

Oracle Financial Services Hedge Management and IFRS Valuations

Installation Guide

Release 8.1.1.0.0

Nov 2023

ORACLE
Financial Services

Oracle Financial Services Hedge Management and IFRS Valuations Installation Guide

Copyright © 2023 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 error-free. 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

Table 1: Document Version Control

Version Number	Revision Date	Change Log
2.0	September 2023	Added additional information in the Additional Configurations for Web Servers section for the Bug 35758248
1.0	March 2021	Created the document with instructions for the installation of the OFS HM Release 8.1.1.0.0.

Table of Contents

1	Preface	8
1.1	Intended Audience.....	8
1.2	Related Documents	8
1.3	Conventions	9
1.4	Abbreviations	9
Part I	12
2	Introduction	13
2.1	Oracle Financial Services Analytical Applications Infrastructure (OFS AAI)	14
2.1.1	<i>Components of OFSAA Infrastructure</i>	14
2.1.2	<i>OFSAA Infrastructure High Availability</i>	15
2.1.3	<i>Deployment Topology</i>	15
2.2	About OFS Hedge Management and IFRS Valuations Application Pack	16
2.3	Installation Overview	16
2.4	OFS AAI Extension Pack	17
2.5	Installation and Upgrade Scenarios.....	18
2.6	Compatibility Matrix	18
3	Complete Installation Checklist	20
4	Hardware and Software Requirements	23
4.1	Third-party Licensing Information	23
4.2	Verify System Environment.....	23
5	Pre-installation	24
5.1	Pre-installation Checklist.....	24
5.2	Oracle Database Instance Settings	25
5.3	Web Application Server Settings for WebSphere	25
5.4	Web Application Server Settings for WebLogic	25
5.5	Web Application Server Settings for Tomcat	26
5.6	Web Server Settings	26
5.7	Mounting FSS to Compute Virtual Machine.....	26
5.8	Opening up the Network Ports for OFSAA Services.....	29

5.9	Create the Installation, Download, and Metadata Repository Directories	29
5.10	Configure the OS File System Settings and Environment Settings in the .profile File.....	30
5.10.1	Configure Operating System and File System Settings	30
5.10.2	Configure the Environment Settings.....	31
5.11	Download the OFS HM Application Pack Installer and Erwin Data Model.....	35
5.12	Extract the Software	36
6	Installation.....	37
6.1	Installation Checklist.....	37
6.2	Configure the OFS_HM_PACK.xml File.....	37
6.3	Configure the Schema Creator Utility	39
6.3.1	Prerequisites.....	39
6.3.2	Configure the Schema Creator Utility for RDBMS Installation	39
6.4	Execute the Schema Creator Utility	49
6.4.1	Execute the Schema Creator Utility in Offline Mode.....	49
6.4.2	Execute the Schema Creator Utility in Online Mode.....	51
6.4.3	Execute the Schema Creator Utility in TCPS Mode.....	51
6.4.4	Execute the Schema Creator Utility while Installing Subsequent Applications Pack	52
6.5	Configure the OFSAAI_InstallConfig.xml File.....	53
6.5.1	Set Up the SFTP Private Key.....	58
6.6	Install the OFS HM Application Pack	59
6.6.1	Installation.....	59
6.6.2	Verify the Log File Information.....	62
7	Post-installation	63
7.1	Post-Installation Checklist.....	64
7.2	Mandatory Patch	65
7.3	Patch OFS HM Installation	65
7.4	Updating the Config Schema	65
7.5	Editing the WDSL Property File	65
7.6	Backup the OFS_HM_SCHEMA_IN.xml, OFS_HM_SCHEMA_OUTPUT.xml, and Silent.props Files.....	65
7.7	Configuring Tomcat for User Group Authorization, Data Mapping, and Disabling WADL for the Web Service	66
7.8	Stop the Infrastructure Services	67
7.9	Start the Infrastructure Services.....	67

7.10	Configure the Web Server	67
7.10.1	<i>Additional Configurations for Web Servers</i>	68
7.11	Configure Resource Reference in Web Servers	73
7.12	Clear the Application Cache.....	73
7.13	Configure Work Manager in Web Application Servers	74
7.14	Create and Deploy the EAR or WAR Files.....	74
7.15	EAR or WAR File - Build Once and Deploy Across Multiple OFSAA Instances.....	75
7.16	Access the OFSAA Application	75
7.16.1	<i>OFSAA Landing Page</i>	76
7.17	View OFSAA Product Licenses after Installation of Application Pack	80
7.18	Configure the excludeURLList.cfg File.....	80
7.19	Configure Tomcat	80
7.20	Change the ICC Batch Ownership	81
7.21	Add TNS entries in the TNSNAMES.ORA File	81
7.22	Update OBIEE URL	81
7.23	Configure Data Source.....	82
7.24	Configure Data Redaction in OFSAA	82
7.24.1	<i>Prerequisites</i>	82
7.24.2	<i>Data Redaction</i>	83
7.24.3	<i>Enable Data Redaction in case of Upgrade</i>	83
7.25	Data Protection Implementation in OFSAA	83
7.25.1	<i>Right to be Forgotten</i>	84
7.26	Post-deployment Configurations.....	85
7.26.1	<i>OBIEE Configuration - Deploy OFS HM Analytics</i>	85
7.26.2	<i>Logging as System Administrator</i>	93
7.26.3	<i>Creating Application Users</i>	94
7.26.4	<i>Mapping Application User(s) to User Group</i>	94
7.26.5	<i>HM Pack User Group Names</i>	95
8	Remove OFSAA Infrastructure	96
Part II	97
9	Upgrade	98
9.1	Upgrade Scenarios.....	98

9.2	Prepare for Upgrade.....	99
9.2.1	Upgrade from OFS HM Release v8.0.x on AIX or Solaris x86 Operating System	100
9.2.2	Clone Your Existing Environment	100
9.2.3	Initializing the Upgrade	100
9.2.4	Update the OFS_HM_PACK.xml File.....	101
9.2.5	Update the Silent.props File in Release 8.1.1.0.0 Pack.....	102
9.2.6	Trigger the Upgrade Installation	103
9.2.7	Verify the Log File Information for Upgrade	103
9.2.8	Post-installation Steps for Upgrade	104
9.3	Install a Application Pack v8.1.1.0.0 on an Existing OFSAA Instance.....	111
9.3.1	Execute the Schema Creator Utility only for the New Pack	111
9.3.2	If the Schema Creator Output file (OFS_HM_SCHEMA_OUTPUT.xml) EXISTS.....	111
9.3.3	Update the OFS_HM_PACK.xml File of the Newly Licensed Pack	112
9.3.4	Update the Silent.Props File of the Newly Licensed Pack.....	113
9.3.5	Trigger the Installation	114
9.3.6	Verify the Log File Information.....	114
9.3.7	Post Installation Steps	114
9.4	View OFSAA Product Licenses after Installation of Application Pack.....	114
Part III.....		115
10 Additional Configurations.....		116
11 Migrate Excel Upload Functionality		117
12 Frequently Asked Questions (FAQs) and Error Dictionary.....		118
12.1	Application Pack 8.1.1.0.0 FAQs.....	118

1 Preface

This section provides supporting information for the Oracle Financial Services Hedge Management and IFRS Valuations Pack Installation Guide.

You can find the latest copy of this document in the [OHC Documentation Library](#) which includes all the recent additions or revisions (if any) done to date.

Before you begin the installation, ensure that you have access to [My Oracle Support](#) with the required login credentials to quickly notify us of any issues at any stage.

Topics:

- [Intended Audience](#)
- [Related Documents](#)
- [Conventions](#)
- [Abbreviations](#)

1.1 Intended Audience

The OFS HM Installation Guide is intended for administrators, business users, strategists, data analysts, and implementation consultants who are responsible for installing and maintaining the application pack components.

This document assumes that you have experience installing enterprise components and basic knowledge of the following:

- Oracle Financial Services Hedge Management and IFRS Valuations Pack components
- OFSAA architecture
- UNIX commands
- Database concepts
- Web server or web application server

1.2 Related Documents

We strive to keep this document and all other related documents updated regularly; visit the [OHC Documentation Library](#) to download the latest version available. The list of related documents is provided here:

- [OHC Documentation Library](#) **for OFS Hedge Management and IFRS Valuations:**
 - For existing customers of OFS Hedge Management and IFRS Valuations (HM):
 - *OFS Hedge Management and IFRS Valuations Application Pack 8.1.1.0.0 Release Notes*
 - *OFS Hedge Management and IFRS Valuations Application Pack 8.1.1.0.0 Installation Guide*
 - *OFS Hedge Management and IFRS Valuations Application Pack 8.1.1.0.0 User Guide*
- [OHC Documentation Library](#) **for OFS AAAI Application Pack:**

- *OFS Advanced Analytical Applications Infrastructure (OFS AAI) Application Pack Installation and Configuration Guide*
- *OFS Analytical Applications Infrastructure User Guide*
- *OFS Analytical Applications Infrastructure Administration Guide*
- *Oracle Financial Services Analytical Applications Infrastructure Environment Check Utility Guide*
- **Additional Reference Documents:**
 - [OFSAA Licensing User Manual, Release 8.1.1.0.0](#)
 - [OFS Analytical Applications 8.1.1.0.0 Technology Matrix](#)
 - [OFS Analytical Applications Infrastructure Security Guide](#)
 - [OFS HM Security Guides Release 8.1.x](#)
 - [Oracle Financial Services Analytical Applications Infrastructure Cloning Guide](#)
 - [OFS HM Cloning Guide release 8.0.x](#)
 - [OFS HM Cloning Guide Release 8.1.x](#)
 - [OFSAAI FAQ Document](#)
 - Oracle Financial Services Data Foundation Technical Documents (MOS Doc ID: [2170313.1](#)). See the relevant version of the metadata sheet available in the MOS document (For CAS refer T2T Metadata Staging, and for SCD components refer SCD Metadata sheet).

1.3 Conventions

The following text conventions are used in this document.

Table 2: Document Conventions

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you need to update specific values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, file names, text that appears on the screen, or text that you enter.
Hyperlink	Hyperlink type indicates links to external websites and internal document links.

1.4 Abbreviations

The following table lists the abbreviations used in this document.

Table 3: Abbreviations

Abbreviation	Meaning
DBA	Database Administrator
DDL	Data Definition Language
DEFQ	Data Entry Forms and Queries
DML	Data Manipulation Language
EAR	Enterprise Archive
EJB	Enterprise JavaBean
ERM	Enterprise Resource Management
FTP	File Transfer Protocol
HDFS	Hadoop Distributed File System
HTTPS	Hypertext Transfer Protocol Secure
J2C	J2EE Connector
J2EE	Java 2 Enterprise Edition
JCE	Java Cryptography Extension
JDBC	Java Database Connectivity
JDK	Java Development Kit
JNDI	Java Naming and Directory Interface
JRE	Java Runtime Environment
JVM	Java Virtual Machine
LDAP	Lightweight Directory Access Protocol
LHS	Left Hand Side
MFA	Multi-Factor Authentication
MOS	My Oracle Support
OFSA	Oracle Financial Services Analytical Applications
OFSAI	Oracle Financial Services Analytical Application Infrastructure
OFSAAI	Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack
OFS HM	Oracle Financial Services Hedge Management and IFRS Valuations
OHC	Oracle Help Center
OLAP	On-Line Analytical Processing
OLH	Oracle Loader for Hadoop
ORAAH	Oracle R Advanced Analytics for Hadoop
OS	Operating System
RAM	Random Access Memory

Abbreviation	Meaning
RDBMS	Relational Database Management System
RHEL	Red Hat Enterprise Linux
SFTP	Secure File Transfer Protocol
SID	System Identifier
SSL	Secure Sockets Layer
TNS	Transparent Network Substrate
URL	Uniform Resource Locator
VM	Virtual Machine
WAR	Web Archive
XML	Extensible Markup Language

Part I

Topics:

- [Introduction](#)
- [Complete Installation Checklist](#)
- [Hardware and Software Requirements](#)
- [Pre-installation](#)
- [Installation](#)
- [Post-installation](#)

2 Introduction

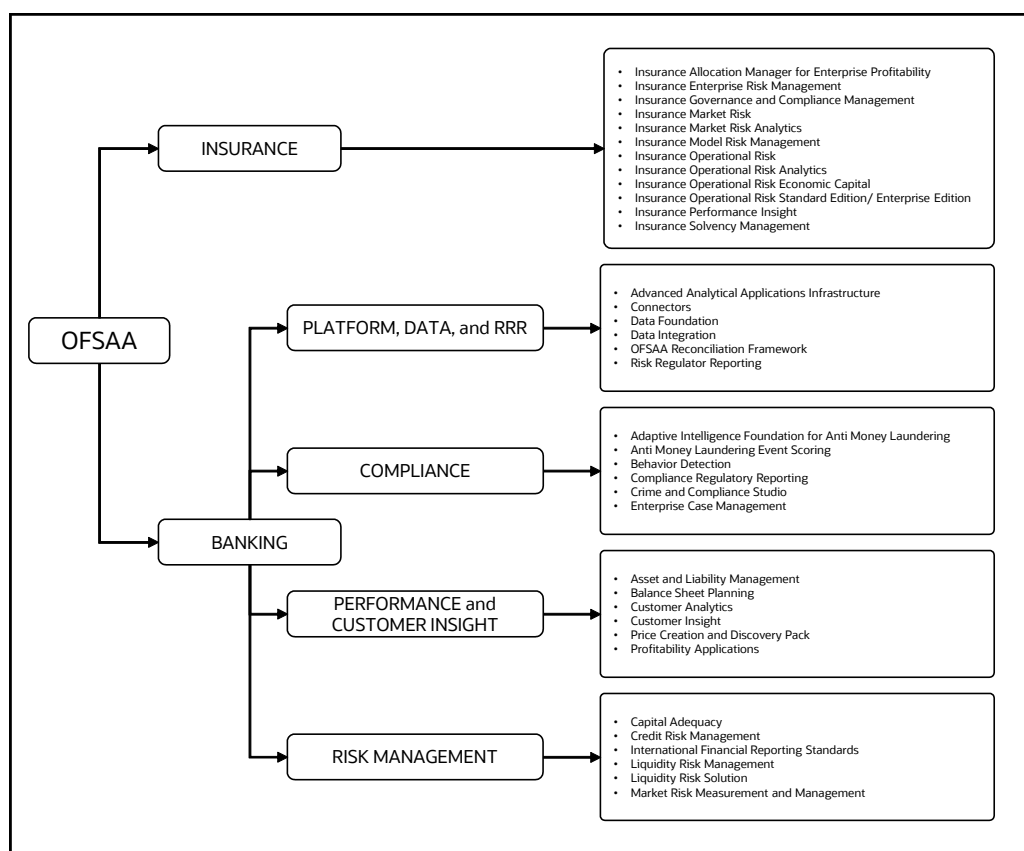
In today's turbulent markets, financial institutions require a better understanding of their risk-return, while strengthening competitive advantage and enhancing long-term customer value. Oracle Financial Services Analytical Applications (OFSAA) enable financial institutions to measure and meet risk-adjusted performance objectives, cultivate a risk management culture through transparency, lower the costs of compliance and regulation, and improve insight into customer behavior.

OFSAA uses industry-leading analytical methods, shared data models, and applications architecture to enable integrated risk management, performance management, customer insight, and compliance management. OFSAA actively incorporates risk into decision making, enables to achieve a consistent view of performance, promote a transparent risk management culture, and provide pervasive intelligence.

Oracle Financial Services Analytical Applications delivers a comprehensive, integrated suite of financial services analytical applications for both banking and insurance domains.

The following figure depicts the various application packs that are available across the OFSAA Banking and Insurance domains.

Figure 1: OFSAA Application Packs



Topics:

- [Oracle Financial Services Analytical Applications Infrastructure \(OFS AAI\)](#)
- [About OFS Hedge Management and IFRS Valuations Application Pack](#)
- [Installation Overview](#)

- [Installation and Upgrade Scenarios](#)
- [Compatibility Matrix](#)

2.1 Oracle Financial Services Analytical Applications Infrastructure (OFS AAI)

Oracle Financial Services Analytical Applications Infrastructure (OFS AAI) powers the Oracle Financial Services Analytical Applications family of products to perform the processing, categorizing, selection and manipulation of data and information required to analyze, understand and report on specific performance, risk, compliance and customer insight issues by providing a strong foundation for the entire family of Oracle Financial Services Analytical Applications across the domains of Risk, Performance, Compliance and Customer Insight.

Topics:

- [Components of OFSAA Infrastructure](#)
- [OFSAA Infrastructure High Availability](#)
- [Deployment Topology](#)

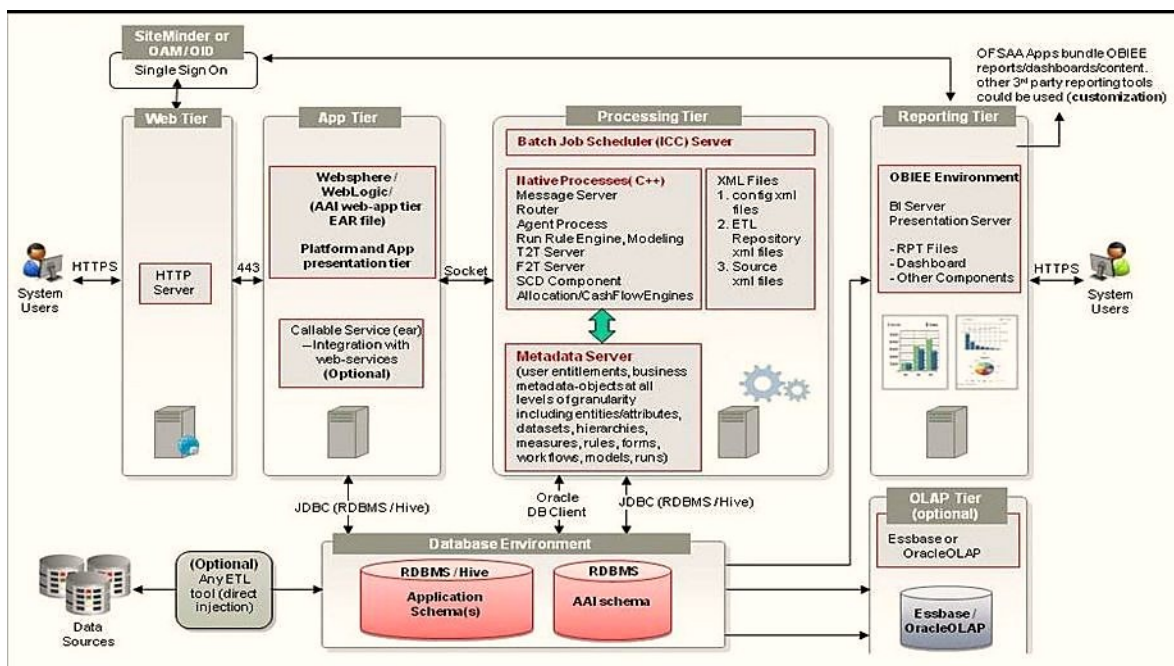
2.1.1 Components of OFSAA Infrastructure

The OFSAA Infrastructure includes frameworks that operate on and with the Oracle Financial Services Analytical Applications Data Model and forms the array of components within the Infrastructure.

The OFSAA Infrastructure components/frameworks are installed as two layers; primarily, the metadata server and Infrastructure services run on one layer, while the UI and presentation logic run on the other. The UI and presentation layer is deployed on any of the supported J2EE Servers.

The following figure depicts the various frameworks and capabilities that make up the OFSAA Infrastructure.

Figure 2: Components of OFSAAI



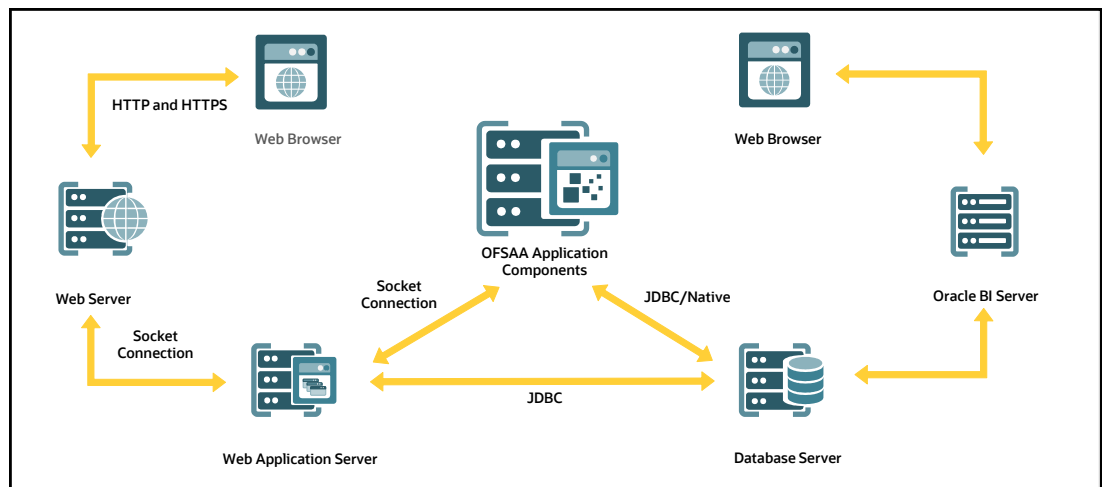
2.1.2 OFSAA Infrastructure High Availability

The current release of the OFSAA Infrastructure supports only the Single Instance installation for the Infrastructure components. However, the High Availability (HA) for the Database Server and (or) the Web application server clustering and deployment is supported in this release.

This release supports the Active-Passive model of implementation for OFSAAI components. For more information, see the [Oracle Financial Services Analytical Applications Configuration for High Availability Best Practices Guide](#).

2.1.3 Deployment Topology

The following figure illustrates the deployment topology of OFSAA application packs.

Figure 3: Logical Architecture Implemented for OFSAA Application Packs

2.2 About OFS Hedge Management and IFRS Valuations Application Pack

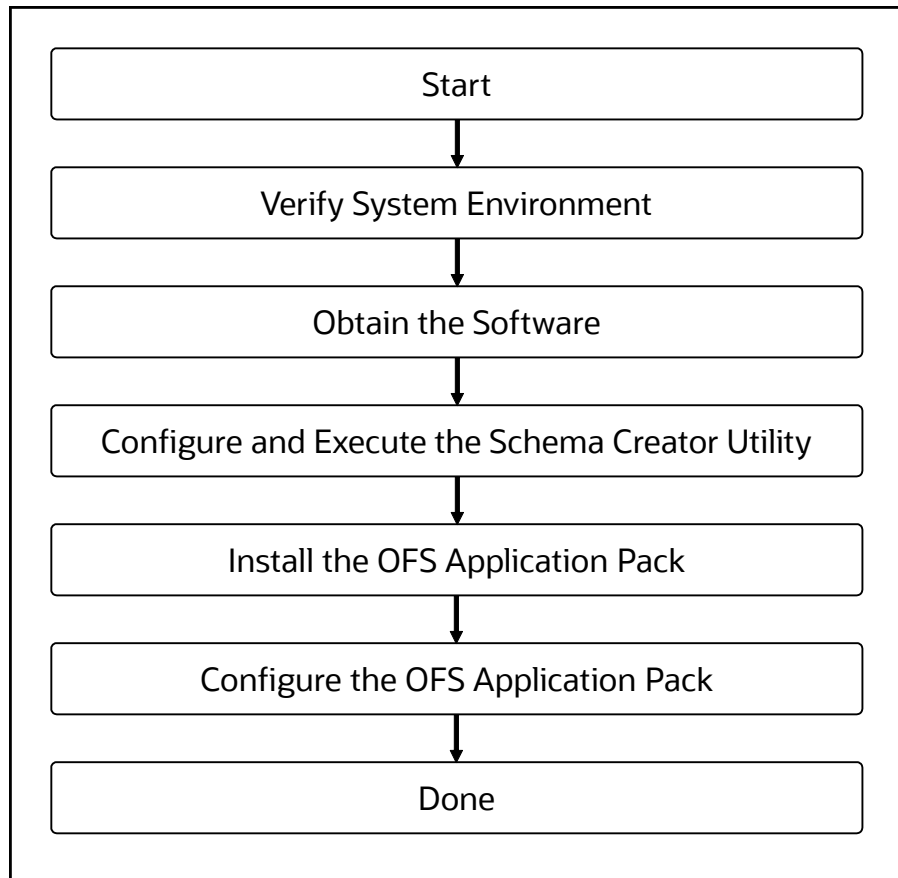
To help financial institutions grow, manage risk, and optimize shareholder value, Oracle delivers a comprehensive, integrated suite of financial services analytical applications for enterprise performance management (EPM).

More than ever, financial institutions, their regulators as well as their shareholders are focused on the need to measure and meet risk-adjusted performance objectives, price products to reflect their true risk, and better understand how their institution is impacted by threats to liquidity, capital adequacy, and exposure to market rate volatility.

2.3 Installation Overview

To install an OFS HM application pack 8.1.1.0.0 instance, users and administrators must download this installer. The following figure displays the order of procedures you will need to follow to install a new OFS HM Pack 8.1.1.0.0 instance.

Figure 4: Installation Flow



2.4 OFS AAI Extension Pack

The Oracle Financial Services Analytical Applications Infrastructure Extension (OFS AAIE) Pack adds a set of new advanced features for 8.1.1.0.0 Release across OFSAA applications. This pack can be installed on an OFSAA instance having one or more OFSAA application packs.

The Oracle Financial Services Analytical Applications Infrastructure Extension Pack includes the following advanced features and functionalities:

- Distributed Processing Capabilities
- Analytic Pipeline and Process models
- Attribution Analysis
- Content Management Interoperability Services

NOTE

The pack is enabled by procurement of an additional license. For more information, see the OFS AAIE Release Notes and Installation Guide on the [OHC](#).

2.5 Installation and Upgrade Scenarios

Release 8.1.1.0.0 of OFS HM supports various installation and upgrade scenarios. A high-level overview of the possible scenarios is provided in the following table. Detailed procedural steps are provided in the succeeding sections of this document.

Table 4: OFS HM Release 8.1.1.0.0 Installation and Upgrade Scenarios

Scenario	Installation and Upgrade Instructions
New Installation	
Installing Release 8.1.1.0.0 application pack for the first time (new installation).	<ol style="list-style-type: none"> 1. Prepare for the Installation. 2. Execute the Schema Creator Utility. 3. Install the OFS HM Application Pack.
<p>Install a new application pack on an existing OFSAA Instance</p> <p>You have already installed an application pack from release 8.1.x.0.0 and now you want to install another application pack from Release 8.1.1.0.0.</p> <p>Example: OFS ALM Pack is already installed and now you want to install OFS HM Pack.</p>	<ol style="list-style-type: none"> 1. Run the schema creator utility ONLY for the new pack. 2. Update the <code>OFS_HM_PACK.xml</code> file for the newly licensed pack. 3. Update the <code>Silent.props</code> file of the newly licensed pack. 4. Trigger the Release 8.1.1.0.0 installation.
Upgrade Installation	
Upgrade an already installed OFS HM 8.1.0.0.0	<ol style="list-style-type: none"> 1. Run the Environment Check Utility tool and ensure that the hardware and software requirements are installed as per the OFS Analytical Applications Technology Matrix. See the OFSAA Environment Check Utility Guide for detailed steps. 2. Optionally, Clone your existing environment to the 8.1.1.0.0 OFS Analytical Applications Technology Matrix. 3. Trigger the Release 8.1.1.0.0 installation.
Upgrade from OFS HM Release v8.1.x on AIX or Solaris x86 Operating System	Release v8.1.1.0.0 of OFS HM is not certified for AIX and Solaris x86 Operating Systems. If you are currently running OFSAA v8.1.x on AIX or Solaris x86 Operating Systems and plan to upgrade to Release v8.1.1.0.0, then you must migrate from AIX or Solaris x86 to Linux or Solaris SPARC. For more information, see the OFSAA 8.0.x.x.x Migration Guide .

2.6 Compatibility Matrix

This table lists the applications or app-combinations that must not be installed on a single infodomain.

NOTE

If you are upgrading the OFSAA Application Pack to release v8.1.1.0.0, you must upgrade the other packs installed in the same environment to release v8.1.1.0.0, to ensure successful deployment.

Table 5: HM 8.1 Application Compatibility Matrix

If you are installing	Do not Install the Listed Application in the Same Environment
OFS_HM_PACK	None

3 Complete Installation Checklist

For a successful installation, perform the steps listed in the Complete Installation Checklist. You can use this checklist to have a quick glance at everything that you will be doing to install this application. The link provided in each step takes you to a section either within this document or to another referenced document.

Table 6: Complete Installation Checklist

Sl. No.	Pre-installation Activity
1	Install all the prerequisite hardware and software given in the OFS Analytical Applications Technology Matrix.
2	Verify the System Environment using the Environment Check Utility.
3	<p>Configure the following Operating System and File System settings:</p> <ul style="list-style-type: none"> • File Descriptor • Total number of processes • Port(s) • .profile file permissions <p>Add FTP/SFTP configuration for file transfer</p>
4	Configure the Database Instance settings.
5	Install and configure the web application server.
6	Configure the HTTP settings on the web server.
7	<p>Mount the FSS to Compute Virtual Machine if you are deploying on the cloud server.</p> <p>Note: This step is applicable only for deployment on the Oracle Cloud Infrastructure.</p>
8	<p>Open the Network Ports for OFSAA Services if you are deploying on the cloud server.</p> <p>Note: This step is applicable only for deployment on the Oracle Cloud Infrastructure.</p>
9	<p>Update the following Environment Settings required for the installation in the .profile file:</p> <ul style="list-style-type: none"> • Java settings • Oracle Database Server and Client settings • Add TNS entries in the TNSNAMES .ORA file • Oracle Essbase settings <p>Time Zone settings</p>
10	Download the OFS HM installer kit and erwin data model.
11	Extract the installer kit.

Sl. No.	Installation Activity
1	Configure the OFS_HM_PACK.xml file.
2	Configure the OFS_HM_SCHEMA_IN.xml file.
3	Execute the Schema Creator Utility in Online, Offline, modes, and verify the log file.

Sl. No.	Installation Activity
4	Configure the <code>Silent.props</code> file.
5	Configure the <code>OFSAAI_InstallConfig.xml</code> file.
6	Trigger the application installation.
7	Verify the installation logs.

Sl. No.	Post-installation Activity
1	Update the Config Schema. Note: This step is applicable only for deployment on the Oracle Cloud Infrastructure.
2	Edit the WDSL Property File. Note: This step is applicable only for deployment on the Oracle Cloud Infrastructure.
3	Stop + Infrastructure services.
4	Create and deploy EAR/WAR files.
5	Start the OFSAA Infrastructure services.
6	Configure the browser settings.
7	Access the OFSAA application.
8	Configure <code>excludeURLList.cfg</code> file.
9	Configure the webserver.
10	Configure the Resource Reference in web application servers.
11	Configure the Work Manager in the web application servers.
12	Change the ICC batch ownership.
13	EAR/WAR File - Build Once and Deploy Across Multiple OFSAA Instances.
14	Set Data Redaction in OFS HM.
15	Implement Data Protection in OFSAA.
16	Configure Tomcat.
17	Add TNS entries in the <code>tnsnames.ora</code> file.
18	Update the OBIEE URL.
19	Configure Data Source.
20	Post-deployment Configuration. <ul style="list-style-type: none"> • OBIEE Configuration – Deploy OFS HM Analytics. • Logging as System Administrator. • Create Application Users. • Map the Application User(s) to User Groups. HM Pack User Groups .

Sl. No.	Additional Configuration Activity
1	Add FTP/SFTP Configuration for File Transfer
2	Configure the Infrastructure Server Memory.
3	Change IP or Hostname, Ports, Deployed Paths of the OFSAA Instance.
4	Execute the Encryption Changer.
5	Configure the Infrastructure LDAP Configuration.
6	Configure password changes.
7	Configure Java Virtual Machine.
8	Configure Internal Service (Document Upload/Download).

4 Hardware and Software Requirements

For a list of all the hardware and software requirements including operating systems, database, web servers, and web application server versions for which this release of the OFS HM Applications Pack is qualified see the [OFS Analytical Applications Technology Matrix](#).

Topics:

- [Third-Party Licensing Information](#)
- [Verify System Environment](#)

NOTE

OFS HM Application Pack installation can be performed on both Virtual and Physical servers.

OFS HM application pack recommends the following software combinations for deployment.

Table 7: Recommended Software Combination

Operating System	Database	Web Application Server	Web Server
Oracle Linux	Oracle Database	Oracle WebLogic Server/ Apache Tomcat Server/ IBM WebSphere Application Server	Oracle HTTP Server/ Apache HTTP Server/ IBM HTTP Server
Oracle Solaris	Oracle Database	Oracle WebLogic Server /Apache Tomcat Server	Oracle HTTP Server/ Apache HTTP Server

4.1 Third-party Licensing Information

For more information about the third-party software tools used in OFS HM, see the [OFSAA Licensing Information User Manual Release 8.1.1.0.0](#).

4.2 Verify System Environment

To verify your system environment meets the minimum requirements for the installation, a Pre-Install Check utility is available within the Install Kit archive file. This utility can also be obtained separately by contacting [My Oracle Support](#).

Though the system environment verification is an integral and automated part of the installation of this software product, Oracle strongly recommends running this utility before beginning the installation as part of your organization's *Installation Readiness Verification Process*.

For more information about downloading and using this utility, see the [OFSAA Environment Check Utility Guide](#).

5 Pre-installation

This chapter provides the necessary information to review before installing the OFS HM Pack 8.1.1.0.0.

Topics:

- [Pre-installation Checklist](#)
- [Oracle Database Instance Settings](#)
- [Web Application Server Settings](#)
- [Web Server Settings](#)
- [Create the Installation, Download, and Metadata Repository Directories](#)
- [Configure the OS File System Settings and Environment Settings in the .profile File](#)
- [Download the OFS HM Applications Pack Installer and Erwin Data Model](#)
- [Extract the Software](#)

NOTE When merging the lower version of an application with an integrated data model, retain the larger size of column length.

5.1 Pre-installation Checklist

You can use this checklist to have a glance at everything that you will be doing before installing this application. The link provided in each step takes you to a section either within this document or to another referenced document.

The Installer Environment Check utility notifies you if any requirements are not met.

Table 8: Pre-Installation Checklist

Sl. No.	Pre-installation Activity
1	Install all the prerequisite hardware and software given in the OFS Analytical Applications Technology Matrix.
2	Verify the System Environment using the Environment Check Utility.
3	<p>Configure the following Operating System and File System settings:</p> <ul style="list-style-type: none"> • File Descriptor • Total number of processes • Port(s) • .profile file permissions <p>Add FTP/SFTP configuration for file transfer</p>
4	Configure the Database Instance settings.
5	Install and configure the web application server.
6	Configure the HTTP settings on the web server.
7	Mount the FSS to Compute Virtual Machine if you are deploying on the cloud server.

Sl. No.	Pre-installation Activity
	Note: This step is applicable only for deployment on the Oracle Cloud Infrastructure.
8	Open the Network Ports for OFSAA Services if you are deploying on the cloud server. Note: This step is applicable only for deployment on the Oracle Cloud Infrastructure.
9	Update the following Environment Settings required for the installation in the <code>.profile</code> file: <ul style="list-style-type: none"> • Java settings • Oracle Database Server and Client settings • Add TNS entries in the <code>TNSNAMES.ORA</code> file • Oracle Essbase settings Time Zone settings
10	Download the OFS HM installer kit and erwin data model.
11	Extract the installer kit.

5.2 Oracle Database Instance Settings

Ensure that the following database instance settings are configured:

- NLS_CHARACTERSET to AL32UTF8
- NLS_LENGTH_SEMANTICS to BYTE
- OPEN_CURSORS limit to greater than 1000

5.3 Web Application Server Settings for WebSphere

Ensure that the web application server is installed and the profile (when using WebSphere) or domain (when using WebLogic) is created.

Table 9: Web Application Server Settings

Description	Example Value
WebSphere	<p>Web Application Server should be installed and the profile/domain created.</p> <p>You will be prompted to enter the WebSphere Profile path during OFSAAI installation.</p> <p>NOTE: See Configure the Web Server for WebSphere Profile and WebLogic Domain creation.</p>

5.4 Web Application Server Settings for WebLogic

Ensure that the web application server is installed and the profile (when using WebSphere) or domain (when using WebLogic) is created.

Table 10: Web Application Server Settings

Description	Example Value
WebLogic	<p>Web Application Server should be installed and the profile/domain created.</p> <p>You will be prompted to enter the WebLogic Domain path during OFSAAI installation.</p> <p>NOTE: See Configure the Web Server for WebSphere Profile and WebLogic Domain creation.</p>

5.5 Web Application Server Settings for Tomcat

Ensure that the web application server is installed and the profile (when using WebSphere) or domain (when using WebLogic) is created.

Table 11: Web Application Server Settings

Description	Example Value
Tomcat	<p>Web Application Server should be installed and the profile/domain created.</p> <p>You will be prompted to enter the Tomcat Deployment path during OFSAAI installation.</p> <p>NOTE: See Configure the Web Server for WebSphere Profile and WebLogic Domain creation.</p>

5.6 Web Server Settings

This is an optional requirement. If you have installed an HTTP Server, then configure the appropriate HTTP server settings:

Table 12: Web Server Settings

Description	Example Value
Apache HTTP Server, Oracle HTTP Server, or IBM HTTP Server	<p>Configure the HTTP Server and note down the IP or Hostname and Port details as you will be prompted to enter these details during installation.</p> <p>NOTE: See Configure the Web Server for web server configuration.</p>

5.7 Mounting FSS to Compute Virtual Machine

This section provides details about the required configurations for successful installation and (or) deployment on the Oracle Cloud Infrastructure. For more information, see [Generic Documents](#).

If you are deploying on the cloud server, you must perform the steps mentioned in this section. This section enables you to mount `ftpshare` directory across the OFSAA Processing Tier Compute nodes, and conditionally apply to any other nodes, for high availability or nonhigh availability deployments.

NOTE Ensure that the `ftpshare` folder is created and use the mount under which the `ftpshare` folder was created.

To mount the file system to compute Virtual Machine, follow these steps:

1. Log in to the Oracle Cloud Infrastructure console.
2. Navigate to **File Storage** and select **File Systems**.

Figure 5: The File Systems Window

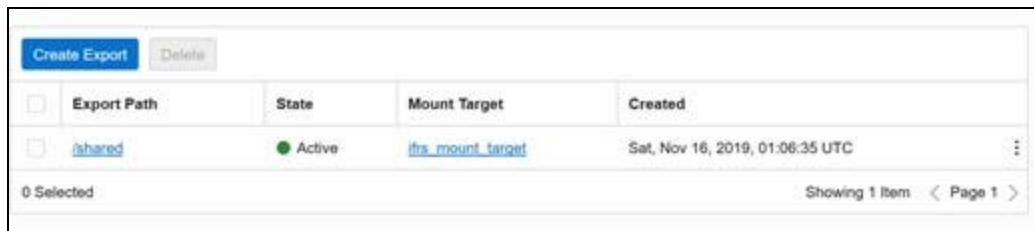


<input type="checkbox"/>	Name	State	Availability Domain	Utilization	Created	
<input type="checkbox"/>	IFRS17-Shared	Active	deaq:US-ASHBURN-AD-3	0 B ⓘ	Wed, Dec 4, 2019, 23:47:33 UTC	⋮
<input type="checkbox"/>	shared_ifrs_storage	Active	deaq:US-ASHBURN-AD-1	8.5 KiB ⓘ	Sat, Nov 16, 2019, 01:06:14 UTC	⋮

0 Selected Showing 2 Items < Page 1 >

3. In the Name column, select the project-specific FSS that has been created. In this example, click `shared_ifrs_storage` to open the **Details Screen** and view the export path.

Figure 6: The Details Screen Displaying the Export Path



<input type="checkbox"/>	Export Path	State	Mount Target	Created	
<input type="checkbox"/>	/shared	Active	ifrs_mount_target	Sat, Nov 16, 2019, 01:06:35 UTC	⋮

0 Selected Showing 1 Item < Page 1 >

4. For the required export path, click More , and select Mount Commands.

Figure 7: The Details Screen after clicking the More Icon



Figure 8: The Mount Commands Window



5. Ensure that the Oracle Cloud Infrastructure (OCI) team has opened the Ingress or Egress ports.
6. In the Mounting Commands window:
 - a. In the **COMMAND TO INSTALL NFS CLIENT** field, enter the value `sudo yum install nfs-utils`.
 - b. In the **COMMAND TO INSTALL NFS CLIENT** field, enter the value `sudo mkdir -p /mnt/shared`, where `/mnt/shared` must be replaced with your mount value.
 - c. In the **COMMAND TO MOUNT THE FILE SYSTEM** field, enter the value `sudo mount 10.0.14.5:/shared/mnt/shared`, where `/mnt/shared` must be replaced with your mount value and `10.0.14.5` must be replaced with your storage VM IP address.
7. Click **Close**.
8. Use PuTTY tunneling session to connect to the **OFSAA Product Home1** compute virtual machine with the command, `ssh <ofsa product_home1>`.
9. Execute the commands in the fields **COMMAND TO INSTALL NFS CLIENT**, **COMMAND TO INSTALL NFS CLIENT**, and **COMMAND TO MOUNT THE FILE SYSTEM** in sequence.
10. To verify that the execution of the mounting commands was successful, try to verify by accessing a sample text file from OFSAA product home:
 - a. Verify the mount by using the command: `df -k`.

- b. Create any text file in this mount.
- c. Verify that this file is accessible when you connect to the OFSAA Product Home2 compute virtual machine.

5.8 Opening up the Network Ports for OFSAA Services

If you are deploying the OFS HM application on the Cloud servers, you must open the respective ports that will be used for the OFSAA Services across the network for the respective subnets in the deployment setup through the OCI team:

NOTE The ports mentioned in this section are the default ports. You must open your available ports.

1. Open the following ports:

JAVAPORT
 NATIVEPORT
 AGENTPORT
 ICCPORT
 ICCNATIVEPORT
 OLAPPORT
 MSGPORT
 ROUTERPORT
 AMPORT
 WEB_SERVER_PORT

5.9 Create the Installation, Download, and Metadata Repository Directories

To install OFS HM, create the following directories:

- **OFSAA Download Directory (Optional):** This is the directory where the downloaded installer or patches can be copied. Create a download directory and copy the OFSAA Application Pack Installer File (archive). Assign 755 permission to this directory.
- **Temporary Directory:** Default temporary directory where the installation files are stored for a short time to support faster installation. Configure adequate space on the `/tmp` directory. It is recommended that you allocate more than 10 GB of space. Assign 755 permission to this directory with NOEXEC option disabled.

NOTE If NOEXEC option is enabled, the extraction of files by the installer into the `/tmp` directory is prevented and the binaries will not execute in the directory, which will fail the installation.

- **OFSAA Installation Directory (Mandatory):** Create an installation directory where the product binaries are installed. Set the variable FIC_HOME in the .profile file to point to the OFSAA Installation Directory. Assign 755 user permission to the installation directory.
- **OFSAA Staging or Metadata Directory (Mandatory):** A directory to hold the application metadata artifacts and additionally act as the staging area for the flat files. This directory is also referred to as "FTP SHARE". Create a Staging or Metadata Repository Directory to copy data files, save data extracts, and so on.

The directory must exist on the same system as the OFSAA Installation. This directory can be configured on a different mount or under a different user profile. However, the owner of the installation directory must have RWX (775) permissions to this directory.

NOTE

Ensure the OFSAA staging directory is not set to the same path as the OFSAA installation directory and is not a subdirectory inside the OFSAA installation directory.

5.10 Configure the OS File System Settings and Environment Settings in the .profile File

This section describes the steps to configure the operating system and file system settings.

Topics:

- [Configure Operating System and File System Settings](#)
- [Configure the Environment Settings](#)

5.10.1 Configure Operating System and File System Settings

Log in as a root user and create the .profile file at the home directory of the logged-in user if it is not already available. The user must have 755 permission on the file to execute it. This file consists of various parameters for Environment Settings, OS, and File System Settings.

The following table displays the required settings for the operating system and file system.

Table 13: Configure Operating System and File System Settings

Parameter	Configuration Action
File Descriptor Settings	<p>In the <code>sysctl.conf</code> file, to change the number of file descriptors, do the following as the root user:</p> <ol style="list-style-type: none"> Edit the following line in the <code>/etc/sysctl.conf</code> file: <code>fs.file-max = <value></code> where <code><value></code> is greater than 15000 Apply the change by running the following command: <code># /sbin/sysctl -p</code> <p>NOTE: The value specified here is the minimum value to be set for the installation process to go forward. For other modules, this value may depend on the available resources and the number of processes executed in parallel.</p>
Total Number of Process Settings	<p>In the <code>sysctl.conf</code> file, set the value to greater than 4096.</p> <p>NOTE: The value specified here is the minimum value to be set for the installation process to go forward. For other modules, this value may depend on the available resources and the number of processes executed in parallel.</p>
Port Settings	<p>Default port numbers to be enabled on the system are 6500, 6501, 6505, 6507, 6509, 6510, 6666, 9999, and 10101.</p>
OS Locale	<p>Linux: <code>en_US.UTF-8</code> Solaris: <code>en_US.UTF-8</code></p> <p>To check the locale installed, execute the following command: <code>locale -a grep -i en_US.utf</code></p>

If you are a non-root user, then configure the following settings:

Table 14: Configure Operating System and File System Settings

Parameter	Configuration Action
Installation Directory	In the <code>.profile</code> file, set the variable <code>FIC_HOME</code> to point to the OFSAA Installation Directory.
<code>.profile</code> permissions	You must have 755 permission on the <code>.profile</code> file.

To set the parameters for the `.profile` file, login as a non-root user, and configure the environment settings.

WARNING

Do not modify any other parameters other than the parameters mentioned in the following subsections.

5.10.2 Configure the Environment Settings

This section provides information to configure the environment settings before installation.

Topics:

- [Java Settings](#)
- [Oracle Database Server and Client Settings](#)
- [TNS Entries in TNSNAMES.ORA File](#)
- [Time Zone Settings](#)

5.10.2.1 Java Settings

The following table displays the Java settings required for installation.

Table 15: Java Settings

Description	Example Value
In the <code>.profile</code> file, set PATH to include the Java Runtime Environment (JRE) absolute path. Ensure that SYMBOLIC links to JAVA installation are not set in the PATH variable.	<pre>JAVA_HOME=/scratch/jdk<<version>>/jre</pre> <p>For example: <code>PATH=/usr/java/jre1.8.0_221/bin:\$ORACLE_HOME/bin:\$PATH</code> <code>JAVA_HOME=/scratch/jdk<<version>>/jre</code></p> <p>NOTE: OFSAA does not support OpenJDK and JRE.</p>
In the <code>.profile</code> file, set PATH to include the Java Runtime Environment bin path.	<pre>JAVA_BIN=/scratch/<<version>>/jre/bin</pre> <p>For example: <code>PATH=/usr/java/jre1.8.0_221/bin:\$ORACLE_HOME/bin:\$PATH</code></p>
In the <code>.profile</code> file, set the Java tool options for all versions JDK 11.0.20 and above updates	<pre>JAVA_TOOL_OPTIONS=" Djdk.util.zip.disableZip64ExtraFieldValidation=true" export JAVA_TOOL_OPTIONS</pre>
Enable unlimited cryptographic policy for Java.	For more information, see the <i>Enabling Unlimited Cryptographic Policy</i> section from the OFS Analytical Applications Infrastructure Administration Guide .

5.10.2.2 Oracle Database Server and Client Settings

The following table displays the Oracle Database server and client settings required for installation.

Table 16: Oracle Database Server and Client Settings

Description	Example Value
In the <code>.profile</code> file, set <code>TNS_ADMIN</code> pointing to the appropriate <code>tnsnames.ora</code> file.	<code>TNS_ADMIN=\$HOME/tns</code>
In the <code>.profile</code> file, set <code>ORACLE_HOME</code> pointing to the appropriate Oracle Client installation.	<code>ORACLE_HOME=/scratch/oraofss/app_client18c/product/18.0.0/client_1</code>
In the <code>.profile</code> file, set <code>PATH</code> to include the appropriate <code>\$ORACLE_HOME/bin</code> path.	<code>PATH=\$JAVA_HOME/bin:\$ORACLE_HOME/bin</code>
OFSAA Processing Server	<p><code>ORACLE_HOME</code> must be set in the <code>.profile</code> file and point to appropriate Oracle DB Client installation.</p> <p><code>PATH</code> in the <code>.profile</code> file must be set to include the appropriate <code>\$ORACLE_HOME/bin</code> path.</p> <p>Ensure that an entry (with <code>SID</code> or <code>SERVICE NAME</code>) is added in the <code>tnsnames.ora</code> file.</p>

5.10.2.3 TNS Entries in the TNSNAMES.ORA File

The section includes information about the TNS entries in the `TNSNAMES.ORA` file for Non-TCPS and TCPS.

5.10.2.3.1 Non-TCPS

The following table displays the Non-TCPS settings required for installation.

Table 17: TNS entries in the TNSNAMES.ORA file for Non-TCPS

Description	Example Value
Ensure that an entry (with <code>SID/ SERVICE NAME</code>) is added in the <code>tnsnames.ora</code> file on the OFSAA server.	<pre><SID_NAME> = DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = TCP) (HOST = <HOST_NAME>.in.oracle.com) (PORT = 1521))) (CONNECT_DATA = (SERVICE_NAME = <SID_NAME>)) <ATOMIC_SCHEMA_NAME> = (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = TCP) (HOST = <HOST_NAME>.in.oracle.com) (PORT = 1521))) (CONNECT_DATA = (SERVICE_NAME = <SID_NAME>)))</pre>

```

<SID_NAME> =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP) (HOST = <HOST_NAME>) (PORT = <PORT
NUMBER>))
    )
    (CONNECT_DATA =
      (SERVICE_NAME = <SID_NAME>)
    )
  )

<ATOMICSCHEMANAME> =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP) (HOST = <HOST_NAME>) (PORT = <PORT
NUMBER>))
    )
    (CONNECT_DATA =
      (SERVICE_NAME = <SID_NAME>)
    )
  )

```

NOTE The ATOMIC SCHEMA NAME must be the same as defined in the OFS_<App Pack>_SCHEMA_IN.xml file.

5.10.2.3.2 TCPS

The following table displays the TCPS settings required for installation.

Table 18: TNS entries in the TNSNAMES.ORA file for TCPS

Description	Example Value
Ensure that an entry (with SID/ SERVICE NAME) is added in the tnsnames.ora file on the OFSAA server.	<pre> <SID_NAME> = DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = TCPS) (HOST = <HOST_NAME>.in.oracle.com) (PORT = 1521))) (CONNECT_DATA = (SERVICE_NAME = <SID_NAME>)) <ATOMIC_SCHEMA_NAME> = (DESCRIPTION =(ADDRESS_LIST = (ADDRESS = (PROTOCOL = TCPS) (HOST = <HOST_NAME>.in.oracle.com) (PORT = 1521))) (CONNECT_DATA = (SERVICE_NAME = <SID_NAME>))) (security=(ssl_server_cert_dn=CN=<HO ST_NAME>))) </pre>
Ensure that an entry (with WALLET_HOME and wallet parameters) is added in the sqlnet.ora file on the OFSAA server must be the same as the Oracle database server running with TCPS.	<pre> NAMES.DIRECTORY_PATH= (TNSNAMES, EZCONNECT)WALLET_LOCATION = (SOURCE = (METHOD = FILE) (METHOD_DATA = (DIRECTORY = <PATH TO WALLET DIRECTORY>))) SQLNET.WALLET_OVERRIDE = TRUE SSL_CLIENT_AUTHENTICATION = FALSE SQLNET.AUTHENTICATION_SERVICES = (TCPS,NTS,BEQ) SSL_CIPHER_SUITES = (SSL_RSA_WITH_AES_256_CBC_SHA, SSL_RSA_WITH_3DES_EDE_CBC_SHA) </pre>

```

<SID NAME> =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCPS) (HOST = <HOST NAME>) (PORT = <PORT
NUMBER>))
    )
    (CONNECT_DATA =
      (SERVICE_NAME = <SID NAME>)
    (security=(ssl_server_cert_dn=CN=<HOST NAME>))
    )
  )

<ATOMICSCHEMANAME> =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCPS) (HOST = <HOST NAME>) (PORT = <PORT
NUMBER>))
    )
    (CONNECT_DATA =
      (SERVICE_NAME = <SID NAME>)
    (security=(ssl_server_cert_dn=CN=<HOST NAME>))
  )
)

```

NOTE The ATOMIC SCHEMA NAME must be the same as defined in the OFS_<App Pack>_SCHEMA_IN.xml file, which also includes prefix without underscore. For example, DEVOFSAAATM.

5.10.2.4 Time Zone Settings

In the .profile file, set the Time Zone parameter to indicate the time zone of your region or location.

Table 19: Time Zone Settings

Description	Example Value
Time Zone	TZ=Asia/Calcutta

5.11 Download the OFS HM Application Pack Installer and Erwin Data Model

To download the OFS HM Installer Release v8.1.1.0.0, follow these steps: (Bug Number: **32309670**)

1. Log in to My Oracle Support and search for **32309670** under the **Patches & Updates** tab.
2. Download the installer archive and copy (in Binary mode) to the download directory that exists in the OFS HM installation setup.

NOTE

Download the OFS HM Erwin Data Model patch **32584408** from [My Oracle Support](#). You can search for the patch number in the Patches and Updates tab and download it.

5.12 Extract the Software

You must be logged in to the UNIX operating system as a non-root user to perform the following software extraction steps:

1. Download the unzip utility (OS-specific) `unzip_<os>.Z` and copy it in Binary mode to the directory that is included in your PATH variable.

If you already have an unzip utility to extract the contents of the downloaded archive, skip this step.

2. Uncompress the unzip installer file using the following command:

```
uncompress unzip_<os>.Z
```

NOTE

If an error message: *uncompress: not found [No such file or directory]* is displayed, contact your UNIX administrator.

3. Assign execute (751) to the file using the following command:

```
chmod 751 unzip_<OS>
```

For example: `chmod 751 unzip_sparc`

4. Extract the contents of the OFS HM Application Pack Release 8.1.1.0.0 installer archive file in the download directory using the following command:

```
unzip OFS_HM_PACK.zip
```

5. Navigate to the download directory and assign execute permission to the installer directory using the following command:

```
chmod -R 750 OFS_HM_Pack
```

6 Installation

This section provides detailed steps to install the OFS HM Application Pack.

Topics:

- [Installation Checklist](#)
- [Configure the OFS_HM_PACK.xml File](#)
- [Configure the Schema Creator Utility](#)
- [Execute the Schema Creator Utility](#)
- [Configure the OFSAAI_InstallConfig.xml File](#)
- [Install the OFS HM Application Pack](#)

6.1 Installation Checklist

You can use this checklist to have a quick glance at everything that you will be doing to install this application. The link provided in each step takes you to a section either within this document or to another referenced document.

Table 20: Installation Checklist

Sl. No.	Installation Activity
1	Configure the OFS_HM_PACK.xml file.
2	Configure the OFS_HM_SCHEMA_IN.xml file.
3	Execute the Schema Creator Utility in Online, Offline, modes, and verify the log file.
4	Configure the Silent.props file.
5	Configure the OFSAAI_InstallConfig.xml file.
6	Trigger the application installation.
7	Verify the installation logs.

6.2 Configure the OFS_HM_PACK.xml File

The OFS_HM_PACK.xml file contains details on the various products that are packaged in the OFS HM Application. This section details the various tags and parameters available in the file and the values that must be updated. Before installing the HM Application Pack, it is mandatory to update this file.

NOTE Enable licenses as per your Service Level Agreement (SLA).

To configure the OFS_HM_PACK.xml file, follow these steps:

1. Navigate to the OFS_HM_PACK/conf directory.
2. Open the OFS_HM_PACK.xml file in a text editor.

3. Configure the OFS_HM_PACK.xml file as mentioned in the following table.

Table 21: OFS_HM_PACK.xml File Parameters

Tag Name or Attribute Name	Description	Mandatory (Y or N)	Comments
APP_PACK_ID	Unique Application Pack Identifier	Y	Unique Seeded Value. Do not modify this value.
IS_OPT_INSTALL VALUE="TRUE"	Unique Application Entry	Y	Unique Seeded Value. Do not modify this value.
APP_PACK_NAME	Unique Application Pack Name	Y	Unique Seeded Value. Do not modify this value.
APP_PACK_DESCRIPTION	Unique Application Pack Description	Y	Unique Seeded Value. Do not modify this value.
VERSION	Unique release version	Y	Unique Seeded Value. Do not modify this value.
APP	Unique Application Entries	Y	Unique Seeded Value. Do not modify this value.
APP_ID	Unique Application Identifier	Y	Unique Seeded Value. Do not modify this value.
APP_ID/ PREREQ	Prerequisite Application or Product	Y	<p>Unique Seeded Value. For most applications, the prerequisite that is set is OFSAAAI. For all other applications, the default Application ID is set to none.</p> <p>You can set it for the applications you want to install.</p> <p>Do not modify this value.</p>
APP_ID/ DEF_SEL_FLAG	Default Selected Flag	Y	<p>In all Application Packs, Infrastructure requires this value to be set to YES.</p> <p>Do not modify this value.</p>
APP_ID/ ENABLE	Enable Application or Product	Y	<ul style="list-style-type: none"> • Default YES for Infrastructure • NO for Others <p>Set this attribute-value to YES against every APP_ID which is licensed and must be enabled for use.</p> <p>NOTE: The Application or Product cannot be disabled once enabled. However, an Application or Product which is not enabled during installation can be enabled later through the Administration UI.</p>

Tag Name or Attribute Name	Description	Mandatory (Y or N)	Comments
APP_NAME	Unique Application or Product Name	Y	Unique Seeded Value. Do not modify this value.
APP_DESCRIPTION	Unique Application or Product Name	Y	Unique Seeded Value. Do not modify this value.
VERSION	Unique release version	Y	Unique Seeded Value. Do not modify this value.

6.3 Configure the Schema Creator Utility

Creating database users or schemas (RDBMS) is one of the primary steps in the complete OFS HM installation process. The Schema Creator utility enables you to quickly get started with the installation by creating Database User(s) or Schema(s) (RDBMS), assigning the necessary GRANT(s), creating the required entities in the schemas and so on.

Configure and execute the schema creator utility before installing the OFSAA Application Pack.

Topics:

- [Prerequisites](#)
- [Configure Schema Creator Utility for RDBMS Installation](#)

6.3.1 Prerequisites

Ensure you have the following before configuring the Schema Creator Utility:

NOTE Ensure that the tablespace (or tablespaces) used for the database user (or users) is set to AUTOEXTEND ON.

- Oracle User ID and Password with SYSDBA privileges
- JDBC Connection URL for RAC or Non-RAC database
- The HOSTNAME or IP of the server on which OFSAA is being installed.
- It is recommended to set the PGA_AGGREGATE_LIMIT database-parameter value sufficiently when Oracle 18c or 19c is installed.
- You must add a TNS entry before the installation.

6.3.2 Configure the Schema Creator Utility for RDBMS Installation

If the installation is being performed for RDBMS, provide the Pack specific schema details in the OFS_HM_SCHEMA_IN.xml file.

You can configure the following types of schemas:

- **CONFIG:** This schema holds the entities and other objects required for OFSAA setup configuration information. Only one CONFIG schema per OFSAA instance is permitted.

- **ATOMIC:** This schema holds the data model entities. One ATOMIC schema is attached to one Information Domain. You can have multiple ATOMIC schemas for a single OFSAA instance.

6.3.2.1 Configure the OFS_HM_SCHEMA_IN.xml File

This section describes how to create database schemas, objects within schemas, and assigning appropriate grants.

Specify the database schemas required for the installation in the OFS_HM_SCHEMA_IN.xml file. Update the values of the various tags and parameters available in this file before executing the schema creator utility.

This file must be configured only if the database is RDBMS.

To configure the OFS_HM_SCHEMA_IN.xml file, follow these steps:

1. Log in to the system as a non-root user.
2. Navigate to the OFS_HM_PACK/schema_creator/conf directory.
3. Edit the OFS_HM_SCHEMA_IN.xml file using a text editor.

Figure 9: Sample OFS_HM_SCHEMA_IN.xml File

```

1 <APPPACKSCHEMA>
2 <APP_PACK_ID>OFS_HM_PACK</APP_PACK_ID>
3 <IS_TCPS>FALSE</IS_TCPS>
4 <JDBC_URL></JDBC_URL>
5 <JDBC_DRIVER>oracle.jdbc.driver.OracleDriver</JDBC_DRIVER>
6 <HOST></HOST>
7 <SETUPINFO NAME="DEV" PREFIX_SCHEMA_NAME="N" />
8 <PASSWORD APPLYSAMEFORALL="Y" DEFAULT="" />
9 <!--
10 <ADV_SEC_OPTIONS>
11 <OPTION NAME="IDE" VALUE="TRUE"/>
12 <OPTION NAME="DATA_REDACT" VALUE="TRUE" />
13 </ADV_SEC_OPTIONS>
14 <TABLESPACES>
15 <TABLESPACE NAME="OFS_AAI_TBSF1" VALUE="TBS_USERS_1" DATAFILE="/scratch/oral2c/app/oracle/oradata/ENCRDB/datafile/tbs_users1.dbf"
16 | SIZE="500M" AUTOEXTEND="OFF" ENCRYPT="ON" />
17 <TABLESPACE NAME="OFS_AAI_TBSF2" VALUE="TBS_USERS_2" DATAFILE="/scratch/oral2c/app/oracle/oradata/ENCRDB/datafile/tbs_users2.dbf"
18 | SIZE="500M" AUTOEXTEND="OFF" ENCRYPT="OFF" />
19 </TABLESPACES>
20 -->
21 <SCHEMAS>
22 <SCHEMA TYPE="CONFIG" NAME="ofsaaconf" PASSWORD="" APP_ID="OFS_AAI" DEFAULTTABLESPACE="USERS" TEMPTABLESPACE="TEMP" INFODOM="" QUOTA="" />
23 <SCHEMA TYPE="ATOMIC" NAME="ofsaaatm" PASSWORD="" APP_ID="OFS_AAAI" APP_GRP="1" DEFAULTTABLESPACE="USERS" TEMPTABLESPACE="TEMP" INFODOM="" QUOTA="" />
24 <SCHEMA TYPE="ATOMIC" NAME="ofsaaatm" PASSWORD="" APP_ID="OFS_HM" APP_GRP="1" DEFAULTTABLESPACE="USERS" TEMPTABLESPACE="TEMP" INFODOM="" QUOTA="" />
25 </SCHEMAS>
26 </APPPACKSCHEMA>
27

```

4. Configure the values as mentioned in the following table and save the file.

NOTE

On successful execution of the utility, the passwords entered in the OFS_HM_SCHEMA_IN.xml file are nullified.

Table 22: OFS_HM_SCHEMA_IN.xml file Parameters

Tag Name or Attribute Name	Description	Mandatory (Y or N)	Default Value or Permissible Value	Comments
<APP_PACK_ID>	Seeded unique ID for the OFSSAA Application Pack	Y	OFS_HM_PACK	Do not modify this value.
<IS_TCPS>	Enter if the TCPS configuration is required.	Y	Seeded, with FALSE as the default value.	Modify this to TRUE if you require the installer to uptake the configuration.
<JDBC_URL>	<p>Enter the JDBC URL.</p> <p>NOTE: You can enter the following JDBC URL types:</p> <ol style="list-style-type: none"> 1. RAC/ NON-RAC enabled database connectivity URL. 2. TCPS RAC/ NON-RAC enabled database connectivity URL provided the <IS_TCPS> tag value is TRUE. <p>Wallet-enabled JDBC URL.</p>	Y	<p>Example:</p> <p>jdbc:oracle:thin:@< DBSERVER IP/ HOST/ IP>:<PORT>:<SID></p> <p>or</p> <p>jdbc:oracle:thin:@//[HOST][:PORT]/SERVICE</p> <p>or</p> <p>jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=[HOST])(port=[PORT]))(ADDRESS=(PROTOCOL=TCP)(HOST=[HOST])(PORT=[PORT]))(LOAD_BALANCE=yes)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=[SERVICE])))</p> <p>For example:</p> <p>jdbc:oracle:thin:@//dbhost.server.com:1521/service 1</p> <p>or</p> <p>jdbc:oracle:thin:@//dbhost.server.com:1521/scan-1</p> <p>or</p> <p>jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROT</p>	<p>Ensure to add an entry (with SID/ SERVICE NAME) in the <code>tnsnames.ora</code> file on the OFSAA server. The entry must match with the SID/ SERVICE NAME used in the JDBC URL.</p> <p>Ensure that you have configured:</p> <ol style="list-style-type: none"> 3. The correct Oracle Wallet with the credentials for stored Sys, Config, and Atomic Users. 4. The JDBC URL as follows: <pre>jdbc:oracle:thin://@</pre> <p>For more information on how to configure Oracle Wallets for OFSAA Installation and Data Sources, see the OFS Analytical Applications Infrastructure Administration Guide.</p>

Tag Name or Attribute Name	Description	Mandatory (Y or N)	Default Value or Permissible Value	Comments
			OCOL=TCP)(HOST=dbhost1.server.com) (port=1521))(ADDRESS=(PROTOCOL=TCP)(HOST=dbhost2.server.com)(PORT=1521))(LOAD_BALANCE=yes)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=service1))) or <JDBC_URL>jdbc:oracle:thin:@(DESCRIPTION = (ADDRESS = (PROTOCOL = TCPS)(HOST = dbhost.server.com)(PORT = 2484))(CONNECT_DATA =(SERVER = DEDICATED)(SERVICE_NAME=SERVICEID))(security=(ssl_server_cert_dn=CN=dbhost))) or jdbc:oracle:thin:/@	
<JDBC_DRIVER>	This driver's name is seeded by default.	Y	Example: oracle.jdbc.driver.OracleDriver	Only JDBC Thin Driver is supported. Do not modify this value.
<HOST>	Enter the Hostname/ IP Address of the system on which you are installing the OFSAA components.	Y	Hostname/ IP Address	
<SETUPINFO>/PREFIX_SCHEMA_NAME	Identifies whether the value specified in <SETUPINFO>/NAME attribute must be prefixed to the schema name.	N	YES or NO	The default value is YES.

Tag Name or Attribute Name	Description	Mandatory (Y or N)	Default Value or Permissible Value	Comments
<SETUPINFO>/NAME	Enter the acronym for the type of implementation. This information is displayed in the OFSAA Home Page. On executing the schema creator utility, this value is prefixed with each schema name. For example: dev_ofsaconf, uat_ofsaatm.	Y	Seeded, with REG PREFIX_SCHEMA_NAME="N" as the default value. Accepts strings with a minimum length of two and a maximum of four. Example: DEV, SIT, PROD	This name appears in the OFSAA Landing Page as "Connected To: xxxx". The schemas that are created get this prefix. For example, dev_ofsaconf, uat_ofsaconf, and so on.
<PASSWORD>/DEFAULT*	Enter the password if you want to set a default password for all schemas. You also must set the APPLYSAME-FORALL attribute as Y to apply the default password for all the schemas.	N	Seeded, with oracle123 as the default value. The maximum length allowed is 30 characters. Special characters are not allowed.	On successful execution of the utility, the entered password in the OFS_<APP PACK>_SCHEMA_IN.xml file is cleared.
<PASSWORD>/APPLYSAMEFORALL	If you have entered Y in APPLYSAME-FORALL attribute and also have specified individual passwords for all the schemas, then the specified individual passwords will take precedence.	Y	Default N Permissible: Y or N. Enter Y if you want to apply the password specified in the DEFAULT attribute for all the schemas. If you enter as N, you must provide individual passwords for all schemas.	Setting this attribute value is mandatory if the DEFAULT attribute is set.

Tag Name or Attribute Name	Description	Mandatory (Y or N)	Default Value or Permissible Value	Comments
<SCHEMA>/TYPE	The different types of schemas that are supported in this release are ATOMIC and CONFIG. By default, the schemas types are seeded based on the Application Pack.	Y	ATOMIC/CONFIG	Only One CONFIG schema can exist in the file. Do not edit this attribute value. This schema identifies as the CONFIGURATION schema that holds the OFSAA setup details and other Metadata information. Multiple ATOMIC schemas can exist in the file.
<SCHEMA>/NAME	The schemas' names are seeded based on the Application Pack by default. You can edit the schema names if required. The Schema Name will have a prefix of the SETUPINFO/ NAME attribute.	Y	Seeded, with OFSCONFIG as the default value. The permissible length is 15 characters and only alphanumeric characters are allowed. No special characters allowed except underscore '_'. .	SETUPOINFO/NAME attribute value is prefixed to the schema name being created. For example, if a name is set as 'ofsaatm' and setupinfo as 'uat', then schema being created is 'uat_ofsaatm'.
<SCHEMA>/PASSWORD	Enter the password of the schema to be created. If this attribute is left blank, then the password specified in the <PASSWORD>/DEFAULT attribute is applied as the Schema Password.	N	The maximum length allowed is 30 characters. Special characters are not allowed.	It is mandatory to enter the password if you have set the <PASSWORD>/APPLYSAMEFORALL attribute as N.
<SCHEMA>/APP_ID	The Application ID is seeded based on the Application Pack by default.	Y	Unique seeded values are: OFS_AAI OFS_HM	Identifies the Application/ Product for which the schema is being created. Do not edit this attribute value. Do not modify this value.

Tag Name or Attribute Name	Description	Mandatory (Y or N)	Default Value or Permissible Value	Comments
<SCHEMA>/DEFAULT TABLESPACE	Enter the available default tablespace for DB User. If this attribute is left blank, then USERS is set as the default tablespace.	N	Seeded, with USERS as the default value. Permissible Any existing valid tablespace name.	Modify this value to associate any valid tablespace with the schema.
<SCHEMA>/TEMPTABLESPACE	Enter the available temporary tablespace for DB User. If this attribute is left blank, TEMP is set as the default tablespace.	N	Seeded, with TEMP as the default value. Permissible Any existing valid temporary tablespace name.	Modify this value to associate any valid tablespace with the schema.
<SCHEMA>/QUOTA	Enter the quota to be set on the DEFAULTTABLESPACE attribute for the schema/user. Minimum: 500M or Unlimited on default Tablespace.	N	Permissible values are a minimum of 500M or UNLIMITED as the default value. Example: 600M/m 20G/g UNLIMITED/unlimited	Modify this value to grant the specified quota on the mentioned tablespace to the user.
<SCHEMA>/INFODOM	Enter the name of the Information Domain to associate this schema. The schema creator utility automatically derives an Information Domain Name based on the Application Pack if no value is specified for this attribute.	N	Seeded, with OFSINFDOM as the default value. Permissible length is 16 characters and only alphanumeric characters are allowed. No special characters are allowed.	

Tag Name or Attribute Name	Description	Mandatory (Y or N)	Default Value or Permissible Value	Comments
<ADV_SEC_OPTIONS> /	Parent tag to hold Advance Security Options.	N		Uncomment the tag and edit if you want to add security options. For example, TDE and Data Redact. For details, see the example in the comments for the <TABLESPACE>/ENCRYPT tag.
<ADV_SEC_OPTIONS> /TDE	Tag to enable/disable TDE.	N	The default is FALSE. To enable TDE, set this to TRUE.	Ensure this tag is not commented if you have uncommented <ADV_SEC_OPTIONS>
<ADV_SEC_OPTIONS> /DATA_REDACT	Tag to enable/disable the Data Redaction feature.	N	The default is FALSE. To enable DATA_REDACT, set this to TRUE	Ensure this tag is not commented if you have uncommented<ADV_SEC_OPTIONS>
<TABLESPACES>	Parent tag to hold <TABLESPACE> elements	N	NA	Uncomment the tag and edit. ONLY if tablespaces are to be created as part of the installation. For details, see the example following the table. When TDE is TRUE in ADV_SEC_OPTIONS, then the <TABLESPACES> tag must be present in the XML file.
<TABLESPACE>/NAME	Logical Name of the tablespace to be created.	Y		Name, if specified, must be referred in the <SCHEMA DEFAULTTABLESPACE= "###NAME###"> attribute. Note the ## syntax.
<TABLESPACE>/VALUE	Physical Name of the tablespace to be created.	Y	NA	Value, if specified, is the actual name of the TABLESPACE.
<TABLESPACE>/DATAFILE	Specifies the location of the data file on the server.	Y	NA	Enter the absolute path of the file to be created.
<TABLESPACE>/AUTOEXTEND	Specifies if the tablespace must be extensible or have a hard limit.	Y	ON or OFF	Set to ON to ensure that the tablespace does not run out of space when full.

Tag Name or Attribute Name	Description	Mandatory (Y or N)	Default Value or Permissible Value	Comments
<TABLESPACE>/ENCRYPT	Specifies if the tablespace(s) must be encrypted using TDE	Y	ON or OFF	<p>Set to ON to ensure that the tablespaces when created are encrypted using TDE.</p> <p>NOTE: Encryption of tablespaces requires enabling Transparent Data Encryption (TDE) on the Database Server.</p> <p>Example: The following snippet shows that TDE is enabled and hence the tablespace is shown with encryption ON.</p> <pre> <ADV_SEC_OPTIONS> <OPTION NAME="TDE" VALUE="FALSE"/> <OPTION NAME="DATA_REDACT" VALUE="FALSE" /> </ADV_SEC_OPTIONS> <TABLESPACES> <TABLESPACE NAME="OFS_AAI_TBSP_1" VALUE="TS_USERS1" DATAFILE="/ scratch/ora19c/app/oracle/ora data/OFSPQA19cDB/ts_users1.db f" SIZE="500M" AUTOEXTEND="ON" ENCRYPT="ON" /> <TABLESPACE NAME="OFS_AAI_TBSP_2" VALUE="TS_USERS2" DATAFILE="/ scratch/ora19c/app/oracle/ora data/OFSPQA19cDB/ts_users2.db f" SIZE="500M" AUTOEXTEND="ON" ENCRYPT="ON" /> </TABLESPACES> <SCHEMAS> </pre>

Tag Name or Attribute Name	Description	Mandatory (Y or N)	Default Value or Permissible Value	Comments
				<pre> <SCHEMA TYPE="CONFIG" NAME="ofsaaconf" PASSWORD="" APP_ID="OFS_AAI" DEFAULTTABLESPACE="##OFS_AAI_ TBSP_1##" TEMPTABLESPACE="TEMP" QUOTA="unlimited"/> <SCHEMA TYPE="ATOMIC" NAME="ofsaaatm" PASSWORD="" APP_ID="OFS_AAAI" DEFAULTTABLESPACE="##OFS_AAI_ TBSP_2##" TEMPTABLESPACE="TEMP" QUOTA="unlimited" INFODOM="OFSAAAIINFO"/> </SCHEMAS> </pre>

6.4 Execute the Schema Creator Utility

Depending on the option selected, select the appropriate schema creator utility execution option.

- [Execute the Schema Creator Utility in Offline Mode](#)
- [Execute the Schema Creator Utility in Online Mode](#)
- [Execute the Schema Creator Utility in TCPS Mode](#)
- [Execute the Schema Creator Utility while Installing Subsequent Applications Pack](#)

NOTE If upgrading in an Application-on-Application scenario, you must provide the same schema details you provided earlier.

After creating the schema, proceed to [Configure the OFSAAI InstallConfig.xml File](#).

6.4.1 Execute the Schema Creator Utility in Offline Mode

In the Offline mode, the utility generates an SQL script with all the required DDLs for Users, Objects, and Grants. This script must be executed by the DBA on the appropriate database identified for OFSAA usage. If you do not have the SYSDBA privileges, you can execute the Schema Creator Utility in Offline mode and generate the script file that contains the Schemas, Objects, and Grants information. Subsequently, an SYSDBA user can execute the script file manually. To run the OFSAA Application Pack installer in Silent mode, it is mandatory to execute the schema creator utility with `-s` option.

To execute the utility in Offline mode, you must have a database user with the following GRANTS (alternatively, you can also connect as a user with SYSDBA privileges):

- SELECT ON DBA_ROLES
- SELECT ON DBA_USERS
- SELECT ON DBA_DIRECTORIES
- SELECT ON DBA_TABLESPACES
- CREATE SESSION

NOTE Explicit Grants to the user are required. Grants assigned through Roles are not supported.

To execute the schema creator utility in the offline mode, follow these steps:

1. Log in to the system as a non-root user.
2. Navigate to the following path: `OFS_HM_PACK/schema_creator/bin`.
3. Execute the `osc.sh` file using the following command:

```
./osc.sh -s -o
```

The following message is displayed:

You have chosen OFFLINE mode. Triggering the utility in OFFLINE mode will generate the script. Do you wish to proceed? (Y/y or N/n).

4. Enter `Y` to proceed.
5. Enter the DB Username with SELECT privileges.
6. Enter the User Password.
7. The console runs the initial validation checks and displays the following message:

You have chosen to install this Application Pack on <Name of the Atomic Schema> ATOMIC schema. Do you want to proceed? (Y or N).

8. Enter `Y` to start the script generation. The following message is displayed:

You have chosen to install this Application Pack on <Name of the Infodomain>. Do you want to proceed? (Y or N).

On successful execution of the schema creator utility, the console displays the following status message:

Schema Creator executed successfully. Please execute `scratch/ofsaapp/OFS_HM_PACK/schema_creator/sysdba_output_scripts.sql` before proceeding with the installation.

NOTE

If there are any errors during the SQL script execution, reconfigure the `OFS_HM_SCHEMA_IN.xml`, and repeat steps in this procedure to execute the utility. This regenerates the scripts with the correct information.

9. Navigate to the `OFS_HM_PACK/schema_creator` directory.
10. Log in to SQLPLUS as a user having SYSDBA Privileges.
11. Execute the `sysdba_output_scripts.sql` file using the following command:

```
SQL>@sysdba_output_scripts.sql
```

Alternatively, you can copy the `sysdba_output_scripts.sql` file and `SQLScripts` directory to a remote server and execute the `sysdba_output_scripts.sql` file, after providing appropriate execute permissions.

12. Make a TNS entry for the new users created. For details, see [Add the TNS entries in TNSNAMES.ORA file](#) section.

NOTE

See the `sysdba_output_scripts.log` file for execution status. If there are any errors, contact [My Oracle Support](#). If there are no errors in the execution, the log file is empty.

As a result of this task, the `OFS_HM_SCHEMA_OUTPUT.XML` file is generated. Do not modify this file.

After creating the schema, proceed to [Configure the OFSAAI InstallConfig.xml File](#) section.

6.4.2 Execute the Schema Creator Utility in Online Mode

In Online mode, the utility connects to the database and executes the DDLs for Users, Objects, and Grants. If you have SYSDBA privileges you can execute the Schema Creator Utility in Online mode and thereby create the Users, Objects, and Grants during the execution process. To execute the utility in the Online mode, you must connect as <User> AS SYSDBA.

If you want to run the OFSAA Application Pack Installer in Online mode, it is mandatory to execute the schema creator utility with -s option.

To execute the utility with -s option in online mode, follow these steps:

1. Edit the file
OFS_HM_PACK/schema_creator/conf/OFS_HM_SCHEMA_IN.xml
in a text editor. See [Configure the OFS_HM_SCHEMA_IN.xml File](#)
section for values to modify in the XML file.

2. Execute the utility with -s option. For Example: `./osc.sh -s`
3. Make a TNS entry for the new users created. For details, see [Add the TNS entries in TNSNAMES.ORA file](#).

The following message is displayed:

You have chosen ONLINE mode. Triggering the utility in ONLINE mode will execute the DDLs directly on the Database. Do you wish to proceed? (Y/y or N/n).

4. Enter `Y` to proceed.

The following message is displayed:

You have chosen to install this application pack on INFODOM "<INFODOM_NAME>". Do you wish to proceed? (Y/y or N/n).

5. Enter `Y` to proceed.
6. After Schema creation is successful, proceed to [Configure the OFSAAI InstallConfig.xml File](#).

As a result of this task is the OFS_HM_SCHEMA_OUTPUT.XML file is generated. Do not modify this file.

6.4.3 Execute the Schema Creator Utility in TCPS Mode

If you intend to run the OFS Hedge Management and IFRS Valuations Installer in TCPS mode, it is mandatory to execute the schema creator utility with -s option and in online mode.

Prerequisite:

Configure the Oracle Wallet with trusted certificates between the DB Server with TCPS configured and the DBClient to enable communication through the SSL protocol.

NOTE

You can also use Oracle Wallet to support OFSAA for storing Config and Atomic Schema credentials. To add OFSAA Config and Atomic Schema credentials to Oracle Wallet, see the [OFS Analytical Applications Infrastructure Administration Guide](#).

For example, all the database utilities such as sqlplus, tnsping, and sqlldr must work between the Client and the Server.

To execute the utility, follow these steps:

1. Edit the file `OFS_HM_PACK/schema_creator/conf/OFS_HM_SCHEMA_IN.xml` in the text editor. See the tables in the [Configure the OFS_HM_SCHEMA_IN.xml File](#) section for values to modify in the XML file.
2. Execute the utility with `-s` option.


```
./osc.sh -s TCPS <WALLET_HOME>
```

For example: `$./osc.sh -s TCPS /scratch/oraofss/wallet`
3. The following message is displayed:


```
Triggering the utility in ONLINE mode will execute the DDLS directly on the Database. Do you wish to proceed? (Y/y or N/n).
```
4. Enter `Y` to proceed.
5. The following message is displayed:


```
You have chosen to install this application pack on "<ATOMIC_SCHEMA_NAME>" ATOMIC schema. Do you wish to proceed? (Y/y or N/n).
```
6. Enter `Y` to proceed.

The result of this task is that the `OFS_HM_SCHEMA_OUTPUT.XML` file is generated. Do not modify this file.

After Schema creation is successful, proceed to [Configure the OFSAAI_InstallConfig.xml File](#) section.

6.4.4 Execute the Schema Creator Utility while Installing Subsequent Applications Pack

When executing the schema creator utility during the installation of a subsequent Applications Pack, you can choose to install the pack either on the same Information Domain or Atomic Schema of the existing application pack or on a new Information Domain or Atomic Schema. You can execute the schema creator utility either in Online or Offline mode.

To execute the schema creator utility while installing OFS HM Application Pack over an existing Application Pack, follow these steps:

1. Edit the file `OFS_HM_PACK/schema_creator/conf/OFS_HM_SCHEMA_IN.xml` in a text editor. See the [Configure the OFS_HM_SCHEMA_IN.xml File](#) section for values you must modify in the XML file.

2. Execute the utility with -s option. For Example: `./osc.sh -s -o`

After successful schema creation, execute the `sysdba_output_scripts.sql` file

NOTE You must use the same config schema user name as the previous application pack.

3. The utility identifies the application packs that are already installed on the current OFSAA setup and displays the following on the console:
 - Atomic schema of the existing application pack
 - Information Domain Name of the existing pack
 - List of installed application packs
4. Enter Y or y to start the schema creation.
5. If you enter N or n, the list of Atomic Users is displayed.
6. Select the Atomic User on which you want to install the application pack.
7. Make a TNS entry for the new users created. For details, see [Add the TNS entries in TNSNAMES.ORA file](#) section.

On successful execution of schema creator utility, the console displays the following status message:

Success. Please proceed with the installation.

NOTE

1. See the log file in the `OFS_HM_PACK/schema_creator/logs` directory for the execution status.
2. See the log file `sysdba_output_scripts.log` for the execution status if executed in offline mode. The log will be empty if there are no errors in the execution.
3. If there are any errors, contact [My Oracle Support](#).

6.5 Configure the OFSAAI_InstallConfig.xml File

To configure the `OFS_InstallConfig.xml` file, follow these steps:

1. Navigate to the `OFS_HM_PACK/OFS_AAI/conf/` directory.
2. Open the `OFSAAI_InstallConfig.xml` file in a text editor.
3. Configure the `OFSAAI_InstallConfig.xml` file as mentioned in the following table.

You must manually set the InteractionVariable parameter values as mentioned in the table. If a value is not applicable, enter NA. Ensure that the value is not entered as NULL.

Table 23: OFSAAI_InstallConfig.xml file Parameters

InteractionVariable Name	Significance and Expected Value	Mandatory
<Layer name="GENERAL">		
InteractionGroup name="WebServerType"		
WEBAPPSERVERTYPE	<p>Identifies the web application server on which the OFSAA Infrastructure web components are deployed.</p> <p>Set the following numeric value depending on the type of web application server:</p> <ul style="list-style-type: none"> • Apache Tomcat = 1 • IBM WebSphere Application Server = 2 • Oracle WebLogic Server = 3 <p>For example, <InteractionVariable name="WEBAPPSERVERTYPE">3</InteractionVariable></p>	Yes
InteractionGroup name="OFSAA Infrastructure Server Details"		
DBSERVER_IP	<p>Identifies the hostname or IP address of the system on which the Database Engine is hosted.</p> <p>NOTE: For RAC Database, the value must be NA. For example, <InteractionVariable name="DBSERVER_IP">14.15.16.17</InteractionVariable> or <InteractionVariable name="DBSERVER_IP">dbhost.server.com</InteractionVariable></p>	Yes
InteractionGroup name="Database Details"		
ORACLE_SID/SERVICE_NAME	<p>Identifies the Oracle DB Instance SID or SERVICE_NAME</p> <p>NOTE: The Oracle_SID value must be the same as it is mentioned in JDBC_URL.</p> <p>For example, <InteractionVariable name="ORACLE_SID/SERVICE_NAME">ofsaser</InteractionVariable></p>	Yes
ABS_DRIVER_PATH	<p>Identifies the directory where the JDBC driver (ojdbc<version>.jar) exists. This is typically the \$ORACLE_HOME/jdbc/lib directory.</p> <p>For example, <InteractionVariable name="ABS_DRIVER_PATH">"/oradata6/revwb7/oracle</InteractionVariable></p> <p>NOTE: See Hardware and Software Requirements to identify the correct ojdbc<version>.jar file version to be copied.</p>	Yes
InteractionGroup name="OLAP Detail"		
OLAP_SERVER_IMPLEMENTATION	<p>Identifies whether the OFSAA Infrastructure OLAP component must be configured. It depends on whether you intend to use the OLAP feature. The following numeric value must be set depending on your choice:</p> <ul style="list-style-type: none"> • YES: 1 • NO: 0 	No

InteractionVariable Name	Significance and Expected Value	Mandatory
	<p>NOTE: If the value for <code>OLAP_SERVER_IMPLEMENTATION</code> is set to 1, the installer checks if the following environment variables are set in the <code>.profile</code> file:</p> <ul style="list-style-type: none"> • <code>ARBORPATH</code> • <code>HYPERION_HOME</code> • <code>ESSBASEPATH</code> 	
InteractionGroup name="SFTP Details"		
SFTP_ENABLE	<p>Identifies if the SFTP (Secure File Transfer Protocol) feature is to be enabled. The following numeric value must be set depending on your choice:</p> <ul style="list-style-type: none"> • SFTP: 1 • FTP: 0 	Yes
<p>NOTE: The default value for <code>SFTP_ENABLE</code> is 1, which signifies that SFTP is used. Oracle recommends using SFTP instead of FTP because SFTP is more secure. However, you can ignore this recommendation and use FTP by setting <code>SFTP_ENABLE</code> to 0. You can change this selection later from the OFSAAI administration interface.</p> <p>Set <code>SFTP_ENABLE</code> to -1 to configure ftpshare and weblocal path as a local path mounted for the OFSAAI server.</p>		
FILE_TRANSFER_PORT	<p>Identifies the port used for the file transfer service. The default value specified is 22 (SFTP). Specify a value as 21 or any other PORT value if the value for <code>SFTP_ENABLE</code> is 0.</p> <p>For example, <code><InteractionVariable name="FILE_TRANSFER_PORT">21</InteractionVariable></code></p>	Yes
InteractionGroup name="Locale Detail"		
LOCALE	<p>Identifies the locale information to be used during the installation. This release of the OFSAA Infrastructure supports only US English.</p> <p>For example, <code><InteractionVariable name="LOCALE">en_US</InteractionVariable></code></p>	Yes
InteractionGroup name="OFSAA Infrastructure Communicating ports"		
<p>NOTE: The following ports are used internally by the various OFSAA Infrastructure services. The default values mentioned are set in the installation. If you intend to specify a different value, update the parameter value accordingly, ensure that the port value is in the range 1025 to 65535, and the respective port is enabled.</p>		
JAVAPORT	9999	Yes
NATIVEPORT	6666	Yes
AGENTPORT	6510	Yes
ICCPORT	6507	Yes
ICCNATIVEPORT	6509	Yes
OLAPPORT	10101	Yes
MSGPORT	6501	Yes
ROUTERPORT	6500	Yes

InteractionVariable Name	Significance and Expected Value	Mandatory
AMPORT	6505	Yes
InteractionGroup name="Web Details"		
NOTE: If the value for HTTPS_ENABLE is set to 1 , ensure that you have a valid certificate available from a trusted CA and it is configured on your web application server.		
HTTPS_ENABLE	Identifies whether the UI must be accessed using HTTP or HTTPS scheme. The default value is set to 0 . The numeric value must be set depending on the following options: <ul style="list-style-type: none"> • YES: 1 • NO: 0 For example, <code><InteractionVariable name="HTTPS_ENABLE">0</InteractionVariable></code>	Yes
WEB_SERVER_IP	Identifies the HTTP server IP or Hostname or web application server IP or Hostname, to be used to access the UI. This IP is typically the HTTP server IP. If a separate HTTP server is not available, then the value must be Web application server IP or Hostname. For example, <code><InteractionVariable name="WEB_SERVER_IP">10.11.12.13</InteractionVariable></code> or <code><InteractionVariable name="WEB_SERVER_IP">myweb.server.com</InteractionVariable></code>	No
WEB_SERVER_PORT	Identifies the web server port, which is typically 80 for non-SSL and 443 for SSL. If a separate HTTP server exists, the port value must be the value configured for the web server. WARNING: The installer will not accept the port value as: <ul style="list-style-type: none"> • 80, if the HTTPS_ENABLE variable is 1 • 443, if the HTTPS_ENABLE variable is 0 For example, <code><InteractionVariable name="WEB_SERVER_PORT">80</InteractionVariable></code>	No
CONTEXT_NAME	Identifies the web application context name which is used to build the URL to access the OFSAA application. You can identify the context name from the following URL format: <code><scheme>://<host>:<port>/<context-name>/login.jsp</code> For example: <code>https://myweb:443/ofsaadev/login.jsp</code> For example, <code><InteractionVariable name="CONTEXT_NAME">ofsaadev</InteractionVariable></code>	Yes
WEBAPP_CONTEXT_PATH	Identifies the absolute path of the exploded EAR file on the web application server. <ul style="list-style-type: none"> • For Tomcat, specify the Tomcat directory path till /webapps. For example, /oradata6/ revwb7/tomcat/webapps/. 	Yes

InteractionVariable Name	Significance and Expected Value	Mandatory
	<ul style="list-style-type: none"> For WebSphere, specify the WebSphere path as <code><WebSphere profile directory>/installedApps/<NodeCellName></code>. For example, <code>/data2/test//WebSphere/AppServer/profiles/<Profile_Name>/installedApps/aiximfNode01Cell</code>, where <code>aix-imf</code> is the Hostname. For WebLogic, specify the WebLogic home directory path. For example, <code><WebLogic home directory path>/bea/wlserver_10.3</code> <p>NOTE: For WebLogic, the value specified for this attribute is ignored and the value provided against the attribute <code>WEBLOGIC_DOMAIN_HOME</code> is considered.</p>	
WEB_LOCAL_PATH	<p>Identifies the absolute path to any directory on the web application server that can hold temporary files, which are uploaded as part of the usage of the application.</p> <p>Set this in the FTPSHARE location.</p> <p>NOTE: During a clustered deployment, ensure that this path and the directory are the same on all the nodes.</p>	Yes
InteractionGroup name="Weblogic Setup Details"		
WEBLOGIC_DOMAIN_HOME	<p>Identifies the WebLogic Domain Home.</p> <p>For example, <code><InteractionVariable name="WEBLOGIC_DOMAIN_HOME">/home/weblogic/bea/user_projects/domains/mydomain</InteractionVariable></code></p>	Yes. Specify the value only if <code>WEBAPPSERVERTYPE</code> is set as 3 (WebLogic)
InteractionGroup name="OFSAAI FTP Details"		
OFSAAI_FTPSHARE_PATH	<p>Identifies the absolute path of the directory that is identified as the file system stage area.</p> <p>NOTE: The directory must exist on the same system on which the OFSAA Infrastructure is being installed (can be on a separate mount).</p> <p>The user mentioned in the <code>APP_SFTP_USER_ID</code> parameter in the following example must have RWX permission on the directory.</p> <p>For example, <code><InteractionVariable name="APP_FTPSHARE_PATH">>/oradata6/revwb7/ftpsshare</ InteractionVariable></code></p>	Yes
OFSAAI_SFTP_USER_ID	<p>Identifies the user who has RWX permissions on the directory identified for the parameter <code>APP_FTPSHARE_PATH</code>.</p>	Yes
OFSAAI_SFTP_PRIVATE_KEY	<p>Identifies the SFTP private key for OFSAAI.</p> <p>For example, <code><InteractionVariable name="OFSAAI_SFTP_PRIVATE_KEY">/home/ofsaapp/.ssh/id_rsa</InteractionVariable></code></p>	No

InteractionVariable Name	Significance and Expected Value	Mandatory
	<p>By default, the value is NA, which indicates that, for authentication, you are prompted to enter the password for the user <OFSAAI_SFTP_USER_ID>.</p> <p>For more information on how to generate an SFTP Private key, see the Set Up SFTP Private Key section.</p>	
OFSAAI_SFTP_PASSPHRASE	<p>Identifies the passphrase for the SFTP private key for OFSAAI.</p> <p>For example,</p> <pre>InteractionVariable name="OFSAAI_SFTP_PASSPHRASE">enter a pass phrase here</InteractionVariable></pre> <p>By default, the value is NA.</p> <p>If the OFSAAI_SFTP_PRIVATE_KEY value is given and the OFSAAI_SFTP_PASSPHRASE value is NA, then the passphrase is identified as empty.</p>	No

6.5.1 Set Up the SFTP Private Key

Log in to OFSAA UNIX user using the Putty tool, where you plan for installation and generate a pair of authentication keys using the `ssh-keygen` command. If required, set passphrase. Otherwise, the OFSAAI_SFTP_PASSPHRASE tag must be set to NA.

To generate a private key, enter the commands as shown:

```
ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ofsaapp/.ssh/id_rsa):
Created directory '/home/ofsaapp/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ofsaapp/.ssh/id_rsa.
Your public key has been saved in /home/ofsaapp/.ssh/id_rsa.pub.
The key fingerprint is:
3e:4f:05:79:3a:9f:96:7c:3b:ad:e9:58:37:bc:37:e4
ofsaapp@OFSASERVER:~> cat /home/ofsaapp/.ssh/id_rsa.pub >>
/home/ofsaapp/.ssh/authorized_keys
```

Ensure the following permissions exist for the given directories:

- permissions of `.ssh` must be 700
- permissions of `.ssh/authorized_keys` must be 640
- permission of `.ssh/id_rsa` must be 400
- Permission of UNIX User created must be 755

6.6 Install the OFS HM Application Pack

ATTENTION

Before you begin the installation, configure and execute the following files:

1. [Configure the OS File System Settings and Environment Settings in the .profile File](#)
2. [Configure OFS_HM_PACK.xml File](#)
3. [Configure OFS_HM_SCHEMA_IN.xml](#)
4. [Execute the Schema Creator Utility](#)

NOTE

- For enabling the Right to be Forgotten, see [Right to be Forgotten](#).
- For enabling Data Redaction, see the [Data Redaction](#) section. For more details, see the Data Redaction section, under Data Security and Data Privacy chapter in the [OFS Analytical Applications Infrastructure Administration Guide](#).

6.6.1 Installation

To install the OFS HM Application Pack, follow these steps:

1. Log in to the system as a non-root user.
2. Identify a directory for installation and set the same in the user `.profile` file as follows:


```
FIC_HOME=<OFSAA Installation Directory>
export FIC_HOME
```
3. Execute the user `.profile` file.
4. Navigate to the `OFS_HM_PACK` directory.
5. Execute the schema creator utility with `-s` option.
6. Navigate to the path `OFS_HM_PACK/conf/OFS_HM_PACK.xml`, and enter YES in the enable tag for `OFS_AAI` and `OFS_AAAI`.
7. Installation is achieved through the properties file (`Silent.props`) that must be updated with proper values, before attempting to install using silent mode. Edit the parameters in 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: Parameters for the Silent.props File

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Specify Log Mode	1 = Debug Mode 0 = General Mode [Passwords will not be printed in the log file]	Password will be printed in the log file. The default value is 0.
APPFTP_LOG_PATH	Specify the Infodom Maintenance log path (to be created) for the new Infodom. Ignore if you are doing the installation on an existing information domain.	User Input	
DBFTP_LOG_PATH	Specify the Infodom Maintenance log path (to be created) for the new Infodom. Ignore if you are doing the installation on an existing information domain.	User Input	
UPLOAD_MODEL	Specify whether you want to perform Model Upload.	0 = If you have already performed Model Upload and want to skip the model upload process. 1 = If you want to perform Model Upload.	The default value is 1.
MODEL_TYPE	Specify whether you want to use the released datamodel or customized datamodel for the model upload process.	0 = If you want to upload the released datamodel. 1 = If you want to upload the customized datamodel.	The default value is 0.
DATAMODEL DM_DIRECTORY	Specify the path (DM_DIRECTORY) and file (DATAMODEL) name for the customized datamodel. Mandatory only if you want to upload the customized datamodel, that is you have specified MODEL_TYPE=1.	User Input	
SEGMENT_1_CODE	Specify the HM Segment Code.	User Input	

Property Name	Description of Property	Permissible values	Comments
OBI_HOST	Specify the Host Name of the OBIEE Server	User Input	This field should NOT be left blank. If OBIEE is not configured at the moment, ensure that you provide dummy value in this field
OBI_PORT	Specify the Port Number of the OBIEE Server	User Input	This field should NOT be left blank. If OBIEE is not configured at the moment, ensure that you provide dummy value in this field.
OBI_CONTEXT	Specify the Context Name of the OBIEE Server	User Input	This field should NOT be left blank. If OBIEE is not configured at the moment, ensure that you provide dummy value in this field.
ETL_APPSRC_TYPE	Specify if you want to create a new ETL App or Src pair or use an existing one.	0 = If you want to create a new ETL App or Src pair. 1 = If you want to use an existing pair.	If HM is being installed on an existing application value to be set as 1. And if HM is being newly installed the value to be set at 0.
ETL_SRC_1_DESC	ETL Staging source description.	Describe the ETL Src. Mandatory if you want to create new ETL Src if you have specified ETL_APPSRC_TYPE=1.	
ETL_SRC_2_DESC	ETL Processing source description.	Describe the ETL Src. Mandatory if you want to create new ETL Src if you have specified ETL_APPSRC_TYPE=1.	
ETL_SRC_1_NAME	ETL Staging source name.	User Input	Specify the ETL Source Name into ETL Area Definitions to be deployed.
ETL_SRC_2_NAME	ETL Processing source name.	User Input	Specify the ETL Source Name into ETL Area Definitions to be deployed.

8. Enter the following command in the console to execute the application pack installer with the Silent option.

```
./setup.sh SILENT
```
9. The installer proceeds with Pre-Installation Checks.
10. Enter the OFSAA Processing Tier FTP or SFTP password value and proceed, when prompted in the command prompt.

Table 24: Console Prompt: Enter the OFSAA Processing Tier FTP/SFTP Password

Console Prompts	User Inputs
Please enter OFSAA Processing Tier FTP or SFTP password	Enter the password to access the processing tier in the application server.

11. The process displays the OFSAA License. Enter **Y** and proceed.
12. The installer installs the AAI application.
13. After the platform is installed, the OFS HM installation begins.
14. After Data Model Upload is complete, verify the installation logs in the log directories mentioned in the [Verify the Log File Information](#) section.
15. After successful HM pack installation, the WAR file is generated and all the servers are verified and the installation complete message is displayed.
16. The OFSAA Infrastructure installation performs a post-install health check automatically on the successful installation of the product.
17. On completion of the installation, verify the installation log files mentioned in the [Verify the Log File Information](#) section.

NOTE Perform steps mentioned in the [Post-Installation](#) section.

6.6.2 Verify the Log File Information

See the following logs files for more information:

- See the log file (or files) in the `OFS_HM_PACK/OFS_AAI/logs/` directory for Infrastructure installation log.
- See the `OFSAAInfrastructure_Install.log` file located at the `$FIC_HOME` directory for the Infrastructure installation log.
- You can ignore the ORA-02291 error in the log file. For any other errors, contact My Oracle Support.
- See the `pack.install` log file in the `OFS_HM_PACK/logs` directory.

7 Post-installation

On successful installation of the Oracle Financial Services HM application pack, follow the post-installation procedures mentioned in [Post-installation Checklist](#).

Topics:

- [Post-installation Checklist](#)
- [Patch OFSAA Infrastructure Installation](#)
- [Backup the OFS_HM_SCHEMA_IN.xml, OFS_HM_SCHEMA_OUTPUT.xml, and Silent.props Files](#)
- [Stop the Infrastructure Services](#)
- [Start the Infrastructure Services](#)
- [Configure the Web Server](#)
- [Configure Resource Reference in Web Servers](#)
- [Configure Work Manager in Web Application Servers](#)
- [Create and Deploy the EAR or WAR Files](#)
- [Build EAR or WAR file once and Deploy Across Multiple OFSAA Instances](#)
- [Access the OFSAA Application](#)
- [Configure the excludeURLList.cfg File](#)
- [Configure Tomcat](#)
- [Change the ICC Batch Ownership](#)
- [Add TNS entries in the TNSNAMES.ORA File](#)
- [Update OBIEE URL](#)
- [Configure Data Source](#)
- [Configure Data Redaction in OFSAA](#)
- [Data Protection Implementation in OFSAA](#)
- [Post-Deployment Configurations](#)

7.1 Post-Installation Checklist

You can use this checklist to have a quick glance at everything that you will be doing post installing this application. The link provided in each step takes you to a section either within this document or to another referenced document.

NOTE See the *Post-Installation* section in the [OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide](#) to complete the following checklist procedures.

Table 25: Post-installation Checklist

Sl. No.	Post-installation Activity
1	Update the Config Schema. Note: This step is applicable only for deployment on the Oracle Cloud Infrastructure.
2	Edit the WDSL Property File. Note: This step is applicable only for deployment on the Oracle Cloud Infrastructure.
3	Stop the OFSAA Infrastructure services.
4	Create and deploy EAR/WAR files.
5	Start the OFSAA Infrastructure services.
6	Configure the browser settings.
7	Access the OFSAA application.
8	Configure excludeURLList.cfg file.
9	Configure the webserver.
10	Configure the Resource Reference in web application servers.
11	Configure the Work Manager in the web application servers.
12	Change the ICC batch ownership.
13	EAR/WAR File - Build Once and Deploy Across Multiple OFSAA Instances.
14	Set Data Redaction in OFS HM.
15	Implement Data Protection in OFSAA.
16	Configure Tomcat.
17	Add TNS entries in the <code>tnsnames.ora</code> file.
18	Update the OBIEE URL.
19	Configure Data Source.
20	Post-deployment Configuration. <ul style="list-style-type: none"> • OBIEE Configuration – Deploy OFS HM Analytics. • Logging as System Administrator. • Create Application Users.

Sl. No.	Post-installation Activity
	<ul style="list-style-type: none"> Map the Application User(s) to User Groups. HM Pack User Groups.

7.2 Mandatory Patch

You must download and install the mandatory patch **33663417**. Ensure that whenever any installation or upgrade or an incremental patch is applied, the mandatory patch **33663417** for Log4J must be reapplied. For more information, see the MOS Doc ID [2827801.1](#).

Download and apply the AAI mandatory One-off Patches **33995565** and **34058716**.

7.3 Patch OFS HM Installation

Oracle strongly recommends installing the latest available patch set to be up-to-date with the various releases of the OFSAA product. Contact [My Oracle Support](#). for more information on the latest release.

7.4 Updating the Config Schema

Update the configuration set `paramvalue` to `Y` in the Config Schema:

1. Log in to the Config Schema and execute the following query:

```
update configuration set paramvalue='Y' where
paramname='IS_CLOUD_INSTALL'; commit;
```

7.5 Editing the WDSL Property File

To edit the WDSL property file, follow these steps:

1. Connect to the Compute virtual machine on which the OFSAA product is installed.
2. Navigate to the `$FIC_HOME/ficdb/conf/` directory.
3. Edit the `subLedgerRun.properties` file.
4. Change the parameter in the WDSL property file to point to the WebLogic server (any of the nodes) and the listener port that is corresponding to that node.

7.6 Backup the OFS_HM_SCHEMA_IN.xml, OFS_HM_SCHEMA_OUTPUT.xml, and Silent.props Files

Backup the `OFS_HM_SCHEMA_IN.xml`, `OFS_HM_SCHEMA_OUTPUT.xml`, and `Silent.props` files as they can be reused when upgrading existing applications or installing new applications.

Table 26: Directory of Files to Backup

File Name	Directory
OFS_HM_SCHEMA_IN.xml	OFS_HM_PACK/schema_creator/conf
OFS_HM_SCHEMA_OUTPUT.xml	OFS_HM_PACK/schema_creator/
Silent.props	OFS_HM_PACK/appsLibConfig/conf

7.7 Configuring Tomcat for User Group Authorization, Data Mapping, and Disabling WADL for the Web Service

Users with system authorization roles can access User Group Authorization. However, to make it available on Tomcat web server, you have to perform the following configuration steps:

1. Navigate to the `$FIC_WEB_HOME/webroot/WEB-INF/` folder and open `web.xml` file.
2. Enter the following in the `web.xml` file.

```
<init-param>
<param-name>mappedfile</param-name>
<param-value>>false</param-value>
</init-param>
```

3. To disable the WADL for the Web Service, navigate to the following snippet in the `web.xml` file.

```
<servlet>
<servlet-name>CommonRETServlet</servlet-name>
<servlet-class>org.glassfish.jersey.servlet.ServletContainer</servlet-
class>
<init-param>
<param-name>javax.ws.rs.Application</param-name>
<param-
value>com.ofs.fsapps.commonapps.util.ApplicationResourceConfig</param-
value>
</init-param>
<load-on-startup>1</load-on-startup>
</servlet>
```

4. Add the following snippet before the `<load-on-startup>1</load-on-startup>` attribute.

```
<init-param>
<param-name>jersey.config.server.wadl.disableWadl</param-name>
<param-value>>true</param-value>
</init-param>
```

5. Save and close the file.

7.8 Stop the Infrastructure Services

See [Stop the Infrastructure Services](#) in OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide for details.

7.9 Start the Infrastructure Services

See [Start the Infrastructure Services](#) in OFS AAI Installation Guide for details.

7.10 Configure the Web Server

This step assumes the installation of a web server exists as per the prerequisites. If an installation already exists, skip, and proceed to the next step. Webserver configuration includes the following activities.

See the [Configure the Web Server](#) section in the OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide to complete these procedures.

- [Configure WebSphere Application Server for Application Deployment](#)
 - Create a New Profile in WebSphere
 - Manage IBM WebSphere SDK Java Technology Edition Versions
 - Manage Applications in WebSphere
 - Configure WebSphere Application Server to Initialize Filters before Initializing Load-On Startup Servlets
 - Configure WebSphere Application Server Persistence to JPA Specification 2.0
 - Configure WebSphere Application Server to Use a Load Balancer or Proxy Server
 - Delete WebSphere Profiles
 - Configure WebSphere HTTPS
 - Configure WebSphere Memory Settings
- [Configure WebLogic for Application Deployment](#)
 - Create Domain in WebLogic Server
 - Delete Domain in WebLogic
 - Configure WebLogic Memory Settings
- [Configure Apache Tomcat Server for Application Deployment](#)
 - Tomcat User Administration
 - Configure Servlet Port
 - Configure SSL Port
 - Configure Apache Tomcat Memory Settings
 - Configure Tomcat for User Group Authorization
 - Uninstall WAR Files in Tomcat

NOTE

- See the [Oracle Financial Services Analytical Applications Infrastructure Security Guide](#) for configurations to secure your web server.
- You must enable a sticky session or affinity session configuration on the web server. See the respective product-specific Configuration Guide for more details. Additionally, you also must enable the sticky session or affinity session configuration at the Load Balancer level if you have configured a Load Balancer in front of the web server.
- Make a note of the IP Address or Hostname and Port of the web application server. This information is required during the installation process (required if the web server is not configured).
- Add umask 0027 in the `.profile` of the UNIX account which manages the WEB server to ensure restricted access permissions.
- See the OFSAA Secure Configuration Guide or Security Guide mentioned in the [Related Documents](#) section for additional information on securely configuring your web server.

7.10.1 Additional Configurations for Web Servers

This section provides information for additional configuration required for the web servers on OFS HM.

NOTE

The instructions in this section are applicable if you are upgrading from an earlier version of OFS HM to Release 8.1.1.0.0.

- **Configuration for WebSphere:** To configure WebSphere, see the [Configure WebSphere Application Server for Application Deployment](#) section. Additionally, configure for REST services. For details, see the *Configuring WebSphere for the REST Services Authorization* section in the [OFS Analytical Applications Infrastructure Administration Guide](#).

Additionally, you must configure the Work Manager in WebSphere and map it to the OFSAA instance. For details, see the *Work Manager Configurations* section in the [OFS Analytical Applications Infrastructure Administration Guide](#).

- **Configuration for WebLogic:**

Before proceeding with the domain creation, download and install the required one-off Patch or the latest WLS PSU for 14.1.1 from **My oracle Support** (Doc ID [2806740.2](#)). For more information, refer to **Configure WebLogic for Application Deployment** in the [OFS AAI installation guide](#).

To configure WebLogic, see the [Configure WebLogic for Application Deployment](#) section. Additionally, configure for REST services. For details, see the *Configuring WebLogic for the REST*

Services Authorization section in the [OFS Analytical Applications Infrastructure Administration Guide](#).

Additionally, you must configure the Work Manager in WebLogic. For details, see the *Work Manager Configurations* section in the [OFS Analytical Applications Infrastructure Administration Guide](#).

- **Configuration for Tomcat:** For the successful execution of Data Mapping in Tomcat, perform the configurations mentioned in the Configuration for Tomcat section in the [OFS Analytical Applications Infrastructure Administration Guide](#).

For additional configurations, see the [Configure Apache Tomcat Server for Application Deployment](#) section.

7.10.1.1 **Configure Application Security in WebSphere**

This is a mandatory security procedure for WebSphere to restrict the unauthorized access of configuration files in directories. For detailed information, see the Oracle Financial Services Analytical Applications Infrastructure Security Guide.

7.10.1.2 **Configure WebSphere Shared Library to Support Jersey 2x and Jackson 2.9x Libraries**

Perform the following configuration to set the WebSphere shared library to support jersey 2x and Jackson 2.9x libraries.

1. Click **Environment** from the menu on the left to expand and view the list. Click **Shared Libraries** to open the Shared Libraries window.

Figure 10: WebSphere Shared Libraries

Shared Libraries

Shared Libraries > JERSEY2x

Use this page to define a container-wide shared library that can be used by deployed applications.

Configuration

General Properties

Scope
cells:whf00cywNode01Cell:nodes:whf00cywNode01:servers:server1

Name
JERSEY2x

Description
shared Lib

Classpath
/scratch/IBM/WebSphere/AppServer/profiles/AppSrv01/installedApps/whf00cywNode01Cell/ofs81w9.ear/ofs81w9.war/externalib/WEB-INF/lib/

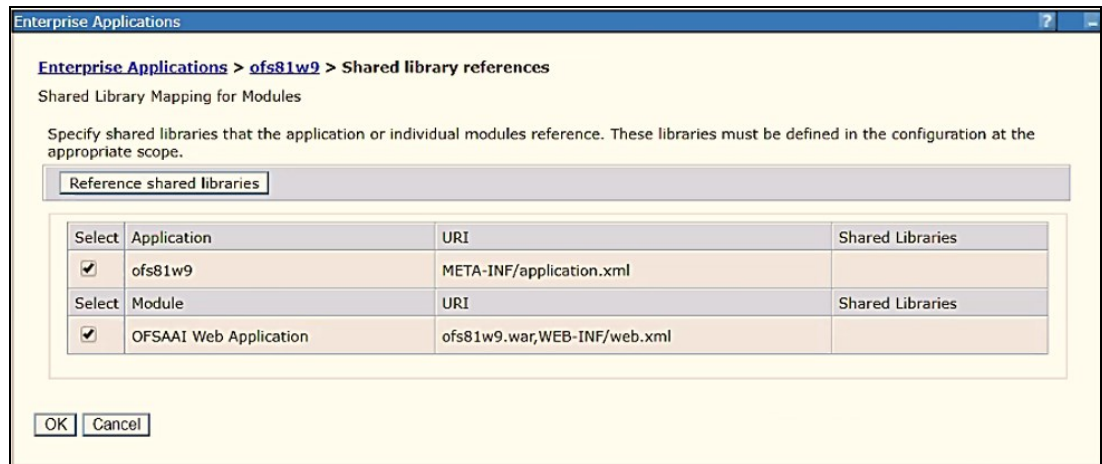
Native Library Path

Class Loading
 Use an isolated class loader for this shared library

Apply OK Reset Cancel

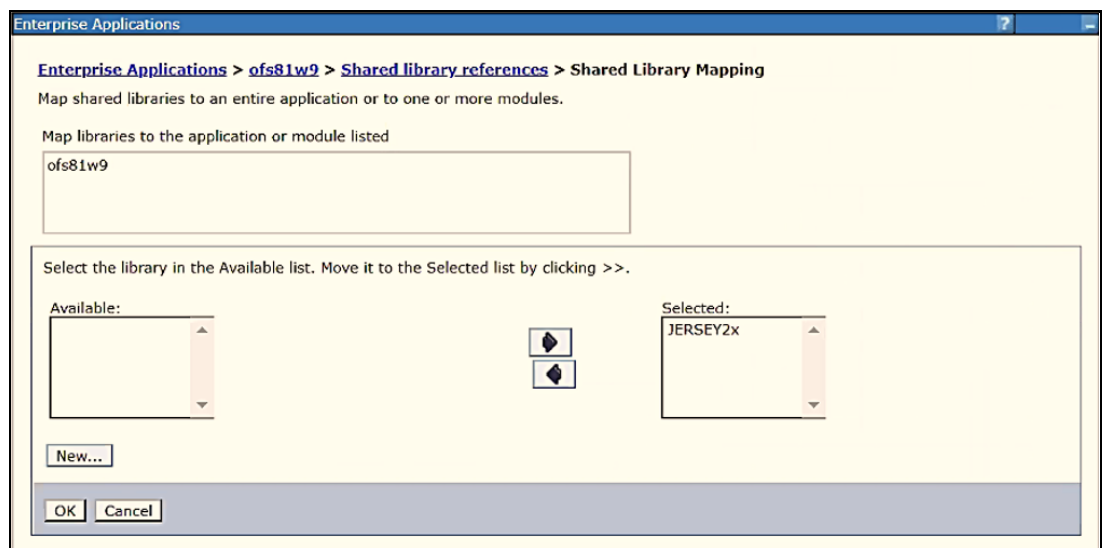
2. Enter the following details:
 - **Name:** Enter a uniquely identifiable name.
 - **Description:** Enter a valid description.
 - **Classpath:** Enter the absolute path where the JARs related to Jersey 2.x and Jackson 2.9x are copied. These jars are available in the `<OFSAA_HOME>/ficweb/webroot/externallib/WEBINF/lib/` directory after creation of the EAR file. Another format of representation of the path is `<ofsaa_deployed_area_location>/externallib/WEBINF/lib/`.
3. Select Use an isolated class loader for this library.
4. Click **OK** to save to master configuration.
5. Select the application or module and map the shared libraries. Click OK. In the following figure, **ofsa** is selected.

Figure 11: WebSphere Shared Library References



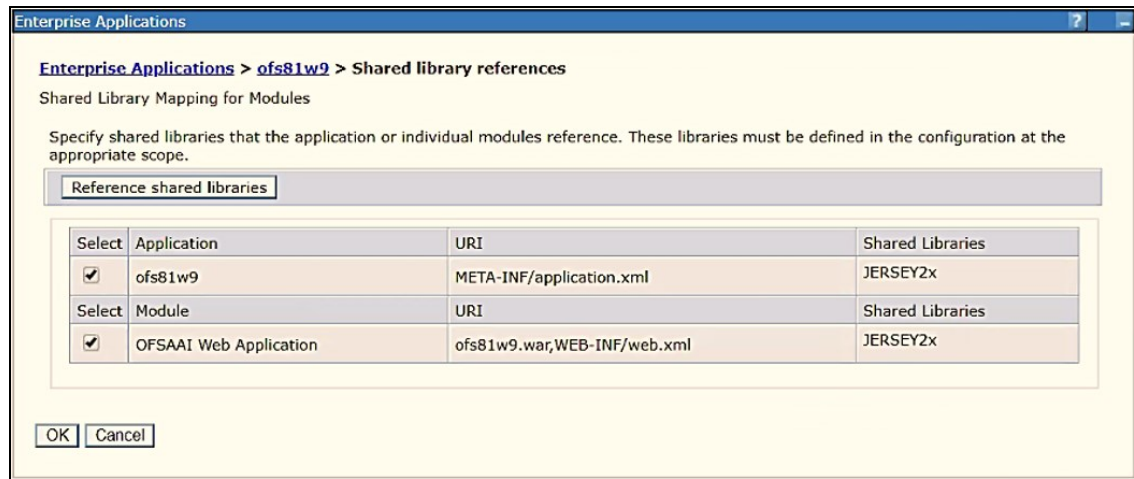
- From the Shared Library Mapping window, move the required shared libraries from **Available** to **Selected**. In the following figure, JERSEY2x is selected.

Figure 12: WebSphere Shared Libraries Mapping Selection



- Click **OK**.
- Similarly, select the next application or module and repeat the procedure from steps 5 to 7.

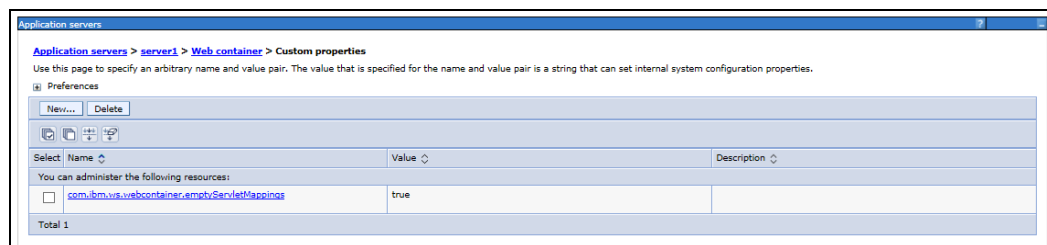
Figure 13: WebSphere Shared Libraries Select Next Application



9. Disable the built-in JAX-RS via JVM property.
 - d. Navigate to the WebSphere admin console in the **Servers** select **WebSphere Application Servers** then select **yourServerName**.
 - e. In the Server Infrastructure section, go to Java and **Process Management** select **Process definition**, select **Java Virtual Machine** then select **Custom properties**.
 - f. Add the following property:
`com.ibm.websphere.jaxrs.server.DisableIBMJAXRSEngine=true`

NOTE If the application does not come up post the steps mentioned above, then, navigate to **Application Servers** select **server 1**, select **Web container** then select **Custom properties** and modify the following property to **True**:
`com.ibm.ws.webcontainer.emptyServletMappings = true`

Figure 14: WebSphere



10. Restart the application.

7.11 Configure Resource Reference in Web Servers

Configuring resource reference in webservers includes the following activities. See [Configure Resource Reference in Web Servers](#) section in the OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide to complete these procedures.

- [Configure Resource Reference in WebSphere Application Server](#)
 - Create a JDBC Provider
 - Create Data Source
 - Create J2C Authentication Details
 - Define JDBC Connection Pooling
- [Configure Resource Reference in WebLogic Application Server](#)
 - Create Data Source
 - Create GridLink Data Source
 - Configure Multi Data Sources
 - Configure Advanced Settings for Data Source
 - Configure JDBC Connection Pooling
 - Create Work Manager
- [Configure Resource Reference in Tomcat Application Server](#)
 - Create Data Source
 - Define JDBC Connection Pooling
 - Configure ClassLoader for Apache Tomcat

7.12 Clear the Application Cache

After successful installation, follow these steps:

1. Clear the application cache. Navigate to the following path depending on the configured web application server and delete the files.

- **Tomcat:**
`<Tomcat installation directory>/work/Catalina/localhost/<Application name>/org/apache/jsp`
- **WebLogic:**
`<WebLogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>/<auto generated directory>/jsp_servlet`

For WebLogic version 12.2.x.x, delete the directory named `.WL_internal` present in the `<WebLogic installation location>/user_projects/domains/< Domain name >/applications/<context_name>.ear/META-INF/` directory, if it exists.

- **WebSphere:**
`<WebSphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>`

2. Deploy the RPD and catalog file(s)

Note: Ensure that OBIEE 12.2.1.4.0 or OAS 5.5.0 is up and running.

 - Take a backup of the deployed `HM.rpd` and `HM.catalog` files from the OBIEE environment.
 - a. Navigate to the respective folders. Copy the RPD and required Catalog files (as per the license agreement) in the server where the BI client tools are installed:
 - i. `$FIC_HOME /OFS_HM _DASHBOARDS/12.2.1.4.0/directory` containing the `HM.rpd` in the data model folder and archived
 - b. Modify the connection pool and set the properties.
 - c. Any customizations performed on the older rpd and web catalog files must be manually carried over to the newer ones post-deployment.
 - d. Clear OBIEE cache, if enabled.
 - e. For more information on deploying RPD and webcat files, see [OBIEE Configuration - Deploy OFS HM Analytics](#).
3. Add umask 0027 in the `.profile` of the UNIX account which manages the WEB server to ensure restricted access permissions.
4. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. See [Create and Deploy the EAR/WAR Files](#), for more information on generating and deploying the EAR/WAR files.
5. After the successful installation, restart all the OFSAAI services. See the [Stop Infrastructure Services](#) and [Start Infrastructure Services](#) section for details.
6. Verify the log files in the locations mentioned in section [Verifying the Log Files](#). You can also verify the OFSAAI log files from `OFS_HM _PACK/OFS_AAAI _PACK/logs` directory.
7. Follow the steps mentioned in the [Post Installation Steps](#) section.

7.13 Configure Work Manager in Web Application Servers

The process Modelling framework requires creating a Work Manager and mapping it to the OFSAA instance. This configuration is required for WebSphere and WebLogic Web application server types.

Configuring Work Manager in web application servers includes the following activities. See [Configure Work Manager in Web Application Servers](#) section in the OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide to complete these procedures.

- [Configure Work Manager in WebSphere Application Server](#)
 - Creating a Work Manager
 - Mapping Work Manager to OFSAA WebSphere Instance
- [Configure Work Manager in WebLogic Application Server](#)

7.14 Create and Deploy the EAR or WAR Files

See [Create and Deploy the EAR or WAR Files](#) in OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide for details.

7.15 EAR or WAR File - Build Once and Deploy Across Multiple OFSAA Instances

See [EAR or WAR File - Build Once and Deploy Across Multiple OFSAA Instances](#) in OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide for details.

7.16 Access the OFSAA Application

Before accessing the OFSAA application ensure that your internet settings are configured.

To access the OFSAA application, follow these steps:

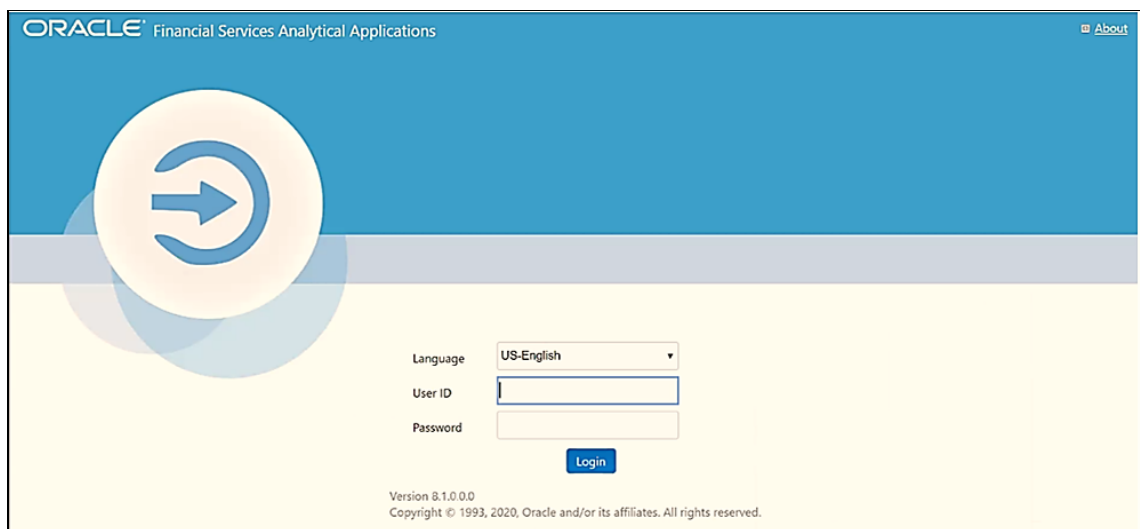
1. Open a browser and enter the URL in the following format:

<scheme>://<IP address/ hostname>:<port>/<context-name>/login.jsp

For example, <https://192.0.2.2/ofsaal/login.jsp>

The OFSAA Login window is displayed.

Figure 15: OFSAA Login Window



With the installation of every OFSAA Application Pack, there are two seeded user profiles configured in the system:

- SYSADMN System Administrator
 - SYSAUTH System Authorizer
 - The SYSADMN and SYSAUTH users are configured with a default password, which you will require to login for the first time. See the MOS Doc ID: [2691681.1](#) for the password.
2. Log in to the application using the "SYSADMN" User ID and the default password. After the first login, you are prompted to change the password.

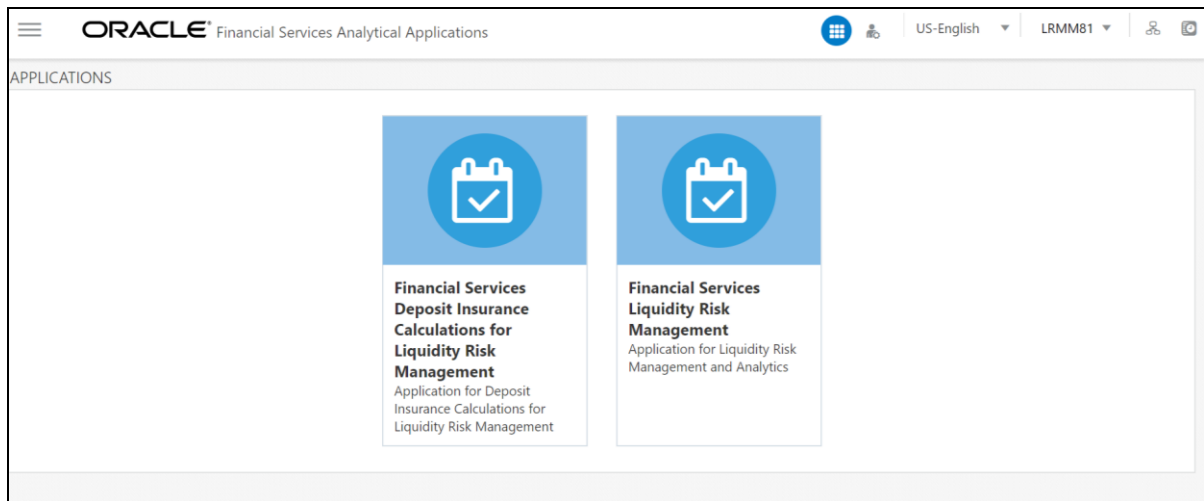
ATTENTION

The password change is required only for a new installation scenario and not for upgrade scenarios.

7.16.1 OFSAA Landing Page

On successful login, the *OFSAA Landing* screen is displayed.

Figure 16: OFSAA Landing screen

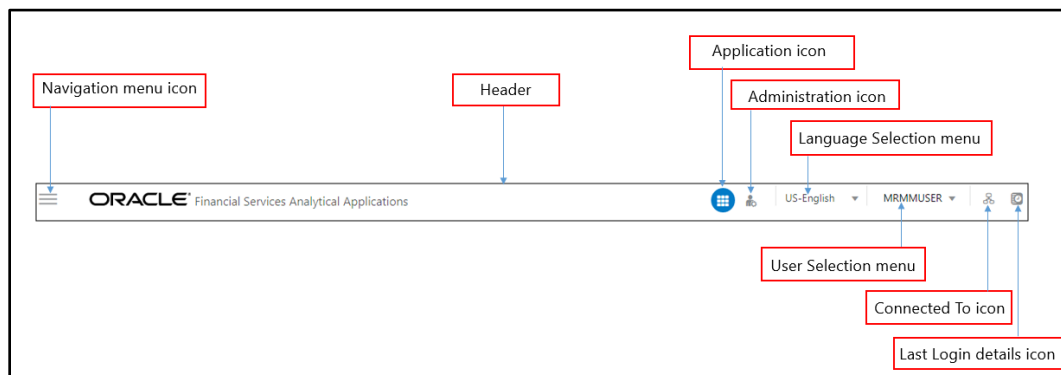


OFSAA Landing screen shows the available Applications as tiles, for which a user has access to. Clicking the respective Application tile launches that particular application. You can change the landing page based on your preference.

7.16.1.1 Masthead

This section describes the user interface components in the OFSAA Landing page.

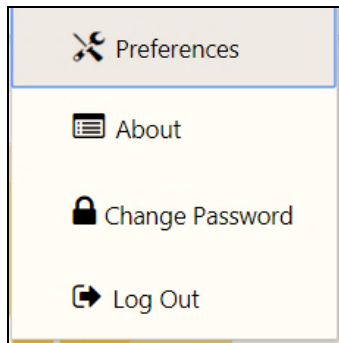
Figure 17: User Interface Components



- **Navigation Menu:** This icon is used to trigger the Application Navigation Drawer.
- **Application Icon:** This icon is used to show the available Applications installed in your environment at any time.
- **Administration Icon:** This icon is used to go to the *Administration* window. The *Administration* window displays modules like System Configuration, Identity Management, Database Details, manage OFSAA Product Licenses, Create New Application, Information Domain, Translation Tools, and process Modelling Framework as Tiles.

- **Reports Icon:** This icon is used to launch various User Reports such as user Status Report, User Attribute Report, User Admin Activity Report, User Access Report, and Audit Trail Report.
- **Language Menu:** It displays the language you selected in the OFSAA Login Screen. The language options displayed in the Language Menu are based on the language packs installed in your OFSAA instance. Using this menu, you can change the language at any point in time.
- **User Menu:** Clicking this icon displays the following menu:

Figure 18: User Menu



- **Preferences:** To set the OFSAA Landing Page.
- **Change Password:** To change your password. For more information, see the *Change Password* section in the [OFS AAI User Guide](#). This option is available only if SMS Authorization is configured.
- **Log Out:** To log out from OFSAA applications.
- **Last Login Details:** This displays the last login details as shown.

Figure 19: Last Login Details

Last Login Date : 05/13/2018 20:28:46 PM Last Failed Login Date : 05/11/2018 09:27:26 AM

7.16.1.2 Navigation Drawer

To launch the navigation drawer, follow these steps:


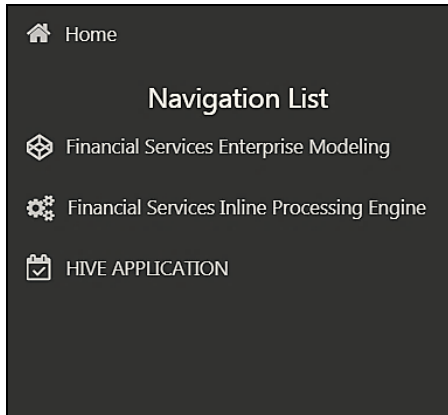
1. Click the **Navigation menu**  to launch the Navigation Drawer as shown.

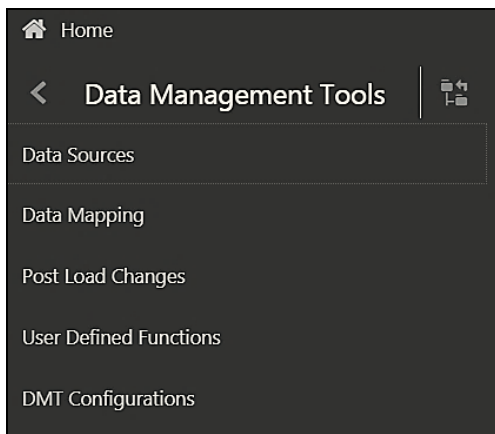
Figure 20: Navigation Drawer



Here the navigation items appear as a list. The First Level menu shows the installed applications. Clicking an application displays the second-level menu with the application name and Common tasks menu. The arrangement of the menu depends on your installed application.

2. Clicking an item in the menu displays the next level sub-menu and so on. For example, to display Data Sources, click **Financial Services Enterprise Modeling** select **Data Management** select **Data Management Framework**, select **Data Management Tools**, and then select **Data Sources**.

Figure 21: Navigation Drawer Menus and Submenus




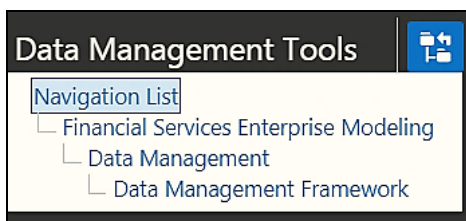

3. Click  **Hierarchical Menu** to display the navigation path of the current submenu as shown.

Figure 22: Navigation Submenu




4. The RHS Content Area shows the Summary page of Data Sources. Click anywhere in the Content Area to hide the Navigation Drawer. To launch it back, click the Navigation menu .

- Click **Home** to display the OFSAA Landing Screen.

7.16.1.3 System Configuration

The Administration and Configuration section allows the System Administrators to configure the Server details, Database details, OLAP details, and Information Domain along with the other Configuration process such as segment and metadata mapping, and mapping segment to security. System Configuration is mostly an onetime activity which helps the System administrator to make the Infrastructure system operational for usage.

7.16.1.3.1 Navigate to System Configuration

Click the **Administration Icon**  from the header to display the Administration tools in the Tiles menu. Click **System Configuration** from the Tiles menu to view a submenu list.

NOTE


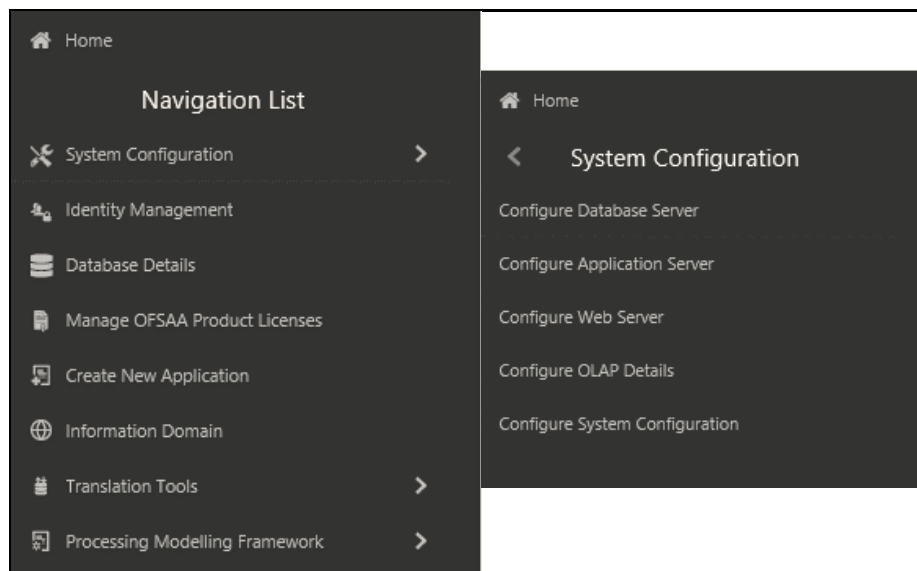
After you have accessed a tool from the submenu, the options are also available in the Navigation List to the left. Click the **Navigation menu**  to access the Navigation List.

Figure 23: System Configuration Submenu



You (System Administrator) must have full access rights to ftpshare directory with appropriate User ID and password to add and modify the server details.

7.16.1.3.2 Components of System Configuration

System Configuration consists of the following sections.

- Database Server
- Application Server
- Web Server
- Database Details
- OLAP Details
- Information Domain
- Configuration
- Create Application

7.17 View OFSAA Product Licenses after Installation of Application Pack

In an integrated environment, where you have multiple applications installed on the same domain or infrastructure, OFSAAI allows you to see the other licensed applications through the UI. For more information, see the View OFSAA Product Licenses after Installation of Application Pack in the [OFS Analytical Applications Infrastructure User Guide Release 8.1.1.0.0](#).

7.18 Configure the `excludeURLList.cfg` File

See [Configure the `excludeURLList.cfg` File](#) in OFS AAI Installation Guide for details.

7.19 Configure Tomcat

To stop generating static content with one print statement per input line, you must configure the `web.xml` file.

To configure the `web.xml` file, perform the following steps:

1. Navigate to the `tomcat/conf` directory.
2. Edit the `web.xml` file as follows:
3. Set the mapped file parameter to `False` in the servlet tag mentioned with

```
<servlet-name>jsp</servlet-name>.  
<init-param>  
<param-name>mappedfile</param-name>  
<param-value>>false</param-value>  
</init-param>
```


7.20 Change the ICC Batch Ownership

All seeded Batches in the OFS HM pack are automatically assigned to the SYSADMN user during installation. To view the batches in the Batch Maintenance menu, you must execute the following query in the Config Schema of the database:

```
begin
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP ('fromUser','toUser','infodom');
end;
OR
begin
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP ('fromUser','toUser');
end;
```

Where:

- `fromUser` indicates the user who currently owns the batch
- `toUser` indicates the user to whom the ownership must be transferred
- `infodom` is an optional parameter. If specified, the ownership of the batches of that Infodom will be changed.

7.21 Add TNS entries in the TNSNAMES.ORA File

Add TNS entries in the `tnsnames.ora` file for every schema created for the Application Pack. For details see [Add TNS entries in the TNSNAMES.ORA file](#) section.

To find the tnsname for the entries, follow these steps:

1. Log in to the application using System Administrator privileges.
2. Navigate to **System Configuration & Identity Management** tab.
3. Click **Administration and Configuration**, select **System Configuration**, and click **Database Details**.
4. Expand Name to get the list of TNS entry names.

Alternatively, you can connect to the CONFIG schema and execute the following query:

```
select dbname from db_master where dbname !='CONFIG'
```

7.22 Update OBIEE URL

To access the respective Business Intelligence Analytics Application, you must update the OBIEE URL in the AAI_MENU_B table after the OBIEE environment is up and running. Use the following command:

```
UPDATE AAI_MENU_B
SET V_MENU_URL = '&obieeURL'
WHERE V_MENU_ID IN ('OFS_HM_BI')
/
COMMIT
```

/

7.23 Configure Data Source

This section details the configurations required for Data Sources in the OFSAA applications.

- Create a connection pool in the Information Domain. For more information, see the [OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide](#).
- JNDI name of the connection pool must be <res-ref-name> as mentioned in the `web.xml` file. For example: `jdbc/OFSINFODOM`
- Create and deploy the web components into the web server. For more information on deploying the web components, see the [OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide](#).
- The following tag must be added manually in `web.xml` if not already present in the `web.xml` file.

```
<resource-ref>
<!-- description>DB Connection INFODOM</description -->
<res-ref-name>jdbc/ INFODOM</res-ref-name>
<res-type>javax.sql.DataSource</res-type>
<res-auth>Container</res-auth>
</resource-ref>
```

7.24 Configure Data Redaction in OFSAA

This section details the configurations required in case you want to enable Data Redaction in the OFSAA applications.

Topics:

- [Prerequisites](#)
- [Data Redaction](#)
- [Enable Data Redaction in case of an Upgrade](#)

7.24.1 Prerequisites

Ensure the required Oracle Database Server versions are installed:

- Oracle Database Server Enterprise Edition 18c Release 3 - 64 bit RAC/Non-RAC with/without partitioning option, Advanced Security Option.
- Oracle Database Server Enterprise Edition 19c Release 3 - 64 bit RAC/Non-RAC with/without partitioning option, Advanced Security Option.

7.24.2 Data Redaction

OFSAA is enhanced to enable masking of sensitive data and Personal Identification Information (PII) to adhere to Regulations and Privacy Policies. Oracle Data Redaction provides selective, on-the-fly redaction of sensitive data in database query results before display by applications so that unauthorized users cannot view the sensitive data. The stored data remains unaltered, while displayed data is transformed into a pattern that does not contain any identifiable information.

To enable Data Redaction, perform the following steps:

1. Log in as SYSDBA into the database.
2. Execute the `$FIC_HOME/utility/data_security/scripts/create_data_sec_roles.sql` file only once per database (PDB in case of 18c/19c).
3. Execute the following SQL statement to find out the list of atomic users from the table:


```
select v_schema_name from aai_db_detail where V_DB_NAME <> 'CONFIG' AND V_DB_TYPE = 'ORACLE'
```
4. Execute the `$FIC_HOME/utility/data_security/scripts/grant_data_sec_roles.sql` file for all atomic users found in the previous step.
5. From the Configuration window in the System Configuration module, select the Allow Data Redaction checkbox.
6. Run the Data Redaction utility.

For more details on enabling Data Redaction, see the *Data Redaction* section in the *Data Security and Data Privacy* topic in the [OFS Analytical Applications Infrastructure Administration and Configuration Guide](#).

7.24.3 Enable Data Redaction in case of Upgrade

This section details the configurations required in case you want to enable Data Redaction in OFSAA applications after upgrade to OFSAA 8.1.1.0.0 version from a previous version. Additionally, these configurations are required in case you did not enable TDE during OFS HM 8.1.1.0.0 installation and want to enable at a later point of time.

Perform the following steps:

1. From the Configuration window in the System Configuration module, select the **Allow Data Redaction** checkbox.
2. Run the Data Redaction utility.

For more details on enabling Data Redaction, see the *Data Redaction* section in the *Data Security and Data Privacy* topic in the [OFS Analytical Applications Infrastructure Administration Guide](#).

7.25 Data Protection Implementation in OFSAA

Data Protection implementation in OFSAA applications includes the following:

- Right to be Forgotten
- Data Portability

- Pseudonymization
- Notice and Consent
- Data Archival
- Data Redaction

See the [OFSDF Data Protection Implementation Guide](#) for details.

7.25.1 Right to be Forgotten

Right to be Forgotten is the task of removing Personally Identifiable Information (PII) of a Data Subject for the given Party. The financial institution can delete PII for those Data Subjects who have requested this Right to be Forgotten functionality.

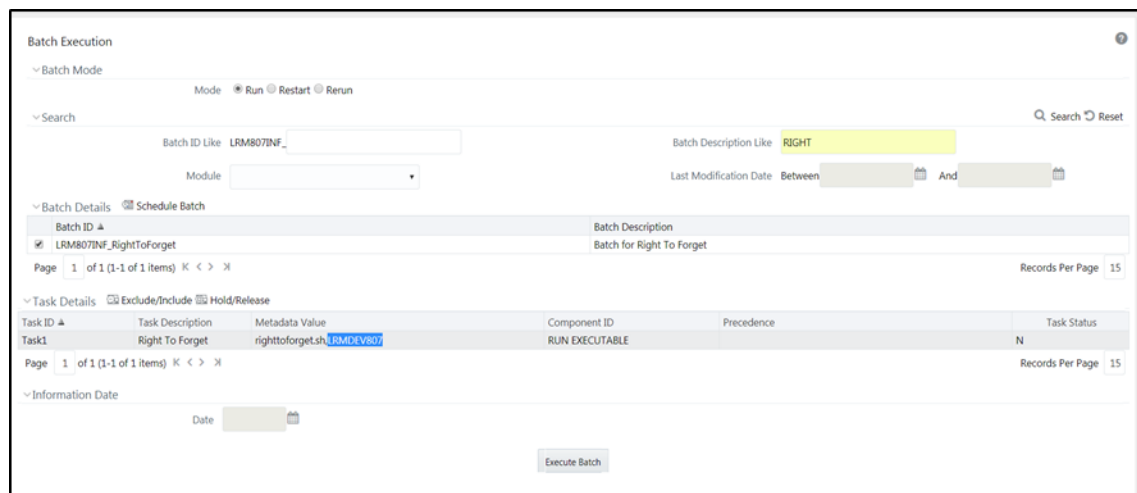
The Data Subjects may have made significant financial transactions, and/or financial information may be required for regulatory or compliance reporting. Deleting the complete record that consists of PII may lead to issues in data reconciliation. In OFSAA, the PII data will be replaced with randomized values and therefore, the complete Data Subject record is retained. As a result, financial information is retained; however, the associated Party PII is removed permanently.

7.25.1.1 Configuring Right to be Forgotten During OFS HM Installation

To configure Right to be Forgotten, follow these steps:

1. Ensure that you assign the role Data Controller to the HM user.
2. Edit the task of the batch <Infodom_name>_RightToForget. By default the parameter is SYSADMN. Modify the user ID in the Metadata Value field to the HM Data Controller user ID from Step 1.

Figure 24: Configure Right to be Forgotten for OFS HM



3. Add the party IDs entries for the Right to Forget in the FSI_PARTY_RIGHT_TO_FORGET table.
4. Execute the batch <Infodom_name>_RightToForget, for the specific FIC MIS date mentioned in the FSI_PARTY_RIGHT_TO_FORGET table.

7.26 Post-deployment Configurations

This section includes the post-deployment configuration steps.

Topics:

- [Deploy the OFS HM Analytics](#)
- [Logging as System Administrator](#)
- [Creating Application Users](#)
- [Mapping Application User \(or Users\) to User Group](#)
- [HM Pack User Group Names](#)

7.26.1 OBIEE Configuration - Deploy OFS HM Analytics

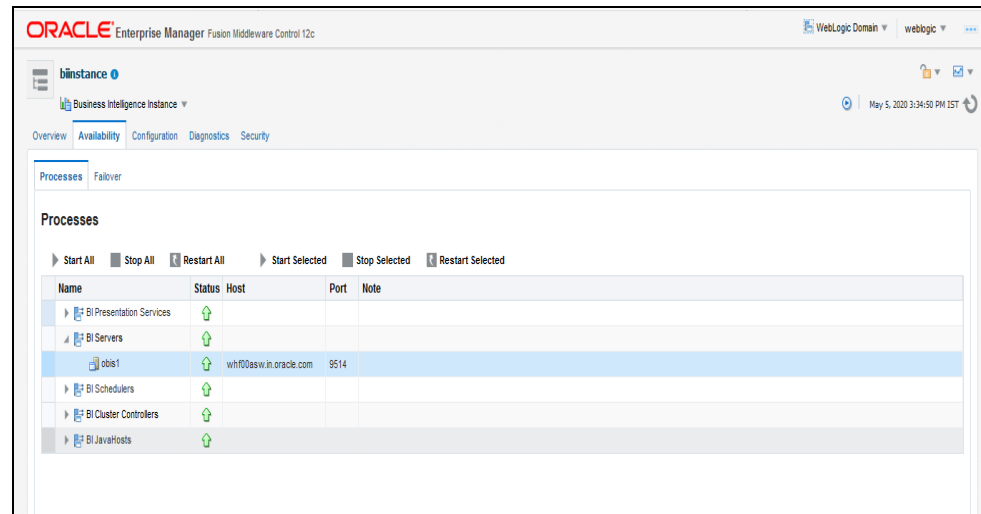
The OFS HM release 8.1.1.0.0 is based upon a dedicated reporting mart built from the new Fusion Financial Services Data Model. OFS HM Analytics 8.1.1.0.0 leverages several components of Oracle Business Intelligence Enterprise Edition (OBIEE) or Oracle Analytics Server (OAS) technology including Dashboards and Answers. It also includes various Dashboards and Reports for the user to carry out various Hedge Management and IFRS Valuations based analytics.

Follow these steps to configure the OFS HM Analytics:

1. Make sure Oracle Business Intelligence 12.2.1.4.0 or OAS 5.5.0 installation is completed and available. See [Installing and Configuring Oracle Business Intelligence 12c \(12.2.1.4\)](#) (E91876-03) or [Installing and Configuring Oracle Analytics Server 5.5.0](#) (F27232-03) for more details.
2. Configure the ODBC data source to connect to the Oracle BI Server:
 - a. Navigate to **Control Panel**, select **Administrative Tools**, and then select **Data Sources (ODBC)**.
 - b. Select the **System DSN** tab and click **Add**.
 - c. Select a driver-specific to **Oracle BI Server 2.2.1.4.0** or **OAS 5.5** and click **Finish**.
 - d. Enter the **Name** and **Server** details (specify the Hostname or IP Address of the BI Server) and click **Next**.
 - e. Enter the Oracle BI Server login ID and password (Enter the User Name and Password created at the time of OBIEE or OAS installation). Update the port with the port number available for the BI Server in the **Availability** tab of Business Intelligence in the Enterprise Manager.

For example: In the following figure, the port number is 9514.

Figure 25: Update Port Number in the BI Server



- f. Click **Next**.
 - g. Navigate to the RPD and Catalog folders available in the following directories. Copy the RPD and required Catalog files (as per the license agreement) in the server where the BI client tools are installed:
 - `$FIC_HOME/DASHBOARDS/HM_12.2.1.4.0.rpd` directory containing the `HM.rpd` in the data model folder and archived.
 - h. Click **Finish**.
3. Modify the connection pool and set the properties.
 - a. Open the OBI Administration tool.
 - b. Select **Start**, select **Programs**, select **Oracle Business Intelligence** and then select **BI Administration**.
 - c. Select **File**, select **Open**, select **Offline**, and then select the `HM.rpd` file.
 - d. In the **Open** dialog box, select and open the `HM.rpd` file.
 - e. Enter the Repository password as **Administrator1**.
 - f. In the **Physical** layer, double-click the **Connect Pool: HMBI** to open its properties.
 - g. In the **General** tab, edit and check the following entries:
 - i. **Call Interface:** (OCI 10g/11g).
 - ii. **Data source name:** <TNS Entry connecting to OFSAA atomic schema>
 For example:

```
(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP) (HOST=<Database IP address>) (PORT=1521))) (CONNECT_DATA=(SERVICE_NAME=<Database Name>)))
```
 - iii. **User name:** <enter atomic db user name>.
 - iv. **Password:** <enter atomic db user password>.

- v. Confirm the password and click **OK** to close the window.
 - vi. Similarly, configure the connection pools for *HMBITRANS* and *HMBI_INIT_BLOCK* and *HMBI*.
 - Check **Global Consistency**, that is, press *Ctrl+k*.
 - Double-click on the warning (if you are using OAS).
 - Click **Reset to defaults** and click **OK**.
 - vii. Click **Save**.
 - h. Click **Yes** for the Global Consistency Message. No warnings should be generated at this stage.
 - i. Close the RPD file (close the file and exit).
4. Log in to the OFS HM Analytics application using the URL: `http://<ipaddress>:<port>/analytics` (replace the port number based on your setup).
 5. Follow these steps to configure the BI publisher Data Source:
 - a. Log in to the OFS HM application.
 - b. Navigate to **Administration**, select **BI Publisher**, and then select **Manage BI Publisher**.
 - c. Click **JDBC Connection** from Data Sources.
 - d. Click **Add Data Source**.
 - e. Enter the Data Source name as **HM**.
 - f. Add Database details in the Connection string, that is the hostname (IP address), port number, and SID.
 - g. Enter the username (schema name) and password.
 - h. Click **Test Connection**.
 - i. Ensure that the connection successfully established. Click **Apply**.
 6. Follow these steps to implement the Writeback feature:
 - a. Add the tag `<LightWriteback>>true</LightWriteback>` in between `<ServerInstance></ServerInstance>` in the `instanceconfig.xml` file.
 For example:


```
<ServerInstance>
<LightWriteback>true</LightWriteback>
.....
.....
</ServerInstance>
```
 - b. Copy the `writeback.xml` file available in the `$(FIC_HOME)/OFS_HM_DASHBOARDS/12.2.1.4.0/content/msgdb/` directory to the following OBIEE server directories. If the `customMessages` directory is not present, create the directory manually.

Path1: <BI Domain Home>/bidata/components/OBIPS/custommessages

For example:

```
/scratch/oraobiee/Oracle/Middleware/Oracle_Home/user_projects/domains/
bi/bidata/components/OBIPS/custommessages
```

Path2: <BI Domain

Home>/bidata/service_instances/ssi/metadata/content/msgdb/l_en/customM
essages

For example:

```
/scratch/oraobiee/Oracle/Middleware/Oracle_Home/user_projects/domains/
bi/bidata/service_instances/ssi/metadata/content/msgdb/l_en/customMess
ages
```

- c. Restart the **BI Services**.
 - d. Login to **OBIEE Analytics** and navigate to the **Administration** section on the right top corner.
 - e. Click **Manage Privileges** and scroll down to **Writeback**.
 - f. Grant **Writeback to Database** privilege to Authenticated User and BI Administrator roles.
7. Perform the following OBIEE presentation server configuration steps:
- a. Navigate to the <<Oracle BI Instance Home>/config/fmwconfig/biconfig/OBIPS directory.
 - b. Edit the `instanceconfig.xml` file.
 - c. Insert the following code within the XML tag <Views> </Views>.


```
<Charts>
<MaxVisibleColumns>50000</MaxVisibleColumns>
<MaxVisiblePages>25000</MaxVisiblePages>
<MaxVisibleRows>10000000</MaxVisibleRows>
<MaxVisibleSections>50000</MaxVisibleSections>
<JavaHostReadLimitInKB>10240</JavaHostReadLimitInKB>
</Charts>
```
 - d. Insert the following code within the XML tag <Views> </Views>.


```
<Table>
<DefaultRowsDisplayedInDelivery>75</DefaultRowsDisplayedInDelivery>
<DefaultRowsDisplayedInDownload>6500</DefaultRowsDisplayedInDownload>
<MaxCells>4000000</MaxCells>
<MaxVisibleRows>140000</MaxVisibleRows>
</Table>
<Narrative>
<MaxRecords>500000</MaxRecords>
<DefaultRowsDisplayed>25</DefaultRowsDisplayed>
</Narrative>
```


- e. Save the file, and restart the BI services.

NOTE Take a backup of the `instanceconfig.xml` file before making any changes.

7.26.1.1 RPD and Catalog Deployment

This section includes steps for the RPD and Catalog deployment.

7.26.1.1.1 Deploying the RPD

For RPD deployment, follow these steps:

1. Connect to the OBIEE server.
2. Create a folder. For example, `tmp` in the following directory:
`<Oracle_Home>/user_projects/domains/domain_name`
3. Copy the `HM.rpd` from the [local directory](#) (where you have saved the RPD) to the folder created in the preceding step.
4. Open the command prompt, and navigate to the following directory:
`/scratch/<mount_name>/Middleware/Oracle_Home/user_projects/domains/bi/bitools/bin`
5. Execute the following command:
`./datamodel.sh uploadrpd -I <RPDfilepath> -W <RPDpassword> -SI ssi -U <username> -P <password>`

For example:

```
./datamodel.sh uploadrpd -I
/scratch/obiee12c/Middleware/Oracle_Home/user_projects/domains/bi/tmp/HM.rpd -W Administrator1 -SI ssi -U weblogic -P weblogic123
```

7.26.1.1.2 Deploying the Web Catalog

For web catalog deployment, follow these steps:

1. Open the catalog manager, navigate to the File menu and open the catalog online by giving the necessary credentials based on your setup:
 - Type: Online
 - URL: `http://<ipaddress>:<port>/analytics-ws`
2. After the catalog is opened, it will display a directory structure on the left-hand side. Select the *Catalog Root and select Shared Folders* in the LHS tree structure.
 - a. Go to the **File** menu and select **Unarchive**. It will ask for the path for a file.
 - b. Browse the path of the archived catalog file saved in your [local directory](#) using the **Browse** button and click **OK**.

- c. The catalog must be extracted in the Shared Folders directory for the reports to display. A successful operation message is displayed.
- d. Restart the presentation services once again.
- e. Open the analytics OBIEE URL (<http://<ipaddress>:<port>/analytics>).
- f. Login with credentials based on your setup, and verify that the catalog is available.
 - i. Click on catalog in the OBIEE application right top menu list.
 - ii. In the LHS menu, navigate to shared directories and verify all the directories are available.
 - iii. Navigate to **Administration**, then **Maintenance and Troubleshooting**, select **Reload Files**, and then click **MetaData**.

NOTE

If you need to clear the cache in OAS, click **Issue SQL** and run the *Call SAPurgeAllcache()* method.

7.26.1.1.3 Starting and Stopping Services in OBIEE

Follow the below steps to start and stop OBIEE services:

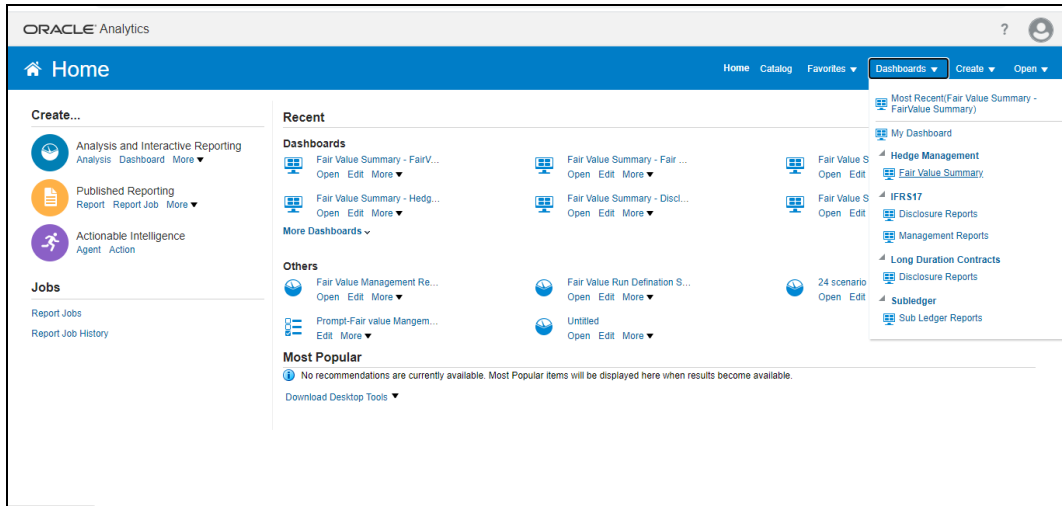
1. Connect to the OBIEE or OAS server.
2. Navigate to the
`/scratch/<mount_name>/Middleware/Oracle_Home/user_projects/domains/bi/bitools/bin` directory.
3. Execute the following commands:
 - a. Command to stop service: `./stop.sh`
 - b. Command to start service: `./start.sh`

7.26.1.1.4 Editing Global Variables for OBIEE or OAS

To edit the global variables for OBIEE, in this release of the OFS HM application, follow these steps:

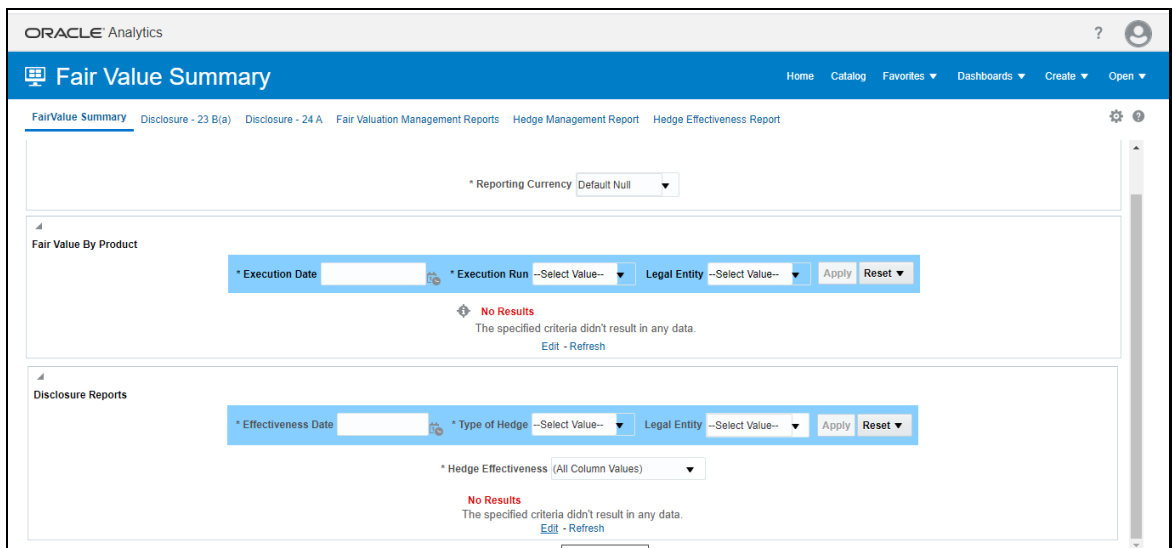
1. Host the RPD in the server where you have configured OBIEE or OAS and Catalog for the OFS HM application as part of this release.
2. Log in to OBIEE or OAS by using the URL format (<http://<ipaddress>:<port>/analytics>) to open the home page.

Figure 26: The Analytics Home Page



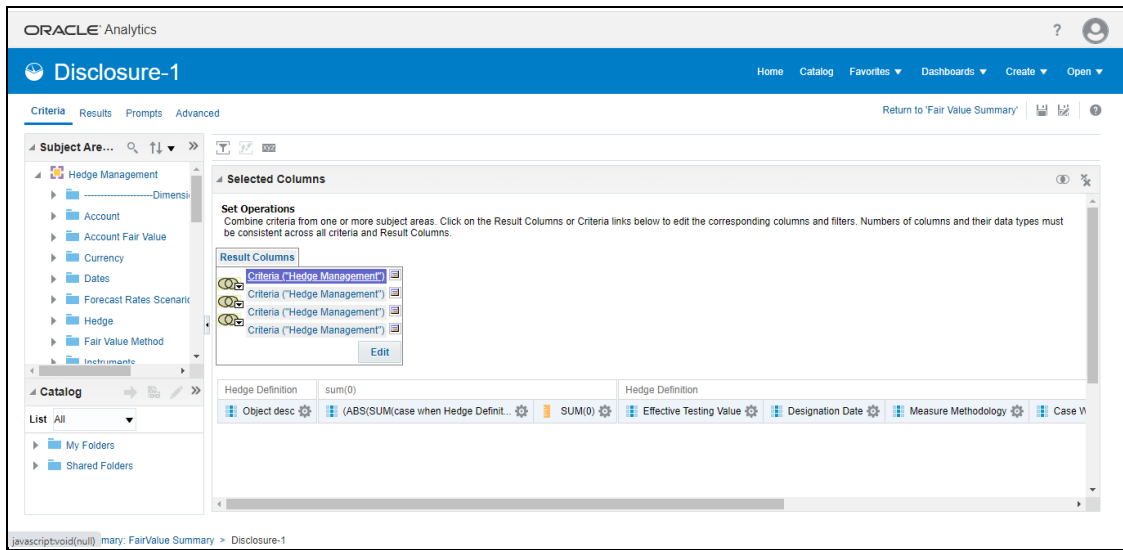
3. In the **Dashboards** drop-down list, and then click **Fair Value Summary** to open the **Fair Value Summary Dashboard**.

Figure 27: The Fair Value Summary Dashboard.



4. Click **Edit** on any of the reports to open the **Settings** window.

Figure 28: The Settings Window




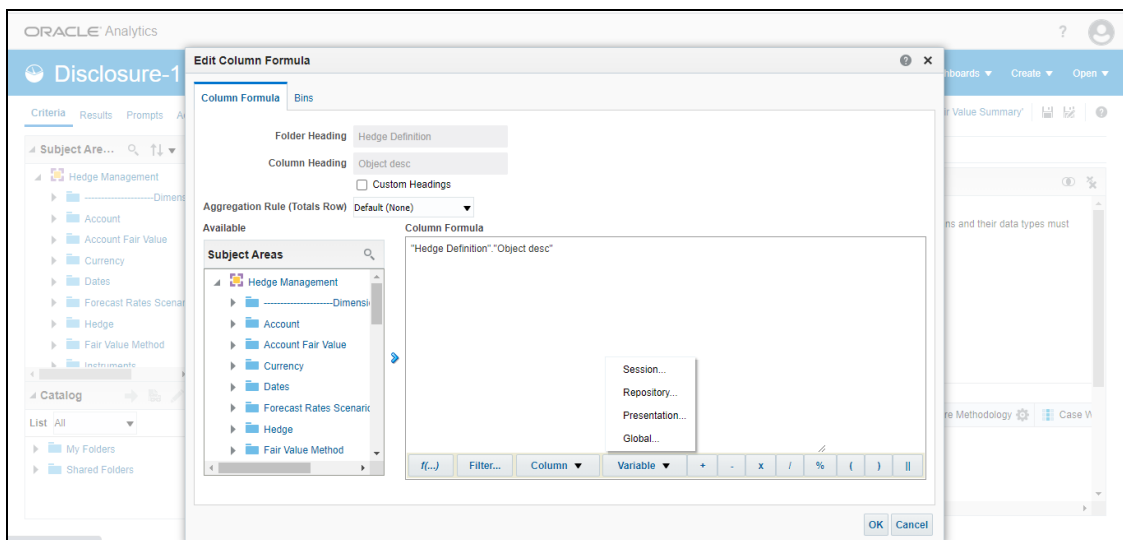
5. In the **Criteria** tab, in the **Selected Columns** pane, click **Criteria Hedge Management**.
6. Click **Settings** 
7. Click Edit formula to open the Edit Column Formula window.

Figure 29: The Edit Column Formula Window




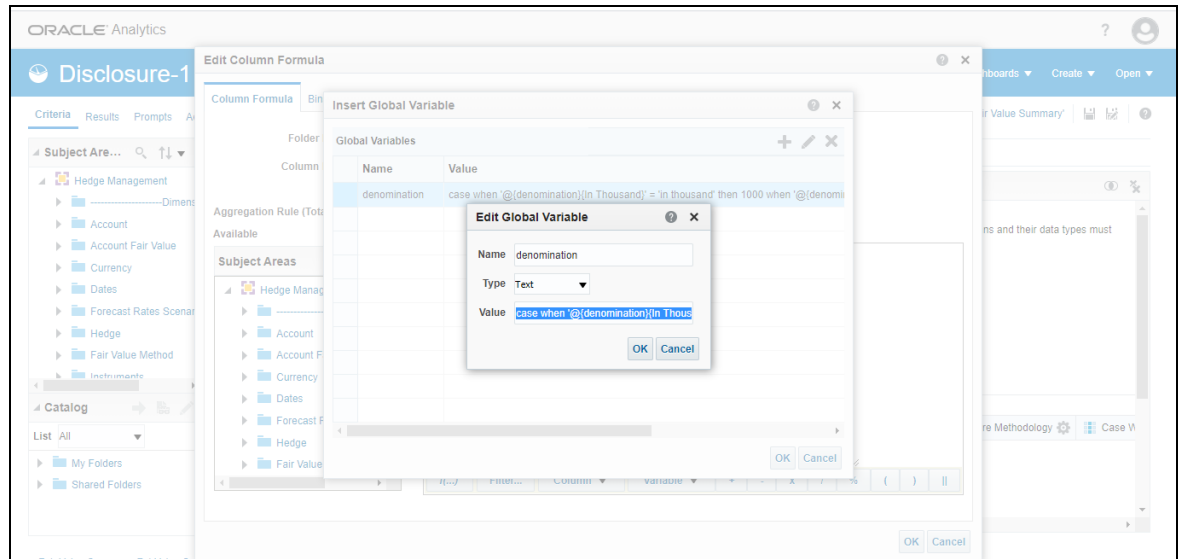
8. In the **Variables** drop-down list, select **Global...** to open the **Insert Global Variable** window.
9. Select the Global Variable that you want to edit, and then click **Edit Global Variable** 
10. Edit a global variable with the following details:

Table 27: Required Values for the Global Variable

Field	Value to be added
Name	denomination
Type	Text
Value	case when '{@denomination}{In Thousand}' = 'in thousand' then 1000 when '{@denomination}{In Thousand}' = 'in million' then 1000000 else 1 end

Figure 30: The Edit Global Variable Window



11. Click **OK**, and then click **OK** again to save.

7.26.2 Logging as System Administrator

This section includes provides information about the system administrator roles and privileges.

Topics:

- [Role of an Administrator](#)
- [Function Maintenance](#)
- [Role Maintenance](#)
- [Function - Role Mapping](#)
- [User Group Role Mapping](#)

7.26.2.1 Role of an Administrator

There are two types of Administrators as defined by the OFS Analytical Applications Infrastructure: A User Administrator and System Administrator.

- **System Administration:** refers to a process of managing, configuring, and maintaining confidential data in a multi-user computing environment. A System Administrator creates

functions, roles, and mapping functions to specific roles. A System Administrator also maintains segment information, holiday list, and restricted passwords to ensure security within the application. The following are the activities of a System Administrator:

- Function Maintenance
- Role Maintenance
- Function-Role Mapping
- User Administration: is one of the core functions of Security Management which involves administrators to create user definitions, user groups, maintain profiles, authorize users and user groups, and map users to groups, domains, and roles. A User Administrator controls the user privileges in accessing the application and is based on business requirements to provide access to view, create, edit, or delete confidential data.

A User Administrator grants permissions based on user roles and requirements.

The respective roles must be mapped to administrative user SYSADMN.

7.26.2.2 Function Maintenance

For details, see the *System Administrator* section in the [Oracle Financial Services Analytical Applications Infrastructure User Guide](#).

7.26.2.3 Role Maintenance

For details, see the *System Administrator* section in the [Oracle Financial Services Analytical Applications Infrastructure User Guide](#).

7.26.2.4 Function - Role Mapping

For details, see the *System Administrator* section in the [Oracle Financial Services Analytical Applications Infrastructure User Guide](#).

7.26.2.5 User Group Role Map

For details, see the *User Group Role Map* section in [Oracle Financial Services Analytical Applications Infrastructure User Guide](#).

7.26.3 Creating Application Users

Create the application users in the OFSAA setup before use.

For details, see the *User Administrator* section in the [Oracle Financial Services Analytical Applications Infrastructure User Guide](#).

7.26.4 Mapping Application User(s) to User Group

For details, see the *User Administrator* section in the [Oracle Financial Services Analytical Applications Infrastructure User Guide](#).

Starting the OFSAA 8.1.1 release, with the installation of the HM application pack, preconfigured Application user groups are seeded. These user groups are unique to every OFSAA Application Pack and have application roles preconfigured.

For more information on seeded User Groups, see [HM Pack User Group Names](#).

Map the application user (or users) to the respective Application User Group (or users) and subsequently authorize the entitlements by logging in as SYSAUTH (System Authorizer) user.

For details, see the *Mapping or Unmapping Users* section in the [Oracle Financial Services Analytical Applications Infrastructure User Guide](#).

7.26.5 HM Pack User Group Names

The section provides information about the User Group names seeded as part of the OFS HM application pack.

To access the HM application, you can map the created users to the following user groups:

- **HMADMINGRP** - HM Admin Group
- **HMANALYSTGRP** - HM Analyst Group
- **HMAPPROVERGRP** - HM Approver Group

8 Remove OFSAA Infrastructure

See the [Remove OFSAA Infrastructure](#) section in the OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide to complete these procedures:

- Uninstall the OFSAA Infrastructure
- Uninstall the EAR Files
 - Uninstall the EAR Files in WebSphere
 - Uninstall the EAR Files in WebLogic
 - Uninstall the EAR Files in Tomcat
- Clean Up the Environment

Part II

Topics:

- [Upgrade](#)

9 Upgrade

This section includes the procedures for the various upgrade scenarios supported by OFS HM Release 8.1.1.0.0.

Topics:

- [Upgrade Scenarios](#)
- [Prepare for Upgrade](#)
- [Install a New Application Pack on an Existing OFSAA Instance](#)

9.1 Upgrade Scenarios

ATTENTION Always ensure to run the upgrade installer only on the cloned environment.

Table 28: Upgrade Scenarios

Scenario	Upgrade Instructions
<p>Upgrade from OFS HM Release v8.0.x on AIX or Solaris x86 Operating System</p>	<p>Release v8.1.1.0.0 of OFS HM is not certified for AIX and Solaris x86 Operating Systems. If you are currently running OFSAA v8.0.x on AIX or Solaris x86 Operating Systems and plan to upgrade to Release v8.1.1.0.0, then you must migrate from AIX or Solaris x86 to Linux or Solaris SPARC. See the OFSAA 8.0.x.x.x Migration Guide for details.</p>
<p>Install a New Application Pack on an Existing OFSAA Instance</p> <p>You have already installed an application pack from Release 8.1.1.0.0 and now you want to install another application pack from Release 8.1.1.0.0.</p> <p>Example: OFS HM Pack is already installed and now you want to install OFS ALM Pack.</p>	<ol style="list-style-type: none"> 1. Run the schema creator utility ONLY for the new pack. 2. Update the OFS_HM_PACK.xml file for the newly licensed pack. 3. Update the Silent.props file of the newly licensed pack. 4. Trigger the Release 8.1.1.0.0 installation.
<p>Upgrade from Release v8.1.0.0.0 to Release v8.1.1.0.0</p>	<ol style="list-style-type: none"> 1. Update the <code>Silent.props</code> file. 2. Run the Environment Check Utility tool and ensure that you have installed the hardware and software requirements as per the OFS Analytical Applications Technology Matrix. See the OFSAA Environment Check Utility Guide for detailed steps. 3. Optionally, Clone your existing environment to the 8.1.1.0.0 OFS Analytical Applications Technology Matrix. 4. Trigger the Release 8.1.1.0.0 installation.

NOTE If you are adding an additional application, you must run the schema creator utility.

9.2 Prepare for Upgrade

Before you plan to install or upgrade any of your application packs to Release 8.1.1.0.0, ensure that all the application packs in your current OFSAA instance are available in the Release 8.1.1.0.0 version. For more information about the release version details, contact [My Oracle Support](#).

NOTE Ensure to revert any customized data model changes done without performing data model upload before upgrading.

ATTENTION The minimum supported version is 8.0.6.1.0. If upgrading from a release before 8.0.6.1.0, then first upgrade to 8.0.6.1.0 or later. After this step, you can upgrade to 8.1.1.0.0 or later.

1. Backup the following environment files from their respective directories:
 - Database schema
 - OFS_HM_PACK.xml
 - OFS_HM_SCHEMA_IN.xml
 - OFSAAI_InstallConfig.xml
2. See the [OFS Analytical Applications Technology Matrix](#) for the hardware and software required to upgrade to OFS HM Release 8.1.1.0.0.
3. Enable unlimited cryptographic policy for Java.
For more information, see the *Enabling Unlimited Cryptographic Policy* section in the [OFS Analytical Applications Infrastructure Administration Guide](#).
4. Clone your environment.

There is a consistent need for a faster and effective approach of replicating an existing OFSAA instance for further project developments, that is, setting up OFSAA instances that are exact copies of the current OFSAA instance. For more information, see the [Clone your Existing Environment](#) section.
5. Execute the following SQL query on the Atomic Schema:


```
update rev_tables_b set version=0 where version is null; commit;
```
6. You must apply the OFS AAI patch **32530173** in case of Pack-on-Pack v8.1.1.0.0 installation. Do not apply this patch, if you have already applied it as part of another application pack's installation.

9.2.1 Upgrade from OFS HM Release v8.0.x on AIX or Solaris x86 Operating System

Release v8.1.1.0.0 of OFS **HM** is not certified for AIX and Solaris x86 Operating Systems. If you are currently running OFSAA v8.0.x on AIX or Solaris x86 Operating Systems and plan to upgrade to Release v8.1.1.0.0, then you must migrate from AIX or Solaris x86 to Linux or Solaris SPARC. See the [OFSAA 8.0.x.x.x Migration Guide](#) for details.

9.2.2 Clone Your Existing Environment

Clone your existing environment to the [OFS Analytical Applications Technology Matrix](#).

For more information about the cloning procedure, see the [OFSAA Cloning reference Guide Release 8.1.x](#).

9.2.3 Initializing the Upgrade

To initialize the upgrade, follow these steps:

1. Log in to My Oracle Support and search for **32309670** under the **Patches & Updates** tab.
2. Copy the archive file to your OFSAA server in Binary mode.

NOTE The archive files are different for every operating system such as Solaris, and RHEL or Oracle Linux.

3. Log in to the OFSAA Server with user credentials that were used to install OFSAA.
4. Shut down all the OFSAAI Services. See the [Stop the Infrastructure Services](#) and [Start the Infrastructure Services](#) section in the OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide for details.
5. Execute the command:


```
chmod -R 750 $FIC_HOME
```
6. If you have Unzip utility, skip to the next step. Download the Unzip utility (OS-specific) 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 8.1.1.0.0 installer.

Uncompress the unzip installer file using the command:

```
uncompress unzip_<os>.Z
```

NOTE If you receive an error message: *uncompress: not found [No such file or directory]* when the package is not installed, contact your UNIX administrator.

7. Give execute permission to the file using the command:


```
chmod 751 OFS_HM_81000_<OperatingSystem>.zip
```

8. Extract the contents of the Oracle Financial Services Hedge Management and IFRS Valuations Application Pack 8.1.1.0.0 in the Download Directory installer archive file using the command:

```
Unzip <name of the file to be unzipped>
```

NOTE

For Solaris OS, download, extract, and apply the one-off patch **31509494** from [My Oracle Support](#). See the Readme packaged with the patch for further instructions on how to install the patch.

9. Log in to OFSAA Infrastructure Config Schema and execute the following SQL query:

```
ALTER TABLE CONFIGURATION MODIFY PARAMNAME VARCHAR2 (100 CHAR);
```

10. Give execute permission to the archive file. Navigate to the path where the directory OFS_HM_PACK exists and execute the command:

```
chmod -R 755 OFS_HM_PACK
```

11. Execute the user `.profile` file.

9.2.4 Update the OFS_HM_PACK.xml File

Update the `OFS_HM_PACK.xml` file. Enable only the existing installed applications.

The `OFS_HM_PACK.xml` file contains details on the various products that are packaged in the OFS HM application pack. This section provides information about the various tags and parameters available in the file and the values that you must update. Before installing OFS HM, it is mandatory to update this file.

To configure the `OFS_HM_PACK.xml` file, follow these steps:

1. Navigate to the `OFS_HM_PACK/conf` directory.
2. Open the `OFS_HM_PACK.xml` file in a text editor.
3. Configure the `OFS_HM_PACK.xml` file as mentioned in the following table.

Table 29: OFS_HM_PACK.xml File Parameters

Tag Name	Attribute Name	Value you must enter	Comments
APP_ID	ENABLE	YES for existing applications that you want to upgrade. For example: ENABLE as YES for the required APP_IDs - OFS_AAI, OFS_AAAI, OFS_HM_LCR, and OFS_HM_DIC, based on the licensing.	Set this attribute-value to YES for every APP_ID which you want to install or upgrade.

9.2.5 Update the Silent.props File in Release 8.1.1.0.0 Pack

Update the `Silent.props` file present in the Release 8.1.1.0.0 pack. Most parameters in the `Silent.props` file for 8.1.1.0.0 have default values. Before triggering the installation, ensure that you review them thoroughly and update as required.

1. Navigate to the `OFS_HM_PACK/appsLibConfig/conf` directory.
2. Edit the `Silent.props` file and specify the parameters as per the requirements.

SILENT installation is achieved through a properties file (`Silent.props`) that must be updated with proper values, before attempting to install using the silent mode. The following table lists all the properties that need to be specified.

3. Configure the `Silent.props` file as mentioned in the following table. Open the `Silent.props` file and edit only the following parameters.

Table 30: Parameters for the Silent.props File

Property Name	Description of Property	Permissible values	Comments
UPLOAD_MODEL	Specify whether you want to perform Model Upload.	0 = If you have already performed Model Upload and want to skip the model upload process. 1 = If you want to perform Model Upload.	The default value is 1.
MODEL_TYPE	Specify whether you want to use the released datamodel or customized datamodel for the model upload process.	0 = If you want to upload the released datamodel. 1 = If you want to upload the customized datamodel.	The default value is 0.
DATAMODEL	The path for the customized data model.	Not Applicable	Mandatory only if you want to upload the customized data model.
DM_DIRECTORY	The file name for the customized data model.	Not Applicable	Mandatory only if you want to upload the customized data model.

9.2.6 Trigger the Upgrade Installation

To trigger the installation, follow these steps:

1. Navigate to the path `OFS_HM_PACK/bin`, and enter the following command in the console to execute the application pack installer with the Silent option.

```
./setup.sh SILENT
```

2. The installer proceeds with the pre-installation checks and starts the upgrade installation process.
3. The OFS HM installation or upgrade begins. After the installation is complete, an *Installation Successful* message is displayed.
4. Verify the log files. See section [Verify the Log File Information for Upgrade](#) for details.

9.2.7 Verify the Log File Information for Upgrade

See the following logs paths for more information:

- Verify if the release is applied successfully by checking the log file generated in the locations mentioned in section [Verify the Log File Information](#).

- Verify if the release is applied successfully by checking the log file generated in the `OFS_HM_PACK/OFS_HM /logs` installation directory.
- You can also verify the OFSAAI log files from the `OFS_HM_PACK/OFS_AAAI_PACK/logs` directory.
- Verify the Model Upload log file available in the `ftpshare/<INFODOM>/logs` directory.
- You can ignore ORA-00001, ORA-00955, ORA-02260, ORA-01430, ORA-02298 errors in the log file. For any other errors, contact [My Oracle Support](#).

You can ignore the ORA-00001 error in the log file available in the path `OFS_HM_PACK/schema_creator/logs`.

NOTE Ignore all the warnings in the installation log. For any issues contact [My Oracle Support](#).

- The following ORA error messages can be ignored:
 - *name already used by an existing constraint*
 - *unique constraint violated*
- Verify if the Data Model is uploaded successfully by checking the log file generated as per the directory or path mentioned in the `Silent.props` file.
- Verify the `Update.log` file located at `$FIC_HOME/utility/UpdateConstraints/logs` directory which is created by Update Constraint utility.
 - Execution status information of the utility is available against each Information domain. For success, *Update successful* message is displayed. If it is successful, verify the following references for new constraint names:
 - `ftpshare/<INFODOM>/erwin/fipxml/<INFODOM>_DATABASE.xml`
 - Constraint scripts under `ftpshare/<INFODOM>/erwin/scripts/table`
 - Constraint scripts under `ftpshare/<INFODOM>/scripts`
 - Object registration tables for constraints, `REV_TAB_CONSTRAINTS`, `REV_TAB_REF_CONSTRAINTS`, `REV_TAB_CONSTRAINT_COLUMNS`.
 - Oracle Data Dictionary in the respective Atomic Schemas for each Infodom.
- If you encounter errors in the `Update.log` file, identify and troubleshoot the failed Infodoms. Once you have completed the troubleshooting, execute the standalone utility for the failed Infodoms. For more information on executing the update constraints utility, see the [Update Constraints Utility](#) section, in the OFS AAI Applications Pack Installation Guide, Release 8.1.1.

9.2.8 Post-installation Steps for Upgrade

Perform the following post-installation steps:

1. Secure your OFSAA Infrastructure. For more information, see the [OFSAA Security Guide](#) in the OHC Documentation Library.

2. After successful installation, follow these steps:
 - a. Clear the application cache. Navigate to the following path depending on the configured web application server and delete the files.
 - **Tomcat:**
`<Tomcat installation directory>/work/Catalina/localhost/<Application name>/org/apache/jsp`
 - **WebLogic:**
`<WebLogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>/<auto generated directory>/jsp_servlet`

 For WebLogic version 12.2.x.x, delete the directory named `.WL_internal` present in the `<WebLogic installation location>/user_projects/domains/< Domain name >/applications/<context_name>.ear/META-INF/` directory, if it exists.
 - **WebSphere:**
`<WebSphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>`
 - b. Deploy the RPD and catalog file(s):

NOTE: Ensure that OBIEE 12.2.1.4.0 or OAS 5.5.0 is up and running.

Take a backup of the deployed `HM.rpd` and `HM.catalog` files from the OBIEE environment.
 - i. Navigate to the following RPD and catalog folders. Copy the RPD and required Catalog files (as per the license agreement) in the server where the BI client tools are installed:
 - `$FIC_HOME/OFS_HM_DASHBOARDS/12.2.1.4.0/datamodel` directory containing the `HM.rpd` in the `datamodel` directory and archived.
 - ii. Modify the connection pool and set the properties.
 - iii. Any customizations performed on the older `rpd` and web catalog files must be manually carried over to the newer ones post-deployment.
 - iv. Clear OBIEE cache, if enabled.
 - v. For more information on deploying RPD and webcat files, see the [Deploying RPD and Webcatalog Files](#) section.
3. Add `umask 0027` in the `.profile` of the UNIX account which manages the web server to ensure restricted access permissions.
4. Follow these steps to remove `ContextDocLoader` from the `web.xml` file:
 - a. Navigate to `$FIC_WEB_HOME/webroot/WEB-INF` folder.
 - b. Open the `web.xml` file in a text editor.
 - c. Search for `ContextDocLoader` parameter and remove the following servlet entry:


```
<servlet>
<servlet-name>context</servlet-name>
<servlet-
class>com.ofs.fsapps.commonapps.core.summary.common.ContextDocLoade
```

```

    r</servlet-class>
    <load-on-startup>1</load-on-startup>
</servlet>

```

5. Generate the application EAR or WAR file and redeploy the application onto your configured web application server. See [Create and Deploy the EAR or WAR Files](#), for more information on generating and deploying the EAR/WAR files.
6. Restart all the OFSAAI services. See the [Stop the Infrastructure Services](#) and [Start the Infrastructure Services](#) sections in the OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide for details.
7. Verify the log files in the locations mentioned in section [Verifying the Log Files](#). You can also verify the OFSAAI log files from `OFS_HM_PACK/OFS_AAI_PACK/logs` directory.
8. Follow the steps mentioned in the [Post Installation Steps](#) section.
9. To configure OBIEE or OAS, follow the steps mentioned in the [BI Analytics - OBIEE Server Configuration Steps](#) section.

9.2.8.1 Remove the Entries from the web.xml file

Before you run the `ant .sh` utility to create the `.war` or `.ear` file, you must remove the following entry in the `web.xml` file:

1. Navigate to the `$FIC_HOME/ficweb/webroot/WEB-INF` directory.
2. Edit the `web.xml` file.
3. Delete the following entries:
 - a. `<servlet>`

```

<servlet-name>context</servlet-name>

<servlet-class>com.ofs.fsapps.commonapps.core.summary
.common.ContextDocLoader</servlet-class>

<load-on-startup>1</load-on-startup>

</servlet>

```
 - b. `<servlet>`

```

<servlet-name>llfp</servlet-name>

<servlet-
class>com.ofs.fsapps.llfp.servlet.LoanForecastingDispatcherServlet</se
rvlet-class>
</servlet>

```
 - c. `<servlet-mapping>`

```

<servlet-name>llfp</servlet-name>
<url-pattern>/llfp/*</url-pattern>
</servlet-mapping>

```
 - d. `<servlet>`

```

<servlet-name>RunManagementServlet</servlet-name>
<servlet-class>com.ofs.run.RunManagementServlet</servlet-class>
</servlet>

```

- ```
e. <servlet-mapping>
 <servlet-name>RunManagementServlet</servlet-name>
 <url-pattern>/runexecution/runServlet</url-pattern>
</servlet-mapping>
```

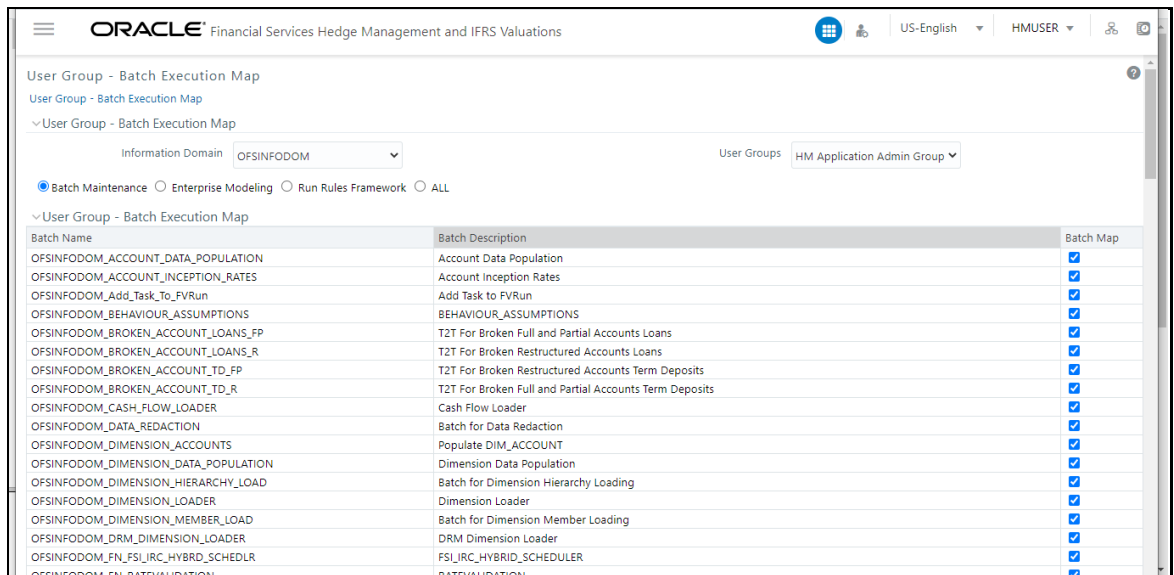
After you complete the above steps you must [Create and deploy EAR/WAR files](#) and Start the [OFSAA Infrastructure services](#).

### 9.2.8.2 Batch Execution Rights for the HM Application Admin Group

Perform the following steps to give the batch execution rights to the *HM Application Admin Group*.

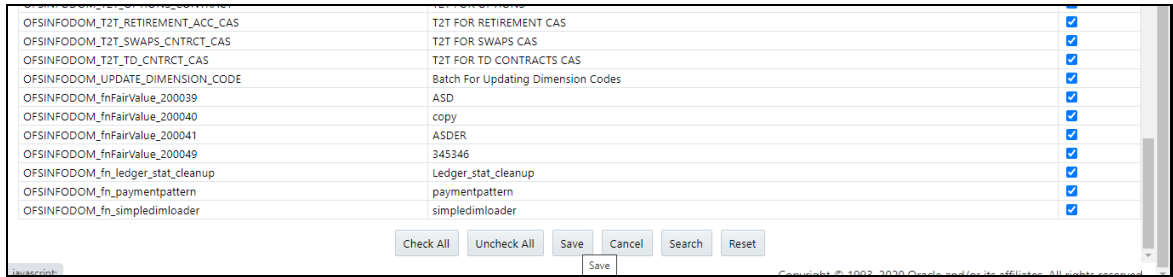
1. Log in to the OFS HM application.
2. Navigate to **Common Object Maintenance**, and then **Object Administration**, then **Object Security**, and then **Batch Execution Rights**.
3. In the **User Group- Batch Execution Map** pane, in the **User Groups** field, select *HM Application Admin Group*.

**Figure 31: The Batch Execution Rights Window with the HM Application Admin Group Selected in the User Groups Field**



4. At the bottom of the page, click **Check All**, and then click **Save**.

**Figure 32: The Batch Execution Rights Window with the Check All and Save Options**



### 9.2.8.3 OBIEE Server Configuration for Upgrade

Perform the following OBIEE server configuration steps. You can ignore the steps if OBIEE is already configured in your setup.

**1. Execute the following steps to implement the Writeback feature:**

- a. Add the tag `<LightWriteback>true</LightWriteback>` in between `<ServerInstance></ServerInstance>` in the `instanceconfig.xml` file.

For example:

```
<ServerInstance>
<LightWriteback>true</LightWriteback>
.....
.....
</ServerInstance>
```

- b. Copy the `writeback.xml` file available in the `$FIC_HOME/OFS_HM_DASHBOARDS/12.2.1.4.0/content/msgdb/` directory to the following OBIEE server directories. If `customMessages` directory is not present, create the directory manually.

**Path1:** `<BI Domain Home>/bidata/components/OBIPS/custommessages`

For example:

```
/scratch/oraobiee/Oracle/Middleware/Oracle_Home/user_projects/domains/
bi/bidata/components/OBIPS/custommessages
```

**Path2:** `<BI Domain`

`Home>/bidata/service_instances/ssi/metadata/content/msgdb/l_en/customM`  
`essages`

For example:

```
/scratch/oraobiee/Oracle/Middleware/Oracle_Home/user_projects/domains/
bi/bidata/service_instances/ssi/metadata/content/msgdb/l_en/customMess
ages
```

- c. Restart BI Services.
- d. Login to **OBIEE Analytics** and navigate to **Administration** section on the right top corner.
- e. Click **Manage Privileges** and scroll down to **Writeback**.
- f. Grant **Writeback to Database** privilege to **Authenticated User** and **BI Administrator** roles.

2. Perform the following OBIEE presentation server configuration steps:
  - a. Navigate to the <<Oracle BI Instance Home>/config/fmwconfig/biconfig/OBIPS directory.
  - a. Edit the file `instanceconfig.xml`.
  - b. Insert the following code within the XML tag `<Views> </Views>`.
 

```
<Charts>
<MaxVisibleColumns>50000</MaxVisibleColumns>
<MaxVisiblePages>25000</MaxVisiblePages>
<MaxVisibleRows>10000000</MaxVisibleRows>
<MaxVisibleSections>50000</MaxVisibleSections>
<JavaHostReadLimitInKB>10240</JavaHostReadLimitInKB>
</Charts>
```
  - c. Insert the following code within the XML tag `<Views> </Views>`.
 

```
<Table>
<DefaultRowsDisplayedInDelivery>75</DefaultRowsDisplayedInDelivery>
<DefaultRowsDisplayedInDownload>6500</DefaultRowsDisplayedInDownload>
<MaxCells>4000000</MaxCells>
<MaxVisibleRows>140000</MaxVisibleRows>
</Table>
<Narrative>
<MaxRecords>500000</MaxRecords>
<DefaultRowsDisplayed>25</DefaultRowsDisplayed>
</Narrative>
```
  - d. Save the file and restart the BI services.

**NOTE** Take a backup of the `instanceconfig.xml` file before making any changes.

3. Perform the following RPD changes, to set the Early Warning Indicators 1 and 2:
  - a. Open the **Repository** in Online or Offline mode.
  - b. Select **Manage** and then select **Variables**.
  - c. Navigate to hierarchy **Repository**, select **Variables**, and then select **Static**.
  - d. Modify EARLYWARNIND1 and EARLYWARNIND2 variable values as required.
  - e. Save and commit the changes to RPD.

**NOTE:** You must redeploy the RPD on the BI server if you have made changes in the offline mode.

4. For OBIEE reporting, configure the following:

a. Navigate to the <<obiee <<Oracle BI Instance Home>/config/fmwconfig/biconfig/OBIJH directory.

b. Modify the `config.xml` file.

c. Increase the parameter value for the following tag:

```
<XMLP>
<InputStreamLimitInKB>40000</InputStreamLimitInKB>
<ReadRequestBeforeProcessing>>true</ReadRequestBeforeProcessing>
</XMLP>
<DVT>
<InputStreamLimitInKB>40000</InputStreamLimitInKB>
</DVT>
```

d. Save the `config.xml` file.

e. Navigate to the <<obiee <<Oracle BI Instance Home>/config/fmwconfig/biconfig/OBIPS directory.

f. Modify the `instanceconfig.xml` file.

g. Increase the parameter value for tag if already exists or add the following code:

```
<Charts>
<MaxVisibleColumns>50000</MaxVisibleColumns>
<MaxVisiblePages>25000</MaxVisiblePages>
<MaxVisibleRows>100000</MaxVisibleRows>
<MaxVisibleSections>50000</MaxVisibleSections>
<JavaHostReadLimitInKB>10240</JavaHostReadLimitInKB>
</Charts>
and
<Pivot>
<MaxCells>1920000</MaxCells>
<MaxPagesToRollOutInDelivery>10000</MaxPagesToRollOutInDelivery>
<MaxVisibleColumns>50000</MaxVisibleColumns>
<MaxVisiblePages>100000</MaxVisiblePages>
<MaxVisibleRows>10000000</MaxVisibleRows>
<MaxVisibleSections>50000</MaxVisibleSections>
<DefaultRowsDisplayed>100000</DefaultRowsDisplayed>
</Pivot>
```

under `<Views>` tag

h. Save the `instanceconfig.xml` file.

- i. Restart the BI Services.

## 9.3 Install a Application Pack v8.1.1.0.0 on an Existing OFSAA Instance

You have already installed an application pack from Release 8.1.1.0.0 and now you want to install another application pack from Release 8.1.1.0.0.

For example: OFS HM Pack is already installed and now you want to install OFS ALM Pack.

**NOTE** You must check the [Compatibility Matrix](#) to see if the new application to be installed is compatible with the installed applications.

### 9.3.1 Execute the Schema Creator Utility only for the New Pack

To execute the schema creator utility, follow these steps:

**NOTE** While defining the schema details for the applications, provide the same schema details given in the previous installation. The output file (`OFS_HM_SCHEMA_OUTPUT.xml`) is generated as a result of the schema creation process.

1. Edit the `OFS_HM_PACK/schema_creator/conf/OFS_HM_SCHEMA_IN.xml` file in a text editor. See the [Configure OFS\\_HM\\_SCHEMA\\_IN.xml](#) file for values to modify in the XML file.
2. Execute the utility with `-s` option.  
For example: `./osc.sh -s`
3. Follow the steps given in the [If the schema creator output file \(OFS\\_HM\\_SCHEMA\\_OUTPUT.xml\) EXISTS](#) section.
4. Configuring the `OFSAAI_InstallConfig.xml` file is not required.

### 9.3.2 If the Schema Creator Output file (OFS\_HM\_SCHEMA\_OUTPUT.xml) EXISTS

If the Schema Creator Output file (`OFS_HM_SCHEMA_OUTPUT.xml`) is available, follow the steps mentioned in the following sections.

#### 9.3.2.1 Update the OFS\_HM\_PACK.xml file

Update the `OFS_HM_PACK.xml` file. Enable only the new applications.

The `OFS_HM_PACK.xml` file contains details on the various products that are packaged in the OFS HM application. This section provides information about the various tags and parameters available in the file and the values that you must update. Before installing OFS HM, it is mandatory to update this file.

To configure the `OFS_HM_PACK.xml` file, follow these steps:

5. Navigate to the `OFS_HM_PACK/conf` directory.
6. Open the `OFS_HM_PACK.xml` file in a text editor.
7. Configure the `OFS_HM_PACK.xml` file as mentioned in the following table.

**Table 31: OFS\_HM\_PACK.xml File Parameters**

Tag Name	Attribute Name	Value you must enter	Comments
APP_ID	ENABLE	<ul style="list-style-type: none"> <li>• YES for applications you want to install. For example, OFS_HM</li> <li>• NO for applications that are already installed. For example, OFS_AAI, OFS_AAAI, OFS_HM</li> </ul>	Set this attribute-value to YES for every APP_ID which you want to install or upgrade.

### 9.3.3 Update the OFS\_HM\_PACK.xml File of the Newly Licensed Pack

The `OFS_HM_PACK.xml` file holds details on the various products that are packaged together in the OFS HM application pack.

Update the `OFS_HM_PACK.xml` file. Enable only the existing installed applications.

The `OFS_HM_PACK.xml` file contains details on the various products that are packaged in the OFS HM application pack. This section provides information about the various tags and parameters available in the file and the values that you must update. Before installing OFS HM, it is mandatory to update this file.

To configure the `OFS_HM_PACK.xml` file, follow these steps:

1. Navigate to the `OFS_HM_PACK/conf` directory.
2. Open the `OFS_HM_PACK.xml` file in a text editor.
3. Configure the `OFS_HM_PACK.xml` file as mentioned in the following table.



**Table 32: OFS\_HM\_PACK.xml File Parameters**

Tag Name	Attribute Name	Value you must enter	Comments
APP_ID	ENABLE	<ul style="list-style-type: none"> <li>YES for applications you want to install. For example, OFS_HM in the preceding illustration.</li> <li>NO for applications that are already installed.</li> </ul>	Set this attribute-value to YES for every APP_ID which you want to install or upgrade.

### 9.3.4 Update the Silent.Props File of the Newly Licensed Pack

Update the `Silent.props` file in the Release 8.1.x pack ONLY for the newly licensed applications.

Most parameters in the `Silent.props` file for 8.1.1.0.0 have default values. Before triggering the installation, ensure that you review them thoroughly and update as required.

1. Navigate to the `OFS_HM_PACK/appsLibConfig/conf` directory.
2. Ensure to modify the template in the directory. Create a copy of this file and rename the copy as `Silent.props`.
3. Edit the `Silent.props` file and specify the parameters as per the requirements.

SILENT installation is achieved through a properties file (`Silent.props`) that must be updated with proper values, before attempting to install using the silent mode. The following table lists all the properties that need to be specified.

4. Configure the `Silent.props` file as mentioned in the following table. Open the `Silent.props` file and edit only the following parameters:

**Table 33: Parameters for the Silent.props File**

Property Name	Description of Property	Permissible values	Comments
UPLOAD_MODEL	Whether you want to perform the Model Upload.	0: No 1: Yes	Mandatory
MODEL_TYPE	The released data model or a customized data model.	0: Released 1: Customized	Mandatory only if you want to upload the data model.
DATAMODEL	The path for the customized data model.	Not Applicable	Mandatory only if you want to upload the customized data model.
DM_DIRECTORY	The file name for the customized data model.	Not Applicable	Mandatory only if you want to upload the customized data model.

### 9.3.5 Trigger the Installation

To trigger the installation, follow these steps:

1. Navigate to the path `OFS_HM_PACK/bin`, and enter the following command in the console to execute the application pack installer with the Silent option.

```
./setup.sh SILENT
```

2. The installer proceeds with the pre-installation checks and starts the upgrade installation process.
3. The OFS HM installation or upgrade begins. After the installation is complete, an *Installation Successful* message is displayed.
4. Verify the log files.

### 9.3.6 Verify the Log File Information

Verify the log files in the locations mentioned in section [Verify the Log File Information for Upgrade](#).

### 9.3.7 Post Installation Steps

Follow the steps mentioned in the [Post Installation Steps](#) section.

## 9.4 View OFSAA Product Licenses after Installation of Application Pack

In an integrated environment, where you have multiple applications installed on the same domain or infrastructure, OFSAAI allows you to see the other licensed applications through the UI. For more information, see the View OFSAA Product Licenses after Installation of Application Pack in the [OFS Analytical Applications Infrastructure User Guide Release 8.1.1.0.0](#).

# Part III

**Topics:**

- [Additional Configurations](#)
- [Migrate Excel Upload Functionality](#)
- [FAQs](#)

## 10 Additional Configurations

This section provides information for additional configurations required for the OFSAA application packs.

To complete the configuration process, you may require to perform the following steps listed in the Additional Configuration Checklist. Use this checklist to verify whether these steps are completed or not. See the [Additional Information](#) section in the [OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide](#) to complete these procedures.

**Table 34: Additional Configuration Checklist**

Sl. No.	Additional Configuration Activity
1	<a href="#">Add</a> FTP/SFTP Configuration for File Transfer
2	<a href="#">Configure</a> the Infrastructure Server Memory.
3	<a href="#">Change</a> IP or Hostname, Ports, Deployed Paths of the OFSAA Instance.
4	<a href="#">Execute</a> the Encryption Changer.
5	<a href="#">Configure</a> the Infrastructure LDAP Configuration.
6	<a href="#">Configure</a> password changes.
7	<a href="#">Configure</a> Java Virtual Machine.
8	<a href="#">Configure</a> Internal Service (Document Upload/Download).

## 11 Migrate Excel Upload Functionality

See the [Migrate Excel Upload Functionality](#) section in the [OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide](#) to complete the procedures.

## 12 Frequently Asked Questions (FAQs) and Error Dictionary

For FAQs and installation error-related information, see the section [Frequently Asked Questions \(FAQs\) and Error Dictionary](#) in the [OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide](#).

### 12.1 Application Pack 8.1.1.0.0 FAQs

You can see the Frequently Asked Questions which is developed with the interest to help you resolve some of the OFS HM Installation and configuration issues. This intends to share the knowledge of problem resolution to a few of the known issues. This is not an official support document and just attempts to share the knowledge of problem resolution to a few of the known issues.

#### 1. What is an Application pack?

An Application Pack is a suite of products.

#### 2. Can I get a standalone installer for OFSAAI 8.1?

No. AAI is part of every application pack and installs automatically.

#### 3. Where can I download OFS HM 8.1.1.0.0 Application Pack?

You can download the OFSAAI 8.1.1.0.0 Application Pack from My Oracle Support (MOS).

#### 4. What are the minimum system and software requirements for the OFS HM 8.1 Application Pack?

See the [Hardware and Software Requirements](#) for more information.

#### 5. Is my environment compatible with OFS HM 8.1.1.0.0 Application Pack?

Environment Check utility performs the task. It is part of the install and can also be run separately.

#### 6. Does the OFS HM 8.1.1.0.0 Application Pack support all Operating systems?

See the [Hardware and Software Requirements](#) section.

#### 7. How can I install the OFS AAI 8.1.1.0.0 Application Pack?

See the [OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide](#).

#### 8. Does this installation require any Third-party Software?

For details on the third-party software tools used, see the [OFSAA Licensing Information user Manual](#) Release 8.1.1.0.0.

#### 9. What languages are supported during the OFSAA 8.1.1.0.0 Application Pack installation?

US English is the language supported.

#### 10. What mode of installations OFSAA Application Pack supports [that is., Silent, GUI]?

OFSAA Application Packs support only Silent Mode.

#### 11. Does OFSAA 8.1.1.0.0 Application Pack support Multi-tier Installations?

OFSAA 8.1.1.0.0 supports only a single-tier installation. For more information, see the [Frequently Asked Questions \(FAQs\) and Error Dictionary](#) section.

**12. Does this Application Pack validate all prerequisites required for this installation like Memory, Disk Space, and so on?**

Yes. The pre-requisite checks are done by the respective application pack installer.

**13. What happens if it aborts during the installation of any application or products within an Application pack?**

You must restore the system and retrigger the installation

**14. Does this Application pack 'Roll Back' if any application installation fails due to errors?**

The rollback of installation is not supported.

**15. Does the Application pack install all applications bundled?**

All application pack system files are installed but there is an option to enable the licensed products.

**16. Can I re-install any of the Application Packs?**

You can retrigger in case of failure.

**17. Does this Application pack allow enabling or disabling any of the applications installed?**

Yes, you can enable but you cannot disable once the product is enabled in an environment.

**18. I have installed one application in an Application pack, can I install any of the new applications within the Application pack later?**

No, the installation of additional applications is not required. If you wish to add an application later, you can enable the application at that time.

**19. How many OFSAA Infrastructures can be installed in a single server?**

20. There is no issue in installing separate OFSAAI installations, each with their own PFT/FTP installations and separate associated database instances and separate web server installations on the same server as long as adequate memory is allocated for each instance and as long as each OFSAAI installation is installed using a separate UNIX user and profile. Care must be taken when running multiple OFSAAI installations on a single server. Adequate memory is required for each installation as several OFSAAI processes (model upload, DEFQ services, and so on) take significant amounts of memory. So it depends on your server's memory.

**21. Is it possible to install OFSAA 8.1.1.0.0 Application pack on an existing 'Infodom' where another OFSAA 8.1.1.0.0 application is installed?**

Yes. However, the Behavioral Detection Application Pack and Compliance Regulatory Reporting Application pack are the exceptions. They must be installed in a different Infodom.

**22. Can I select an Infodom for the Application pack during installation?**

Yes. You can select or change the required infodom.

**23. Can I install all Application Packs in a Single Infodom?**

Yes. But, the Behavioral Detection Application Pack and Compliance Regulatory Reporting Application Pack are the exceptions. They must be installed in a different Infodom.

**24. Is it possible to install applications on different Infodom within the Application pack (for example, I want to install HM and MR in two infodoms)?**

Applications within the application pack have to be installed in the same information domain in the same environment.

**25. How many Infodoms can be created over a single OFSAA Infrastructure of 8.1.1.0.0?**

You can install only one infodom during installation. But after installation, you can create multiple infodoms.

**26. Is the 'Data Model' bundled specifically to an Application pack or an individual application?**

A merged data model for all applications within the application pack is bundled and uploaded.

**27. Is it possible to install OFS Enterprise Modeling later?**

OFS Enterprise Modeling is a separate product and can be enabled as an option later from any application pack that bundles Enterprise Modeling. For more information, see Enable Financial Services Enterprise Modeling on Another Application Pack section in the [OFS AAI Release 8.1.1.0.0 Installation and Configuration Guide](#).

**28. Does the Application pack create a sandbox automatically for the required applications?**

Yes, Sandbox creation is part of the application install process.

**29. Are upgrade Kits available for individual applications or the complete Application Pack?**

30. Maintenance Level (ML) Release and Minor Release upgrades are available across all applications.

**31. Can I upgrade AAI only?**

Yes, you can upgrade AAI alone.

**32. Is it possible to uninstall any Application from the Application pack?**

No, it is not possible to uninstall any Application from the Application Pack.

**33. Can I uninstall the entire Application Pack?**

No, you cannot uninstall the Application Pack.

**34. Is it possible to uninstall only the application and retain AAI in the installed environment?**

No, you cannot uninstall only the application and retain AAI in the installed environment.

**35. Does Application Pack contain all Language Packs supported?**

Language Packs must be installed on the application packs.

**36. Can I install an Application Pack over another Application Pack (that is the same infodom or different infodom)?**

Yes, you can install an Application Pack over another Application Pack in the same information domain or different information domain. But Behavioral Detection Application Pack and Compliance Regulatory Reporting Application Pack, Asset Liability Management Application Pack, and Profitability Application Pack are the exceptions. They must be installed in a different Infodom.

**37. What should I do if I get the error message: *HostName in the input XML file is not matching with the local hostname while running the schema creator utility?***

One possible reason can be the machine is configured for zonal partitioning. Ensure all the known IP Addresses of the machine are present in the `/etc/hosts` file.



**38. What are the Java versions supported in OFS HM Application Pack version 8.1.1.0.0?**

See the [Hardware and Software Requirements](#) section.

**39. Is OFSAAI Application Pack version 8.1.1.0.0 supported on Java 9 and Java 11?**

For information about supported Java versions, see the [Hardware and Software Requirements](#) section

**40. What should I do when I get the message: "[ERROR] - Error: APP Setup bin file failed." during OFS\_Application\_PACK installation?**

This is a generic error message that appears during application installation failure. You must check the installation log files for more information about what failed the installation.

However, if the message is displayed and the log files are not generated, this can be a temp directory issue. The resolution is that your UNIX administrator has to disable the NOEXEC option. The installers extract the installation files into the `/tmp` directory, and if NOEXEC is enabled, the execution of binaries will not happen in the directory and the installation fails. Re-run the installer after the configuration is changed. For detailed information, see the support note at <https://support.oracle.com/epmos/faces/DocumentDisplay?id=2340045.1>.

## OFSAA Support

Raise a Service Request (SR) in [My Oracle Support \(MOS\)](#) 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 and 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.

