Oracle Financial Services Revenue Management and Billing

OR

Oracle Insurance Revenue Management and Billing

Version 5.1.0.0.0

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Note: To improve the content readability, the above two products are collectively referred to as Oracle Revenue Management and Billing throughout this document.

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About this Document

This document describes the new features, enhancements, user interface and database level changes, supported platforms, framework upgrade, supported upgrades, and technology upgrade made in this release. It also highlights the discontinued features, bug fixes, and known issues in this release.

This document does not describe the functionality of Oracle Revenue Management and Billing or technical know-how on how to install or upgrade Oracle Revenue Management and Billing. For more detailed information, you can refer to the following documents:

Document Name	Description
Oracle Revenue Management and Billing Licensing Guide	Lists different features which you can use when you acquire a license for the following products: • Oracle Financial Services Revenue Management and Billing • Oracle Insurance Revenue Management and Billing It also provides the licensing information about the third-party JARs and components which are included in the above mentioned products.
Oracle Revenue Management and Billing Quick Installation Guide	Provides information about the media packs which are available for the current release. It contains information about the supported platforms, space requirements, and release-specific documentation library. In addition, it contains high-level information on how to install ORMB and selected additional software.
Oracle Revenue Management and Billing Installation Guide	Provides an overview about the application architecture. It contains detailed information about the software and hardware requirements, supported platforms, application server and database space requirements, and application server pre-requisites for supported platforms. It explains the installation and configuration menu options which are available during installation and advanced menu options which are available post installation. It also explains how to configure WebSphere application server and how to install OUAF, OUAF rollup packs, ORMB, and ORMB patches or rollup packs. It contains appendices which lists ORMB rollup packs and notices about third-party JAR and other components.

Document Name	Description
Oracle Revenue Management and Billing Database Administrator's Guide	Provides information about the supported database platforms and explains how to install database with or without demo data. It contains the standards and conventions that should be followed while working with ORMB database. In addition, it lists various configurations and implementation guidelines with respect to tablespace, encryption, storage, compression, indexes, initialization parameters, listener, table partitioning, performance monitoring, memory resource management, optimizer statistics and segment advisors, etc. It contains various appendices which lists the new objects added in ORMB, application services configured for default user groups, new objects added in OUAF, information about OUAF system tables and ORMB rollup packs, notices about third-party JAR and other components.
Oracle Revenue Management and Billing Security Guide	Highlights what's new in security! Describes all the security features available in ORMB for authentication, authorization, user access, database access, LDAP and SSO integration, audit, encryption, web services, and JNDI access. It also describes how to provide support for data masking, Oracle cloud object storage, groovy, HTTP proxy, keystore, truststore, whitelist, federated architecture, and object erasure. In addition, it explains how to garble the customer information.
Oracle Revenue Management and Billing Server Administration Guide	Provides detailed information about the product architecture, native support, directory structures, environment variables, logs, etc. It explains various concepts related to the batch server and lists and describes the scripts required for installing and configuring ORMB. It explains how to monitor the system and configure Web browser, Web application server, business application server, inbound web services, and batch server. It explains how to provide Oracle Cloud Support and how to integrate and monitor Oracle Scheduler. It contains various appendices which lists and describes the parameters available in the ENVIRON.INI, Web.xml, spl.properties, hibernate.properties, submitbatch.properties, threadpoolworker, coherence-cache.config.xml, and tangosol-coherence-override.xml files.

Document Name	Description
Oracle Utilities Application Framework Business Process Guide	Explains how to get acquainted with the user interface. It explains the different types of pages or portals that you may come across in the application. It explains how to set the user preferences and how to create, manage, assign, and complete a To Do in the application. It also explains how to submit reports and view historic reports in the application.
Oracle Utilities Application Framework Administrative Guide	Explains the general, security, user, designing, developing, and scripting options available in Oracle Utilities Application Framework (OUAF). It describes the user interface, database, configuration, and reporting tools available in OUAF. In addition, it provides information about the application viewer, how to configure incoming and outgoing messages, and how to integrate Lightweight Directory Access Protocol (LDAP), Oracle Identity Manager (OIM), and Batch Scheduler with Oracle Revenue Management and Billing (ORMB).
Oracle Revenue Management and Billing Business Process Guide	Explains how to maintain the demographic, geographic, and financial objects (i.e. accounts) of a customer. It explains how to manage a customer's bills, payments, adjustments, credits, collections processing, statements and deposits in Oracle Revenue Management and Billing (ORMB). It also describes the financial transactions, case management, sales and marketing functions, rates engine, quotations, loans, how to monitor and execute job streams, and how to manage workflows, notifications, and overdue processing. In addition, it explains how to extract the data from the system using an extract template. The features listed and described in this document can be used in both financial services and health insurance domains.
Oracle Revenue Management and Billing Administrative Guide	Explains how to configure various features and functionalities in Oracle Revenue Management and Billing (ORMB). For example, billing, payments, adjustments, financial transactions, credits, collections processing, loans, service credits, background processes, quotations, case management, security, overdue processing, batch scheduler, workflow, and notifications, etc. The information available in this document can be used in both financial services and health insurance domains.

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.
Oracle Revenue Management and Billing Insurance User Guide	Describes various features which are available for the following three lines of health insurance business – fully-insured group, self-funded, and individual. For example, customer registration, customer 360° view, pricing management, trial billing, 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, upload request, payment agreement request, invoice request, inbound message processing, reconciliation, entity audit, premium repricing, etc.
	It describes all screens related to these features and explains how to perform various tasks related to the feature in the application.
Oracle Revenue Management and Billing Upgrade Path Guide	Explains the path and pre-requisites for upgrading Oracle Revenue Management and Billing from one version to another.

Document Name	Description
Oracle Revenue Management and Billing Upgrade Guide	Explains how to upgrade the ORMB application server and database from one version to another. It also explains how to migrate the ORMB data from one version to another and describes the additional tasks that you need to perform after upgrading from one version to another. It includes various appendices that contain information about new tables introduced in the current release, existing tables which are modified in the current release, dropped algorithms and algorithm types, dropped characteristic types, dropped algorithm parameters, dropped option types in feature configurations, ORMB rollup packs, and SQL statements used for data migration.
Oracle Revenue Management and Billing Direct Database Upgrade Guide	Explains how to directly upgrade the ORMB database from 2.5.0.1.0 or any later version to the current release. It also highlights any known issues during direct database upgrade and how to handle these issues in the database.
Oracle Revenue Management and Billing Transaction Feed Management - Batch Execution Guide	Explains the sequence in which the batches should be executed while performing various tasks in the Transaction Feed Management (TFM) module. It provides detailed information about each TFM batch and its parameters. It also indicates the restart and multi-threading ability of each batch. In addition, it recommends values for various parameters which can be used for tuning batch performance as per the available hardware.
Oracle Revenue Management and Billing Batch Guide	Provides detailed information about various batches which are used in different modules, such as billing, payments, financial transaction, pricing management, funding request, offset request, hold request, upload request, inbound message, payment agreement request, accruals, earnings credit rate, ILM, deferred revenue recognition, reconciliation, garbling, repricing, entity audit, statements, etc. It also contains information about the batch parameters and the batch restart and multi-threading abilities.
Oracle Revenue Management and Billing Information Lifecycle Management (ILM) Implementation Guide	Provides an overview of the Information Lifecycle Management (ILM) feature. It describes how to implement ILM for the Transaction Feed Management (TFM) and Billing modules. It also provides detailed information about the ILM batches and their parameters.
Oracle Revenue Management and Billing FOP Reports Guide	Explains how to extract data from the system using various FOP reports in Oracle Revenue Management and Billing.
Oracle Revenue Management and Billing Chatbot Configuration Guide	Explains how to integrate Oracle Digital Assistant (ODA) with Oracle Revenue Management and Billing.

Document Name	Description
Oracle Revenue Management and Billing Chatbot User Guide	Explains how to use the menu based Chatbot introduced in Oracle Revenue Management and Billing.
Oracle Revenue Management and Billing ML Integration Guide	Explains how to integrate Machine Learning (ML) with Oracle Revenue Management and Billing for anomaly detection.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Change Log

Revision	Last Update	Updated Section	Comments
1.1	05-Apr-2023	Re-evaluate Auto Pay Details of a Bill	Updated Information
		Minimum Premium Program	Updated Information
		Deal Approval Profile	Updated Information
		Chatbot	Updated Information
		Sponsor Billing Arrangement for a Retiree Membership	Updated Information
1.2	28-Apr-2023	New Features (Generic)	Updated Information
		C1-CFS Feature Configuration	Added Section
1.3	8-May-2023	FOP Reporting	Updated Information
		File Upload Interface	Updated Information
		Billing Anomaly Detection	Updated Information
1.4	31-Jul-2023	Assign Additional Price Items to Deal Entity	Updated Information
		Associate Price Items for Relationship Based Pricing in Deal	Updated Information
		Refund Request	Updated Information
		C1-DEAL Feature Configuration	Added Information
		Deal Approval Profile	Added Information
		User Interface (UI) Level Changes	Updated Information
		Known Issues	Updated Information
1.5	13-Dec-2023	Documentation Updates	Added Section

Revision	Last Update	Updated Section	Comments
1.6	02-Jan-2024	Cover Page	Updated Information
		Copyright Notice Page	Updated Information
		Product Documentation	Updated Information
1.7	07-Jun-2024	Deprecated Third Party Products	Added Section
		Access to Oracle Support	Added Section

Contents

Prerequisites

If a customer is already using the Transaction Feed Management feature and wants to upgrade to Oracle Revenue Management and Billing Version 5.1.0.0.0, then the customer needs to ensure the following (before upgrading):

- All bills generated in the system are in the **Complete** status. In other words, there should not be any bills in the **Pending** status. If there are any bills in the **Pending** status or if any billable charge (generated through TFM) is not yet billed, disaggregation and cancellation of transactions which are uploaded using 5.0.0.0.0 will not happen successfully.

- Transactions which are uploaded using 5.0.0.0.0 must not be in the **Initial Product Determined (INPD)** status. They can be in the **Uploaded (UPLD)**, **Invalid (INVL)**, **Error (EROR)**, **Completed (COMP)**, or **Cancelled (CNCL)** status.

- Equal to (=) or tilde (~) symbol is not used in any existing price item parameter code and value. Otherwise, erroneous results might occur.

New Features (Generic)

This section describes the following new features added in this release which can be used in both financial services and health insurance domains:

- [Disaggregation Request through Audit Event](#)
- [Re-evaluate Auto Pay Details of a Bill](#)
- [C1-CFS Feature Configuration](#)

Disaggregation Request through Audit Event

Until now, the system enabled you to disaggregate transactions when a disaggregation request was created for an account. The system enabled you to manually create a disaggregation request for an account from the user interface. Now, the system enables you to automatically create a disaggregation request for an account through an audit event. The system enables you to create an automatic disaggregation request in the following scenarios:

- While changing the person's attributes (i.e. when a person's fields or characteristics are updated)
- While changing the account's attributes (i.e. when an account's fields or characteristics are updated)
- While adding or updating a price list
- While assigning a price list to a person or an account
- While updating the price list assignment of a person or an account
- While assigning a price item to a person, account, or price list
- While updating the price assignment of a person, account, or price list

To enable the automatic disaggregation request creation, you need to do the following:

- Attach the **C1-REAUDEVNT** algorithm to the **Audit** system event of the **C1_PERSON_BO**, **C1_PLASGNEDIT**, **C1_PRICEASGN_BO**, **C1_F_ADDPLBO**, or **C1-AccountBO** business object, respectively
- Set the **Eligible for Audit Event** option type of the entity business object to **Y**
- Define an active audit event type for the entity business object in the system

For more information on how to create an audit event type, refer to the **Entity Audit** section *in Oracle Revenue Management and Billing Banking User Guide* or *Oracle Revenue Management and Billing Insurance User Guide.*

If the **C1-REAUDEVNT** algorithm is attached to the **Audit** system event of a business object, it is invoked whenever you create, edit, or delete the respective entity. It checks whether an active audit event type exists for the entity business object. If so, it considers the active audit event type and creates the audit event using the respective audit event type. The system creates the audit event while:

- Creating an entity when the **Add Action** option is selected in the audit event type
- Editing an entity when the **Update All** option is selected in the audit event type or when the updated element is listed in the **Audit Elements for Entity Update** section

- Deleting an entity when the **Delete Action** option is selected in the audit event type

The entity type and entity ID for which an audit event is created are added corresponding to the audit event in the **C1_AUDIT_EVENT** table. In addition, the effective date is stamped corresponding to the audit event in the **C1_AUDIT_EVENT** table. Note that if the entity has a start date, then the effective date is set to the entity's start date. But, if the entity does not have a start date, then the effective date is set to the system date.

> **Note:** Before creating an audit event, the system checks whether an audit event for the entity ID with the same effective date already exists in the **Pending** or **Error** status for the respective action. If so, the system does not create a new audit event for the entity. Instead, the system adds a new log entry in the existing audit event.

Once the audit event is created in the **Pending** status, you need to execute the **Disaggregation Request through Audit Event (C1-DISTA)** batch. Until now, the **Disaggregation Request through Audit Event (C1-DISTA)** batch was used to process audit events which are created for a self-funded pricing rule. Now, this batch is used to process the audit events which are created for the persons, accounts, self-funded pricing rules, price lists, price list assignments, and price assignments.

Once a disaggregation request is created for an audit event, you need to execute the following batches in the specified sequence:

1. Pending Bill Segments Deletion (C1-BSEGD)
2. Pending Bill Deletion (C1-PNBD)
3. Identify Transactions for Disaggregation (C1-IDENT)
4. Process Non-Aggregated Transactions (C1-PDTXN)
5. Clean Up (C1-TXNCU) with the Request Type parameter set to DISAGG
6. Update Disaggregation Request Status (C1-DRSUA)

Re-evaluate Auto Pay Details of a Bill

Oracle Revenue Management and Billing provides the ability to derive the auto pay ID using which an automatic payment is created for a completed bill. The system derives the auto pay ID which is effective on the bill completion date and stores it corresponding to the record in the **CI_BILL_ACH** table. There might be situations wherein the auto pay instructions of an account changes after the bill completion. For example, on completing a bill, the system derived the auto pay ID 123 for the bill on 4th Jan 2023 and the end date of the auto pay ID 123 was changed on 5th Jan 2023. In such case, the system should check whether the auto pay ID 123 is still effective for the bill. Until now, the system was not capable to re-evaluate the auto pay details of a completed bill.

Now, Oracle Revenue Management and Billing enables you to re-evaluate the auto pay ID of all completed bills whose records are present in the **CI_BILL_ACH** table. If you add or edit the non-rule based auto pay instructions (i.e. regular or split auto pay instruction) or rule based auto pay instructions of an account, the system sets the **RE_EVAL_APAY_SW** flag corresponding to the record in the **CI_ACCT** table to **Y**. A new batch named **Re-evaluate latest Auto-Pay details (C1-REAPY)** is introduced in this release. You should execute this batch before executing the **Create Automatic Payments and Refunds (APAYCRET)** batch.

The **Re-evaluate latest Auto-Pay details (C1-REAPY)** batch is used to re-evaluate the auto pay details for completed bills of an account where the **RE_EVAL_APAY_SW** flag is set to **Y**. It considers the records with the debit amount in the **CI_BILL_ACH** table.

If an account has non-rule based auto pay details, the system will fetch the auto pay ID for the completed bill once again and store it corresponding to the record in the **CI_BILL_ACH** table. However, if an account has rule based auto pay instructions, the system will fetch the auto pay ID for the completed bill once again and store it corresponding to the records in the **CI_BILL_ACH** and **C1_FT_EXT** tables. Note that if the system is not able to derive the auto pay details for a completed bill of an account, the system will create a To Do using the **C1-REAPY** To Do type.

C1-CFS Feature Configuration

A new feature configuration named **C1-CFS** is introduced in this release. It enables you to indicate whether the application environment should use the file object storage service of Oracle Cloud Infrastructure (OCI). If the file object storage service of OCI is used, you need to specify the buckets or containers within the Object Storage namespace from where you need to read files for the On Demand Billing and Payment Upload features. Before specifying the buckets to read files from the external location for the On Demand Billing and Payment Upload features, you need to define a file storage extendable lookup value using the **File Storage Configuration (F1-FileStorage)** extendable lookup where the file adapter is set to **Oracle Cloud Object Storage**. For more information on how to define a file storage extendable lookup value, refer to the **Oracle Utilities Application Framework Administrative Processes → Configuration Tools → Miscellaneous Topics → Referencing URIs → External File Storage** in *Oracle Revenue Management and Billing Online Help*.

For more information, refer to the **Setting the C1-CFS Feature Configuration** section in the *Oracle Revenue Management and Billing Installation Guide*.

New Features (Specific to Financial Services)

This section describes the following new features added in this release which can be used in the financial services domain:

- [Bespoke Price List Creation during Deal Orchestration](#)
- [Assign Additional Price Items to Deal Entity](#)
- [Associate Price Items for Relationship Based Pricing in Deal](#)
- [Send Email on To Do Generation for a Deal](#)
- [Incremental Commitments for SQIs in a Deal](#)
- [Comparison using Standard Pricing in a Deal](#)
- [Original, Proposed, and Standard Simulation Data](#)
- [Configurable Fields for the Pricing and Commitments Screen](#)
- [Updating Pricing and Commitments of a Deal in the Offline Mode](#)
- [Seasonality in Billing Anomaly Detection](#)

Bespoke Price List Creation during Deal Orchestration

Deal management offers the feasibility to create a pricing model that is suitable to the customer requirements with accustomed price and volume combination, and thereby achieve the optimal revenue, cost, and profitability. You can simulate the deal multiple times until the best financial summary is achieved.

You can also use the same pricing for other customers by creating new deals using the deal template option. Here, the drawback is that you will have to create a new deal for each customer or account to reuse the same pricing. To overcome this cumbersome process, the system enables you to create a bespoke price list which contains the latest pricing from the deal. You can assign a bespoke price list to another customers or accounts without creating a deal for them.

While orchestrating a non-contracted deal, the system does the following:

1. Ends the existing agreed or price list pricing of an entity which is overridden or edited in the deal
2. Creates a bespoke price list with the new price assignments and assigns the bespoke price list to the respective entity

However, while orchestrating a contracted deal, the system does the following:

1. Ends the existing agreed or price list pricing of an entity irrespective of whether it is changed or not
2. Creates a bespoke price list with the new price assignments and assigns the bespoke price list to the respective entity

> **Note:** If the **Variable Price** flag for a price item is set to **Yes**, then the system does not create a bespoke pricing for the price item when there is no change in the rate offered for the price item in the deal.

> **Note:** The system creates a separate bespoke price list for the entities at different levels in the customer hierarchy (i.e. for the customer, its account, child customer, and for the child customer's account).

You can opt to create an effective pricing or bespoke pricing for the customers and accounts during deal orchestration. Depending on the business requirements, you can set the **Create Bespoke Price List during Orchestration** option type of the **C1-DEAL** feature configuration. It indicates whether the system should create bespoke price lists or effective pricing for the customers and accounts during deal orchestration. The valid values are **Y** and **N**. This option type is not mandatory. If you do not set this option type, the system, by default, creates the effective pricing for the customers and accounts during deal orchestration.

If the **Create Bespoke Price List during Orchestration** option type is set to **Y**, you also need to set the **Assignment Limit for Online Deal Orchestration** option type in the **C1-DEAL** feature configuration. It is used to determine whether the bespoke price lists should be created and assigned to the customers and accounts in the online or deferred mode. Here, you must specify a value greater than or equal to zero. If the number of price assignments in the customer hierarchy does not exceed the specified limit, the system creates the bespoke price lists and assigns it to the customers and accounts immediately. However, if the number of price assignments in the customer hierarchy exceeds the specified limit, the system changes the status of the deal to **Orchestration Deferred**.

Note that in case of a contracted deal, the system considers all price assignments of the selected price items (including the selected price items from the assigned price lists) irrespective of whether it is changed or not; whereas in case of non-contracted deal, the system considers only those price assignments of the selected price items (including the selected price items from the assigned price lists) which are edited or overridden. Also, note that for both contracted and non-contracted deals, the system does not consider the price assignments without commitments while using the **Assignment Limit for Online Deal Orchestration** option type.

A new batch named **C1_ORCH** is introduced in this release. On executing the **C1_ORCH** batch, it monitors or checks whether there is any deal in the **Orchestration Deferred** status. If there is a deal in the **Orchestration Deferred** status, the system behaves in the following manner:

- For a non-contracted deal, the system does the following:
  - Ends the existing agreed or price list pricing of an entity which is overridden or edited in the deal
  - Creates a bespoke price list with the new price assignments and assigns the bespoke price list to the respective entity
  - Copies a new proposed price list assignment and assigns the price list to the respective entity in the **Active** status
  - Copies a new proposed product enrollment and enrolls the respective account for the product in the **Active** status
- For a contracted deal, the system does the following:
  - Ends the existing agreed or price list pricing of an entity irrespective of whether it is changed or not

o   Creates a bespoke price list with the new price assignments and assigns the bespoke price list to the respective entity.

> **Note:** If the **Variable Price** flag for a price item is set to **Yes**, then the system does not create a bespoke pricing for the price item when there is no change in the rate offered for the price item in the deal.

o   Copies a new proposed price list assignment and assigns the price list to the respective entity in the **Active** status

o   Copies a new proposed product enrollment and enrolls the respective account for the product in the **Active** status

The customer acceptance date is used as the start date while adding the bespoke price lists, price list assignments, price assignments, and product enrollments.

Once the above listed changes are made, the system changes the status of the deal to **Fully Orchestrated**. This batch is a multi-threaded batch. The multi-threading is based on deal ID and chunks for multi-threading are created based on numerical distribution of deal ID. For more information about the batch, refer to *Oracle Revenue Management and Billing Batch Guide*.

To implement this feature, a new status named **Orchestration Deferred** is introduced in the lifecycle of the **C1-DEAL** business object.

Two new algorithm spots are available while defining or editing a deal type:

- **Bespoke Price List Pre-Processing** - Used to attach an algorithm which you want to execute before creating a bespoke price list for an entity during deal orchestration.
- **Bespoke Price List Post Processing** – Used to attach an algorithm which you want to execute after creating a bespoke price list for an entity during deal orchestration.

While creating a bespoke price list from the user interface or through a batch process, the system sets the description of the bespoke price list to **Bespoke_<Deal_Identifier>_<Entity_ID>**. Also, the priority of the bespoke price list is always set to the highest compared to other price lists which are assigned to the entity. If the existing assigned price lists have the highest priority, the system sets the priority of the bespoke price list to the highest and decreases the priority of the existing assigned price lists by 1. For example, an entity has PL1 assigned with the priority 1 and PL2 assigned with the priority 2. Now, when the system assigns a bespoke price list to the entity, it will set the priority of the bespoke price list to 1 and decrease the priority of PL1 and PL2 by 1 (i.e. PL1 priority will be set to 2, and PL2 priority will be set to 3).

> **Note:** The priority 1 is considered as the highest priority in ORMB.

Assign Additional Price Items to Deal Entity

Until now, in a deal, you were able to simulate the revenue, cost, and profitability of those price items which are assigned to the customer hierarchy or are present in the assigned price lists. Now, the system enables you to:

- Add a price item to a deal which is not present in the customer hierarchy or assigned price list
- Add a pricing for a price item from a price list to a deal without assigning the price list to an entity in the deal
- Add a customer or account agreed pricing to a deal from another customer or account who is not included in the customer hierarchy

You can assign additional price items only to the entity for which the deal is created and not to any other entity in the customer hierarchy. A new button named **Additional Price Item** is available when you view or edit the pricing and commitment details of any entity in the customer hierarchy from the **Pricing and Commitments** screen. On clicking the **Additional Price Item** button, the **Pricing and Commitments** screen appears where you can define the pricing and commitments for a price item. If you want to assign an additional price item to the deal entity, you need to select the price item using the **Price Item Search** functionality. Once you select the price item, you need to specify other details in the **Main**, **TFM Information**, **Characteristics**, **Price Item Parameters**, and **Price Component** sections. However, if you want to copy a price list pricing, customer agreed pricing, or account agreed pricing, you need to select the price assignment using the **Price Assignment Search** functionality. Once the assignment details appear from the pricing which is copied, you can edit the assignment details based on the customer requirements.

> **Points to Note:**
>
> The **Price Item** and **Price Assignment ID** fields are non-editable.
>
> You can only assign those price items to the deal entity which are associated with the division to which the deal entity belongs. Similarly, you can copy price assignments of those price items which are associated with the division to which the deal entity belongs. Note that you can copy only those price assignments which are in the **Active** status.
>
> If an agreed pricing is effective for a price item and pricing parameters combination for the deal entity, you cannot define another agreed pricing for the same combination with an overlapping date range.

While assigning a price item or while copying a pricing, you need to specify the commitments for the price item. If the default commitments are defined in the respective deal type, the system will default the commitments from the deal type. You can then edit the commitments, if required.

On assigning a price item to the deal entity or on copying a price list pricing, customer agreed pricing, or account agreed pricing for the deal entity, the system creates a customer or account agreed pricing depending on the deal entity to which the price item is assigned. The assigned price item then appears in the **Additional Price Items** section of the **Price Item Selection** screen. The system does not display the hierarchy entity details of the price items in the **Additional Price Items** section.

The check box corresponding to the additional price item is, by default, selected and editable. If the check box corresponding to an additional price item is selected, the system considers the additional price item for simulation along with the other price items which are selected in the **Price Item Hierarchy** section.

While orchestrating the deal, an effective pricing or bespoke pricing would be created for the selected additional price items depending on the value set in the **Create Bespoke Price List during Orchestration** option type of the **C1-DEAL** feature configuration. If you set the **Deal Version Creation Method** field to **Copy From Current Version With Changes** while creating a new deal version, the system will also copy additional price items to the new deal version.

Associate Price Items for Relationship Based Pricing in Deal

Oracle Revenue Management and Billing provides the ability to pair two or more price items along with the parameters and their values whose pricing is expected to be same in a deal. It enables you to associate a price item with other price items, and thereby group price items to offer relationship based pricing for the associated price items in a deal. A new zone named **Associate Price Items for Relationship Based Pricing** is added in the **Price Item Relationshi**p screen. On clicking the **Add** link in the upper right corner of the **Associate Price Items for Relationship Based Pricing** zone, you can associate one or more price items with the parent price item to offer relationship based pricing in a deal. While associating the price items for relationship based pricing, you can specify the following:

- **Price Item** – Indicates the parent price item to which you want to associate other price items to offer relationship based pricing in a deal
- **Date Range** – You can specify the association start and end dates which indicates the period for which relationship based pricing is effective for the associated price items in a deal.
- **Parameters and Their Values** – You can associate or group two or more price items along with a set of parameters and their values. You can select the parameter using the **Parameter Search** functionality. While selecting a parameter, the system only allows you to select a parameter which is associated with the parent price item and which is effective on the association start date. Note that the selected parameter should also be associated with the other selected price items and should be effective on the association start date.
- **Division** - You can specify one or more divisions for which the relationship based pricing group is valid. You can select a division using the **Division Search** functionality. While selecting a division, the system only allows you to select a division which is associated with the parent price item.
- **Associated Price Items** – You can select a price item using the **Price Item Search** functionality. While selecting a price item, the system only allows you to select the price item which is associated to the parent price item's division.

While associating the price items for relationship based pricing, the system sets the relationship type of the associated price items using the **Associating Price Items For Relationship Type** option type of the **C1_PRICING** feature configuration.

At a time, you can include a set of price items and pricing parameters in only one relationship based pricing group for a particular date range. You can view the relationship based pricing group of the parent price item from the **Price Item Relationship** screen. A new zone named **Associate Price Items for Relationship Based Pricing** is added in the **Price Item Relationship** screen. On clicking the **Broadcast** icon corresponding to a relationship based pricing group in the **Associate Price Items for Relationship Based Pricing** zone, the **Associate Price Item Relationship** zone appears where you can view the associated price items of the group.

The system allows you to edit a relationship based pricing group. However, you can only change the end date of the relationship based pricing group. You cannot delete a relationship based pricing group. However, you can end the relationship based pricing group by updating the end date.

While saving the changes in the **Price Item Selection** screen in a deal, the system checks whether any of the selected price items is a part of any relationship based pricing group which is effective on the deal start date. If so, the system checks whether all the price items from the relationship based pricing group are selected in the **Price Item Selection** screen. If so, the system considers all the associated or paired price items for simulation along with other selected price items. If not, the system throws an appropriate error message. You need to then ensure that all associated or paired price items from the relationship based pricing group are selected in the **Price Item Selection** screen.

If you override or edit a pricing of a price item in a deal, the system checks whether the price item is a part of any relationship based pricing group which is effective on the price assignment start date. If so, the system checks whether all the associated price items from the relationship based pricing group are selected for simulation. If so, the system automatically overrides or edits the pricing of other associated price items to ensure that the pricing offered across all the associated or paired price items in a deal is same. While overriding the pricing of an associated or paired price item, the system creates a customer agreed pricing for the associated or paired price item. Also, while editing the pricing of an associated or paired price item, if the customer agreed pricing is not available for the associated or paired price item, the system creates a customer agreed pricing for the associated or paired price item. Note that the system only automatically overrides or edits the pricing of the associated price items where the price assignment type is set to **Regular**.

Send Email on To Do Generation for a Deal

Until now, the system created a To Do notification in the following scenarios:

Scenario…	To Do notification was sent to…
A deal was created and sent to the next level for approval	• Deal Creator (at Level 0) – To all users with the To Do role specified at Level 0 • Deal Approver (at Level 1) – To all users with the To Do role specified at Level 1
A deal was approved or rejected by the approver (at Level 1)	• Deal Creator (at Level 0) – To all users with the To Do role specified at Level 0 • Deal Approver (at Level 1) – To all users with the To Do role specified at Level 1
A deal was approved or rejected by the approver (at Level 3)	• Deal Creator (at Level 0) – To all users with the To Do role specified at Level 0 • Deal Approver (at Level 2) – To all users with the To Do role specified at Level 2 • Deal Approver (at Level 3) – To all users with the To Do role specified at Level 3
A deal was sent to the next level (for example, Level 2) for approval by deal approver (at Level 1)	• Deal Creator (at Level 0) – To all users with the To Do role specified at Level 0 • Deal Approver (at Level 2) – To all users with the To Do role specified at Level 2

Now, the system enables you to send an email notification when a To Do is generated for the deal creator and deal approver from the user interface or through a batch process. The following two algorithm types are introduced in this release:

- **C1-EMAIL** - This algorithm creates an email notification whenever a To Do is created or updated. It is invoked when it is attached to the **To Do Post-Processing** algorithm spot of a To Do type. On creating a To Do or on updating a To Do which is in the **Open** status, the email notification is sent to all users with the To Do role at the respective approval level of the deal approval profile. However, while updating a To Do which is in the **Being Worked On** status, the email notification is sent only to the assigned user. It contains the following parameters:

  - **Outbound Message Type** – Used to indicate the outbound message type using which you want to create an outbound message in the form of email notification.

  - **External System** - Used to indicate the external system to which you want to send the outbound message in the form of email notification.

  - **Email's From Address** – Used to specify the sender's email address which indicates from where the email notification is received.

  - **Environment URL** – Used to specify the ORMB environment URL which is used while constructing a hyperlink for a database object.

- o **Default Recipient** – Used to specify the default recipient's email address. This is used when there are no users with the To Do role specified at the respective approval level of the deal approval profile.

- o **Email Body Creation Algorithm** – Used to indicate the algorithm that you want to invoke to create the email body.

- o **Send Email for New To Do Entries** – Used to indicate whether an email notification should be sent only when a new To Do is generated. The valid values are – **Y** and **N**. If you set the value to **N**, the system sends an email notification not only when a new To Do is generated, but also when an existing To Do is updated.

- o **Email Subject Message Category Number** – Used to indicate the message category whose message you want to use as an email subject line.

- o **Email Subject Message Number**- Used to indicate the message that you want to use an email subject line. Note that we support variables in the subject line to ensure that appropriate subject line is added in the email notification.

- **C1-DLEMAILBD** - This algorithm creates an email body for the email notification. You can invoke this algorithm from the **C1-EMAIL** algorithm by specifying it against the **Email Body Creation Algorithm** parameter. This algorithm is designed and developed for the deal management module. It creates an email body for an email notification which is generated while sending a deal for approval and while approving or rejecting a deal. It contains the following parameters:

  - o **Field 1, Field 2, …., Field 20** – Used to specify the deal related field whose data you want to present in the email notification. Here, you must specify the field which is already defined and added in the deal related tables.

  - o **Characteristic 1, Characteristic 2, …., Characteristic 5** – Used to specify the deal related characteristic whose data you want to present in the email notification. Here, you must specify the characteristic type where the characteristic entity is set to **Deal**.

  - o **Deal Information Required** – Used to indicate whether the deal information string should appear in the email notification. The valid values are – **Y** and **N**. The deal information string will have a hyperlink. On clicking the hyperlink, you can quickly access the application.

  - o **Deal Financial Summary Required** – Used to indicate whether you want to include the deal financial summary in the email notification. The valid values are – **Y** and **N**.

  - o **Email Header Message Category Number** – Used to indicate the message category whose message you want to use as an email header.

  - o **Email Header Message Number** - Used to indicate the message that you want to use an email header.

  - o **Email Footer Message Category Number** - Used to indicate the message category whose message you want to use as an email footer.

  - o **Email Footer Message Number** - Used to indicate the message that you want to use an email footer.

> **Points to Note:**
>
> The system does not generate a To Do while approving or rejecting a deal when the deal approver is the deal creator.
>
> When a To Do is created through a batch process (i.e. **C1_HRC**, **C1_SMLD**, and **C1_DLMTR**), the system will create e-mail notification only for the deal creator and not for all the users with the To Do role specified at Level 0 in the deal approval profile.

To implement this feature, you need to do the following:

- Create an algorithm using the **C1-EMAIL** algorithm type and attach it to the **To Do Post-Processing** algorithm spot of all the To Do types which are used in the deal approval profiles
- Create an algorithm using the **C1-DLEMAILBD** algorithm type and attach it against the **Email Body Creation Algorithm** parameter in the **C1-EMAIL** algorithm

Incremental Commitments for SQIs in a Deal

Until now, you were able to specify absolute and default commitments for the SQIs in a deal. Now, in addition, you can specify incremental commitments for the SQIs in a deal. A new option type named **Service Quantity Update Type** is introduced in the **C1-DEAL** feature configuration.

It is used to indicate whether you want to specify absolute or incremental commitments for the SQIs in the **Pricing and Commitments** screen. The valid values are:

- **AB** – Used when you want to specify absolute commitments for the SQIs in a deal.
- **AR** – Used when you want to specify an incremental value with respect to the original volume for the SQIs in a deal. The system will then derive the commitments by adding the specified value to the original volume.
- **PR** - Used when you want to specify an incremental value with respect to the proposed commitments for the SQIs in a deal. The system will then derive the revised commitments by adding the specified value to the proposed commitments.

Let us understand this with the help of an example.

Action	Service Quantity Update Type	Original Service Quantity	Proposed Service Quantity	Specified Service Quantity	Revised Proposed Service Quantity
ADD	AB	100	100	150	150
UPD	AB	200	250	300	300
ADD	AR	100	100	100	100+100=200
UPD	AR	150	150	50	150+50=200
ADD	PR	125	125	100	125+100=225
UPD	PR	100	225	75	225+75=300

The above table lists various scenarios which indicate how the proposed commitments are calculated based on the value specified in the **Service Quantity Update Type** option type of the **C1-DEAL** feature configuration.

If you do not set this option type, the system, by default, sets it to **AB**. This option type is not only referred while adding commitments for a price item and parameters combination from the user interface, but is also referred when the value for the **sqiUpdateTypeFlg** tag is not received while adding or updating commitments through an inbound web service.

Comparison using Standard Pricing in a Deal

Until now, you were able to compare the product level, division level, and deal level financial summary using the original (i.e. existing) and proposed pricing in a deal. Now, the system enables you to compare the product level, division level, and deal level financial summary using the original (i.e. existing), proposed, and standard pricing. The standard pricing for a price item and pricing parameters combination is derived from the standard price list. Until now, the standard price list of an entity was used to verify the average price ceil and floor limits for a price item. Now, the pricing from the standard price list can also be used during deal simulation to obtain an optimal pricing for a customer.

A new field named **Standard Pricing Comparison** is available while defining or editing a deal type. If the **Standard Pricing Comparison** field is set to **Yes**, the system checks whether an algorithm is attached to the **Standard Price List Search** system event in the respective deal type while creating a deal.

If an algorithm is attached to the **Standard Price List Search** system event in the respective deal type, the system fetches all price lists where the **Available for Deal Pricing** and **Standard for Deal Pricing** fields are set to **Yes**. The system then derives the standard price list (from the result set) which is eligible for each entity in the deal. While deriving an eligible standard price list, the system checks whether the entity meets the eligibility criteria defined in the standard price list. If so, the system stores the eligible standard price list for an entity in the deal. If there are multiple eligible standard price lists for an entity, the system maintains a list of all eligible standard price lists for the entity and assigns a unique sequence number to each eligible standard price list.

On selecting the price items in the **Price Item Selection** screen, the system fetches the standard pricing for each price item and pricing parameters combination from the standard price list. If the standard pricing is available for a price item and pricing parameters combination, the system considers the same for calculating the profit and revenue statistics during deal simulation. However, if the standard pricing is not available for a price item and pricing parameters combination, the system does not calculate the profit and revenue statistics using the standard pricing during deal simulation.

If there are multiple eligible standard price lists for an entity, the system first searches the standard pricing for a price item and pricing parameters combination in a standard price list with the highest sequence number. If the standard pricing for a price item and pricing parameters combination is not available in the standard price list with the highest sequence number, the system considers the standard price list with the subsequent sequence number. If the standard pricing for a price item and pricing parameters combination is available in a standard price list with the subsequent sequence number, the system fetches the standard pricing for the price item and pricing parameters combination from the standard price list. In this way, the system sequentially checks each standard price list until the standard pricing for a price item and pricing parameters combination is derived. If the standard pricing is available for a price item and pricing parameters combination, the system considers the same for calculating the profit and revenue statistics during deal simulation. If the standard pricing for a price item and pricing parameters combination is not available in any of the eligible standard price lists of the entity, the system does not calculate the profit and revenue statistics for the respective price item and pricing parameters combination during deal simulation.

Until now, three rows appeared for a price item and pricing parameters combination in the **Pricing and Commitments** screen – one row for the original pricing and commitments, another row for the proposed pricing and commitments, and third row for the recommended pricing and commitments (if any). Now, four rows will appear for a price item and pricing parameters combination in the **Pricing and Commitments** screen – one row for the original pricing and commitments, another row for the proposed pricing and commitments, third row for the standard pricing and commitments, and fourth row for the recommended pricing and commitments (if any). Note that the system defaults the proposed commitments for calculating profit and revenue statistics for a price item and pricing parameters combination using the standard pricing. If no standard pricing is derived for a price item and pricing parameters combination, an empty row appears for the price item and pricing parameters combination in the **Pricing and Commitments** screen. Different color code is used to differentiate between different rows for a price item and pricing parameters combination.

Similarly, until now, three rows appeared for an entity in the **Customer Hierarchy** section – one row where the profit and revenue statistics are calculated using the original pricing and commitments of the entity, another row where the profit and revenue statistics are calculated using the proposed pricing and commitments of the entity, and third row where the profit and revenue statistics are calculated using the using the recommended pricing and commitments (if any) of the entity. Now, in addition, one more row will appear where the profit and revenue statistics are calculated using the standard pricing and commitments (if any) of the entity. If no standard price list is derived for an entity, an empty row appears for the entity in the **Customer Hierarchy** section.

If the **Standard Pricing Comparison** field is set to **No**, the system does not derive the standard pricing for a price item and pricing parameters combination. No additional row will appear for the standard pricing against the entity and the price item and pricing parameters combination in the respective screens.

Now, while simulating a deal, the system calculates the following when the **Standard Pricing Comparison** field is set to **Yes** in the respective deal type:

- Deal level revenue, profit, profitability(%), revenue variation(%), and profit variation(%) using the original pricing

- Deal level revenue, profit, profitability(%), revenue variation(%), and profit variation(%) using the proposed pricing
- Deal level revenue, profit, profitability(%), revenue variation(%), and profit variation(%) using the standard pricing
- Product level revenue, profit, profitability(%), revenue variation(%), and profit variation(%) using the original pricing
- Product level revenue, profit, profitability(%), revenue variation(%), and profit variation(%) using the proposed pricing
- Product level revenue, profit, profitability(%), revenue variation(%), and profit variation(%) using the standard pricing
- Division level revenue, profit, profitability(%), revenue variation(%), and profit variation(%) using the original pricing
- Division level revenue, profit, profitability(%), revenue variation(%), and profit variation(%) using the proposed pricing
- Division level revenue, profit, profitability(%), revenue variation(%), and profit variation(%) using the standard pricing
- Revenue, profit, profitability(%), revenue variation(%), and profit variation(%) for each entity in the customer hierarchy using the original pricing
- Revenue, profit, profitability(%), revenue variation(%), and profit variation(%) for each entity in the customer hierarchy using the proposed pricing
- Revenue, profit, profitability(%), revenue variation(%), and profit variation(%) for each entity in the customer hierarchy using the standard pricing
- Revenue, profit, profitability(%), revenue variation(%), and profit variation(%) for each price item and pricing parameters combination using the original pricing
- Revenue, profit, profitability(%), revenue variation(%), and profit variation(%) for each price item and pricing parameters combination using the proposed pricing
- Revenue, profit, profitability(%), revenue variation(%), and profit variation(%) for each price item and pricing parameters combination using the standard pricing

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Points to Note:

The product level financial summary is calculated only when the **Product Level Approval Required** field is set to **Yes**.

The division level financial summary is calculated only when the **Division Level Approval Required** field is set to **Yes**.

If the **Preference To Assigned Pricelist for Ceil Floor Limit Check** option type of the **C1-DEAL** feature configuration is set to **Y** and the **Standard Pricing Comparison** field is set to **Yes** in the respective deal type, the system overrides the feature configuration and validates the average price against the ceil and floor limits defined in the standard pricing. However, if no standard pricing is available for a price item and pricing parameters combination, the system does not validate the average price of the price item and pricing parameters combination.

> **Points to Note:**
>
> At present, you cannot do the following:
>
> >> Extract the standard pricing and simulation data calculated using the standard pricing in the **Excel** or **PDF** format from the user interface
>
> >> Simulate the data using the standard pricing through an inbound web service
>
> >> Extract the standard pricing and simulation data calculated using the standard pricing through an inbound web service
>
> >> View profitability variation at the entity, price item, and deal levels from the **Deal Profitability** screen

Original, Proposed, and Standard Simulation Data

Until now, you were able to view the original and proposed simulation data in the **Deal Information** and **Pricing and Commitments** screens. Now, a new field named **Compare Type** is available in the following sections:

- The **Customer Hierarchy** section of the **Deal Information** screen
- The **Pricing and Commitments** section of the **Pricing and Commitments** screen

It is used to indicate the simulation data that you want to view in the respective section. If the **Standard Pricing Comparison** field is set to **Yes** in the respective deal type, the valid values are:

- **All** - Used when you want to view the simulation data which is calculated using the original, proposed, and standard pricing.
- **Proposed** - Used when you want to view the simulation data which is calculated using the proposed pricing.
- **Proposed and Original** - Used when you want to view the simulation data which is calculated using the original and proposed pricing.
- **Proposed and Standard** - Used when you want to view the simulation data which is calculated using the proposed and standard pricing.

However, if the **Standard Pricing Comparison** field is set to **No** in the respective deal type, the valid values are:

- **Proposed** - Used when you want to view the simulation data which is calculated using the proposed pricing.
- **Proposed and Original** - Used when you want to view the simulation data which is calculated using the original and proposed pricing.

While loading the data in the **Deal Information** and **Pricing and Commitments** screens, the system refers the **Default Simulation Data** field in the respective deal type. It is used to indicate the simulation data that should appear, by default, on loading the **Deal Information** and **Pricing and Commitments** screens. You can specify either of the following options in the **Default Simulation Data** field:

- All
- Proposed

- Proposed and Original
- Proposed and Standard

Note that the **Default Simulation Data** field appears only when the **Standard Pricing Comparison** field is set to **Yes**. If the **Standard Pricing Comparison** field is set to **No**, the system, by default, sets the default simulation data to **Proposed and Original**. While viewing the customer hierarchy or pricing and commitments of a deal, you can anytime change the option from the **Compare Type** list and view the simulation data of your choice.

Configurable Fields for the Pricing and Commitments Screen

A huge number of columns are present in the **Pricing and Commitments** section of the **Pricing and Commitments** screen, and as a result, the user had to scroll from left to right to view the data in this section. To handle this horizontal scrolling issue, we have given a provision to list a set of columns which are configurable in the **Pricing and Commitments** section. A new section named **Pricing and Commitments - Configurable Columns** is available while defining or editing a deal type. It enables you to indicate the following:

- Sequence in which the column should appear in the **Pricing and Commitments** section
- Selection type of the column in the **Pricing and Commitments** section

You can configure the following columns of the **Pricing and Commitments** section in a deal type:

- Assignment Level
- Average Price
- Cost
- Price List
- Pricing Information
- Profit
- Profit Variation(%)
- Profitability(%)
- Revenue
- Revenue Variation(%)
- Volume

If the selection type flag of a column is set to **Mandatory**, the system, by default, renders the column in the **Pricing and Commitments** section and it cannot be removed from the **Pricing and Commitments** section. If the selection type flag of a column is set to **Standard**, the system, by default, renders the column in the **Pricing and Commitments** section and it can be removed from the **Pricing and Commitments** section (if not needed). However, if the selection type flag of a column is set to **Optional**, the system, by default, does not render the column in the **Pricing and Commitments** section and it can be added anytime to the **Pricing and Commitments** section (if needed).

On loading the **Pricing and Commitments** screen, the system refers the column configuration in the respective deal type and accordingly displays the columns in the **Pricing and Commitments** section. You can add or remove the columns from the **Pricing and Commitments** section where the selection type flag is set to either **Standard** or **Optional**.

Updating Pricing and Commitments of a Deal in the Offline Mode

Oracle Revenue Management and Billing enables the relationship manager to download the pricing and commitments of a deal. A new button named **Download** is available in the **Deal Information** screen. It is enabled only for the relationship manager and not for any deal approver. On clicking the **Download** button, the system extracts the pricing and commitments of a deal version in the **Excel** format. Before clicking the **Download** button, you need to ensure that the report code using which you want to extract the data in the **Excel** format is specified in the **Deal Pricing Download** option type of the **C1-DEAL** feature configuration. The **DLDWLD** report code is already shipped with the release. You can specify the **DLDWLD** report code or a custom report code (based on the requirements) in the **Deal Pricing Download** option type of the **C1-DEAL** feature configuration.

Once the pricing and commitments details are extracted in the **Excel** format, you can edit the pricing and commitments of the required price item and pricing parameters combination in the **Excel** sheet. Once the sheet is updated, you can upload the changes in the system. A new button named **Upload** is available in the **Deal Information** screen. It is enabled only for the relationship manager and not for any deal approver. On clicking the **Upload** button, a screen appears which enables you to upload the file. Once the file is uploaded, the changes are reflected in the deal. The status of the deal is changed to **Pending Simulation**. You can then simulate the deal version and assign it to the next level for approval. Before simulating the deal, you can also edit the pricing and commitments (if required) from the user interface.

Seasonality in Billing Anomaly Detection

Oracle Revenue Management and Billing enables you to build a data model considering seasonality and accordingly predict the billing anomalies. Seasonality is a characteristic of a time series in which the data experiences regular and predictable changes that recur every calendar year. Any predictable fluctuation or pattern that recurs or repeats over a one-year period is said to be seasonal.

We offer this feature based on the assumption that an account's behavior would be similar for a given month across the years. To enable the seasonality feature in billing anomaly detection, you need to set the **Seasonal Prediction Flag** option type of the **C1-BRMLINOPS** feature configuration. It is used to indicate whether seasonality should be considered while extracting the data for model building. The valid values are - **Y** and **N**. If you set this option type to **Y**, the system considers the following fields of the respective entities during model building:

Entity	Fields
Bill	INVOICE_ACCT, BILL_ID, BILL_CYC_CD, BILL_AMT, PRICEITEM_VECTOR, CURRENCY_CD, START_DT_MON

Entity	Fields
Bill Segment	INVOICE_ACCT, BILL_CYC_CD, BSEG_AMT, BSEG_ID, PRICEITEM_CD, PRICE_ASGN_ID, CURRENCY_CD, START_DT_MONTH

If you do not specify the value for this option type, by default, it is set to **N**. If you change the value of this option type, you need to run the **C1-MLDPR** and **C1-MLMCR** batches once again to rebuild the machine learning training model.

New Features (Specific to Insurance)

This section describes the following new features added in this release which can be used in the health insurance domain:

- [Minimum Premium Program](#)

Minimum Premium Program

To keep up with the changing healthcare dynamics and reduce the rising cost of employer sponsored health plans, the Administrative Services Only (ASO) service providers are constantly thriving to develop innovative pricing models. The ASO service providers are at the forefront designing alternative funding arrangements by amalgamating fully-insured and self-funded plans to trade-off some of the disadvantages of traditional models. The alternative funding arrangements make the self-funded plans more viable to small and medium size employers who traditionally go for the fully-insured plans.

A minimum premium program (MPP) is a self-funded plan that is partly self-insured where an employer is responsible to pay for claims up to a certain level and the remaining is covered by the ASO service provider. A premium is charged to the employer by the ASO service provider for undertaking the risk, processing the claims and for providing all other administrative services.

The following terminologies are used with respect to the minimum premium program:

- **Minimum Premium** - A premium which is paid for the minimum premium program by the employer to the ASO service provider.
- **Capping Limit (i.e. MPP Limit)** - The claim amount within the MPP limit is paid by the employer; whereas the amount exceeding the MPP limit is paid by the ASO service provider.
- **Minimum Attachment Point (MAP)** - This is a guaranteed claim liability by an employer to safeguard the insurer from the financial risk if the enrollment is drastically declines.
- **Effective MPP Limit** - The MPP limit and MAP value whichever is greater is considered as the effective MPP limit.

Oracle Revenue Management and Billing provides the ability to setup the minimum premium program pricing model. You can define a minimum premium program pricing rule at the parent customer and bill group levels. You can define minimum premium program pricing rules for parent customers and bill groups from the **Customer 360° Information** screen. You can define a minimum premium program pricing rule using a minimum premium program pricing rule type.

Note: You cannot create a minimum premium program pricing rule type and a minimum premium program pricing rule through an inbound message.

A minimum premium program pricing rule type is not a primary pricing rule type. You must include a minimum premium program pricing rule type as a related pricing rule type in the claim or ancillary pricing rule types which are used for calculating the claim amount or ancillary charges, respectively.

While creating a minimum premium program pricing rule type, you need to do the following:

- Set the pricing rule type business object to **Minimum Premium Program Pricing Rule Type**

- Set the pricing rule type category to **Minimum Premium Program**

- Set the pricing rule business object to **Minimum Premium Program Pricing Rule**

- Specify algorithms for the following system events:

System Event	Algorithm
Accumulation Pre-Processing	C1-MPPACPREP
Account and Price Item Derivation	C1_ACCPRISL
Bill After Date Determination	C1_BAFTDRV
Bill Group Derivation	C1_TXNBGDRV
Final Settlement Derivation	C1-FSBCDV

- Specify the price items (i.e. services related to minimum premium program) for which you want to define pricing using a minimum premium program pricing rule

- Specify the rate options that you can use while defining pricing for a price item

- Specify different types of accounts to which the price item should be billed based on the priority

Note: Ideally, the price item parameters should not be specified in a minimum premium program pricing rule type. The price item parameters which are specified in the claim or ancillary pricing rule type are used for minimum premium program accumulation.

- Specify additional information, such as:

  o Pricing rule type and price item to derive the pricing rule using which the enrollment based MPP limit is calculated

Note: At present, we are not supporting flat MPP limit for the minimum premium program pricing model.

  o Off process request type using which the deficit should be roll forwarded during the policy renewal

  o MPP, surplus, and deficit billable charge line types using which you want to create the respective charges

  o Number of days before which you want to create a To Do for reminding the self-funded employer to renew the minimum premium program

- Specify the details for the minimum attachment point arrangement:

  o Pricing rule type and price item using which the minimum attachment point pricing rule should be created

  o Specify default values for the following:

    ▪ **Minimum Attachment Point Arrangement Type** – Used to specify the method using which minimum attachment point should be calculated. The system supports the following methods:

❖ **Enrollment Percentage of First Month** - Here, the minimum attachment point is calculated using the enrollment based percentage of the first month's MPP limit. For example, If the enrollment based percentage of the first month's MPP limit is set to 75, the system sets the minimum attachment point to (75*First Month's MPP Limit)/100.

❖ **Enrollment Percentage of Previous Month** – Here, the minimum attachment point is calculated using the enrollment based percentage of the previous month's MPP limit. For example, If the enrollment based percentage of the previous month's MPP limit is set to 90, the system sets the minimum attachment point to (90*Previous Month's MPP Limit)/100.

❖ **Flat Amount** – Here, the minimum attachment point is set to a flat amount.

▪ **Default Arrangement Value** – Used to specify default percentage or flat amount for minimum attachment point. You can change the value (if required) while defining a minimum premium program pricing rule using the respective pricing rule type.

- Specify settlement rules, such:
    - How to settle any deficit or surplus when the customer decides to cancel or renew the policy
    - Whether the system should close out or roll forward the deficit or surplus on policy renewal
    - Whether the system should close out the deficit or surplus on policy cancelation

Once a minimum premium program pricing rule type is defined, you can create minimum premium program pricing rules using the minimum premium program pricing rule type. While defining a minimum premium program pricing rule for a parent customer, you need to specify the following:

- Minimum premium program accumulation price item for which you want to define the pricing
- Specific stop-loss pricing rule of the parent customer whose accumulation parameters you want to inherit for the minimum premium program. On selecting a specific stop-loss pricing rule, the minimum premium program pricing date range is set automatically. The minimum premium program pricing date range is same as the specific stop-loss pricing rule.
- Rate option that you want to use while defining the minimum premium program pricing
- Settlement frequency which helps to determine the bill after date. The valid values are:
    - **Immediately** – If you select this option from the list, the bill after date is not calculated. The minimum premium program settlement billable charge is billed immediately in the next bill cycle.
    - **Manually (At Required Intervals)** - If you select this option from the list, the bill after date which is specified in the **Manual Settlement Bill After Date** parameter while executing the **C1-BCMPP** batch is stamped on the minimum premium program settlement billable charge.
    - **Monthly** - If you select this option from the list, the bill after date is set as per the bill cycle.

o **Yearly** – If you select this option from the list, the bill after date is set to the pricing end date in the minimum premium program settlement billable charge.

o **On Settlement** - If you select this option from the list, the bill after date is set to the settlement date in the minimum premium program settlement billable charge.

Note: The accumulation parameters, such as incurred start date, incurred end date, paid start date, paid end date, and settlement days are automatically inherited from the parent customer's specific stop-loss pricing rule. You cannot change any accumulation parameter except the settlement days.

- Settlement days which helps to calculate the settlement date (which is pricing end date, incurred end date, or paid end date whichever is later + the settlement days)

- Settlement account for which the minimum premium program settlement billable charge should be created

- Minimum premium attachment point and its value using which the effective MPP limit is calculated

- Whether the customer would like to renew or cancel the minimum premium program

However, while defining a minimum premium program pricing rule for a bill group, you need to specify the following:

- The policy status in which the minimum premium program pricing rule is applicable.

- Minimum premium program accumulation price item for which you want to define the pricing

- Parent customer's minimum premium program pricing rule from which you want to inherit the accumulation parameters.

Note: The pricing date range is derived from the parent customer's minimum premium program pricing rule because the minimum premium program pricing rules of parent customer and bill group should have the same date range.

- Rate option that you want to use while defining the minimum premium program pricing

- Accumulation criteria that indicates the price items whose charges can be accumulated against the minimum premium program accumulation price item so that it can be settled against the minimum premium program premium.

- Whether the line items and markup or markdown in a particular claim pricing rule should be accumulated for minimum premium program.

   OR

   Whether the line items which are associated with the **Minimum Premium Program** pricing rule type category should be accumulated for minimum premium program.

- Whether the charges created using the billable charge line types in a particular ancillary pricing rule should be accumulated for minimum premium program.

   OR

   Whether the charges created using the billable charge line types where the **Pricing Rule Type Category** characteristic is set to **Ancillary** should be accumulated for minimum premium program.

- Whether the charges calculated using the retention type claim based or retention type enrollment based pricing for a price item should be accumulated for minimum premium program.

Once a minimum premium program pricing rule is defined for a bill group, the system creates a price assignment in a price list and assigns the price list to the bill group.

You must create an algorithm using the **C1-ASOEXPOS** algorithm type and attach it to the **TFM - Rate Post-Processing** algorithm spot of the division to which the bill group's account belongs. Otherwise, erroneous results might occur. For more information about the algorithm, refer to the application.

The following new batches are introduced in this release:

- **C1-ACMPP** – This batch is used to accumulate the minimum premium program billable charges which are to be settled against the minimum premium program premium. It creates an accumulation record for an active accumulation group of an account whose bill cycle window is open. It calculates the following:
    - o   Minimum Attachment Point
    - o   MPP Limit (Enrollment X MPP Limit Rate)
    - o   Effective MPP Limit
    - o   Cumulative MPP Limit
    - o   Claims
    - o   Specific Stop Loss (Credit)/Debit Adjustments
    - o   Net Claims
    - o   Cumulative Net Claims
    - o   Max Claim Liability (Monthly Billed Claim)
    - o   Cumulative Billed Claims
    - o   Minimum Premium Adjustment Amount
    - o   Cumulative Surplus/Deficit
    - o   Roll Forward Charge

    This batch also invokes algorithms which are attached to the **Accumulation Pre-Processing** and **Accumulation Post-Processing** system events in the respective pricing rule type and accordingly updates the accumulation record.

- **C1-BCMPP** – This batch is used to create a billable charge for a minimum premium program accumulation records. The charge contains the minimum premium adjustment amount which is calculated by the **C1-ACMPP** batch. This batch also creates the roll forward billable charge on the successive pricing rule, if applicable, based on the settlement configuration. It calculates and stamps the bill after date on the minimum premium program settlement billable charge.

    This batch also invokes algorithms which are attached to the **Accumulation Billable Charge Pre-Processing** and **Accumulation Billable Charge Post-Processing** system events in the respective pricing rule type and accordingly updates the minimum premium program settlement billable charge.

- **C1-CMMPP** – This batch is used to do the following:
  - Update the MPP billable charge ID on the respective transaction legs in the CI_TXN_DTL_PRITM table
  - Mark the transaction as COMP if it is in IGNR status in the CI_TXN_DETAIL table
  - Update the transaction aggregation criteria of the corresponding records in the CI_TXN_CALC table to RITA

You can opt to configure approval workflow for a minimum premium program pricing rule. The **C1PRRLMPPN** approval workflow group is shipped for the minimum premium program pricing rules. You need to create an appropriate approval workflow chain, approval workflow criterion type, approval workflow group chain linkage, and approval workflow settings for the **C1PRRLMPPN** approval workflow group. Once the approval workflow configuration is done, ensure that **C1PRRLMPPN** is specified in the **Approval Workflow Group for MPP** option type of the **C1-ASOBLLNG** feature configuration.

Enhancements (Generic)

This section lists the enhancements made to the following features which can be used in both financial services and health insurance domains:

- **Transaction Feed Management**
- **Billing**
- **C1-DISTA Batch**
- **Entity Audit**
- **FOP Reporting**
- **File Upload Interface**
- **Payment Request**
- **Refund Request**
- **Payment Agreement Request**

Transaction Feed Management

The following changes are made to the Transaction Feed Management feature:

- A new parameter named **Transaction Disaggregation Review Required** is added to the **Service Quantity Calculation (C1-TXNSQ)** batch. It is used to indicate whether you want to create a disaggregation request for the newly created billable charge during the transaction aggregation process. The valid values are:

  o **Y** – If you set the parameter value to **Y**, the system creates a disaggregation request for the newly created billable charge of the account when the bill segments of its existing billable charge are in the **Freezable** or **Error** status. The system stamps the price assignment ID corresponding to the disaggregation request which is created for the billable charge.

> **Points to Note:**
>
> If a disaggregation request already exists for an account in the **Pending** status, the system will not create a new disaggregation request for the account.
>
> The price assignment ID is later used during the **C1-BSEGD** batch execution to identify and delete the existing bill segments of the account which are in the **Freezable** or **Error** status and whose corresponding charges are created using the price assignment.

  o **N** - If you set the parameter value to **N**, the system does not create a disaggregation request for the newly created billable charge of the account when the bill segments of its existing billable charge are in the **Freezable** or **Error** status.

  If you do not specify the value for this parameter, by default, it is set to **N**.

- The **Pending Bill Segments Deletion (C1-BSEGD)** batch is enhanced for the **Billable Charge** disaggregation request type. While deleting bill segments for the **Billable Charge** disaggregation request type, the batch identifies and deletes the existing bill segments of the account which are in the **Freezable** or **Error** status and whose corresponding charges are created using the price assignment which is stamped corresponding to the disaggregation request.

- A new parameter named **Transaction Status** is added to the **Identify Transactions for Disaggregation (C1-IDENT)**, **Process Non-Aggregated Transactions (C1-PDTXN)**, **Clean Up (C1-TXNCU)**, and **Update Disaggregation Request Status (C1-DRSUA)** batches. It is used to indicate whether you want to disaggregate only those transactions which are in the **Completed** status. The valid value is:

  - COMP

  If you do not specify any value for this parameter, the system will consider all transactions that meet the criteria for disaggregation irrespective of their status.

Billing

The following changes are made to the Billing feature:

- If you execute the billing batches after running the transaction disaggregation process, the system deletes and regenerates the existing bill segments of the accounts which were not disaggregated. To handle the performance issues, a new parameter named **Regenerate Bill Segment** is added to the **Bill Segment Generation (BSGENREG)** batch. It is used to indicate whether you want to delete and regenerate the existing bill segments which are in the **Freezable**, **Error**, or **Incomplete** status. The valid value is:

  - **N** – Used when you do not want to delete and regenerate the existing bill segments which are in the **Freezable** status. Note that the system will delete and regenerate the existing bill segments which are in the **Error** or **Incomplete** status even if this parameter is set to **N**.

  If you specify any value other than **N** or if you do not specify the value for this parameter, the system will delete and regenerate an existing bill segment.

C1-DISTA Batch

The following changes are made to the **C1-DISTA** batch:

- Until now, this batch was used to process audit events which are created for a self-funded pricing rule. Now, this batch checks whether there are any audit events for the persons, accounts, self-funded pricing rules, price lists, price list assignments, and price assignments in the **Pending** status. If an audit event exists in the **Pending** status, the system behaves in the following manner:

  - If the audit event for a person is in the **Pending** status, the system considers all accounts of the person.

  - If the audit event for an account is in the **Pending** status, the system fetches the account for which the audit event is created.

o   If the audit event for a price assignment is in the **Pending** status, the system checks the assignment level of the pricing. If the price assignment is at the customer level (i.e. it is a customer agreed pricing), the system fetches all accounts of the person and its child persons. However, if the price assignment is at the account level (i.e. it is an account agreed pricing), the system fetches the account for which the pricing is defined. And, if the price assignment is at the price list level (i.e. it is a price list pricing), the system checks whether the price list is assigned to any customer or account. If the price list is assigned to a customer, the system fetches all accounts of the person and its child persons. If the price list is assigned to an account, the system fetches the account to which the price list is assigned.

o   If the audit event for a price list is in the **Pending** status, the system checks whether the price list is assigned to any customer or account. If the price list is assigned to a customer, the system fetches all accounts of the person and its child persons. If the price list is assigned to an account, the system fetches the account to which the price list is assigned. Note that if the price list has child price lists in the price list hierarchy, the system also considers the accounts to which the child price lists are assigned.

o   If the audit event for a price list assignment is in the **Pending** status, the system checks whether the assignment is done at the customer or account level. If the price list assignment is done at the customer level, the system fetches all accounts of the person and its child persons. If the price list assignment is done at the account level, the system fetches the account to which the price list is assigned.

o   If the audit event for a self-funded pricing rule is in the **Pending** status, the system derives the person for whom the self-funded pricing rule is created. If the person type of the derived person is **Parent Customer**, the system fetches all accounts of the parent customer and its bill groups. However, if the person type of the derived person is **Bill Group**, the system fetches all accounts of the bill group.

Once the list of accounts is derived, the system checks whether there are any transactions performed for those accounts from or after the date given in the **Disaggregate Transactions From Date** parameter. If so, the system considers those accounts and then creates a disaggregation request for each such account. Before creating a disaggregation request for an account, the system checks whether there is any disaggregation request for the account in the **Pending** status. If so, the system does not create a new disaggregation request for the account.

While processing an audit event for a price assignment, the system checks whether the **Disaggregate Specific Price Item** parameter is set to **Y** or **N**. If the **Disaggregate Specific Price Item** parameter is set to **N**, the system creates a disaggregation request for the account. However, if the **Disaggregate Specific Price Item** parameter is set to **Y**, the system creates a disaggregation request for the respective price item on the account.

Note that while processing an audit event for a self-funded pricing rule, the system creates a disaggregation request for the respective price assignment on the derived accounts.

- A new parameter named **Disaggregate Transactions From Date** is added to the **C1-DISTA** batch. It is used to create disaggregation request for accounts for which transactions were performed from a particular date onwards. Here, you must specify the date in the YYYY-MM-DD format.
- The **Price item code flag (Y/N)** parameter of the **C1-DISTA** batch is renamed to **Disaggregate Specific Price Item**.
- The **C1-DISAUP** algorithm is attached to the **Post-Processing** system event of the **C1-DISTA** batch. It considers all audit events which are processed in the batch run and then updates the status of each such audit event to **Complete** (i.e. **C**). It contains the following two parameters:
  - **Separator** – Used to indicate the delimiter using which the system extracts the audit events from the return array list. You should not change the default value (i.e. comma (,)) of this parameter.
  - **Chunk Size** – Used to specify the number of audit events whose status you want to update in each work unit.

Entity Audit

The following changes are made to the **Entity Audit** feature:

- Until now, the **Entity Audit** feature was tested and certified for the health insurance domain. Now, in addition, it is tested and certified for the financial services domain from this release onwards.
- The **C1-REAUDEVNT** algorithm is enhanced to support the following business objects for the **Disaggregation/Reseeding** audit usage:
  - C1_PERSON_BO
  - C1_PLASGNEDIT
  - C1_PRICEASGN_BO
  - C1_F_ADDPLBO
  - C1-AccountBO
- The following screens are enhanced to support the above business objects:
  - Audit Event Type
  - Audit Event
- Now, the system also allows you to search for audit events, which are created for the following entities, using the **Audit Event** screen:
  - Account
  - Price List
  - Price List Assignment
  - Price Assignment

FOP Reporting

The following changes are made to the FOP Reporting feature:

- Earlier, the following properties for the FOP Reporting module were defined in the spl.properties file:

    - ouaf.runtime.billView.directoryPath

    - ouaf.runtime.reportView.directoryPath

    - ouaf.application.reportingDir

    Now, a new feature configuration named **C1-REPORTVW** is introduced in this release. It enables you to define the above properties which were earlier derived from the spl.properties file. Depending on whether you are using the ORMB On Premise, Cloud Service, or Cloud Service Premium Edition environment, you need to accordingly set the **C1-REPORTVW** feature configuration. It contains the following option types:

    - **Report Download HTTP URL** – Used to specify the HTTP servlet using which you want to download and view the FOP reports that are generated in the online mode. You must specify the URL in the following format:

        https://ipaddress:port/ouaf/reportView

    - **Report Generation (FOP) File Path** – Used to specify the directory where you want to store the FOP reports which are generated either from the user interface or through a batch process. For example, if you are using an ORMB On Premise or Cloud Service environment, you may set it to @SHARED_DIR/output or @INSTALL_DIR/output. However, if you are using an ORMB Cloud Service Premium Edition environment, you may set it to file-storage://Extendable_lookup/Container.

    - **Report Generation XSL Template File Path** – Used to specify the directory from where the respective XSL file must be used while generating an FOP report. For example, if you are using an ORMB On Premise or Cloud Service environment, you may set it to @SHARED_DIR/xsl or @INSTALL_DIR/xsl. However, if you are using an ORMB Cloud Service Premium Edition environment, you may set it to file-storage://Extendable_lookup/Container.

    - **Report Generation XML Data File Path** – Used to specify the directory where the data from the system should be extracted in the XML format through an FOP report. For example, if you are using an ORMB On Premise or Cloud Service environment, you may set it to @SHARED_DIR/extractxml or @INSTALL_DIR/extractxml. However, if you are using an ORMB Cloud Service Premium Edition environment, you may set it to file-storage://Extendable_lookup/Container.

File Upload Interface

The following changes are made to the File Upload Interface feature:

- If the **File Encryption Required** option is selected in the file request type, the system decrypts the encrypted file on the SFTP server while uploading and transforming a file through the **C1-FTRAN** batch. The **C1-FRDALG** algorithm is used to decrypt the file using the keystore. Earlier, to generate the keystore, the required details were specified in the following file of the templates directory:

  FW_spl.properties.keystore.truststore.include

  Now, a new feature configuration named **C1-FLUPLD** is introduced in this release. It enables you to specify the required details for keystore generation which was earlier derived from the FW_spl.properties.keystore.truststore.include file. Depending on whether you are using the ORMB On Premise, Cloud Service, or Cloud Service Premium Edition environment, you need to accordingly set the **C1-FLUPLD** feature configuration. It contains the following option types:

  - **File Decryption Key Alias** – Used to specify the alias using which you want to encrypt or decrypt passwords to access the keystore. By default, it is set to **ouaf.system**.
  - **Key Store File Path** – Used to specify the directory where you want to store the keystore file.
  - **Key Store Mode** – Used to specify the mode using which you want to encrypt or decrypt a keystore file. By default, it is set to **CBC** (i.e. Cipher-block Chaining)
  - **Key Store Padding** – Used to specify the padding using which you want to encrypt or decrypt a keystore file. By default, it is set to **PKCS5Padding**.
  - **Key Store Password File Path** – Used to specify the directory where you want to store the keystore password file.
  - **Key Store Type** – Used to indicate the type of keystore file you want to create. By default, it is set to **PKCS12**.
  - **Private Key File Path** – Used to specify the directory where you want to store the private key file.

Payment Request

The following changes are made to the Payment Request feature:

- Earlier, a To Do was not created when a payment request was rejected by an approver. Now, the system enables you to create a To Do when an approver rejects a payment request. A new parameter named **To Do Type** is added in the **C1-PAY-RJT** algorithm which is attached to the **Rejected** status in the lifecycle of the **C1-PaymentRequest** business object. The **C1-PAYRJ** To Do type is created in this release. By default, **C1-PAYRJ** is specified in the **To Do Type** parameter of the **C1-PAY-RJT** algorithm. You can specify a custom To Do type, if required.

  On rejecting a payment request, the system creates a To Do using the To Do type which is specified in the **To Do Type** parameter of the **C1-PAY-RJT** algorithm.

- Now, while rejecting a payment request, you can specify comments along with the reason for rejection. A new field named **Comments** is available while rejecting a payment request.

- Now, you can define characteristics for a payment after creating the payment through a payment request. A new column named **Payment Characteristics** appears in the **Payment Distribution** zone of the **Payment Request** screen once the payment is created through a payment request. On clicking the **Characteristic** button, the **Payment Characteristics** screen appears where you can define, edit, and delete the characteristic from the payment. If the approval process is configured in the respective payment request type, the system enables you to define, edit, and delete the characteristics of the payment before submitting the payment request for approval. The approver can also define, edit, and delete the required characteristics from the payment before approving or rejecting the payment request. You can anytime update the characteristics of a payment through the **Payment Request** screen even when the respective payment request is processed.

- Similarly, the system allows you to copy the characteristics of a payment which is transferred through a payment transfer request. A new column named **Payment Characteristics** appears in the **Payment Distribution** zone of the **Payment Request** screen once the payment is transferred through a payment transfer request. On clicking the **Characteristic** button, the **Payment Characteristics** screen appears where you can view all characteristics of the payment which is transferred. You can then define, edit, and delete the required characteristics from the new payment. If the approval process is configured in the respective payment request type, the system enables you to define, edit, and delete the required characteristics from the new payment before submitting the payment request for approval. The approver can also define, edit, and delete the required characteristics from the new payment before approving or rejecting the payment transfer request. You can anytime update the characteristics of a new payment through the **Payment Request** screen even when the respective payment transfer request is processed.

Refund Request

The following changes are made to the Refund Request feature:

- Until now, while creating a refund request, the system defaulted the account's main customer address. The system considered either of the following address types in the specified sequence:

  1. Person Mailing
  2. Account Override

  Due to the hard coded defaulting, the custom address types were not supported. Now, while creating a refund request, the system derives the address to which refund should be sent for the account using the following option types of the **C1-ADDRESS** feature configuration:

  - **Address Source for Refund Request** - Used to indicate the source from where the system derives the address for a refund request. Here, you must specify a value which is already defined in the **BILL_ADDR_SRCE_FLG** lookup field.

  - **Address Type for Refund Request** - Used to indicate the type of address that you want to use in a refund request. Here, you must specify a value which is already defined in the **ADDRESS_TYPE_FLG** lookup field.

While deriving the address of the specified address type from the specified address source, the system considers the address which is effective on the refund request creation date. Once the address is derived, the system stores the address in the refund request. If the system could not derive an effective address for a refund request using the **C1-ADDRESS** feature configuration or if the **C1-ADDRESS** feature configuration is not setup, the system derives the default address for the refund request in the traditional manner.

- Earlier, you were able to override the default address manually by entering a new address in the refund request. Now, the system enables you to override the default address in either of the following two ways:

   o **Fetch Address Using the Search Feature** – While editing a refund request, you can click the **Search** icon corresponding to the **Address Line 1** field. The **Search** icon appears only when the **Override Address** option is selected and the **Enter Address Manually** option is deselected. All the address fields are disabled when the **Search** icon appears corresponding to the **Address Line 1** field.

      On clicking the **Search** icon, the **Address Search** window appears. The system, by default, lists all addresses of the account and its main customer which are effective on the system date. You can then select the required address for the refund request. The **Address Search** window also allows you to filter the addresses based on the address source and address type.

   o **Enter Address Manually** - While editing a refund request, you can click the **Enter Address Manually** option and manually enter the required address in the respective fields. All the address fields are enabled only when you select both the **Override Address** and **Enter Address Manually** options.

Payment Agreement Request

The following changes are made to the Payment Agreement Request feature:

- Earlier, when an automatic payment was created on a payment schedule through a payment agreement request, the system used to create the automatic payment against the suspense contract of the account. According to the health insurance business, the automatic payment on a payment schedule should be created against the bill and not against the suspense contract of the account. The system behavior was not as per the expectation of the health insurance business.

   To provide a workaround for this issue, we recommend you to specify the **BILWPRPD** match type in the **Open-Item Account Match Type Code To Be Used For Bills** parameter of an algorithm which is created using the **APAY-CREATE** algorithm type and attached to the **Automatic Payment Creation** system event in the **Installation Options – Framework** screen. If you do not have the **BILWPRPD** match type, you can specify a custom match type which is created with the following specifications:

   o **Payment Distribution Override Algorithm** - C1-PYBLPRPD (Note that this algorithm is specific to the health insurance domain.)

   o **Manual Distribution Algorithm** - C1-MDBYBILL

o   **Entity Type** - Bill

o   **Match Type Search Zone** - C1_ACCT_SRCH

o   **Entity Flag** - Bill

Note: This workaround is applicable only when you want to use the auto pay feature with payment agreement request.

The **C1-PYBLPRPD** algorithm has one limitation that at a time it can create a payment against a single bill. Therefore, while creating a payment agreement request, you should include only one bill in the payment agreement request. We will overcome this limitation in the upcoming release. At present, if you want to create an automatic payment against the bill on a payment schedule through a payment agreement request, you need to specify a match type with the above mentioned payment distribution override algorithm.

You can specify multiple payment schedules for a single bill in a payment agreement request. This helps to accept payments for a bill with a huge bill amount in installments. Now, when you execute the **Generate Automatic Payment for Payment Agreement Request (C1-APPAB)** batch, the system will create an automatic payment against the unpaid bill on the schedule date which is earlier than or equal to the batch business date. A new payment event is created for the automatic payment and the status of the automatic payment is set to **Pending**. You can then execute the following batches in the specified sequence:

1.   Activate Automatic Payments (ACTVTAPY)
2.   Extract Automatic Payments (APAYACH)
3.   Distribute and Freeze Automatic Payments (APAYDSFR)
4.   Create Tender Controls for Automatic Payments (BALAPY)

Note that the **Generate Automatic Payment for Payment Agreement Request (C1-APPAB)** batch will create an automatic payment for a single payment schedule of a payment agreement request at a time. However, if there are multiple payment schedules whose schedule date is earlier than or equal to the batch business date, the system creates an automatic payment for a payment schedule with the oldest date and ignores the other payment schedules of the payment agreement request. Once you complete the above listed batch cycle (i.e. C1-APPAB, ACTVTAPY, APAYACH, APAYDSFR, BALAPY), you can create an automatic payment for another payment schedule of the payment agreement request. In other words, you need to rerun the batch cycle to create an automatic payment for another payment schedule of the payment agreement request. Each time an automatic payment is created on a new payment event.

- Two columns named **Start Date** and **End Date** are added in the **Search Results** section of the **Auto Pay ID Search** window. This helps you to select an auto pay ID which is effective on the payment schedule date. Note that the system only supports the non-rule based auto pay instructions of the account where the percentage is set to 100.

- Now, once an automatic payment is created on a payment schedule, the payment event details appear corresponding to the payment schedule in the **Payment Agreement Request** screen.

Enhancements (Specific to Financial Services)

This section lists the enhancements made to the following features which can be used in the financial services domain:

- [Creating Deal Using a Deal Template](#)
- [Price Item Selection in Deal](#)
- [C1-DEAL Feature Configuration](#)
- [C1_PRICING Feature Configuration](#)
- [Deal Approval Profile](#)
- [Bill Factor Consideration During Deal Simulation](#)
- [C1-DealCreationUpdateIWS Business Service](#)
- [Deal Dashboard Default View](#)
- [C1-DealPriceAsgnCommitmentBS Business Service](#)
- [Deal Information](#)
- [Pricing and Commitments in a Deal](#)
- [Deal Approval Workflow](#)
- [Chatbot](#)
- [Billing Anomaly Detection](#)

Creating Deal Using a Deal Template

The following changes are made to this feature:

- Earlier, while creating a deal using a deal template, the system did not copy the price item selection and terms and conditions selection from the deal template. Now, when you create a deal using a deal template, the system copies the following information along with the basic, pricing, and/or usage details from the deal template:

    o **Price Item and Hierarchy Entity Selection** – For example, if you are creating a deal (i.e. DL10) using a deal template (i.e. DLT1) where the following price items are selected:

Price Item	Selection
PI1	N
PI2	Y
PI3	N
PI4	Y
PI5	Y

    Then, the system copies the above price item selection from the DLT1 deal template to the DL10 deal.

○ **General Terms and Conditions Selection at the Deal, Price Item, and Hierarchy Entity Levels** - For example, if you are creating a deal (i.e. DL10) using a deal template (i.e. DLT1) where the following terms and conditions are selected at the deal level:

Terms and Conditions	Selection
T1	N
T2	N
T3	Y
T4	Y

Then, the system copies the above terms and conditions selection from the DLT1 deal template to the DL10 deal. Similarly, the system copies the terms and conditions selection of each price item and hierarchy entity from the DLT1 deal template to the DL10 deal.

Points to Note:

If a particular terms and conditions (for example, T11) selected at the deal, price item, or hierarchy entity level in a deal template is in the Inactive status while creating a deal using the deal template, the system will not display the T11 terms and conditions against the respective level in the new deal. Also, if a particular terms and conditions (for example, PIT12) selected at the price item or hierarchy entity level in a deal template is not effective while creating a deal using the deal template, the system will not display the T11 terms and conditions against the respective level in the new deal.

If a particular terms and conditions (for example, T10) is applicable to a deal, but was either not present or active while creating a deal template, the system will list the T10 terms and conditions in the new deal. Also, if a particular terms and conditions (for example, PIT10) is effective for a price item or hierarchy entity within the new deal start and end dates, but was not present, active, or effective while creating a deal template, the system will list the PIT10 terms and conditions against the price item or hierarchy entity in the new deal.

○ **Overridden General Terms and Conditions at the Deal, Price Item, and Hierarchy Entity Levels** - For example, if you are creating a deal (i.e. DL10) using a deal template (i.e. DLT1) where the following terms and conditions are overridden at the deal level:

Terms and Conditions	Selection	Original Text	Overridden Text
T1	N	T&C 1	T&C 1; Additional Clause 1
T2	N	T&C 2	-
T3	Y	T&C 3	-
T4	Y	T&C 4	T&C 4; Additional Clause 1

Then, the system copies the overridden terms and conditions from the DLT1 deal template to the DL10 deal. Similarly, the system copies the overridden terms and conditions of each price item and hierarchy entity from the DLT1 deal template to the DL10 deal.

o **Adhoc Terms and Conditions at the Deal, Price Item, and Hierarchy Entity Levels** - For example, if you are creating a deal (i.e. DL10) using a deal template (i.e. DLT1) where the following adhoc terms and conditions are defined at the price item level:

Price Item	Adhoc Terms and Conditions
PI1	Adhoc T&C for PI1
PI2	Adhoc T&C for PI2
PI3	Adhoc T&C for PI3
PI4	Adhoc T&C for PI4
PI5	Adhoc T&C for PI5

Then, the system copies the adhoc terms and conditions of each price item from the DLT1 deal template to the DL10 deal. Similarly, the system copies the adhoc terms and conditions of the deal and each hierarchy entity from the DLT1 deal template to the DL10 deal.

Note: While creating a deal using a deal template, the system does not refer the **Price Item Group List Filter**, **Price Item Selection Validation**, **Terms and Conditions Filter**, and **Terms and Conditions Selection Validation** system events in the respective deal type.

Price Item Selection in Deal

The following changes are made to the **Price Item Group Selection** screen:

- This screen is redesigned and renamed to **Price Item Selection**. Now, it contains three sections – **Filters**, **Price Item Hierarchy**, and **Additional Price Items**.

- Earlier, it had a generic search field in the **Filters** section which enabled you to search for a price item using the price item description or pricing parameters as the filter criteria. Now, the following fields are added in the **Filters** section:

  o **Hierarchy Entity** – Used to search for price items which are associated with a hierarchy entity in an entity hierarchy relationship. It is a multi-combo box field which enables you to select one or more hierarchy entities from the list. The list includes all those hierarchy entities to which the price items assigned in the customer's hierarchy are associated.

  o **Price Item** – Used to search for a price item. It is a multi-combo box field which enables you to select one or more price items from the list. If the hierarchy entities are selected from the respective field, the list includes all those price items which are associated the selected hierarchy entities. For example, if you have selected the H001 and H002 hierarchy entities, the system will list only those price items which are associated with the H001 and H002 hierarchy entities.

However, if the hierarchy entities are not selected from the respective field, the list includes all price items which are assigned in the customer's hierarchy.

- o **Pricing Parameters** – Used to search for price items for which the pricing is defined using a particular parameter and parameter value combination. It is a multi-combo box field which enables you to select one or more pricing parameters from the list. If the price items are selected from the respective field, the list includes all those pricing parameters using which the pricing is defined for the selected price items.

- o **Advanced Filter** – It contains the following two options:

  - **Selected Price Items** – Used to search for price items which are selected for the simulation in the deal.

  - **Price Items with Usage** – Used to search for price items for which charges exist for the entity.

Let us assume that a deal is created for a customer who has the following price items assigned at different assignment levels:

Hierarchy Entity	Price Item	Pricing Parameters	Assignment Level
H001	PI1	Country=US, Currency=USD	Customer Agreed
	PI2	Country=US, Currency=USD	Account Agreed
	PI2	Country=US, Currency=INR	Customer Price List
	PI1	Country=US, Currency=INR	Customer Agreed
	PI1	Country=IN, Currency=INR	Global Price List

If you select H001 as the filter criteria from the **Hierarchy Entity** list, the system will display the following in the price item list – PI1, PI2, and PI3. If you select PI1 as the filter criteria from the **Price Item** list, the system will display the following in the pricing parameters list - Country=US, Currency=USD; Country=US, Currency=INR; and Country=IN, Currency=INR. If you select the H001, PI1, and Country=US, Currency=USD as the filter criteria, the system will list the PI1 whose pricing is defined in the global price list when you apply the filters.

- The following buttons are added in the **Filters** section:

  - o **Apply** – Used to filter the data based on the specified criteria.

  - o **Clear All** – Used to clear the filter criteria.

- The **Additional Price Items** section is added in this screen. It appears only when you assign an additional price item to the entity for which the deal is created.

- Earlier, a comma separated list of pricing parameters in the **Parameter Code = Parameter Value, Parameter Code = Parameter Value** format used to appear in the **Pricing Parameters** column. Now, instead of the parameter code, the description of the parameter will appear in the concatenated string.

- The **Previous**, **Next**, and **Clear Filter** buttons are added in the **Price Item Hierarchy** section. Note that the **Previous** and **Next** buttons appear only when the **C1-DPIG-ELIG** algorithm is attached to the **Price Item Group List Filter** system event in the respective deal type.

- All buttons (i.e. **Previous**, **Next**, **Clear Filter**, **Expand All**, **Collapse All**, **Select All**, and **Deselect All**) appear in the header area of the **Price Item Hierarchy** section.
- The width of the columns in the **Price Item Hierarchy** section is now adjustable.

C1-DEAL Feature Configuration

The following option types are newly added to the **C1-DEAL** feature configuration:

- **Create Bespoke Price List during Orchestration** - Used to indicate whether the system should create bespoke price lists or effective pricing for the customers and accounts during deal orchestration. The valid values are **Y** and **N**. This option type is not mandatory. If you do not set this option type, the system, by default, creates effective pricing for the customers and accounts during deal orchestration.

- **Assignment Limit for Online Deal Orchestration** - Used to determine whether the bespoke price lists should be created and assigned to the customers and accounts in the online or deferred mode. If the number of price assignments in the customer hierarchy does not exceed the specified limit, the system creates the bespoke price lists and assigns it to the customers and accounts immediately. However, if the number of price assignments in the customer hierarchy exceeds the specified limit, the system changes the status of the deal to **Orchestration Deferred**.

- **Deal Pricing Download** – Used to specify the report code using which you want to download the pricing and commitments of a deal in the **Excel** format.

- **Service Quantity Update Type** – Used to indicate whether you want to specify absolute or incremental commitments for the SQIs in the **Pricing and Commitments** screen. The valid values are:

  - **AB** – Used when you want to specify absolute commitments for the SQIs in a deal.

  - **AR** – Used when you want to specify an incremental value with respect to the original volume for the SQIs in a deal. The system will then derive the commitments by adding the specified value to the original volume.

  - **PR** - Used when you want to specify an incremental value with respect to the proposed commitments for the SQIs in a deal. The system will then derive the revised commitments by adding the specified value to the proposed commitments.

- **Deal Dashboard Default View** - Used to indicate whether the system should list the information of deals, which are created by the logged in user or which are created by a set of users who belong to the logged in user's access group, by default, in the **Deal Dashboard** screen. The valid values are:

  - **U** – Used when you want to view the information of deals, which are created by the logged in user, by default, in the **Deal Dashboard** screen.

  - **UG** - Used when you want to view the information of deals, which are created by a set of users who belong to the logged in user's access group, by default, in the **Deal Dashboard** screen.

  If you do not set this option type, the system, by default, shows the data of the logged in user, in the **Deal Dashboard** screen.

C1_PRICING Feature Configuration

The following option type is newly added to the **C1_PRICING** feature configuration:

- **Associating Price Items For Relationship Type** – Used to specify the relationship type using which you want to associate two price items in order to offer relationship based pricing in a deal. You must specify a value which is already defined in the **PRICEITEM_REL_TYPE_FLG** lookup field.

Deal Approval Profile

The following changes are made to the **Deal Approval Profile** screen:

- Earlier, you were able to define a criteria for each approval level in the approval hierarchy of a deal approval profile. You were able to define the following values in the criteria: **Minimum Profitability (%)**, **Maximum Profitability (%)**, **Minimum Profit**, **Maximum Profit**, **Minimum Profit Variation (%)**, **Maximum Profit Variation (%)**, **Minimum Profit Variation**, **Maximum Profit Variation**, **Minimum Revenue**, and **Maximum Revenue**. If the **Assign Only If In Range** field in the respective deal type was set to **Yes**, the system used to assign the deal to the next level in the approval hierarchy only if the profitability, profit, profit variation, and revenue of the deal was within the specified range limit (i.e. if the criteria is met) of the next level. However, if the **Assign Only If In Range** field in the respective deal type was set to **No**, the system used to assign the deal to the next level in the approval hierarchy without validating the criteria of the next level.

  Now, the system enables you to define multiple set of criteria for an approval level. Each criteria should have a unique sequence. In each criteria, you can set the following attributes - **Criteria Sequence**, **Profitability Type**, **Minimum Profitability**, **Maximum Profitability**, **Profit Variation Type**, **Minimum Profit Variation**, **Maximum Profit Variation**, **Minimum Revenue Amount**, **Maximum Revenue Amount**. All the attributes are not mandatory. The system executes each criteria of an approval level in the specified sequence. If the criteria at a particular sequence is met, the system does not execute the criteria in the subsequent sequence of the approval level.

  Earlier, if all the conditions in the criteria at the next level were met, the system used to assign the deal to the next level for approval. Now, you can set the operator for each criteria. If the operator in the criteria is set to **AND**, the system assigns the deal to the next level when all the conditions in the criteria of the next level are met. However, if the operator in the criteria is set to **OR**, the system assigns the deal to the next level when at least one condition in the criteria of the next level is met.

  Let us assume that the following criteria is defined for different levels in a deal approval profile:

Approval Level	Criteria Sequence	Profitability Type	Minimum Profitability	Maximum Profitability	Minimum Revenue Amount	Maximum Revenue Amount	Operator
Level 0	10	Percentage	40	70	50000	100000	AND
	20	Flat Amount	3000	5000	40000	90000	OR
Level 1	10	Flat Amount	4000	7000	30000	90000	OR

Approval Level	Criteria Sequence	Profitability Type	Minimum Profitability	Maximum Profitability	Minimum Revenue Amount	Maximum Revenue Amount	Operator
	20	Flat Amount	5000	9000	40000	100000	AND
Level 2	10	Percentage	40	70	50000	100000	OR
	20	Flat Amount	3000	5000	40000	90000	OR

Now, when the relationship manager (at Level 0) sends the deal to the next level for approval, the system checks whether the criteria of Level 1 is satisfied. It first executes the criteria with sequence 10. As the criteria operator of the respective sequence is set to **OR**, the system checks the following:

- Whether the deal profitability is within the specified range
- Whether the deal revenue is within the specified range

If both or any of the above conditions is met, the system assigns the deal to the users of Level 1 for approval. However, if both the conditions are not met, the system executes the criteria with the subsequent sequence. As the criteria operator of the subsequent sequence is set to **AND**, the system checks the following:

- Whether the deal profitability is within the specified range
- Whether the deal revenue is within the specified range

If both the above conditions are met, the system assigns the deal to the users of Level 1 for approval. But, if both the above conditions are not met, the deal is not assigned to the next level for approval. Also, if none of the criteria with different sequence (i.e. 10, 20) at Level 1 are met, the deal is not assigned to the next level for approval.

If you do not specify any value in the **Minimum Profitability**, **Maximum Profitability**, **Minimum Profit Variation**, **Maximum Profit Variation**, **Minimum Revenue Amount**, or **Maximum Revenue Amount** field while defining a criteria for an approval level, the system will set its value to 0. If both the minimum and maximum fields are set to zero, the system does not validate the financial summary against the respective minimum and maximum range and considers that the financial summary is within the minimum and maximum range.

- While defining or editing a deal approval profile, the following columns are not available in the **Approval Hierarchy** section - **Minimum Profitability (%)**, **Maximum Profitability (%)**, **Minimum Profit**, **Maximum Profit**, **Minimum Profit Variation (%)**, **Maximum Profit Variation (%)**, **Minimum Profit Variation**, **Maximum Profit Variation**, **Minimum Revenue**, and **Maximum Revenue**. Instead, the **Approval Level Criteria** column is added to the **Approval Hierarchy** section.
- On clicking the **Add** icon in the **Approval Level Criteria** column corresponding to an approval level, a grid appears with the following columns – **Criteria Sequence**, **Profitability Type**, **Minimum Profitability**, **Maximum Profitability**, **Profit Variation Type**, **Minimum Profit Variation**, **Maximum Profit Variation**, **Minimum Revenue Amount**, **Maximum Revenue Amount**, and **Conditional**

Operator. This gird enables you to define multiple criteria with unique sequence number for the approval level.

- If the profitability type is set to **Percentage**, you must specify the percentage value in the **Minimum Profitability** and **Maximum Profitability** fields. However, if the profitability type is set to **Flat Amount**, you must specify the flat amount in the **Minimum Profitability** and **Maximum Profitability** fields. Similarly, if the profit variation type is set to **Percentage**, you must specify the percentage value in the **Minimum Profit Variation** and **Maximum Profit Variation** fields. However, if the profit variation type is set to **Flat Amount**, you must specify the flat amount in the **Minimum Profit Variation** and **Maximum Profit Variation** fields.

- Earlier, if the **Approve Deal** option was set to **Yes** for Level 0, all users with the respective To Do role were able to approve the deal including the deal creator. Now, a new column named **Enable Self-Approval** is introduced in the **Approval Hierarchy** section. If you set the **Enable Self-Approval** option to **No** at Level 0, the system will allow all users with the respective To Do role except the deal creator to approve the deal. However, if you set the **Enable Self-Approval** option to **Yes** at Level 0, the system will allow all users with the respective To Do role including the deal creator to approve the deal. Note that this option is not applicable for others level in a deal approval profile.

- Earlier, the deal used to move sequentially for approval as designed in the approval hierarchy of the deal approval profile. Now, the system enables you to skip the approval levels based on the requirements. A new algorithm spot named **Fetch Next Approver Level** is available while defining or editing a deal type. You need to create a custom algorithm and attach it to the **Fetch Next Approver Level** system event. The custom algorithm should return the next approval level. The algorithm spot is invoked when you click the **Send Deal for Approval** button. If the algorithm is attached to the **Fetch Next Approver Level** system event, the system invokes the algorithm when you click the **Send Deal for Approval** button. Based on the level returned by the algorithm, the system will assign the deal to the respective level for approval. For example, if the algorithm returns Level 4, the system will assign the deal to Level 4 for approval when the relationship manager (at Level 0) clicks the **Send Deal for Approval** button. However, if the algorithm is not attached to the **Fetch Next Approver Level** system event, the system assigns the deal to the next level in the approval hierarchy.

- The system enables you to define a custom approval level criteria. You can create a custom algorithm and attach it to the **Custom Approver Level Criteria** system event in the respective deal type. Once the approval level criteria is validated and irrespective of whether it is met or not, the system checks whether an algorithm is attached to the **Custom Approver Level Criteria** system event in the respective deal type. If the algorithm is attached to the **Custom Approver Level Criteria** system event, the system validates the custom criteria. If the custom criteria is met, the system assigns the deal to the next level in the approval hierarchy. However, if the custom criteria is not met, the system does not assign the deal to the next level in the approval hierarchy.

  If the algorithm is not attached to the **Custom Approver Level Criteria** system event, the system assigns the deal to the next level in the approval hierarchy only when the approval level criteria is met.

Bill Factor Consideration During Deal Simulation

Earlier, a bill factor specified in a rate component was skipped and not considered for revenue calculation during deal simulation. As a result, the calculated revenue in the deal, product, and division level financial summary was incorrect. This was mainly because we do not maintain the contract details of the accounts in a deal whereas the same is required by the bill factor module. Now, a new session variable named **Simulation Switch** is introduced. If the **Simulation Switch** variable in the session is set to **Y**, the system will skip the contract ID validation so that bill factors are considered for revenue calculation during deal simulation.

While calculating a charge using a rate component whose value source is a bill factor, the system retrieves the characteristic which is mapped to the bill factor from the account or main customer of the account depending on the bill factor's characteristic source. Note that the system considers the characteristic which is effective on the bill segment start date. Depending on the characteristic value, the system derives the bill factor value which is effective on the date that is specified in the **Rate Selection Date Option** parameter of the **C1-BFRDATE** algorithm (attached to the bill factor). You can set either of the following values in the **Rate Selection Date Option** parameter:

- **A** – Used when you want to derive the bill factor value which is effective on the accounting date.
- **E** – Used when you want to derive the bill factor value which is effective on the bill segment end date.
- **S** – Used when you want to derive the bill factor value which is effective on the bill segment start date.

Note: If the **C1-BFRDATE** algorithm is not attached to the bill factor, the system derives the bill factor value on the pro-rated basis.

However, while calculating revenue in the deal using a rate component whose value source is a bill factor, the system retrieves the characteristic which is mapped to the bill factor from the account or main customer of the account depending on the bill factor's characteristic source. Note that the system considers the characteristic which is effective on the deal creation date. Depending on the characteristic value, the system derives the bill factor value in the following manner:

- If the **Rate Selection Date Option** parameter of the **C1-BFRDATE** algorithm is set to **A** or **S**, the system derives the bill factor value which is effective on the deal creation date.
- If the **Rate Selection Date Option** parameter of the **C1-BFRDATE** algorithm is set to **E**, the system derives the bill factor value which is effective on the deal creation date + deal frequency.

Note: The bill factors where the characteristic source is set to **Account**, **Characteristics Collection**, **Main Person**, or **N/A** are valid and considered during deal simulation.

While simulating a deal where the simulation type is set to **Deal**, the system will skip the bill factors where the characteristic source is set to **Account** (if any used in the rate component). An appropriate warning message will appear for the same in the application log. Ensure that you setup the rate components correctly.

C1-DealCreationUpdateIWS Business Service

The following changes are made to the **C1-DealCreationUpdateIWS** business service:

- You can now add log entries for a deal and its deal version through the SOAP or REST based inbound web service. While adding a log entry for a deal or its deal version, you must set the action flag to **UPD**.

- The following tags are newly introduced in the **C1-DealCreationUpdateIWS** schema which enables you to add log entries for a deal and its deal version:

Parent Tag	Child Tags
<dealDetails>	<dealCommentsReasonCode></dealCommentsReasonCode> <dealComments></dealComments> <modelComments></modelComments>

The former two tags are used to add a log entry for a deal. However, the latter tag is used to add a log entry for a deal version. You must specify an approval workflow reason where the reason category is set to **Deal General** in the **dealCommentsReasonCode** tag.

- You can also view the log entries of a deal and its deal version through the SOAP or REST based inbound web service. While viewing the log entries of a deal and its deal version, you must set the action flag to **READ**.

- The following tags are newly introduced in the **C1-DealCreationUpdateIWS** schema which enables you to view the log entries of a deal and its deal version:

Parent Tag	Child Tags
<schema>	<dealComments> <sequenceNo></sequenceNo> <commentsDateTime></commentsDateTime> <user></user> <dealComments></dealComments> <reasonCode></reasonCode> </dealComments> <modelcomments> <sequenceNo></sequenceNo> <commentsDateTime></commentsDateTime> <user></user> <modelComments></modelComments> </modelcomments>

Deal Dashboard Default View

Earlier, the **Deal Dashboard** screen displayed the data of the relationship manager who had logged into the system. Now, a toggle button is available in the **Deal Metrics** zone of the **Deal Dashboard** screen. It enables you to switch or toggle between the following views:

- **User View** – In this view, the screen works in the traditional manner. The deal metrics and statistics are shown for the deals which are created by the logged in user (i.e. relationship manager). Also, the deals created by the relationship manager within the date range are listed in the **Search Deals** zone. By default, the **User View** is turned on in the **Deal Dashboard** screen.

- **User's Access Group View** – In this view, the data of all users, who belong to the logged in user's access group, is consolidated and shown in the **Deal Dashboard** screen. For example, U1, U2, and U3 belong to the same access group and U2 has logged in, the system displays the consolidated data of U1, U2, and U3 in the **Deal Dashboard** screen. The deal metrics and statistics are shown for the deals which are created by the users which belong to the logged in user's access group. Also, the deals created by all users of the logged in user's access group within the date range are listed in the **Search Deals** zone.

> **Note:** The system, by default, derives the date range based on the value specified in the **Deal Limits in months** option type of the **C1-DEAL** feature configuration.

You can change the default view of the **Deal Dashboard** screen. A new option type named **Deal Dashboard Default View** is introduced in the **C1-DEAL** feature configuration. It is used to indicate whether the system should list information of the deals, which are created by the logged in user or which are created by a set of users who belong to the logged in user's access group, in the **Deal Dashboard** screen. The valid values are **U** and **UG**. If you do not set this option type, the system, by default, shows the data of the logged in user in the **Deal Dashboard** screen.

C1-DealPriceAsgnCommitmentBS Business Service

The following changes are made to the **C1-DealPriceAsgnCommitmentBS** business service:

- You can indicate whether the service quantity specified for an SQI is an absolute or incremental value while adding or updating commitments through an inbound web service.

- The following tag is newly introduced in the **C1-DealPriceAsgnCommitmentBS** schema which indicates whether the SQI value is an absolute or incremental value:

Parent Tag	Child Tag
<SQIDetails>	<sqiUpdateTypeFlg></sqiUpdateTypeFlg>

- You can specify either of the following values in the **sqiUpdateTypeFlg** tag – **AB**, **AR**, or **PR**.

- If the value for the **sqiUpdateTypeFlg** tag is not received while adding or updating commitments through an inbound web service, the system refers the **Service Quantity Update Type** option type of the **C1-DEAL** feature configuration.

Deal Information

The following changes are made to the **Deal Information** screen:

- The screen which is used to view the details of a deal is completely redesigned. Now, the **Pages** panel do not appear in the **Deal Information** screen when you view the details of a deal. The **Simulation Details** zone is removed from the screen. Now, the **Deal Information** zone contains four sections named **Deal Information**, **Deal Financial Summary**, **Division Financial Summary**, and **Product Financial Summary** along with a section that shows the customer hierarchy of a deal. The **Division Financial Summary** and **Product Financial Summary** sections appear only when the **Division Level Approval Required** and **Product Level Approval Required** fields are set to **Yes**, respectively, in the respective deal type.

- The **Deal Status** and **Deal Version Status** are now shown in the header of the **Deal Information** section.

- The **Approval Status** column is removed from the **Deal Financial Summary**, **Division Financial Summary**, and **Product Financial Summary** sections. Instead, the **Approved** icon appears in the header of the **Deal Financial Summary**, **Division Financial Summary**, and **Product Financial Summary** sections when the respective financial summary is within the limits of the approver.

- The **Revenue Variation(%)** column is added to the **Deal Financial Summary**, **Division Financial Summary**, and **Product Financial Summary** sections.

- The proposed vs original and proposed vs standard revenue variation appears in the product level, division level, and deal level financial summaries. Different color codes are used to differentiate between the two. The green or red arrow appears corresponding to the revenue variation to indicate whether there is an increase or decrease in the revenue variation.

- The proposed vs original and proposed vs standard profit variation appears in the product level, division level, and deal level financial summaries. Different color codes are used to differentiate between the two. The green or red arrow appears corresponding to the profit variation to indicate whether there is an increase or decrease in the profit variation.

- The proposed revenue, cost, profit, profitability(%), revenue variation(%), and profit variation(%) are shown in the header of the **Deal Financial Summary** section.

- If the **Standard Pricing Comparison** field is set to **Yes** in the respective deal type, four rows appear in the financial summary grid – one row shows the financial summary which is calculated using the original pricing, another row shows the financial summary which is calculated using the proposed pricing, third row shows the financial summary which is calculated using the standard pricing, and the fourth row shows the financial summary which is calculated using the recommended pricing (if any). However, if the **Standard Pricing Comparison** field is set to **No** in the respective deal type, three rows appear in the financial summary grid – one row shows the financial summary which is calculated using the original pricing, another row shows the financial summary which is calculated using the proposed pricing, and the third row shows the financial summary which is calculated using the recommended pricing (if any).

- Different color codes are used to differentiate between the proposed, original, and standard simulation data and financial summaries.

- The system highlights the cells in the product level, division level, and deal level financial summaries with either of the following color:
  - **Green** when the proposed statistic is within the range of the deal creator or approver

- o   **Red** when the proposed statistic is not within the range of the deal creator or approver

- The **Currency** toggle button appears in the header of the **Product Financial Summary** section. It helps to switch the financial summary in the deal or division currency.

- The proposed revenue, cost, profit, profitability(%), revenue variation(%), and profit variation(%) at the division level are shown in the header of the **Division Financial Summary** section. The financial summary in the header disappears when you expand the section. Instead, the **Currency** toggle button appears in the header when you expand the **Division Financial Summary** section.

- The **Compare Type** field is added in the **Customer Hierarchy** section. For more information about the field, refer to the [Original, Proposed, and Standard Simulation Data](#) section.

- The **Pricing and Commitments**, **Price List Assignment**, **Product Enrollment**, **Price Item Group Selection**, **Price List**, and **Product** columns are removed from the **Customer Hierarchy** section.

- The **Profit**, **Profitability(%)**, **Profit Variation**, and **Action** columns are added to the **Customer Hierarchy** section. The following options appear in the **Action** list - **View or Edit Pricing and Commitments**, **Select Price Items**, **View or Assign Proposed Price List**, and **View or Enroll Proposed Product**. On clicking the following option, you can navigate to the respective screen in deal:

Option	Screen
View or Edit Pricing and Commitments	Pricing and Commitments
Select Price Items	Price Item Selection
View or Assign Proposed Price List	Price List Assignment
View or Enroll Proposed Product	Product Enrollment

   Note that the **Select Price Items** option appears only at the parent level in the customer hierarchy.

- The **Deal Pricing and Commitments** button is removed from this screen.

- The **Download** and **Upload** buttons are available in the **Deal Information** screen. They are enabled only for the relationship manager. For more information about the feature, refer to the [Updating Pricing and Commitments of a Deal in the Offline Mode](#) section.

- Earlier, while simulating a deal, the system calculated the simulation data using the original pricing for all price items irrespective of whether they are selected or not. Now, while simulating a deal, the system calculates the simulation data using the original pricing only for those price items which are selected in the **Price Item Selection** screen.

Pricing and Commitments in a Deal

The following changes are made to the **Pricing and Commitments** screen:

- Earlier, a comma separated list of pricing parameters in the **Parameter Code = Parameter Value, Parameter Code = Parameter Value** format used to appear in the **Pricing Parameters** column. Now, instead of the parameter code, the description of the parameter will appear in the concatenated string.

- The **Additional Price Item** button is added in this screen. It enables you to add additional price items in a deal. For more information, refer to the [Assign Additional Price Items to Deal Entity](#) section.

- The **Original Data** toggle button is removed from the **Pricing and Commitments** section.

- The **Compare Type** field is added in the **Pricing and Commitments** section. For more information about the field, refer to the Original, Proposed, and Standard Simulation Data section.

- The **Select Column to Display** field is added to the **Pricing and Commitments** section. It enables you to add or remove the columns, which are marked as configurable in the respective deal type, from the **Pricing and Commitments** section. For more information about this feature, refer to the Configurable Fields for the Pricing and Commitments Screen section.

- The **Profit**, **Profitability(%)**, and **Profit Variation(%)** columns are newly added in the **Pricing and Commitments** section.

- The **Approver** and **Status** columns appear in the **Pricing and Commitments** section only when the **Price Item Approval Required** field is set to **Yes** in the respective deal type.

- Different color codes are used to differentiate between the proposed, original, and standard pricing and commitments.

- The proposed vs original and proposed vs standard revenue variation appears for each price item and pricing parameters combination. Different color codes are used to differentiate between the two. The green or red arrow appears corresponding to the revenue variation to indicate whether there is an increase or decrease in the revenue variation.

- The proposed vs original and proposed vs standard profit variation appears for each price item and pricing parameters combination. Different color codes are used to differentiate between the two. The green or red arrow appears corresponding to the profit variation to indicate whether there is an increase or decrease in the profit variation.

Deal Approval Workflow

The following changes are made to the deal approval workflow feature:

- If the **Propose Pricing** field at the approval level is set to **Yes**, the system enables the approver at the respective level to recommend pricing for a price item and pricing parameters combination in the deal. But, earlier, the **Recommend** link did not appear when the revenue amount of a price item and pricing parameters combination was zero. Now, the system enables an approver to recommend pricing for a price item and pricing parameters combination even when its revenue amount is equal to zero. The **Recommend** link appears in the **Pricing Information** column corresponding to all price items in the **Pricing and Commitments** screen irrespective of whether the proposed revenue amount is zero or not.

- Earlier, if there were multiple pricing for a price item with different pricing parameters (for example, PA1 for PI1 and Currency=USD and PA2 for PI1 and Country=US) and the approver recommended pricing for the PI1 and Currency=USD combination, the system added the recommended pricing not only for the PI1 and Currency=USD combination but also for the PI1 and Country=US combination. This issue is resolved. Now, in the above scenario, the system will add the recommended pricing only for the PI1 and Currency=USD combination and not for the PI1 and Country=US combination.

- Earlier, the approver was able to return the deal to the submitter only after simulating the deal. Now, the system allows the approver to return the deal to the submitter without simulating it. The **Return to Submitter** button will be enabled for an approver even if the approver has not simulated the deal. Only when the approver recommends pricing for any price item, deal simulation will be mandatory. In such case, the **Return to Submitter** button will be disabled for the approver until the deal is simulated.

- When an approver at any level simulates the deal, the system automatically approves the price items whose average price are within the approver's ceil and floor limits. Earlier, on returning the deal back to the submitter, the relationship manager was able to view the approval status of the price items. Now, the system provides the ability to hide the approval status of the price items from the relationship manager until the deal is approved. A new field named **Send Deal Back with Approvals** is added in the **Deal Approval Return To Submitter** screen. If you set the **Send Deal Back with Approvals** field to **Yes**, the system returns the deal to the submitter along with the price item approval status. However, if you set the **Send Deal Back with Approvals** field to **No**, the system returns the deal to the submitter without the price item approval status (i.e. the relationship manager will not be able to see the current approval status of the price items).

Chatbot

The following changes are made to the Chatbot feature:

- Now, on clicking the **Chatbot** icon, you need to re-authorize the access. Once the authentication is successful, the system does the following:

  - If you are using the deal management feature, the system checks whether there are any deals which are pending for approval by the logged in user. If there are no deals pending for approval by the logged in user, the system displays the **Main Menu** options. However, if there are any deals which are pending for approval by the logged in user, the system displays a message that indicates the number of deals which are pending for approval by the logged in user. In addition, the following options appear in the **Chatbot** window:

    - **View Pending Deals** – On clicking the **View Pending Deals** option, the system displays the information of the deals which are pending for approval along with aging days. At a time, the system displays the information of only four deals in the **Chatbot** window. You can navigate between the information of different deals by clicking the **Next** and **Previous** icons in the **Chatbot** window. To view the next set of deals which are pending for approval, you need to click the **Show Next Records** option. The system will then display the information of next four deals in the **Chatbot** window. The **More Details** option is available along with the deal information. On clicking the **More Details** option, the system displays the financial summary of the deal. In addition, the following options appear below the deal financial summary depending on status of the deal:

      - ❖ **Simulate** – Enables you to simulate the deal. On clicking the **Simulate** option, a message appears indicating whether the deal is simulated successfully or not.

      - ❖ **Send Deal for Approval** – Enables you to send the deal to the next level for approval. On clicking the **Send Deal for Approval** option, a message appears indicating that the deal is sent to the next level for approval.

❖ **Approve** – Enables you to approve the deal. On clicking the **Approve** option, a message appears indicating that the deal is approved successfully.

❖ **Return to Submitter** – Enables you to return the deal back to the submitter (i.e. relationship manager). On clicking the **Return to Submitter** option, a message appears prompting you to enter the reason why you want to return the deal to the submitter. Once you enter the reason, a message appears indicating that the deal is returned to the submitter successfully.

❖ **Print Deal** – Enables you to extract the deal information in the **Excel** or **PDF** format. On clicking the **Print Deal** option, the **Deal Extraction** window appears from where you can extract the deal information in the required format.

▪ **Main Menu** - On clicking the **Main Menu** option, the system displays the options of the main menu in the **Chatbot** window.

However, if you are not using the deal management feature, the system does not check whether there are any deals which are pending for approval by the logged in user. Instead, the system displays the options of the main menu in the **Chatbot** window.

- A new option named **Deal Info** appears in the **Main Menu**. On clicking the **Deal Info** option, the following options appear:

  o **Deals for Approval** – On clicking the **Deals for Approval** option, the system checks whether there are any deals which are pending for approval by the logged in user. If there are any deals which are pending for approval by the logged in user, the system displays a message that indicates the number of deals which are pending for approval by the logged in user. In addition, the following options appear in the **Chatbot** window:

    ▪ **View Pending Deals –** On clicking the **View Pending Deals** option, the system behaves in the same manner as mentioned above in this topic.

    ▪ **Main Menu** - On clicking the **Main Menu** option, the system displays the options of the main menu in the **Chatbot** window.

  o **Deal ID** – On clicking the **Deal ID** option, a message appears prompting you to enter the deal ID. On entering the deal ID, the deal information appears in the **Chatbot** window.

  o **Deal Identifier** - On clicking the **Deal Identifier** option, a message appears prompting you to enter the deal identifier. On entering the deal identifier, the deal information appears in the **Chatbot** window. You can use the wildcard character (%) while specifying the deal identifier. If there are multiple deals whose identifier matches the specified value, the system displays the information of all those deals that meet the criteria in the **Chatbot** window. You can then navigate between the information of different deals by clicking the **Next** and **Previous** icons in the **Chatbot** window.

- Earlier, to enable chatbot for ORMB and client-side authentication in the ORMB Chatbot channel, the com.oracle.oda.chatbot.intg.reqd and com.oracle.oda.channel.auth.enabled properties were set in the CCB_spl.properties.exit.include file, respectively. Now, a new feature configuration named **C1_CHATBOT** is introduced in this release. It enables you to set the properties which were earlier derived from the CCB_spl.properties.exit.include file. It contains the following option types:

    o **Enable chatbot in UI** – Used to enable or disable Chatbot in ORMB. The valid values are - **Y** and **N**.

    o **Enable Auth in chatbot** – Used to enable the client-side authentication in the ORMB Chatbot channel. The valid values are - **Y** and **N**.

Billing Anomaly Detection

To use the billing anomaly detection feature, you need to set the **Bill Readiness Feature Install Type** option type of the **C1-BRMLINOPS** feature configuration. It is used to indicate the environment in which you want to setup the billing anomaly detection feature. The valid values are:

- **ONPM** - Used when you want to set up the feature in the ORMB On Premise environment.
- **CFS** - Used when you want to set up the feature in the ORMB Cloud Service Premium Edition environment. At present, this value is not tested and certified.
- **GBUCS** - Used when you want to set up the feature in the ORMB Cloud Service environment.

Enhancements (Specific to Insurance)

This section lists the enhancements made to the following features which can be used in the health insurance domain:

- [C1-ADDRESS Feature Configuration](#)
- [C1-ASOBLLNG Feature Configuration](#)
- [Sponsor Billing Arrangement for a Retiree Membership](#)
- [Individual Membership Billing](#)
- [Accumulation Data](#)
- [Self-Funded Pricing](#)
- [Transaction Feed Management](#)
- [Self-Funded Pricing Rule Versioning](#)

C1-ADDRESS Feature Configuration

The following option types are newly added to the **C1-ADDRESS** feature configuration:

- **Address Source for Refund Request** - Used to indicate the source from where the system derives the address for a refund request. Here, you must specify a value which is already defined in the **BILL_ADDR_SRCE_FLG** lookup field.
- **Address Type for Refund Request** - Used to indicate the type of address that you want to use in a refund request. Here, you must specify a value which is already defined in the **ADDRESS_TYPE_FLG** lookup field.

C1-ASOBLLNG Feature Configuration

The following option type is newly added to the **C1-ASOBLLNG** feature configuration:

- **Approval Workflow Group for MPP** - Used to specify the approval workflow group for a minimum premium program pricing rule. It helps the system to determine whether the approval transaction should be created while defining, editing, or deleting a minimum premium program pricing rule.

Sponsor Billing Arrangement for a Retiree Membership

The following changes are made to the sponsor billing arrangement for a retiree membership:

- Earlier, while deriving the sponsor account for a retiree membership, the system did not behave as expected when the sponsor account characteristics were not defined or when the sponsor account characteristics were not effective on the membership start date.

  This issue is fixed for an individual retiree membership in this release. Now, if a price item is sponsored for an individual retiree membership in a discount charge pricing rule, the system checks whether the sponsor account characteristics are defined on the individual membership. If the sponsor account characteristics are defined on the individual membership, the system checks whether the sponsor account characteristics are effective on the membership start date.

If the sponsor account characteristics are effective on the membership start date (assuming the membership period is from 1-Jan-2023 to 31-Dec-2023), the system does the following:

1. Creates a premium charge for the retiree membership for the entire membership period (i.e. from January 2023 to December 2023)
2. Creates a (-ve) discount charge for the employee and (+ve) discount charge on employer sponsor account for the entire membership period (i.e. from January 2023 to December 2023)

However, if the sponsor account characteristics are not effective on the membership start date but are effective on any other date (for example, 1st March 2023) within the membership period (assuming it is 1-Jan-2023 to 31-Dec-2023), the system does the following:

1. Creates a premium charge for the retiree membership for the entire membership period (i.e. from January 2023 to December 2023)
2. Creates a (-ve) discount charge for the employee and (+ve) discount charge on employer sponsor account from March 2023 to December 2023

However, if the sponsor account characteristics are not defined on the individual membership, the system does the following:

1. Creates a premium charge for the retiree membership for the entire membership period
2. Won't create a (-ve) discount charge for the employee and (+ve) discount charge on employer sponsor account

And, if a price item is not sponsored for a retiree membership in a discount charge pricing rule, the system does the following:

1. Creates a premium charge for the retiree membership for the entire membership period
2. Creates a (-ve) discount charge for the employee for the entire membership period

- Earlier, for a retiree membership, the system did not support different sponsor accounts for different date range. This requirement is addressed for an individual retiree membership in this release. Now, the system allows you to define multiple sponsor account characteristics with different effective dates for a retiree membership. While adding or updating sponsor account characteristics of a retiree membership, the system creates an audit event for the retiree membership. If you define multiple sponsor account characteristics with different effective dates, the system creates multiple audit events for the retiree membership. Here, the effective date in the audit event is set to the date from when the membership's characteristic is effective. The system then creates repricing entity detail records for the audit event. On executing the **C1-REPC1**, **C1-REPC2**, and **C1-FIBCR** batches, the system accordingly creates the sponsor charges for a retiree membership on the respective sponsor account.

Individual Membership Billing

Oracle Revenue Management and Billing enables you to define eligibility criteria for each pricing rule on a health plan. There might be situations wherein an individual membership derived pricing for a certain period from an eligible related pricing rule (for example, PR1). Then, due to change in any attribute or characteristic of an individual membership (for example, change in location), the individual membership was no longer eligible for earlier related pricing rule (i.e. PR1), but was eligible for another related pricing rule (for example, PR2). In such scenario, the system triggered the repricing process and accordingly created the new billable charges using the latest eligible related pricing rule (i.e. PR2). But the old billable charges created using the earlier eligible related pricing rule (i.e. PR1) were not end dated and therefore an individual was charge incorrectly. Now, the system end dates such old billable charges. The following batches are updated to address this issue:

- C1-REPC1
- C1-REPC2
- C1-FIBCR
- C1-FIMRE

Accumulation Data

The following changes are made to the Accumulation Data screen:

- A new accumulation category named **Minimum Premium Program** is added in the respective list.
- A new zone named **Minimum Premium Program Accumulation Amount** is added to this screen. It enables you to view the accumulation records of a parent accumulation group where the accumulation category is set to **Minimum Premium Program**. In addition, it enable you to view the minimum premium program settlement billable charge which is created in each accumulation run. On clicking the **Broadcast** icon corresponding to the minimum premium program accumulation record, you can view the following:
  - View the claim or ancillary transactions whose line item charges, flat fees, enrollment based fees, pass through billable charges, and discount charges eligible for minimum premium program are accumulated
  - View calculation lines of all legs of the respective transaction which are rated before billing
  - View the characteristics of a calculation line

Self-Funded Pricing

The following changes are made to the Self-funded Pricing feature:

- Now, while defining or editing a claim pricing rule type, you can indicate whether the claim charges can be accumulated and settled against the minimum premium program using the **Eligible for Minimum Premium Program** field in the **Additional Data** section.

- Now, while defining or editing an ancillary pricing rule type, you can indicate whether the ancillary charges can be accumulated and settled against the minimum premium program using the **Eligible for Minimum Premium Program** field in the **Additional Data** section.
- Now, while defining or editing a discount arrangement pricing rule type, you can indicate whether the discount charges can be accumulated and settled against the minimum premium program using the **Eligible for Minimum Premium Program** field in the **Additional Data** section.
- Now, while defining or editing a flat fees pricing rule type, you can indicate whether the flat fees can be accumulated and settled against the minimum premium program using the **Eligible for Minimum Premium Program** field in the **Price Item Parameters** section.
- Now, while defining or editing a pass through billable charge pricing rule type, you can indicate whether the pass through charge can be accumulated and settled against the minimum premium program using the **Eligible for Minimum Premium Program** field in the **Price Item Parameters** section.
- Now, while defining or editing a retention type claim based pricing rule type, you can indicate whether the claim based fees can be accumulated and settled against the minimum premium program using the **Eligible for Minimum Premium Program** field in the **Additional Data** section.
- Now, while defining or editing a retention type enrollment based pricing rule type, you can indicate whether the enrollment based fees can be accumulated and settled against the minimum premium program using the **Eligible for Minimum Premium Program** field in the **Additional Data** section.

Transaction Feed Management

The following changes are made to the Transaction Fee Management feature:

- The **C1-TXNCU** batch is enhanced to support disaggregation of charges which are accumulated for minimum premium program.

Self-Funded Pricing Rule Versioning

The Self-Funded Pricing Rule Versioning feature is extended to the minimum premium program pricing rules. Therefore, you can edit a minimum premium program pricing rule which is referred for a transaction in the system.

The entity audit framework is configured for the **C1-PricingRuleMPP** business object. In other words, the **Eligible for Audit Event** option type in the **C1-PricingRuleMPP** business object is set to **Y** and the **C1-PRVERSION** algorithm is attached to the **Audit** system event of the **C1-PricingRuleMPP** business object.

You need to create an active audit event type for the **C1-PricingRuleMPP** business object where the audit usage is set to **Disaggregation/Reseeding**. Here, you need to specify a list of fields from the respective business object which you want to audit or monitor. On editing a referred minimum premium program pricing rule, the system will then behave in the expected manner.

User Interface (UI) Level Changes

The following table lists changes made to the existing screens in Oracle Revenue Management and Billing:

Screen Name (in 5.0.0.0.0)	Changes
Select Price Item Group	The following changes are made to this screen: • The screen is redesigned and renamed to **Price Item Selection**. • The **Search** field is removed from the **Filters** section. • The **Hierarchy Entity**, **Price Item**, **Pricing Parameters**, and **Advanced Filter** fields are added in the **Filters** section. • The **Apply** and **Clear All** buttons are added in the **Filters** section. • The **Price Item Group** section is renamed to **Price Item Hierarchy**. • The **De-Select All** button is renamed to **Deselect All**. • The **Previous**, **Next**, and **Clear Filter** buttons are added in the **Price Item Hierarchy** section. • All buttons (i.e. **Previous**, **Next**, **Clear Filter**, **Expand All**, **Collapse All**, **Select All**, and **Deselect All**) appear in the header area of the **Price Item Hierarchy** section. • The **Price Item Hierarchy** column in the **Price Item Hierarchy** section is renamed to **Hierarchy Entity/Price Item**. • The **Parameter** column in the **Price Item Hierarchy** section is renamed to **Pricing Parameters**. • The **Additional Price Items** section is added in this screen. It appears only when you assign an additional price item to the entity for which the deal is created. • The **Save & View Pricing & Commitment** button in this screen is renamed to **Save and View Pricing and Commitments**.
Price Item Relationship	The following changes are made to this screen: • The **Associate Price Items for Relationship Based Pricing** zone is added in this screen.

Screen Name (in 5.0.0.0.0)	Changes
	• The **Associate Price Item Relationship** zone is added in this screen. It appears when you click the **Broadcast** icon corresponding to a relationship based pricing group in the **Associate Price Items for Relationship Based Pricing** zone.
Deal Approval Profile (Used for Adding and Editing)	The following changes are made to this screen: • The following columns are removed from the **Approval Hierarchy** section - **Minimum Profitability (%)**, **Maximum Profitability (%)**, **Minimum Profit**, **Maximum Profit**, **Minimum Profit Variation (%)**, **Maximum Profit Variation (%)**, **Minimum Profit Variation**, **Maximum Profit Variation**, **Minimum Revenue**, and **Maximum Revenue**. Instead, the **Approval Level Criteria** column is added to the **Approval Hierarchy** section. • On clicking the **Add** icon in the **Approval Level Criteria** column corresponding to an approval level, a grid appears with the following columns – **Criteria Sequence**, **Profitability Type**, **Minimum Profitability**, **Maximum Profitability**, **Profit Variation Type**, **Minimum Profit Variation**, **Maximum Profit Variation**, **Minimum Revenue Amount**, **Maximum Revenue Amount**, and **Conditional Operator**. • The **Enable Self-Approval** column is added to the **Approval Hierarchy** section.
Deal Approval Profile	The following changes are made to this screen: • The **Approval Hierarchy** section is removed from the **Deal Approval Profile** zone. Instead, a new zone named **Approval Hierarchy** is added to this screen. It appears when you click the **Broadcast** icon corresponding to a deal approval profile in the **Deal Approval Profile List** zone. • A new zone named **Approval Level Criteria** is added to this screen. It appears when you click the **Broadcast** icon corresponding to an approval level in the **Approval Hierarchy** zone.
Deal Type (Used for Adding)	The following changes are made to this screen: • The following system events are added to the respective list: ○ Bespoke Price List Post Processing

Screen Name (in 5.0.0.0.0)	Changes

	o Bespoke Price List Pre-Processing
	
	    o Custom Approver Level Criteria
	
	    o Fetch Next Approver Level
	
	• The **To Do Type** field is renamed to **Reminder To Do Type**.
	
	• The **Standard Pricing Comparison** and **Default Simulation Data** fields are added in the **Main** section. The **Default Simulation Data** field appears when the **Standard Pricing Comparison** field is set to **Yes**.
	
	• The **Pricing and Commitments - Configurable Columns** section is added in this screen.

Deal Type	The following changes are made to this screen: • The **Standard Pricing Comparison** and **Default Simulation Data** fields appear in the **Main** section of the **Deal Type** zone. If the **Standard Pricing Comparison** field is set to **No**, the system, by default, sets the **Default Simulation Data** field to **Proposed and Original**. • The **Pricing and Commitments - Configurable Columns** section is added in the **Deal Type** zone.
Deal Information	The following changes are made to this screen: • The **Pages** panel do not appear when you view the details of a deal. • The **Simulation Details** zone is removed from this screen. • The **Deal Information** zone is redesigned. It contains four sections named **Deal Information**, **Deal Financial Summary**, **Division Financial Summary**, and **Product Financial Summary** along with a section that shows the customer hierarchy of a deal. • The **Deal Status** and **Deal Version Status** are now shown in the header of the **Deal Information** section. • The proposed revenue, cost, profit, profitability(%), revenue variation(%), and profit variation(%) are shown in the header of the **Deal Financial Summary** section.

Screen Name (in 5.0.0.0.0)	Changes
	• If the **Standard Pricing Comparison** field is set to **Yes** in the respective deal type, four rows appear in the financial summary grid. However, if the **Standard Pricing Comparison** field is set to **No** in the respective deal type, three rows appear in the financial summary grid.
	• Different color codes are used to differentiate between the proposed, original, and standard simulation data and financial summaries.
	• The **Currency** toggle button appears in the header of the **Product Financial Summary** section.
	• The proposed revenue, cost, profit, profitability(%), revenue variation(%), and profit variation(%) at the division level are shown in the header of the **Division Financial Summary** section. The financial summary in the header disappears when you expand the section. Instead, the **Currency** toggle button appears in the header when you expand the **Division Financial Summary** section.
	• The **Approval Status** column is removed from the deal, product level, and division level financial summaries. Instead, the **Revenue Variation(%)** column is added in the deal, product level, and division level financial summaries.
	• The **Compare Type** field is added to the **Customer Hierarchy** section.
	• The **Pricing and Commitments**, **Price List Assignment**, **Product Enrollment**, **Price Item Group Selection**, **Price List**, and **Product** columns are removed from the **Customer Hierarchy** section.
	• The **Profit**, **Profitability(%)**, **Profit Variation**, and **Action** columns are added to the **Customer Hierarchy** section.
	• The following options appear in the **Action** list - **View or Edit Pricing and Commitments**, **Select Price Items**, **View or Assign Proposed Price List**, and **View or Enroll Proposed Product**. Note that the **Select Price Items** option appears only at the parent level in the customer hierarchy.
	• The **Deal Pricing and Commitments** button is removed from this screen.

Screen Name (in 5.0.0.0.0)	Changes
	• The **Download** and **Upload** buttons are added in the **Deal Information** screen.
Pricing and Commitments	The following changes are made to this screen: • The **Select Price Item Group** button is renamed to **Price Item Selection**. • The **Additional Price Item** button is added in this screen. • The **Original Data** toggle button is removed from the **Pricing and Commitments** section. • The **Compare Type** field is added to the **Pricing and Commitments** section. • The **Select Column to Display** field is added to the **Pricing and Commitments** section. It enables you to add or remove the columns, which are marked as configurable in the respective deal type, from the **Pricing and Commitments** section. • The **Level** column in the **Pricing and Commitments** section is renamed to **Assignment Level**. • The **Variation** column in the **Pricing and Commitments** section is renamed to **Revenue Variation(%)**. • The **Profit**, **Profitability(%)**, and **Profit Variation(%)** columns are newly added in the **Pricing and Commitments** section. • The **Approver** and **Status** columns are removed from the **Pricing and Commitments** section. • Different color codes are used to differentiate between the proposed, original, and standard pricing and commitments.
Deal Approval Return To Submitter	The following change is made to this screen: • The **Send Deal Back with Approvals** field is added to this screen.
Audit Event	The following change is made to this screen: • The following options are added to the **Entity** list – **Account**, **Price List**, **Price List Assignment**, **Price Assignment**.
Status Reason (While rejecting a payment request)	The following change is made to this screen: • The **Comments** field is added to this screen.
Refund Request (Used for Viewing)	The following changes are made to this screen:

Screen Name (in 5.0.0.0.0)	Changes
	• The **Address 2** in the **Main** section of the **Refund Request** zone is renamed to **Address Line 2**. • The **Address 3** in the **Main** section of the **Refund Request** zone is renamed to **Address Line 3**. • The **Address 4** in the **Main** section of the **Refund Request** zone is renamed to **Address Line 4**.
Refund Request (Used for Editing)	The following changes are made to this screen: • The **Enter Address Manually** option is added in the **Main** section. • The **Address 2** in the **Main** section is renamed to **Address Line 2**. • The **Address 3** in the **Main** section is renamed to **Address Line 3**. • The **Address 4** in the **Main** section is renamed to **Address Line 4**.
Payment Request (Used for Viewing)	The following change is made to this screen: • The **Payment Characteristics** column is added to the **Payment Distribution** zone. It appears when a payment is created or transferred through a payment creation request or payment transfer request, respectively.
Auto Pay ID Search (Search Window)	The following changes are made to this screen: • The **Start Date** and **End Date** columns are added in the **Search Results** section.
Payment Agreement Request (Used for Viewing)	The following change is made to this screen: • The **Payment Event Information** column is added to the **Payment Schedule** zone.
Accumulation Data	The following changes are made to this screen: • The **Minimum Premium Program** option is added to the **Accumulation Category** list. • A new zone named **Minimum Premium Program Accumulation Amount** is added to this screen. It appears when you click the **Broadcast** icon corresponding to the parent accumulation group where the accumulation category is set to **Minimum Premium Program** in the **Search Accumulation Data** zone.
Claim Pricing Rule Type (Used for Adding and Editing)	The following changes are made to this screen:

Screen Name (in 5.0.0.0.0)	Changes
	• A new field named **Eligible for Minimum Premium Program** is added in the **Additional Data** section. • A new column named **Eligible for Minimum Premium Program** is added in the **Price Item Parameters** section.
Ancillary Pricing Rule Type (Used for Adding and Editing)	The following changes are made to this screen: • A new field named **Eligible for Minimum Premium Program** is added in the **Additional Data** section. • A new column named **Eligible for Minimum Premium Program** is added in the **Price Item Parameters** section.
Discount Arrangement Pricing Rule Type (Used for Adding and Editing)	The following changes are made to this screen: • A new field named **Eligible for Minimum Premium Program** is added in the **Additional Data** section. • A new column named **Eligible for Minimum Premium Program** is added in the **Price Item Parameters** section.
Flat Fees Pricing Rule Type (Used for Adding and Editing)	The following change is made to this screen: • A new column named **Eligible for Minimum Premium Program** is added in the **Price Item Parameters** section.
Pass Through Billable Charge Rule Type (Used for Adding and Editing)	The following change is made to this screen: • A new column named **Eligible for Minimum Premium Program** is added in the **Price Item Parameters** section.
Retention Type Claim Based Pricing Rule Type (Used for Adding and Editing)	The following changes are made to this screen: • A new field named **Eligible for Minimum Premium Program** is added in the **Additional Data** section. • A new column named **Eligible for Minimum Premium Program** is added in the **Price Item Parameters** section.
Retention Type Enrollment Based Pricing Rule Type (Used for Adding and Editing)	The following changes are made to this screen: • A new field named **Eligible for Minimum Premium Program** is added in the **Additional Data** section.

Screen Name (in 5.0.0.0.0)	Changes
	• A new column named **Eligible for Minimum Premium Program** is added in the **Price Item Parameters** section.

Database Level Changes

This section highlights the documents that you can refer for the following database level changes:

- [New Objects in the ORMB V5.1.0.0.0 Database](#)
- [New Objects in the OUAF V4.5.0.0.0 Database](#)
- [New Tables in the ORMB V5.1.0.0.0 Database](#)
- [New Tables in the OUAF V4.5.0.0.0 Database](#)
- [Existing Tables Modified in ORMB V5.1.0.0.0](#)
- [Existing Tables Modified in OUAF V4.5.0.0.0](#)
- [Algorithms and Algorithm Types Dropped in ORMB V5.1.0.0.0](#)
- [Parameters Added or Removed from Batch Controls in ORMB V5.1.0.0.0](#)
- [Parameters Added or Removed from Algorithm Types in ORMB V5.1.0.0.0](#)
- [Option Types Added or Removed from Feature Configurations in ORMB V5.1.0.0.0](#)
- [Characteristic Types Dropped in ORMB V5.1.0.0.0](#)
- [Batch Controls Dropped in ORMB Version 5.1.0.0.0](#)
- [Default User Group Application Services](#)

New Objects in the ORMB V5.1.0.0.0 Database

To view the list of objects (such as tables, columns, algorithm types, business objects, and so on) which are newly introduced in Oracle Revenue Management and Billing Version 5.1.0.0.0, refer to the Appendix A: New Objects in the Oracle Revenue Management and Billing V5.1.0.0.0 Database in the *Oracle Revenue Management and Billing Database Administrator's Guide*.

New Objects in the OUAF V4.5.0.0.0 Database

To view the list of objects (such as tables, columns, algorithm types, business objects, and so on) which are newly introduced in Oracle Utilities Application Framework Version 4.5.0.0.0, refer to the Appendix D: New Objects in the Oracle Utilities Application Framework V4.5.0.0.0 Database in the *Oracle Revenue Management and Billing Database Administrator's Guide*.

New Tables in the ORMB V5.1.0.0.0 Database

To view detail information about the tables newly introduced in Oracle Revenue Management and Billing Version 5.1.0.0.0, refer to the Appendix C: New Tables Added in ORMB Version 5.1.0.0.0 in the *Oracle Revenue Management and Billing Upgrade Guide*.

New Tables in the OUAF V4.5.0.0.0 Database

To view detail information about the tables newly introduced in Oracle Utilities Application Framework Version 4.5.0.0.0, refer to the Appendix M: New Tables Added in OUAF Version 4.5.0.0.0 in the *Oracle Revenue Management and Billing Upgrade Guide*.

Existing Tables Modified in ORMB V5.1.0.0.0

To view the columns that are newly added, modified, or dropped from the existing tables in Oracle Revenue Management and Billing Version 5.1.0.0.0, refer to the Appendix D: Existing Tables Modified in ORMB Version 5.1.0.0.0 in the *Oracle Revenue Management and Billing Upgrade Guide*.

Existing Tables Modified in OUAF V4.5.0.0.0

To view the columns that are newly added, modified, or dropped from the existing tables in Oracle Utilities Application Framework Version 4.5.0.0.0, refer to the Appendix N: Existing Tables Modified in OUAF Version 4.5.0.0.0 in the *Oracle Revenue Management and Billing Upgrade Guide*.

Algorithms and Algorithm Types Dropped in ORMB V5.1.0.0.0

To view the algorithms and algorithm types which are dropped in Oracle Revenue Management and Billing Version 5.1.0.0.0, refer to the Appendix E: Algorithms and Algorithm Types Dropped in ORMB Version 5.1.0.0.0 in the *Oracle Revenue Management and Billing Upgrade Guide*.

Parameters Added or Removed from Batch Controls in ORMB V5.1.0.0.0

To view the parameters which are newly added or dropped from the existing batch controls in Oracle Revenue Management and Billing Version 5.1.0.0.0, refer to the Appendix F: Parameters Added or Removed from Batch Controls in ORMB Version 5.1.0.0.0 in the *Oracle Revenue Management and Billing Upgrade Guide.*

Parameters Added or Removed from Algorithm Types in ORMB V5.1.0.0.0

To view the parameters which are newly added or dropped from the existing algorithm types in Oracle Revenue Management and Billing Version 5.1.0.0.0, refer to the Appendix G: Parameters Added or Removed from Algorithm Types in ORMB Version 5.1.0.0.0 in the *Oracle Revenue Management and Billing Upgrade Guide.*

Option Types Added or Removed from Feature Configurations in ORMB V5.1.0.0.0

To view the option types which are newly added or dropped from the existing feature configurations in Oracle Revenue Management and Billing Version 5.1.0.0.0, refer to the Appendix H: Option Types Added or Removed from Feature Configurations in ORMB Version 5.1.0.0.0 in the *Oracle Revenue Management and Billing Upgrade Guide.*

Characteristic Types Dropped in ORMB V5.1.0.0.0

To view the characteristic types which are dropped in Oracle Revenue Management and Billing Version 5.1.0.0.0, refer to the Appendix I: Characteristic Types Dropped in ORMB Version 5.1.0.0.0 in the *Oracle Revenue Management and Billing Upgrade Guide.*

Batch Controls Dropped in ORMB V5.1.0.0.0

To view the batch controls which are dropped in Oracle Revenue Management and Billing Version 5.1.0.0.0, refer to the Appendix J: Batch Controls Dropped in ORMB Version 5.1.0.0.00 in the *Oracle Revenue Management and Billing Upgrade Guide.*

Default User Group Application Services

Oracle Revenue Management and Billing provides the following default user groups - ALL_SERVICES, C1_BSERVICES, HCADMIN, and INADMIN. To view the application services configured for the default user groups, refer to the Appendix B: Application Services Configured for Default User Group in the *Oracle Revenue Management and Billing Database Administrator's Guide*.

Supported Platforms

The following table lists the operating system and application server combinations on which Oracle Revenue Management and Billing Version 5.1.0.0.0 is supported:

Operating System and Web Browser (Client)	Operating System (Server)	Chipset	Application Server	Database Server
Microsoft Windows 10 (64-bit) with Chromium Edge v83, Firefox ESR 91.x, or Google Chrome Enterprise Version 81 or higher **Note:** Here, x represents the vendor supported version.	AIX 7.2 TL3+ (64-bit) **Note:** Version numbers suffixed with "+" are the MINIMUM version supported. That version and all future 4th digit updates will be supported.	POWER 64-bit	Oracle WebLogic 12.2.1.4 (64-bit)	Oracle Database Server 19c
	Oracle Linux 8.x (64-bit)	x86_64	Oracle WebLogic 12.2.1.4 (64-bit) IBM WebSphere 9.0.5.6	Oracle Database Server 19c
	Red Hat Enterprise Linux 8.x (64-bit) **Note:** Oracle Revenue Management and Billing is tested and certified on Oracle Linux 8.x. Oracle Linux is 100% user space-compatible with Red Hat Enterprise Linux, and therefore Oracle Revenue Management and Billing is supported on Red Hat Enterprise Linux.	x86_64	Oracle WebLogic 12.2.1.4 (64-bit) IBM WebSphere 9.0.5.6	Oracle Database Server 19c

Operating System and Web Browser (Client)	Operating System (Server)	Chipset	Application Server	Database Server
	Microsoft Windows Server 2016+ (64-bit)	x86_64	Oracle WebLogic 12.2.1.4 (64-bit)	Oracle Database Server 19c

Note: We strongly recommend you install Oracle Revenue Management and Billing (ORMB) on Microsoft Windows platform only for non-production activities, such as User Acceptance Testing (UAT), development setup, and so on.

Technical Recommendations

To improve the overall batch performance on Windows and Linux platforms, we recommend you to make changes in the following files:

File Name	Change From	Change To
hibernate.properties	hibernate.c3p0.timeout = 300	hibernate.c3p0.timeout = 600
threadpoolworker.sh	MEM_ARGS="-Xms512m -Xmx1024m -XX:MaxPermSize=768m"	MEM_ARGS="-Xms512m -Xmx4096m -XX:MaxPermSize=768m"

Supported Upgrades

At present, we support upgrade from Oracle Revenue Management and Billing Version 5.0.0.0.0 to 5.1.0.0.0. For more information on how to upgrade, refer to the following documents which are available on OTN:

- *Oracle Revenue Management and Billing Version 5.1.0.0.0 Upgrade Path Guide*
- *Oracle Revenue Management and Billing Version 5.1.0.0.0 Upgrade Guide*

If you want to directly upgrade the Oracle Revenue Management and Billing database from 2.5.0.1.0 or any later version to 5.1.0.0.0, refer to the *Oracle Revenue Management and Billing Direct Database Upgrade from 2.5.0.1.0 to 5.1.0.0.0*. We recommend you follow the direct upgrade process while upgrading the ORMB database from 2.5.0.1.0 or any later version to 5.1.0.0.0 because it involves a smaller number of steps and saves time.

Unsupported Integrations

We are not supporting Oracle Documaker integration with Oracle Revenue Management and Billing Version 5.1.0.0.0. Alternatively, you can configure the bill and letter reporting feature so that you can generate bills and letters of a customer in the PDF format from ORMB. This reporting feature is built using native capabilities available in ORMB. For more information about the reporting feature, refer to the following documents which are available on OTN:

- *Oracle Revenue Management and Billing Reporting User Guide*
- *Oracle Revenue Management and Billing Reporting Installation Guide*
- *Oracle Revenue Management and Billing Bill and Letter Reports Configuration Guide*
- *Oracle Revenue Management and Billing Reporting SDK Guide*

Oracle Utilities Application Framework Version 4.5.0.0.0 Enhancements

For more information about the enhancements and deprecations made in Oracle Utilities Application Framework (OUAF) Version 4.5.0.0.0, refer to *Oracle Revenue Management and Billing Version 5.0.0.0.0 Release Notes*.

Deprecation Notices for ORMB Version 5.1.0.0.0

This section describes features and system data that are deprecated in this release and planned for deprecation in the future release of Oracle Revenue Management and Billing. It contains the following topics:

- [Deprecation in This Release](#)
- [Deprecated Third Party Products](#)
- [Deprecation Planned for Future Releases](#)

Deprecation in This Release

The following table lists the objects which are deprecated in this release of Oracle Revenue Management and Billing:

Object Type	Object Name
Batch Control	C1-CUSIN, C1-MEMIN
Inbound Web Service	C1-ASOCustomerInboundMessage, C1-CustomerStructureInboundMessage
Algorithm Type	C1-MDOV-BILL, C1-MDOV-BSEG, C1-MDOV-ONSA

Deprecated Third Party Products

Apache POI and its dependencies are deprecated in this release. As a result, an Apache POI based custom report would not be generated in the system. We recommend you recreate the required custom reports using the XSL transformation. For more information, you can refer to the **Reporting** chapter in the *Oracle Revenue Management and Billing Banking User Guide* or *Oracle Revenue Management and Billing Insurance User Guide*.

Deprecation Planned for Future Releases

The following table lists the objects which will be deprecated in the next release of Oracle Revenue Management and Billing:

Object Type	Object Name
Algorithm Type	C1_CURALG, SA_DERV_POPC, C1-AUDEVMPR, C1-PLASGNAU, C1-PRCASGNAU, C1-PLAUALG
Algorithm	C1-AUDEVMPR, C1-PLASGNAU, C1-PRCASGNAU, C1-PLAUALG
Feature Configuration	C1_EX_ROUND
Option Types	Currency Conversion Algorithm and Payment Distribution To-Do (from the **C1_MLTCURACC** feature configuration)

Object Type	Object Name
Table Columns	The following table lists the columns which will be deprecated in the next release:

Table Name	Column Name
CI_ACCT_PER	BILL_RTE_TYPE_CD, RECEIVE_COPY_SW, BILL_FORMAT_FLG, NBR_BILL_COPIES, CUST_PO_ID, NOTIFY_SW, and BILL_ADDR_SRCE_FLG

Object Type	Object Name
Batch Control	GLASSIGN, C1-IAENT, C1-DARSU, BILLING
View	CI_EFF_ACCT_PRICING_VW, CI_EFF_PER_PRICING_VW
Business Service	C1-EffectivePricing, C1_PriceParmBS **Note:** Instead of using the **C1-EffectivePricing** business service, use the **C1-GetEffectivePricing** business service to view the data on the **Pricing (Account)** and **Pricing (Person)** screens. Similarly, instead of using the **C1_PriceParmBS** business service, use the **C1_PRICE_PARM** business object to add, edit, copy, and delete a parameter.
Service Program	EFFPRCSERVICE, C1_PRICEPARM
Column	ADDRESS1, ADDRESS2, ADDRESS3, ADDRESS4, CITY, NUM1, NUM2, COUNTY, POSTAL, HOUSE_TYPE, GEO_CODE, IN_CITY_LIMIT, STATE, and COUNTRY from the CI_PER table
Table	CI_PER_ADDR_SEAS
Screen	Rate Check, Policy (P&C), Insurance Control Central, Collection Control Central, Account Current, Variance Parameter

Therefore, henceforth, we strongly recommend you not to use these objects in any custom implementation.

Product Documentation

User manuals and other technical documents are available in the Portable Document Format (PDF) format. You can download the release-specific documentation from either of the following locations:

- **Oracle Technology Network (OTN)** – You can access the ORMB release-specific documentation libraries from OTN using the following URL:

  http://www.oracle.com/technetwork/indexes/documentation/fsgbu-1364781.html

  It contains the **Documentation Library for Oracle Revenue Management and Billing On-Premise Solution** section. You can view and download a release-specific documentation library by clicking the **View Library** and **Download** links, respectively, corresponding to the respective ORMB version.

- **Oracle Help Center (OHC)** – You can access the ORMB release-specific documentation from OHC using the following URL:

  https://docs.oracle.com/en/industries/financial-services/revenue-management-billing/index.html

  The ORMB OHC page contains a drop-down list which allows you to select the ORMB version for which you want to access the documentation.

Points to Note:

You can access the documentation of a release prior to 5.0.0.0.0 from OHC by selecting the **Previous Releases** option from the list.

Always ensure that you download latest revision of the document from **OTN** or **OHC**.

Documentation Updates

Here are some updates with respect to the ORMB documentation:

- The Reporting User Guide is decommissioned and no longer supported. For information related to the reporting feature, you need to refer the **Reporting** chapter in the Banking User Manual or Insurance User Manual.

Media Pack Download

Oracle Financial Services Revenue Management and Billing Version 5.1.0.0.0 and Oracle Insurance Revenue Management and Billing Version 5.1.0.0.0 media packs can be installed on the following supported platforms:

- AIX (64-bit)
- Microsoft Windows (64-bit)
- Linux (64-bit)

The media pack includes multiple packages. For more information, refer to the **Media Pack Contents** section in the *Oracle Revenue Management and Billing Version 5.1.0.0.0 Quick Installation Guide*.

To download a package from a media pack:

1. Login to <u>Oracle Software Delivery Cloud</u>.
2. Select the **Release** option from the **All Categories** list.
3. Type **Oracle Financial Services Revenue Management and Billing** or **Oracle Insurance Revenue Management and Billing** in the corresponding text box.
4. Click **Search**. A list of media packs appears in the search results.
5. Click the **Select** ( ) icon corresponding to the **Oracle Utilities Application Framework 4.5.0.0.0**, **Oracle Financial Services Revenue Management and Billing 5.1.0.0.0**, or **Oracle Insurance Revenue Management and Billing 5.1.0.0.0** option.
6. If required, you can verify the media pack which is selected by clicking the **View Items** link.
7. Click the **Continue** link. A page appears.
8. Select the required platform from the **Platforms/Languages** list.
9. Click **Continue**. A page appears with the license agreement.
10. Scroll and read the entire license agreement and then click the **I reviewed and accept the Oracle License Agreement** option.
11. Click **Continue**. The **File Download** page appears.
12. Select the required package that you want to download from the media pack and then click **Download**. An executable file is downloaded on your local machine.
13. Run the executable file. The **Oracle Download Manager** window appears.
14. Browse to the location where you want to download the package and then click **Next**. The package is downloaded on your local machine.

Bug Fixes

The following table lists the bugs that are fixed in this release:

Bug Number	Copy of (Base Bug)	Description
35087471	*35011635*	BILLED VS PAID ZONE LONG RUNNING-FORWARDPORT
35072633	*35069003*	EXCLUDE HIERARCHY FLAG IN DEAL NOT WORKING AS EXPECTED
35011743	*34974019*	HISTORICAL PRICE LIST ASSIGNMENT SEARCH ZONE NOT SHOWING EXPIRED PRICE LIST ASSIGNMENTS
35004763	*34850809*	ERROR ENCOUNTERED DURING PAYMENT TRANSFER REQUEST FOR CERTAIN AMOUNTS - FORWARDPORT
35004725	*34100381*	C1-BLPPR	PROCESSAUTOPAY CAUSING ELEVATED EXECUTION TIME FOR BATCH - FORWARDPORT
35004706	*34945831*	CIPBAOIX ERR: THE CONTRACT AND MATCH EVENT COLLECTION SIZE HAS EXCEEDED THE LIMIT (200) FOR THE BILL - FORWARDPORT
35004516	*34981459*	PRICING PARAMETERS ARE NOT STORED FOR POST PROCESSING PRICING ASSIGNMENT
34990386	*34951709*	C1-REPC2 PRICING PROGRAM ISSUE - MEMBERSHIPS GETTING SKIPPED DURING REPRICING
34985340	*34868190*	SYSTEM ERROR WHILE MANUAL BILL GENERATION IN HEALTHCARE BUSINESS - FORWARDPORT
34985303	*34827606*	AUTOPAY IS NOT GETTING CREATED WITH NEW FLAG APAYUSGFLG - FORWARD PORT
34967221	*34889673*	PAYMENT SCREEN -NOT SHOWING COMPLETE INFO STRING BECAUSE OF LENGTH LIMITATION
34967213	*34864471*	PAGINATION NOT WORKING FOR ZONE - C1ACLIST360(ACCOUNT LIST)
34960391	*34840427*	DEAL IMPORT IS NOT WORKING
34959757	*34747249*	DOWNLOAD & UPLOAD VIA EXCEL (BUSINESS SPECIFIC FORMAT) AND SIMULATE DEAL
34943260	*33540981*	OLD PRICING GROUPS SHOWING WHEN POLICY IS RENEWED
34941544	*34834867*	PKG_RMB_GATHERSTATS HAS ERRORS
34940608	*34899500*	CONSTRUCT LINKED ACCOUNT DISPLAY ISSUE IN 5.0 ENVIRONMENT
34940603	*34869208*	CHAR TYPE CODE DESC IS NOT SHOWING UP WHEN WE HAVE MORE THAN 1 CHAR VALUE

Bug Number	Copy of (Base Bug)	Description
34936135	*34866210*	SEARCH PRICE LIST FOR ASSIGNMENT SCREEN IS THROWING SQL EXCEPTION WHEN SEARCHING WITH DESCRIPTION
34931092	*34775313*	C1-REPC1 RUNNING LONG IN PRODUCTION - FORWARDPORT
34907630	*34785126*	BILL GROUP PRICING GROUP ZONE ERRORS OUT AFTER RENEWAL
34907604	*34468846*	QUERY FOR RECONCILIATION PROCESS MONITOR BATCH (RCPM)
34907589	*34738310*	C1-PLPERSRC2_8VSM5ZPV4VQ6Y_SQL_MONITOR | PERFORMANCE ISSUE - FORWARDPORT
34907583	*34670739*	RECONCILIATION IS RETRIEVING AND PROCESSING INCORRECT PAYMENT FOR A PAY INSTRUCTION - FORWARDPORT
34886594	*34807035*	C1-REPC1 BATCH THROWING ERROR IN CASE OF FUTURE EFFECTIVE MEMBERSHIP
34833884	-	PAYMENT CHARACTERISTICS NOT PRESENT ON PAYMENT TRANSFER REQUEST UI
34813711	*34466108*	DUPLICATE KEY ERROR FOR WHEN UPDATING PRICING RULES VIA BUSINESS OBJECT
34794339	-	COMMENT FIELD IS NOT AVAILABLE FOR PAYMENT REQUEST APPROVAL/REJECTION
34785897	*34759787*	SPONSOR BILLING ARRANGEMENT CHAR MISSING ERROR - FORWARDPORT
34755644	-	WHILE STOPPING AUTOPAY FOR SPLITTING INTO MULTIPLE PAYMENTS, NO BILL ID POPULATED CI_APAY_CLR_STG
34734970	-	NOTIFICATIONS IN OUTLOOK WHEN WE RECEIVE DEAL IN PWB.
34535885	-	C1-FTRAN MEMORY OPTIMIZATION CHANGES
34403555	-	REQUIREMENT FOR REFUND ADDRESS SEARCH
32674908	*32537985*	ERROR WHILE APPLYING LARGE PAYMENT HAVING FT'S MORE THAN 350K
32469172	*32319047*	PATCH FOR ENH 32319047 IS NOT SOLVING THE REQUEST
35091523	*34930350*	CUSTOMER 360 VIEW - NO DETAILS DISPLAYED AFTER EXPANDING THE CUSTOMER CONTACTS LINK
35091432	*35022363*	UPDATING PAY TENDER CHARACTERISTICS VALUE FROM PAYMENT EVENT TENDERS TAB
35076777	*35014981*	MANUAL BILL CREATION THROWS TIME OUT ERROR
34940480	*34715811*	AUTOMATIC DISAGGREGATION REQUESTS ARE NOT BEING MARKED COMPLETE - 2

Bug Number	Copy of (Base Bug)	Description
34937706	*34778750*	FUNCTIONS ARE INVALID AFTER UPGRADING ORMB V4000 FROM ORMB V28000
34912114	*34713282*	TENDER CHARACTERISTIC SECTION IS DISABLED/PROTECTED WHEN PAYMENT EVENT/TENDER IS CANCELLED
34907664	*34794321*	PAYMENT REQUEST APPROVAL OR REJECTION TODO IS NOT GETTING CREATED - FORWARDPORT
34791652	*34678600*	BATCH CONTROL AND PROCESSED RECORD COLUMS ARE NOT SHOWING PROPER DETAILS IN DBMS SCHEDULER
34647221	*34358486*	PRICING RULE APPROVAL | OVERLAPPING UI ISSUE
32497233	*31936211*	ORMB 2900 : ISSUES ON PRICE ASSIGNMENT DEFAULT VALUE IN UPDATE MODE
32497161	*32394508*	EFFECTIVE PRICING IS NOT GETTING SAVED IF WE CHANGE ONLY RATE VALUE

Known Issues

This section lists the known issues in Oracle Revenue Management and Billing Version 5.1.0.0.0 along with workarounds available to handle these issues. The known issues are grouped into the following categories:

- **Banking**
- **Insurance**
- **Documentation**

Banking

Issue	LOCALIZATION ISSUE WHEN MAKER AND CHECKER CHOOSE DIFFERENT LANGUAGES
Description	When a maker and checker operate in different languages, a maker cannot see the approved transactions.
Workaround	Maker should login with a language that checker is using to see the approved transactions.

Issue	FOREIGN KEY AND FILE LOCATION CHARACTERISTIC TYPE NOT SUPPORTED IN UI MAPS
Description	The screens created using the UI map do not support the **Foreign Key Value** and **File Location Value** characteristic types. These screens only support the **Adhoc Value** and **Predefined Value** characteristic types.
Workaround	None

Issue	MESSAGE DOES NOT APPEAR ON CLICKING BUTTONS IN LIST OF PRICE ASSIGNMENTS ZONE
Description	On approving, rejecting, or canceling one or more price assignment requests (at once) from the **List of Price Assignments** zone, the appropriate message does not appear when you click the **Accept Changes**, **Return to Submitter**, or the **Revert to Original** button.
Workaround	None

Issue	**C1-TXCNC BATCH GETS EXECUTED SUCCESSFULLY EVEN IF C1-TXNCU BATCH FAILS**
Description	When you execute the C1-TXNCU batch with either of the following parameters during the cancellation process, an error occurs: • Transaction Source • Division If you further execute the C1-TXCNC batch during the cancellation process, the status of all transactions in the feed is changed to Cancelled (CNCL). But, in this case, the SQIs on the billable charges are not accurate.
Workaround	None

Issue	**CONDITIONAL APPROVAL WORKFLOW CANNOT BE USED WHILE COPYING A PRICE LIST**
Description	The system allows you to define conditional approval workflow for business objects. However, at present the conditional approval workflow cannot be used while copying a price list.
Workaround	None

Issue	**BILLS GENERATED FOR THE MEMBER ACCOUNT AND NOT FOR THE MASTER ACCOUNT**
Description	If you add a contract to a member account after the account is added to the master account, the system will not duplicate the newly added contract at the master level. Therefore, in such scenarios, billable charges related to the newly added contract will be billed to the member account and not to the master account.
Workaround	You need to ensure that no new contracts are added to the member account after the account is added to the master account.

Issue	**INCORRECT RESULTS IF DISAGGREGATION BATCHES NOT EXECUTED IN SEQUENCE**
Description	During the transaction disaggregation process, you must execute the following batches in the specified order: 1. Identify Affected Transactions (C1-IAENT) 2. Process Non Aggregated Transactions (C1-PDTXN) 3. Clean Up (C1-TXNCU) 4. Update Disaggregation Request Status (C1-DARSU) Otherwise, erroneous results might occur.
Workaround	None

Issue	**TWO CONCURRENT RUNS WHICH DERIVE SAME DIVISION FOR TRANSACTIONS DOES NOT WORK**
Description	If you execute a batch concurrently with two different divisions (for example, D1 and D2), the erroneous results might occur when transactions in both the runs derive the same division, account, and/or product combination.
Workaround	None

Issue	**ERROR OCCURS WHEN YOU DISPLAY BILL FOR A PRODUCT THAT BELONGS TWO RELATIONSHIPS**
Description	If a product is added to two or more product to product relationships using the relationship type as Service, the system error occurs when you display bill for the product using Documaker. For example, if P3 is added in the P1 and P2 product relationship using the relationship type as Service, an error occurs when you display bill for P3 using Documaker.
Workaround	None

Issue	**ACTIVE CONSTRUCTS DETERMINED ON CUT-OFF DATE INSTEAD OF CHARGES START & END DATE**
Description	The system determines the active construct based on the cut-off date and bills the usage accounts' charges through an invoice account which is defined in the active construct. It does not determine the active construct based on the billable charge's start and end dates.
Workaround	None

Issue	**BILL SEGMENTS CREATED BUT FTS NOT CREATED WHEN ACCOUNTING CALENDAR NOT DEFINED**
Description	There might be situations when you generate bill segments for a pending bill which is created for a bill cycle whose accounting date either falls within the closed accounting calendar or does not fall within any accounting calendar. In such scenarios, the bill segments are generated, but the financial transactions are not created for the bill segments. An error occurs when you view such bills, whose financial transactions are not created, through the **Bill** screen.
Workaround	None

Issue	**STATUS OF ALL LEGS CHANGED TO ERROR IF EXCHANGE RATE NOT AVAILABLE FOR ONE LEG**
Description	If a transaction has multiple legs and the system could not find exchange rate for one of the leg while executing the C1-TXNSQ batch, the status of the transaction and all its transaction legs is changed to **Error**.
Workaround	None

Issue	**INCORRECT RESULTS APPEAR WHEN UNDERSCORE CHARACTER IS USED IN SEARCH CRITERIA**
Description	If you use the underscore (_) character in the search criteria, the system does not search strings with the underscore character. Instead, the system interprets the underscore (_) character as a wildcard character.
Workaround	None

Issue	**PAYMENT AMOUNT IS INCORRECT WHEN PAYMENTS HAVE FROZEN & OVERPAYMENT PAY SEGMENTS**
Description	If the payments have both frozen and overpayment pay segments, the payment amount displayed corresponding to the overpayment and frozen payment in the **Payments** zone of the **Remittance Summary** screen is incorrect. The system displays the total payment amount instead of displaying the overpayment and frozen pay segment amount.
Workaround	None

Issue	**ERROR OCCURS WHEN BIND VARIABLES USED IN IN AND NOT IN CLAUSES WITHOUT BRACKETS**
Description	If a template is used in a construct for selecting usage accounts, billable charges, or adjustments where bind variables are used in the IN and NOT IN clauses without brackets, an error occurs when you bill an account through such construct.
Workaround	We recommend you to use bind variables within brackets in the IN and NOT IN clauses while defining a template.

Issue	**PARTIAL DATA UPLOADED WHEN USAGE RECORD HAS MORE THAN FIVE PASS THROUGH CHARGES**
Description	If you upload a usage record which has more than five pass through charges (for example, Bill Line 1, Bill Line 2, …., Bill Line 8), at present, the system uploads the details of only five pass through charges (i.e. till Bill Line 5). The details of Bill Line 6, Bill Line 7, …., and Bill Line 8 are not uploaded.
Workaround	None

Issue	**ADJUSTMENT CREATED WHEN CONTRACT ID IS VALID, BUT ACCOUNT IDENTIFIER IS INVALID**
Description	If you upload an adjustment data file with a record where the contract ID is valid, but the account ID or account identifier is invalid, the system creates the adjustment against the contract. Ideally, the system should not create the adjustment until and unless the contract ID, account ID, account identifier type, and account identifier are valid.
Workaround	None

Issue	**ABLE TO GENERATE A BILL FOR A SETTLEMENT ACCOUNT FROM THE BILL SCREEN**
Description	Ideally, the system should not allow you to generate a bill for a settlement account. However, at present, you can generate a bill for a settlement account from the **Bill** screen.
Workaround	None

Issue	ADJUSTMENT CREATED AGAINST PREVIOUS BILL IS NOT CONSIDERED DURING TRIAL BILLING
Description	If you create an adjustment against the previous completed bill, the adjustment is not presented on the next bill during trial billing. This open item accounting feature is not supported during trial billing.
Workaround	None

Issue	REOPEN BUTTON DISABLED WHEN C1-BILLSETT ALGORITHM ATTACHED ON CUSTOMER CLASS
Description	If you attach an algorithm of the C1-BILLSETT algorithm type on the **Bill Completion** system event of the account's customer class, at present, you will not be able to reopen a bill.
Workaround	None
Issue	THE PAYMENT REQUEST SCREEN DOES NOT SUPPORT MULTIPLE TENDERS
Description	At present, the system does not support multiple tenders when you create a payment from the **Payment Request** screen.
Workaround	None

Issue	PERFORMANCE ISSUE ON CHANGING THE SEARCH BY FILTER OPTION
Description	If you change the filter option from the **Search By** list, the system takes long time to load the respective query zone. You may observe this issue in many screens where the multi-query zone is used.
Workaround	None

Issue	**EFFECTIVE PRICING NOT VISIBLE IF C1_PER_REL HAS INVALID PERSON RELATIONSHIP TYPE**
Description	If you set the **Check on Feature Configuration** parameter in an algorithm which is created using the **C1-CUSRLALGT** algorithm type to **A** and add an invalid person relationship type in the **C1_PER_REL** feature configuration, the effective pricing is not inherited properly as expected.
Workaround	None

Issue	**ERROR LOG FILES GENERATED ON EXECUTING BILLING AND C1-BLPPR BATCHES**
Description	In ORMB, the error log file is generated even when the following batches are executed successfully and bills are completed: • BILLING • C1-BLPPR
Workaround	None

Issue	**MANUAL DISTRIBUTION NOT WORKING IN THE PAYMENT SCREEN**
Description	On saving, the distributed amount is reset to zero when you manually distribute the tender amount among the unpaid bills in the **Payment** screen.
Workaround	None

Issue	**ERROR OCCURS ON EXECUTING BILLOPEN IF IN CLAUSE CONTAINS MULTIPLE BIND VARIABLES**
Description	If you have used template in a construct where IN clause has multiple bind variables, an error occurs while executing the **Construct Based - Pending Bill Generation (BILLOPEN)** batch.
Workaround	None

Issue	**ELIGIBLITY CRITERIA ROW IS SKIPPED IF LEFT HAND SIDE PARAMETER IS NOT SPECIFIED**
Description	If the left hand side parameter is not specified in an eligibility criteria row while defining or editing a price item pricing, the eligibility criteria row is skipped and not saved in the system.
Workaround	None

Issue	**POST-PROCESSING BILL SEGMENT NOT REGENERATED WHEN YOU CLICK THE GENERATE BUTTON**
Description	An error occurs when you click the **Generate** button in the **Bill Segment** screen while regenerating the post-processing bill segment which is present on the pending bill.
Workaround	None

Issue	**RATE CALCULATED INCORRECTLY WHEN EXCHANGE RATE IS CHANGED DURING PRICING PERIOD**
Description	At present, the rate is calculated and persisted using the exchange rate which is effective on the price item pricing effective start date. Therefore, the persisted rate shown on the **Pricing (Account)** screen might be incorrect when the exchange rate is different on the date when the results are fetched on the **Pricing (Account)** screen.
Workaround	None

Issue	**ENTRY NOT CREATED IN THE CI_REPRC_ENTITY_DTL TABLE ON EDITING A PRICE LIST**
Description	If you edit the details of a price list which is assigned to an account or a person, an entry is not created in the CI_REPRC_ENTITY_DTL table. In other words, the repricing is not triggered on editing the details of a price list which is already assigned to an account or a person.
Workaround	None

Issue	UNABLE TO DEFINE PARAMETER FOR FIELDS WHICH BELONG TO CHILD TABLES
Description	At present, the system does not list the fields of child tables in the **Source Type Code** field when you select the source entity as Account, Person, or Product while defining a parameter. Therefore, you cannot define a parameter for child table' fields and as a result, repricing is not triggered when you change the value of any child table' field. For example, when you change the main customer of an account, repricing is not triggered because the MAIN_CUST_SW field belongs to the child table named CI_ACCT_PER table for which you cannot define a parameter in the system.
Workaround	None

Issue	RATE NOT PERSISTED ON PRICE ASSIGNMENT DATE WHEN C1-PRICEACCOUNT INVOKED MANUALLY
Description	When you manually execute the C1-PriceAccount business service for an account, rate is calculated and persisted for the price item pricing available on the default and global price list on the date when the C1-PriceAccount business service is invoked. Ideally, the rate must be calculated and persisted on the price item pricing effective start date.
Workaround	None

Issue	PERSISTED DATA NOT GETTING REFRESHED ON EDITING PRICE ASSIGNMENT
Description	On editing a price item pricing, the rate is not properly recalculated and persisted when the details of a price component, such as rate, eligibility criteria, and so on are changed.
Workaround	None

Issue	**PRICELIST EDIT VALIDATIONS NOT DEPENDENT ON ASSIGNMENT DATE OR ASSIGNMENT STATUS**
Description	Available and Eligible dates can be edited in Price List though Assignment Date or Assignment Status is added for price list.
Workaround	None

Issue	**STACKING IS NOT SUPPORTED FOR PRICE SIMULATION**
Description	Stacking is supported for bill generated through an Account. Pricing Simulation does not support stacking.
Workaround	None

Issue	**ADJUSTMENT AMOUNT IS NOT PICKED UP FOR PAYMENT IN NEXT BILL**
Description	When you generate an Adjustment after a successful payment, the Adjustment amount is not picked up in the next bill that is generated and hence, payment is not created for the adjustment amount.
Workaround	None.

Issue	**SPLIT AUTO PAY NOT AVAILABLE ON SETTLEMENT CONSTRUCT ACCOUNT CREATION SCREEN.**
Description	At present split auto pay is not supported on Settlement construct because Percentage field has to be added in Auto Pay Instructions section while creating a new account.
Workaround	None

Issue	**SQL ERROR ON PRICE ASSIGNMENT SCREEN WITH ADHOC VALUE PASSED IN QUOTES.**
Description	At present SQL error is displayed in Price Assignment screen for parameter when adhoc value is added in quotes. Price Assignment should be successful though value added is in single quotes.
Workaround	None

Issue	**BS ARE NOT GETTING PICKED FOR BATCH DATE AFTER BILLABLE CHARGE END DATE**
Description	At present, batch business date is later then billable charge date and C1_BILLGEN is not creating any BS, hence bill is not generated.
Workaround	None

Issue	**RSDETAILS UPDATED INCORRECTLY WHEN PRICE COMPONENT FEES/RATE) PERSISTENCE EDITED**
Description	At present, rate schedule details after modification are displayed and not the details before editing.
Workaround	None

Issue	**FEES RATE CALCULATION PRE-PROCESSING ALGORITHM ISSUE**
Description	Algorithm only considers the latest Service Quantity Identifier, it has to consider both Parameter and Service Quantity Identifier when calculating FEES and RATE.
Workaround	None

Issue	**C1-ACFEES BATCH RUN WITH PRICE ITEM CODE AS THE ONLY PARAMETER.**
Description	C1-ACFEES batch should consider records of price assignment where FEES for same should persist.
Workaround	None

Issue	**PRICE ASSIGNMENT TYPE - POST PROCESSING ISSUE IN FEES CALCULATION BATCH.**
Description	New value to be added in Price Assignment Type for post processing issue in FEES calculation batch.
Workaround	None

Issue	**C1-ACCOUNTFEES SERVICE ISSUE**
Description	At present FEES for price assignments are not persisted if any one price assignment eligibility rule results false and if no RATE found for same.
Workaround	None

Issue	**PAYMENT STATUS REMAINS INCOMPLETE AND NO PAYMENT SEGMENT IS GENERATED EVEN WHEN TENDER CONTROL ID IS GENERATED**
Description	For `On Extract Date', if one of the split auto payments goes in to error state, BALAPY batch generates Tender Control Id and Payment Status remains Incomplete and no Payment segment is generated.
Workaround	None

Issue	**CHANGES MADE TO ACCOUNT ARE NOT UPDATED WHEN APPROVAL WORKFLOW IS ACTIVE FOR ACC**
Description	At present columns are not properly aligned and changes are not updated when Approval Workflow is Active. Changes done to account should be updated when approval workflow is active.
Workaround	None

Issue	**INBOUND WEB SERVICE DOES NOT TRIM LEADING & TRAILING SPACES FROM INPUT PARAMETER**
Description	If you pass input parameters with leading and trailing spaces to an inbound web service, the inbound web service does not trim the leading and trailing spaces from the input parameters.
Workaround	None

Issue	**IF USER ADDED DEFER AUTO PAY DATE ON ACCOUNT THEN AUTO PAY WILL NOT WORK**
Description	If you manually add the date in the **Defer Auto Pay Date** field, the automatic payment functionality will not work for the account.
Workaround	None

Issue	**TOTAL OVERDUE AMOUNT IN ACCOUNT & PERSON DETAILS SECTIONS SHOW INCORRECT VALUE**
Description	If you manually include a bill in more than one active overdue process through the user interface, the amount shown in the **Total Overdue Amount** field is incorrect when you search for an overdue process using the Person or Account details in the **Delinquency Central** screen.
Workaround	None

Issue	SEASONAL ADDRESS ID DOES NOT APPEAR IN THE BILL ROUTINGS TAB OF THE BILL SCREEN
Description	At present, the seasonal address which is effective at the time of billing is considered for bill routing. You can view the seasonal address details in the **Bill Routings** tab of the **Bill** screen. However, the seasonal address ID does not appear corresponding to the **Address ID** field.
Workaround	None

Issue	ACCOUNT OVERRIDE ADDRESS IS NOT DELETED WHEN THE BILL ROUTING RECORD IS DELETED
Description	Once you delete a bill routing record for a person from the **Account** screen where the **Address Source** field is set to **Account Override**, the corresponding account override address is not deleted from the system. You can still view the account override address on the screen.
Workaround	None

Issue	ERROR OCCURS ON USING A VALUE WITH HYPHEN FOR A CHARACTERISTIC TYPE
Description	At present, an error occurs on a screen where a characteristic value with hyphen (-) is defined for a characteristic type.
Workaround	None

Issue	**AN ERROR OCCURS ON THE TEMPLATE SEARCH WINDOW**
Description	If you do not specify at least one account selection template while defining a construct, an error occurs indicating that at least one account selection template must be specified. Now, when you search for an account selection template using the **Search** icon corresponding to the respective field, the **Template Search** window appears with the same error (indicating that at least one account selection template must be specified). The system should not display any error in the **Template Search** window.
Workaround	None

Issue	**DISPUTE AMT AT BILL LEVEL INCORRECT WHEN BILL SEGMENT OF PREVIOUS BILL CANCELED**
Description	If a bill segment of the previous bill is canceled and you create a dispute request against an account for the corresponding next bill, the dispute amount displayed against the bill in the **Dispute Details** zone is incorrect.
Workaround	None

Issue	**SAVE BUTTON IS ENABLED WHEN A BILL IS IN THE COMPLETE OR CANCELED STATUS**
Description	The **Save** button in the **Page Title** area on the **Bill** screen should be disabled when a bill is in the **Complete** or **Canceled** status. However, at present, the **Save** button is enabled when a bill is in the **Complete** or **Canceled** status.
Workaround	None

Issue	APAYCRET BATCH DOES NOT CONSIDER ECR ADJUSTMENTS CREATED ON PENDING BILL
Description	You can only use an adjustment type where the **Print by Default** and **Impact Next Bill Balance** check boxes are not selected to create transfer adjustment while distributing earnings credit rate. Therefore, an ECR adjustment created against a pending bill is not stamped on the bill. As a result, the **Automatic Payment Creation (APAYCRET)** batch creates automatic payment for the bill without considering the ECR adjustment.
Workaround	None

Issue	SINGLE MATCH EVENT CREATED WHEN MULTIPLE BILL SEGMENTS OF A CONTRACT ARE NETTED
Description	At present, the system creates single match event for all bill segments of a contract which are netted. For example, there are two bill segments – BS1 (50$) and BS2 (-50$) of the C1 contract on a bill. In this case, the system nets the BS1 and BS2 because it results in zero contract balance, and then creates single match event for BS1 and BS2.
Workaround	None

Issue	RECOGNITION SCHEDULE NOT GENERATED FOR BX/AX WHEN DRR FOR BS/AD DOES NOT EXIST
Description	There might be situations when you have attached the **C1-REVRECSCH** algorithm to a contract's contract type for which bill segments and adjustments are already generated. Now, if already generated bill segments or adjustments are canceled, the system will generate the deferred revenue recognition for BX and AX even if the deferred revenue recognition does not exist for the corresponding BS and AD. But, the recognition schedule is not generated. You cannot even edit the recognition schedule of a deferred revenue recognition which is created for BX and AX.
Workaround	None

Issue	**AUTO PAY ID IS NOT UPDATED WHEN A REOPENED BILL IS COMPLETED**
Description	When you reopen and complete a bill, the bill's due date is recalculated. On completing a reopened bill, the system does not check whether there are rule based auto pay instructions for the account which are effective on the latest bill due date. In other words, the system does not update the auto pay ID against the financial transactions in the **C1_FT_EXT** table. In addition, the entries in the **CI_BILL_ACH** table are not updated.
Workaround	None

Issue	**CUSTOMER SIMULATION NOT WORKING FOR CUSTOMER HAVING LARGE DATA**
Description	If a customer has large number of accounts in its hierarchy or if there are large number of billable charges for distinct price items, the corresponding prospect hierarchy will not be created successfully when you create a deal for the customer using the simulation type as **Customer**.
Workaround	Create a deal for such customers using the simulation type as **Deal**

Issue	**INCORRECT AVG PRICE AND COST CALCULATION WHEN VOLUME/COMMITEMENT HAVE MULTIPLE SQIS**
Description	The system calculates the average price and cost incorrectly when there are multiple SQIs in the SQI-based billable charges.
Workaround	None

Issue	HIERARCHY UI-APPROVED PRICE ITEMS GETTING UNAPPROVED AGAIN IF RM CHANGES THE PRICING AND DOES THE SIMULATION AGAIN
Description	If an approver request the submitter to resubmit the deal for approval and if the submitter makes any changes in the pricing for a price item, the system should only change the status of the price item to **Pending for Approval** while simulating the deal. But, the system changes the status of all price items in the deal to **Pending for Approval**.
Workaround	None

Issue	DEAL END DATE IS NOT CONSIDERED FOR PRICE ASSIGNMENT PRICELIST ASSIGNMENT AND PRODUCT ENROLLMENT
Description	In the **Apply Back** feature, the system does not use the deal end date while creating price assignments, price list assignments, and product enrollments.
Workaround	None

Issue	SAME ORASEARCH ZONE APPEARS FOR MULTIPLE BIND VARIABLES WHILE DEFINING CONSTRUCT
Description	If a template has multiple bind variables and zone is specified for two or more bind variables, the system displays the same search window for all bind variables when you define a criteria in a construct. It shows the Search zone of the bind variable which is added first in the template.
Workaround	None

Issue	**INCONSISTENT DATA LENGTH FOR SRCH_CHAR_VAL AND ADHOC_CHAR_VAL**
Description	At present, the **ADHOC_CHAR_VAL** and **SRCH_CHAR_VAL** columns have different column length. The **SRCH_CHAR_VAL** column can only store 50 characters. Therefore, an adhoc characteristic value above 50 characters is truncated and then stored in the **SRCH_CHAR_VAL** column. As a result, erroneous results appear when you search for an entity using a string from an adhoc characteristic value which is beyond 50 characters.
Workaround	None

Issue	**ORASEARCH ICON FOR FK REF CHAR TYPE IS DISABLED IN AWB SCREENS**
Description	At present, the **Search** icon in the **Characteristic Value** column is disabled when you select a foreign key value characteristic type in the screens which are designed using the Application Workbench (AWB).
Workaround	None

Issue	**Original and Proposed Revenue Not Calculated Correctly**
Description	At present, the original and proposed revenue of a price item are not calculated properly due to some rounding issue in the rate schedule API. Therefore, the average price of each price item, revenue of each account and customer, revenue from each product, division, and deal, and revenue variation calculated in a deal are not accurate.
Workaround	None

Issue	**ON APPLY BACK THROWING DUPLICATE KEY ERROR**
Description	If a deal of an entity is already in the **Fully Orchestrated** status and you create another deal for the same entity, the system throws duplicate key error when you apply back the subsequent deal.
Workaround	None

Issue	**INCORRECT PROPOSED TRANSACTION VOLUME GETTING EXPORT IN PRINT DEAL PDF FORMAT**
Description	If the default commitments are defined in a deal type, the system fetches default commitments for a price item and parameter combination even if the proposed commitments are available for the price item and parameter combination while extracting the details of the respective deals in the PDF format.
Workaround	None

Issue	**ON DEAL CREATION IF WE REFERUSAGE FROM ANOTHER DEAL WHICH HAVE BILLABLE CHARGE ON ACCOUNT THEN COPING INCORRECT COMMITMENT I.E. TWICE OF ORIGINAL VOLUME**
Description	While referring usage from another deal, the proposed commitments for a price item and parameter combination are copied incorrectly (i.e. twice the original volume).
Workaround	None

Issue	**UNABLE TO READ OUT THE CUSTOMER OR ACCOUNT ID IN NUMBERS**
Description	While using the Speech to Text facility in the Chatbot window, we need to read out the account or customer ID in words. For example, the customer ID 1337049295 should be read out as One Billion Three Hundred Thirty-Seven Million Forty-Nine Thousand Two Hundred Ninety-Five and not as One Three Three Seven Zero Four Nine Two Nine Five. Otherwise, erroneous results might occur.
Workaround	None

Insurance

Issue	**OLD INSURANCE FEATURES ARE NOT TESTED AND VERIFIED IN ORMB VERSION 5.1.0.0.0**
Description	In this release, the new policy data model is introduced. The old policy data model which is accessible to the INADMIN user group is no longer operational. The old insurance features, such as Insurance Control Central, Deferred Revenue Recognition, Account Current, Pay Plan, Group Billing, and List Bill Reconciliation are not tested and verified with the new policy data model.
Workaround	None

Issue	**PERFORMANCE ISSUE WHILE CREATING DEFERRED REVENUE RECOGNITION SCHEDULE**
Description	If there are large number of bill segments and adjustments for which deferred revenue recognition schedule must be generated, the system takes long time to generate deferred revenue recognition schedules.
Workaround	None

Issue	**VALIDATION FOR FIDUCIARY CONTRACT MISSING DURING RECONCILIATION**
Description	While changing the status of the reconciliation object to Ready To Pay, the system does not validate whether fiduciary contract exists for the group account.
Workaround	You need to ensure that group customer has fiduciary contract associated with the account through which payments can be made for the list bills.

Issue	**TWO BILL SEGMENTS GENERATED WHEN REASON CODE EFFECTIVE DATE IS SAME AS BILL SEGMENT START DATE**
Description	When you select the Update option from the Reason Code list and specify the reason code effective date same as the bill segment start date, the system creates two bill segments – one with prorated billed amount and another with prorated reported amount. Ideally, the system should only create one bill segment with prorated reported amount.
Workaround	None

Issue	**UNABLE TO DISTRIBUTE THE REMAINING PAYMENT MANUALLY**
Description	If you have distributed partial payment automatically through the **Payment by Transaction** screen, the system does not allow you to distribute the remaining payment manually.
Workaround	None

Issue	**FOREIGN KEY AND FILE LOCATION CHARACTERISTIC TYPE NOT SUPPORTED IN UI MAPS**
Description	The screens created using the UI map do not support the **Foreign Key Value** and **File Location Value** characteristic types. These screens only support the **Adhoc Value** and **Predefined Value** characteristic types.
Workaround	None

Issue	**CHARACTERISTIC TYPES ARE NOT FILTERED BASED ON THE REASON CODE**
Description	While editing the reconciliation object line, the characteristic types are not filtered based on the reason code that you have selected. Currently, it lists all characteristic types where the characteristic entity is set to **Reason Code**.
Workaround	None

Issue	RECONCILIATION DOESN'T WORK PROPERLY FOR PASS THROUGH BILLABLE CHARGES
Description	In the sample case workflow, the system checks whether the difference between the reported and billed amounts is within the tolerance limit. If so, the system must change the status of the reconciliation object line to **WD-Match**. However, at present, in case of pass through billable charges, the system changes the status of the reconciliation object line to **Manual** instead of **WD-Match**.
Workaround	None

Issue	ERROR OCCURS WHEN YOU RESOLVE A RECONCILIATION OBJECT LINE FROM THE CASE SCREEN
Description	The system allows you to manually resolve a reconciliation object line from the **Case** screen and change the status of the reconciliation object line to **Manual Match**. At present, an error occurs when you click the **Manual Match** button in the **Case** screen.
Workaround	None

Issue	OVERRIDE DESCRIPTION APPEARS INSTEAD OF DESCRIPTION IN THE SOURCE SYSTEM LIST
Description	At present, the override description of the source system appears in the **Source System** list instead of the description when you select the **Policy** option from the **Search By** list in the **Customer 360-Degree View** screen.
Workaround	None

Issue	**UNABLE TO SELECT AUDIT EVENT TYPE IN PRT WHEN UPDATE ALL IS CONFIGURED IN AET**
Description	At present, you cannot use an audit event type of the C1-Membership and C1_PERSON_BO business objects in the Age Based and Tier Based pricing rule types when the **Update All** option is selected in the audit event type.
Workaround	Therefore, we recommend you to select an audit event type of the C1-Membership and C1_PERSON_BO business objects where the **Update All** option is not selected.

Documentation

Issue	"ERROR 500--INTERNAL SERVER ERROR" - ONLINE HELP IS NOT WORKING
Description	At present, an error occurs when you access online help for the following screens: • Account Collection Summary • Account Current • COBOL Program • Collection Control Central • Contract Type - Charge Type Mapping • Contract Type - Pay Plan Template Mapping • External Statement • FK Validation Summary • Pay Plan Template • Policy (P&C) • Reason Code • Reconciliation Object • Reconciliation Object Line Status • Unit of Measure
Workaround	None

Issue	ONLINE HELP NOT AVAILABLE FOR SOME SCREENS OR TABS
Description	At present, the online help is not available for the following screens: • Collection Type • Loan • Request In addition, the online help is not available for the following tabs: • Rate Schedule – SQ Rule Tab
Workaround	None

Issue	INDEX ENTRIES NOT DEFINED FOR THE BANKING AND INSURANCE MODULES

Description	At present, index entries are not defined for all topics in the Banking and Insurance modules.
Workaround	None

Issue	**CONTENT ADDED IN STEPRESULT AND INFO TAGS IS DISPLAYED IN BOLD**
Description	At present, the content added within the STEPRESULT and INFO tags is displayed in bold in the online help. This behavior is observed in Oracle Help and not in SPLHelp.
Workaround	None

Issue	**COMMENTS NOT COPIED IN MAIL WHILE SUBMITTING FEEDBACK TO THE DOCUMENTATION TEAM**
Description	The feedback entered in the **Comments** text box is not copied to the mail while submitting the feedback form in Oracle Help.
Workaround	You will have to manually add the comments in the e-mail before sending the feedback to the documentation team.

Technical Support

For any technical support, consult with Oracle Support, Oracle Partner, or Oracle Consulting that may be supporting your implementation and upgrade process.