Oracle Financial Services Regulatory Reporting Datasets and Governance for Asia Pacific and Middle East Jurisdictions

Installation Guide

Release 8.1.2.0.0

May 2022





OFS Regulatory Reporting Datasets and Governance for Asia Pacific and Middle East Jurisdictions Installation Guide

Copyright © 2022 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be errorfree. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

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

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

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

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

For information on third party licenses, click here.

Document Control

Version Number	Revision Date	Change Log
03	May 11, 2022	Updated: Added a note on ADW in Installing OFS REG REP APME 8.1.2.0.0 section
02	April 29, 2022	Updated: Final draft published
01	December 08, 2021	Created: Draft published

Table of Contents

1 P	reface	6
1.1	Audience	6
1.2	Scope	6
1.3	Prerequisites for the Audience	7
1.4	How this Guide is Organized	7
1.5	Access to Oracle Support	7
1.6	Related Documents	7
1.7	Conventions and Acronyms	7
2 H	ardware and Software Requirements and Specifications	9
3 Pi	reparing for Installation	10
3.1	Obtaining the Software	10
3.2	Prerequisites for Installation	10
3.3	Installing OFS REG REP APME 8.1.2.0.0 Release	11
3.4	Post-installation Steps	13
3.5	Configuring OFS REG REP APME 8.1.2.0.0 Release	15
3.5	5.1 Post-Installation Configuration	15
3.5	5.2 Map the Application APME User (or Users) to User Group	17
3.	5.3 Executing Scripts in Atomic Schema	20
3.5	5.4 Materialized View Creation Batch	20
3.5	5.5 Merging Key Indicators	20
3.	5.6 Updating Measures for the Packaged Key Indicators	21
3.5	5.7 Configuring Process Monitoring Runs and Tasks	21
3.	5.8 Updating DGS Configuration	
3.	5.9 Key Indicator Configuration	
3.5	5.10 Creating Issue Links	
3.5	5.11 Configuring External Links such as Creating Issue Links or Drilldown to OFSAA	23
3.5	5.12 Performance-Related Configuration Details on Account Mapper Batch	24
3.5	5.13 OBIEE Configuration and Deployments	25
3.	5.14 Integrating AgileREPORTER with Variance Analysis	27
3.5	5.15 Alias Configurations	28

4	Deploying Configuration Package	29
---	---------------------------------	----

1 Preface

Oracle Financial Services Regulatory Reporting Datasets and Governance for Asia Pacific and Middle East Jurisdictions (OFS REG REP APME) enables banks to automate risk reporting to central banks and regulators in a single integrated environment. It automates end-to-end processes from data capture through submission with industry-leading solutions, eliminating the need for further manual intervention. It is a standalone product that has pre-built integration with Lombard's Solution for Regulatory Reporting - AgileREPORTER. The solution ensures data integrity allowing banks to focus more time on analyzing and gaining new business insight from their growing stores of data instead of preparing data and reports with the sole objective of meeting submission deadlines. This is made possible by:

- Providing centralized data storage for risk data through relevant subject areas of the Financial Services Data Foundation (FSDF).
- Interfacing with a Regulatory Reporting tool Lombard AgileREPORTER to build necessary template reports to meet the regulatory expectations.
- Managing the accuracy of risk reporting through Data Governance Studio (DGS).

This document provides step-by-step instructions to install the Oracle Financial Services Regulatory Reporting Datasets and Governance for APAC and ME (OFS REG REP APME) Release 8.1.2.0.0.

Topics:

- <u>Audience</u>
- <u>Scope</u>
- Prerequisites for the Audience
- How this Guide is Organized
- <u>Access to Oracle Support</u>
- Related Documents
- <u>Conventions and Acronyms</u>

1.1 Audience

This document is meant for Oracle Financial Services Regulatory Reporting Datasets and Governance for the APAC and ME System Administrator. It provides step-by-step instructions necessary for installing the OFS REG REP APME application components.

1.2 Scope

This document provides a stepwise instruction to install Oracle Financial Services Regulatory Reporting Datasets and Governance for the APAC and ME (OFS REG REP APME).

1.3 Prerequisites for the Audience

The document assumes that you have experience in installing the Enterprise components. Basic knowledge about the Oracle Financial Services Data Foundation Application Pack components, OFSAA Architecture, UNIX commands, Database concepts, and Web Server/Web Application Server is recommended.

1.4 How this Guide is Organized

The Installation Manual is organized into the following chapters:

- **Pre-Requisites** section identifies the hardware and base software environment that is required for a successful installation and functioning of the Oracle Financial Services Regulatory Reporting Datasets and Governance for the APAC and ME.
- **Preparing for the Installation** section details the steps to be followed during the installation and post-installation.
- **Deploying Package** section details the steps to deploy config and template packages after the successful installation of Oracle Financial Services Regulatory Reporting Datasets and Governance for the APAC and ME.

1.5 Access to Oracle Support

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

1.6 Related Documents

This section identifies additional documents related to Oracle Financial Services Regulatory Reporting Datasets and Governance for the APAC and ME. You can access Oracle documentation online from <u>OHC</u> Documentation Library:

- Oracle Financial Services Regulatory Reporting Datasets and Governance for APAC and ME (OFS REG REP APME) User Guide Release 8.1.2.0.0
- Oracle Financial Services Data Foundation Installation Manual Release 8.1.2.0.0
- Oracle Financial Services AgileREPORTER Installation Manual Release 8.1.0.0.0
- Oracle Financial Services Analytical Applications Infrastructure Environment Check Utility Guide (present in this <u>OHC</u> Documentation Library)

1.7 Conventions and Acronyms

The following conventions and acronyms are used in this document.

Table 1: Conventions and Description

Conventions	Description
References to sections or chapters in the manual are displayed in <i>Italics</i> .	
Screen names are displayed in the following manner: Introduction screen	
Options and buttons are displayed in Bold .	
Code related text is displayed in Monospace.	
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OFS AAAI	Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack
RHEL	Red Hat Enterprise Linux
Atomic Schema	Database schema where the application data model is uploaded.
Config Schema	Database schema which contains setup related configurations and metadata.
OFS REG REP APME	Oracle Financial Services Regulatory Reporting Datasets and Governance for Asia Pacific and Middle East Jurisdictions.

Hardware and Software Requirements and Specifications

This section describes the various Operating System, Database, Web Server, and Web Application Server version and other variant details on which this release of the OFS Regulatory Reporting Datasets and Governance for Asia Pacific and Middle East Jurisdictions (OFS REG REP APME) application has qualified.

See the <u>OFS Analytical Applications Technology Matrix</u> for Hardware and Software requirements for this release.

3 Preparing for Installation

This chapter provides the necessary information to review before installing the OFS REG REP APME Application v8.1.2.0.0.

- Obtaining the Software
- Prerequisites for Installation
- Installing OFS REG REP APME 8.1.2.0.0 Release
- Post-installation Steps
- <u>Configuring OFS REG REP APME 8.1.2.0.0 Release</u>

3.1 Obtaining the Software

This release of OFS REG REP APME 8.1.2.0.0 can be downloaded from the <u>My Oracle Support</u> website. Log in and search for **33081683** under the **Patches and Updates** tab and download the OFS_REG_REP_APME_8.1.2.0.0_GENERIC.zip archive file.

You must have a valid Oracle account to download the software.

3.2 Prerequisites for Installation

The following are the prerequisites to install the OFS REG REP APME application:

- Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) v8.1.2.0.0 (patch ID 32791983) plus other prerequisite OFSAAAI patches (see Section 2.5 Installation Checklist of OFSAAI Installation and Configuration Guide) needs to be installed and configured on your machine.
- Oracle Financial Services Data Foundation (OFSDF) Application Pack Release v8.1.2.0.0 (patch ID 32820351) plus other prerequisite OFSDF patches (see the *section 4.1 Pre-installation Checklist* of <u>OFSDF Application Pack Installation and Configuration Guide</u> in the <u>OHC</u> Documentation Library) needs to be installed and configured on your machine.
- Optional if using Vermeg AgileReporter for the end mile reporting templates.
 - AgileREPORTER version **21.3.0-b125**
 - AgileREPORTER APRA Template version v1.21.1-b16930
 - AgileREPORTER HKMA Template version v5.27.1.6
 - AgileREPORTER MAS Template version v2.35.0-b74
 - AgileREPORTER RBI Template version v1.25.0
- Ensure that you have executed the .profile file before you trigger the installation.
- Ensure that the FICServer is up and running before you trigger the installation. For information on restarting the services, see the <u>OFS Analytical Applications Infrastructure</u> <u>Installation and Configuration Guide</u>.

3.3 Installing OFS REG REP APME 8.1.2.0.0 Release

Perform the following instructions to copy, extract, and install this release:

- 1. Copy the downloaded archive file to your OFSAA server in **Binary** mode.
- 2. Shut down all the OFSAA Services. For more information, see the *Stop Infrastructure Services* section in <u>Oracle Financial Services Advanced Analytical Applications Infrastructure Installation</u> and Configuration Guide.

NOTE Ensure that the **FICSERVER** is up and running.

- 3. Execute the chmod -R 750 \$FIC_HOME
- 4. If you have an Unzip utility, skip to the next step.

Download the Unzip utility (OS-specific) unzip_<os>. Z from the location <u>https://updates.oracle.com/unzips/unzips.html</u> and copy it in **Binary** mode to the directory that is included in your PATH variable, typically **\$HOME** path or directory in which you have copied the 8.1.2.0.0 installer.

Uncompress the unzip installer file using the command:

uncompress unzip <os>.Z

NOTE If you notice an error message "*uncompress: not found* [No such file or directory]", contact your UNIX administrator.

- 5. Execute the chmod 751 OFS_REG_REP_APME_8.1.2.0.0_GENERIC.zip
- 6. Execute the unzip -a <name of the file to be unzipped>

For example: unzip -a OFS REG REP APME 8.1.2.0.0 GENERIC.zip

- Navigate to the installer directory appsLibConfig/conf containing the template file Silent.template.
- 8. Create a copy of this file and rename the copy as Silent.props.
- 9. Edit the silent.props file and specify the parameters as per the requirements.

The following table lists all the properties that must be specified.

Table 2: List of Properties and Parameters for the Silent.props File

Property Name	Description of Property	Permissible Values	Comments
LOG_MODE	Mode for logging	1 = Debug 0 = General	OPTIONAL. The default is 0.
INFODOM_NAME	Specify the name of Information Domain (Infodom) into	For example: FSDF808INF	MANDATORY. Specify Infodom Name Value where FSDF Application is installed.

Property Name	Description of Property	Permissible Values	Comments
	which you wish to install.		
APPFTP_LOG_PATH	Specify the Infodom App Maintenance log path	For example: /scratch/ofsaadb/ftpshar e/FSDF808INF/logs	MANDATORY. Path value must be the same as the path which was given during the FSDF installation.
DBFTP_LOG_PATH	Specify the Infodom DB Maintenance log path	For example: /scratch/ofsaadb/ftpshar e/FSDF808INF/logs	MANDATORY. Path value must be the same as the path which was given during the FSDF installation.
SEGMENT_1_CODE	Specify the FSDF Segment Code	For example: FSDFSEG	MANDATORY
UPLOAD_MODEL	Specify whether you want to perform Model Upload	UPLOAD_MODEL=0	0 = If you have already performed Model Upload and want to skip model upload process 1 = If you want to perform Model Upload
MODEL_TYPE	Specify whether you want to use the released datamodel or customized datamodel for model upload process	MODEL_TYPE=0	0 = If you want to upload the released datamodel 1 = If you want to upload the customized datamodel
DATAMODEL DM_DIRECTORY	Specify the path(DM_DIRE CTORY) and file(DATAMOD EL) name for the cutomized datamodel		Mandatory only if you want to upload the customized datamodel i.e you have specified MODEL_TYPE=1
ETL_APPSRC_TYPE Specify if you want to create a new ETL App/Src pair or use an existing one.		0 = If you want to create a new ETL Source 1 = If you want to use an existing Source	MANDATORY. The default is 0.

Property Name	Description of Property	Permissible Values	Comments
ETL_SRC_1_NAME	Specify the ETL Source Name where ETL Area Definitions are deployed	For example: APMEPROC	MANDATORY
ETL_SRC_1_DESC	Specify the description for the ETL Source	For example: APMEDESC	MANDATORY WHEN ETL_APPSRC_TYPE = 0
ENABLE_CONCURRE	Specify if you want to Enable Parallel Processing	0 = No 1 = Yes	OPTIONAL
CONCURRENCY_LEV EL	Specify if you want to Enable Parallel Processing	Example: CONCURRENCY_LEVEL=1 0, which means 10 threads created for parallelism	MANDATORY when ENABLE_CONCURRENCY=1

- **10.** Execute the user .profile
- 11. Navigate to the OFS REG REP APME/bin directory and execute ./setup.sh SILENT
- **12.** The installation progress can be viewed by periodically refreshing the log file under the OFS_REG_REP_APME/logs directory.
- **13.** After installation is completed, verify the log file for any Errors or Warnings. Contact <u>My Oracle</u> <u>Support</u> in case of any issues.

NOTE	This patch installation has taken approximately 20 minutes to complete in Oracle Labs.
ΝΟΤΕ	There are no specific steps applicable for the installation on ADW in OFSAA for OFS REG REP APME. However, if you need more information on ADW, see the <u>FSDF 8.1.2.0.0. Installation</u> and Configuration Guide.

3.4 Post-installation Steps

The post-installation steps required for this release are as follows:

1. See the log file in the /OFS_REG_REP_APME/logs directory to ensure that there are no errors reported. Contact <u>My Oracle Support</u> in case of any issues.

- **2.** Execute the following scripts in the atomic schema:
 - scd-380-dim_key_indicator-vw_key_indicator.sql
 - dim_key_indicator.sql
 - <u>DEFD3111.sql</u>
 - fn_process_plan_updates.sql
- **3.** Generate the application EAR or WAR file and redeploy the application on the configured Web Application Server.

For more information on generating and deploying the EAR or WAR file, see the *Post Installation Configuration* section in <u>OFS Advanced Analytical Applications Infrastructure</u> <u>Installation and Configuration Guide</u>.

- Restart all the OFSAA services. For more information, see the *Start Infrastructure Services* section in the <u>OFS Advanced</u> <u>Analytical Applications Infrastructure Installation and Configuration Guide</u>.
- 5. You can deploy a specific report based on the jurisdictions available in OFS REG REP APME application.

For more information, see the OFS REG REP APME user Guide Release v8.1.2.0.0.

- 6. Execute the following batches to Resave the Derived Entities of APRA:
 - APRA_<REPORT>_RESAVEDE
- 7. Execute the following batches to Refresh the Derived Entities of APRA:
 - APRA_<REPORT>_REFRESH
- **8.** Execute the following batches to Resave hierarchies of APRA before executing the APRA reg run:
 - Seeded dimensions (one time): ##INFODOM##_APRA_RULE_SEEDED_HIER_RESAVE
 - Custom dimensions(every time SCD is run or if there is any change in dimension data): ##INFODOM##_APRA_RULE_CUSTOM_HIER_RESAVE
 - APRA Rules refer to mapper tables. For more information, see <u>OFS REG REP APME User</u> <u>Guide 8.1.2.0.0</u>
- 9. Execute the following batches to Resave the Derived Entities of MAS:
 - MAS_<REPORT>_RESAVEDE
- **10.** Execute the following batches to Refresh the Derived Entities of MAS:
 - MAS_<REPORT>_REFRESH
- **11.** Execute the following batches to Resave hierarchies of MAS before executing the MAS reg run:
 - Seeded dimensions (one time): ##INFODOM##_MAS_RULE_SEEDED_HIER_RESAVE
 - Custom dimensions(every time SCD is run or if there is any change in dimension data): ##INFODOM##_MAS_RULE_CUSTOM_HIER_RESAVE
 - MAS Rules refer to mapper tables. For more information, see <u>OFS REG REP APME User</u> <u>Guide 8.1.2.0.0</u>
- **12.** Execute the following batches to Resave the Derived Entities of RBI:

- RBI_RCAIII_RESAVEDE
- **13.** Execute the following batches to Refresh the Derived Entities of RBI:
 - RBI_RCAIII_REFRESH
- **14.** Execute the following batches to Resave hierarchies of RBI before executing the RBI reg run:
 - Seeded dimensions (one time): ##INFODOM##_RBI_RULE_SEEDED_HIER_RESAVE
- **15.** Execute the following batches to Resave the Derived Entities of HKMA:
 - HKMA_<REPORT>_RESAVEDE
- **16.** Execute the following batches to Refresh the Derived Entities of HKMA:
 - HKMA_<REPORT>_REFRESH
- **17.** Execute the following batches to Resave hierarchies of HKMA before executing the HKMA reg run:
 - Seeded dimensions (one time): ##INFODOM##_HKMA_RULE_SEEDED_HIER_RESAVE
 - Custom dimensions(every time SCD is run or if there is any change in dimension data): ##INFODOM##_HKMA_RULE_CUSTOM_HIER_RESAVE
 - HKMA Rules refer to mapper tables. For more information, see <u>OFS REG REP APME User</u> <u>Guide 8.1.2.0.0</u>
- 18. Execute the following batches to Resave/Refresh the Derived Entity of Adjustments:
 - ##INFODOM##_APME_ADJUSTMENT_RESAVEDE
 - ##INFODOM##_APME_ADJUSTMENT_REFRESH

19. Follow the APRA/MAS/RBI RUN Chart for all the task execution for respective jurisdictions.

The Oracle Financial Services Regulatory Reporting for APAC and ME is now ready for use.

3.5 Configuring OFS REG REP APME 8.1.2.0.0 Release

This section provides the information to configure the OFS REG REP APME Application v8.1.2.0.0.

NOTE Before configuring the OFS REG REP APME, it is mandatory to install OFS FSDF 8.1.2.0.0.

3.5.1 Post-Installation Configuration

The post-installation configuration steps are as follows:

1. Create the application-specific users and map them to the respective user groups available in the application. Whenever you create or modify the User-to-User group mapping, execute step 2 to step 4.

NOTE Do not map the group **DGREPANGRP** and **DGREPMANGRP** while mapping the group to the user.

- 2. After the successful installation, execute the batch <INFODOM>_USER_ROLES.
- **3.** Perform the following steps:
 - a. Resave the following derived entities:
 - DEATNAME: DE Attribute Name
 - DE Business Line
 - DEGLSTERM: DE Business Term DGREPMANGRP
 - DE Components
 - DE Document Type
 - DEENNAME: DE Entity Name
 - DE Frequency
 - DE KI Frequency
 - DE Location
 - DE Measure Scale
 - DE Process
 - DE Risk Categories
 - DE User List
 - DE_GROUP
 - PMREPLINK
 - **b.** Resave the following hierarchies:
 - HDGENNAM: Entity Name Hierarchy
 - HDGATNAM: Attribute Name Hierarchy
 - HDGGLTRM: Business Term Hierarchy
 - Reports Hierarchy
- 4. In the Financial Services Data Foundation page, navigate to Unified Analytical Metadata and select Business Metadata Management and then select Save Metadata.
- 5. In the **Metadata Resave** window, select the available Metadata and click **Save**. This saves the hierarchies.

Figure 1: Metadata Resave page

Metadata Resave			
Metadata Resave			
∽Metadata Details			
Information Domain FSDFINFO			
● Hierarchy ○ Derived Entity			
	Available Metadata		Selected Metadata
	APRA Regulatory Party Class Code - HIRR0003 APRA Regulatory Party Group Code - HIRR0004 APRA Regulatory Product Class Code - HIRR0007 APRA Regulatory Product Group Code - HIRR0009 APRA Regulatory Product Subgroup Code - HIRR009 APRA Regulatory Product Subgroup Code - HIRR0036 Account Closed Date - HIRR0151 Account Closed Date - HIRR0151 Account Imal Basel Credit Rating - HIBR0031 Account Insured Flag - HIRR0281 Account Insured Flag - HIRR0281 Account Standard Party Type - HIBR0030 Account Writteoff date - HIRR0106 Application Requested date - HIRR0182 Marken Standard Party HUBR0277 Sav	> × «	eset

- 6. Compile the backend objects such as functions, procedures, and packages.
 - Execute the following statement after replacing the atomic schema name: begin DBMS_UTILITY.compile_schema(schema => '##Atomic_schema_name##'); end;
- 7. For Tomcat 9, modify the Server.xml with the below content and restart the servers:

```
<Connector port="##Port_number##" protocol="HTTP/1.1"
connectionTimeout="20000"
redirectPort="8443" relaxedQueryChars="{}[]`~"
relaxedPathChars="{}[]`~" />
```

3.5.2 Map the Application APME User (or Users) to User Group

User *UserGroup Map* facilitates you to map a user (or users) to a specific user group that in turn is mapped to a specific Information Domain and role. Every user group mapped to the Information Domain needs to be authorized, otherwise, it cannot be mapped to users.

User **UserGroup Map** screen displays details such as User ID, Name, and the corresponding Mapped Groups. You can view and modify the existing mappings within the **User UserGroup Maintenance** screen.

Starting with the OFSAA 8.1 release, with the installation of the OFS APME Application, preconfigured Application user groups are seeded. These user groups are unique to every OFSAA Application and have application roles pre-configured.

You can access the **User UserGroup Map** by expanding the **Identity Management** pane within the tree structure of the LHS menu.

After the user is created for Data Governance for different jurisdictions, it must be mapped to the required user groups as per their roles:

Process Monitoring Module: DGSPLANSCOPE, DGSPSI, DGPMVIEWGRP

Create application-specific users and map them to the respective user groups available in the application. Create a group, map the following roles, and assign them to the user.

Table 3: DG User Group Map

V_Role_code	V_Role_name	V_Role_desc
MDBACCESS	MDB Access	Metadata Browser Access
MDBREAD	MDB Read	Metadata Browser Read- only
MDBWRITE	MDB Write	Metadata Browser Write
INBOXACC	Inbox Access	Inbox Access
LINEAGE	LINEAGE	Role code for LINEAGE
ACTNANLST	Action analyst	privilege to manage action and create or delete an adjustment
ISSUEADMN	Issue admin	privilege to create and close issues
ISSUEANLST	lssue analyst	Manage issues and create action for the issues
MDRGENXML	DGS MDR Generate XML	MDR Generate XML
CTLVIEWR	Control viewer	Control viewer role
ISSASR	Issue Owner	Issue Owner
MDREDIT	DGS MDR Edit	MDR Edit
MDRADD	DGS MDR Add	MDR Add
ACTASR	Action Assessor	Action Assessor
CDEVIEWR	Critical Data Elements	Critical Data Elements viewer role
MDRDWNLD	DGS MDR Download	MDR Download
ACTVIEWER	Action Viewer	Action Viewer
MDRDELETE	DGS MDR Delete	MDR Delete
DGADMINR	DG Administration	DG Administration role
BTVIEWR	Business terms viewer	Business terms viewer role
DGSADMINRL	DGS Administrator	DGS Administrator Role
MDRGEN	DGS MDR Generate MDR Generate	
ISSAPR	Issue Creator	Issue Creator
ADJCREATOR	Adjustment Creator	Adjustment Creator Role
ADJGRPCREA	Adjustment Group Create	Adjustment Group Create Role

V_Role_code	V_Role_name	V_Role_desc
ADJAPPROVE	Adjustment Approver	Adjustment Approver Role
ADJGRPAPPR	Adjustment Group Approver	Adjustment Group Approver Role

NOTE	•	Do not map the group DGREPANGRP and DGREPMANGRP while mapping the group to the user.
	•	Adjustment Approver and Adjustment Creator must not be mapped to the same user.

- 1. After successful installation, execute the batch <INFODOM>_USER_ROLES.
- 2. Perform these steps:
 - a. Resave the following mentioned derived entities:
 - DEATNAME: DE Attribute Name
 - DE Business Line
 - DEGLSTERM: DE Business Term
 - DE Components
 - DE Document Type
 - DEENNAME: DE Entity Name
 - DE Frequency
 - DE KI Frequency
 - DE Location
 - DE Measure Scale
 - DE Process
 - DE Risk Categories
 - DE User List
 - DE_GROUP
 - PMREPLINK
 - **b.** Resave the following hierarchies:
 - HDGENNAM: Entity Name Hierarchy
 - HDGATNAM: Attribute Name Hierarchy
 - HDGGLTRM: Business Term Hierarchy
 - Reports Hierarchy
- **3.** Compile the backend objects such as functions, procedures, and packages that are related to DGS.

• Execute below statement after replacing Atomic schema name

```
begin
DBMS_UTILITY.compile_schema(schema => '##Atomic_schema_name##');
end;
```

3.5.3 Executing Scripts in Atomic Schema

Login to Atomic Schema and execute the following scripts:

- DGS_DIM_OR_STATUS.sql
- DGS_DIM_OR_STATUS_MLS.sql

3.5.4 Materialized View Creation Batch

To materialize the view creation batch, follow these steps:

- 1. From the **Financial Services Data Foundation** window navigate to **Operations** and select **Batch Execution**.
- Execute the batch ##INFODOM##_MAT_VIEW_CREATE on sysdate. This batch creates the materialized views needed.

Figure 2: Batch Execution Window

Batch Execution	1								6
~ Batch Mode									
	Mode 🖲	Run 🔿 Restart 🔿 Rerun							
~ Search									Q, Search "O Reset
	Batch ID Like FSD	FINFO_ MAT_VIEW		Batch Descri	iption Like				
	Module	~		Last Modifica	ation Date	Between		And	Î
~ Batch Details	Schedule Batch								
Batch ID +			Bi	atch Description					
SDFINFO	MAT_VIEW_CREATE		C	reating Mat views for DG us	ing Batch				
Page 1 of 1	(1-1 of 1 items) K < > ≫	teres.							Records Per Page 15
Tack ID A	Task Description	Matadata Value	Component	ID P	Precedence				Tack Status
Task1	Creating Mat views for DG using Batch	FN_MATVIEWS_CREATION	TRANSFORM	I DATA S	START				N
Page 1 of 1 (1-1 of 1 items) K < > ≫								Records Per Page 15
~Information Da	ate								
	Date	m							

3.5.5 Merging Key Indicators

To merge the Key Indicators, follow these steps:

- 1. From the **Financial Services Data Foundation** window navigate to **Operations** and select **Batch Execution**.
- 2. Execute the Batch Name as **MERGE_FCT_KRI_DEF**. This batch is used to merge the variance and edit checks into the Key Indicators.
- 3. Enter the current system date as the **MISDATE** for this batch.

Figure 3: Batch Execution Window

	CLE' Financial Services Data Governance for US Regulatory Reporting		iii 💼 📩 🗄	JS-English ▼ OFSAD ▼ &
Batch Execution				0
~ Batch Mode				
	Mode 🔹 Run 🔍 Restart 🔍 Rerun			
∨ Search				Q, Search "D Reset
	Batch ID Like DGSINFO_merge	Batch	Description Like	
	Module	Last M	Iodification Date Between 🏛 And	m
~ Batch Details	I Schedule Batch			
Batch ID A		Batch Description		
DGSINFO_M	ERGE_FCT_KRI_DEF	Merging variance and Edit of	checks data into KI Tables	
Page 1 of 1 (I-1 of 1 items) K < > ≫			Records Per Page 15
Task ID 🔺	Task Description Metadata Value	Component ID	Precedence	Task Status
Task1	Merging variance and Edit checks data into KI Tables	TRANSFORM DATA	START	N
Page 1 of 1 (1-1	lof1items) K < > →			Records Per Page 15
Information Dat	e			
	Date			
		Execute Batch		

3.5.6 Updating Measures for the Packaged Key Indicators

From the **Financial Services Data Foundation** page, navigate to **Operations** and then select **Batch Execution**. Run the batch **##INFODOM##_FCT_KRI_DEF_UPDATE** on sysdate.

This batch updates the Actual Formula for the Key Indicators.

0 Batch Execution ~Batch Mode Mode Run O Restart O Rerun Q Search "D Reset ~ Search Batch ID Like FSDFINFO FCT KRI Batch Description Like Module Last Modification Date Between 龠 - Batch Details 🛛 🕮 Schedule Batch Batch ID 🔺 Batch Description dating Formula, Actual Formual for fct kri def FSDFINFO_FCT_KRI_DEF_UPDATE Page 1 of 1 (1-1 of 1 items) K < > > Records Per Page 15 Task Details 🖾 Exclude/Include 🕮 Hold/Release Task Description Metadata Value Task ID ≜ Component ID Precedence Task Status Updating Formula, Actual Formula for fct kri def ask1 TRANSFORM DATA START N Page 1 of 1 (1-1 of 1 items) K <>> Records Per Page 15 Information Date Date m

Figure 4: Batch Execution Window

3.5.7 Configuring Process Monitoring Runs and Tasks

Before configuring the runs and tasks, ensure that the Metadata Browser publish is performed.

As part of configurations perform the following steps to load the Process Monitoring related runs and task:

- In the Financial Services Data Foundation page, navigate to Operations and then select Batch Execution.
- 2. Search for the batch ID Process_Monitoring_Batch.

Figure 5: Batch Execution Window

Batch Execution							0
~ Batch Mode							
	Mode 🔘	Run 🔿 Restart 🔿 Rerun					
~ Search							Q Search "O Reset
	Batch ID Like FSD	DFINFO_Process_Monitoring_Batch		Batch Des	scription Like		
	Module	~		Last Modi	ification Date Between	m And	<u>^</u>
VBatch Details	Schedule Batch						
Batch ID 🔺				Batch Description			
FSDFINFO_Proc	ess_Monitoring_Batch			Process Monitoring Batch			
Page 1 of 1 (1-1	of 1 items) K < > ≫ «clude/loclude Hold/8	leleace					Records Per Page 15
Task ID ≜	Task Description	Metadata Value	c	omponent ID	Precedence		Task Status
Task1	Task for Process Monitoring Updates	FN_PROCESS_PLAN_UPDATES	т	RANSFORM DATA	START		N
Page 1 of 1 (1-1 o	f1items) K < > ≫						Records Per Page 15
~Information Date							
	Date						
			Exe	ecute Batch			

3. Select the **MIS Date** and execute the batch **Process_Monitoring_Batch**. Ensure that the batch is executed successfully.

3.5.8 Updating DGS Configuration

To update the DGS configuration with the relevant user for the modules Issue, Action, and Control, update the **n_lookup_value** column in the table **fsi_dgs_configuration** against the following **v_lookup_code** with the respective users.

- ISSUE_CREATOR
- CREATOR
- ISSUE_OWNER
- ACTION_CREATOR
- OWNER

3.5.9 Key Indicator Configuration

From the **Financial Services Data Foundation** page, navigate to **Operations** and then select **Batch Execution**. Run the batch ##INFODOM##_KI_CONFIGURATION.

This batch updates the Actual Formula for the key indicator. It generates the report, schedule, and cells required for Key Indicator assessment configurations.

From the **Regulatory Reporting for APAC and ME** window navigate to **Administration** and select **Key Indicator Assessment Configuration**. Here, you can select and configure the report, schedule, and cell combinations.

Figure 6: Batch Execution Window

Batch Execution							0
~ Batch Mode							
	Mode 🥥	Run 🔿 Restart 🔿 Rerun					
~ Search							Q Search 'O Reset
	Batch ID Like FSE	FINFO_ KI_CONFIGURATION		Batch Descrip	otion Like		
	Module	~		Last Modificat	tion Date Between	m And	
~ Batch Details 🛛 🕮	Schedule Batch						
Batch ID 🔺				Batch Description			
FSDFINFO_KI_CC	ONFIGURATION			Inserting data into KI Configura	ation Tables		
Page 1 of 1 (1-1	of 1 items) K < > >						Records Per Page 15
🗸 Task Details 🛛 🖾 Ex	clude/Include 🕮 Hold/Re	elease					
Task ID ≜	Task Description	Metadata Value	Compon	ent ID Pr	ecedence		Task Status
Task1	Inserting data into KI Configuration Tables	FN_KI_CONFIGURATION	TRANSFO	ORM DATA ST	TART		Ν
Page 1 of 1 (1-1 of	1 items) K < > ≫						Records Per Page 15
~Information Date							
	Date	**					

3.5.10 Creating Issue Links

For create issue link to open in supported browsers in OBIEE, follow these steps:

- 1. Update the web.xml with the following tag:
 - a. Navigate to web.xml and add the tag in the following section with the DG application URL and the OBIEE URL.

```
<filter>

<filter-name>FilterServlet</filter-name>

<filter-class>com.iflex.fic.filters.FilterServlet</filter-class>

<init-param>

<param-name>AllowHosts</param-name>

<param-value> ##OBIEE URL##/</param-value>

</init-param>

</filter>

*Ensure to replace ##OBIEE_URL##

with respective URL's upto Port Number.
```

2. After updating, restart the servers to view changes.

3.5.11 Configuring External Links such as Creating Issue Links or Drilldown to OFSAA

For more information on configuring external links such as AgileREPORTER drill down to OFSAA, see the section *Modifying the Web.xml file* in the <u>OFS REG REP APME Security Guide</u>.

3.5.12 Performance-Related Configuration Details on Account Mapper Batch

Parallel Hint for query optimization in KI Mapper can be configured by setting up N_LOOKUP_VALUE in FSI_DGS_CONFIGURATION against the following column values (V_MODULE_NAME='MAPPER', V_LOOKUP_CODE='PARALLEL_HINT').

The default value set for parallel hint is /*+ PARALLEL(4)*/.

Table 4: Performance Configuration Details

V_MODULE_NAME	V_LOOKUP_CODE	N_LOOKUP_VALUE	V_LOOKUP_CODE_DESC
MAPPER	PARALLEL_HINT	/*+ PARALLEL(4)*/	Parallel hint for query optimization for KI Mapper

Parallel Hint for Gather Stats optimization in KI Mapper can be configured by setting up N_LOOKUP_VALUE in FSI_DGS_CONFIGURATION against the following column values (V_MODULE_NAME='MAPPER', V_LOOKUP_CODE='GATHER_STATS_PARALLEL_HINT').

The default value set for the parallel hint is 8.

Table 5: Performance Configuration Details

V_MODULE_NAME	V_LOOKUP_CODE	N_LOOKUP_VALUE	V_LOOKUP_CODE_DESC
MAPPER	GATHER_STATS_PARALLEL_HINT	8	Parallel hint for Gather Stats optimization for KI Mapper

 Parallel configs for KI Mapper can be made configurable by setting up N_LOOKUP_VALUE in FSI_DGS_CONFIGURATION against the following column values (V_MODULE_NAME='MAPPER', _LOOKUP_CODE= ENABLE_PARALLEL_CONFIGS). The default value is set as 'N'.

Table 6: Performance-Related Configuration Details on Account Mapper Batch

V_MODULE_NAME	V_LOOKUP_CODE	N_LOOKUP_VALUE	V_LOOKUP_CODE_DESC
MAPPER	ENABLE_PARALLEL_CONF IGS	Ν	Enable Parallel Configurations

 Enable Alter session force parallel for KI Mapper can be made configurable by setting up N_LOOKUP_VALUE in FSI_DGS_CONFIGURATION against the following column values(V_MODULE_NAME='MAPPER', _LOOKUP_CODE= Enable STAR_TRANSFORMATION, Enable Parallel DML, Enable Parallel Query). The default value set as '4' for Enable Parallel DML and Enable Parallel Query, user can set it to any parallels like 4,8,16...

Table 7: Performance-Related Configuration Details on Account Mapper Batch

V_MODULE_NAME	V_LOOKUP_CODE	N_LOOKUP_VALUE	V_LOOKUP_CODE_DESC
MAPPER	DGS_STMT_1	ALTER SESSION SET STAR_TRANSFORMA TION_ENABLED=TR UE	Enable STAR_TRANSFORMATIO N
MAPPER	DGS_STMT_2	ALTER SESSION FORCE PARALLEL DML PARALLEL 4	Enable Parallel DML
MAPPER	DGS_STMT_3	ALTER SESSION FORCE PARALLEL QUERY PARALLEL 4	Enable Parallel Query

 Truncate partition for KI Mapper can be made configurable by setting up N_LOOKUP_VALUE in FSI_DGS_CONFIGURATION against the following column values(V_MODULE_NAME='MAPPER', _LOOKUP_CODE= TRUNCATE_PARTITION_FLAG, TRUNCATE_SUBPARTITION_FLAG). The default value is set as 'Y' for TRUNCATE_PARTITION_FLAG and Y for TRUNCATE_SUBPARTITION_FLAG.

V_MODULE_NAME	V_LOOKUP_CODE	N_LOOKUP_VALUE	V_LOOKUP_CODE_DESC
MAPPER	TRUNCATE_PARTITION_F LAG	Υ	Flag to truncate run skey wise partition
MAPPER	TRUNCATE_SUBPARTITIO N_FLAG	Υ	Flag to truncate run skey wise sub-partition

• Parallel groups for KI Assessment can be made configurable by setting up N_LOOKUP_VALUE in FSI_DGS_CONFIGURATION against the following column values(V_MODULE_NAME=KI, _LOOKUP_CODE= ASSMT_PARALLEL_GROUP). The default value is set as '14'.

Table 9: Performance-Related Configuration Details on Account Mapper Batch

V_MODULE_NAME	V_LOOKUP_CODE	N_LOOKUP_VALUE	V_LOOKUP_CODE_DESC
КІ	ASSMT_PARALLEL_GROU P	14	Parallel Group number for KI Assessment

3.5.13 OBIEE Configuration and Deployments

The following OBIEE configuration files must be updated to change the user's preferred currency:

- **1.** Login to the **OBIEE** Server.
- 2. Edit the /Oracle_Home/bi/bifoundation/web/display/currencies.xml file.
- 3. Update "symbol="\$" to change the preferred currency as follows:

```
<Currency tag="int:wrhs" type="international" placeholder="true"
symbol="$" format="$#" digits="2"
displayMessage="kmsgCurrencySiebelWarehouse">
```

```
<negative tag="minus" format="-$#" /> </Currency>
```

 Login to Enterprise Manager in OBIEE and navigate to Weblogic Domain -> Security -> Application Roles.

Figure 7: Application Roles

Home	-	
Monitoring	*	to that are energing in the application
Diagnostics	*	to that are operate to the approximation
Control	-	
Logs	-	
Environment	Þ	Security Realms
Deployments		Security Administration
JDBC Data Sources		Web Service Security
Messaging	Þ	Application Policies
Cross Component Wiring		Application Roles
Web Services		System Policies
Other Services		Security Provider Configuration
Administration	Þ	Audit Registration and Policy
Refresh WebLogic Domain		Credentials
Security	Þ	Keystore
JNDI Browser		
System MBean Browser		
WebLogic Server Administration Console		
Target Sitemap		
Target Information		

- 5. Select Application Stripe as OBI.
- 6. Create new Application Role "APME" and add the required Groups and Users with the new role.

Figure 8: New Application Role

Application Stripe	obi				
Role Name	APME				6.5
Display Name	APME				
Description	APME Role				6. L I
	6				
Members					
An application role may need to be mapped to users or groups defined in enterprise LDAP server, or the role can be mapped to other application roles.					
View 💌 🕂 Add 🗦	Celete 🔡 Detach				
Name			Display Name	Туре	
weblogic_apme			weblogic_apme	User	

7. Copy the DGS.catalog and DGS.rpd files from the <FIC_HOME>/OBIEEAnalytics directory to your local machine and deploy the DGS.catalog and DGS.rpd files.

3.5.14 Integrating AgileREPORTER with Variance Analysis

AgileREPORTER can be integrated with Variance Analysis reports from the AgileREPORTER - Dashboard and Analysis AgileREPORTER - Module Integration features.

3.5.14.1 AgileREPORTER - Dashboard Integration

To establish the connection in AgileREPORTER – Dashboard, follow these steps:

- 1. Log in to **AgileREPORTER** with valid credentials.
- 2. Navigate to Settings 🍄.
- 3. Select Administration and then select Data Warehouse Integration.
- 4. In the Data Warehouse Integration window, click Add.
- 5. In the Add Contextual Button dialog box, enter the following details:
 - a. Name: OFSAA Current Analysis
 - b. Linked to: AgileREPORTER
 - c. URL Pattern: Enter the following URL in the URL Pattern text box:

###OBIEEURL###/analytics/saw.dll?dashboard&PortalPath=%2Fshared%2FDGS%2FAccount %20Level%20Reports%2FAccount%2FVariance%20Analysis%20Summary%20AR&page=Varian ce%20Current%20Analysis%20AR&Options=rmf&Action=Navigate&P0=7&P1=eq&P2=ifnull(%2 2Report%20Schedule%20Reporting%20Element%22.%22Cell%20Id%20Bireport%22%2C%22Re port%20Schedule%20Reporting%20Element%22.%22Reporting%20Element%22)&P3=\${cellId} &P4=eq&P5=%22Report%20Schedule%20Reporting%20Element%22.%22AR%20Form%20Cod e%22&P6=\${formCode}&P7=eq&P8=%22Dim%20Dates%22.%22Date%20Skey%22&P9=\${refer enceDate}&P10=eq&P11=%22Report%20Schedule%20Reporting%20Element%22.%22V_ENTITY _CODE%22&P12=\${entityCode}

NOTE Ensure to replace the place holder **###OBIEEURL###** with OBIEE Dashboard URL up to port number.

- d. Description: OFSAA Current Analysis
- e. Pick an icon: Select any icon.
- 6. Click Add. The OBIEE URL Pattern link is now enabled in the Dashboard tab.

3.5.14.2 AgileREPORTER - Analysis Module Integration

To establish the connection in AgileREPORTER – Analysis Module Integration, follow these steps:

- 1. Log in to AgileREPORTER with valid credentials.
- 2. Navigate to Settings ⁵⁶.
- 3. Select Administration and then select Data Warehouse Integration.
- 4. In the Data Warehouse Integration window, click Add.
- 5. In the Add Contextual Button dialog box enter the following details:

- a. Name: OFSAA Variance Analysis
- b. Linked to: Analysis Module
- c. URL Pattern: Enter the following URL in the URL Pattern text box:

###OBIEEURL###/analytics/saw.dll?dashboard&PortalPath=%2Fshared%2FDGS%2FAccount %20Level%20Reports%2FAccount%2FVariance%20Analysis%20Summary%20AR&page=Varian ce%20Analysis%20AR&Options=rmf&Action=Navigate&P0=7&P1=eq&P2=ifnull(%22Report%20 Schedule%20Reporting%20Element%22.%22Cell%20Id%20Bireport%22%2C%22Report%20Sch edule%20Reporting%20Element%22.%22Reporting%20Element%22)&P3=\${cellId}&P4=eq&P5= %22Report%20Schedule%20Reporting%20Element%22.%22AR%20Form%20Code%22&P6=\${f ormCode}&P7=eq&P8=%22Dim%20Dates%22.%22Date%20Skey%22&P9=\${referenceDate}&P1 0=eq&P11=%22Report%20Schedule%20Reporting%20Element%22.%22V_ENTITY_CODE%22&P 12=\${entityCode}&P13=eq&P14=%22Dim%20Dates%22.%22Date%20Skey%20Prev%22&P15=\${p rv_referenceDate}

NOTE

Ensure to replace the place holder **###OBIEEURL###** with OBIEE Dashboard URL up to port number.

- d. Description: OFSAA Variance Analysis
- e. Pick an icon: Select any icon.
- 6. Click Add. The OBIEE URL Pattern link is now enabled in the Analysis tab.

3.5.15 Alias Configurations

Update the ActionFrameworkConfig.xml file with the following aliases:

```
<aliases>
<location-alias>
<alias>ofsaa_dgs_obi</alias>
<actual>##OBIEE URL##/analytics/saw.dll</actual>
</location-alias>
<location-alias>
<alias>ofsaa_dgs</alias>
<actual>##OFS AAI URL##/formsFramework/formsrenderer/
MapRenderer.jsp</actual></location-alias>
```

</aliases>

*Ensure to replace ##OBIEE URL ## and ##OFS AAI URL ## with the respective URLs.

4 Deploying Configuration Package

This section describes the steps to deploy the configuration package after saving the derived entities:

- 1. To deploy the product configuration on Lombard AgileREPORTER for APRA/MAS/RBI/HKMA using the package OFSAA_REG_REP_APRA_81200.zip/OFSAA_REG_REP_MAS_81200.zip/OFSAA_REG_REP_MAS_81200.zip/OFSAA_REG_REP_HKMA_81200.zip bundled inside the Config_Package folder of the installer:
 - a. Navigate to <LombardAgileREPORTER>/bin under the installed location
 - **b.** Add a new configuration with the following command:

```
./config.sh -a <Config_Package Full Path>
```

For example:

```
./config.sh -a /scratch/kit/81200/OFS_REG_REP_APME/Config_Package/
OFSAA REG REP APRA 81200.zip
```

c. Activate the configuration with the following command:

```
./config.sh -t OFSAA_REG_REP_APRA_81200 -iv 8.1.2.0.0
./config.sh -t OFSAA_REG_REP_MAS_81200 -iv 8.1.2.0.0
./config.sh -t OFSAA_REG_REP_RBI_81200 -iv 8.1.2.0.0
./config.sh -t OFSAA_REG_REP_HKMA_81200 -iv 8.1.2.0.0
```

d. Update the Alias with the following command:

```
./config.sh -ea OFSAA_REG_REP_APRA_81200 -iv 8.1.2.0.0 -alias "OFSAA
APRA DATA SOURCE" -aif
<LombardAgileREPORTER>/bin/aliasinfo.properties
./config.sh -ea OFSAA_REG_REP_MAS_81200 -iv 8.1.2.0.0 -alias "OFSAA
MAS DATA SOURCE" -aif
<LombardAgileREPORTER>/bin/aliasinfo.properties
./config.sh -ea OFSAA_REG_REP_RBI_81200 -iv 8.1.2.0.0 -alias "OFSAA
DATA SOURCE" -aif <LombardAgileREPORTER>/bin/aliasinfo.properties
./config.sh -ea OFSAA_REG_REP_HKMA_81200 -iv 8.1.2.0.0 -alias "OFSAA
DATA SOURCE" -aif <LombardAgileREPORTER>/bin/aliasinfo.properties
./config.sh -ea OFSAA_REG_REP_HKMA_81200 -iv 8.1.2.0.0 -alias "OFSAA
DATA SOURCE" -aif <LombardAgileREPORTER>/bin/aliasinfo.properties
```

If you encounter any problems during deployment, contact OFSAA Support at My Oracle Support.

OFSAA Support

Raise a Service Request (SR) in <u>My Oracle Support (MOS)</u> for queries related to the OFSAA applications.

Send Us Your Comments

Oracle welcomes your comments and suggestions on the quality and usefulness of this publication. Your input is an important part of the information used for revision.

- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct? Do you need more examples?
- What features did you like most about this manual?

If you find any errors or have any other suggestions for improvement, indicate the title and part number of the documentation along with the chapter/section/page number (if available) and contact the Oracle Support.

Before sending us your comments, you might like to ensure that you have the latest version of the document wherein any of your concerns have already been addressed. You can access My Oracle Support site that has all the revised/recently released documents.

