNUMBER:"XXXXXXXXXX",
  CreditDate:"DD,MM,YYYY HH:MM:SS AM/PM",
  Response:"SUCCESS"
}
```

```
}
```

When Txn id or UTR no is not exist

```
{
  STATUS:"FAILURE",
  ErrorCode:"999922",
  Message:"Invalid Transaction Id.",
  Response:"Failure"
}
```

Status can be

- Posted to RBI(At initial state)
- Amount credited to Beneficiary(After posted to bene bank & amount credited to bene Account)
- Amount refunded to Remitter(In case of bene details wrong, verified by bene bank)
- Invalid Transaction ID (In case of wrong UTR number passed)
- Paid
- NEFT transaction rejected internally , will be auto reversed to client's account
___ (Expected responses-Invalid IFSC /Error in processing)

5. ACCOUNT SERVICES

5.1 Balance Fetch API: This API is used to fetch the balance of an account on CIB.

UAT API End point: <https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/BalanceInquiry>

Live API End point: <https://apibankingone.icicibank.com/api/Corporate/CIB/v1/BalanceInquiry>

Request Parameters

Parameter	Datatype	Length	Min	Max	Mandatory
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y
CORPID	NVARCHAR2 (32)	32	NA	NA	Y
USERID	NVARCHAR2 (32)	32	NA	NA	Y
URN	NVARCHAR2(40)	40	NA	NA	Y
ACCOUNTNO	NUMBER (12)	12	NA	NA	Y

REQUEST PACKET

```
{
  "CORPID": "",
  "USERID": "",
  "AGGRID": "",
  "URN": "",
  "ACCOUNTNO": ""
}
```

Response Parameter

AGGR_ID	NVARCHAR2 (100)
CORP_ID	NVARCHAR2 (32)
USER_ID	NVARCHAR2 (32)

URN	NVARCHAR2(40)
Response	CHAR(10)
ACCOUNTNO	NUMBER (12)
DATE	DATETIME
EFFECTIVEBAL	NUMBER (18,3)
CURRENCY	NVARCHAR2(3)
MESSAGE	NVARCHAR2(255)

RESPONSE: SUCCESS

```
{
  "CORP_ID": "",
  "USER_ID": "",
  "AGGR_ID": "",
  "URN": "",
  "ACCOUNTNO": "",
  "DATE": "",
  "CURRENCY": "INR",
  "EFFECTIVEBAL": "",
  "RESPONSE": "SUCCESS"
}
```

5.2 Bank Statement API: Bank Statement API is used to fetch bank statement of an account for specific time period.

UAT API End point:

<https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/AccountStatement>

Live API End point: <https://apibankingone.icicibank.com/api/Corporate/CIB/v1/AccountStatement>

Request Parameter

Parameter	Datatype	Length	Min	Max	Mandatory
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y
CORPID	NVARCHAR2 (32)	32	NA	NA	Y
USERID	NVARCHAR2 (32)	32	NA	NA	Y
ACCOUNTNO	NUMBER (12)	12	NA	NA	Y
FROMDATE	DATE	DD-MM-YYYY	NA	NA	Y
TODATE	DATE	DD-MM-YYYY	NA	NA	Y
URN	NVARCHAR2(40)	40	NA	NA	Y

REQUEST PACKET

```
{
  "CORPID": "",
  "USERID": "",
  "AGGRID": "",
  "ACCOUNTNO": "",
  "FROMDATE": "DD-MM-YYYY",
  "TODATE": "DD-MM-YYYY",
  "URN": ""
}
```

```
}
```

Response Parameter

Parameter	Datatype	Length	Min	Max	Mandatory
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y
CORPID	NVARCHAR2 (32)	32	NA	NA	Y
USERID	NVARCHAR2 (32)	32	NA	NA	Y
ACCOUNTNO	NUMBER (12)	12	NA	NA	Y
URN	NVARCHAR2(40)	40	NA	NA	Y

RESPONSE: SUCCESS

```
{
  "CORP_ID": "",
  "USER_ID": "",
  "AGGR_ID": "",
  "URN": "",
  "ACCOUNTNO": "",
  "Record": [
    {
      "CHEQUENO": "",
      "TXNDATE": "DD-MM-YYYY HH:MM:SS",
      "REMARKS": "MMT/IMPS/xxxxxxxx/xxxxxxxx/xxx xxxx/S",
      "AMOUNT": "5.00",
      "BALANCE": "5.02",
      "VALUEDATE": "DD-MM-YYYY",
      "TYPE": "CR",
      "TRANSACTIONID": ""
    }
  ]
}
```

RESPONSE: FAILURE

```
{
  "MESSAGE": "Transactions are more than 2000.Please use consolidated statement option."
  "RESPONSE": "Failure"
}
```

Decryption logic for account statement

- step 1: Decrypting the encrypted key using client private key.
- step 2: Base 64 decode encrypted data,
- step 3: Retrieving iv from step 2(first 16 characters)
- step 4: Doing symmetric key decryption on encrypted data, by using key from step 1 and iv from step 3

SessionKey = RSA/ECB/PKCS1Decryption(Base64Decode(encryptedKey),B2C.cer)

Data = AES/CBC/PKCS5Padding((Base64Decode(encryptedData),SessionKey)

5.3 Bank Statement Pagination API: In case of more than 200 records, Bank Statement Pagination API is used. It fetches 200 records per trigger

UAT API End point:

<https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/AccountStatements>

Live API End point: <https://apibankingone.icicibank.com/api/Corporate/CIB/v1/AccountStatements>

Request Parameter

Parameter	Datatype	Length	Min	Max	Mandatory
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y
CORPID	NVARCHAR2 (32)	32	NA	NA	Y
USERID	NVARCHAR2 (32)	32	NA	NA	Y
ACCOUNTNO	NUMBER (12)	12	NA	NA	Y
FROMDATE	DATE	DD-MM-YYYY	NA	NA	Y
TODATE	DATE	DD-MM-YYYY	NA	NA	Y
URN	NVARCHAR2(40)	40	NA	NA	Y
CONFLG	CHAR(1)	1	NA	NA	Y
LASTTRID	NVARCHAR2 (255)	255	NA	NA	N

Important Points

* CONFLG: This field value can be "Y" or "N"

* LASTRID: In this field you have to allow all number, character, special character and all symbol like (., :, -, |,) and space also allowed in this API.

* In the first field CONFLG will N. From next it will be "Y". LAST RECORD will be blank in first hit.

REQUEST PACKET

```
{
  "CORPID": "",
  "USERID": "",
  "AGGRID": "",
  "ACCOUNTNO": "",
  "FROMDATE": "DD-MM-YYYY",
  "TODATE": "DD-MM-YYYY",
  "URN": "",
  "CONFLG": "",
  "LASTTRID": ""
}
```

Response Parameter

Parameter	Datatype	Length	Min	Max	Mandatory
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y
CORPID	NVARCHAR2 (32)	32	NA	NA	Y
USERID	NVARCHAR2 (32)	32	NA	NA	Y
ACCOUNTNO	NUMBER (12)	12	NA	NA	Y
URN	NVARCHAR2(40)	40	NA	NA	Y

LASTTRID	NVARCHAR2 (255)	255	NA	NA	N
----------	-----------------	-----	----	----	---

**LASTTRID: Client will get this field only if records is there more than 200. If you are not getting then it means records is not there.*

RESPONSE: SUCCESS

```
{
  "CORP_ID": "",
  "USER_ID": "",
  "AGGR_ID": "",
  "URN": "",
  "LASTTRID": "",
  "Record": [
    {
      "CHEQUENO": "",
      "TXNDATE": "DD-MM-YYYY HH:MM:SS",
      "REMARKS": "MMT/IMPS/xxxxxxxx/xxxxxxxx/xxx xxxx/S",
      "AMOUNT": "5.00",
      "BALANCE": "5.02",
      "VALUEDATE": "DD-MM-YYYY",
      "TYPE": "CR",
      "TRANSACTIONID": ""
    }
  ]
}
```

RESPONSE: FAILURE

```
{
  "MESSAGE": "Transactions are more than 2000.Please use consolidated statement option."
  "RESPONSE": "Failure"
}
```

Decryption logic for account statement: -

- step 1: Decrypting the encrypted key using client private key.
- step 2: Base 64 decode encrypted data,
- step 3: Retrieving iv from step 2(first 16 characters)
- step 4: Doing symmetric key decryption on encrypted data, by using key from step 1 and iv from step 3

SessionKey = RSA/ECB/PKCS1Decryption(Base64Decode(encryptedKey),B2C.cer)

Data = AES/CBC/PKCS5Padding((Base64Decode(encryptedData),SessionKey)

5.4 Bene Registration: Beneficiary Registration API is mandatory for Merchants transacting from Nodal Account. Hence, before any API request, the clients are required to first fire this API. Our systems will configure the clients in such a way that first we shall validate the beneficiary registration, and then process the payment request.

UAT API End point: <https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/BeneAddition>

Live API End point: <https://apibankingone.icicibank.com/api/Corporate/CIB/v1/BeneAddition>

Request Parameter

Parameter	Datatype	Length	Min	Max	Mandatory	Remarks
Crpld	NVARCHAR2 (32)	32	NA	NA	Y	CIB Corp id
CrpUsr	NVARCHAR2 (32)	32	NA	NA	Y	CIB User id
BnfName	NVARCHAR2(80)	80	NA	NA	Y	Beneficiary Name
BnfNickName	NVARCHAR2(80)	80	NA	NA	Y	Beneficiary Nick Name
BnfAccNo	NVARCHAR2 (34)	34	NA	NA	Y	Bene Account Number
PayeeType	CHAR(11)	11	NA	NA	Y	client need to pass respective Payee type for bene registration like for FT(with in Bank) "W" and for other bank "O" as value in this field.
IFSC	NVARCHAR2 (32)	32	NA	NA	Y	Bene user IFSC. But for FT static IFSC should be pass by client ICIC0000011
AGGR_ID	NVARCHAR2 (100)	100	NA	NA	Y	Aggregator ID for bene registration only
URN	NVARCHAR2 (40)	40	NA	NA	Y	Registered user URN.

REQUEST PACKET

```
{
  smsCrpld:"PRACHICIB1",
  smsCrpUsr:"USER4",
  REQUESTTYPE:"CPAAP",
  smsBnfName:"SourabhSharma",
  smsBnfNickName:"1SharmaRTGStest",
  smsBnfAccNo:"000705001225",
  smsPayeeType:"O",
  smsIFSC:"SBIN0003060",
  AGGR_ID:"AGGR0002",
  URN:"4YeuXWQCnsXIXiQXlmeLUC807282"
}
```

Response Parameter

Success:-	
Message	NVARCHAR2(255)
BNF_ID	NUMBER(10)
Response	CHAR(10)

Failure:-	
Message	NVARCHAR2(255)
ErrorCode	NUMBER(40)
Response	CHAR(10)

Response: Success

```
{
    BNF_ID:"4836",
    Message:" You may not be able to make fund transfer immediately with newly added payee,
    please check payee status before proceeding",
    Response: "SUCCESS"
}
```

Response: Failure

```
{
    Message: "Invalid Corp Id or User Id or Aggregator Id is passed.",
    ErrorCode: "9906",
    Response: "Failure"
}
```

5.5. Bene Validation API

UAT API End point: <https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/BeneValidation>

Live API End point: <https://apibankingone.icicibank.com/api/Corporate/CIB/v1/BeneValidation>

Request Parameter

Parameter	Datatype	Length	Min	Max	Mandatory	Remarks
Crpld	NVARCHAR2 (32)	32	NA	NA	Y	Customer Corp Id
CrpUsr	NVARCHAR2 (32)	32	NA	NA	Y	If user having ALIASID(LoginId) . Then pass that value. Otherwise pass User id .
BnfAccNo	NVARCHAR2 (34)	34	NA	NA	Y	Bene Account number

REQUEST PACKET

```
{
    smsCrpld:"PRACHICIB1",
    smsCrpUsr:"USER4",
    smsBnfAccNo:"000705001225"
}
```


Response Parameter

Response: Success	
RESPONSE	CHAR(10)
BNF_ID	NUMBER(10)

Response: Failure	
ErrorCode	NUMBER(40)
Message	NVARCHAR2(255)
Response	CHAR(10)

Response: Success

```
{
    "BNF_ID": "4666",
    "Response": "SUCCESS"
}
```

Response: Failure

```
{
    "Message": "Beneficiary not found.",
    "ErrorCode": "999039",
    "Response": "Failure"
}
```

5.6. Mobile Fetch API: This API is used for fetching the mobile number linked to the account

UAT API End point:

<https://apibankingonesandbox.icicibank.com/api/Corporate/CIB/v1/MobileFetch>

Live API End point:

<https://apibankingone.icicibank.com/api/Corporate/CIB/v1/MobileFetch>

Request Parameter

Parameter	Datatype	Length	Min	Max	Mandatory
AGGRID	NVARCHAR2 (100)	100	NA	NA	Y
CORPID	NVARCHAR2 (32)	32	NA	NA	Y
USERID	NVARCHAR2 (32)	32	NA	NA	Y
URN	NVARCHAR2(40)	40	NA	NA	Y

REQUEST PACKET

```
{
    "CORPID": "531280XXX",
    "USERId": "USEXX",
    "AGGRID": "AGGR00XX",
    "URN": "open283XX"
}
```

Response Parameter

Name	Type	Description
CORPID	nvarchar	Corporate ID in Corporate Internet Banking.
USERID	nvarchar	User ID under Corporate ID in Corporate Internet Banking.
URN	nvarchar	This a unique value that partner will assign to each registration from his end for security and recon.
RESPONSE	char	SUCCESS/FAILURE
MobileNumber	nvarchar	Mobile number linked to that customer in CIB.

6. BBPS (Bharat Bill Pay System)

BBPS stands for Bharat Bill Payment System. The Bharat bill payment system is a Reserve Bank of India's (RBI) conceptualized system driven by National Payments Corporation of India (NPCI). It is a one-stop payment platform for all bills providing an interoperable and accessible "Anytime Anywhere" bill payment service to all customers across India with certainty, reliability and safety of transactions.

Customer Parameters need to be passed with Pipe separated values for the tag CUST_PARAMS. For Fetch and Pay Payment, BILL_REF_ID needs to be passed in the URL which is received in the response of FETCH Bill API. For Pay only payments, BILL_REF_ID need not be passed in the URL. All parameters are STRING.

6.1 Get Category List API

UAT API End point: <https://apibankingonesandbox.icicibank.com/api/v1/bbps/GetCategoryList>

Description: This API is used to fetch the categories of the BBPS billers

Input Parameters

Name	Type	Description	Mandatory (Y/N)
NA	NA	No payload is required	N

Sample Request:

No payload is required

Output Parameters

Name	Type	Description	Mandatory (Y/N)
Categories	varchar	Return the list of Biller category name.	Y

Sample Request:

```
{
"catagories": [
"Bill Payment",
```

```
"BillCat01",
"BillerCategory1",
"Broadband Postpaid",
"Broadband Prepaid",
"Cat_19_05",
"DTH",
"Electricity",
"Electricity Prepaid",
"Gas",
"Landline Postpaid",
"Landline Prepaid",
"MOB",
"MOBXX",
"Mobile",
"Mobile Postpaid",
"Mobile Prepaid",
"Recharge",
"School Fees Payment",
"Utility Bill Payment",
"Water",
"Water_Supply B"
],
"errorMessages": []
}
```

6.2. Get Biller List API

UAT API End point: <https://apibankingonesandbox.icicibank.com/api/v1/bbps/GetBillerList>

Description: This api is used to fetch a biller from a selected category

Input Parameters

Name	Type	Description	Mandatory (Y/N)
category	varchar	Category of the Billers.	Y

Sample Request:

```
{
  "category": "Broadband Postpaid"
}
```

}

Output Parameters

Name	Type	Description	Mandatory (Y/N)
biller	varchar	Number of bill paid within the request date range	Y
id	varchar	14digit Biller ID	Y
name	varchar	Biller Name	Y
categoryName	varchar	Name of Biller Category	Y
mode	varchar	Mode of Biller i.e. either ONLINE, OFFLINEA or OFFLINEB.	Y
acceptsAdhoc	varchar	Whether the biller accepts Adhoc payment or not?	Y
isParent	varchar	Indicate whether the current biller is a parent biller or not. In this case 'isParent' tag always be 'false'.	Y

Sample Response:

```
{
  "billers": [
    {
      "id": "ALER000000ALAQA",
      "name": "ALert Test Biller",
      "categoryName": "Broadband Postpaid",
      "mode": null,
      "acceptsAdhoc": false,
      "isParent": true,
      "parentBillerId": null,
      "fetchRequirement": null,
      "subBillers": []
    },
    {
      "id": "BILL000000NATEV",
      "name": "BillerS",
      "categoryName": "Broadband Postpaid",
      "mode": null,
      "acceptsAdhoc": true,
      "isParent": true,
      "parentBillerId": null,
      "fetchRequirement": null,
    }
  ]
}
```

```

"subBillers": []
},
{
  "id": "SHOP00000KRLEA",
  "name": "Shopper Stop P",
  "categoryName": "Broadband Postpaid",
  "mode": null,
  "acceptsAdhoc": false,
  "isParent": true,
  "parentBillerId": null,
  "fetchRequirement": null,
  "subBillers": []
}
],
"errorMessages": []
}

```

6.3. Get Sub-Biller List API

UAT API End point: <https://apibankingonesandbox.icicibank.com/api/v1/bbps/GetSubBillerList>

Description: This API is used to fetch the derived biller list

Input Parameters

Name	Type	Description	Mandatory (Y/N)
BillerId	Int	14 digit ID of Parent Biller.	Y

Sample Request:

```

{
  "billerId": "UCOP00000NATG8"
}

```

Output Parameters

Name	Type	Description	Mandatory (Y/N)
Biller	varchar	List of billers under the selected Parent Biller.	Y
id	varchar	14digit Biller ID	Y
name	varchar	Biller Name	Y
categoryName	varchar	Name of Biller Category	Y

mode	varchar	Mode of Biller i.e. either ONLINE, OFFLINEA or OFFLINEB.	Y
acceptsAdhoc	varchar	Whether the biller accepts Adhoc payment or not?	Y
isParent	varchar	Indicate whether the current biller is a parent biller or not. In this case 'isParent' tag always be 'false'.	Y
parentBillerId	varchar	Parent biller id by which we are searching the subbiller list.	Y
fetchRequirement	varchar	indicate the biller which Fetch Requirement value is supported like OPTIONAL, MANDATORY, NOT_SUPPORTED	Y

Sample Response:

```
{
  "billers": [
    {
      "id": "UCOPBOUOFAPRVU",
      "name": "BOUOfflineOptionalBiller",
      "categoryName": "Water",
      "mode": "OFFLINEA",
      "acceptsAdhoc": true,
      "isParent": false,
      "parentBillerId": "UCOP00000NATG8",
      "fetchRequirement": "OPTIONAL",
      "subBillers": []
    },
    {
      "id": "UCOPBOUONNATMY",
      "name": "BOUOnlineMandatoryBiller",
      "categoryName": "Water",
      "mode": "ONLINE",
      "acceptsAdhoc": true,
      "isParent": false,
      "parentBillerId": "UCOP00000NATG8",
      "fetchRequirement": "MANDATORY",
      "subBillers": []
    }
  ],
  "errorMessages": []
}
```

```
}
```

6.4. Bill Fetch Support API

UAT API End point : <https://apibankingonesandbox.icicibank.com/api/v1/bbps/CheckBillFetchSupport>

Description: This api is used to determine whether biller supports Bill Fetch and/or Adhoc payments only.

Input Parameters

Name	Type	Description	Mandatory (Y/N)
billerId	Int	14 digit ID of Parent Biller.	Y

Sample Request:

```
{
  "billerId": "ONLI00000WBGSM"
}
```

Output Parameters

Name	Type	Description	Mandatory (Y/N)
billerId	varchar	14digit Biller ID	Y
isQuickPay	varchar	Whether the biller support only Quick Pay or not.	Y
isBillFetch	varchar	Whether biller support only Quick Pay or not.	Y

Sample Response:

```
{
  "billerId": "ONLI00000WBGSM",
  "isQuickPay": true,
  "isBillFetch": true,
  "errorMessages": []
}
```

6.5. Get Biller Customer Parameters API

EndPoint URL: <https://apibankingonesandbox.icicibank.com/api/v1/bbps/GetBillerCustomerParameters>

Description: This api is used to fetch the Customer parameter fields for a selected leaf node biller

Input Parameters

Name	Type	Description	Mandatory
------	------	-------------	-----------

			(Y/N)
billerId	Int	14 digit ID of Parent Biller.	Y

Sample Request:

```
{
  "billerId": "UCOPBOUOFKLM4N"
}
```

Output Parameters

Name	Type	Description	Mandatory (Y/N)
name	varchar	Contains the name of the custom parameter	Y
type	varchar	Contains the data type of the parameter which can be either Numeric or Alpha-Numeric.	Y
isMandatory	varchar	Contains the flag stating that whether the custom parameter is mandatory or not.	Y
minLength	Int		Y
maxLength	Int		Y

Sample Response:

```
{
  "customParams": [
    {
      "name": "Consumer No#",
      "type": "ALPHANUMERIC",
      "isMandatory": true,
      "minLength": 2,
      "maxLength": 11
    },
    {
      "name": "Account#",
      "type": "ALPHANUMERIC",
      "isMandatory": false,
      "minLength": 3,
      "maxLength": 12
    }
  ]
}
```



```
"name": "Product ID#",  
"type": "NUMERIC",  
"isMandatory": true,  
"minLength": 2,  
"maxLength": 10  
}  
],  
"errorMessages": []  
}
```

6.6 API Name: Pay Only: This API is developed for paying the bill for billers who allow payments without fetching the bill

UAT API End point: <https://apibankingsandbox.icicibank.com/api/Corporate/CIB/v1/Payonly>

Input Parameter

Sample API packet

Request

```
{  
  "CORP_ID": "PRACHICIB1",  
  "USER_ID": "USER3",  
  "AGGR_NAME": "EXPRESS",  
  "AGGR_ID": "TXNB0009",  
  "URN": "EXPCONNECT",  
  "UNIQUE_ID": "Test543271",  
  "BBP_ACTION": "PO",  
  "BILLER_ID": "BSNL00000NATMC",  
  "CUST_PARAMS": "9876543221",  
  "ACCOUNT_ID": "000451000301",  
  "BILL_AMOUNT": "INR|6000.75",  
  "WF_REQ": "N",  
  "REMARKS": "BBPSTEST"  
}
```

RESPONSE: SUCCESS

```
{  
  "CORP_ID": "PRACHICIB1",  
  "USER_ID": "USER3",  
  "UNIQUE_ID": "Test54321",  
  "URN": "EXPCONNECT",  
  "AGGR_ID": "TXNB0009",  
  "CUST_PARAMS": "9876543221",  
  "TXN_REF_ID": "PN7601254009",  
  "ACCOUNT_ID": "000451000301",  
  "CLIENT_REF_ID": "PN7601254009",  
  "BILL_REF_ID": "",  
  "TXN_DATE_TIME": "08-04-2021 07:52 PM",  
  "APPROVAL_REF_NUM": "00182618",  
  "TXN_STATUS": "Success",  
}
```

"REMARKS": "BBPSTEST"

"RESPONSE": "",

"RESPONSE_CODE": ""

}

RESPONSE: FAILURE

{

"Message": "Please enter valid Biller details to proceed.", "ErrorCode": "999845",

"Response": "Failure"

}

Fields	Data Type	Min Length	Max Length	M/ O/ C	Description
CORP_ID	NVARCHAR2 (32)	NA	32	M	Customer Corp Id
USER_ID	NVARCHAR2 (32)	NA	32	M	Same as passed in registration request by Partner
AGGR_NAME	NVARCHAR2 (32)	NA	32	M	Same as passed in registration request by Partner
AGGR_ID	NVARCHAR2 (100)	NA	100	M	Aggregator ID
URN	NVARCHAR2(40)	NA	40	M	Same as passed in registration request by Partner
UNIQUE_ID	NVARCHAR2 (40)	NA	40	M	For every call new unique id need to be passed
BBP_ACTION	NVARCHAR2 (6)	NA	6	M	Type of BBP Request
BILLER_ID	NVARCHAR2 (100)	NA	100	M	Biller ID
CUST_PARAMS	NO LIMIT	NA	No Length constraint as it can hold multiple separated values	M	Customer Parameters
ACCOUNT_ID	NVARCHAR2 (34)	NA	34	M	Account ID to be passed in payment request URLs
BILL_AMOUNT	NA	NA	NA	M	Bill Amount (INR 40.0 : amount format to be passed in request)
WF_REQ	NVARCHAR(1)	NA	1 (N/Y)	N	Workflow Required
REMARKS	NVARCHAR(200)	NA	200	N	Remarks
AGOTP	NVARCHAR(6)	NA	6	N	Unique OTP Generated

Input Parameter

Fields	Data Type	Min Length	Max Length	M/ O/ C	Description
CORP_ID	NVARCHAR2 (32)	NA	32	M	Customer Corp Id
USER_ID	NVARCHAR2 (32)	NA	32	M	Same as passed in registration request by Partner
AGGR_NAME	NVARCHAR2 (32)	NA	32	M	Same as passed in registration request by Partner
AGGR_ID	NVARCHAR2 (100)	NA	100	M	Aggregator ID
URN	NVARCHAR2(40)	NA	40	M	Same as passed in registration request by Partner
UNIQUE_ID	NVARCHAR2 (40)	NA	40	M	For every Call unique id will be different
BBP_ACTION	NVARCHAR2 (6)	NA	6	M	Type of BBP Request
BILLER_ID	NVARCHAR2 (100)	NA	100	M	Biller ID
CUST_PARAMS	NO LIMIT	NA	No Length constraint as it can hold multiple separated values	M	Customer Parameters

6.8 Fetch and Pay API: This API is developed to fetch pay based on the request packet.

UAT API End point: <https://apibankingsandbox.icicibank.com/api/Corporate/CIB/v1/FetchPay>

Sample Request:

```
{
  "CORP_ID":"PRACHICIB1",
  "USER_ID":"USER3",
  "AGGR_NAME":"EXPRESS",
  "AGGR_ID":"TXNB0009",
  "URN":"EXPCONNECT",
  "UNIQUE_ID" : "Test54321",
  "BBP_ACTION" : "FNP",
  "BILLER_ID" : "BSNL00000NATMC",
  "CUST_PARAMS" : "9876543221",
  "ACCOUNT_ID" : "000451000301",
  "BILL_AMOUNT" : "INR|6000.75",
  "WF_REQ" : "N",
}
```


UNIQUE_ID	NVARCHAR2 (40)	NA	40	M	Same Unique id need to be passed which was passed in fetch API
BBP_ACTION	NVARCHAR2 (6)	NA	6	M	Type of BBP Request
BILLER_ID	NVARCHAR2 (100)	NA	100	M	Biller ID
CUST_PARAMS	NO LIMIT	NA	No Length constraint as it can hold multiple separated values	M	Customer Parameters
ACCOUNT_ID	NVARCHAR2 (34)	NA	34	M	Account ID to be passed in payment request URLs
BILL_AMOUNT	NA	NA	NA	M	Bill Amount (INR 40.0 : amount format to be passed in request)
WF_REQ	NVARCHAR(1)	NA	1 (N/Y)	N	Workflow Required
BILL_REF_ID	NVARCHAR(255)	NA	255	N	Bill Reference ID to be passed in payment request URLs
REMARKS	NVARCHAR(200)	NA	200	N	Remarks

6.9 Calculate tax API: This API is developed to calculate the tax.

API URL: <https://apibankingsandbox.icicibank.com/api/Corporate/CIB/v1/CalculateTax>

Sample Request:

```
{
  "CORP_ID":"PRACHICIB1",
  "USER_ID":"USER3",
  "AGGR_NAME":"EXPRESS",
  "AGGR_ID":"TXNB0009",
  "URN":"EXPCONNECT",
  "UNIQUE_ID": "52153",
  "BBP_ACTION": "CALTAX",
  "BILLER_ID": "SBON00000NAT9J",
  "BILL_AMOUNT": "INR|40.00",
}
```

RESPONSE: SUCCESS

```
{
  "CORP_ID":"PRACHICIB1",
  "USER_ID":"USER3",
  "UNIQUE_ID":"52153",
  "URN":"EXPCONNECT",
  "AGGR_ID": "TXNB0009",
  "CUST_PARAMS" : "null",
  "CONVENIENCE_FEE":"950.0",
  "TOTAL_AMOUNT": "",
  "RESPONSE":"Success",
}
```

Fields	Data Type	Min Length	Max Length	M/ O/ C	Description
CORP_ID	NVARCHAR2 (32)	NA	32	M	Customer Corp Id
USER_ID	NVARCHAR2 (32)	NA	32	M	Same as passed in registration request by Partner
AGGR_NAME	NVARCHAR2 (32)	NA	32		Same as passed in registration request by Partner
AGGR_ID	NVARCHAR2 (100)	NA	100	M	Aggregator ID
URN	NVARCHAR2(40)	NA	40	M	Same as passed in registration request by Partner
UNIQUE_ID	NVARCHAR2 (40)	NA	40	M	For every call new unique id need to be passed
BBP_ACTION	NVARCHAR2 (6)	NA	6	M	Type of BBP Request
BILLER_ID	NVARCHAR2 (100)	NA	100	M	Biller ID
BILL_AMOUNT	NA	NA	NA	M	Bill Amount (INR 40.0 : amount format to be passed in request)

7. Error Codes

7.1 Error with Message

Failure Response Message from Bank	Reason
{ "response":"FAILURE", "message":"8003-INVALID_FIELD FORMAT OR LENGTH-CREDITACC" }	When field is not in the format mentioned.
{ "response":"FAILURE", "message":"8003-INVALID_FIELD FORMAT OR LENGTH-PAYEENAME" }	When field is not in the format mentioned.
{ "response":"FAILURE", "message":"8003-INVALID_FIELD FORMAT OR LENGTH-REMARKS" }	When field is not in the format mentioned.
{ "RESPONSE":"Failure", "MESSAGE":"Connection to RIB failed." }	Unexpected.
{ "RESPONSE":"Failure", "MESSAGE":"Counterparty Account is a closed account" }	when credit account is a closed account.
{ "RESPONSE":"Failure", "MESSAGE":"Enter the valid amount in the range supported by the network." }	Passing less than 2 Lakhs in RTGS.
{ "RESPONSE":"Failure", "MESSAGE":"Host Not Available" }	Channel or interface down.
{ "RESPONSE":"Failure", "MESSAGE":"Invalid Account Number" }	Invalid debit account.
{ "RESPONSE":"Failure", "MESSAGE":"Invalid Bank/Branch Identifier or Network." }	Invalid IFSC/ If Txn Type is wrong.

{ "RESPONSE": "Failure", "MESSAGE": "RTGS transaction not allowed beyond cut -off time. It is supported only between 08:00 HRS - 16:15 HRS" }	Trying to do RTGS transaction before 8 AM.
{ "RESPONSE": "Failure", "MESSAGE": "Selected initiator and counterparty accounts are same. Please select different accounts." }	when debit account & credit account same.
{ "RESPONSE": "Failure", "MESSAGE": "The transaction cannot be processed with the available networks. Contact the bank administrator." }	Transactions done on holidays for RTGS & NEFT.
{ "RESPONSE": "Failure", "MESSAGE": "The transaction with reference id 195100512 has been submitted successfully and its status is unknown. Please check the status later." }	SUSPECT due to time out at core.
{ "RESPONSE": "Failure", "MESSAGE": "Transaction amount limit exceeded or no limit configured. Please call Customer Care/Branch" }	When the work flow limit exceeded or not configured.
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 192697218 failed during processing, due to Invalid Beneficiary Mobile Number/MMID/Account number." }	when the beneficiary account number is invalid.
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 192798008 failed during processing, due to Host not available" }	Interface down.
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 193989174 failed during processing, due to Invalid response code" }	Unexpected response code came from CORE to CIB.

{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 194086177 failed during processing, due to Beneficiary account is closed." }	when the credit account is a closed account.
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 194291439 failed during processing, due to Beneficiary Bank not available. Amount if debited" }	When beneficiary bank not available to communicate with ICICI
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 194343161 failed during processing, due to E4221" }	RTGS failure.
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 194607870 failed during processing, due to Transaction not permitted" }	Issue in account (account freezed, lien marked, etc).
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 195049012 failed during processing, due to Transaction timed out at Beneficiary Bank. Please check with Bene Bank before initiating again." }	Time out at Beneficiary Bank.
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 195216127 failed during processing, due to Host not connected" }	Backend interface is not available due to technical issues.
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 195218621 failed during processing, due to ICICI CBS unreachable" }	Core banking unreachable due to technical issues.
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 196109036 failed during processing, due to Unable to process" }	Backend server unavailable at beneficiary bank.

{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 198326416 failed during processing, due to Insufficient funds" }	Insufficient funds transaction done within bank.
{ "RESPONSE": "Failure", "MESSAGE": "Transaction with reference id 198805851 failed during processing, due to The account ID [602305500415] has insufficient available amount." }	Insufficient funds transaction done through other banks.
{ "RESPONSE": "Failure", "MESSAGE": "You cannot initiate/modify this transaction as per the applicable workflow rule." }	No workflow created.
{ "RESPONSE": "Failure", "MESSAGE": "You do not have access to this transaction type. Please contact the bank administrator." }	Trying with the transaction type that don't have access.
{ "RESPONSE": "Failure", "MESSAGE": "You do not have transaction access on this account." }	Having only view access in CIB because they cant do transactions.
{ "success": false, "response": 8010, "message": "INTERNAL_SERVICE_FAILURE-The system had an internal exception" }	Bank servers down.
{ "success": false, "response": 8012, "message": "BACKEND_CONNECTION_TIMEOUT- Cannot connect to service" }	Connection timeout
{ "success": false, "response": 8013, "message": "BACKEND_READ_TIMEOUT- Cannot read from service" }	Read timeout
{ "ErrorCode": "9906", "response": "Failure", "message": "Invalid Corp Id or User Id or Aggregator Id is passed." }	In Registration API. If user not registered with any aggregator and initiate API call.

<p>Response: Failure { "Response": "FAILURE", "Message": "REGISTRATION FAILED.CORPORATE ALREADY REGISTERED." "ErrorCode" : "995109" }</p> <p>// If ALIASID created but user are not passing in API</p> <p>Response: Failure { "Message": "Invalid Login Credentials", "ErrorCode": "106803", "Response": "Failure" }</p>	In Registration API
<p>Response: Failure { "Message": "User is not registered." "ErrorCode": "9907" "Response": "Failure" }</p>	In De-registration API. If user not registered.
<p>// If user passed wrong URN Response: Failure { "MESSAGE": "Aggregator Registration missing.", "RESPONSE": "FAILURE" }</p>	If user not registered or URN is wrong.
<p>// If user entered wrong Corporate(Corp_id and User_id) details Response: Failure { "MESSAGE": "Invalid Login Credentials.", "RESPONSE": "FAILURE" }</p>	user credentials is wrong and user password is disabled.
<p>// If user enter wrong OTP Response: Failure { "Message": "107889", "Response": "FAILURE" }</p>	If user enter wrong OTP in Transaction API.
"Transaction with reference id XXXXXXXXXX failed during processing, due to Invalid IFSC code".	Bene Bank don't have access for NEFT & FT Txn.
"Transaction with reference id XXXXXXXXXX failed during processing, due to No checking account".	If Bene bank & NPCI don't have respective IFSC code mappinf or access.
"Transaction with reference id XXXXXXXXXX failed during processing, due to Invalid ISO code Passed".	If IFSC code in lower case or IFSC not mapped at bene bank for RTGS Txn

Transaction with reference id XXXXXXXXX failed during processing, due to	when we are not getting proper response from Bene bank & CDCI.
Please try after sometime as the NEFT post cutoff limits are crossed	If txn initiated between 12 AM to 1 AM and 5 txn limit is exosted.
Transaction with reference id 393024617 failed during processing, due to Invalid amount	

7.2. Transaction Error with Code

Error Message	Error Code	Response Code
Unique ID is already used	999033	NA
Aggregator Resgistration missing	9906	NA
OTP validation Required	99274	NA
Invalid Currency set up. Please contact Bank Administrator	101422	NA
Debit Account is invalid	100019	NA
Transaction Type is mandatory	106753	NA
Invalid Bank/Branch Identifier or Network.	103354	NA
Transaction amount limit exceeded or no limit configured. Please call Customer Care/Branch	100249	NA
No rule setup for the transaction type	100249	NA
Transaction with reference id 111111 failed during processing, due to Transaction not permitted	106910	100031
Transaction with reference id xxxxxx failed during processing, due to Beneficiary bank not available. Amount if debited will be reversed	106910	008
Transaction with reference id xxxxxx failed during processing, due to Transaction timed out at Beneficiary Bank. Please check with Bene Bank before initiating again.	106910	091
Transaction with reference id 111111 failed during processing, due to Invalid Account	106910	100046
Transaction with reference id 111111 failed during processing, due to Insufficient funds	106910	100030
Transaction with reference id 282069 failed during processing, due to Host not available	106910	14084
The transaction cannot be processed with the available networks. Contact the bank administrator	108220	NA
Transaction timed out at Beneficiary Bank. Please check with Bene Bank before initiating again.	103064	NA
NFS Host unreachable.	106910	995034
Transaction with reference id xxxxxxxxx failed during processing, due to Invalid Beneficiary Mobile Number/MMID/Account number.	106910	0M1
Beneficiary Bank not available. Amount if debited, will be reversed.	995030	NA
Transaction with reference id xxxxxxxxx failed during processing, due to Unable to process.	106589	NA
Counterparty Account is a closed account	107027	NA
Enter the valid amount in the range supported by the network.	101443	NA

Invalid Account Number	100046	NA
Invalid Account Number.Please contact bank administrator.	999050	NA
Selected initiator and counterparty accounts are same. Please select different accounts.	100731	NA
The transaction cannot be processed with the available networks. Contact the bank administrator.	108220	NA
Invalid Beneficiary Mobile Number/MMID/Account number.	995007	NA
Beneficiary account is closed.	995011	NA
Unable to process your request, please call customer care or visit nearest ICICI bank branch	999353	NA
Unable to process request	106589	NA
You cannot initiate/modify this transaction as per the applicable workflow rule.	995098	NA
You do not have access to this transaction type.Please contact the bank administrator.	104460	NA
You do not have transaction access on this account.	1294	NA
Invalid Corp Id or User Id or Aggregator Id is passed.	9906	NA
Invalid Login Credentials	106803	NA
User is not registered.	9907	NA
OTP Validation Failed(If OTP enter is wrong)	994006	NA
Please try after sometime as the NEFT post cutoff limits are crossed	900	
OTP Validation Failed(if OTP enter after 15 Mins)	107889	
The transaction with reference id xxxxxx has been submitted successfully. Please do not re-initiate, check the status of the transaction after 15 minutes.	103068	100043
Transactions already processed with same unique ID, please use exclusive unique id for each transaction.	999936	
Amount Entered is Invalid	14165	
The user does not have access to the menu [\$Menu_id], hence the request cannot be processed.	111008	
Invalid Transaction Id.	999922	
Session could not be retrieved	101	
Beneficiary not found.	999039	
REGISTRATION FAILED.USER ID PASSED IS NOT AVAILABLE OR DISABLED.	995109	
REGISTRATION FAILED.CORPORATE ALREADY REGISTERED.	995109	
REGISTRATION FAILED.USERID IS MANDATORY	111	
OTP is disabled due to multiple incorrect entry to activate please SMS: ENABLE<space>ENOTP<space>ID [personalized id in caps] and send to 5676766 [standard SMS charges apply]	24036	
Insufficient funds	116	
Transaction with reference id xxxxxxxxx failed during processing, due to sender and reciever cannot be same bank	106910	100031
Transaction with reference id xxxxxxxxx failed during processing, due to Invalid amount	106910	013
Transaction with reference id 393517567 failed during processing, due to	106910	954
Remitter LEI not mapped / not equal to 20 characters / Expired	995479	

8. Steps to generate self-signed certificate using Open SSL

In case of client do not have existing public certificate for encryption, valid for UAT only

You can find steps to download & install Open SSL <https://wiki.openssl.org/index.php/Binaries>

Once open SSL is installed, please follow below steps for certificate creation.

- 1) open command prompt at location C:\OpenSSL-Win64\bin
- 2) enter the command openssl req -x509 -newkey rsa:4096 -keyout key.pem -out cert.pem -days 365
- 3) it will prompt for pass phrase, enter pass phrase of you choice. This will password of private key and need keep handy for further use of private key.
- 4) Enter Country Name, for India enter IN.
- 5) Enter State or Province Name.
- 6) Enter Locality Name.
- 7) Enter Organization Name.
- 8) Enter Organizational Unit Name.
- 9) Enter Common Name (e.g. server FQDN or YOUR name).
- 10) Enter Email Address.
- 11) after entering above details, private key (key.pem) and public certificate (cert.pem) will get store in same location (C:\OpenSSL-Win64\bin).

Please find below scree shot for reference

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.18363.1198]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\OpenSSL-Win64\bin>openssl req -x509 -newkey rsa:4096 -keyout key.pem -out cert.pem -days 365
Generating a RSA private key
.....+++++
.....+++++
writing new private key to 'key.pem'
Enter PEM pass phrase:
Verifying - Enter PEM pass phrase:
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:IN
State or Province Name (full name) [Some-State]:Maharashtra
Locality Name (eg, city) []:Thane
Organization Name (eg, company) [Internet Widgits Pty Ltd]:ICICI Bank Limited
Organizational Unit Name (eg, section) []:ICICI
Common Name (e.g. server FQDN or YOUR name) []:apigwuat.icicibank.com
Email Address []:apidevteam@icicibank.com

C:\OpenSSL-Win64\bin>
```

9. IMPORTANT INFORMATION

1. Suggestion: At the time common customer does registration on Partner platform, they can be redirected to CIB page for completing the registration:
https://cibnext.icicibank.com/corp/AuthenticationController?FORMSGROUP_ID_=AuthenticationFG&_START_TRAN_FLAG_=Y&FG_BUTTONS_=LOAD&ACTION.LOAD=Y&AuthenticationFG.LOGIN_FLAG=1&BANK_ID=ICI
2. Customer can write to corporatecare@icicibank.com for technical or operations issues of CIB or Phone banking at <https://www.icicibank.com/customer-care.page?>
3. You can only transfer funds within India using CIB. No Foreign transactions are possible through CIB.
4. If you have ICICI bank account but do not have CIB id or inactive / dormant CIB ID you can call our Customer Care or visit nearest ICICI Bank branch to activate your Internet Banking User ID.
5. CIB integration important points:
 - * There are no registration charges to customer for one time registration
 - * Transaction charges will be per SOC for CIB
 - * One time registration can be done from Partner by any customer who has CIB transaction access with one time authorization in CIB.
 - * Transaction authorization flow will be same as in case of CIB
 - * Single user CIB customer will have STP, once the payment is initiated from Partner
 - * Registration will not be possible on inactive/ dormant CIB user id.
 - * On deletion of the CIB user id, Partner registration will also expire.
 - * Transaction id for the payment made from Partner will also reflect in Bank statement of the customer for reconciliation
 - * Status of each payment will be available on the Partner as is in CIB
 - * This integration is only available for Partner customers having ICICI bank account
6. Customer who have transaction access in ICICI CIB can only avail this feature. Clients having view & Fraud access scheme will not be able to access the API service
7. Bank will not charge any additional charges to the customer for using the service
8. In case of failure of transactions already debited, there shall be manual credit back to the client account however the CIB will continue to show the status as success.
9. There may be few specific clients who may not have the Registration available due to their special type of account in such cases client will have to provide specific request to bank in written to avail the service
10. Only ICICI Current account holder can use this API service.
11. This is Adhoc payment API without any bene registration. If client or customer want registered bene payment only or both. Then they have to confirm at the time of integration start process.
12. User should have Adhoc payment access(PMT) then only they can initiate payment. Either registered bene or without bene registered.
13. If user doesn't have Adhoc access. Then user need to submit one request letter for Adhoc access in nearby ICICI branch. Or they can contact their API SM or RM
14. If user doesn't want maker checker concept in API. Then we can bypass this workflow in this API. After confirmation from respective author of account holder
15. We have option to bypass the OTP also for one to one payment in API

10. FAQs

1. What is Corporate API Suite?

Ans: Bouquet of APIs which will cater to the needs of your payments & account services.

2. How do you know the status of the transaction if there is no response received for the fired API?

Ans: You will always get synchronous response & you can initiate transaction status enquiry API

3. How do you know the preferred payment mode in the request?

Ans: Code for payment mode is need to inserted in the API packet

4. Can we process a single payment?

Ans: Yes.

5. Can we process more than one payment modes?

Ans: Yes.

6. Will the request parameter change for more than one payment mode API?

Ans: Yes. The request packet needs to include the mandatory parameters for all the payment modes selected.

7. Is Beneficiary Registration API Mandatory?

Ans: No. It is only mandatory for clients transacting from Nodal account

8. How do you do the status check of Beneficiary Registration API?

Ans: Fire Beneficiary registration API again, and you'll receive a response, 'Beneficiary already registered'.

9. How much time does beneficiary registration API takes to register the beneficiaries?

Ans: Beneficiary Registration has colling period of 30 minutes.

10. What is CIB registration API?

Ans: This is a one-time API that registers client on CIB which is our internal system. This is required for clients to authenticate one time approval post login to CIB by selecting disclaimer & entering OTP to allow banking from third part platform

11. What is required from clients' end for testing?

Ans: Public IP address (Single or multiple or range in case of dynamic IPs) & CA signed 4096 Bits Public key certificate.

12. Why is IP address required?

Ans: In order to maintain the security, we whitelist client's IP addresses. Request will be processed only if received from whitelisted IPs.

13. What are the details provided by ICICI Bank after the configuration is completed?

Ans: We provide the API Key, ICICI Bank's Public key certificate for encryption, aggregator id & aggregator name, separately for both UAT & production.

14. What is API Key?

Ans: 'API Key' is a unique value generated for each client which is required to be passed in the header.

15. What is AGGRID, AGGRNAME in the NEFT & RTGS request packet?

Ans: These are fixed values which are generated when the client is configured in UAT & Production environment and the same shall be provided after the configuration.

16. What will be the actionable at client's end against the error received?

Ans: Actionable has been mapped against each error codes in the error code document.

17. What is the ideal response time for IMPS transaction?

Ans: For IMPS, ideally the final status of the transaction will be available within 180 secs of initiating the transaction.

18. What is the ideal response time for NEFT transaction?

Ans: NEFT transactions are processed in batches through RBI. It may take 1 to 5 hour to reflect the status. You can use incremental NEFT status API for actual status of the NEFT transaction

19. What is the ideal response time for RTGS transactions?

Ans: Response is realtime.

20. What is limit for number of IMPS transactions?

Ans: No transaction limit on volume per day. Can manage 2-3 transactions per second.

21. What is limit for number of NEFT and RTGS?

Ans: No transaction limit on volume per day. Can manage 2-3 transactions per second.

22. Will NEFT 24X7 be implemented for corporate clients?

Ans: Yes. But during 07:00PM to 01:00AM ICICI Banks will limit the number of transactions to '5' and consolidate value per transaction at 2 lac & per user at 10 Lacs. This limit will also hold on bank holidays.

23. What will be the status of NEFT transaction, if it is initiated after the NEFT cut-off time?

Ans: The transaction will be kept in pending state & posted to next working day for the NEFT window

24. What is 401 error code?

Ans: The request fired in from a non-whitelisted IP or API key is wrong

25. What is 8000 error code?

Ans: The encryption mechanism is incorrect at client's end.

26. How to check the encryption-decryption mechanism at clients' end?

Ans: Client should encrypt the request using their own public key and decrypt using the corresponding private key to understand the mechanism.

27. What are the encryption steps for CIB registration & Beneficiary Registration APIs?

Ans: Please refer Section 7 for Encryption & decryption process.

28. Whom shall we contact in case of any issue in UAT?

Ans: Please reach out to our zonal product team/Account manager. You can also reach out to Central implementation team on CASUAT@icicibank.com

29. Whom shall we contact in case of any issue in UAT?

Ans: Please reach out to our zonal product team/Account manager. You can also reach out to Live issue handling team at Corporateapisuitequery@icicibank.com

THE END