Oracle Utilities Smart Grid Gateway

Release Notes for:

Service Order Management
Adapter for Networked Energy Services
Adapter for Itron OpenWay
Adapter for Landis+Gyr
Adapter for Sensus RNI
Adapter for Silver Spring Networks
MV90 Adapter for Itron
Adapter Development Kit

Release 2.2.0 Service Pack 2

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Oracle Utilities Smart Grid Gateway Release Notes

Contents

Preface

These release notes describe enhancements and known issues for Oracle Utilities Smart Grid Gateway version Release 2.2.0 Service Pack 2.

Audience

Release Notes is intended for anyone installing or using the Oracle Utilities Smart Grid Gateway.

Related Documents

The following documentation is included with this release.

Installation Guides and Release Notes
- *Oracle Utilities Smart Grid Gateway Release Notes*
- *Oracle Utilities Smart Grid Gateway Quick Install Guide*
- *Oracle Utilities Smart Grid Gateway Installation Guide*
- *Oracle Utilities Smart Grid Gateway Database Administrator's Guide*
- *Oracle Utilities Smart Grid Gateway Licensing Information User Manual*

Configuration and User Guides
- *Oracle Utilities Meter Data Management / Oracle Utilities Smart Grid Gateway V2.2.0 Service Pack 2 Business User Guide*
- *Oracle Utilities Meter Data Management / Oracle Utilities Smart Grid Gateway V2.2.0 Service Pack 2 Administrative User Guide*

Supplemental Documents
- *Oracle Utilities Smart Grid Gateway Server Administration Guide*
- *Oracle Utilities Smart Grid Gateway Security Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Chapter 1

Release Notes

These release notes contain the following sections:

- About This Release
- Relationship Between 2.2.0.2.0 and Prior Versions
- Supported Platforms Notice
- Supported Head-End Systems
- Supported Integrations
- Database Changes
- Demo Data Information
- Deprecated Items
- Oracle Utilities Application Framework V4.3.0.5 Release Notes
- Known Issues in This Release

About This Release

This section contains general information about Oracle Utilities Smart Grid Gateway version 2.2.0.2.0. This release of Oracle Utilities Smart Grid Gateway includes the following components:

- Oracle Utilities Application Framework 4.3.0.5

- Oracle Utilities Service and Measurement Data Foundation 2.2.0.2.0

    Note: In previous releases, Oracle Utilities Service and Measurement Data Foundation was referred to as Oracle Utilities Meter Data Framework.

Please visit My Oracle Support (http://support.oracle.com) for the most recent service packs and patches for this release to ensure you have the most current version of this product.

Relationship Between 2.2.0.2.0 and Prior Versions

Version 2.2.0.2.0 supports the following upgrade paths:

- If you are installing Oracle Utilities Smart Grid Gateway for the first time, you must install version 2.2.0.2.0, available on the Oracle Software Delivery Cloud.

- If you have Oracle Utilities Smart Grid Gateway version 2.1.0.3.0, you can upgrade to version 2.2.0.2.0 directly.

Supported Platforms Notice

Please refer to the Oracle Utilities Smart Grid Gateway *Quick Installation Guide* included in this release for an updated list of supported platforms.

Supported Head-End Systems

The following table lists the supported head-end systems and protocols for this release of the Oracle Utilities Smart Grid Gateway adapters:

Adapter	Currently Supported Version	Protocol
Adapter Development Kit	NA	MultiSpeak 4.1
Adapter for Networked Energy Services	Networked Energy Services NES 5.3	Proprietary (NES specific)
Adapter for Itron OpenWay	6.6 Itron OpenWay Operations Center SR 4.1	Proprietary
Adapter for Landis+Gyr	Gridstream Command Center 6.5, 7.0, 7.1	MultiSpeak v3.1

Adapter	Currently Supported Version	Protocol
Adapter for Sensus RNI	Sensus RNI 3.3	MultiSpeak 3.0 & 4.1. RNI 3.1 and the SGG Sensus RNI adapter support MultiSpeak 4.1
Adapter for Silver Spring Networks	UtilityIQ Versions 4.10	Proprietary
MV90 Adapter for Itron	.mv9 binary, mainframe data format	Binary file format

Database Changes

Refer to **Appendix F: Database Changes in Oracle Utilities Smart Grid Gateway** in the *Oracle Utilities Smart Grid Gateway DBA Guide* for details about database changes introduced in this release.

Supported Integrations

The following integration is supported in this version of Oracle Utilities Smart Grid Gateway.

Oracle Utilities Smart Grid Gateway Integration for Outage Operations

This integration is supported for the following versions of Oracle Utilities Network Management System:

- v2.3.0.x
- v1.12.0.x

Oracle Utilities Service Order Management Integrations

The following integrations used with Service Order Management are supported with this release:

- Oracle Utilities Customer Care and Billing 2.5.0+ and 2.6.0 to Oracle Utilities Service Order Management 2.2.0.
- Oracle Utilities Service Order Management 2.2.0 to Oracle Utilities Mobile Workforce Management 2.2.0.x and 2.3.0+

Demo Data Information

The application delivers a demo database based on the application versions provided with the release, including Oracle Utilities Application Framework. Demo data provides sample configuration and data for key application features.

Demo data is included in the service pack. Please refer to the *Database Administrator's Guide* for more information about installing the demo database, or contact Oracle Support.

Deprecated Items

This section describes items no longer supported by this version of Oracle Utilities Smart Grid Gateway:

- All Oracle 11g platforms

- Microsoft Internet Explorer 10

- Linux 5.8

- Solaris 10

- WebSphere

- Microsoft Server 2008 R2

- Microsoft Server 2012 for Production

- Java 6

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 version 4.3.0.5.0 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

In this release, 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 will support 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. By default it is disabled.

- 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:

- Install Oracle WebLogic Server (Fusion Middleware Infrastructure) 12.2.1.x

- Install Oracle Java SE Development Kit 1.8.0_x (if not installed yet).

- Shutdown the Application Server Environment.

- Take a full backup of the application $SPLEBASE

- Set the environment: splenviron.sh -e <ENV NAME>

- 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)

- Set the environment again: splenviron.sh -e <ENV NAME>

- 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 instalation. 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.

- MPL based configuration should be migrated to the provided Oracle Service Bus integration capability or an equivalent alternative (if Oracle Service Bus is not desired). Customer 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 Chrome and Firefox

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 Extended Support Releases, 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 IE 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 the Oracle Support site 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

In this release 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

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

Configuration Tool Enhancements

The following sections highlight enhancements to the configuration tools functionality.

Groovy Scripting Improvements

In this release, 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 introduces 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. In this release, the FW has created a 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 map fragment F1-RecordInfoFusion that shows other common fields in the Record Info section such as Business Object, Create Date / Time, etc. BO 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, one could not provide the Status as input without also providing the business object. For use cases were 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 'edge' 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 OJET (Oracle JavaScript Extension Toolkit) 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 such that it 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. Your specific edge 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 online help topic "Define the Outbound Message Business Object and Type" 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 the online help topic "Define the Outbound Message Business Object and Type" 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

In a previous release, we 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 (MOs) 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-DFLTS 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-DFLTS 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 your implementation uses this base algorithm but does not wish to adopt the new behavior, you may add a new effective-dated parameter instance for this algorithm, with a

more recent date setting the value of the parameter to "N". Alternatively, you may create a new algorithm for the base algorithm type, set the parameter to "N" and plug this algorithm 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 intial 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 (MO) and primary key (PK) 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 Word document, the Word BO (F1-WordDocument) includes BO options for the extensions 'doc' and 'docx'. 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: This was fixed in previous releases via a hot fix. It was fixed in 4.2.0.3.0 (Bug 23326349) and 4.3.0.4.0 (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. Please review and determine which user groups, if any should be granted access to the application service/access mode.

The following applications 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 V4.3.0.5.0, 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 desupported 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.

Known Issues in This Release

The following section lists known issues and bugs not fixed in this release of Oracle Utilities Smart Grid Gateway and the Oracle Utilities Application Framework.

This section includes:

- Known Issues in Oracle Utilities Smart Grid Gateway
- Known Issues in Oracle Utilities Application Framework

Known Issues in Oracle Utilities Smart Grid Gateway

This section describes known issues in Oracle Utilities Smart Grid Gateway version 2.2.0.2.0 at the time of release. Single fixes for these issues will be released at a later date.

Itron OpenWay Adapter

Bug Number	Description
26307656	Itron OpenWay Scheduled Ready Activity outbound and inbound communications are not displayed in the Activity Tree zone.

Known Issues in Oracle Utilities Application Framework

The following are the known issues in this version of Oracle Utilities Application Framework which affect Oracle Utilities Smart Grid Gateway at the time of release:

- The system includes a new extendable lookup BO F1-FileStorage. However, the functionality associated with this business object is not fully implemented. It is planned to be fully delivered in the next release.

- The Generate button in the Generate Schema dashboard zone does not show the generated schema in the Schema Designer zone. However, the schema has been generated and is visible after Saving the record. The work around is to save the record after generating. This will be fixed in the next release.

- The application viewer is not currently supported using the Chrome browser.

Additional installation steps for OUAF 4.3.0.5.0 with WebLogic 12.2.1.3.0

In addition to the above known issues, one of the WebLogic jar file names was changed as of version 12.2.1.3.0.

- WebLogic versions prior to 12.2.1.3.0 uses the following file:

  ```
  org.codehaus.woodstox.woodstox-core-asl.jar
  ```

- As of WebLogic version 12.2.1.3.0, this file's name is:

  ```
  com.fasterxml.woodstox.woodstox-core.jar
  ```

Because the Oracle Utilities Application Framework applications need this file as an external jar, installing the originally named file with WLS 12.2.1.3.0 returns a "jar file not found" error (Bug 27609460). The problem has been fixed with Bug 27502978, but the Oracle Utilities Application Framework basic install stills returns an error.

Use the following procedure to successfully install Oracle Utilities Application Framework 4.3.0.5.0 with WLS 12.2.1.3.0:

1. Install OUAF 4.3.0.5.0 with WLS 12.2.1.3.0.

    Disregard the final initialSetup.sh error related to jar file not found.

2. Install OUAF Patch 27222125 using the following option:

    ```
    ksh ./installSF.sh -x
    ```

    The -x option skips the final initialSetup.sh phase and is required in order to complete successfully the installation.

3. Install OUAF Patch 27502978.

    Make sure the final initialSetup.sh completes successfully.

At this point the installation is completed and environment is ready for additional patch installation and/or the usual deploy/startup procedure.