

Oracle Utilities Customer Cloud Service

Release Notes

Release 18.1

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Oracle Utilities Customer Cloud Service Release 18.1 Release Notes

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Chapter 1

Release Notes

These release notes contain the following sections:

- [About This Release](#)
- [Oracle Utilities Customer To Meter Enhancements](#)
- [Cloud Service Foundation v18.1 Release Notes](#)
- [Oracle Utilities Application Framework v4.3.0.5 Release Notes](#)

About This Release

This section contains general information about Oracle Utilities Customer Cloud Service Release 18.1.

Oracle Utilities Customer Cloud Service includes the following Oracle Utilities applications:

- Oracle Utilities Customer To Meter v2.6.0.1
- Oracle Utilities Cloud Service Foundation v18.1
- Oracle BI Publisher

Oracle Utilities Customer To Meter Enhancements

This section provides descriptions of enhancements in Oracle Utilities Customer To Meter introduced since the previous release of Oracle Utilities Customer Cloud Service, including:

- [Management Dashboard](#)
- [Customer Care, Metering, and Billing Features](#)
- [Integration Support](#)
- [User Interface](#)
- [Configuration Migration Assistant \(CMA\)](#)
- [DataConnect](#)
- [Miscellaneous](#)

Management Dashboard

Customer Operational Dashboard

The Customer Operational Dashboard provides an overview of batch performance and status of key business processes. It provides day-to-day statistics that are of interest to management and end users.

The dashboard can be used to:

- Track and view the duration of key batch processes or grouping of processes and how they relate to a defined performance target.
- View trends related to Bills, Payments and To Do Entries.

Customer Care, Metering, and Billing Features

Customer Contact Type - Add Person / Account / Premise Usage Options

Customer contacts can be used to record interactions between a customer and an organization. Historically, customer contacts were associated directly with persons. In the previous release, premise and account were added to customer contact.

In this release, on Customer Contact Types, implementations can specify whether person, account and/or premise are required, optional, or not allowed for related customer contacts. For customers upgrading from the previous version, all existing customer contact types are defaulted to "Optional".

Customer Contact Type - Relationship Validation

In the previous release, when premise and account were added to customer contact, validations were added to ensure there is an existing relationship between person and account and between account and premise.

In this release, on Customer Contact Types, implementations can specify which of these validations, if any, are enforced. For customers upgrading from the previous version, existing customer contact types are set to enforce all validations.

Enabling Premise Replicator

In this release, the Premise Replicator functionality has been enabled for Oracle Utilities Customer to Meter.

New Query Filters in Usage Transaction Query and Enable Pagination of the Query Results

New filters are available on the **Usage Transaction Search** zone, such as **Start/End Date** ranges, **Creation Date Range**, **Status**, **Exclude Sub-UT**, **Linked to Frozen Bill Segment**, and **Used on Bill**. In addition, pagination is enabled on the search results.

Support Online Logical Delete of Scalar Measurements

There is a new **Do Not Use** button on scalar measurement component display maps which allows the user to manually mark the measurement as 'Do Not Use'. A similar feature was also added to the Scalar Readings zone on the Device Configuration portal.

Rounding Options in Usage Rules

New options were added on usage rules that calculate consumption to support configuration of rounding options for service quantities created by the usage rule. This includes "Round Down", "Round Up", and "Round Nearest" rounding method as well as the ability to specify the number of decimal positions to round by.

Proactive Archiving of Initial Measurements, Device Event, and Usage Transactions

To improve performance of the Information Lifecycle Management (ILM) crawler batches and reduce the impact of those batches on database backups, identification of transactions as ready for ILM archiving has been brought forward to initial transactional processing. For most transactions, they will be set to ILM ready on successful processing and only those transactions that require more complex validations will be reserved for ILM crawler processing.

Allow Estimation over VEE Exception

There is a new option in "Auto-Read Scalar Periodic Estimation", "Create Interval IMD", and "To Do Based Upon Install History" algorithms to allow estimation over a VEE exception.

New Measurement Staging Table and Batch Job

A Measurement Staging table was added to hold measurements that can be loaded to the measurement table. A corresponding single thread batch job with option for database parallel execution is also delivered to move the staged measurements into the measurement table.

Load IMDs by Standalone Identifier and UOM/TOU/SQI

The Measuring Component (MC) identification logic in the Initial Measurement Data (IMD) Seeder has been enhanced to identify the appropriate measuring component when two measuring components have the same identifier by using the Unit of Measure, Time of Use, and Service Quantity Identifier combination provided in the IMD payload.

Zero Consumption Validation Leveraging On/Off History

There is a new **Only Fail For Connected Devices** option on the Zero Consumption Validation VEE rule that customers can opt-into that takes the On/Off history into account. This indicator prevents unnecessary creation of To Dos brought about by the exception.

Ignore Service Issue Monitor False Positives

A new evaluation criteria was added to the Service Issue Monitor type to exclude events near on/off history. This criteria will be used to prevent redundant creation of Service Issue Monitors, generated by device events resulting from utility crew working on a meter at a customer's premise.

Enhanced Multi Cancel / Rebill Transaction

The Multi Cancel/Rebill transaction is used to cancel/rebill (and freeze) one or more bill segments linked to a service agreement. Previously, the transaction could only be used to cancel/rebill a single bill segment at a time where the related service agreement required bill determinants.

In this release, the Multi Cancel/Rebill transaction has been enhanced to enable the cancelling/rebilling (and freezing) of multiple bill segments that are linked to a service agreement that requires bill determinants.

Preventing Cancellation of Converted / Migrated Financial Transactions

In an implementation, it is common for financial transactions (such as bill segments, payment segments, adjustments and Financial Transactions (FTs)) to be created in Oracle Utilities Customer To Meter for historical transactions existing in legacy customer information systems as part of the data conversion/migration process. This allows users to see sufficient financial history for a customer when Oracle Utilities Customer To Meter is in production.

In this release, a new algorithm type for the **Customer Class - FT Freeze** plug-in spot is provided that can be used to prevent converted or migrated financial transactions from being canceled. This prevention can occur when a user or process attempts to cancel historical bill segments, payments, or adjustments.

Enhanced Deposit Recommendation Algorithm Types

The Deposit Recommendation algorithm, defined in the 'Deposit Class – Deposit Recommendation' plug-in spot, is called when:

- A user requests a deposit calculation for a new deposit service agreement.

- The Deposit Review background process compares an account's existing deposit (if any) to the calculated recommended amount.

A number of algorithm types have been enhanced to cater for the scenario where there is insufficient billing history or estimated consumption cannot be calculated to determine a recommended deposit amount. In such scenarios, the system will retrieve the characteristic value for the Default Deposit Amount SA Characteristic Type. This value will then be subject to the Deposit Multiplier to determine the recommended deposit amount.

The **Deposit Class – Deposit Recommendation** algorithm types that have been enhanced include:

- DEPRECOM-BA (Use Average Bill Amounts to Recommend Deposit)
- DEPRECOM-MBA (Recommend Deposit Based On Maximum Bill Amount)
- DEPRECOM-GSP (Deposit Recommendation for Gas Service Providers)

Enhanced Budget Calculation Algorithm Type

A Budget Calculation algorithm, defined in the 'Budget Plan – Budget Calculation' plug-in spot is called when the system calculates a customer's recommended budget amount. This can occur when:

- A user requests a new budget to be created for each applicable service agreement linked to a customer's account.
- A customer's budget billing plan is reviewed for a true up.
- A customer's budget billing plan is monitored to determine if the current budget amount is out of sync with the current recommended budget amount by a given defined tolerance.

The BUDCALC-BH (Budget Calc – Prem History (No Estimated Bills)) algorithm type has been enhanced to cater for the scenario where there is insufficient billing history to determine a recommended budget amount. In such scenarios, the system will retrieve the characteristic value for the Default Budget Amount SA Characteristic Type and use this as the recommended budget amount (subject to rounding).

In addition to the above, the algorithm type has also been enhanced for an implementation to indicate whether a service agreement's current balance should be included in the calculation when determined a recommended budget amount.

Rate Calculation Group / Rule Processing Enhancement

Previously, while billing Service Agreements using bill determinants and rate version breaks existed within the total usage period, the rules on Pre-Processing and Post Processing Calculation Group(s) on the Rate Schedule were executed for each usage period. There was no way to indicate if the calculation rule should be executed once or per usage period.

In this release, a number of calculation rules have been enhanced to provide an indicator to allow an implementation to specify whether the calculation rule should be executed for the total usage period or for every usage period.

For more details, see the bug 27196318 Product Fix Design document.

United Kingdom Value Added Tax and Climate Change Levy Support in Rules Based Rating Engine

Previously, United Kingdom Value Added Tax (VAT) and Climate Change Levy (CCL) requirements were supported in the components-based rating engine.

In this release, the rules-based rating engine has been enhanced to support the United Kingdom's requirements for Value Added Tax and Climate Change Levy.

Note: The components-based rating engine is not the recommended approach for new implementations. The rules-based rating engine is the recommended approach for configuring rates and calculating charges.'

Supporting Eight Decimal Places for Prices in Rate Calculations

A number of fields and associated code/configuration have been enhanced to support eight decimal places. In particular, this relates to bill factor values and other values used in rate calculations.

Note: For more information about the column format changes in this release, refer to the *Oracle Utilities Customer Care and Billing Database Administrator's Guide*.

Integration Support

Enhanced CTI / IVR Integration Support

Oracle Utilities Customer To Meter provides tools to facilitate the integration with an implementation's Computer Telephony Integration/Interactive Voice Response (CTI/IVR) solution.

Previously, the ability to launch Control Central for a particular account ID or phone number from an external application could be implemented using a Business Process Assistant (BPA) script.

In this release, the following two capabilities can be implemented using Business Process Assistant (BPA) scripts:

- Accept the next call, as dictated by the CTI software
- Perform an outbound phone call from Oracle Utilities Customer Cloud Service

Service for A/P Check Request Download Staging

An Adjustment can be used to initiate the process to refund money to a customer via an A/P Check Request. The A/P Check Request Download Staging table is used to interface details between Oracle Utilities Customer To Meter and an accounts payable application. After a check has been produced, the accounts payable application may provide check related information back to Oracle Utilities Customer To Meter.

In this release, a web service has been provided that can be used to update a A/P Check Request Download Staging record in Oracle Utilities Customer To Meter with check related information.

If an implementation requires a file-based integration approach, the underlying logic for the web service is also available and can be used by implementation-specific batch processes to update A/P Check Request Download Staging records.

Sending SA Relationship Related Information to Enable Synchronizing in Other Applications

In an implementation, it is critical to keep key data synchronized within Oracle Utilities Customer To Meter and between other applications it may be integrated with. Examples can include an external meter data management application or a settlement application.

SA Relationships are used to contain information about a specific relationship between a customer and a service provider/market participant.

In this release, enhancements have been provided to enable the sending of a service agreement's SA Relationship information to an external meter data management application or settlements application. These applications can then update its corresponding usage transaction records with the relevant information. Based on the updated usage transactions, an implementation could then calculate usage that was billed for a particular service provider/market participant (for example).

Sending Usage's Bill Segment Related Information to Enable Additional Synchronization in Other Applications

In an implementation, it is critical to keep key data synchronized with Oracle Utilities Customer To Meter and between other applications it may be integrated with. Examples can include an external; meter data management application or a settlement application.

In this release, enhancements have been provided to enable the sending of bill segment information related to Usage transactions to an external meter data management application or settlements application. These applications may then update their corresponding usage transactions with the related bill segment information. This will indicate whether the corresponding usage transaction was used on a bill and linked to a frozen bill segment.

The three main enhancements can be summarized as follows:

- A new background (batch) process, C1-UMUI (Update MDM Usage Information), to enable the sending of bill segment information for historical Usage transactions.
- The bill completion routine has also been updated to enable the sending of bill segment information when a bill is completed and there are frozen or cancelled bill segments linked to usage transactions.
- A new 'Customer Class - FT Freeze' algorithm type, C1-UPDMDMUSI (Update MDM Usage Information), is provided to enable the sending of bill segment information for a bill segment being frozen or cancelled that is linked to a usage transaction. This algorithm type caters for the scenario where bill segment information for usage transaction should be sent to a settlements application when a bill segment is being frozen or cancelled (not necessarily when the bill segment's bill is being completed).

Receive Usage Request Information to Update Usage Transaction

There is a new inbound service accepts usage request status information and contains an indication if the usage request has been used on a bill and linked to a frozen bill segment. New fields on usage transactions are updated accordingly.

Self-Service Related Enhancements - Storing and Updating Mailing Addresses

There are scenarios where a new customer would like to receive correspondence (for example: bills or letters) at a physical address that is different from their premise address. In this release, the STARTSTOP Self Service Task Type has been enhanced to enable the processing of customer mailing addresses provided in the incoming transactions. The mailing address details are stored on the Account/Person record and the Address Source set as 'Account Override'.

In addition to the above, the logic behind the Maintain Mailing Address Information Inbound Web Service has been updated to store/update the mailing address on the Account/Person record and the Address Source set as 'Account Override'.

Self-Service Related Enhancements - Processing and Storing Multiple Person Identifier Records

As part of a self-service transaction to start a service for a new customer, there may be scenarios where more than one type of identification may be submitted.

In this release, the STARTSTOP Self Service Task Type has been enhanced to enable the processing of multiple types of identifications, if provided in the incoming transaction. Each type of identification will be stored on the Person record.

In addition to the above, one type of identification will be designated as a primary identifier type as per the configuration defined in the Oracle Utilities Customer To Meter Self Service Integration master configuration record.

Third Party Payment Processing

A third party payment processing system is a service provider that can handle all aspects of electronic payments for a utility. When this service provider is integrated with Oracle Utilities Customer Cloud Service, every payment made through channels such as web self-service or integrated voice response (IVR) is accepted and processed within the service provider's fully hosted payment acceptance environment. In this arrangement, payment data (such as credit card number or bank account number) is stored and processed outside of the utility's network.

In this release, the following outline the functions that are supported when Oracle Utilities Customer Cloud Service is integrated with a third party payment processing system:

- Creating, updating, processing and canceling one time payments
- Account verification
- Automatic payment setup
- Interfacing automatic payments to a third party
- Highlighting scheduled payments

- Automatic payment confirmations and cancellations
- Third party payment tender controls processing

Refer to the *Oracle Utilities Customer to Meter Business User Guide* for further information.

User Interface

Displaying Service Agreements in Control Central's Premise and Account Trees in Descending Chronological Order

In Oracle Utilities Customer To Meter, Control Central's Premise tree provides an overview of the accounts, service points, and service agreements (current and historical) linked to a premise. Similarly, Control Central's Account tree provides an overview of the persons, premises, and service agreements (current and historical) linked to the account. In both trees, service agreements were previously sorted by Service Agreement Identifier.

In this release, both Premise and Account Trees have been updated so both current and historical service agreements are shown in descending order (i.e. displaying the latest service agreement first) of start date and stop date (if populated).

Update Specific Portal Zones to Use Oracle JavaScript Extension Toolkit (OJET)

In this release, the following UI Maps and zones have been updated to remove the use of Yahoo! User Interface (YUI) Library components and make use of Oracle JavaScript Extension Toolkit (JET) components:

- UI Maps:
 - C1-ServiceRequestDisplay (Service Order Management Overview Display Map)
 - C1-RateScheduleTree (Rate Schedule Hierarchy)
 - C1-DeviceDisplay (Device Display)
- Zones:
 - Activity Hierarchy

Configuration Migration Assistant (CMA)

Self-Contained Migration Plans and Migration Request for Installation Options

Self-contained migration plans have been provided for Installation Options and related objects. This enables all configuration data associated with Installation Options to be migrated from a source environment to target environment(s) in a single migration request.

Updating Administration Related Maintenance Objects with Default Migration Plan MO Option

All Administration related Maintenance Objects have been updated to include a **Default Migration Plan MO** option and the respective option value set to the Maintenance Object's Migration Plan. This will make the records for the updated Maintenance Objects to be eligible to be included in an Entity List migration request.

DataConnect

Enhancing DataConnect to Extract Meter / Device-Related Data for Billing Data Extract

Previously, meter or device-related details were not extracted in an Oracle Utilities Customer to Meter.

In this release, a new Business Object Enter algorithm (X1-CEXTRCIE) is provided for an implementation, if required, to retrieve and append meter / device related information to the billing data extract.

Enhancing Billing Data Extract to Include File Header

Previously, the DataConnect billing data extract did not include a header record in the output extract file.

In this release, the billing data extract has been enhanced to include a header record for use by external applications.

Option in DataConnect Extract to include UTC off sets

A new parameter on the DataConnect extract provides the following options for UTC offset on date/times:

- UTC Offset in installation options standard (this will be a constant UTC offset for all date/times)
- UTC Offset in Service Point local time (this will be adjusted for Daylight Savings Time and change based on the time zone associated to the Service Point)
- No UTC Offset (default)

Miscellaneous

Control Central Alert Navigation to Related Object Updates

In Oracle Utilities Customer To Meter, the Alert Zone is a grid that contains messages highlighting a variety of situations. Clicking on a hyperlink navigates the user to the appropriate page for the related object.

Previously, clicking specific hyperlinks in the Alert Zone, navigated the users to an object's search page/portal if there was one or more than one instance of the related object.

In this release, the following Control Central Alerts have been updated to navigate the user to the object's page/portal if there is only one instance of the related object. If there are multiple instances of an object, the user will continue to be navigated to the object's search page/portal.

The Control Central Alerts that have been updated relate to:

- Number of Pay Plans for a given status
- Number of Customer Contacts for a given Contact Type and Contact Class
- Open (non-final) Oracle Utilities Customer Self Service related service tasks

Configurable Collection Agency Referral Extract

Before debt is written off, many implementations refer unpaid bills to a collection agency in order to obtain payment. Collection agencies are notified of new referrals or the cancellation of referrals by collection agency referral history records. These records can be interfaced to a collection agency via a flat-file integration approach.

In this release, a Configurable Collection Agency Referral Extract process has been provided. The base package supplied extract is able to be extended by an implementation, to meet their implementation-specific requirements, by leveraging the Oracle Utilities Application Framework's Configuration Tools capabilities.

The extract can be formatted into the following: XML, delimited (such as CSV), and fixed position.

Support for Universal Resource Identifiers (URIs) Validation and Substitution Variables

In Oracle Utilities Customer To Meter, there are a number of touchpoints/areas where reference parameters are in the form of Universal Resource Identifiers (URIs). These include file paths and URLs.

In this release, a number of specific touchpoints/areas have been enhanced by calling a new Oracle Utilities Application Framework API that validates references against a whitelist of allowable references.

In addition to the above, the system also provides support to allow fields that capture URIs to reference a substitution variable for all or part of the URI definition. This allows system administrators to define the proper URI locations in a properties file whereas the configuration users only need to know the variable name.

The areas/touchpoints that have been enhanced include:

- Master/Transactional Objects
 - Characteristics - File Location Based Values
- Administration Objects
 - Feature Configuration
 - General System Configuration Feature Type
 - DataRaker Environment Option Type value
 - DataRaker Role Option Type value
 - DataRaker Search Type Option Type value

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- DataRaker Server URL Option Type value
 - MDM URL Option Type value
 - Analytics Extract
 - File Path Option Type value
 - Batch Scheduler
 - SMTP Port Number Option Type value
 - SMTP Server Name Option Type value
 - Master Configuration
 - CC&B ODM Integration
 - CC&B Self Service Integration
 - RightNow Knowledge Integration
 - Lead Event Types based on
 - Create Lead Email business object
 - Create Lead SMS business object
 - Create Sales Representative Email business object
 - Base product owned Algorithm Types
 - C1-BLEX-BIP - BI Publisher Bill Extract Algorithm
 - C1-ADJAREQEM - Create Email for Adjustment Approval
 - C1-CAPREMAIL - Create Email for Rebate Claim Approval
 - C1-CREMAILTD - Create Email for To Do
 - Base product owned Batch Controls
 - APAYACH - Auto pay extract - ACH
 - APDL - Accounts payable download
 - C1-APACH - Auto pay extract - ACH (with offset days parameter)
 - C1-BSYEX - Billing Data Extract for DataConnect
 - C1-SASYX - SA-Based Extract for DataConnect
 - C1-SDDCE - SEPA Direct Debit Payment Extract
 - C1-SMSYX - Meter History Extract for DataConnect
 - C1-SPSYX - SP-Based Extract for DataConnect
 - C1SAFTCT - SAFT-PT Audit Extract Concentrator
 - C1SAFTPT - SAFT-PT Audit Extract
 - C2M-EBIL - Email bill routing
 - FAXROUT - Fax routing
 - GLDL - GL download extract
 - LTRPRT - Letter extract
 - POSTROUT - Postal bill routing

- QUOTROUT - Quote routing
- STMDWLD - Download statements

Implementation-specific processes may also call and take advantage of the new Oracle Utilities Application Framework API.

Batch Security Restrictions

Batch Controls have been enhanced with the ability to individually secure them. Each Batch Control now has an Application Service that is available for provisioning to users. Along with this change a new User Groups is now delivered that contains all Application Services associated to batches: MDM_BATCH (MDM Batch Services).

Removed JMS Queues From Usage Response

The usage request lifecycle has been simplified by the removal of JMS queue from usage response, resulting in a synchronous usage request/response. The following describes the changes that were made.

A new Usage Request parent business object (X1-UsageRequest) and corresponding child BOs (X1-UsageRequestCyclical & X1-UsageRequestNonCyclical) were introduced for this purpose. The child business objects were added as 'Batch Billing Usage Request BO' and 'Online Billing Usage Request BO' options on the Usage maintenance object.

Usage response outbound messages are instantiated and persisted from the Usage Transaction (UT) business object's lifecycle. However, these messages will not be sent and the records will simply persist in the database. This is done to preserve the existing pre-processing algorithms in the outbound message business object. The usage response is captured as a characteristic of the usage transaction. This element is interrogated from the usage request lifecycle, and when available, is used to update the usage request.

Refer to the new business objects for more details.

A related change was made to the bill segment generation back end process, to cater for this new synchronous process of usage request/response, specifically for Oracle Utilities Customer to Meter. For master/sub service agreements (SAs), the bill segments for service agreements are only generated if the master service agreement's bill segment is in the Freezable state.

Cloud Service Foundation v18.1 Release Notes

Legacy Data Conversion Support

Usability

New features provide additional flexibility when implementing Legacy Data Conversion:

- Ability to create fully custom Control file for the Table an/or Maintenance Object data upload with SQL Loader
- Configuration allowing ability to exclude one or multiple CLOB fields from the legacy data extract
- Configuration allowing ability to override table's eligibility for conversion and convert tables that are not marked for conversion in the metadata.
- New batch process to copy the legacy keys from the main table and populate the corresponding Key table.
- Ability to re-enable conversion activities and perform incremental conversion

sFTP Directory Structure Changes

The conversion directory structure on the sFTP site has been modified. The new structure now includes the following directories:

- **upload** - for uploading customer files
 - **cma** - for loading Configuration Migration Assistant (CMA) input files
- **download** - for downloading application generated files
 - **cma**- Files uploaded to the **upload** or **cma** directories will automatically be copied here for subsequent processing
 - **upload-download** - for special file exchanges between customers and the system
 - **cma** - for internal purposes (used by the Process Automation Tool)
 - **conversion** - for conversion data upload support (refer to the product documentation on Conversion Data Upload support for more information)

Customer Files Browse Support

This release supports viewing the directory structure of customer files that are stored in the application middle tier (under \$SPLOUTPUT).

A new portal ("Customer Files") was created to allow customers to view the structure. The content of the files cannot be viewed using that portal.

Process Automation Tool Changes

In this release, the integration related product codes in the K1-PAProductLookup extendable lookup have been updated to have an "Inactive" status. In this release all integration products have been disabled.

Oracle Utilities Application Framework v4.3.0.5 Release Notes

This section describes enhancements, system data details and deprecation notices in Oracle Utilities Application Framework v4.3.0.5.0 including:

- [Introduction of Mobile Framework](#)
- [System Wide Enhancements](#)
- [Configuration Tool Enhancements](#)
- [Integration / Web Service Enhancements](#)
- [File Access Enhancements](#)
- [Miscellaneous Enhancements](#)
- [Oracle Utilities Application Framework System Data Details](#)
- [Oracle Utilities Application Framework Deprecation Notices](#)

Introduction of Mobile Framework

The product has been enhanced to provide a framework to support integration with mobile devices. The mobile framework consists of the Oracle Utilities Mobile library (OUML) of APIs that supports the various application layers responsible for business functionality. A mobile application built on this framework may use HTML5 and JavaScript to implement business logic, render the user interface and interact with mobile device services as well as leverage RESTful services to facilitate communication with the application server.

This release of the Mobile Framework supports the following:

- Mobile application with support for iOS and Android containing the runtime for the product. Note: The OUAF mobile application will be rebranded for each product that uses it.
- Mobile Server application that can be deployed standalone or with an existing implementation. It is disabled by default.
- Mobile objects have been transferred to the Framework with the following exceptions:
 - Geographical Map Services are not available in this release
 - Sending Mail to mobile devices is not available in this release
 - GPS tracking is not available in this release
 - Deployment Formats are fixed in this release

This release of the Mobile Framework is restricted to be used for intranet applications and used for product-provided content only.

System Wide Enhancements

Weblogic and Native Mandatory Upgrade

Special Notes for Upgrading from a Weblogic 12.1.3.x Environment

If the customer is upgrading from an environment which is using Weblogic 12.1.3.x the following the steps are required prior the installation:

1. Install Oracle WebLogic Server (Fusion Middleware Infrastructure) 12.2.1.x
2. Install Oracle Java SE Development Kit 1.8.0_x (if not installed yet).
3. Shutdown the Application Server Environment.
4. Take a full backup of the application \$SPLEBASE
5. Set the environment: splenviron.sh -e <ENV NAME>
6. Reconfigure the environment in order to point to the new Weblogic and Java (if upgrade Java as well):
 - Execute: `configureEnv.sh -i`
 - Update: “Web Java Home Directory” and “Web Application Server Home Directory”
 - Type <P> to process (no need to rerun initialSetup.sh)
7. Set the environment again: splenviron.sh -e <ENV NAME>
8. Upgrade the Oracle Utilities Application Framework to version 4.3.0.5.0 using the `installSP.sh` script.

Special Notes for Upgrading from a Weblogic Embedded Installation

If the customer is upgrading from a Weblogic Embedded installation, the upgraded environment needs to be deployed as Weblogic native installation. Refer to the following white papers for more details:

- *Native Installation Oracle Utilities Application Framework* (Doc Id: 1544969.1)
- *Implementing Oracle ExaLogic and/or Oracle WebLogic Clustering* (Doc Id: 1334558.1)

Removal of XML Application Integration and Multi-Purpose Listener

The XML Application Integration (XAI) Servlet and Multi-Purpose Listener (MPL) were announced as planned for deprecation in V4.2.x, the capabilities have been disabled by default in this service pack in anticipation of the physical removal of these capabilities in 4.3.0.6.0. It is highly recommended that customers using these capabilities migrate to the alternatives provided:

- XAI Inbound Services should be migrated to the Inbound Web Services capability. Refer to the *Migrating from XAI to IWS* whitepaper (Doc Id: 1644914.1) available from My Oracle Support for details of how to migrate.
- If Oracle Service Bus is not desired, MPL-based configuration should be migrated to the provided Oracle Service Bus integration capability or an equivalent alternative. Customers migrating to Oracle Service Bus should refer to

the *Oracle Service Bus Integration* whitepaper (Doc Id: 1558279.1) available from My Oracle Support.

As a reminder, XML Application Integration (XAI) Servlet and Multi-Purpose Listener (MPL) will be removed in 4.3.0.6.0 and therefore not available from that release going forward.

Change in Multi-Language Support

In previous releases, the New Language batch program (F1-LANG) would insert new language rows for based owned system data using the owner flag of the main record. This prevented an implementation from adjusting the translatable text for the new language. Implementations should be able to modify translatable strings for base owned system data under the following circumstances

- The implementation does not plan to use a language application pack.
- There are new base owned system data records that were added as part of a patch / hot fix. The translation packs are provided only with service packs. For the time between applying a hot fix and getting the updated language pack, an implementation may decide to temporarily update one or more translatable strings.

In this release, the New Language process has been changed to use the owner flag of the installation when creating new language rows. This allows implementations to translate the descriptions into the desired language.

Note that when applying a language pack, the language pack updates all language entries for base owned system data. If your implementation updates base owned labels and descriptions prior to applying the language pack, they will be overwritten. Note that most user facing labels and messages support defining an Override Label or Override Description. This information is not updated by the base product and should be utilized if your implementation has a desired label or description that the user sees.

Support for Mozilla Firefox and Chrome for Business

Mozilla Firefox Support

In 2011, Mozilla switched Firefox to a rapid release cycle with a new release coming out every six weeks. In the interests of stability and cost reduction, Oracle uses the Mozilla's Extended Support Release (ESR) channel for certification. Mozilla's ESR releases come out every 12 months on average.

Maintenance of each ESR, through point releases, is limited to high-risk/high-impact security vulnerabilities and in rare cases may also include off-schedule releases that address live security vulnerabilities. Backports of any functional enhancements and/or stability fixes are not in scope.

At the end of the support period for an ESR version:

- The release will reach its end-of-life
- No further updates will be offered for that version
- An update to the next ESR version will be offered through the relevant channels

If you choose to use the Firefox personal releases and report compatibility issues with Firefox personal releases that cannot be reproduced with Firefox ESRs, your options are:

- Deploy a certified Firefox Extended Support Release version instead of the Firefox personal version
- Report the incompatibility between Firefox ESR and Firefox personal to Mozilla
- Use a supported alternative browser until Mozilla resolves the issue

Chrome for Business Support

Chrome is also released on a rapid release cycle. Chrome updates average out to a new release every six to eight weeks. Google does not offer an equivalent of Mozilla's annually-updated ESR option for Chrome, but offers a corporate focused Chrome for Business program. The product is certified using the Chrome for Business version of Chrome as it offers a more stable and configurable experience.

Oracle is unable to test every new version of Chrome with every product release every eight weeks. We expected that we will certify selected Chrome for Business releases on a regular ongoing basis.

If you report an issue with a later version of Chrome that we have not documented, you may be advised to:

- Use Internet Explorer or Firefox as a backup browser
- Wait for the next version of Chrome

Also note that the Application Viewer is not currently supported via Chrome.

Version Support

The versions quoted in the Installation Guide and/or certification matrix represent the minimum version support at the time of release or certification as tested by Oracle. In line with Oracle policy the following support policies apply:

- Oracle supports browser versions supported by browser vendors. Unless otherwise advised, browser version support may be withdrawn when the browser vendor withdraws support for a particular version.
- If you choose to use an later version of a supported version of a browser, it is highly recommended to test that version against a non-production version before deploying against production environment to reduce the risk of issues.
- If an issue arises in the later browser version, it is recommended to check My Oracle Support for any patches that may address the issue before registering a Service Request with Oracle. Patches may be provided or advice for a workaround, including using certified versions or alternatives.

Ability to Minimize Dashboard when Launching the System

A new URL parameter has been provided to minimize the dashboard while launching the system.

`http://system-server:1234/cis.jsp?minDashboard=true`

This parameter may be useful when the system is being launched with a script that navigates to a particular record and where the zones on the user's dashboard include a lot of information by default. The user may want to suppress the dashboard for usability and performance reasons.

Note that this was fixed in previous releases via a hot fix. It was fixed in 4.3.0.4.0 (Bug 26969586).

Consolidate User Logs for Clustered Environment

Implementations may now define a directory that is used to consolidate business log files for multiple nodes in a clustered environment. Note that this is expected to only be applicable to cloud environments.

Configuration Tool Enhancements

The following sections highlight enhancements to the configuration tools functionality.

Groovy Scripting Improvements

A new "Groovy Imports" script step type has been added. This step allows a developer to define classes to be imported so they may be used in Groovy Members and Groovy Library Interface steps without having to reference the fully qualified package name. The new script step type is available in Plug-in Scripts, Service Scripts and Groovy Library Scripts.

Schema Designer Improvements

This release adds a new Schema Designer zone. The new designer provides a more intuitive WYSIWYG interface and enhanced editing and viewing capabilities.

New Reusable Map Fragment / Data Area for Displaying PK Values

For portal based maintenance pages that display the main details of an object, the product standard for displaying primary keys is to show system generated keys in a Record Info section. This release adds a new map fragment to automatically display the primary key labels and values.

In addition, a new Data Area (F1-InfoCommonWithPK) has been provided that includes the **Record Info** section definition, this new map fragment (F1-PkRecordInfo) and the existing F1-RecordInfoFusion map fragment that shows other common fields in the **Record Info** section such as Business Object and Create Date / Time. Business object schemas may include the new Data Area to get the standard **Record Info** details, including the primary key info.

Allow Status without BO on Monitor Batch Program

The monitor batch program supports providing a business object and status as input to limit the records that match those values. In previous releases, the Status could not be provided as input without also providing the business object. For use cases where multiple business objects exist but with common status values, the restriction required a proliferation of batch programs in order to restrict by status. In this release, the program has been enhanced to allow Status to be provided as input without requiring the business object.

Note that this enhancement has also been implemented in the 4.2.0.2.0 code line (via a hot fix bug 25809002) along with all interim code lines.

Display of BO Options Adjusted

There is a set of framework supplied BO options that apply to business objects for all maintenance objects. The remaining framework supplied BO options (and all BO options supplied by individual products) are specific to certain maintenance objects (MO) and should only be visible if the corresponding MO has configured it in the **Valid BO Option** MO option.

In previous releases, some of the MO specific BO option types were incorrectly displayed for all BOs, not just for the MOs that configured the option appropriately. This has been corrected. In this release the only options that should be visible to a BO are the ones configured as valid in the MO, plus the following 'common' options:

- F121 - Framework Version 2.1 Compatibility Mode
- F1AM - Actions Zone UI Map
- F1AS - Actions Zone Service Script
- F1AX - Related Administration BO
- F1BX - Related Transaction BO
- F1DU - Display UI Map
- F1IA - Inactive Algorithm
- F1MB - Maintenance BPA Script
- F1NO - Portal Navigation Option
- F1PO - Post-Processing Service Script
- F1PR - Pre-Processing Service Script
- F1SR - Status Reason Business Object
- F1SS - Display Map Service Script
- F1UU - Maintenance UI Map

Upgrade Note: In case an implementation used an MO specific BO option type for a BO where the product has not configured that option to be valid on its MO, an upgrade script will add an entry to the MO Option of type Valid BO Option for that MO.

Optimize Referencing OJET

In this release a new UI map fragment (F1-OJETLIBS) has been created to isolate references to Oracle JavaScript Extension Toolkit (OJET) libraries to be used by UI maps that take advantage of OJET widgets. UI maps should include this map fragment rather than declaring the OJET libraries directly. This allows for updates to the references to OJET libraries for OJET upgrades to be done in a single place. Note that implementations are discouraged from using OJET widgets that are not used by the product. The product does not test every available OJET widget.

Note: This was fixed in previous releases via a hot fix. It was fixed in 4.3.0.4.0 (Bug 25507178).

Integration / Web Service Enhancements

The following sections highlight changes to various integration and web service functionality.

Support for Base Delivered Outbound Message Types

In this release, Owner Flag has been added to Outbound Message Type. In addition, business object has been added to the table and the maintenance object has been converted to one governed by a business object. Note that the outbound message type already has a column for business object (BUS_OBJ_CD), which represents the BO for the related Outbound Message. A new column has been added for the outbound message type's BO (TYPE_BUS_OBJ_CD).

In addition, the user interface has been converted to portal / zone based user interface using separate query and maintenance portals. A base business object has been introduced: F1-OutboundMsgType. This business object is configured with appropriate user interface configuration.

Upgrade Note: An upgrade script populates the new business object column for all existing outbound message types with the above base BO code. In addition, all existing outbound message types are updated with an owner flag value of CM (customer modification).

Note that the product had previously released a business object for outbound message type (F1-OutboundMessageType). The configuration for this business object is not compatible to be used as the identifying BO of the record. As such, it has been marked to not allow new instances. Any code that uses this BO to read outbound message type information will continue to work properly. However, the BO should not be used in the new business object column on the record.

Support for Web Service Categories

In this release, a new administrative object has been introduced: Web Service Category. This object includes a collection of web services that are associated with the category. The system supports links to one of the following web service objects:

- Inbound Web Service
- Outbound Message Type
- XAI Inbound Service (for those installations that are configured to support XAI deployment via IWS).

A given web service may be associated with more than one category.

The product has provided the following Web Service Category values in base. A specific product may deliver additional web service categories:

- F1-ADMINISTRATION - Administration
- F1-COMMUNICATION - Communication
- F1-IMPL-TOOLS - Implementation Tools
- F1-INTEGRATION - Integration

In addition, base delivered inbound web services, outbound message types, and in some cases XAI inbound services are delivered with web service categories configured.

Support Custom Namespace

In this release, the product has been enhanced to support defining a custom namespace for SOAP messages.

To enable this functionality:

- Configure a context entry on the SOAP Sender with context type of Message Namespace URI and context value set to the namespace value.
- On the External Message, for each message configured for this SOAP Sender, set the Namespace Option to "Configured on Sender".

Description Required on Inbound Web Service Objects

In this release the description field for Inbound Web Service, Annotation and Annotation Type have been made required for both the Table / Field configuration and on the base delivered business objects.

Support Oracle Web Services Manager for Outbound Messages

In this release, the product supports using the Oracle Web Services Manager (OWSM) for web service policy management for outbound messages and specifically, using the OAuth Policy Set.

Note that as part of this functionality, the existing sender context type SOAP Username Security Type (value UNTS) has been converted to a more generic context type Sender Security Type (value STYP). Any existing senders that refer to the UNTS context type will be upgraded to refer to the new more generic context type. The new context type supports the existing values (BASIC, DIGEST, TEXT) and now support a new value (OWSM).

Refer to the online help for more details about configuring the OWSM security policy.

Note that this enhancement has also been implemented in the 4.3.0.4.0 code line (via a hot fix bug 25816274).

OWSM Protection for REST Services

In this release, inbound REST services may be secured with OWSM policies. If OWSM is chosen using a property setting, an appropriate default is selected by the configuration utility. Implementations may opt to change the default policy configured, if desired. Refer to the Server Administration Guide and the Security Guide for more information.

Support for including the PK in Outbound Message Payload

In this release, the system has been enhanced to support including the Outbound Message ID in the payload. There is no opportunity for an algorithm linked to the outbound message to populate an element in the outbound message payload with the generated outbound message ID. If your implementation would like to include the outbound message id, configure a BO option that references the XPath of the element to update and the system will populate the element with the outbound message ID prior to routing the message.

Refer to the *Define the Outbound Message Business Object and Type* topic in the online help for more information.

Note that this enhancement has also been implemented in the 4.3.0.2.0 code line (via a hot fix bug 25419076) along with all interim code lines.

Dynamic URL for Outbound Message

In this release, the system has been enhanced to support building a URL for an outbound web service that includes dynamic data (instance data). Two new mnemonics may be defined in the URL for the outbound message's Sender:

- `${pathParms}`
- `${queryParms}`

These mnemonics signal to the system that information provided in the outbound message record should be used to replace these mnemonics at run time.

The enhancement also provides a new data area where the elements used to capture this dynamic data are defined. Any outbound message that requires this dynamic URL creation should include the new data area in the outbound message BO's schema. In addition, the code used to initiate the outbound message must populate the data that should be used to replace the mnemonics in the URL.

Refer to *Define the Outbound Message Business Object and Type* in the online help topic for more information.

Note that this enhancement has also been implemented in the 4.3.0.3.0 code line (via a hot fix bug 25201396) as well as 4.3.0.4.0.

Ability to Add SOAP Header Parameters to Outbound Messages

In this release, the system provides support for adding SOAP header parameters to outbound messages.

To support this capability, the BO for the outbound message must include the data area F1-OM-DynamicConfig. This data area includes the element soapHeaders. At runtime, when creating an outbound message, whatever is populated in that element will be added to the SOAP header section of the outgoing SOAP request.

Note that this enhancement has also been implemented in the 4.3.0.3.0 code line (via a hot fix bug 25119728).

File Access Enhancements

The following sections highlight enhancements related to accessing files.

Substitution Variable Automatically Added for SPLOUTPUT

A previous release provided the ability to define Substitution Variables for a file location definition using a properties file. In this release, the system has been enhanced to automatically include the variable SPLOUTPUT. This is a system variable commonly defined with a valid file path that implementations may write files to. Automatically providing the configuration for this variable provides backward compatibility for any code that supported referencing "@SPLOUTPUT@" for a file location.

Security Related Enhancements

Application Service Portal shows Secured Objects

In this release a new zone has been added to the **Application Service** page on the **Application Security** tab. The **Secured Objects** zone shows the object or objects that the application service is related to. This information is provided to help a security administrator understand what the application service is for in order to determine the appropriate user groups to grant access to.

Application Service Added to Service Program

In previous releases, security for accessing menu entries that are based on navigation options and security for maintenance objects have been configured by defining an application service with a code that matches the code of the related Service Program for the menu entry or MO. The service program for the MO is a foreign key on the MO record. For the menu entries the connection is via the navigation option. The navigation options' navigation key refers to a program component, which is linked to a service program.

In this release, Application Service has been added to Service Program in order to provide an explicit foreign key rather than using the naming convention.

In addition, the added benefit is that all services are secured. Even services that are mainly internal are now associated with an application service so that anyone trying to execute a service from an external call must be a valid user in the system and must have access to the service program's application service. Also note that not all services in the system are defined in the Service Program metadata. These services are also secured using the F1-DFLT application service, ensuring that only valid users in the system configured with access to this application service may execute the service from an external call.

Upgrade Note: All service programs are upgraded to have an application service. If an application service is found that matches the service program name, this application service is used. For any other service program, the F1-DFLT application service is used. Implementations may override the application service to something more specific, if desired.

Miscellaneous Enhancements

Change to Base ILM Eligibility Algorithm

In previous releases, the base ILM Eligibility algorithm provided with the framework (F1-ILMELIG) did not make any updates to records that were determined to be ineligible for archival. In this release, a new parameter has been added to indicate whether or not the ILM Date should be updated to the current date for records that are determined to be ineligible for archival. Note that the base algorithm (also F1-ILMELIG) has been updated to set this parameter to "Y" as this is the suggested / preferred behavior going forward.

If an implementation uses this base algorithm but does not wish to adopt the new behavior, a new effective-dated parameter instance can be added for this algorithm, with

a more recent date setting the value of the parameter to "N". Alternatively, a new algorithm can be created for the base algorithm type with the parameter set to "N" and plugged into the appropriate maintenance objects using a higher sequence number.

Initial Time Zone Delivered

In a previous release, Time Zone became a required field on the Installation Options record. However, at that time an initial value was not supplied when creating a new environment. Starting in this release, when creating an "initial installation" environment, a time zone of "UTC" is supplied and linked to the Installation Options record. Once an implementation creates the appropriate time zone record for their specific jurisdiction, the installation options record may be updated with the appropriate value.

Note that environments created by upgrading from a previous release of the product are not impacted by this change.

Generic Owned Attachments Zone

In previous releases, to include an Attachments zone on a portal for adding and viewing attachments related to the displayed record, a special BPA and Zone needed to be built in order to properly populate the maintenance object and primary key of the record.

With recent support added to automatically populate context fields for MO and PK, the system is now able to supply a generic Attachment zone (F1-ATTCHOWN) that may be linked to a portal. With this zone users may add attachments to a record they are viewing as well as view existing attachments for the record.

Capture Attachment Extension

In previous releases, when uploading an attachment, the extension of the attachment was not retained. Rather the extension defined on the BO using a BO option was used. If an attachment BO had multiple extensions, the first extension in the list was used. For example, when uploading a Microsoft Word document, the Word BO (F1-WordDocument) includes BO options for the "doc" and "docx" file extensions. In this case, the "doc" extension is the first in the list. If a user uploaded an attachment with an extension of "docx", when subsequently viewing that attachment, it would be downloaded with a "doc" extension.

In this release, the system has been enhanced to capture the extension of the attachment as part of the attachment name. That way, when subsequently viewing the attachment, the captured extension will be used.

Note that the attachment name of existing attachments are not updated. When launching existing attachments, the previous logic that uses the BO option to determine the extension will apply.

Migration Object Shows Primary Keys

When importing a migration data set, the 'compare' step generates the SQL to execute for each row related to a migration object to be used in the 'apply' step. In this release, the system has been enhanced to capture and display the primary key of each SQL row.

Note that this enhancement has also been implemented in the 4.3.0.3.0 code line (via a hot fix bug 23326349) and in the 4.3.0.4.0 code line (via a hot fix bug 26288191).

Support Plug-in Driven Batch for Uploading Data

In this release, a new plug-in driven background process has been supplied to support uploading data from a file. The following points highlight more information about the functionality:

- The batch process supports parameters for defining the file path and the file name. In addition, the file name parameter may be configured to indicate that multiple files should be uploaded based on a "glob" syntax for wildcard characters.
- The batch process includes logic to rename the processed file to ensure that it is not processed again. This process does not include support for moving or deleting processed files.
- The batch process is responsible for opening each file and for each file, an algorithm supplied for a new **Batch Control - File Upload** plug-in spot is invoked. The File Upload algorithm is responsible for using provided APIs to read the content of the file and store the data in appropriate table(s) (for example, an appropriate staging table).
- A base batch control F1-PDUPL - Plug-in Driven File Upload Template is provided. This batch control refers to the new program and defines the parameters supported by the background process. Implementations should duplicate this batch control to initiate the configuration of a new file upload process.
- Additional custom parameters may be defined for a batch control that uses this batch process. The custom parameters are made available to the File Upload plug-in spot.
- The base product supplies three sample plug-in scripts to illustrate the APIs for different types of source files: comma delimited, fixed position and XML. In each case, the sample data used represents degree day data; and in each case, the data is mapped to a sample business object based on the Fact maintenance object. Only the plug-in scripts and the sample business objects are provided in base. No algorithms, algorithm types or batch controls are provided. In addition, no files are supplied. The file format is only described for illustration purposes. Note that the samples are provided only to illustrate the APIs. The other logic in the samples are simplified and are not intended to act as an example of how to design the upload process overall.

Enhance How Related To Do Entries are Determined

In previous releases, To Do entries were considered related when they shared a characteristic value where the characteristic type was a foreign key. This caused problems for implementations that wanted to capture administrative data for a To Do entry such as a division or a bill cycle or a device type. The related To Do determination considered all To Do Entries with the same administrative value as related. As such, implementations have been discouraged from linking administrative data to To Do entries as foreign key characteristics.

In this release, the functionality has been modified to only consider master and transaction type foreign keys when determining related To Do entries. This enhancement allows implementations to proactively link administrative data to To Do entries using foreign key characteristic types.

Note that this enhancement was also implemented as a hot fix to the 4.2.0.3.0 code line (via Bug 25353053) as well as previous service packs in the 4.3.x code line.

Oracle Utilities Application Framework System Data Details

This section provides information about new and updated system data delivered in this release that may need to be reviewed for possible impact by implementations.

New/Updated Application Services

The following application services were added or updated. Review and determine which user groups, if any, should be granted access to the application service/access mode.

The following application services are used by the Mobile Framework..

Application Service	Description	Access Mode
F1-BMCOM	Build Mobile Component Package	F1EX
F1-DEPLOYMENT	Deployment MO	A, C, D, R
F1-DEPLOYMENTPART	Deployment Part MO	A, C, D, R
F1-DEPLOYMENTTYPE	Deployment Type MO	A, C, D, R
F1DEPTYP	Deployment Type Portal	R
F1DPL	Deployment Portal	R
F1-DPLOY	Create Deployment	F1EX
F1DPLPRT	Deployment Part Portal	R
F1DPLQRY	Deployment Query Portal	R
F1-DPUTD	Deployment Evaluation and Purge	F1EX
F1-MDT	Mobile Data Terminal MO	A, C, D, R
F1MDTMNT	Mobile Data Terminal Portal	R
F1MDTQRY	Mobile Data Terminal Query Portal	R
F1MDTTYP	Mobile Data Terminal Type Portal	R
F1-MDTTYPE	Mobile Data Terminal Type MO	A, C, D, R
F1MOBCMP	Mobile Component Portal	R
F1-MOBCOMPBOAS	Mobile Component BO	A, C, D, R
F1MOBCPQ	Mobile Component Query Portal	R
F1-MOBILECOMPONENT	Mobile Component MO	A, C, D, R
F1-MSGFROMDEVBOAS	Message From Device BO	A, C, CA, D, F1PR, F1RR, PE, R
F1-MSGTODEVBOAS	Message To Device BO	A, C, CA, D, F1PR, R

Application Service	Description	Access Mode
F1-REMOTEMESSAGE	Remote Message MO	A, C, D, R
F1-REMOTEMSGSYNCDATA	Remote Message Synchronize Data	C, F1EX
F1REMSG	Mobile Remote Message Portal	R
F1REMSGQ	Mobile Remote Message Query Portal	R
F1-RMCRL	ILM Crawler - Remote Message	F1EX
F1-RMMSG	Remote Message Monitor	F1EX

The following application services are used with the new Outbound Message Type portal.

Application Service	Description	Access Mode
F1OUMSTQ	Outbound Message Type Query Portal	R
F1OUMSTY	Outbound Message Type Portal	R

The following application service is used by the Plug-in Driven Batch Template.

Application Service	Description	Access Mode
F1-PDB	Plug-in Driven Batch Template	F1EX

The following application services are used by the Web Service Category feature.

Application Service	Description	Access Mode
F1WBCAT	Web Service Category Portal	R
F1WBCATQ	Web Service Category Query Portal	R
F1-WEBSVCCAT	Web Service Category MO	A, C, D, R

New/Updated Migration Plans

The following migration plans have been added for new tables in the system:

- F1-DeploymentPart - Deployment Part
- F1-DeploymentType - Deployment Type
- F1-MDTType - MDT Type
- F1-MobileComponent - Mobile Component
- F1-WebServiceCategory - Web Service Category

New/Updated Migration Requests

A new migration request has been provided for the Mobile Framework related objects: *F1-Mobile*. This Migration Request has been added to the *F1-FrameworkConfig* group migration request.

The *F1-IntegrationConfig* migration request has been updated to include the *F1-WebServiceCategory* migration plan.

Oracle Utilities Application Framework Deprecation Notices

This section provides information on functionality that has been removed, is no longer supported by Oracle Utilities Application Framework v4.3.0.5, or is planned for removal.

Deprecated Functionality

This section lists the functionality has been deprecated at the time of this release.

YUI Library Support

Due to the discontinued support of the open-sourced Yahoo! User Interface Library (YUI), all YUI components has been removed from the product. The recommendation for implementations is to review custom use of YUI library resources and replace the resources accordingly.

Proxy Settings for HTTP Senders

In previous releases, the system supported defining configuration for connecting to a remote system via an HTTP proxy on the Message Senders directly, using sender context. In this release, that support has been removed. Instead, to connect to a remote system via a Proxy, configure the connection information using the JVM settings.

Note that any Sender that is currently configuring HTTP proxy information will be updated to remove this configuration as it is no longer supported.

Items Planned for Future Deprecation

The following items will be not be supported in a future release.

Remove Customization Setting for Extended Data Area

The Extended Data Area field on the Data Area table is incorrectly defined as customizable (or "CMable"). This is not correct and will be fixed in a future release. If your implementation has populated the Extended Data Area column on any base owned data area, that information will be overwritten when this field is corrected. Note that the same functionality can be achieved by simply including the base owned data area in the custom data area's schema.

Remove Ability to Add Child Rows for Several Maintenance Objects

There are several maintenance objects where base delivered entries are supplied by the product. In some use cases, implementations can extend the base functionality by adding child rows to the base delivered configuration. For example, implementations may add algorithms to a base delivered business object. However, there are some use cases where implementations are not able to extend base functionality by adding child rows. For example, implementations are not able to add additional algorithm type parameters to a base delivered algorithm type. For most instances of such a restriction, there is validation

preventing this in the user interface. However, there are several use cases where the validation is missing and will be added in a future release. Please make a note of it in case your implementation has added child rows in any of these maintenance objects. In the future, child rows that are not owned by the product will be removed.

- Algorithm Type - Parameters
- Application Service - Access Mode
- Maintenance Object - Table.
- Navigation Option - Context Fields.
- Script - Step Prompt
- Table - Field
- Table - Constraint / Field
- To Do Type - Sort Keys
- To Do Type - Drill Keys
- Zone Type - Parameters

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 that no base migration request references this plan. Implementations should ensure that no custom migration request references this plan.
 - Business Object F1-EnvironmentRefPhysicalBO
 - Maintenance Object ENV REF
- 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 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 / Algorithm F1-LDAPIMPRT
 - Algorithm Type / Algorithm F1-LDAPPREPR
- 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.
- The database table F1_IWS_SVC_OPER_L will be removed in a future release.
- The zone F1-MGRREQDSP will be removed in a future release.

Support for HTTP Proxy Functionality

HTTP Proxies are a common technique for fire-walling outbound communications within and outside an enterprise.

In past releases, the configuration of a HTTP Proxy was done on individual senders and other connections. This increased the amount of duplication across the implementations with multiple places to update proxy settings.

In this release, these settings have been delegated to the JVM level using proxy features at the JVM level rather than individual connections. This will reduce the amount of configuration and maintenance of proxy functionality by allowing implementations to use the inbuilt proxy support from Java directly. This will require additional command line settings to be configured on the online WebLogic Servers and command lines within our configuration for batch.

For more information about the settings, refer to the Java Networking and Proxy documentation.

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. Please review any existing algorithms and create appropriate Pre-Compare algorithms instead.

BO Read in F1-MainProc when Pre-Processing Exists

In the original implementation of configuration tools, if a pre-processing script was linked to the BO via options, the main framework maintenance BPA (F1-MainProc) would not perform a Read of the BO, leaving it to the responsibility of the pre-processing script.

In a subsequent release, to solve a UI Hints issue related to child BOs, a BO 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 BO Read is no longer necessary in F1-MainProc. Because there are many pre-processing scripts that are properly performing the Read of the BO, ideally the BO 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 BO Read was included in F1-MainProc that were coded to not perform a BO read in the pre-processing script. Because of this situation, the BO Read is still performed as part of the processing of F1-MainProc.

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