Oracle Financial Services Revenue Management and Billing

Version 8.0.0.0.0

API Reference Guide

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Oracle Financial Services Revenue Management and Billing Version 8.0.0.0.0 API Reference Guide

Note: To improve the content readability, the above product is referred to as Oracle Revenue Management and Billing throughout this document.

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Preface

About This Document

This document will help you understand various API services offered by Oracle Revenue Management and Billing (ORMB).

Intended Audience

This document is intended for the following audience:

- End-Users
- System Administrators
- Consulting Team
- Implementation Team

Organization of the Document

The information in this document is organized into the following sections:

Section No.	Section Name	Description
Section 1	Overview	Provides an overview of Web Services available in ORMB.
Section 2	Customer Registration Services	Lists and describes the customer registration services.
Section 3	Pricing Management Services	Lists and describes the pricing management services.
Section 4	Exchange Rate Services	Lists and describes the exchange rate services.
Section 5	Transaction Services	Lists and describes the transaction services.
Section 6	Billable Charge Services	Lists and describes the billable charge services.
Section 7	Adjustment Services	Lists and describes the adjustment services.
Section 8	Payment Services	Lists and describes the payment services.
Section 9	Auto Payment Services	Lists and describes the auto payment services.
Section 10	Hold Request Services	Lists and describes the hold request services.
Section 11	Retail Banking Product Services	Lists and describes the retail banking product services.
Section 12	Deal Pricing Management Services	Lists and describes the deal pricing management services.

Conventions

The following conventions are used across the document:

Convention	Meaning
boldface	Boldface indicates graphical user interface elements associated with an action, or terms defined in the text.
italic	Italic indicates a document or book title.
Monospace	Monospace indicates information that an end-user needs to enter in the application.

Related Documents

You can see the following documents for more information:

Document Name	Description
Oracle Revenue Management and Billing Banking User Guide	Describes various features which are available for the financial services business. For example, customer registration, customer 360° view, invoicing group, pricing management, multi-currency accounts, currency conversion, construct based billing and settlement, trial billing, product lifecycle management, subscription billing, mass pricing update, accrual, foreign exchange gain loss, transaction feed management, upload validated payment and adjustment data, freeze payments on notification, payment request, offset request, funding request, hold request, refund/write off request, dispute request, upload request, earnings credit rate, payment agreement request, invoice request, deal management, etc. It describes all screens related to these features and explains how to perform various tasks related to the feature in the application.

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Contents

1.   Overview

Oracle Revenue Management and Billing enables you to receive web service requests from an external system through an inbound web service.

The system supports communicating with another system via RESTful services or via SOAP services. In both cases, the system uses an object called inbound web service (IWS) to store the configuration. A web service class is used to distinguish whether the IWS is used for REST or SOAP. There is also a distinct business object for each web service class value because there is different configuration for each type of IWS.

For both types of inbound web service, the system supports the configuration of one or more operation per web service. Each operation defines the schema-based object to invoke to perform the desired function. An operation may refer to a business Service, a business object, or a service script. If the IWS supports multiple operations, each operation can refer to the same or a completely different schema-based object from other operations within the IWS. For more information about the inbound web services, refer to the *Oracle Utilities Application Framework Administrative Guide*.

This section lists the APIs available for the following modules in *Oracle Revenue Management and Billing*.

- Customer Registration
- Pricing Management
- Exchange Rate
- Transaction
- Billable Charge
- Adjustments
- Payments
- Auto Payments
- Hold Request
- Product Catalogue (Retail Banking Product)
- Deal Pricing Management

Note: In Oracle Revenue Management and Billing, all Business Service Objects can be converted to IWS as per user requirement. This document provides details of the IWS available (like Pricing Services), and other Business Service Objects (like Hold Request Services) that user can convert to IWS.

2.   Customer Registration Services

Oracle Revenue Management and Billing enables you to create and update a person and account through a web service.

2.1   C1-CustomerRegistration

The **C1-CustomerRegistration** web service enables you to perform the following operations:

- createCustomer
- updateCustomer
- createAccount
- updateAccount

2.1.1   Prerequisite

To use the **C1-CustomerRegistration** service, you need to do the following:

- Define the required division and customer class.
- Define the required person identifier types, name types and phone types.
- Define the required Countries and states.
- Define the customer segments and customer tiers, if applicable.
- Define the required Person Relationship Types.
- Defined the required characteristic types for Person and Person to Person Relationship.

2.1.2   Input Output Parameters for createCustomer & updateCustomer

Input parameters for create and update operation is defined in the following table. Note, the output response is also the same tags.

Tag Name	Comments	Mandatory (Yes or No)
personId	Person ID (Used to indicate Person (Customer) ID). **For Create New Customer:** This field is auto populated by the system. **For Update Customer:** User can pass the ID if applicable.	No

Tag Name	Comments	Mandatory (Yes or No)
personOrBusiness	Person Type (Used to indicate the type of person). The valid values are: • B (Business) • BG (Bill Group) • G (Group) • K (Broker) • P (Person) • PG (Parent Customer) • RI (Reinsurer Person) • TP (TPA Person)	Yes
lifeSupportSensitiveLoad	VIP Customer (Used to indicate the Life Support details of the customer). The valid values are 'Y' and 'N'.	No
lifeSupportSensitiveLoadDescription	Description (Used to indicate the Life Support details of the customer)	No
emailAddress	Email (Used to specify email address of the customer)	No
overrideMailingName1	Name 1 (If the customer does not want their primary name used on bills, letters or statements, specify the desired name in Override Mailing Name)	No
address1	Address (Used to specify the first line of the customer's mailing address)	Yes
address2	Address 2 (Used to specify the second line of the customer's mailing address. It may contain details, such as street name. It may contain details, such as house number and apartment name)	No
address3	Address 3 (Used to specify third line of the customer's mailing address. It may contain the landmark details)	No
address4	Address 4(Used to specify forth line of the customer's mailing address)	No
city	City (City of the customer's mailing address)	No
streetNumber1	Number 1 (Street number of the customer's mailing address)	No
streetNumber2	Number 2 (Street number of the customer's mailing address)	No

Tag Name	Comments	Mandatory (Yes or No)
county	County (County of the customer's mailing address)	No
postal	Postal (Postal code of the customer's mailing address)	No
houseType	House Type (Used to indicate the type of the house, if applicable). The valid values are: • AB (House Boat Reference) • WW (House Trailer Reference)	No
taxVendorGeographical	Geographical Code (Used to specify the geographic code of the address)	No
isInCityLimit	In City Limit (Used to indicate whether the address is within the city limit). The valid values are: • true • false	No
state	State (Used to specify the state of customer's mailing address) **Note:** You must specify a state belonging to the Country provided.	No
country	Country (Country of customer's mailing address)	No
language	Language (Used to specify the Language. User can input the applicable Language codes like ENG/ DUT/ GER)	No
overrideMailingName2	Name 2 (Alternate name, if customer does not want their primary name used on bills, letters or statements)	No
overrideMailingName3	Name 3 (Alternate name, if customer does not want their primary name used on bills, letters or statements)	No
webSelfServicePassword	Web Self Service Password (Password provided by customer when registering for the web self-service application)	No

Tag Name	Comments	Mandatory (Yes or No)
webMarketingInfo	Web Self Service Marketing Info Flag (Indicates whether or not the customer has chosen to receive marketing information). The valid values are: • NRCV (Doesn't Receive Marketing Info) • RCVE (Receives Marketing Info)	No
webSelfServicePasswordHintAnswer	Web Self Service Password Hint Answer (Defined by the customer when registering and used when the customer has forgotten the password)	No
personDataArea	Person Data Area (Used to store additional attributes of customer)	No
webPasswordHint	Password Hint (Defined by the customer when registering and used when the customer has forgotten the password). The valid values should be defined in the lookup WEB_PWD_HINT_FLG. Values provided from the product are: • COL (What's your favorite color?) • MOTH (What's your mother's maiden name?) • PET (What is your pet's name?) • SCHO (What elementary school did you attend?) • VAC (What's your favorite vacation destination?) • WED (What is your wedding anniversary?)	No
division	Division (Used to indicate the division to which the customer belongs, i.e., the jurisdiction that governs this customer)	Yes
accessGroup	Access Group (Used to indicate the user group that can access the customer's information) **Note:** You must specify a valid Access Group defined in the system.	Yes
birthDate	Date of Birth (Birth date of customer)	No
sinceDate	Person Since Date (Used to specify the date when the customer is created in the system)	No

Tag Name	Comments	Mandatory (Yes or No)
imRefundSw	Immediate Refund (Used to indicate whether you want to process immediate refund for the accounts under this customer). The valid values are: • true • false	No
createdBy	Create By User (Used to specify the user who created the person)	Not Applicable
creationDate	Creation Date (Used to display the creation date of the person)	Not Applicable
lastUpdatedBy	Last Updated By User (Used to display the user who last updated the person)	Not Applicable
lastUpdatedDTTM	Last Updated Date Time (Used to display the date & time on which the person was last updated)	Not Applicable
customerSegment	Customer Segment (Customer segmentation to which the customer belongs) **Note:** You can define a customer segment through the CUST_SEG_FLG lookup field.	No
customerTier	Customer Tier (Indicates the tier to which the customer belongs) **Note:** You can define a customer tier through the CUST_TIER_FLG lookup field.	No
sourceSystem	Source System (Used to indicate the external system from which the account create request is sent)	No
bo	Business Object (Used to display the Business Object using which the person is created)	Not Applicable
personSeasonalAddress		

Tag Name	Comments	Mandatory (Yes or No)
personId	Person ID (Person ID of the customer, for who correspondence to be sent to an alternate address during predefined period in a year). **For Create New Customer:** This field is auto populated by the system. **For Update Customer:** User can pass the ID if applicable.	No
sequence	Sequence (Sequence number of the seasonal address being defined)	Yes (Conditional) **Note:** This is needed when a seasonal address is defined for a person.
effectiveStatus	The Status of the seasonal address to be used. Value is either: • A (Active) • I (Inactive)	Yes (Conditional) **Note:** This is needed when a seasonal address is defined for a person.
endMonthDay	End Month/Day (Day and month when the season ends)	Yes (Conditional) **Note:** This is needed when a seasonal address is defined for a person.
startMonthDay	Start Month/Day (Day and month when the season starts)	Yes (Conditional) **Note:** This is needed when a seasonal address is defined for a person.
country	Country (Country of customer's seasonal address)	No
state	State (State of customer's seasonal address)	No
isInCityLimit	In City Limit (Used to indicate whether the address is within the city limit). The valid values are: • true • false	No
taxVendorGeographicalCode	Geographical Code (Used to specify the geographic code of the address)	No

Tag Name	Comments	Mandatory (Yes or No)
houseType	House Type (Used to indicate the type of the house, if applicable). The valid values are: • AB (House Boat Reference) • WW (House Trailer Reference)	No
streetNumber1	Number 1 (Street number of the customer's mailing address)	No
streetNumber2	Number 2 (Street number of the customer's mailing address)	No
county	County (County of the customer's mailing address)	No
postal	Postal (Postal code of the customer's mailing address)	No
city	City (City of the customer's mailing address)	No
address4	Address 4 (Address line of the seasonal address)	No
address3	Address 3 (Address line of the seasonal address)	No
address2	Address 2 (Address line of the seasonal address)	No
address1	Address 1 (Address line of the seasonal address)	Yes (Conditional) **Note:** This is needed when a seasonal address is defined for a person.
personCharacteristic		
personId	Person ID (Person ID of the customer, for who additional miscellaneous information is to be added) **For Create New Customer:** This field is auto populated by the system. **For Update Customer:** User can pass the ID if applicable.	No
characteristicType	Characteristic Type (Indicates the type of characteristic)	Yes (Conditional) **Note:** This is needed when a characteristic is defined for a person.

Tag Name	Comments	Mandatory (Yes or No)
characteristicValue	Characteristic Value (Indicates the value of the characteristic type when the characteristic type is having predefined characteristic values)	Yes (Conditional) **Note:** This is needed when a characteristic is defined for a person and the characteristic type is having predefined characteristic values.
EffectiveDate	Effective Date (Date on which the characteristic becomes effective)	Yes (Conditional) **Note:** This is needed when a characteristic is defined for a person.
adhocCharacteristic	Adhoc Characteristic Value (Used to specify any ad hoc characteristic for the customer)	Yes (Conditional) **Note:** This is needed when a characteristic is defined for a person and the characteristic type is of Adhoc type.
characteristicValueForeignKey1	Foreign Key Value 1 (Used to specify a foreign key. The data is required if the char value type of the characteristic type is set to Foreign Key Value)	Yes (Conditional) **Note:** This is needed when a characteristic is defined for a person and the characteristic type is of Foreign Key Reference type.
characteristicValueFK2	Foreign Key Value 2 (Used to specify a foreign key. The data is required if the char value type of the characteristic type is set to Foreign Key Value)	No
characteristicValueFK3	Foreign Key Value 3 (Used to specify a foreign key. The data is required if the char value type of the characteristic type is set to Foreign Key Value)	No
characteristicValueFk4	Foreign Key Value 4 (Used to specify a foreign key. The data is required if the char value type of the characteristic type is set to Foreign Key Value)	No

Tag Name	Comments	Mandatory (Yes or No)
characteristicValueFK5	Foreign Key Value 5 (Used to specify a foreign key. The data is required if the char value type of the characteristic type is set to Foreign Key Value)	No
personId2		
personId	Person ID (Person ID of the customer, for who primary or other identification has to be defined) **For Create New Customer:** This field is auto populated by the system. **For Update Customer:** User can pass the ID if applicable.	No
idType	Person Identifier Type (Identification type for the customer). The ID Type defaults from the Installation Record based on the Person Type like: • SSN (Social security number) • SIN (Social insurance number) • BIC (Bank Identifier Code) • EXID (External Identifier number) • CUSTID (Customer ID)	Yes
personIdNumber	Person Identifier (Identification number of the customer, against the Identification Type). **Note:** If the ID Number should be formatted (e.g., dashes in an American social security number), you do not have to enter the dashes. Rather, you can enter the information as a contiguous value and the system will format this for you.	Yes
isPrimaryId	Primary ID (Indicates ID that is the primary means of identifying the customer.) 'Y' denotes this ID is the primary ID of the customer. The valid values are: • true • false **Note:** You must have one and only one primary identifier for a person.	Yes
personName		

Tag Name	Comments	Mandatory (Yes or No)
uppercaseEntityName	Name (Customer's primary name in upper case)	No
personId	Person ID (Person ID of the customer, for who Person name is being defined)	No
sequence	Sequence (Indicate the sequence of the person name)	No
entityName	Name (Customer's primary name, which will be used to look for accounts and persons, and is the addressee on the person's bills, statements and other correspondence) **Note:** This field is case sensitive. Input must be comma separating the last and first name (Ex.: Smith, Patricia).	Yes (Conditional) **Note:** This is required when you define a name for the person.
nameType	Name Type (Indicates the Name type, if it is Primary, Legal, Alias etc) User to enter the suitable Field Type: **Field Value/Description** • AL – Alias • ALT - Alternate Representation • DBA - Doing Business As • FORM - Former • LGAL - Legal • PRIM - Primary	Yes (Conditional) **Note:** This is required when you define a name for the person.
isPrimaryName	Primary Name (Indicates if the value is primary name of the customer). The valid values are: • true • false **Note:** You can have only one primary name for a person.	Yes (Conditional) **Note:** This is required when you define a name for the person.
personPerson	This section is used to define the customer's relationship with other persons. It allows defining the Parent, Child relationship in a customer hierarchy.	No

Tag Name	Comments	Mandatory (Yes or No)
personId1	Parent Person ID (The Person ID of the Parent customer) **For Create New Customer:** This field is auto populated by the system. **For Update Customer:** User can pass the ID if applicable.	No
personId2	Child Person ID (The Person ID of the Child customer)	Yes (Conditional) **Note:** This is required when you define a child person for the person.
personRelationshipType	Person Relationship Type (Indicates the type of relationship between the parent and the child person) **Note:** You must specify a valid person relationship type defined in the system.	Yes (Conditional) **Note:** This is required when you define a child person for the person.
startDate	Start Date (Date on which this relationship began)	Yes (Conditional) **Note:** This is required when you define a child person for the person.
endDate	End Date (If the relationship expires, indicate the date the relationship stops)	No
hasFinancialRelationship	Financial Relationship (Flag to indicate if the Persons have financial relationship between them). 'true' denotes the presence of financial relationship. The valid values are: • true • false	Yes (Conditional) **Note:** This is required when you define a child person for the person.
personPersonChar	*This section is used to define the characteristics of the Person-to-person relationship.*	No
personId1	Parent Person ID (The Person ID of the Parent customer) **For Create New Customer:** This field is auto populated by the system. **For Update Customer:** User can pass the ID if applicable.	No

Tag Name	Comments	Mandatory (Yes or No)
personId2	Child Person ID (The Person ID of the Child customer)	Yes (Conditional) **Note:** This is required when you define a characteristic for the child person.
personRelationshipType	Person Relationship Type (Indicates the type of relationship between the parent and the child person) **Note:** You must specify a valid person relationship type defined in the system.	Yes (Conditional) **Note:** This is required when you define a characteristic for the child person.
startDate	Start Date (Date on which this relationship began)	Yes (Conditional) **Note:** This is required when you define a characteristic for the child person.
characteristicType	Characteristic Type (Used to indicate the characteristic type) **Note**: You must specify a characteristic type where the characteristic entity is set to **Person to Person**.	Yes (Conditional) **Note:** This is required when you define a characteristic for the child person.
effectiveDate	Effective Date (Used to specify the date from when the characteristic is effective for the person to person relationship)	Yes (Conditional). **Note:** This is required when you define a characteristic for the child person.
searchCharacteristicValue	Search Characteristic Value (Not to be provided in the request. The characteristic value provided in the previous fields get populated in this field in the response)	Not Applicable
characteristicValue	Characteristic Value (Indicates the value of the characteristic type when the characteristic type is having predefined characteristic values)	Yes (Conditional) **Note:** This is required when you define a characteristic for the child person and the characteristic type is having predefined value.

Tag Name	Comments	Mandatory (Yes or No)
adhocCharacteristicValue	Adhoc Characteristic Value (Used to specify an ad hoc characteristic value. The data is required if the char value type of the characteristic type is set to ad hoc Value)	Yes (Conditional) **Note:** This is required when you define a characteristic for the child person and the characteristic type is having adhoc characteristic value.
characteristicValueForeignKey1	Foreign Key Value 1 (Used to specify a foreign key. The data is required if the char value type of the characteristic type is set to Foreign Key Value)	Yes (Conditional) **Note:** This is required when you define a characteristic for the child person and the characteristic type is of foreign key reference type.
characteristicValueFK2	Foreign Key Value 2 (Used to specify a foreign key. The data is required if the char value type of the characteristic type is set to Foreign Key Value)	No
characteristicValueFK3	Foreign Key Value 3 (Used to specify a foreign key. The data is required if the char value type of the characteristic type is set to Foreign Key Value)	No
characteristicValueFk4	Foreign Key Value 4 (Used to specify a foreign key. The data is required if the char value type of the characteristic type is set to Foreign Key Value)	No
characteristicValueFK5	Foreign Key Value 5 (Used to specify a foreign key. The data is required if the char value type of the characteristic type is set to Foreign Key Value)	No
personPhone		
personId	Person ID (Person ID of the customer) **For Create New Customer:** This field is auto populated by the system. **For Update Customer:** User can pass the ID if applicable.	No

Tag Name	Comments	Mandatory (Yes or No)
sequence	Sequence (Indicates the display sequence of the phone number of the person)	Yes (Conditional) **Note:** This is required when you define a characteristic for the child person and the characteristic type is having predefined value.
phoneType	Phone Type (Indicates the type of phone number, Ex - Home/ Mobile/ Business/ Fax) **Note:** You must specify a valid Phone Type defined in the system.	Yes (Conditional) **Note:** This is required when you define a characteristic for the child person and the characteristic type is having predefined value.
internationalPrefix	Int'l Prefix (Used to define the country code prefixed to the phone number)	No
phone	Phone Number (The telephone number of the customer)	Yes (Conditional) **Note:** This is required when you define a characteristic for the child person and the characteristic type is having predefined value.
extension	Extension (Extension number of the telephone number if available)	No

2.1.3   Input Output Parameters for createAccount & updateAccount

Input parameters for create and update operation is defined in the following table. Note, the output response is also the same tags.

Tag Name	Comments	Mandatory (Yes or No)
accrualCycle	Accrual Cycle (Used to indicate the accrual cycle of the account in the division) **Note:** You must specify a valid Accrual Cycle defined in the system.	No

Tag Name	Comments	Mandatory (Yes or No)
accrualType	Accrual Type (Used to indicate the accrual type using which the accrual is calculated for the account) **Note:** You must specify a valid Accrual Type that is defined in the system.	No
exclAccrSw	Exclude Accrual (Used to indicate whether the account is eligible for accrual). The valid values are 'Y' and 'N'. **Note:** When the value is set to 'Y', then Accrual Cycle should not be provided.	No
imRefundSw	Immediate Refund (Used to indicate whether you want to process immediate refund for the account). The valid values are 'Y' and 'N'.	No
apayRevReqSw	Auto Pay Review Required (Used to specify Auto Pay Review Required or not). The valid values are 'Y' and 'N'.	No
accountId	Account ID (System-assigned random number that stays with an account for life) (Not to be provided in the request for creating an account. This will be present in the response schema after the account creation)	No
billCycle	Bill Cycle (Used to indicate the bill cycle defined for the account. It controls when a bill is produced for an account)	No
setUpDate	Set Up Date (Used to display the date when the account is initially setup in the system. This is purely informational)	Yes
currency	Invoice Currency (Used to indicate the invoice currency of the account. It defines the currency in which the account's financial transactions are expressed. All rates and payments associated with this account must be denominated in this currency)	Yes
accountManagement Group	Management Group (Used to specify the account management group which controls the roles assigned to the To Do entries associated with an account)	No
alertInformation	Alert Information (Used to specify any alert information associated with the account)	No

Tag Name	Comments	Mandatory (Yes or No)
billAfter	Bill On Or After Date (Used to specify the date after which the bill must be generated for the billable charge. This is used to defer the billing for an account till a specified date)	No
shouldProtectBillCycle	Protect Bill Cycle (If you do not want the system to change an account's bill cycle when a contract is activated, you need to turn on the account's protect bill cycle flag). The valid values are 'Y' and 'N'.	No
division	Division (Used to define the jurisdiction that governs this account) **Note:** You must specify a valid division that is defined in the system. The division should be valid for the customer class provided for the account. Division governs many functions. An account's division impacts its subsequent bill due dates, late payment charge dates, credit & collections review dates, its default budget plan, the roles assigned to To Do entries, and the calendar of workdays.	No
mailingPremise	Mailing Premise (Used to define the address on bills for persons who have their bill sent to the account's mailing premise)	No
shouldProtectMailingPremise	Protect Mailing Premise (If you do not want the mailing premise to change when a service agreement is activated, turn on Protect Mailing Premise). The valid values are 'Y' and 'N'.	No
collectionClass	Collection Class (Used to indicate how the account's debt is reviewed by the credit and collections processes (i.e., the account debt monitors and the write-off monitor))	Yes (Conditional) **Note:** This field is required while adding the credit rating details for an account.

Tag Name	Comments	Mandatory (Yes or No)
lastCreditReviewDate	Last Credit Review Date (Used to indicate the last review date of the account's debt by the account debt monitor)	Yes (Conditional) **Note:** This field is required while adding the credit rating details for an account.
postponeCreditReviewUntil	Postpone Credit Review Until (Used to specify the date till when you want to postpone the account's debt review by the credit and collections processes (i.e., the account debt monitor and the write-off monitor))	Yes (Conditional) **Note:** This field is required while adding the credit rating details for an account.
isInternalCreditReview	Internal Credit Review (Used to specify the credit review is required or not). The valid values are 'Y' and 'N'.	No
customerClass	Customer Class (Used to indicate the customer class to which the account belongs)	Yes
billPrintIntercept	Bill Print Intercept (Used to specify the user ID of the individual who reviews the bill in Bill Print Intercept)	No
doNotReviewDeposit	Do Not Review Deposit (Used to specify if this account should be considered by the **Deposit Review** background process or not). The valid values are 'Y' and 'N'.	No
budgetPlan	Budget Plan (Used to indicate how the account's debt is managed for budget-related purposes) **Note:** You must specify a valid Budget Plan defined in the system.	No
shouldProtectDivision	Protect Division (Used to specify If you do not want the system to change the division when a contract is activated or not). The valid values are 'Y' and 'N'.	No

Tag Name	Comments	Mandatory (Yes or No)
accessGroup	Access Group (Used to indicate the access group that can access the account for the person. It controls which users are allowed to view and update this account's information (including bills, contracts, and payments)) **Note:** You must specify a valid access group that is defined in the system. The access group that you provide should be valid for the division assigned to the account.	Yes
accountDataArea	Account Data Area (Used to store additional attributes of account) **Note:** This is to be used by the implementations to extend the Account data model.	No
ecExpSchCd	Earning Credit Expiration Cycle (Used to indicate the earning credit expiration cycle for the account)	No
billLeadDays	Bill Lead Days (Used to indicate whether you want to bill the account in advance. You need to specify the number of days which is used to derive the cut-off date for advance billing. In case you don't want to bill the account in advance, you must specify 0 in this field)	No
acctUsageFlg	Account Category (Used to indicate the category to which the account belongs). The valid values are: • INVC (Invoice Account) • SETL (Settlement Account) • USAG (Usage Account) **Note:** If not provided, this field will be defaulted to Usage Account.	No
isTrialBillAcct	Trial bill (Used to indicate whether the account should be considered during trial billing when the C1-PNDBL, C1-BSGEN, and C1-BLPPR batches are executed with the Process All or Selected Accounts parameter set to Y). The valid values are 'Y' and 'N'.	No

Tag Name	Comments	Mandatory (Yes or No)
repricingSW	Eligible For Repricing (Used to indicate whether the account is eligible for repricing when the account attributes (defined as parameters in the system) are changed)	No
productCode	Product (Used to indicate the product for which the account is enrolled)	No
createdBy	Created By	No
lastUpdatedBy	Last Update By	No
creationDateTime	Creation Date Time	No
lastUpdatedDTTM	Last Update Date Time	No
closingDate	Closing Date (Used to specify the date from when you want to close the activities on the account. If the account closure feature is enabled, the closing date is recalculated considering the grace days, if any. The account is not billed from the recalculated closing date onwards)	No
deferAutoPayDt	Defer Auto Pay Date (Used to specify the date till when you want to hold the automatic payment process of the account)	No
ruleAutoPaySw	Rule Based Auto Pay (Used to indicate whether the automatic payment is rule based). The valid values are 'Y' and 'N'. **Note:** If this field is set to 'Y', then you cannot setup Auto Payments using this request.	No
sourceSystem	Source System (Used to indicate the external system from which the account create request is sent)	No
accountAlert List		
accountId	Account ID (Used to indicate the account for which the alert details are added or updated) (Not to be provided in the request for creating an account.)	No
alertType	Alert Type (Used to specify the alert type for the account)	Yes (Conditional) **Note:** This is required when you want to add an alert on the account.

Tag Name	Comments	Mandatory (Yes or No)
startDate	Start Date (Used to specify the date from when the alert type will be active for the account and displayed on the dashboard)	Yes (Conditional) **Note:** This is required when you want to add an alert on the account.
endDate	End Date (Used to specify the date till when the alert type will be active for the account and displayed on the dashboard)	Yes (Conditional) **Note:** This is required when you want to add an alert on the account.
accountAutopayList		
accountAutoPayId	Auto Pay ID (Used to specify the auto pay Id for an account)	No
accountId	Account ID (Used to indicate the account for which the auto pay details are added or updated) (Not to be provided in the request for creating an account.)	No
startDate	Start Date (Used to indicate the date from when the auto pay option is effective)	Yes (Conditional) **Note:** This is required when you want to add an auto pay on the account.
endDate	End Date (Used to indicate the date till when the auto pay option is effective)	No
apayUsgFlg	Auto Pay Usage (Used to indicate whether the automatic payment option is available for automatic credit or debit, or for both automatic credit and debit) The valid values are: • CR (Credit) • DB (Debit) • CRDB (Credit and Debit) If not provided, then value will be defaulted to 'DB'.	No
autopaySource	Auto Pay Source Code (Used to indicate the source of funds used to make the automatic payment. For example, debit card or credit card)	Yes (Conditional) **Note:** This is required when you want to add an auto pay on the account.

Tag Name	Comments	Mandatory (Yes or No)
externalAccountId	Account Number (Used to indicate the account in the external system for which the autopay details should be added or updated)	Yes (Conditional) **Note:** This is required when you want to add an auto pay on the account.
expireDate	Expires On (Used to define an **Expires On** date if the **Auto Pay Source Code** references a tender type that requires an expiration date)	No
entityName	Name (Used to specify the name of the person)	No
comments	Comments (Used to specify additional information about the autopay instruction)	No
autopayMaxWithdrawalAmount	Maximum Withdrawal Amount (Used to specify the maximum amount that can be automatically debited from the autopay account. It is used to set the limit on the withdrawal amount)	No
autoPayMethod	Auto Pay Method (Used to indicate how you want to process the automatic payment request). The valid values are: • C1DD (Direct Debit) • C1PA (Payment Advice)	No
autopayRouteType	Auto Pay Route Type (Used to indicate when and how automatic payment request of the account is routed to a financial institution)	Yes (Conditional) **Note:** This is required when you want to add an auto pay on the account.
priorityNum	Priority (Used to indicate the priority in which the auto pay instruction should be considered when multiple autopay instructions are effective on the bill's due date)	Yes (Conditional) **Note:** This is required when you want to add an auto pay on the account.
percent	Percentage (Used to indicate the percentage in which the payment must be split between two or more autopay sources having the same priority)	No
accountCharacteristic List		

Tag Name	Comments	Mandatory (Yes or No)
accountId	Account ID (Used to indicate the account for which characteristic details are added or updated) (Not to be provided in the request for creating an account.)	No
characteristicType	Characteristic Type (Used to indicate the type of characteristic)	Yes (Conditional) **Note:** This is required when you want to add a characteristic on the account.
effectiveDate	Effective Date (Used to indicate the date on which the characteristic value becomes effective. Note, the effective date defaults to the account's setup date)	Yes (Conditional) **Note:** This is required when you want to add a characteristic on the account.
characteristicValue	Characteristic Value (Used to specify the characteristic value)	Yes (Conditional) **Note:** This is required when you want to add a characteristic on the account and the characteristic type is having predefined values.
adhocCharacteristicValue	Adhoc Characteristic Value (Used to specify an adhoc characteristic value. The data is required if the char value type of the characteristic type is set to **Adhoc Value**)	Yes (Conditional) **Note:** This is required when you want to add a characteristic on the account and the characteristic type is of of Adhoc char value type.
characteristicValueForeignKey1	Foreign Key Characteristic Value (Used to specify a foreign key)	Yes (Conditional) **Note:** This is required when you want to add a characteristic on the account and if the char value type of the characteristic type is set to **Foreign Key Value**.
characteristicValueFK2	Foreign Key Characteristic Value (Used to specify a foreign key)	
characteristicValueFK3	Foreign Key Characteristic Value (Used to specify a foreign key)	
characteristicValueFk4	Foreign Key Characteristic Value (Used to specify a foreign key)	

Tag Name	Comments	Mandatory (Yes or No)
characteristicValueFK5	Foreign Key Characteristic Value (Used to specify a foreign key)	
accountMessage List		
accountId	Account ID (Used to indicate the account for which account message details are added or updated) (Not to be provided in the request for creating an account.)	No
billMessage	Bill Message (Used to indicate the message code and description of the message that appears on the customer's bill)	Yes (Conditional) **Note:** This is required when you want to add a message on the account.
billMessageType	Bill Message Type (Use to indicate the message should only be linked to the next bill produced for the account or should appear on every bill). The valid values are: • P (Permanent) • S (Settlement Advice) • T (Temporary)	Yes (Conditional) **Note:** This is required when you want to add a message on the account.
accountMessageParameter List		
accountId	Account ID (Used to indicate the account for which message parameter details are added or updated) (Not to be provided in the request for creating an account.)	No
billMessage	Bill Message (Used to indicate the message code and description of the message that appears on the customer's bill)	Yes (Conditional) **Note:** This is required when you want to add a message on the account.
messageParameterValue	Message Parameter Value (Used to specify any parameters present in the bill message)	Yes (Conditional) **Note:** This is required when you want to add a message on the account.
sequence	Sequence (Used to display system assigned identifier assigned to this bill message. This is not needed in the request)	No
accountNumber List		

Tag Name	Comments	Mandatory (Yes or No)
accountId	Account ID (Used to indicate the account for which account number details are added or updated) (Not to be provided in the request for creating an account.)	No
accountIdentifierType	Account Identifier Type (Used to specify the account identifier type) **Note:** You must specify a valid Account Identifier Type defined in the system.	Yes (Conditional) **Note:** This is required when you add an account identifier on the account.
accountNumber	Account Identifier (Used to specify the value for the account identifier type) **Note:** At least one identifier must be associated with every account.	Yes (Conditional) **Note:** This is required when you add an account identifier on the account.
isPrimaryId	Primary ID (Used to indicate whether the account identifier is the primary identifier for the account). The valid values are 'Y' and 'N'. **Note:** An account can have one and only one primary identifier.	Yes (Conditional) **Note:** This is required when you add an account identifier on the account.
accountPerson List		
accountId	Account ID (Used to indicate the account for which account person details are added or updated) (Not to be provided in the request for creating an account.)	No
accountRelationshipType	Relationship Type (Used to indicate how the person is related to the account)	Yes (Conditional) **Note:** This is required is an Account Person record needs to be created for the Account.

Tag Name	Comments	Mandatory (Yes or No)
billAddressSource	Address Source (Indicates the address where you want the person to receive the account's bill). The valid values are: • ACCT (Multiple Account Override) • ACOV (Account Override) • BILL(Bill) • MAIN (Main address of customer) • PER (Person) This will be defaulted to 'MAIN' if not provided.	No
personId	Person ID (The unique identifier of the person linked to the account) **Note:** At least one person must be associated with every account.	No
isMainCustomer	Main Customer (Used to indicate whether the person is a main customer of the account). The valid values are 'Y' and 'N'.	Yes
isFinanciallyResponsible	Financially Responsible (Used to indicate whether the person is financially responsible for the account). The valid values are 'Y' and 'N'.	Yes
isThirdPartyGuarantor	Third Party Guarantor (Used to indicate if the person is a 3rd party guarantor of the account's debt. This switch is off and gray if the person is the Main Customer). The valid values are 'Y' and 'N'.	No
shouldReceiveCopyOfBill	Receives Copy of Bill (Used to indicate whether you want the person to receive a copy of the account's bill). The valid values are 'Y' and 'N'.	Yes
billRouteType	Bill Route Type (Used to indicate how the account's bill is sent to the person) **Note:** You should specify a valid Bill Route Type defined in the system.	Yes (Conditional) **Note:** This field is required while adding the bill routing information for an account.
billFormat	Bill Format (Used to indicate the format in which you want the person to receive the account's bill). The valid values are: • D (Detailed) • S (Summary)	Yes (Conditional) **Note:** This field is required while adding the bill routing information for an account.

Tag Name	Comments	Mandatory (Yes or No)
numberOfBillCopies	Number of Bill Copies (Used to specify the number of copies of the account's bill you want the person to receive)	Yes (Conditional) **Note:** This field is required while adding the bill routing information for an account.
customerPOId	Customer Purchase Order ID (Used to indicate the purchase order ID the customer wants printed on their copy of the bill)	No
receivesNotification	Receives Notification (Used to indicate whether you want the person to receive notifications about the account's bill). The valid values are 'Y' and 'N'.	Yes (Conditional) **Note:** This field is required while adding the bill routing information for an account.
prefixSuffixName	Prefix/Suffix Name (Used to append additional information to a customer's name when correspondence or bills are sent to this person)	No
prefixOrSuffix	Prefix or Suffix (Used to append additional information to a customer's name when correspondence or bills are sent to this person). The valid values are: • PX (Prefix to Name) • SX (Suffix to Name)	No
quoteRouteType	Quote Route Type (Used to indicate how the quote is sent to the customer) **Note:** You must specify a valid Quote Route Type defined in the system.	No
shouldReceiveCopyOfQuote	Receives Copy of Quote (Used to indicate if the person receives a copy of the account's quotes). The valid values are 'Y' and 'N'.	No
webAccess	Web Access (Used to indicate whether or not a person linked to this account is allowed or not to view details of this account via your web self-service application). The valid values are: • ALWD (Allowed) • NALW (Not Allowed)	No
personAddressOverride List		

Tag Name	Comments	Mandatory (Yes or No)
accountId	Account ID (Used to indicate the account for which account number details are added or updated) (Not to be provided in the request for creating an account.)	No
personId	Person ID (Used to indicate the person for which account number details are added or updated)	Yes (Conditional) **Note:** This is required if you want to add an address override to the account person.
address1	Address 1 (Used to specify the first line of the address. It may contain details, such as house number and apartment name)	Yes (Conditional) **Note:** This is required if you want to add an address override to the account person.
address2	Address 2 (Used to specify the second line of the address. It may contain details, such as street name)	No
address3	Address 3 (Used to specify the third line of the address. It may contain the landmark details)	No
address4	Address 4 (Used to specify the fourth line of the address)	No
city	City (Used to specify the city name)	No
streetNumber1	Street Number 1 (Used to specify the numeric information, if any, related to the address)	No
streetNumber2	Street Number 2 (Used to specify the numeric information, if any, related to the address)	No
county	County (Used to indicate the country)	Yes
postal	Postal (Used to specify the postal or zip code of the address)	No
houseType	House Type (Used to indicate the type of the house). The valid values are: • AB (House Boat Reference) • WW (House Trailer Reference)	No
taxVendorGeographicalCode	Geographic Code (Used to specify the geographic code of the address)	No

Tag Name	Comments	Mandatory (Yes or No)
isInCityLimit	In City Limit (Used to indicate whether the address is within the city limit)	No
state	State (Used to indicate the state where the city or county is located)	No
country	Country (Used to indicate the country)	No
accountPersonRouting (Account Person Routing List)		
accountId	Account ID (Used to indicate the account for which person routing details are added or updated) (Not to be provided in the request for creating an account.)	No
personId	Person ID (Used to indicate the person for which person parameter details are added or updated)	Yes (Conditional) **Note:** This is required if you want to a routing to the account person.
billRouteType	Bill Route Type (Used to indicate how the bill is sent to the customer)	Yes (Conditional) **Note:** This is required if you want to a routing to the account person.
sequence	Sequence (Used to indicate the sequence of the account person routing)	No
shouldReceiveCopyOf Bill	Receives Copy of Bill (Indicates whether you want the person to receive a copy of the account's bill)	Yes (Conditional) **Note:** This is required if you want to a routing to the account person.
billFormat	Bill Format (Used to indicate the format in which you want the person to receive the account's bill). The valid values are: • D (Detailed) • S (Summary)	Yes (Conditional) **Note:** This is required if you want to a routing to the account person.
numberOfBillCopies	Number of Bill Copies (Used to indicate how many copies of the bill the person receives)	Yes (Conditional) **Note:** This is required if you want to a routing to the account person.

Tag Name	Comments	Mandatory (Yes or No)
customerPOId	Customer Purchase Order ID (Used to indicate the purchase order ID the customer wants printed on their copy of the bill)	No
receivesNotification	Receives Notification (Indicates whether you want the person to receive notifications about the account's bill)	Yes (Conditional) **Note:** This is required if you want to a routing to the account person.
billAddressSource	Address Source (Indicates the address where you want the person to receive the account's bill). The valid values are: • ACCT (Multiple Account Override) • ACOV (Account Override) • BILL(Bill) • MAIN (Main address of customer) • PER (Person)	No
addressId	Address ID (Used when you want to send the bills or quotes generated for the account to a particular address)	No
creditRatingHistory List		
accountId	Account ID (Used to indicate the account for which credit rating details are added or updated) (Not to be provided in the request for creating an account.)	No
creditRatingHistoryId	Credit Rating History ID (System generated id for credit rating history)	No
user	User (Used to specify the user entering the credit rating record)	Yes
collectionProcess	Collection Process ID (Used to indicate the collection process ID)	Yes (Conditional) **Note:** If Credit Rating Created By is Collection Process, then this field is required.

Tag Name	Comments	Mandatory (Yes or No)
startDate	Start Date (This is the first date the credit rating transaction affects the account's credit rating and cash-only score)	Yes (Conditional) **Note:** This field is required while adding the credit rating details for an account.
severanceProcessId	Severance Process ID (Used to indicate the Severance Process ID associated with the credit rating record)	Yes (Conditional) **Note:** If Credit Rating Created By is Severance Process, then this field is required.
endDate	End Date (This is the last date the credit rating transaction affects the account's credit rating and cash-only score)	No
affectCreditRatingBy	Affect Credit Rating By (Used to specify the effect of the credit rating transaction on the account's credit score)	Yes (Conditional) **Note:** This field is required while adding the credit rating details for an account.
cashOnlyPoints	Affect Cash-Only Score By (This is the effect of the credit rating transaction on the account's cash-only score. The higher the score, the greater the chance this account will be marked as cash-only. Therefore, a positive number should be used to make the score go up)	Yes (Conditional) **Note:** This field is required while adding the credit rating details for an account.
creDt	Creation Date (Used to display the creation date of the credit rating detail)	No

Tag Name	Comments	Mandatory (Yes or No)
creditRatingCreatedBy	Credit Rating Creation Process (Used to indicate the process which created this credit rating detail). The valid values are: • COLL (Collection Process) • CUTP (Cut Process) • MN(Manual) • NSF (NSF Assessment) • ODP (Overdue Process) • OT(Other) • PP (Pay Plan) • SEV (Severance Process) • WO (Write Off)	Yes (Conditional) **Note:** This field is required while adding the credit rating details for an account.
eventSequence	Event Sequence (Used to display the event sequence of the process which created this credit rating detail)	Yes (Conditional) **Note:** This field is required while adding the credit rating details for an account.
comments	Comment (Used to add comments to clarify the reason(s) for the creation of the transaction)	No
payPlanId	Pay Plan ID (Used to indicate the pay plan ID associated with the credit rating detail record)	Yes (Conditional) **Note:** If Credit Rating Created By is Pay Plan, then this field is required.
writeOffProcess	Write Off Process (Used to indicate the Write Off Process ID associated with the credit rating detail record)	Yes (Conditional) **Note:** If Credit Rating Created By is Write Off, then this field is required.
nonCashDeposit List		
accountId	Account ID (Used to indicate the account for which noncash deposit details are added or updated) (Not to be provided in the request for creating an account.)	No

Tag Name	Comments	Mandatory (Yes or No)
sequence	Sequence (Used to indicate the sequence of the non-cash deposit)	Yes (Conditional) **Note:** This field is required if you want to add a non-cash deposit to the account.
nonCashDepositType	Non Cash Deposit Type (Used to specify whether the system requires a **Third Party Deposit** and whether the system will create a To Do entry near the expiration date of the deposit)	Yes (Conditional) **Note:** This field is required if you want to add a non-cash deposit to the account.
depositClass	Deposit Class (Used when the system amalgamates an account's total deposits when checking if the account holds an adequate deposit (amalgamation and recommendation happens within a deposit class))	Yes (Conditional) **Note:** This field is required if you want to add a non-cash deposit to the account.
startDate	Start Date (This is the date the non-cash deposit is effective)	Yes (Conditional) **Note:** This field is required if you want to add a non-cash deposit to the account.
endDate	End Date (This is the expiration date of the non-cash deposit)	No
depositAmount	Deposit Amount (Used to indicate the amount of the non-cash deposit)	Yes (Conditional) **Note:** This field is required if you want to add a non-cash deposit to the account.
documentNuMber	Document Number (Used to enter the document number, if any, associated with the non-cash deposit (e.g., the letter of credit number, the surety bond number, etc.))	No
thirdPartySa	Third Party Deposit Contract (If a 3rd party has paid the cash deposit for the account, reference the deposit contract associated with the 3rd party)	No
comments	Comments (Used to enter any free-form comments about the non-cash deposit)	No

3.   Pricing Management Services

Oracle Revenue Management and Billing allows you to define prices for various banking products or services offered in retail banking to the person, such as checking, traditional savings, Money Market Savings (MMS), Certificate of Deposit (CD) and Individual Retirement Account (IRA) including variations of standard products such as, minor savings. These prices are either standard prices defined in the price lists or override prices that are specific to a person or an account.

> **Note:** A price list allows you to define standard prices for a group of price items. In other words, a price list is a rate card for price items or services which are offered to the accounts or persons. Two types of price lists are **Standard** and **Promotional**.

ORMB pricing services interface with multiple systems of banks to provide the pricing, which includes:

- **Person on Board or Quotation System** - Inquire the quotations for price offers on various products for a new or existing Person at the time of account opening, based on Person eligibility. ORMB Pricing Engine should return different offers eligible for the Person and the pricing details for the offers; based on the approved quotations, Quotation system will return the approved rates for the account. ORMB Pricing Engine will store the applicable pricing for the Person or account.

- **Person or Account (Rate) Inquiry System** - Inquire for Person/account rate pricing. ORMB should return the effective pricing for a Person or an account based on various Persons or account attributes such as, Account Balance, Age, gender, Nationality, and state.

- **Fees Pricing Inquiry System** - Inquire for pricing a transaction. For this, request comes from the Core Banking System or Person Fee Inquiry System such as, ATM withdrawal, ORMB returns the calculated fees based on transaction (POS –On us /Off us), Person (First n free transactions), and account attributes.

- **Disclosure Systems** - Inquire Pricing Services for various standard and promotional pricing, which includes:
  - Marketing Disclosure
  - Offer Fulfillment
  - Promotional Price

  Pricing Services returns the base product pricing and the account pricing to the disclosure systems.

- **Price Optimizer** - Inquire for all the existing effective pricing and asks ORMB to accept the pricing updates from it.

ORMB provides the following pricing management services:

- GetEligiblePriceList
- GetEffectivePricing
- GetPricing
- GetAllAssignedPriceLists
- AssignPriceList
- AccountRate
- PriceAssign
- GetAccountRate
- AccountFees
- GetAccountFees
- AccountUsage
- PersonUsage

3.1   GetEligiblePriceList

The **GetEligiblePriceList** service provides the eligible price lists to the customer on the basis of the details provided in the request.

3.1.1   Prerequisite

None

3.1.2   Input Parameters for GetEligiblePriceList

Input parameters for the GetEligiblePriceList service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Effective Eligibility Date	Used to search eligible price list which is effective from a particular date onwards.	M
Price List Status	Used to indicate the status of the price lists. The valid values are: • Proposed • Active **Note**: Default value is Active.	C
Person ID	Used to calculate the eligible pricing for the price list which is assigned to a particular person.	O
Person Identifier Type	Required if Person ID is not provided.	C

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Person Identifier	Required if Person ID is not provided.	C
Account ID	Used to search eligible price list for the particular account.	O
Account Identifier Type	Required if account ID is not provided.	C
Account Identifier	Required if account identifier type is provided.	C
Division	Required if account identifier type is provided.	M
Pricing Parameters	Used to specify the pricing parameters.	O
Pricing Parameter Code	Used to specify the pricing parameter code. Required if corresponding price parameter value is given.	C
Pricing Parameter Value	Used to specify the value of pricing parameter. Required if corresponding price parameter value is given.	C
Simulation Switch	Used to indicate the value of simulation switch. The valid values are: • Yes • No It specifies whether the service is called for simulation or not. **Note**: Default value is Yes.	M

3.1.3   Process for GetEligiblePriceList

You can perform the search to get the eligible price lists based on the pricing parameters. Consider the following cases:

- In case of prospect customer, system will gather the required details and will inquire the pricing service for the eligible price lists. This price lists can be provided to the customer which is derived on the basis prospect attributes, such as LOB, account type, and gender and other promised parameters, such as minimum average balance or minimum number of transactions for an account type or product.

- In case of existing customer, at the time of new account opening system will inquire the pricing service for the eligible price lists that can be provided to the customer by providing the customer ID and other pricing parameters such as account type or product to be offered to the customer.

- In case of joint account or where multiple customers wants to open a single account, system will call the GetEligiblePriceList service in loop for each of the prospect or customers for which the price list inquiry is done.

Consider the following example for understanding the process for the existing price lists:

Price list description	Status	Parameter 1	Operator	Value	Parameter 2	Operator	Value
P1	Active	Country	=	India	Location	=	Pune
P2	Proposed	Country	=	India	Location	=	Pune
P3	Template	Country	=	India	Location	=	Pune
P4	Active	Country	=	India	Location	=	Mumbai
P5	Active	Country	=	India	Location	=	Pune
P6	Active	Country	=	India	Location	=	Delhi

If the request contains following three pricing parameters:

Country = 'INDIA', Location = 'PUNE', Status = 'ACTIVE'

Then, in this case, above criteria will be matched with all ACTIVE price lists. Only those price lists (P1, P5) will be present in the response where above criteria fully matches.

3.1.4   Output Parameters for GetEligiblePriceList

Output parameters for the GetEligiblePriceList service are defined in the following table:

Output Parameter	Comments
Price Lists	
Price List ID	Displays Price List ID.
Price List Description	Displays Price List Description.
Price List Validity Period	Displays Price List Validity Period.
Price List Availability Start Date	Displays Price List Availability Start Date.
Price List Availability End Date	Displays Price List Availability End Date.
Price List Effective Start Date	Displays Price List Effective Start Date.
Price List Effective End Date	Displays Price List Effective End Date.
Rule Eligibility Criteria	
Eligibility Start Date	Displays Eligibility Start Date.
Eligibility End Date	Displays Eligibility End Date.
Eligibility Description	Displays Eligibility Description.
Eligibility Criteria	
Eligibility Condition Sequence	Displays sequence number of the eligibility condition.
LHS Parameter code	Displays the left-hand side parameter.
Operator	Used to evaluate the condition.

Output Parameter	Comments
RHS value Type Flag	Displays right hand side flag value.
RHS Param code	Displays right hand side parameter.
RHS Param value	Displays right hand side parameter value.
Is True	Displays the true condition.
Is False	Displays the false condition.
Is insufficient	Displays the insufficient condition.

3.2 GetEffectivePricing

The **GetEffectivePricing** service provides the effective pricing for every price item priced on the account or person or price list. For this, person needs to provide their account details and the service will return the effective pricing for the account based on the price item parameters such as, person or account or product attributes.

3.2.1 Prerequisite

To use the **GetEffectivePricing** service, you need to do the following:

- Algorithm of Algorithm type **C1_PRASN** to be attached at division level with division algorithm entity as Price Assignment Search.
- If pricing of a global person is to be searched the algorithm should be present at the Feature Configuration **C1_PRASNORDR**.

3.2.2 Input Parameters for GetEffectivePricing

Input parameters for the GetEffectivePricing service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O) /Conditional(C)
Price List ID	Used to specify the price list ID. It should be provided if the effective pricing for the price list is requested.	C
Effective Date	Used to search effective pricing for the price list which is effective from a particular date onwards. **Note**: If no date is provided then system date is used.	C
Person ID	Used to search effective pricing for the price list which is assigned to a particular Person. It is required if the pricing for the person is requested.	C
Person Identifier Type	Required if Person ID is not provided.	C

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Person Identifier	Required if Person Identifier Type is provided.	C
Account ID	Used to search effective pricing for the price list which is assigned to the particular account. It should be provided if effective pricing for an account is requested.	C
Account Identifier Type	Required if account ID is not provided.	C
Account Identifier	Required if Account Identifier Type is provided.	C
Division	Required if Account Identifier Type is provided.	C
Price Item	Used to specify the price item.	O
Price Item Description	Used to specify the price item description.	O
Price Assignment Type	Used to specify the type of price assignment.	O
Price Assignment Level	Used to specify the level of price assignment.	O
Parent Person Name	Used to specify the name of parent person.	O
Price Parameters	Used to specify the pricing parameters.	O
Price Parameter Code	Used to specify the pricing parameter code.	O
Price Parameter Value	Used to specify the value of pricing parameter.	O
Price Assignment Status	Used to specify the status of price assignment.	O
Show Default Pricing	Used to specify the default price list.	O
Parameter Match/Search Type	Used to specify if best fit or exact match is to be used which matching parameters.	O

Input Parameter	Comments	Mandatory(M)/Optional(O) /Conditional(C)
Simulation Switch	Used to indicate the value of simulation switch. The valid values are: • Yes • No It specifies whether the service is called for simulation or not. **Note**: Default value is Yes.	O
Price Item Type	Used to specify the price item type (Rate or Fees) of price item to be searched as filter criteria.	O
View Type	Used to indicate whether you want to view only contributing or all price component: • **Detail** - Used when you want to view all price component. • **Summary** - Used when you want to view the only contributing component. **Note**: Default value is DT.	O
Price Item Available For	Used to specify the price item avail for (PRBL or PRIC) of price item to be searched as filter criteria.	O

3.2.3   Process for GetEffectivePricing

You can perform the search to get the effective pricing based on the pricing parameters. Once a price list is defined, you can assign it to accounts to indicate the prices that will be charged for the price items or services offered to the accounts. You can assign multiple price lists to an account along with the priority or order in which the pricing should be considered.

For finding the effective pricing that would be offered to a person or prospect, when price list will be assigned, consider the following scenarios:

- If the parameters are passed as an input in the GetEffectivePricing service request, they will be assigned with highest priority.
- If account details are passed, such as Account ID, Account Identifier Type, Account Identifier, and Division, the account will be used to derive the account parameters if not provided in the request.
- If person details are passed, such as Person ID, Person Identifier Type, and Person Identifier, the person will be used to derive the person parameter if not provided in the request.
- On the basis of Effective Date, system will search for the effective Pricing. Effective Date will be treated as both, effective pricing date and date based on which the new or old person decision will be taken.

All the price assignments matching the pricing parameters in the request which are applicable for all customers and prospects will be searched and returned along with the eligibility criteria and tier details. Status of the response is **SUCCESS**.

3.2.4   Output Parameters for GetEffectivePricing

Output parameters for the GetEffectivePricing service are defined in the following table:

Output Parameter	Comments
Price Assignments	Displays the list of price assignments.
Price Assignment ID	Displays the Price Assignment ID.
Variance Parameter	Displays the variance parameter.
Price Assign Price List ID	Displays the Price List ID if the price item is assigned to a price list.
Price List Description	Displays the description of price list.
Parent Person	Displays the parent person name of the price item pricing if it is derived from person hierarchy.
Pricing Currency	Displays the pricing currency.
Rate Schedule Description	Displays the description of rate schedule of the pricing.
Rate Schedule Code	Displays the code of the rate schedule used in pricing.
Price Item	Displays the price item of pricing.
Price Item Description	Displays the description of the price item used in pricing.
Price Item Type	Displays the type of price item used in pricing.
Price Item Available For	Displays the price item available for of the price item used in pricing.
Price Assignment Type	Displays the type of price assignment of the pricing.
Price Assignment Level	Displays the level of price assignment of the pricing whether for person agreed or account agreed or parent person agreed.
Start Date	Displays the start date of the pricing.
End Date	Displays the end date of the pricing.
Parameters	Displays the list of parameters.
Parameter Code	Displays the parameter code of the parameter used in the price item pricing.
Parameter Value	Displays the parameter value of the parameter used in price item pricing.
Parameter String	Displays the parameter string as code is equal to value for each parameter of price item pricing.
Pricing Frequency	Displays pricing frequency of the price item pricing.
Price Assign Level Sequence	Displays the price assignment level sequence of the price item pricing.

Output Parameter	Comments
Parent Level	Displays parent Level of the price item pricing if it is derived from customer hierarchy.
Parent Price list Level	Displays parent price list Level of the price list if the price item pricing is from a price list.
Price List Assignment Start Date	Displays price list assignment start date of the price list if the price item pricing is from a price list.
Price Assign Level Sequence	Displays price assignment level sequence of the price item pricing.
Parameter String	Displays parameter string as code equals to the value for each input parameter.

3.3　GetPricing

The **GetPricing** service provides the actual pricing or rate for every price assignments on the account or person or price list. This can be invoked to simulate and check a price for different sets of person or account attributes.

The **GetPricing** service can be used to simulate fees for price item type as fees, available for **Only Pricing**, and **Pricing and Billing**.

3.3.1　Prerequisite

To use the **GetPricing** service, you need to do the following:

- Algorithm **C1-FEERTCPR** (Fees Rate Calculation Pre-Processing Algorithm) to be attached at division level for algorithm based SQI derivation.

3.3.2　Input Parameters for GetPricing

Input parameters for the GetPricing service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O) /Conditional(C)
Start Date	Used to search pricing for the price list which is effective from a particular date onwards.	M
End Date	Used to search pricing for the price list till when the pricing is assigned to the price list.	O

Input Parameter	Comments	Mandatory(M)/Optional(O) /Conditional(C)
View Type	Used to indicate whether you want to view summary or tiering details of price components. The valid values are: • **Detail** - Used when you want to view both contributing and non-contributing price components. • **Summary** - Used when you want to view only the contributing price components. **Note**: Default value is **DT**.	O
Person ID	Used to calculate pricing for the price list which is assigned to a particular person.	O
Person Identifier Type	Required if existing person opening a new account.	C
Person Identifier	Required if existing person is opening a new account.	C
Account ID	Used to calculate the pricing for the price list which is assigned to a particular account. It is required if Person ID is not defined.	M
Account Identifier Type	Required if Person ID is not defined.	C
Account Identifier	Required if Person ID is not defined.	C
Division	Required if Account Identifier Type and Account Identifier are defined.	C
Pricing Parameters	Used to define the parameters for price item.	O
Pricing Parameter Code	Required if corresponding Pricing Parameter Value is provided.	C
Pricing Parameter Code	Required if corresponding Pricing Parameter Value is provided.	C
Price Assignment ID	Required if Price Parameter Code and Pricing Parameters are not provided.	M
Price Item Code	Required if request is for price simulation.	C
Pricing Parameters	Used to specify the pricing parameters. It is required if existing person is opening a new account otherwise ignored.	C

Input Parameter	Comments	Mandatory(M)/Optional(O) /Conditional(C)
Pricing Parameter Code	Required if pricing parameter is provided.	O
Pricing Parameter Value	Required if corresponding price parameter value is provided.	O
SQUIs	Used to calculate rate.	O
SQI Code	Required if UOM or TOU code is not provided.	C
SQU Value	Used to specify the service quantity value.	O
TOU Code	Required if SQI code and UOM code is not provided.	C
UOM code	Required if SQI code and TOU code is not provided.	C
Simulation Switch	Used to indicate the value of simulation switch. The valid values are: • Yes • No It specifies whether the service is called for simulation or not. **Note**: Default value is **Yes**.	O

3.3.3   Process for GetPricing

You can perform the search to get the price of a price item by providing eligible pricing parameters in the request.

The **GetPricing** service invokes rate to simulate the pricing without persisting the pricing. This service can be invoked from various sources such as, for account pricing simulation, to know what rate will be available to a person or account if some of the account or person attributes change or simulate the fee calculation for an account based on certain parameters.

As an example, consider the following use case (Default standard pricing and promotional pricing):

Bank offers a product Money Market Savings with Money Market Savings rate based on parameters region and state, standard rates applicable from 01/10/2016 for the product are as follows:

Rate	Region	State
2%	NA	CA
2.5%	NA	NY
2.25%	NA	All

- 90 day promotion that gives 2x usual rate on all Rewards MMS balances are available only to new Persons and only when Person brings a minimum new balance of $25,000 between 01/10/2016 to 01/11/2016.
- 90 day promo (across national footprint) that offers double rate on Platinum Honors, 1.5x rate on Platinum, 1.25x rate on Gold available between 01/10/2016 to 01/11/2016.
- Post 90 days, rate reverts to normal Rewards MMS rates.

Now, consider the following ORMB setup for the above use case:

- Price Lists Description:
  - Price List with ID PL1 - Standard MMS - Effective Start Date 01/10/2016 Effective End Date 01/11/2016.
  - Availability Start Date Availability End Date.
  - On Product MMS should be configured as Default Price List.

Price Assignment (PA)ID	Price Item	Parameter1	Region	State	Rate
PA1	Interest Rate	MMS	NA	CA	2%
PA2	Interest Rate	MMS	NA	NY	2.5%
PA3	Interest Rate	MMS	NA		2.25%

- Price List with ID PL2 - Promo MMS for New Persons - Effective Start Date 01/10/2016 Effective End Date = NULL ; Availability Start Date 01/10/2016 Availability End Date 01/11/2016 Validity Period 90 days

Price Assignment (PA) ID	Price Item	Parameter1	Region	State	Rate
PA4	Interest Rate	MMS	NA	CA	4%
PA5	Interest Rate	MMS	NA	NY	5%
PA6	Interest Rate	MMS	NA		4.5%

- Price List with ID3 - Promo for Existing Persons - Availability Start Date 01/10/2016 Availability End Date 01/11/2016; Effective Start Date = 01/10/2016 Validity Period 90 days

Price Assignment (PA) ID	Price Item	Parameter 1=Product	Parameter2 = Region	Parameter3= State	Rate	Price Eligibility Criteria
PA7	Interest Rate	MMS	NA	CA	4	If CustStatus = PlatinumHon
					3	If CustStatus = Platinum
					2.5	If CustStatus = Glod
PA8	Interest Rate	MMS	NA	NY	5	If CustStatus = PlatinumHon
					3.75	If CustStatus = Platinum

Price Assignment (PA) ID	Price Item	Parameter 1=Product	Parameter2 = Region	Parameter3= State	Rate	Price Eligibility Criteria
					3.125	If CustStatus = Glod
PA9	Interest Rate	MMS	NA		4.5	If CustStatus = PlatinumHon
					3.375	If CustStatus = Platinum
					2.8125	If CustStatus = Glod

- Price List Eligibility Rules
    - Rule 1:
        - Rule Date - Start Date: 01/10/2016 End Date: 01/11/2016
        - Rule Criteria - 'Product' = 'MMS'
        - Rule Output - Price List ID1
    - Rule 2:
        - Start Date: 01/10/2016 Rule End Date: 01/11/2016
        - Rule Criteria - 'Product' = 'MMS' and Person status 'New' and balance >=25000
        - Rule Output - Price List ID2
    - Rule 3:
        - Start Date: 01/10/2016 Rule End Date: 01/11/2016
        - Rule Criteria - 'Product' = 'MMS' and Person status in 'Gold', 'Platinum', 'PlatinumHon'
        - Rule Output - Price List ID3
- Product: MMS ---- mapped to Account type
- Price Item Interest Rate with three parameters - Product - Source Product, Region - Source Person, State - Source - Person.

3.3.4 Output Parameters for GetPricing

Output parameters for the GetPricing service are defined in the following table:

Output Parameter	Comments
Rate	Displays the final rate.
Price Components	Displays the price components which are eligible.
Price Component ID	Displays the price component ID where eligibility criteria is satisfied.
Price Component Description	Displays the eligibility and the tiering details of the price component.
Eligibility Criteria	Displays details about pricing eligibility rules.
Eligibility Condition Sequence	Displays sequence number of the eligibility condition.

Output Parameter	Comments
LHS	Displays left hand side value of the parameter.
Operator	Displays operator used for evaluating the condition.
RHS	Displays right hand side value of the parameter.
Condition Status	Displays the value of condition status. The valid values are: • True • False • Insufficient
Tiering Criteria	Displays the details about the tiering criteria.
Tiering Criteria SQ	Displays service quantity value for the tiering criteria.
Tiering Sequence	Displays sequence number of the tier.
Tiering Start Value	Displays the start date of the tiering criteria.
Tiering End Value	Displays end date of tiering criteria.
Tiering Price Item	Displays the price item code.
Tiering Parameters	Displays price item parameters, if defined.
Parameter Code	Displays value of price item parameter code.
Parameter Value	Displays value of price item parameter.

3.4   GetAllAssignedPriceLists

The **GetAllAssignedPriceLists** service lists all the price lists that are assigned to the account or person. You will not find any information if the person or account does not have any price lists assigned to it.

3.4.1   Prerequisite

None

3.4.2   Input Parameters for GetAllAssignedPriceLists

Input parameters for the GetAllAssignedPriceLists service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Historic Flag	Used to indicate the values as Yes or No. If Yes is selected, it searches all the historic price list assignments where Start Date and End date will be ignored or else searches all price lists which are effective from Start date or in some future date. **Note**: Default value is **No**.	O

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Status	Used to specify the value of status. The valid values are: • Active • Inactive • Proposed • Rejected **Note**: Default value is **Active**.	O
Start Date	Used to specify the start date of the price list assignment. It searches all the price list assignments where price list assignment End Date is later than or equal to the Start Date or price list assignment End Date is NULL.	M
End Date	Used to specify the end date of the price list assignment. It is required to search all the price list assignments where price list assignment Start Date is earlier than or equal to its End Date.	O
Person ID	Used to specify the person ID. It is required if account ID is not provided.	C
Person Identifier Type	Required if Person ID is not provided.	C
Person Identifier	Required if Person ID is not provided.	C
Account ID	Searches the price lists assigned to an account.	C
Account Identifier Type	Required if Account ID is not provided.	C
Account Identifier	Required if Account ID is not provided.	C
Division	Required if Account Identifier Type and Account Identifier are provided.	C

3.4.3   Process for GetAllAssignedPriceLists

You can perform the search to get all assigned price lists for the account by providing the eligible pricing parameters in the request. This service lists all the price list assignments with the given status such as Active, Inactive, Proposed or Rejected. If status is not provided, then service will return all the price list assignments with the "Active" status or all the historic price list assignments (with given status, by default being 'Active') for a Person or account mentioned in the request.

Note: Historic price list assignment lists the price list assignments which have expired and are no longer effective.

3.4.4   Output Parameters for GetAllAssignedPriceLists

Output parameters for the GetAllAssignedPriceLists service are defined in the following table:

Output Parameter	Comments
Price List Assignments	Lists all the assigned price lists.
Price List Assignment ID	Displays Price List Assignment ID for the account or Person.
Price List ID	Displays Price List ID of the price list associated with the Price List Assignment ID.
Priority	Displays sequence number of each assigned price list.
Assignment Start Date	Displays the date from when price list is assigned to either person or account.
Assignment End Date	Displays the date till when price list is assigned to either person or account.
Price List Inheritance	Indicates whether the account can inherit price item pricing from the price list hierarchy.
Status	Displays Status of the assigned price list as given in the input.
Account ID	Displays the account ID on which the price lists are assigned.
Person ID	Displays the person ID on which the price lists are assigned.

3.5   AssignPriceList

The **AssignPriceList** service assigns the price lists to the account. Once a price list is defined, you can assign it to accounts to indicate the prices that will be charged for the price items or services offered to the accounts. You can assign multiple price lists to an account along with the priority or order in which the pricing should be considered. You can also define whether the account can inherit the price item pricing from the price list hierarchy.

3.5.1   Prerequisite

None

3.5.2   Input Parameters for AssignPriceList

Input parameters for the AssignPriceList service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Start Date	Used to specify the start date for the price list assignment.	M
End Date	Used to specify the end date for the price list assignment.	O

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Price List Assignment ID	Used to specify the price list assignment ID. It is required to update only the existing price list assignment.	C
Price List	Used to specify the price list. It is required to add new price list assignment.	C
Priority	Used to indicate the priority for the price list assignment.	O
Priority Indicator	Used to indicate the value of priority indicator. The valid values are: • Lowest • Highest	O
Price Inheritance	Used to indicate the value of price inheritance. The valid value are: • Yes • No **Note**: Default value is **No**.	O
Person ID	Used to specify the person ID. It is required when account ID is not provided.	C
Person Identifier Type	Required if Person ID is not provided.	C
Person Identifier	Required if Person ID is not provided.	C
Account ID	Used to specify the account ID for assigning price list to the particular account. It is required when Person ID is not provided.	C
Account Identifier Type	Required if Person ID is not provided.	C
Account Identifier	Required if Person ID is not provided.	C
Division	Required if Account ID is not provided.	C
Recalculate Assignment End Date	Used to specify the end date required to calculate assignment. **Note**: Default Value is **No**.	M
Characteristics	Used to specify the Characteristics.	O
Characteristics Effective Start Date	Used to specify the effective start date for characteristics. It is required when characteristics value is provided.	C

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Char Type	Used to specify the type of characteristics. It is required when characteristics value is provided	C
Char Value	Used to specify the value of characteristics. It is required when characteristics value is provided	C
End Date Calculation Switch	Used to specify the flag to calculate end date. **Note**: Default value is No.	O
Status	Used to specify the status of assignment. The valid values are: • Active • Inactive • Proposed • Reject **Note**: Default value is **Active**.	O

3.5.3   Process for AssignPriceList

You can assign price list to the account by providing eligible parameters in the **AssignPriceList** service.

Note: If Price List ID, start date, priority and Account ID is provided as input, then that price list will be assigned to the given account.

3.5.4   Output Parameters for AssignPriceList

Output parameters for the AssignPriceList service are defined in the following table:

Output Parameter	Comments
Price List Assignment ID	Displays Price List Assignment ID for the account or Person.
Price List ID	Displays the Price List ID for the account or Person.
Priority	Displays sequence number of each assigned price list.
Assignment Start Date	Displays the date from when price list is assigned to either person or account.
Assignment End Date	Displays the Date till when price list is assigned to either person or account.
Account ID	Displays the Account ID if price lists is assigned to account.
Person ID	Displays the Person ID if price lists is assigned to person.

Output Parameter	Comments
Approval Transaction ID	Displays if the price list assignment goes for approval.

3.6 AccountRate

The **AccountRate** service allows you to calculate the final rate applicable to the account from an effective date. This service can be invoked only for a certain price item of type, such as Rate. The service will also persist this final rate along with the effective dates and the contributing factors.

3.6.1 Prerequisite

None

3.6.2 Input Parameters for AccountRate

Input parameters for the AccountRate service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Account ID	Used to specify the account ID for calculating the final rate applicable for the particular account. It is required when Person ID is not provided.	M
Price Item Code	Used to specify the code for price item. It invokes the rates that are only for the price assignments in the effective pricing.	O
Price Parameters	Used to define the parameters for price item.	O
Price Parameter Code	Used to specify the code of price parameter. It is required if corresponding pricing parameter value is provided.	C
Price Parameter Value	Used to specify the value of price parameter. It is required if corresponding pricing parameter value is provided.	C
Effective Date	Used to specify date for effective pricing search.	M

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
View Type	Used to indicate whether you want to view summary or tiering details of price components. The valid values are: • **Detail** - Used when you want to view both contributing and non-contributing price components. • **Summary** - Used when you want to view only the contributing price components. **Note**: Default value is **DT**.	O
Account Identifier Type	Required if account ID is not provided.	C
Account Identifier	Required if account identifier type is provided.	C
Division	Required if account identifier type and account identifier are provided.	C
Simulation Switch	Used to indicate the value of simulation switch. The valid values are: • Yes • No It specifies whether the service is called for simulation or not. **Note**: Default value is **Yes**.	N

3.6.3   Process for AccountRate

You can calculate the final rate for the account by providing the eligible parameters in the AccountRate service. The calculation of the rate is considered as the final rate and is persisted as price with the effective date for the account.

Now, consider the following example:

Service requests to assign price List PromoPL1 to Account with Account ID 112211 (In CA, NA) from 15/01/2015 on 15/12/2014.

Price List PromoPL1 is available from 01/12/2014 to 31/12/2014. And has validity period of 90 days and Effective Start Date 01/01/2015 and Effective End Date 01/04/2015.

Price assignments on PromoPL1 are as follows:

Price Assignment ID (PA)	Price Item ID	Price Item Parameters	Rate Schedule	Pricing Frequency	Owner ID	Effective Start Date	Effective End date
PA1	Interest Rate	MMS,CA,NA	Flat Rate - 2		112211	01/01/2015	31/01/2015
PA2	Interest Rate	MMS,CA,NA	Flat Rate - 2.5		112211	01/02/2015	28/02/2015
PA3	Interest Rate	MMS,CA,NA	Flat Rate - 3		112211	01/03/2015	
PA4	Interest Rate	MMS	Flat Rate - 1		112211	01/01/2015	
PA5	Reward Points	MMS,CA,NA	Flat Rate - 0.5%		112211	01/01/2015	

When the Assign Price List service is called with start date of 15/01/2015 on 15/12/2014 ORMB will assign the price List to the account 112211 with following dates:

- Price List assignment Start date = 15/01/2015 (since Start date > Effective Start Date)
- Price List assignment End Date is calculated = 01/04/2015 (= Effective End Date as PL Assignment Start Date + 90 is later than Effective End Date)

As Price List assignment Start date > the request date for price List assignment, Price Account service will not be invoked with the price List assignment but will be invoked at a later stage.

Following entries will be done for Repricing to the Account Review Table:

Account	Price Item	Effective Date
112211	Interest Rate	15/01/2015
112211	Interest Rate	01/02/2015
112211	Interest Rate	01/03/2015
112211	Interest Rate	02/04/2015

Note: If the account or person attributes are changed, the system allows you to recalculate and persist the interest rate for rate type price items. This process is known as Repricing.

Thus pricing will be invoked for the Interest Rate on the Price List assignment date and Price List assignment End Date +1 and also for the Interest Rate product on the Price assignment End Date +1.

Expected results in the output:

Account ID	Price Assignme ntID	Price Assignm ent Level	Price Item	Price ItemP arams	Price List	Price	Effective From Datetime	Effectiv e End Date	FK Ref to Eligibili ties/Cri teria
112211	PA1	Account Price List	Inter est Rate	MMS, CA,NA	PromoPL 1	2	15/01/2015		
112211	PA2	Account Price List	Inter est Rate	MMS, CA,NA	PromoPL 1	2.5	01/02/2015		
112211	PA3	Account Price List	Inter est Rate	MMS, CA,NA	PromoPL 1	3	01/03/2015		
112211							02/04/2015		

3.6.4   Output Parameters for AccountRate

Output parameters for the AccountRate service are defined in the following table:

Output Parameter	Comments
Rate	Displays the value of the rate component which is defined as final rate.
Price Components	Displays the price components.
Price Component ID	Displays the price component ID.
Price Component Description	Displays the description about the eligibility and tiering details.
Eligibility Criteria	Displays the eligibility criteria.
Eligibility Condition Sequence	Displays sequence number of the eligibility condition.
LHS	Displays left hand side parameter value.
Operator	Displays operator used to evaluate the condition.
RHS	Displays right hand side parameter value.
Condition Status	Displays the value of condition status. The valid values are: • True • False • Insufficient
Tiering Criteria	Displays the details about the tiering criteria.

Output Parameter	Comments
Tiering Criteria SQ	Service quantity value for the tiering criteria.
Tiering Sequence	Displays sequence number of the tier.
Tiering Start Value	Displays start date of the tiering criteria.
Tiering End Value	Displays end date of tiering criteria.
Tiering Price Item	Displays the tiering price item code.
Tiering Parameters	Displays the tiering parameters if price assignment parameter flag is enabled in feature configuration.
Tiering Parameter Code	Displays the tiering parameter code.
Tiering Parameter Value	Displays the tiering parameter value.

3.7 PriceAssign

The **PriceAssign** service allows you to assign price for a price item to a price list, account or customer. Service can also be used to save the overridden or negotiated rate for the price list either at the customer level or at the account level.

Note: When you override a price item pricing, you create prices that are specific to an account (which is referred to as account agreed pricing).

3.7.1 Prerequisite

None

3.7.2 Input Parameters for PriceAssign

Input parameters for the PriceAssign service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O) /Conditional(C)
Start Date	Used to specify the start date of the price assignment.	M
End Date	Used to specify the end date of the price assignment.	O
Person ID	Used to specify the person ID. It is required when account ID is not provided.	C
Person Identifier Type	Required if person ID is not provided.	C
Person Identifier	Required if person ID is not provided.	C
Account ID	Used to specify the Account ID.	C
Account Identifier Type	Required if account ID is not provided.	C
Account Identifier	Required if account ID is not provided.	C

Input Parameter	Comments	Mandatory(M)/Optional(O) /Conditional(C)
Division	Required if account identifier type and account identifier are provided.	C
Price Assignment ID	Used to specify the price assignment ID. It is required when editing the price assignment.	C
Override Pricing	Used to specify the value of override pricing. The valid values are: • Yes • No If Yes, then Person Agreed or Account Agreed pricing is done depending upon account or person details provided in the request.	C
Price Item	Used to specify the price item. It is required for new price assignment.	C
Price Item Parameters	Used to specify the price item parameters. It is required for specifying code of price item parameter.	C
Product Parameter Code	Used to specify the price item parameter code.	C
Product Parameter Value	Used to specify the price item parameter value.	C
Rate Schedule	Used to specify the rate schedule.	M
Pricing Currency	Used to specify the currency of price assignment.	M
Price Assignment Frequency	Used to specify the price assignment frequency.	O
Price Components	Used to specify the details of price component.	M
Rate Component ID	Used to specify the rate component map ID.	M
Rate	Used to specify the rate to be applied for price component.	M
Rate Description	Used to specify the price component description.	M
Tiering Criteria	Used to specify the details of tiering criteria.	C
Tiering Criteria SQ	Used to specify the tiering criteria service quantity identifier.	M

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Tiering Sequence	Used to specify the tiering sequence number.	M
Tiering From Value	Used to specify the tiering from value.	M
Tiering To Value	Used to specify the tiering from value.	M
Tiering Price Item	Used to specify the tiering price item.	M
Tiering Parameters	Used to specify the tiering price item parameters.	C
Parameter Code	Used to specify the parameter code.	C
Parameter Value	Used to specify the parameter value.	C
Eligibility Criteria	Used to specify the eligibility rule.	C
Eligibility Condition Sequence	Used to specify the eligibility sequence number.	C
LHS	Used to specify the left-hand side parameter to be evaluated.	C
Operator	Used to specify the operator.	C
RHS	Used to specify the right-hand side parameter or value.	C
Condition Status	Used to specify the condition status as True, False or Insufficient.	C
Characteristics	Used to specify the price assignment characteristics.	O
Char Effective Start Date	Used to specify the characteristic effective start date.	M
Char Type	Used to specify the type of characteristic.	M
Char Value	Used to specify the value of characteristic.	M
Action Flag	Used to specify the value as ADD or READ.	M

3.7.3   Process for PriceAssign

You can assign price to the price list by providing eligible parameters in the PriceAssign service. This service will create a new or overridden price assignment at the Person or Account level as requested.

Now, consider the following example:

Consider the Gold Person XYZ with Person ID 111111, from state CA in region NA accepts the price list PL3 with the 90 days validity and opens a new MMS account with Account ID ACCTMMSXYZ.

System requests the pricing service to create a new price list assignment for Account ACCTMMSXYZ from 15/01/2015 on 15/01/2015, and to override the pricing for account ACCTMMSXYZ to 2.75 from 15/05/2015

- On 15/01/2015, System will request Assign Price List Request to the pricing service:
  - After invoking Assign Price List request, there will be entries to - Pricing Request Response Logs with date 15/01/2015
  - Pricing service will assign, promotional Price List to the account and the default price list pricing will be automatically available to the account

Entries in the price list assignment table are as follows:

Price List Priority	Price List ID	Price List description	PL Assign Start Date	PL Assign End Date
100	PL3	PromoPrice List for Existing Persons	15/01/2015	14/04/2015

After invoking PriceAssign service on 15/05/2015 the entries to the price assignment table will be as follows:

Price Assignment ID	Price Item ID	Price Item Parameters	Rate Schedule	Pricing Frequency	Owner ID	Effective Start Date	Effective End date
PA10	Interest Rate	MMS,CA,NA	Flat Rate		Acct ACCTMMS XYZ	15/05/2015	

Price Assignment ID	Price Com ID	Price
PA10	10	2.75

3.7.4   Output Parameters for PriceAssign

The **PriceAssign** service will return back response status as **SUCCESS** along with the Price Assignment ID or **FAILURE** along with error code and description.

3.8   GetAccountRate

The **GetAccountRate** service calculates and provides you the account rate or rates along with the details of calculations and pricing. Systems will inquire pricing service to provide the interest rate for the product. Interest rates will be configured in ORMB using price item of type 'Rates'. Typically Rates will be calculated as base rates defined with a margin set as basis points. The margin on top of the base rate can vary based on various parameters such as Person attributes, such as Reward Level, Geography, Sub-Geography, and Cohort.

3.8.1   Prerequisite

None

3.8.2   Input Parameters for GetAccountRate

Input parameters for the GetAccountRatePricing service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Price Assignment ID	Used to search the account rate for selected price assignment.	O
Price Item	Used to search the account rate for selected price item.	O
Effective Date	Used to specify the date from when the price assignment is effective. **Note**: Default value is Current System date.	O
Account ID	Used to search the price list assigned to an account.	M
Account Identifier Type	Required if account ID is not provided.	C
Account Identifier	Required if account ID is not provided.	C
Division	Required if account Identifier Type and Account Identifier are provided.	C

Input Parameter	Comments	Mandatory(M)/Optional(O) /Conditional(C)
View Type	Used to indicate whether you want to view summary or tiering details of price components. The valid values are: • **Detail** - Used when you want to view both contributing and non-contributing price components. • **Summary** - Used when you want to view only the contributing price components. **Note**: Default value is **DT**.	O

3.8.3   Process for GetAccountRate

You can perform the search to get the account rate or rates by providing the eligible parameters in the request. You can search the latest version of the persisted pricing by the **AccountRate** service based on the effective date for the account. In other words, service will search the pricing for the price Items of type as Rate persisted with latest Effective Start Date where Effective Start Date is earlier than the Price search date and Effective End Date for the Pricing is null or later than search date. The latest version of the pricing is defined based on Date of Creation.

3.8.4   Output Parameters for GetAccountRate

Output parameters for the GetAccountRate service are defined in the following table:

Output Parameter	Comments
Price Assignment ID	Displays Price Assignment ID for the account or Person.
Price Item	Displays Price Item for the price assignment.
Account ID	Displays Account ID if the pricing is searched for the account.
Division	Displays the division.
Account Identifier Type	Displays Account Identifier Type if provided in request.
Account Identifier	Displays Account Identifier if provided in request.
Effective Date	Displays Effective Date if provided in request or System date.
View Type	Displays the selected value.
Rate	Displays the final rate.
Price Assignment ID	Displays price assignment ID assigned to account.
Price Item code	Displays the price item for the selected price assignment ID.
Price Item Description	Displays the price item description for selected Price Assignment ID.

Output Parameter	Comments
Ignore Transaction	Displays the value as Yes or No.
Do Not Aggregate SW	Displays the value as Yes or No.
Transaction Schedule	Displays the transaction schedule for selected Price Assignment ID.
Rating Criteria	Displays the rating criteria for selected Price Assignment ID.
Rate Schedule Code	Displays the Rate Schedule Code for selected Price Assignment ID.
Rate Schedule Description	Displays the rate schedule description.
Pricing Currency	Displays the pricing currency for selected Price Assignment ID.
Pricing Status	Displays the pricing status for selected Price Assignment ID
Pricing Frequency	Displays the pricing frequency for selected Price Assignment ID.
Print Zero	Displays the value as Yes or No.
Apply To	Displays the Apply To for selected Price Assignment ID.
Effective Start Date	Displays the date from when price assignment is effective to either person or account.
Effective End date	Displays the date till when price assignment is effective to either person or account.
Pricing Assignment Type	Displays the type of pricing assignment.
Variance	Displays the variance for selected price assignment ID if price assignment parameter flag is not enabled in feature configuration.
Applied Rate	Displays the applied rate.
Price Assign Parameter	Displays the price assign parameter for selected price assignment ID if price assignment parameter flag is enabled in feature configuration.
Price parameter Code	Displays the price parameter code for selected price assignment ID.
Price parameter Value	Displays the price parameter value for selected price assignment ID.
Rate Schedule Details	Displays rate schedule details.
Rate Component Map Id	Displays rate component map ID for the rate schedule.
Rate Sequence	Displays rate sequence for the rate schedule.
Tier Type	Displays tier type for the rate schedule.
Price Components	Displays the eligible price components.

Output Parameter	Comments
Price Comp Sequence number	Displays the price components sequence for eligible price components.
Price Component ID	Displays the price component ID for eligible price component.
Price Component Description	Displays the price components description for eligible price component.
Value Amount	Displays the value amount for eligible price component.
Contributing Factor	Displays contributing factor value as Y or N.
Price Component Display	Displays the flag if price component should display or not.
Eligibility Criteria	Provides details about pricing eligibility rules.
Eligibility Condition Sequence	Displays sequence number of the eligibility condition.
LHS Parameter code	Displays the left-hand side parameter.
Operator	Used to evaluate the condition.
RHS value Type Flag	Displays right hand side flag value parameter or value.
RHS Parameter code	Displays right hand side parameter.
RHS Parameter value	Displays right hand side parameter value.
Is True	Displays the true condition.
Is False	Displays the false condition.
Is insufficient	Displays the insufficient condition.
Tiering Criteria	Displays the details about the tiering criteria.
Tiering Criteria Code	Displays service quantity value for the tiering criteria.
Tiering lower limit	Displays the lower limit of the tiering criteria.
Tiering upper limit	Displays upper limit of tiering criteria.
Tiering Price Item	Displays the tiering price item code.
Tiering Variance	Displays the tiering variance if price assignment parameter flag is not enabled in feature configuration.
Tiering Parameters	Displays the tiering parameters if price assignment parameter flag is enabled in feature configuration.
Tiering Parameter Code	Displays the tiering parameter code.
Tiering Parameter Value	Displays the tiering parameter value.

3.9 AccountFees

The **AccountFees** service calculates the fees for a transaction by passing the required details in the request. The service also persists the calculated fees with the relevant details. The price item type of the transaction should be Fees and available for Only Pricing. For the fee calculation following input details should be passed in the request.

3.9.1 Prerequisite

To use the **AccountFees** service, you need to do the following:

- Algorithm **C1-FEERTCPR** (Fees Rate Calculation Pre-Processing Algorithm) to be attached at division level for algorithm based SQI derivation.

3.9.2 Input Parameters for AccountFees

Input parameters for the AccountFees service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Price Item Code	Used to search the account fees for selected price item.	O
Account ID	Used to search the fees for a particular account.	M
Division	Required if Account Identifier and Account Identifier Type are provided.	C
Account Identifier	Required if account ID is not provided.	C
Account Identifier Type	Required if account ID is not provided.	C
Effective Date	Used to persist fees for price item which are active and effective date lies between start and end date. **Note**: If effective date not provided, it is set to system date.	M
View Type	Used to indicate whether you want to view summary or tiering details of price components. The valid values are: - **Detail** - Used when you want to view both contributing and non-contributing price components. - **Summary** - Used when you want to view only the contributing price components.	O

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
	Note: Default value is **DT**.	
Price Status Flag	Used to signify the status of pricing for fees calculation.	O
Price Assignment ID	Used to specify a specific price assignment.	O
External Transaction ID	Used to persist fees with a particular transaction ID. **Note**: If no external taxation ID is given then data will be stored with 0 as default.	O
Simulation Switch	Used to indicate whether user only wants to query or persist the data in the fees tables. The valid values are: • Yes - Enquire • No - Enquire and persist **Note**: Default value is **No**.	O
Input Price Parameters		
Price Parameter Value	Used to give the input parameter value for matching eligibility if any provided.	O
Price Parameter Code	Used to give the input parameter code for matching eligibility if any provided.	O
Input Service Quantity		
Service Quantity Identifier	Used to explicitly provide the SQI value.	O
Sequence	Used to explicitly provide the SQI sequence number.	O
Time of Use	Used to explicitly provide the SQI time of use code.	O
Unit of Measure	Used to explicitly provide the SQI unit of measure code.	O
Daily Service Quantity	Used to explicitly provide the SQI code.	O

3.9.3 Process for AccountFees

You can use the **AccountFees** service to calculate the fee for a requested transaction by providing the eligible parameters in the request. The **AccountFees** service is used for price items which are available for Only Pricing and whose price item type is Fees. It is used to persist, price item type fee on a given date.

- If the service is explicitly called using SOAP or any other routine, it will persist the latest data regardless of whether data has already been persisted for same period or not.

- If called explicitly on a date for which no schedule exists, it will persist data with the effective dates as the start and end date.

- If called explicitly on a date for which schedule exists, it will persist data with the effective start date as the start date and effective end date as end date.

Points to Note:

Effective Start Date - Price assignment start date and schedule period start date whichever is later.

Effective End Date - Price assignment end date and schedule period end date whichever is earlier.

3.9.4 Output Parameters for AccountFees

Output parameters for the AccountFees service are defined in the following table:

Output Parameter	Comments
Tiering Price Parameters	
Price Parameter Code	Displays price parameter code used while defining tiering criteria for the product pricing.
Price Parameter Value	Displays price parameter value used while defining tiering criteria for the product pricing.
Tiering Eligibility	
Upper Limit	Displays upper limit for eligible tier.
Lower Limit	Displays lower limit for eligible tier.
Price Item Parameter Code	Displays price item parameter code for eligible tier.
Price Item Code	Displays price item code for eligible tier.
Time of Use	Displays time of use for eligible tier.
Price Criteria	Displays price criteria for eligible tier.
Eligibility Criteria	
Is Insufficient	Displays the Rule is Insufficient flag for the eligibility.
Sub Rule False Flag	Displays the Rule is True flag for the eligibility.
Sub Rule True Flag	Displays the Rule is False flag for the eligibility.
Price Parameter Type Flag	Displays the type of price parameter as adhoc or predefined.

Output Parameter	Comments
Right Parameter Code	Displays the right parameter code.
Operator Type	Displays the operator used.
Left Parameter Code	Displays the left parameter code.
Sequence Number	Displays sequence number of eligible criteria.
Contribution Lbl	Displays whether contributing or not.
Price Component ID	Display price component ID.
Price Component Description	Displays the description of price component.
Price Component Sequence Number	Displays the sequence number of price component.
Value Amount	Displays the amount contributed due to that price component.
Rate Component Map ID	Displays rate component map ID.
Price Component Display	Displays whether to display price component or not.
Tiered Flag	Displays the tiered flag.
Rate Component Sequence	Displays the sequence number of rate component.
Price Assignment Parameters	
Price Parameter Value	Displays the parameter value of price assignment.
Price Parameter Code	Displays the parameter code of price assignment.
Fees calculation Parameters	
Parameter Code	Displays the parameter code of fees calculation.
Parameter Value	Displays the parameter value of fees calculation.
Fees sq unit of Measure	Displays the unit of measurement for fees calculation.
Fees Service Quantity	
Time of Use	Displays the value of time of use.
Service Quantity Identifier	Displays the SQI used.
Initial Service Quantity	Displays the initial value of SQI.
Final Service Quantity	Displays the final value of SQI.
Fees Char	
Effective Date	Displays the effective date for fees characteristics.
Characteristic Type	Displays the fees characteristics type.
Characteristic Value	Displays the fees characteristics value.
Adhoc Characteristic Value	Displays the adhoc the fees characteristics value.
Characteristic Value Foreign Key 1	Displays the fees characteristics foreign Key1.

Output Parameter	Comments
Characteristic Value Foreign Key 2	Displays the fees characteristics foreign Key2.
Characteristic Value Foreign Key 3	Displays the fees characteristics foreign Key3.
Characteristic Value Foreign Key 4	Displays the fees characteristics foreign Key4.
Characteristic Value Foreign Key 5	Displays the fees characteristics foreign Key5.
Fees Calculation Line Char	
Header Sequence	Displays the header sequence for fees calculation line characteristics.
Sequence	Displays the sequence for fees calculation line characteristics.
Characteristic Type	Displays the characteristics type for fees calculation line characteristics.
Characteristic Value	Displays the characteristics value for fees calculation line characteristics.
Adhoc Characteristic Value	Displays the adhoc characteristics value for fees calculation line characteristics.
characteristicValueForeignKey1	Displays the characteristicValueForeignKey1 for calculation line characteristics.
characteristicValueForeignKey2	Displays the characteristicValueForeignKey2 for calculation line characteristics.
characteristicValueForeignKey3	Displays the characteristicValueForeignKey3 for calculation line characteristics.
characteristicValueForeignKey4	Displays the characteristicValueForeignKey4 for calculation line characteristics.
characteristicValueForeignKey5	Displays the characteristicValueForeignKey5 for calculation line characteristics.
Fees Calculation Line	
Header Sequence	Displays the header sequence number for fees calculation line.
Sequence	Displays the sequence number for fees calculation line.
Characteristic Type	Displays the characteristic type for fees calculation line.
Characteristic Value	Displays the characteristic value for fees calculation line.
Currency	Displays the currency for fees calculation line.
Unit of Measure	Displays the unit of measure value for fees calculation line.
Time of Use	Displays the time of use value for fees calculation line.
Rate Component Sequence	Displays the rate component sequence number for fees calculation line.

Output Parameter	Comments
Should Print	Displays whether fees calculation line should print or not.
Should Appear In Summary	Displays whether fees calculation line should appear in summary or not.
Calculated Amount	Displays the calculated amount for the fees calculation line.
Fees Calculation Line Exempt Amount	Displays the exempted amount for the fees calculation line.
Fees calculation Line Base Amount	Displays the base amount for the fees calculation line.
Service Quantity Identifier	Displays the SQI for the fees calculation line.
Description on Bill	Displays the description for the fees calculation line.
Pricing Currency code	Displays the pricing currency code for the fees calculation line.
Price Amount	Displays the pricing amount for the fees calculation line.
Exchange Rate ID	Displays the exchange rate ID for the fees calculation line.
Exchange Rate	Displays the exchange rate for the fees calculation line.
Total Aggregation Service Quantity	Displays the total aggregation SQ for the fees calculation line.
Price Component ID	Displays the price component ID for the fees calculation line.
Value Amount	Displays the value amount for the fees calculation line.
Fees Calculation	
Header Sequence	Displays the header sequence for the fees calculation.
Rate Schedule	Displays the rate schedule for the fees calculation.
Rate Description	Displays the rate description for the fees calculation.
Start Date	Displays the start date of the fees calculation.
End Date	Displays the end Date of the fees calculation.
Effective Date	Displays the effective date of the fees calculation.
Calculated Amount	Displays the calculated amount for fees calculation.
Currency	Displays the currency of the fees calculation.
Description on Bill	Displays the description on fees calculated bill.
Fees Header	
Account ID	Displays the account ID for which the fees has been calculated.
Price Item Code	Displays the price item code for the fees.

Output Parameter	Comments
Price Assignment ID	Displays the price assignment ID for the fees.
Start Date	Displays the start date of the fees.
End Date	Displays the price end date of the fees.
Calculated Amount	Displays the price end date of the fees.
Currency	Displays the currency of the fees.
Creation Date Time	Displays the creation date and time of the fees.
Printif Zero Switch	Displays the print if zero switch of the fees.
Pricing Frequency	Displays the pricing frequency of the fees.
Advance Pricing Switch	Displays the advance pricing switch of the fees.
Taxation Daily Rating Criteria	Displays the taxation daily rating criteria of the fees.
Do Not Aggregation Switch	Displays the do not aggregation switch of the fees.
Ignore Switch	Displays the ignore switch of the fees.
Rate Schedule	Displays the rate schedule of the fees.
Rate Description	Displays the rate description of the fees.
Calculated Amount	Displays the calculated amount of the fees.
Price Currency Code	Displays the pricing currency code of the fees.
Price Item Code	Displays the price item code of the fees
Price Item Description	Displays the price item description of the price item code for which fees has been retrieved.
Price Assignment ID	Displays the price assignment ID of price item.
Price Status Flag	Displays the status of pricing.
Start Date	Displays the start date of the fees.
End Date	Displays the end date of the fees.
Party Usage Flag	Displays the party usage flag of the fees.
Party Type Flag	Displays the party type flag of the fees.

3.10 GetAccountFees

The **GetAccountFees** service provides the pre-calculated fees for a transaction by passing the required details in the request. Pricing service will search the persisted fees and will return the calculated fees if available along with the details on the fees calculations.

3.10.1 Prerequisite

None

3.10.2 Input Parameters for GetAccountFees

Input parameters for the GetAccountFees service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Price Item Code	Used to search the fees for selected price item.	O
Division	Used to search for account if account identifier and account identifier type are provided.	C
Account ID	Used to search for particular account.	M
Account Identifier	Required if account ID is not provided.	C
Account Identifier Type	Required if account identifier type is provided.	C
View Type	Used to indicate whether you want to view summary or tiering details of price components. The valid values are: • **Detail** - Used when you want to view both contributing and non-contributing price components. • **Summary** - Used when you want to view only the contributing price components.	O
Start Date	Used to indicate the start date of the fees.	M
End Date	Used to indicate the end date of fees.	O
External Transaction ID	Used to indicate the fees of a particular external transaction ID. **Note**: If you specify the value of ID as 0 while searching, then all the data will be displayed.	O

3.10.3 Process for GetAccountFees

You can perform the search to get the account fees by providing the eligible parameters in the request. The **GetAccountRate** service for an account will search the latest version of the persisted pricing by the **AccountRate** service based on the effective date for the account, such as it will search the pricing for the price items of type **Fees** persited where **Effective Date** as mentioned in the persisted data falls within the search **Start Date** and **End Date**.

The latest version of the pricing is defined on the basis of date of creation. It will also return the list of price components contributing the rate and the eligibility criteria, such as:

1. If service is invoked with Type as Summary only the applicable price components and the eligibility criteria corresponding to the price component will be returned.

2. If service is invoked with Type as Detail all the price components and the eligibility criteria and the eligibility status of each criterion will be returned.

3.10.4 Output Parameters for GetAccountFees

Output parameters for the GetAccountFees service are defined in the following table:

Output Parameter	Comments
Tiering Price Parameters	
Price Parameter Code	Displays price parameter code used while defining tiering criteria for the product pricing.
Price Parameter Value	Displays price parameter value used while defining tiering criteria for the product pricing.
Tiering Eligibility	
Upper Limit	Displays upper limit for eligible tier.
Lower Limit	Displays lower limit for eligible tier.
Price Item Parameter Code	Displays price item parameter code for eligible tier.
Price Item Code	Displays price item code for eligible tier.
Time of Use	Displays time of use for eligible tier.
Price Criteria	Displays price criteria for eligible tier.
Eligibility Criteria	
Is Insufficient	Displays the Rule is Insufficient flag for the eligibility.
Sub Rule False Flag	Displays the Rule is True flag for the eligibility.
Sub Rule True Flag	Displays the Rule is False flag for the eligibility.
Price Parameter Type Flag	Displays the type of price parameter as adhoc or predefined.
Right Parameter Code	Displays the right parameter code.
Operator Type	Displays the operator used.

Output Parameter	Comments
Left Parameter Code	Displays the left parameter code.
Sequence Number	Displays sequence number of eligible criteria.
Contribution Lbl	Displays whether contributing or not.
Price Component ID	Display price component ID.
Price Component Description	Displays the description of price component.
Price Component Sequence Number	Displays the sequence number of price component.
Value Amount	Displays the amount contributed due to that price component.
Rate Component Map ID	Displays rate component map ID.
Price Component Display	Displays whether to display price component or not.
Tiered Flag	Displays the tiered flag.
Price Assignment Parameters	
Price Parameter Value	Displays the parameter value of price assignment.
Price Parameter Code	Displays the parameter code of price assignment.
Fees Calculation Parameters	
Parameter Code	Displays the parameter code of fees calculation.
Parameter Value	Displays the parameter value of fees calculation.
Parameter Code	Displays the parameter code of fees calculation.
Fees Service Quantity	
Time of Use	Displays the value of time of use.
Service Quantity Identifier	Displays the SQI used.
Initial Service Quantity	Displays the initial value of SQI.
Final Service Quantity	Displays the final value of SQI.
Fees Char	
Effective Date	Displays the effective date for fees characteristics.
Characteristic Type	Displays the fees characteristics type.
Characteristic Value	Displays the fees characteristics value.
Adhoc Characteristic Value	Displays the adhoc the fees characteristics value.
Characteristic Value Foreign Key 1	Displays the fees characteristics foreign Key1.
Characteristic Value Foreign Key 2	Displays the fees characteristics foreign Key2.
Characteristic Value Foreign Key 3	Displays the fees characteristics foreign Key3.
Characteristic Value Foreign Key 4	Displays the fees characteristics foreign Key4.

Output Parameter	Comments
Characteristic Value Foreign Key 5	Displays the fees characteristics foreign Key5.
Fees Calculation Line Char	
Header Sequence	Displays the header sequence for fees calculation line characteristics.
Sequence	Displays the sequence for fees calculation line characteristics.
Characteristic Type	Displays the characteristics type for fees calculation line characteristics.
Characteristic Value	Displays the characteristics value for fees calculation line characteristics.
Adhoc Characteristic Value	Displays the adhoc characteristics value for fees calculation line characteristics.
characteristicValueForeignKey1	Displays the characteristicValueForeignKey1 for calculation line characteristics.
characteristicValueForeignKey2	Displays the characteristicValueForeignKey2 for calculation line characteristics.
characteristicValueForeignKey3	Displays the characteristicValueForeignKey3 for calculation line characteristics.
characteristicValueForeignKey4	Displays the characteristicValueForeignKey4 for calculation line characteristics.
characteristicValueForeignKey5	Displays the characteristicValueForeignKey5 for calculation line characteristics.
Fees Calculation Line	
Header Sequence	Displays the header sequence number for fees calculation line.
Sequence	Displays the sequence number for fees calculation line.
Characteristic Type	Displays the characteristic type for fees calculation line.
Characteristic Value	Displays the characteristic value for fees calculation line.
Currency	Displays the currency for fees calculation line.
Unit of Measure	Displays the unit of measure value for fees calculation line.
Time of Use	Displays the time of use value for fees calculation line.
Rate Component Sequence	Displays the rate component sequence number for fees calculation line.
Should Print	Displays whether fees calculation line should print or not.
Should Appear In Summary	Displays whether fees calculation line should appear in summary or not.
Calculated Amount	Displays the calculated amount for the fees calculation line.

Output Parameter	Comments
Fees Calculation Line Exempt Amount	Displays the exempted amount for the fees calculation line.
Fees calculation Line Base Amount	Displays the base amount for the fees calculation line.
Service Quantity Identifier	Displays the SQI for the fees calculation line.
Description on Bill	Displays the description for the fees calculation line.
Pricing Currency code	Displays the pricing currency code for the fees calculation line.
Price Amount	Displays the pricing amount for the fees calculation line.
Exchange Rate ID	Displays the exchange rate ID for the fees calculation line.
Exchange Rate	Displays the exchange rate for the fees calculation line.
Total Aggregation Service Quantity	Displays the total aggregation SQ for the fees calculation line.
Price Component ID	Displays the price component ID for the fees calculation line.
Value Amount	Displays the value amount for the fees calculation line.
Fees Calculation	
Header Sequence	Displays the header sequence for the fees calculation.
Rate Schedule	Displays the rate schedule for the fees calculation.
Rate Description	Displays the rate description for the fees calculation.
Start Date	Displays the start date of the fees calculation.
End Date	Displays the end Date of the fees calculation.
Effective Date	Displays the effective date of the fees calculation.
Calculated Amount	Displays the calculated amount for fees calculation.
Currency	Displays the currency of the fees calculation.
Description on Bill	Displays the description on fees calculated bill.
Fees Header	
Account ID	Displays the account ID for which the fees has been calculated.
Price Item Code	Displays the price item code for the fees.
Price Assignment ID	Displays the price assignment ID for the fees.
Start Date	Displays the start date of the fees.
End Date	Displays the price end date of the fees.
Calculated Amount	Displays the price end date of the fees.
Currency	Displays the currency of the fees.
Creation Date Time	Displays the creation date and time of the fees.

Output Parameter	Comments
Printif Zero Switch	Displays the print if zero switch of the fees.
Pricing Frequency	Displays the pricing frequency of the fees.
Advance Pricing Switch	Displays the advance pricing switch of the fees.
Taxation Daily Rating Criteria	Displays the taxation daily rating criteria of the fees.
Do Not Aggregation Switch	Displays the do not aggregation switch of the fees.
Ignore Switch	Displays the ignore switch of the fees.
Rate Schedule	Displays the rate schedule of the fees.
Rate Description	Displays the rate description of the fees.
Calculated Amount	Displays the calculated amount of the fees.
Price Currency Code	Displays the pricing currency code of the fees.
Price Item Code	Displays the price item code of the fees.
Price Item Description	Displays the price item description of the price item code for which fees has been retrieved.
Price Assignment ID	Displays the price assignment ID of price item.
Price Status Flag	Displays the status of pricing.
Start Date	Displays the start date of the fees.
End Date	Displays the end date of the fees.
Party Usage Flag	Displays the party usage flag of the fees.
Party Type Flag	Displays the party type flag of the fees.

3.11 AccountUsage

The **AccountUsage** is an inbound web service to upload the effective dated usage amount and counter related information in the system. This information can then be used while defining pricing eligibility criteria in the system.

3.11.1 Prerequisite

To setup the AccountUsage service, you need to do the following:

- Balance (BAL_FLG) and Counter (CNR_FLG) lookup need to be configured in the application.

3.11.2 Input Parameters for AccountUsage

Input parameters for the AccountUsage service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Balance Counter ID	Used to search the balance counter ID of the account.	M
Account ID	Used to search the particular account.	M
Usage Type	Used to indicate the value of usage type. The valid values are: • Usage counter • Usage amount	M
Usage Criteria	Used to indicate the usage criteria.	M
Effective Date Time	Used to specify the effective date and time for account usage.	M
Usage	Used to specify the value of usage.	M
Currency	Used to specify the currency. It is required during add and update request. It is required when usage type is usage amount.	C
Business Object Code	Used to specify the business object code.	M
Status	Used to specify the status.	O
Business Object Data Area	Used to specify the extra information.	O
Status Reason	Used to specify the status reason.	O
Status Date time	Used to specify the status date and time.	O
Eligible for Archive	Used to indicate the ILM Archive Switch value. The valid values are: • Yes • No	O
ILM Date	Used to specify the ILM Date.	O

3.11.3 Process for AccountUsage

You can perform the search to get the account usage by providing the eligible parameters in the request.

3.11.4 Output Parameters for AccountUsage

Output parameters for the AccountUsage service are defined in the following table:

Output Parameter	Comments
Balance Counter ID	Displays the value of balance counter ID.
Account ID	Displays the value account ID.

Output Parameter	Comments
Usage Type	Displays the value usage type.
Usage Criteria	Displays the value usage criteria.
Effective Date Time	Displays the effective date for account usage.
Usage	Displays the value of usage.
Currency	Displays the currency.
Business Object Code	Displays the business object code.
Status	Displays the status.
Business Object Data Area	Displays the business object data area.
Status Reason	Displays the status reason code.
Status Date time	Displays the status date and time.
Eligible for Archive	Displays the value of ILM archive switch.
ILM Date	Displays the ILM date

3.12 PersonUsage

The **PersonUsage** is an inbound web service to upload the effective dated usage amount and counter related information in the system. This information can then be used while defining pricing eligibility criteria in the system.

3.12.1 Prerequisite

To use the PersonUsage service, you need to do the following:

- Balance (BAL_FLG) and Counter (CNR_FLG) lookup need to be configured in the application.

3.12.2 Input Parameters for PersonUsage

Input parameters for the PersonUsage service are defined in the following table:

Input Parameter	Comments	Mandatory(M)/Optional(O) /Conditional(C)
Balance Counter ID	Used to search the balance counter ID of the account.	M
Account ID	Used to search the particular account.	M
Usage Type	Used to indicate the value of usage type. The valid values are: • Usage counter • Usage amount	M
Usage Criteria	Used to indicate the usage criteria.	M

Input Parameter	Comments	Mandatory(M)/Optional(O)/Conditional(C)
Effective Date Time	Used to specify the effective date and time for account usage.	M
Usage	Used to specify the value of usage.	M
Currency	Used to specify the currency. It is required during add and update request. It is required when usage type is usage amount.	C
Business Object Code	Used to specify the business object code.	M
Status	Used to specify the status.	O
Business Object Data Area	Used to specify the extra information.	O
Status Reason	Used to specify the status reason.	O
Status Date time	Used to specify the status date and time.	O
Eligible for Archive	Used to indicate the ILM Archive Switch value. The valid values are: • Yes • No	O
ILM Date	Used to specify the ILM Date.	O

3.12.3 Process for PersonUsage

You can perform the search to get the person usage by providing the eligible parameters in the request.

3.12.4 Output Parameters for PersonUsage

Output parameters for the PersonUsage service are defined in the following table:

Output Parameter	Comments
Balance Counter ID	Displays the value of balance counter ID.
Account ID	Displays the value account ID.
Usage Type	Displays the value usage type.
Usage Criteria	Displays the value usage criteria.
Effective Date Time	Displays the effective date for account usage.
Usage	Displays the value of usage.
Currency	Displays the currency.
Business Object Code	Displays the business object code.
Status	Displays the status.

Output Parameter	Comments
Business Object Data Area	Displays the business object data area.
Status Reason	Displays the status reason code.
Status Date time	Displays the status date and time.
Eligible for Archive	Displays the value of ILM archive switch.
ILM Date	Displays the ILM date.

4. Exchange Rate Services

ORMB provides the following service to add and update exchange rates in the system:

- ExchangeRate

4.1 ExchangeRate

The **ExchangeRate** service provides the ability to create and update an exchange rate. It has two operations:

- createExchangeRate
- updateExchangeRate

4.1.1 Prerequisite

Authorize the ORMB user to access the required application service.

4.1.2 Request/Response Schema for ExchangeRate

Schema for request and response of both the operations in the ExchangeRate service is given below:

```
<C1-ExchangeRateBO>
            <exchRateId></exchRateId>
            <fromCurrencyCd></fromCurrencyCd>
            <toCurrencyCd></toCurrencyCd>
            <convTypeFlg></convTypeFlg>
            <effectiveDate></effectiveDate>
            <exchRate></exchRate>
            <division></division>
            <endDate></endDate>
            <spread></spread>
            <version></version>
            <businessObject></businessObject>
            <status></status>
            <statusReason></statusReason>
            <businessObjectDataArea></businessObjectDataArea>
            <creationDateTime></creationDateTime>
            <statusDateTime></statusDateTime>
            <isEligibleForArchiving></isEligibleForArchiving>
            <ilmDate></ilmDate>
            <startDateTime></startDateTime>
            <endDateTime></endDateTime>
            <exchangeRateSource></exchangeRateSource>
            <exchangeRateCharacteristic>
                    <exchRateId></exchRateId>
                    <characteristicType></characteristicType>
                    <effectiveDate></effectiveDate>
                    <characteristicValue></characteristicValue>
                    <adhocCharacteristicValue></adhocCharacteristicValue>
                    <characteristicValueForeignKey1></characteristicValueForeignKey1>
                    <characteristicValueFK2></characteristicValueFK2>
```

```
                    <characteristicValueFK3></characteristicValueFK3>
                    <characteristicValueFk4></characteristicValueFk4>
                    <characteristicValueFK5></characteristicValueFK5>
                    <searchCharacteristicValue></searchCharacteristicValue>
                    <version></version>
            </exchangeRateCharacteristic>
            <exchangeRateLog>
                    <exchRateId></exchRateId>
                    <sequence></sequence>
                    <logDateTime></logDateTime>
                    <logEntryType></logEntryType>
                    <longDescription></longDescription>
                    <status></status>
                    <statusReason></statusReason>
                    <messageCategory></messageCategory>
                    <messageNumber></messageNumber>
                    <characteristicType></characteristicType>
                    <characteristicValue></characteristicValue>
                    <adhocCharacteristicValue></adhocCharacteristicValue>
                    <characteristicValueForeignKey1></characteristicValueForeignKey1>
                    <characteristicValueFK2></characteristicValueFK2>
                    <characteristicValueFK3></characteristicValueFK3>
                    <characteristicValueFk4></characteristicValueFk4>
                    <characteristicValueFK5></characteristicValueFK5>
                    <searchCharacteristicValue></searchCharacteristicValue>
                    <user></user>
                    <version></version>
                    <exchangeRateLogParameter>
                            <exchRateId></exchRateId>
                            <sequence></sequence>
                            <messageParameterSequence></messageParameterSequence>
                            <messageParameterType></messageParameterType>
                            <messageParameterValue></messageParameterValue>
                            <version></version>
                    </exchangeRateLogParameter>
            </exchangeRateLog>
    </C1-ExchangeRateBO>
```

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
exchRateId	Exchange Rate ID (Required if the request is to update an existing exchange rate)	C
fromCurrencyCd	From Currency (Used to indicate the currency that you want to translate. In other words, it is used to indicate the source currency)	M
toCurrencyCd	To Currency (Used to indicate the currency in which you want to translate the source currency. In other words, it is used to indicate the target currency)	M

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
convTypeFlg	Conversion Type (Used to indicate the conversion type for the exchange rate. This is required in a request for adding a new exchange rate, but optional in the request to modify an exchange rate)	C
	Note: You must specify a value defined in the lookup CONV_TYPE_FLG. Valid values from the product are: >> RGLR (Regular) >> FERR (Ferris)	
effectiveDate	Effective Start Date (This is not required in the request. It will be set to the date passed in Start Date Time)	O
exchRate	Exchange Rate (Used to specify the exchange rate. In other words, it is the number of units of the target currency that is equivalent to a single unit of the source currency)	M
	Note: You must set this field to a positive decimal value. The system provides you with the facility to specify the exchange rate value with a precision of up to 18 decimal places (0.000000000000000001).	
division	Division (Used to indicate the division for which you want to define the exchange rate)	O
	Points to Note: You can only view those divisions to which you have access in the Division list. You must leave this field blank while defining a global exchange rate.	
endDate	Effective End Date (This is not required in the request. IF End Date Time is provided, then this field will be set to the date passed in the End Date Time)	O
spread	Spread (Used to specify the spread for the exchange rate)	O

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
businessObject	Business Object (Indicates the business object using which you are defining an exchange rate) **Note:** Value to be provided: C1-ExchangeRate	M
status	Business Object Status	Not Applicable
statusReason	Business Object Status Reason	Not Applicable
businessObjectDataArea	Business Object Date Area	Not Applicable
creationDateTime	Creation Date Time	Not Applicable
statusDateTime	Status Update Date Time	Not Applicable
isEligibleForArchiving	Is Eligible For Archiving	Not Applicable
ilmDate	ILM (Information Lifecycle Management) Date	Not Applicable
startDateTime	Effective Start Date/Time (Used to specify the date and time from when the exchange rate is effective.)	M
endDateTime	Effective End Date Time (Used to specify the date and time till when the exchange rate is effective). **Note:** If the End Date Required for Division Override option type of the C1_EXCHRATE feature configuration is set to Y, this field is required when you are defining a division-specific exchange rate.	C
exchangeRateSource	Exchange Rate Source (Used to indicate the source from where the exchange rate is received) **Note:** You must specify a value defined in the lookup EXCH_RATE_SRC_FLG.	O
exchangeRateCharacteristic (Exchange Rate Characteristic (List))		
exchRateId	Exchange Rate ID (Required if the request is to update an existing exchange rate)	C

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
characteristicType	Characteristic Type (Used to indicate the characteristic type) **Note:** This field is required when you are defining a characteristic for the exchange rate.	C
effectiveDate	Effective Date (Used to specify the date from when the characteristic is effective for the exchange rate) **Note:** This field is required when you are defining a characteristic for the exchange rate.	C
characteristicValue	Characteristic Value (Used to specify the value for the characteristic type) **Note:** This field is required when you are defining a characteristic for the exchange rate and the characteristic type is of Predefined type.	C
adhocCharacteristicValue	Adhoc Characteristic Value (Used to specify the value for the characteristic type) **Note:** This field is required when you are defining a characteristic for the exchange rate and the characteristic type is of Adhoc type.	C
characteristicValueForeignKey1	Foreign Key Characteristic Value 1 (Used to specify the value for the characteristic type) **Note:** This field is required when you are defining a characteristic for the exchange rate and the characteristic type is of FK Reference type.	C

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
characteristicValueFK2	Foreign Key Characteristic Value 2 (Used to specify the value for the characteristic type) **Note:** This field is required when you are defining a characteristic for the exchange rate and the characteristic type is of FK Reference type.	C
characteristicValueFK3	Foreign Key Characteristic Value 3 (Used to specify the value for the characteristic type) **Note:** This field is required when you are defining a characteristic for the exchange rate and the characteristic type is of FK Reference type.	C
characteristicValueFK4	Foreign Key Characteristic Value 4 (Used to specify the value for the characteristic type) **Note:** This field is required when you are defining a characteristic for the exchange rate and the characteristic type is of FK Reference type.	C
characteristicValueFK5	Foreign Key Characteristic Value 5 (Used to specify the value for the characteristic type) **Note:** This field is required when you are defining a characteristic for the exchange rate and the characteristic type is of FK Reference type.	C
searchCharacteristicValue	Search Characteristic Value (Indicates the characteristic value. This will be set in the response schema according to the type of the characteristic type)	Not Applicable
exchangeRateLog (Exchange Rate Log (List))		
exchRateId	Exchange Rate ID	Not Applicable
sequence	Sequence	Not Applicable
logDateTime	Log Date Time	Not Applicable
logEntryType	Log Entry Type	Not Applicable

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
longDescription	Long Description	Not Applicable
status	Log Status	Not Applicable
statusReason	Log Status Reason	Not Applicable
messageCategory	Message Category	Not Applicable
messageNumber	Message Number	Not Applicable
characteristicType	Characteristic Type	Not Applicable
characteristicValue	Characteristic Value	Not Applicable
adhocCharacteristicValue	Adhoc Characteristic Value	Not Applicable
characteristicValueForeignKey1	Characteristic Value FK 1	Not Applicable
characteristicValueFK2	Characteristic Value FK 2	Not Applicable
characteristicValueFK3	Characteristic Value FK 3	Not Applicable
characteristicValueFK4	Characteristic Value FK 4	Not Applicable
characteristicValueFK5	Characteristic Value FK 5	Not Applicable
searchCharacteristicValue	Search Characteristic Value	Not Applicable
user	User	Not Applicable
exchangeRateLogParameter (Exchange Rate Log Parameter (List))		
exchRateId	Exchange Rate ID	Not Applicable
sequence	Sequence	Not Applicable
messageParameterSequence	Message Parameter Sequence	Not Applicable
messageParameterType	Message Parameter Type	Not Applicable
messageParameterValue	Message Parameter Value	Not Applicable

4.1.3   Process for ExchangeRate

This service creates or updates an exchange rate using the Exchange Rates (C1-ExchangeRateBO) business object. A new exchange rate ID is created for the operation createExchangeRate in the table CI_EXCHRATE. Logs are recorded for creation and modification of an exchange rate and will be seen in the response schema.

4.1.4   Response Schema for Problem Detail

For any error that is encountered in the service operations of the ExchangeRate service, the problem detail response with the below schema will give more details.

```
<problemDetailDocument>
        <problemType></problemType>
        <title></title>
        <httpStatus></httpStatus>
        <detail></detail>
        <problemInstance></problemInstance>
        <stackTrace></stackTrace>
        <serverMessage>
                <messageCategory></messageCategory>
                <messageNbr></messageNbr>
                <callSequence></callSequence>
                <programName></programName>
                <messageText></messageText>
                <longDescription></longDescription>
        </serverMessage>
</problemDetailDocument>
```

Details on each tag in the above request schema is given in the below table:

Tag Name	Comments
problemType	Problem Type (URL of the format "A/message/X/Y" where A is the base URI, X is the Message Category and Y is the Message Number within Oracle Utilities Application Framework)
title	Title (Fully qualified error message from Oracle Utilities Application Framework in CDATA format)
httpStatus	HTTP Status (The HTTP Status code for the error)
detail	Detail (The long message description from the Oracle Utilities Application Framework in CDATA format)
problemInstance	Problem Instance (Fully qualified URL consisting of the Base URI Timestamp of error in ISO format, the User used for the transaction, the Message Category within Oracle Utilities Application Framework, the Message Number within Oracle Utilities Application Framework, the Request URL and the HTTP method used for the transaction)
stackTrace	Stack Trace (The stack trace shows where the error occurs during the execution of a program)

Tag Name	Comments
serverMessage Server Message (Group)	
messageCategory	Message Category (Message Category within Oracle Utilities Application Framework)
messageNbr	Message Number (Message Number within Oracle Utilities Application Framework.)
callSequence	Call Sequence (Delimited sequence of programs called)
programName	Program Name (Name of the program that encountered the error)
messageText	Message Text (Fully qualified error message from Oracle Utilities Application Framework in CDATA format)
longDescription	Long Description (The long message description from the Oracle Utilities Application Framework in CDATA format)

5.   Transaction Services

ORMB provides the following service to upload transactions:

- TransactionStaging

5.1   TransactionStaging

The **TransactionStaging** service is used for uploading transactions in the Transaction Staging table of ORMB. It is a **REST** based Web Service.

5.1.1   Prerequisite

To use the **TransactionStaging** service, you need to do the following:

- Authorize the ORMB user to access the required application service.
- Define the required account identifier types and divisions in the system.

5.1.2   Request/Response Schema for TransactionStaging

Schema for request and the response of the TransactionStaging service is given below:

```
< <C1-TranDtlStageUpload>
              <txnDetailId></txnDetailId>
              <threadNum></threadNum>
              <batchControl></batchControl>
              <executeBatch></executeBatch>
              <mandatoryFieldValidation></mandatoryFieldValidation>
              <keyFieldValidation></keyFieldValidation>
              <necessaryFieldValidation></necessaryFieldValidation>
              <txnHeaderId></txnHeaderId>
              <txnSourceCd></txnSourceCd>
              <txnHeaderDttm></txnHeaderDttm>
              <txnHeaderExtId></txnHeaderExtId>
              <filename></filename>
              <uploadDttm></uploadDttm>
              <headerNbrRecs></headerNbrRecs>
              <headerTxnVol></headerTxnVol>
              <headerTxnAmt></headerTxnAmt>
              <footerNbrRecs></footerNbrRecs>
              <footerTxnVol></footerTxnVol>
              <footerTxnAmt></footerTxnAmt>
              <messageCategory></messageCategory>
              <messageNumber></messageNumber>
              <cancelDttm></cancelDttm>
              <cancelBatchCd></cancelBatchCd>
              <cancelBatchNbr></cancelBatchNbr>
              <businessObject></businessObject>
              <status></status>
```

```
            <statusDateTime></statusDateTime>
            <trandtl>
                    <txnDetailId></txnDetailId>
                    <txnHeaderId></txnHeaderId>
                    <txnSourceCd></txnSourceCd>
                    <txnRecTypeCd></txnRecTypeCd>
                    <txnDttm></txnDttm>
                    <extTxnNbr></extTxnNbr>
                    <custRefNbr></custRefNbr>
                    <division></division>
                    <accountId></accountId>
                    <txnVol></txnVol>
                    <txnAmt></txnAmt>
                    <currency></currency>
                    <manualSw></manualSw>
                    <user></user>
                    <howToUseTxnFlg></howToUseTxnFlg>
                    <messageCategory2></messageCategory2>
                    <messageNumber2></messageNumber2>
                    <udfChar1></udfChar1>
                    <udfChar2></udfChar2>
                    <udfChar3></udfChar3>
                    <udfChar4></udfChar4>
                    <udfChar5></udfChar5>
                    <udfChar6></udfChar6>
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                    <udfNbr2></udfNbr2>
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                    <udfNbr4></udfNbr4>
                    <udfNbr5></udfNbr5>
                    <udfNbr6></udfNbr6>
                    <udfNbr7></udfNbr7>
                    <udfNbr8></udfNbr8>
                    <udfNbr9></udfNbr9>
                    <udfNbr10></udfNbr10>
                    <udfAmt1></udfAmt1>
                    <udfCurrencyCd1></udfCurrencyCd1>
                    <udfAmt2></udfAmt2>
                    <udfCurrencyCd2></udfCurrencyCd2>
                    <udfAmt3></udfAmt3>
```

```
<udfCurrencyCd3></udfCurrencyCd3>
<udfAmt4></udfAmt4>
<udfCurrencyCd4></udfCurrencyCd4>
<udfAmt5></udfAmt5>
<udfCurrencyCd5></udfCurrencyCd5>
<udfDttm1></udfDttm1>
<udfDttm2></udfDttm2>
<udfDttm3></udfDttm3>
<udfDttm4></udfDttm4>
<udfDttm5></udfDttm5>
<businessObject2></businessObject2>
<status2></status2>
<statusDateTime2></statusDateTime2>
<version></version>
<doNotAggSw></doNotAggSw>
<transactionUploadDt></transactionUploadDt>
<accountIdentifierType></accountIdentifierType>
<accountNumber></accountNumber>
<udfChar16></udfChar16>
<udfChar17></udfChar17>
<udfChar18></udfChar18>
<udfChar19></udfChar19>
<udfChar20></udfChar20>
<udfChar21></udfChar21>
<udfChar22></udfChar22>
<udfChar23></udfChar23>
<udfChar24></udfChar24>
<udfChar25></udfChar25>
<ruleCd></ruleCd>
<messageDesc></messageDesc>
<disAggSw></disAggSw>
<disAggCnt></disAggCnt>
<processingDate></processingDate>
<lastSysPrcsDate></lastSysPrcsDate>
<udfChar26></udfChar26>
<udfChar27></udfChar27>
<udfChar28></udfChar28>
<udfChar29></udfChar29>
<udfChar30></udfChar30>
<udfChar31></udfChar31>
<udfChar32></udfChar32>
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<udfChar35></udfChar35>
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<udfChar37></udfChar37>
<udfChar38></udfChar38>
<udfChar39></udfChar39>
<udfChar40></udfChar40>
```

```
<udfChar41></udfChar41>
<udfChar42></udfChar42>
<udfChar43></udfChar43>
<udfChar44></udfChar44>
<udfChar45></udfChar45>
<udfChar46></udfChar46>
<udfChar47></udfChar47>
<udfChar48></udfChar48>
<udfChar49></udfChar49>
<udfChar50></udfChar50>
<udfNbr11></udfNbr11>
<udfNbr12></udfNbr12>
<udfNbr13></udfNbr13>
<udfNbr14></udfNbr14>
<udfNbr15></udfNbr15>
<udfNbr16></udfNbr16>
<udfNbr17></udfNbr17>
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<udfNbr19></udfNbr19>
<udfNbr20></udfNbr20>
<udfAmt6></udfAmt6>
<udfAmt7></udfAmt7>
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<udfAmt9></udfAmt9>
<udfAmt10></udfAmt10>
<udfCurrencyCd6></udfCurrencyCd6>
<udfCurrencyCd7></udfCurrencyCd7>
<udfCurrencyCd8></udfCurrencyCd8>
<udfCurrencyCd9></udfCurrencyCd9>
<udfCurrencyCd10></udfCurrencyCd10>
<trandtlexcp>
        <seqNo></seqNo>
        <currSysPrcsDate></currSysPrcsDate>
        <messageCategory></messageCategory>
        <messageNumber></messageNumber>
        <messageParameter1></messageParameter1>
        <messageParameter2></messageParameter2>
        <messageParameter3></messageParameter3>
        <messageParameter4></messageParameter4>
        <messageParameter5></messageParameter5>
        <isEligibleForArchiving></isEligibleForArchiving>
</trandtlexcp>
    </trandtl>
</C1-TranDtlStageUpload>
```

Tag Name	Comments	Mandatory(M)/Optional(O)/Conditional(C)
txnDetailId	Transaction Detail ID (This is not to be populated in the request. This will be set to the primary key of the Transaction Detail in the response)	Not Applicable
threadNum	Thread Number (This field is deprecated)	Not Applicable
batchControl	Batch Control (This field is deprecated)	Not Applicable
executeBatch	Execute Batch (Used to indicate if the records should be inserted in the staging table as batch. If not populated, then the value will be defaulted to 'N'). The valid values are Y and N.	O
mandatoryFieldValidation	Mandatory Field Validation (Used to indicate if the mandatory field validations should be performed or not. If not populated, then the value will be defaulted to 'Y'). The valid values are Y and N. If the value is set to Y, then the below fields are mandatory in the request. • Transaction Record Type • Division • Currency • Account Identifier Type • Account Identifier	O

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
keyFieldValidation	Key Field Validation (Used to indicate if the key field validations should be performed or not. If Mandatory Field Validation = 'N', then this field will be defaulted to 'N'. If not populated, then the value will be defaulted to 'Y'.) The valid values are Y and N. If the value is set to Y, then the below fields in the request are validated to be valid. • Transaction Source • Transaction Record Type • Division • Currency • UDF Currencies • Account Identifier Type • Account Identifier	O
necessaryFieldValidation	Necessary Field Validation (This field is deprecated)	Not Applicable
txnHeaderId	Transaction Header ID (Used to specify the Transaction Header ID)	M
txnSourceCd	Transaction Source (Used to specify the transaction source from where the transaction is received)	M
txnHeaderDttm	Transaction Header Date Time (This field is deprecated)	Not Applicable
txnHeaderExtId	Transaction Header External ID (This field is deprecated)	Not Applicable
filename	File Name (This field is deprecated)	Not Applicable
uploadDttm	Upload Date Time (This field is deprecated)	Not Applicable
headerNbrRecs	Header Number of Records (This field is deprecated)	Not Applicable
headerTxnVol	Header Transaction Volume (This field is deprecated)	Not Applicable
headerTxnAmt	Header Transaction Amount (This field is deprecated)	Not Applicable
footerNbrRecs	Footer Number of Records (This field is deprecated)	Not Applicable

Tag Name	Comments	Mandatory(M)/Optional(O)/Conditional(C)
footerTxnVol	Footer Transaction Volume (This field is deprecated)	Not Applicable
footerTxnAmt	Footer Transaction Amount (This field is deprecated)	Not Applicable
messageCategory	Message Category (This field is deprecated)	Not Applicable
messageNumber	Message Number (This field is deprecated)	Not Applicable
cancelBatchCd	Cancel Batch Control (This field is deprecated)	Not Applicable
cancelBatchNbr	Cancel Batch Number (This field is deprecated)	Not Applicable
businessObject	Business Object (This field is deprecated)	Not Applicable
status	Status (This field is deprecated)	Not Applicable
statusDateTime	Status Date/Time (This field is deprecated)	Not Applicable
trandtl (Transaction Detail (List))		
txnDetailId	Transaction Detail ID (This is not to be populated in the request. This will be set to the primary key of the Transaction Detail in the response)	Not Applicable
TxnHeaderId	Transaction Header ID (Used to specify the Transaction Header ID)	M
TxnSourceCd	Transaction Source (Used to specify the transaction source from where the transaction is received)	M
txnRecTypeCd	Transaction Record Type (Used to specify the record type of the transaction) **Note:** You must specify Transaction Record Type if the Mandatory Field Validation is set to 'Y' or not provided.	C
TxnDttm	Transaction Date Time (Used to specify the date and time when the transaction is performed)	M
ExtTxnNbr	External Reference Number (Used to specify the external reference number of the transaction)	O

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
CustRefNbr	Customer Reference Number (Used to indicate the person who performed the transaction)	O
division	Division (Used to specify the division to which the transaction belongs) **Note:** You must specify Division if the Mandatory Field Validation is set to 'Y' or not provided.	C
accountId	Account ID (Used to indicate the account for which the transaction is performed) **Note:** This is not provided in the request and the account will be derived using the Account Identifier details specified. The derived account ID will be populated in the response schema.	Not Applicable
txnVol	Transaction Volume (Used to specify the transaction volume)	M
txnAmt	Transaction Amount (Used to specify the transaction amount)	M
currency	Transaction Currency (Used to indicate the currency in which the transaction is performed) **Note:** You must specify Transaction Currency if the Mandatory Field Validation is set to 'Y' or not provided.	M
manualSw	Manual (Indicates that the transaction is manually entered in the system) **Note:** If not populated, then the value will be defaulted to 'N'	O
user	User (Used to specify the user uploading the transaction)	M
howToUseTxnFlg	Credit/Debit Indicator (Used to indicate whether the transaction is a debit or a credit transaction) The valid values are: ● + ● -	M

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
messageCategory2	Message Category (Used to associate a message with the transaction)	O
messageNumber2	Message Number (Used to associate a message with the transaction)	O
udfChar1, udfChar2, …, udfChar50	Additional Data1, Additional Data2, …, Additional Data50 (Used to specify additional information about the transaction) **Note:** These fields are used to define additional information that are characters.	O
udfNbr1, udfNbr2, …, udfNbr20	Additional Numeric Data1, Additional Numeric Data2, …, Additional Numeric Data20 (Used to specify additional information about the transaction) **Note:** These fields are used to define additional information that are numbers.	O
udfAmt1, udfAmt2, …, udfAmt10	Additional Amount 1, Additional Amount 2, …, Additional Amount 10 (Used to specify additional information about the transaction) **Note:** These fields are used to define additional information that are amounts. You must specify this field when you are specifying the currency in the corresponding field.	C
udfCurrencyCd1, udfCurrencyCd2, …, udfCurrencyCd10	Amount 1 Currency Code, Amount 2 Currency Code, …, Amount 10 Currency Code (Used to specify additional information about the transaction) **Note:** These fields are used to define additional information that are amounts. You must specify this field when you are specifying the amount in the corresponding field.	C

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
udfDttm1, udfDttm2, …, udfDttm5	Additional Date 1, Additional Date 2, …, Additional Date 5 (Used to specify additional information about the transaction) **Note:** These fields are used to define additional information that are dates.	O
businessObject2	Business Object (Used to associate a business object with the transaction)	O
status2	Status (Used to associate a business object status with the transaction)	O
statusDateTime2	Status Date/Time (Used to specify the last status update date and time of the transaction)	O
doNotAggSw	Do Not Aggregate (Used to indicate if aggregation is needed for the transaction) **Note:** If not provided, then this field is set to 'Y' by default.	O
transactionUploadDt	Transaction Upload Date (Used to specify the upload date of the transaction)	O
accountIdentifierType	Account Identifier Type (Used to specify the type of account identifier) **Note:** You must specify Account Identifier Type if the Mandatory Field Validation is set to 'Y' or not provided.	C
accountNumber	Primary Account Identifier (Used to indicate the account for which the transaction is performed) **Note:** You must specify Account Identifier if the Mandatory Field Validation is set to 'Y' or not provided.	C

Tag Name	Comments	Mandatory(M)/Optional(O)/Conditional(C)
ruleCd	Rule Code (Used to display the rule code which is used to derive the account, price item, etc. for the transaction) **Note:** This is not provided in the request and the rule will be derived using the rule type associated with Transaction Record Type.	Not Applicable
messageDesc	Message Description (Used to associate a message text with the transaction)	O
disAggSw	Disaggregate (Used to display if a transaction is disaggregate. This is not needed in a request)	Not Applicable
disAggCnt	Disaggregation Count (Used to display the number of times a transaction is disaggregated. This is not needed in a request)	Not Applicable
processingDate	Processing Date (Used to display the processing date of the transaction. This is not needed in a request)	Not Applicable
lastSysPrcsDate	Last System Processing Date (Used to display the last system processing date for the transaction. This is not needed in a request)	Not Applicable
trandtlexcp (Transaction Detail Exception (List))		
seqNo	Sequence (Used to display the sequence of the exception for the transaction. This is used as part of the key for the exception record. This is not needed in a request)	Not Applicable
currSysPrcsDate	Current System Processing Date (Used to display the processing date when the exception occurred for the transaction. This is not needed in a request)	Not Applicable
messageCategory	Message Category (Used to display the message category of the exception message. This is not needed in a request)	Not Applicable
messageNumber	Message Number (Used to display the message number of the exception message. This is not needed in a request)	Not Applicable

Tag Name	Comments	Mandatory(M)/Optional(O)/Conditional(C)
messageParameter1, messageParameter2, …, messageParameter5	Message Parameter 1, Message Parameter 2, …, Message Parameter 5 (Used to display the message parameters of the exception message. This is not needed in a request)	Not Applicable
isEligibleForArchiving	Eligible for Archiving (Used to display if the exception record is eligible for archival. This field is used in the Information Lifecycle management and not needed in a request)	Not Applicable

5.1.3   Process for TransactionStaging

This service validates the data based on the switches provided and then creates transactions in **CI_TXN_DETAIL_STG** table. If any exception arises, then it is logged in **CI_TXN_DETAIL_EXCP** table.

5.1.4   Response Schema for Problem Detail

For any error that is encountered in the TransactionStaging service, the problem detail response with the below schema will give more details.

```
<problemDetailDocument>
        <problemType></problemType>
        <title></title>
        <httpStatus></httpStatus>
        <detail></detail>
        <problemInstance></problemInstance>
        <stackTrace></stackTrace>
        <serverMessage>
                <messageCategory></messageCategory>
                <messageNbr></messageNbr>
                <callSequence></callSequence>
                <programName></programName>
                <messageText></messageText>
                <longDescription></longDescription>
        </serverMessage>
</problemDetailDocument>
```

Details on each tag in the above request schema is given in the below table:

Tag Name	Comments
problemType	Problem Type (URL of the format "A/message/X/Y" where A is the base URI, X is the Message Category and Y is the Message Number within Oracle Utilities Application Framework)
title	Title (Fully qualified error message from Oracle Utilities Application Framework in CDATA format)
httpStatus	HTTP Status (The HTTP Status code for the error)

Tag Name	Comments
detail	Detail (The long message description from the Oracle Utilities Application Framework in CDATA format)
problemInstance	Problem Instance (Fully qualified URL consisting of the Base URI Timestamp of error in ISO format, the User used for the transaction, the Message Category within Oracle Utilities Application Framework, the Message Number within Oracle Utilities Application Framework, the Request URL and the HTTP method used for the transaction)
stackTrace	Stack Trace (The stack trace shows where the error occurs during the execution of a program)
serverMessage	
messageCategory	Message Category (Message Category within Oracle Utilities Application Framework)
messageNbr	Message Number (Message Number within Oracle Utilities Application Framework.)
callSequence	Call Sequence (Delimited sequence of programs called)
programName	Program Name (Name of the program that encountered the error)
messageText	Message Text (Fully qualified error message from Oracle Utilities Application Framework in CDATA format)
longDescription	Long Description (The long message description from the Oracle Utilities Application Framework in CDATA format)

6. Billable Charge Services

ORMB provides the following service to create billable charges:

- BillableCharge

6.1 BillableCharge

The **BillableCharge** service provides the ability to create a billable charge. It is a **REST** based Web Service.

6.1.1 Prerequisite

To use the **BillableCharge** service, you need to do the following:

- Authorize the ORMB user to access the required application service.
- Define the required account identifier types and divisions in the system.

6.1.2 Request/Response   Schema   for BillableCharge/createBillableCharge

Schema for request and response of BillableCharge/createBillableCharge service is given below:

```
<C1-BILLCHARGE>
            <billableChargeId></billableChargeId>
            <serviceAgreement></serviceAgreement>
            <startDate></startDate>
            <endDate></endDate>
            <descriptionOnBill></descriptionOnBill>
            <billableChargeStatus></billableChargeStatus>
            <version></version>
            <chrgTypCd></chrgTypCd>
            <recurringFlg></recurringFlg>
            <billPeriod></billPeriod>
            <pollnvcFreqCd></pollnvcFreqCd>
            <startTime></startTime>
            <endTime></endTime>
            <priceItemCode></priceItemCode>
            <timeOfUse></timeOfUse>
            <priceAsgnId></priceAsgnId>
            <paAccountId></paAccountId>
            <paPersonId></paPersonId>
            <paPriceListId></paPriceListId>
            <grpRefVal></grpRefVal>
            <billAfter></billAfter>
            <isAdhocBill></isAdhocBill>
            <feedSrcFlg></feedSrcFlg>
            <priceItemParmGroupId></priceItemParmGroupId>
            <sbscrptnChargeId></sbscrptnChargeId>
```

```xml
<billableChargeRead>
        <billableChargeId></billableChargeId>
        <registerQuantity></registerQuantity>
        <sequence></sequence>
        <unitOfMeasure></unitOfMeasure>
        <startRegisterReading></startRegisterReading>
        <endRegisterReading></endRegisterReading>
        <measuredQuantity></measuredQuantity>
        <howToUse></howToUse>
        <registerConstant></registerConstant>
        <usePercent></usePercent>
        <measuresPeakQuantity></measuresPeakQuantity>
        <startReadDateTime></startReadDateTime>
        <endReadDateTime></endReadDateTime>
        <howToUseRead></howToUseRead>
        <servicePointId></servicePointId>
        <timeOfUse></timeOfUse>
        <serviceQuantityIdentifier></serviceQuantityIdentifier>
        <startRegisterReadId></startRegisterReadId>
        <endRegisterReadingId></endRegisterReadingId>
        <finalUnitOfMeasure></finalUnitOfMeasure>
        <finalTimeOfUse></finalTimeOfUse>
        <finalServiceQuantityIdentifier></finalServiceQuantityIdentifier>
        <version></version>
</billableChargeRead>
<billableChargeServiceQuantity>
        <billableChargeId></billableChargeId>
        <serviceQuantityIdentifier></serviceQuantityIdentifier>
        <sequence></sequence>
        <timeOfUse></timeOfUse>
        <unitOfMeasure></unitOfMeasure>
        <dailyServiceQuantity></dailyServiceQuantity>
        <version></version>
</billableChargeServiceQuantity>
<billlableChargeCharacteristic>
        <billableChargeId></billableChargeId>
        <characteristicType></characteristicType>
        <effectiveDate></effectiveDate>
        <characteristicValue></characteristicValue>
        <adhocCharacteristicValue></adhocCharacteristicValue>
        <version></version>
        <characteristicValueForeignKey1></characteristicValueForeignKey1
>
        <characteristicValueFK2></characteristicValueFK2>
        <characteristicValueFK3></characteristicValueFK3>
        <characteristicValueFk4></characteristicValueFk4>
        <characteristicValueFK5></characteristicValueFK5>
        <searchCharacteristicValue></searchCharacteristicValue>
</billlableChargeCharacteristic>
```

```
                    <billableChargeLine>
                        <billableChargeId></billableChargeId>
                        <lineSequence></lineSequence>
                        <descriptionOnBill></descriptionOnBill>
                        <chargeAmount></chargeAmount>
                        <currency></currency>
                        <shouldShowOnBill></shouldShowOnBill>
                        <shouldAppearInSummary></shouldAppearInSummary>
                        <distributionCode></distributionCode>
                        <version></version>
                        <isMemoOnly></isMemoOnly>
                        <billableChargeLineCharacteristic>
                                <billableChargeId></billableChargeId>
                                <lineSequence></lineSequence>
                                <characteristicType></characteristicType>
                                <adhocCharacteristicValue></adhocCharacteristicValue>
                                <characteristicValue></characteristicValue>
                                <version></version>
                        </billableChargeLineCharacteristic>
                    </billableChargeLine>
        </C1-BILLCHARGE>
```

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
billableChargeId	Billable Charge ID (Not to be provided in the request. This tag will be populated in the response with the Billable Charge ID that is created)	Not Applicable
serviceAgreement	Contract ID (Used to specify the contract on which the billable charge needs to be created. This is the contract that will hold the billable charge's debt)	M
startDate	Start Date (Used to specify the start date of the billable charge)	M
endDate	End Date (Used to specify the end date of the billable charge)	M
descriptionOnBill	Description on Bill (Used to define the verbiage that should print on the customer's bill above the line item details. This appears on the Bill screen)	M

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
billableChargeStatus	Billable Charge Status Valid values are: • Billable • Cancelled	M
version	Version (Not to be provided in the request)	Not Applicable
chrgTypCd	Charge Type (Used to indicate the type of billable charge you want to create) **Note:** You must specify a charge type which is already defined in the system	O
recurringFlg	Recurring (Used to indicate whether recurring bill segments must be created at the intervals defined in the bill period or at the set invoice frequency) The valid values are: • BP (Bill Period) • FR (Frequency)	O
billPeriod	Bill Period (Used to indicate the bill period that you want to use for specifying the intervals at which the recurring bill segments must be created. This field is required when you set the Recurring Flag to BP)	C
polInvcFreqCd	Invoice Frequency (Used to indicate the invoice frequency at which the recurring bill segments must be created. This field is required when you set the Recurring Flag to FR)	C
startTime	Start Time	O
endTime	End Time	O
priceItemCode	Price Item (Used to indicate the product for which the billable charge is created)	O

Tag Name	Comments	Mandatory(M)/Optional(O) /Conditional(C)
timeOfUse	Variance Parameter (Used to indicate the variance that must be used along with the product for determining the product pricing) **Note:** This field is applicable only when the Multi Price Parameter option type of the Multi Parameter Based Pricing (C1_ PPARM_FLG) feature configuration is set to False.	O
priceAsgnId	Price Assignment ID (Indicates the product pricing which is applicable to the billable charge)	O
paAccountId	Account ID (Indicates the account whose product pricing is applicable to the billable charge)	O
paPersonId	Person ID (Indicates the customer whose product pricing is applicable to the billable charge)	O
paPriceListId	Price List ID (Indicates the price list whose product pricing is applicable to the billable charge)	O
grpRefVal	Group reference Value	O
billAfter	Bill After Date (Used to specify the date after which the bill must be generated for the billable charge)	O
isAdhocBill	Adhoc Bill (Used to indicate whether the billable charge should be considered during adhoc or regular billing)	O

Tag Name	Comments	Mandatory(M)/Optional(O)/Conditional(C)
feedSrcFlg	Billable charge Feed source (Used to specify the source of the Billable Charge. Charges created from APIs should have the value 'API') The valid values are: • API (Bill API Billable charge) • MANL (Manual Billable Charge) • PRIC (Pricing Rule) • TFM (TFM Billable charge) • TFMS (TFM Billable Charge created using Service)	O
priceItemParmGroupId	Price Item Parameters (Used to indicate the parameter group ID of the price item parameters that must be used along with the product for determining the product pricing)	O
sbscrptnChargeId	Subscription Charge ID	O
Billable Charge SQ (List)		
billableChargeId	Billable Charge ID (Not to be provided in the request)	Not Applicable
serviceQuantityIdentifier	SQI (Used to indicate the service quantity identifier based on which you want to bill the customer)	O
sequence	Sequence (Used to indicate the sequence number of the service quantity)	O
timeOfUse	Variance Parameter (Used to indicate the variance parameter which you want to use along with the product for determining the price)	O
unitOfMeasure	Unit of Measure (Used to indicate the product for which you want to create the billable charge)	O
dailyServiceQuantity	Daily Service Quantity (Used to specify the total service quantity for which you want to create the billable charge)	O
version	Version (Not to be provided in the request)	Not Applicable
Billable Charge Characteristic (List)		

Tag Name	Comments	Mandatory(M)/Optional(O)/Conditional(C)
billableChargeId	Billable Charge ID (Not to be provided in the request)	Not Applicable
characteristicType	Characteristic Type (Used to specify the characteristic type of the characteristic record)	O
effectiveDate	Effective Date (Used to specify the date from which the characteristic is effective)	O
characteristicValue	Characteristic Value (Used to specify the value of the characteristic for Predefined characteristics)	O
adhocCharacteristicValue	Adhoc Characteristic Value (Used to specify the value of the characteristic for Adhoc characteristics)	O
characteristicValueForeignKey1	Characteristic Value FK 1 (Used to specify the value of the characteristic for Foreign Key reference characteristics)	O
characteristicValueFK2	Characteristic Value FK 2 (Used to specify the value of the characteristic for Foreign Key reference characteristics)	O
characteristicValueFK3	Characteristic Value FK 3 (Used to specify the value of the characteristic for Foreign Key reference characteristics)	O
characteristicValueFK4	Characteristic Value FK 4 (Used to specify the value of the characteristic for Foreign Key reference characteristics)	O
characteristicValueFK5	Characteristic Value FK 5 (Used to specify the value of the characteristic for Foreign Key reference characteristics)	O
searchCharacteristicValue	Search Characteristic Value (Not to be provided in the request. The characteristic value provided in the previous fields get populated in this field in the response)	Not Applicable
Billable Charge Line (List)		
billableChargeId	Billable Charge ID (Not to be provided in the request)	Not Applicable
lineSequence	Line Sequence (Used to specify the order in which the line items appear on the bill segment)	O

Tag Name	Comments	Mandatory(M)/Optional(O)/Conditional(C)
descriptionOnBill	Description on Bill (Used to specify the verbiage to print on the bill for the line item)	O
chargeAmount	Charge Amount (Used to specify the amount to charge for the line item)	O
currency	Currency Code (Used to specify the currency in which the amount is charged. Note that if you specify a currency other than the account's invoice currency, the system will do the currency conversion if the appropriate exchange rate is available in the system)	O
shouldShowOnBill	Show on Bill (Used to indicate if the line item should appear on the customer's printed bill)	O
shouldAppearInSummary	Appears in Summary (Used to indicate if the amount associated with this line also appears in a summary line. This value plays a part at bill print time - those lines that appear in a summary print in the left dollar column, those that don't appear in a summary print in the right dollar column. Also note, those lines that appear in a summary line are not included in the total amount associated with the billable charge)	O
distributionCode	Distribution Code (Used to specify the distribution code that identifies the GL account associated with this line item)	O
isMemoOnly	Memo Only, No GL (Used to indicate if the billable charge line does not contribute to the total amount due (e.g., this switch would be on for "information only" lines))	O
Billable Charge Line (Sub List)		
billableChargeId	Billable Charge ID (Not to be provided in the request)	Not Applicable
lineSequence	Line Sequence (Used to specify the order in which the line items appear on the bill segment)	O

Tag Name	Comments	Mandatory(M)/Optional(O)/Conditional(C)
characteristicType	Characteristic Type (Used to specify the type of the characteristic)	O
adhocCharacteristicValue	Adhoc Characteristic Value (Used to specify the value of the characteristic for Adhoc characteristics)	O
characteristicValue	Characteristic Value (Used to specify the value of the characteristic for Predefined characteristics)	O

6.1.3   Process for BillableCharge/createBillableCharge

This service creates a billable charge using the Billable Charge business object and returns a Billable Charge ID.

6.1.4   Response Schema for Problem Detail

For any error that is encountered in the service operations of the BillableCharge service, the problem detail response with the below schema will give more details.

```
<problemDetailDocument>
        <problemType></problemType>
        <title></title>
        <httpStatus></httpStatus>
        <detail></detail>
        <problemInstance></problemInstance>
        <stackTrace></stackTrace>
        <serverMessage>
                <messageCategory></messageCategory>
                <messageNbr></messageNbr>
                <callSequence></callSequence>
                <programName></programName>
                <messageText></messageText>
                <longDescription></longDescription>
        </serverMessage>
</problemDetailDocument>
```

Details on each tag in the above request schema is given in the below table:

Tag Name	Comments
problemType	Problem Type (URL of the format "A/message/X/Y" where A is the base URI, X is the Message Category and Y is the Message Number within Oracle Utilities Application Framework)
title	Title (Fully qualified error message from Oracle Utilities Application Framework in CDATA format)
httpStatus	HTTP Status (The HTTP Status code for the error)

Tag Name	Comments
detail	Detail (The long message description from the Oracle Utilities Application Framework in CDATA format)
problemInstance	Problem Instance (Fully qualified URL consisting of the Base URI Timestamp of error in ISO format, the User used for the transaction, the Message Category within Oracle Utilities Application Framework, the Message Number within Oracle Utilities Application Framework, the Request URL and the HTTP method used for the transaction)
stackTrace	Stack Trace (The stack trace shows where the error occurs during the execution of a program)
serverMessage Server Message (Group)	
messageCategory	Message Category (Message Category within Oracle Utilities Application Framework)
messageNbr	Message Number (Message Number within Oracle Utilities Application Framework.)
callSequence	Call Sequence (Delimited sequence of programs called)
programName	Program Name (Name of the program that encountered the error)
messageText	Message Text (Fully qualified error message from Oracle Utilities Application Framework in CDATA format)
longDescription	Long Description (The long message description from the Oracle Utilities Application Framework in CDATA format)

7. Adjustment Services

Oracle Revenue Management and Billing enables you to create, cancel, and view adjustments through a web service. You can send the adjustment creation, adjustment cancellation, or adjustment view request from the external system through an inbound web service. ORMB provides the following adjustment services:

- C1-CreateAdjustment
- C1-CancelAdjustment
- C1-GetAdjustmentHistory

Points to Note:

We have shipped the above business services to support different adjustment operations. You can create one inbound web service which supports all three operations — adjustment creation, adjustment cancellation, and adjustment view. Alternatively, you can create three inbound web services — one for adjustment creation, another for adjustment cancellation, and third for adjustment view.

You can create a SOAP or REST based inbound web service. If you want to send the request in the XML and/or JSON format, you need to ensure that you create a REST based inbound web service. However, if you want to send the request in the XML format, you can create a SOAP or REST based inbound web service.

For more information about these services, see the **Adjustment Creation, Cancellation, and View Through Inbound Web Service** section in the *Oracle Revenue Management and Billing Business Process Guide*.

8.   Payment Services

Oracle Revenue Management and Billing enables you to create, transfer, cancel, and view payments through a web service. You can send the payment creation, payment transfer, payment cancellation, or payment view request from the external system through an inbound web service. The following business services are shipped with the product to support different payment operations:

- C1-CreatePaymentService
- C1-CancelPaymentService
- C1-TransferPaymentService
- C1-ViewPaymentService

Points to Note:

We have shipped the above business services to support different payment operations. You can create one inbound web service which supports all four operations - payment creation, payment transfer, payment cancellation, and payment view. Alternatively, you can create four inbound web services - one for payment creation, second for payment transfer, third for payment cancellation, and fourth for payment view.

You can create a SOAP or REST based inbound web service. If you want to send the request in the XML and/or JSON format, you need to ensure that you create a REST based inbound web service. However, if you want to send the request in the XML format, you can create a SOAP or REST based inbound web service.

For more information about these services, see the **Payment Creation, Cancellation, Transfer, and View Through Inbound Web Service** section in the *Oracle Revenue Management and Billing Business Process Guide*.

9. Auto Payment Services

Oracle Revenue Management and Billing enables you to define, edit, delete, and view auto pay instructions of an account through a web service. You can send the auto pay addition/modification, auto pay deletion, or auto pay view request from the external system through an inbound web service. The following three business services are shipped with the product to support different auto pay instruction operations:

- C1-AddUpdateAutoPayService
- C1-DeleteAutoPayService
- C1-ViewAutoPayService

Points to Note:

We have not shipped any inbound web service with the product. You can create one inbound web service which supports all three operations - auto pay addition/modification, auto pay deletion, and auto pay view. Alternatively, you can create three inbound web services - one for auto pay addition/modification, another for auto pay deletion, and third for auto pay view.

You can create a SOAP or REST based inbound web service. If you want to send the request in the XML and/or JSON format, you need to ensure that you create a REST based inbound web service. However, if you want to send the request in the XML format, you can create a SOAP or REST based inbound web service.

For more information about these services, see the **AutoPay Add/Update, Delete, and View Through Inbound Web Service** section in the *Oracle Revenue Management and Billing Business Process Guide*.

10. Hold Request Services

Oracle Revenue Management and Billing enables you to create, edit, and release a hold request through a web service. It also enables you to view the details of a hold request through a web service. You can send the hold request creation, modification, release, or view request from the external system through an inbound web service. The following business services are shipped with the product to support different hold request operations:

- CreateHoldRequest
- GetHoldRequestHistory
- ReleaseHoldRequest
- UpdateHoldRequest

Points to Note:

We have not shipped any inbound web service for the business services which are marked with an asterisk (*) symbol. You can create one inbound web service which supports all four operations — hold request creation, hold request update, hold request release, and hold request view. Alternatively, you can create four different inbound web services — one for hold request creation, another for hold request update, third for hold request release, and fourth for hold request view.

You can create a SOAP or REST based inbound web service. If you want to send the request in the XML and/or JSON format, you need to ensure that you create a REST based inbound web service. However, if you want to send the request in the XML format, you can create a SOAP or REST based inbound web service.

For more information about these services, see the **Hold Request Creation, Modification, Release, and View Through Inbound Web Service** section in the *Oracle Revenue Management and Billing Banking User Guide* or *Oracle Revenue Management and Billing Insurance User Guide*.

11. Retail Banking Product Services

Oracle Revenue Management and Billing provides the ability to do the following through an inbound web service:

- View the details of a retail banking product, market product, offer, and bundle.
- Derive the eligible market product, offer, and bundle for a person or an account.

The following business services are shipped with the product:

- C1-GetEligibleProduct
- C1-GetProdDetail
- C1PRDCTENRL

11.1 GetEligibleProduct

The C1_GETELIGIBLEPROD business service enables you to derive the eligible active market products, offers, or bundles for the person or an account on the processing date. It also enables you to view the details of an eligible active market products, offers, or bundles which are effective on the processing date.

You can call this business service from an external system through an inbound web service. If you want to send the request in the XML and/or JSON format, you need to ensure that you create a REST based inbound web service in Oracle Revenue Management and Billing. However, if you want to send the request in the XML format, you can create a SOAP or REST based inbound web service in Oracle Revenue Management and Billing.

You can extract the data in the following template:

- **Summary:** Used to derive the details of the eligible active market products, offers, and/or bundles without pricing.
- **Detail:** Used to derive the details of the eligible active market products, offers, and/or bundles with pricing.

11.1.1 Prerequisite

If you want to drive eligible market products, offers, or bundles through an inbound web service then following is required:

- Retail banking product catalog definitions are created in the system
- Price item pricing defined for all the retail banking product catalog definition in the system
- Define a REST or SOAP based inbound web service to call the C1_GETELIGIBLEPROD business service.
- Active market products, offers, or bundles are required in the system.

11.1.2 Input Parameters for GetEligibleProduct

Before calling the C1_GETELIGIBLEPROD business service through an inbound web service, you need to ensure that the eligible active market products, offers, or bundles derivation request contains the following tags:

Tag Name	Tag Description	Mandatory (Yes or No)
productCode	Used to specify the product code to derive the details of the eligible active. **Note:** Entity is referred to market product, offer or bundle.	Yes (Conditional) **Note:** This field is required if the product category, entity type, or entity code are not entered.
productCategoryFlg	Used to specify the product category flag to derive the details of the eligible active entities. **Note:** Entity is referred to market product, offer or bundle.	No
division	Used to specify the division to derive the details of the eligible active entities which are associated with a particular division.	Yes (Conditional) **Note:** This field is required with product code, product category, entity type or entity code to derive the entities of the specific division.
entityType	Used to indicate the entity type to derive the details of the eligible active entities.	Yes (Conditional) **Points to Note:** This field is required if the entity code is entered. This field is required if the product code, or product category are not entered.
entityCode	Used to specify the entity code to derive the details of the eligible active entities.	Yes (Conditional) **Note:** This field is required if the product code or product category are not entered.

Tag Name	Tag Description	Mandatory (Yes or No)
processDate	Used to specify the date to derive the details of effective market products, offers, or bundles for that date.	Yes (Conditional) **Note:** If the date is not entered then it will display the default date from the system on which the enquiry is made.
accountId	Used to indicate the account for which you want to derive the details of the active entities.	Yes (Conditional) **Points to Note:** If this field is not entered, then all active entities will be extract. This field is required if you want to derive the details of eligible active entities for specific person or account.
acctIdtype	Used to indicate the type of account identifier type for which you to derive the details of the eligible active entity.	No
acctIdentifierValue	Used to specify the value for the account identifier type for which you to derive the details of the eligible active entities.	Yes (Conditional) **Note:** This field is required if you want to derive the details of eligible active entities for specific person or account.
personId	Used to specify the person account for which you want to derive the details of eligible active market products, offers, or bundles.	Yes (Conditional) **Note:** This field is required if you want to derive the details of eligible active entities for specific person or account.
custIdTypeCd	Used to indicate the customer ID type for which you want to derive the details of eligible active market products, offers, or bundles.	No
perIdentifireVal	Used to specify the value of person identifier for which you want to derive the details of eligible active market products, offers, or bundles.	No

Tag Name	Tag Description	Mandatory (Yes or No)
productLinkedEntity	Used to specify product linked entity (market product code) for which you want to derive the details of eligible active offers or bundles linked with that particular code.	No
linkedEntityCode	Used to specify code of the linked entity (market product code) for which you want to derive the details of eligible active offers or bundles linked with that particular code.	Yes (Conditional) **Note:** This field is required when you want to derive offer or bundle linked with the particular market product.
linkedEntityType	Used to indicate type of the linked entity (market product code) for which you want to derive the details of eligible active offer or bundle linked with that particular code.	Yes (Conditional) **Note:** This field is required when you want to derive offer or bundle linked with the particular market product.
eligibleParameter	Used to specify the eligibility parameter based on which you want to derive the details of eligible active market products, offers, or bundles.	Yes (Conditional) **Note:** If this field is not entered then system will take the eligibility details from the person or account.
priceParmCode	Used to specify the eligibility parameter code based on which you want to derive the details of eligible active market products, offers, or bundles.	Yes (Conditional) **Note:** If this field is not entered then system will take the eligibility details from the person or account.
priceParmVal	Used to specify the eligibility parameter value based on which you want to derive the details of eligible active market products, offers, or bundles.	Yes (Conditional) **Note:** If this field is not entered then system will take the eligibility details from the person or account.

11.1.3 Output Parameters for GetEligibleProduct

The following table lists and describes the tags which appear in the eligible active market products, offers, or bundles derivation response:

Tag Name	Tag Description
entityList	Displays the list of eligible market products, offers, or bundles.
entityCode	Displays the entity code.
entityType	Displays the entity type.
entityName	Displays the entity name.
entityStartDate	Displays the date from when the entity is effective.
entityEndDate	Displays the date till when the entity is effective.
entityCodeDescr	Displays the description of the entity code.
termsAndCondition	Displays the terms and condition of the entity.
tennAndConditionDe	Displays the description of the terms and conditions of the entity.
status	Displays the status of the entity.
productList	Displays the list of the eligible products to which the requested entity belongs.
productCode	Displays the code of the eligible product to which the requested entity belongs.
productDescription	Displays the description of the eligible product to which the requested entity belongs.
productTypFlgDesc	Displays the description of the eligible product type flag to which the requested entity belongs.
productCategoryFlg	Displays the description of the eligible product category flag to which the requested entity belongs.
productLinkedEntity	Displays the list of eligible market products, offers, and bundles.
linkedEntityStartDate	Displays the date from when the linked entity is effective.
linkedEntityEndDate	Displays the date till when the linked entity is effective.
linkedEntityCode	Displays the linked entity code for the requested entity code.

Tag Name	Tag Description
linkedEntityType	Displays the linked entity type for the requested entity code. **Note:** It is applicable in case of offer and bundle.
EntityDivision	Displays the division to which the requested entity belongs.
divisionCode	Displays the division code to which the requested entity belongs.
eligibilityDetails	Indicates the name of group tag.
eligibilityStartDate	Displays the date from when the eligibility of the entity is effective.
eligibilityEndDate	Displays the date till when the eligibility of the entity is effective.
eligibilityDescription	Displays the description of the eligibility to which the requested entity belongs.
eligibilityRule	Indicates the name of group tag.
sequenceNumber	Indicates the sequence number of eligibility condition.
lhsPriceParmCd	Indicates the left side parameter code of the eligibility condition.
operator	Indicates the operator to evaluate the condition.
rhsPriceParmCd	Indicates the right-side parameter code of the eligibility condition.
rhsPriceParmVal	Indicates the right-side parameter value of the eligibility condition.
lhsPriceParmCdl	Indicates the left side parameter code of the eligibility condition.
rhsPriceParmTypeFlg	Indicates the value of the right-side flag.
trueFlag	Indicates the true eligibility condition.
falseFlag	Indicates the false eligibility condition.
insufficientFlag	Indicates the insufficient eligibility condition.
services	Indicates the name of group tag.
serviceName	Displays the service configured to the requested entity code.
mandatoryFlag	Indicates the mandatory or optional type of the services.
pricing	Indicates the name of group tag.

Tag Name	Tag Description
priority	Displays the priority in sequence of the price list of the entities.
priceListId	Displays the Price List TD.
priceListDescription	Displays the description of the price list.
priceListStartDate	Displays the date from when the price list of the entity is effective.
priceListEndDate	Displays the date till when the price list of the entity is effective.
noOtDays	Displays the validity of price list in number of days.
priceItemCode	Displays the price item code.
priceitemDescr	Displays the description of the price item.
priceAsgnId	Displays the price assignment ID.
validityFlag	Indicates the validity of the price item.
sourceEntityType	Displays the source entity type.
sourceEntityCode	Displays the source entity code.
priceListInfo	Displays the information of the price list.
priceComponent	Indicates the name of group tag.
priceCompid	Displays the price component ID.
pricecomptier	Indicates the name of group tag.
priceCompSequence	Displays the sequence number of the price component.
priceItemParmGroupI	Displays the parameter group ID of the price item.
toVal	Indicates the tiering to value of the price item.
fromVal	Indicates the tiering from value of the price item.
timeOfUse	Indicates the tiering time of use.
priceItemCode	Displays the price item code.
priceCriteria	Displays the price criteria of the price item.
priceCompid	Displays the price component ID.
tieSeqNum	Indicates the tiering sequence number.
version	Displays the version number.
priceComponentDesc	Displays the description of the price component.
valueAmt	Displays the value amount of the price component.
priceComponentDisp	Displays the price component.

Tag Name	Tag Description
rcMapId	Displays the rate component map ID.
tieredFlag	Indicates the tire flag.
priceCompSequence	Displays the sequence of the price component.
messageCategory	Indicates the category of the message.
messageNumber	Indicates the number of the message.
messageText	Displays the message.
longDescription	Displays the long description.
inquiryTypeFlag	Displays the inquiry type flag. **Note:** If the inquiry type flag value is **SMRY** then service will provide details of eligible entities without price component and if the inquiry type flag value is **DETL** then service will provide details of eligible entities with price component.

11.2 GetProdDetail

The **C1-GetProdDetail** business service enables you to view the details of an active market product, offer, or bundle for the person or account which is effective on the processing date. You can call this business service from an external system through an inbound web service. You can send the request in XML or JSON format through inbound web service in Oracle Revenue Management and Billing. If you want to send the request in the XML and/or JSON format, you need to ensure that you create a REST based inbound web service in Oracle Revenue Management and Billing.

However, if you want to send the request in the XML format, you can create a SOAP or REST based inbound web service in Oracle Revenue Management and Billing. You can extract the data in the following template:

- **Summary:** Used to extract the details of the market product, offer, and/or bundle without pricing.
- **Detail:** Used to extract the details of the market product, offer, and/or bundle with pricing.

11.2.1 Prerequisite

If you want to View the details of the active market product, offer, or bundle through an inbound web service, following is required:

- Retail banking product catalog definitions are created in the system.
- Price item pricing defined for all the retail banking product catalog definition in the system.
- Define a REST or SOAP based inbound web service to call the C1-GetProdDetail business service.
- Active market products, offers, or bundles are required in the system.

11.2.2 Input Parameters for GetProdDetail

Before calling the Cl-GetProdDetail business service through an inbound web service, you need to ensure that the active market products, offers, or bundles view request contains the following tags:

Tag Name	Tag Description	Mandatory (Yes or No)
entityCode	Used to specify the entity code to get details of the active entity. **Note:** Entity is referred to market product, offer or bundle.	Yes
entityType	Used to indicate the entity type to get details of the active entity. Note: Entity is referred to market product, offer or bundle.	Yes **Note:** This field is required if the entity code is entered.
processDate	Used to specify the date to get the effective market product, offer, or bundle for that date.	Yes (Conditional) **Note:** If the date is not entered then it will display the default date from the system on which the enquiry is made.
inquiryTypeFlag	Used to indicate whether you want to view the basic details without price components or the complete details with price components of the entity. The valid values are: • **Detail** (DETL) - Used to indicate whether you want to view the complete details with price components of the entity. • **Summary** (SMRY) - Used to indicate whether you want to view the basic details without price components of the product.	Yes (Conditional) **Note:** The default value is **SMRY**.
division	Used to indicate the division to which the entity belongs.	Yes (Conditional) **Note:** This field is required with product code, product category, entity type or entity code to extract the entity of the specific division.

11.2.3 Output Parameters for GetProdDetail

The following table lists and describes the tags which appear in the view active market products, offers, or bundles derivation response:

Tag Name	Tag Description
entityName	Displays the entity name.
entityStartDate	Displays the date from when the entity is effective.
entityEndDate	Displays the date till when the entity is effective.
termsAndCondition	Displays the terms and condition of the entity.
status	Displays the status of the entity.
tennsAndCondnDesc	Displays the description of the terms and conditions of the entity.
messageCategory	Indicates the category of the message.
messageNumber	Indicates the number of the message.
messageText	Displays the message.
longDescription	Displays the long description.
productlist	Displays the list of the eligible product to which the requested entity belongs.
productCode	Used to display the code of the parent product.
product Name	Used to display the parent product.
prodTypFlg	Displays the code of the eligible product to which the requested entity belongs.
productCategoryFlgD	Displays the description of the eligible product category flag to which the requested entity belongs.
EntityDivision	Used to indicate the division of the requested entity.
divisionCode	Displays the division to which the requested entity belongs.
productLinkedEntity	Displays the list of eligible market product, offer, and bundle.
linkedEntityCode	Displays the linked entity code for the requested entity code.
linkedEntityName	Displays the linked entity for the requested entity code.
linkedEntityType	Displays the linked entity type for the requested entity code.
eligibilityDetails	Indicates the name of group tag.

Tag Name	Tag Description
eligibilityDescription	Displays the description of the eligibility to which the requested entity belongs.
eligibilityStartDate	Displays the date from when the eligibility of the entity is effective.
eligibilityEndDate	Displays the date till when the eligibility of the entity is effective.
eligibilityRule	This is group tag under the eligibility details.
rhsPriceParmCd	Indicates the right-side parameter code of the eligibility condition.
rhsPriceParmVal	Indicates the right-side parameter value of the eligibility condition.
lhsPricePannCd	Indicates the left side parameter code of the eligibility condition.
rhsPriceParmTypeFlg	Indicates the value of the right-side flag.
trueFlag	Indicates the true condition.
trueFlagDescr	Displays the description for the true flag condition.
falseFlag	Indicates the false condition.
falseFlagDescr	Displays the description for the false flag condition.
insufficientFlag	Indicates the insufficient condition.
insufficientFlagDescr	Displays the description for the insufficient flag condition.
eligibilityRuleFlg	Indicates the eligibility rule flag condition.
eligibilityDescr	Displays the description of the eligibility criteria for the input entity.
operator	Indicates the operator to evaluate the condition.
priceParmCode	Displays the price parameter code.
sequenceNumber	Displays the sequence number of the eligibility condition.
pricing	Displays the price of the requested entity.
priceListId	Displays the price list ID.
priceListDescription	Displays the description of the Price List.
priority	Displays the priority in sequence of the price list of the entity.
validityFlag	Indicates the validity of the price item.
noOfDays	Displays the validity of price list in number of days.
priceItemCode	Displays the price item code.

Tag Name	Tag Description
priceitemCodeDescr	Displays the description of the price item.
priceAsgnId	Displays the price assignment ID.
priceListStartDate	Displays the date from when the price list of the entity is effective.
priceListEndDate	Displays the date till when the price list of the entity is effective.
priceComponent	Indicates the name of group tag.
priceCompId	Displays the price component ID.
priceCompDescr	Displays the description of the price component.
valueAmt	Displays the value amount of the price component.
tieredFlag	Indicates the tire flag.
pricecomptier	Indicates the name of group tag.
priceItemParmGroupl	Displays the parameter group TD of the price item.
toVal	Indicates the tiering to value of the price item.
fromVal	Indicates the tiering from value of the price item.
timeOfUse	Indicates the tiering time of use.
priceCompPriceItem	Displays the price component of the price item.
priceCriteria	Displays the price criteria of the price item.
priceCompTierId	Displays the price component tier ID.
tieringSeqNum	Indicates the tiering sequence number.
parmString	Indicates the parameter string of the price item.

11.3 PRDCTENRL

The C1PRDCTENRL business service enables you to enroll the account to market product, offer, or bundle for the person.

The C1-CUSTACCSA algorithm is invoked to create new person, account, and contract, if the person, account, and contract is not created while account enrollment with passing parameter values received for this service. This algorithm is attached at Division's algorithm. This algorithm does the following:

- Checks input service parameters which are required person such as person identifier type, person identifier type/ value, account identifier, account identifier type/value, or division are not null. If the parameters are null the system send the error message.

- Checks whether the person id or person identifier type values exist in the system. If the values are exist in the system then it retrieve the person details or set the values to create the new person in the system.

- Get the required default values by fetching values configured at person defaulting template code passed as input to the algorithm. For example, Access Group

- Invoke the personDTO.new.entity() or person BO to create new person in the system.

- Create new account for person on successful person creation/retrieval.

- Get the required default values by fetching values configured at account defaulting template code passed as input to the algorithm.

- Sets required values to create new account in the system.

- Invokes the accountDTO.new.entity() or account BO to create new person in the system.

- On successful account creation, to retrieve the distinct contract types configured at price items associated with market product.

- This business service enables to edit the enrollment status and close/stop the enrollment by using action flag.

11.3.1 Prerequisite

The validation algorithm is executed before persisting the data using the business object. There are different validation for different action flag (Add, Edit, and Close) and different entities (Market Product, Offer and Bundle). The scenarios are:

If…	Then…
The entity type is **Market Product** and value of action flag is **Add**	- The market product should be in Active status while enrolling to the account. The account enrollment date should be within market product start date and end date. - The division code of the respective market product should be defined in which the account is opened.
The entity type is **Market Product** and value of action flag is **Edit**	
The entity type is **Market Product** and value of action flag is **Close**	The system should not accept future date as account close date.

If…	Then…
The entity type is **Offer** and value of action flag is **Add/Edit**	• The account can be enrolled to only one active offer at a time. • The offer should be active while enrolling to the account. • The offer subscription date should be within offer start date and end date. • The account can be enrolled to the offer only if the market product in which that particular offer is defined is enrolled to the account. • If the enrollment status is either Active or Inactive for "Account ID+ Offer Code" combination then the same account ID cannot be enrolled to that offer once again. • If there is Active offer subscribed to the account then same account cannot enroll to the other offer. • The division code of the respective offer should be defined in which the account is opened.
The entity type is **Offer** and value of action flag is **Close**	• The system should not accept future date as account close date.
The entity type is **Bundle** and value of action flag is **Add/Edit**	• The account can be enrolled to only one active bundle at a time. • The bundle should be active while enrolling to the account. • The bundle subscription date should be within bundle start date and end date. • The account numbers which are enrolled to the bundle should belongs to the same person. • The division code of the respective offer should be defined in which the account is opened. • If there is Active bundle subscribed to the account then same account cannot enroll to the other bundle.
The entity type is Bundle and value of action flag is Close	• The system should not accept future date as account close date.

11.3.2 Input Parameters for PRDCTENRL

Before calling the C1PRDCTENRL business service through an inbound web service, you need to ensure that the market product, offer, or bundle enrollment request contains the following tags:

Tag Name	Tag Description	Mandatory (Yes or No)
enrollment	Indicates the name of group tag which encapsulates the single enrollment request.	No
		Points to Note:
		The market product should be enrolled to the account in the system before the offer or bundle is enrolled. The enrollment status for market product should be Active during enrollment and will change to Closed when action flag is pass as close.
		The market product, offer or bundle should be in Active status while enrolling to the account.
		When the service is called to enroll the account to offer/ bundle subscription then offer / bundle subscription will created with the account which is already enrolled to market product.
		The enrollment start date of offer or bundle should be between start date and end date of the offer or bundle definition.
		If there is 'Active Offer or Bundle subscription' exists in the system, then same account cannot be enrolled to other offer or bundle.
		Only one account can be enroll to one market product.
		The account can be enrolled to another offer if the existing offer enrollment is closed.
		The account can be enrolled to another bundle if the existing bundle enrollment is closed. Multiple accounts of the same person can be enrolled to the bundle. If multiple accounts of the person are

Tag Name	Tag Description	Mandatory (Yes or No)
		enrolled to the bundle then bundle enrollment/ subscription date and enrollment characteristics will be same for all accounts which are enrolled/ subscribed to the bundle.
		Multiple accounts of the same person can be enrolled to the bundle. If multiple accounts of the person are enrolled to the bundle then bundle enrollment/ subscription date and enrollment characteristics will be same for all accounts which are enrolled/ subscribed to the bundle.
		The service will create new account if the account is not exist in the system while enrolling account.
enrollmentcharlist	Indicates the name of group tag.	No
characteristicValue	Used to specify the characteristic value.	Yes (Conditional)
		Note: This field is required if other characteristic value fields are not specified.
characteristicType	Used to indicate the characteristic type for characteristics.	Yes
effective Date	Used to specify the effective date for characteristics.	Yes
actionFlag	Used to indicate for which action service is called. This service is called to add, edit, or close the enrollment. The valid values are: • Add • Edit • Close **Points to Note:** In edit market product scenario, the account closing date should not be null and it should be greater than account opening date.	Yes

Tag Name	Tag Description	Mandatory (Yes or No)
	In edit market product scenario, you can only edit account characteristics. You cannot edit the other details. In edit offer/bundle scenario, you can only modify the status fromActive to Inactive or Inactive to Active. If service invokes Close account enrollment request to market product, then it will only close the enrollment to market product and not to offer or bundle. You should invoke another Close request to close enrollment to offer or bundle. In edit offer/bundle scenario, you can only modify the enrollment status fromActive to Inactive or Inactive to Active. If service invokes Close account enrollment request to the market product, then it will only close the enrollment to market product and not to the offer or bundle. The system should invoke another close request to close account enrollment to offer or bundle. To stop or close enrollment the system should pass Action Flag value as Close, the Action Flag value is edit and enrollment is close then the system will throw an error.	
personDetails	Indicates the name of group tag.	No
personid	Used to indicate Person ID. **Note:** This field is required if person identifier type and value are not specified.	Yes (Conditional)
accountdetailslist	Indicates the name of group tag.	No
accountcharlist	Indicates the name of group tag.	No

Tag Name	Tag Description	Mandatory (Yes or No)
characteristicValue2	Used to specify the characteristic value.	Yes (Conditional) **Note:** This field is required if other characteristic value fields are not specified.
characteristicType2	Usect to specify the characteristic type for characteristics.	Yes
effectiveDate2	Used to specify the effective dat for characteristics.	Yes
actionFlag2	Used to indicate for which action service is called. This service is called to add, edit, or close the enrollment. The valid values are: • Add • Edit • Close **Note:** In edit market product scenario, you can only edit account characteristics. You cannot edit the other details.	No
enrollmentStatus	Used to indicate status of enrollment/subscription. The valid values are: • Active • Inactive • Closed	Yes (Conditional) **Points to Note:** You can edit enrollment status only if the entity type is either offer or bundle. The Market Product is set to Active during the enrollment and remains the same even after the enrollment end date is stamped. The status will change to Closed only when the action flag passes the Close value. The account can be enrolled to the offer if the status of the existing offer enrollment is Closed. The account cannot be enrolled to another offer if Active offer enrollment already exists in the system. You cannot enroll to another bundle if one bundle enrollment is already exists for an account in the system. It can be

Tag Name	Tag Description	Mandatory (Yes or No)
		enrolled if the status of existing bundle is Closed. The services which are associated with market product, offer, or bundle will be enrolled to the account. You cannot select or exclude the service available in market product, offer, or bundle.
closingDate	Used to indicate the account close date. Note: This will be considered as account enrollment end date. **Note:** If the close date is specified, then the close **Note:** date should be not be less than account opening date.	Yes (Conditional) **Note:** This field is required if the entity type is market product.
accountId	Used to indicate the account ID.	Yes (Conditional) **Note:** This field is required if the entity type is market product.
currency	Used to indicate the currency code of account.	Yes
setUpDate	Used to specify the date which is used as account enrollment date and new account setup date. **Note:** This date should not be the future date.	Yes
division	Used to indicate the division to which the account belongs.	Yes
accountNumber	Used to indicate the bank account number.	Yes (Conditional) **Note:** This field is required if the account identifier type is specified.
accountIdentifierType	Used to indicate the account identifier type.	Yes (Conditional) **Note:** This field is required if the Account ID is not specified.
personcharlist	Indicates the name of group tag.	No
characteristicValue3	Used to specify the characteristic value.	Yes (Conditional)

Tag Name	Tag Description	Mandatory (Yes or No)
		Note: This field is required if other characteristic value fields are not specified.
characteristicType3	Used to specify the characteristic type for characteristics.	Yes
effectiveDate3	Used to specify the effective date for characteristics.	Yes
actionFlag3		
emailAddress	Used to specify email address of the person.	Yes (Conditional)
		Note: This field is required for new customer.
country	Used to indicate the country where person belongs to.	Yes (Conditional)
		Note: This field is required for new customer.
state	Used to indicate the state where person belongs to.	Yes (Conditional)
		Note: This field is required for new customer.
city	Used to indicate the city where person belongs to.	Yes (Conditional)
		Note: This field is required for new customer.
address4	Used to indicate address line.	Yes (Conditional)
		Note: This field is required for new customer.
address3	Used to indicate address line.	Yes (Conditional)
		Note: This field is required for new customer.
address2	Used to indicate address line.	Yes (Conditional)
		Note: This field is required for new customer.
addressI	Used to indicate address line.	Yes (Conditional)
		Note: This field is required for new customer.

Tag Name	Tag Description	Mandatory (Yes or No)
addressTypeFlg	Used to indicate type of address.	Yes (Conditional) **Note:** This field is required for new customer.
creationDateTime	Used to specify the date and time when the person exists in the system.	Yes (Conditional) **Note:** This field is required for new customer.
birthDate	Used to indicate the date of birth of the person.	Yes (Conditional) **Note:** This field is required for new customer.
division2	Used to indicate the division to which the person account belongs.	No
personIdNumber	Used to indicate the person ID.	Yes (Conditional) **Note:** This field is required if the person identifier type and value is not specified.
personIdentifiers	Used to indicate the person identifier.	Yes (Conditional) **Note:** This field is required either person type or ID.
personNames	Used to specify the person name whose account you want to create.	Yes (Conditional) **Note:** This field is required for new customer.
nameType	Used to indicate the person name type of the person name.	Yes (Conditional) **Note:** This field is required for new customer.
personOrBusiness		
startDate	Used to indicate offer/bundle enrollment start date. This date should not be back date. **Note:** It is applicable only to the offer/bundle.	Yes (Conditional) **Points to Note:** This field is required if action flag is set to add and entity type is offer or bundle. If the date is not specified then the field is set to the system date.

Tag Name	Tag Description	Mandatory (Yes or No)
comments	Used to specify additional comments while enrollment.	No
entityCode	Used to indicate the entity code. **Note:** Entity is referred to market product, offer or bundle.	Yes
entityType	Used to indicate the type of entity for which enrollment is done.	Yes
enrollmentAction	-	-

11.3.3 Output Parameters for PRDCTENRL

The following table lists and describes the tags which appear in the eligible active market products, offers, or bundles derivation response:

Tag Name	Tag Description
error	Indicates the name of group tag.
errorDescription	Displays the error description.
errorMsgText	Displays the error message.
messageNumber	Displays the number of the message.
erroCategory	Displays the category of the error.
enrollResponse	Indicates the name of group tag which encloses the complete response of the service.
messageText	Displays the success message of the enrollment.
productEnrollmentId	Displays the product enrollment ID.

Sample Market Product Enrollment Response in the XML Format:

```
<C1PRDCTENRL>
    <enrollmentResponse>
        <error>
            <errorDescription></errorDescription
            <errorMsgText></errorMsgText>
            <messageNumber></messageNumber>
            <erroCategory></erroCategory>
        </error>
        <enrollResponse>
            <messageText>Successfully Enrolled</messageText>
            <productEnrollmentId>4368251923</productEnrollmentId>
        </enrollResponse>
    </enrollmentResponse>
</C1PRDCTENRL>
```

12. Deal Pricing Management Services

Oracle Revenue Management and Billing enables you to manage prospects and deals through the following inbound web services:

- Prospect Creation, Modification, and View through Inbound Web Service
- Prospect Account Creation, Modification, and View through Inbound Web Service
- Deal Creation, Modification, and View through Inbound Web Service
- Price List Assignments in Deal through Inbound Web Service
- Deal Price Assignments and Commitments through Inbound Web Service
- Deal Extraction through Inbound Web Service
- Deal Pricing Management through Inbound Web Services

For more information about these services, see the **Deal Pricing Management through Inbound Web Services** section in the *Oracle Revenue Management and Billing Banking User Guide*.