

# **Oracle® Banking Base**

Functional Overview

Release 2.9.0.0.0

**F23392-01**

November 2019

Oracle Banking Base Functional Overview, Release 2.9.0.0.0

F23392-01

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# Preface

Oracle Banking is a one-stop solution for a bank for its core banking operations, across retail and business banking operations. It is designed to help banks respond strategically to today's business challenges, while also transforming their business models and processes to reduce operating costs and improve productivity across both front and back offices.

Oracle Banking provides a unified yet scalable IT solution for a bank to manage its data and end-to-end business operations with an enriched user experience. It is a composed set of different modules wherein each of the modules is serviced by a set of services and other subsystems.

This preface contains the following topics:

- [Audience](#)
- [Documentation Accessibility](#)
- [Related Documents](#)
- [Conventions](#)

## Audience

This guide is intended for the users of Oracle Banking Base.

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/us/corporate/accessibility/index.html>.

### Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/us/corporate/accessibility/support/index.html#info> or visit <http://www.oracle.com/us/corporate/accessibility/support/index.html#trs> if you are hearing impaired.

## Related Documents

For more information, see the following documentation:

- For installation and configuration information, see the Oracle Banking Platform Localization Installation Guide - Silent Installation guide.
- For a comprehensive overview of security for Oracle Banking, see the Oracle Banking Security Guide.
- For the complete list of Oracle Banking licensed products and the Third Party licenses included with the license, see the Oracle Banking Licensing Guide.
- For information related to setting up a bank or a branch, and other operational and administrative functions, see the Oracle Banking Administrator Guide.
- For information related to customization and extension of Oracle Banking, see the Oracle Banking Extensibility Guides for HOST, SOA, and UI.

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.



# 1 Overview

Oracle Banking is built on a modular architecture, where each application manages the functionalities required in the different business areas such as Current Accounts and Savings Accounts (CASA), Term Deposits, Loans, and so on. Oracle Banking Base offers a plethora of common services which are required for other applications under Oracle Banking, thereby providing a strong foundation for Oracle Banking. Oracle Banking Base reduces proliferation of data and services in multiple products and helps banks to avoid redundancy of data and processes.



# 2 Key Features

This chapter describes the key features of Oracle Banking Base.

## 2.1 Common Services

The Common Services module is composed of different maintenances and processing services, each of which serve to define the bank, the branch, and the various parameters within which a banking company seeks to operate, and the essential service calls required to honor the core functionalities. These services are used for various purposes by various Oracle Banking products. The common services and maintenance are broadly grouped as follows.

- Core Entity Services
- Calendar Services
- Currency Services
- Settlement Services
- Address Taskflow
- Verification Framework
- Questionnaire Framework

### 2.1.1 Core Entity Services

Core Services enable the bank to configure the broad parameters such as bank and branch configurations that include defining the structure of the bank through maintenance of regional offices, lines of business and various branches, along with unique identification codes, financial cycles and accounting periods, followed by the bank, the policies of the bank, geographical locations (countries, regions, states, cities, and so on), languages and the different time zones in which the bank operates.

Following are the maintenance pages that enable the bank to configure various core entity parameters required for the bank to support its day-to-day primary operations.

- **Bank Codes (Fast Path: CS01):** This page helps the user to define a unique bank code for the own bank.
- **Business Group (Fast Path: CS02):** This page helps the user to define a group various product groups based on their line of business. This helps the bank accredit a broker or introducer to handle the offers that are part of a business group.
- **Bank Parameters (Fast Path: CS03):** This page helps the user to configure various parameters such as bank name, address, bank currency, holidays, and so on.
- **Branch Parameters (Fast Path: CS06):** This page helps the user to configure various parameters such as branch name, address, branch currency, SWIFT and other payment network codes, and so on.
- **Other Financial Institution Details (Fast Path: CS07):** This page helps the user to configure the name, registration or business number and address details of different departments of other financial institutions or banks.

- **Country Codes (Fast Path: CS09):** This page helps the user to configure countries and its time zones.
- **State Codes (Fast Path: CS17):** This page helps the user to configure the states, province or emirates of a country.
- **Bank Policy (Fast Path: CS26):** This page helps the user to configure various policies of the bank related to AML reporting, unclaimed processing and so on.
- **Bank Policy Deviation Definition (Fast Path: CS39):** This page helps the user to configure specific deviations that the bank may want to apply during a business process.
- **Bank Policy Deviation History (Fast Path: CS40):** This page helps the user to view all the policy deviations applied during a specific business process.
- **Reason Codes (Fast Path: CS16):** This page helps the user to configure multiple primary and secondary reason codes that the bank may want to stamp to a business event at different stages of the business process.
- **Purpose Codes (Fast Path: CS24):** This page helps the user to configure various purpose codes that can help the bank to select a suitable product to service the customers need.
- **Transaction Code Maintenance (Fast Path: CS44):** This page helps the user to configure various transaction codes that can be linked to a financial transaction for accounting and reporting purpose.
- **Define Non-Financial Event Transaction Code Mapping (Fast Path: CS45):** This page helps the user to configure various transaction codes that can be linked to non-financial transactions for audit or reporting purpose.
- **Risk Codes (Fast Path: CS42):** This page helps the user to configure various risk codes that can be associated with credit applications during credit assessment.
- **Risk Category (Fast Path: CS41):** This page helps the user to group risk codes under a meaningful category.
- **Mitigants (Fast Path: CS43):** This page helps the user to configure user to configure various mitigant codes that can be used to mitigate the risks associated with a credit application.
- **Data Security Configuration (Fast Path: CS50):** This page helps the user to configure the data privacy and security configuration such as Masking in UI, Tokenization in Database (SSN only) and Masking in data portability (for a predetermined list of PII fields) field-wise (applicability and masking technique) and user-wise (masked for some users and plain text for other users) for the individual customers of the bank.
- **Audit Text Based Search (Fast Path: BAM56):** This page helps the user to track all the changes done in any of the maintenance records at any time.

The core entity provides various services to access those parameters configured through the above pages. Some of the most important services of this module that other modules use are as follows:

- Financial cycle for a given date
- Accounting period code
- Check last day of financial year
- Check accounting period end date
- Bank level AML threshold
- SWIFT address of the branch

- Bank and Branch Currency
- Branch Hierarchy
- ISO Country Codes
- Time Zones
- Other Financial Institution contacts

### 2.1.2 Calendar Services

Calendar Services enable the bank to configure rule-based calendars for the different branches of the bank, currencies and payment networks that the bank deals with. It also allows the bank to define ad hoc holidays to handle unexpected situations that may arise due to natural calamity or government directive. The generic rule-based calendar configuration can be extended for a period of N years using custom scripts.

The Calendar functionality is achieved through the following pages:

- **Holiday Rule Maintenance (Fast Path: CAL01):** This page helps the user to define the generic rules that need to be evaluated to mark a day as a holiday in a calendar. This rule is applicable for every calendar year defined.
- **Calendar Type Maintenance (Fast Path: CAL02):** This page helps the user to define a calendar type and link the holiday rules. They can later attach the defined calendar type to a branch, currency or payment calendar.
- **Ad hoc Calendar Maintenance (Fast Path: CAL03):** This page helps the user to define any ad hoc holidays to handle unexpected situations that may arise due to natural calamity or government directive.
- **Define Payment Calendar Codes (Fast Path: CS15):** This page helps the user to define a calendar and link the holiday rules for a clearing or payment network that the bank deals with for its transactions.

The calendar services serve to record and retrieve the various holidays of the bank in a calendar year. Some of the most important services of this module that other modules use are as follows:

- Current working date
- Previous working date
- Next working date
- Working day check for a given date

### 2.1.3 Currency Services

Currency Services enable the bank to configure international currency codes, currency pairs, exchange rate types, buy and sell spreads, exchange rates, exchange rate history and attributes of various currencies such as spot days, decimals allowed or rounding, which can be used for various purposes by different products under Oracle Banking suite.

The Currency support functionality is achieved through the following pages:

- **Currency Codes (Fast Path: CY01):** This page helps the user to configure the unique ISO currencies used in banking and business globally. This page also allows the bank to configure various currency related attributes such as adopted countries, spot days, decimals allowed, amount format and rounding rules.



- **Amount Text (Fast Path: CY02):** This page helps the user to configure the locale word equivalent of an amount that is in practice in a country. This page also allows the configuration of pre and post decimal text values for each currencies.
- **Currency Pairs (Fast Path: CY03):** This page helps the user to configure the currency pairs supported by the bank through a specific branch. This page also allows the configuration of the currency quote method (direct, indirect) and the common currency used as through currency for the calculation of exchange rates.
- **Currency Branch Parameters (Fast Path: CY04):** This page helps the user to configure the currencies in which the branch is allowed to transact.
- **Currency Denominations (Fast Path: CY05):** This page helps the user to configure the currency denominations in circulation as notes and coins for each currency.
- **Currency Rate Types (Fast Path: CY06):** This page helps the user to configure the exchange rate types such as STANDARD, EFT, and TC that are commonly used in the banking industry for calculating exchange rates.
- **Exchange Rate Spreads (Fast Path: CY07):** This page helps the user to configure the buy and sell spreads for a currency pair that the bank may want to apply on the mid-rate to calculate the exchange rate.
- **Exchange Rate History (Fast Path: CY09):** This page helps the user to retrieve and view the latest rate available of a currency pair. This page also helps the user to view rate history of a currency pair on a specific date, a date range or the movement of rates in the past one to three months.

Any module that requires currency related service for its operations refers to the currency services module.

The currency services module provides various services to access those parameters configured through the above pages. Some of the most important services of this module that other modules use are as follows:

- ISO currency codes allowed in a branch
- Amount Rounding off Rule and Rounding off unit for each currency
- Amount Format for each currency
- Get Exchange Rate for a given currency pair
- Get Exchange Rate Spread for a given currency pair
- Last Rate Date
- View Exchange Rate Movement in a date rate
- Convert amount of a currency into another currency of the currency pair

### 2.1.4 Settlement Services

This module provide services to settle the money involved in a transaction. It provides the mechanism to define and maintain various modes of settlement in both settlement directions (Pay and Receive) that aligns with both payment models. It also provides the ability to capture settlement instructions for core modules and to capture pay or receive instructions as instructed by the customers.

Further, all types of transactions, whether online or batch and immediate or future-dated, can utilize the services of this module to handle settlements.

Settlements can also be initiated with blank rows or with amount pre-populated from the modules. In case the amount is pre-populated, the modes remain blank. While selecting the account in the course of settlement,

details such as the type of account, party names, available balance, utilized amount are displayed to facilitate selection of the appropriate account.

Settlement provides the following settlement modes:

- Cash
- Own Transaction Account
- Other Transaction Account
- Registered Transaction Account
- Linked Account
- Payment to External Account
- Payment to Loan Account
- Ledger
- Re-invest into new TD Account
- Re-invest into existing TD Account
- Cards
- Cheque
- Manager's Cheque Issuance
- Manager's Cheque Liquidation

Fetching accounts for Own Transaction and Loans from external legacy system is supported. Through an interface with the OCH source and with relevant validations, the accounts are fetched and considered for an instruction. The execution of such instructions is an implementation activity.

Further in Origination, the accounts which are inflight can be fetched to set up instructions. For example, offset account for a loan account or repayment account for a loan account.

The money settlement functionality is achieved through the following pages:

- **Define Domain Category Settlement Mode (Fast Path: PM030):** This page helps the user to attach settlement modes from the list provided above to a transaction event of a domain such as Payment, Insurance and Banking.
- **Define Product Settlement Mode (Fast Path: PM031):** This page helps the user to attach settlement modes from the list provided above to a transaction event linked to a product such as Loan product or Transaction Account product.
- **Settlement Taskflow:** This taskflow can be linked in any of the transaction pages to configure the settlement instruction as per the bank's or customer's choice. This taskflow allows the user to select one or more settlement modes available for the transaction event while creating the settlement instruction.
- **Settlement Instruction Execution:** Services are available to settle the money as per the instructions provided for an event when it occurs. The service supports execution of the settlement instructions either online or batch or future-dated as per the configuration.

### 2.1.5 Address Taskflow

Common Services also provides a generic address taskflow to configure any type of addresses such as home address, correspondence address, office address, collateral address, employment address, company registered address, branch address and so on.

The address taskflow is invoked wherever required and capture appropriate addresses. The address taskflow provides an option to the bank to capture a detailed address manually or using an integrated address search engine in a single line.

### 2.1.6 Verification Framework

The verification process describes the handling of the verifications during a business process. It is used to help the banker validate if the claims made by the customer during capture of application form are genuine or not.

The configurations required for resolving a verification policy specific to a business process can be achieved through the following pages:

- **Verification Category (Fast Path: CS21):** This page helps the user to configure different verification categories (Income Sources, Identifications) that can be linked to a business process to validate documents or data provided by the customer to avail any banking services.
- **Verification Type (Fast Path: CS22):** This page helps the user to configure various verification types that the user wants to link to a business process. The verification type alone can be linked to a business process or it can be attached to a verification category and the category can be linked to a business process.
- **Verification Policy Checklist (Fast Path: CS23):** This page helps the user to configure rules to resolve the verification types applicable for a business event.
- **Policy Resolution and Verification Process:** Verification policy code can be configured for a specific business event where the policy needs to be evaluated. During a business process various modules resolve the verification policy to find the verification details and perform the verification either internally or through external agencies through online or manual mode.

Currently, verification process is used only in origination of application to avail various banking products and services.

### 2.1.7 Questionnaire Framework

The Questionnaire framework enables the bank to define various questions that the bank may want to ask its customers during business processes such as determining offer eligibility during the application form capture process, loan account configuration, verification process, and so on. The answers recorded can be used for making various decisions or offer a product or service to customers.

The Questionnaire functionality is achieved through the following pages:

- **Section Maintenance (Fast Path: CS104):** This page helps the user to configure various questions that they may want to ask during a business process to service the customer with appropriate products and services. This page also helps the user to create conditions and dependencies to display the questions in a specific order.

- **Questionnaire Maintenance (Fast Path: CS103):** This page helps the user to link the questions to the specific business process such as insurance application, offer eligibility check, loan account configuration, verification process, and so on.
- **Questionnaire resolution:** Questionnaire IDs can be configured for other modules as appropriate to the relevant business event where the questions need to be displayed for capturing the responses. During the specific business event, the relevant module makes a call to common services with the configured questionnaire ID to get the questions for capturing the responses. The captured responses are stored with unique instance IDs so that the responses can be edited at a later stage.

## 2.2 Rules Framework

The Rules framework enables the bank to define various business rules, which are in turn used for specific purposes. It is a generic setup and used as a common module to define and resolve the defined rules.

Two flavors of rules can be defined - Decision Table and Guided Rule Editor. Facts are evaluated and used for defining inputs and the defined outcomes are given to the calling modules.

There are basic validations that the rule should be meaningful and complete. That is, the values of facts should be defined such that the evaluation will not remain incomplete. The number of facts and outcomes can also be defined by the business users. Maximum of 8 facts can be used to define rules.

Each defined rule belongs to a domain category and hence can be linked for the specific purpose of that domain category. The rules are attached at the respective placeholders in modules and executed at relevant places. For example, rules for asset classification, fees, interest setup, alert template resolution, and so on.

The above functionality is achieved through the following pages:

- **Rule Author (Fast Path: RL001):** This page helps the user to define a Decision Table and Guided Rule Editor based rule for a domain category.
- **Rule Simulator (Fast Path: RL002):** This page helps the user to evaluate the functionality of the defined rules by simulating a required scenario with sample test inputs.
- **Rule Search (Fast Path: RL003):** This page helps the user to search and view a defined rule.
- **Expression Builder (Fast Path: RL004):** This page helps the user to define various complex arithmetic expressions or formulas using facts and numerals. These expressions can be used while authoring a rule.
- **Filter Definition (Fast Path: RL005):** This page helps the user to define various filters that can be applied dynamically to identify certain details. The filters defined currently are being used to identify various accounts that qualify for collections. This functionality is specifically used in Collections module.
- **RuleSet (Fast Path: RULE01):** A RuleSet can be created using this page by grouping one or more rules that uses the same set of inputs. This functionality also helps to order the execution sequence of the rules where multiple rules need to be asserted for the same set of inputs. This functionality is specifically used in Collections module.
- **Rule Execution:** Rule IDs can be configured by other modules as appropriate to the relevant business event where the rule needs to be resolved. The modules call the rule resolution services at appropriate business events to evaluate the conditions to get the defined outcome.

## 2.3 Common Account

The following features are offered as part of Common Account.

### 2.3.1 Regulatory Parameters

Regulatory Parameters are required to capture the regulatory codes applicable to each regulation at the account level. The Account Regulatory Parameters (Fast Path: ACCT007) page displays all the questions and answers that have been chosen by the user at the time of account opening. The questions and answers for the same are, however defined at the Product Group level.

Deferred approval of a fee refund transaction on a CASA or a loan account is supported. Based on a predefined number of days, the task is available for approval by the supervisor and on lapse of such periods, the task becomes void.

### 2.3.2 Risk Indicator's Impact Configuration

With the variety and complexity of products and services offered by a bank to its customers, there is a need to follow prudential norms to safeguard the interests of the bank and also avoid any fraudulent or malicious activities. Banks fall back upon the system to help them aid in this objective. Risk Indicators functionality helps the banker to automate the actions that need to be taken as a prudent banker, when certain identified indicators of risks are maintained.

Through risk indicators framework, a bank can also maintain various restrictions that it wants to put on an account due to party's due diligence status.

This functionality is addressed using the Risk Indicators Impacts Cross-Reference (Fast Path: ACCT010) page.

### 2.3.3 Hardship Relief

Whenever a relief type is given, system shows a simulated relief benefit amount on the page. User can click on the page to get the relief details for relief types. If the details of relief benefit for arrears types is required to be known, then the user can click on the page to get the details of benefit for different arrears types.

Relief types:

- Waive interest
- Waive arrears
- Waive fee
- Waive repayment
- Reduce loan installment amount
- Defer payments
- Increase or decrease term of loan accounts

The above functionality is addressed in the following pages:

- Hardship Application (Fast Path: COLL108)
- Hardship Relief Assistance (Fast Path: ACCT013)

## 2.4 Party

The following features are offered as part of Party.

### 2.4.1 Party Information

Customer is at the heart of product sales and service and technology for any business. This is more so in service organizations like banks. Recognizing the fact, the Party module serves as the single source of information data-store of all customers for Oracle Banking suite of products.

Party module acts as the master party repository for all products under Oracle Banking suite.

Party module provides a placeholder and data store for all information related to parties that bank or financial institution deals with as part of its business. The parties include customers, agents, vendors, brokers, and so on. The information includes demographics, risk information, financial information, identification information, and so on.

Party information is created only once and all activities, business, history and contacts of the party are based on the unique party profile. This enables the institution to have an immediate, real-time and complete view of the party at all times. In addition to the streamlined management of party information, centralized party management allows views of party activity, holdings, and exposures across products of Oracle Banking suite.

Basic information about a party is maintained, which may typically contain information as per banking customs and practices specific to the countries in which the bank operates.

Usually the following information is captured:

- Customer Name (Fast Path: PI100)
- Correspondence details, such as residence address, business address, preferred means of communication, preferred language, time zone, preferred times and modes (Fast Path: PI100)
- Contact details of a party like telephone, mobile, email. Consents to receive electronic communication, alerts, virtual calls also can be captured.
- Type of party, that is, Individual, Organization, or Trust
- Nationality and country of residence
- Details of the party's identification document such as Social Security Number. The identification history is maintained in the back end.
- Consents required to be obtained from a customer as per regulations
- The maximum exposure the bank is prepared to assume for the party
- Credit rating of the party
- KYC, AML, Tax statuses, party financial details, employment history
- Anti-Money Laundering characteristics of party
- Access channel preference of a party
- Party's signature and photo image (Fast Path: PI100)
- Other details regarding the party such as whether the party is CTR exempted and whether the party is an insider or related interest of an insider
- Tax residency details of party

### 2.4.2 Party Onboarding (Fast Path: PI048)

Addition of a party is referred as Party Onboarding. The Party Onboarding page is flexible and allows the user to capture the data in any sequence according to the data availability. The user has a facility to onboard a

party by entering the bare minimum details. User can capture additional details for the party through Single Party View (Fast Path: PI100). Every party is associated with a role such as Customer, Member, Broker, Vendor and so on. Based on the party role, certain onboarding fields may vary. Customer can be onboarded on a standalone basis. Service Provider Onboarding (Fast Path: PI028) functionality enables onboarding of broker, introducer and other service providers.

### **2.4.3 Relationship Management (Fast Path: PI020)**

Relationship Management enables banks to maintain business relationships for large organizations and SME customers and to enable specific access. Specific relationships can be maintained to share collateral, share financial information, access bank accounts of the organization and SME customers via internet banking and transact on the accounts. Creation of multiple business relationships between the same parties is also supported.

### **2.4.4 Due Diligence**

Banks can maintain rules by which identity verification maintained against due diligence can be carried out. It also provides a view of due diligence and identity verification history of a party. Based on the due diligence preference selected in the Party Bank Policy, the due diligence of the party can be triggered by the user and performed once the onboarding is completed.

### **2.4.5 Groups**

Groups functionality enables the bank to create groups of customers who are related to each other in some way. For example, business relationships, income reliance, asset sharing and so on. By creating groups, a user can initiate group submissions and view credit exposure at a group level. Customers can be added to multiple groups. They can also be added or deleted from a group. A group itself can be deleted. Searches are also enabled for groups.

### **2.4.6 Party Merge**

There are instances where for a single party multiple party IDs get created. This happens because banks have multiple systems from which account get originated. Most often there is no check between the systems to do party dedupe to prevent creation of multiple party IDs. There can also be cases where due to error in data entry the dedupe fails, or the user may override the dedupe results and create multiple IDs for the same party.

Having multiple IDs for the same party is not an ideal situation and leads to inconvenience to the customer and the bank in managing the accounts of the customer. Such multiple parties IDs can be merged to retain a single party ID in the system. The party ID on the accounts are also be replaced.

### **2.4.7 Party Financials**

Capturing financial information in definable format is supported for all party types such as Individual, Organization and Trust.

Various financial parameters (such as salary, home loan, general living expenses and so on) can be defined under different categories (such as income, expense and so on). For defining business statements, applicable parameters are grouped together to form statements such as balance sheet or profit and loss.

Capture of the following statements is supported:

- 
- Balance Sheet
  - Profit and Loss
  - Financial Ratios
  - Statement of Equity
  - Cash Forecast
  - Business Plan

Multiple templates for the same statement type can be created. For business customers, these statements are clubbed together under a financial template. Bank can specify which statements are to be added together. For retail customers, financial templates can be used to group together the different asset, liability, income and expense parameters. Multiple financial templates can be defined. Questionnaire can be linked to templates so that the banker can record responses to questions regarding the customer's financials.

Applicable template is resolved using rules. The rules for resolution of templates can be set up based on the facts - Product Group, Purpose Type, Request type, Pre-approved and Party Type. In case of multiple applicants, parties in the submission, a priority can also be setup to resolve multiple templates.

Capturing of financial information can be deferred by creating a separate human task for the back office team from the Capture Application flow in Origination as well as standalone flow in Party module.

Bulk upload of the financial documents can be done while capturing financial profile in the Origination flow as well as standalone flow in Party module.

### **2.4.8 Party Bank Policy (Fast Path: PI314)**

Bank policy can be created to define various parameters related to party such as residence stability, minor age, and financial year. It also includes the following parameters:

- Preference for triggering due diligence, whether auto or user initiated
- Due diligence types and related identity verifications
- Due diligence checks to be done for a combination of party type and party role
- Rules to derive the relationship manager for a party type
- Rules to derive the list of managers for Broker and Introducer
- Preference of the bank to provide access channels for member
- Option to enable or disable mandatory capture of upfront consent before data capture
- Option to default the consent values during party onboarding or keep them blank

### **2.4.9 Single Party View (Fast Path: PI100)**

All important party details can be viewed and managed from in a single page. The details include the following:

- Name
- Photo and signature
- Preferred address for communication
- Preferred contact details
- Total relationship



- Memos on the party
- Party profile
- Party relationships
- Party holdings
- Risk indicators
- Due diligence
- Notifications
- Customer requests
- Credit worthiness

Users can view, update and add data pertaining to party from the child pages within Single Party View. Also, certain Personally Identifiable Information (PII) data elements of party can be masked and tokenized for data security purpose. Role-based access (Read Only or All Access) can be configured for Profile, Snapshot and Holdings widgets.

### 2.4.10 Party Search

Along with Basic and Advanced search capabilities, simplified search capability is also available, using which a party can be searched by name, mobile number and email ID. When brokers search for a party, only the parties associated with them are searchable, and not the entire list of parties maintained in the bank.

### 2.4.11 CRS and FATCA

Information about other tax residency of a party and the countries in which the customer has tax liability along with the tax identification for the country can be captured. Parties who have a tax residency in US are marked as reportable under FATCA and those who have tax residency in other countries are marked as reportable under CRS. Party also provides the ability to capture the other details reportable under FATCA and CRS.

### 2.4.12 Data Privacy and Security

The following functionalities are supported as part of data privacy and security:

- Ability to mask field-wise and user-wise and tokenize (SSN only) in database.
- Ability to bulk export the Party PII data elements in standard file format for individual parties through the Request Party Information (Fast Path: PI501) page.
- Ability to delete certain Party PII data elements (optional attributes) for individual parties.
- Ability to delete party details from the database (that is, mark the party as closed) and its linked entities as unsearchable (provided regulatory and geographical rules are met). This is applicable for all the party types namely, individual, organization, and trust.

### 2.4.13 Personally Identifiable Information (PII)

The capture of the following list of Personally Identifiable Information (PII) elements for a party is supported.

**Table 2–1 List of Personally Identifiable Information (PII) elements**

Sr. No.	Element Name	Description	Mandatory (M) / Optional (O) / Conditional / Configurable (C)	Masking
1	Full Name	Full name of a party (derived field) Multiple name types can be maintained for a party.	M	N
2	Date of Birth	Date of birth of a party	M	Y
3	Birthplace	Place of birth of a party	O	N
4	Address	Current, past and future address details of a party for multiple address types such as home, work, postal and more. Includes address types (Work, Residential, Postal, Seasonal, Holiday), Line 1 to Line 12, City, State, Country and Pin Code	M	N
5	Gender	Gender of a party	O	Y
6	Country of Citizenship	Country of citizenship of a party	C	N
7	Nationality	Nationality of a party (same as Country of Citizenship) This is a backend field and not available in UI.	O	N
8	Party Identification	Tax and Other identification details of a party	M	Y
9	Other Tax Residency Details	All FATCA (US)/CRS (Non US) details of a party	O	Y
10	First Name	First name of a party	M	N
11	Second Name	Second name of a party	O	N
12	Middle Name	Middle name of a party	O	N
13	Last Name	Last name of a party	O	N
14	Photographic Images	Images of party's photograph and signature	O	N
15	Login Name	Email ID or User ID or Customer ID of a party	C	Y
16	Marital Status	Marital status of a party	O	N
17	Mother's Maiden Name	Maiden name of a party's mother	O	Y
18	Religion	Religion of a party	O	Y
19	Ethnicity	Ethnicity details of a party	O	Y
20	Race	Race details of a party	O	Y

Sr. No.	Element Name	Description	Mandatory (M) / Optional (O) / Conditional / Configurable (C)	Masking
21	Blood Group	Blood group of a party	O	N
22	Industry	Type of industry in which a party is employed	O	N
23	Occupation	Occupation of a party	O	N
24	Languages	Preferred language of a party	O	N
25	Emergency Contacts	Name and contact number of emergency contact person for a party	O	N
26	All Telephone Numbers	Contact details such as phone numbers, email addresses, fax numbers and so on, of a party along with preferences. Includes Fixed Landline Office, Fixed Landline Work, Fixed Landline Others, Fixed Landline Seasonal, Mobile Work, Mobile Personal, Mobile Seasonal, and Mobile Others	O	N
27	All Email Address	Email ID details of a party. Multiple email IDs can be maintained with any one ID set as preferred. Includes Work, Personal, Seasonal, Others (including the one captured in Basic details tab)	C	Y
28	All Social Network User ID	Social Network details of a party such as Linked In, Facebook, Twitter, and Hi5	O	Y
29	All Messenger User ID	Social Network Messenger details of a party such as GTalk, Yahoo, MSN, and Skype	O	Y
30	Education History	Educational details of a party such as qualification, grade, university, and so on	O	N
31	Employer Name	Name of party's employer in the party's past and current employments	O	N
32	Employee ID	Employee ID of a party in the party's past and current employments	O	N
33	Job Title / Designation	Designation of a party in the party's past and current employments	O	N
34	Gross Annual Salary	Gross annual salary of a party in the party's past and current employments	O	Y
35	Smoker	Indicator to denote that a party is a smoker or non smoker	O	N
36	Height	Height in centimeters (cms) of a party	O	N
37	Weight	Weight in kilograms (kgs) of a party	O	N
38	Hobbies	Hobbies and interests of a party	O	N

Sr. No.	Element Name	Description	Mandatory (M) / Optional (O) / Conditional / Configurable (C)	Masking
39	Disabled	Risk indicator to denote that a party is disabled	O	N
40	Deceased	Risk indicator to denote that a party is deceased	O	N
41	Bankruptcy	Risk indicator to denote that a party is bankrupt	O	N
42	Title Reference Number	Title reference related details for a collateral (applicable for Property type of collateral where party is collateral owner)	O	N
43	Property Contact Details	Property Contact Details for a collateral (applicable for Property type of collateral where party is collateral owner)	O	N
44	Builder Contact Details	Builder Contact Detail for a collateral (applicable for Under Construction Property type of collateral where party is collateral owner)	O	N
45	Valuer Agent Details	Valuer Agent Details for a collateral (applicable for Property type of collateral where party is collateral owner and valuation of collateral is applicable)	O	N
46	Vehicle Identification Number	Vehicle Identification Number for the collateral (applicable for Automobile type of collateral where party is collateral owner)	O	N
47	Chassis Number	Chassis Number for the collateral (applicable for Automobile type of collateral where party is collateral owner)	O	N
48	Registration Number	Registration Number for the collateral (applicable for Automobile type of collateral where party is collateral owner)	O	N
49	Engine Number	Engine Number for the collateral (applicable for Automobile type of collateral where party is collateral owner)	O	N
50	Financial Information	Complete financial details captured for a party	C	N
51	Bank Account Information	All bank accounts (account ID, account type and amount) where a party is an account owner.	C	N
52	Shareholder of	List of organization names where a party is a shareholder	O	N
53	Marketing Consent	All marketing consents (including text and value)	O	N
54	Electronic Communication Consent	Consents given by a party to receive notices and documents through electronic means of communication. If selected, it is mandatory to capture at least one preferred email address for the party.	O	N

Sr. No.	Element Name	Description	Mandatory (M) / Optional (O) / Conditional / Configurable (C)	Masking
55	All Other Consents	All consents at party level (including text and value)	M	N

### 2.4.14 Personally Identifiable Information (PII) Shared with Third Party Systems

The application shares the Party PII details with the following third party systems:

#### ■ Analytics System

- The Analytics Application enables financial institutions to manage enterprise performance, risk, financial compliance and customer insight through analytical tools for various analysis and report generation.
- They primarily depend on the data supplied by various enterprise applications for the analytics. The application provides various details related to the bank, branches, customers (including Customer PII details) and accounts to such analytical systems.
- Using this analytics, the bank or financial Institution is better able feel the pulse of their business health and helps to fine tune their services and offerings to the customers

#### ■ Customer Master Data Management System

- The Party module can be integrated with any customer master data management system or can work as a master data management system on its own. The customer details are first created or updated in master data management and then updated in the Party module.
- The party details (including PII details) are shared with the customer master data management system as part of customer data life cycle.
- There may be synchronous update of such data in the systems.

#### ■ Customer Relationship Management System

- The Party module can be integrated with any customer relationship management system. The customer details are shared between the CRM system and the Party module, with updates synced up with or without a customer data management system in the middle.
- The party details (including PII details) are shared with the customer relationship management system as part of customer data life cycle.

The list of Party PII details that are shared with these third party systems is as follows:

**Table 2–2 List of PII's shared with third party systems**

Sr. No.	Party PII Details	Third Party Systems		
		Analytics	Customer Master Data Management	Customer Relationship Management
1	Full Name	N	Y	Y

Sr. No.	Party PII Details	Third Party Systems		
		Analytics	Customer Master Data Management	Customer Relationship Management
2	Date of Birth	Y	Y	Y
3	Birthplace	N	Y	Y
4	Address	Y	Y	Y
5	Gender	Y	Y	Y
6	Country of Citizenship	N	Y	Y
7	Nationality	Y	Y	Y
8	Party Identification	Y	Y	Y
9	Other Tax Residency Details	Y	Y	Y
10	First name	Y	Y	Y
11	Second Name	Y	Y	Y
12	Middle Name	Y	Y	Y
13	Last Name	Y	Y	Y
14	Photographic Images	N	Y	Y
15	Login Name	N	Y	Y
16	Marital Status	Y	Y	Y
17	Mother's Maiden Name	N	Y	Y
18	Religion	N	Y	Y
19	Ethnicity	N	Y	Y
20	Race	N	Y	Y
21	Blood Group	N	Y	Y
22	Industry	Y	Y	Y
23	Occupation	Y	Y	Y
24	Languages	N	Y	Y
25	Emergency Contacts	N	Y	Y
26	All Telephone Numbers	N	Y	Y
27	All Email Address	N	Y	Y
28	All Social Network User ID	N	N	N
29	All Messenger User ID	N	N	N

Sr. No.	Party PII Details	Third Party Systems		
		Analytics	Customer Master Data Management	Customer Relationship Management
30	Education History	Y	Y	Y
31	Employer Name	Y	Y	Y
32	Employee ID	Y	Y	Y
33	Job Title / Designation	Y	Y	Y
34	Gross Annual Salary	Y	Y	Y
35	Smoker	N	Y	Y
36	Height	N	Y	Y
37	Weight	N	Y	Y
38	Hobbies	N	Y	Y
39	Disabled	N	Y	Y
40	Deceased	N	Y	Y
41	Bankruptcy	Y	Y	Y
42	Title Reference Number	Y	N	N
43	Property Contact Details	N	N	N
44	Builder Contact Detail	N	N	N
45	Valuer Agent Details	N	N	N
46	Vehicle Identification Number	N	N	N
47	Chassis Number	N	N	N
48	Registration Number	N	N	N
49	Engine Number	N	N	N
50	Financial Information	Y	N	N
51	Bank Account Information	Y	N	N
52	Shareholder of	N	N	N
53	Marketing Consent	Y	Y	Y
54	Electronic Communication Consent	Y	Y	Y
55	All Other Consents	N	Y	Y

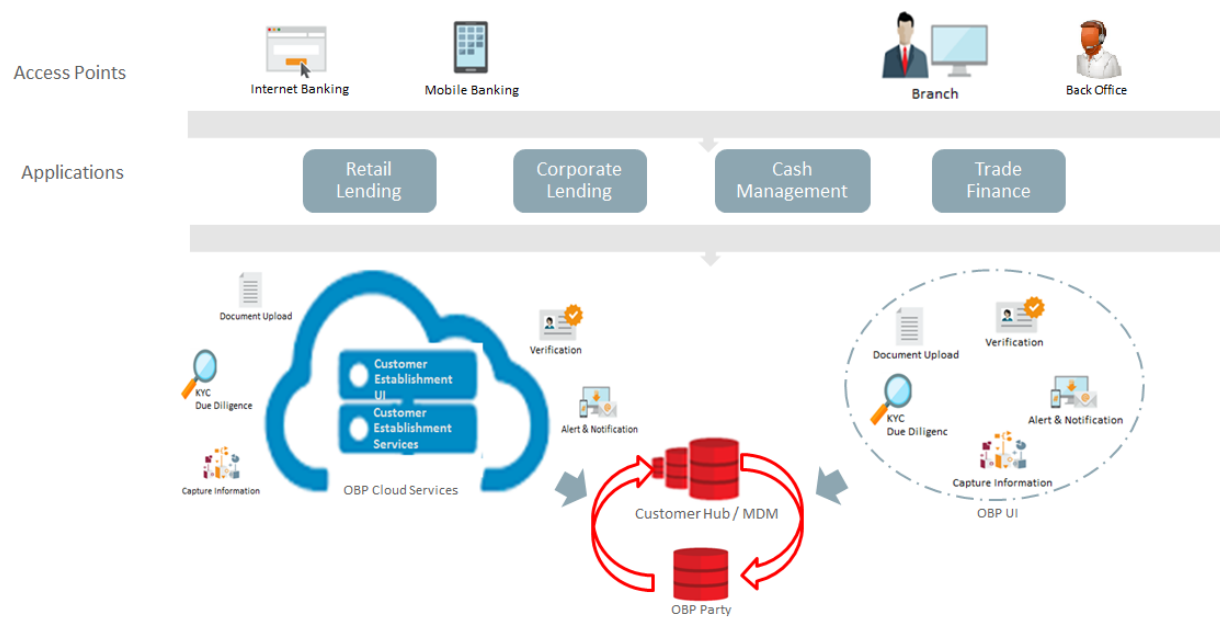
### 2.4.15 Customer Onboarding from Oracle Sales Cloud

Customer onboarding can be done from Oracle Sales Cloud using the Party onboarding functionality. The pages are rendered inside the Oracle Sales Cloud application as User Interface Mash Up.

## 2.4.16 Customer Establishment

Customer Establishment is the initiation of a new customer into the eco system of a bank. It supports onboarding a legal entity wherein there is no business arrangement or agreement with the bank (that is a customer can be onboarded without applying for a product through Origination). It aims at supporting a single point of access to customer data and providing a consolidated view of a customer across the enterprise. It provides a single platform to onboard customers across different lines of business.

**Figure 2–1 Customer Onboarding using Customer Establishment**



With the existing productized integration of the application with Oracle Customer Hub (OCH), a list of entities that are common between OCH and the application have been identified. An OCH first pattern is followed, whereby data for common entities between OCH and the application is read from OCH. Any modifications to the party data under the common entities is updated to OCH and then to the application.

It primarily supports the following functions:

- Performing due diligence verification of a customer
- Authorization enabled servicing for existing customer information (for example, updating the address or phone numbers)
- User-friendly interface that matches the sequence of customer data capture
- Out-of-the-box integration with customer MDM (pre-integrated with Oracle Customer Hub)
- Read and update customer data
- Onboard customer
  - New to bank customer (Onboard in OCH and the application)
  - Existing customer in OCH (Onboard in the application)



## 2.5 Multi Entity Multi Branding

The application provides a framework that enables enterprises to cater to their Multi Entity Multi Branding (MEMB) requirements using a single implementation of the application. The banking companies can make use of the MEMB framework to save costs in IT infrastructure and achieve operational efficiency.

Banking groups prefer to market several products under various brand names so as to get increased shelf space in the banking market. The different products they market are managed by several lines of businesses which act as independent units.

The solution provides flexibility for the banks to define multiple levels of entities as per hierarchy with in an enterprise. Users are always linked to the lowest level in the hierarchy. It gives the flexibility to resolve data for any entity above this level. Bank servicing units or branches can be configured to service one or more business units.

Users are mapped to a Home Business Unit and can have access to one or multiple Business Units.

Quite often it so happens that the products launched by the banking group under one brand compete with the products launched by the same banking group under some other brand in the market. In such cases confidential data should not be shared across the competing units.

Similarly, some Business Units in the enterprise offers products and services which complement each other. The data of such complementary units should be visible across the business units to reap the benefits of cross selling of products and services.

In order to reduce the overall investments in IT infrastructure, banking groups prefer to use the same IT infrastructure to cater to its entire banking empire of the enterprise.

The following key features of MEMB helps in resolving the data availability issues:

- Supports the co-existence of multiple entities within a single enterprise, such as Legal Entities, Market Entities and Business Units, while ensuring that system data is precisely partitioned between these entities.
- Facilitate information sharing across complementary business units.
- Ensure that confidential data is not accessible across competing business units.
- Robust and responsive to changes in information security policies over time.

The solution offers partitioning of data amongst multiple entities based on visibility rules configured for different categories of users of the bank and self-service channels for efficiently sharing and securing critical information across complementary and competing business units respectively.

## 2.6 Product Manufacturing

Product Manufacturing offers rich functionality to define variety of products to suit varied requirements of customers. In order to maintain high level segregation, the solution provides for creation of product classes such as Loans, CASA, Term deposits, Investment Accounts, Insurance and so on. All products created belong to one of the product classes defined by bank. Products can also be grouped together under product groups. The parameters maintained at product groups are propagated to products created under it, thereby avoiding same maintenances for each product.

The following features are offered as part of Product Manufacturing.

### 2.6.1 Bank Policy Definition

Product Manufacturing facilitates a product manager to define discrete and distinct policies for specialized modules or functions namely Party, Bundle, CASA, Loan, TD, Statement, Hardship Relief, Credit and Dormancy. This provides the product manager more ease and control of bank level parameters for specialized modules or functions. This definition is a one-time activity.

Following are the different bank level policies that can be defined:

- Define Bundle Bank Policy (Fast Path: PM005)
- Define CASA Bank Policy (Fast Path: PM002)
- Define Credit Policy (Fast Path: PM009)
- Define Dormancy Policy (Fast Path: PM008)
- Define Hardship Relief Policy (Fast Path: PM006)
- Define Loan Bank Policy (Fast Path: PM004)
- Define Statement Policy (Fast Path: PM007)
- Define TD Bank Policy (Fast Path: PM003)
- Define Question Sets (Fast Path: PM046)
- Define Unclaimed Policy (Fast Path: PM029)

Product Manufacturing provides a hierarchical definition for the product groups:

- Product Class
- Product Groups
- Products
- Offers

It provides an option to group different products and create product groups. Product groups are created for a particular product class. Further, the application provides an option to define different offers under a particular product.

### 2.6.2 Product Class

Product class is a list of values that defines the high level need of the customer. For example, Loan, Current or Checking, Savings, Term Deposit, Investments and Insurance. The Interest Rules defined for a product class are associated to a product.

### 2.6.3 Product Group Creation

The fundamental features are as follows:

- One product can be linked to single product group.
- A product group can be group of products or group of product groups also.
- Home Equity Line of Credit (HELOC) is a line of credit extended to a home owner that uses the borrower's home as collateral. Its features can be configured for the product group.
- Purpose of the product group can be captured.

- Debit Bureau Check configuration can also be done. This enables the system to decide whether the debit bureau check needs to be performed or not. The selection of the Debit Bureau Check Required flag determines that for originating the CASA account, the debit bureau check needs to be performed. This Debit Bureau Check provides the score of the customer and based on the score, the banker can decide whether or not to open the checking account and what type of fees can be levied to the account.
- The Regulatory Requirement Questionnaire can be linked to the product group. The user can link multiple question set IDs which are regulatory in nature and need to be complied as part of Origination application.
- In case of Credit Card, whether the co-applicant can be included or not, can be configured.
- An Applicant Eligibility Rule can be configured which has:
  - Restrictions on the maximum number of applicants that can apply for an application
  - Restrictions on different combinations of party types for an application

The above functionality is addressed in the Define Product Group page.

### 2.6.4 Product Creation

A product is defined under a product group. A single product can be offered in multiple currencies. There is a list of tasks to be performed as a part of Define New Product. The product definition is complete only if all the tasks are complete. The list of tasks to be completed is:

- Capture Product Details
  - Define CASA Product
  - Define Loan Product
  - Define TD Product
  - Define Credit Card Product
  - Define Investment Product
  - Define Insurance Product
- Define Interest Rule (Fast Path: PM011)
- Define Product Interest Linkage (Fast Path: PM017)
- Add Product to Interest Rate Price Policy Chart for a Product Group (Fast Path: PR007)
- Add Product to Fees Price Policy Chart for a Product Group (Fast Path: PR007)
- Define Billing Classification Plan (Fast Path: PM060)

The above functionalities are addressed in the following pages:

- Define CASA Product
- Define Loan Product
- Define Term Deposit Product
- Define Investment Product
- Define Credit Card Product
- Define Insurance Product

### 2.6.5 Product Offers

The solution provides ability to have multiple offers for a single product. The offer has facilities, brand association, eligibility rule and pricing.

The above functionality is addressed in the following pages:

- Define CASA Offer
- Define Loan Offer
- Define Term Deposit Offer
- Define Investment Offer
- Define Credit Card Offer
- Define Insurance Offer

### 2.6.6 Copy a Product or Offer

The solution also provides a feature to copy an existing product or offer and create a new product or offer. The user also has an option to change few of the products or offer specific parameters of the copied product or offer and define a new product or offer.

### 2.6.7 Validate and Publish a Product Group, Product, and Offer to Origination

There is a sequence of maintenances (that is, Day 0 setups and configurations) in Product Manufacturing that a product manager or bank user needs to perform in order to publish a product group, product, and offer for further consumption and usage in Origination.

Product Manufacturing validates if all the necessary and mandatory setups or maintenances have been performed by the bank user before publishing the product group, product, and offer to Origination.

Validations are applicable at the product group level and product level to ensure that domain accounting entry definition is maintained and price policy chart for all applicable currencies is maintained. This is applicable across product class.

### 2.6.8 Definition of Allowed Currencies

Product Manufacturing provides an option to the product manager to define allowed currencies at the product group level and further override them at the product and offer levels.

A list of allowed currencies, under which term deposit accounts can be opened under a product, and minimum term for interest eligibility for each currency can be specified. Step up parameters for defining step up TD can be maintained.

### 2.6.9 Definition of Allowed Term

Product Manufacturing provides an option to the product manager to define allowed term (that is, minimum and maximum term) for Asset at the product group level and further override them at the product level. This provides the product manager more flexibility in defining asset products.

### **2.6.10 Option to link different Interest Rule per Currency for a Product**

Product Manufacturing provides an option to link different Interest Rule per currency for a product. This reduces un-necessary product proliferation in Product Manufacturing. Rate lock validity period can also be defined for a rate lock quote at both CASA and Loan offer level.

### **2.6.11 Product Templates**

Product Manufacturing provides the template option in the predefined Product Manufacturing pages. The templates enables the pre-population of all the fields on the page. This reduces the time for the user to capture and save the record with ease.

### **2.6.12 Debit Card Features**

Debit card definition is enabled as a feature that can be linked to a CASA product and to CASA offer. More than one feature can be defined and attached to an offer which is displayed in origination. The customers can choose the card that they prefer.

The above functionality is addressed in the Define Debit Card Features (Fast Path: PM039) page.

### **2.6.13 Linkage of Dependent Offers**

Certain offers may be enabled for subscription only if some other mandatory offers are subscribed for or maintained. Such dependency can be defined in a maintenance page. Presently, this linkage exists among CASA and Loan offers.

The above functionality is addressed in the Link Dependant Offers (Fast Path: PM018) page.

### **2.6.14 Office Accounts as CASA Accounts**

CASA accounts can be defined as Office Accounts. These accounts are specifically marked as Office Accounts during configuration. They are used for specific purposes such as pool account of the bank to collect taxes or any such amount on behalf of the government which later needs to be reconciled. Biller accounts is another example of office accounts.

### **2.6.15 Product Hierarchy View**

Users can view the entire product hierarchy in a single place. All maintenances from product class to offer and the associated linkages are displayed here.

### **2.6.16 Define Campaigns**

Campaign definition can be done in Product Manufacturing. Campaign start and end date can be maintained along with product groups and offers that are a part of the campaign. Accounts can then be originated in the campaign.

The above functionality is addressed in the Define Campaigns (Fast Path: PM024) page.

### **2.6.17 Offer Selector**

Offer selector recommends the eligible offers during Origination based on:

- Eligibility rules defined
- Responses received to the Lending Questionnaire

- Facts captured in the application

### 2.6.18 Define Rewards Maintenance

Non financial benefits can be defined for TD offer, CASA offer, Loan offer, Credit Card offer, Campaign, and Bundle. Reward can be defined and linked to the combination of Offer or Campaign, or Bundle and Rule. The rule is executed during Origination. The fulfillment of the rule is a part of consulting activity.

Financial Rewards are displayed in the Offer Selector page during Origination to facilitate the user to take informed decision while selecting the offer. The financial rewards are maintained in the Pricing.

### 2.6.19 Flexi Credit Facility

To enable Flexi Credit Facility (FCF), validations are built in the credit policy with group type as MOF and product class as CASA. Specific parameters for FCF such as interest rate type and interest set off applicability are available in CASA offer.

### 2.6.20 Offer Bundling

Products can be grouped across different lines of business. For example, Home Loan, Transaction account and Credit Card.

A bundle is considered as a single unit for sale and specific benefits can be configured for customer who subscribes for the bundle. Product processors can be from within or outside the application.

Using this feature the bank can cross sell products to new and existing customers and earn revenues in the form of bundle subscription and maintenance fees, while the customers are benefited in terms of additional interest margins and discounts or waivers on fees. These bundle benefits can be offered for a limited period or perpetual.

The above functionality is addressed in the Define Offer Bundle (Fast Path: PM026) page.

#### 2.6.20.1 Bundle recommendation in servicing

During servicing, new accounts can be opened typically in two cases:

- **Split Loan functionality:** Using this functionality in loans, the customer may opt to split a parent loan account and create a new child account under it.
- **Manage Facility within Arrangement:** As part of this functionality, the user can create a new account under an existing facility to utilize the unutilized facility amount.

Thus, whenever a new account is opened in servicing using the above avenues, the system provides recommendation of bundles, so that the customer may opt to include the new account to a bundle. As a result, the new account will receive bundle benefits (that is, in terms of additional interest margins and discounts/waivers in fees) once the same is opened in servicing.

As part of bundle recommendation, the system recommends new as well as existing bundles to the user. The customer may opt to include the new account to any of the bundle.

#### 2.6.20.2 Bundle eligibility

Banks can define eligibility rules and attach it to the bundle. Customer satisfying the eligibility rules will be able to subscribe to the bundle. While setting up the bundle, bank can define whether the eligibility criteria should be met by all the bundle owners or any of the bundle owners.

### 2.6.20.3 Bundle subscription and managing a bundle in servicing

Customers may opt to subscribe bundle and link existing accounts to a bundle. As a result, these accounts will receive bundle benefits (that is, in terms of additional interest margins and discounts or waivers in fees), once the same is linked in servicing. Customers may also opt to unsubscribe a bundle or delink accounts from a bundle or change the bundle fee recovery account in servicing.

The above functionality is addressed in the following pages:

- Subscribe for Bundles (Fast Path: BN100)
- Manage Bundle (Fast Path: BN101)

### 2.6.21 Master Data Management of Product Manufacturing

Following are the capabilities of master data management of Product Manufacturing:

- **Ability to export product configuration to third party systems:** The new offer is published after validation and if any changes happen in the offer, then that offer will be published to the third party after successfully saving the data. If there is any change in the product and product group, then all offers of the product and product are published to the third party. The system stores information of the published offer and related information into staging area during EOD. Third party system can pick up Product Manufacturing data from staging areas and upload into the system.
- **Importing product configuration into the application from third party system:** Ability to import data from other systems through web services.
- **Dashboard for product performance:** Ability to display the performance of the product group, product and offer based on various parameter such as number of accounts opened during the period, type, age and location of customer, location of branch and profitability of product.
- **Ability to display status of all mandatory maintenance under product:** Users can view the status of all mandatory maintenance under product group. They can also create, modify and view the details of maintenances.

## 2.7 Eligibility Framework

A bank may need to specify a set of predefined values as the eligibility criteria for each entity and evaluate whether a particular value or a set of values matches eligibility criteria defined at any time.

Banks have varying product offerings such as retail loans, mutual funds, and payment services to suit the diverse profile of clientele they have. Each of these products offered is targeted towards a specific group of customers and will have its own inherent characteristics. For example, a bank might want to offer one product only to a specific group of customers, namely salaried individual customers. The bank might want to offer this product through a list of pre-defined branches only. The bank might want to offer a product only in a specific currency. For example, all home loans are to be in local currency only.

Eligibility framework is a simple maintenance using the user-friendly rule framework. Using rule definition, offer eligibility is achieved. Rules are set up using specific offer eligibility fact groups. Such fact groups are for channels, party, collateral, purpose codes and sourcing entity including brokers. System returns the value of the rule on evaluation which determines whether a customer is eligible to apply for a specific offer.

The various parameters based on which offer eligibility rules can be defined are as follows:

- Allowed or Disallowed list of **Channels** in which an offer is to be made available.
- Allowed or Disallowed list of **Collaterals** for an offer.

- Allowed or Disallowed list of **Facilities** for an offer.
- Allowed or Disallowed list of **Party Values** for an offer
- Allowed or Disallowed list of **Sourcing Entities** for an offer

## 2.8 Accounting

Accounting acts as the pillar upon which the other functional components rest. Through this single entity, bankers can consolidate and maintain balances and turnovers for all types of accounts held by a bank. In addition, the module enables to retrieve online information on the product ledgers maintained in a bank.

The following features are offered as part of Accounting.

### 2.8.1 Bank Level Parameters

Accounting provides a facility to maintain basic information about a bank. The basic details such as GAAP code, yearend profit and loss ledgers, and suspense ledgers for real, contingent, and profit and loss that are maintained for a bank are applicable for all the branches of the bank. Processing a GL in a particular branch is governed by branch level parameters.

The above functionalities are addressed in the following pages:

- Define Accounting Configuration (Fast Path: AS001)
- Define Accounting Bank Policy (Fast Path: AS002)
- Define Branch Parameters (Fast Path: AS003)
- GAAP Maintenance (Fast Path: AS005)

### 2.8.2 Accounting Ledger

The accounting ledger has been structurally designed as a tree, bearing a multi-level structure (like a tree's main branch and sub-branches). At the head is the Head GL that does not report to any other GL. The subsequent levels consist of Nodes and Leaves. A Node GL is one that reports to another GL and has other GLs reporting to it. A Leaf GL is one that reports to another GL but does not have any GL reporting to it. Leaf GLs are merely points of contact through which all entries are passed to the nodes based on financial periods. Consolidation of all accounting takes place at the nodes.

Accounting supports categorization of head GLs to any of the following categories:

- Asset
- Liability
- Expense
- Income
- Contingent Asset
- Contingent Liability
- Memo
- Position
- Position Equivalent



The bank can opt for position accounting for a foreign currency by maintaining a position GL and a position equivalent GL for every foreign currency transacted by the bank.

The above functionalities are addressed in the following pages:

- Close Accounting Period (Fast Path: AS007)
- Define Accounting Ledger Group (Fast Path: AS008)
- Define Accounting Ledger (Fast Path: AS009)
- Define Accounting Ledger (Additional) Details (Fast Path: AS010)

### 2.8.3 Accounting Template Creation

The accounting template contains a list of events for which accounting entries have to be passed. The list of events is specific for every product class. The user can define accounting entries for each of these events and attach them to a product. The accounting entries will be passed on the occurrence of these events for each account.

The above functionality is addressed in the following pages:

- Define Inter Branch Parameter (Fast Path: AS006)
- Define Event Accounting Class (Fast Path: AS020)
- Define Domain Category Accounting Template (Fast Path: AS016)
- Define Domain Account Role Mapping (Fast Path: AS019)
- Define Product Account Role Mapping (Fast Path: AS018)
- Define Product Accounting Template (Fast Path: AS015)
- Define Product Group Accounting Template (Fast Path: AS014)
- Define Product Group Role Mapping (Fast Path: AS017)

### 2.8.4 System Accounts

System accounts are the lowest level at which accounting entries are posted. The system stores GL balances at this level. System accounts help a bank to get a breakup of the GL balances which provides the details on the various attributes of a transaction. The bank may configure all such parameters for the generation of system accounts.

The bank needs to set up certain elements known as System Defined Elements (SDE) for generation of system accounts. The SDE elements can either be a product attribute or an account attribute and if such attribute is of type Number or Date, then the bank may configure the system to consider the value in ranges (buckets).

The above functionality is addressed in the following pages:

- Define System Defined Element (Fast Path: AS013)
- Define SDE Number Range (Fast Path: AS012)
- Define System Defined Element Class (Fast Path: AS011)

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## 2.8.5 Servicing

Accounting supports inquiry of unprocessed events, accounting transactions, product ledger balance, and suspense and reconciliation of suspense and office accounts through the following pages.

- Unprocessed Event(s)/Entry(s) Inquiry (Fast Path: AS021)
- Accounting Transaction Inquiry (Fast Path: AS022)
- Product Ledger Balance Inquiry (Fast Path: AS023)
- Suspense Inquiry and Reconciliation (Fast Path: AS024)
- View and Reconcile Office Accounts (Fast Path: PL088)

## 2.9 Alerts

The following features are offered as part of Alerts.

- Alerts and bank notifications can be generated and sent to customers, cosigners, broker or introducer (only bank notifications), and some external parties for pre-defined events. The events can be financial and non-financial. On occurrence of such activity or events customers get alerts. Message templates can be maintained for each alert. The message template will be resolved based on a rule set up, in addition to the existing parameters.
- Dispatch of alerts can be deferred if alert dispatch type is selected as Deferred for Subscription type of alerts. In such cases, the alerts are not sent on occurrence of an event, instead they are put on hold and sent at end of day.
- Alerts can be dispatched to recipients such as, initiator of transaction on completion of approval process or to a broker on certain events occurring either due to the milestone being reached in Origination workflow or servicing events based off maintenance or transactions performed from Origination. For example: Account opening is an activity and CASA account opening can be an event under this activity. Fund transfer can be an activity which will have fund transfer credit event and fund transfer debit event.
- Rules can be defined for alerts based on business requirement. For example: Transaction amount greater than USD 100.
- Customers and some external parties of bank can also subscribe for specific events. The subscription for alerts can be for specific customer account.
- Alerts can also be sent to third parties such as brokers and so on.
- Alerts can also be sent to other related parties linked to the account apart from the account holders.
- Alerts can also be sent to Secure Mailbox.
- The alert template rule can be used to include a fixed outcome, if alert can be dispatched. This attribute can be used to handle scenarios where the bank may not want to dispatch alerts directly to customers when they have contacted the bank through a broker. The bank may want the notifications to be sent directly to the brokers who in turn manage the communications with the customer. This parameter brings the flexibility where bank can choose to notify customers or not depending upon the business model adopted by the bank.
- Alerts can also be sent from different email IDs and phone numbers, when alerts are to be sent by different market entities or business units.

- Other delivery channels such as mobile, app, or twitter can be configured, so that alerts hand off can be send to those channels.

The above functionality is addressed in the following pages:

- Message Template (Fast Path: AL03)
- Alert Maintenance (Fast Path: AL04)
- Alert Subscription (Fast Path: AL05)

In cases, where the alerts have missed the desired recipient due to technical/DND or other reasons, alerts can be inquired and resent manually. This functionality is addressed in the Alert Support (Fast Path: AL10) page.

## 2.10 Content (Document Management System)

Documents form an integral part of any bank without which they are not able to perform their day-to-day business activities. Content offers the capabilities to manage documents and content. It is designed to provide a uniform set of services for content management across different modules. It serves as a standalone system for managing all the document related processes in an organization. These documents are basically of two kinds:

- **Inbound Documents:** Documents collected from customers
- **Outbound Documents:** Documents generated and dispatched to customers

These documents once defined can then be easily attached to individual processes or entities by creating some custom rules based on various parameters.

The following features are offered as part of Content.

### 2.10.1 Document Type Definition

A definition of every document to be used, whether inbound or outbound, can be created. Once defined a unique document type is created. Information like whether an inbound document type is recurring in nature or permissible delivery channels for an outbound document type can be captured here. Additional data like tags for inbound and inserts (scanned copies of additional materials to be sent along with documents) for outbound documents can also be specified.

A number of inbound document types can be logically grouped to create a document category. Documents under a category can be marked as mandatory or optional.

An inbound document that is received and stored in IPM can be retrieved and sent as an outbound document, like a covering letter, along with this particular inbound document as an insert.

The above functionality is addressed in Document Type Definition (Fast Path: CNM01) page.

### 2.10.2 Document Policy

Various rules can be created to help associate a document type or document category with certain processes or events or certain entities like party. Document Policy is assessed in runtime to determine what set of documents need to be collected or dispatched to respective bank customers. Policies can be created at Application, Collateral, Party, Product Group, and Submission level.

The above functionality is addressed in Document Policy Definition (Fast Path: CNM03) page.

### 2.10.3 Interface with Third Party Systems

For generation and dispatch of outbound documents, the capability is present to interface with multiple external third party document management systems. Various document templates stored in these systems can be accessed from Content module. The framework enables triggering of different API pertaining to different document generation systems. The document upload service can be consumed by other external system for enabling inbound document upload. The data sufficiency required to interface with external systems of physical documents storage is present. Additionally, services can be exposed for upload of documents that have been rescanned.

### 2.10.4 Document Checklists

Document Checklist is a taskflow that can be invoked by various modules at appropriate stages of a business process to view and act on both inbound and outbound documentation requirement that gets resolved as per the document policy defined for a particular event or process. There is provision to upload inbound documents and create instructions for generation and dispatch of outbound documents from checklists. Various delivery channels like Post and Email can be specified for a document to be dispatched to a recipient.

Ability is provided to override the mode of delivery for one or all of the list of documents generated in the outbound checklist.

### 2.10.5 Regeneration and Resending of Documents

A configuration is available at service level to allow or suppress multiple regeneration of outbound documents in all tasks supporting outbound documents panel.

An inbound document given by a customer and stored in IPM can be retrieved and sent back to either the same party or customer, or to another email ID or mailing address as entered in the page or task flow.

### 2.10.6 Acceptance and Execution of Documents

For outbound document types, it can be specified whether they require customer acceptance and/or execution process. Any business process which generates this document type can use these flags and built a mechanism to track the acceptance of the document by the customer or execution of the document.

A separate taskflow is present for displaying documents which require acceptance or execution. User can manually update the status of documents once customer has accepted the document or a document execution has been completed.

### 2.10.7 Document Search and Upload

Soft copies of every inbound and outbound document are stored in an external system called Image Processing System (IPM) where versions of uploaded documents are also maintained. User can assess these soft copies anytime from Content module. Every uploaded document is given a unique index which helps in further processing of document.

Inbound document can be scanned for virus and malware before uploading in Documaker.

A separate page is provided for searching a document based on various parameters like document type, document status, indexes, and so on. The page can also be used for updating indexes, status and tags of a document.

The above functionality is addressed in Document Search and Upload (Fast Path: CNM06) page.

Documents which are not part of document policy can be collected from customer by uploading them from a separate ad hoc document upload page.

Upload of multiple documents is supported in application tracker and in verification task inside the inbound checklist page. The allowed limit for a single document file in multiple documents is 20MB and the total upload limit for all documents is 40MB.

Documents are allowed to be configured with expiry tracking types for inbound document after they are uploaded depending upon the document upload date, issue date of document or expiry date of document.

Both functionalities of questions related to the documents upload in context of verification and document for a set of questions is supported.

### 2.10.8 Document Upload by External System

System allows upload of documents for inbound as well as outbound documents and stores details of external system reference ID, external system name, receiver name and brand name with document type.

### 2.10.9 Services to Support Digital Channel

- Service to fetch deleted items for a digital channel.
- Service to accept digital acceptance for a digital channel.
- Ability to display the document type or document category differently in digital channel.

### 2.10.10 Stitching of Documents

Documents (external or uploaded or generated any of the types) can be inserted at the beginning or at the end of another generated document, such that all of them are stitched together as insert in one document through Documaker.

## 2.11 Remittances and Collections

Remittances and Collections offers a solution for functions such as clearing, collections and payments which are required by the end customers for their ad hoc requirements and which are commonly required for various other products under Oracle Banking suite. Remittances and Collections functions can be invoked as a part of Settlements by other modules such as CASA, Term Deposits, or Loans.

The bank needs to opt for any one of the two offered models at the time of implementation and it is a one-time choice.

**Model 1:** In this model, the entire initiation of the transaction as well as the network resolution and so on (based on the internal day 0 maintenances) is performed within Oracle Banking. This includes activities such as file uploads, exception handling, processing of any inward transactions and so on.

**Model 2:** In this newly introduced model, the capability is provided to integrate with any of the third party payment product processors. The bank has the option to opt for the Oracle Banking Payments product in which case Oracle Banking is pre-integrated with the in-house Payment product processor. However, Oracle Banking also has the capability to integrate with any other product processor.

Given this scope, only the following three pages are maintained in Oracle Banking:

- Initiate Outward Collection and Payment (Fast Path: PY011): This page captures the basic details and initiates an outward collection request or an outward payment request.
- Define Bank Float (Fast Path: PY001): Since the product processor does not have any control over accounts maintained in Oracle Banking, the float definition is handled out of Oracle Banking. Bank float

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helps in defining the type of accounting that is performed specifically for the outward collection flavor in the US region.

- **Reject Code Maintenance (Fast Path: PY100):** Since the product processor speaks to the external network in this model, this maintenance page is used to map the internal Oracle Banking level exception codes with the network level reject codes that are maintained by the product processor.

In the Model 2,

- The initiation happens from Oracle Banking, either as a standalone capture or through the Settlement route.
- The customer account level validations (if the account is with Oracle Banking) is done at Oracle Banking. All other network level validations are performed by the product processor.
- Similarly, the customer side accounting happens at Oracle Banking while the network side accounting is performed by the product processor.
- File uploads happen from the product processor and only customer side validation calls are sent to Oracle Banking.
- All the exception handling is routed to queues maintained with the product processor.
- Oracle Banking needs to have a data synchronization with the product processor for Account Details Sync, Network Details Sync, Reject Codes Sync, and Branch Sync.

All functionalities described in the below sections pertain to the Model 1.

### 2.11.1 Core Functionality

The Remittances and Collections provides the following core functionalities:

- The Payments or Clearing or Collection (also referred to as Remittances and Collections) Services are composed of different maintenances (Day 0 Maintenances), each of which serve to define the various parameters within which a banking company seeks to operate, and the essential service calls required to honor the core functionalities. These services are used for various purposes by the various products under Oracle Banking suite.
- The Clearing Services can be used to perform one of the basic functions of a bank, which is to accept and honor written instruments and enable customers to issue instruments for money transfer, be it a Cheque, Manager's Cheque, Demand Draft, or Money Order.
- The Collections services provides for functions similar to the Clearing Services with one difference. The clearing services cater to the transfer of money vide a physical instrument whilst the electronic collections cater to transfer of the funds vide electronic channels. Collections services cater to various incoming and outgoing collection instructions such as Request For Debit (RFD) or Direct Debit. The services to manage Mandates, such as Addition, Deletion, Edit, of Mandates (which form the basic authorization mechanism for Collection Instruments) are also provided for.
- The Payments Module provides the services of Domestic Payments using any of the bank's chosen networks and includes initiation and processing of outward payments as well as receipt and processing of inward payments.
- The Payments and Collections work out of the same module with some incremental features like Mandate Registration and Counterparty Maintenance for Collections.

- Exception Management provides services to manage any exceptions arising out of the processing of instructions in any of the above mentioned modules that is, Clearing, Collections or Payments.
- Bank Drafts can be issued, liquidated or printed on the request of the customers. The status of the instruments issued can be modified for a fee and the instruments can be reprinted if necessary.

### 2.11.2 Maintenances

The entire Remittances and Collections module is based on the maintenances that are configured as part of the initial setup. These maintenances define the behavior of each of the individual functionalities and also enables the setting up of the processing logic or processing rules.

The entire set of maintenances help the bank to set up the various clearing zones, identify the network through which any instruction is sent or received as well as the treatment for each transaction in case of returns or refusals.

The various maintenances to be set up are as follows:

- **Zone Maintenance (Fast Path: PC001):** The various clearing zones and circles are maintained in Zone Maintenance page. Zone and Circle are geographical locations. The Circle ID is used to identify the location of the institution and can be further used to resolve the endpoint for the clearing transaction. Each Zone may have multiple Circles attached to it. Each Bank-Branch is attached to a single circle. This will be maintained in Bank Directory maintenance.
- **Bank Directory Maintenance (Fast Path: PC226):** Bank Directory is used to maintain and inquire a list of all institutions (banks and their branches) that may participate in clearing and payment transactions. This maintenance also captures the address of the bank-branch and the applicable Clearing Sort Code (routing number), IFSC code and SWIFT code which are also termed as Institution ID types.
- **Float Configuration (Fast Path: PC006):** Float configuration is used to maintain the various combinations of float days involved in the resolution of the related value dates in clearing and payment transactions. Various types of floats can be maintained based on the Posting Date, Activation Date, Endpoint Entry Date, Endpoint Value Date, Bank Value Date or Customer Value Date.
- **Endpoint Maintenance (Fast Path: PC220):** Endpoint is the physical entity with which the bank interacts for clearing or payment transactions. Different Endpoint can be maintained for different currencies. Under this maintenance, various aspects of the endpoint such as Institution ID Type, Calendar ID, Electronic gateway used by endpoint, network used, and so on can be recorded. One or more endpoint segments can be attached to an endpoint. Endpoint segment denotes a logical grouping to which instruments deposited or uploaded are attached.
- **Clearing Branch Linkage Maintenance (Fast Path: PC018):** Normally a single branch within a certain geographical area such a city or a district is assigned to perform the clearing related activities for all other branches within the city or district. The Clearing Branch Linkage maintenance is used to link all the branches of the Bank as defined in the Branch Master in Common Services to their respective Clearing Branches. This maintenance is used to determine the clearing branch GL for clearing transactions on any account in any branch.
- **Institution Endpoint Participation Maintenance (Fast Path: PC218):** This maintenance is used to list all the institutions participating in an endpoint. We can also capture the correspondent institution for an institution which participates through its correspondent. The various transaction types such as DD, RFD, Clearing, and so on have to be selected for the institution participating in an endpoint.

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- **Transaction Template Maintenance (Fast Path: PC232):** Payments and Clearing transactions may have to be classified and assigned different preferences across various set of parameters. Such classification may further need to be differentiated for transactions where the drawee and beneficiary accounts are within the same installation, within the same bank but on different systems or in different banks. This is supported by defining the Transaction Templates. A transaction template is defined for a combination of Transaction Type, Collection Type and Transfer Type.
  - Transaction Template defines the various Amendment Parameters which can be modified for re-processing of transactions that were rejected during upload. It defines the parameters to be used for arriving at or validating the activation date for a transaction. It also defines the parameters with respect to reject, recall and dispatch behavior for each transaction namely, the date till when such an action is valid and the basis for calculating that date. It also defines whether a particular transaction can be processed or not as a 'Return'. Further, the retention days for various types of transactions can be defined. For Clearing transactions the instruments applicable for that transaction are linked in the Instrument Category Linkage section.
  - **Transaction Category Maintenance (Fast Path: PC217):** There are various types of Payments and Clearing transactions such as Inward Clearing, Outward Clearing, Incoming Collections, Outgoing Collections, Incoming Payments, Outgoing Payments, and so on. Each of these transaction type is defined and maintained in Transaction Category Maintenance. The attributes for recognizing duplicate records are defined for each transaction category. Transactions for reject, recall and reverse of clearing and payment transactions are also defined as categories and linked to the respective transaction category in the Category Relations section. Each transaction category is defined on the basis of Transaction Type, Collection Type and Transfer Type. This maintenance also defines if a mandate needs to be validated or not in case of an inward collection transaction.
  - **Instrument Category Maintenance (Fast Path: PC210):** For paper based clearing there could be multiple types of instruments such as Savings Account cheques, Overdraft Account cheques, Demand Drafts, and so on. All these types of instruments are defined and maintained using the Instrument Category Maintenance. Each instrument is classified as either a Manager's Cheque (for example, Demand Drafts) or a Personal Cheque (or just Cheque, for example, Savings Account Cheque, At-par Cheque). The bank can also identify the number of days post which the cheque (instrument) has to be considered as Stale or out-of-date. Additionally, the instrument can be identified as allowed in local presentation to support At Par clearing. This is useful when there are multiple clearing houses all over the country to support local clearing and within such a set-up certain types of instruments can be processed for clearing at any of the clearing houses, preferably the one pertaining to the location of the beneficiary.
  - **Reject Code Maintenance (Fast Path: PC016):** While processing payments and clearing transactions by upload, the record may either pass or fail certain validations performed by the system. Failed records are marked as Rejected and queued for Reject Processing. The reason for rejecting a transaction needs to be available for each record for further processing. Similarly, a user too can reject a record which was passed by system (for example, signature mismatch check is done manually and system may pass the record) by assigning a reason for reject.
  - The reject reasons are assigned to reject codes and are defined and maintained in Reject Code Maintenance. Each reject code is linked to a transaction category and instrument type. Also each reject code is linked to one or more system exception codes (business policy violation codes) which are the codes that identify the exception conditions as encountered by the system during processing.
  - **Endpoint Reject Code Linkage Maintenance (Fast Path: PC214):** An end point may recognize a separate set of reject codes from those used by another end point or by the bank. To facilitate this the
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bank can define End Point specific Reject Codes using the End Point Reject Code Linkage. Using this maintenance, the bank can also identify which particular reject codes can be set for auto return. A record which encounters such a reject code will be marked for return automatically and will not wait for the Outward Clearing (OC) batch for return processing.

- **Institution Category (Fast Path: PC247):** An institution type and the way it is identified can be defined in this maintenance. Institutions can be identified by way of various standardized IDs such as SWIFT, BSB, IFSC, IBAN and so on. The various types of such identification codes can be defined.
- **Processing Queues (Fast Path: PC207):** Users can define the various processing queues that they require for any Payments or Collections transaction. The default queues are SUCC and PROC.

### 2.11.3 Clearing

Clearing module offers the ability to accept, post, process and clear all kinds of physical instruments like cheques, drafts, and so on. Inward clearing (where the customer's account is debited) and outward clearing (where the customer's account is credited) are handled out of the clearing module.

The various transactions or processes involved in clearing are as follows:

- **Cheque deposit (Fast Path: PC213):** Cheques deposited to the credit of CASA, TD, or Loans can be accepted. Any valid CASA or GL account can be captured as the beneficiary account. The details pertaining to the cheque such as amount, currency, instrument type, routing number and narration are captured.

Based on the float configuration, proceeds are credited to the account either as cleared funds or unclear funds.

- **Immediate Credit (Fast Path: PC206):** There may be a request from a customer for immediate credit against the cheque deposited for outward clearing. The Immediate Credit option helps to extend such credit against a cheque already deposited for that account and is in unclear status. There can be a case of full immediate credit or a partial immediate credit.
- **Clearing File Upload (Fast Path: PC111):** Outward as well as Inward Clearing File Upload is not a separate interface rather it is supported through the GEFU interface. Any outsourced agency may also send periodic information dumps (in electronic file formats) to the bank with summarized information of funds that need to be credit to customer's account. This enables the bank to extend unclear funds to the customers rather than awaiting details. The clearing module supports such activities. File uploads can be Summary Uploads (intra-day) and Detailed Uploads (end of day).
- **Float Extension (Fast Path: PC239):** There may be occasions when a cheque deposited to customer account may not be honored by the drawer's bank within the specified float or when there may be delay at the endpoint in providing clear funds to the bank due to unavoidable circumstances. In such cases, the Float Extension option is used.
- **Global Float Extension (Fast Path: PC239):** There may be occasions when a particular institution may not be able to complete processing for clearing transactions and provide clear funds. In this case one can use the Global Float Extension option to extend the float for all Outward Clearing and Outward Collection which were drawn on a particular institution. The new value date for these Outward Clearing and Outward Collection items will be arrived at based on the number of days entered for extending the float.

Float extension will be applicable to Outward Clearing and/or Outward Collection as per selected activation date and Transaction Type (belonging to selected Institution ID) and having instrument value date greater than current date.

- **Inward Clearing run/Outward Clearing run and Clearing File Uploads**

The Inward Clearing (IC) process is executed online, when the inward clearing file is uploaded. The inward clearing process can be run multiple times and those instruments which came for processing after the previous IC run will be available. This service can also be executed through the scheduler.

The Outward Clearing (OC) process can be executed online and at any point during the day. This service can also be executed through the scheduler. Outward clearing process is run for Returns Batch processing; Endpoint consolidation for GL entries (if defined); and Call to pricing to fetch fees to debit CASA accounts for Inward Returns. OC can be run multiple times and all those instruments which were not picked up in the earlier OC run, will be picked up now. Clearing module handles the status of the instruments for this purpose. Once the OC is run for the returns clearing, all instruments in scan reject will be marked internally returned. Then there can be no more action which can be done in the Scan Pass (Fast Path: PC203) or Scan Reject (Fast Path: PC204) page.

The number of days available to act on passed or returned instruments are defined as the maximum response days. For outward clearing, they are based on the value date and for inward clearing, they are based on the posting or the activation date.

- **Clearing Inquiries (Fast Path: PC009):** The user can do a cheque status inquiry of both an inward as well as an outward clearing cheque. Based on the search criteria, the cheque status can be inquired, till the data is purged.
- **Exception Handling/Returns Handling:** All the returns of Inward clearing (referred to as Outward returns) are handled as part of the Outward clearing run (Fast Path: PC234).

All returns of Outward clearing (referred to as Inward returns) are a part of the Inward clearing file and hence no separate treatment is required for the same.

All exceptions are handled out of Scan Reject (Fast Path: PC204) page. The refusal of returns is also handled as part of the returns handling process.

- **Accounting:** Accounting for Clearing transactions involves Customer Accounts (CASA, TD and Loans for outward clearing, CASA for inward clearing) and certain General Ledger accounts such as Endpoint GL, Intermediary GL (used for consolidation entry for endpoint), Cheque For Clearing (CFC) GL and Inward and Outward Clearing Suspense GLs.
- **Alerts:** Alerts for certain defined events are generated and communicated via SMS, email, and so on.

## 2.11.4 Payments and Collections

The features are as follows:

- The Payments module enables the bank to send payments to multiple networks. The payment transaction capture can be initiated from multiple channels like Internet Banking, Branch, and Phone Banking.
- The Payments module has a provision for interfacing with other external systems for various purposes such as fraud check, bill payments, and messaging.

- The Payments module is a comprehensive transaction handling and management system, which integrates with the overall system for settlement of payments, charges, commissions and MIS. All the relevant account balances will be updated when transfers are processed.
- Exchange rate conversions are automatically effected in cases of cross-currency transfers based on the rate and method of conversion that is defined.
- Any transactions, which involve transfer of funds between accounts, involves the user to provide certain specifications.
- Once the transaction is submitted, the system sends funds transfer messages to external networks based on the transaction type and pass the appropriate accounting entries.
- In case of incoming transactions, rules are maintained in the Payments module to enable STP. On receipt of any payment message, it resolves a Product for each of the transaction and accordingly the customer is credited or debited.
- Payments module is broadly classified into two stages - Capture and Processing. Capture is where user captures the transaction and basic validations are done. Processing is where the resolutions such as network, value date, settlement resolution is done, and the transaction is handed over for messaging and release into the network.
- Payments can be either Incoming Payments or Outward Payments. Similarly, Collections can be either Inward collection or Outward Collection.
- An Outward Collection transaction involves the transfer of funds from a different account into customer's account. Such transactions are initiated by the creditor who instructs his bank (the creditor bank) to draw a certain sum from the debtor's account (in the debtor bank), assuming that such an agreement exists between the debtor and the creditor of the transaction and their respective banks.

For Outward Collection, customer can set up credit mandate for periodic collections or onetime collection through branch banking.

- Funds Movement service is a facility which the bank can use in its direct banking. The bank can expose a single UI to its customers for the entire breadth of payment services. The underlying Funds Movement service then identifies the relevant trigger module as well as the final destination. Based on this, the type of payment, that is funds transfer, domestic payment, international payment, collections or a bill payment transaction service will be called. The entire orchestration is managed by the Funds Movement service.
- An Inward Collection transaction involves receiving the incoming collection message from the creditor bank, and processing the payment by drawing a certain sum from the debtor's (customer's) account provide. Such an agreement is maintained between the debtor and the creditor of the transaction and between them and their respective banks.

For Inward Collection, customer can register a mandate through branch banking for an Inward Direct Debit.

- Outward collection processes consists of key activities such as addition of linked accounts, verification of linked accounts, setting up a credit or receive funds instruction, and raising a Collection request.
- All the payments and collections transactions can be viewed by using the Payments and Collections Transaction Inquiry (Fast path: PC211) page. User can search and inquire a transaction using various search options.

The above functionalities are addressed in Payment or Collection Transaction (Fast Path: PC216) page.

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### 2.11.5 Business Payments/Business Collections

The features are as follows:

- Business Payments allow a business customer to transfer funds from one account to many accounts and is useful for regular multiple transfers, such as payrolls, creditors payment. Money can be transferred to a customer's own accounts, to third party CASA or loan accounts within the bank or to accounts with other financial institutions. In other words, it is single debit and multiple credits. Business payment can be triggered from Internet banking, branch through file upload. Business payment can be current dated as well as future dated up to a maximum of 120 calendar days.
- Business collection allows customer to collect funds from many accounts to credit a single account. Money can be collected from third party accounts or own accounts within the bank or to accounts with other financial institutions. For example, Insurance Premium Collection. In other words, it is single credit and multiple debits. Business collection can be triggered from Internet banking, branch through file upload. Business collection can be of current dated as well as of future dated.
- Business Payments or Business Collections transactions can also be uploaded as Standing Instructions through a file upload. The option to define if it is one time transaction or the recurrence pattern if it is a repetitive transaction is provided.
- Fees for Business Payments (Credit) and Business Collection (Debit) are charged on a cumulative number per month basis calculated on the number of transactions processed at a fixed price per transaction.
- The facility for business payments or business collections is defined at the CASA offer level.
- Direct Entry Identification Code Maintenance: DE Identification Code refers to direct entry user ID. This is used by the corporates while processing business payment and collection. There can be more than one DE Identification ID for single customer which have been assigned to the customer according to the Line of Business (LOB) For example, ABC company may have 3 different DE Identification ID for three different line of business (Banking, Insurance, Wealth Management).
- Trace Account: Trace account number is an account number on which dishonor transaction is posted. Trace account number is used when external payment is sent as part of business payment, and external bank has returned such transaction due to any reason. Such return is processed to trace account mentioned in original record. This will be applicable to business payment and not to business collection.

The above functionalities are addressed in Business Payments / Business Collections (Fast Path: PC112) page.

### 2.11.6 Mandate Registration

The Mandate is an instruction given to the bank by the customer to honour an inward direct debit received from the counterparty. It is a prerequisite setup required to honor an inward direct debit. The mandate ID maintained by the customer would be communicated to the counterparty bank through a response file or an equivalent mode.

The conditions defined in a mandate, which need to be considered while validating a transaction are typically:

- Validity of the mandate
- Amount requested to be within maximum limit defined in mandate
- Sufficiency of funds

Such inward collections transactions that have been successfully posted can be recalled within the maximum response days as defined in the transaction template.

The above functionality is addressed in Mandate Registration (Fast Path: PC008) page.

### 2.11.7 Counterparty Maintenance

The linked account maintenance will capture details of the counterparty. On submission of a request, counterparty's account would receive a penny credit along with a reference number. The reference number would form a part of the transaction narration and can be checked by the counterparty. Status of the linked account would be Unverified till the time it is authenticated. In addition to the linked accounts, this option can also be used to maintain a list of payees by the customer.

The above functionality is addressed in Counterparty Maintenance (Fast Path: PC015) page.

### 2.11.8 Exception Handling

All the transactions handled out of Clearing, Collections, or Payments are finally routed through two pages which are the Scan Pass (Fast Path: PC203) page and Scan Reject (Fast Path: PC204) page. The transactions that have passed all validations set for that particular transaction successfully will move into the Scan Pass page.

A user may be permitted the following actions against a particular transaction from the Scan Pass page:

- **Reject:** The user can reject the transaction and move it to the Scan Reject queue.
- **Recall:** The user can recall a transaction. This is typically applicable for an inward collection transaction that has been successfully posted. The transaction can be recalled within the permissible time limit as defined in the Transaction Template (maximum response days).
- **Float Extension:** The user can allow for extension of float in certain circumstances and this is possible by accessing the transaction in the Scan Pass page.

All the transactions that fail due to any or all validations set for that particular transaction will fall into the Scan Reject queue.

A user may be permitted the following actions against a particular transaction from the Scan Reject page:

- **Float Extension:** Similar to the action in Scan pass, float extension can be permissible for a transaction in Scan Reject.
- **Reject:** Normally for transactions arising from the clearing or collection functions, all line items falling in the Scan Reject items are picked up at the end of day or during the day when the user invokes the OC run. These transactions are then processed as outward returns. At times, the user may want to manually reject the transactions and in such cases, the Reject action is invoked. A refusal (that is, reject of a return, also called as Type 3 transaction) is handled in this workflow.
- **Reprocess:** The user may want to reprocess the transaction and settle it against another CASA account, or a GL account. In such cases, the reprocess option is invoked.

The Scan Pass and Scan Reject queues are primarily governed by the Day 0 setup and the option of enabling or disabling any action button is driven by what is defined in the Day 0 setup.

### 2.11.9 Oracle Payments Integration

The Payments module of Oracle Banking has initiated the process of integrating with Oracle Banking Payments, an in-house payments processing product.

- The first stage of the integration involves the data hand off from Oracle Banking to Oracle Banking Payments product pertaining to certain important data attributes of the Party module and the Transaction Accounts module.
- When there is any new addition or any closure of a party or a transaction account, then the respective modules trigger this hand off, which is then forwarded to the Oracle Banking Payments product through Oracle Banking in the prescribed format by calling the relevant services.

## 2.12 Generic Feeds

Oracle Financial Services Analytical Applications (OFSAA) enables financial institutions to manage enterprise performance, risk, financial compliance and customer insight through various analytical tools. OFSAA primarily depends on the data supplied by various enterprise applications for the analytics. The data from various enterprise applications are fed into a common staging area from which OFSAA picks up the data for various analysis and report generation.

Like any other enterprise application, this application also provides various details related to the bank, branches, customers and accounts to OFSAA. The account transaction details supplied to the common staging area will also be used by FAH for enterprise level general ledger accounting.

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### Note

OFSAA and FAH are products of Oracle which need separate licensing.

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## 2.13 Asset Classification (NPA Management)

The date of first default is stored to keep a track counter of number of consecutive days, for which an account is irregular. This is computed from the day, the account first became overdue, till the day all the arrears are fully paid. Hence, this counter is distinct and independent of the DPD count computed for an account.

Partial charge off of loan and transaction account is allowed in addition to the full charge off and reversal of full charge off functionality.

Asset classification also provides an option at account level to stop the account from being classified automatically and vice-versa.

## 2.14 Branch

The following features are offered as part of Branch.

### 2.14.1 Maintenances

The following are the maintenances that can be performed for branch.

- **Branch Vault Maintenance (Fast Path: BR001):** The vault is maintained at every branch to hold the physical cash for branch operations. The minimum and maximum cash limit that needs to be maintained at a branch vault is defined in this page. Each branch is allowed to hold only one vault.
- **Teller Batch Closure Configuration (Fast Path: BRM09):** This page helps the user to configure the pre-specified task codes to be configured with actions such as Halt, Ignore and Defer. Based on this configuration, the teller batch closure will be either halted or will be processed if any of the task codes are pending for approval. This ensures that the teller batch is not held up, if any transactions (which do

not involve cash) are pending for the approval. Such transactions can be approved at a later stage on a future date with the backdated transaction date. This page allows to configure the transactions which can be deferred for authorization that are pending for approval.

- **Teller Currency Limit (Fast Path: BRM01):** This maintenance allows configuration of currency restrictions for tellers. These restrictions are applied on the roles created in the application and are applicable for all the tellers mapped to that role. The minimum and maximum limit allowed for the role for a particular currency is maintained. The tellers who are mapped to the roles for which the minimum and maximum limit is maintained are called Cash Users, whereas others are called Non Cash Users.

## 2.14.2 Transactions

The branch-related transactions that can be performed are as follows:

- **Open Branch Batch (Fast Path: BRM02):** Opening a branch batch for a particular date indicates to the head office that the branch is open for the selected date. Posting date gets auto-populated once the previous day branch batch is closed. Teller is not allowed to perform any cash operations till the branch batch is opened by the supervisor.
- **Open Teller Batch (Fast Path: BRM03):** Opening a teller batch for the particular date indicates to the system that all transactions performed by the teller will be stamped with the selected date. System allows the user to initiate the teller batch with expected cash that has been retained from previous day or it will allow user to start with zero cash.
- **Branch Currency Transactions (Fast Path: BR002):** This page is used to transfer cash to and from vault. It can also be used to transfer cash between different tellers in the same branch. If the cash held by a user is greater than or less than or equal to the minimum limit, system allows user to transfer cash to another teller.
- **Denomination Exchange (Fast Path: BR009):** This page is used to exchange denominations for the particular currency. High value denominations can be exchanged for multiple low value denominations or multiple low value denominations for the equivalent high value denominations. The application does not post any accounting entries for the same and does not increase the debit or the credit count.
- **Miscellaneous General Ledger Transfer (Fast Path: BR008):** This page is used to transfer the cash to and from GL account. In case of debit transaction, expected units are decreased, while in case of credit transaction, expected units are increased.
- **Book Cash Shortage or Overage (Fast Path: BR006):** This page is used to book the cash shortage for the particular currency. If the physical cash present with the teller is less than the cash attributed in the application, then teller can book a shortage. Similarly, if the physical cash present with the teller is more than the cash attributed in the application, then the teller can book an overage.
- **Reversal of Cash Shortage or Overage (Fast Path: BR007):** This page is used to reverse the cash shortage or overage booking. Shortage GL can be nullified by debiting the particular CASA or GL account and crediting the shortage GL. Overage GL can be nullified by debiting overage GL and crediting the particular GL or CASA account. Partial shortage reversal is also allowed. Also, if any customer or teller pays shortage or overage amount by cash, then cash denomination panel can be used to update cash position.
- **Buy/Sell Foreign Currency (Fast Path: BR014):** This page is used for exchanging the foreign currency or local currency to the equivalent local or foreign currency by a customer or non-customer, that is a transacting party.

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- **Close Teller Batch (Fast Path: BRM05):** This page is used to close the teller batch for current posting date. Batches are allowed to be closed only after processing the posted transactions for the posting date. It processes the closure based on the settings configured in the Teller Batch Closure Configuration page.
  - **Absent Teller Activity (Fast Path: BR011):** It may happen that the teller is absent or has to leave in emergency, or go to another branch, and is unable to transfer cash for that day. In such cases supervisor or branch manager takes the control over cash box of such teller and performs the remaining activity like sell cash to vault, book overage/shortage, if any and finally close the teller batch of absent teller using this page.
  - **Close Branch Batch (Fast Path: BRM04):** This page is used to close the branch batch for the posting date, indicating that the branch operations are stopped for that posting date. Branch close posting date is same as branch batch open date and is auto populated. All the teller batches have to be closed before closing the branch batch for the posting date.
  - **Report Request (Fast Path: 7775):** This page is used to generate different ad hoc reports from the report categories by providing the required report parameters.
  - **Advice Report (Fast Path: 7779):** This page is used to view the report and its status, for which the user has initiated the request.

### 2.14.3 Inquiries

The following are the inquiries that can be made for branch.

- **Branch Batch Status Inquiry (Fast Path: BRM06):** For corporate office or head office, users can check the branch batch status of any branch. For non-head office branches, users can view only that branch's status. Branch batch status is displayed for the current and previous posting date. Inquiry can be performed by branch wise or status wise. If the inquiry is performed at branch wise, then system displays the data specific to that branch. If the inquiry is performed at status wise, then system displays the data specific to that status.
- **Cash Position Inquiry (Fast Path: BR012):** This page is used to inquire the cash position of Branch, Teller and Vault.
  - **Branch Cash Position:** Users can inquire the total amount and the number of debits and credit transaction for a particular branch or for all branches. Branch cash position for the selected currency = Teller cash position of all the tellers for the selected currency + Vault cash position for the selected currency.
  - **Teller Cash Position:** Users can inquire the total amount and the number of debits and credit transaction for a particular teller or for all tellers.
  - **Vault Cash Position:** Users can inquire cash position for vault of a branch.
- **Interim Cash Inquiry (Fast Path: BR010):** This page is useful to tellers for identifying discrepancies during the day rather than at the end of the day and take necessary actions to find the discrepancies before end of day. It enables the users to inquire the balance of the physical cash which the user has entered against the system generated cash position. They can also record the cash position, view any recorded overage or shortage and print the details.
- **Teller Batch Status Inquiry (Fast Path: BRM07):** This page is used to view the status of all teller batches. It displays whether the user batch for the posting date is opened, reopened or closed. For corporate or head office, the teller batch status for the particular branches can be inquired.



- **Teller Transaction Verification (Fast Path: BR013):** This page helps supervisors to view and verify all the teller transactions with the available physical documents, before closure of the teller batch.
- **Work Item Inquiry (Fast Path: WL001):** This page is used by tellers and supervisors to view the status of all financial and non-financial transactions performed by them during the posting date for which the teller batch is open. They can also reverse their posted transactions.

## 2.15 Security Management System

The application, comprising of several modules, has to interface with various systems in an enterprise to transfer or share data, which is generated during business activity that takes place during teller operations or processing. While managing the transactions that are within application's domain, it also needs to consider security and identity management and the uniform way in which these services need to be consumed by all applications in the enterprise. This is possible, if these capabilities can be externalized from the application itself and are implemented within products that are specialized to handle such services. Examples of these services include authentication against an enterprise identity-store, creating permissions and role based authorization model that controls access to not only the components of the application, but also the data that is visible to the user based on fine-grained entitlements.

### 2.15.1 Security

The application uses the best of breed components from Oracle's Fusion Middleware to deliver cutting edge solution in terms of a banking platform. The participating systems are as follows:

- Oracle Identity Manager (OIM) is used for managing user provisioning.
- Oracle Access Manager (OAM) is used for managing declarative authentication and SSO.
- Oracle Platform Security Services (OPSS) is used for runtime evaluation of authentication/authorization.
- Oracle Adaptive Access Manager (OAAM)/Oracle Adaptive Risk Manager (OARM) is used for step-up authentication and fraud management.
- Oracle Internet Directory (OID) is used as the identity/policy store.

For configuration details of the mentioned applications, visit the Oracle® Collaboration Suite Security Guide at [http://docs.oracle.com/cd/B25553\\_01/collab.1012/b25494/toc.htm](http://docs.oracle.com/cd/B25553_01/collab.1012/b25494/toc.htm).

#### 2.15.1.1 Set Up User Roles and Entitlement Policies

Every bank employee is mapped to an enterprise role. The enterprise roles are created in Oracle Internet Directory (OID) or equivalent Lightweight Directory Access Protocol (LDAP) store.

For handling business transactions, a user may need to be mapped to a set of services that are typically available to a single role. Such role is referred as the Application Role. Entitlements are defined on resources for the particular application role using Policy Management task. These entitlements drive the access privileges granted to the application role. For example, "perform" on an application service or "view" on a report resource.

Authorized personnel from the bank can use Oracle Directory Services Manager (ODSM) for OID maintenance.

A bank user can be mapped to multiple application roles. Each application role can be linked to its authorization policy within which coarse grained and fine grained authorization configuration can be done.

Examples of user access restrictions are as follows:

- Allow users without access restrictions to only view and select product groups classified as Office Accounts, once the user selects New Deposit from Landing page of Application Form during account opening process.
- Only allow users with access privileges to capture Office Account Ledger within the following list of tasks (maintenances or transaction) or common taskflows.
  - All financial transactions where settlement mode is GL
  - Miscellaneous General Ledger Transfer (Cash Deposit to GL)
  - Cheque Deposit to GL
  - Journal Multi Voucher Entry
  - Product ledger Balance Inquiry
  - Reconcile Office Accounts
  - Payment or Collection Transaction
  - Scan Reject
  - CASA Backdated Transaction
  - In the Common Settlement taskflow, one of the supported modes is GL, that is Ledger. Once this option is chosen, based on the branch, the system will allow the user to filter and select the appropriate GL to perform the transaction. From the picklist, the appropriate ledger code can be selected by the user.
  - System provides a mechanism to define these entitlements or access policies that are to be maintained for the application roles applicable within the bank.

### **2.15.1.2 Transaction Blackout Configuration**

Transaction Blackout typically is required when the bank wants to implement blackout or restrictions on the execution of certain maintenances or transactions. Such restrictions may be required for different business scenarios. A mechanism is provided to have user based blackout (combination of customer and application role) or total blackout for a particular transaction.

The dimensions on the basis of which the blackout details are maintained will typically include:

- Transaction (or application service)
- Channel (from where the request is initiated)
- Start Time (beginning of blackout date and time duration)
- End Time (end of blackout date and time duration)

Over and above this maintainable blackout, there is also a system enforced blackout during batch operations. There is a configuration by which the Banker Portal tasks can be allowed or disallowed during execution of batch processes. This is checked when the application service associated with the particular maintenance or transaction in the application is executed. An error message is displayed, if the blackout condition is met.

### **2.15.1.3 Origination Application Tracker Entitlements**

The Application Tracker (Fast Path: OR100) within Origination enables users and customers to identify the progress with their particular application and to perform the necessary tasks or actions to ensure the application moves forward in the process. The ability to define the entitlements that are applicable for each

user role is provided to the bank. The actions and options displayed within the Application Tracker take into account such entitlement definitions.

## 2.15.2 Approvals

Typically, the administration team within the bank configures the tasks for approvals as per the bank's credit, pricing, regulatory or other policies. Within the application, the approval configuration is to be done primarily on the application service being executed corresponding to the task or business function being performed.

Artifact Dependency Map (ADM) is a mechanism provided to assert and identify the application services that are associated to a particular task or business function. The overridable business exceptions or reason codes associated with the application service can be configured for approval.

The application is pre-integrated with the Oracle SOA Suite for executing its business workflows. The Originations module uses several process or human workflow features to originate customers and accounts. The Approvals module makes use of the sophisticated participant assignment, routing or work-list features to fulfill the approvals use cases.

- The SOA suite identifies its users through authentication provider pointing to OID. The application UI and app servers also point to the same identity store to provide authentication rights to its users.
- Work-list users or process users are protected through access policies set up in OPSS. The SOA server domain is also re-associated to the same domain that the application UI and app-servers use to get the benefits of a centrally set up policy store.

Whenever a transaction is submitted by a user (banker, customer, and so on), security access check interceptors assert role-based access and fraud policies added on the service executed. Additionally, these interceptors also evaluate whether there are approvals configured on the service.

The output of these asserters is a decision on whether approvals are required or not. If approvals are required, the application executes the process (BPEL) configured for the transaction. Thereon, the BPEL process takes the responsibility of routing the approval task (work-item) to the configured assignees and ensuring that the assignees take the required action to complete the approval process.

Approval checks are of the following types:

- **Dual Control:** Any transaction can be set up for approvals (4-eyes principle).
- **User Limits:** User Limits assenter evaluates whether transaction amount is within limits available to the user (role).
- **Matrix Based:** Matrix assenter evaluates a matrix of facts available in the context of the transaction. This assenter is used to evaluate the delegated commitment authority and discretionary pricing facts.
- **Business Override Severity Configuration:** The severity configuration for the reason codes typically are as follows:
  - IGNORE
  - OVERRIDE
  - OVERRIDE - LOCAL (Local Authorization)
  - OVERRIDE \_ RULES (This option provides the flexibility to maintain different entitlement rules per service and reason code combination)

- REJECT
- NOTIFY

This severity option can be configured differently for combination of dimensions like application role + branch + channel.

The approval task typically indicates to the approvers the following details:

- Request details including the initiator's user ID, and date and time when the request was initiated
- Business exception or reason code and its corresponding description
- View approver's history as part of the approval work-item
- Capture comments to indicate approval/rejection

Local Authorization provides a mechanism for the approver to action the approval request from the initiator's workstation, thereby saving time in remote access of the approval work item from the worklist. Typically, it is useful for scenarios like over-the-counter transactions where the number of users in physical branch are less.

Support for deferred approval is allowed for set of tasks and based on the preconfigured periods. The supervisor can approve the same and if no action is taken within the period, the task becomes void. The posting date of such transactions will change to the date on which the supervisor approves the transactions.

### **2.15.2.1 Matrix Based Authorization**

This section explains the matrix based authorizations.

#### **2.15.2.1.1 Pricing Approval Negotiations**

Matrix based authorization are supported for different pricing dimension negotiations like:

- User Discretionary Margin (UDM)
- Fees
- Customized (base) rate capture
- Economic cost negotiation in servicing transactions like Term Deposit Redemption

This functionality is available for a wide range of transactions spanning Origination (for lending covering Loans and Overdraft) primarily as part of Structure Solution step, Loans (Actions within Manage Loan Account like Split Loan or Offer Swap OR Actions in Manage Facility Within Arrangement task like Add New Account respectively), and Term Deposit (Contract Modification or Fund Term Deposit).

The key difference at a high level between Origination and Non Origination approvals is that there is a Return task capability for origination approval rejections while this capability is available for servicing only in a limited set of tasks.

Different attributes are provisioned which can be used in rules for UDM or fee negotiation approvals. For example, Requested Amount and Product Group for a UDM negotiation approval while the Fee Negotiation details for Fee negotiation approvals. Also, generic attributes like business unit, transaction branch are available.

#### **2.15.2.1.2 Credit Approval Negotiations**

This functionality is for approval of credit for lending applications within the Origination process. Matrix attributes like aggregate application amount, sum of facilities being applied based on the Loan To Value (LTV) group, business unit and so on can be used to create different rules for getting the applications approved.

### **2.15.2.1.3 Collateral Processing Approvals**

Configure approval matrix authorization for the following transactions in LCM module:

- Collateral Sub Division
- Collateral Consolidation
- Collateral Valuation
- Collateral Realization
- Release of Collateral

Common Attributes as well as certain specific attributes with respect to these transactions can be used for creating conditions for authorization rule within Policy Management task in the application as well as approval task assignment rules within Oracle SOA Suite.

### **2.15.2.1.4 Transaction Limit Checks**

Flexibility is provided for transaction limits checks as part of Approval module for handling approval of:

- Daily or Cumulative limit checks for specific transactions
- Cumulative limit check for a group of transactions
- Specific override limits for a customer or account for handling exceptions to the transaction limit checks configuration

### **2.15.2.1.5 Cancel Pending Approval Request**

Flexibility is provided to initiators to cancel their approval requests prior to the completion of the approval process. Currently, this option is available only to the initiator of the approval request. Another advantage of this capability is that when the Close Teller Batch fails due to approval requests pending completion, the initiator can cancel such requests and proceed with teller batch closure. Prior to this option being available, the initiator had no option but to pursue the required approvers to either approve or reject the requests.

### **2.15.2.1.6 Approval Process Tracking**

The following capabilities are provided:

- View the status of the approval tasks associated with a particular request pending approval.
- View complete task history and state transitions for each of the approval tasks created.

Approval of Origination tasks can be tracked through the Application Tracker (Fast Path: OR100). The status of approval requests initiated from assisted or banker pages can be tracked through Work Item Inquiry (Fast Path: WL001).

## **2.16 Incentive**

Incentive module supports calculation of broker and dealer compensation for sourcing loans. The loans are sourced by these service providers, for which bank pays them commission. Incentive module supports defining plans and plan policies for service providers.

### **2.16.1 Define Plan for Service Providers (Fast Path: INC01)**

Through this page, the plans can be defined for service providers:

- **Compensation Plan:** It is defined as an agreement between bank and dealer or broker, where the bank pays compensation (commission) based on various criteria to the dealer for selling bank loans at interest rate which is higher than buy rate. Compensation is applicable for service provider dealer and broker.
- **Subvention Plan:** It is considered when the dealer sells the loan at lower than the buy rate. Dealer is responsible for paying the interest difference between the two. Subvention is applicable only when service provider is dealer.
- **Charge Back Plan:** It is recovery of excess compensation amount eligible to be paid or paid to the dealer. It is applicable only when the payment method is upfront or upfront month end. This can occur in two scenarios:
  - Early closure (Early Final Settlement)
  - Charge-off (Delinquency)
- **Payback Plan:** It is paying back excess subvention amount eligible to be received or received from the dealer. It is applicable only when the payment method is upfront or upfront month end. This can occur in two scenarios:
  - Early closure (Early Final Settlement)
  - Charge-off (Delinquency)

### **2.16.2 Maintain Plan Policy for Service Providers (Fast Path: INC02)**

Through this page, plan policies can be created for service providers. The plan policy resolves the plan ID (created using INC01). Bank can use different facts for resolving plan ID. Based on the resolved plan ID, the details of the applicable plan of compensation, subvention, charge back and payback are calculated.



# 3 US Localization Features

This chapter describes the key features of Oracle Banking Base for US localization.

## 3.1 Account Holder Preferences

For Checking, Savings Term Deposit, Overdraft, HELOC, and Line of Credit product types, there is an option to capture Tax Reporting and a flag to capture tax reporting customer's voluntary back up withholding request and the percentage of back up withholding.

## 3.2 Content (Document Management System)

The following feature is supported in Content:

### 3.2.1 Interface with Third Party Systems

Interfaces have been built with Equifax as part of US localization to support the following:

- Getting debit bureau report and debit bureau decision
- Checking due diligence status of a party
- Getting employment and income report as part of electronic verification

## 3.3 Party Information

The following are the key features in Party:

### 3.3.1 Customer Onboarding

The following capabilities are supported:

- Capture of other details such as the party being a service member or service member dependent and capture of the percentage for voluntary backup withholding.
- Capture of US specific tax identification details and related documents.
- Identification of a party as disabled or not.
- Identification of whether COPPA consent is obtained from the parents for kids below age of 13.

### 3.3.2 Party Bank Policy

The ability to configure parameters for COPPA consent age, expiry of W8 BEN, and number of days to display the address change alert is supported.

### 3.3.3 Interface with Third Party Systems

The following capabilities are supported:



#### ■ Due Diligence:

Base capability to integrate with third party system to perform electronic verification of Due Diligence and Identity Verification Type extended in US localization to perform Identity Verification and OFAC checks for a party post on-boarding process or significant events, such as Address Change. This integration is done through Equifax Inter Connect with data sources, such as eIDcompare and CDC OFAC, for KYC and OFAC respectively.

Capability to integrate with an address verification service provider for the address taskflow is also present.

#### ■ Standalone Credit Bureau Pull:

Base capability to fetch credit bureau report for a party in standalone mode without context of Origination has been extended for Equifax integration. System will have the capability to initiate a request to Equifax, fetch the credit bureau report and store it in readable form within the Party module. Party module has the ability to pass data to generate various reports such as:

- Opt-in and opt-out status from receiving commercial communication, electronic communication, and fax communication.
- Parents' consent on behalf of minor child for sharing the personal information.

### 3.3.4 Personally Identifiable Information (PII)

The capture of the following list of Personally Identifiable Information (PII) elements for a party is supported.

**Table 3–1 List of Personally Identifiable Information (PII) elements**

Sr. No.	Element Name	Description	Mandatory (M) / Optional (O) / Conditional / Configurable (C)	Masking
1	Full Name	Full name of a party (derived field) Multiple name types can be maintained for a party.	M	N
2	Date of Birth	Date of birth of a party	M	Y
3	Birthplace	Place of birth of a party	O	N
4	Address	Current, past and future address details of a party for multiple address types such as home, work, postal and more. Includes address types (Work, Residential, Postal, Seasonal, Holiday), Line 1 to Line 12, City, State, Country and Pin Code	M	N
5	Gender	Gender of a party	O	Y
6	Country of Citizenship	Country of citizenship of a party	C	N
7	Nationality	Nationality of a party (same as Country of Citizenship) This is a backend field and not available in UI.	O	N

Sr. No.	Element Name	Description	Mandatory (M) / Optional (O) / Conditional / Configurable (C)	Masking
8	Party Identification	Tax and Other identification details of a party	M	Y
9	Other Tax Residency Details	All FATCA (US)/CRS (Non US) details of a party	O	Y
10	First Name	First name of a party	M	N
11	Second Name	Second name of a party	O	N
12	Middle Name	Middle name of a party	O	N
13	Last Name	Last name of a party	O	N
14	Photographic Images	Images of party's photograph and signature	O	N
15	Login Name	Email ID or User ID or Customer ID of a party	C	Y
16	Marital Status	Marital status of a party	O	N
17	Mother's Maiden Name	Maiden name of a party's mother	O	Y
18	Religion	Religion of a party	O	Y
19	Ethnicity	Ethnicity details of a party	O	Y
20	Race	Race details of a party	O	Y
21	Blood Group	Blood group of a party	O	N
22	NAICS	Type of industry in which a party is employed	O	N
23	Occupation	Occupation of a party	O	N
24	Languages	Preferred language of a party	O	N
25	Emergency Contacts	Name and contact number of emergency contact person for a party	O	N
26	All Telephone Numbers	Contact details such as phone numbers, email addresses, fax numbers and so on, of a party along with preferences. Includes Fixed Landline Office, Fixed Landline Work, Fixed Landline Others, Fixed Landline Seasonal, Mobile Work, Mobile Personal, Mobile Seasonal, and Mobile Others	O	N
27	All Email Address	Email ID details of a party. Multiple email IDs can be maintained with any one ID set as preferred. Includes Work, Personal, Seasonal, Others (including the one captured in Basic details tab)	C	Y

### 3.3 Party Information

Sr. No.	Element Name	Description	Mandatory (M) / Optional (O) / Conditional / Configurable (C)	Masking
28	All Social Network User ID	Social Network details of a party such as Linked In, Facebook, Twitter, and Hi5	O	Y
29	All Messenger User ID	Social Network Messenger details of a party such as GTalk, Yahoo, MSN, and Skype	O	Y
30	Education History	Educational details of a party such as qualification, grade, university, and so on	O	N
31	Employer Name	Name of party's employer in the party's past and current employments	O	N
32	Employee ID	Employee ID of a party in the party's past and current employments	O	N
33	Job Title / Designation	Designation of a party in the party's past and current employments	O	N
34	Gross Annual Salary	Gross annual salary of a party in the party's past and current employments	O	Y
35	Smoker	Indicator to denote that a party is a smoker or non smoker	O	N
36	Height	Height in centimeters (cms) of a party	O	N
37	Weight	Weight in kilograms (kgs) of a party	O	N
38	Hobbies	Hobbies and interests of a party	O	N
39	Disabled	Risk indicator to denote that a party is disabled	O	N
40	Deceased	Risk indicator to denote that a party is deceased	O	N
41	Bankruptcy	Risk indicator to denote that a party is bankrupt	O	N
42	Title Reference Number	Title reference related details for a collateral (applicable for Property type of collateral where party is collateral owner)	O	N
43	Property Contact Details	Property Contact Details for a collateral (applicable for Property type of collateral where party is collateral owner)	O	N
44	Builder Contact Details	Builder Contact Detail for a collateral (applicable for Under Construction Property type of collateral where party is collateral owner)	O	N
45	Appraiser Agent Details	Appraiser Agent Details for a collateral (applicable for Property type of collateral where party is collateral owner and valuation of collateral is applicable)	O	N
46	Vehicle Identification	Vehicle Identification Number for the collateral (applicable for Automobile type of collateral)	O	N

Sr. No.	Element Name	Description	Mandatory (M) / Optional (O) / Conditional / Configurable (C)	Masking
	Number	where party is collateral owner)		
47	Chassis Number	Chassis Number for the collateral (applicable for Automobile type of collateral where party is collateral owner)	O	N
48	Registration Number	Registration Number for the collateral (applicable for Automobile type of collateral where party is collateral owner)	O	N
49	Engine Number	Engine Number for the collateral (applicable for Automobile type of collateral where party is collateral owner)	O	N
50	Financial Information	Complete financial details captured for a party	C	N
51	Bank Account Information	All bank accounts (account ID, account type and amount) where a party is an account owner.	C	N
52	Shareholder of	List of organization names where a party is a shareholder	O	N
53	Marketing Consent	All marketing consents (including text and value)	O	N
54	Electronic Communication Consent	Consents given by a party to receive notices and documents through electronic means of communication. If selected, it is mandatory to capture at least one preferred email address for the party.	O	N
55	All Other Consents	All consents at party level (including text and value)	M	N
56	Disability (for Retirement Accounts)	Indicator to denote if party is disabled or not	O	N
57	Disability By	Disability from birth or for a particular period	O	N
58	Start Date	Start date of the disability period	O	N
59	End Date	End date of the disability period	O	N

### 3.3.5 Personally Identifiable Information (PII) Shared with Third Party Systems

The application shares the Party PII details with the following third party systems:

- **Due Diligence System**

- Due Diligence solution enables banks to perform Know Your Customer (KYC) and Office of Foreign Assets Control (OFAC) checks for all the customers in the bank.

- The Party module shares the customer details (including PII details) with the third party system for checking due diligence status of a party.

■ **Credit Decision System**

- Oracle Banking Originations interacts with external credit decision interface for obtaining real-time credit decision for customers with lending requirements
- The application shares the loan, collateral and party information (including PII details) with the external credit decision system for credit approval processing as part of lending application origination.

■ **Credit Bureau Check**

- Oracle Banking Originations interacts with the credit bureau system as part of credit decision process.
- The application shares the party information (including PII details) with the external credit bureau system to initiate/retrieve credit information, reports to support application decisioning for all the parties in submission.

■ **Debit Bureau Check**

- Oracle Banking Originations interacts with the debit bureau system as part of debit decision process.
- The application shares the party information (including PII details) with the external debit bureau system to initiate/retrieve information, reports to support application decisioning for all the parties in submission.

■ **Electronic Verification**

- Oracle Banking Originations interacts with the external verification system as part of electronic verification process.
- The application shares the party information (including PII details) with the external verification system to perform employment verification for all the parties in application.

■ **Property Valuation System**

- Oracle Banking Limits and Collateral Management interacts with the third party valuation system to determine the valuation type and valuation amount for the property type of collaterals linked to the facility to determine the valuation sufficiency.
- The application shares the facility, collateral and party information (including PII details) with the external valuation system for determining the collateral value.

The list of Party PII details that are shared with these third party systems is as follows:

**Table 3–2 List of PII's shared with third party systems**

Sr. No.	Party PII Details	Third Party Systems					
		Due Diligence	Credit Decision	Credit Bureau Check	Debit Bureau Check	Electronic Verification	Valuation
1	Full Name	N	N	N	N	N	N
2	Date of Birth	Y	Y	Y	Y	Y	N

Sr. No.	Party PII Details	Third Party Systems					
		Due Diligence	Credit Decision	Credit Bureau Check	Debit Bureau Check	Electronic Verification	Valuation
3	Birthplace	N	N	N	N	N	N
4	Address	Y	Y	Y	Y	Y	Y
5	Gender	Y	Y	Y	Y	Y	N
6	Country of Citizenship	N	N	N	N	N	N
7	Nationality	N	N	N	N	N	N
8	Party Identification	Y	Y	Y	Y	Y	N
9	Other Tax Residency Details	N	N	N	N	N	N
10	First Name	Y	Y	Y	Y	Y	N
11	Second Name	N	N	N	N	N	N
12	Middle Name	Y	Y	Y	Y	Y	N
13	Last Name	Y	Y	Y	Y	Y	N
14	Photographic Images	N	N	N	N	N	N
15	Login Name	N	N	N	N	N	N
16	Marital Status	Y	Y	Y	Y	Y	N
17	Mother's Maiden Name	N	N	N	N	N	N
18	Religion	N	N	N	N	N	N
19	Ethnicity	N	N	N	N	N	N
20	Race	N	N	N	N	N	N
21	Blood Group	N	N	N	N	N	N
22	NAICS	N	N	N	N	N	N
23	Occupation	N	N	N	N	N	N
24	Languages	N	N	N	N	N	N
25	Emergency Contacts	N	N	N	N	N	N
26	All Telephone Numbers	Y	Y	Y	Y	Y	N
27	All Email Address	Y	Y	Y	Y	Y	N
28	All Social Network User ID	N	N	N	N	N	N

### 3.3 Party Information

Sr. No.	Party PII Details	Third Party Systems					
		Due Diligence	Credit Decision	Credit Bureau Check	Debit Bureau Check	Electronic Verification	Valuation
29	All Messenger User ID	N	N	N	N	N	N
30	Education History	N	N	N	N	N	N
31	Employer Name	N	N	N	N	N	N
32	Employee ID	N	N	N	N	N	N
33	Job Title / Designation	N	N	N	N	N	N
34	Gross Annual Salary	N	Y	N	N	N	N
35	Smoker	N	N	N	N	N	N
36	Height	N	N	N	N	N	N
37	Weight	N	N	N	N	N	N
38	Hobbies	N	N	N	N	N	N
39	Disabled	N	N	N	N	N	N
40	Deceased	N	N	N	N	N	N
41	Bankruptcy	N	N	N	N	N	N
42	Title Reference Number	N	N	N	N	N	N
43	Property Contact Details	N	N	N	N	N	N
44	Builder Contact Detail	N	N	N	N	N	N
45	Valuer Agent Details	N	N	N	N	N	N
46	Vehicle Identification Number	N	N	N	N	N	Y
47	Chassis Number	N	N	N	N	N	N
48	Registration Number	N	N	N	N	N	N
49	Engine Number	N	N	N	N	N	N
50	Financial Information	N	N	N	N	N	N
51	Bank Account Information	N	N	N	N	N	N

Sr. No.	Party PII Details	Third Party Systems					
		Due Diligence	Credit Decision	Credit Bureau Check	Debit Bureau Check	Electronic Verification	Valuation
52	Shareholder of	N	N	N	N	N	N
53	Marketing Consent	N	N	N	N	N	N
54	Electronic Communication Consent	N	N	N	N	N	N
55	All Other Consents	N	N	N	N	N	N
56	Disability (for Retirement Accounts)	N	N	N	N	N	N
57	Disability By	N	N	N	N	N	N
58	Start Date	N	N	N	N	N	N
59	End Date	N	N	N	N	N	N

## 3.4 Product Manufacturing

The following are the key features in Product Manufacturing:

- An Identifier at product group level can be configured to indicate if Mortgage Loan Originator information is required to be captured as part of Loan Application Form, in case of new and amend lending.
- Ability is provided to indicate whether the product is covered under the Military Lending Act, if the product and party qualify for the Military Lending Act.
- It can be configured whether capturing of CRA Address is applicable or not during Origination account configuration. When checked, the taskflow for capturing address type and selection of address is displayed during account configuration for Loans and OD as part of Origination process. This address is used for CRA reporting and is maintained at account level along with other Regulatory Codes information.
- It can be configured whether Government Monitoring Information is required to be captured or not. If it is configured as Yes, then as part of Origination, the GMI reporting fields such as ethnicity, race, gender of the applicants need to be captured. This is applicable only for HELOC type of products.
- It can be configured whether the Annual Percentage Rate is applicable for the product or not. The annual percentage rate is a measure of the cost of credit, expressed as a yearly rate, which relates the amount and timing of value received by the consumer to the amount and timing of payments made. APR provides borrowers with a bottom-line number which they can easily compare to rates charged by other potential lenders.
- Cancellation period before the disbursement of the loan can be defined.
- Offer type can be defined and selected for creating a CASA, TD or Loan offer.
- For CASA offer, it can be configured whether Courtesy Pay is applicable or not. If it is applicable, then Courtesy Pay amount and currency can be defined.



- Ability to integrate the SBA Questionnaire in the Offer task flow has been introduced as part of Origination process.
- Ability to indicate the type of guarantor such as Small Business Administration (SBA) and Certified Development Company (CDC) is provided in Credit Policy.

## 3.5 Collateral Valuation

The application can be integrated with third party Automated Valuation Model (AVM), such as Property Data and Analytics (PD&A) product of Equifax for property valuation in US region.

## 3.6 Clearing

The following are the key features in Clearing:

- Support for Reg CC setup and processing: This includes definition of Reg CC schedules at bank level, override of schedules at customer, account, and check level, batch processing to derive the Reg CC schedule, and processing the same for deferred release of funds.
- Support for cash back, immediate credit, and return cases for Reg CC.
- Support for bank float balances: This includes definition of bank float, processing the same for CASA and Loan accounts, downstream impact on interest processing and availability of funds.

## 3.7 Common Services

The common address taskflow has the capability to integrate with external address verification systems. The address taskflow presents address fields to the users for capturing an address. The address is shown as a single line in View mode.

## 3.8 Cancellation of Debt Form (1099C) – Data Extraction

Capability is provided to extract the data that is required to build the Cancellation of Debt Form (1099C). At the end of every financial year, as per IRS guidelines, the account details of customers where the debt is forgiven to the threshold indicated by IRS is extracted and kept in a storage, from which any third party system that is responsible for generating the report in a format suggested by IRS can pick up the data for generating the report.