Oracle® Revenue Management and Billing

Version 3.1.0.0.0

Release Notes

Revision 1.5

F46675-01

September, 2021

ORACLE®

Oracle Revenue Management and Billing Version 3.1.0.0.0 Release Notes

F46675-01

Document Category: Public

Copyright Notice

Trademark Notice

Oracle, Java, JD Edwards, PeopleSoft, and Siebel are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

License Restrictions Warranty/Consequential Damages Disclaimer

Warranty Disclaimer

Restricted Rights Notice

Hazardous Applications Notice

This software is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure the safe use of this software. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software in dangerous applications.

Third Party Content, Products, and Services Disclaimer

This software and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third party content, products, or services.

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.
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.

Document Name	Description
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.
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.

Document Name	Description
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.
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.

Document Name	Description
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.

Change Log

Revision	Last Update	Updated Section	Comments
1.1	06-Oct-2021	New Features (Generic)	Removed Chatbot Integration Section
		Rate Guarantee for Individual Membership	Updated Information
		Discount Charge Pricing for Retiree Membership	Updated Information
		Pricing Rule Inactivation	Updated Information
		Membership Identifiers	Updated Information
		Membership	Updated Information
		Business Rules	Updated Information
		Self-Funded Policies	Updated Information
		Deprecation Notices for ORMB Version 3.1.0.0.0	Updated Information
		FOP Based Reports	Updated Information
		Disaggregation Request	Updated Information
1.2	14-Jan-2022	About this Document	Updated Information
		-	Added Bookmarks in PDF
1.3	21-Mar-2022	Supported Platforms	Updated Information
1.4	12-Sep-2022	Known Issues	Updated Information
1.5	20-Sep-2022	Oracle Utilities Application Framework Version 4.4.0.3.0Enhancements	Added the Technical Upgrade Notes section

Contents

Prerequisites

If a customer is already using the Transaction Feed Management feature and wants to upgrade to Oracle Revenue Management and Billing Version 3.1.0.0.0, then the customer needs to ensure the following (before upgrading):

- All bills generated in the system are in the **Complete** status. In other words, there should not be any bills in the **Pending** status. If there are any bills in the **Pending** status or if any billable charge (generated through TFM) is not yet billed, disaggregation and cancellation of transactions which are uploaded using 3.0.0.0.0 will not happen successfully.

- Transactions which are uploaded using 3.0.0.0.0 must not be in the **Initial Product Determined (INPD)** status. They can be in the **Uploaded (UPLD)**, **Invalid (INVL)**, **Error (EROR)**, **Completed (COMP)**, or **Cancelled (CNCL)** status.

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

New Features (Generic)

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

- FT GL Drill Down Details
- FOP Based Reports
- Retry Automatic Payment

FT GL Drill Down Details

Until now, Oracle Revenue Management and Billing enabled you to extract the trial or actual FT GL records in a flat file using the **GL Download Extract (GLDL)** batch. This flat file was then used for uploading the data in the General Ledger (GL) system. However, there was no mechanism available through which you can do the following:

- Validate the extracts which are sent to the GL system
- Backtrack the FT GL records in ORMB

A new screen named **FT GL Drill Down Details** is introduced in this release. It contains the following zones:

- **Search GL Extract File** – Enables you to search for the GL extract files which are created through the GLDL batch. You can search for files which contain either actual FT GL records or trial FT GL records.
- **GL Extract File Details** – Enables you to view the list of GL records in the GL extract file.
- **Financial Transaction Details** – Enables you to view the list of financial transactions which are posted against the GL account in ORMB. If you are viewing the details of a GL extract file which contains actual FT GL records, then this zone lists the actual financial transactions posted against the GL account. However, if you are viewing the details of a GL extract file which contains trial FT GL records, then this zone lists the trial financial transactions posted against the GL account.
- **Bill Segment Details** – Enables you to view the information of the bill segment for which the financial transaction is created. If you are viewing the details of a GL extract file which contains actual FT GL records, then this zone lists the actual bill segment. However, if you are viewing the details of a GL extract file which contains trial FT GL records, then this zone lists the trial bill segment.
- **Adjustment Details** - Enables you to view the information of the adjustment for which the financial transaction is created.
- **Payment Details** - Enables you to view the information of the payment for which the financial transaction is created.

To use this feature, you need to set the **G/L BATCH CODE** field in the **Financial Transaction** tab of the **Installation Options** screen to **GLDL**.

FOP Based Reports

Oracle Revenue Management and Billing enables you to generate the following FOP based reports:

- **User Access Report** - Enables you to view the permissions granted to a particular user for accessing the data.
- **Payment Summary Report** - Enables you to view the total payments made via each tender type of individual customer in a division for a period.
- **Payment Detail Report** - Enables you to view the individual payment details of each account and customer in a division for a period.
- **Invoice Ageing Report** - Enables you to view the invoices which are due for payment in different aging buckets.

These FOP based reports are not shipped with the product. Oracle Revenue Management and Billing provides the UserAccessReport, PaymentSummaryReport, PaymentDetailReport, and AgingReport XSL files using which you can create the respective report. Once the FOP based report is created, you can generate the respective report in the PDF format.

Retry Automatic Payment

In the Freeze Payments on Notification feature, the system enables you to freeze or cancel the automatic payment based on the review comments received from the auto clearing house. Until now, the system did not allow to resend the automatic payment clearing records to the auto clearing house for review in case of rejection. Now, the system enables you to resend the rejected automatic payment clearing records to the auto clearing house for review.

To enable this feature, you need to set the **C1-APMSG** characteristic type for the required divisions. Here, you must set the maximum automatic payment reattempts allowed while using the Freeze Payments on Notification feature.

A new batch named **C1-APRCH** is introduced in this release. You need to execute this batch in between the following two batches - **C1-APACK** and **APAYRA**. The **C1-APRCH** batch considers the automatic payment clearing staging records which are in the **Pending** status from the **CI_APAY_STAGE_UP** table. The system then checks whether the **APAY_UPL_RSN_TYPE** column corresponding to the automatic payment clearing staging record is set to **SUCC** or **CANC**. If the **APAY_UPL_RSN_TYPE** column corresponding to the automatic payment clearing staging record is set to **SUCC**, the system updates the last extract date of the automatic payment clearing staging record to the extract date which is available corresponding to the clearing record in the **CI_APAY_CLR_STG** table. However, if the **APAY_UPL_RSN_TYPE** column corresponding to the automatic payment clearing staging record is set to **CANC**, the system checks whether the number of automatic payment clearing staging records for the clearing record is equal to or greater than one. If the number of automatic payment clearing staging records for the clearing record is equal to or greater than one, the system increments the retry count of the clearing ID. If the retry count is greater than zero and less than the maximum automatic payment reattempt limit defined for the division, the system does the following:

- Recalculates the extract date and stamps it against the corresponding clearing record in the **SCHED_EXTRACT_DT** column of the **CI_APAY_CLR_STG** table

- Clears the **BATCH_NBR** column of the corresponding clearing record in the **CI_APAY_CLR_STG** table
- Clears the **APAY_DIST_FRZ_DT** column of the corresponding clearing record in the **CI_APAY_CLR_STG** table

Finally, the status of the automatic payment clearing staging record is set to **RETR**. A To Do is created using the **C1-APRET** To Do type to notify that the status of an automatic payment clearing staging record is changed to **RETR**.

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:

- Retail Banking Product Management

Retail Banking Product Management

Oracle Revenue Management and Billing facilitates you to maintain and bill a variety of products and services for the retail banking domain. You can define the following types of products in the system:

- Product
- Product Group

As the name indicates, a product group is a group of products. A product group are maintained in the system mainly for the reporting purposes. You can define a product and product group which may belong to different product categories, such as Checking, Loans, Savings, etc. A product or product group must be associated with at least one division. You can associate a product or product group with more than one division.

The system enables you to add one or more product services in a product. A product service may include one or more services which are defined as price items in the system. You can define, edit, delete, and copy a product service using an existing screen named **Product Service**. You can add multiple product services in a product. The system enables you to indicate whether the product service is a mandatory or optional service offered with the product. A product must have at least one mandatory product service.

A product consists of one or more market products. For example, the Loan product can include different market products, such as Personal Loan, Auto Loan, Home Equity Loan, Education Loan, etc. An account can enroll for a market product. While creating a market product for a product, the system inherits the list of divisions and product services from the product. You can associate a market product with only those divisions to which the product belongs. By default, the market product includes the mandatory services of the product. You may or may not include the optional services of the product in the market product. You can define eligibility rules for a market product. The system executes the eligibility rule which is effective while enrolling an account for a market product. If the eligibility rule is met, the system enrolls the account for the market product. However, if the eligibility rule is not met, the system does not enroll the account for the market product. A market product must be associated with at least one price list. You can associate multiple price lists with a market product.

The system enables you to define an offer which can be included in more than one market product. For example, the Car Loan and Two-Wheeler Loan market products may provide same offers, such as No Processing Cost, No Collateral, etc. An account can enroll for an offer. While creating an offer, the system inherits the list of divisions and product services from all market products in which it is included. By default, the offer includes the mandatory services of the product. You may or may not include the optional services of the market product in the offer. You can define eligibility rules for an offer.

The system executes the eligibility rule which is effective while enrolling an account for an offer. If the eligibility rule is met, the system enrolls the account for the offer. However, if the eligibility rule is not met, the system does not enroll the account for the offer. An offer must be associated with at least one price list. You can associate multiple price lists with an offer.

The system enables you to define a bundle which can be included in more than one market product. For example, you can define a bundle of services, such as Car Loan, Loan Insurance, etc. in the Car Loan market product. An account can enroll for a bundle. While creating a bundle, the system derives the divisions which are common in all market products in which it is included. It also inherits the list of product services from all market products. By default, the bundle includes the mandatory services of the product. You may or may not include the optional services of the market product in the bundle. Here, you can include additional services which are not included in the product or market product. You can define eligibility rules for a bundle. The system executes the eligibility rule which is effective while enrolling an account for a bundle. If the eligibility rule is met, the system enrolls the account for the bundle. However, if the eligibility rule is not met, the system does not enroll the account for the bundle. A bundle must be associated with at least one price list. You can associate multiple price lists with a bundle.

A product, market product, offer, and bundle goes through a lifecycle in the system. On creating a product, market product, offer, and bundle, their status is set to **Draft**. On submitting a product, market product, offer, and bundle, their status is set to **Active**. A new batch named **C1-PDTRN** is introduced in this release. It transitions the status of a product, market product, offer, and bundle to **Retired** when its end date is earlier than the batch business date.

To implement this new feature, the following new screens are introduced in this release:

- Product
- Product Information
- Market Product
- Market Product Information
- Offer
- Offer Information
- Bundle
- Bundle Information

You can access these screens from the **Retail Banking** menu.

New Features (Specific to Insurance)

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

- [Advance Billing for Claim Fund Charge](#)
- [SSL Accumulation across Bill Groups](#)
- [Rate Guarantee for Individual Membership](#)
- [Late Setup Notification](#)
- [Retiree Membership](#)
- [Discount Charge Pricing for Retiree Membership](#)
- [Pricing Rule Inactivation](#)
- [Mass Payment Transfer](#)

Advance Billing for Claim Fund Charge

Until now, the system enabled you to configure the pricing for level funding and generate the claim fund charges for a self-funded employer using either of the following approach:

- Flat level funding
- Enrollment based level funding

Now, the system enables you to bill the claim fund charges to a self-funded employer in advance. In case of enrollment based level funding, the system can receive the enrollment transactions for the month of January in the month of December. Once the January enrollment transactions are received in December, the system can create claim fund charges based on the January enrollment in the month of December and accordingly bill the self-funded employer. However, the claim fund charges which are billed in the month of December will be adjusted against the claim, ancillary, or other charges which are eligible for level funding only in the month of January.

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

- **Set the Advance Level Funding Eligibility Option** – A new field named **Advance Level Funding Eligibility** is available while defining a self-funded policy. You can set the value of the **Advance Level Funding Eligibility** field to either **Yes** or **No**. You can define the **Advance Level Funding Eligibility** field only through a health care inbound message and not from the user interface. When you create a self-funded policy from the user interface, the **Advance Level Funding Eligibility** field is non-editable. By default, the value is set to **No**. You can then change the value through a health care inbound message.

- **Set the Advance Billing Option** – A new field named **Advance Billing** is available while defining a retention type enrollment based pricing rule. You can set the value of the **Advance Billing** field to either **Yes** or **No**.

- **Create a Prospective Bill Period** – You need to create a prospective bill period wherein the bill date falls in a month prior to the month of bill segment end date. For example, if the bill segment end date is 01-31-2021, then you can set the bill date to 12-31-2020. You must use the prospective bill period in the recurring flat fee pricing rule using which you want to create the flat claim fund charge which should be billed in advance.

If the **Advance Level Funding Eligibility** field is set to **Y** through a health care inbound message, the system activates the self-funded policy even if the policy start date is later than the inbound processing date. Accordingly, a log is maintained for the self-funded policy.

On renewing a self-funded policy, the system provides the ability to copy the advance level funding eligibility value of the base policy to the renewed policy. A new field named **Copy Advance Level Funding Eligibility** is available while renewing a self-funded policy. If you select the **Copy Advance Level Funding Eligibility** option, the value is copied from the base policy to the renewed policy. If the **Advance Level Funding Eligibility** field is set to **Y** in the base policy, the system activates the renewed self-funded policy on the policy renewal even if the renewed policy's start date is later than the system date.

To implement this business requirement, the following changes are made in the system:

- While accumulating the charges which are eligible for level funding, the system behaves in the following manner:
  - o In case of advance flat level funding, the system considers only those claim fund bill segments where the end date is earlier than or equal to the accumulation run date and then adjusts the accumulation amount against those claim fund charges which were billed in the previous bill period.
  - o In case of advance enrollment based level funding, the system considers the enrollment transactions based on their coverage end date. Only those enrollment transactions where coverage end date is earlier than or equal to the accumulation run date are accumulated and then adjusted against the claim fund charges which were billed earlier.
- If the **Advance Level Funding Eligibility** field is set to **Y** for a self-funded policy and the inbound processing date is earlier than the policy start date, the system sets the contract start date to the first day of the month in which the inbound message is processed. Otherwise, the contract start date is set to policy start date.
- The system determines the bill after date depending on the value set for the **Advance Billing** field in the retention type enrollment based pricing rule. If the **Advance Billing** field is set to **Yes**, then the bill after date is set to accounting date – 1. Here, the accounting date is fetched from the schedule of the account's bill cycle where the transaction date falls. However, if the **Advance Billing** field is set to **No**, then the bill after date is set to accounting date – 1. Here, the accounting date is fetched from the schedule of the account's bill cycle where the transaction's coverage end date falls.

SSL Accumulation across Bill Groups

Specific Stop-Loss (SSL) protects the self-funded employers against the excess claims from a single individual who is a member in the self-funded policy. Oracle Revenue Management and Billing enables the customers to configure the SSL pricing rules wherein the SSL Limit and SSL Payout Limit are defined. For the excess claims from a member, arising on top of the SSL Limit defined for the bill group, the insurer will provide the SSL credits (capped with the SSL Payout Limit) to the self-funded employer.

There can be scenarios in which a member moves from one bill group to another. For example, an employee changes the department or work location. ORMB provides the ability to continue the accumulation of the transaction amount across the bill groups, if both bill groups have the same SSL limit and their accounts have same bill cycle. If the SSL Limits of the bill groups are different or if the bill groups' accounts have different bill cycles, the accumulation is calculated individually for each bill group based on the respective SSL Limit.

To enable the SSL Accumulation across Bill Groups feature, you need to set the **SSL Member Movement Configuration** option type in the **C1-ASOBLLNG** feature configuration to either of the following:

- INDIVIDUAL
- PROPORTIONATE
- CURRENTBG

If you do not set the value for the **SSL Member Movement Configuration** option type in the **C1-ASOBLLNG** feature configuration, by default, it is set to **INDIVIDUAL**.

While accumulating the SSL charges for a member, the system checks whether the member is associated with more than one bill group. If so, the system derives the value from the **SSL Member Movement Configuration** option type of the **C1-ASOBLLNG** feature configuration to determine the manner in which the SSL credits should be given to the bill groups. If the value of the **SSL Member Movement Configuration** option type is set to **PROPORTIONATE**, the system does weighted distribution of the total SSL credits across the associated bill groups based on the cumulative aggregation amount of each bill group. If the value of the **SSL Member Movement Configuration** option type is set to **CURRENTBG**, the system gives the remaining SSL credits to the present bill group irrespective of the bill group for which the transaction is received. If the value of the **SSL Member Movement Configuration** option type is set to **INDIVIDUAL**, the system accumulates the charges which are eligible for SSL and calculates the SSL credits individually for each bill group based on the respective SSL Limit.

Note: In case of a member who has opted for lasering, the system considers the lasered amount instead of the SSL limit during SSL credit calculation.

Rate Guarantee for Individual Membership

At times, the insurance carriers provide rate guarantee health plans to a fully-insured individual wherein the insurance rate does not change for the rate guarantee period (i.e. lock-in period). Oracle Revenue Management and Billing enables you to configure guaranteed rate for one or more health insurance services offered to an individual person. Unless, there are some qualifying life events (QLE), the system will calculate the premium on the same rate for the next coverage period until the rate guarantee period is over.

The system enables you to maintain the rate guarantee details for each individual membership through a health care inbound message or through membership repricing inbound web service. It enables you to capture the following details:

- **Rate Guarantee Start Date** – Used to specify the date from when the rate guarantee is available for the individual membership.
- **Rate Guarantee End Date** - Used to specify the date till when the rate guarantee is available for the individual membership.
- **Rate Guarantee Status** – Used to indicate the status of the rate guarantee period. The valid values are - **Active** and **Inactive**.

You can send the rate guarantee details for an individual membership during enrollment (i.e. on membership creation), during coverage period, or during membership renewal. While sending the rate guarantee details of an individual membership, ensure that the active rate guarantee records do not have overlapping date range.

The system enables you to define the rate guarantee business rules. If the rate guarantee details are not specified for an individual membership during enrollment, the system derives the rate guarantee details for the individual membership through a rate guarantee business rule. The rate guarantee business rule indicates the following:

- **Rate Guarantee Applicability** – Used to indicate whether the rate guarantee is available for the individual membership.
- **Rate Guarantee Period** – Used to derive the rate guarantee start and end dates. The system sets the rate guarantee start date to the membership start date and the rate guarantee end date to the rate guarantee start date + rate guarantee period.

There might be situations wherein the rate guarantee details are received for an individual membership later during the coverage period or during membership renewal through a health care inbound message. In such scenarios, the system will then give precedence to the rate guarantee details which are received through a health care inbound message and will not derive the rate guarantee details from the rate guarantee business rule which is stamped against the individual membership.

A new column named **Rate Guarantee** is available in the **Price Items** section while defining or editing an age based or tier based pricing rule type. While creating a charge for an individual membership, the system checks whether the **Rate Guarantee** option is selected for the price item in the respective pricing rule type and whether the billable charge timeline falls within the rate guarantee period. If so, the system derives the rate guarantee pricing rule for the price items where the **Rate Guarantee** option is selected.

The system stores the pricing rule which is effective for such price items on the rate guarantee start date as the rate guarantee pricing rule. Until the rate guarantee period is over, the system considers the rate guarantee pricing rule for the individual membership during premium calculation. This ensures that the same rate is charged for a health insurance service even when the rate has increased for the health insurance service in the system.

The Entity Audit framework is configured for the Rate Guarantee feature. The system will create audit events when the rate guarantee records are added or updated for an individual membership.

Late Setup Notification

Oracle Revenue Management and Billing enables you to create a To Do notification when the details to include a member person in a group or individual membership is received in ORMB beyond the late setup threshold days from the member person start date. This notification can help the billing analyst to take appropriate actions, such as giving premium waiver to the member person if required.

To enable this feature, you need to set the following option types in the **C1-ASOBLLNG** feature configuration:

- **Monitor Late Setup** – Used to indicate whether you want to enable the late setup notification feature. The valid values are – **Y** and **N**. By default, the value is set to **N**.
- **Late Setup Threshold in Days** – Used to indicate the number of threshold days for late setup notification. This option type is required when the **Monitor Late Setup** option type is set to **Y**. The value must be greater than zero.

For example, if the system receives the information to add a member person with the start date as **01-15-2021** to an individual membership on **02-15-2021** and the late setup threshold days in the **C1-ASOBLLNG** feature configuration is set to **15**. In this case, the number of days between the member person start date and member person creation date is greater than late setup threshold days, and therefore a To Do is created using the To Do type which is specified in the **C1-LATESET** algorithm attached to the group or individual membership business object, respectively.

To implement this business requirement, the system stores the member person creation date (which was not done in the previous releases) while adding a member person to a group or individual membership. A new batch named **C1-LSUB** is introduced in this release. It derives the creation date for all member persons in the existing group and individual memberships and stamps it against the corresponding record in the **CRE_DTTM** column of the **CI_MEMBERSHIP_PER** table. This batch must be executed only once after upgrading to Oracle Revenue Management and Billing Version 3.1.0.0.0. For more information, refer to *Oracle Revenue Management and Billing Version 3.1.0.0.0 Upgrade Guide.*

Retiree Membership

An employer may offer a retirement health plan coverage to its retired employees through a fully-insured group policy or an individual can independently opt for a government sponsored retirement health plan coverage. Oracle Revenue Management and Billing enables you to maintain a retiree membership for both the fully-insured group and individual business. The system enables you to maintain a flat or percentage based contribution of employer or sponsor for a retiree membership.

The system enables you to create and edit a retiree membership through a health care inbound message or through membership repricing inbound web service. While creating a retiree membership, the membership type must be set to **Retiree**. The system requires the following information to create charges for a retiree membership:

- Whom to bill the premium for the retiree membership (i.e. retiree billing arrangement details)
- Whom to bill the employer or sponsor contribution (i.e. sponsor billing arrangement details)
- Age based or tier based pricing rule using which the premium should be calculated for the retiree membership
- Discount charge pricing rule using which the employer or sponsor contribution should be calculated for the retiree membership

In case of the fully-insured individual business, the premium for a retiree membership is billed to the member who is financially responsible for the retiree membership. However, in case of the fully-insured group business, the system supports the following billing arrangements for the retiree membership:

- **Group Billing** – Here, the premium is billed to a bill group which is derived for the retiree membership.
- **TPA Billing** – Here, the premium is billed to the third party administrator (i.e. TPA person).
- **Direct Billing** – Here, the premium is billed to the member who is financially responsible for the retiree membership.

You can indicate the billing arrangement for a retiree membership in the fully-insured group business by defining a characteristic on the policy plan, policy, or parent customer. The system searches for the characteristic which is specified in the **Retiree Billing Arrangement** option type of the **C1-ASOBLLNG** feature configuration on the following entities in the specified sequence:

1. Policy Plan
2. Policy
3. Parent Customer

The system enables you to maintain a flat or percentage based contribution of employer or sponsor through a discount charge pricing rule. A field named **Sponsored** is available in the **Price Items** section while defining or editing a discount charge pricing rule type. If the **Sponsored** option is selected for a price item, the system creates and bills the charge for the price item as per the sponsor billing arrangement. The system searches for the characteristic which is specified in the **Sponsors Billing Arrangement** option type of the **C1-ASOBLLNG** feature configuration on the following entities in the specified sequence:

1. Policy Plan
2. Policy
3. Parent Customer

In the fully-insured group and individual business, the system supports the following sponsor billing arrangements for the retiree membership:

- **Group Billing** – Here, the system creates a negative charge for the employer or sponsor contribution against the beneficiary account and a positive charge for the employer or sponsor contribution against the sponsor account.

- **TPA Billing** – Here, the system creates a negative charge for the employer or sponsor contribution against the beneficiary account and a positive charge for the employer or sponsor contribution against the sponsor account.

- **Direct Billing** – Here, the system creates a memo only charge for the employer or sponsor contribution against the beneficiary account. A bill message code is derived from the **Retiree Bill Message Code** option type of the **C1-ASOBLLNG** feature configuration and stamped against the beneficiary account.

In case of the group and TPA billing, the system derives the characteristic types which are specified in the **Sponsor Account Identifier Type Char Type** and **Sponsor Account Identifier Value Char Type** option types of the **C1-ASOBLLNG** feature configuration. The system then checks whether these characteristics are defined on any of the following entity in the specified sequence:

1. Policy Plan
2. Policy
3. Parent Customer

If these characteristics are defined on any of the above entity, the system derives the sponsor account for the bill group. The system then bills the employer or sponsor contribution charges to the sponsor account.

However, if the **Sponsored** option is not selected for a price item in a discount charge pricing rule type, the system creates and bills the charge for the price item as per the retiree billing arrangement.

Discount Charge Pricing for Retiree Membership

Oracle Revenue Management and Billing enables you to maintain a flat or percentage based contribution of employer or sponsor for a retiree membership through a discount charge pricing rule. A new pricing rule type category named **Discount Charge** and the new business objects named **Discount Charge Pricing Rule Type (C1-PrcRuleTypeDisChg)** and **Discount Charge Pricing Rule (C1-PricingRuleDiscount)** are introduced in this release. This enables you to create the discount charge pricing rules where you can define different base and modifier fees based on the following pricing parameters:

- Membership attributes
- Member person attributes

For the fully-insured group business, you can create or edit a flat or percentage based discount charge pricing rule through a health care inbound message. You can define a discount charge pricing rule at the policy plan, policy, or parent customer level.

The following table describes the information that you need to provide in a health care inbound message while defining or editing a discount charge pricing rule on a policy plan, policy, or parent customer:

Entity Type	Entity Identifiers
Policy Plan	Policy, Plan, and Source System
Policy	Policy and Source System
Parent Customer	Person Identifier Type and Person Identifier Value

For the fully-insured individual business, you can create or edit a flat or percentage based discount charge pricing rule through a health product and plan inbound message. You can define a discount charge pricing rule at the health plan level. The following table describes the information that you need to provide in a health product and plan inbound message while defining or editing a discount charge pricing rule on a health plan:

Entity Type	Entity Identifiers
Health Plan	Health Plan

You can view a discount charge pricing rule defined for the fully-insured group business through the **Customer 360° View** screen. However, at present, you cannot view a discount charge pricing rule defined for the fully-insured individual business from the user interface.

You can create a discount charge pricing rule using a discount charge pricing rule type. You can create a discount charge pricing rule type from the user interface and not through an inbound message. While creating a discount charge pricing rule type, you must the select the **Discount Charge Pricing Rule Type** business object and set the pricing rule type category to **Discount Charge**. The discount is always charged per subscriber and not per member, and therefore you must set the pricing rule type sub category to **Per Subscriber**. Here, you must specify the algorithms for the following system events:

System Event	Algorithm
Account and Price Item Derivation	C1_ACCPRIMEM
Account and Price Item Derivation Post-Processing	C1-BILLPDRV
Account and Price Item Derivation Post-Processing	C1-BILLRPCR
Billable Charge Creation Post-Processing	C1-FICRETBC
Bill Group Derivation	C1_MEMBGDRV
Premium Calculation	C1_TIERPREM

In addition, you must specify the price items for which you can create discount charge pricing rules using the discount charge pricing rule type. A discount charge pricing rule type is not a primary pricing rule type. You must include a discount charge pricing rule type as a related pricing rule type in the age-based or tier based pricing rule types which are used for calculating the retiree membership premium. This is because the discount is offered on the retiree membership premium.

If the pricing type in the discount charge pricing rule is set to **Flat**, the system offers a flat discount on the retiree membership. But, if pricing type in the discount charge pricing rule is set to **Percent**, the system calculates and offers the percentage based discount on the retiree membership premium.

Pricing Rule Inactivation

Earlier, you were not able to inactivate a pricing rule which is referred by a group or individual membership for the charge calculation. Now, the system enables you to change the status of the age based, tier based, additional charge, and discount charge pricing rules from **Active** to **Inactive** even when it is referred by a membership for the charge calculation. On inactivating a pricing rule, the system creates an audit event in the system.

A new batch named **Process Inactivated Fully-Insured Pricing Rule (C1-CBIPR)** is introduced in this release. You must execute the **Process Inactivated Fully-Insured Pricing Rule (C1-CBIPR)** batch in between the following batches - **Audit Event Process Monitor (C1-AUDEV)** and **Identify Entities for Repricing (C1-REPC1)**. The **Process Inactivated Fully-Insured Pricing Rule (C1-CBIPR)** batch considers the repricing entity details records from the **CI_REPRC_ENTITY_DTL** table which are in the **Discard** status due to pricing rule inactivation. It then cancels the billable charges and bill segments (if any) which are created using the pricing rule which you have inactivated. In addition, it changes the status of the records in the **CI_PRCE_CALC** table to **I** where the inactivated pricing rule is referred.

If you inactivate a primary pricing rule, the system will cancel the billable charges and bill segments (if any) which are created using the related pricing rules. If you inactivate a rate guarantee pricing rule, the system will cancel the billable charges and bill segments (if any) which are created using the rate guarantee pricing rule.

Mass Payment Transfer

Oracle Revenue Management and Billing facilitates mass payment transfer using the File Upload Interface utility. You can upload the data for payment transfer in the CSV format using the File Upload Interface utility. To upload the payment transfer data in the CSV format, you need to create a file request type using the **C1-TransferPaymentService** business service.

Enhancements (Generic)

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

- Pricing Management
- Disaggregation Request

Pricing Management

The following changes are made to the Pricing Management feature:

- Now, if the price assignment has only one price component, you can view the rate defined in the pricing directly through the **Rate Info** column in the following zones of the respective screens:

Screen Name	Zone Name
Price List	Price List Price Items
Pricing (Account)	Effective Price Assignments for Account
Pricing (Person)	Effective Price Assignments for Person

However, if the price assignment has more than one price components, then the **Rate Info** column contains a string indicating the tiering type and pricing currency. It also contains "…" which indicates that for more information about the pricing you should navigate to the **Price Item Pricing** screen.

Disaggregation Request

There might be scenarios where you do not want to disaggregate all billable charges of an account. In such case, the system enables you to create the disaggregate request for an account at the price item, price assignment, or billable charge level. Until now, you were able to do the following through the **Disaggregation Request Creation (C1-DISTG)** batch:

- **Create a Disaggregation Request for Each Account where a Particular Price Item is Assigned** – In this case, the system disaggregates only those billable charges of the account which are created for the respective price item.

- **Create a Disaggregation Request for an Account with a Particular Price Assignment** - In this case, the system disaggregates only those billable charges of the account which are created using the respective price assignment.

- **Create a Disaggregation Request for an Account for which a Particular Billable Charge is Created** – In this case, the system disaggregates a specific billable charge of the account.

However, you were not able to create these types of disaggregation request from the **Disaggregation Request** screen. Now, you can create these types of disaggregation request from the **Disaggregation Request** screen. While creating a disaggregate request from the user interface, you can select any of the following request types:

- **Person** – Enables you to create a disaggregation request for one or more accounts of a person and its child persons. In this case, the system will disaggregate all billable charges of the account.

- **Account** - Enables you to create a disaggregation request for an account. In this case, the system will disaggregate all billable charges of the account.

- **Price Item** - Enables you to create a disaggregation request for an account or for one or more accounts of a person and its child persons where a particular price item is assigned. In this case, the system will disaggregate only those billable charges of the accounts which are created for the respective price item.

- **Price Assignment** - Enables you to create a disaggregation request for an account with a particular price assignment. In this case, the system will disaggregate only those billable charges of the account which are created using the respective price assignment.

- **Billable Charge** – Enables you to create a disaggregation request for an account for which a particular billable charge is created. In this case, the system will disaggregate a specific billable charge of the account.

- **Parent Accumulation Group** – Enables you to create a disaggregation request for a parent accumulation group.

There might be scenarios where a usage account has multiple price items assigned (for example, PI1, PI2, PI3) and the charges for each price item are billed on different invoice accounts through a construct. Until now, in such scenarios, when you created a disaggregation request for a usage account at the price item level, the system deleted all bills of the usage accounts which are created on different invoice accounts irrespective of whether it had the charges for the price item for which the disaggregation request is created. Let us understand this with the help of an example. If the charges for the PI1, PI2, and PI3 of the UA1 account are billed on the IA1, IA2, and IA3 accounts, respectively, through a construct and disaggregation request is created for PI1, the system deleted all bills of UA1 which are billed on IA1 (where PI1 charges are billed), IA2 (where PI2 charges are billed), and IA3 (where PI3 charges are billed). Now, the system deletes only the PI1 bill segments of the UA1 account from the bill which is created on the IA1 account.

Enhancements (Specific to Financial Services)

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

- [Pricing Management](#)
- [Deal Management](#)
- [Invoice and Settlement Construct](#)

Pricing Management

The following changes are made to the Pricing Management feature:

- A new field named **Sort Sequence** is available while defining, editing, or copying a price item. It enables you to define the sort sequence for the price item. This field is not mandatory. The sort sequence is used while displaying price items in the price item hierarchy in the **Deal Management** module.
- A new field named **Sort Sequence** is available while defining, editing, or copying a hierarchy entity. It enables you to define the sort sequence for the hierarchy entity. This field is not mandatory. The sort sequence is used while displaying hierarchy entities in the price item hierarchy in the **Deal Management** module.

Deal Management

The following changes are made to the Deal Management feature:

- Earlier, the hierarchy entities and price items were randomly displayed (irrespective of any order) in the price item hierarchy in the **Select Price Item Group**, **Pricing and Commitments**, and **Deal Pricing and Commitments** screens. Now, the hierarchy entities and price items are sorted in the price item hierarchy based on their respective sort sequence. If two or more hierarchy entities and price items have the same sort sequence, then the system sorts them in the ascending alphabetical order of the information string. Also, if the sort sequence is not defined for the hierarchy entities and price items, then the system sorts them in the ascending alphabetical order of the information string.

  Similarly, the system sorts the hierarchy entities and price items in the price item hierarchy when the deal information is extracted in the Excel or PDF format for internal or external use.

- Now, the system displays all price assignments of a price item in the price item hierarchy. A new column named **Parameter** is introduced in the **Price Item Group** section of the **Select Price Item Group** screen. All price assignments of a price item are sorted in the alphabetical order of the pricing information in the **Parameter** column.

Invoice and Settlement Construct

The following changes are made to the Invoice and Settlement Construct feature:

- Earlier, while searching for a construct using the usage or invoice account identifier, the system listed only those constructs which are in the **Active** status and where the respective account is included. Now, while searching for a construct using the usage or invoice account identifier, the system lists the constructs which are in the **Draft**, **Active**, or **Pending Approval** status and where the respective account is included.

Enhancements (Specific to Insurance)

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

- [Membership Identifiers](#)
- [Membership](#)
- [Business Rules](#)
- [Binder Payment for Individual Membership](#)
- [Hold Request](#)
- [Bill Group Derivation and Pricing Parameters](#)
- [Self-Funded Policies](#)
- [New Born Credit Waiver](#)
- [C1-ASOBLLNG Feature Configuration](#)
- [Inbound Message](#)
- [Membership Repricing Inbound Web Service](#)
- [Proration Rules](#)

Membership Identifiers

Earlier, the membership identifiers were only supported for the individual memberships and not for the group memberships. Now, the membership identifiers are supported for both individual and group memberships.

You can define membership identifiers for the group memberships from the user interface, through a health care inbound message or through membership repricing inbound web service. However, you can define membership identifiers for the individual memberships through a health care inbound message or through membership repricing inbound web service.

Membership

The following changes are made to the Membership screen:

- Now, you can define a retiree membership for the fully-insured group and individual health insurance business. A new membership type named **Retiree** is introduced in this release.
- The system enables you to define and edit membership identifiers for a group membership.
- A new zone named **Membership Rate Guarantee** is added in the **Main** tab. It enables you to view the rate guarantee details of an individual membership. It displays the rate guarantee records which are in the **Active** status.
- A new zone named **Sponsor Billable Charges** is added in the **Contracts and Charges** tab. Here, you can view the following:

- o Reverse charges which are created for the membership benefits against the benefit sponsor. The system considers the billable charges where the characteristic type specified in the **Sponsored Switch Characteristic for Billable Charge** option type of the **C1-ASOBLLNG** feature configuration is defined.

  - o Reverse charges which are created for the employer or sponsor contribution using a discount charge pricing rule

- While viewing the details of an individual membership, the system does the following:

  - o The system fetches the binder payment information for the membership from the respective table. If the binder payment information is not available for the membership in the respective table, the system fetches the binder payment information for the membership from the binder payment business rule which is derived for the membership.

  - o The system fetches the rate guarantee information for the membership from the respective table. If the rate guarantee information is not available for the membership in the respective table, the system fetches the rate guarantee information for the membership from the rate guarantee business rule which is derived for the membership.

  - o By default, the system lists all member persons irrespective of their status in the **Member Persons** zone. You can then filter the records in the **Member Persons** zone based on the member person status.

- While viewing the details of a group membership, the system does the following:

  - o By default, the system lists all member persons irrespective of their status in the **Member Persons** zone. You can then filter the records in the **Member Persons** zone based on the member person status.

- Now, the **Other Plans of Main Subscriber** zone lists the other policy plans and health plans where the main subscriber has enrolled for the group and individual memberships, respectively.

- You can also search for an individual membership using the following new search criteria:

  - o **Rate Guarantee Start Date** – Used to search all individual memberships where the rate guarantee start date is equal to or later than the specified date.

  - o **Rate Guarantee End Date -** Used to search all individual memberships where the rate guarantee end date is equal to or earlier than the specified date.

- You can also search for the group and individual memberships using the following new search criteria:

  - o **Late Setup** – Used to search all individual and group memberships where the member person creation date is later than the member person start date + Late Setup Threshold in Days (specified in the **C1-ASOBLLNG** feature configuration).

Business Rules

The following changes are made to the Business Rule feature:

- Earlier, you were able to search for a business rule type using the business rule type and its description. Now, in addition, you can search for a business rule type using the priority, criteria sequence, criteria description, and using the parameters and their values which are used in the business rule criteria.

- Now, you can define business rule criteria in a business rule type using the parameters which are associated with the business rule type. A new screen named **Business Rule Criteria** is introduced in this release. It enables you to define and edit a business rule criteria for the business rule type.

- Earlier, you were only able to view the details of the fully-insured pricing and new born business rules in the **Business Rule** screen. Now, you can define, edit, delete, and view the details of the following business rules in the **Business Rule** screen:

  o **Fully-Insured Pricing Business Rules** – The information in the fully-insured pricing business rule is used while deriving the member relationship for a member person, subscription tier for an individual membership, and while deriving eligible member persons for premium calculation.

  o **New Born Business Rules** - The information in the new born business rule is used while calculating premium for a new born member person in an individual membership.

  o **Binder Payment Business Rules** – The information in the binder payment business rule is used for monitoring and processing the binder payments of an individual membership.

  o **Rate Guarantee Business Rules** – The information in the rate guarantee business rule is used to determine whether the rate guarantee is applicable for an individual membership and its validity period.

- A new zone named **Business Rule Log** is added in the **Business Rule** screen. It enables you to view the complete trail of actions performed on the business rule.

- While creating or editing an individual membership, or while adding, editing, or inactivating a member person in an individual membership through a health care inbound message or through membership repricing inbound web service, the system derives the fully-insured pricing, new born, binder payment, and rate guarantee business rules for the individual membership.

- While deriving a business rule of the Fully-Insured Pricing or New Born business rule category, the system considers the respective business rules which are effective on the audit event's effective date. While deriving a business rule of the Binder Payment or Rate Guarantee business rule category, the system considers the respective business rules which are effective on the membership start date. Once the effective business rules are identified, the system executes these business rules in the order of their priority. Once the criteria of the business rule is met, the business rule is stamped against the individual membership. If two or more business rules have the same priority, the system sorts the business rules for execution based the business rule criteria sequence.

Binder Payment for Individual Membership

The following changes are made to the binder payment feature:

- Earlier, you were able to add the binder payment details for an individual membership through a health care inbound message or through membership repricing inbound web service. Now, in addition, you can derive the binder payment details for an individual membership through a binder payment business rule which is stamped against the individual membership. The system derives the binder payment business rule for an individual membership while creating or editing an individual membership, or while adding, editing, or inactivating a member person in an individual membership.

  The system derives the binder payment details for an individual membership through a binder payment business rule only when the binder payment details are not available for the individual membership in the respective table.

Hold Request

The following changes are made to the Hold Request feature:

- Now, you can mass update the end date of the hold entities in a hold request at once. A new hyperlink named **Edit All** is available in the upper right corner of the **Hold Entities** zone. The link appears only when you are viewing the details of a hold request which is in the **Draft** or **Active** status.

  On clicking the **Edit All** link, a screen appears where you to specify the new hold entity end date. The specified date cannot be earlier than the system date or hold request start date and later than the hold request end date. While updating the end date of a hold entity, the system checks whether the existing hold entity end date is earlier than the new hold entity end date. If the existing hold entity end date is earlier than the new hold entity end date, the system does not consider and update the end date of such hold entities. However, if the existing hold entity end date is later than the new hold entity end date, the system considers and updates the end date of such hold entities. Similarly, the system checks whether the existing hold process end date is earlier than the new hold entity end date. If the existing hold process end date is earlier than the new hold entity end date, the system does not consider and update the end date of such hold processes. However, if the existing hold process end date is later than the new hold entity end date, the system considers and updates the end date of such hold processes. Finally, the end date of the hold request is also updated to the specified date.

For example, a hold request exists with the following hold processes and hold entities:

	Original Start Date	Original End Date
Hold Request	01-01-2021	12-31-2021
Hold Process: Billing	01-01-2021	12-31-2021
Hold Process: Auto Pay	01-01-2021	06-30-2021
Account 1	01-01-2021	12-31-2021
Account 2	01-20-2021	03-31-2021
Account 3	04-04-2021	10-30-2021

Now, if you want to mass update the hold entity end date to 09-30-2021 on 04-01-2021, the system updates the hold entity, hold process, and hold request end dates as shown in the following table:

	Original Start Date	Updated End Date
Hold Request	01-01-2021	09-30-2021
Hold Process: Billing	01-01-2021	09-30-2021
Hold Process: Auto Pay	01-01-2021	06-30-2021
Account 1	01-01-2021	09-30-2021
Account 2	01-20-2021	03-31-2021
Account 3	04-04-2021	09-30-2021

Bill Group Derivation and Pricing Parameters

The derivation and pricing parameters are used to derive the bill group against which the claim, enrollment, and ancillary transactions should be billed in the system. Until now, once the billable charge for a transaction is created against a bill group, the system disabled the derivation and pricing parameters defined for all the bill group and sort ID combinations irrespective of whether they are referred by a transaction or not. In other words, the system did not allow you to edit or delete the referred and non-referred derivation and pricing parameters of a bill group. In addition, you were not able to edit any sort ID of a bill group once the derivation and pricing parameters of the bill group are referred by a transaction.

Now, the system only disables the derivation and pricing parameters of a bill group and sort ID combination which is referred by a transaction. You can edit and delete all other non-referred derivation and pricing parameters of a bill group. In addition, you can edit a sort ID of a bill group irrespective of whether the derivation and pricing parameters of the bill group and sort ID combination are referred by a transaction or not.

To implement this business requirement, the following changes are made in the system:

- The **Validate Transaction and Derive Price Item (C1-TXNIP)** batch is enhanced in this release. It stamps the bill level ID of the derivation and pricing parameters which are used to derive the bill group against the transaction leg in the CI_TXN_DTL_PRITM table.

- A new batch named **Update Bill Level (C1-UPDBL)** is introduced in this release. It updates the **IS_REFERRED_SW** column of a record in the **C1_BILL_LVL** table to **Y** or **N** depending on whether it is referred by a transaction leg or not. This batch must be executed after completing the entire transaction aggregation, disaggregation, or rollback process. If the value of the **IS_REFERRED_SW** column is set to **Y**, then the derivation and pricing parameters of the respective bill group and sort ID combination are disabled on the user interface. However, if the value of the **IS_REFERRED_SW** column is set to **N**, then the derivation and pricing parameters of the respective bill group and sort ID combination are enabled on the user interface for edition and deletion.

- A new batch named **Transaction Upgrade - Stamp Bill Level ID (C1-BLUPG)** is introduced in this release. It is used to stamp the bill level ID of the derivation and pricing parameters against the transaction legs in the CI_TXN_DTL_PRITM and CI_TXN_DTL_PRITM_STG tables.

  For each transaction leg, the system derives the Bill Group Derivation algorithm defined on the pricing rule type which is associated with the respective transaction record type. This algorithm determines the bill level ID of the derivation and pricing parameters which are used to derive the bill group. Once the bill level ID is determined, the system stamps it against the transaction leg.

  This batch must be executed only once after upgrading to Oracle Revenue Management and Billing Version 3.1.0.0.0. For more information, refer to *Oracle Revenue Management and Billing Version 3.1.0.0.0 Upgrade Guide.*

Self-Funded Policies

Until now, the system did not allow you to delete a self-funded policy which is in the **Pending** status. This is because the system created contracts for a self-funded policy once the policy is created. Now, the contracts for a self-funded policy will be created on the policy activation and not on the policy creation. Therefore, you can delete a self-funded policy which is in the **Pending** status, whenever required, from the user interface.

New Born Credit Waiver

Until now, you were able to waive off premium for a new born while calculating the health insurance premium for the group and individual memberships. However, the new born premium waiver benefit for the group and individual memberships was not recorded and maintained in ORMB for the General Ledger (GL) posting.

Now, the system calculates the premium for the new born credit waiver period and stores the amount in the billable charge when a new born member exists in the group and individual memberships and the new born applicability for the membership is set to **Yes**. The system stamps two SQIs in the billable charge - one SQI stores the new born premium (i.e. debit amount) and another SQI stores the new born premium waiver benefit (i.e. credit amount). This mechanism ensures that the system records the new born premium in the system, but at the same time does not charge the new born premium for the membership. It helps to maintain GL entries for the new born premium which is waived off during premium calculation.

To enable this feature, you need to set the **New Born Waiver Credit Calculation** option type of the **C1-ASOBLLNG** feature configuration to **Y**.

To implement this business requirement, the following changes are made in the system:

- While deriving the eligible members for a membership, while deriving the member relationship for a member person, and while deriving the subscription tier for a membership, the system checks whether the **New Born Waiver Credit Calculation** option type is set to **Y** or **N**. If the **New Born Waiver Credit Calculation** option type is set to **Y**, the system derives the list of eligible members for the membership, member relationship for a member person, or subscription tier for the membership considering with and without new born gift days.

  If you are using an age based pricing rule wherein the member relationship derivation algorithm is attached, the system will set the following characteristics for each member person in the membership:

  - **Member Relationship** – Stores the member relationship for the member person considering new born gift days

  - **Member Role Without New Born Gift Days** - Stores the member relationship for the member person without considering new born gift days

  However, if you are using a tier based pricing rule, the system will set the following characteristics for the membership:

  - **Subscription Tier** – Stores the subscription tier for the membership considering new born gift days

  - **Subscription Tier without Gift Days** - Stores the subscription tier for the membership without considering new born gift days

- While calculating premium for a membership, the system checks whether there is a new born member person in the membership and whether the **New Born Gift Days Applicability** option is set to **Yes** for the membership. If so, the system checks whether the **New Born Waiver Credit Calculation** option type in the **C1-ASOBLLNG** feature configuration is set to **Y.** If so, the system calculates the new born gift period start and end dates. While deriving the timeline during premium calculation, the system checks whether the timeline is within the new born gift days period. If so, the system calculates the premium for the new born and creates a record in the **CI_PRCE_CALC_LN** table where the **NEW_BORN_CMT_FLG** column is set to **Without Gift Days**. In addition, the system creates a reverse entry record in the **CI_PRCE_CALC_LN** table where the **NEW_BORN_CMT_FLG** column is set to **Reversal**. If the amount calculated with and without gift days do not match, the system stamps two SQIs in the billable charge - one SQI stores the new born premium (i.e. debit amount) and another SQI stores the new born premium waiver benefit (i.e. credit amount). The system considers the SQIs specified in the **New Born Waiver SQI** and **New Born Waiver Credit SQI** option types of the **C1-ASOBLLNG** feature configuration, respectively.

- During premium proration, the system stores the distributed amount for the new born member person in an SQI which is specified in the **New Born Distributed SQI** option type of the **C1-ASOBLLNG** feature configuration.

C1-ASOBLLNG Feature Configuration

The following option types are newly added in the **C1-ASOBLLNG** feature configuration:

- Late Setup Threshold in Days
- Monitor Late Setup
- New Born Distributed SQI
- New Born Waiver Credit Calculation
- New Born Waiver Credit SQI
- New Born Waiver SQI
- Retiree Bill Message Code
- Retiree Billing Arrangement
- Sponsor Account Identifier Type Char Type
- Sponsor Account Identifier Value Char Type
- Sponsors Billing Arrangement
- SSL Member Movement Configuration

Inbound Message

The following changes are made to the Inbound Message feature:

- While creating or editing an individual membership, or while adding, editing, or inactivating a member person in an individual membership through a health care inbound message, the system derives the fully-insured pricing, new born, binder payment, and rate guarantee business rules for the individual membership.
- Now, a health care inbound message enables you to do the following:
    - Define and edit the rate guarantee details of an individual membership
    - Set the advance level funding eligibility for a self-funded policy
    - Indicate the membership type for which the proration rule is applicable
    - Define and edit a retiree membership for the fully-insured group and individual business
    - Define and edit a discount charge pricing rule for the fully-insured group business
- Now, a health product and plan inbound message enables you to define and edit a discount charge pricing rule for the fully-insured individual business.
- The following tags are newly introduced in the health care inbound message schema:

Parent Tag	New Tags

<memberData>	<membershipRateGuarantee>
	    <membershipRateGuaranteeList>
	        <rateGuaranteeStartDate></rateGuaranteeStartDate>
	        <rateGuaranteeEndDate></rateGuaranteeEndDate>

Parent Tag	New Tags
	<rateGuaranteeStatus></rateGuaranteeStatus> </membershipRateGuaranteeList> </membershipRateGuarantee>
<policyData>	<advancedLevelFundingEligibility></advancedLevelFundingEligibility>
<policyPlanProrationRuleList>	<membershipType></membershipType>

Membership Repricing Inbound Web Service

The following changes are made to the Membership Repricing inbound web service:

- The **C1-MembRepricing** web service is enhanced to support the following:
    - Define and edit the rate guarantee details of an individual membership
    - Define and edit a retiree membership for the fully-insured group and individual business
- The following tags are newly introduced in the **C1-MembershipRepricing** schema:

Parent Tag	New Tags

<membership>	<membershipRateGuarantee>
	    <membershipRateGuaranteeList>
	        <rateGuaranteeStartDate></rateGuaranteeStartDate>
	        <rateGuaranteeEndDate></rateGuaranteeEndDate>
	        <rateGuaranteeStatus></rateGuaranteeStatus>
	    </membershipRateGuaranteeList>
	</membershipRateGuarantee>

Proration Rules

The following changes are made to the Proration Rules feature:

- Earlier, you were able to use the same set of proration rules for different types of membership, such as Active Employee Coverage, Medicare, and COBRA. Now, you can define different proration rules for different types of membership, such as Medicare, COBRA and Retiree.

- The system enables you to define a default set of proration rules which are used for an active employee coverage membership and when the membership type specific proration rules are not defined on the policy plan.

User Interface (UI) Level Changes

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

Screen Name (in 3.0.0.0.0)	Changes
Membership (Used for Searching)	The following changes are made to this screen: • The **Rate Guarantee Start Date** and **Rate Guarantee End Date** fields are added to the **Search Criteria** section when you search for a membership using the membership or health plan details. • The **Late Setup** field is added to the **Search Criteria** section when you search for a membership using the membership, policy plan, or health plan details. • A new option named **Retiree** is added to the **Membership Type** list.
Membership (Used for Viewing)	The following changes are made to this screen: • A new zone named **Membership Rate Guarantee** is added in the **Main** tab. • A new zone named **Sponsor Billable Charges** is added in the **Contracts and Charges** tab. • The **Plan Number** column in the **Other Plans of Main Subscriber** zone is renamed to **Policy Plan Number**. • The **Health Plan Description** column is added in the **Other Plans of Main Subscriber** zone. • The **Price Item** column is removed from the **Other Plans of Main Subscriber** zone.
Membership (Used for Adding)	The following changes are made to this screen: • A new option named **Retiree** is added to the **Membership Type** list. • A new section named **Membership Identifiers** is added to this screen when you define a group membership.

Screen Name (in 3.0.0.0.0)	Changes
Business Rule Type (Used for Searching)	The following changes are made to this screen: • A new field named **Priority** is added in the **Search Business Rule Type** zone. • The **Advanced Search** link is added in the **Search Business Rule Type** zone. On clicking the **Advanced Search** link, the following fields appear in the **Search Criteria** section - **Criteria Sequence**, **Criteria Description**, **Parameter 1**, **Parameter 1 Value**, **Parameter 2**, **Parameter 2 Value**, **Parameter 3**, **Parameter 3 Value**, **Parameter 4**, and **Parameter 4 Value**. • The **Parameters** column is added in the **Search Results** section of the **Search Business Rule Type** zone. • A new zone named **Business Rule Criteria** appears when you click the **Broadcast** icon corresponding to the business rule type in the **Search Business Rule Type** zone. • The **Create Date/Time** and **UPD_DTTM** fields are removed from the **Main** section of the **Business Rule Type** zone.
Business Rule Type (Used for Adding)	The following change is made to this screen: • The **Create Date/Time** and **UPD_DTTM** fields are removed from the **Main** section.

Screen Name (in 3.0.0.0.0)	Changes
Business Rule (Used for Searching)	The following changes are made to this screen: • The **Add** button is added in the **Page Title** area of the **Business Rule** screen. • The **Binder Payment Rules** and **Rate Guarantee Rules** options are added in the **Search By** list of the **Search Business Rule** zone. • The **Business Rule ID** field is added in the **Search Business Rule** zone. • The **Value 1**, **Value 2**, **Value 3**, and **Value 4** fields in the **Search Business Rule** zone are renamed to **Parameter Value 1**, **Parameter Value 2**, **Parameter Value 3**, and **Parameter Value 4**, respectively. • The **Maximum Number of Dependents** column in the **Search Business Rule** zone is renamed to **Maximum Dependents**. • The **Maximum Age Limit of Dependents** column in the **Search Business Rule** zone is renamed to **Dependent Max Age Limit**. • The **Edit** and **Delete** buttons are added in the **Search Results** section of the **Search Business Rule** zone. • A new zone named **Business Rule Log** appears when you click the **Broadcast** icon corresponding to the business rule in the **Search Business Rule** zone.
Age Based Pricing Rule Type	The following change is made to this screen: • The **Rate Guarantee** column is added in the **Price Items** section.
Tier Based Pricing Rule Type	The following change is made to this screen: • The **Rate Guarantee** column is added in the **Price Items** section.
Policy (Used for Viewing)	The following change is made to this screen: • A new field named **Advance Level Funding Eligibility** appears in the **Main** section of the **Policy** zone when you view the details of a self-funded policy. • The **Last Billed Coverage** column is removed from the **Memberships** zone in the **Plans** tab.

Screen Name (in 3.0.0.0.0)	Changes
Policy (Used for Adding)	The following change is made to this screen: • A new field named **Advance Level Funding Eligibility** is added in the **Main** section when you define a self-funded policy. This field is non-editable. By default, the value is set to **No**. You can edit the advance level funding eligibility only through a health care inbound message.
Policy (Used for Renewing)	The following change is made to this screen: • A new field named **Copy Advance Level Funding Eligibility** appears in the **Main** section when you renew a self-funded policy.
Policy Plan (Used for Viewing)	The following change is made to this screen: • A new column named **Membership Type** is added in the **Proration Rules** section. • The **Last Billed Coverage** column is removed from the **Memberships** zone.
Retention Type Enrollment Based Pricing Rule	The following change is made to this screen: • A new column named **Advance Billing** is added in the **Main** section.
Hold Request (Used for Viewing)	The following change is made to this screen: • The **Edit All** hyperlink is added in the upper right corner of the **Hold Entities** zone. It appears when you are viewing the details of a hold request which is in the **Draft** or **Active** status.
Accumulation Data	The following change is made to this screen: • The **SSL Credits Calculation Details** zone is added to this screen.

Screen Name (in 3.0.0.0.0)	Changes
Disaggregation Request	The following changes are made to this screen: • The **Price Item**, **Price Assignment ID**, and **Billable Charge ID** fields are added to the **Search Disaggregation Request** zone when you search for a disaggregation request using the person or account details. • The **Request Date From** and **Request Date To** fields in the **Search Disaggregation Request** zone are renamed to **Request Created From** and **Request Created Until**, respectively. • The **Processing Date From** and **Processing Date To** fields in the **Search Disaggregation Request** zone are renamed to **From Processing Date** and **To Processing Date**, respectively. • The **Request Date** and **Price Item** columns in the **Search Disaggregation Request** zone are renamed to **Request Creation Date** and **Price Item Information**, respectively.
Add Disaggregation Request	The following changes are made to this screen: • The **Request Type** field is renamed to **Disaggregation Request Type**. • The **Person/Account** option is removed from the **Disaggregation Request Type** list. • The **Person**, **Account**, **Price Item**, **Price Assignment**, and **Billable Charge** options are added to the **Disaggregation Request Type** list.

Screen Name (in 3.0.0.0.0)	Changes
Add Disaggregation Request For Account	The following changes are made to this screen: • The **Request Type** field is disabled. • The **Person ID**, **Person Name**, **Person Identifier Type**, and **Person Identifier** fields are removed while creating a disaggregation request for an account using the account details. • The **Price Item**, **Price Assignment ID**, and **Billable Charge ID** fields are added in this screen. • The **With Assigned Price List**, **Price List Assigned From**, and **Price List Assigned To** fields are renamed to **Assigned Price List**, **Price List Assignment Start Date**, and **Price List Assignment End Date**, respectively. • The **With Assigned Price List**, **Price List Assigned From**, **Price List Assigned To**, and **Account Info** column are renamed to **Assigned Price List**, **Price List Assignment Start Date**, **Price List Assignment End Date**, and **Account Information**, respectively.
Add Disaggregation Request For Person	The following changes are made to this screen: • The **Request Type** field is disabled. • The **Account ID**, **Account Identifier Type**, and **Account Identifier** fields are removed while creating a disaggregation request for an account using the person details. • The **Price Item**, **Price Assignment ID**, and **Billable Charge ID** fields are added in this screen. • The **With Assigned Price List**, **Price List Assigned From**, and **Price List Assigned To** fields are renamed to **Assigned Price List**, **Price List Assignment Start Date**, and **Price List Assignment End Date**, respectively. • The **With Assigned Price List**, **Price List Assigned From**, **Price List Assigned To**, and **Account Info** column are renamed to **Assigned Price List**, **Price List Assignment Start Date**, **Price List Assignment End Date**, and **Account Information**, respectively.
Price List	The following change is made to this screen: • The **Rate Info** column is added in the **Price List Price Items** zone.

Screen Name (in 3.0.0.0.0)	Changes
Pricing (Account)	The following change is made to this screen: • The **Rate Info** column is added in the **Effective Price Assignments for Account** zone.
Pricing (Person)	The following change is made to this screen: • The **Rate Info** column is added in the **Effective Price Assignments for Person** zone.
Price Item (Used for Adding, Editing, and Copying)	The following change is made to this screen: • The **Sort Sequence** field is added in the **Main** section.
Select Price Item Group	The following change is made to this screen: • The **Parameter** column is added in the **Price Item Group** section.
Hierarchy Entity (Used for Adding, Editing, and Copying)	The following change is made to this screen: • The **Sort Sequence** field is added in the **Main** section.
Pricing Rule Type	The following change is made to this screen: • The **Discount Charge** option is added to the **Pricing Rule Type Category** list.
Age Based Pricing Rule Type	The following change is made to this screen: • The **Rate Guarantee** column is added in the **Price Items** section.
Tier Based Pricing Rule Type	The following change is made to this screen: • The **Rate Guarantee** column is added in the **Price Items** section.

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 3.1.0.0.0, refer to the Appendix A: New Objects in the Oracle Revenue Management and Billing V3.1.0.0.0 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 3.1.0.0.0 is supported:

Operating System and Web Browser (Client)	Operating System (Server)	Chipset	Application Server	Database Server
Microsoft Windows 10 (64-bit) with Chromium Edge v83, Firefox ESR 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 9.0.5.2	Oracle Database Server 19c
	Oracle Solaris 11.3+	SPARC 64-bit	Oracle WebLogic 12.2.1.4 (64-bit)	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 9.0.5.2	Oracle Database Server 19c
	Microsoft Windows Server 2016+ (64-bit)	x86_64	Oracle WebLogic 12.2.1.4 (64-bit)	Oracle Database Server 19c

---

[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.

> **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.

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 3.0.0.0.0 to 3.1.0.0.0. For more information on how to upgrade, refer to the following documents which are available on OTN:

- *Oracle Revenue Management and Billing Version 3.1.0.0.0 Upgrade Path Guide*

- *Oracle Revenue Management and Billing Version 3.1.0.0.0 Upgrade Guide*

For upgrading from any other version of Oracle Revenue Management and Billing other than 3.0.0.0.0, 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 3.1.0.0.0. Alternatively, you can configure the bill and letter reporting feature so that you can generate bills and letters of a customer in the PDF format from ORMB. This reporting feature is built using native capabilities available in ORMB. For more information about the reporting feature, refer to the following documents which are available on OTN:

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

Oracle Utilities Application Framework Version 4.4.0.3.0 Enhancements

The following enhancements are made in Oracle Utilities Application Framework (OUAF) Version 4.4.0.3.0:

- [Page to Portal Conversion](#)
- [Product Usability](#)
- [Integration Enhancements](#)
- [Data Export Tools](#)
- [To Do Management and Processing Enhancements](#)
- [Batch Processing Enhancements](#)
- [Content Migration Assistant (CMA) Enhancements](#)
- [Implementation Tool Enhancements](#)
- [Security Features](#)
- [Analytics](#)
- [Miscellaneous Enhancements](#)
- [Technical Upgrade Notes](#)

Page to Portal Conversion

The following pages are converted to a portal in OUAF Version 4.4.0.3.0:

- [To Do Entry Portal](#)
- [Message Category and Message Portal](#)
- [Table Portal](#)
- [Time Zone Portal](#)
- [Work Calendar Portal](#)
- [Access Group Portal](#)
- [Application Service Portal](#)
- [Zone Portal](#)
- [Portal Maintenance](#)
- [Characteristic Type Portal](#)
- [Field Portal](#)

To Do Entry Portal

The **To Do Entry** page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor.

The following points highlight some improvements in the new portal functionality:

- In the new page, log entries are visible on the Log tab, which is the product standard for maintenance pages with logs.

- In the new page, there is a "related object" display. The system uses the drill keys associated with the To Do entry and determine the information string of that object and displays it to the user. A user can click this link to drill into the related object. Separately, a **Work** button is added to the page that performs the following functionality: if the To Do is "open", it gets assigned to the user; the To Do becomes the 'current To Do' and populates that dashboard zone; the user is brought to the target transaction (and if there is a BPA script associated with the To Do message, that script is launched). Previously, the **Message Text** was clickable and a user used this link to drill into the related key or launch the script.

- In the new page, the sort keys are shown on the main page instead of a separate tab. The drill keys are also shown on the **Main** tab, but within the **Record Information** section, which is initially collapsed.

- The characteristics linked to a To Do Entry are shown in a separate zone on the Main tab. However, when editing the To Do Entry, if you are allowed to make changes to the characteristics, they are maintained using the edit dialogue. Since this is a portal/zone based maintenance, foreign key characteristics use the Search Zone metaphor for searching. This is the standard for all maintenance objects going forward. This is an improvement from the previous page where the search was the old fixed page metaphor, causing issues when attempting to reference an object that did not have an old legacy fixed page search. In addition, when maintaining characteristics for an automatic To Do Entry, the new page presents valid characteristic types by first looking for valid characteristic types for the To Do Type and if no values are found, shows all the valid characteristic types for the To Do Entry entity.

- If there are related To Do entries for the To Do being shown, a badge insight is used to highlight the number of related To Dos, using the Contextual Insight feature introduced in this release. In addition, a zone displays a detailed list of the related To Do entries is included on the portal.

The following points highlight functionality that is the same as the previous version of the page:

- The To Do Entry query by To Do Type only shows the To Do Entries that are valid for the user: ones assigned to the user or ones that are Open in a To Do Role that the user is in.

- The To Do Entry query by ID allows the user to view that To Do entry.

- Any user may add a User Log.

- Any user may edit the To Do and change comments.

- Only users that are valid for the To Do (per the criteria in the first bullet) are allowed to change the priority or add or change Characteristic values or are allowed to Forward, Complete or Send Back. Note that as before, Send Back is only enabled if the To Do entry's Assigned By is populated.

- A user completing the To Do entry is able to add comments as part of the action.

Standardizing the layout of the **To Do Entry** page provides you with a user interface experience that is consistent with other portal-based pages.

Tips and Considerations

If there are any foreign key characteristics that are configured to be valid To Do Entry characteristics and users may manually add a link to one of these types of objects, be sure that there is a Search Zone defined for the FK Reference for this characteristic type.

Upgrade scripts ensure that users with Read access to the existing application service will have access to the new application service associated with the new portal. This table lists the existing and new application services.

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
To Do Entry Query Portal	F1TODOEQ	CILQTDEP
To Do Entry Portal	F1TODO	CILQTDEP

Note that any existing bookmarks for this page will take user to the previous version of the page. You need to take the following actions to move the bookmark to the new page:

1. Click the bookmark. Take note of the To Do Entry ID.
2. Navigate to the **To Do Entry** portal via the menu.
3. Search and select the To Do Entry from your bookmark. This takes you to the new page.
4. Delete the existing bookmark from the **Bookmark** dashboard zone.
5. Click the **Bookmark** page action button to add a bookmark for this record for the new page.

Message Category and Message Portal

The **Message** page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor. Users may view messages for a message category and perform actions on this page.
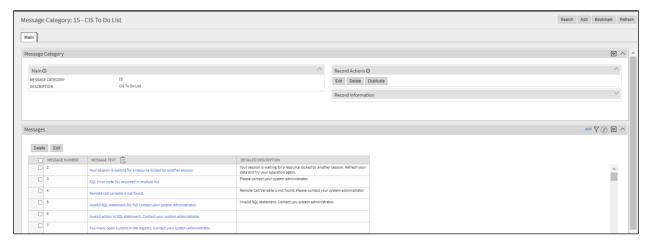
Figure 1: Message Portal

Additionally, a separate Message maintenance portal is provided to view and update an individual message.

Figure 2: Message Maintenance Portal

The new user interface pages include improved search criteria including searching by message text.

Tips and Considerations

Upgrade scripts ensure that users with Read access to the existing application service will have access to the new application service associated with the new portal. This table lists the existing and new application services.

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Message Category Query Portal	F1MSGQ	CILTMSGP
Message Category Portal	F1MSGC	CILTMSGP
Message Portal	F1MSG	CILTMSGP

Note that any existing bookmarks for this page will take user to the previous version of the page. You need to take the following actions to move the bookmark to the new page:

1. Click the bookmark. Take note of the Message Category.
2. Navigate to the **Message Category** portal via the menu.
3. Search and select the Message Category from your bookmark. This takes you to the new page.
4. Delete the existing bookmark from the **Bookmark** dashboard zone.
5. Click the **Bookmark** page action button to add a bookmark for this record for the new page.

Table Portal

The **Table** page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor.

Figure 3: Table Portal

The following highlights some additional features in the new portal:

- The maintenance object(s) associated with the table are included in the display.
- Optional fields that are not populated are not shown for a cleaner view.
- The list of fields for the table is shown in a zone on the main tab. The zone indicates which fields are part of the primary key and which are foreign keys. The label of the field as defined in the Field record is displayed and the user may drill into the fields from this zone.

- The Constraints tab shows the constraints for this table and allows for maintenance of the information. In addition, other tables that have constraints that refer to this table are displayed in this tab.

As part of this enhancement, a new Relationship tab is introduced and includes an Entity Relationship Diagram (ERD). This is similar to what is shown in the Data Dictionary in the Application Viewer so users no longer need to launch the Application Viewer to get this information. Be aware that the Application Viewer is planned for deprecation. The zone highlights which related tables are part of the same maintenance object. A user can drill to the ERD of any of the tables in the diagram. Additionally, a user can navigate to the maintenance object page for any table in the diagram.
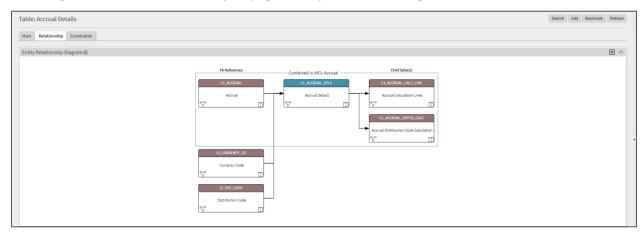
Figure 4: Relationship Tab

Standardizing the layout of the Table page provides you with a user interface experience that is consistent with other portal-based pages.

Tips and Considerations

Upgrade scripts ensure that users with Read access to the existing application service will have access to the new application service associated with the new portal. This table lists the existing and new application services.

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Table Portal	F1TABLE	CILETBLP

Note that any existing bookmarks for this page will take user to the previous version of the page. You need to take the following actions to move the bookmark to the new page:

1. Click the bookmark. Take note of the Table.
2. Navigate to the **Table** page via the menu.
3. Search and select the Table from your bookmark. This takes you to the new page.
4. Delete the existing bookmark from the **Bookmark** dashboard zone.
5. Click the **Bookmark** page action button to add a bookmark for this record for the new page.

Time Zone Portal

The **Time Zone** page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor. It uses the All in One page metaphor that includes a list zone and display zone. The list zone includes a filter to narrow the results, if needed.

Standardizing the layout of the **Time Zone** page provides you with a user interface experience that is consistent with other portal-based pages.

Tips and Considerations

Upgrade scripts ensure that users with Read access to the existing application service will have access to the new application service associated with the new portal. This table lists the existing and new application services.

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Time Zone Portal	F1TMZNM	CILTTZNP

Note that any existing bookmarks for this page will take user to the previous version of the page. You need to take the following actions to move the bookmark to the new page:

1. Click the bookmark. Take note of the Time Zone.
2. Navigate to the **Time Zone** portal via the menu.
3. Search and select the Time Zone from your bookmark. This takes you to the new page.
4. Delete the existing bookmark from the **Bookmark** dashboard zone.
5. Click the **Bookmark** page action button to add a bookmark for this record for the new page.

Work Calendar Portal

The **Work Calendar** page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor. The new user interfaces page includes more mass actions, including duplication capabilities for holiday dates.

Standardizing the layout of the **Work Calendar** page provides you with a user interface experience that is consistent with other portal-based pages.

Tips and Considerations

Upgrade scripts ensure that users with Read access to the existing application service will have access to the new application service associated with the new portal. This table lists the existing and new application services.

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Work Calendar Entry Query Portal	F1WRKCLQ	CILTCLWP
Work Calendar Portal	F1WRKCAL	CILTCLWP

Note that any existing bookmarks for this page will take user to the previous version of the page. You need to take the following actions to move the bookmark to the new page:

1. Click the bookmark. Take note of the Work Calendar.
2. Navigate to the **Work Calendar** portal via the menu.
3. Search and select the Work Calendar from your bookmark. This takes you to the new page.
4. Delete the existing bookmark from the **Bookmark** dashboard zone.
5. Click the **Bookmark** page action button to add a bookmark for this record for the new page.

Access Group Portal

The Access Group page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor.

Converting the Access Group page to a portal provides a user interface experience that is consistent with other portal-based features or modules.

Tips and Considerations

Upgrade scripts ensure that users with Read access to existing application service will have access to the new application service associated with the new portal. The following lists the existing and new application services:

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Access Group Query Portal	F1ACGRPQ	CILTASGP
Access Group Portal	F1ACGRPM	CILTASGP

An upgrade script is provided to update the Access Group's FK Reference (F1-ACCGP) with the new query zone (F1-ACCGRPQ).

Note that any existing bookmarks for this page will take the user to the old page. You need to take the following actions to move the bookmark to the new page:

1. Click the bookmark. Take note of the Access Group.
2. Navigate to the **Access Group** page.
3. Search and select the Access Group from your bookmark. This step takes you to the new page.
4. Delete the existing bookmark from the **Dashboard's Bookmark** zone.
5. Click the **Bookmark** page action button to add a bookmark for this record for the new page.

Application Service Portal

The **Application Service** page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor.

As part of this change, the **Secured Objects** zone has been moved to the **Main** tab from the **Application Security** tab. The **Application Security** tab continues to have the zones showing the user groups with and without access.

Converting the **Application Service** page to a portal provides you with a user interface experience that is consistent with other portal-based features or modules.

Tips and Considerations

Upgrade scripts ensure that users with Read access to existing application service will have access to the new application service associated with the new portal. The following lists the existing and new application services:

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Application Service Query Portal	F1APPSVQ	CILTAPSP
Application Service Portal	F1APPSVM	CILTAPSP

Note that any existing bookmarks for this page will take the user to the old page. You need to take the following actions to move the bookmark to the new page:

1. Click the bookmark. Take note of the Application Service.
2. Navigate to the **Application Service** page.
3. Search and select the Application Service from your bookmark. This step takes you to the new page.
4. Delete the existing bookmark from the **Dashboard's Bookmark** zone.
5. Click the **Bookmark** page action button to add a bookmark for this record for the new page.

Zone Portal

The **Zone** page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor.

The following highlights key changes to how a zone is maintained:

- The zone's portal links are now viewed and maintained on the **Main** tab.
- To support easier viewing and maintenance, the data explorer zone parameters are shown in three separate groups: **Filters**, **General Parameters**, and **SQLs**. The SQLs zone supports editing of SQL and its related parameters, including column definitions. In addition, the SQLs zone supports broadcasting to view related parameters, where each can be edited individually. When editing a Column parameter, the maintenance window has been streamlined by mapping the various mnemonics to separate fields with appropriate labels and search capability for foreign key references.
- A **Replicate** action has been added to the **Record Actions** section of the new user interface. In the previous zone page, the **Replicate** action was found in a special **Replicate Zone** dashboard zone.

Converting the **Zone** page to a portal provides you with a user interface experience that is consistent with other portal-based features or modules.

Tips and Considerations

Upgrade scripts ensure that users with Read access to existing application service will have access to the new application service associated with the new portal. The following lists the existing and new application services:

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Zone Portal	F1ZONE	CILZZONP

Note that any existing bookmarks for this page will take the user to the old page. You need to take the following actions to move the bookmark to the new page:

1. Click the bookmark. Take note of the Zone.
2. Navigate to the **Zone** page via the menu.
3. Search and select the Zone from your bookmark. This step takes you to the new page.
4. Delete the existing bookmark from the **Dashboard's Bookmark** zone.
5. Click the **Bookmark** page action button to add a bookmark for this record for the new page.

Portal Maintenance

The **Portal** page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor. More specifically, the new portal provides easier access to other tab portals and context sensitive zones associated with a standalone portal.

Converting the **Portal** page to a portal provides you with a user interface experience that is consistent with other portal-based features or modules.

Tips and Considerations

Upgrade scripts ensure that users with Read access to existing application service will have access to the new application service associated with the new portal. The following lists the existing and new application services:

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Portal	F1PRTL	CILZPORP

Note that any existing bookmarks for this page will take the user to the old page. You need to take the following actions to move the bookmark to the new page:

1. Click the bookmark. Take note of the Portal code.
2. Navigate to the **Portal** page via the menu.
3. Search and select the Portal from your bookmark. This step takes you to the new page.
4. Delete the existing bookmark from the **Dashboard's Bookmark** zone.
5. Click the **Bookmark** page action button to add a bookmark for this record for the new page.

Characteristic Type Portal

The **Characteristic Type** page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor.

Converting the **Characteristic Type** page to a portal provides you with a user interface experience that is consistent with other portal-based features or modules.

Tips and Considerations

Upgrade scripts ensure that users with Read access to existing application service will have access to the new application service associated with the new portal. The following lists the existing and new application services:

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Characteristic Type Portal	F1CHRTYP	CILTCHTP

Note that any existing bookmarks for this page will take the user to the old page. You need to take the following actions to move the bookmark to the new page:

1. Click the bookmark. Take note of the Characteristic Type code.
2. Navigate to the **Characteristic Type** page via the menu.
3. Search and select the Characteristic Type from your bookmark. This step takes you to the new page.
4. Delete the existing bookmark from the **Dashboard's Bookmark** zone.
5. Click the **Bookmark** page action button to add a bookmark for this record for the new page.

Field Portal

The **Field** page has been converted to a portal, leveraging a more flexible and extendable user interface metaphor.

Tips and Considerations

Upgrade scripts ensure that users with Read access to existing application service will have access to the new application service associated with the new portal. The following lists the existing and new application service:

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Field	F1FIELD	CILEFLDP

An upgrade script is provided to enable the following FK reference records with the Field search zone (F1-FLDSRCH) as opposed to using the fixed-page style search:

- F1BF-MO
- F1RF-MO
- F1SR-MO
- F1ST-MO

- F1TY-MO

Product Usability

The following usability enhancements are made in OUAF Version 4.4.0.3.0:

- User Dashboard Control
- To Do Dashboard Portal
- Create Tab Portals
- Inbound Web Service Deployment - Filters Added
- Admin Menu Hidden if User has no Admin Items
- Increased SQL Parameter Size
- Date and Time Field Improvements
- Additional Context Labels for Date and Time Fields
- Query Portals Introduced for Existing Pages

User Dashboard Control

While using the system, if a user collapses the dashboard, the system retains this setting until the user changes it again. Previously, the collapsed state of the dashboard was only applicable during a user's session. The next time a user logged into the application, the dashboard would reset to the original settings.

While using the system, the user may adjust the width of the dashboard using the slider and the system retains this setting until the user changes it again. Previously, the user could only adjust the width of the dashboard in the user preferences.

Each user may now also choose to locate the dashboard zone on the left of the page rather than the right.

To Do Dashboard Portal

The **To Do Dashboard** portal is intended to be used by both supervisor and non- supervisor To Do users. For supervisors, the charts consider To Do entries that are in a role which the supervisor is a member. For non-supervisors, the charts consider open To Do entries that are in a role of which the user is a member or entries currently assigned to the user.

The **To Do Dashboard** portal provides a high level summary of open To Do entries and To Do entries currently being worked on by various criteria using analytic charts.

Tips and Considerations

Supervisors are those users with security access to the "supervisor" access mode for the To Do Dashboard application service.

Upgrade scripts are provided to automatically allow users with Read access to either of the existing To Do Summary page and Supervisor To Do Summary page application services to have access to the new application service associated with the new portal. Note that the new portal does not replace any existing portal. It is provided as an additional summary portal to assist users with To Do management.

This table list the existing and new application services.

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
To Do Dashboard	F1DDASH	CILQTDSP, CILQTSSP **Note:** In addition, users with access to the Supervisor Summary page will get supervisor access to the **Dashboard** portal.

Create Tab Portals

When creating a new portal page in the product, it is common to want to add additional tab portals for the same page. For example, it is common to use a separate Log tab portal for viewing log entries. Previously, it was not possible to create the tab portal and link it to the appropriate standalone portal.

You can insert new tabs when creating a new portal a page without the need to perform programming or coding.

Inbound Web Service Deployment - Filters Added

The **Deployment Status** zone on the **Inbound Web Service Deployment** portal has been enhanced to include filters. You may narrow down the results by Inbound Web Service name and/or description.

This enhancement allows you to easily retrieve deployment status data filtered by inbound web service names and descriptions.

Admin Menu Hidden if User has no Admin Items

If a user does not have security for any entries in the Admin menu drop-down, the menu itself is suppressed from the toolbar. Previously, if a user did not have security for any admin menu entries, the Admin menu was still visible in the toolbar and it would show an empty line when clicked.

This feature provides the appropriate administrative menu items in the product's toolbar based on the user's assigned security access.

Increased SQL Parameter Size

This feature increases the size of the following parameters to Varchar2 (32767) to provide more space for defining complex SQL statements to be used by zones or by the Select Records algorithm of a plugin-driven batch program:

- ZONE_PARM-VAL: Parameter Value on the Zone Parameters table (CI_ZONE_PRM)
- ALG_PARM_VAL: Value on the Algorithm Parameters table (CI_ALG_PARM)

This increased parameter size provides more space for defining complex SQL statements for data explorer zones and Select Record algorithms.

Date and Time Field Improvements

Date, time, or combined date and time input fields have been enhanced with new and improved icons. In addition, the arrows to move the date or time forward or backward one day or hour have been removed. These changes have been applied to portal-based maintenance pages and query filters. Fixed pages are not impacted by this change.

Tips and Considerations

If you include JavaScript that targets the forward or backward arrows, it should be removed since those icons are no longer included in the generated HTML.

Additional Context Labels for Date and Time Fields

A date/time field has a single label throughout the application, but there are contexts in which a separate label may be needed for its "date" and "time" parts. An example of such context is when the field is used by the operational analytics product.

In the same way, date and time fields are associated with additional elements in the operational analytics product describing their various time aspects such as their month, year, hour, minutes, parts, and so on. These elements share a common part of the field's label as their prefix. For example, for a **Creation Date/Time**, **Creation Date**, or **Creation Time** field, you may provide "Creation" as the field's base context label.

In this release, the definition of a Field is enhanced to support up to three sets of context- related alternate labels and corresponding labels for "Date", "Time", and "Date/Time" field types.

In the framework product, the following fields that are currently referenced by operational analytics tables are updated to include the context labels:

- ASSIGNED_DTTM: Assigned Date/Time
- COMPLETE_DTTM: Completion Date/Time
- CRE_DTTM: Create Date/Time

Query Portals Introduced for Existing Pages

Previously, many configuration objects used the fixed page user interface metaphor. Fixed pages use popup search windows to locate records. Many of these configuration objects now provide query portals instead of popup search windows. Additionally, the Search menu item for these configuration objects open a query portal rather than a popup search window.

The query portals provide a more intuitive search interface with several criteria fields and a single search button as compared to the popup search window that featured a separate search button for each criteria group. When selecting a record from the results, the user is brought to the existing maintenance page. The navigation through the menu in Add mode bring the user to the maintenance page with a blank form (as before). The query portal includes an **Add** button to add a record from there.

The following provides additional detail of where this functionality has been added:

- **Algorithm:** In addition to algorithm and description, the query portal includes algorithm and parameter related search criteria.
- **Algorithm Type:** In addition to algorithm type and description, the query portal includes algorithm entity as a search criteria.
- **Batch Control:** Besides batch control, description, and category, the query portal includes related batch control information search criteria.
- **Business Object:** Besides business object code, description, and maintenance object, the query portal includes related business object information search criteria.
- **Business Service:** In addition to business service and description, the query portal includes service and schema related search criteria.
- **Characteristic Type:** The query portal provides searching by characteristic type, description, type of characteristic, and characteristic entity.
- **Data Area:** In addition to data area and description, the query portal portal include schema related search criteria.
- **Feature Configuration:** In addition to feature name and description, the query portal includes feature option and value related search criteria.
- **Field:** Besides field and description, the query portal includes related field information search criteria.
- **Foreign Key Reference:** In addition to foreign key reference code and description, the query portal includes additional search criteria.
- **Lookup:** The query portal provides field name and related field description search criteria.
- **Maintenance Object:** In addition to maintenance object, description, and table, the query portal includes maintenance object option search criteria.
- **Managed Content:** In addition to managed content, description, and type, the query portal includes managed content related search criteria
- **Menu:** In addition to menu name, description, and type, the query portal includes menu related search criteria.
- **Navigation Key:** In addition to navigation key and program component identifier, the query portal includes navigation key information related search criteria.
- **Navigation Option:** In addition to navigation option and description, the query portal includes navigation option information related search criteria
- **Portal:** In addition to portal code and description, the query portal includes portal information related search criteria.
- **Script:** Besides script, description algorithm entity, and script type, the query portal includes related step type information search criteria.
- **Table:** In addition to table and description, the query portal includes related table information search criteria
- **UI Map:** In addition to map code and description, the query portal includes map information related search criteria
- **Zone:** In addition to zone, description, and zone type, the query portal includes zone parameter search criteria.

Tips and Considerations

Upgrade scripts ensure that users with Read access to existing application services will have Read access to the new application services associated with the new query portals. The following lists the application services associated with the existing fixed pages and the corresponding application services for the new query portal:

Object	New Application Service	Access Added to Any User Groups with this Application Service/Read Access
Algorithm	F1ALGQ	CILTALGP
Algorithm Type	F1ALGT1	CILTALTP
Batch Control	F1BTCHQ	CILBTCP
Business Object	F1BOQ	FWLTBOJP
Business Service	F1BSVQ	FWLTBSVP
Characteristic Type	F1CHRTYQ	CILTCHTP
Data Area	F1DTARQ	FWLTDARP
Feature Configuration	F1FCFGQ	CILTWSDP
Field	F1FLDQ	CILEFLDP
Foreign Key Reference	F1FKRFQ	CILEFKRP
Lookup	F1LKUPQ	CILTLKFP
Maintenance Object	F1MOQ	CILEMOBP
Managed Content	F1MANCQ	FWLTMGCT
Menu	F1MENUQ	CILEMNUP
Navigation Key	F1NAVKQ	CILENAVP
Navigation Option	F1NAVOQ	CILENVOP
Portal	F1PRTLQ	CILZPORP
Script	F1SCRQ	CILZSCRP
Table	F1TBLQ	CILETBLP
UI Map	F1UIMPQ	FWLTUIMP
Zone	F1ZONEQ	CILZZONP

Integration Enhancements

The following integration enhancements are made in OUAF Version 4.4.0.3.0:

- HTTP Method
- Additional REST APIs
- Support for Tracing REST Inbound Web Services
- Submit Job REST Web Service Returns Job ID
- User Redirection to Separate Target System
- New REST Engine Version Setting for Inbound REST Web Services
- JSON Response Correctly Handles Arrays
- Parameters Supported for POST HTTP Method in REST Services

HTTP Method

The following changes are made with respect to the HTTP method:

- **Parameters Supported for POST HTTP Method in REST Services** - The REST engine supports defining path and query parameters for POST operations. Previously, POST operations did not support parameters. The assumption had been that all information was included in the payload.

  This feature provides URL parameters for POST HTTP methods.

- **Delete HTTP Method for REST Web Services** - The REST Inbound Web Service was enhanced to support the DELETE HTTP method.

  The actual actions and functionality that are triggered by a given REST service call are still controlled by the business object, business service, or service script that is configured on the operation. For example, if you configure an operation with the DELETE HTTP method and you reference a service script that is simply reading a record, the system will perform the action of the service script and read the record. The HTTP methods are meant as external documentation.

Additional REST APIs

In this release, the following inbound REST web services are available:

- F1-BusinessInsights: The Common Business Insights API enables adding business flag records.
- F1-SubmitJob: The Batch Job Submission API allows external batch scheduling systems to submit an adhoc batch submission request.
- F1-SyncRequest: The Master Data Synchronization API enables adding inbound synchronization request records.
- F1-HealthCheckREST: The Health Check API invokes the health check service and returns the health check results.
- F1-Cache: The System Cache Management API invokes the service that flushes the server cache.
- C1-CustomerContact: The Customer Contact API enables retrieval of customer contact records.

Role Information

The service called by the operation on the REST web service references a specific Application Service. The administrator must grant security access to that application service to the user submitting the REST service.

Support for Tracing REST Inbound Web Services

The REST Inbound Web Service object exposes tracing configuration to enable tracing. Enable tracing for an inbound web service record creates log information for the record on future REST call executions.

Submit Job REST Web Service Returns Job ID

The F1-SubmitJob REST Inbound Web Service now returns the resulting Batch Job ID. This allows calling systems to use that ID to get subsequent information about the Batch Job.

User Redirection to Separate Target System

Your implementation may want to support the ability for a customer to authorize a customer service representative (CSR) to view the customer's account information in a customer facing portal. This would allow the CSR see exactly what the end customer is seeing or experiencing.

When the request for the CSR to view the customer information is received, the following steps occur:

- The security server for the customer facing portal is contacted to obtain a temporary grant code.
- The redirection response returns the grant code and the URL of the target customer facing portal.
- The browser redirects to the user to this URL with the grant code which is further authenticated and automatically exchanged for an authorization token, allowing the CSR to log in.

Standard security measures with private/public key encryption using JSON Web Tokens (JWT) ensure that only the implementation's application is allowed to communicate with the implementation's customer facing portal server. The system also provides a plug-in spot to allow for additional information, such as the customer's name and email address, to be included in the call to the security server.

This feature allows customers to authorize a customer service representative (CSR) to view the customer's account information in a customer facing portal and enable the CSR to see exactly what the end customer is seeing or experiencing.

Steps to Enable

Add a master configuration record using the F1-RedirectionTargetsConfig business object and configure the record with the following:

- URL of the target application
- URL of the security server
- Keystore alias for the public/private key stored in the application keystore used for secure communication with the security endpoint

Your product may also provide an algorithm to populate additional context information. If so, that algorithm may also be referenced in this configuration.

Tips and Considerations

Note that this feature works in conjunction with functionality provided by Oracle Utilities Customer To Meter.

Role Information

System administrators should grant access to the F1-REDIRECT (Redirect Service) Application Service to secure the call to this feature.

New REST Engine Version Setting for Inbound REST Web Services

In this release, a new REST Engine Version flag has been added to REST Inbound Web Services. All existing REST Inbound Web Services are marked with a REST Engine Version value of 1.0 for backward compatibility and all new services are assigned version 2.0 as a default. The following provide details of how the behavior will differ for each engine version:

- **Root Node for Payload**

    o REST Inbound Web Service records with a REST Engine Version value of 2.0 do not have a root node around the payload.

    o Although the common practice for data that uses JSON is to not include a root node, previously a root node was expected. For backward compatibility reasons, any REST Inbound Web Service records marked as version 1.0 should continue to supply a root node in the request, and responses will continue to return the root node.

- **Default Format**

    o REST Inbound Web Service records with a REST Engine Version value of 2.0 default to JSNO format. If required, this can be overridden by including the 'application/xml' parameter in the Accept header. REST Inbound Web Service records with a REST Engine Version value of 1.0 default to XML format. This is for backward compatibility. If needed, this can be overridden by including the 'application/json' parameter in the Accept header.

- **Format for Numbers and Booleans in the Response**

    o JSON format returns strings with the value surrounded by quotes while numbers and Booleans do not have quotes. Previously, the system was incorrectly treating numbers and Booleans as strings in the response in JSON format.

- **Backward Compatibility**

    o For Inbound Web Service records marked as REST Engine Version 1.0, the system provides override support to indicate that for specific Inbound Web Service records you would like to continue to receive quotes for numbers and Booleans in the JSON response. This is only applicable if your implementation has existing integrations that have worked around this issue and would fail if the response returns the corrected format. A feature configuration is provided to identify the Inbound Web Service records that fall into this category.

    o An explicit REST Engine Version setting helps customers account for functional differences between versions when implementing Inbound Web Services.

Tips and Considerations

If your implementation has integrations that have worked around the issue that numbers and Booleans were treated as strings and therefore had quotes in the JSON response, do the following to identify the Inbound Web Service records that should retain the old, incorrect format:

1. Select **Admin → F → Feature Configuration**.
2. Look for an existing feature configuration with the feature type External Messages. If one does not exist, create one.
3. Add an option for the option type **IWS JSON Data Type Exceptions**.
4. In the value, indicate the Inbound Web Service record that is an exception. Note that multiple options for the option type may be added. Additionally, the option value supports a comma delimited list.

JSON Response Correctly Handles Arrays

The REST response correctly returns list as arrays for JSON format regardless of the number of instances.

Previously, if a list included only one instance, the JSON response returned the single instance as a JSON object rather than a JSON array. If a list included more than one instance, the JSON response returned an array.

Parameters Supported for POST HTTP Method in REST Services

The REST engine supports defining path and query parameters for POST operations. Previously, POST operations did not support parameters. The assumption had been that all information was included in the payload.

This feature provides URL parameters for POST HTTP methods.

Data Export Tools

New set of tools are provided that allow customers to export their data to files that can be consumed by downstream applications like Data Lakes or any other system that needs the data.

The application supports the following classes of export methods for a maintenance object:

- **Generalized**: Applies to maintenance objects with low to medium volume and update activities. Most maintenance objects in the system are eligible for this method. This method involves an initial export of the object's entire data followed by an ongoing export of the changes that occur over time. Not that the ongoing export functionality is only supported in a Cloud installation.
- **Specialized**: Applies to maintenance objects with high volume or frequent update activities. This method uses a specific batch process for each maintenance object to optimally export data. This type of export involves an initial export of the object's existing data. The initial run of the batch process exports the entity's existing data. Subsequent runs of the batch process exports data incrementally based on a timestamp field.

New batch controls are provided for eligible maintenance objects based on their export method classification.

The **Generalize Export Dashboard** portal allows you to select eligible entities to export and review their export state and configuration at a glance.

Steps to Enable

Make the feature accessible by assigning or updating privileges and/or job roles. Details are provided in Role Information.

Tips and Considerations

The ongoing export feature of the Generalized Data Export method is only supported in a Cloud installation.

Role Information

System administrators that handle data export activities must have access to the following Secured Entity Application Services:

- F1-DATAEXPORT (Batch Controls) - All data export batch controls are associated with this application service
- F1-DATAEXPORTCTRL (Data Export Control Maintenance Object and Business Objects)
- F1DEXCNT (Data Export Control Portal)
- F1DEXCNS (Data Export Control Query Portal)
- F1GEXDAS (Generalized Export Dashboard Portal)

To Do Management and Processing Enhancements

The following enhancements are made to the To Do feature in OUAF Version 4.4.0.3.0:

- [Assign To Do Role Based on Access Group](#)
- [To Do Supervisor Actions](#)

Assign To Do Role Based on Access Group

In this release, the Access Group has been enhanced to include To Do Assignment Override configuration. This allows you to define special To Do Roles that you have created for your access groups and use the Assignment Override to indicate which To Do Types should have the To Do entry directed to the special To Do Role. The To Do entry functionality is heavily driven by To Do Role. Users are only allowed to view and work To Do entries that are assigned to a role that user is in. If your implementation has configured row level security for certain objects using an Access Group, you may want to ensure that only certain users can view To Do entries for those objects.

Defining special To Do Roles for access groups ensure that only certain users can view To Do entries for objects using an Access Group, you may want to ensure that only certain users can view To Do entries for those objects.

Steps to Enable

When configuring the To Do Roles, determine if To Do Entries for objects linked to certain access groups should be directed to specific groups of users.

- Define appropriate To Do Roles based on your To Do Types and your access groups, and link the appropriate user to each role.
- For each To Do Role, configure the To Do Types to which the role is valid.
- On each access group, configure the To Do Type/To Do Role override so that any To Do entry created for the indicated To Do Type will be assigned the indicated To Do Role for objects linked to this access group.

Configure the appropriate To Do pre-creation algorithm. A To Do pre-creation algorithm is needed to check for this override configuration and assign the appropriate role. This algorithm could be plugged in at the To Do Type (if only certain To o Types require this functionality) or could be plugged in at the installation level (if a larger number of To Do Types require this type of override). The algorithm needs to identify the object related to the To Do entry that is governed by an Access Group. This object may be the Drill Key or may be related to the To Do Entry via a characteristic. Once the object is identified, the algorithm determines its access group and then checks if there is an override role for the To Do Types for this To Do entry.

Specific cloud services may already provide a To Do pre-creation algorithm to assign a To Do Role based on an identified access group. If one is provided and satisfies your business case, use that algorithm. Otherwise, an appropriate algorithm needs to be determined.

To Do Supervisor Actions

Supervisors can now reopen To Do Entries assigned to other users. Previously, only the user currently assigned to the To Do entry could reopen the To Do. Supervisors must be valid users in a To Do Role for the To Do Type to use this feature.

Steps to Enable

Make the feature accessible by assigning or updating privileges and/or job roles. Details are provided in Role Information.

Role Information

A supervisor must be a member of a User Group with *Supervisor Assignment* access mode on the To Do Management and To Do Search application services.

Batch Processing Enhancements

The following enhancements are made to the Batch feature in OUAF Version 4.4.0.3.0:

- [File Integration Extract Configuration](#)
- [Ability to Skip Records in Plug-in Driven Extract](#)
- [Define Record XML Node for Plug-in-Driven Extract](#)
- [Thread Pool Name Batch Parameter](#)

- [Root Node Element Optional on Plug-in Driven Extract](#)
- [Manifest File Creation](#)
- [Support for File Compression and Decompression](#)
- [Submission Method and User for Batch Jobs](#)
- [Support Cancellation of In Progress Batch Job Submission](#)
- [Additional Batch Categories](#)
- [Support for Interrupting DBMS Job Steps](#)
- [Start Date, End Date, and Time Added to Batch Thread Instance](#)
- [Environment Information Added to Batch Email](#)

File Integration Extract Configuration

The application provides the following file integration administrative objects that define the processing needed to create a specific type of extract using a plugin-driven background process:

- File Integration Type: Describes and classifies the extract configuration.
- File Integration Record Type: Captures the sequence, format, and logic for extracting the data required by the extract record.

The File Integration Type defines the record types that make up the extract. Each file integration record uses a data area to define the record's format and a collection of extract algorithms that populate the data area. The file integration types are extendable through the addition of customer record type details or custom file integration records.

A new batch parameter defines the file integration type that is applicable to a batch control. The batch parameter works with the base-package Process Records algorithm that retrieves the file integration type configuration and processes in sequence for each record type of the configuration.

Steps to Enable

Make the feature accessible by assigning or updating privileges and/or job roles. Details are provided in Role Information.

Role Information

Implementers that view and define file integration types must have access to the following Secured Entity Application Services:

- F1-FILEINT (File Integration Type MO)
- F1-FLINREC (File Integration Record MO)
- F1FLINTS (File Integration Type Query Portal)
- F1FLINTP (File Integration Type Portal)

Ability to Skip Records in Plug-in Driven Extract

The Process Record algorithm can prevent writing empty rows to extract file using the *skipped* parameter.

- **File Integration Type**: Describes and classifies the extract configuration.
- **File Integration Record Type**: Captures the sequence, format, and logic for extracting the data required by the extract record.

The recommended best practice when designing plugin-driven batch is to ensure that the SQL in the Select Records algorithm is only selecting the records that are relevant to the process. Previously, the extract plugin-driven batch process expected each call to the Process Records plugin to return at least one schema to write to the extract file. In use cases where the Process Record algorithm checks a condition of the given record and finds that it does not need to be extracted after all, an empty row was written to the extract file. In this release, for this situation, the Process Record algorithm can now configure the is *skipped* output parameter, which will ensure that no empty row is written.

Steps To Enable

Add logic to the Process Record algorithm that detects a condition where no extract details should be written and set the is **skipped** parameter to *True*.

Define Record XML Node for Plug-in Driven Extract

You can define a record XML node when multiple schemas are returned for a plugin- driven extract that should be output in XML format.

The record XML node output parameter resolves issues where:

- The Process Record plugin returns multiple schemas (rows) for a given record.
- The plugin-driven extract batch process (whose output format is XML) is not able to determine which schemas belong together logically.

The output parameter 'record XML node' in the schema collection should be used to indicate the outer XML node to use to group related information together. All schemas returned from a single call to the Process Record plugin that have the same record XML node will grouped in the written output within that XML tag.

Steps to Enable

To take advantage of this functionality, a Process Record algorithm that returns multiple schemas for a given record where all information in the schemas should be grouped within an XML tag should return the same Record XML Node value.

Thread Pool Name Batch Parameter

The Thread Pool Name parameter is available in all base-delivered batch controls. The parameter allows implementations to designate the batches to be run on a thread pool different from the default thread pool.

The record XML node output parameter resolves issues where:

- The Process Record plugin returns multiple schemas (rows) for a given record.
- The plugin-driven extract batch process (whose output format is XML) is not able to determine which schemas belong together logically.

The output parameter 'record XML node' in the schema collection should be used to indicate the outer XML node to use to group related information together. All schemas returned from a single call to the Process Record plugin that have the same record XML node will grouped in the written output within that XML tag.

Tips and Considerations

Implementations with custom batch controls can add the Thread Pool Name parameter to their batch controls.

Root Node Element Optional on Plug-in Driven Extract

The plug-in driven extract batch program now supports configuration to suppress the inclusion of a Root Node Element by entering the word "suppress" in the XML Root Name parameter.

Manifest File Creation

The batch framework now supports the ability to request the creation of a manifest file. Batch jobs that support the creation of the manifest file now include a "Manifest Option" batch parameter.

Manifest file information is provided in JSON format and includes information about the batch run, number of files, number of records processed, and details about each file including name, size, and SHA-256 hash value.

The following batch programs supplied by Oracle Utilities Application Framework were enhanced to support the new Manifest option:

- **F1-GEXPI**: The Generalized Initial Export Initiator batch control includes this new option and defaults to "Y."
- **F1-GEEXO**: The Generalized Ongoing Export batch control includes this new option and defaults to "Y."
- **F1-GEIXP**: The Generalized Initial Export Template batch control includes this new option and defaults to "Y." In addition, an upgrade script finds all the batch controls that were created from this template and inserts the new parameter on those records. The value defaults to "Y."
- **F1-PDBEX**: The Plug-in Driven Extract Template batch control includes this new option and defaults to blank. In addition, an upgrade script finds all the batch controls that were created from this template and inserts the new parameter on those records. The value is set to blank.

Tips and Considerations

If product delivered batch programs include the Manifest Option parameter, set this option to "Y" to produce a manifest file when running the batch job.

If your implementation has any custom background processes that produce extract files and you would like to include a manifest option, add the batch parameter "manifestOption". To set this up, complete the following steps:

1. Select **Admin → B → Batch Control**, and then click **Search**.
2. Search for and select the Batch Control.
3. Add a new batch parameter and set the parameter name to "manifestOption" (it is important to use this value), description to "Manifest Option", and security type to "None."
4. Set the sequence to an appropriate value.
5. Note that for the detailed description, the recommendation is to follow the pattern of the base delivered options: "If set to 'Y' a manifest file is created with the following name: {batchCode}_{batchNumber}_{rerunNumber}_manifest.json"

Support for File Compression and Decompression

File compression when extracting and decompression when uploading is now supported. Not every batch program that manages extracts or uploads automatically supports this functionality. Each batch program that supports it must explicitly indicate that the functionality is supported.

The following highlights additional information about the functionality:

- The system supports both GZIP compression/decompression and ZIP compression/decompression.
- If an extract program supports file concatenation, ZIP compression is not supported. Only GZIP compression is supported.
- To indicate that an extract file should be compressed, you should simply use .zip or .gz as the suffix of the file name. The system will use the compression method based on the chosen suffix. For example, myFile.gz will produce a GZIP compressed CSV file.
- For upload programs that support decompression, the file name's suffix will similarly trigger the appropriate decompression method.

The following programs provided by Oracle Utilities Application Framework support compression and decompression:

- Batch controls that use the same batch program as F1-PDBEX (Plug-in Driven Extract Template). Note that this batch program supports compression and concatenation. The combination of ZIP compression and concatenation is not supported.
- Batch controls that use the same batch program as F1-PDUPL (Plug-in Driven Upload Template).

Individual products (such as Oracle Utilities Customer Cloud Service or Oracle Utilities Meter Solution Cloud Service) may also include batch upload or extract programs. The batch control will explicitly state that compression or decompression is supported.

- F1-GEEXO: Generalized Ongoing Export
- The various Initial Data Export batch controls for each maintenance object

Submission Method and User for Batch Jobs

New fields have been added to batch jobs to capture the submission method for a batch job and the user who submitted the job, if applicable. The Submission User is captured to have an audit of the user that created the submission. This may be different from the batch user (existing field) that is provided to all the processes executed by the batch program. Note that there are some use cases where this field is not applicable. For example, timed batches and batch submission records created by a scheduler do not have a "submission user."

The **Submission Method** field is a customizable lookup. The base supported values are:

- **Online**: Populated when a user manually creates a batch job submission.
- **Generated**: Populated by algorithms that submit a batch job and by "initiator" batch jobs that submit other batch jobs.
- **Scheduled**: Populated by the DBMS scheduler. Note that for other schedulers, it is not advised to use this value as there may be logic and validation related to records created with this value that may not apply to other schedulers.
- **Timed**: Populated by the batch daemon that submits timed jobs.
- **Other**: Populated when no other value is provided.

Note: Existing batch job submission records were not updated to populate either of these two new fields.

Tips and Considerations

If your implementation has any algorithms or "initiator" type batch controls that create a batch job submission record, consider updating your code to populate the Submission Method of "Generated." Otherwise, the value of "Other" will be used.

Support Cancellation of In Progress Batch Job Submission

In this release, you can request to cancel a batch job submission record for a job that is in progress. Previously, you could only cancel a pending batch job submission. The following points highlight additional information regarding this feature:

- The new Pending Cancel status allows you to cancel a Pending or Started job submission record. The status transitions to Pending Cancel. This is a signal to the batch processor. For pending jobs, it removes the job from the queue. For in progress jobs, it discontinues the processing. Once the batch processor confirms that all the work or pending work is canceled, it updates the status of the batch job submission record to Canceled.
- Batch job submission records will only transition to Ended if the batch run completed. Previously, when you canceled a Pending batch job submission record, the status would be changed to Canceled and then once the batch processor removed the job from the queue, the status would be updated to Ended.
- Batch jobs that were initiated by the DBMS Scheduler do not support this functionality. An existing business service may be used to cancel a DBMS job.
- The new Cancel operation of the F1-SubmitJob Inbound REST Web Service allows an implementation to request the cancellation of a job from an external system.

You can now cancel a batch job submission record with an In Progress or Pending status.

Additional Batch Categories

The Batch Category flag has been enhanced to add the following two additional values:

- **Upload**: It may be used to categorize batch controls that are responsible for uploading data.
- **Upgrade**: It may be used to categorize batch controls that are responsible for upgrading some set of data based on other data.

The new Batch Category options allow you to categorize batch controls used for uploading and upgrading data.

Tips and Considerations

Note that for batch controls delivered with the base package, the **Batch Category** field should have a base value defined. This value can be overridden by an implementation. For upgrading clients, existing batch controls are not updated to use new categories. For example, if there are existing batch controls that upload data but were originally delivered with a 'Process What's Ready' category, your data will remain with the 'Process What's Ready' category.

Support for Interrupting DBMS Job Steps

The system provides a new business service that receives a DBMS Job Name and finds all the running batch jobs for the Job's chain. For each one found, it cancels the batch job submission entry and marks the step "failed" in DBMS without stopping the DBMS Job. The steps in the chain can subsequently be restarted using the DBMS Scheduler - Restart Failed Chain business service.

This feature allows you to easily restart a DBMS job by interrupting a DBMS Job Step.

Start Date, End Date, and Time Added to Batch Thread Instance

The start date/time and end date/time of a batch thread instance are captured. Previously, this information was only available in informational messages linked to batch thread instance. The informational messages are still included but now that start and end date/time stamps are captured directly on the instance record.

This feature will make it much easier for implementation to do analysis about batch timings at the instance level, if desired.

- The Process Record plugin returns multiple schemas (rows) for a given record.
- The plugin-driven extract batch process (whose output format is XML) is not able to determine which schemas belong together logically.

The output parameter 'record XML node' in the schema collection should be used to indicate the outer XML node to use to group related information together. All schemas returned from a single call to the Process Record plugin that have the same record XML node will grouped in the written output within that XML tag.

Tips and Considerations

For existing batch thread instance records created prior to upgrading to this version, the system does not automatically populate the new columns. There is an upgrade background process provided to upgrade records if an implementation would like to do analysis of older records. The batch control is F1-BTIDT (Upgrade Batch Thread Instance Date / Time). It includes parameters to limit the upgrade to certain batch controls and/or a specific date range so that only the records you plan to include in your analysis are affected. Review the batch control detailed description for more information.

This batch control has its own application service. In order to run the batch job, you must have privileges to this application service: F1-BTIDT, access mode F1EX.

Environment Information Added to Batch Email

The email sent when a batch program completes now includes information related to the installation configuration for the environment where the batch was run. This will help users that may be working in more than one environment (for example, development and test or two different testing regions), users that are working in more than one version of a product, or users that are working with more than one product.

The email now includes:

- The product name taken from the row in the Installed Products collection on the Installation Options that is marked at the 'display' product. This is the product name visible in the application heading.
- The product version taken from the same installed products row.
- If configured, the Domain Name taken from the Messages collection on the Installation Options. Refer to the description of the new Define an Environment Domain Name feature for more information.

Information related to the installation configuration of the environment that ran the batch job helps users working in more than one environment, in more than one product version, or with more than one product.

Steps to Enable

To take advantage of this functionality, a Process Record algorithm that returns multiple schemas for a given record where all information in the schemas should be grouped within an XML tag should return the same Record XML Node value.

Content Migration Assistant (CMA) Enhancements

The following enhancements are made to the CMA feature in OUAF Version 4.4.0.3.0:

- Default User Support for CMA
- Migration Configuration Enhancements
- Test Data Migration and Other Improvements
- CMA Performance Improvements

Default User Support for CMA

The new Default User attribute in the Migration Assistant Configuration (Master Configuration) record prevents errors from occurring when the system references a non- existing user ID in the target environment during a data import.

You have the option of defining a Default User. The Configuration Migration Assistant tool uses the defined Default User when a record has constraints on the User table and the referenced user ID is invalid.

Steps to Enable

In the **Master Configuration** portal, update the Migration Assistance Configuration with a Default User ID.

Migration Configuration Enhancements

A migration plan has been provided for the Table object, allowing for changes to customizable fields to be copied to another environment. The F1-SystemConfig (Framework System Configuration) migration request has been updated to include the new migration plan.

Test Data Migration and Other Improvements

Various enhancements were made to the Content Migration Assistant tool (formerly known as Configuration Migration Assistant) to better handle migration of selected business entities for testing or other purposes. As such its name has been slightly changed to emphasize that it can be used to migrate any type of content, not just configuration data.

The following points highlight key export related improvements and changes:

- An **Entity Summary** zone listing how many entities were exported by maintenance object is shown on the Migration Data Set Export portal.
- A new **Collect Entity** dashboard zone is available to provide an easier way to collect entities to export onto an Entity List type of migration request. The zone appears on the dashboard once a migration request is in context, allowing the user to add any entity to the request list while reviewing information on the entity's maintenance portal.
- Entities specified using their prime keys on a Criteria-based migration request are listed in a zone to allow easy navigation to these entities.
- Search by a data set identifier is now supported.

The following points highlight key import related improvements and changes:

- The performance of the Apply Objects batch process is significantly improved when migrating master and transaction entities. This is mainly achieved using a new extendable lookup that guides the tool in processing objects in the order that better reflects their referential dependency on other entities, thus reducing significantly the number of retries needed to successfully import an entity. In addition, migration objects that belong to master and transaction entities inherit part of their system generated key from the migration transaction they are linked to, thus contributing to having all objects that depend on each other be processed by the same batch process thread.
- The **Migration Objects In Error** zone now lists objects based on their processing order, allowing the user to resolve issues in a more intuitive sequence.

- An **Entity Summary** zone listing all imported entities by maintenance object and status is shown on the **Migration Data Set Import** portal. A similar zone is also available at the transaction portal.

- A navigation link to the currently active import related batch process is shown on the data set portal, providing a visual indication as to whether that process is in progress or not.

- Transaction and object related zones are now shown on designated tabs on the migration data set portal, supporting a more intuitive organization of import information.

- Search options by a data set identifier or by migration object are now supported.

Enhancements to the Content Migration Assistant tool provides better migration of business entities for testing and other purposes.

CMA Performance Improvements

The Apply Objects step in CMA has been enhanced to more efficiently apply master and transaction objects. Less retries are used when applying master and transaction objects. When the process of applying an object results in an error, the system keeps retrying that object for a fixed number of times. Master and transaction data are more likely to be processed in the correct dependency order and therefore require less retries.

An import log record is not added when importing a master or transaction entity. Capturing a log record on the imported maintenance object log table is more relevant when importing configuration entities, especially when the import is to a higher environment like production. When importing master and transaction data it is mainly for testing purposes and usually involves higher data volumes so adding an extra log record to every entity unnecessarily consumes time and resources.

The enhancement to the Apply Objects step in CMA efficiently applies master and transaction objects, which results in less retries and errors.

Implementation Tool Enhancements

The following enhancements are made to the implementation tools in OUAF Version 4.4.0.3.0:

- [Data Explorer Graph Support](#)
- [New Action Method](#)
- [Enforce Data Type with Ad-hoc Characteristics](#)
- [Additional SQL Functions Supported](#)
- [Contextual Insights](#)
- [Tree Metadata](#)
- [Icon Configuration Support](#)
- [Expanded Maintenance Object and Business Object Information](#)
- [Number Format Routine may Suppress Trailing Zeros](#)

Data Explorer Graph Support

Info Data Explorer - Single SQL and Info Data Explorer - Multiple SQLs zones now include five data visualization option parameters that may be configured to show the zone data in one or more graphical formats. Option types of Grid, Chart and Map are supported, If a zone defines visualization options, the data explorer will provide icon buttons to toggle between the various views. These buttons are presented in the same order they are defined in the parameter list. Note that if more than one visualization option is present, one option must be of type Grid, allowing for a maximum of four graphical options. The graphs support broadcasting of values from the chart to other zones as filters.

The new data visualization option parameters provide various graphical formats to present zone data.

New Action Method

The Action Method feature provides edge products and implementations the ability to define an object that captures configuration for determining a value, such as an administrative code or an algorithm based on criteria. For example, the appropriate customer service request type to use for starting service for a customer can be determined based on the account's customer class and the CIS division.

Each use case that takes advantage of this functionality is defined using an Action Method Role, defined via an extendable lookup. In the above example, there is an action method role for Start Service. Each Action Method Role value defines one and only one Action Method record, which is where the criteria is defined along with the values determined by the criteria. In the above example, the Action Method for the Start Service action method role provides configuration for indicating the Customer Service Request Type based on a combination of CIS Division and Customer Class. The action method's business object defines a special algorithm plug-in spot called 'Retrieved Action Method Details'. The algorithm receives the criteria and returns the details as per the use case. In the above example, the caller would provide the CIS Division and Customer Class, and the algorithm would use that information to return the correct Customer Service Request Type.

The framework provides several components to help your product or your implementation to define its use cases. Your specific product may provide some functionality that uses the Action Method.

The Action Method feature enables implementations to define an object that captures configuration for determining a value.

Steps to Enable

Your implementation must define the appropriate action method records if your product supports one or more action method roles.

1. Select **Admin**, select **System**, then select **Action Mode** in Add mode. If your product provides more than one action method business object, select the appropriate business object for the use case.
2. Identify the appropriate Action Method Role and fill in the details appropriate for your implementation's business requirements.

> **Note:** The type of details defined here are dependent on the specific use case. Refer to your product's documentation for more information.

You can design you own action method functionality:

- If your implementation has use cases that require or would benefit from an action method and your cloud service does not already define an Action Method Role.
- If your business requirements differ from the supplied functionality.

Enforce Data Type with Ad-hoc Characteristics

An ad-hoc characteristic type may now be explicitly associated with an MD field to enforce data type validation. When characteristics of this type are captured, the system ensures that the entered value complies with the data type of the MD field if specified on the characteristic type record. This validation is performed in addition to existing validation methods such as using a validation algorithm on the characteristic type record or associating a flattened characteristic with an MD field as part of a business object schema.

The system ensures that the captured ad-hoc characteristic type complies with the data type of the MD field.

Tips and Considerations

When associating an existing ad-hoc characteristic type with an MD field, make sure existing data complies with the MD field's data type to avoid errors at update time.

Additional SQL Functions Supported

The following functions have been added to the SQL Allow List:

- CAST
- EXTRACT
- GREATEST
- LEAST
- NUMTODSINTERVAL
- LEFT JOIN
- RIGHT JOIN
- INNER JOIN
- add_months

The enhancement added commonly used SQL functions to F1-SQLFunctionWhiteList (Managed Content). In addition, support is provided for the WITH clause, the AT TIME ZONE clause, hierarchal queries, CASE Expressions, and Datetime data types.

Tips and Considerations

When associating an existing ad-hoc characteristic type with an MD field, make sure existing data complies with the MD field's data type to avoid errors at update time.

Contextual Insights

Contextual Insights provide a way to surface focused intelligence and alerts to users in the context of the core screens for any applications built on Oracle Utilities Application Framework. There are many useful configuration options for Contextual Insights.

There are a number of visual patterns that are supported:

- Badges Insights have a quick text notice with a solid background that is meant to alert the user to crucial summary information or attributes.

- Inline Insights display a message with an icon that is meant to be more descriptive about the context for crucial information to surface.
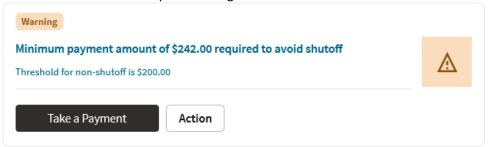
- List Insights are intended to exist in a list of insights that provide a message about related data as well as allow user actions to be configured. This type of insight supports an icon and supports primary and secondary text.

- Card Insights are the most information rich with the option for showing both primary and secondary text for an insight, a related large icon to call attention to the insight, as well as user actions that can be configured. Often a Card Insight can be used at the top of a list of insights to call more attention to the most important insights.

New color palettes are provided for configuration for Contextual Insights that insecure consistency in user interface when surfaced.

Actions that users can perform are defined in the insight algorithm and include additional configuration on the new Insight Type object. Settings allow you to define what should occur when the action is selected, the text to display, and the emphasis that should be placed on the button.

Insight types may be delivered by your base product. Oracle Utilities Application Framework provides a base badge insight that is visible on the new **To Do Entry** portal if the To Do Entry has related To Dos. Your specific product may include additional insight types for other use cases. In addition, you can introduce your own insight types.

In addition, the product provides the Insight Group object as a convenient way to group multiple insight types together. Insight groups are not delivered by the base product.

However, every insight group references a unique insight class (lookup value). The insight class is the reference used when configuring insights to appear on a specific user interface component. Your product may include one or more base insight classes that are ready to use on a user interface component. Your implementation would set up an insight group for this class and choose which insight types to include.

Contextual Insights provide a way to surface focused intelligence and alerts to users in the context of the core screens for any applications built on Oracle Utilities Application Framework.

Tips and Considerations

Users must be granted access to the following new application services in order to use this functionality:

Secured Object	Application Service	Access Modes
Insight Type MO	F1INSIGHTTYP	A, C, D, R
Insight Type Portal	F1INSTYP	R
Insight Group MO	F1INSIGHTGRP	A, C, D, R
Insight Group Portal	F1INSTGP	R
Color Option MO	F1COLOROPTION	A, C, D, R
Color Option Portal	F1COLOPT	R

Tree Metadata

New tree metadata allows use of user interface tree structures to display hierarchical data in many of the Oracle Utilities Application Framework products.

The Tree metadata encapsulates a number of visual patterns that are common to tree displays:

- Icons
- Broadcast function
- Configurable text for the tree nodes, with multiple options, including a user override
- Support for navigation via hyperlink and context menus
- Support for auto expansion of a tree node on load
- Support for inclusion of implementation specific nodes in trees supplied out-of- the-box

Previously, a tree could only be defined using HTML within a UI map. The Oracle Utilities Application Framework provides user interface tools and services that work in conjunction with the Tree metadata to perform many of the functions that were formerly in HTML.

Algorithms are responsible for the processing that populates the tree node key data and to allow override of the information text, if needed.

Metadata is provided to define configuration for displaying information in a tree format.

Tips and Considerations

Users must be granted access to the following new application services in order to use this functionality:

Secured Object	Application Service	Access Modes
Tree MO	F1TREE	A, C, D, R
Tree Query Portal	F1TREEQ	R
Tree Portal	F1TREEM	R

Icon Configuration Support

The product now provides support for Scalable Vector Graphic (SVG) images. These images can be scaled without reduction of quality and can take on color. The new Contextual Insight and Tree Metadata features support icons and the recommendation is to use SVG images for these features. The product also provides many base SVG images in the display icon table.

The product provides a Maintenance Object Option to define a default Display Icon for an object. Functionality such as the tree configuration may use this option to retrieve the default icon for an object. An analogous Business Object Option is provided for those maintenance objects that are used for different classes of objects that may warrant different icons at the business object level.

The Icon Configuration Support enables you to use scalable and high resolution SVG images as icons on your product.

Expanded Maintenance Object and Business Object Information

The Maintenance Object Information (MO Info) and Business Object Information (BO Info) plug-in spots now support returning an icon, if requested. The icon may be determined by the algorithm or alternatively, the plug-in drivers return the default Display Icon defined as a maintenance object option or business object option.

In addition, the plug-in spots support alternate detail for the information string itself:

- **Short information**: The algorithm can optionally return shorter, more concise information.
- **Detailed information**: The algorithm can optionally return up to four lines of information, allowing the algorithm to return different pieces of information in different lines. This is useful for user interfaces that support displaying information this way. Additionally, the algorithm can return an "overline" text, which is short text that can appear above the primary information text.

Note that the standard user interface metaphor that displays an information string for an object continues to use the standard information string returned by the algorithm. The additionally supported information may be used by specific use cases.

This feature enables you to request and retrieve short or detailed icon information.

Tips and Considerations

The F1-GetFKReferenceDetails and F1-GetForeignKeyReference business services have been enhanced to return the additional information, if provided by the algorithm. If an icon is requested, it is returned, if provided by the algorithm or found on the Maintenance Object or Business Object option.

Number Format Routine may Suppress Trailing Zeros

The F1-NumberAmountFormatter business service is enhanced to include an input parameter to suppress trailing zeros. For example, if a number has a scale of 5 and the value is 1.12300, depending on the business use case, it may be preferred to show this number as 1.123 instead of 1.12300.

The F1-NumberAmountFormatter business service that formats numbers now suppresses trailing zeros.

Tips and Considerations

Your specific product may already be using this new feature in existing user interface zones to control the display of numbers. If you have any custom code that formats numbers and would like to take advantage of this feature, the call to the above business service can be modified to set the new input parameter to true.

Security Features

The following security enhancements are made in OUAF Version 4.4.0.3.0:

- [Secured Objects Zone Enhancements](#)

Secured Objects Zone Enhancements

The Secured Objects list may now include the following objects:

- **Menu Items:** Included if the menu item references the application service.
- **UI map:** Included if the application service is referenced in the HTML of the UI map using the oraHasSecurity function.
- **Schema UI hints:** Included if the application service is found in a business object, business service, data area, service script, or UI map schema referencing the oraHasSecurity function.
- **Script Step:** Included if the application service is found in the Edit Data of the script step with a reference to the F1-CheckApplicationSecurity business service.

An option to filter the list by object code or description replaces the zone's pagination function to provide a more targeted list. An increased zone width accommodates lengthy descriptions and prevents scrolling to view information.

Key Resources

You can review the HTML or schema of the IU map to understand the objects being secured by the oraHasSecurity function.

You can review the script to understand the objects being secured by the F1- CheckApplicationSecurity business service.

Analytics

The following analytics enhancements are made in OUAF Version 4.4.0.3.0:

- [Metadata Extension for Analytics Tables (Oracle Utilities Analytics Visualization)](#)
- [Characteristics Mapping](#)
- [Additional Business Flag Configuration Values](#)
- [Support Analytics Dimension Hierarchy Definition](#)
- [Analytics Fact Logical Name](#)
- [Analytics Calendar Dimensions](#)
- [Analytics Fact Relationship to a Logical Dimension](#)

Metadata Extension for Analytics Tables (Oracle Utilities Analytics Visualization)

The metadata describing the product's data model is extended to define tables and views that represent dimension and fact tables in the operational analytics product. New entities and portals are introduced to capture analytics table definitions.

Steps to Enable

Make the feature accessible by assigning or updating privileges and/or job roles.

Tips and Considerations

Support for custom analytics dimensions and facts is currently not available. Extending the definitions of analytics dimensions is available only through characteristics mapping.

Role Information

System administrators must have access to the following Secured Entity - Application Services if implementations integrate with Oracle Utilities Analytics Visualization:

- Analytics Table Maintenance Object and Business Objects - F1-ANALYTICS
- Analytics Table Query Portal - F1ANLYTS
- Analytics Dimension Portal - F1ANALYT
- Analytics Fact Portal - F1ANFACT

Characteristics Mapping

The Characteristics Mapping feature maps characteristics to user-defined fields provided by Oracle Utilities Analytics Visualization for each characteristics table associated with an analytics dimension table. Characteristics mapping records can be directly maintained on the **Analytics Dimension** portal.

This release renames the **ETL Mapping Control** menu item to **Characteristics Mapping** and provides standard query and maintenance portals for the maintenance object. Support for ETL Mapping Control is still available for existing implementations integrated with Oracle Utilities Analytics.

Steps to Enable

Make the feature accessible by assigning or updating privileges and/or job roles.

Tips and Considerations

The **Characteristic Mapping Query** portal is associated with the new F1CHRMAP application service. Upgrade scripts ensure that users with Read access to the existing Application Service will receive Read access to the new application service.

Secured Entity	Application Service	Access Added to Any User Groups with this Application Service/Read Access
Characteristic Mapping Query Portal	F1CHRMAP	F1ETL

System administrators must have access to this application service if implementations integrate with Oracle Utilities Analytics Visualization:

Secured Entity	Application Service
Characteristic Mapping BO	F1-CHARMAPBOAS

Role Information

System administrators must have access to the F1-CHARMAPBOAS (Characteristic Mapping BO) application service if implementations integrate with Oracle Utilities Analytics Visualization.

Additional Business Flag Configuration Values

The Confidence attribute on Business Flag records now includes a Missed option, which can denote a false negative or a condition missed by the analysis tool.

Additionally, numeric values from *10* to *90* replace the *Low*, *Medium*, and *High* options of the Priority attribute. For backward compatibility, an upgrade step will adjust existing Priority values of Business Flags and Business Flag Types to the following:

- From High to 10
- From Medium to 50
- From Low to 90

Support Analytics Dimension Hierarchy Definition

The metadata needed to support hierarchical dimensions can now be captured as part of the definition of an analytics dimension.

Analytics Fact Logical Name

In this release, the name of the fact is explicitly captured as part of its definition record. Previously, the logical name of an analytics fact was incorrectly derived from its description in English.

Analytics Calendar Dimensions

The following database views are available to support analytics reports that are based on various calendar dimensions, for example reports that summarize information by week, by month, by year, and so on:

- F1_CAL_WEEK_D (Calendar Week Dimension)
- F1_CAL_MONTH_D (Calendar Month Dimension)
- F1_CAL_QUARTER_D (Calendar Quarter Dimension)
- F1_CAL_YEAR_D (Calendar Year Dimension)
- F1_CAL_FISC_PERIOD_D (Fiscal Calendar Period Dimension)
- F1_CAL_FISC_QUARTER_D (Fiscal Calendar Quarter Dimension)
- F1_CAL_FISC_YEAR_D (Fiscal Calendar Year Dimension)

Analytics reports based on calendar dimensions provide summaries in different periods of time.

Analytics Fact Relationship to a Logical Dimension

The operational analytics visualization tool was enhanced to support drilling from one fact to another for performance reasons when they are indirectly linked via the same logical dimension but at different aggregation levels. In order to support this relationship between analytic fact tables, the aggregated fact table explicitly references the corresponding logical dimension as part of its definition record.

The enhancement improves the performance of the operational analytics visualization tool in drilling from one fact to another fact when indirectly linked through the same logical dimension but at different aggregation levels.

Miscellaneous Enhancements

The following miscellaneous enhancements are made in OUAF Version 4.4.0.3.0:

- Support Health Check Customization
- ILM Configuration Adjustments
- Conversion Entity Dashboard
- Ability to Delay Algorithm Execution
- User Documentation Enhancements
- Warning Handling Change
- Generic APIs for the Utilities Test Automation (UTA) Tool
- BI Publisher Report Uses External Reference
- Term Allow List Used for Accepted Artifacts List
- Define an Environment Domain Name
- Language Pack Installation Process Change
- HTML Code not Included in Excel Export

Support Health Check Customization

The new Health Check installation-level System Event enables other product layers and implementations to add algorithms to check for additional conditions. The System Event also includes a base algorithm that checks the Batch Control - Level of Service algorithms. Previously, the Health Check portal and web service only supported checking the Batch Control - Level of Service algorithms.

Steps to Enable

Go to the **Algorithms** tab of the **Installation Options - Framework** page and find or add the Health Check System Event, then add the algorithms appropriate to your business.

Tips and Considerations

For backward compatibility, the system automatically references the Batch Control - Level of Service algorithm in the Health Check System Event in the installation algorithm collection for upgrading clients.

ILM Configuration Adjustments

The default value of the ILM Restrict by Status business object option is set to Y for the following maintenance objects:

- F1-BUSFLG (Business Flag)
- F1-MKTMSGIN (Inbound Market Message)
- F1-MKTMSGOUT (Outbound Market Message)
- F1-MKTPRCEVT (Market Process Event)
- F1-MKTPROC (Market Process)
- F1-OBJERSCH (Object Erasure Schedule)
- F1-PROSTR (Process Flow)
- F1-REMOTEMSG (Mobile Remote Message)
- F1-STSSNPSHT (Statistics Snapshot)
- F1-SVCTASK (Service Task)
- F1-SYNC REQ (Sync Request)
- F1-SYNCREQIN (Inbound Sync Request)

Defaulting **ILM Restrict by Status** to "Y" allows the Information Lifecycle Management Eligibility algorithm of the maintenance objects to restrict archiving based on the status of the record.

Tips and Considerations

Implementations using Information Lifecycle Management that do not require archiving restrictions based on status should add the **ILM Restrict by Status** option type, assign it a higher sequence number, and set its value to "N".

Conversion Entity Dashboard

The implementation tools for reviewing data conversion information include the following:

- Conversion Entity Query: Facilitates the selection of maintenance objects eligible for data conversion.
- Conversion Entity Dashboard: Lists the data conversion settings of the queried maintenance object and the current status of maintenance objects in the overall data conversion process.

Steps to Enable

Make the feature accessible by assigning or updating privileges and/or job roles. Details are provided in Role Information.

Role Information

System administrators that handle data conversion activities must ave access to the following Secured Entity Application Services:

- F1CVENTD (Conversion Entity Dashboard Portal)
- F1CVENTQ (Conversion Entity Query)

Ability to Delay Algorithm Execution

The F1PRFMDELAY algorithm type creates a delay in processes that perform asynchronous actions and continue upon receiving a response.

Implementations can use this Business Object Status - Enter algorithm type to delay (counted in seconds) processes that expect a near immediate response to an asynchronous request. The design of the processes using this algorithm type must also consider responses not arriving in a timely manner.

Steps to Enable

For business objects that include a step that sends a message and expects an asynchronous response, create an algorithm for the F1PRFMDELAY algorithm type. Configure the algorithm with the appropriate number of seconds to delay in the parameter. Configure this new algorithm on a status that includes an algorithm that checks for the receipt of the asynchronous response.

User Documentation Enhancements

In this release, the **Defining Algorithms** and **Defining Script Options** chapters of the online help are now under the **Configuration Tools** chapter. Reorganizing the chapters improves the search ability and usability of the algorithm and script topics as these are highly relevant components of the configuration tools.

In this release, the following are highlights of updates to the user documentation (online help):

- The **Database Options** chapter (renamed from "Database Tools") now has an overview section describing relationships of Maintenance Objects, Tables, Fields, and other metadata used to define objects in the system. As part of this update, the Characteristic Type help topics and FK Reference help topics have been moved to the "Database Options" chapter.

- The **Using Groovy Within Scripts** help topic has been updated to clarify best practices for referencing Java classes. The topic indicates that you should reference the class using the fully qualified package name or use an import step type to import the class and declare an alias.

Warning Handling Change

Standard warning processes for business object-driven maintenance show warnings a pop-up dialog boxes, allowing you to click **OK** or **Cancel**. **OK** indicates that the system should proceed with the add, update, or delete operation. **Cancel** returns you to the maintenance map, allowing you to make changes or to cancel the maintenance dialogue altogether. This is consistent with warning handling for fixed pages. Note that, after canceling, the warning message continues to display inline.

Previously, warnings were shown as messages in the maintenance dialog, allowing you to make changes before clicking Save again. The warning conditions were not checked again even though you could have changed something that should have triggered an additional check.

Generic APIs for the Utilities Test Automation (UTA) Tool

The following new Inbound Web Services are introduced to simplify the configuration of UTA test plans:

- Generic Data Explorer (F1-GenericDataExplorer) - This service may be used to call any data explorer zone that returns specific counts or any other type of information before a test is executed and afterwards for the purpose of comparing and evaluating test results.

- Copy Entity (F1-CopyEntity) - This service may be used to duplicate simple test entities.

Steps to Enable

Make the feature accessible by assigning or updating privileges and/or job roles. Details are provided in Role Information.

Role Information

The new UTA application service F1-UTASVC (Automated Testing Service) secures new services. System administrators should only grant access to this service on environments where the UTA tool is allowed to use.

BI Publisher Report Uses External Reference

The algorithm F1-BIPR-INV uses the external report reference to generate the URL. Previously, the algorithm used the internal report code rather than the external reference.

Most sample reports provided by the product populated the same value into the Report Code and the External Reference. Implementations following that pattern will see no impact to this change.

Tips and Considerations

If your implementation uses BI Publisher for reports and uses this algorithm type to generate the URL, be sure that the External Reference on your existing report codes matches the Report Code value to ensure that the URL will continue to be built as before.

Term Allow List Used for Accepted Artifacts List

Product descriptions and documentation referencing the term 'Whitelist' are updated to use 'Allow List' instead. Use inclusive term to identify a list of allowed artifacts.

Define an Environment Domain Name

A new installation message type was introduced for implementations to label the specific environment with a desired domain name. For example, you can use "DEV" to identify your development region and "Test01" to identify one of your test environments.

Refer to the "Environment Information Added to Batch Email" feature for functionality that uses the new installation message in this release. In the future, other base features may take advantage of this information to help users that work in different environments to easily identify the current environment.

The new installation message type allows you to label environments with domain names.

Steps to Enable

To enable this feature:

1. Navigate to the **Admin → I → Installation Options - Framework**.
2. Navigate to the **Messages** tab.
3. Add a new row and choose an Installation Message Type of Domain Name.
4. Enter text that identifies the environment. The recommendation is to keep the text short and concise.

Language Pack Installation Process Change

The procedure for installing a language pack has changed. When downloading the language pack, you are instructed to post the files in a specific directory. After the files have been posted, run the F1-LANG (Apply New Language) batch job for the desired language. This batch job now performs two steps. It created new language rows in the metadata and then applies the translated strings by looking for the language pack that you installed in the specified directory.

Previously, the process steps were to run the Apply New Language batch to create the new language rows and then use a blueprint-like process to apply the translated strings from the downloaded language pack.

The language pack installation procedure now applies the translated strings by looking at the installed language pack instead of the downloaded language pack.

HTML Code not Included in Excel Export

When exporting data explorer results to Microsoft Excel, cells will no longer include HTML code. For cells that contain text where the HTML is used to emphasize or otherwise adjust the appearance of the text in the online page, in Microsoft Excel only the text is included. For cells that only include HTML, for example cells that display an icon, in Microsoft Excel these cells are now empty.

Previously, if HTML code was used for any reason in a cell, the HTML code would be included in the export to Microsoft Excel.

This feature exports data explorer results to spreadsheets instead of HTML code.

Technical Upgrade Notes

The following technical upgrades are made in OUAF Version 4.4.0.3.0:

- JavaScript DOM "top" Property
- DOM4J API Upgrade
- Groovy Upgrade

JavaScript DOM "top" Property

Internal restructuring of the Oracle Utilities Application Framework has removed the use of the JavaScript DOM 'top' property to better encapsulate the JavaScript variables and functions, and reduce or remove the use of the Global Namespace. This technical upgrade has minimal effects on coding as filters have been provided to dynamically update the JavaScript at runtime and remove references to 'top'. All references to 'top' now refer to 'main', which already existed as a "pointer variable" to variables and functions. In addition, some functions that obtained pointers to UI objects are now direct references and therefore are no longer functions, for example:

Existing Code	New Code	Comments
var x = top.getNavigationInfo(navOpt)	var x = main.getNavigationInfo(navOpt)	The function names remain the same, only the location has changed
var x = top.main.getNavigationInfo(nav Opt)	var x = main.getNavigationInfo(navOpt)	No need for a double reference
var x = top.tabMenu().document	var x= main.tabMenu.document	tabMenu is now a direct reference as well as tabPage, workSpace, and model
var x = top.getMain()	var x = main	getMain() is a redundant function as 'main' is globally available

Should you need to get the 'top' for some reason such as obtaining window dimensions, the new main.getOUAFTop() function has been made available. Alternately, you can code "window.top" which the code changing filter will ignore. Note that the even if the code changing filter is extensive, there are many ways to write JavaScript and therefore some of your functions may still fail. Changing the offending line of code using the above examples as a guide should resolve the issues that arise.

Edge Product Uptake

Similar to customer code, the base Edge Application code is "filtered" to adjust existing code, which removes the need to revisit all existing code and perform updates in order to retain a functioning application. However, new code should follow these standards and the standards presented in relevant guides. It is also best practice to "upgrade" existing code when the opportunity is available.

Note that references to the 'ouafTop' variable are possible when looking at Oracle Utilities Application Framework JavaScript. Do not use this variable as this is an interim to ease the path towards a better clean-up of the existing Oracle Utilities Application Framework code. The 'ouafTop' variable will be removed when no longer needed and therefore can break your code when used. Oracle Utilities Application Framework will not provide a filter to change 'ouafTop' dynamically.

DOM4J API Upgrade

As part of the Oracle Utilities Application Framework's effort to update 3rd parties to the latest version, edge apps and customers can run into an issue when directly invoking the APIs in the 3rd party's library.

Oracle Utilities Application Framework upgraded the DOM4J API to the 2.1.1 version, which include a large number of changes as part of cleaning up methods to take more restrictive parameters and return more concrete versions. The previous version returned more generic return types and took more open arguments for example, a return type of List was returned from certain APIs. The 2.1.1 version returns nongeneralized versions of the exact type like List<Element> that could result in compile errors and require edge apps or customers to modify the code to fix the API calls.

In order to make code changes, go to the GitHub code repository for dom4j (https://github.com/dom4j/dom4j/blob/master/src/main/java/org/dom4j) and perform the following:

1. Look at the API change to https://github.com/dom4j/dom4j/blob/master/src/main/java/org/dom4j/Element.java setContent() api.
2. Click **History**. This opens all the log of changes that have been made to a class.
3. Click the hexadecimal revision number and review the set of changes made.
4. Click **Split** to see a more visual representation of the changes. You can directly search for the file, for example Element.java, and directly go to the changes to that file in the browser window.
5. Using the changes, make appropriate adjustments to your code. Note that once you find a change to the API, you can also look at code changes made to the other classes that were using the API. Your changes should be inline with the other invokers of the API to ensure that there are no regressions as part of the change that you would make.

Groovy Upgrade

Oracle Utilities Application Framework upgraded to the latest Groovy version and compilation of some of your scripts could fail. For example, one of Oracle Utilities Application Framework's script performed arithmetic and this code was compiled successfully with the previous Groovy version:

- BigDecimal.valueOf(Long.valueOf(batchRunTime.getTotalMilliseconds()/ 1000))

The latest Groovy version does not compile this code because the it evaluates the division results in an expression as a BigDecimal and the compile error indicates that a valueOf api is not available in the Long class.

To resolve the issue, your code must perform an explicit cast to inform Groovy that the result is a long. For example, this code fixes the compile error and retains the original intention of the code line:

- BigDecimal.valueOf(Long.valueOf((long) (batchRunTime.getTotalMilliseconds()/1000)))

Edge Product Uptake

For edge apps, Oracle recommends that you manually upgrade to the latest Groovy version before taking the official Oracle Utilities Application Framework fix and then run GroovySanityTest (unit testing) to ensure no compilation errors are reported. If there are issues reported, make minor code changes to the script to compile successfully.

Deprecation Notices for OUAF Version 4.4.0.3.0

This section provides information about the functionality and system data which are removed and no longer supported in Oracle Utilities Application Framework Version 4.4.0.3.0, or which are planned for removal.

- [Deprecated Items](#)
- [Items Planned for Future Deprecation](#)

Deprecated Items

The following functionality and system data are deprecated in Oracle Utilities Application Framework Version 4.4.0.3.0:

- **Application Viewer Links** - The Application Viewer links in the online help and several maintenance object, business object, business service, and function pages have been removed. You can now navigate directly from the application to metadata pages to view additional content.
- **Mobile Application** - In this release, Oracle Utilities Application Framework no longer supports the built-in mobile application and documentation is no longer available.
- **Cube Viewer** - The Cube Viewer is now only accessible and supported through the Market Settlements product.
- **Substring Function** - The system now uses the database function "substr" for SQL queries and information data explorer zones. Support for the "substring" function has been removed.
- **Xalan Library** - The system now uses the native XSL engine of Java. The changes impacted internal XSLs and XSLs used by implementations that include integration and UI override XSLs if applicable.
- **Batch Parameter Security Value of None** - The Security flag of a batch control parameter is optional and includes the ENCR (Encrypt) and NONE (None) options. The NONE value has been removed because it is redundant and given the flag is optional.
- **Security Token in REST Container** - In Oracle Utilities Application Framework 4.4.0.3.0, REST functionality was properly split out from the web to its own container. This allows REST to have its own authentication and security. By design, the Oracle Utilities Application Framework security token functionality was not added to this REST container because the token is used for CSRF protection for online web container only.

Items Planned for Future Deprecation

The following functionality and system data will be deprecated in the future releases of Oracle Utilities Application Framework:

- **UI Metadata Related to Converted Pages** - UI metadata related to fixed pages converted to portals will be removed in a future release. The following navigation keys related to the maintenance page will be removed:
  - **Field:** impFldTabMenu, metaDataFieldMainPage, metaDataFieldMaint, metaDataFieldTableGrid, metaDataFieldTablePage, and any help keys

- o **Access Group:** accessGroupMainPage, accessGroupMaint, accessGroupTabMenu, accessGroupDARGrid, and any help keys

- o **Application Service:** applicationServiceMainPage, applicationServiceMaintNew, and any help keys

- o **Portal:** portalTabMenu, portalMainpage, portalmainPopup, portalOptsGrid, portalOptsPage, and any help keys

- o **Zone:** portalZoneTabMenu, portalZoneMainPage, portalZoneGridPage, portalZoneParameterGrid, portalZonePortalGrid, portalZonePortalPage, and any help keys

In this release, the following navigation keys related to the maintenance page will be removed:

- o **To Do Entry:** toDoEntryCharGrid, toDoEntryDrillKeyValuesListGrd, toDoEntrySortKeyValuesListGrid, todoentrykeyvalue, todoentrymain, toDoEntryMaint, toDoEntryPopupAdd, toDoEntryPopupForward, toDoEntryPopupSendBack, and any help navigation keys

- o **Table:** metaDataTableFieldsGrid, metaDataTableMainPage, metaDataTableCFldsGrid, metaDataTableConstPage, metaDataTableMaint, metaDataTableRefByConstPage, metaDataTableFieldPage, and any help navigation keys

- o **Characteristic Type:** charTypeMenucharValuesGrid, charValuesPage, charEntityGrid, charEntitiesPage, and any help navigation keys

- o **Work Calendar:** workCalendarMaint, workCalendarMainPage, workCalendarHolidayGrid, and any help navigation keys

- o **Message:** msgMaintDetailsPage, msgMaintGrid, msgMaintPage, msgMaintTabMenu, and any help navigation keys

- o **Time Zone:** timeZoneMainPage, timeZoneTabMenu, and any help navigation keys

The following navigation keys related to search will be removed:

- o **Field:** metaDataFieldSearchData and metaDataFieldSearchPage

- o **Access Group:** accessGroupSearchData and accessGroupSearchPage

- o **Application Service:** applicationServiceSearchData and applicationServiceSearchPage

- o **Portal:** portalSearchData and portalSearchPage

- o **Zone:** portalZoneSearchData and portalZoneSearchPage

In addition, the UI program component metadata related to Field, Access Group, Application Service, Portal, and Zone navigation will be cleaned up in a future release.

The UI program component metadata related to To Do Entry, Table, Characteristic Type, Work Calendar, Message, and Time Zone navigation will be cleaned up in a future release. Note that metadata related to the search pages will not be removed at this time in case these are used on other fixed pages.

- • **XSLT Managed Content Type** - The Managed Content table entries related to XSL should use the XSLTC managed content type instead of the XSLT managed content type. Support for the XSLT managed content type will be deprecated in a future release.

- **REST IWS - Original REST Servlet** - The original URL supplied for invoking IWS-based REST services included the IWS Service name in its makeup. We continue to support this for backward compatibility purposes, but we will deprecate it in a future release. As defined in the documentation, you should adjust your existing integrations to use the currently supported URL.

- **Append Setting In Pagination** - There are several known issues with the functionality of the 'append' option in pagination such that it is not recommended to use this pagination setting. This functionality will be deprecated in a future release.

- **Support for Master and Subordinate Services for Web Services Catalog** - The Service Catalog Configuration (master configuration) supports defining subordinate servers. This functionality is no longer applicable for the Oracle Integration Cloud and will be removed in a future release.

- **Selected Functionality of the Batch Run Statistics Portal** - The **Batch Run Statistics** portal provides some additional information about batch runs. However, some of the functionality provided on this page is related to capturing additional information from an external tool. This information is stored in a Fact record.

  The functionality related to capturing additional information will no longer be supported in a future release. This information will still be available to existing clients, but the functionality will no longer be maintained.

- **Miscellaneous System Data**

  - **Environment Reference**: This administrative maintenance object was related to ConfigLab and Archiving, which are no longer supported. In a future release, the following will be removed:

    - Migration Plan F1-EnvironmentRef

> **Note:** No base migration request references this plan. Implementations should ensure that no custom migration request references this plan.

    - F1-EnvironmentRefPhysicalBO business object
    - ENV REF maintenance object

  - The following metadata related to the legacy LDAP import pages will be removed in a future release:

    - Services: CILTLDIP, CILTLDIL,CILTLDIS
    - Application Service: CILTLDIP.

  - The following algorithm types and algorithms provided for the current LDAP import functionality do not include any logic. They will be removed in a future release.

    - Algorithm Type and Algorithm F1-LDAPIMPRT
    - Algorithm Type and Algorithm F1-LDAPPREPR

  - The To Do Type F1-SYNRQ (Sync Request Error) is not in use and will be deleted in a future release. Errors for the Sync Request Monitor (that also has the name F1-SYNRQ) are reported using the To Do Type F1-SYNTD (Sync Request Monitor Errors).

  - The lookup value CHAR_ENTITY_FLG / F1SE (Characteristic Entity / Sync Request Inbound Exception) is not in use and will be removed in a future release.

- o The scripts F1-BundleInf, F1-GENPRINFO, and F1-MgPlnInf will be removed in a future release.
- o The zones F1-IWSSCHS, F1-IWSSCHS1, F1-IWSSCHS2, F1-IWSSCHS3 and F1-MGRREQDSP will be removed in a future release.

- **CMA Migration Requests** - The migration requests F1-FrameworkAdmin (Framework Admin) and F1- SchemaAdmin (Schema Admin) are no longer recommended and are not going to be updated with new administration / control tables in future releases. The product may deprecate them in a future release.

- **CMA Import Algorithm** - In a future release, the CMA Import algorithm plug-in spot will be deprecated. As an alternative, review any existing algorithms and create appropriate Pre-Compare algorithms.

- **Business Object Read in F1-MainProc When Pre-Processing Exists** - In the original implementation of configuration tools, if a pre-processing script was linked to the business object via options, the main framework maintenance BPA (F1-MainProc) would not perform a Read of the business object (leaving it to the responsibility of the pre-processing script).

  In a subsequent release, to solve a UI Hints issue related to child business objects, a business object Read was included in F1-MainProc even if a pre-processing script existed. This solution introduced a problem only visible for specific scenarios and a different fix has been introduced. In the meantime, the business object Read is no longer necessary in F1-MainProc. Since there are many pre-processing scripts that are properly performing the Read of the business object, ideally the business object Read should be removed from F1-MainProc so that multiple reads are not performed.

  However, there may have been pre-processing scripts introduced after the business object Read was included in F1-MainProc that were coded to not perform a business object read in the pre-processing script. Due to this situation, the business object Read is still performed as part of the processing of F1-MainProc.

  The product plans to remove the business object Read from F1-MainProc logic when a pre-processing script exists. Review your custom pre-processing scripts that are linked to your business object options to ensure that it properly performs a Read of your business object.

- **OJet Support for Bind Architecture** - OJet previously supported a bind architecture for their components and this format is deprecated in OJet V7.

  Example:

      <input id="text-input"

          type="text"

          data-bind="ojComponent: {component: 'ojInputText', textInput: value}"/>

  Example:

      <oj-input-text value="value text" label-hint="enabled"></oj-input- text>

The Oracle Utilities Application Framework applications are targeting to stay current on OJet upgrades as newer releases incorporate more features, better performance, and high integration with the Redwood Design System. In this release, Oracle Utilities Application Framework uses OJet V9.1 and with each release, an OJet upgrade will be applied when applicable.

As the bind format has been deprecated, support for the format will be removed from up-coming releases. This results in a smaller file size for OJet components but any existing code in Oracle Utilities Application Framework applications using the bind format will completely stop working. It is anticipated that this could happen as soon as OJet V11, but it could also be a later version. For this reason, it is imperative that any existing OJet code that uses the bind format be updated to use the Web Component format. There can be a direct replacement available (as in the above example) but OJet provides different options so there may be a better alternative.

Deprecation Notices for ORMB Version 3.1.0.0.0

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

- Deprecation in This Release
- 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 3.1.0.0.0:

Object Type	Object Name
Table Columns	The following table lists the columns which are deprecated in this release: <table><tr><td>**Table Name**</td><td>**Column Name**</td></tr><tr><td>C1_BENEFITS</td><td>BENEFIT_SUB_TYPE_FLG</td></tr></table>
Screen	MDT, MDT Type

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
Algorithm	C1-DUEDTFTCV
Feature Configuration	C1_EX_ROUND
Option Types	Currency Conversion Algorithm and Payment Distribution To-Do (from the **C1_MLTCURACC** feature configuration)

Object Type	Object Name
Table Columns	The following table lists the columns which will be deprecated in the next release: | Table Name	Column Name
CI_ACCT_PER	BILL_RTE_TYPE_CD, RECEIVE_COPY_SW, BILL_FORMAT_FLG, NBR_BILL_COPIES, CUST_PO_ID, NOTIFY_SW, and BILL_ADDR_SRCE_FLG	
Batch Control	GLASSIGN, C1-IAENT, C1-DARSU, C1-CUSIN, C1-MEMIN
View	CI_EFF_ACCT_PRICING_VW, CI_EFF_PER_PRICING_VW
Business Service	C1-EffectivePricing, C1_PriceParmBS **Note:** Instead of using the **C1-EffectivePricing** business service, use the **C1-GetEffectivePricing** business service to view the data on the **Pricing (Account)** and **Pricing (Person)** screens. Similarly, instead of using the **C1_PriceParmBS** business service, use the **C1_PRICE_PARM** business object to add, edit, copy, and delete a parameter.
Service Program	EFFPRCSERVICE, C1_PRICEPARM
Column	ADDRESS1 , ADDRESS2 , ADDRESS3, ADDRESS4 , CITY, NUM1, NUM2, COUNTY, POSTAL, HOUSE_TYPE, GEO_CODE, IN_CITY_LIMIT, STATE, and COUNTRY from the CI_PER table
Table	CI_PER_ADDR_SEAS
Screen	Rate Check, Policy (P&C), Insurance Control Central, Collection Control Central, Account Current, Variance Parameter

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

Product Documentation

User manuals and other technical documents are available in the Portable Document Format (PDF). You can download Oracle Revenue Management and Billing release-specific documentation library (for example, Oracle Revenue Management and Billing Version 3.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 3.1.0.0.0 and Oracle Insurance Revenue Management and Billing Version 3.1.0.0.0 media packs can be installed on the following supported platforms:

- AIX (64-bit)
- Microsoft Windows (64-bit)
- Linux (64-bit)
- Oracle Solaris (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 3.1.0.0.0 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 3.1.0.0.0** or **Oracle Insurance Revenue Management and Billing 3.1.0.0.0** option.
6. If required, you can verify the media pack which is selected by clicking the **View Items** link.
7. Click the **Continue** link. A page appears.
8. Select the required platform from the **Platforms/Languages** list.
9. Click **Continue**. A page appears with the license agreement.
10. Scroll and read the entire license agreement and then click the **I reviewed and accept the Oracle License Agreement** option.
11. Click **Continue**. The **File Download** page appears.
12. Select the required package that you want to download from the media pack and then click **Download**. 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
33317536	32923193	ENTITY HIERARCHY RELATIONSHIP- USER FRIENDLY ERROR MESSAGE SHOULD BE SHOWN FOR PRODUCT LINKING
33317526	32922320	ENTITY HIERARCHY RELATIONSHIP- MULTIPLE ISSUES OBSERVED ON ENTITY HIERARCHY RELATIONSHIP SCREEN
33317517	32919154	#IAT# NOT ABLE TO SAVE PRICEITEM-COLOSKOP ON IAT ENV
33316978	32888052	CUSTOMER/ACCOUNT SEARCH SCREEN NOT WORKING
33316971	32923287	STATEMENT EXTRACT ISSUE IN OUTBOUND FILE
33307541	32969495	DBMS SCHEDULER MONITOR DASHBOARD - RUNNING BATCH JOBS TAB
33307345	33035606	CONSTRUCT_FRTS- NEW ISSUES OBSERVED FOR C2INVCONCREATEBT AND C2INVCONUPDATEBT IN DEV2
33296161	33166385	BILL CYCLE IS GETTING SAVED EVEN THOUGH OVERLAPPING WINDOW PERIOD EXISTS
33292907	-	SCHEDULER JOB CHAIN HISTORY UNAVAILABLE
33231365	33216202	FORWARDPORTBUG 33216202 - OVERCHARGING ISSUE FOR COL ITEM TYPES
33205309	-	"FILE REQUEST TYPE BASED ENTITY(INVOICE ACCOUNT) CREATION RESULTED IN DATA INCONSISTENCY"
33184659	33131138	AUDIT EVENT PROCESSING FAILS FOR BASE PERSON BO - FORWARDPORT
33184456	33046455	HEALTHCARE INBOUND MESSAGE ERROR - LIST HAS 2 REFERENCES WITH THE SAME KEYS FORWARDPORT
32335054	-	CANNOT DELETE PENDING POLICY
31887343	-	INCORRECT SL ACCUMULATION WHEN MEMBER MOVES ACROSS BILLING GROUP
33305495	33070201	C1-OFFSETDET ZONE IS THROWING ERROR WHILE CLICK ON PAGINATION NEXT BUTTON.
33297037	32978290	PRICELIST COPY OPTION IS NOT WORKING IN V2.8.0.0.0
33296982	32965576	BUG 32965576 - WRONG 'REJECTED ON' DATE -TIME SHOWN ON 'APPROVAL TRANSACTION' UI
33296240	33104142	FAIL_EMAIL_SUBJECT, FAIL_EMAIL_BODY_CONTENT FIELDS MISSING ON 2.9.0.0 PRODUCT VERSION

Bug Number	Copy of (Base Bug)	Description
33296234	*33148102*	UNABLE TO OPEN A QUOTE
33296229	*33036773*	UNABLE TO ACTIVATE THE SETTLEMENT CONSTRUCT 14443
33296178	*33287007*	TERMS & CONDITIONS ARE NOT APPEARING IN THE DEAL
33280499	*33208704*	FINANCIAL RELATIONSHIP SWITCH IS ALWAYS SET TO TRUE FOR ALL THE RELATED PERSONS IN MEMBERSHIP - FORWARDPORT
33280231	*32892273*	C1-ADMOV BATCH IS FAILING - FORWARDPORT
33270122	*33215383*	C1-PAYSRCH1 | ZONE SEARCH NOT SHOWING ORDERED DATA
33270089	*33213379*	DIVISION PRICEITEM PREDEFINED CHAR
33226728	*33108109*	GETTING ERROR WHILE TRYING TO SEARCH A BILL
33226722	*33133732*	SERVER ERROR IS ENCOUNTERED ON CUSTOMER REGISTRATION SCREEN
33226708	*33060869*	GLASN JOB NOT STAMPING GL_ACCT IN CASE OF PROCESSING ONE RECORD
33220286	*33124836*	C1-BSEGD IS NOT PROCESSING ANY RECORDS ON ORMB 2901 VERSION
33208472	*33006521*	APPROVAL WORKFLOW FUNCTIONALITY NOT WORKING FOR SOME ENTITIES
33208445	*32331079*	ERROR WHILE IMPORTING CMA FOR INVOICE CONSTRUCT
33208434	*32973761*	OUTPUT ROWS USING EXPORT TO EXCEL DO NOT MATCH BETWEEN 2.4 AND 2.9
33208415	*33051276*	TRANSACTION DETAILS FOR ACCOUNT NUMBER ONLY IS TAKING TOO LONG TO RETURN RESULTS
33204267	*32232647*	CILPPAYP | SQL ID 49J3GRY7U7HAG | TIME OUT
33204245	*32316992*	HOLD REQUEST | TIME OUT
33204236	*32295278*	C1-WOBILSRC | WRITE OFF REQUEST | TIME OUT
33204213	*32309861*	REFUND REQUEST | ADD BILL TIME-OUT
33204187	*32299058*	REFUND REQUEST EDIT TIMES OUT WHEN HIGH NUMBER OF BILLS/PAYMENTS (MORE THAN 500..1000 TRANSITIONS)
33203720	*32856580*	ISSUE IN REMOVING SUB DIVISIONS FROM DIVISION DROPDOWN
33203683	*32205887*	RMB 2.9 - NOT OPENING URL/LINK STORED IN CHARACTERISTIC

Bug Number	Copy of (Base Bug)	Description
33203634	33081116	FRT | PRICING UPDATE / ADDITION - PRICING APPLIED FOR THE DIVISION WHERE PRICE ITEM IS NOT ELIGIBLE
33203621	32907538	PRICE ITEM PARAMETER VALUE SHOWS ONLY IN UPPER-CASE EVEN IF LOWER-CASE VALUES ARE SAVED
33203585	33012514	DRAFT PRICE ASSIGNMENT NOT GETTING DELETED WHEN APPROVER REJECTS APPROVAL TRANSACTION
33203203	33052510	CUSTOMER 360 - SEARCH BY ACCOUNT ZONE RESULTS CANNOT BE EXPORTED TO EXCEL
33203066	33140843	32885301 - INSTALL PATCH 32885301 - STILL GET ERROR WHILE EXPORTING HIERARCHY ENTITY.
33194159	33108623	ACCOUNT SETUP DATE IS GETTING DEFAULTED AS PROCESS DATE WHILE CREATING MEMBERSHIP
33189429	32960445	ISSUE WHILE OPENING ACCOUNT INFORMATION STRING HYPERLINK FOR LARGE IGA
33188555	33077842	ORMN UPGRADE | BILL SEGMENT ERROR
33184606	32475624	BILLS ARE NOT GETTING PAID AFTER RUNNING PUPL BATCH IN CASE THERE ARE UNBILLED CHARGES (ACCRUALS) ON ACCOUNTS (FORWARDPORT)
33184591	32806754	C1-FIBCR BATCH IS FAILING (FORWARDPORT)
33184454	32798097	ADDRESS ID FIELD NOT POPULATING IN ACCOUNT PERSON BILL ROUTING INFORMATION FORWARDPORT
33184423	32756495	MAIN ADDRESS WITH EFFECTIVE DATE = CURRENT DATE ARE SET TO BLANK WHEN AN ADDRESS UPDATE IS DONE - FORWARDPORT
33184361	32643911	MATCH EVENT LINK/UNLINK BUTTON DISABLED ISSUE - FORWARDPORT
33175076	32763185	DUPLICATE ROWS GETTING DISPLAYED FOR CANCELLED PAYMENTS ON PAYMENT HISTORY PAGE
33152216	32759124	HOLD START DATE NOT EDITABLE IN ORMB 2.8 VERSION
33152213	32762492	HOLD END DATE FIELD IS MADE MANDATORY IN ORMB 2.8 VERSION
33152007	32880483	UNABLE TO EDIT A HOLD REQUEST WHICH IS IN ACTIVE STATUS IN ORMB 2800 VERSION
33152003	32880519	UNABLE TO RELEASE HOLD IN ORMB 2.8.0.0 ENVIRONMENT
33151999	33060844	PERFORMANCE ISSUE WHILE SEARCHING HOLD REQUEST VIA HOLD STATUS

Bug Number	Copy of (Base Bug)	Description
33145920	*33119419*	DUPLICATE ROWS ARE APPEARING ON THE TRIAL BILL SEARCH SCREEN
33143419	*33122014*	ISSUE PERSISTS IN V2.9 AND SIMULATED.
33131498	*33043946*	PERFORMANCE ISSUE ON DISCREPANCY REPORT UI
33129074	*32455848*	WHEN ACCOUNT IDENTIFIER LIMIT EXCEEDS THAN 10,"GET MORE..." BUTTON IS ENABLED ON UI BUT WHEN USER CLICKS ON IT, NOTHING HAPPENS
33129051	*32925053*	UNABLE TO DELETE CUSTOMER USING CASE LOG WITH PARENT PERSON NAME LONGER THAN 30 CHARACTERS
33129042	*33104376*	COMMAND CENTER ISSUE - #446 - C1-PAYMENTS ZONE TRANSACTION TIMEOUT
33127660	*32619899*	ASL PRICING RULE: PRICEITEM DROP-DOWN BEHAVIOR VARIES ACROSS BROWSER IE VS CHROME
33125280	*33058982*	ASSL LIMIT IS NOT GETTING UPDATED FROM BACKEND
33125213	*32867402*	ISSUE IN FT EXTENSION FT FREEZE ALGORITHM
33125171	*32776096*	SYSTEM ERROR ENCOUNTERED WHEN CREATING PAYMENTS WHILE AUDIT IS TURNED ON
33083566	*32203366*	GARNISHMENT AMOUNT IS SHOWING INCORRECT AMOUNT IN BILL INFORMATION UI
33083549	*32641058*	HOLD START DATE NOT EDITABLE IN ORMB 2.8 VERSION
33083463	*29893233*	ISSUE IN HOLD REQUEST UI_CHARACTERISTICS ZONE IS NOT COMPLETELY VISIBLE
33083449	*30076343*	SEVERE PERFORMANCE ISSUE IN OFFSET REQUEST UI
33083413	*30250035*	EDIT, HOLD, OFFSET BUTTONS NOT VISIBLE ON SELECTED BILLS ZONE FOR AUTOMATIC FR (PATCH)
33083402	*30594332*	EXCHANGE RATE UI SEARCH BY DATE NOT DISPLAYING RESULTS AS PER THE SELECTED CRITERIA
33083385	*30776486*	PERFORMANCE ISSUE IN HOLD REQUEST UI
33083374	*30894892*	DUPLICATE ROWS RETURNED FOR PERSON ID SEARCH IN HOLD REQUEST UI
33083330	*30957745*	POST INSTALLATION OF PATCH 30776486 - SQL EXCEPTION IN THE ORA SEARCH WHILE SEARCHING FOR BILL USING PERSON ID
33083180	*31058971*	SORTING BY HOLD START DATE IS NOT DONE IN HOLD REQUEST UI
33083143	*30817517*	POSTPROC BATCH FAILURE

Bug Number	Copy of (Base Bug)	Description
33083133	*27674058*	INCORRECT CALCULATION - TFM
33082232	*29954925*	APPROVER NOT ABLE TO SEE 'APPROVE/REJECT' BUTTON ON FUNDING UI
33082210	*29523088*	NO RESTRICTION WHILE APPROVING THE FUNDING REQUEST BY SAME USER WITH MORE THAN ONE APPROVAL ROLE
33082196	*27580160*	ISSUE IN FUNDING APPROVAL
33082183	*29712937*	SR 3-19971047241: SUBMIT BUTTON IS NOT AVAILABLE ON FUNDING UI
33082172	*29805178*	EXT_REFERENCE_ID FIELD GETTING CONVERTED TO CAPITAL LETTERS
33082158	*29852017*	FUNDING APPROVAL IS NOT WORKING AS EXPECTED
33081977	*29893423*	OFFSET AMOUNT ZERO
33081967	*30805704*	TOTAL_CR_AMT INCORRECT IN C1_FUNDING_REQ

Known Issues

This section lists the known issues in Oracle Revenue Management and Billing Version 3.1.0.0.0 along with workarounds available to handle these issues. The known issues are grouped into the following categories:

- [Banking](#)
- [Insurance](#)
- [Documentation](#)

Banking

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Issue	REOPEN BUTTON DISABLED WHEN C1-BILLSETT ALGORITHM ATTACHED ON CUSTOMER CLASS
Description	If you attach an algorithm of the C1-BILLSETT algorithm type on the **Bill Completion** system event of the account's customer class, at present, you will not be able to reopen a bill.
Workaround	None

Issue	THE PAYMENT REQUEST SCREEN DOES NOT SUPPORT MULTIPLE TENDERS
Description	At present, the system does not support multiple tenders when you create a payment from the **Payment Request** screen.
Workaround	None

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Issue	**SAME ORASEARCH ZONE APPEARS FOR MULTIPLE BIND VARIABLES WHILE DEFINING CONSTRUCT**
Description	If a template has multiple bind variables and zone is specified for two or more bind variables, the system displays the same 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

Insurance

Issue	**OLD INSURANCE FEATURES ARE NOT TESTED AND VERIFIED IN ORMB VERSION 3.1.0.0.0**
Description	In this release, the new policy data model is introduced. The old policy data model which is accessible to the INADMIN user group is no longer operational. The old insurance features, such as Insurance Control Central, Deferred Revenue Recognition, Account Current, Pay Plan, Group Billing, and List Bill Reconciliation are not tested and verified with the new policy data model.
Workaround	None

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

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

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

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

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

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

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

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

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

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

Documentation

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

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

Issue	**INDEX ENTRIES NOT DEFINED FOR THE BANKING AND INSURANCE MODULES**
Description	At present, index entries are not defined for all topics in the Banking and Insurance modules.
Workaround	None

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

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

Technical Support

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