Internet Banking

Technical Specifications Documentation

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# General Information

## Introduction

Internet banking system can be segregated to two different applications, Internet banking Administration Application and Internet Banking Application. Administration Application governs or controls how Internet Banking application works. Administration application consists of internet banking navigation, group access and content management to administer how the internet banking application should be broadcasted to end user. The administration system itself will have its own level of groups and accesses to ensure the task is assigned to the suitable admin. Internet Banking application is the main portal for end user to access and perform monetary transactions and enquiry at convenience.

## Purpose

The main purpose of this document is to cover system design and technical specification of the development for Internet banking system. It will describe the technical design of the entire Internet Banking System which covers system architecture, development framework, application modules’ specification and etc.

## Scope

This document will cover the below mention:

* System architecture design overview
* System development frameworks
* Database specification
* Integration specification
* System authentication specification
* Common application control functions
* Application modules’ specifications

## System Overview

MPI Internet Banking system consists of three major application; Internet Banking Support System (IBSS/MSS), Retail Internet Banking (RIB) and Business Internet Banking (BIB); and sub applications such like UPass Authentication System and JMS for Core Banking integration.

The three major applications are incorporated to each other via Database. All these applications are sharing the same Database and Schema. RIB and BIB applications are communicating with JMS via JMS Web Service Client created mainly for JMS integration, whilst JMS will handle all request and response messages and messages queuing for Core Banking Host integration.



Figure System Overview

### System Component Overview

The MPI Internet Banking system is staged with a 2 layers of service components, the Application Control Layer and Integration Control Layer.

The Application Control Layer is to control the system page flows and the integration for the page flow to different service components. This layer is using the Model-View-Controller (MVC) software architecture pattern. The service components consist of different type of services to support the system, like the control of page navigation, authentication (UPASS), user access matrix, etc., through individual wrapper components, like Authentication Component, Data Access Component, Business Implementation Component, Host Integration Component and External Integration Component.

The Integration Control layer is build using Java Message Service (JMS); see JMS Section for more details on how JMS shall integrate with the MPI Host System.

Figure Application Components Overview

### Application Design Overview

The below diagram is the overview of the MPI Internet Banking application architecture framework. The system design is to componentized the system into different service components and also using the MVC architect pattern to isolate the “domain logic” (business/application logic) from the user interface (presentation layer) permitting independent development, testing and maintenance of each.

For the MPI project, the Struts 1.2 framework is adapted as the MVC model implementation. To complete the system design, the Business Service Wrapper layer is also created, consists of business logics, to act as the communication layer between the Struts Action layer and other backend services.

Figure 3 Application Design Overview

# General Specification

## Framework

MPI Internet Banking system is build using Apache Struts framework, an open-source web application framework for developing Java EE web applications. It uses and extends the Java Servlet API to encourage developers to adopt a model-view-controller (MVC) architecture. For application data access, MPI Internet Banking applications are built on top of Hibernate, an [object-relational mapping](http://en.wikipedia.org/wiki/Object-relational_mapping) (ORM) library for the [Java](http://en.wikipedia.org/wiki/Java_(programming_language)) language, providing a [framework](http://en.wikipedia.org/wiki/Software_framework) for mapping an [object-oriented](http://en.wikipedia.org/wiki/Object-oriented_programming) [domain model](http://en.wikipedia.org/wiki/Domain_model) to a traditional [relational database](http://en.wikipedia.org/wiki/Relational_database).

### Apache Struts

Apache Struts is an open source framework used for developing J2EE web applications using Model View Controller (MVC) design pattern. It uses and extends the Java Servlet API to encourage developers to adopt an MVC architecture. Struts framework provides three key components:

* A **request** handler provided by the application developer that is used to map to a particular URI.
* A **response** handler which is used to transfer the control to another resource which will be responsible for completing the response.
* A **tag library** which helps developers to create the interactive form based applications with Java Server Pages.

The below diagram depicts the architecture of MVC system and the design to decouple different layers at the Business functions layer.

All Action classes will have methods to call from DAO zone. These DAO will have the real code to connect to the external systems like Database, CICS, RSA, etc. Optionally, all connection objects shall be received from centralized Class; so that any new connection objects or modifications shall be controlled from one class. All data returned from DAO are in normal Java Bean Objects, not any system specific object. This will help in easy integration with any system in future stages.



Figure MPI Struts Application Overview

### Hibernate

Hibernate is an object-relational mapping (ORM) library for the Java language, providing a framework for mapping an object-oriented domain model to a traditional relational database. Hibernate solves object-relational impedance mismatch problems by replacing direct persistence-related database accesses with high-level object handling functions.

Mapping Java classes to database tables is accomplished through the configuration of an XML file or by using Java Annotations. When using an XML file, Hibernate can generate skeletal source code for the persistence classes. This is unnecessary when annotation is used. Hibernate can use the XML file or the annotation to maintain the database schema.

Facilities to arrange one-to-many and many-to-many relationships between classes are provided. In addition to managing association between objects, Hibernate can also manage reflexive associations where an object has a one-to-many relationship with other instances of its own type.

Hibernate supports the mapping of custom value types. This makes the following scenarios possible:

* Overriding the default SQL type that Hibernate chooses when mapping a column to a property.
* Mapping Java Enum to columns as if they were regular properties.
* Mapping a single property to multiple columns.

## Authentication (UPass)

MPI Internet Banking System is using UPass Authentication API for to manage user access credential. UPass is a standalone API builds on Java Platform, the below diagram illustrates UPass authentication process flow:

Figure UPass Application Process Flow

UPass Authentication Features as Below:

* Encryption methods
  + SHA-1
  + 3DES
* Default Super Admin username and password
  + Configured during installation
* Password Maintenance
  + Password expire duration
  + Non-reuse for number of generation
  + Password composition
  + Features
  + addUser
  + deleteUser
  + changePassword
  + verifyPassword

### UPass Security Specification

|  |  |  |
| --- | --- | --- |
| User ID and Password Control | Minimum Requirements | Remark |
| 1. User ID | Single or combination of numeric, alpha or alphanumeric. | The rule is not parameterized. |
| 1. Maximum password expiration | **90 days** (The system will force a reset after this period has elapsed) | System wide support and can be parameterized via the system configuration file |
| 1. Minimum password length | **8** characters | This is standard feature. |
| 1. Maximum failed log-in attempts | **3 times.** (The User ID will subsequently be locked (disabled)) | The maximum number of attempts can be parameterized via the system configuration file. If the User ID is locked, the user must send a request to the administrator to reset the password. The application will force the user to change their password upon login. |
| 1. Inactive/Dormant ID for more than 90 days | User ID is automatically disabled by the system | The number of days can be parameterized via the system configuration file. |
| 1. Duplicate password control | For a minimum of **6** generations, the same passwords cannot be reused. | The number of generations can be parameterized via the system configuration file. |
| 1. Last sign on information displayed | The last signed on details will be displayed to the user upon logging into the system | This is standard feature. |
| 1. First time sign on must force a password change | First time sign on user must be forced to change the defaulted password. | This is standard feature. |
| 1. Changing of passwords by user | Users may change their passwords anytime they wish | This is standard feature. |
| 1. Password composition | Must be combination of alphanumeric, special characters, lower/upper case (if possible) | This is standard feature.  The password must be combination of at least 1 alphabet and 1 numeric value and is case sensitive. |
| 1. Deletion of User IDs from application | User IDs that are obsolete must be able to be deleted (instead of just suspended) from the application | The same user id cannot be reused even if deleted. The deleted user will not show on user enquiry screen, but the record will still be stored in the database. |
| 1. Password storage | Requires Encryption | Combination of Login ID and Password is encrypted using SHA-1 before being stored into Database. The hashed value will be used for authentication |

### Configuration

|  |  |  |
| --- | --- | --- |
| Configuration | Parameter | Remark |
| Maximum allowed password input error | PASSWORD\_MAX\_ERROR | Default is 3 allowable password input error |
| Password history storage | PASSWORD\_GENERAION | Default is 6 generations (Database maximum capacity) |
| Password expiry day | PASSWORD\_EXPIRY\_DAY | Default is 90 days password expiry before next reset |
| Minimum password length | PASSWORD\_MIN\_LENGTH | Default is 8 which is similar to application validation |
| Password complexity | PASSWORD\_COMPLEXITY | Default is 0. Application validates alphanumeric. Complexity of 1 requires a combination of lower and upper characters, numbers and special characters |
| Maximum days to be classified as dormant | MAX\_DORMANT\_DAYS | Default is 90 days |

## Integration (JMS)

### What is JMS

The Java Message Service (JMS) API is a Java Message Oriented Middleware API (MOM) for sending messages between two or more clients. JMS is a part of the Java Platform, Enterprise Edition, and is defined by a specification developed under the Java Community Process as JSR 914. It is a messaging standard that allows application components based on the Java 2 Platform, Enterprise Edition (J2EE) to create, send, receive, and read messages. It allows the communication between different components of a distributed application to be loosely coupled, reliable, and asynchronous.

### JMS Platform

Implementing JMS is platform specific configuration. For this MPI project, the JMS design is based on Oracle WebLogic 10.

### MPI JMS Mechanism

Figure 4 shows the overview design of the JMS component. The JMS component consists of 2 subcomponents, JMS Client (also called Producer) and JMS Server (Consumer / Producer).

JMS Client will receive a request, drop the request message to the queue, wait for the response message and return the response message once obtained before timeout. The queue request is demonstrated in Figure 4 start from step 1.1 and completed of receiving response at step 1.16.

JMS Server will read a message from queue, process it, get the response info, construct the response message and drop the response message to the queue. The process message mechanism is demonstrated in Figure 4 start from step 2.1 and completed of dropping response message at step 2.4.

### WebLogic JMS Architecture

Major components of the WebLogic JMS Server architecture:-

* JMS servers that can host a defined set of modules and any associated persistent storage that resides on a WebLogic Server instance.
* JMS modules contain configuration resources (such as queues, topics, and connections factories) and are defined by XML documents that conform to the <http://xmlns.oracle.com/weblogic/weblogic-jms/1.0/weblogic-jms.xsd> schema.
* Client JMS applications that either produce messages to destinations or consume messages from destinations.
* JNDI (Java Naming and Directory Interface), which provides a resource lookup facility. JMS resources such as connection factories and destinations are configured with a JNDI name. The runtime implementations of these resources are then bound into JNDI using the given names.
* WebLogic persistent storage (file store or JDBC-accessible) for storing persistent message data.



Figure WebLogic JMS Architecture Diagram

### MPI JMS Architect

There are 3 JMS Client components and 2 queues are designed to handle MPI Internet Banking messages.

The 2 queues are the Request Queue and the Response Queue. The Request Queue is for request messages whereas the Response Queue is designed for response messages.

Each of the JMS Client has its own task.

JMS Client 1: is designed to receive a request message from caller, through Web Service, and drop the message to the Request Queue.

JMS Client 2: is designed to pickup response messages from the Response Queue, also through a Web Service call from the caller.

JMS Client 3: is designed to pickup messages from the Request Queue, process the request, construct the response message and drop the response message to the Response Queue.



Figure MPI JMS Architecture Diagram

### MPI JMS Message Design

Each JMS message is identified by a **unique message id**. A unique id shall be generated and assigned to the Enterprise Java Bean (EJB) at the JMS Client stage. This id will be used for the entire lifecycle of the queue process. At the JMS Server stage, once a message is being processes, the same message id shall be used to construct the response message before drop it to the queue.

### JMS Message Process Explanation

The diagram below shows that the service layer will drop a request message to the JMS Response Queue, through the Request Web Service call, and then wait at the JMS Response Queue for the response, through the Response Web Service call. Once the response message is received, the message will be processed at the M2U Service Layer.

At the JMS Server layer (Process layer), the Request MDB will pick up a message from the JMS Request Queue, convert it to host message format and drop the message to CICS through socket. The Request MCB will get the response from CICS and then drop the message to the JMS Response Queue to complete the task.

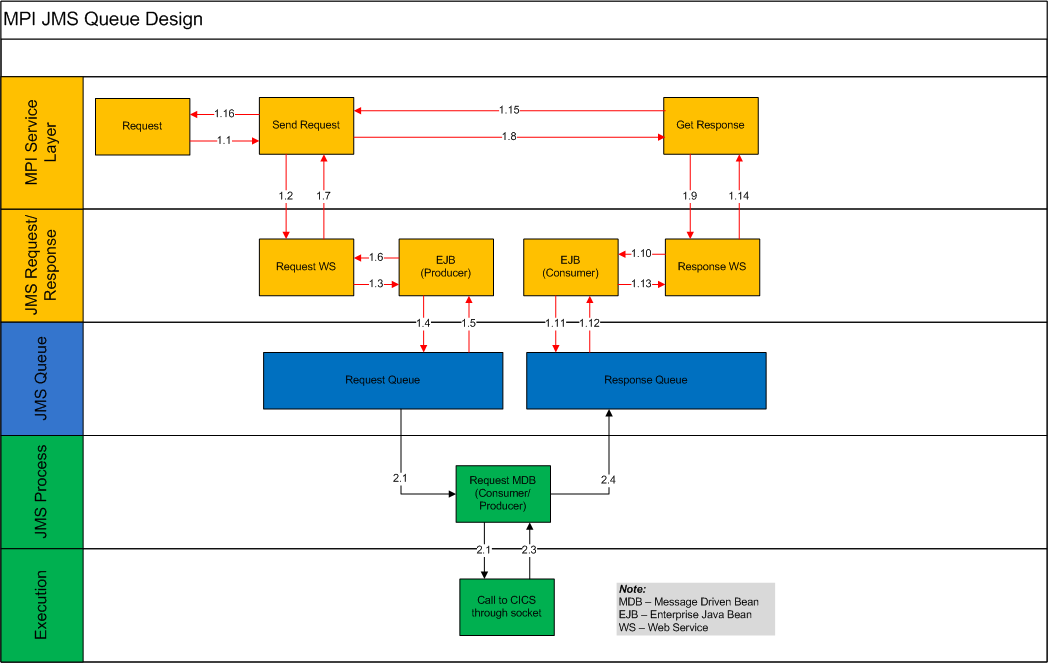


Figure JMS Queue Process Diagram

# Module’s Technical Specifications

## Introduction (Module listing and breakdown)

This section explains the technical specifications of each module and its sub modules which are included in MPI Internet Banking System deliverables.

### Internet Banking

* **Portal Access**
  + Registration
  + Reset Password
  + Login
  + Logout
  + Error Logout
* **Account Enquiry**
  + CASA Account Summary
    - Account Details
    - Internet Transaction History
    - Transaction History
    - Cheque Management
      * Reorder Cheque Book
      * Cheque Warehousing
      * Cheque Status Enquiry
      * Stop Cheque
      * Cheque Cutting
  + Loan Account Summary
* **Account Maintenance**
  + Link Account
  + Unlink Account
* **Fund Transfer**
  + Own Account Transfer
  + 3rd Party Account Transfer
    - Open Transfer
    - Favorite Transfer
  + Interbank Account Transfer
    - Open Transfer
    - Favorite Transfer
  + Favorite Maintenance
    - Add
    - Edit
    - Delete
  + Future Transfer
    - Future Transfer History
    - Cancel Future Transfer
  + Cash Card Top Up
    - Top Up
* **Bill Payment**
  + Open Payment
  + Favorite Payment
  + Favorite Maintenance
    - Add
    - Edit
    - Delete
  + Future Payment
    - Future Payment History
    - Cancel Future Payment
* **Time Deposit**
  + TD Account Enquiry
  + TD Placement

### Common Internet Banking Feature

* **Navigation**
* **QuickLink**
* **Single Signon**
* **Session Handling**
* **System Logging**
* **Error Handling**
* **Service Info**

## Portal Access

### First Time Login

**Module Overview**

First time login function allow customer to register his/her Internet Banking account by creating desire Username and Password.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbFTL** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Terms and Condition | | | | | |
| agreeTC | T&C agreement by user | String | Button | - | - |
| Registration Verification | | | | | |
| accessNo | IB access no/CIF no | String | Text | Require  Alphanumeric | Y |
| fTac | FTAC | String | Password | Require  Numeric | N |
| Registration Details | | | | | |
| username | User desire username | String | Text | Require  Alphanumeric  Min Length = 6  Max Length = 16 | Y |
| password1 | User desire password | String | Password | Require  Alphanumeric  Min Length = 8  Max Length = 12 | Y |
| password2 | User reenter password | String | Password | Require  Alphanumeric  Min Length = 8  Max Length = 12  Match password1 | N |
| Registration RSA | | | | | |
| imageRSA | User selected RSA image | String | Radio | Require | Y |
| questionRSA | User selected RSA question | String | Dropdown | Require | Y |
| answerRSA | Answer for select RSA question | String | Text | Require | Y |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbFTL** | | | | | |
| actionCode | Host integration action code | String | Host | N | Y |
| customerName | Customer name | String | Host | N | Y |
| customerType | Personal/Business | String | Host | N | Y |
| idNo | DOB for personal,  Business registration date for business | String | Host | N | Y |
| raceCode | Customer race | String | Host | N | Y |
| mobileNumber | Customer mobile number | String | Host | N | Y |
| emailAddress | Customer email address | String | Host | N | Y |
| accountList | Customer linked account list (vbAccount) | List | Host | N | N |
| rsaImageList | RSA image list for customer selection | List | RSA | Y | N |
| rsaQuestionList | RSA question list for customer selection | List | RSA | Y | N |
| status | 1st time log in status | String | IB | Y | Y |
| **vbAccount** | | | | | |
| acctType | Account type | String | Host | N | N |
| acctCode | Account code | String | Host | N | N |
| acctNo | Account number | String | Host | N | N |
| acctCurrency | Account currency | String | Host | N | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOPVRZZZ | Pin verification | 0001 0000 0000 |
| UOSETZZZ | Set IB 1st Time Logon Bit | 0002 0000 0000 |
| UOLGNCUS | Extract Customer Information | 0003 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_USER | User master table | C |
| IB\_CUST\_PROFILE | User profile table | C |
| IB\_ORGANIZATION | SME user only | C |
| IB\_LOGIN\_HISTORY | Login history table | C |
| IB\_CUST\_ACCOUNTS | User’s linked accounts table | C |
| \*\*UPass | Create user in UPass | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### Reset Password

**Module Overview**

This function allows user to reset password used in Internet Banking.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbFTL** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Reset Password Verification | | | | | |
| username | IB registered useraname | String | Text | Require  Alphanumeric  Min Length = 6  Max Length = 16 | - |
| identityNo | DOB for personal  Business registration date for busienss | String | Text | Require  Numeric | - |
| accountNo | Link account number | String | Text | Numeric | - |
| Reset Password Details | | | | | |
| password1 | Desire password | String | Password | Require  Alphanumeric  Min Length = 8  Max Length = 12 | Y |
| password2 | Reenter desire password | String | Password | Require  Alphanumeric  Min Length = 8  Max Length = 12 | N |
| rpc | Reset password code | String | Password | Require  Numeric  Length = 6 | N |
| Registration Result | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbFTL** | | | | | |
| actionCode | Host integration action code | String | Host | N | Y |
| cifNo | CIF number | String | IB | N | Y |
| status | Reset password status | String | IB | Y | Y |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UORSTZZZ | Verify Details | 0011 0000 0000 |
| UORPCZZZ | RPC Verification | 0012 0000 0000 |
| UORPCZZZ | RPC Verification 2 | 0014 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| \*\*UPass | Create user in UPass | U |
| IBSS\_SERVICE\_INFO | Service info content table | R |

### Login

**Module Overview**

Login module is for the customer that already successfully created their username and password.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbLogin** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Login Username | | | | | |
| username | IB registered useraname | String | Text | Require  Alphanumeric  Min Length = 6  Max Length = 16 | - |
| Login Password | | | | | |
| password | Desire password | String | Password | Require  Alphanumeric  Min Length = 8  Max Length = 12 | - |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbLogin** | | | | | |
| actionCode | Host integration action code | String | Host | N | N |
| cifNo | CIF number | String | IB | N | N |
| rsaImage | User selected rsaImage | String | IB | Y | N |
| accountList | User’s linked accounts list (vbAccount) | List | Host | N | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| **vbAccount** | | | | | |
| acctType | Account type | String | Host | N | N |
| acctCode | Account code | String | Host | N | N |
| acctNo | Account number | String | Host | N | N |
| acctCurrency | Account currency | String | Host | N | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOLGNCUS | Extract Customer Information | 0003 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_LOGIN\_HISTORY | Login history table | C |
| IB\_CUST\_ACCOUNTS | Customer linked account table | D,C |
| IB\_CUST\_PROFILE | User customer profile table | U |
| IB\_NAVIGATION | Navigation table | R |
| \*\*UPass | Verify user in UPass | U |

### Logout

**Module Overview**

Logout module allows user to logout from IB secure site. Logout summary will generate a logout summary containing activities performed by the user within the login session. Logout module will then invalidate the login session.

**Process Flow Overview**



**Form Bean**

Not available

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbLogout** | | | | | |
| logoutMessage | Logout general message | String | IB | Y | N |
| summaryList | Logout summary list | List | IB | Y | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| **vbSummary** | | | | | |
| trnxDate | Transaction date time | String | IB | Y | N |
| trnxDesc | Transaction description | String | IB | Y | N |
| trnxFromAcc | Transaction from account number | String | IB | Y | N |
| trnxToAcc | Transaction to account number | String | IB | Y | N |
| trnxAmount | Transaction amount | String | IB | Y | N |
| trnxRefNo | Transaction reference number | String | IB | Y | N |

**Integration Message Mapping**

Not available

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_USER\_TRANSACTION\_HISTORY | Internet banking transaction history table | R |

### Error Logout

**Module Overview**

Error logout module is a general handler for invalidate user internet banking session in the event of system failure, invalid browser action detected and etc.

**Process Flow Overview**



**Form Bean**

Not available

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbErrorLogout** | | | | | |
| errorCode | Error code | String | Host/IB | Y | N |
| errorMessage | Error code related message | String | IB | Y | N |

**Integration Message Mapping**

Not available

**Database**

Not available

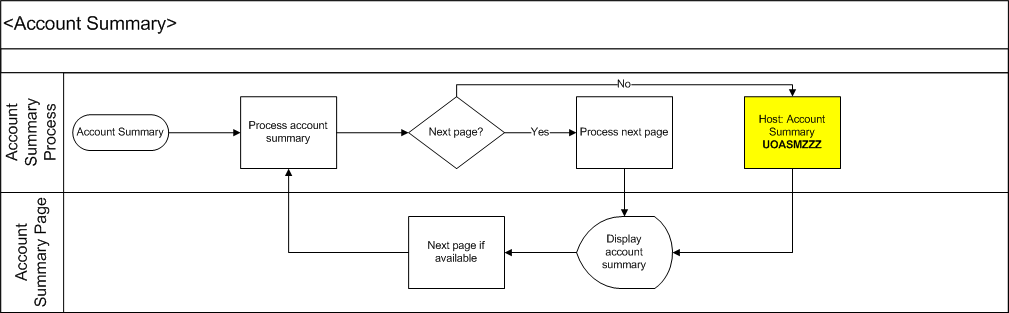
## Account Enquiry

### Account Summary

**Module Overview**

This function allows user to retrieve account summary for CASA accounts from MPI host. It carries summary details such like account type, balance and etc.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbAccountSummary** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Account Summary Page | | | | | |
| nextPage | Next page indicator | String | Link | - | - |
| View Bean | | | | | |
| viewBean | View bean for account summary module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbAccountSummary** | | | | | |
| currentPage | Current page number if available | String | IB | N | N |
| totalPage | Total page number if available | String | IB | N | N |
| summaryList | Account summary list | List | IB | Y | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| **vbAccount** | | | | | |
| acctType | Account type | String | Host | N | N |
| acctCode | Account code | String | Host | N | N |
| acctProdName | Account product name | String | IB | Y | N |
| acctNo | Account number | String | Host | Y | N |
| acctAvailBal | Account available balance | String | Host | Y | N |
| acctCurrBal | Account current balance | String | Host | Y | N |
| acctStatus | Account status | String | Host | Y | N |
| acctCurrency | Account currency | String | Host | Y | N |
| quickLinkMap | Available quick link list | Map | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOASMZZZ | Account Summary of linkage accounts | 0021 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_SERVICE\_INFO | Service info content table | R |

### Account Details

**Module Overview**

Account details present more details on the selected account from account summary page.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbAccountDetails** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Account Details Process | | | | | |
| selectAcctNo | Selected account number | String | Link | - | - |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbAccountDetails** | | | | | |
| actionCode | Host integration action code | String | Host | N | N |
| currentDateMsg | Current date message | String | IB | Y | N |
| acctType | Account type | String | Host | Y | N |
| acctCode | Account code | String | Host | N | N |
| acctProdName | Account product name | String | IB | Y | N |
| acctNo | Account number | String | Host | Y | N |
| acctStatus | Account status | String | Host | Y | N |
| acctHolderNameList | Account holder name list | List | Host | Y | N |
| acctCurrBal | Account current balance | String | Host | Y | N |
| acctAvailBal | Account available balance | String | Host | Y | N |
| acctOneFloat | Account one day float amount | String | Host | Y | N |
| acctTwoFloat | Account two day float amount | String | Host | Y | N |
| acctOtherFloat | Account more than two day float amount | String | Host | Y | N |
| quickLinkMap | Available quick link list | Map | IB | Y | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOADTZZZ | Details of CA / SA Accounts | 0031 0000 0000 |

**Database**

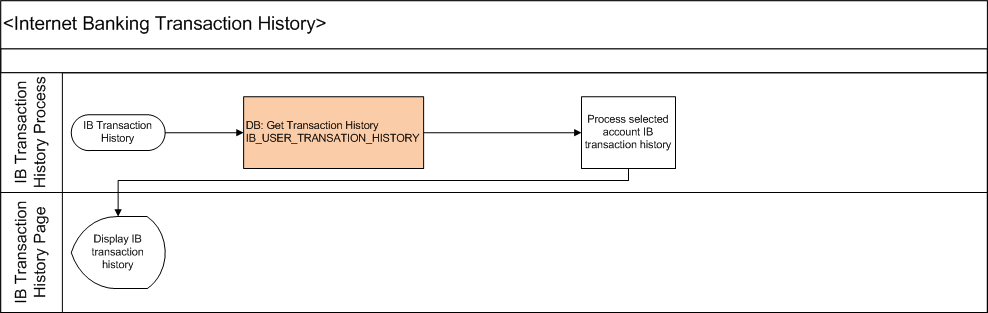
|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_SERVICE\_INFO | Service info content table | R |

### Internet Transaction History

**Module Overview**

This feature allow customer to view transaction history of CASA account linked to the IB access performed at M2U.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbIBTrnxHist** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Reset Password Verification | | | | | |
| selectAcctNo | Selected account number | String | Link | - | - |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbIBTrnxHist** | | | | | |
| trnxHistList | Transaction history list | List | IB | Y | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| **vbTrnxHist** | | | | | |
| trnxDate | Transaction date time | String | IB | Y | N |
| trnxDesc | Transaction description | String | IB | Y | N |
| trnxFromAcc | Transaction from account number | String | IB | Y | N |
| trnxToAcc | Transaction to account number | String | IB | Y | N |
| trnxAmount | Transaction amount | String | IB | Y | N |
| trnxRefNo | Transaction reference number | String | IB | Y | N |

**Integration Message Mapping**

Not available

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_USER\_TRANSACTION\_HISTORY | IB transaction history table | R |
| IB\_SERVICE\_INFO | Service info content table | R |

### Transaction History

**Module Overview**

This feature allow customer to view transaction history of the CASA account linked to IB from current date up to 90 days. Transaction comprises of all activity performed from and to the account.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbAccountDetails** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Account Details Process | | | | | |
| selectAcctNo | Selected account number | String | Link | - | - |
| retrievalReferenceNo | Retrieval reference number if more records available | String | Link | - | - |
| todayIndicator | Indicator if desire option is today’s or past 90 days transaction | String | Link | - | - |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbAcctTrnxHist** | | | | | |
| actionCode | Host integration action code | String | Host | N | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| retrievalReference No | Retrieval reference for next page is more records available | String | Host | N | N |
| trnxHistList | Transaction history list (vbTrnxHistDetails) | List | Host | Y | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| **vbTrnxHistDetails** | | | | | |
| trnxDate | Transaction date | String | Host | Y | N |
| trnxDesc | Transaction description | String | Host | Y | N |
| trnxDebit | Transaction debit amount for debit transaction | String | Host | Y | N |
| trnxCredit | Transaction credit amount for credit transaction | String | Host | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOAIQZZZ | CA/SA today’s transaction history | 0071 0000 0000 |
| UOAIQZZZ | CA/SA 90 days transaction history | 0072 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_SERVICE\_INFO | Service info content table | R |

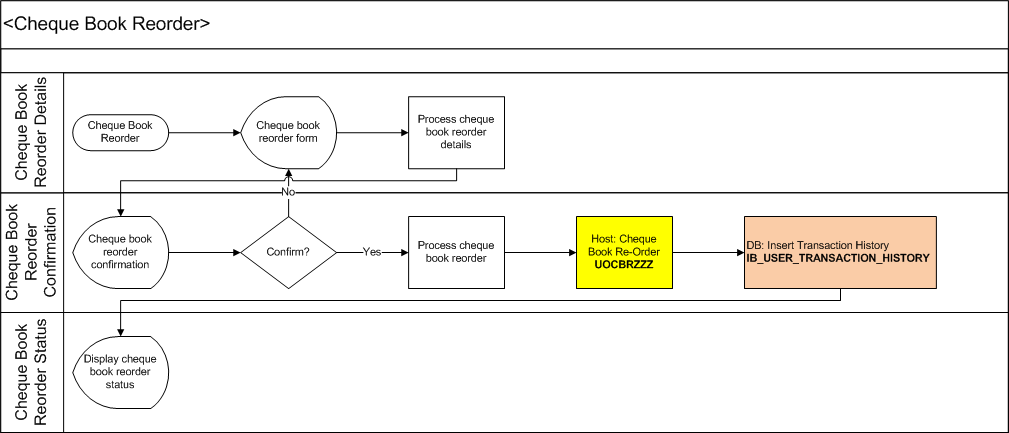
## Cheque Management

### Reorder Cheque Book

**Module Overview**

This feature allows customer to request for cheque book via MPI’s IB.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbOrderCheque** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Cheque Book Reorder Details | | | | | |
| acctNo | Selected account number | String | Hidden | - | Y |
| noOfCheque | Number of cheque book to reorder | String | Text | Require  Numeric  Max length = ‘2’ | Y |
| typeOfCheque | Type of cheque book reordering  Individual  1.Personal  2.Commercial  Corporate  1) Corporate | String | Dropdown/  Label | Require | Y |
| collectionMode | Mode of collection for reorder cheque book | String | Dropdown/  Label | Require | Y |
| Cheque Book Reorder Confirmation | | | | | |
| n/a |  |  |  |  |  |
| Cheque Book Reorder Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbOrderCheque** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| acctNoDisp | Account number display | String | IB | Y | N |
| noOfChequeDisp | Number of cheque book display | String | IB | Y | N |
| typeOfChequeDisp | Type of cheque book display | String | IB | Y | N |
| collectionModeDisp | Collection mode display | String | IB | Y | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | N | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOAIQZZZ | Reorder cheque book | 00H2 0000 0000 |

**Database**

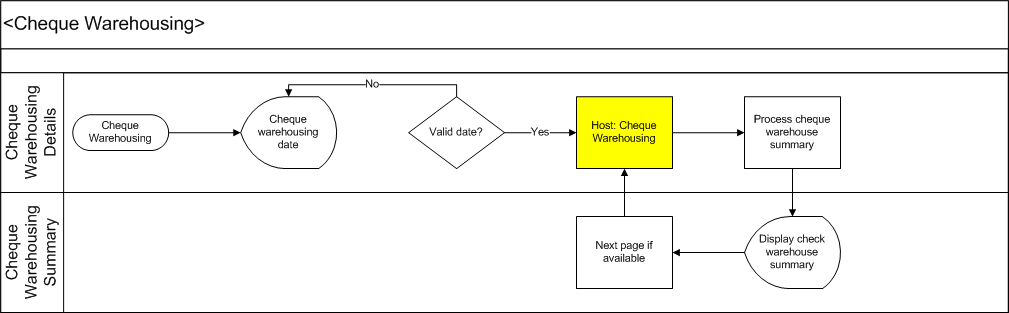
|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### Cheque Warehousing

**Module Overview**

In this features user can perform enquiry on cheque(s) due for deposited to their account.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbChequeWarehouse** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Cheque Warehouse Details | | | | | |
| acctNo | Selected account number | String | Hidden | - | N |
| chequeDate | Post date for enquiry | String | Text | Require  Numeric  Match length = ‘8’ | N |
| Cheque Warehouse Summary | | | | | |
| retrievalRefNo | Retrieval reference number if more records available | String | Link | - | N |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbOrderCheque** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| statusMessage | Status message if available | String | IB | Y | N |
| retrievalRefNo | Retrieval reference number if more records available | String | Host | N | N |
| chequeSummaryList | Cheque warehouse enquiry list | List | Host | Y | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| **vbChequeWarehouse** | | | | | |
| chequeDate | Post date | String | Host | Y | N |
| chequeNo | Cheque number | String | Host | Y | N |
| amount | Cheque amount | String | Host | Y | N |
| bankName | Drawee/issuer bank name | String | Host | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| - | Cheque warehousing enquiry | 00H5 0000 0000 |

**Database**

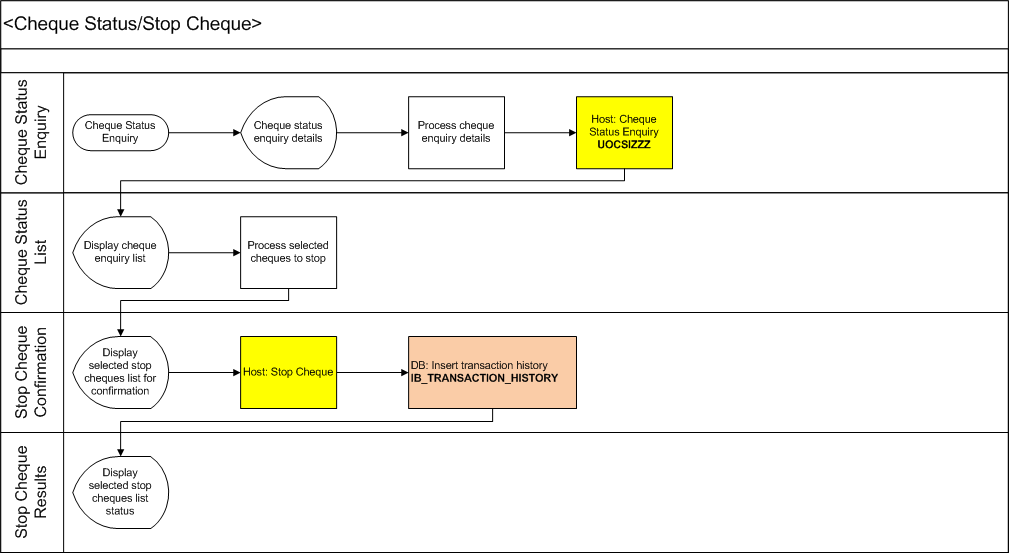
|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_SERVICE\_INFO | Service info content table | R |

### Cheque Status Enquiry / Stop Cheque

**Module Overview**

This feature allow customer to inquire the status of check that had been issued. Stop cheque feature is available for cheque status is UNPAID.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbChequeStatus** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Cheque Status Enquiry | | | | | |
| acctNo | Selected account number | String | Hidden | - | N |
| noOfCheque | No of cheque to be retrieved. Up to 20 cheques per enquiry | String | Dropdown | Require | N |
| chequeNo | Beginning cheque no for enquiry | String | Text | Require  Numeric | N |
| Cheque Status List | | | | | |
| selectedCheques | Selected cheque(s) to stop | String[] | Checkbox | Require | Y |
| Stop Cheque Confirmation | | | | | |
| stopReason | Reason for stop cheque | String | Text | Require  Max Length = ‘40’ | Y |
| Stop Cheque Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbChequeStatus** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| statusMessage | Status message if available | String | IB | Y | N |
| chequeStatusList | Cheque status enquiry list (vbChequeStatus) | List | Host | Y | N |
| stopChequesList | Selected stop cheques list (vbStopCheque) | List | User/IB | Y | Y |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| **vbChequeStatus** | | | | | |
| sequenceNo | Cheque display sequence number | String | IB | N | N |
| chequeNo | Cheque number | String | Host | Y | N |
| chequeStatus | Cheque status code | String | Host | N | N |
| chequeStatusDisp | Cheque status display | String | IB | Y | N |
| stopChequeReason | Stop cheque reason, only applicable for cheque status = ‘STOP’ | String | Host | Y | N |
| **vbStopCheque** | | | | | |
| sequenceNo | Sequence number for selected cheque | String | IB | N | N |
| chequeNo | Cheque number for selected | String | IB | Y | Y |
| referenceNo | Stop cheque reference number | String | IB | Y | Y |
| stopChequeStatus | Stop cheque result status cade | String | Host | N | N |
| stopChequeStatusDisp | String cheque result status display | String | IB | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOCSIZZZ | Enquiry status for a range of cheque numbers | 00H1 0000 0000 |
| - | Stop cheque | 00H3 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### Cheque Cutting Enquiry

**Module Overview**

This feature allows corporate customer to perform inquiry on cheque(s) submitted for check cutting to MPI.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbChequeCutting** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Cheque Status Enquiry | | | | | |
| acctNo | Selected account number | String | Hidden | - | N |
| chequeType | Type of cheque for enquiry  \*\* Corporate cheque | String | Dropdown/ Label | Require | N |
| chequeStatus | Cheque status for enquiry  \*\* Paid  \*\* Unpaid | String | Dropdown | Require | N |
| startCheque | Beginning cheque number | String | Text | Require  Numeric  Max Length = “12” | N |
| endCheque | End/last cheque number | String | Text | Require  Numeric  Max Length = “12”  >=startCheque | N |
| Paid Cheque Cutting List | | | | | |
| retrievalRefNo | Retrieval reference number if more records available (>30) | String | Link | - | N |
| Unpaid Cheque Cutting List | | | | | |
| retrievalRefNo | Retrieval reference number if more records available (>30) | String | Link | - | N |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbChequeCutting** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| statusMessage | Status message if available | String | IB | Y | N |
| chequeCuttingList | Cheque cutting enquiry list (vbChequeCuttingDetails) | List | Host | Y | N |
| retrievalRefNo | Retrieval reference number if more records available (>30) | String | Host | N | N |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |
| **vbChequeCuttingDetails** | | | | | |
| chequeDate | Date of cheque Paid/Unpaid | String | Host | Y | N |
| chequeNo | Cheque number | String | Host | Y | N |
| amount | Cheque amount (Paid cheque only) | String | Host | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOCCSZZZ | Cheque cutting enquiry | 00H4 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_SERVICE\_INFO | Service info content table | R |

## Account Maintenance

### Link Account

**Module Overview**

This feature allows customer to link his/her bank account for IB access.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbLinkAccount** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Link Account Details | | | | | |
| acctNo | Selected account number | String | Text | Require  Numeric | Y |
| Link Account Confirmation | | | | | |
| tac | TAC number | String | Password | Require  Numeric  Match Length = “6” | N |
| Cheque Book Reorder Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbLinkAccount** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| acctType | Account type | String | Host | N | N |
| productCode | Number of cheque book display | String | Host | N | N |
| productName | Account product name | String | IB | N | Y |
| acctCurrency | Type of cheque book display | String | Host | N | Y |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | Y | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| - | Link account | 0051 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_CUST\_ACCOUNTS | Customer linked accounts | D,C |
| IB\_SERVICE\_INFO | Service info content table | R |

### Unlink Account

**Module Overview**

This feature allows customer to unlink his/her bank account from IB access.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbLinkAccount** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Link Account Details | | | | | |
| acctNo | Selected account number | String | Text | Require  Numeric | Y |
| Link Account Confirmation | | | | | |
| tac | TAC number | String | Password | Require  Numeric  Match Length = “6” | N |
| Cheque Book Reorder Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbLinkAccount** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| acctType | Account type | String | IB | N | N |
| productCode | Number of cheque book display | String | Host | N | N |
| productName | Account product name | String | IB | N | Y |
| acctCurrency | Type of cheque book display | String | Host | N | Y |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | Y | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| - | Link account | 0052 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_CUST\_ACCOUNTS | Customer linked account | D,C |
| IB\_SERVICE\_INFO | Service info content table | R |

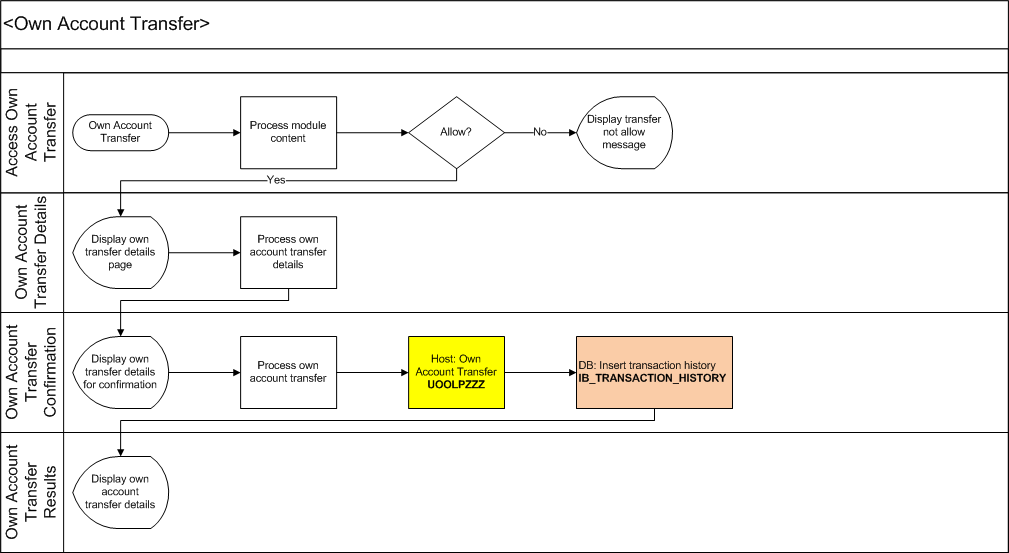
## Fund Transfer

### Own Account Transfer

**Module Overview**

This feature allows customer to perform funds transfer to their own linked account number via MPI’s IB.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbOwnTransfer** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Own Account Transfer Details | | | | | |
| fromAcct | Selected from account number | String | Dropdown/ Label | Require | Y |
| toAcct | Selected to account number | String | Dropdown | Require | Y |
| amount | Transfer amount | String | Text | Require  Numeric | Y |
| effectiveDate | Date for transfer instruction | String | Dropdown | Require | Y |
| Own Account Transfer Confirmation | | | | | |
| n/a |  |  |  |  |  |
| Own Account Transfer Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbOwnTransfer** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| fromAcctMap | From account number list | Map | IB | Y | N |
| toAcctMap | To account number list | Map | IB | Y | N |
| effectiveDateMap | Effective date selection list | Map | IB | Y | N |
| fromAcctDisplay | From account info display | String | IB | Y | N |
| fromAcctBal | From account balance after transfer | String | Host | N | Y |
| fromAcctBalDis | From account balance display | String | IB | Y | N |
| toAcctDisplay | To account info display | String | IB | Y | N |
| toAcctBal | To account balance after transfer | String | Host | N | Y |
| toAcctBalDis | To account balance display | String | IB | Y | N |
| amountDis | Transfer amount display | String | IB | Y | N |
| effectiveDateDis | Effective date display | String | IB | Y | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | Y | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOOLPZZZ | Immediate / Future own account transfer | 00E1 xxxx xxxx |

**Database**

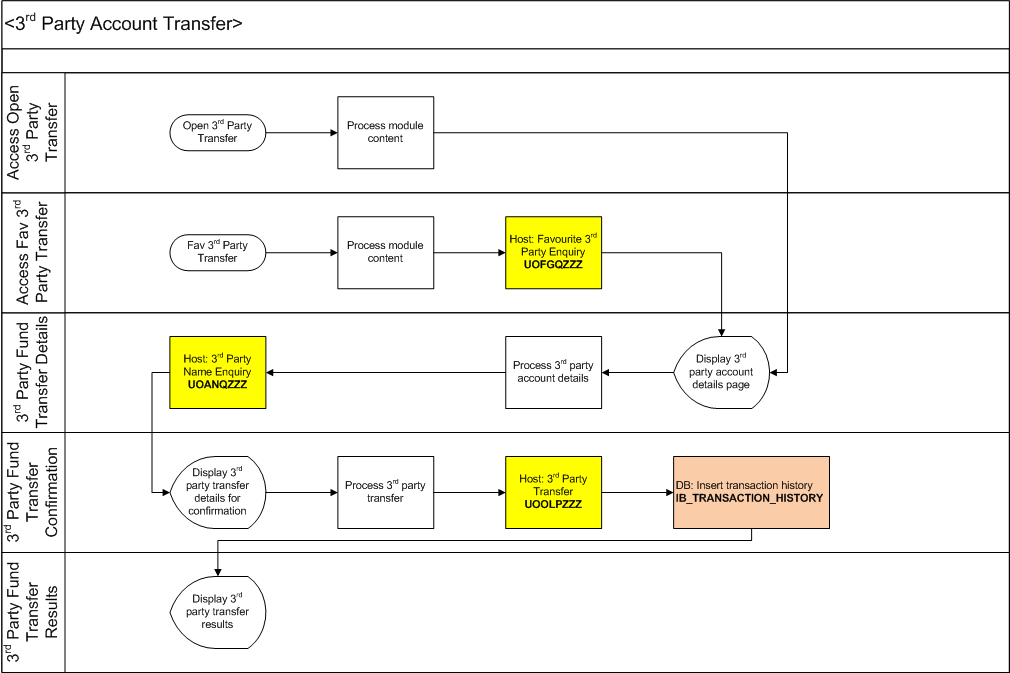
|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |
| IB\_PRODUCT\_TYPE | Product type content table | R |
| IB\_SERVICE\_LIST | Service list content table (sub table of IB\_PRODUCT\_TYPE) | R |

### 3rd Party Account Transfer

**Module Overview**

This feature allows customer to perform funds transfer to another 3rd party MPI’s peso account via MPI’s IB.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbIntraTransfer** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| 3rd Party Transfer Details | | | | | |
| fromAcct | Selected from account number | String | Dropdown/ Label | Require | Y |
| toAcct | Selected to account number from favorite list or enter account number | String | Dropdown/Text | Require  Numeric  Max Length = “16” | Y |
| amount | Transfer amount | String | Text | Require  Numeric | Y |
| effectiveDate | Date for transfer instruction | String | Dropdown | Require | Y |
| 3rd Party Transfer Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| 3rd Party Transfer Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbIntraTransfer** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| fromAcctMap | From account number list | Map | IB | Y | N |
| favAcctMap | Favourite to account number list | Map | IB | Y | N |
| effectiveDateMap | Effective date selection list | Map | IB | Y | N |
| toAcctHoldername | To account holder name | String | Host | Y | N |
| fromAcctDisplay | From account info display | String | IB | Y | N |
| fromAcctBal | From account balance after transfer | String | Host | N | Y |
| fromAcctBalDis | From account balance display | String | IB | Y | N |
| toAcctDis | To account display | String | IB | Y | N |
| amountDis | Transfer amount display | String | IB | Y | N |
| effectiveDateDis | Effective date display | String | IB | Y | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | Y | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOOLPZZZ | Immediate / Future 3rd party account transfer | 00F1 xxxx 0000 |
| UOFGQZZZ | Inquiry Favourites 3rd Party | 0091 0000 0000 |
| UOANQZZZ | 3rd Party Name Inquiry | 0043 0000 0000 |

**Database**

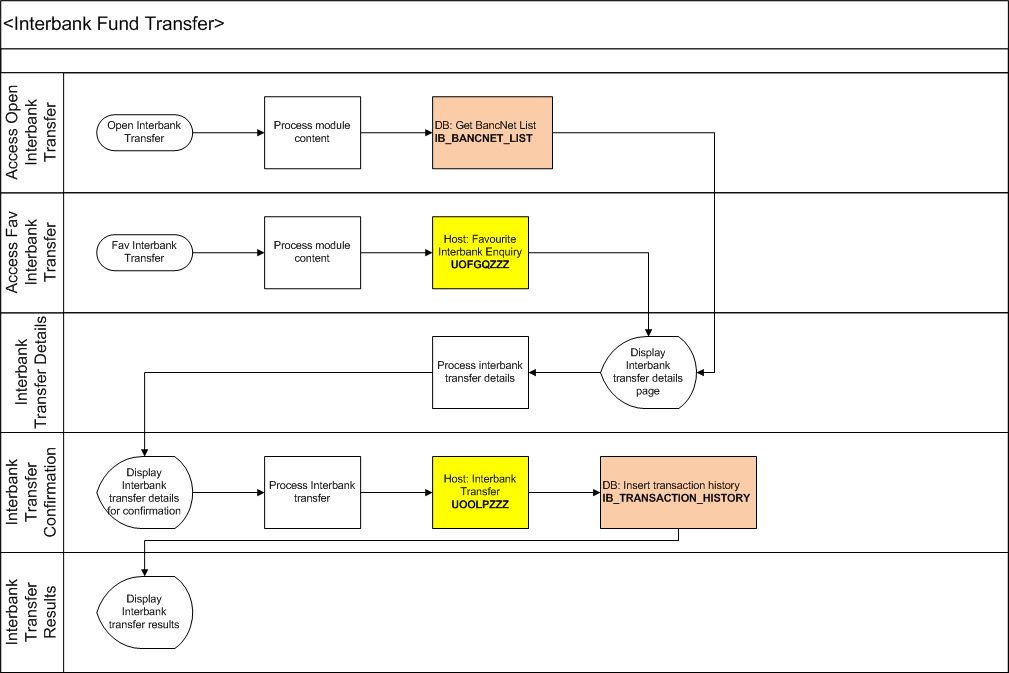
|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |
| IB\_PRODUCT\_TYPE | Product type content table | R |
| IB\_SERVICE\_LIST | Service list content table (sub table of IB\_PRODUCT\_TYPE) | R |

### Interbank Account Transfer

**Module Overview**

This feature allows customer to perform funds transfer to BancNet’s member banks via MPI’s IB.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbIntraTransfer** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Interbank Transfer Details | | | | | |
| fromAcct | Selected from account number | String | Dropdown/ Label | Require | Y |
| beneBank | Beneficiary bank | String | Dropdown/ Label | Require | Y |
| toAcct | Selected to account number from favorite list or enter account number | String | Dropdown/Text | Require  Numeric  Max Length = “16” | Y |
| paymentType | Interbank transfer payment type | String | Dropdown | Require | N |
| amount | Transfer amount | String | Text | Require  Numeric | Y |
| effectiveDate | Date for transfer instruction | String | Dropdown | Require | Y |
| Interbank Transfer Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| Interbank Transfer Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbInterTransfer** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| fromAcctMap | From account number list | Map | IB | Y | N |
| favAcctMap | Favourite to account number list | Map | IB | Y | N |
| effectiveDateMap | Effective date selection list | Map | IB | Y | N |
| bancNetList | BancNet | String | Host | Y | N |
| fromAcctDisplay | From account info display | String | IB | Y | N |
| fromAcctBal | From account balance after transfer | String | Host | N | Y |
| fromAcctBalDis | From account balance display | String | IB | Y | N |
| beneBankDis | Selected beneficiary bank display | String | IB | Y | N |
| toAcctDis | To account display | String | IB | Y | N |
| paymentTypeDis | Payment type display | String | IB | Y | N |
| amountDis | Transfer amount display | String | IB | Y | N |
| effectiveDateDis | Effective date display | String | IB | Y | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | Y | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOOLPZZZ | Interbank Transfer / Favourite Interbank Transfer | 00D1 xxxx BBBB |
| UOFGQZZZ | Inquiry Favourites Interbank | 00A1 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |
| IB\_BANCNET\_LIST | BancNet content table | R |
| IB\_PRODUCT\_TYPE | Product type content table | R |
| IB\_SERVICE\_LIST | Service list content table (sub table of IB\_PRODUCT\_TYPE) | R |

### 3rd Party Transfer Favorite Maintenance – Add

**Module Overview**

This feature allow customer to perform maintenance of favourite list to add favourite 3rd Party Transfer.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbAddFavIntra** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Add Favourite 3rd Party Transfer Details | | | | | |
| favToAcct | Favourite 3rd party to account number | String | Text | Require  Numeric  Max Length = “16” | Y |
| favNickname | Favourite to account nickname | String | Text | Require  Alphanumeric  Max Length = “40” | Y |
| favEmail | Favourite to account email | String | Text | Email  Max Length = “60” | N |
| favMobile | Favourite to account mobile number | String | Text | Numeric  Max Length = “15” | N |
| Add Favourite 3rd Party Transfer Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| Add Favourite 3rd Party Transfer Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbAddFavIntra** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| toAcctHoldername | To account holder name | String | Host | Y | Y |
| toAcctDis | To account display | String | IB | Y | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | Y | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOFTRZZZ | Add Favourite 3rd Party | 0092 0000 0000 |
| UOANQZZZ | 3rd Party Name Inquiry | 0043 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### 3rd Party Transfer Favorite Maintenance – Delete

**Module Overview**

This feature allow customer to perform maintenance of favourite list to deletefavourite 3rd Party Transfer.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbDelFavIntra** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Delete Favourite 3rd Party Transfer Selection | | | | | |
| selectedFav | Select favourite 3rd party to delete | String[] | Checkbox | Require | N |
| Delete Favourite 3rd Party Transfer Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| Delete Favourite 3rd Party Transfer Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbDelFavIntra** | | | | | |
| selectedFavList | Selected favourite 3rd party to delete | Map | IB | N | N |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |
| **vbFavIntra** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| toAcct | Favourite 3rd party to account number | String | Host | Y | Y |
| favNickname | Favourite to account nickname | String | Host | Y | Y |
| favEmail | Favourite to account email | String | Host | Y | N |
| favMobile | Favourite to account mobile number | String | Host | Y | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | N | Y |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOFTRZZZ | Delete Favourite 3rd Party | 0094 0000 0000 |
| UOFGQZZZ | Inquiry Favourites 3rd Party | 0091 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### 3rd Party Transfer Favorite Maintenance – Update

**Module Overview**

This feature allow customer to perform maintenance of favourite list to update favourite 3rd Party Transfer.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbUpdateFavIntra** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Update Favourite 3rd Party Transfer Selection | | | | | |
| selectedFav | Selected favourite 3rd party transfer | String | Link | N | N |
| Update Favourite 3rd Party Transfer Details | | | | | |
| favNickname | Favourite to account nickname | String | Text | Require  Alphanumeric  Max Length = “40” | Y |
| favEmail | Favourite to account email | String | Text | Email  Max Length = “60” | N |
| favMobile | Favourite to account mobile number | String | Text | Numeric  Max Length = “15” | N |
| Update Favourite 3rd Party Transfer Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| Update Favourite 3rd Party Transfer Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbUpdateFavIntra** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| toAcctHoldername | To account holder name | String | Host | Y | Y |
| toAcctDis | To account display | String | IB | Y | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | Y | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOFTRZZZ | Add Favourite 3rd Party | 0092 0000 0000 |
| UOFGQZZZ | Inquiry Favourites 3rd Party | 0091 0000 0000 |
| UOANQZZZ | 3rd Party Name Inquiry | 0043 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### Interbank Transfer Favorite Maintenance – Add

**Module Overview**

This feature allow customer to perform maintenance of favourite list to add favourite Interbank Transfer.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbAddFavInter** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Add Favourite Interbank Transfer Details | | | | | |
| favNickname | Favourite to account nickname | String | Text | Require  Alphanumeric  Max Length = “40” | Y |
| favEmail | Favourite to account email | String | Text | Email  Max Length = “60” | N |
| favMobile | Favourite to account mobile number | String | Text | Numeric  Max Length = “15” | N |
| Add Favourite Interbank Transfer Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| Add Favourite Interbank Transfer Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbAddFavInter** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| beneBank | Beneficiary bank code | String | IB | N | N |
| beneBankDis | Beneficiary bank display | String | IB | Y | Y |
| toAcct | To account number | String | IB | N | Y |
| toAcctDis | To account display | String | IB | Y | N |
| paymentType | Interbank payment type | String | IB | N | N |
| paymentTypeDis | Payment type display | String | IB | Y | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | Y | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOFTRZZZ | Add Favourite Interbank | 00A2 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### Interbank Transfer Favorite Maintenance – Delete

**Module Overview**

This feature allow customer to perform maintenance of favourite list to delete favourite Interbank Transfer.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbDelFavInter** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Delete Favourite Interbank Transfer Selection | | | | | |
| selectedFav | Select favourite interbank to delete | String[] | Checkbox | Require | N |
| Delete Favourite Interbank Transfer Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| Delete Favourite Interbank Transfer Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbDelFavInter** | | | | | |
| selectedFavList | Selected favourite interbank to delete | Map | IB | N | N |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |
| **vbFavIntra** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| beneBank | Favourite beneficiary bank | String | Host | N | N |
| beneBankDisplay | Favourite beneficiary bank display | String | IB | Y | Y |
| toAcct | Favourite interbank to account number | String | Host | Y | Y |
| favNickname | Favourite to account nickname | String | Host | Y | Y |
| favEmail | Favourite to account email | String | Host | Y | N |
| favMobile | Favourite to account mobile number | String | Host | Y | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | N | Y |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOFTRZZZ | Delete Favourite Interbank | 00A3 0000 0000 |
| UOFGQZZZ | Inquiry Favourites Interbank | 00A1 0000 0000 |

**Database**

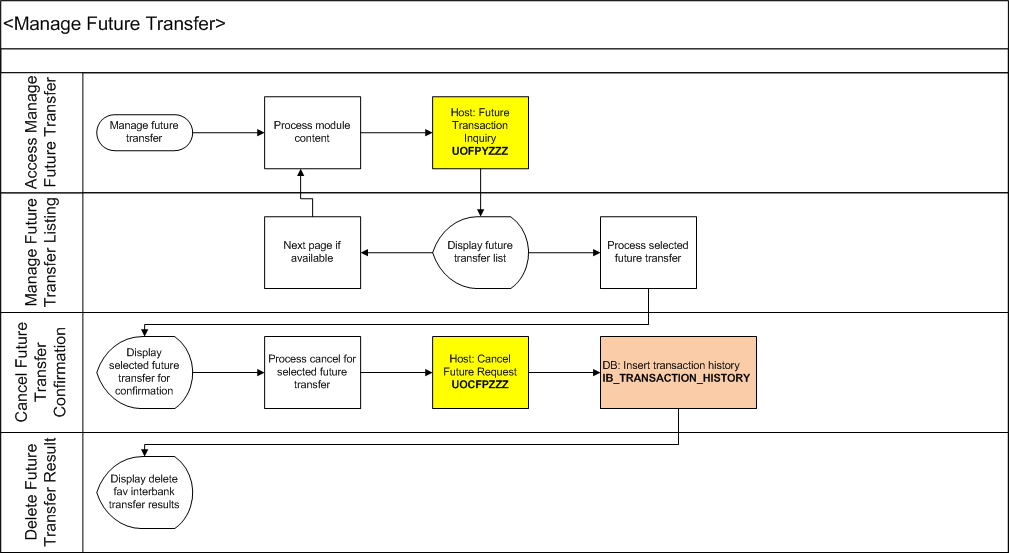
|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_BANCNET\_LIST | BancNet content table | R |
| IB\_SERVICE\_INFO | Service info content table | R |

### Manage Future Transfer

**Module Overview**

This feature allow customer to perform cancellation of future transfer.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbManageFutureTrans** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Manage Future Transfer Selection | | | | | |
| selectedFuture | Selected future transfer to cancel | String[] | Checkbox | Require | N |
| retrievalRefNo | Retrieval reference number if more records available | String | Link | - | N |
| enquiryType | Type of enquiry (future/history) | String | Link | - | N |
| Manage Future Transfer Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| Manage Future Transfer Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbManageFutureTrans** | | | | | |
| selectedFutureList | Selected future transfer to cancel | Map | IB | N | N |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |
| **vbFutureTrans** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| transferType | Transfer type | String | Host | Y | Y |
| fromAcct | Transfer from account | String | Host | Y | Y |
| toAcct | Transfer to account | String | Host | Y | Y |
| amount | Transfer amount | String | Host | Y | Y |
| effectiveDate | Transfer effective date | String | Host | Y | Y |
| referenceNo | Host transaction reference no | String | Host | Y | Y |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | N | Y |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOFPYZZZ | Future Transaction Inquiry | 00B1 0000 0000 |
| UOCFPZZZ | Cancel Future Request | 00B2 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### Future Transfer History

**Module Overview**

This feature allow customer to view future transfer history.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbFutureTransHist** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Future Transfer History List | | | | | |
| retrievalRefNo | Retrieval reference number if more records available | String | Link | - | N |
| enquiryType | Type of enquiry (future/history) | String | Link | - | N |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbFutureTransHist** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| futureList | Future transfer list | Map | IB | N | N |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |
| **vbTransHist** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| transferType | Transfer type | String | Host | Y | Y |
| fromAcct | Transfer from account | String | Host | Y | Y |
| toAcct | Transfer to account | String | Host | Y | Y |
| amount | Transfer amount | String | Host | Y | Y |
| effectiveDate | Transfer effective date | String | Host | Y | Y |
| referenceNo | Host transaction reference no | String | Host | Y | Y |
| status | Transaction status | String | Host | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOFPYZZZ | Future Transaction Inquiry | 00B1 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_SERVICE\_INFO | Service info content table | R |

### Cash Card Top Up

**Module Overview**

This feature allows customer can make cash card top up via MPI’s IB.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbCashCardTopUp** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Cash Card Top Up Details | | | | | |
| fromAcct | Selected from account number | String | Dropdown/ Label | Require | Y |
| cashCardNo | Cash card number | String | Text | Require  Numeric  Max Length = “16” | Y |
| amount | Transfer amount | String | Text | Require  Numeric | Y |
| Cash Card Top Up Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| Cash Card Top Up Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbCashCardTopUp** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| fromAcctMap | From account number list | Map | IB | Y | N |
| fromAcctDisplay | From account info display | String | IB | Y | N |
| fromAcctBal | From account balance after transfer | String | Host | N | Y |
| fromAcctBalDis | From account balance display | String | IB | Y | N |
| amountDis | Transfer amount display | String | IB | Y | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | Y | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOOLPZZZ | Immediate / Future 3rd party account transfer | 00G1 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |
| IB\_PRODUCT\_TYPE | Product type content table | R |
| IB\_SERVICE\_LIST | Service list content table (sub table of IB\_PRODUCT\_TYPE) | R |

## Bill Payment

### Bill Payment Transfer

**Module Overview**

This feature allows customer to perform bill payment to selected payee via MPI’s IB.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbBillPayment** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Bill Payment Details | | | | | |
| toPayee | Selected Payee Name from DB | String | Dropdown/ Label | Require | Y |
| fromAcct | From Account No | String | Dropdown/ Label | Require | Y |
| billAcctNum | Bill Account no | String | Text | Require | Y |
| subscriberName | Bill Account holder name | String | Text | Require | Y |
| amount | Transfer amount | String | Text | Require  Numeric | Y |
| effectiveDate | Date for transfer instruction | String | Dropdown | Require | Y |
| Bill Payment Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| Bill Payment Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbBillPayment** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| fromAcctMap | From account number list | Map | IB | Y | N |
| favPayeeMap | Favourite Payee list | Map | Host | Y | N |
| effectiveDateMap | Effective date selection list | Map | Host | Y | N |
| subscriberName | Subscriber name | String | Host | Y | Y |
| fromAcct | From account info | String | IB | Y | Y |
| billAcctNum | Bill account no | String | Host | Y | Y |
| amount | Amount | String | IB | Y | Y |
| effectiveDate | Effective date display | String | IB | Y | Y |
| trnxStatus | Transaction Status | String | Host | Y | Y |
| trnxStatusMsg | Transaction Status Message | String | Host | Y | N |
| trnxRefNo | Transaction Reference Id | String | IB | Y | Y |
| trnxDate | Transaction Date | String | IB | Y | Y |
| trnxTime | Transaction Time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOOLPZZZ | Immediate / Future Bill Payment / Registered Payment | 00C1 xxxx AAAA |
| UOBRQZZZ | Favourite Bills Inquiry | 0044 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |
| IB\_PAYEE | Payee content table | R |
| IB\_PRODUCT\_TYPE | Product type content table | R |
| IB\_SERVICE\_LIST | Service list content table (sub table of IB\_PRODUCT\_TYPE) | R |

### Favourite Payee Maintenance – Add

**Module Overview**

This feature allow customer to perform maintenance of favourite list to add favourite payee.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbAddFavPayee** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Add Favourite Payee Details | | | | | |
| payeeName | Payee Name | String | Dropdown | Require |  |
| billAcctNo | Payee bill account no | String | Text | Require  Alphanumeric  MaxLenght = “30” | N |
| subscriberName | Payee account holder name | String | Text | Require  Alphanumeric  MaxLenght = “40” | N |
| Add Favourite Payee Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| Add Favourite Payee Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbAddFavPayee** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| payeeMap | Payee list | String | IB | Y | Y |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | N | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOOBRZZZ | Bill Registration | 0081 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### Favourite Payee Maintenance – Delete

**Module Overview**

This feature allow customer to perform maintenance of favourite list to delete favourite payee.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbDelFavPayee** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Delete Favourite Payee Selection | | | | | |
| selectedFavPayee | Select favourite payee to delete | String[] | Checkbox | Require | N |
| Delete Favourite Payee Confirmation | | | | | |
| n/a |  |  |  |  |  |
| Delete Favourite Payee Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbDelFavPayee** | | | | | |
| selectedFavPayeeList | Selected favourite payee to delete | List | IB | N | N |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |
| **vbFavPayee** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| payeeName | Payee Name | String | IB | Y | Y |
| billAcctNo | Bill Account No | String | Host | Y | Y |
| subscriberName | Account Holder Name | String | Host | Y | Y |
| payeeCode | Payee Code | String | Host | Y | Y |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | N | Y |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOBRQZZZ | Favourite Bills Inquiry | 0044 0000 0000 |
| UOOBRZZZ | Bill De-registration | 0082 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### Favourite Payee Maintenance – Update

**Module Overview**

This feature allow customer to perform maintenance of favourite list to update favourite Payee.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbUpdateFavPayee** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Update Favourite Payee Selection | | | | | |
| selectedFavPayee | Selected favourite Payee3rd party transfer | String | Link | N | N |
| Update Favourite Payee Details | | | | | |
| payeeName | Payee Name | String | Dropdown | Require |  |
| billAcctNo | Payee bill account no | String | Text | Require  Alphanumeric  MaxLenght = “30” | N |
| subscriberName | Payee account holder name | String | Text | Require  Alphanumeric  MaxLenght = “40” | N |
| Update Favourite Payee Confirmation | | | | | |
| n/a |  |  |  |  |  |
| Update Favourite 3rd Party Transfer Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbUpdateFavPayee** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | Y | N |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| N/A | Upadate Favourite Payee | N/A |
| UOBRQZZZ | Favourite Bills Inquiry | 0044 0000 0000 |
| N/A | Payee Name Inquiry | N/A |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

### Future Payment History

**Module Overview**

This feature allow customer to view all future payment list.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbFuturePayHistForm** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Future Payment Inquiry | | | | | |
| retrievalRefNo | Retrieval Reference No | String | - | - | N |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbFuturePayHist** | | | | | |
| futurePaymentList | Future payment list | List | IB | N | N |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |
| **vbFuturePayHistDetails** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| payeeName | Payee Name | String | Host | Y | Y |
| fromAcc | From account no | String | Host | Y | Y |
| billAccountNo | Bill Account no | String | Host | Y | Y |
| amount | Transaction amount | String | Host | Y | Y |
| paymentRefNo | Payment reference no | String | Host | Y | Y |
| effectiveDate | Effective date display | String | Host | N | Y |
| trnxStatus | Transaction status | String | Host | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOFPYZZZ | Inquiry Future Payment | 00B3 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_SERVICE\_INFO | Service info content table | R |

### Future Payment - Cancel

**Module Overview**

This feature allow customer to perform cancellation of future payment.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbCancelFuturePayForm** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Cancel Future Payment Selection | | | | | |
| selectedFuturePayment | Select future payment to cancel | String[] | Checkbox | Require | N |
| Cancel Future Payment Confirmation | | | | | |
| n/a |  |  |  |  |  |
| Cancel Future Payment Results | | | | | |
| n/a |  |  |  |  |  |
| View Bean | | | | | |
| viewBean | View bean for FTL module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbCancelFuturePay** | | | | | |
| selectedFuturePaymentList | Selected future payment to cancel | List | IB | N | N |
| serviceInfo | Service info view bean for module content control | DynaBean | IB | Y | N |
| **vbFuturePayment** | | | | | |
| actionCode | Host action code | String | Host | N | N |
| payeeName | Payee Name | String | Host | Y | Y |
| fromAcc | From account no | String | Host | Y | Y |
| billAccountNo | Bill Account no | String | Host | Y | Y |
| amount | Transaction amount | String | Host | Y | Y |
| paymentRefNo | Payment reference no | String | Host | Y | Y |
| effectiveDate | Effective date display | String | Host | N | Y |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | N | Y |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOCFPZZZ | Cancel Future Payment | 00B4 0000 0000 |
| UOFPYZZZ | Inquiry Future Payment | 00B3 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

## Time Deposit

### Time Deposit Enquiry

**Module Overview**

Customer will be able to perform account Enquiry for Time Deposit Account.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbTDAccountEnquiry** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Time Deposit Currency | | | | | |
| currency | Time Deposit currency type | String | Dropdown/Label | Require | - |
| Time Deposit Listing | | | | | |
| retrievalRefNo | Retrieval Reference No | String | Link | - | N |
| selectedTD | Selected TD for account details | String | Link | - | N |
| View Bean | | | | | |
| viewBean | View bean for account summary module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbTDAccountEnquiry** | | | | | |
| actionCode | Host integration action code | String | Host | N | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| retrievalReference No | Retrieval reference for next page is more records available | String | Host | N | N |
| tdAccountList | Available TD accounts for selected currency | Map | Host | Y | N |
| acctTypeDis | Selected TD account type display | String | Host | Y | N |
| acctNoDis | Selected TD account no display | String | Host | Y | N |
| custNameDis | Selected TD customer name display | String | Host | Y | N |
| princAmountDis | Selected TD principle amount display | String | Host | Y | N |
| datePlacementDis | Selected TD placement date display | String | Host | Y | N |
| interestRateDis | Selected TD interest rate display | String | Host | Y | N |
| termDis | Selected TD term display | String | Host | Y | N |
| intPayFrequencyDis | Selected TD interest payment frequency display | String | Host | Y | N |
| dateMaturityDis | Selected TD maturity date display | String | Host | Y | N |
| intPayModeDis | Selected TD interest payment mode display | String | Host | Y | N |
| autoRenewalDis | Selected TD auto renewal display | String | Host | Y | N |
| **vbTDAccount** | | | | | |
| acctType | Account type | String | Host | N | N |
| acctCode | Account code | String | Host | N | N |
| acctProdName | Account product name | String | IB | Y | N |
| acctNo | Account number | String | Host | Y | N |
| acctStatus | Account status | String | Host | N | N |
| acctCurrency | Account currency | String | Host | N | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOLTIZZZ | Enquiry list of TD accounts | 0041 0000 0000 |
| UOADTZZZ | Details of TD Account | 0033 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_SERVICE\_INFO | Service info content table | R |

### Time Deposit Placement

**Module Overview**

Customer can place an amount for Time Deposit, The request will be sent to respective branch for Time Deposit creation.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbTDPlacement** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Time Deposit Product Type | | | | | |
| productType | Time Deposit product type | String | Dropdown/Label | Require | Y |
| Time Deposit Details | | | | | |
| fromAcctNo | From account no | String | Dropdown/Label | Require | Y |
| branchArea | Branch area | String | Dropdown | Require | Y |
| branchCode | Branch code | String | Dropdown | Require | Y |
| amount | Placement amount | String | Text | Require  Numeric | Y |
| placementTerm | Placement term | String | Dropdown/Label | Require | Y |
| interestPaymentMode | Interest payment mode |  | Dropdown/Label | Require | Y |
| interestPaymentFrequency | Interest payment frequency |  | Dropdown | Require | Y |
| autoRenewal | Auto renewal option |  | Dropdown | Require | Y |
| Time Deposit Placement Confirmation | | | | | |
| tac | TAC value | String | Password | Require  Numeric  Match Length = “6” | N |
| View Bean | | | | | |
| viewBean | View bean for account summary module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbTDAccountPlacement** | | | | | |
| actionCode | Host integration action code | String | Host | N | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| productTypeMap | Retrieval reference for next page is more records available | Map | IB | Y | N |
| fromAcctMap | Available TD accounts for selected currency | Map | IB | Y | N |
| branchMap | Selected TD account type display | Map | IB | Y | N |
| placementTermMap | Selected TD customer name display | Map | IB | Y | N |
| interestPaymentModeMap | Selected TD principle amount display | Map | IB | Y | N |
| interestPaymentFrequencyMap | Selected TD placement date display | Map | IB | Y | N |
| autoRenewalMap | Selected TD interest rate display | Map | IB | Y | N |
| referenceNo | Host transaction reference no | String | Host | Y | Y |
| trnxStatus | Transaction status | String | Host | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | N | Y |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOFDPZZZ | Time Deposit Placement | 00I1 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_TRANSACTION\_HISTORY | IB transaction history table | C |
| IB\_SERVICE\_INFO | Service info content table | R |
| IB\_BRANCH\_INFO | Branch content table | R |
| IB\_PRODUCT\_TYPE | Product type content table | R |
| IB\_SERVICE\_LIST | Service list content table (sub table of IB\_PRODUCT\_TYPE) | R |

## Loan Account

### Loan Enquiry and Details

**Module Overview**

Customer will be able to perform account Enquiry for Loan Account.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbLoanAccountEnquiry** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Loan Account Listing | | | | | |
| retrievalRefNo | Retrieval Reference No | String | - | - | N |
| acctNo | Selected loan account no for account details | String | Dropdown | Required | N |
| loanType | Loan account type | String | - | - | N |
| View Bean | | | | | |
| viewBean | View bean for account summary module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbLoanAccountEnquiry** | | | | | |
| actionCode | Host integration action code | String | Host | N | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| loanType | Loan account type | String | IB | N | N |
| retrievalReference No | Retrieval reference for next page is more records available | String | Host | N | N |
| acctNoMap | Available Loan accounts for selected loan account type | Map | Host | Y | N |
| **vbLoanAccount** | | | | | |
| acctNo | Selected loan account no | String | IB | Y | N |
| acctHolderName | Account holder’s name | String | Host | Y | N |
| outStandingBalance | Outstanding balance | String | Host | Y | N |
| netMonthlyInstallment | Net monthly installment | String | Host | Y | N |
| installmentDueDate | Installment Due Date | String | Host | Y | N |
| interestRates | Interest Rates (Add on Rate) | String | Host | Y | N |
| originalLoanAmount | Original Loan Amount | String | Host | Y | N |
| remainingTerms | Remaining Term | String | Host | Y | N |
| paymentAmountDue | Payment Amount Due (As of today) | String | Host | Y | N |
| payOffAmountDue | Pay Off Amount Due | String | Host | Y | N |
| insuranceExpiryDate | Insurance Expiry Date | String | Host | Y | N |
| collateralDesc | Collateral Description | String | Host | Y | N |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| UOLTIZZZ | Enquiry list of Loan accounts | 0042 0000 0000 |
| UOADTZZZ | Details of Loan Account | 0032 0000 0000 |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_SERVICE\_INFO | Service info content table | R |

### 

## Loan Application

### Personal Loan Application

**Module Overview**

Customer will be able to perform personal loan application.

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbPersonalLoanAppl** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Personal Loan Details | | | | | |
| amount | Amount of Loan | String | text | Required  Numeric | Y |
| term | Loan term | String | Radio button | Required | Y |
| purpose | Purpose of loan | String | text | Required | Y |
| applFirstName | Applicant First Name | String | text | Required | Y |
| applMiddleName | Applicant Middle Name | String | text | Required | Y |
| applLastName | Applicant Last Name | String | text | Required | Y |
| applAge | Applicant Age | String | text | Required  Numeric | Y |
| applPlaceBirth | Applicant Place of birth | String | text | Required | Y |
| applBirthday | Applicant birthday | String | text | Required | Y |
| applEducation | Applicant education | String | Radio button | Required | Y |
| applSchool | Applicant School | String | text | required | Y |
| applNoDependents | Appliant no of defendant | String | text | required | Y |
| applCivilStatus | Applicant civil status | String | Radio button | required | Y |
| applTIN | Applicant T.I.N | String | text | required | Y |
| applSSS | Applicant SSS no | String | text | required | Y |
| spouseFirstName | Spouse First name | String | text | Required | Y |
| spouseMiddleName | Spouse middle name | String | text | Required | Y |
| spouseLastName | Spouse last name | String | text | Required | Y |
| spouseAge | Spouse age | String | text | Required  Numeric | Y |
| spousePlaceBirth | Spouse place of birth | String | text | Required | Y |
| spouseBirthday | Spouse birthday | String | text | Required | Y |
| applAddress | Applicant Address | String | text | Required | Y |
| applProvincialAddress | Applicant provincial address | String | Radio button | Required | Y |
| applAddStatus | Applicant address status | String | text | Required | Y |
| applLengthStay | Applicant length stay | String | text | Required  Numeric | Y |
| applMonthlyRental | Applicant monthly rental | String | text | Required  Numeric | Y |
| applHomeTel | Applicant home tel | String | text | Required  Numeric | Y |
| applCellNo | Applicant cell no | String | text | Required  Numeric | Y |
| applEmail | Applicant email | String | text | Required | Y |
| bankBranch1 | Bank branch 1 | String | text | Required | Y |
| bankBranch2 | Bank branch 2 | String | text | - | Y |
| bankBranch3 | Bank branch 3 | String | text | - | Y |
| bankAccountNo1 | Bank account no 1 | String | text | Required  Numeric | Y |
| bankAccountNo2 | Bank account no 2 | String | text | Numeric | Y |
| bankAccountNo3 | Bank account no 3 | String | text | Numeric | Y |
| bankBalance1 | Bank balance 1 | String | text | Required  Numeric | Y |
| bankBalance2 | Bank balance 2 | String | text | Numeric | Y |
| bankBalance3 | Bank balance 3 | String | text | Numeric | Y |
| carProperty | Car property | String | checkbox | - | Y |
| ownProperty | Own property | String | Radio button | - | Y |
| carBrand1 | Car brand 1 | String | text | - | Y |
| carBrand2 | Car brand 2 | String | text | - | Y |
| carModel1 | Car model 1 | String | text | - | Y |
| carModel2 | Car model 2 | String | text | - | Y |
| carYear1 | Car year 1 | String | text | Numeric | Y |
| carYear2 | Car year 2 | String | text | Numeric | Y |
| loanBank1 | Loan bank 1 | String | text | - | Y |
| loanBank2 | Loan bank 2 | String | text | - | Y |
| loanBank3 | Loan bank 3 | String | text | - | Y |
| loanType1 | Loan type 1 | String | text | - | Y |
| loanType2 | Loan type 2 | String | text | - | Y |
| loanType3 | Loan type 3 | String | text | - | Y |
| loanBalance1 | Loan balance 1 | String | text | Numeric | Y |
| loanBalance2 | Loan balance 2 | String | text | Numeric | Y |
| loanBalance3 | Loan balance 3 | String | text | Numeric | Y |
| loanMonthlyPayment1 | Loan monthly payment 1 | String | text | Numeric | Y |
| loanMonthlyPayment2 | Loan monthly payment 2 | String | text | Numeric | Y |
| loanMonthlyPayment3 | Loan monthly payment 3 | String | text | Numeric | Y |
| creditCardType1 | Credit card type 1 | String | text | - | Y |
| creditCardType2 | Credit card type 2 | String | text | - | Y |
| creditCardType3 | Credit card type 3 | String | text | - | Y |
| creditCardNo1 | Credit card no 1 | String | text | Numeric | Y |
| creditCardNo2 | Credit card no 2 | String | text | Numeric | Y |
| creditCardNo3 | Credit card no 3 | String | text | Numeric | Y |
| creditCardLimit1 | Credit card limit 1 | String | text | Numeric | Y |
| creditCardLimit2 | Credit card limit 2 | String | text | Numeric | Y |
| creditCardLimit3 | Credit card limit 3 | String | text | Numeric | Y |
| creditCardExpiry1 | Credit card expiry 1 | String | text | - | Y |
| creditCardExpiry2 | Credit card expiry 2 | String | text | - | Y |
| creditCardExpiry3 | Credit card expiry 3 | String | text | - | Y |
| applEmplName | Applicant employer name | String | text | Required | Y |
| applEmplPos | Applicant employer position | String | text | Required | Y |
| applEmplNatureBusiness | Applicant employer nature of business | String | text | Required | Y |
| applEmplTelNo | Applicant employer tel no | String | text | Required  Numeric | Y |
| applEmplBussinessAdd | Applicant employer business address | String | text | Required | Y |
| applEmplTenure | Applicant employer tenure | String | text | Required  Numeric | Y |
| applPrevEmplName | Applicant previous employer name | String | text | - | Y |
| applPrevEmplPos | Applicant previous employer position | String | text | - | Y |
| applPrevEmplNatureBusiness | Applicant previous employer nature of business | String | text | - | Y |
| applPrevEmplTelNo | Applicant previous employer tel no | String | text | Numeric | Y |
| applPrevEmplBussinessAdd | Applicant previous employer address | String | text | - | Y |
| applPrevEmplTenure | Applicant previous employer tenure | String | text | Numeric | Y |
| spouseEmplName | Spouse employer name | String | text | - | Y |
| spouseEmplPos | Spouse employer position | String | text | - | Y |
| spouseEmplNatureBusiness | Spouse employer nature business | String | text | - | Y |
| spouseEmplTelNo | Spouse employer tel no | String | text | Numeric | Y |
| spouseEmplBussinessAdd | Spouse employer business address | String | text | - | Y |
| spouseEmplTenure | Spouse employer tenure | String | text | Numeric | Y |
| spousePrevEmplName | Spouse previous employer name | String | text | - | Y |
| spousePrevEmplPos | Spouse previous employer position | String | text | - | Y |
| spousePrevEmplNatureBusiness | Spouse previous employer nature of business | String | text | - | Y |
| spousePrevEmplTelNo | Spouse previous employertel no | String | text | Numeric | Y |
| spousePrevEmplBussinessAdd | Spouse previous employer business address | String | text | - | Y |
| spousePrevEmplTenure | Spouse previous employer tenure | String | text | Numeric | Y |
| personalRefName1 | Personal reference name 1 | String | text | Required | Y |
| personalRefName2 | Personal reference name 2 | String | text | - | Y |
| personalRefAddress1 | Personal reference address 1 | String | text | Required | Y |
| personalRefAddress2 | Personal reference address 2 | String | text | - | Y |
| personalRefPosition1 | Personal reference position 1 | String | text | Required | Y |
| personalRefPosition2 | Personal reference position 2 | String | text | - | Y |
| personalRefTelNo1 | Personal reference tel no 1 | String | text | Required  Numeric | Y |
| personalRefTelNo2 | Personal reference tel no 2 | String | text | Numeric | Y |
| supplier1 | Supplier 1 | String | text | - | Y |
| supplier2 | Supplier 2 | String | text | - | Y |
| tradeAddress1 | Trade checking address 1 | String | text | - | Y |
| tradeAddress2 | Trade checking address 2 | String | text | - | Y |
| tradeContactPerson1 | Trade checking contact person 1 | String | text | - | Y |
| tradeContactPerson2 | Trade checking contact person 2 | String | text | - | Y |
| supplierTelNo1 | Supplier tel no 1 | String | text | Numeric | Y |
| supplierTelNo2 | Supplier tel no 2 | String | text | Numeric | Y |
| View Bean | | | | | |
| viewBean | View bean for account summary module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbPersonalLoanAppl** | | | | | |
| actionCode | Host integration action code | String | Host | N | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| trnxStatus | Transaction status | String | IB | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | N | Y |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| TBA | Personal Loan Application | TBA |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_SERVICE\_INFO | Service info content table | R |
| IB\_PERSONAL\_LOAN\_APPLICATION | IB Personal loan application table | C |

### Auto Loan Application

**Module Overview**

Customer will be able to perform Auto Loan application

**Process Flow Overview**



**Form Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **fbAutoLoanAppl** | | | | | |
| **Property** | **Description** | **Type** | **Input Type** | **Validation** | **DB Entry** |
| Auto Loan Details | | | | | |
| dealer | Dealer | String | Text | Required | Y |
| salesman | Salesman | String | Text | Required | Y |
| unit | Unit applied | String | Text | Required | Y |
| year | Year | String | Text | Required | Y |
| netcash | Net cash price | String | Text | Required  Numeric | Y |
| downpayment | Down payment | String | Text | Required  Numeric | Y |
| amount | Amount financed | String | Text | Required  Numeric | Y |
| term | Term loan | String | Text | Required  Numeric | Y |
| applFirstName | Applicant first name | String | Text | Required | Y |
| applMiddleName | Applicant middle name | String | Text | Required |  |
| applLastName | Applicant last name | String | Text | Required | Y |
| applBirthday | Applicant birthday | String | Text | Required | Y |
| applCivilStatus | Applicant civil status | String | Radio button |  | Y |
| applNoDependents | Applicant no of defendants | String | Text | Required  Numeric | Y |
| applSex | Applicant gender | String | Radio button | Required | Y |
| applNationality | Applicant nationality | String | Text | Required | Y |
| applTIN | Applicant T.I.N | String | Text | Required  Numeric | Y |
| applAddress | Applicant address | String | Text | Required | Y |
| applYearStay | Applicant year stay | String | Text | Required  Numeric | Y |
| applPreviousAdd | Applicant previous address | String | Text | - | Y |
| applPreviousYearStay | Applicant previous year of stay | String | Text | Numeric | Y |
| applHomeTel | Applicant home tel | String | Text | Required  Numeric | Y |
| applCellNo | Applicant cell no | String | Text | Required  Numeric | Y |
| applAddStatus | Applicant resident status | String | Text | Required | Y |
| applOccupation | Applicant Occupation | String | Radio button | Required | Y |
| applYearsEmployment | Applicant years with present employer | String | Text | Numeric | Y |
| applEmplName | Applicant employer name | String | Text | Required | Y |
| applEmplPos | Applicant employer position | String | Text | Required | Y |
| applEmplBusinessAdd | Applicant employer business address | String | Text | Required | Y |
| applEmplTelNo | Applicant employer tel no | String | Text | Required  Numeric | Y |
| applMonthlyIncome | Applicant monthly income | String | Text | Required  Numeric | Y |
| applEmplNatureBusiness | Applicant employer nature of business | String | Text | Required | Y |
| applOtherIncome | Applicant other income | String | Text | Numeric | Y |
| spouseFirstName | Spouse first name | String | Text | - | Y |
| spouseMiddleName | Spouse middle name | String | Text | - | Y |
| spouseLastName | Spouse last name | String | Text | - | Y |
| spouseBirthday | Spouse birthday | String | Text | - | Y |
| spouseEmplName | Spouse employer name | String | Text | - | Y |
| spouseEmplPos | Spouse employer position | String | Text | - | Y |
| spouseEmplBusinessAdd | Spouse employer business address | String | Text | - | Y |
| spouseYearsEmployment | Spouse years with present employer | String | Text | Numeric | Y |
| spouseEmplTelNo | Spouse employer tel no | String | Text | Numeric | Y |
| spouseEmplNatureBusiness | Spouse employer nature of business | String | Text | - | Y |
| spouseEmplMonthlyIncome | Spouse employer monthly income | String | Text | Numeric | Y |
| bankBranch1 | Bank branch 1 | String | Text | - | Y |
| bankBranch2 | Bank branch 2 | String | Text | - | Y |
| bankBranch3 | Bank branch 3 | String | Text | - | Y |
| bankAccountNo1 | Bank account no 1 | String | Text | Numeric | Y |
| bankAccountNo2 | Bank account no 2 | String | Text | Numeric | Y |
| bankAccountNo3 | Bank account no 3 | String | Text | Numeric | Y |
| monthlyAmor1 | Monthly Amortization 1 | String | Text | Numeric | Y |
| monthlyAmor2 | Monthly Amortization 2 | String | Text | Numeric | Y |
| monthlyAmor3 | Monthly Amortization 3 | String | Text | Numeric | Y |
| telNo1 | Tel no 1 | String | Text | Numeric | Y |
| telNo2 | Tel no 2 | String | Text | Numeric | Y |
| telNo3 | Tel no 3 | String | Text | Numeric |  |
| customerContact1 | Customer contact 1 | String | Text | - | Y |
| customerContact2 | Customer contact 2 | String | Text | - | Y |
| customerContact3 | Customer contact 3 | String | Text | - | Y |
| customerTelNo1 | Customer tel no 1 | String | Text | Numeric | Y |
| customerTelNo2 | Customer tel no 2 | String | Text | Numeric | Y |
| customerTelNo3 | Customer tel no 3 | String | Text | Numeric | Y |
| supplier1 | Supplier 1 | String | Text | - | Y |
| supplier2 | Supplier 2 | String | Text | - | Y |
| supplier3 | Supplier 3 | String | Text | - | Y |
| supplierTelNo1 | Supplier tel no 1 | String | Text | Numeric | Y |
| supplierTelNo2 | Supplier tel no 2 | String | Text | Numeric | Y |
| supplierTelNo3 | Supplier tel no 3 | String | Text | Numeric | Y |
| acceptance | Acceptance agreement | String | Text | Required | Y |
| acceptanceDate | Acceptance date | String | Text | Required | Y |
| View Bean | | | | | |
| viewBean | View bean for account summary module | DynaBean | - | - | - |

**View Bean**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Property** | **Description** | **Type** | **Source** | **Display** | **DB Entry** |
| **vbAutoLoanAppl** | | | | | |
| actionCode | Host integration action code | String | Host | N | N |
| serviceInfo | Module content control service info bean | DynaBean | IB | Y | N |
| trnxStatus | Transaction status | Map | IB | Y | Y |
| trnxStatusMsg | Transaction status message | String | Host | N | Y |
| trnxRefNo | Transaction reference no | String | IB | Y | Y |
| trnxDateTime | Transaction date time | String | IB | Y | Y |

**Integration Message Mapping**

|  |  |  |
| --- | --- | --- |
| **Message ID** | **Description** | **Service Code** |
| TBA | Auto Loan Application | TBA |

**Database**

|  |  |  |
| --- | --- | --- |
| Table | Description | CRUD |
| IB\_AUTO\_LOAN\_APPLICATION | IB Auto Loan application table | C |
| IB\_SERVICE\_INFO | Service info content table | R |

# Appendixes

## Appendix 1

### MPI Internet Banking Response Code

***Response Code – From MPI***

|  |  |  |
| --- | --- | --- |
| **Error Number** | **Backend** | **Front-end** |
| 1 | A/C NUMBER NOT FOUND | TRANSACTION IS DECLINED. |
| 2 | STOPS OR HOLDS FOUND | TRANSACTION IS DECLINED. |
| 3 | ALERTS OR INT FR TD | TRANSACTION IS DECLINED |
| 4 | NSF ITEMS TODAY | TRANSACTION IS DECLINED |
| 5 | INSUFFICIENT BAL BY | INSUFFICIENT FUNDS. |
| 6 | NEW ACCOUNT | TRANSACTION DECLINE |
| 7 | ACCOUNT CLOSED | ACCOUNT IS NOT AUTHORIZED |
| 8 | DORMANT ACCOUNT | ACCOUNT IS NOT AUTHORIZED |
| 9 | RESTRICTED ACCOUNT | ACCOUNT IS NOT AUTHORIZED |
| 10 | FROZEN ACCOUNT | ACCOUNT IS NOT AUTHORIZED |
| 11 | UPDATE BOOK FIRST | ACCOUNT IS NOT AUTHORIZED |
| 12 | INSIDER ACCOUNT | ACCOUNT IS NOT AUTHORIZED |
| 13 | MATURED ACCOUNT | ACCOUNT IS NOT AUTHORIZED |
| 14 | < MINIMUM BALANCE | ACCOUNT IS NOT AUTHORIZED |
| 15 | AMOUNT > PAYOFF | ACCOUNT IS NOT AUTHORIZED |
| 16 | > LEDGER BALANCE | TRANSACTION LIMIT EXCEEDED. |
| 17 | ZERO ACCRUAL ACCOUNT | TRANSACTION IS DECLINED. |
| 18 | TXN > ACCRUED INT | TRANSACTION IS DECLINED. |
| 19 | CHEQUE SUSPENDED | TRANSACTION IS DECLINED. |
| 20 | AMT > PRINCIPAL BAL | TRANSACTION IS DECLINED. |
| 21 | DISCOUNTED NOTE | TRANSACTION IS DECLINED. |
| 22 | TXN > OVERDUE INT | TRANSACTION IS DECLINED. |
| 23 | TXN > OTHER CHG BAL | TRANSACTION IS DECLINED. |
| 24 | TXN <> STD PAYMENT | TRANSACTION IS DECLINED. |
| 25 | NO TXN ALLOWED | ACCOUNT IS NOT AUTHORIZED |
| 26 | TXN > ACCRUED INT | TRANSACTION IS DECLINED |
| 27 | NOT MULTIPLE OF 1000 | TRANSACTION IS DECLINED |
| 28 | New A/C Balance < Minimum | TRANSACTION IS DECLINED |
| 29 |  | **TRANSACTION IS DECLINED** |
| 30 |  | **TRANSACTION IS DECLINED** |
| 31 |  | **TRANSACTION IS DECLINED** |
| 32 | DISPLAY STATUS MSGS | **TRANSACTION IS DECLINED** |
| 33 | DECEASED CUSTOMER | TRANSACTION IS DECLINED |
| 34 | REVERSAL ERROR | TRANSACTION IS DECLINED |
| 35 | INCORRECT CURRENCY | TRANSACTION IS DECLINED |
| 36 | ACCOUNT ALREADY EXIST | TRANSACTION IS DECLINED |
| 37 | PRODUCT NOT FOUND | TRANSACTION IS DECLINED |
| 38 | CIF NO. NOT FOUND | TRANSACTION IS DECLINED |
| 39 | CHEQUE BOOK ERROR/PAID | TRANSACTION IS DECLINED |
| 40 | STOP SUSPECT | TRANSACTION IS DECLINED |
| 41 | WR CQ/AMT/EC CLR CQ | TRANSACTION IS DECLINED |
| 42 | TD ACCOUNT NOT FOUND | TRANSACTION IS DECLINED |
| 43 | TD AC ALREADY EXISTS | ACCOUNT ALREADY EXISTS. |
| 44 | NO OD/OC FACILITY | TRANSACTION IS DECLINED |
| 45 | HAD ACTIVITY TODAY | TRANSACTION IS DECLINED |
| 46 | FLT NOT 0 FOR CLSOUT | TRANSACTION IS DECLINED |
| 47 | ODP NOT 0 FOR CLSOUT | TRANSACTION IS DECLINED |
| 48 | ACCOUNT CLOSED TODAY | TRANSACTION IS DECLINED |
| 49 | AMT <> W/D INTEREST | TRANSACTION IS DECLINED |
| 50 | INCORRECT CLOSEOUT | TRANSACTION IS DECLINED |
| 51 | CHECK# CANNOT BE 0 | TRANSACTION IS DECLINED |
| 52 | INVALID EFFECT DATE | TRANSACTION IS DECLINED |
| 53 | CLS IS NOT W/I LIMIT | TRANSACTION IS DECLINED |
| 54 | TXN NOT MATCH ORIG. | TRANSACTION IS DECLINED |
| 55 | PB HEADER NOT FOUND | TRANSACTION IS DECLINED |
| 56 | NO OCP FAC EXISTS | TRANSACTION IS DECLINED |
| 57 | EXCEEDS AUTH LIMIT | TRANSACTION IS DECLINED |
| 58 | MUST USE OD/OC FAC | TRANSACTION IS DECLINED |
| 59 | INSUFFICIENT FLOAT | TRANSACTION IS DECLINED |
| 60 | HLD AMT/CQ# MISMATCH | TRANSACTION IS DECLINED |
| 61 | NOT A PASSBOOK AC | TRANSACTION IS DECLINED |
| 62 | EXCEEDS DRAW LIMIT | TRANSACTION IS DECLINED |
| 63 | LOAN EXPIRED | TRANSACTION IS DECLINED |
| 64 | ORG LOAN TXN NOT FND | TRANSACTION IS DECLINED |
| 65 | NO LOAN RELEASED YET | TRANSACTION IS DECLINED |
| 66 | NOT YRLY REST/HP/BD | TRANSACTION IS DECLINED |
| 67 | AMT > INT-IN-ADV BAL | TRANSACTION IS DECLINED |
| 68 | REV TRN <> EVEN 1000 | TRANSACTION IS DECLINED |
| 69 | AVAIL DATE EXPIRED | TRANSACTION IS DECLINED |
| 70 | AMT > MISC COSTS BAL | TRANSACTION IS DECLINED |
| 71 | AMT > 3 REPAYMT AMT | TRANSACTION IS DECLINED |
| 72 | LN NOT FULLY RELEASE | TRANSACTION IS DECLINED |
| 73 | HAD PREV PYMT TODAY | TRANSACTION IS DECLINED |
| 74 | PAYOFF NOT W/I LMT | TRANSACTION IS DECLINED |
| 75 | CHARGED OFF LOAN | TRANSACTION IS DECLINED |
| 76 | SOLD PARTICIPATION | TRANSACTION IS DECLINED |
| 77 | WRONG PB SERIAL NO. | TRANSACTION IS DECLINED |
| 78 | AC HAS STAND INSTR | TRANSACTION IS DECLINED |
| 79 | MAT. DATE NOT EQUAL PROC. DATE | TRANSACTION IS DECLINED |
| 80 | MAT. DATE LESS THAN PROC. DATE | TRANSACTION IS DECLINED |
| 81 | TRADE FINANCE ACCOUNT | TRANSACTION IS DECLINED |
| 82 | CORP BANKING A/C | TRANSACTION IS DECLINED |
| 83 | TREASURY A/C | TRANSACTION IS DECLINED |
| 84 | COLLECTION A/C | TRANSACTION IS DECLINED |
| 85 | COLLECT RETD CHQ | TRANSACTION IS DECLINED |
| 86 | A/C LINKED WITH GIRO | TRANSACTION IS DECLINED |
| 87 | PRIVILEGE PLUS | TRANSACTION IS DECLINED |
| 88 |  | **TRANSACTION IS DECLINED** |
| 89 |  | **TRANSACTION IS DECLINED** |
| 90 | TD-SAFE CUSTODY | TRANSACTION IS DECLINED |
| 91 | TD-NEGOTIATED RATE | TRANSACTION IS DECLINED |
| 92 | LOST TD RECEIPT/SA PASSBOOK | TRANSACTION IS DECLINED |
| 93 | TD-UNDER LIEN | TRANSACTION IS DECLINED |
| 94 | SPECIAL MENTION | ACCOUNT IS NOT AUTHORIZED |
| 95 | DOUBTFUL A/C | ACCOUNT IS NOT AUTHORIZED |
| 96 | JUDGEMENT A/C | ACCOUNT IS NOT AUTHORIZED |
| 97 | NOTICE OF WARNING ISSUED | TRANSACTION IS DECLINED |
| 98 | NOTICE OF CLOSING ISSUED | TRANSACTION IS DECLINED |
| 99 | LEGAL ACTION TAKEN | ACCOUNT IS NOT AUTHORIZED |
| 100 | LEGAL BLOCK | ACCOUNT IS NOT AUTHORIZED |
| 101 | INTERBRANCH NOT ALLOWED | TRANSACTION IS DECLINED |
| 102 | HOME BRANCH ACTION REQUIRED | TRANSACTION IS DECLINED |
| 103 | DECEASED A/C | TRANSACTION IS DECLINED |
| 104 | WARNING! EIS A/C NO CSH TNX | TRANSACTION IS DECLINED |
| 105 | DEBIT NOT ACCEPTED | ACCOUNT IS NOT AUTHORIZED |
| 106 | FROZEN ACCOUNT | ACCOUNT IS NOT AUTHORIZED |
| 107 | PROFESSIONAL ACCOUNT | TRANSACTION IS DECLINED |
| 108 | SP RATE PENALTY=PREMATURE WDL | TRANSACTION IS DECLINED |
| 109 | DO NOT ISSUE CHEQUE BOOK | TRANSACTION IS DECLINED |
| 110 | CASH DEPOSIT ONLY | TRANSACTION IS DECLINED |
| 111 |  | **TRANSACTION IS DECLINED** |
| 112 |  | **TRANSACTION IS DECLINED** |
| 113 |  | **TRANSACTION IS DECLINED** |
| 114 |  | **TRANSACTION IS DECLINED** |
| 115 |  | **TRANSACTION IS DECLINED** |
| 116 |  | **TRANSACTION IS DECLINED** |
| 117 |  | **TRANSACTION IS DECLINED** |
| 118 |  | **TRANSACTION IS DECLINED** |
| 119 |  | **TRANSACTION IS DECLINED** |
| 120 | ID TO BE COLLECTED | TRANSACTION IS DECLINED |
| 121 | STATUS CHG DD ONLY | TRANSACTION IS DECLINED |
| 122 | BAL & INT MUST = 0 | TRANSACTION IS DECLINED |
| 123 | AC IS ALREADY CLOSED | TRANSACTION IS DECLINED |
| 124 | STATUS HAS CHG PREV | TRANSACTION IS DECLINED |
| 125 | STAT IS NOT DORMANT | TRANSACTION IS DECLINED |
| 126 | STAT IS "DO NOT CLS" | TRANSACTION IS DECLINED |
| 127 | ACC STAT IS INVALID | TRANSACTION IS DECLINED |
| 128 | ACTIVE ODP CAN'T CLS | TRANSACTION IS DECLINED |
| 129 | RECEIPT PRINTED | TRANSACTION IS DECLINED |
| 130 | NO DEP ON ACTIVE TD | TRANSACTION IS DECLINED |
| 131 | INVALID BOP CODE | TRANSACTION IS DECLINED |
| 132 | INTERBRN TRANSACTION | TRANSACTION IS DECLINED |
| 133 | AC HAS HOLD MAIL | TRANSACTION IS DECLINED |
| 134 | WRONG TD SERIAL NO. | TRANSACTION IS DECLINED |
| 135 | NON-PERFORM STATUS | TRANSACTION IS DECLINED |
| 136 | NOT NON-PERFORM STAT | TRANSACTION IS DECLINED |
| 137 | AMT < TD MIN BALANCE | TRANSACTION IS DECLINED |
| 138 | OVERDRN NOT ALLOWED | TRANSACTION IS DECLINED |
| 139 | AC BRANCH IS OFFLINE | TRANSACTION CANNOT BE PROCESSED. ACCOUNT IS NOT AUTHORIZED. |
| 140 | AC HAS SWEEP FAC | TRANSACTION IS DECLINED |
| 141 | EXCEED IBT W/D LIMIT | TRANSACTION IS DECLINED |
| 142 | AMT <> MULTI 1000 | TRANSACTION IS DECLINED |
| 143 | TD MAT DT > PROC DT | TRANSACTION IS DECLINED |
| 144 | INVALID CHARGE CODE | TRANSACTION IS DECLINED |
| 145 | FLOAT RECORD NOT FND | TRANSACTION IS DECLINED |
| 146 | INVALID FLOAT STATUS | TRANSACTION IS DECLINED |
| 147 | AMT > MISC COST CHG | TRANSACTION IS DECLINED |
| 148 | AMT > OTHER CHGS CHG | TRANSACTION IS DECLINED |
| 149 | COUNTER NAME NOT FND | TRANSACTION IS DECLINED |
| 150 | CLASS ID NOT FOUND | TRANSACTION IS DECLINED |
| 151 | TXN NOT ALLOWED | INACTIVE CASH TOPUP ACCOUNT |
| 152 | > MAX SHR VALUE | TRANSACTION IS DECLINED |
| 153 | > AVAIL SHR UNITS | TRANSACTION IS DECLINED |
| 154 | COLLATERAL NOT FND | TRANSACTION IS DECLINED |
| 155 | FLT NOT BRANCH'S | TRANSACTION IS DECLINED |
| 156 | SHARE RECORD NOT FND | TRANSACTION IS DECLINED |
| 157 | > CAPITAL PAID UP | TRANSACTION IS DECLINED |
| 158 | NO SHR FAC EXISTS | TRANSACTION IS DECLINED |
| 159 | ADD DEP INV-RECT PRT | TRANSACTION IS DECLINED |
| 160 | RELATIONSHIP EXISTS | TRANSACTION IS DECLINED |
| 161 | INVALID RELATIONSHIP | TRANSACTION IS DECLINED |
| 162 | > EXT AC TXN LIMIT | TRANSACTION IS DECLINED |
| 163 | BOP CODE NOT REQUIRED | TRANSACTION IS DECLINED |
| 164 | INVALID ACCOUNT TYPE | TRANSACTION IS DECLINED |
| 165 | HOST TXN NOT SAME | TRANSACTION IS DECLINED |
| 166 | HLD NOT 0 FOR CLSOUT | TRANSACTION IS DECLINED |
| 167 | NOT A FUTURE MAT DT | TRANSACTION IS DECLINED |
| 168 | TD AMT < MIN REQ | TRANSACTION IS DECLINED |
| 169 | TXN AMT>RELEASED AMT | TRANSACTION IS DECLINED |
| 170 | NEXT PYMT DUE DT = 0 | TRANSACTION IS DECLINED |
| 171 | SUBSIDY BY 3RD PARTY | TRANSACTION IS DECLINED |
| 172 | NO SUB BY 3RD PARTY | TRANSACTION IS DECLINED |
| 173 | O/S BALANCE < 0 | TRANSACTION IS DECLINED |
| 174 | INVALID ORG SEQ# | TRANSACTION IS DECLINED |
| 175 | CANNOT CHG REL/SHIP | TRANSACTION IS DECLINED |
| 176 | AMT>ACCR PENALTY INT | TRANSACTION IS DECLINED |
| 177 | AMT > INT PAYABLE | TRANSACTION IS DECLINED |
| 178 | DUPLICATE SEQUENCE# | TRANSACTION IS DECLINED |
| 179 | TD GRP# NOT MATCH | TRANSACTION IS DECLINED |
| 180 | AMT > PAID LATE CHRG | TRANSACTION IS DECLINED |
| 181 | MUST USE OCP FAC | TRANSACTION IS DECLINED |
| 182 | AMOUNT > PRINCIPAL | TRANSACTION IS DECLINED |
| 183 | ORG NBK ITEM NOT FND | TRANSACTION IS DECLINED |
| 184 | ODP AUTH LIMIT NOT 0 | TRANSACTION IS DECLINED |
| 185 | AMT > INT REBATE | TRANSACTION IS DECLINED |
| 186 | AMT > ACCR COMMT FEE | TRANSACTION IS DECLINED |
| 187 | Unused |  |
| 188 | INVALID ACCOUNT(FACILITY A/C) | ACCOUNT IS NOT AUTHORIZED |
| 189 | INVALID A/C (CREDIT LINE A/C) | ACCOUNT IS NOT AUTHORIZED |
| 190 | BELOW PAR WIDR MIN AMT LIMIT | TRANSACTION IS DECLINED |
| 191 | BELOW TOP UP MIN AMT LIMIT | TRANSACTION IS DECLINED |
| 192 | INVALID PAR WIDR AMT | TRANSACTION IS DECLINED |
| 193 | INVALID TOP UP AMT | TRANSACTION IS DECLINED |
| 194 | NON-RESIDENT NOT ALLOWED | TRANSACTION IS DECLINED |
| 195 | INTEREST PAYMENT WAS GENERATED | TRANSACTION IS DECLINED |
| 196 | NOT ALLOW PARTIAL OR TOP-UP | TRANSACTION IS DECLINED |
| 197 | TXN AMOUNT EXCEEDS BALANCE | TRANSACTION IS DECLINED |
| 198 | Unused |  |
| 199 | MAT.DATE IS A NON-BUSINESS DAY | TRANSACTION IS DECLINED |
| 200 | Unused |  |
| 201 | TELLER ID IS INVALID | TRANSACTION IS DECLINED |
| 202 | TXN IS NOT SUPPORTED | TRANSACTION IS DECLINED |
| 203 | NOT AUTH TO TXN | TRANSACTION IS NOT PERMITTED. |
| 204 | SYS ERROR.CONTACT DP STAFF | COMMUNICATION TIME OUT. PLEASE CHECK YOUR ACCOUNT BALANCE. |
| 205 | ACCOUNT IS REDEEMED | TRANSACTION IS DECLINED |
| 206 | GL# IS INAVALID | TRANSACTION IS DECLINED |
| 207 | PASSBOOK BAL IS | TRANSACTION IS DECLINED |
| 208 | NOT A PASSBOOK AC | TRANSACTION IS DECLINED |
| 209 | MUST UPDATE PB NOW | TRANSACTION IS DECLINED |
| 210 | AC HAS NO UNPOSTED ITEMS | TRANSACTION IS DECLINED |
| 211 | NO ONE FND WITH GIVEN NAME | TRANSACTION IS DECLINED |
| 212 | LOAN IS PAID OFF | TRANSACTION IS DECLINED |
| 213 | CURRENCY IS INVALID | TRANSACTION IS DECLINED |
| 214 | CURRENCY DISCREPANCY | TRANSACTION IS DECLINED |
| 215 | CORRECTION NOT ALLOWED | TRANSACTION IS DECLINED |
| 216 | FLT NOT 0 ON CLOSEOUT | TRANSACTION IS DECLINED |
| 217 | HLD NOT 0 ON CLOSEOUT | TRANSACTION IS DECLINED |
| 218 | ACCOUNT CLOSED TODAY | TRANSACTION IS DECLINED |
| 219 | AC IN USE (FRONT-END/BACK-END) | ACCOUNT ALREADY EXISTS. |
| 220 | RENEW INVALID ON AUTO-RENEW | TRANSACTION IS DECLINED |
| 221 | ACCOUNT IS IN USE | ACCOUNT ALREADY EXISTS. |
| 222 | 0 AMOUNT NOT ALLOWED | TRANSACTION IS DECLINED |
| 223 | TELLER RECORD IN USE | TRANSACTION IS DECLINED |
| 224 | MORE THAN 15 ERRORS FND | TRANSACTION IS DECLINED |
| 225 | INT DIST CODE IS INVALID | TRANSACTION IS DECLINED |
| 226 | RENEW CODE IS INVALID | TRANSACTION IS DECLINED |
| 227 | TRANSFER AC INVALID | TRANSACTION IS NOT PERMITTED. |
| 228 | TXN CODE IS INVALID | TRANSACTION IS NOT PERMITTED. |
| 229 | TXN TIMED OUT | COMMUNICATION TIME OUT. PLEASE CHECK YOUR ACCOUNT BALANCE. |
| 230 | HANDLER NOT STARTED | TRANSACTION IS DECLINED |
| 231 | HANDLER IS INVALID | TRANSACTION IS DECLINED |
| 232 | CONTROLLER INVALID | TRANSACTION IS DECLINED |
| 233 | AC HAS NO HISTORY RECORDS | TRANSACTION IS DECLINED |
| 234 | NO RECORD FND FOR AC | TRANSACTION IS DECLINED |
| 235 | TELLER HAS NO COMPLETED TXN | TRANSACTION IS DECLINED |
| 236 | DATE VERIFICATION ERROR | TRANSACTION IS DECLINED |
| 237 | PB SERIAL# DOESN'T MATCH | TRANSACTION IS DECLINED |
| 238 | TELLER HAS NO TOTALS | TRANSACTION IS DECLINED |
| 239 | BRANCH HAS NO TOTALS | TRANSACTION IS DECLINED |
| 240 | INVALID NEXT BIZ DATE | TRANSACTION IS DECLINED |
| 241 | BACKDATING > INT TERM | TRANSACTION IS DECLINED |
| 242 | CHEQUE RANGE EXIST | TRANSACTION IS DECLINED |
| 243 | INVALID CHQ RANGE NO. | TRANSACTION IS DECLINED |
| 244 | NO CA/SA ACCOUNT RELATIONSHIP | TRANSACTION IS DECLINED |
| 245 | CIF already has an AP Account | TRANSACTION IS DECLINED |
| 246 | LINE IS MATURED | TRANSACTION IS DECLINED |
| 247 | AP/AR Balance will be < 0 | TRANSACTION IS DECLINED |
| 248 | OTC Payments | TRANSACTION IS DECLINED |
| 249 | Unused |  |
| 250 | Unused | TO ACCOUNT IS NOT PESO ACCOUNT FOR FAV INTERBANK TRANSFER. |

***Response Code – From MBB***

First time login

|  |  |  |
| --- | --- | --- |
| M55 | Invalid PiN  *note: first 2 attempts.* | Wrong Pin [M55] |
| M75 | IB Max Pin tries  *note: subsequent attempts* | Transaction declined [M75] |

Reset password

|  |  |  |
| --- | --- | --- |
| MCJ | Invalid RPC  *note: first 2 attempts.* | INVALID RESET PASSWORD CODE [MCJ] |
| MCC | Reset Password Ind = Y (Not allow)  *note: subsequent attempts.* | You have reached the maximum tries. Please contact bank [MCC] |
| MCC | Block service due to invalid RPC during 2nd verification  *note: subsequent attempts.* | You have reached the maximum tries. Please contact bank [MCC] |
| MCI | RPC Expired | Your RPC has expired, please request a new RPC [MCI] |
| MCH | RPC Creation Error  related | SYSTEM UNAVAILABLE [MCH] |
| MCD | Maximum reset per day  *note: only allow for 1 successful reset per day.* | RESET PASSWORD CAN BE DONE ONLY ONCE DAILY [MCD] |
| MCG | No TAC Mobile No | YOU ARE REQUIRED TO REGISTER A MOBILE NUMBER TO RECEIVE A TAC AND PROCEED [MCG] |

General login error

|  |  |  |
| --- | --- | --- |
| M85 | IB Service Off | Access denied [M85] |
| M85 | IB Bit off | Access denied [M85] |
| MA1 | TAC BLOCKED FLAG ON  *note: logout customer* | TAC BLOCK FLAG ON [MA1] |

TAC

|  |  |  |
| --- | --- | --- |
| MA2 | iNACTIVE TAC | INACTIVE TAC, PLEASE REQUEST FOR NEW TAC [MA2] |
| MA3 | TAC EXPIRED | YOUR TAC HAS EXPIRED, PLEASE REQUEST FOR NEW TAC [MA3] |
| MA4 | MAX PIN TRIES FOR TAC  *note: subsequent attempts.*  *force logout customer* | MAXIMUM PIN TRIES FOR TAC [MA4] |
| MA5 | INVALID TAC  *note: first 3 attempts.* | WRONG TAC ENTERED [MA5] |
| MA6 | MOBILE NO NOT IN CRF | MOBILE NOT REGISTERED [MA6] |
| MA8 | TAC CREATION ERROR | SYSTEM UNAVAILABLE [MA8] |
| MA9 | TAC REQUEST TIME CONTROL | You have already submitted a TAC request earlier. To avoid multiple TAC requests, please wait a few minutes for your TAC to be sent to you before making another request. [MA9] |

Account maintenance

|  |  |  |
| --- | --- | --- |
| M01 | Account has already been unlinked  for account maintenace | Account has already been unlinked [m01] |

General errors

|  |  |  |
| --- | --- | --- |
| M22 | HSM System Error | Transaction declined [M22] |
| M56 | Access Not Found | Invalid access number [M56] |
| M57 | File Closed/Error | Transaction declined, PlEAsE contact bank [M57] |
| M57 | Duplicate Record or  Sysid error | Transaction declined, PlEAsE contact bank [M57] |
| M57 | Service code not found | Transaction declined, PlEAsE contact bank [M57] |
| M68 | Communication time out | Communication timeout, Please check account balance [M68] |
| M87 | INVALID BILL ACCOUNT NUMBER | INVALID BILL ACCOUNT NUMBER /REFERENCE [M87] |
| M88 | SYSTEM CURRENTLY UNAVAILABLE | THIS SERVICE IS TEMPORARILY UNAVAILABLE [M88] |
| MA8 | GEN MAC ERROR | SYSTEM UNAVAILABLE [MA8] |
| MA8 | LINK SEAS800 ERROR(MTPSTACE) | SYSTEM UNAVAILABLE [MA8] |
| MA8 | LINK MTPSTACE ERROR | SYSTEM UNAVAILABLE [MA8] |
| MA8 | LINK SEAS800 ERROR (MTPSTACG) | SYSTEM UNAVAILABLE [MA8] |
| MA8 | OTHER ERRORS | SYSTEM UNAVAILABLE [MA8] |
| MA8 | LINK MTPSTACG ERROR | SYSTEM UNAVAILABLE [MA8] |
| MA8 | SERVICE CODE NOT FOUND | SYSTEM UNAVAILABLE [MA8] |
| MA8 | MTPSYS NOT OPEN, DISABLED | SYSTEM UNAVAILABLE [MA8] |
| MCF | Invalid customer detail  (DOB/Account) | INVALID USERNAME OR DOB, LINKED ACCOUNT NUMBER [MCF] |
| MAK | FAV 3RD PARTY & GIRO ALREADY EXIST | Record already exists [MAK] |
| M21 | WRONG SERVICE CODE | Transaction declined [M21] |

## Appendix 2

### Business Rules for TD

Below are the business rules for TD in M2U:-

1) Placement via M2U can only be done for PHP TD’s account

2) Placement via M2U **cannot** be done for USD TD’s account

3) Below are the selected fields during placement that have specific business rules at front end. (Note: P – Populated)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Product  Type | Currency | Product Description | M2u Display Dropdown:  **TD Type** | Minimum Amount | M2U Minimum Amount Checking | Account  Term | M2U Display:  **Term** | Interest  Term | M2U Display: **Interest Payment Frequency** | Interest  Disposition | M2U Display: **Interest Payment Mode** | M2U Display:  **Credit To Account** | Auto-  Renewal | M2U Display: Auto-  Renewal |
| AO | PHP | TD ADDvantage Fixed | ADDvantage Fixed | 50,000.00 | Y | 1825 days | P | 1825 days | P | A (Add to Balance) | Add to Balance | N | No | P |
| A1 | PHP | TD ADDvantage Plus | ADDvantage Plus | 50,000.00 | Y | 60 months | P | 1 month | P | D (Deposit to CA/SA) | Credit to Account | Y | No | P |
| A2 | PHP | ADDvantage FLEX 1Yr | ADDvantage FLEX 1Yr | 50,000.00 | Y | 12 months | P | 1 month | P | D (Deposit to CA/SA) | Credit to Account | Y | No | P |
| A8 | PHP | ADDvantage FLEX 2Yrs | ADDvantage FLEX 2Yrs | 50,000.00 | Y | 24months | P | 1 month | P | D (Deposit to CA/SA) | Credit to Account | Y | No | P |
| B2 | PHP | ADDvantage Advance 1 Yr | ADDvantage Advance 1 Yr | 50,000.00 | Y | 12 months | P | 12 months | P | D (Deposit to CA/SA) | Credit to Account | Y | No | P |
| B3 | PHP | ADDvantage FLEX 3Yrs | ADDvantage FLEX 3Yrs | 50,000.00 | Y | 36 months | P | 1 month | P | D (Deposit to CA/SA) | Credit to Account | Y | No | P |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Product**  **Type** | **Currency** | **Product Description** | **M2u Display Dropdown: Product Name** | **Minimum Amount** | **M2U Minimum Amount Checking** | **Account**  **Term** | **M2U Display:**  **Term** | **Interest**  **Term** | **M2U Display: At Maturity** | **Interest**  **Disposition** | **M2U Display: Interest Payment Mode** | M2U Display:  **Credit To Account** | **Auto-**  **Renewal** | **M2U Display: Auto Renewal** |
| S1 | PHP | TD 001-030D (SSA) | SPECIAL SAVINGS ACCOUNT | 50,000.00 | Y | 1 to 30 days | Dropdown of Term – 30, 60,90,180,360 | 1 to 30 days | Dsisplay : “At Maturity” | A (Add to Balance), Credit to CASA | Dropdown - Add to Balance, Credit to Account | Dropdown: Linked account will be displayed if Interest Payment Mode = Credit Account | Yes | Dropdown – Yes / No, If NO at confirmation display message. |
| S2 | PHP | TD 031-060D (SSA) | 50,000.00 | Y | 31 to 60 days | 31 to 60 days | A (Add to Balance), Credit to CASA | Yes |
| S3 | PHP | TD 061-090D (SSA) | 50,000.00 | Y | 61 to 90 days | 61 to 90 days | A (Add to Balance), Credit to CASA | Yes |
| S4 | PHP | TD 091-180D (SSA) | 50,000.00 | Y | 91 to 180 days | 91 to 180 days | A (Add to Balance), Credit to CASA | Yes |
| S5 | PHP | TD 181-360D (SSA) | 50,000.00 | Y | 181 to 360 days | 181 to 360 days | A (Add to Balance), Credit to CASA | Yes |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Product**  **Type** | **Currency** | **Product Description** | **M2u Display Dropdown: Product Name** | **Minimum Amount** | **M2U Minimum Amount Checking** | **Account**  **Term** | **M2U Display:**  **Term** | **Interest**  **Term** | **M2U Display: At Maturity** | **Interest**  **Disposition** | **M2U Display: Interest Payment Mode** | M2U Display:  **Credit To Account** | **Auto-**  **Renewal** | **M2U Display: Auto-Renewal** |
| T1 | PHP | CLASSIC TD (1-30) | CLASSIC TIME DEPOSIT | 25,000.00 | Y | 1 to 30 days | Dropdown of Term – 30, 60,90,180,360 | 1 to 30 days | Display: “At Maturity” | A (Add to Balance), Credit to CASA | Dropdown - Add to Balance, Credit to Account | Dropdown: Linked account will be displayed if Interest Payment Mode = Credit Account | Yes | Dropdown – Yes / No, If NO at confirmation display message. |
| T2 | PHP | CLASSIC TD (31-60) | 25,000.00 | Y | 31 to 60 days | 31 to 60 days | A (Add to Balance), Credit to CASA | Yes |
| T3 | PHP | CLASSIC TD (61-90) | 25,000.00 | Y | 61 to 90 days | 61 to 90 days | A (Add to Balance), Credit to CASA | Yes |
| T4 | PHP | CLASSIC TD (91-180) | 25,000.00 | Y | 91 to 180 days | 91 to 180 days | A (Add to Balance), Credit to CASA | Yes |
| T5 | PHP | CLASSIC TD (181-360) | 25,000.00 | Y | 181 to 360 days | 181 to 360 days | A (Add to Balance), Credit to CASA | Yes |