**Objective:** The validation API needs to be converted into a separate service altogether

This document contains details of existing validation API and a plan to have a separate

service (analogous to micro-service) which would serve the purpose of payment validation API.

### Details of existing Validation API:

The API Request should have either Biller Account Id OR (Biller Id and Authenticators) along with other details.

Below is the sample API request.

|  |
| --- |
| **{"billerid"**: "BEST00000MUM01",  **"authenticators"**:  [{  "parameter\_name": "Consumer Number",  "value": "6470950987"  }  ],  "customer":  {  "firstname": "ABC",  "lastname": "XYZ",  "mobile": "9344895862",  "mobile\_alt": "9859585525",  "email": "abc@billdesk.com",  "email\_alt": "abc2@billdesk.com",  "pan": "BZABC1234L",  "aadhaar": "123123123123"  },  "metadata":  {  "agent":  {  "agentid": "{{agentid}}"  },  "device":  {  "init\_channel": "{{initchannel}}",  "ip": "124.124.1.1",  "mac": "11-AC-58-21-1B-AA"  }  },  "risk":  [  {  "score\_provider": "{{ouid}}",  "score\_value": "030",  "score\_type": "TXNRISK"  },  {  "score\_provider": "BBPS",  "score\_value": "030",  "score\_type": "TXNRISK"  }  ]  } |

|  |
| --- |
| {  **"billeraccountid":** "BCCBLSE42",  "currency": "356",  "customer":  {  "firstname": "ABC",  "lastname": "XYZ",  "mobile": "9344895862",  "mobile\_alt": "9859585525",  "email": "abc@billdesk.com",  "email\_alt": "abc2@billdesk.com",  "pan": "BZABC1234L",  "aadhaar": "123123123123"  },  "metadata":  {  "agent":  {  "agentid": "{{agentid}}"  },  "device":  {  "init\_channel": "{{initchannel}}",  "ip": "124.124.1.1",  "mac": "11-AC-58-21-1B-AA"  }  },  "risk":  [  {  "score\_provider": "{{ouid}}",  "score\_value": "030",  "score\_type": "TXNRISK"  },  {  "score\_provider": "BBPS",  "score\_value": "030",  "score\_type": "TXNRISK"  }  ]  } |

The response consists of validationId, which needs to be passed in Make Payment API.

In validation process, its required to access following:

1. Customer Service (For updating customer if it exists OR create a new one if not present)
2. Bank Service
3. BillerAccount Service
4. Biller Service
5. ProcessorDetailService
6. MpayCommonService (For validating basic Customer and Alert details)
7. sourceServiceProvider: BBPS / Meconnect / Merc

Data gets inserted / updated into the following tables:

|  |
| --- |
| HG\_CUSTOMER\_DETAILS |
|  |
| HG\_VALIDATION\_ADDITIONAL\_INFO |
| HG\_VALIDATION\_ADDVALIDATION |
| HG\_VALIDATION\_AUTHENTICATORS |
| HG\_VALIDATION\_DETAILS |
| HG\_VALIDATION\_DEVINFO |
| HG\_VALIDATION\_PAYPOST |
| HG\_VALIDATION\_RISK |
|  |
| HG\_INSTABILL\_ADDINFOS |
| HG\_INSTABILL\_AUTHENTICATORS |
| HG\_INSTABILL\_DETAILS |
|  |
| HG\_S2SAPI\_LOGS (Details of calls made to SOAP based BBPS/Meconnect/Merc services) |

### Plan for new service

It has been proposed to create independent service for Payment Validation.

It would expose 2 APIs:

1. Validation for Payment:

This would need all the details that is passed currently to the existing API.

The response would be same as that of existing API

1. Get Validation details on basis of ValidationId, source and customer

There would be no change in Validation Object Definition

As of now, this plan considers to use the same database as that of HGPay rather than having its own database.

IF we go for having a separate database, data for multiple entities would need to be duplicated and synchronized, hence for now, same database would be used, which is being used by HGPay.

The redirection to new service could be configured on basis of customerId and sourceid.

We can have a new table “HG\_CUSTOMER\_REQUEST\_FORWARD\_MAP”

|  |  |
| --- | --- |
| **HG\_CUSTOMER\_REQUEST\_FORWARD\_MAP** | |
| CUSTOMERID | customerId for whom payment validation is to be done |
| SOURCEID | respective sourceId |
| REQUEST\_FORWARD\_FLAG | Whether HGPay should route the request to new service nor not |
| REQUEST\_FORWARD\_URL | The URL for new service |

Once the request is received in HGPay, a check can be made in this table to decide, if the request could be forwarded to new service.

If YES: a new request would be created and new service would be called, expected response would be ValidationBean

If NO: HGPay would continue processing the request with itself.

The new request would have the following structure:

1)

|  |  |
| --- | --- |
| **URL** | <**BASE\_URL\_FOR\_NEW\_SERVICE**>/validate |
| **Method** | POST |
| **RequestHeader** | CustomerId |
|  | SourceId |
| **RequestBody** | Same as that being received in HGPay |

2)

|  |  |
| --- | --- |
| **URL** | <**BASE\_URL\_FOR\_NEW\_SERVICE**>/getValidationDetails/<**validationId**> |
| **Method** | GET |
| **RequestHeader** | CustomerId |
|  | SourceId |

The authentication type for communication with new Service could be token based.

Client making API call to HGPay for payment validation

HGPay Database

HGPAY

REST API

Validation Service

BBPS

Meconnect

SOAP

REST

Merc

After the request is received to the new service, it would do the following:

1. Validate the request contents
2. Update/Add the customer details
3. Validate the Risk, Agent and Device details passed in request