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About this Document

This document describes the new features, enhancements, UI 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 2.3.0.2.0 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 Chatbot Configuration Guide	Explains how to integrate Oracle Digital Assistant (ODA) with Oracle Revenue Management and Billing.
Oracle Revenue Management and Billing Chatbot User Guide	Explains how to use the Menu Based Chatbot introduced in Oracle Revenue Management and Billing.

Change Log

Revision	Last Update	Updated Section	Comments
1.1	21-Jun-2022	Partial Payment Transfer	Added Information
		Deal Creation, Modification, and View through Inbound Web Service	Updated Information
		Price List Assignments in Deal through Inbound Web Service	Updated Information
		Price Item Pricing in Deal through Inbound Web Service	Updated Information
		Deal Extraction through Inbound Web Service	Added Information
		Automatic Refund Process	Updated Information
		Transaction Feed Management	Updated Information
		Refund Request	Updated Information
		Advance Billing for Claim Fund Charge	Added Information
		Deprecation Planned for Future Releases	Added Information
1.2	22-Jun-2022	Information Lifecycle Management (ILM)	Added Information
1.3	23-Jun-2022	Offset Request	Added Information
		Payment Request	Updated Information
		Known Issues	Updated Information
1.4	29-Jun-2022	New Features (Generic)	Logically arranged the sections
		New Features (Specific to Financial Services)	
		New Features (Specific to Insurance)	
		User Interface (UI) Level Changes	Sorted the sections alphabetically
1.5	18-Jul-2022	Price List Assignments in Deal through Inbound Web Service	Updated Information
		Deal Price Assignments and Commitments through Inbound Web Service (formerly, known as Price Item Pricing in Deal through Inbound Web Service)	Updated Information
		Deal Extraction through Inbound Web Service	Updated Information
		Account Level Payment Distribution	Added Information
		Statement Level Payment Distribution	Added Information

Revision	Last Update	Updated Section	Comments
		Enhancements (Generic)	Added Section
		Transaction Feed Management	Added Information
		File Upload Interface	Added Section
		Upload Lockbox Payment and Remittance Advices	Updated Information
		Deprecation in This Release	Added Information
1.6	12-Sep-2022	Partial Payment Transfer	Updated Information
		FOP Reports (Generic)	Updated Information
		Automatic Refund Process	Updated Information
		FOP Reports (Specific to Financial Services)	Updated Information
		FOP Reports (Specific to Insurance)	Updated Information
1.7	21-Oct-2022	Oracle Utilities Application Framework Version 4.4.0.3.0 Enhancements	Added Section
1.8	02-Dec-2022	Chatbot	Updated Information
		Known Issues	Added Information
		About this Document	Added Information

Contents

Prerequisites

If a customer is already using the Transaction Feed Management feature and wants to upgrade to Oracle Revenue Management and Billing Version 4.0.0.0.0, 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 3.2.0.0.0 will not happen successfully.

- Transactions which are uploaded using 3.2.0.0.0 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:

- Partial_Payment_Transfer
- Alert Notification for Bill and Bill Segment Errors
- FOP Reports
- QR Code Generation

Partial Payment Transfer

Oracle Revenue Management and Billing provides the ability for partial payment transfer at both the payment event and payment levels. A new field named **Maximum Transfer Amount** appears in the **Payment Request** screen when you transfer one or more payments or all payments of a payment event. Here, the maximum transfer amount is set either to the sum of all payments in the payment event or to the sum of one or more selected payments depending on whether payment transfer is done at the payment event or payment level. Note that the system considers only the positive payments which are in the **Frozen** status while calculating the maximum transfer amount. All negative payments irrespective of the status and the positive payments which are in the **Cancelled** status are not considered while calculating the maximum transfer amount.

In addition, the **Transfer Amount** field is now editable in the **Payment Request** screen. By default, the **Transfer Amount** field is set to the maximum transfer amount. If you want to do a partial payment transfer, you can then change the transfer amount. If the payment is negative or maximum transfer amount is zero, then the **Transfer Amount** field is non-editable.

While creating a partial payment transfer request, the system fetches the list of payments depending on whether payment transfer is done at the payment event or payment level. It then considers the payments which are eligible for transfer from the payment list based on the following priority:

1. Payments created against the suspense contract (if any)
2. Payments created against the on account contract (if any)
3. Payments created against the excess credit contract (if any)
4. Payments created against the bills in the descending order of bill date followed by the descending order of bill amount (when there two or more bills with the same bill date)

While determining the payments which are eligible for transfer, the system considers the following option types of the **C1_CMO** feature configuration:

- **Suspense Contract Type** – Used when you want to derive the suspense contract to identify the eligible payments.
- **On Account Contract Type** - Used when you want to derive the on account contract to identify the eligible payments.
- **Excess Credit Contract Type** - Used when you want to derive the excess credit contract to identify the eligible payments.

Let us assume that the following payments are made to the A1 account through the PE1 payment event:

Payment Details	Match Type	Match Value	Bill Date	Amount	Status
Payment1	Suspense Contract	C1		100$	Frozen
Payment2	On Account Contract	C2		100$	Frozen
Payment3	Overpayment on Bill	C3		50$	Frozen
Payment4	Bill	Bill1	21-Mar-2021	100$	Frozen
Payment5	Bill	Bill2	21-Feb-2021	200$	Frozen
Payment6	Bill	Bill3	21-Jan-2021	300$	Frozen

Now, if you want to partially transfer 450$ of the payment event to the A2 account using the match type as Bill, the system considers the following payments for transfer from the payment list in the given sequence:

Sr. No.	Payment Details	Match Type	Match Value	Bill Date	Amount	Status
1	Payment1	Suspense Contract	C1		100$	Frozen
2	Payment2	On Account Contract	C2		100$	Frozen
3	Payment3	Overpayment on Bill	C3		50$	Frozen
4	Payment4	Bill	Bill1	21-Mar-2021	100$	Frozen
5	Payment5	Bill	Bill2	21-Feb-2021	200$	Frozen

Once the system identifies the payments for transfer from the payment list, the payment transfer request is created in the **Draft** status. On processing the partial payment transfer request, the system will cancel all payments which are transferred and then create new payments using the match type specified in the payment transfer request. Here, the status of the old payments is changed to **Cancelled** and the status of the new payments is set to **Frozen**. Also, if there is a remaining balance on any payment which is eligible for transfer, the system will create a new payment for the remaining amount using the match type which is specified in the eligible payment. The payment for the remaining amount is created in the **Frozen** status.

Payment Details	Match Type	Match Value	Bill Date	Amount	Status
Payment1	Suspense Contract	C1		100$	Cancelled
Payment2	On Account Contract	C2		100$	Cancelled
Payment3	Overpayment on Bill	C3		50$	Cancelled
Payment4	Bill	Bill1	21-Mar-2021	100$	Cancelled
Payment5	Bill	Bill2	21-Feb-2021	200$	Cancelled
Payment6	Bill	Bill3	21-Jan-2021	300$	Frozen
Payment7	Bill	Bill4	21-Jan-2021	450$	Frozen

Payment Details	Match Type	Match Value	Bill Date	Amount	Status
Payment8	Bill	Bill2	21-Feb-2021	100$	Frozen

The system enables you to edit the transfer amount in the **Draft** status. A new button named **Update Transfer Amount** appears in the **Record Actions** section of the **Payment Request** screen. On clicking the **Update Transfer Amount** button, the **Update Transfer Amount** screen appears where you can change the transfer amount, if required. On changing the transfer amount, the system determines the payments which are eligible for transfer once again.

A new field named **Defer Payment Processing Count** is available while defining a payment request type. It appears only when you select the **Transfer** option while defining a payment request type. Two new statuses named **Update Transfer Amount** and **Payment Derivation Pending** are introduced in the lifecycle of the **C1-PaymentTransferRequest** business object.

Now, while creating a payment transfer request or while updating the payment transfer amount in a payment transfer request, the system checks whether the number of payments in the payment list is less than or equal to the value specified in the **Defer Payment Processing Count** field of the respective payment request type. If the number of payments is less than or equal to the defer payment processing count, the system determines the payments which are eligible for transfer immediately at the runtime. However, if the number of payments is greater than the defer payment processing count, the system determines the payments which are eligible for transfer in the deferred mode (i.e. when the **C1-PAYTR** batch is executed. The status of the payment transfer request is set to **Payment Derivation Pending**.

A new batch named **C1-PAYTR** is introduced in this release. It checks whether there are any payment transfer request in the **Payment Derivation Pending** status. If so, the system identifies the payments which are eligible for transfer from the payment list of the payment transfer request. Once the eligible payments are identified, the system changes the status of the payment transfer request from **Payment Derivation Pending** to **Draft**.

A new zone named **Payment Details** is added in the **Payment Request** screen. Here, if the following conditions are met, you can view the payments which are transferred through the payment request:

- Partial payment transfer is done at the payment event level
- Full or partial payment transfer is done at the payment level

Note that if full payment transfer is done at the payment event level, no records appear in the **Payment Details** zone. In such case, you need to view the payments which are transferred through the payment request in the **Payment Event Summary** screen by clicking the hyperlink on the payment event information in the **Main** section of the **Payment Request** zone.

Alert Notification for Bill and Bill Segment Errors

Oracle Revenue Management and Billing enables you to generate alert notifications for bills and bill segments which are in the **Error** status. At present, this feature considers those bills and bill segments which are generated through a batch process and not those which are generated manually from the user interface. The system supports the following two alert notifications:

- To Do Creation
- Email Notification

The objective of these notifications is to create an alert for the bills and bill segments which are in the **Error** status. Once a To Do is created, it indicates the number of bills and bill segments which are in the **Error** status on the batch business date. However, the email notification provides the following information:

- **Bill Error Summary Statistics** – Indicates the number of bills where a particular error has occurred in each bill cycle.
- **Bill Segment Error Summary Statistics** – Indicates the number of bill segments where a particular error has occurred in each bill cycle.

The **C1-ERRAL** batch is enhanced to generate alert notifications for bills and bill segments which are in the **Error** status. While executing the **C1-ERRAL** batch, you need to set the **To Do Created For** parameter to **BILL**. The system then checks whether there are any bills or bill segments which are currently in the **Error** status. If there are any bills or bill segments in the **Error** status, the system creates a To Do using the **C1-BLLER** To Do type (which is shipped with the product). Note that the system will not create a new To Do when the To Do for the same drill key combination already exists in the **Open** status.

To create an email notification, you need to attach an algorithm which is created using the **C1-BLLEREML** algorithm type to the **To Do Post-Processing** system event of the **C1-BLLER** To Do type. On creating a To Do, the batch then creates an email outbound message which contains the error summary statistics for bills and bill segments.

FOP Reports

Oracle Revenue Management and Billing enables you to extract data using the following FOP reports:

- **Entity Hold Details Report** - Enables you to view the entities, such as persons, accounts, or bills for which the business processes, such as bill generation, automatic payment, funding, overdue, or refund, are on hold for a given period. While generating the entity hold details report, you can specify the following parameters – Start Date, End Date, Division, Hold Entity, Entity ID, Hold Process, and Hold Status. The start date is mandatory. If you do not specify the end date, the system by default sets it to the system date. For example, if you specify the start date as 01-01-2021 and hold entity as Bill, the system will extract all hold requests which are created for the bills from 01-01-2021 till the current date.

  You can generate the entity hold details report from the user interface or through a batch process in the Excel format. We have shipped the following entity hold details reports in this release:

  - **FOPHLDBXLS** - Used when you want to generate the entity hold details report through the **C1-RPTGN** batch in the Excel format.
  - **FOPHLDOXLS** - Used when you want to generate the entity hold details report from the user interface in the Excel format.

- **Adjustment Details Report** - Enables you to view the adjustments which are created for persons or accounts, or which are created against bills. While generating the adjustment details report, you can specify the following parameters – Start Date, End Date, Division, Person Identifier Type, Person Identifier, Account Identifier, Bill ID, and Adjustment Status. The start date is mandatory. If you do not specify the end date, the system by default sets it to the system date. For example, if you specify the start date as 01-01-2022 and entity type as Account, the system will extract all adjustments which are created for the accounts from 01-01-2022 till the current date.

  You can generate the adjustment details report from the user interface or through a batch process in the Excel format. We have shipped the following adjustment details reports in this release:

  - **FOPADJBXLS** - Used when you want to generate the adjustment details report through the **C1-RPTGN** batch in the Excel format.
  - **FOPADJOXLS** - Used when you want to generate the adjustment details report from the user interface in the Excel format.

- **To Do Report** – Enables you to view the notifications (i.e. To Dos) assigned to a user and its current status. While generating the To Do report, you can specify the following parameters – Start Date, End Date, To Do Type, To Do Type Description, Assigned User, Created By, Status, Symbol (i.e. Operator), and To Do Age. The start date is mandatory. If you do not specify the end date, the system by default sets it to the system date. For example, if you specify the start date as 06-01-2022 and To Do type as C1-ACCL, the system will extract all To Dos which are created using the C1-ACCL To Do type from 06-01-2022 till the current date. While filtering the data using the To Do age, you need to specify the operator along with the To Do age. The system supports the following operators: Greater Than (>), Less Than (<), Less Than Equal To (<=), Greater Than Equal To (>=), and Equal To (=). For example, if you specify the start date as 06-01-2022, To Do age as 50, and operator as >, the system will extract all To Dos which are open in the system since more than 50 days.

You can generate the To Do report from the user interface or through a batch process in the PDF format. We have shipped the following To Do reports in this release:

- o **FOPTODOBPDF** - Used when you want to generate the To Do report through the **C1-RPTGN** batch in the PDF format.
- o **FOPTODOOPDF** - Used when you want to generate the To Do report from the user interface in the PDF format.

- **User Access Report** - Enables you to view the permissions granted to different users for accessing the data. While generating the user access report, you can specify the following parameters – User Group, User Group Description, To Do Role, and To Do Role Description.

  You can generate the user access report from the user interface in the PDF format. We have shipped the following user access report in this release:

  - o **FOPUSROPDF** - Used when you want to generate the user access report from the user interface in the PDF format.

QR Code Generation

A Quick Response (QR) code is a type of matrix barcode (or two-dimensional barcode). A barcode is a machine-readable optical label that can contain information about the item to which it is attached. Oracle Revenue Management and Billing provides a QR code generator using which you can generate a QR code. At the moment, the QR code is only supported for the FOP reports which are generated in the PDF format. You can define dataset for the QR string using which you want to generate the QR code. You can insert a QR code on any page in the Portable Document Format (PDF) file.

To insert a QR code in an FOP report, you need to add QR related code snippets in the respective XSL file. Only then, the system will insert the QR code when you generate the FOP report in the PDF format.

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:

- Prospect Creation, Modification, and View through Inbound Web Service
- Prospect Account Creation, Modification, and View through Inbound Web Service
- Deal Creation, Modification, and View through Inbound Web Service
- Price List Assignments in Deal through Inbound Web Service
- Deal Price Assignments and Commitments through Inbound Web Service
- Deal Extraction through Inbound Web Service
- Automatic Refund Process
- Billing Anomaly Detection with Artificial Intelligence (AI) and Machine Learning (ML)
- Chatbot
- FOP Reports

Prospect Creation, Modification, and View through Inbound Web Service

Oracle Revenue Management and Billing enables you to create and edit a prospect person and its accounts through a web service. It also enables you to view the details of a prospect person and its accounts through a web service. You can send the prospect person creation, modification, or view request from the external system through an inbound web service. We have shipped the following two inbound web services in this release:

- **C1-ProspectPerson** – This is a SOAP based web service. You can use this web service when you want to send the prospect person creation, modification, or view request in the XML format.
- **C1-ProspectPersonREST** – This is a REST based web service. You can use this web service when you want to send the prospect person creation, modification, or view request in the XML or JSON format.

Both these inbound web services call the **C1-ADDPROSPERSON** business service. This business service is used to do the following:

- **Create or edit a prospect person** – While creating a prospect person, you can specify the following details:
  - o Name, division, customer segment, customer tier, access group, date of birth, e-mail address, and residential address of the prospect person
  - o Characteristics of the prospect person
  - o Identifiers of the prospect person
  - o Parent and child persons of the prospect person

> **Note:** Other prospect person can be a child of the prospect person. But, only existing person can be a parent of the prospect person.

To add a prospect person through the web service, you must set the action flag to **ADD**. However, to edit a prospect person through the web service, you must set the action flag to **UPD**. While editing a prospect person, you need to specify the prospect person ID to identify the prospect person whose details you want to change. During the update operation, the system replaces the prospect person data instead of editing it. Therefore, you should provide all the details of prospect person including the data that you want to change. For example, if you want to update the characteristics of a prospect person through the web service, you need to provide all details of the prospect person including the new characteristics. While updating the prospect person, the system deletes the old characteristics and creates the new characteristics for the prospect person.

At a time, you can create or edit only one prospect person through the web service. While adding a prospect person, the status of the prospect person can only be set to **ACTIVE**. If you do not specify the status while adding a prospect person, the system, by default sets the status of the prospect person to **ACTIVE**. While updating a prospect person, you can change the status of the prospect person from **ACTIVE** to **INACTIVE**. On inactivating a prospect person, the system automatically changes the status of all its prospect accounts to **INACTIVE**. However, while activating an inactive prospect person, the system does not automatically activates all its prospect accounts. You need to explicitly send the request for activating the required prospect accounts of the prospect person. Also, note that you cannot update the details of an inactive prospect person unless you activate it. Similarly, you cannot update the details of an inactive prospect account unless you activate the prospect person and the respective prospect account.

- **Create or edit a prospect account of a prospect person** - While creating or updating a prospect person, you can create a prospect account for the prospect person. However, while updating a prospect person, you can create or edit a prospect account of the prospect person. While creating a prospect account, you can specify the following details:
  - Division, setup date, invoice currency, bill cycle, and access group of the prospect account
  - Characteristics of the prospect account
  - Identifiers of the prospect account

> **Note:** The division and access group of the prospect account and prospect person should be same.

While associating the prospect person with the prospect account, the system by default sets the **Main Customer** flag to **true**, the **Financially Responsible** flag to **true**, the **Relationship Type** flag to **Main Customer**, and the **Address Source** flag to **PER**.

While editing a prospect account, you need to specify the prospect account ID to identify the prospect account whose details you want to change. During the update operation, the system replaces the prospect account data instead of editing it.

At a time, you can create or edit multiple prospect accounts of a prospect person through the web service. While adding a prospect account, the status of the prospect account can only be set to **ACTIVE**.

If you do not specify the status while adding a prospect account, the system, by default sets the status of the prospect account to **ACTIVE**. While updating a prospect account, you can change the status of the prospect account from **ACTIVE** to **INACTIVE**.

Note that you cannot update the details of an inactive prospect account unless you activate it. You cannot activate a prospect account when the main customer (i.e. prospect person) of the prospect account is inactive.

- **View the details of a prospect person** – While viewing the details of a prospect person, you need to:
    - o Specify the prospect person ID or the primary prospect person identifier type, primary prospect person identifier, and division to determine the prospect person whose details you want to view
    - o Set the action flag to **READ**

On processing the request, the system displays all details of the prospect person including the details of all its accounts in the response.

Prospect Account Creation, Modification, and View through Inbound Web Service

Oracle Revenue Management and Billing enables you to create and edit a prospect account of an existing person or a prospect person through a web service. It also enables you to view the details of a prospect account through a web service. You can send the prospect account creation, modification, or view request from the external system through an inbound web service. We have shipped the following two inbound web services in this release:

- **C1-ProspectAccount** – This is a SOAP based web service. You can use this web service when you want to send the prospect account creation, modification, or view request in the XML format.
- **C1-ProspectAccountREST** – This is a REST based web service. You can use this web service when you want to send the prospect account creation, modification, or view request in the XML or JSON format.

Both these inbound web services call the **C1_PRSACCT_SERVICE** business service. This business service is used to do the following:

- **Create or edit a prospect account** – While creating a prospect account, you can specify the following details:
    - o Entity (i.e. existing person or prospect person) for whom you want to create the prospect account
    - o Division, setup date, invoice currency, bill cycle, and access group of the prospect account
    - o Characteristics of the prospect account
    - o Identifiers of the prospect account

> **Note:** The division and access group of the prospect account and the existing or prospect person should be same.

While associating the existing or prospect person with the prospect account, the system by default sets the **Main Customer** flag to **true**, the **Financially Responsible** flag to **true**, the **Relationship Type** flag to **Main Customer**, and the **Address Source** flag to **PER**.

To add a prospect account for an existing or prospect person through the web service, you must set the action flag to **ADD**. However, to edit a prospect account of an existing or prospect person through the web service, you must set the action flag to **UPD**. While editing a prospect account, you need to specify the following details to identify the prospect account whose details you want to change:

- o Entity (i.e. existing person or prospect person) whose prospect account you want edit
- o Prospect Account ID

During the update operation, the system replaces the prospect account data instead of editing it. At a time, you can create or edit one prospect account of an existing or prospect person through the web service. While adding a prospect account, the status of the prospect account can only be set to **ACTIVE**. If you do not specify the status while adding a prospect account, the system, by default sets the status of the prospect account to **ACTIVE**. While updating a prospect account, you can change the status of the prospect account from **ACTIVE** to **INACTIVE**. You can activate an inactive prospect account of an existing or prospect person whenever required. While activating an inactive prospect account of a prospect person, the system checks whether the status of the prospect person is **ACTIVE**. If so, the system enables you to activate an inactive prospect account of the prospect person.

- **View the details of a prospect account** – While viewing the details of a prospect account, you need to:
  - o Specify the prospect account ID to determine the prospect account whose details you want to view
  - o Set the action flag to **READ**

On processing the request, the system displays all details of the prospect account including its identifiers and characteristics in the response.

Deal Creation, Modification, and View through Inbound Web Service

Oracle Revenue Management and Billing enables you to create and edit a deal through a web service. At a time, you can create or edit only one deal version of a deal. It also enables you to view the details of a deal version through a web service. You can send a request from the external system to do the following through an inbound web service:

- Create a deal with or without using a reference and/or a deal template
- Edit the details of a deal version
- View the details of a deal version
- Add a new deal version to a deal

- Simulate a deal version
- Send a deal version for approval
- Approve a deal version
- Return a deal version to the submitter
- Finalize a deal version
- Accept or reject a deal version
- View the price items assigned to the existing customer or account for which the deal is created
- Select the price items for which you want to inherit, override, or edit pricing and add commitments in the deal version

At a time, you can send a request for any one of the above activities. We have shipped the following two inbound web services in this release:

- **C1-CreateDealService** - This is a SOAP based web service. You can use this web service when you want to send the above requests with respect to deal in the XML format.
- **C1-DealServiceREST** - This is a REST based web service. You can use this web service when you want to send the above requests with respect to deal in the XML or JSON format.

Both these inbound web services call the **C1-DealCreationUpdateIWS** business service. This business service is used to do the following:

- **Create a deal with or without using a reference and/or a deal template** - While creating a deal, you can specify the following details:
    - o Entity (i.e. existing or prospect customer or account) for which you want to create the deal
    - o Details of the customer, main customer (in case of account), or prospect, such as customer segment, customer tier, division, etc.
    - o Basic details of the deal, such as simulation type, review frequency, deal and deal version description, price selection date, usage period, etc.
    - o Template details in case you want to create the deal using a deal template
    - o Characteristics and terms and conditions for the deal
    - o Recommended products for the deal
    - o Whether you want to refer another entity or deal for pricing and commitments

    To add a deal through the web service, you must set the action flag to **ADD**. On processing the request, the system creates the deal and its deal version in the **PSML** or **DHRC** status.

- **Edit the details of a deal version** - While editing a deal version of a deal, you need to:
    - o Specify the deal version ID or deal ID or deal identifier to determine the deal version that you want to edit
    - o Set the action flag to **UPD**

    During the update operation, the system replaces the deal version data instead of editing it. Therefore, you should provide all details of the deal version including the data that you want to change.

- **View the details of a deal version** - While viewing the details of a deal version, you need to:
  - Specify the deal version ID or deal ID or deal identifier to determine the deal version whose details you want to view
  - Set the action flag to **READ**

  On processing the request, the system displays the details of the deal and its deal version.

- **Add a new deal version to a deal** – While adding a deal version to a deal, you need to:
  - Specify the deal version ID or deal ID or deal identifier to determine the deal in which you want to add the version
  - Specify the description for the deal version
  - Specify the method using which you want to create the deal version
  - Set the action flag to **ADD** and the operation flag to **CRDV**

  On processing the request, the system creates the deal version in the **PSML** or **DHRC** status.

- **Simulate a deal version** - While simulating a deal version of a deal, you need to:
  - Specify the deal version ID or deal ID or deal identifier to determine the deal version that you want to simulate
  - Set the action flag to **UPD** and the operation flag to **SMLD**

  On processing the request, the status of the deal version is changed to **SMLD** or **DSML**. If the deal version is in the **SMLD** status, the system displays the deal level financial summary, division level financial summary (if any), and product level financial summary (if any) along with the hierarchy level simulation details.

- **Send a deal version for approval** - While sending a deal version for approval, you need to:
  - Specify the deal version ID or deal ID or deal identifier to determine the deal version that you want to send for approval
  - Set the action flag to **UPD** and the operation flag to **SNDP**

  On processing the request, the system sends the deal version to the deal approval hierarchy. If the product and/or division level approval is required for the deal, the system sends the deal version to the product and/or division approval hierarchy before it goes to the deal approval hierarchy.

- **Approve a deal version** - While approving a deal version, you need to:
  - Specify the deal version ID or deal ID or deal identifier to determine the deal version that you want to approve
  - Set the action flag to **UPD** and the operation flag to **APPR**

  On processing the request, the system either approves the deal version or sends the deal to the next level in the approval hierarchy. Only the approver at the respective level in the product, division, or deal approval hierarchy can approve the deal version of the deal.

- **Return the deal version to the submitter** - While requesting the submitter to resubmit the deal version for approval, you need to:
  - Specify the deal version ID or deal ID or deal identifier to determine the deal version that you want to return to the submitter
  - Set the action flag to **UPD** and the operation flag to **RETN**

  On processing the request, the deal is resubmitted to the submitter to incorporate the changes requested by the approver.

- **Finalize a deal version** - While finalizing a deal version, you need to:
  - Specify the deal version ID or deal ID or deal identifier to determine the deal version that you want to finalize
  - Set the action flag to **UPD** and the operation flag to **FNAL**

  On processing the request, the deal is finalized and its status is changed to **FNAL**.

- **Accept a deal version** - While accepting a deal version, you need to:
  - Specify the deal version ID or deal ID or deal identifier to determine the deal version that you want to review
  - Set the action flag to **UPD** and the operation flag to **ACPT**
  - Specify the start date from when the deal version will be effective and end date (if it is a contracted deal) till when the deal version will be effective

  On processing the request, the status of the deal is changed to **ACPT**.

- **Reject a deal version** - While rejecting a deal version, you need to:
  - Specify the deal version ID or deal ID or deal identifier to determine the deal version that you want to review
  - Set the action flag to **UPD** and the operation flag to **REJC**
  - Reason why you want to reject the deal version

  On processing the request, the status of the deal is changed to **REJC**.

- **View the price items assigned to the customer or account for which the deal is created** - While viewing the price items assigned to the existing entity for which the deal is created, you need to:
  - Specify the deal version ID or deal ID or deal identifier to determine the deal whose details you want to view
  - Set the action flag to **READ** and the operation flag to **PSEL**

  On processing the request, the system lists all price items which are currently assigned to the entity using the respective pricing parameters. It also indicates whether any price item and pricing parameters combination is available in the deal version at the moment for defining the proposed pricing and commitments.

- **Select the price items for which you want to inherit, override, or edit pricing and add commitments in the deal version** – While selecting the price items in a deal version, you need to:
    - Specify the deal version ID or deal ID or deal identifier to determine the deal version which you want to edit
    - Set the action flag to **UPD** and the operation flag to **PSEL**
    - Set the **Include** flag of the price item and pricing parameters combination to true

    On processing the request, the system enables you to define proposed pricing and commitments for the selected price item and pricing parameters combination.

If both the deal version and deal ID or deal identifier are given in the request, the system considers the deal version. However, if only the deal ID or deal identifier is given in the request, the system derives the deal version. Note that an error occurs when the given deal has multiple deal versions. For more information about the Deal Management functionality, refer to *Oracle Revenue Management and Billing Banking User Guide*.

Price List Assignments in Deal through Inbound Web Service

Oracle Revenue Management and Billing enables you to assign a price list to an existing or prospect customer or account in a deal through a web service. It also enables you to edit and delete a price list assignment of a deal and view the details of a price list assignment through a web service. You can send a request from the external system to do the following through an inbound web service:

- Assign a price list to an existing or prospect customer or account in a deal
- Edit a price list assignment of a deal
- Delete a price list assignment of a deal
- View the details of a price list assignment

At a time, you can send a request either for viewing the details of one or more price list assignments or for creating, updating, and/or deleting one or more price list assignments of a deal. We have shipped the following two inbound web services in this release:

- **C1-DealPricelistAssignment** - This is a SOAP based web service. You can use this web service when you want to send the above requests with respect to price list assignment in the XML format.
- **C1-DealPricelistAssignmentREST** - This is a REST based web service. You can use this web service when you want to send the above requests with respect to price list assignment in the XML or JSON format.

Both these inbound web services call the **C1-DealPricelistAssignmentBS** business service. This business service is used to do the following:

- **Assign a price list to a customer or an account in a deal** – While assigning a price list to a customer or an account in a deal, you can specify the following details:
    - Deal Version ID or Deal ID or Deal Identifier to determine the deal version in which you want to assign the price list to an entity
    - Entity (i.e. person or account) to whom you want to assign the price list

- o   Price list that you want to assign

- o   Start and end dates of the price list assignment

- o   Priority of the price list assignment

- o   Whether the customer or account can inherit pricing from the parent price list

To assign a price list to a customer or an account in a deal through the web service, you must set the action flag to **ADD**. On processing the request, the system assigns the price list to the entity in the deal in the **Proposed** status.

- **Edit a price list assignment of a deal** – While editing a price list assignment of a deal, you need to:
  - o   Specify the deal version ID or deal ID or deal identifier to determine the deal version whose proposed price list assignment you want to edit

  - o   Specify the price list assignment ID

  - o   Specify the entity (i.e. person or account) whose price list assignment you want to edit

  - o   Set the action flag to **UPD**

During the update operation, the system replaces the price list assignment data instead of editing it. Therefore, you should provide all details of the price list assignment including the data that you want to change.

- **Delete a price list assignment of a deal** – While deleting a price list assignment of a deal, you need to:
  - o   Specify the deal version ID or deal ID or deal identifier to determine the deal version whose proposed price list assignment you want to delete

  - o   Specify the price list assignment ID

  - o   Specify the entity (i.e. person or account) whose price list assignment you want to delete

  - o   Set the action flag to **DEL**

On processing the request, the system deletes the proposed price list assignment of the entity from the deal.

- **View the details of a price list assignment** – While viewing the details of a price list assignment, you can specify either of the following:
  - o   **Price List Assignment ID** – Used when you want to view the details of a particular price list assignment.

  - o   **Entity Type and Entity ID** – Used when you want to view all price list assignments of a particular entity (i.e. person or account).

  - o   **Deal Version ID, Deal ID, or Deal Identifier** – Used when you want to view the price list assignments of all customers and accounts in a particular deal.

Note that if you provide the price list assignment ID, entity details, and deal details, the system fetches the details of a price list assignment using the price list assignment ID and ignores the entity and deal details. However, if you provide the entity and deal details, the system fetches all price list assignments of the given entity and ignores the deal details. Similarly, if you only provide the deal details, the system fetches all price list assignments of all entities from the given deal.

To view the details of a price list assignment through the web service, you must set the action flag to **READ**. On processing the request, the system displays the details of the price list assignment in the response.

If both the deal version and deal ID or deal identifier are given in the request, the system considers the deal version. However, if only the deal ID or deal identifier is given in the request, the system derives the deal version. Note that an error occurs when the given deal has multiple deal versions. For more information about the Deal Management functionality, refer to *Oracle Revenue Management and Billing Banking User Guide*.

Deal Price Assignments and Commitments through Inbound Web Service

Oracle Revenue Management and Billing enables you to override, edit, recommend, and delete a price item pricing of an entity in a deal through a web service. It also enables you to add or update the commitments of a price item and pricing parameters combination in a deal through a web service. In addition, it enables you to view the pricing and commitment details of a deal through a web service.

You can send a request from the external system to do the following through an inbound web service:

- Override a price item pricing of an existing or prospect customer or account in a deal
- Edit or delete a price item pricing of a deal
- Recommend a price item pricing for an existing or prospect customer or account in a deal
- Add or edit commitments of a price item and pricing parameters combination
- View the price item pricing and commitments details of a deal

At a time, you can send a request either for viewing the pricing and/or commitments details of all or particular entity in a deal, or for creating, updating, recommending, and/or deleting one or more pricing of a deal and/or for adding or editing commitments of one or more price item and pricing parameters combinations in a deal. We have shipped the following two inbound web services in this release:

- **C1-DealPriceAsgnCommitments** - This is a SOAP based web service. You can use this web service when you want to send the above requests with respect to pricing and commitments in the XML format.
- **C1-DealPriceAsgnCommitmentsREST** - This is a REST based web service. You can use this web service when you want to send the above requests with respect to pricing and commitments in the XML or JSON format.

Both these inbound web services call the **C1-DealPriceAsgnCommitmentBS** business service. This business service is used to do the following:

- **Override a price item pricing of an existing or prospect customer or account in a deal** - While overriding a price item pricing of a customer or an account in a deal, you need to:
    - Specify the deal version ID or deal ID or deal identifier to determine the deal version in which you want to override the pricing of an entity

- Specify the entity (i.e. person or account) whose pricing you want override and thereby create an agreed pricing
- Specify the price assignment ID
- Specify the pricing details including pricing parameters, characteristics, and flat and tierd price components
- Specify the tiering criteria and eligibility for the required price components
- Set the action flag to **OVRD**

On processing the request, the system creates an agreed pricing for the entity in the deal in the **Proposed** status.

- **Edit a price item pricing of a deal** - While editing a price item pricing of an entity in a deal, you need to:
    - Specify the deal version ID or deal ID or deal identifier to determine the deal version whose proposed pricing you want to edit
    - Specify the entity (i.e. person or account) whose pricing you want edit
    - Specify the price assignment ID
    - Set the action flag to **UPD**

During the update operation, the system replaces the pricing data instead of editing it. Therefore, you should provide all details of the pricing including the data that you want to change.

- **Delete a price item pricing of a deal** - While deleting a price item pricing of an entity in a deal, you need to:
    - Specify the deal version ID or deal ID or deal identifier to determine the deal version whose proposed pricing you want to delete
    - Specify the entity (i.e. person or account) whose pricing you want to delete
    - Specify the price assignment ID
    - Set the action flag to **DEL**

On processing the request, the system deletes the proposed pricing of the entity from the deal.

- **Recommend a price item pricing for an existing or prospect customer or account in a deal** - While recommending a price item pricing for an entity in a deal, you need to:
    - Specify the deal version ID or deal ID or deal identifier to determine the deal version in which you want to recommend pricing for an entity
    - Specify the entity (i.e. person or account) for whom you want to recommend a pricing
    - Specify the price assignment ID
    - Set the action flag to **RECM**

During the update operation, the system replaces the pricing data instead of editing it. Therefore, you should provide all details of the pricing including the data that you want to change.

- **Add commitments for a price item pricing** - While adding commitments for a pricing in a deal, you need to:
    - Specify the deal version ID or deal ID or deal identifier to determine the deal version in which you want to add commitments for the price item and pricing parameters combination
    - Specify the entity (i.e. person or account) for whom you want to add commitments
    - Specify the price item and pricing parameters combination for which you want to add commitments
    - Specify the commitments for the SQIs
    - Set the action flag to **ADD**

On processing the request, the system adds commitments for the price item and pricing parameters combination in the deal in the **Proposed** status.

- **Edit commitments of a price item pricing** - While editing commitments of a price item and pricing parameters combination in a deal, you need to:
    - Specify the deal version ID or deal ID or deal identifier to determine the deal version whose proposed commitments you want to edit
    - Specify the entity (i.e. person or account) whose commitments you want to edit
    - Specify the price item and pricing parameters combination whose commitments you want to edit
    - Set the action flag to **UPD**

During the update operation, the system replaces the commitment data instead of editing it. Therefore, you should provide all commitment details including the data that you want to change.

- **View the price item pricing and/or commitments details** - While viewing the pricing and/or commitment details of a deal, you need to:
    - Specify the deal version ID or deal ID or deal identifier to determine the deal version whose pricing and commitment details you want to view
    - Set the action flag to **READ**

On processing the request, the system then displays the pricing and commitment details of all customers and accounts in the deal version. You can also view the pricing and commitment details of a particular entity in the deal version. In addition, you can opt to view either pricing or commitment details or both pricing and commitment details of a deal version. If you want to view the pricing details of a deal version, you must set the inquiry mode to **PRIC**. If you want to view the commitment details of a deal version, you must set the inquiry mode to **COMT**. And, if you want to view both the pricing and commitment details of a deal version, you must set the inquiry mode to **BOTH**. Note that the system displays all active, proposed, and recommended price item pricing of the entities and all active and proposed commitments of the price item and parameters combination in the response.

If both the deal version and deal ID or deal identifier are given in the request, the system considers the deal version. However, if only the deal ID or deal identifier is given in the request, the system derives the deal version. Note that an error occurs when the given deal has multiple deal versions. The system allows you to override, edit, delete, or recommend pricing and/or add or edit commitments for multiple entities of a deal in the same request. For more information about the Deal Management functionality, refer to *Oracle Revenue Management and Billing Banking User Guide*.

Deal Extraction through Inbound Web Service

Oracle Revenue Management and Billing enables you to extract the details of a deal through a web service. At a time, you can extract the details of only one deal version of a deal. You can send the extract request from the external system through an inbound web service. We have shipped the following two inbound web services in this release:

- **C1-DealExtract** - This is an SOAP based web service. You can use this web service when you want to send the extract request in the XML format.
- **C1-DealExtractREST** - This is a REST based web service. You can use this web service when you want to send the extract request in the XML or JSON format.

Both these inbound web services call the **C1-DealExtractionWebService** business service. This business service is used to extract the details of a deal version**.** While extracting the details of a deal version, you need to specify the deal ID, deal version ID, or the deal identifier to determine the deal version whose details you want to view. If both the deal version and deal ID or deal identifier are given in the request, the system considers the deal version. However, if only the deal ID or deal identifier is given in the request, the system derives the deal version. Note that an error occurs when the given deal has multiple deal versions.

On processing the request, the system displays the following:

- Entity for which the deal is created
- Basic details of the deal including its terms and conditions, characteristics, and products
- Template using which the deal is created
- Details of the reference (if any) used in the deal
- Logs of the deal and deal version
- Adhoc cost and revenue details of the deal version
- Pricing and commitment details of each entity in the customer hierarchy
- Deal-specific terms and conditions defined for the price items and hierarchy entities
- Characteristics of different entities in the customer hierarchy
- Characteristics of different price items and hierarchy entities included in the deal

If the deal version is simulated, the system also displays the following information:

- Original, proposed, and recommended deal level financial summary
- Original, proposed, and recommended product level financial summary (if any)
- Original, proposed, and recommended division level financial summary (if any)

- Simulation details of each entity in the customer hierarchy

Automatic Refund Process

Oracle Revenue Management and Billing enables you to create automatic refunds when a credit bill or a credit adjustment is created or when there is an overpayment. A new algorithm spot named **Immediate Refund Creation** is introduced in the **Division** screen. A new algorithm type named **C1-IMREFCRET** is introduced in this release. You can create an algorithm using the **C1-IMREFCRET** algorithm type and attach it to the **Immediate Refund Creation** algorithm spot of the required divisions.

To implement the automatic refund feature, the following fields are newly introduced in the respective screen:

Screen	Tab	Field Name	Field Description
Account	Main	Immediate Refund	Used to indicate whether you want to process immediate refund for the account.
	Auto Pay	Auto Pay Usage	Used to indicate whether the automatic payment option is available for automatic credit or debit, or for both automatic credit and debit.
Person	Main	Immediate Refund	Used to indicate whether you want to process immediate refund for the person's accounts.
Customer Class	Controls	Immediate Refund	Used to indicate whether you want to process immediate refund for the accounts which belong to the customer class.
Division	Main	Direct Credit Refund	Used to indicate whether you want to process immediate refund for the accounts belonging to the division through the direct credit mode.
		Immediate Refund	Used to indicate whether you want to process immediate refund for the accounts belonging to the division. This field is enabled when the **Direct Credit Refund** or **A/P Request Fund** option is selected.
		A/P Request Fund	Used to indicate whether you want to process immediate refund for the accounts belonging to the division through the A/P request mode.
Adjustment Type	Main	Refund Option	Used to indicate whether you want to use the adjustment type for creating direct credit refund adjustments or A/P request refund adjustments.
Auto Pay Instruction	Auto Pay	Auto Pay Usage	Used to indicate whether the automatic payment instruction is available for automatic credit or debit, or for both automatic credit and debit.

Screen	Tab	Field Name	Field Description
Auto Pay Route Type	-	Refund Auto Pay Date Calculation Algorithm	Used to calculate the extract date for an automatic refund clearing record in the **CI_APAY_CLR_STG** table.

Note: While creating a person through a customer registration object, you can also set the immediate refund option for the person. Similarly, while creating an account through a customer registration object, you can also set the immediate refund and auto pay usage options for the account.

Now, when a credit bill is completed, when a credit adjustment is frozen, and when an overpayment is frozen, the system checks whether an algorithm is attached to the **Immediate Refund Creation** algorithm spot of the respective account's division. If an algorithm created using the **C1-IMREFCRET** algorithm type is attached to the **Immediate Refund Creation** algorithm spot of the division, the system checks whether the **Immediate Refund on Credit Bill**, **Immediate Refund on Dispute/Credit Adjustments**, or **Immediate Refund on overpayment** parameter in the algorithm is set to **Y** depending on whether it is a credit bill, credit adjustment, or overpayment.

If the respective parameter is set to **Y**, the system checks whether the **Immediate Refund** option is selected at either of the following levels – Account, Person, Customer Class, or Division. If so, the system checks whether the **Direct Credit Refund** option of the division is set to **Y** and the automatic payment option for automatic credit or for automatic credit and debit exists for the account. If so, the system creates a refund request using the direct credit refund request type which is specified in the **C1-IMREFCRET** algorithm. However, if the **Direct Credit Refund** option of the division is set to **N** and the **A/P Request Fund** option of the division is set to **Y**, the system creates a refund request using the A/P request refund request type which is specified in the **C1-IMREFCRET** algorithm. In addition, if the **Direct Credit Refund** option of the division is set to **Y**, the **A/P Request Fund** option of the division is set to **Y**, and the automatic payment option for automatic credit or for automatic credit and debit does not exist for the account, the system creates a refund request using the A/P request refund request type which is specified in the **C1-IMREFCRET** algorithm.

If the **Direct Credit Refund** option of the division is set to **Y**, the **A/P Request Fund** option of the division is set to **N**, and the automatic payment option for automatic credit or for automatic credit and debit does not exist for the account, the system creates a transfer adjustment using the transfer adjustment type which is specified in the **C1-IMREFCRET** algorithm. Also, if the **Direct Credit Refund** option of the division is set to **N** and the **A/P Request Fund** option of the division is set to **N**, the system creates a transfer adjustment using the transfer adjustment type which is specified in the **C1-IMREFCRET** algorithm.

In addition, if the **Immediate Refund** option is not selected at any of the following levels – Account, Person, Customer Class, or Division, the system creates a transfer adjustment using the transfer adjustment type which is specified in the **C1-IMREFCRET** algorithm. Note that these transfer adjustments are created against the excess credit contract of the account. If the excess credit contract is not available for the account, the system creates an excess credit contract for the account using the overpayment contract type which is specified in the **C1-IMREFCRET** algorithm.

The refund requests are created in the **Processed** status. While creating a direct access refund request type, you need to ensure that you specify an adjustment type where the refund option is set to **Direct Credit**. However, while creating an A/P request refund request type, you need to ensure that you specify an adjustment type where the refund option is set to **A/P Payment**. The system will then accordingly create the direct credit or A/P request refund adjustments when the refund request is processed. If the **Adjustment Freeze Switch** parameter in the **C1-IMREFCRET** algorithm is set to **Y**, the transfer and refund adjustments are created in the **Frozen** status.

When a credit bill is canceled for which either the refund adjustments or payments are created, the system does the following:

- Creates the transfer adjustments on the excess credit contract of the account

Note: The system considers the transfer adjustment type and overpayment contract type specified in the **C1-TRNADJEX** algorithm which is attached to the account's customer class.

The **APAYCRET** batch is enhanced to support the new automatic refund process. Now, if the automatic payment amount stamped against a bill is in debit and the auto pay usage flag is set to **Debit** or **Credit and Debit**, the batch creates automatic payment and payment event for such bill. It also creates a clearing record for each automatic payment in the **CI_APAY_CLR_STG** table. However, if the automatic payment amount stamped against a bill is in credit and the auto pay usage flag is set to **Credit** or **Credit and Debit**, the batch creates a refund request against the bill. Here, in addition, if the refund option is set to **Direct Credit** in the respective refund adjustment type, the batch creates a clearing record for the automatic refund in the **CI_ADJ_CLR_STG** table. However, if the refund option is set to **A/P Request** in the respective refund adjustment type, the batch creates an A/P request entry for the automatic refund in the **CI_ADJ_APREQ** table.

Billing Anomaly Detection with Artificial Intelligence (AI) and Machine Learning (ML)

Until now, the system enabled you to detect anomalies in the bills before bill completion using the **Bill Tolerance** feature. Now, in addition, Oracle Revenue Management and Billing enables you to use artificial intelligence and machine learning to detect anomalies in the bills and bill segments before the bill completion. The different steps involved in the machine learning process are:

- Data Preparation
- Model Generation
- Data Prediction

These three steps are referred as ML jobs in the system. An ML Job goes through various statuses in its lifecycle. We have shipped the following three batches to execute the above three steps:

- **C1-MLDPR** – This batch is used to extract the historical bills and their bill segments which are later used to create a machine learning training model. It transforms the historical bills and their bill segments into materialized views.

You can specify the extraction date range to fetch the bills and bill segments which are created within that date range. We recommend you to extract the historical data of at least last three years. This batch provides an option to extract the data incrementally. If you want to extract the data incrementally, then you need to set the **Incremental Data** parameter to **Y** and specify the extraction from date and cutoff days. This option should be used when you want to extract historical data from a particular date till the cutoff date (i.e. system date – cutoff days).

Ideally, you should use this option when you want to use a static from date and a dynamic end date each time the batch is executed. However, if you do not want to extract the data incrementally, then you need to set the **Incremental Data** parameter to **N** and specify the extraction date range (i.e. from and to dates). You can extract the historical bills and their bill segments either separately or together.

However, if you have voluminous data, we recommend you to extract the historical bills in the first batch run and then extract the historical bill segments in the next batch run. This batch also enables you to filter the dataset based on the bill cycle and division. It is a single-threaded batch. Ideally, you must execute this batch every three months to refresh the dataset of the machine learning training model.

- **C1-MLMCR** – This batch is used to create a machine learning training model using the historical data extracted through the **C1-MLDPR** batch. A machine learning training model is a process in which a machine learning (ML) algorithm is fed with sufficient training data to learn and analyze using the dataset. It enables you to process large volumes of data to detect anomalies and test correlations while searching for patterns across the dataset. At present, you can build a model using the following approach:

  - **BUILTIN** – Used when you want to build a model far ahead in time before the anomaly detection.

  Once a machine learning training model is created, it is stored in the database as a database object. This batch is a single-threaded batch. Ideally, you must execute this batch every three months to create a new machine learning training model with the latest dataset.

- **C1-MLPRE** – This batch is used to detect anomalies in the current bills and their bills segments based on the patterns observed in the machine learning training model. At a time, you can either detect anomalies in the bills or their bill segments in a single batch run. You must execute this batch after generating bill segments and bills through the billing batches.

  While using AI ML for anomaly detection, you should not enable the **Freeze and Complete** option for the bill cycle. This is because you will then have the option to make the required corrections based on anomaly detection before freezing and completing the bills and their bill segments. A To Do notification is created to summarize anomaly detection for a given batch code, batch number and batch rerun number.

  While executing the **C1-MLPRE** batch, you need to specify the bill segment generation or bill completion batch control and its batch run number whose bills or bill segments you want to consider for anomaly detection. You can either specify the batch run number or set the incremental run flag to **true** during the **C1-MLPRE** batch execution. This batch is a multi-threaded batch.

At present, the following data mismatch is considered as anomalies by the machine learning process:

- Data mismatch in the bill segments (i.e. SQI or amount mismatch)
- Data mismatch in the bills (i.e. an additional price item is charged in the current bill, a price item (which is billed earlier) is not charged in the current bill, and bill amount mismatch)

To implement this AI ML feature, the following two screens are introduced in this release:

- **ML Jobs** – Enables you to track the status of different ML jobs.
- **Diagnostics Central** – Enables you to view and close the detected anomalies in the bills and bill segments. After reviewing the anomaly, you can either take any one of the following action:
  - Fix the anomaly in the bill or bill segment and then close the anomaly. In this case, while closing the anomaly, you must set the **Anomaly** field to **Yes** to indicate that it is an anomaly.
  - Ignore the anomaly in the bill or bill segment and then close the anomaly. In this case, while closing the anomaly, you must set the **Anomaly** field to **No** to indicate that it is not an anomaly.

Chatbot

Oracle Revenue Management and Billing provides digital assistance to end-users using Oracle Digital Assistant (ODA). You can use the digital assistant, also known as detective Chatbot, to have conversational experiences with ORMB through text, chat, and voice interfaces.

We have introduced a Menu Based Chatbot in this release. As the name suggests, this Chatbot facilitates the user to choose from several options, presented in the form of menus and sub menus. At present, we have the following menu options in the Chatbot:

- **Customer Info** – It enables you to view the details of a customer. On clicking the **Customer Info** menu option, a sub menu appears with the following options:
  - **Customer ID** – Used when you want to view the details of a particular customer. The system then displays the details of the customer in the **Customer 360° Information** screen.
  - **Customer Name** – Used when you want to view the list of customers with a particular name. You can use the wildcard character (%) while specifying the customer name. If there is only one customer whose name matches the specified value, the system displays the details of the customer in the **Customer 360° Information** screen. However, if there are multiple customers whose name matches the specified value, the system displays the list of customers that meet the criteria in the **Customer 360° View** screen.
- **Account Info** - It enables you to view the details of an account. On clicking the **Account Info** menu option, a sub menu appears with the following options:
  - **Account ID** - Used when you want to view the details of a particular account. The system then displays the details of the account in the **Customer 360° Information** screen.
  - **Customer Name** - Used when you want to view the list of accounts where a particular customer is the main customer.

You can use the wildcard character (%) while specifying the customer name. If there is only one account of the customer, the system displays the details of the account in the **Account** screen.

However, if there are multiple accounts of the customer, the system displays the list of accounts that meet the criteria in the **Account Search** window.

- o **Account Statement** – Used when you want to view the mini statement (last five transactions) of an account. The system displays the financial transaction details in the **Chatbot** window.

- **Bill Info** - It enables you to view the details of a bill and initiate the bill creation or cancellation process. On clicking the **Bill Info** menu option, a sub menu appears with the following options:

  - o **Create Bill** – Used when you want to create a bill for an account. On entering the account ID, the **Bill** screen appears where you can generate a bill for the account.

  - o **Latest Bill Details** – Used when you want to view the details of a bill. On clicking the **Latest Bill Details** menu option, a sub menu appears with the following options:

    - ▪ **Account ID** – Used when you want to view the latest bill details of a particular account.

    - ▪ **Alternate Bill ID** – Used when you want to view the details of a particular bill.

    - ▪ **Bill ID** – Used when you want to view the details of a particular bill.

  - o **Cancel Bill** – Used when you want to cancel a bill of an account. On entering the bill ID, the **Bill** screen appears where you can cancel the bill of the account.

- **Pricing Info** – It enables you to view the effective or agreed pricing of a customer or an account. It also enables you to view the details of a price list. On clicking the **Pricing Info** menu option, a sub menu appears with the following options:

  - o **Customer ID** – Used when you want to view the price assignments of a customer. On entering the customer ID, a sub menu appears with the following options:

    - ▪ **Effective Pricing** – Used when you want to view all effective price assignments of the customer.

    - ▪ **Agreed Pricing** – Used when you want to view all agreed price assignments of the customer.

    The system displays the effective or agreed price assignments of the customer in the **Pricing (Person)** screen.

  - o **Account ID** – Used when you want to view the price assignments of an account. On entering the account ID, a sub menu appears with the following options:

    - ▪ **Effective Pricing** – Used when you want to view all effective price assignments of the account.

    - ▪ **Agreed Pricing** – Used when you want to view all agreed price assignments of the account.

    The system displays the effective or agreed price assignments of the account in the **Pricing (Account)** screen.

- o **Price List** - Used when you want to view the details of a price list. On entering the price list description, the system displays the details of the price list in the **Price List** screen.
- **Others** - It enables you to view the details of a batch job or DBMS scheduler job. On clicking the **Others** menu option, a sub menu appears with the following options:
  - o **Batch Job Status** – Used when you want to view the status of last five batch jobs of a particular batch control. The system displays the batch job details in the **Chatbot** window.
  - o **DBMS Job Status** – Used when you want to view the status of a particular DBMS scheduler job. The system displays the scheduler job details in the **Chatbot** window.

To implement and use the **Chatbot** feature, you need to additionally procure the license for Oracle Digital Assistant (ODA). To integrate ODA with ORMB, you need to make some configurations in ODA and ORMB. For more information about configuration, refer the *Oracle Revenue Management and Billing Chatbot Configuration Guide*. And, for more information about how to use the **Chatbot** feature, refer to the *Oracle Revenue Management and Billing Chatbot User Guide*.

FOP Reports

Oracle Revenue Management and Billing enables you to extract data using the following FOP reports:

- **Transaction Rejection Summary Report** – Enables you to view the number of transactions mapped to a particular account and price item combination which are in the **Error** or **Ignored** status. At a time, it enables you to view the error and ignored transaction summary of all accounts which belong to a particular division. While generating the transaction rejection summary report, you can specify the following parameters – Start Date, End Date, and Division. The start date and division are mandatory. If you do not specify the end date, the system by default sets it to the system date.

  You can generate the transaction rejection summary report from the user interface or through a batch process in the Excel format. We have shipped the following transaction rejection summary reports in this release:

  - o **FOPTRSMBXLS** - Used when you want to generate the transaction rejection summary report through the **C1-RPTGN** batch in the Excel format.
  - o **FOPTRSMOXLS** - Used when you want to generate the transaction rejection summary report from the user interface in the Excel format.
- **Transaction Rejection Detail Report** – Enables you to view the details of the transactions which are in the **Error** or **Ignored** status. At a time, it enables you to view the error and ignored transactions of all accounts which belong to a particular division. While generating the transaction rejection detail report, you can specify the following parameters – Start Date, End Date, Division, and Transaction Header. The start date and division are mandatory. If you do not specify the end date, the system by default sets it to the system date.

You can generate the transaction rejection detail report from the user interface or through a batch process in the Excel format. We have shipped the following transaction rejection detail reports in this release:

- o **FOPTRDTBXLS** - Used when you want to generate the transaction rejection detail report through the **C1-RPTGN** batch in the Excel format.
- o **FOPTRDTOXLS** - Used when you want to generate the transaction rejection detail report from the user interface in the Excel format.

- **Payment Detail Report** – Enables you to view the payment details of an account. At a time, it enables you to view the payments made for the accounts of all customers which belong to a particular division. While generating the payment detail report for the financial services domain, you can specify the following parameters – Division, Start Date, and End Date. The division and start date are mandatory. If you do not specify the end date, the system by default sets it to the system date. The payments are shown in the payment currency.

  You can generate the payment detail report from the user interface or through a batch process in the PDF format. We have shipped the following payment detail reports for the financial services domain in this release:

  - o **FOPPAYDTBPDF** - Used when you want to generate the payment detail report through the **C1-RPTGN** batch in the PDF format.
  - o **FOPPAYDTOPDF** - Used when you want to generate the payment detail report from the user interface in the PDF format.

- **Payment Summary Report** – Enables you to view the total payment made via a tender type. At a time, it enables you to view the total payments made via a tender type for each customer which belongs to a particular division. While generating the payment summary report for the financial services domain, you can specify the following parameters – Division, Start Date, and End Date. The division and start date are mandatory. If you do not specify the end date, the system by default sets it to the system date. The payment total is shown in the customer's division currency. While generating the payment summary report, the system does the currency conversion when the payment currency is different from the customer's division currency.

  You can generate the payment summary report from the user interface or through a batch process in the PDF format. We have shipped the following payment summary reports for the financial services domain in this release:

  - o **FOPPAYSMBPDF** - Used when you want to generate the payment summary report through the **C1-RPTGN** batch in the PDF format.
  - o **FOPPAYSMOPDF** - Used when you want to generate the payment summary report from the user interface in the PDF format.

- **Invoice Aging Report** - Enables you to view the invoices which are due for payment in different age buckets. At a time, it enables you to view the invoice aging data of all customers which belong to a particular division. While generating the invoice aging report, you can specify the following parameters – Start Date, End Date, and Division. The start date and division are mandatory. If you do not specify the end date, the system by default sets it to the system date. While generating the invoice aging report, the system does the currency conversion when the accounts' invoice currency is different from the customer's division currency.

You can generate the invoice aging report from the user interface or through a batch process in the PDF format. We have shipped the following invoice aging reports in this release:

- o **FOPAGEBPDF** - Used when you want to generate the invoice aging report through the **C1-RPTGN** batch in the PDF format.
- o **FOPAGEOPDF** - Used when you want to generate the invoice aging report from the user interface in the PDF format.

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:

- [Account Level Payment Distribution](#)
- [Statement Level Payment Distribution](#)
- [Bill Line Items Level Offset](#)
- [Internal Offsetting of Zero Balance Bill](#)
- [FOP Reports](#)

Account Level Payment Distribution

Until now, you were able to match a payment against a particular bill of an account. Oracle Revenue Management and Billing now provides the ability to apply a payment on an account which will get matched against the unpaid bills of the account. This feature is only applicable for accounts which practice open item accounting. The system supports the account level payment distribution through the following modes:

- Inbound web service
- EDI 820 file
- Payment request
- Payment upload

While creating a match type for the account level payment distribution, you must set the entity type of the match type to **Account**. Earlier, the manual distribution algorithm of a match type was invoked only when the payment distribution was done through the payment request feature. Now, the manual distribution algorithm of a match type is invoked when the payment distribution is done using any of the above modes. The existing manual distribution algorithm spot of a match type is enhanced to support the account level payment distribution. In case of the account level payment distribution, the manual distribution algorithm spot receives the account ID as the input parameter. When this algorithm spot is invoked through the payment request feature, the account ID is passed as the match value. However, when this algorithm spot is invoked through the inbound web service, EDI 820, and payment upload feature, the account ID is not passed as the match value. Instead, the payment is distributed using the payee account ID. The manual distribution algorithm spot then returns a list of unpaid bills of the account.

A new manual distribution algorithm named **C1-MD-ACCT** is introduced in this release. It distributes the payment amount against the unpaid bills of the account in the ascending order of due date (i.e. bill with the oldest due date will have high priority). If there are multiple unpaid bills with the same due date, the system distributes the payment amount against the unpaid bills in the ascending order of the unpaid amount (i.e. bill with the lowest amount will have high priority). And, if there are two or more unpaid bills with the same due date and unpaid amount, the system will randomly distribute the payment amount against any of the unpaid bills of the account.

Once the system distributes the payment amount against the unpaid bills of the account, the system creates a payment for each unpaid bill. Here, all these payments would be created under the same payment event.

Any excess amount that is left after distributing the payments on the unpaid bills of the account should be applied on the on-account contract of the account. The system derives the on-account contract using the contract type specified in the **On-Account Contract Type** option type of the **C1-ADJ-PAY** feature configuration. If the on-account contract of the specified contract type is not available for the account, the system creates on-account contract using the contract type specified in the **On-Account Contract Type** option type of the **C1-ADJ-PAY** feature configuration. The system then parks the excess credit payment on the on-account contract of the account.

While creating the excess credit payment, the system uses the match type which is specified in the **On-Account Match Type** option type of the **C1-ADJ-PAY** feature configuration.

Once all payments including the excess credit payment is created, the system will store the payee account ID on all payments when the payment is applied at the account level. The payee account ID is stored as a characteristic using the characteristic type which is specified in the **Account Level Payment Characteristic Type** option type of the **C1-ADJ-PAY** feature configuration. The **C1-ACPAY** characteristic type is shipped with the product.

Note that you can apply payments on the account level using the single-step approach of the **PUPL** batch and not using the three-step approach of the **PUPL** batch. Also, note that multi tender distribution is not supported for the account level payment distribution.

Statement Level Payment Distribution

Until now, you were able to match a payment against a particular bill of an account. Oracle Revenue Management and Billing now provides the ability to apply a payment on a statement which will get matched against the unpaid bills on the statement. The bills on a statement may belong to the same or different accounts of the person for whom the statement is created using the statement construct. Note that the system supports the statement level payment distribution for those statements:

- Which are created using the statement constructs comprising of one or more accounts and no contracts (under construct details)
- Which are in the **Printed** status

This feature is only applicable for accounts which practice open item accounting. The system supports the statement level payment distribution through the following modes:

- Inbound web service
- EDI 820 file
- Payment request
- Payment upload

While creating a match type for the statement level payment distribution, you must set the entity type of the match type to **Statement**. Earlier, the manual distribution algorithm of a match type was invoked only when payment distribution was done through the payment request feature. Now, the manual distribution algorithm of a match type is invoked when the payment distribution is done using any of the above modes. The existing manual distribution algorithm spot of a match type is enhanced to support the statement level payment distribution. In case of the statement level payment distribution, the manual distribution algorithm spot receives the statement ID as the input parameter. When this algorithm spot is invoked through the payment request feature, the statement ID is passed as the match value. However, when this algorithm spot is invoked through the inbound web service, EDI 820, or payment upload feature, the statement ID is not passed as the match value. Instead, the statement ID is directly fetched from the dataset. The manual distribution algorithm spot then returns a list of unpaid bills on the statement.

A new manual distribution algorithm named **C1-MD-STMT** is introduced in this release. It distributes the payment amount against the unpaid bills of the statement in the ascending order of due date (i.e. bill with the oldest due date will have high priority). If there are multiple unpaid bills with the same due date, the system distributes the payment amount against the unpaid bills in either of the following two ways:

- In the ascending order of the unpaid amount (i.e. bill with the lowest amount will have high priority)
- Using the weighted distribution based on the unpaid amount of each bill

If you want to distribute the payment amount using the former method, you must set the **Weighted distribution of payments among bills of same age. (Valid Values :Y,N)** parameter of the **C1-MD-STMT** algorithm to **N**. However, if you want to distribute the payment amount using the latter method, you must set the **Weighted distribution of payments among bills of same age. (Valid Values :Y,N)** parameter of the **C1-MD-STMT** algorithm to **Y**.

Once the system distributes the payment amount against the unpaid bills of the statement, the system creates a payment for each unpaid bill. Here, all these payments would be created under the same payment event.

Any excess amount that is left after distributing the payments on the unpaid bills of the statement should be applied on the on-account contract of the account. The person linked to the statement construct using which the statement is created should have an account which will be used to park the excess amount paid on a statement. If the account is not available and the payment against a statement is in excess of the total unpaid balance of the statement, then the entire payment on the statement ID will be errored out and won't be applied on any of the bills.

The system derives the on-account contract of the account using the contract type specified in the **On-Account Contract Type** option type of the **C1-ADJ-PAY** feature configuration. If the on-account contract of the specified contract type is not available for the account, the system creates on-account contract using the contract type specified in the **On-Account Contract Type** option type of the **C1-ADJ-PAY** feature configuration. The system then parks the excess credit payment on the on-account contract of the account. While creating the excess credit payment, the system uses the match type which is specified in the **On-Account Match Type** option type of the **C1-ADJ-PAY** feature configuration.

Once all payments including the excess credit payment is created, the system will store the statement ID on all payments when the payment is applied at the statement level. The statement ID is stored as a characteristic using the characteristic type which is specified in the **Statement Level Payment Characteristic Type** option type of the **C1-ADJ-PAY** feature configuration. The **C1-STPAY** characteristic type is shipped with the product.

Note that you can apply payments on the statement level using the single-step approach of the **PUPL** batch and not using the three-step approach of the **PUPL** batch. Also, note that multi tender distribution is not supported for the statement level payment distribution.

Note: At the moment, you can delete a statement which is used for the payment distribution from the user interface. The system neither performs any validation during the statement deletion nor cancels any payments when a statement is deleted. Therefore, you need to ensure that you do not delete any statements which are used for payment distribution in the system.

Bill Line Items Level Offset

Until now, while offsetting two or more bills through an offset request, the system did not allow to consider a debit bill with a credit line item as a credit bill while offsetting. In addition, the system did not allow to add a bill with zero balance having debit and credit line items in an offset request.

Now, a new option named **Bill Line Items Level Offset** is available while defining an offset request type. If you select the **Bill Line Items Level Offset** option in an offset request type, the system allows you to do the following:

- Consider a debit bill with a credit line item as a credit bill while offsetting through an offset request
- Add a bill with zero balance having debit and credit line items in an offset request

For example, if you include a debit bill (BILL1) with the following line items in an offset request which is created using an offset request type where the **Bill Line Items Level Offset** option is selected:

Bill Line Item	Amount
BS1	100$
BS2	100$
BS3	200$
AD1	-200$

The system allows you add BILL1 as a credit bill in the offset request. Earlier, the system used to internally offset the bill and the outstanding bill amount was then available for offsetting with another bills in an offset request. Now, if you consider a debit bill with a credit line item as a credit bill for offsetting in an offset request, the system will not internally offset the bill and the credit line items would be available for offsetting with another bills in the offset request. However, if you do not consider a debit bill with a credit line item as a credit bill for offsetting in an offset request, the system will first internally offset the bill and then outstanding amount would be available for offsetting against another bills in the offset request.

If you select the **Bill Line Items Level Offset** option in an offset request type, you need to ensure that **Match Type Entity (Valid Values: BILL, BSEG, SA)** parameter in the **C1-OFST-DIST** algorithm (which is attached to the **Creating Adjustment** status in the lifecycle of the **C1-OffsetRequest** business object) is set to **BSEG**. Otherwise, erroneous results might occur.

If you create an offset request using an offset request type where the **Bill Line Items Level Offset** option is selected, then:

- The following columns are additionally available in the **Offset Details** section while editing the offset request:
    - **Debit Balance** – Displays the sum of the unpaid debit line items of a bill
    - **Credit Balance** – Displays the sum of the open credit line items of a bill
    - **Credit Bill** – Used to indicate whether you want to consider a debit bill with a credit line item as a credit bill in the offset request. By default, this option is selected for a bill with the credit or zero balance and it is not editable. Note that you cannot select this option for a debit bill which no credit line item and therefore, in such case, this option is disabled.
- The default offset amount is set either to the sum of open credit balance of all credit bills in the offset request or to the sum of outstanding amount of all debit bills in the offset request whichever is less. While editing the offset amount, the system validates the following:
    - Offset amount is not greater than the outstanding amount of the debit bill
    - Offset amount is not greater than the open credit balance of the credit bill
- The **Debit Balance**, **Credit Balance**, and **Credit Bill** columns appear in the **Selected Bills** zone of the **Offset Request** screen.

As mentioned earlier, the system now allows you to add a bill with zero balance having debit and credit line items in an offset request. You can add a bill with zero balance from the following screens:

- Offset Request
- Account Receivable Central

While creating an offset request for a zero balance bill from the **Account Receivable Central** screen or while adding a zero balance bill to an offset request, the system validates the following:

- The **Bill Line Items Level Offset** option is selected the respective offset request type.
- The selected bill with zero balance is not fully matched.

We recommend you to add maximum 4 to 5 bills while offsetting the bills through an offset request using the **Bill Line Items Level Offset** feature.

Internal Offsetting of Zero Balance Bill

Oracle Revenue Management and Billing provides a new option type named **Avoid internal match event creation for zero dollar bill** in the **C1_FINTRANOP** feature configuration. You can set the value of this option type to:

- **Y** – Used when you do not want the system to internally match the debit and credit line items of a zero balance bill on the bill completion.

- **N** – Used when you want the system to internally match the debit and credit line items of a zero balance bill on the bill completion.

If you want to consider a zero balance bill for offsetting against another bills in an offset request, you should set the **Avoid internal match event creation for zero dollar bill** option type of the **C1_FINTRANOP** feature configuration to **Y**.

FOP Reports

Oracle Revenue Management and Billing enables you to extract data using the following FOP reports:

- **Invoice Aging Report** – Enables you to view the invoices which are due for payment in different age buckets. At a time, it enables you to view the invoice aging data of all customers which belong to a particular division. While generating the invoice aging report, you can specify the following parameters – Start Date, End Date, Division, and Customer Class. The start date and division are mandatory. If you do not specify the end date, the system by default sets it to the system date. While generating the invoice aging report, the system does the currency conversion when the accounts' invoice currency is different from the customer's division currency.

  This report can be used for the self-funded, fully-insured group, and fully-insured individual business. In case of the self-funded and fully-insured group business, the aging data is grouped at the bill group and parent customer levels. However, in case of the fully-insured individual business, the aging data is grouped at the individual customer level.

  You can generate the invoice aging report from the user interface or through a batch process in either PDF or Excel format. We have shipped the following invoice aging reports in this release:

  - **FOPAGEHCBPDF** - Used when you want to generate the invoice aging report through the **C1-RPTGN** batch in the PDF format.
  - **FOPAGEHCBXLS** - Used when you want to generate the invoice aging report through the **C1-RPTGN** batch in the Excel format.
  - **FOPAGEHCOPDF** - Used when you want to generate the invoice aging report from the user interface in the PDF format.
  - **FOPAGEHCOXLS** - Used when you want to generate the invoice aging report from the user interface in the Excel format.

- **Specific Stop-Loss Report** – Enables you to view the specific stop-loss which is billed for each member to a bill group. At a time, it enables you to view the specific stop-loss information of a particular parent customer which belongs to a particular division. While generating the specific stop-loss report, you can specify the following parameters – Division, Parent Customer, Claim Billed Through, Policy Start Date, and Policy End Date. The division and parent customer are mandatory.

  If you specify the claim billed until date, you need to specify the policy start and end dates. For example, if you specify 03-01-2022 in the **Claim Billed Through** parameter, 01-01-2022 in the **Policy Start Date** parameter, and 12-31-2022 in the **Policy End Date** parameter, the system fetches the specific stop-loss charges which are billed to different bill groups of the parent customer between 01-01-2022 to 03-01-2022.

This report can be used for the self-funded business. You can generate the specific stop-loss report from the user interface or through a batch process in either PDF or Excel format. We have shipped the following specific stop-loss reports in this release:

- o **FOPSSLHCBPDF** - Used when you want to generate the specific stop-loss report through the **C1-RPTGN** batch in the PDF format.
- o **FOPSSLHCBXLS** - Used when you want to generate the specific stop-loss report through the **C1-RPTGN** batch in the Excel format.
- o **FOPSSLHCOPDF** - Used when you want to generate the specific stop-loss report from the user interface in the PDF format.
- o **FOPSSLHCOXLS** - Used when you want to generate the specific stop-loss report from the user interface in the Excel format.

- **Aggregate Stop-Loss Report** – Enables you to view the aggregate stop-loss which is billed to a parent customer. At a time, it enables you to view the aggregate stop-loss information of a particular parent customer which belongs to a particular division. While generating the aggregate stop-loss report, you can specify the following parameters – Division, Parent Customer, Claim Billed Through, Policy Start Date, and Policy End Date. The division and parent customer are mandatory. If you specify the claim billed until date, you need to specify the policy start and end dates. For example, if you specify 04-01-2021 in the **Claim Billed Through** parameter, 01-01-2021 in the **Policy Start Date** parameter, and 12-31-2021 in the **Policy End Date** parameter, the system fetches the aggregate stop-loss charges which are billed to the parent customer between 01-01-2022 to 04-01-2022.

  This report can be used for the self-funded business. You can generate the aggregate stop-loss report from the user interface or through a batch process in either PDF or Excel format. We have shipped the following aggregate stop-loss reports in this release:

  - o **FOPASLHCBPDF** - Used when you want to generate the aggregate stop-loss report through the **C1-RPTGN** batch in the PDF format.
  - o **FOPASLHCBXLS** - Used when you want to generate the aggregate stop-loss report through the **C1-RPTGN** batch in the Excel format.
  - o **FOPASLHCOPDF** - Used when you want to generate the aggregate stop-loss report from the user interface in the PDF format.
  - o **FOPASLHCOXLS** - Used when you want to generate the aggregate stop-loss report from the user interface in the Excel format.

- **Payment Detail Report for Self-funded and Fully-Insured Group Business** – Enables you to view the payment details of each account. At a time, it enables you to view the payments of all accounts which belong to a particular division. While generating the payment detail report for the self-funded or fully-insured group business, you can specify the following parameters – Division, Start Date, End Date, Person Identifier Type, Person Identifier, Account Identifier Type, Account Identifier, Payment Status, Payment Amount Range, and Customer Class.

  The division and start date are mandatory. If you do not specify the end date, the system by default sets it to the system date. While filtering the data using the payment amount range, you need to specify the lower and upper range value separated by the hyphen (-) symbol.

For example, if you set the start date to 01-01-2020, division to D1, and payment amount range to 50-100, the system will extract all payments which are created from 01-01-2020 till the current date, whose payment amount is between 50 and 100, and which are created for the accounts belonging to the D1 division. The payments are shown in the payment currency.

You can generate the payment detail report from the user interface or through a batch process in either PDF or Excel format. We have shipped the following payment detail reports for the self-funded and fully-insured group business in this release:

- **FOPPADGHBPDF** - Used when you want to generate the payment detail report through the **C1-RPTGN** batch in the PDF format.
- **FOPPADGHBXLS** - Used when you want to generate the payment detail report through the **C1-RPTGN** batch in the Excel format.
- **FOPPADGHOPDF** - Used when you want to generate the payment detail report from the user interface in the PDF format.
- **FOPPADGHOXLS** - Used when you want to generate the payment detail report from the user interface in the Excel format.

- **Payment Detail Report for Fully-Insured Individual Business** - Enables you to view the payment details of each account. At a time, it enables you to view the payments of all accounts which belong to a particular division. While generating the payment detail report for the fully-insured individual business, you can specify the following parameters – Division, Start Date, End Date, Person Identifier Type, Person Identifier, Account Identifier Type, Account Identifier, Payment Status, Payment Amount Range, Health Plan ID, and Customer Class. The division and start date are mandatory. If you do not specify the end date, the system by default sets it to the system date. While filtering the data using the payment amount range, you need to specify the lower and upper range value separated by the hyphen (-) symbol. For example, if you set the start date to 01-01-2021, division to D10, and payment amount range to 150-200, the system will extract all payments which are created from 01-01-2021 till the current date, whose payment amount is between 150 and 200, and which are created for the accounts belonging to the D10 division. The payments are shown in the payment currency.

You can generate the payment detail report from the user interface or through a batch process in either PDF or Excel format. We have shipped the following payment detail reports for the fully-insured individual business in this release:

- **FOPPADIHBPDF** - Used when you want to generate the payment detail report through the **C1-RPTGN** batch in the PDF format.
- **FOPPADIHBXLS** - Used when you want to generate the payment detail report through the **C1-RPTGN** batch in the Excel format.
- **FOPPADIHOPDF** - Used when you want to generate the payment detail report from the user interface in the PDF format.
- **FOPPADIHOXLS**- Used when you want to generate the payment detail report from the user interface in the Excel format.

- **Payment Summary Report for Self-funded and Fully-Insured Group Business** – Enables you to view the total payment made for each account. At a time, it enables you to view the total payment of each account which belongs to a particular division.

While generating the payment summary report for the self-funded or fully-insured group business, you can specify the following parameters – Division, Start Date, End Date, Person Identifier Type, Person Identifier, Account Identifier Type, Account Identifier, Payment Status, and Customer Class. The division and start date are mandatory. If you do not specify the end date, the system by default sets it to the system date. The payment total is shown in the customer's division currency. While generating the payment summary report, the system does the currency conversion when the payment currency is different from the customer's division currency.

You can generate the payment summary report from the user interface or through a batch process in either PDF or Excel format. We have shipped the following payment summary reports for the self-funded and fully-insured group business in this release:

- o **FOPPASGHBPDF** - Used when you want to generate the payment summary report through the **C1-RPTGN** batch in the PDF format.
- o **FOPPASGHBXLS** - Used when you want to generate the payment summary report through the **C1-RPTGN** batch in the Excel format.
- o **FOPPASGHOPDF** - Used when you want to generate the payment summary report from the user interface in the PDF format.
- o **FOPPASGHOXLS** - Used when you want to generate the payment summary report from the user interface in the Excel format.

- **Payment Summary Report for Fully-Insured Individual Business** - Enables you to view the total payment made for each account. At a time, it enables you to view the total payment of each account which belongs to a particular division. While generating the payment summary report for the fully-insured individual business, you can specify the following parameters – Division, Start Date, End Date, Person Identifier Type, Person Identifier, Account Identifier Type, Account Identifier, Health Plan ID, Payment Status, and Customer Class. The division and start date are mandatory. If you do not specify the end date, the system by default sets it to the system date. The payment total is shown in the customer's division currency. While generating the payment summary report, the system does the currency conversion when the payment currency is different from the customer's division currency.

You can generate the payment summary report from the user interface or through a batch process in either PDF or Excel format. We have shipped the following payment summary reports for the fully-insured individual business in this release:

- o **FOPPASMHBPDF** - Used when you want to generate the payment summary report through the **C1-RPTGN** batch in the PDF format.
- o **FOPPASMHBXLS** - Used when you want to generate the payment summary report through the **C1-RPTGN** batch in the Excel format.
- o **FOPPASMHOPDF** - Used when you want to generate the payment summary report from the user interface in the PDF format.
- o **FOPPASMHOXLS** - Used when you want to generate the payment summary report from the user interface in the Excel format.

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
- Terms and Conditions
- Refund Request
- Information Lifecycle Management (ILM)
- C1-ERRAL Batch
- File Upload Interface

Transaction Feed Management

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

- Earlier, on searching for a transaction feed in the **Feed Management Dashboard** screen, the system showed the volume breakup based on the transaction status (i.e. Volume in the **Uploaded**, **Price Item Determined**, **Completed**, **Error**, **Cancelled**, **Ignored**, and **Invalid** status). Now, on searching for a transaction feed in the **Feed Management Dashboard** screen, the system displays the number of transactions which are in the **Uploaded**, **Price Item Determined**, **Completed**, **Error**, **Cancelled**, **Ignored**, and **Invalid** status.

- Two new columns named **Total Amount** and **Total Transactions** appear in the **Search Results** section when you search for a transaction feed.

- Earlier, while searching for error transactions, the error category and error message were mandatory. Now, the **Error Category** and **Error Message** fields are optional. Instead, you need to specify the transaction date range while searching for error transactions. The **Transaction Date From** field is mandatory and **Transaction Date To** field is optional. If you do not specify the date in the **Transaction Date To** field, the system by default sets it to the system date. Note that transaction date range cannot exceed 1 year.

- Now, when a transaction has only one transaction leg, the error message is displayed from the **CI_TXN_DETAIL_EXCP** table instead of the **CI_TXN_DETAIL** table. The objective is that the user should be able to view the transaction leg level error instead of the transaction level error in the **Search Results** section of the **Search** zone.

- To handle the performance issue during the transaction disaggregation process, we recommend you to execute the following two procedures before executing disaggregation batches:

  - **DISAGG_CLEANUP** – Used to delete the records from the **CI_DISAGG_TXN_PRITM_DETAIL**, **CI_DISAGG_BCHG_DETAIL**, and **CI_TXN_DISAGG_REQ** tables when the corresponding disaggregation request is in the **Complete** status.

  - **RMB_DISAGG_DEL_SHRINK_TABLES** – Used to shrink the **CI_DISAGG_TXN_PRITM_DETAIL**, **CI_DISAGG_BCHG_DETAIL**, and **CI_TXN_DISAGG_REQ** tables and then gather statistics for these tables.

  You can execute the above two procedures using the **C1-GATST** batch.

Terms and Conditions

The following changes are made to the Terms and Conditions feature:

- Now, you can define characteristics for a terms and conditions.

Refund Request

The following changes are made to the Refund Request feature:

- You can now include a credit adjustment in a refund request. The **Payments** tab is renamed to **Payments and Adjustments**. A new option named **Adjustment Details** is available in the **Search By** list of the **Search Payment Events and Adjustments** zone. This option enables you to search for credit adjustments which you want to include in a refund request.

- Earlier, if you partially refunded a payment of a payment event, the status of the payment event used to change to **Unbalanced**. For example, if there was a payment of 300$ in a payment event and partial payment of 150$ was refunded, then the system did not systematically balance the payment event when the refund request was processed. Now, the system will cancel the payment of 300$ and then create the following two payments:

  - One payment of 150$ in the **Frozen** status which will be linked to the refund request

  - Another payment of 150$ in the **Frozen** status

  In this way, the payment event will be balanced when one or more payments in the payment event are refunded. Note that the payment which is linked to the refund request cannot be transferred in the system.

Information Lifecycle Management (ILM)

Until now, you were able to archive the TFM and billing data through the Information Lifecycle Management feature. Now, in addition, you are able to identify and mark the payment events, payments, financial transactions, trial bills, and trail financial transactions which are eligible for archival. The following batches are newly introduced in this release:

- **ILM Crawler - Payment Event and Payments (C1_PYCRL)** – This batch is used to identify and mark the payment events and their payments which are eligible for archival.

- **ILM Crawler - Financial Transactions (C1-FTCRL)** – This batch is used to identify and mark the financial transactions which are eligible for archival.

- **ILM Crawler – Trial Bill and Trial Bill Segments (C1-TBCRL)** – This batch is used to identify and mark the trial bills and their bill segments which are eligible for archival.

- **ILM Crawler – Trial Financial Transactions (C1-TFCRL)** – This batch is used to identify and mark the trial financial transactions which are eligible for archival.

Once you execute the above ILM batches, you can view the table partitions which are eligible for archival from the user interface and then drop the eligible table partitions (if required).

C1-ERRAL Batch

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

- Two new parameters named **Bill Cycle** and **Division** are added to this batch.
- Now, in addition, it is enhanced to generate alert notifications for bills and bill segments which are in the **Error** status.
- The **To Do Created For** parameter also supports a new value named **BILL**.

File Upload Interface

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

- After executing the **C1-FUARC** batch, we recommend you to execute the following procedure to handle the performance issues:
    - **RMB_FRT_SHRINK_TABLES** - Used to shrink the **CI_FILE_REQUEST_DTL_MSG_PARAM**, **CI_FILE_REQUEST_DTL_SERVICE**, **CI_FILE_REQUEST_MSG_PARAM**, **CI_FILE_REQUEST**, **CI_FILE_REQUEST_DETAIL**, **C1_FILE_REQUEST_IDENTIFIER**, and **CI_FILE_REQUEST_DTL_MSG** tables and then gather statistics for these tables.

    You can execute the above procedure using the **C1-GATST** batch.

Enhancements (Specific to Financial Services)

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

- [Deal Management](#)

Deal Management

The following changes are made to the Deal Management feature:

- Now, you can define a parent for a prospect person. At present, you can define a parent for a prospect person through an inbound web service and not from the user interface. A parent of a prospect person can only be an existing person in the system. In other words, the system allows you to add a prospect person in an existing person's hierarchy. You can also create deals for such prospect person, if required.

- Now, while creating a prospect person and prospect account from the user interface, the system, by default sets the status of the prospect person and prospect account to **ACTIVE**. At present, the status of the prospect person and prospect account is not shown on the user interface. You can view the status of the prospect person and prospect account through an inbound web service.

- The system enables you to add prospect accounts for an existing person through an inbound web service. In other words, the system allows you to add a prospect account in an existing person's hierarchy. You can also create deals for such prospect account, if required.

- Until now, if you selected the **Include Hierarchy** option while creating a deal, the system considered all child and grandchild persons and their accounts in the customer hierarchy. Now, if there are any prospect persons and prospect accounts in the customer hierarchy, the system also considers them while creating the customer hierarchy for a deal.

- The width of the columns in the **Price Item Group** section of the **Select Price Item Group** window can now be resized and adjusted based on the requirement.

- Earlier, when any deal version of a deal was in the **FNAL** status and deal was in the **PFAP** or **APRD** status, you were not able to add a new deal version to the deal. Now, in such scenarios, you can add a new deal version to the deal. In addition, after adding a new deal version to the deal, the deal status would be set to the highest deal version status.

- Earlier, while creating a new deal version for a deal, the system copied the customer hierarchy and pricing and commitment details from the current deal version to the new deal version. The system did not derive the latest customer hierarchy while creating the new deal version for the deal. Now, the system offers the following methods using which you can create a new deal version for a deal:

  o **Copy From Current Version With Changes** – Used when you want to copy the customer hierarchy and pricing and commitment details from the current deal version to the new deal version.

o **Fetch Latest Hierarchy** – Used when you want to derive the latest customer hierarchy from the system. In this case, you will have to select the price items, assign the required price lists to the entities, override or edit the required proposed pricing, and add commitments from scratch in the new deal version. You can create a new deal version for a deal using either of the above methods from the user interface or through an inbound web service.

Enhancements (Specific to Insurance)

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

- [Customer 360° View](#)
- [Advance Billing for Claim Fund Charge](#)
- [Advance Billing for Future Dated Non-Recurring Charges](#)
- [Bill After Date Determination](#)
- [Mass Payment Transfer](#)
- [Distribute Payment Based on Contract Type Priority and Coverage Period](#)
- [Upload Lockbox Payment and Remittance Advices](#)
- [Health Care Inbound Message](#)
- [Payment Transfer through Inbound Web Service](#)
- [Payment Request](#)
- [Payment Upload](#)
- [Payment Creation through Inbound Web Service](#)
- [Match Type](#)
- [Offset Request](#)
- [C1_OFFSETREQ_Feature_Configuration](#)
- [C1-ADJ-PAY Feature Configuration](#)
- [C1-ASOBLLNG Feature Configuration](#)
- [C1_CMO Feature Configuration](#)

Customer 360° View

The following changes are made to the Customer 360° View feature:

- Earlier, while viewing the 360° information of a person whose person type is set to **Parent Customer**, the system listed the accounts of the parent customer and its bill groups which are effective on the system date. Now, a new field named **Include Ended Child Person's Accounts** field is added in the **Account List** zone. If you to select the **Include Ended Child Person's Accounts** option, the system lists the accounts of the parent customer and all its bill groups irrespective of whether the bill group is effective or not on the system date.

Advance Billing for Claim Fund Charge

Earlier, when you opted for the advance billing option, the correct coverage period was not stamped in the level fund charges. For example, if you opted for the enrollment based level funding approach and the system received enrollment transactions in January for the February coverage, the level fund billable charge start and end dates were calculated incorrectly.

Until now, in the transaction field mapping section of the retention type enrollment based pricing rule type, you used to set the coverage end date for retro enrollment transactions to the transaction date and the coverage start date for the non-retro enrollment transactions to the transaction date. However, now, you can set the coverage start and end dates to any user defined date on the transaction.

Now, the following changes are made in the **C1-TXNVP** batch:

- Processing date is set to the coverage end date for retro enrollment transactions and to the coverage start date for non-retro enrollment transactions.
- Billable charge start and end dates are set to the processing date for the enrollment transactions and to the transaction date for the non-enrollment transactions.

The above changes ensure that the level fund billable charges for the enrollment transactions which are billed in advance have the correct coverage period.

Advance Billing for Future Dated Non-Recurring Charges

Until now, the system did not support advance billing of the future dated non-recurring billable charges. Based on the value defined in the **Billable Charges Date – Non Recurring** option type of the **C1_FINTRANOP** feature configuration, the system considered the non-recurring billable charges whose start or end date is earlier than or equal to the cutoff date. Then, the system filtered the extracted non-recurring billable charges for billing based on whether the bill after date is earlier than or equal to the cutoff date.

Now, a new option type named **Allow Advance Billing of Future Dated Charges** is added in the **C1_FINTRANOP** feature configuration. It enables you to indicate whether the system should support advance billing of the future dated non-recurring billable charges. The valid values are:

- **Y** – Used when you want to enable advance billing of the future dated non-recurring billable charges. If you set the **Allow Advance Billing of Future Dated Charges** option type to **Y**, the system considers the non-recurring billable charges whose bill after date is earlier than or equal to the cutoff date irrespective of whether the billable charge start and end dates are past or future dated. However, if the bill after date is not available in the billable charge, the system behaves as if the **Allow Advance Billing of Future Dated Charges** option type is set to **N**.
- **N** - Used when you do not want to enable advance billing of the future dated non-recurring billable charges. If you set the **Allow Advance Billing of Future Dated Charges** option type to **N**, the system fetches the non-recurring billable charges whose start or end date is earlier than or equal to the cutoff date. Once the non-recurring billable charges are extracted, the system considers them for billing only when the bill after date is earlier than or equal to the cutoff date.

By default, the value for this option type is set to **N**. This option type is referred while generating bill segments for the health insurance domain. The **BSGENREG** and **C1-BLGEN** batches are also enhanced to support advance billing of the future dated non-recurring billable charges.

Bill After Date Determination

The **C1_BAFTDRV** algorithm is enhanced to support advance billing for the claim fund charges. If the **Advance Billing** option is set to **Y** in the retention type enrollment based pricing rule, the system derives the accounting date of the bill cycle schedule in which the transaction date falls and then sets the bill after date to the accounting date. However, if the **Advance Billing** option is set to **N** in the retention type enrollment based pricing rule, the system sets the bill after date to the billable charge end date.

Mass Payment Transfer

The following changes are made to the Mass Payment Transfer feature:

- Now, you can upload the data for partial payment transfer from the CSV file using the **File Upload Interface** utility.
- The transfer amount is required for partial payment transfer. Therefore, a new column named **Transfer Amount** should be added in the CSV file while uploading the data for partial payment transfer.
- You should update the existing file request type to include the **Transfer Amount** field in the **Field Transformation** section.

Distribute Payment Based on Contract Type Priority and Coverage Period

Earlier, when the **C1-PYBLPRPD** algorithm was used in a match type, the system, by default, fetched the unpaid financial transactions of a bill in the order of highest contract type payment priority. If there were multiple unpaid financial transactions of a bill with the same contract type payment priority, the system fetched the unpaid financial transactions in the ascending order of the coverage period (i.e. financial transactions with oldest coverage period will have high priority). Now, the system enables you to set the payment order in the **C1-PYBLPRPD** algorithm. A new parameter named **Payment Order** is added to the **C1-PYBLPRPD** algorithm type. It indicates the order in which the system should fetch unpaid financial transactions of a bill. The valid values are:

- **PAY_PRIORITY_FIRST** – Used when you want the system to fetch the unpaid financial transactions of a bill in the order of highest contract type payment priority. If there are multiple unpaid financial transactions with the same contract type payment priority, the system should fetch unpaid financial transactions in the ascending order of the coverage period (i.e. financial transactions with oldest coverage period will have high priority).
- **COV_PERIOD_FIRST** - Used when you want the system to fetch the unpaid financial transactions of a bill in the ascending order of the coverage period (i.e. financial transactions with oldest coverage period will have high priority). If there are multiple unpaid financial transactions with the same coverage period, the system should fetch unpaid financial transactions of a bill in the order of highest contract type payment priority.

Upload Lockbox Payment and Remittance Advices

The following changes are made to the upload lockbox payment and remittance advices feature:

- Now, you can apply payments on the unpaid bills of a statement through an EDI 820 file.
- You can either specify the bill or statement ID in the **RMR*IV** tag. If you specify the bill ID in the **RMR*IV** tag, the system derives the match type from the **Bill Match Type** parameter of the **C1-CCPYTSADS** algorithm. If the entity type of the specified match type is set to **Account** and the manual distribution algorithm is attached to the match type, the system does the account level payment distribution. However, if the entity type of the specified match type is set to **Account** and the manual distribution algorithm is not attached to the match type, the system distributes the payment against the unpaid bill.

  If you specify the statement ID in the **RMR*IV** tag, the system derives the match type from the **Statement Match Type** parameter of the **C1-CCPYTSADS** algorithm. If the entity type of the specified match type is set to **Statement** and the manual distribution algorithm is attached to the match type, the system does the statement level payment distribution.

- You can specify the payee account ID in the **REF*12** tag. If the data is available in both the **REF*12** and **RMR*IV** tags, the system gives preference to the **RMR*IV** tag and does payment distribution based on the data available in the **RMR*IV** tag. However, if the data is available only in the **REF*12** tag, the system derives the match type from the **Bill Match Type** parameter of the **C1-CCPYTSADS** algorithm. If the entity type of the specified match type is set to **Account** and the manual distribution algorithm is attached to the match type, the system does the account level payment distribution. However, if the entity type of the specified match type is set to **Account** and the manual distribution algorithm is not attached to the match type, the system distributes the payment against the unpaid bill.

- Any excess amount that is left after distributing the payments on the unpaid bills of the account or statement are applied on the on-account contract of the account. The person linked to the statement construct using which the statement is created should have an account which will be used to park the excess amount paid on a statement. The system derives the on-account contract using the contract type specified in the **On-Account Contract Type** option type of the **C1-ADJ-PAY** feature configuration. If the on-account contract of the specified contract type is not available for the account, the system creates on-account contract using the contract type specified in the **On-Account Contract Type** option type of the **C1-ADJ-PAY** feature configuration. The system then parks the excess credit payment on the on-account contract of the account. While creating the excess credit payment, the system uses the match type which is specified in the **On-Account Match Type** option type of the **C1-ADJ-PAY** feature configuration.

- A new parameter named **Statement Match Type** is added in the **C1-CCPYTSADS** algorithm type. It enables you to specify the match type using which you want to distribute the payment against the unpaid bills of the statement.

- Note that you cannot repeat the same account ID or statement ID in the EDI 820 file.

- Once all payments including the excess credit payment is created, the system will do the following:

  - Store the payee account ID on all payments when the payment is applied at the account level. The payee account ID is stored as a characteristic using the characteristic type which is specified in the **Account Level Payment Characteristic Type** option type of the **C1-ADJ-PAY** feature configuration.

o   Store the statement ID on all payments when the payment is applied at the statement level. The statement ID is stored as a characteristic using the characteristic type which is specified in the **Statement Level Payment Characteristic Type** option type of the **C1-ADJ-PAY** feature configuration.

o   Store the EDI 820 file name (through which the payment is created) on the payment as a characteristic using the **C1-EDIFL** characteristic type.

Health Care Inbound Message

The following changes are made to the health care inbound message:

- Now, you can define and edit a statement construct of a person who has enrolled to a fully-insured individual health plan through a health care inbound message.

- A new field named **Statement Construct Business Object** appears when you define an inbound message type using the **C1-IndHCInboundMsgType** business object.

Payment Transfer through Inbound Web Service

The following change is made to the payment transfer through inbound web service feature:

- A new tag named **transferAmount** is added in the schema of the **C1-TransferPaymentService** business service. The transfer amount is required only in case of partial payment transfer.

Payment Request

The following changes are made to the Payment Request feature:

- Earlier, you were able to apply payments on a particular bill or on the unpaid bills of a particular account. Now, in addition, you can apply payments on the unpaid bills of a particular statement from the **Payment Request** screen.

- Now, in addition, the match type list includes the match types where the entity type is set to **Statement**.

- If you select a match type where the entity type is set to **Statement**, you can search for a statement using the OraSearch functionality in the **Payment Request** screen.

- While creating a payment request from the user interface, the system validates the following:

  o   There is no other payment request in a non-final status with payments applied on the given statement ID.

  o   A bill derived from the statement is not present in another payment request which is in a non-final status.

  o   A payment on an unpaid bill and another payment on a statement ID containing the same bill are not present in the same payment request.

- A new field named **Defer Payment Processing Count** is available while defining a payment request type. It appears only when you select the **Transfer** option while defining a payment request type.

- Two new statuses named **Update Transfer Amount** and **Payment Derivation Pending** are introduced in the lifecycle of the **C1-PaymentTransferRequest** business object.

- A new field named **Maximum Transfer Amount** appears in the **Payment Request** screen when you transfer one or more payments or all payments of a payment event.

- The **Transfer Amount** field is now editable in the **Payment Request** screen. By default, the **Transfer Amount** field is set to the maximum transfer amount.

- A new button named **Update Transfer Amount** appears in the **Record Actions** section of the **Payment Request** screen.

- A new zone named **Payment Details** is added in the **Payment Request** screen. Here, if the following conditions are met, you can view the payments which are transferred through the payment request:

    o   Partial payment transfer is done at the payment event level

    o   Full or partial payment transfer is done at the payment level

Payment Upload

The following changes are made to the Payment Upload feature:

- Now, you can apply payments on the unpaid bills of an account or a statement through the **Payment Upload** feature.

- If you want to apply payments at the statement level, a new column named **Statement ID** should be added in the CSV format while uploading a payment data file.

- If you specify a match type where the entity type is set to **Account**, the match value should not be provided. The payee account ID is derived from the payment data record. If the payee account ID is not available in the payment data record, it is derived using the payee account identifier type and identifier value. The system then derives the unpaid bills of the payee account using the manual distribution algorithm attached to the respective match type.

- If you specify a match type where the entity type is set to **Statement**, the match value should not be provided. The statement ID is derived from the payment data record. The system then derives the unpaid bills of the statement using the manual distribution algorithm attached to the respective match type.

- While uploading a payment data file, the system validates the following:

    o   The same file does not contain a payment against a bill ID and the account of that bill ID.

    o   The same file does not contain a payment against a bill ID and a statement ID containing that bill ID.

    o   The specified statement is created using a statement construct comprising of one or more accounts and no contracts.

    o   The specified statement is valid and in the **Printed** status.

- The system creates a unique deposit control staging and tender control staging for each payment data record with the match type where the entity type is set to **Account** or **Statement**. The value in the **EXT_TRANSMIT_ID** column is suffixed with ~A'x' for account level payment or ~S'x' for statement level payment. Here, x is greater than or equal to 1 and less than or equal to n and n denotes the number of accounts or statements on which the payments are received in the CSV file.

- The payments to be applied on the unpaid bills of the account or statement and excess credit payment (if any) are stored in the payment upload staging tables.

Payment Creation through Inbound Web Service

The following changes are made to the payment creation through inbound web service feature:

- The following tags are newly introduced in the schema of the **C1-CreatePaymentService** business service:

Parent Tag	New Tags
<schema>	<statementId></statementId>
<paymentsDtls>	<paymentList> <paymentId></paymentId> <matchType></matchType> <matchTypeValue></matchTypeValue> <payAmount></payAmount> <paymentStatusDesc></paymentStatusDesc> <paymentStatus></paymentStatus> </paymentList>

- The following tags are removed from the schema of the **C1-CreatePaymentService** business service:

Parent Tag	New Tags
<paymentsDtls>	<paymentId></paymentId> <paymentStatusDesc></paymentStatusDesc> <paymentStatus></paymentStatus>

- Now, you can apply payments on the unpaid bills of an account or a statement through the **C1-CreatePaymentService** business service.
- If you specify a match type where the entity type is set to **Account**, the match value should not be provided. The payee account ID is directly fetched from the dataset. If the payee account ID is not available in the dataset, it is derived using the payee account identifier type and identifier value. The system then derives the unpaid bills of the payee account using the manual distribution algorithm attached to the respective match type.
- If you specify a match type where the entity type is set to **Statement**, the match value should not be provided. The statement ID is directly fetched from the dataset. The system then derives the unpaid bills of the statement using the manual distribution algorithm attached to the respective match type.
- While creating a payment using a match type where the entity type is set to **Statement**, the system validates the following:
  - The specified statement is created using a statement construct comprising of one or more accounts and no contracts.
  - The specified statement is valid and in the **Printed** status.

Match Type

The following change is made in the **Match Type** screen:

- A new entity type named **Statement** is introduced in this release. It is used while defining match types for the statement level payment distribution.

Offset Request

The following changes are made to the Offset Request feature:

- A new option named **Bill Line Items Level Offset** appears while defining an offset request type.
- The **Debit Balance**, **Credit Balance**, and **Credit Bill** columns are additionally available in the **Offset Details** section while editing an offset request which is created using an offset request type where the **Bill Line Items Level Offset** option is selected.
- The **Debit Balance**, **Credit Balance**, and **Credit Bill** columns appear in the **Selected Bills** zone of the **Offset Request** screen when an offset request is created using an offset request type where the **Bill Line Items Level Offset** option is selected.

C1-OFFSETREQ Feature Configuration

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

- **Show Warning When Offsetting Across Person Hierarchy** – This option type is applicable when the **Allow Offsetting Across Persons** option type is set to **Y**. It is used to indicate whether the system should display a warning message when a bill added for offsetting is in different person hierarchy than the base bill person hierarchy. The valid values are **Y** and **N.** If you do not specify the value for this option type, by default, it is set to **N**.

C1-ADJ-PAY Feature Configuration

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

- **On-Account Contract Type** – Used to derive the contract on which you want the system to park the excess credit payment which is received either at the account or statement level.
- **On-Account Match Type** – Used to indicate the match type using which the excess credit payment received either at the account or statement level must be created.
- **Account Level Payment Characteristic Type** – Used to specify the characteristic type where you want to store the payee account ID. Here, you must specify a characteristic type where the characteristic entity is set to **Payment**. This characteristic is defined for the payments when the payment is applied at the account level.

Statement Level Payment Characteristic Type - Used to specify the characteristic type where you want to store the statement ID. Here, you must specify a characteristic type where the characteristic entity is set to **Payment**. This characteristic is defined for the payments when the payment is applied at the statement level.

C1-ASOBLLNG Feature Configuration

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

- **Statement Construct Char for Inbound Log** - Used to specify the characteristic type where you want to store the statement construct ID. This characteristic type is used while creating a log entry for a health care inbound message. The log entry then indicates the statement construct which is created through the health care inbound message.

C1_CMO Feature Configuration

The following option type is newly added to the **C1_CMO** feature configuration:

- **Suspense Contract Type** - Used when you want to derive the suspense contract to identify the eligible payments.

User Interface (UI) Level Changes

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

Screen Name (in 3.2.0.0.0)	Changes
Account	The following changes are made to this screen: • The **Immediate Refund** field is added in the **Main** tab. • The **Auto Pay Usage** field is added in the **Auto Pay** tab.
Adjustment Type	The following change is made to this screen: • The **Refund Option** field is added in the **Main** tab.
Auto Pay Instruction (Used for Adding)	The following change is made to this screen: • The **Auto Pay Usage** field is added in this screen.
Auto Pay Instruction (Used for Viewing)	The following change is made to this screen: • The **Auto Pay Usage** field is added in the **Auto Pay Details** section of the **Auto Pay Instruction** zone.
Auto Pay Route Type	The following changes are made to this screen: • The **Refund Auto Pay Date Calculation Algorithm** column is added in the **Auto Pay Route Type List** zone. • The **Refund Auto Pay Date Calculation Algorithm** field is added in the **Main** section of the **Auto Pay Route Type** zone.
Auto Pay Route Type (Used for Adding)	The following change is made to this screen: • The **Refund Auto Pay Date Calculation Algorithm** field is added in the **Main** section.
Billable Charge	The following change is made to this screen: • The **Bill After Date** field is renamed to **Bill On or After Date** in the **Main** tab.
Billable Charge Search	The following change is made to this screen: • The **Bill After Date** field is renamed to **Bill On or After Date**.
Customer 360° Information (Banking)	The following changes are made to this screen: • The **Immediate Refund** field is added in the **Main** section of the **Person Information** zone. • The **Immediate Refund** field is added in the **Accounting Information** section of the **Account Information** zone.

Screen Name (in 3.2.0.0.0)	Changes
Customer 360° Information (Health Insurance)	The following change is made to this screen: • The **Include Ended Child Person's Accounts** field is added in the **Account List** zone of the **Account** tab.
Customer Class	The following change is made to this screen: • The **Immediate Refund** field is added in the **Controls** tab.
Customer Registration - Add Account	The following changes are made to this screen: • The **Immediate Refund** field is added in the **Main** section of the **Main** tab. • The **Auto Pay Usage** field is added in the **Auto Pay** tab.
Customer Registration (Used for Adding)	The following change is made to this screen: • The **Immediate Refund** field is added in the **Main** section of the **Main** tab.
Customer Registration (Used for Viewing)	The following changes are made to this screen: • The **Immediate Refund** field is added in the **Person Details** section of the **Customer Registration** zone. • The **Immediate Refund** field is added in the **Main** section of the **Account Information** zone.
Deal Version (Used for Adding)	The following change is made to this screen: • The **Deal Version Creation Method** field is added in this screen.
Division	The following changes are made to this screen: • The **Direct Credit Refund**, **A/P Request Fund**, and **Immediate Refund** fields are added in the **Main** tab.
Feed Management Dashboard	The following changes are made to this screen: • The **Total Amount** and **Total Transactions** columns appear in the **Search Results** section when you search for a transaction feed. • Now, the **Uploaded Volume**, **Price Item Determined**, **Completed Volume**, **Error Volume**, **Cancelled Volume**, **Ignored Volume**, and **Invalid Volume** columns don't appear in the **Search Results** section when you search for a transaction feed. Instead, the **Uploaded**, **Price Item Determined**, **Completed**, **Error**, **Cancelled**, **Ignored**, and **Invalid** columns appear in the **Search Results** section when you search for a transaction feed.

Screen Name (in 3.2.0.0.0)	Changes
Inbound Message Type	The following change is made to this screen: • The **Statement Construct Business Object** field appears in the **Additional Data** section of the **Inbound Message Type** zone when you are viewing the details of an inbound message type which created using the **C1-IndHCInboundMsgType** business object.
Inbound Message Type (Used for Adding)	The following change is made to this screen: • A new field named **Statement Construct Business Object** appears in the **Additional Data** section when you create an inbound message type using the **C1-IndHCInboundMsgType** business object.
Match Type	The following change is made to this screen: • The **Statement** option is added in the **Entity Type** list.
Offset Request (Used for Editing)	The following changes are made to this screen: • The **Debit Balance**, **Credit Balance**, and **Credit Bill** columns are added in the **Offset Details** section.
Offset Request (Used for Viewing)	The following changes are made to this screen: • The **Debit Balance**, **Credit Balance**, and **Credit Bill** columns are added in the **Selected Bills** zone.
Offset Request Type	The following change is made to this screen: • A new field named **Bill Line Items Level Offset** is added in the **Main** section of the **Offset Request Type** zone.
Offset Request Type (Used for Adding)	The following change is made to this screen: • A new field named **Bill Line Items Level Offset** is added in the **Main** section.
Payment Request (Used for Adding)	The following changes are made to this screen: • The **Match Type** field in the **Match Types** section lists the match types where the entity type is set to **Bill**, **Account**, or **Statement**. • The **Statement Search** window appears when you click the **Search** icon in the **Entity ID** column after selecting the match type where the entity type is set to **Statement**.

Screen Name (in 3.2.0.0.0)	Changes
Payment Request (Used for Searching)	The following changes are made to this screen: • Two new fields named **Created From** and **Created To** appear in the **Search Payment Request** zone when you search for a payment request using the **Request Details** option. • The **On Or Before Creation Date Time** field is removed from the **Search Payment Request** zone.
Payment Request (Used for Transferring)	The following changes are made to this screen: • A new field named **Maximum Transfer Amount** is added in the **Main** section. • The **Transfer Amount** field in the **Main** section is now editable. • The **Payor Account Details** and **Payment Details** sections are removed.
Payment Request (Used for Viewing)	The following changes are made to this screen: • A new zone named **Payment Details** is added in the **Main** tab. • A new field named **Maximum Transfer Amount** is added in the **Main** section of the **Payment Request** zone. It appears while viewing the details of a payment transfer request. • The **Update Transfer Amount** button is added in the **Record Actions** section of the **Payment Request** zone.
Payment Request Type	The following change is made to this screen: • A new field named **Defer Payment Processing Count** is added in the **Main** section of the **Payment Request Type** zone. It appears when you select the **Transfer** option while creating or editing a payment request type.
Payment Request Type (Used for Adding)	The following change is made to this screen: • A new field named **Defer Payment Processing Count** is added in the **Main** section. It appears when you select the **Transfer** option while creating a payment request type.

Screen Name (in 3.2.0.0.0)	Changes
Payment Upload (Used for Searching)	The following changes are made to this screen: • The icon displayed in the **Move To Staging** column of the **Search Results** section has changed. • The **Statement ID** and **Entity Type** columns are added in the **Payment Data Records** zone. • The **Payment Staging Record** column is removed from the **Payment Data Records** zone. • The **Error Messages** column is renamed to **Messages** in the **Payment Data Records** zone. • A new zone named **Payment Staging Records** is added in this screen. • The **Date/Time** column is renamed to **Creation Date Time** in the **Payment Data File Log** zone.
Person	The following change is made to this screen: • The **Immediate Refund** field is added in the **Main** tab.
Refund Request	The following changes are made to this screen: • The **Payments** tab is renamed to **Payments and Adjustments**. • The **Search Payment Event** zone is renamed to **Search Payment Events and Adjustments** in the **Payments** tab. • The **Adjustment Details** option is added in the **Search By** list.
Scheduler Job Monitor Dashboard	The following change is made to this screen: • The **Submission User** column is added in the **Executed Batch Jobs** zone.
Terms and Conditions	The following change is made to this screen: • The **Characteristics** section is added in the **Terms and Conditions** zone.
Terms and Conditions (Used for Adding)	The following change is made to this screen: • The **Characteristics** section is added in this screen.

Database Level Changes

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 4.0.0.0.0, refer to the Appendix A: New Objects in the Oracle Revenue Management and Billing V4.0.0.0.0 Database 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 4.0.0.0.0 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 78.x[1], or Google Chrome Enterprise Version 81 or higher	AIX 7.2 TL0+[2] (64-bit)	POWER 64-bit	Oracle WebLogic 12.2.1.4 (64-bit)	Oracle Database Server 19c
	Oracle Linux 7.x or 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[3] 7.x or 8.x (64-bit)	x86_64	Oracle WebLogic 12.2.1.4 (64-bit) IBM WebSphere 9.0.5.6	Oracle Database Server 19c
	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 to 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.

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[1] Here, x represents the vendor supported version.

[2] Version numbers suffixed with "+" are the MINIMUM version supported. That version and all future 4th digit updates will be supported.

[3] Oracle Revenue Management and Billing is tested and certified on Oracle Linux 7.x and 8.x. Oracle Linux is 100% userspace-compatible with Red Hat Enterprise Linux, and therefore Oracle Revenue Management and Billing is supported on Red Hat Enterprise Linux. For Oracle Linux 7.x, refer to the Oracle Lifetime Support Policy: Oracle and Sun System Software and Operating Systems document for the applicable end of support dates.

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 3.2.0.0.0 to 4.0.0.0.0. For more information on how to upgrade, refer to the following documents which are available on OTN:

- *Oracle Revenue Management and Billing Version 4.0.0.0.0 Upgrade Path Guide*

- *Oracle Revenue Management and Billing Version 4.0.0.0.0 Upgrade Guide*

For upgrading from any other version of Oracle Revenue Management and Billing other than 3.2.0.0.0, consult with Oracle Support, Oracle Partner, or Oracle Consulting that may be supporting your implementation or upgrade process.

Unsupported Integrations

We are not supporting Oracle Documaker integration with Oracle Revenue Management and Billing Version 4.0.0.0.0. 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 4.4.0.3.0 Enhancements

For more information about the enhancements and deprecations made in Oracle Utilities Application Framework (OUAF) Version 4.4.0.3.0, refer to *Oracle Revenue Management and Billing Version 3.1.0.0.0 Release Notes*.

Deprecation Notices for ORMB Version 4.0.0.0.0

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](#)
- [Deprecation Planned for Future Releases](#)

Deprecation in This Release

The following table lists the objects which are deprecated in Oracle Revenue Management and Billing Version 4.0.0.0.0:

Object Type	Object Name
Algorithm Type	C1-ANMLYBILL, C1-ANMLYBSEG
Algorithm	C1-ANMLYBILL, C1-ANMLYBSEG

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, C1-MDOV-BILL, C1-MDOV-BSEG, C1-MDOV-ONSA, SA_DERV_POPC, C1-DUEDTFTCV, C1-AUDEVMPR
Algorithm	C1-DUEDTFTCV, C1-AUDEVMPR
Feature Configuration	C1_EX_ROUND
Option Types	Currency Conversion Algorithm and Payment Distribution To-Do (from the **C1_MLTCURACC** feature configuration)
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	
Batch Control	GLASSIGN, C1-IAENT, C1-DARSU, C1-CUSIN, C1-MEMIN, BILLING
View	CI_EFF_ACCT_PRICING_VW, CI_EFF_PER_PRICING_VW

Object Type	Object Name
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
Inbound Web Service	C1-ASOCustomerInboundMessage, C1-CustomerStructureInboundMessage, C1-OffProcessRequest, and C1-PaymentRead

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). You can download Oracle Revenue Management and Billing release-specific documentation library (for example, Oracle Revenue Management and Billing Version 4.X.X.X.X Documentation Library) using the following URL:

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

Media Pack Download

Oracle Financial Services Revenue Management and Billing Version 4.0.0.0.0 and Oracle Insurance Revenue Management and Billing Version 4.0.0.0.0 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 4.0.0.0.0 Quick Installation Guide*.

To download a package from a media pack:

1. Login to [Oracle Software Delivery Cloud](#).
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 Financial Services Revenue Management and Billing 4.0.0.0.0** or **Oracle Insurance Revenue Management and Billing 4.0.0.0.0** 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**. The **Oracle Download Manager** window appears.
13. 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
34194239	34040132	UPGRADE_DEV3 : APPROVAL WORKFLOW - WITHDRAWAL REQUEST FLOW IS NOT WORKING
34174382	33868067	RFA: ERROR PROCESSING OPENAPISPEC FOR INBOUND WEB SERVICE C1-POLICY
34174348	33858808	RECONCILIATION - DUPLICATE ADJUSTMENTS CREATED FROM OPEN PAY INSTRUCTIONS
34174177	33917214	BILLED VS PAID ZONE LONG RUNNING
34167823	34099815	LATENCY EXPERIENCED WITH THE CONSTRUCT SECTION
34164581	33727157	BSEGD IS RUNNING FOR LONG HOURS
34164550	33213513	IP BATCH EXCEPTION IN HANDLEAPPLICATIONERROR METHOD.
34145096	34116032	'FILE RECORD DETAIL ' UI SEARCH FILTERS ARE NOT WORKING
34119433	34023460	RETROACTIVE CHANGES FOR MEMBERSHIP ATTRIBUTES OVERLAPS EXISTING COVERAGE FOR DIFFERENT PRICING - FORWARDPORT
34119422	33971585	VERSION FIELD MISSING ERROR ON SAVING ACCOUNT - FORWARDPORT
34119414	33815949	BSPB TRANSACTION DETAILS SCREEN SPEED ISSUE INC1027140356 - FORWARDPORT
34093617	33898506	GETTING AN ERROR WHILE ADDING ENTRY INTO TABLE CI_APAY_CLR_STG
34093549	33491735	FILE UPLOAD DASHBOARD - RECORD IDENTIFIERS INCORRECT FOR FIXED POSITION FILE TYPES
34093530	33846141	ISSUE IN FRT WHILE USING FUNCTIONALITY OF GROUP DUPLICATE RECORDS
34093513	33415336	FRT IS REJECTING FILE IF INPUT FOLDER HAS 2 FILES WHOSE FILE NAME CONTAINS SPACE
34085324	34027517	FROM ERROR 2023 TO 2026 IN PROD
34084585	34066070	C1-REPC2 BATCH THROWS ERROR IN CASE SOURCE ENTITY IS SET AS MEMBERSHIP PERSON - FORWARDPORT
34083875	33875068	PRICING RULE UI WITH HEALTH PLANS HAVING CLOSE TO 80 PRICE ASSIGNMENTS.UI IS TAKING A LONG TIME TO LOAD ALL THE PRICING BEFORE YOU CAN EDIT AND SAVE THE CHANGES - FORWARDPORT

Bug Number	Copy of (Base Bug)	Description
34071631	*32776096*	SYSTEM ERROR ENCOUNTERED WHEN CREATING PAYMENTS WHILE AUDIT IS TURNED ON
34046531	*33659639*	ISSUES WITH TRANSACTION FILE UPLOAD WHEN MULTIPLE FILE (VALID + INVALID FILE) ATTEMPTED BY BATCH
34046282	*33765165*	EXPORTED EXCEL FROM FILE UPLOAD DASHBOARD IS NOT SHOWING RECORD PAYLOAD
34004860	*33947598*	SLOWNESS DURING THE SEARCH FOR UPLOAD REQUEST.
33971061	*33931110*	ISSUE WHILE INVOKING MATCH TYPE ALGORITHMS WHICH ARE COBOL CONVERTED
33950696	*33887763*	PERSON IDENTIFIER FIELD LENGTH NOT MATCHING IN DISAGGREGATION REQUEST SCREEN
33949184	*33745242*	BILLABLE CHARGE SEARCH_CHAR_VAL GETS UPDATED TO BLANK
33949145	*33491735*	FILE UPLOAD DASHBOARD - RECORD IDENTIFIERS INCORRECT FOR FIXED POSITION FILE TYPES
33908266	*33455403*	WHEN SIMULATING DEAL CREATED ON PROSPECT, DEAL STATUS IS NOT CHANGED TO PARTIAL/FULLY ORCHESTRATED
33864763	*33535734*	UNABLE TO CREATE DEAL WHEN MULTIPLE CUSTOMERS ASSOCIATED WITH ACCOUNT
33778412	*33385652*	ISSUE WITH FILE TRANSFORMATION BATCH (C1-FTRAN)
33742312	*33704625*	RECORD IN FILE WITH DOUBLE QUOTES IN CONTENT FAILS WITH C1-FREQP BATCH
33664462	*33245021*	PATCH 33199575 FAILS FOR RESOLVE AND MODIFY FUNCTIONALITY
32849025		360 SCREEN CHILD COUNT MISMATCH ISSUE
30853126	*30976772*	ENHANCEMENT WITH OFFSET REQUEST ¿ TRANSACTION LEVEL OFFSET
34203459	*33698343*	UNIQUE CONSTRAINT ERROR ENCOUNTERED IN CI_REV_REC_SCH_K
34202763	*34178141*	ISSUE WITH DEAL CREATION UNDER PRICE ITEM GROUP SELECTION.
34170244	*33966779*	PRODUCT MODULE - PRICE ITEM CHARACTERISTIC - WRONG DESCRIPTION FOR CHAR TYPE C2TAXAPP
34169171	*33699012*	DUPLICATE FIELD SECTION PRICING APPROVAL
34169113	*33858154*	LEVEL FUND SUCCESSIVE PRICING RULE INVALID VALUE
34169101	*33694776*	PRICEASSIGN CHAR VALUE LENGTH LIMIT FOR C1_PRICEASSIGN_SERVICE BUSINESS SERVICE-

Bug Number	Copy of (Base Bug)	Description
34169051	*33694251*	BILL GROUP SORTING UI NOT LOADING PROPERLY
34168918	*33753008*	'VIEW RULE' UI PERFORMANCE IS VERY POOR. IT TAKES VERY LONG TIME TO DISPLAY.
34151005	*33618670*	PROVISION TO NAVIGATE TO THE OVERDUE EVENTS SCREEN ONCE CLICK ON THE HYPERLINK ON THE OVERDUE EVENT
34149814	*33656072*	PERSON CHARACTERISTICS ZONE DOES NOT SHOW EFFECTIVE CHARACTERISTICS
34147324	*33554630*	ADJUSTMENTS CAN'T BE UPDATED/DELETED ONCE APPROVAL REQUEST IS CREATED
34145479	*34054091*	ORMB ALLOWS MULTIPLE PRICE OVERRIDES FOR SAME DATE RANGE ON SAME ACCT/CUSTOMER
34144797	*33825469*	ADDRESS ID NOT POPULATED AFTER ACCOUNT CREATION FOR ACCOUNT OVER RIDE ADDRESS - FORWARDPORT
34144180	*33880964*	GETTING ACCESS GROUP ERROR WHILE APPROVING
34109472	*34088582*	DEV- NEWLY CREATED SCHEDULER SCHEDULE IS NOT TRIGGERING THE JOB
34109312	*33659410*	PRICE ITEM UPDATE - HIERARCHY END DATE ISSUE
34099808	*34062184*	BATCH JOB DETAILED DESCRIPTION
34097989	*34046814*	DATA VALIDATION REPORT
34057511	*33865383*	ERROR WHILE CREATING ACCOUNT FROM BATCH USING ACCOUNT_DTO.NEWENTITY()
34050806	*34047812*	MESSAGE NUMBER ERROR IN THE FAILED CHAIN JOBS ZONE
34025481	*34012025*	EFFECTIVE PRICING - EXPORT TO EXCEL
34016183	*33914769*	ROLLBACK BATCH PERFORMANCE ISSUE
34004866	*33602969*	ER-FETCH () FOR INVOICE CONSTRUCT DOESN'T RETURN VERSION AS AN OUTPUT FIELD
33967397	*33950853*	CONSTRUCTS - COMBINATION NOT FOUND ERROR WHEN SUBMITTING AFTER EDIT
33938174	*33861640*	UNABLE TO CREATE PARTIAL WRITE OFF-FORWARDPORT BUG
33914392	*33702668*	ACCOUNT REASSIGN TO NEW PERSON NOT WORKING WHEN ACCOUNT IS HAVING ACCOUNT OVERRIDE ADDRESS - FORWARDPORT
33881058	*33466760*	CILPPAYP | 3YPVHZ1KMJGA3 | TIME OUT | PROGRAMCIPPMBSL.PERFORM_ZS150_SETUP_SQL_S_

Bug Number	Copy of (Base Bug)	Description
33880143	30882159	PEROFRMANCE ISSUES IN APAYDSFR BATCH
33873661	33643757	GATHER STAT IS HAVING ONE FAILED RECORD IN 8AM JOB DAILY
33873550	33462547	ENHANCE THE REPORTS TO HANDLE THE TEMPLATE'S EFFECTIVE START/END DATE SCENARIOS IN THE CONSTRUCTS
33834795	33495665	WRITEOFF TIME'S OUT OR ERRORS OUT WITH NO MESSAGE ON UI WHILE ADDING HIGH VOLUME BILL
33829614	33701656	UNABLE TO RECONCILE OPEN MEMBER PAY INSTRUCTION DURING BILL COMPLETION
33799873	33335229	RELATIONSHIP MANAGER NAME NOT SHOWN ON PERSON UI
33795892	33750843	UNABLE TO CREATE PAYMENT EVENT
33794744	33660271	BILL UI CURRENCY DISPLAY ISSUE
33784100	33575195	ISSUE WITH DIVISION PRICE ITEM HIERARCHY
33768695	33611912	ERROR WHILE SENDING DEAL FOR APPROVAL
33721315	33638417	AUDIT NOT LOGGED FOR ACCOUNT CLOSURE
33204174	32919857	PRICE LIST ASSIGNMENT IS SUCCESSFUL, ALTHOUGH PRICELIST TO PERSON'S DIVISION MAPPING IS NOT PRESENT.
33203197	33052510	CUSTOMER 360 - SEARCH BY ACCOUNT ZONE RESULTS CANNOT BE EXPORTED TO EXCEL
33203058	33140843	32885301 - INSTALL PATCH 32885301 - STILL GET ERROR WHILE EXPORTING HIERARCHY ENTITY.

Known Issues

This section lists the known issues in Oracle Revenue Management and Billing Version 4.0.0.0.0 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 OraSearch window for all bind variables when you define a criteria in a construct. It shows the OraSearch 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	**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 4.0.0.0.0**
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.