



GetLoanOverDue API GATEWAY DOC

Table of Contents

1. INTRODUCTION	3
2. API CONNECT COMPONENTS.....	3
3. TO ACCESS & SUBSCRIBE IN PORTAL	3
4. API AUTHENTICATION	3
5. GetLoanOverDue API Details	3
6. SAMPLE PAYLOAD	Error! Bookmark not defined.

1. INTRODUCTION

1.1 Design Document Purpose

The purpose of this document is to provide a detailed specification of the **GetLoanOverDue** in sufficient depth to:

- Enable the component to be built and tested.
- Ensure that it can be enhanced, supported and maintained by other areas of the organization after initial implementation.

1.2 Design Reviews

The service design will be reviewed within Middleware team and security testing team as needed. Once finalized, design resource will provide an overview to other teams such as front-end application development team and various project resources.

2. API CONNECT COMPONENTS

- API Connect is used to expose the service to front end applications.
- Within API Connect, there are multiple Products. The GetLoanOverDue API is exposed within GetLoanOverDue **Product**.
- Service Consumers must subscribe to the API. A unique application Identification (client-id) and a secret will be generated.
- The assigned Client-id must be supplied in the header for each API.
- URLs for invoking the services can be found in API Connect Developer portal and mentioned in the below section.

3. TO ACCESS & SUBSCRIBE IN PORTAL

Refer Subscription User manual shared during initial on board.

4. API AUTHENTICATION

JWT Access token to be passed in JSON wrapper as string value in "JWTTokenValue" field. The Token can be generated by subscribing to **TOKEN API**.

4.1 TOKEN API

- **Overview:** To retrieve access token.
- **METHOD:** POST
- **Mandatory HTTP Headers:**
 - X-IBM-Client-Id: xxxxxxxxxxxxxxxxx
 - X-IBM-Client-Secret: xxxxxxxxxxxxxxxxx
- **SIT URL:** <https://apiuat.ujjivansfb.in/ujjivan/development/v1/tokens>

5. GetLoanOverDue API Details

- **Overview:**

Service is designed to retrieve loan overdue demand. The API Gateway makes a backend ESB call which in turn connects to provider system **CRM** of service name **LoanOvduDmdInq**.

- **METHOD:** POST
- **API URL:**
 UAT : https://apiuat.ujjivansfb.in/ujjivan/development/v1/ loanOvduDmdInq/getLoanOverDue
 PROD : To be done
- **Mandatory HTTP Headers:**
 - X-IBM-Client-Id: xxxxxxxxxxxxxxxx
- **Accept:** application/json
- **Content-type:** application/json
- **REQUEST PAYLOAD:**

At API Gateway the request has to be passed as JSON wrapper. The sample payload is as below,

```
{
  "RequestEncryptedValue": "",
  "TransactionId": "",
  "JWTTokenValue": ""
}
```

The individual fields of the Standard JSON Request Payload are described below-

- **RequestEncryptedValue** : This will contain the encrypted value of original REST-JSON request sample.
- **TransactionId** : External partners need to set a transaction ID to uniquely identify every request, in order to retrieve it from an audit trail at a later date.
- **JWTTokenValue** : This value can be obtained by invoking Bank’s token generator service.

(For more details on request encryption Refer UjjivanSFB_API_Integration_TechnicalProcess_document)

➤ **Actual REST-JSON Input Parameter:**

Element Name	M/O/C	Data Type	Size	Description	Validation Rules
getLoanOverDueReq / reqHdr		Complex			
reqHdr/consumerContext/applicationId	M	String	3	Application id from which request originated. Example IB, MB,HHD, BRN	
reqHdr/serviceContext/uniqueMsgId	M	String		Unique request message id for each message generated from consumer for tracking purpose.	
reqHdr/serviceContext/reqMsgDateTime	M	DateTime		Request time stamp in the format CCYY-MM-DDThh:mm:ss.sss	
reqHdr/serviceContext/serviceName	M	String		ServiceName to be provided.	

API Gateway Document- GetLoanOverDue

reqHdr/ serviceContext/ serviceVersion	O	String		Service version to be provided. It's value is 1.	
reqHdr/ providerContext/ providerId	O/F	String	3	Provide application Id from where data expecting	
reqHdr/ userContext/ appUserID	M	String	20	AppUserId will be provided which is created unique to user. Client need to pass this value each and every request.	
reqHdr/ userContext/ appPassword	M	String	64	AppPassword will be provided which is specific to user. Client need to pass this value each and every request.	
getLoanOverDueReq /body	M	Complex			
body/accountNumber	M	String	16	Account number to retrieve the loan overdue details	
body/fromDt	M	Date		date from which the loan accounts are retrieved for inquiry	
body/rescheduleNum	M	Number	2	Holds number of the repayment schedule	

➤ **RESPONSE PAYLOAD STRUCTURE**

A standard JSON wrapper containing encrypted response will be obtained. The encrypted response is of AES/CBC/256 mode with Initiaization vector concatenated at the start of original JSON response.

The sample response structure is as below,

```
{
  "ResponseOfEncryptedValue": "<encrypted value>",
  "TransactionId": "162193467244544"
}
```

Using the static key shared by Ujjivan Bank, decryption of the value in tag ResponseEncryptedValue should be performed with AES/CBC/256/IV

TransactionId: This field will contain the transaction ID which was passed in request.

(For more details on response encryption Refer UjjivanSFB_API_Integration_TechnicalProcess_document)

➤ **ACTUAL OUTPUT PARAMETERS:**

Response					
getLoanOverDueRes /resHdr	Complex				
resHdr/consumerCon text/applicationId	M	String	3	Value will be echoed from request message	
resHdr/ serviceContext/ uniqueMsgId	M	String		Value will be echoed from request message	
resHdr/ serviceContext/ reqMsgDateTime	O	DateTime		Value will be echoed from request message	

API Gateway Document- GetLoanOverDue

resHdr/ serviceContext/ serviceName	M	String		Value will be echoed from request message	
reqHdr/ serviceContext/ serviceVersion	O	String		Value will be echoed from request message	
resHdr/ providerContext/ providerId	M	String	3	Provider System Id from where data is sending	
resHdr/ providerContext/ responseMsgDateT ime	O	DateTime		Response message date and time stamp.	
resHdr/responseStat us/status	M	String		Response status from ESB Status 0 = Successful, 1 = Failure	
resHdr/responseStat us/ esbResDateTime	M	DateTime		Response date time stamp from ESB	
getLoanOverDueRes/ body/accountDtls	M	Complex			
accountDtls/account Number	M	Number	16	Holds account number	
accountDtls/schemeC ode	O	String	6	Scheme code of the account	
accountDtls/schemeT ype	O	String	6	Scheme type of the account	
accountDtls/branchId	O	String	6	Branch id of the account	
accountDtls/branchN ame	O	String	30	Branch name of the account	
getLoanOverDueRes/ overdueDtls	M	Complex/ Repeating			
overdueDtls/demand Dt	M	Date		Date on which the demands are effective	
overdueDtls/demand Type	M	String	1	Type of demand for which the account records must be retrieved	
overdueDtls/flowId	M	String	5	Flow ID of the demand	
overdueDtls/installm entAmt	M	Decimal		Installment amount due for Flow ID	
overdueDtls/collectio nAmt	M	Decimal		Collection amount for particular demand	
getLoanOverDueRes/l oanSummaryDtls	M	Complex		Holds loan account summary information	

API Gateway Document- GetLoanOverDue

loanSummaryDtls/advanceInterestCollected	M	Decimal		Advance interest amount collected for loan	
loanSummaryDtls/chargesCollected	M	Decimal		Amount collected as charges for account till date	
loanSummaryDtls/chargesDemanded	M	Decimal		Amount to be paid towards demands raised due to charges on the account	
loanSummaryDtls/currentNoOfInstallmentOverdue	M	Number	5	Number of installments that are currently overdue for the account	
loanSummaryDtls/interestLiabilityAmt	M	Decimal		Holds interest liability pending for account	
loanSummaryDtls/noOfInstallmentOverdue	M	Number	5	Total number of installments that are overdue for the account	
loanSummaryDtls/overflowAmt	M	Decimal		holds overflow amount if collections exceed demands made	
loanSummaryDtls/prePaidAmtTillDt	M	Decimal		Holds amount prepaid till date	
loanSummaryDtls/prePaidYrToDt	M	Decimal		Holds amount prepaid till date from the beginning of the year	
loanSummaryDtls/totalCrystalAmt	M	Decimal		Total crystallized amount of the loan amount	
loanSummaryDtls/totalLiabilityAmt	M	Decimal		Total liability of accounts retrieved	
loanSummaryDtls/completedInstllmentCount	M	Number	5	Number of installments paid upfront since time of account opening	
loanSummaryDtls/completedInstllmentAmt	M	Decimal		Holds upfront installment amount	
loanSummaryDtls/completedInstllmentInterestAmt	M	Decimal		Holds upfront installment interest amount.	
loanSummaryDtls/discountRateOfInterest	M	Decimal		Holds discounted rate of interest for the loan account	
getLoanOverDueRes/body/errorInfo	O, Repeating	Complex			Will be populated in case of any business exception from back end
getLoanOverDueRes/body/errorInfo/errorSource	O	String		If Status = 1, value will be populated with error system source	Will be populated in case of exceptions thrown by ESB
getLoanOverDueRes/body/errorInfo/errorCode	C	String		If Status = 1, value will be populated with error code	

API Gateway Document- GetLoanOverDue

getLoanOverDueRes /body/errorInfo/ errorDescription	C	String		If Status = 1, value will be populated with error description	
getLoanOverDueRes /body/errorInfo/ errorType	O	String	1	If Status = 1, value will be populated with error Type	
resHdr/ additionalDetails/ details1	O/F	String		Future Use	
resHdr/ additionalDetails/ details1	O/F	String		Future Use	
resHdr/ additionalDetails/ details1	O/F	String		Future Use	

➤ **Error Handling**

HTTP Status Code	HTTP Message	More Information
401	Unauthorized	Access token missing or validation
400	Bad Request	The parameters are invalid or missing.
503	Service Unavailable	The parameters were valid but the request failed.

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