GetLoanPaymentHistory API GATEWAY DOC

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1. INTRODUCTION

1.1 Design Document Purpose

The purpose of this document is to provide a detailed specification of the **GetLoanPaymentHistory** 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 GetLoanPaymentHistory API is exposed within **GetLoanPaymentHistory 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. STEPS 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 "JWTokenValue" field. The Token can be generated by subscribing to **TOKEN API**.

4.1 TOKEN API

➢**Overview:** To retrieve access token.

➢**Request Type**: POST

➢**Mandatory HTTP Headers**:
- ■ X-IBM-Client-Id: xxxxxxxxxxxxxxx
- ■ X-IBM-Client-Secret: xxxxxxxxxxxxxxxx

➢**SIT URL**: https://apiuat.ujjivansfb.in/ujjivan/development/v1/tokens
➢**PROD URL:** https://api.ujjivansfb.in/ujjivan/production/v1/tokens

5. GetLoanPaymentHistory API Details
- ➢ **Overview:**

Service is designed to retrieve payment details for the given loan account. The API Gateway makes a backend ESB call which in turn connects to provider system **CRM** of service name **FetchLoanRepaymentHistoryDetails, ExecuteFinacleScript (LoanHistory) & GetLoanPaymentHistory (BR.Net)**

➢ **Request Type**: POST

➢ **API URL**:
UAT : https://apiuat.ujjivansfb.in/ujjivan/development/v1/fetchLoanPmtHistory/getLoanPmtHistory
PROD : To be done

➢ **Mandatory HTTP Headers**:
■ X-IBM-Client-Id: xxxxxxxxxxxxxxx

➢ **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": "",
"JWTokenValue": ""
}
```

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.
- **JWTokenValue** : 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
getLoanPaymentHistoryReq / reqHdr	Complex				
reqHdr/consumerContext/applicationId	M	String	3	Application id from which request originated. Example IB, MB,HHD, BRN	
reqHdr/ serviceContext/ uniqueMsgId	M	Stirng		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.	
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.	
getLoanPaymentHistoryReq / body	M	Complex			
getLoanPaymentHistoryReq /body/accountNumber	M	String	16	Account id for which loan repayment history details needs to fetch	

> **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,

```
{
  "ResponseOfEncrytptedValue": "<encrytped 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					
getLoanPaymentHistoryRes /resHdr	Complex				
resHdr/consumerContext/applicationId	M	String	3	Value will be echoed from request message	
resHdr/ serviceContext/ uniqueMsgId	M	Stirng		Value will be echoed from request message	

resHdr/ serviceContext/ reqMsgDateTime	O	DateTime		Value will be echoed from request message	
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/ responseMsgDateTime	O	DateTime		Response message date and time stamp.	
resHdr/responseStatus/status	M	String		Response status from ESB Status 0 = Successful, 1 = Failure	
resHdr/responseStatus/ esbResDateTime	M	DateTime		Response date time stamp from ESB	
getLoanPaymentHistoryRes/body/loanAccountDtls	M	Complex		Returns the loan account details	
loanAccountDtls/accountNumber	M	String	16	Loan account number	
loanAccountDtls/balance	M	Decimal		Returns loan balance amount	
loanAccountDtls/currency	O	String	3	Currency code	
updateSavingsAccountRes/body /loanHistoryDtls	M	Complex/ Repeating		Returns loan record history details	
loanHistoryDtls/adjustedDt	M	Date		Loan adjusted date	
loanHistoryDtls/demandSatisfiedFlg	O	String	1	Flag which indicates whether demand is satisfied or not.	
loanHistoryDtls/dueDate	M	Date		Returns repayment due date	
loanHistoryDtls/flowIdDesc	M	String	30	Provides description of the installment	
loanHistoryDtls/shdlNum	M	String	2	Provides Repayment Schedule Number	
loanHistoryDtls/collectionAmt	M	Decimal		Holds total collection in previous due	

loanHistoryDtls/interestAmt	M	Decimal		Holds interest for previous due	
loanHistoryDtls/principalAmt	M	Decimal		Holds principal for previous due	
loanHistoryDtls/totalDemandAmt	M	Decimal		Holds demanded amount for a previous due	
getLoanPaymentHistoryRes/body /loanDueDtls	M	Complex		Returns loan next payment due details	
loanDueDtls/dueDate	M	Date		Provides due date for installment payment	
loanDueDtls/interest	M	Decimal		Provides interest for the next due	
loanDueDtls/nextPaymentDueAmt	M	Decimal		Provides next payment due amount	
loanDueDtls/principalAmt	M	Decimal		Provides principal amount for the next due	
loanDueDtls/totalPastDueAmt	M	Decimal		Provides total amount of past due	
getLoanPaymentHistoryRes/body/EMIDtls	M	Complex/Repeating		Returns the loan account details	
EMIDtls/ EMINumber	M	String	50	Emi Number of the Customer	
EMIDtls/demandDate	M	Date		Demand Effective Date	
EMIDtls/EMIAmount	M	String	50	EMI amount	
EMIDtls/transactionId	M	String	50	Transaction Id of the Transaction	
EMIDtls/transactionDate	M	Date		Transaction Date of the Transaction	
EMIDtls/ paidStatus	M	String	50	Status of the EMI PAID/UNPAID	
getLoanPaymentHistoryRes /body/errorInfo	O, Repeating	Complex			Will be populated in case of any business exception from back end

getLoanPaymentHistoryRes /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
getLoanPaymentHistoryRes /body/errorInfo/ errorCode	C	String		If Status = 1, value will be populated with error code	
getLoanPaymentHistoryRes /body/errorInfo/ errorDescription	C	String		If Status = 1, value will be populated with error description	
getLoanPaymentHistoryRes /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.
200	Refer section 5 for more details	