Oracle Insurance Data Foundation Application Pack

Installation and Configuration Guide

Release 8.1.2.0.0

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Financial Services



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Document Control

This section lists all the details of document control:

Table 1: Document Control

Version	Revision Date	Change Log
1	December 2022	Updated Configure Silent.props File section with a note.
2	December-2021	Created the document for the installation and configuration of the OIDF Release v8.1.2.0.0.
3	November- 2023	Updated Java settings

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1 Preface

This section provides information about the Oracle Insurance Data Foundation (OIDF) Application Pack Installation and Configuration Guide.

Topics:

- What is New in this Release for OIDF Application Pack
- Audience
- How this Guide is Organized
- Access to Oracle Support
- Related Information Sources
- Conventions
- Abbreviations

1.1 What is New in this Release for OIDF Application Pack

This section lists new features and changes in the Oracle Insurance Data Foundation (OIDF) Application Pack.

1.1.1 New Features

This section lists the new features described in this manual.

Table 1: New features and their description

Feature Name	Feature Description
Surrender Charge Schedule	Surrender Charge Schedule is applicable for different insurance products. For example, in Life Insurance Contract or Annuity Contract, based on the policy age, surrender charges are applied.
Appliances and Articles, and Cellphone Insurance Tables	The Appliances and Articles Insurance protects the contents of the building from the damages caused as agreed upon in the Policy. The Appliances and Articles Insurance is a part of the Dwelling Insurance.
	The Cellphone Insurance covers the cost of cellphone repairs and parts replacement as agreed upon in the Policy.
Aviation Insurance Tables	The Aviation Insurance covers the physical and operational damages to different types of aircraft and their parts. It also covers the resultant liabilities.

1.1.2 Deprecated Features

There are no deprecated features in this release.

1.1.3 Desupported Features

There are no desupported features in this release.

1.2 Audience

The Oracle Insurance Data Foundation (OIDF) Application Pack Installation and Configuration Guide is intended for Administrators, Business User, Strategists, and Data Analyst, who are responsible for installing and maintaining the application pack components.

- OIDF Application Pack components
- OFSAA Architecture
- UNIX Commands
- Database Concepts
- Web server/Web application server

1.3 How this Guide is Organized

The Installation Guide is organized into the following sections:

- Introduction: This section contains an introduction to the OFSAAI and its components, an introduction to the OIDF Application Pack, and installation scenarios that the current release supports.
- <u>Complete Installation Checklist</u>: This section lists the procedures required for a complete Oracle Insurance Data Foundation Application Pack installation.
- <u>Pre-installation</u>: This section contains the pre-installation requirements for a successful installation and functioning of the Oracle Insurance DataFoundation Application Pack. This section recommends the hardware and base software environment, and the preparatory procedures required before triggering the installation.
- <u>Installation</u>: This section details the steps to follow during the Oracle Insurance Data Foundation Application Pack installation.
- <u>Use Oracle Autonomous Data Warehouse as the Database for OIDF</u>: This section
 provides information about using the Oracle Autonomous Data Warehouse as the
 Database for the Oracle Insurance Data Foundation Application Pack installation
 and operation.

- <u>Post-installation</u>: This section details the steps that are required to be performed after a successful installation of the Oracle Insurance Data Foundation Application Pack.
- <u>Upgrade</u>: This section details the steps to follow before, during, and after the Oracle Insurance Data Foundation Application Pack upgrade installation, and different upgrade scenarios.
- Additional Configuration: This section contains the additional configuration after a successful installation of the Oracle Insurance Data Foundation Application Pack.
- <u>Frequently Asked Questions (FAQs) and Error Dictionary</u>: This section contains a reference to the FAOs and installation error-related information.

1.4 Access to Oracle Support

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

1.5 Related Information Sources

Oracle strives to keep this and all other related documents updated regularly. Visit the OHC Documentation Library and My Oracle Support web pages to download the latest document version available. The list of related documents is as follows:

- OHC Documentation Library for the OIDF Application Pack Release 8.1.x.x.x product documents:
 - Oracle Insurance Data Foundation Application Pack User Guide Release 8.1.2.0.0
 - Oracle Insurance Data Foundation Application Pack Release Notes 8.1.2.0.0
- OHC Documentation Library for the OIDF Application Pack Release 8.1.x.x.x other documents:
 - Oracle Insurance Data Foundation Application Pack Data Protection
 Implementation Guide Release 8.1.x
 - Oracle Financial Services Analytical Applications (OFSAA) Data Model Extension
 Guidelines Document Release 8.1.x
 - Oracle Financial Services Analytical Applications (OFSAA) Data Model Naming Standards Guide Release 8.1.x
 - Oracle Financial Services Analytical Applications (OFSAA) Data Model Document Generation Release 8.1.x
 - Oracle Insurance Data Foundation Application Pack Security Guide Release 8.1.x
 - Oracle Insurance Data Foundation Application Pack Cloning Reference Guide Release 8.1.x

- Oracle Insurance Data Foundation Application Pack Cloning Reference Guide Release 8.0.x
- My Oracle Support for the OIDF Application Pack Release 8.1.x.x.x technical documents:
 - Run Chart
 - Changelog
 - SCD Metadata
 - T2T Metadata
- Oracle Financial Services Analytical Applications (OFSAA) Technology Matrix Release 8.1.2.0.0
- OHC Documentation Library contains the following OFS AAAI Application Pack Release 8.1.x.x.x product documents:
 - Oracle Financial Services Advanced Analytical Applications Infrastructure Installation Guide Release 8.1.2.0.0
 - Oracle Financial Services Advanced Analytical Applications Infrastructure User
 Guide Release 8.1.2.0.0
 - Oracle Financial Services Advanced Analytical Applications Infrastructure Environment Check Utility Guide Release 8.1.x
 - Oracle Financial Services Advanced Analytical Applications Infrastructure Administration and Configuration Guide Release 8.1.x
 - Oracle Financial Services Analytical Applications Infrastructure Process
 Modelling Framework Orchestration Guide Release 8.1.2.0.0
 - Oracle Financial Services Analytical Applications (OFSAA) Metadata Browser
 User Guide Release 8.1.0.0.0
- OHC Documentation Library contains the following OFSAA Release 8.1.x generic documents:
 - Oracle Financial Services Analytical Applications Infrastructure Security Guide Release 8.1.x
 - Oracle Financial Services Analytical Applications Infrastructure Cloning Reference Guide Release 8.1.x
- Oracle Financial Services Analytical Applications (OFSAA) Licensing Information User Manual Release 8.1.2.0.0

1.6 Conventions

The following text conventions are used in this document.

Table 1: Document Conventions

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

1.7 Abbreviations

The following table lists the abbreviations used in this document.

Table 2: Abbreviations

Conventions	Description	
AIX	Advanced Interactive executive	
CDH	Cloudera Distribution Hadoop	
DEFQ	Data Entry Forms and Queries	
DML	Data Manipulation Language	
EAR	Enterprise Archive	
EJB	Enterprise JavaBean	
ERM	Enterprise Resource Management	
FTP	File Transfer Protocol	
GUI	Graphical User Interface	
HTTPS	Hypertext Transfer Protocol Secure	
J2C	J2EE Connector	
J2EE	Java 2 Enterprise Edition	
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	

Conventions	Description
LHS	Left Hand Side
MFA	Multi-Factor Authentication
MOS	My Oracle Support
OFS	Oracle Financial Services
OFSAAI	Oracle Financial Services Analytical Application Infrastructure
OIDF	Oracle Insurance Data Foundation
OHC	Oracle Help Center
OLAP	On-Line Analytical Processing
OS	Operating System
RAM	Random Access Memory
RDMS	Relational Database Management System
SFTP	Secure File Transfer Protocol
SID	System Identifier
SSL	Secure Sockets Layer
TDE	Transparent Data Encryption
TNS	Transparent Network Substrate
URL	Uniform Resource Locator
VM	Virtual Machine
Web Archive	WAR
XML	Extensible Markup Language

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. OFSAA 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.

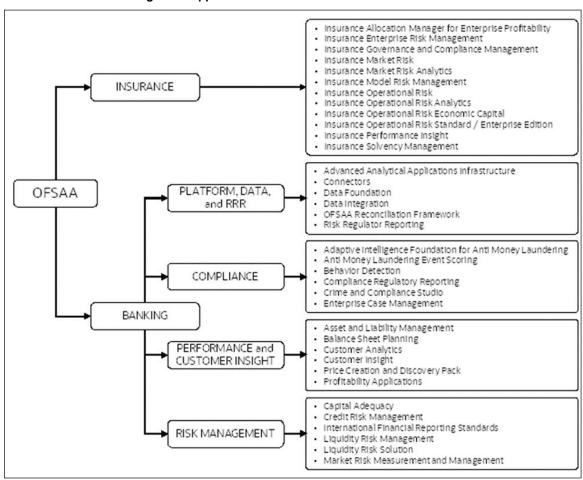


Figure 1: Application Packs of OFSAA

Topics:

- Oracle Financial Services Analytical Applications Infrastructure (OFSAAI)
- About the Oracle Insurance Data Foundation Application Pack
- OFS AAI Extension Pack
- Installation and Upgrade Scenarios

2.1 Oracle Financial Services Analytical Applications Infrastructure (OFSAAI)

Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) 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.

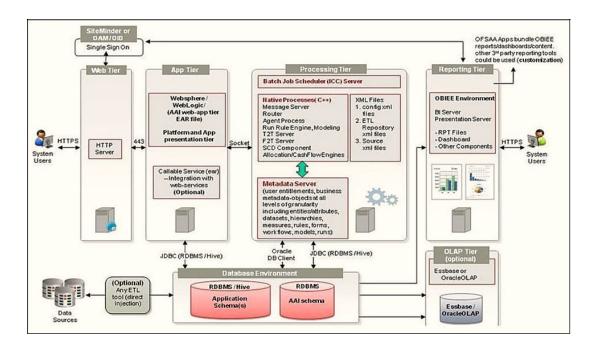
2.1.1 Components of OFSAAI

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 or frameworks are installed as two layers; primarily, the metadata server and Infrastructure services run on one layer, while the UI and presentation logic runs 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



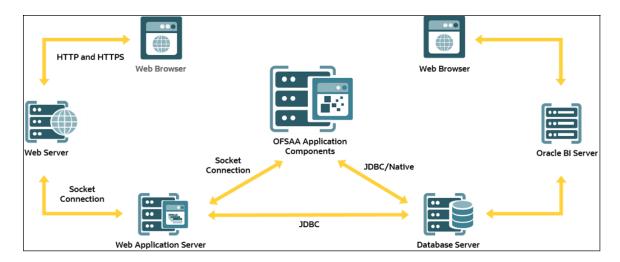
2.1.2 OFSAA Infrastructure High Availability

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 <u>Oracle Financial Services Analytical Applications (OFSAA) Configuration for High Availability Best Practices Guide Release 8.1.x.</u>

2.1.3 Deployment Topology

Figure 3: The logical architecture implemented in the OFSAAAI Application Pack



2.2 About the Oracle Insurance Data Foundation Application Pack

The Oracle Insurance Data Foundation (OIDF) is an analytical data warehouse platform for the Financial Services industry. OIDF combines an industry data model for Financial Services along with a set of management and infrastructure tools that allows Financial Services Institutions to develop, deploy, and operate analytical solutions spanning key functional areas in Financial Services, including:

- Health Insurance
- Property Casualty
- Life Insurance

OIDF is a comprehensive data management platform that helps institutions to manage the analytical data life cycle from sourcing to reporting as a consistent platform and toolset.

The application pack includes a logical data model, a physical data model, and supporting scripts.

OIDF Application Pack includes the following applications:

- **Financial Services Analytical Applications Infrastructure**: This application 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.
- **Financial Services Big Data Processing**: This option includes, into OIDF, the capability to process data stored in Hadoop Distributed File System (HDFS). With the Big Data Processing (BDP) add-on option, all core data management

frameworks within OFSAA such as Data Management Framework (T2T or F2T), Data Quality Framework, and Rules framework are enhanced to operate on both Oracle RDBMS data sources as well as Apache Hive data sources. An OFSAA Run definition can contain tasks that transform data held in the Hive. OFSAA applications that use these frameworks for expressing application logic automatically gain the ability to manage data held in the Hive. The OFSAA platform leverages HiveQL and Map Reduce in order to process data directly in the Hadoop cluster without having to stage data in a relational database.

The application pack includes a logical data model, a physical data model, and supporting scripts.

NOTE:

The schema or domain for OIDF is referred to as OIDF.

2.3 OFS AAI Extension Pack

The Oracle Financial Services Analytical Applications Infrastructure Extension (OFS AAIE) Pack adds a set of new advanced features for the 8.1.2.0.0 Release across OFSAA applications. This pack can be installed on an OFSAA instance containing 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 the procurement of an additional license. For more information, see the *OFS AAIE Release Notes* and *Installation Guide* on the <u>OHC Documentation Library</u>.

2.4 Installation and Upgrade Scenarios

The OIDF Application Pack Release v8.1.2.0.0 supports various installation and upgrade scenarios. A high-level overview of the possible scenarios is provided in the following table. The detailed procedural steps are provided in the subsequent sections.

Table 3: OIDF Release 8.1.2.0.0 Installation and Upgrade Scenarios

Scenario	Installation and Upgrade Instructions
New Installation Installing Release 8.1.2.0.0 application pack for the	 Prepare for the Installation. Run Schema Creator Utility.
first time (new installation).	3. Install the OIDF Application Pack.
Install a new OIDF Application Pack v8.1.2.0.0 on an Existing OFSAA Instance	1 Configure the OFS_OIDF_PACK.xml file for the newly licensed OIDF Application Pack.
In this scenario, you have already installed an application pack versioned v8.1.2.0.0 and now you	2 Configure the Silent.props file of the newly licensed pack.
need to install the OIDF application pack versioned v8.1.2.0.0.	3 Run the schema creator utility ONLY for the newly licensed OIDF Application Pack.
Example: OFS CAP Pack is already installed and now you need to install OIDF Pack.	4 <u>Trigger</u> the installation.
Upgrade the OIDF Application Pack from v8.1.0.0.0 or a Later Version to v8.1.2.0.0	1. <u>Clone</u> your existing environment to the <u>OFSAA</u> <u>Technology Matrix</u> v8.1.2.0.0.
In this scenario, you are upgrading the OIDF Application Pack from Release v8.1.0.0.0 or a later version to Release v8.1.2.0.0.	2. Run the Environment Check Utility tool and ensure that the hardware and software requirements are installed as per the OFSAA Technology Matrix v8.1.2.0.0.
	3. Update the OFS_OIDF_PACK.xml file to enable ONLY the existing installed applications.
	4. Update the Silent.props file present in the OIDF v8.1.2.0.0 installer pack.
	5. <u>Trigger</u> the installation.
Upgrade the OIDF Application Pack from v8.1.0.0.0 or a Later Version to v8.1.2.0.0 on an Existing	1 Update the OFS_OIDF_PACK.xml file of the OIDF Application Pack.
OFSAA Instance In this scenario, an Application Pack of v8.1.2.0.0 is	2 Update the Silent.props file of the OIDF Application Pack.
already installed and now you need to upgrade the OIDF Application Pack from v8.1.0.0.0 or a later version to Release v8.1.2.0.0.	3 Run the schema creator utility ONLY for the OIDF Application Pack.
Example: OFS CAP v8.1.2.0.0 Application Pack is already installed and now you need to install the OIDF Application Pack.	4 <u>Trigger</u> the installation.

3 Complete Installation Checklist

To complete the installation process, you must perform the following steps listed in the Complete Installation Checklist table. Use this checklist to verify whether these steps are completed or not.

Table 4: Pre-installation Checklist

Sl. No.	Activity
1	Install all the prerequisite hardware and software as per the OFSAA Technology Matrix.
2	Install and configure the prerequisite hardware and software for the Big Data (Only for the Big Data installation) as per the OFSAA Technology Matrix.
3	Verify the System Environment using the Environment Check Utility.
4	Download the OIDF Application Pack installer kit.
5	<u>Download</u> the Data Model (optional).
6	Configure the Database Instance settings.
7	Install and configure the web application server.
8	Configure the HTTP settings on the webserver.
9	 Create the Installation, Download, and Metadata Repository Directories: Installation directory Temporary directory Staging Area/Metadata Repository Download directory
10	Configure the following Operating System and File System settings: • File Descriptor • Total number of processes • Port(s) • .profile file permissions • Set Up the SFTP Private Key
11	 Update the following Environment Settings as required for the installation in the .profile file: Java Settings Oracle Database Server and Client Settings Add TNS entries in the tnsnames.ora file Oracle Essbase Settings Time Zone Settings

Table 5: Installation Checklist

Sl. No.	Activity	
1	Extract the OIDF Application Pack software.	
2	Configure the OFS_OIDF_PACK.xml file.	
3	Configure the OFS_OIDF_SCHEMA_IN.xml file.	
4	Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage and Results on Hive or Stage on Hive and Results on RDBMS (Only for the Big Data installation).	
5	Configure the OFSAAI_InstallConfig.xml file.	
6	Configure the Silent.props file.	
7	Backup the configuration files.	
8	Execute the Schema Creator Utility in Offline, Online, or TCPS modes.	
9	Verify the Schema Creator log files.	
10	Trigger the OIDF Application Pack installation.	

Table 6: Post-installation Checklist

Sl. No.	Activity
1	Verify the installation logs.
2	Stop the OFSAA Infrastructure services.
3	<u>Create and deploy</u> EAR/WAR files. (<u>Alternative</u>) EAR/WAR file - Build Once and Deploy Across Multiple OFSAA Instances.
4	Start the OFSAA Infrastructure services.
5	Access the OFSAA application.
6	Explore the OFSAA landing page.
7	Configure the excludeURLList.cfg file.
8	Configure Big Data Processing.
9	<u>Create</u> Application Users.
10	Map the Application User(s) to User Groups.
11	Change the ICC batch ownership.
12	Add TNS entries in the tnsnames.ora file.
13	Set TDE and Data Redaction in OFSAAI.
14	Implement Data Protection in OFSAA.

Table 7: Additional Configuration Checklist

Sl. No.	Activity
1	Configure the webserver.
2	Configure the Resource Reference in web application servers.
3	Configure the Work Manager in the web application servers.
4	Add the FTP/SFTP configuration for file transfer.
5	Configure the Process Modeling Framework.
6	Configure the Infrastructure Server Memory.
7	Change IP/Hostname, Ports, Deployed Paths of the OFSAA Instance.
8	Configure the Infrastructure LDAP.
9	Configure and deploy the OFSAAI web services.
10	Enable the parallel execution of DML statements.
11	Configure the message details in the Forms Designer.
12	Clear the application cache.
13	Configure the password changes.
14	Configure the Java Virtual Machine.
15	Configure the internal service (Document Upload/Download).
16	Migrate the Excel upload functionality.
17	Remove the OFSAA Infrastructure.

4 Pre-installation

This section contains the pre-installation requirements for a successful installation and functioning of the Oracle Insurance Data Foundation Application Pack.

Topics:

- Pre-installation Checklist
- Hardware and Software Requirements
- Preparing for Installation
- Oracle Database Instance Settings
- Web Application Server Settings
- Web Server Settings
- Create the Installation, Download, and Metadata Directories
- Configure the OS File System Settings and Environment Settings in the .profile File

4.1 Pre-installation Checklist

To complete the pre-installation process, you must perform the following steps listed in the Pre-installation Checklist table. Use this checklist to verify whether these steps are completed or not.

Table 8: Pre-installation Checklist

Sl. No.	Activity
1	Install all the prerequisite hardware and software as per the OFSAA Technology Matrix.
2	<u>Install</u> and configure the prerequisite hardware and software for the Big Data (Only for the Big Data installation) as per the <u>OFSAA Technology Matrix</u> .
3	Verify the System Environment using the Environment Check Utility.
4	Download the OIDF Application Pack installer kit.
5	<u>Download</u> the Data Model (optional).
6	Configure the Database Instance settings.
7	Install and configure the web application server.
8	Configure the HTTP settings on the webserver.

SI. No.	Activity
9	Create the Installation, Download, and Metadata Repository Directories:
	Installation directory
	Temporary directory
	Staging Area/Metadata Repository
	Download directory
10	Configure the following Operating System and File System settings:
	File Descriptor
	Total number of processes
	Port(s)
	• .profile file permissions
	<u>Set Up</u> the SFTP Private Key
11	<u>Update</u> the following Environment Settings as required for the installation in the .profile file:
	Java Settings
	Oracle Database Server and Client Settings
	Add TNS entries in the tnsnames.ora file
	Oracle Essbase Settings
	Time Zone Settings

4.2 Hardware and Software Requirements

This section describes the various Operating System, databases, web servers, and web application server versions, and other variant details on which this release of the Oracle Insurance Data Foundation Application Pack has qualified.

Topics:

- Big Data Settings
- Third-party Licensing Information
- Verify the System Environment

See the <u>OFSAA Technology Matrix</u> document for the hardware and software required for the Oracle Insurance Data Foundation Application Pack Release 8.1.2.0.0.

Table 9: Recommended Software Combination

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

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

4.2.1 Big Data Settings

This is an optional section and required only if you intend to install the OFSAA Big Data Processing. See the <u>OFSAA Technology Matrix</u> for the software required for the Big Data software Hadoop Distribution on the Oracle Insurance Data Foundation Application Pack Release 8.1.2.0.0.

- Install CDH. For installation information, see the Cloudera documentation at https://docs.cloudera.com/.
- Install the Apache Livy (Incubating) web service:
 - **a.** Go to https://incubator.apache.org/clutch/livy.html.
 - **b.** Download the livy-0.4.0-incubating zip files.
 - **c.** Install livy-0.4.0-incubating for Spark 2. For installation information, see the documentation at https://docs.cloudera.com/HDPDocuments/HDP2/HDP-2.6.5/bk command-line-installation/content/install_livy.html.

4.2.2 Third-party Licensing Information

For details on the third-party software tools used, see the <u>Oracle Financial Services</u> Analytical Applications (OFSAA) Licensing Information User Manual Release 8.1.2.0.0.

4.2.3 Verify the 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 <u>Oracle Support Services</u>.

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 details on download and usage of this utility, see the <u>Oracle Financial Services</u> <u>Advanced Analytical Applications Infrastructure Environment Check Utility Guide Release 8.1.x.</u>

4.3 Preparing for Installation

This section details the preparatory procedures that must be followed before triggering the installation.

Topics:

- Download the OIDF Application Pack Installer
- Download the Data Model

4.3.1 Download the OIDF Application Pack Installer

To download the OIDF Application Pack installer Release v8.1.2.0.0, follow these steps:

- 1. Log in to the My Oracle Support (MOS) with a valid Oracle account.
- 2. In the **Patches & Updates** tab, search for the OIDF Application Pack installer patch **33024795** and download the patch. Copy the patch to your OFSAA server in the Binary mode in the setup identified for OIDF installation.

NOTE:

The archive files are different for every operating system like AIX, Solaris, and RHEL/Oracle Linux.

4.3.2 Download the Data Model

To download the OIDF OOB v8.1.2.0.0 Data Model, follow these steps:

NOTE

This is an optional section, which is applicable if you are performing the customized model upload.

- 1. Log in to the My Oracle Support (MOS) with a valid Oracle account.
- 2. In the **Patches & Updates** tab, search for the OIDF Data Model installer patch **33143379** and download the patch. See the Readme available with the patch for further instructions on downloading the patch and extracting the erwin files.

4.4 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

4.5 Web Application Server Settings

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

4.6 Web Server Settings

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

Table 11: Web Server Settings

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

4.7 Create the Installation, Download, and Metadata Directories

To install the OIDF Application Pack, create the following directories:

- OIDF Download Directory (Optional): Create a download directory and copy the OIDF Application Pack Installer File (archive). This is the directory where the downloaded installer or patches can be copied. Assign 755 permission to this directory.
- OFSAA Installation Directory (Mandatory): Create an installation directory where
 the product binaries are installed. Assign 755 user permission to the installation
 directory. FIC_HOME variable to be set in the .profile pointing to this OFSAA
 Installation Directory.
- OFSAA Staging or Metadata Repository 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 "FTPSHARE". 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.

 OIDF Hive Directory (Mandatory for Big Data Installation): Create a directory for the file system stage area of the Hive server. This is commonly referred to as FTPSHAREH or HIVE_SERVER_FTPDRIVE. Ensure that the user permission is set to 775 on the Installation Directory.

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

Topics:

- Configure Operating System and File System Settings
- Configure the Environment Settings

A .profile file is a start-up file of a UNIX user. 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.

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.

4.8.1 Configure Operating System and File System Settings

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

Table 12: Configure Operating System and File System Settings

Configuration Action
Configuration Action

Parameter	Configuration Action
Installation Directory	In the .profile file, set the variable FIC_HOME to point to the OFSAA Installation Directory.
File Descriptor Settings	<pre>In the sysctl.conf file, to change the number of file descriptors, do the following as the root user: 1 Edit the following line in the /etc/sysctl.conf file: fs.file-max = <value> where <value> is greater than 15000 2 Apply the change by running the following command: # /sbin/ sysctl -p</value></value></pre>
	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.
Total Number of Process Settings	In the sysctl.conf file set the value to greater than 4096. 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.
Port Settings	Default port numbers to be enabled on the system are 6500, 6501, 6505, 6507, 6509, 6510, 6666, 9999, and 10101.
.profile permissions	You must have 755 permission on the .profile file.
OS Locale	 Linux: en_US.utf8 Solaris: en_US.UTF-8 To check the locale installed, execute the following command: locale -a grep -i 'en US.utf'

4.8.2 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 the TNSNAMES.ORA File
- Oracle Essbase Settings
- <u>Time Zone Settings</u>

NOTE:

If you are installing an application pack in an environment, where another application pack is already installed, you may sometimes get a warning message such as "Object Already Exists". This message can be ignored.

4.8.2.1 Java Settings

The following table displays the Java settings required for installation.

Table 13: Java Settings

Description	Example Value
In the .profile 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.	
In the .profile file, set PATH to include the Java Runtime Environment bin path.	<pre>JAVA_BIN=/scratch/<<version>>/jre/bin For example: PATH=/usr/java/jre1.8.0_221/bin:\$ORACLE_ HOME/bin:\$PATH</version></pre>
In the .profile file, set the Java tool options for all versions JDK 11.0.20 and above updates	JAVA_TOOL_OPTIONS=" Djdk.util.zip.disableZip64ExtraFieldValidation=true" export JAVA_TOOL_OPTIONS
Enable unlimited cryptographic policy for Java.	For more information, see the <i>Enabling Unlimited Cryptographic Policy for Java</i> section from the <u>Oracle Financial Services Advanced Analytical Applications Infrastructure Administration and Configuration Guide Release 8.1.x.</u>

4.8.2.2 Oracle Database Server and Client Settings

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

Table 14: Oracle Database Server and Client Settings

Description	Example Value
In the .profile file, set TNS_ADMIN pointing to the appropriate tnsnames.ora file.	TNS_ADMIN=\$HOME/tns

Description	Example Value
In the .profile file, set ORACLE_HOME pointing to the appropriate Oracle Client installation.	ORACLE_HOME=/scratch/oraofss/app_client19c/product/19.0.0/client_1
In the .profile file, set PATH to include the appropriate \$ORACLE_HOME/bin path.	
OFSAA Processing Server	ORACLE_HOME must be set in the .profile file and point to the appropriate Oracle DB Client installation.
	• PATH in the .profile file must be set to include the appropriate \$ORACLE_HOME/bin path.
	• Ensure that an entry (with SID/SERVICE NAME) is added in the tnsnames.ora file.

4.8.2.3 TNS entries in the TNSNAMES.ORA file for Non-TCPS and TCPS

This section provides information about the TNS entries in the <code>TNSNAMES.ORA</code> file.

Topics:

- Non-TCPS
- TCPS

4.8.2.3.1 Non-TCPS

Table 15: TNS entries in the TNSNAMES.ORA file for the Non-TCPS mode

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 = 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>))) </sid_name></host_name></atomic_schema_name></sid_name></host_name></sid_name></pre>

```
<SID NAME> =
  (DESCRIPTION =
        (ADDRESS LIST =
```

NOTE:

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

4.8.2.3.2 TCPS

Table 16: TNS entries in the TNSNAMES.ORA file for the Non-TCPS mode

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=<host_name>)))) </host_name></sid_name></host_name></sid_name></host_name></sid_name></pre>

Description	Example Value
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.	NAMES.DIRECTORY_PATH= (TNSNAMES, EZCONNECT)WALLET_LOCATION = (SOURCE = (METHOD = FILE) (METHOD_DATA = (DIRECTORY = <path directory="" to="" wallet="">)))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)</path>

```
<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 ${\tt OFS_OIDF_SCHEMA_IN.xml}$ file, which also includes prefix without underscore. For example, DEVOFSAAATM.

4.8.2.4 Oracle Essbase Settings

In the .profile file, set the following parameters if you need to use Oracle Hyperion Essbase OLAP features.

Table 17: Oracle Essbase Settings

Description	Example Value
ARBORPATH to point to an appropriate Oracle Essbase Client installation.	PATH=\$PATH:\$ARBORPATH/bin
ESSBASEPATH to point to an appropriate Oracle Essbase Client installation.	ESSBASEPATH=/scratch/essps3/Oracle/MiddlewareHome/EPMSystem11R1/common/Ess 64/11.1.2.0 export ESSBASEPATH
HYPERION_HOME to point to an appropriate Oracle Essbase Client installation.	HYPERION_HOME=/scratch/essps3/Oracle/MiddlewareHome/EPMSystem11R1/common/E 64/11.1.2.0 export HYPERION_HOME

4.8.2.5 Time Zone Settings

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

Table 18: Time Zone Settings

Description	Example Value
Time Zone	TZ=Asia/Calcutta

5 Installation

This section details the steps to be followed during the OIDF Application Pack installation.

Topics:

- Installation Checklist
- Extract the Software
- Configure the OFS_OIDF_PACK.xml File
- Configure the Schema Creator Utility
- Configure the OFS_OIDF_SCHEMA_IN.xml File
- Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml File
- Configure the OFSAAl_InstallConfig.xml File
- Configure the Silent.props File
- Backup the Configuration Files
- Execute the Schema Creator Utility
- Verify the Schema Creator Log Files
- Install the OIDF Application Pack
- Install a New OIDF Application Pack on an Existing OFSAA Instance

5.1 Installation Checklist

To complete the OIDF Application Pack installation process, you must perform the following steps listed in the Installation Checklist. Use this checklist to verify whether these steps are completed or not.

Table 19: Installation Checklist

Sl. No.	Activity
1	Extract the OIDF Application Pack software.
2	Configure the OFS_OIDF_PACK.xml file.
3	Configure the OFS_OIDF_SCHEMA_IN.xml file.
4	Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage and Results on Hive and Stage on Hive and Results on RDBMS (Only for the Big Data installation).
5	Configure the OFSAAI_InstallConfig.xml file.
6	Configure the Silent.props file.
7	Backup the configuration files.

Sl. No.	Activity
8	Execute the Schema Creator Utility in Offline, Online, or TCPS modes.
9	<u>Verify</u> the Schema Creator log files.
10	Trigger the OIDF Application Pack installation.

5.2 Extract the OIDF Application Pack Software

You must be logged in to the UNIX operating system as a non-root user to perform the following steps. To extract the software, follow these 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. Uncompress the unzip installer file with the command:

uncompress unzip <os>.Z

NOTE:

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

2. Assign 751 permission to the file with the following command:

```
chmod 751 unzip_<os>
For example, chmod 751 unzip sparc
```

3. Extract the contents of the OIDF Application Pack Release v8.1.2.0.0 installer archive file in the download directory with the following command:

```
unzip OFS_OIDF_8.1.2.0.0_<Operating_System>.zip
```

NOTF:

Do not rename the Application Pack installer folder name on extraction from the archive.

4. Navigate to the Download Directory and assign 750 permission to the installer directory with the following command:

chmod -R 750 OFS OIDF PACK

5.3 Configure the OFS_OIDF_PACK.xml File

The $OFS_OIDF_PACK.xml$ file contains details of various OFSAA products that are packaged in the OIDF Application Pack.

To configure the OFS OIDF PACK.xml file, follow these steps:

- 1. Navigate to the <INSTALLER DIRECTORY>/OFS OIDF PACK/conf directory.
 - For the RDBMS mode of installation, rename the file
 OFS OIDF PACK.xml.template to OFS OIDF PACK.xml.
 - In the Big Data mode of installation, for Stage and Results on Hive, rename the file OFS_OIDF_PACK.xml.BIGDATA.template to OFS_OIDF_PACK.xml.
 - In the Big Data mode of installation, for Stage on Hive and Results on RDBMS, rename the file OFS_OIDF_PACK.xml.HYBRID.template to OFS OIDF PACK.xml.
- **2.** Open the OFS OIDF PACK.xml file in a text editor.
- **3.** Configure the OFS OIDF PACK.xml file as mentioned in the following table.

NOTE:

During the Big Data mode of installation, for Stage and Results on Hive, enable the option to **YES** for the **APP_ID** parameter with the value **OFS_AAIB** as illustrated in the sample illustration.

During the Big Data mode of installation, for Stage on Hive and Results on RDBMS, enable the option to **YES** for the **APP_ID** parameter with the value **OFS_OIDFHV** as illustrated in the sample illustration.

Figure 4: Sample of the OFS_OIDF_PACK.xml file

```
<APP PACK CONFIG>
   <APP PACK ID>OFS OIDF PACK</APP PACK ID>
   <APP PACK NAME>Financial Services Foundation Applications PackPACK NAME>
   <APP PACK DESCRIPTION>Applications forming analytics foundation such for the Banking and
   Financial Services Domain</APP PACK DESCRIPTION>
   <VERSION>8.1.2.0.0</VERSION>
   <APP>
       <APP_ID PREREQ="" DEF_SEL_FLG="YES" ENABLE="YES">OFS_AAI</APP_ID>
       <APP NAME>Financial Services Analytical Applications Infrastructure</app NAME>
       <APP_DESCRIPTION>Base Infrastructure for Analytical Applications
       <VERSION>8.1.2.0.0</VERSION>
   <APP>
       <APP ID PREREQ="OFS AAI" ENABLE="YES">OFS OIDF</APP ID>
       <APP NAME>Oracle Insurance Data Foundation</aPP NAME>
       <APP DESCRIPTION>Data Foundation for Insurance domain/APP DESCRIPTION>
       <VERSION>8.1.2.0.0</VERSION>
   <APP>
       <APP ID PREREQ="OFS AAI" ENABLE="YES">OFS AAIB</APP ID>
       <APP NAME>Financial Services Analytical Applications Infrastructure Big Data Option
       </APP NAME>
      <APP DESCRIPTION>Base Infrastructure for Analytical Applications Big Data Option
       </APP DESCRIPTION>
       <VERSION>8.1.2.0.0</VERSION>
   </APP>
   <APP>
       <APP ID PREREQ="OFS AAIB" ENABLE="YES">OFS OIDFHV</APP ID>
       <APP NAME>Oracle Insurance Data Foundation</app NAME>
       <APP DESCRIPTION>Data Foundation for Insurance domain</APP DESCRIPTION>
       <VERSION>8.1.2.0.0</VERSION>
   </APP>
</APP PACK CONFIG>
```

Figure 4: Sample OFS_OIDF_PACK.xml File

```
<APP PACK CONFIG>
   <APP PACK ID>OFS OIDF PACK</APP PACK ID>
   <APP PACK NAME>Financial Services Foundation Applications Pack</APP PACK NAME>
   <APP_PACK_DESCRIPTION>Applications forming analytics foundation such for the Banking
   and Financial Services Domain</APP PACK DESCRIPTION>
   <VERSION>8.1.2.0.0</VERSION>
   <APP>
       <APP ID PREREQ="" DEF SEL FLG="YES" ENABLE="YES">OFS AAI</APP ID>
       <APP NAME>Financial Services Analytical Applications Infrastructure</app NAME>
       <APP DESCRIPTION>Base Infrastructure for Analytical Applications
       <VERSION>8.1.2.0.0/VERSION>
   </APP>
   <APP>
       <APP ID PREREQ="OFS AAI" ENABLE="YES">OFS OIDF</APP ID>
       <APP NAME>Oracle Insurance Data Foundation</aPP NAME>
       <APP DESCRIPTION>Data Foundation for Insurance domain</APP DESCRIPTION>
       <VERSION>8.1.2.0.0</VERSION>
   </APP>
/APP PACK CONFIG>
```

Table 20: The OFS_OIDF_PACK.xml file parameters

Tag Name or Attribute Name	Description	Mandatory? (Y or N)	Comments	
APP_PACK_ID	Unique Application Pack Identifier	Υ	This is a unique seeded value. DO NOT modify this value.	
IS_OPT_INSTALL VALUE="TRUE"	Unique Application Entry	Υ	This is a unique seeded value. DO NOT modify this value.	
APP_PACK_NAME	Unique Application Pack Name	Υ	This is a unique seeded value. DO NOT modify this value.	
APP_PACK_DESCRIPTION	Unique Application Pack Description	Υ	This is a unique seeded value. DO NOT modify this value.	
VERSION	Unique release version	Υ	This is a unique seeded value. DO NOT modify this value.	
APP	Unique Application Entries	Y	This is a unique seeded value. DO NOT modify this value.	
APP_ID	Unique Application Identifier	Y	This is a unique seeded value. DO NOT modify this value.	
APP_ID/PREREQ	Prerequisite Application/ Product	Y	This is a unique seeded value. For most applications, Infrastructure is the prerequisite set. For some other applications, a required Application ID is set. DO NOT modify this value.	
APP_ID/DEF_SEL_FLAG	Default Selected Flag	Y	The default value is YES. In all the Application Packs, the Infrastructure sets this value set to "YES". DO NOT modify this value.	
APP_ID/ENABLE	Enable Application/ Product	YES if installing in the SILENT mode.	The default value is YES for Infrastructure. The default value is NO for Others. The permissible values are YES and NO.	
			Set this attribute value to YES against every APP_ID that is licensed and that you need to enable for use. NOTE: You cannot disable the	
			Application or Product after	

Tag Name or Attribute Name	Description	Mandatory? (Y or N)	Comments
			you enable it. Only those Applications or Products, which are enabled, are installed. To enable the other licensed Applications or Products, reinstall by setting the flag to Y for the APP_ID. However, in the case of reinstallation, to enable other Applications or Products, skip the execution of the Schema Creation Utility if it does not include the creation of any additional sandbox.
APP_NAME	Unique Application/ Product Name	Y	This is a unique seeded value. DO NOT modify this value.
APP_DESCRIPTION	Unique Application/ Product Name	Υ	This is a unique seeded value. DO NOT modify this value.
VERSION	Unique release version	Υ	This is a unique seeded value. DO NOT modify this value.

4. Save the file.

5.4 Configure the Schema Creator Utility

Creating database users or schemas (RDBMS) is one of the primary steps in the complete 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.

The schema creator utility must be configured and executed before the installation of the OIDF Application Pack.

Topics:

- Prerequisites
- Configure the Schema Creator Utility for RDBMS Installation

• Configure the Schema Creator Utility for HDFS Schema

5.4.1 Prerequisites

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

- Oracle User ID/Password with SYSDBA privileges
- JDBC Connection URL for RAC/Non-RAC database
- The HOSTNAME/IP of the server on which OFSAA is getting installed.

In the case of the HIVE installation, you must also have the following:

- HIVE connection credentials (For example, Kerberos connection properties).
- Hostname/IP of the HIVE Server installation

5.4.2 Configure the Schema Creator Utility for RDBMS Installation

If the installation is being performed for RDBMS, provide the Pack specific schema details in the \mbox{OFS} \mbox{OIDF} \mbox{SCHEMA} $\mbox{IN.xml}$ file.

You can configure the following types of schemas:

- CONFIG: This schema holds the entities and other objects required for OFSAA setup configuration information. There can be only one CONFIG schema per OFSAA instance
- ATOMIC: This schema holds the data model entities. One ATOMIC schema is attached to one Information Domain. There can be multiple ATOMIC schemas per OFSAA Instance.

The OFS OIDF PACK/schema creator/conf/directory contains the following files:

- OFS_OIDF_SCHEMA_IN.xml
- OFS OIDF SCHEMA BIGDATA IN.xml.template
- OFS OIDF CFG.dat.template
- OFS OIDF APP CFG.dat
- App_Pack_Bigdata_Schema_Creator.xsd
- App Pack Schema Creator.xsd

5.4.2.1 Configure the OFS_OIDF_SCHEMA_IN.xml File

Creating database schemas, objects within schemas, and assigning required grants are the primary steps in the installation process of the OFSAA Applications.

The OFS OIDF SCHEMA IN.xml file contains details of the various application schemas.

Update the values of various tags and parameters available in this file and then execute the schema creator utility.

NOTE:

Configure this file only for the RDBMS ONLY target installation of the OIDF Application Pack. Do not configure this file for an HDFS ONLY target installation.

To configure the OFS OIDF SCHEMA IN.xml file, follow these steps:

- **1.** Log in to the system as a non-root user.
- 2. Navigate to the OFS OIDF PACK/schema creator/conf/directory.
- **3.** Rename the file OFS_OIDF_SCHEMA_IN.xml.template to OFS OIDF SCHEMA IN.xml.
- **4.** Edit the OFS_OIDF_SCHEMA_IN.xml file using a text editor and configure the values as mentioned in the following table.

Figure 5: Sample of the OFS_OIDF_SCHEMA_IN.xml file

```
<APPPACKSCHEMA>
   <APP PACK ID>OFS OIDF PACK</APP PACK ID>
   <IS TCPS>FALSE</IS TCPS>
   <JDBC URL>jdbc:oracle:thin:@##IP ADDRESS##:##PORT NUMBER##:##MYDATABASE##//JDBC URL>
   <JDBC DRIVER>oracle.jdbc.driver.OracleDriver</JDBC DRIVER>
   <HOST>##MYHOSTNAME##</HOST>
   <SETUPINFO NAME="DEV" PREFIX SCHEMA NAME="N" />
   <PASSWORD APPLYSAMEFORALL="Y" DEFAULT="" />
   <ADV SEC OPTIONS>
       <OPTION NAME="TDE" VALUE="TRUE"/>
       <OPTION NAME="DATA REDACT" VALUE="TRUE" />
   </ADV SEC OPTIONS>
   <!--
   <TABLESPACES>
       <TABLESPACE NAME="OFS OIDF DATA TBSP" VALUE="OFS OIDF DATA 1"
       DATAFILE="/PATH/ofs_OIDF_data_1.dbf" SIZE="500M" AUTOEXTEND="ON" ENCRYPT="OFF" />
       <TABLESPACE NAME="OFS OIDF SBX TBSP" VALUE="OFS OIDF DATA 2"
       DATAFILE="/PATH/ofs OIDF data 2.dbf" SIZE="512M" AUTOEXTEND="ON" ENCRYPT="OFF" />
   </TABLESPACES>
   <SCHEMAS>
       <SCHEMA TYPE="CONFIG" NAME="##MYCONSCHEMANAME##" PASSWORD="" APP ID="OFS AAI"
       DEFAULTTABLESPACE="##OFS OIDF DATA TBSP##" TEMPTABLESPACE="TEMP" QUOTA ="" />
       <SCHEMA TYPE="ATOMIC" NAME="##MYATMSCHEMANAME##" PASSWORD="" APP ID="0FS OIDF" INFODOM=
       "OIDFINFO" DEFAULTTABLESPACE="##OFS OIDF DATA TBSP##" TEMPTABLESPACE="TEMP" QUOTA ="" />
   </SCHEMAS>
 /APPPACKSCHEMA>
```

Figure 6: Sample of the OFS_OIDF_SCHEMA_IN.xml file (APPPACKSCHEMA Block)

Table 21: The OFS_OIDF_PACK_SCHEMA_IN.xml file (APPPACKSCHEMA Parameters)

Tag Name or Attribute Name	Description	Mandatory?	Default Value or Permissible Value
<app_pack_id></app_pack_id>	This is a unique Application Pack identifier.	Y	This is a unique seeded value. Example: OFS_OIDF_PACK
<is_tcps></is_tcps>	Enter the value if the TCPS configuration is required. Entering this parameter creates a secure line between the client and server when using the OIDF application.	Y	This is a seeded value. The default value is FALSE.

Tag Name or Attribute Name	Description	Mandatory?	Default Value or Permissible Value
<jdbc_url></jdbc_url>	Enter the JDBC URL. NOTE: You can enter the RAC and NON-RAC enabled database connectivity URL.	Y	Example: jdbc:oracle:thin:@ <host>:<port>:<sid> or jdbc:oracle:thin:@//[HOST][: PORT]/SERVICE or jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST= For example: jdbc:oracle:thin:@//dbhost.s erver.com:<port>/service1 or jdbc:oracle:thin:@//dbshost. server.com: <port>/scan-1 or jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=</port></port></sid></port></host>
<jdbc_driver></jdbc_driver>	By default, the name of this driver is seeded. NOTE : Do not edit this attribute value.	Y	Example: oracle.jdbc.driver.OracleDriv er
<host></host>	Enter the Hostname or IP Address of the system on which you are installing the OFSAA components.	Y	Host Name or IP Address
<setupinfo>/NAME</setupinfo>	Enter the acronym for the type of implementation. This information is displayed on the OFSAA Home Page. NOTE: On executing the schema creator utility, this value is	Y	Accepts strings with a minimum length of two and Example: DEV, SIT, PROD

Tag Name or Attribute Name	Description	Mandatory?	Default Value or Permissible Value
	prefixed with each schema name. For example, dev_ofsaaconf, uat_ofsaaatm.		
<setupinfo>/ PREFIX_SCHEMA_NAME</setupinfo>	Identifies if the value specified in <setupinfo>/ NAME attribute needs to be prefixed to the schema name.</setupinfo>	N	The default value is Y. Permissible values are Y or N.
<password>/APPLYSAMEFORALL</password>	Enter as Y if you need to apply the password specified in the DEFAULT attribute for all the schemas. If you enter as N, you need to provide individual passwords for all schemas. NOTE: In case you have entered Y in APPLYSAMEFORALL attribute and have specified individual passwords for all the schemas, then the specified individual passwords take precedence.	Y	The default value is N Permissible values are Y and N.
<password>/DEFAULT*</password>	Enter the password if you need to set a default password for all schemas. NOTE: You also need to set the APPLYSAMEFORALL attribute as Y to apply the default password for all the schemas.	N	The maximum length allowed is 30 characters. Spe

Figure 7: Sample of the OFS_OIDF_SCHEMA_IN.xml file (ADV_SEC_OPTIONS Block)

Table 22: OFS_OIDF_PACK_SCHEMA_IN.xml file (Advance Security Options Parameters)

Tag Name/ Attribute Name	Description	Mandatory/ Optional	Default Value/ Permissible Value	Comments
<adv_sec_options></adv_sec_options>	Parent tag to hold Advance Security Options.	N		Uncomment the tag and edit if you need to add security options. For example, TDE and Data Redact. For details, see the example following the table.
<adv_sec_options>/TDE</adv_sec_options>	Tag to enable/disable TDE.	N	The default value 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>
<adv_sec_options>/DATA_REDACT</adv_sec_options>	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>/</adv_sec_options>

Figure 8: Sample of the OFS_OIDF_SCHEMA_IN.xml file (TABLESPACES Block)

Table 23: OFS_OIDF_PACK_SCHEMA_IN.xml file (Tablespaces Parameters)

Tag Name/ Attribute Name	Description	Mandatory/ Optional	Default Value/ Permissible Value	Comments
<tablespaces></tablespaces>	Parent tag to hold <tablespace> elements</tablespace>	Z	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. NOTE: When TDE is TRUE in ADV_SEC_OPTIONS, then the <tablespaces> tag must be present in the XML file.</tablespaces>
<tablespace>/NAME</tablespace>	Create the Logical Name of the tablespace	Y		Name if specified should be referred to in the <schema defaulttablespace="##NAME##"> attribute. Note the ## syntax.</schema>
<tablespace>/VALUE</tablespace>	Create the Physical Name of the tablespace	Y	NA	Value, if specified, is the actual name of the TABLESPACE.
<tablespace>/DATAFILE</tablespace>	Specifies the location of the data file on the server	Y	NA	Enter the absolute path of the file to be created.
<tablespace>/AUTOEXTEND</tablespace>	Specifies if the tablespace needs to be extensible or have a hard limit	Y	ON or OFF	Set to ON to ensure that the tablespaces do not run out of space when full.
<tablespace>/ENCRYPT</tablespace>	Specifies if the tablespace(s) needs to be encrypted using TDE.	Υ	ON or OFF	Set to ON to ensure that the tablespaces when created are encrypted using TDE.

NOTE:

Encryption of tablespaces requires enabling Transparent Data Encryption (TDE) on the Database Server.

Figure 9: Sample of the OFS_OIDF_SCHEMA_IN.xml file (SCHEMAS Block)

```
<SCHEMAS>

<SCHEMA TYPE="CONFIG" NAME="MYCONSCHEMANAME" PASSWORD="" APP_ID="OFS_AAI"

DEFAULTTABLESPACE="USERS" TEMPTABLESPACE="TEMP" QUOTA ="UNLIMITED" />

<SCHEMA TYPE="ATOMIC" NAME="MYATMSCHEMANAME" PASSWORD="" APP_ID="OFS_FSDF" INFODOM=

"MYINFODOMNAME" DEFAULTTABLESPACE="USERS" TEMPTABLESPACE="TEMP" QUOTA ="UNLIMITED" />

</SCHEMAS>
```

Table 24: OFS_OIDF_PACK_SCHEMA_IN.xml file (SCHEMAS Parameters)

Tag Name/ Attribute Name	Description	Mandatory/ Optional	Default Value/ Permissible Value	Com
<schema>/TYPE</schema>	The different types of schemas that are supported in this release are ATOMIC, CONFIG, SANDBOX, and ADDON. By default, the schemas types are seeded based on the Application Pack. NOTE : Do not edit this attribute value.	\	ATOMIC/CONFIG/SANDBOX/ADDON NOTE: SANDBOX AND ADDON schemas are not applicable for OIDF Application Pack.	Only can ex This s CONF that I detail inform Multip ATOM schem SAND the Ir schem schem applic Applic

Tag Name/ Attribute Name	Description	Mandatory/ Optional	Default Value/ Permissible Value	Comn
<schema>/NAME</schema>	By default, the schema names are seeded based on the Application Pack. You can edit the schema names if required. NOTE: The Schema Name has a prefix of the SETUPINFO/ NAME attribute. SCHEMA NAME needs to be the same for all the ATOMIC Schemas of applications within an Application Pack.	Y	The permissible length is 15 characters and only alphanumeric characters are allowed. No special characters are allowed except underscore '_'.	SETU value schem create name and se 'uat' t create Exam NAME ##CO or ##AT NAME where SCHE applic
<schema>/PASSWORD</schema>	Enter the password of the schema to be created. NOTE: If this attribute is left blank, then the password specified in the <password>/DEFAULT attribute is applied as the Schema Password.</password>	N	The maximum length allowed is 30 characters. Special characters are not allowed.	MOTE mand passw <pas APPL attribu</pas
<schema>/APP_ID</schema>	By default, the Application ID is seeded based on the Application Pack. NOTE: Do not edit this attribute value.	Y	Unique Seeded Value Example: For CONFIG schema, OFS_AAI For ATOMIC schema, OFS_OIDF	ldenti Produ schem DO N
<schema>/DEFAULTTABLESPACE</schema>	Enter the available default tablespace for DB User. NOTE: If this attribute is left blank, then USERS is set	N	Default – USERS Permissible – Any existing valid tablespace name. Example: ##OFS_OIDF_DATA_TBSP##	Modif associ tables

Tag Name/ Attribute Name	Description	Mandatory/ Optional	Default Value/Permissible Value	Com
	as the default tablespace.			
<schema>/TEMPTABLESPA CE</schema>	Enter the available temporary tablespace for the DB User. NOTE: If this attribute is left blank, then TEMP is set as the default tablespace.	N	Default – TEMP Permissible – Any existing valid temporary tablespace name. Example: ##OFS_OIDF_DATA_TBSP##	Modif associ tables
<schema>/QUOTA</schema>	Enter the quota to be set on the DEFAULTTABLESPACE attribute for the schema or user. By default, the quota size is set to 500M. Minimum: 500M or Unlimited on default Tablespace	N	For example, 600M/m 20G/g UNLIMITED/unlimited	Modif the sp menti user.
<schema>/INFODOM</schema>	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 (Optional for Atomic and mandatory for sandbox)	Permissible length is 16 characters and only alphanumeric characters are allowed. No special characters are allowed.	Enter UPPE

5. Save the file.

5.4.2.1.1 Example of TDE Enablement and TABLESPACES with Encryption ON

The following snippet shows that TDE is enabled and therefore, the tablespaces are shown with the encryption ON.

```
<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/oradata/OFSPQA19CDB/ts users1.
dbf" SIZE="500M" AUTOEXTEND="ON" ENCRYPT="ON" />
<TABLESPACE NAME="OFS AAI TBSP 2" VALUE="TS USERS2"
DATAFILE="/scratch/ora19c/app/oracle/oradata/OFSPQA19CDB/ts users2.
dbf" SIZE="500M" AUTOEXTEND="ON" ENCRYPT="ON" />
</TABLESPACES>
<SCHEMAS>
<SCHEMA TYPE="CONFIG" NAME="ofsaaconf" PASSWORD="" APP ID="OFS AAI"</pre>
DEFAULTTABLESPACE="##OFS AAI TBSP 1##" TEMPTABLESPACE="TEMP"
QUOTA="unlimited"/>
<SCHEMA TYPE="ATOMIC" NAME="ofsaaatm" PASSWORD="" APP ID="OFS AAAI"</pre>
DEFAULTTABLESPACE="##OFS AAI TBSP 2##" TEMPTABLESPACE="TEMP"
OUOTA="unlimited" INFODOM="OFSAAAIINFO"/>
</SCHEMAS>
```

5.4.3 Configure the Schema Creator Utility for HDFS Schema

If the installation is being performed for Big Data, provide the Pack specific schema details in the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file.

The schema types that you can configure are:

- **CONFIG**: This schema holds the entities and other objects required for OFSAA setup configuration information. There can be only one CONFIG schema per OFSAA instance. This schema is created only in RDBMS.
- METADOM: This schema holds the Data Model entities. One METADOM schema is attached to one Information Domain. There can be multiple DATADOM schemas per OFSAA Instance. This schema is created only in RDBMS. It has only platform entities that hold the metadata details. However, it does not hold the Data Model entities.
- DATADOM: This schema holds Data Model entities. One DATADOM schema is attached to one Information Domain. There can be multiple DATADOM schemas per OFSAA Instance.

The OFS OIDF PACK/schema creator/conf/directory contains the following files:

- OFS OIDF SCHEMA IN.xml
- OFS OIDF SCHEMA BIGDATA IN.xml.template
- OFS_OIDF_CFG.dat.template
- OFS OIDF APP CFG.dat

- App Pack Bigdata Schema Creator.xsd
- App Pack Schema Creator.xsd

Topics:

- Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage and Results on Hive
- Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage on Hive and Results on RDBMS

5.4.3.1 Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage and Results on Hive

Creating Hive schemas and objects within the schemas are the primary steps in the installation process of OFSAA Applications.

The OFS_OIDF_SCHEMA_BIGDATA_IN.xml file contains details about various application schemas. Update the values of the various tags and parameters available in this file before executing the Schema Creator Utility.

NOTE:

Configure this file only for the *HDFS* ONLY target installation of the OIDF Application Pack. Do not configure this file for an *RDBMS ONLY* target installation.

To configure the $OFS_OIDF_SCHEMA_IN$. xml file for Stage and Results on Hive, follow these steps:

- **1.** Log in to the system as a non-root user.
- 2. Navigate to the OFS OIDF PACK/schema creator/conf/directory.
- Rename the file OFS_OIDF_SCHEMA_IN.xml to OFS_OIDF_SCHEMA_IN.xml.template.
- Rename the file OFS_OIDF_SCHEMA_BIGDATA_IN.xml.template to
 OFS_OIDF_SCHEMA_BIGDATA_IN.xml.
 - **3.** Edit the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file using a text editor and configure the values as mentioned in the following table.

Figure 10: Sample of the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (Stage and Results on Hive)

```
<APPPACKSCHEMA>
   <APP PACK ID>OFS OIDF PACK</APP PACK ID>
   <IS TCPS>FALSE</IS TCPS>
   <JDBC_URL>jdbc:oracle:thin:@##IP_ADDRESS##:##PORT_NUMBER##:##MYDATABASE##//JDBC_URL>
   <JDBC_DRIVER>oracle.jdbc.driver.OracleDriver</JDBC_DRIVER>
   <HOST>##MYHOSTNAME##</HOST>
   <IS HYBRID VALUE="FALSE"/>
   <SETUPINFO NAME="OIDF" PREFIX_SCHEMA_NAME="N"/>
   <PASSWORD APPLYSAMEFORALL="Y" DEFAULT="##CONFIG_META_SCHEMA_PASSWORD##"/>
   <SCHEMAS TYPE="RDBMS">
       <SCHEMA TYPE="CONFIG" NAME="##MYHIVECONSCHEMA##" PASSWORD="" APP ID="OFS AAI" DEFAULTTABLESPACE="USERS"</pre>
       TEMPTABLESPACE="TEMP" QUOTA="500M"/>
       <SCHEMA TYPE="ATOMIC" NAME="##MYHIVEATMSCHEMA##" PASSWORD="" APP ID="OFS OIDF" DEFAULTTABLESPACE="USERS"
       TEMPTABLESPACE="TEMP" QUOTA="10G" INFODOM="##MYHIVEINFODOM##"/>
   </SCHEMAS>
   <SCHEMAS TYPE="HDFS">
       <HIVE SERVER HOST>##MY HIVE SERVER HOST NAME OR IP##</HIVE SERVER HOST>
       <HIVE LIB PATH>##MY HIVE LIBRARY PATH##</HIVE LIB PATH>
       <SCHEMA NAME="##MYHIVEDATADOM##" TYPE="DATADOM" APP ID="OFS OIDF" DB TYPE="HIVE" INFODOM="##MYHIVEINFODOM##":</pre>
           <SCHEMA_PROPERTIES>
               <PROPERTY ID="COMMENT" VALUE="" />
               <PROPERTY ID="LOCATION" VALUE="" />
           </SCHEMA PROPERTIES>
           <CONNECTION_PROPERTIES>
               <PROPERTY ID="JDBC_DRIVER" VALUE="com.cloudera.hive.jdbc4.HS2Driver" />
                <PROPERTY ID="JDBC_URL" VALUE=
               "jdbc:hive2://##MY_HIVE_SERVER_HOST_NAME_OR_IP##:10000/<<PREFIX>>_<<SCHEMA_NAME>>;AuthMech=1;KrbServi
               ceName=hive;KrbHostFQDN=##MY_HIVE_SERVER_HOST_NAME_OR_IP##;KrbRealm=##REALM##" />
               <PROPERTY ID="AUTH_TYPE" VALUE="KERBEROS_WITH_KEYTAB" />
               <PROPERTY ID="AUTH ALIAS" VALUE="##ALIAS NAME FOR AUTHENTICATION##" />
               <PROPERTY ID="PRINCIPAL" VALUE="##AUTHENTICATION_PRINCIPAL_NAME##" />
               <PROPERTY ID="PASSWORD" VALUE="##HIVE_USER_PASSWORD##"/>
               <PROPERTY ID="KRB_GSSJAAS_FILE_NAME" VALUE="##KEYTAB_PATH_AND_FILE_NAME##" />
               <PROPERTY ID="KRB_REALM_FILE_NAME" VALUE="##REALM_CONFIGURATION_PATH_AND_FILE_NAME##" />
           </CONNECTION_PROPERTIES>
       </SCHEMA>
   </SCHEMAS>
/APPPACKSCHEMA:
```

Figure 11: Sample of the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (APPPACKSCHEMA Block for Stage and Results on Hive)

Table 25: OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (APPPACKSCHEMA Parameters for Stage and Results on Hive)

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<app_pack_id></app_pack_id>	Seeded unique ID for the OFSAA Application Pack.	Υ	Seeded	DO NOT modify this value.
<is_tcps></is_tcps>	Enter if the TCPS configuration is required. This is to create a secure line between the client and server when using the OIDF application.	Y	Seeded, with FALSE as the default value.	Modify this to TRUE if you require the installer to uptake the configuration.
<jdbc_url></jdbc_url>	Enter the JDBC URL. NOTE: You can enter the RAC or NON-RAC enabled database connectivity URL.	Y	Example: jdbc:oracle:thin:@ <host ip="">:<port>:<sid> or jdbc:oracle:thin:@//[HOS T][:PORT]/SERVICE</sid></port></host>	For an HDFS ONLY target installation, this URL need to be of the RDBMS instance that hosts the Application's METADOM.

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
			or jdbc:oracle:thin:@(DESCRI PTION=(ADDRESS_ LIST=(ADDRESS=(PROT OCOL=TCP)(HOST=[HO ST])(port=[PORT]))(ADD RESS=(PROTOCOL=TCP) (HOST=[HOST])(PORT=[PORT]))(LOAD_ BALANCE=yes)(FAILOV ER=yes))(CONNECT_ DATA=(SERVICE_ NAME=[SERVICE]))) For example, jdbc:oracle:thin:@//dbhos t.server.com: <port>/service 1 or jdbc:oracle:thin:@//dbsho st.server.com:<port>/scan-1 or</port></port>	
			jdbc:oracle:thin:@(DESCRI PTION=(ADDRESS_ LIST=(ADDRESS=(PROT OCOL=TCP)(HOST=dbho st1.server.com)(port=1521))(ADDRESS=(PROTOCO L=TCP)(HOST=dbhost2.s erver.com)(PORT=1521))(LOAD_ BALANCE=yes)(FAILOV ER=yes))(CONNECT_	

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
			DATA=(SERVICE_ NAME=service1)))	
<jdbc_driver></jdbc_driver>	By default, this driver's name is seeded. NOTE : Do not edit this attribute value.	Y	Example: oracle.jdbc.driver.OracleD river	Only JDBC Thin Driver is supported. DO NOT modify this value.
<host></host>	Enter the Hostname or IP Address of the system on which you are installing the OFSAA components.	Y	Host Name/ IP Address	
<is_hybrid>/VALUE</is_hybrid>	Tag to enable/disable HYBRID installation (Stage on Hive and Results on RDBMS).	N	The default value is FALSE	The default value is FALSE for Hive.
<setupinfo>/ PREFIX_SCHEMA_NAME</setupinfo>	Identifies if the value specified in the <setupinfo>/NAME attribute needs to be prefixed to the schema name.</setupinfo>	N	YES or NO.	The default value is YES.
<setupinfo>/NAME</setupinfo>	Enter the acronym for the type of implementation. This information is displayed on the OFSAA Home Page. NOTE: On executing the schema creator utility, this value will be prefixed with	Y	Accepts strings with a minimum length of two and a maximum of four. Example: OIDF	This name appears in the OFSAA Landing Page as "Connected To: XXXX". The schemas created get this prefix. For

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
	each schema name. For example, dev_ ofsaaconf, uat_ofsaaatm.			example, dev_ ofsaaconf, uat_ofsaaconf, and so on.
<password>/DEFAULT*</password>	Enter the password if you need to set a default password for all schemas. NOTE: You also need to set the APPLYSAMEFORALL attribute as Y to apply the default password for all the schemas.	N	The maximum length allowed is 30 characters. Special characters are not allowed.	Applies only to the RDBMS type METADOM schema(s).
<password>/APPLYSAMEFORALL</password>	Enter as Y if you need to apply the password specified in the DEFAULT attribute for all the schemas. If you enter as N, you need to provide individual passwords for all schemas.	Y	The default value is N. Permissible values are Y and N.	NOTE: Setting this attribute value is mandatory if the DEFAULT attribute is set. Applies only to the RDBMS type METADOM schema(s).
	NOTE: If you have entered Y in the APPLYSAMEFORALL attribute and have specified individual passwords for all the schemas, then the specified individual passwords takes precedence.			

Figure 12: Sample of the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (SCHEMA type RDBMS Block for Stage and Results on Hive)

```
<SCHEMAS TYPE="RDBMS">

<SCHEMA TYPE="CONFIG" NAME="##MYHIVECONSCHEMA##" PASSWORD="" APP_ID="OFS_AAI" DEFAULTTABLESPACE="USERS"

TEMPTABLESPACE="TEMP" QUOTA="500M"/>

<SCHEMA TYPE="ATOMIC" NAME="##MYHIVEATMSCHEMA##" PASSWORD="" APP_ID="OFS_OIDF" DEFAULTTABLESPACE="USERS"

TEMPTABLESPACE="TEMP" QUOTA="10G" INFODOM="##MYHIVEINFODOM##"/>

</SCHEMAS>
```

Table 26: OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (SCHEMA type RDBMS Parameters for Stage and Results on Hive)

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=RDBMS</schemas>	Identifies the RDBMS schema details.	Y	Default names for schemas within the pack are derived in the absence of any value specified.	In an HDFS ONLY target installation, the Application's METADOM (that hosts the metadata) for an application is stored in the RDBMS schema and the Data Model entities of the application are stored in the DATADOM (which is on Hive).

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schema>/TYPE</schema>	The different types of schemas that are supported in this release are ATOMIC, CONFIG.	Υ	ATOMIC/CONFIG.	Only One CONFIG schema can exist in the file.
	By default, the schemas types are seeded based on the Application Pack. NOTE: 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 or SANDBOX or ADDON schemas can exist in the file. ATOMIC schema refers to the METADOM within the
				Information Domain schema. SANDBOX schema refers to the SANDBOX schema.
				ADDON schema refers to other miscellaneous schemas (not applicable for this Application Pack).

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schema>/NAME</schema>	By default, the schema names are seeded based on the Application Pack. You can edit the schema names if required. NOTE: The Schema Name has a prefix of the SETUPINFO/NAME attribute. The SCHEMA NAME must be the same for all the ATOMIC Schemas of applications within an Application Pack.	Y	The permissible length is 15 characters and only alphanumeric characters are allowed. No special characters are allowed except the Underscore '_'.	SETUPINFO/ NAME attribute value is be prefixed to the schema name created. For example, if the name is set as 'ofsaaatm' and setupinfo as 'uat' then the schema created is 'uat_ofsaaatm'. NAME needs to be the same where APP_GRP=1 for all SCHEMA tags (not applicable for this Application Pack).
<schema>/PASSWORD</schema>	Enter the password of the schema to be created. NOTE: If this attribute is left blank, then the password specified in the <password>/DEFAULT attribute is applied as the Schema Password.</password>	N	The maximum length allowed is 30 characters. Special characters are not allowed.	NOTE: You need to mandatorily enter the password if you have set the <password>/APPLYSAMEFORALL attribute as N.</password>
<schema>/APP_ID</schema>	By default, the Application ID is seeded based on the Application Pack. NOTE: Do not edit this attribute value.	Y	Unique Seeded value.	Identifies the Application or Product for which the schema is created. DO NOT modify this value.

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schema>/DEFAULTTABLESPACE</schema>	Enter the available default tablespace for DB User. NOTE: If this attribute is left blank, then USERS is set as the default tablespace.	N	The default value is USERS. Permissible value is any existing valid tablespace name.	Modify this value to associate any valid tablespace with the schema.
<schema>/TEMPTABLESPACE</schema>	Enter the available temporary tablespace for the DB User. NOTE: If this attribute is left blank, then TEMP is set as the default tablespace.	N	The default value is TEMP. Permissible value is any existing valid temporary tablespace name.	Modify this value to associate any valid tablespace with the schema.
<schema>/QUOTA</schema>	Enter the quota to be set on the DEFAULTTABLESPACE attribute for the schema or user. By default, the quota size is set to 500M. Minimum: 500M or Unlimited on default Tablespace.	N	Example: 600M or 600m 20G or 20g UNLIMITED or unlimited	Modify this value to grant the specified quota on the mentioned tablespace to the user.
<schema>/INFODOM</schema>	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 the value is not specified for this attribute.	N	Permissible length is 16 characters and only alphanumeric characters are allowed. No special characters are allowed. ##INFODOM_NAME## Example: OIDFINFO	

Figure 13: Sample of the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (SCHEMA type HDFS Block for Stage and Results on Hive)

```
<SCHEMAS TYPE="HDFS">
   <HIVE SERVER HOST>MyHIVEServerHostName</hIVE SERVER HOST>
   <hIVE LIB PATH>HiveLibraryPath</hIVE LIB PATH>
   <SCHEMA NAME="MYHIVEDATADOM" TYPE="DATADOM" APP ID="OFS FSDF" DB TYPE="HIVE" INFODOM=
   "MYHIVEINFODOM">
       <SCHEMA PROPERTIES>
           <PROPERTY ID="LOCATION" VALUE="" />
       </schema properties>
       <CONNECTION PROPERTIES>
           <PROPERTY ID="JDBC DRIVER" VALUE="com.cloudera.hive.jdbc4.HS2Driver" />
           <PROPERTY ID="JDBC URL" VALUE=
           "jdbc:hive2://##HIVE SERVER HOST NAME OR IP##:10000/<<PREFIX>> <<SCHEMA NAME>>;AuthMech=1
           ;KrbServiceName=hive;KrbHostFQDN=##HIVE SERVER HOST NAME OR IP##;KrbRealm=##REALM##" />
           <PROPERTY ID="AUTH TYPE" VALUE="KERBEROS WITH KEYTAB" />
           <PROPERTY ID="AUTH ALIAS" VALUE="AliasNameForAuthentication" />
           <PROPERTY ID="PRINCIPAL" VALUE="AuthenticationPrincipalName" />
           <PROPERTY ID="PASSWORD" VALUE=""/>
           <PROPERTY ID="KRB GSSJAAS FILE NAME" VALUE="KEYTABPathAndFileName" />
           <PROPERTY ID="KRB REALM FILE NAME" VALUE="REALMConfigurationPathAndFileName" />
       </connection properties>
   </schema>
</schemas>
```

Table 27: OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (SCHEMA type HDFS Parameters for Stage and Results on Hive)

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=H DFS</schemas>	Type of schemas created.	Υ		Refers to the DATADOM of the Application Pack installed.
<hive_server_host></hive_server_host>	IP or HostName of the server where HIVE is installed.	Υ		

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<hive_lib_path></hive_lib_path>	Folder path where HIVE related drivers or jar files are copied.	Y		Needs to contain the list of jars mentioned in the section Copy the Jar Files to the OFSAA Installation Directory and krb5.conf, keytab files. Manually copy the preceding listed files from CDH distribution to this identified folder. NOTE: The Cloudera administrator provides these two files krb5.conf and keytab.
<schema>/NAME</schema>	By default, the schema names are seeded based on the Application Pack. You can edit the schema names if required. NOTE: The Schema Name has a prefix of the SETUPINFO/NAME attribute.	Y	The permissible length is 20 characters and only alphanumeric characters are allowed. Example: HIVEHYBDATADOM	Schema Name should not be the same as Schema Name specified for Schema Type ATOMIC.
<schema>/TYPE</schema>	Identifies the type of schema where the Data Model entities reside.	Y	By default, the TYPE attribute in this tag is set to DATADOM.	DO NOT modify this value.
<schema>/APP_ID</schema>	By default, the Application ID is seeded based on the Application Pack.	Y	The supported value is OFS_OIDF.	

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schema>/DB_TYPE</schema>	Identifies the type of driver to be used for the connection.	Υ	By default, the only supported type is HIVE in this release.	In the upcoming releases, the type of value can be HIVE, IMPALA, and so on.
<schema>/INFODO M</schema>	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 the value is not specified for this attribute.	N	Permissible length is 16 characters and only alphanumeric characters are allowed. No special characters are allowed. For example: ##MY_HIVE_INFODOM## For Hive part in Stage on Hive and Results on RDBMS: Example: OIDFHVINFO	
<schema_properti ES>/<property>/C OMMENT</property></schema_properti 	COMMENTS for HIVE schema.	N		
<schema_properti ES>/<property>/LO CATION</property></schema_properti 	You can optionally specify a location for the table data.	N	hdfs:// ##HIVE_SERVER_HOST_N AME_OR_IP##:Namenode Port/user/hive/warehous e/< <prefix>>_<<sche ma_name="">>/ NOTE: The <<prefix>> prefix is applicable only if the <prefix_schema_n< td=""><td></td></prefix_schema_n<></prefix></sche></prefix>	

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
			AME> tag is "Y" in the <setupinfo> tag. For example: When <setupinfo name="OIDF" prefix_schema_name=" Y"></setupinfo>. <schema_name>> is the DATADOM schema name. Example: hdfs:// whf00bsy.in.oracle.com:8 020/user/hive/warehouse /OIDF_BSYDATADOM/</schema_name></setupinfo>	
<connection_prop ERTIES>/ <property>/JDBC_D RIVER</property></connection_prop 	HIVE JDBC driver details.	Y	com.cloudera.hive.j dbc4.HS2Driver	The default cloudera HiveServer 2 driver name.
<connection_prop ERTIES>/ <property>/JDBC_U RL</property></connection_prop 	Enter the HIVE JDBC URL.	Y	A valid Hive JDBC URL to be specified. jdbc:hive2://##HIVE_SER VER_HOST_NAME_OR_IP ##:10000/< <prefix>> <<schema_name>>;Aut hMech=1;KrbServiceName =hive;KrbHostFQDN=##HI VE_SERVER_HOST_NAME _OR_IP##;KrbRealm=##R EALM##</schema_name></prefix>	Specify the Hive JDBC URL to connect to the Hive Server.

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
			NOTE: < <prefix>> Prefix is applicable only if the <prefix_schema_name> tag is Y in <setupinfo> tag. For example, when <setupinfo name="OIDF" prefix_schema_name="Y"></setupinfo>. <<schema_name>> is the DATADOM schema name. For example: jdbc:hive2://whf00bsy.in. oracle.com:10000/OIDF_BSYDATADOM;AuthMech=1;KrbServiceName=hive;KrbHostFQDN=whf00bsy.in. oracle.com;KrbRealm=WHFBSY.ORACLE.COM</schema_name></setupinfo></prefix_schema_name></prefix>	
<connection_prop ERTIES>/ <property>/AUTH_ TYPE</property></connection_prop 	Authentication Type.	Y	Permissible values: KERBEROS_WITH_ KEYTAB.	Only "Kerberos with keytab" based authentication is supported in this release.
<connection_prop ERTIES>/ <property>/AUTH_ ALIAS</property></connection_prop 	Alias name for authentication credentials.	Y		An Alias name mapping to a principal and password combination is specified in the following tags.

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<connection_prop ERTIES>/ <property>/PRINCI PAL</property></connection_prop 	Authentication principal name.	Υ		Principal name used in authentication to connect to the Hive Server.
<connection_prop ERTIES>/ <property>/PASSW ORD</property></connection_prop 	Authentication password.	Υ		Password used in authentication to connect to the Hive Server.
<connection_prop ERTIES>/ <property>/KRB_GS SJAAS_FILE_NAME</property></connection_prop 	A keytab file containing pairs of Kerberos principals and an encrypted copy of that principal's key.	Y		This file needs to be copied to the location specified in <hive_lib_path>.</hive_lib_path>
<connection_prop ERTIES>/ <property>/KRB_RE ALM_FILE_NAME</property></connection_prop 	REALM configuration file.	Υ		This file needs to be copied to the location specified in <hive_lib_path>.</hive_lib_path>

4. Save the file.

5.4.3.2 Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage on Hive and Results on RDBMS

Creating Hive schemas and objects within the schemas are the primary steps in the installation process of the OFSAA Applications.

The OFS_OIDF_SCHEMA_BIGDATA_IN.xml file contains details about the various application schemas. Update the values of the various tags and parameters available in this file before executing the Schema Creator Utility.

NOTE

Configure this file only for the *HDFS* ONLY target installation of the OIDF Application Pack. Do not configure this file for an *RDBMS ONLY* target installation.

To configure the OFS OIDF SCHEMA IN.xml file for Stage on Hive and Results on RDBMS, follow these steps:

- **1.** Log in to the system as a non-root user.
- 2. Navigate to the OFS OIDF PACK/schema creator/conf/ directory.
 - Rename the file OFS OIDF SCHEMA IN.xml to OFS OIDF SCHEMA IN.xml.template.
 - Rename the file OFS_OIDF_SCHEMA_BIGDATA_IN.xml.HYBRID.template to
 OFS OIDF SCHEMA BIGDATA IN.xml.
 - Rename the file OFS OIDF APP CFG.dat to OFS OIDF APP CFG.dat.template.
 - Rename the file OFS OIDF CFG.dat.HYBRID.template to OFS OIDF APP CFG.dat.
- **3.** Edit the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file using a text editor and configure the values as mentioned in the following table.

Figure 15: Sample of the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (Stage on Hive and Results on RDBMS)

```
<APPPACKSCHEMA>
   <APP_PACK_ID>OFS_OIDF_PACK</APP_PACK_ID>
   <IS TCPS>FALSE<IS TCPS>
   <JDBC URL>jdbc:oracle:thin:@##IP ADDRESS##:##PORT NUMBER##:##MYDATABASE##//DBC URL>
   <JDBC DRIVER>oracle.jdbc.driver.OracleDriver
   <HOST>##MYHOSTNAME##</HOST>
   <IS HYBRID VALUE="TRUE"/>
   <SETUPINFO NAME="OIDF" PREFIX SCHEMA NAME="N"/>
   <PASSWORD APPLYSAMEFORALL="Y" DEFAULT="##CONFIG META SCHEMA PASSWORD##"/>
   <SCHEMAS TYPE="RDBMS">
      <SCHEMA TYPE="CONFIG" NAME="##MYHIVECONSCHEMA##" PASSWORD="" APP ID="OFS AAI" DEFAULTTABLESPACE="USERS"</pre>
       TEMPTABLESPACE="TEMP" QUOTA="500M"/>
   <SCHEMA TYPE="ATOMIC" NAME="##MYRDBMSATMSCHEMA##" PASSWORD="" APP ID="OFS OIDF" APP GRP="1"</pre>
       DEFAULTTABLESPACE="USERS" TEMPTABLESPACE="TEMP" QUOTA="10G" INFODOM="OIDFINFO"/>
      <SCHEMA TYPE="ATOMIC" NAME="##MYHIVEATMSCHEMA##" PASSWORD="" APP ID="OFS OIDFHV" INFODOM=</pre>
       "##MY HIVE INFODOM##" DEFAULTTABLESPACE="USERS" TEMPTABLESPACE="TEMP" QUOTA="10G" />
   </SCHEMAS>
   <SCHEMAS TYPE="HDFS">
       <HIVE SERVER HOST>##MY HIVE SERVER HOST NAME OR IP##</HIVE SERVER HOST>
       <HIVE LIB PATH>##USER HOME##/libs</HIVE LIB PATH>
       <SCHEMA NAME="##DATADOM SCHEMA NAME##" TYPE="DATADOM" APP ID="OFS OIDFHV" DB TYPE="HIVE" INFODOM=
       "##MY HIVE INFODOM##">
           <SCHEMA PROPERTIES>
               <PROPERTY ID="COMMENT" VALUE="" />
               <PROPERTY ID="LOCATION" VALUE="" />
           </SCHEMA PROPERTIES>
           <CONNECTION PROPERTIES>
               <PROPERTY ID="JDBC DRIVER" VALUE="com.cloudera.hive.jdbc4.HS2Driver" />
               <PROPERTY ID="JDBC URL" VALUE=
               "jdbc:hive2://##MY HIVE SERVER HOST NAME OR IP##:10000/<<PREFIX>> <<SCHEMA NAME>>;AuthMech=1;KrbServi
               ceName=hive; KrbHostFQDN=##MY HIVE SERVER HOST NAME OR IP##; KrbRealm=##REALM##" />
               <PROPERTY ID="AUTH TYPE" VALUE="KERBEROS WITH KEYTAB" />
               <PROPERTY ID="AUTH ALIAS" VALUE="##ALIAS NAME FOR AUTHENTICATION##" />
               <PROPERTY ID="PRINCIPAL" VALUE="##AUTHENTICATION PRINCIPAL NAME##" />
               <PROPERTY ID="PASSWORD" VALUE="##HIVE USER PASSWORD##"/>
               <PROPERTY ID="KRB GSSJAAS FILE NAME" VALUE="##KEYTAB PATH AND FILE NAME##" />
               <PROPERTY ID="KRB REALM FILE NAME" VALUE="##REALM CONFIG PATH AND FILE NAME##" />
            </CONNECTION PROPERTIES>
       </SCHEMA>
    </SCHEMAS>
/APPPACKSCHEMA>
```

Figure 16: Sample of the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (APPPACKSCHEMA Block for Stage on Hive and Results on RDBMS)

Table 29: OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (APPPACKSCHEMA Parameters for Stage on Hive and Results on RDBMS)

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<app_pack_id></app_pack_id>	Seeded unique ID for the OFSAA Application Pack.	Υ	Seeded	DO NOT modify this value.
<is_tcps></is_tcps>	Enter if the TCPS configuration is required. This is to create a secure line between the client and server when using the OIDF application.	Y	Seeded, with FALSE as the default value.	Modify this to TRUE if you require the installer to uptake the configuration.
<jdbc_url></jdbc_url>	Enter the JDBC URL. NOTE: You can enter the RAC or NON-RAC enabled database connectivity URL.	Υ	Example: jdbc:oracle:thin:@ <host ip="">:<port>:<sid> or jdbc:oracle:thin:@//[HOS T][:PORT]/SERVICE or jdbc:oracle:thin:@(DESCRI PTION=(ADDRESS_</sid></port></host>	For an HDFS ONLY target installation, this URL need to be of the RDBMS instance that hosts the Application's METADOM.

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<app_pack_id></app_pack_id>	Seeded unique ID for the OFSAA Application Pack.	Υ	Seeded	DO NOT modify this value.
			LIST=(ADDRESS=(PROT OCOL=TCP)(HOST=[HO ST])(port=[PORT]))(ADD RESS=(PROTOCOL=TCP) (HOST=[HOST])(PORT=[PORT]))(LOAD_ BALANCE=yes)(FAILOV ER=yes))(CONNECT_ DATA=(SERVICE_ NAME=[SERVICE]))) For example,	
			jdbc:oracle:thin:@//dbhos t.server.com: <port>/service1</port>	
			or	
			jdbc:oracle:thin:@//dbsho st.server.com: <port>/scan-1</port>	
			or	
			jdbc:oracle:thin:@(DESCRI PTION=(ADDRESS_ LIST=(ADDRESS=(PROT OCOL=TCP)(HOST=dbho	
			st1.server.com)(port=1521))(ADDRESS=(PROTOCO	
			L=TCP)(HOST=dbhost2.s erver.com)(PORT=1521))(LOAD_ BALANCE=yes)(FAILOV ER=yes))(CONNECT_	

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<app_pack_id></app_pack_id>	Seeded unique ID for the OFSAA Application Pack.	Υ	Seeded	DO NOT modify this value.
			DATA=(SERVICE_ NAME=service1)))	
<jdbc_driver></jdbc_driver>	By default, this driver's name is seeded. NOTE : Do not edit this attribute value.	Y	Example: oracle.jdbc.driver.OracleD river	Only JDBC Thin Driver is supported. DO NOT modify this value.
<host></host>	Enter the Hostname or IP Address of the system on which you are installing the OFSAA components.	Υ	Host Name/ IP Address	
<is_hybrid>/VALUE</is_hybrid>	Tag to enable or disable the HYBRID installation (Stage on Hive and Results on RDBMS).	Υ	The default value is FALSE	The default value is TRUE for Stage on Hive and Results on RDBMS.
<setupinfo>/ PREFIX_SCHEMA_NAME</setupinfo>	Identifies if the value specified in the <setupinfo>/NAME attribute needs to be prefixed to the schema name.</setupinfo>	N	YES or NO.	The default value is YES.
<setupinfo>/NAME</setupinfo>	Enter the acronym for the type of implementation. This information is displayed on the OFSAA Home Page. NOTE: On executing the schema creator utility, this yelling is profixed with each	Υ	Accepts strings with a minimum length of two and a maximum of four. Example: OIDF	This name appears in the OFSAA Landing Page as "Connected To: XXXX". The schemas created get this prefix. For example, dev_ ofsaaconf, uat_ofsaaconf, and so on.
	value is prefixed with each schema name. For example,			

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<app_pack_id></app_pack_id>	Seeded unique ID for the OFSAA Application Pack.	Υ	Seeded	DO NOT modify this value.
	dev_ ofsaaconf, uat_ofsaaatm.			
<password>/DEFAULT *</password>	Enter the password if you need to set a default password for all schemas. NOTE: You also need to set the APPLYSAMEFORALL attribute as Y to apply the default password for all the schemas.	N	The maximum length allowed is 30 characters. Special characters are not allowed.	Applies only to the RDBMS type METADOM schema(s).
<password>/APPLYSA MEFORALL</password>	Enter as Y if you need to apply the password specified in the DEFAULT attribute for all the schemas. If you enter as N, you need to provide individual passwords for all schemas. NOTE: If you have entered Y in the APPLYSAMEFORALL attribute and have specified individual passwords for all the schemas, then the specified individual passwords takes precedence.	~	The default value is N. Permissible values are Y and N.	NOTE: Setting this attribute value is mandatory if the DEFAULT attribute is set. Applies only to the RDBMS type METADOM schema(s).

Figure 17: Sample of the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (SCHEMA type RDBMS Block for Stage on Hive and Results on RDBMS)

```
<SCHEMAS TYPE="RDBMS">

<SCHEMA TYPE="CONFIG" NAME="##MYHIVECONSCHEMA##" PASSWORD="" APP_ID="OFS_AAI" DEFAULTTABLESPACE="USERS"

TEMPTABLESPACE="TEMP" QUOTA="500M"/>

<SCHEMA TYPE="ATOMIC" NAME="##MYRDBMSATMSCHEMA##" PASSWORD="" APP_ID="OFS_OIDF" APP_GRP="1"

DEFAULTTABLESPACE="USERS" TEMPTABLESPACE="TEMP" QUOTA="10G" INFODOM="OIDFINFO"/>

<SCHEMA TYPE="ATOMIC" NAME="##MYHIVEATMSCHEMA##" PASSWORD="" APP_ID="OFS_OIDFHV" INFODOM=

"##MY_HIVE_INFODOM##" DEFAULTTABLESPACE="USERS" TEMPTABLESPACE="TEMP" QUOTA="10G" />

</SCHEMAS>
```

Table 30: OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (SCHEMA type RDBMS Parameters for Stage on Hive and Results on RDBMS)

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=RDBMS</schemas>	Identifies the RDBMS schema details.	Y	Default names for schemas within the pack are derived in the absence of any value specified.	In an HDFS ONLY target installation, the Application's METADOM (that hosts the metadata) for an application is stored in the RDBMS schema and the Data Model entities of the application are stored in the DATADOM (which is on Hive).

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=RDBMS</schemas>	Identifies the RDBMS schema details.	Y	Default names for schemas within the pack are derived in the absence of any value specified.	In an HDFS ONLY target installation, the Application's METADOM (that hosts the metadata) for an application is stored in the RDBMS schema and the Data Model entities of the application are stored in the DATADOM (which is on Hive).
<schema>/TYPE</schema>	The different types of schemas that are supported in this release are ATOMIC, CONFIG. By default, the schemas types are seeded based on the Application Pack. NOTE: Do not edit this attribute value.	Y	ATOMIC/CONFIG.	Only One CONFIG schema can exist in the file. This schema identifies as the CONFIGURATION schema that holds the OFSAA setup details and other metadata information. Multiple ATOMIC or SANDBOX or ADDON schemas can exist in the file. ATOMIC schema refers to the METADOM within the Information Domain schema. SANDBOX schema refers to the SANDBOX schema. ADDON schema refers to other miscellaneous schemas (not applicable for this Application Pack).

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=RDBMS</schemas>	Identifies the RDBMS schema details.	\	Default names for schemas within the pack are derived in the absence of any value specified.	In an HDFS ONLY target installation, the Application's METADOM (that hosts the metadata) for an application is stored in the RDBMS schema and the Data Model entities of the application are stored in the DATADOM (which is on Hive).
<schema>/NAME</schema>	By default, the schema names are seeded based on the Application Pack. You can edit the schema names, if required. NOTE: The Schema Name has a prefix of the SETUPINFO/NAME attribute. The SCHEMA NAME must be the same for all the ATOMIC Schemas of applications within an Application Pack.	Y	The permissible length is 15 characters and only alphanumeric characters are allowed. No special characters are allowed except the Underscore '_'.	SETUPINFO/ NAME attribute value is prefixed to the schema name created. For example, if the name is set as 'ofsaaatm' and setupinfo as 'uat' then the schema created is 'uat_ofsaaatm'. NAME needs to be the same where APP_GRP=1 for all SCHEMA tags (not applicable for this Application Pack).
<schema>/PASSWORD</schema>	Enter the password of the schema to be created. NOTE: If this attribute is left blank, then the password specified in the <password>/DEFAULT</password>	N	The maximum length allowed is 30 characters. Special characters are not allowed.	NOTE: You need to mandatorily enter the password if you have set the <password>/ APPLYSAMEFORALL attribute as N.</password>

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=RDBMS</schemas>	ldentifies the RDBMS schema details.	\	Default names for schemas within the pack are derived in the absence of any value specified.	In an HDFS ONLY target installation, the Application's METADOM (that hosts the metadata) for an application is stored in the RDBMS schema and the Data Model entities of the application are stored in the DATADOM (which is on Hive).
	attribute is applied as the Schema Password.			
<schema>/APP_ID</schema>	By default, the Application ID is seeded based on the Application Pack. NOTE : Do not edit this attribute value.	Y	Unique Seeded value.	Identifies the Application or Product for which the schema is created. DO NOT modify this value.
<schema>/DEFAULTTABLESPACE</schema>	Enter the available default tablespace for DB User. NOTE: If this attribute is left blank, the USERS is set as the default tablespace.	N	The default value is USERS. Permissible value is any existing valid tablespace name.	Modify this value to associate any valid tablespace with the schema.
<schema>/TEMPTABLESPACE</schema>	Enter the available temporary tablespace for the DB User. NOTE: If this attribute is left blank, then TEMP is set as the default tablespace.	N	The default value is TEMP. Permissible value is any existing valid temporary tablespace name.	Modify this value to associate any valid tablespace with the schema.

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=RDBMS</schemas>	Identifies the RDBMS schema details.	Y	Default names for schemas within the pack are derived in the absence of any value specified.	In an HDFS ONLY target installation, the Application's METADOM (that hosts the metadata) for an application is stored in the RDBMS schema and the Data Model entities of the application are stored in the DATADOM (which is on Hive).
<schema>/QUOTA</schema>	Enter the quota to be set on the DEFAULTTABLESPACE attribute for the schema or user. By default, the quota size is set to 500M. Minimum: 500M or Unlimited on default Tablespace.	N	Example: 600M or 600m 20G or 20g UNLIMITED or unlimited	Modify this value to grant the specified quota on the mentioned tablespace to the user.
<schema>/INFODOM</schema>	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 the value is not specified for this attribute.	N	Permissible length is 16 characters and only alphanumeric characters are allowed. No special characters are allowed. There are two information domains for Stage on Hive and Results on RDBMS installation. One is for RDBMS and another for Hive ##INFODOM_NAME## Example: OIDFINFO	

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=RDBMS</schemas>	Identifies the RDBMS schema details.	Y	Default names for schemas within the pack are derived in the absence of any value specified.	In an HDFS ONLY target installation, the Application's METADOM (that hosts the metadata) for an application is stored in the RDBMS schema and the Data Model entities of the application are stored in the DATADOM (which is on Hive).
			Example for Hive	
			part in Stage on	
			Hive and Results on	
			RDBMS (Staging):	
			OIDFHVINFO	

Figure 18: Sample of the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (SCHEMA type HDFS Block for Stage on Hive and Results on RDBMS)

```
<SCHEMAS TYPE="HDFS">
      <HIVE SERVER HOST>##MY HIVE SERVER HOST NAME OR IP##</HIVE SERVER HOST>
      <hIVE LIB PATH>##USER HOME##/libs</hIVE LIB PATH>
      <SCHEMA NAME="##DATADOM SCHEMA NAME##" TYPE="DATADOM" APP ID="OFS OIDFHV" DB TYPE="HIVE" INFODOM=
      "##MY HIVE INFODOM##">
          <SCHEMA PROPERTIES>
              <PROPERTY ID="COMMENT" VALUE="" />
              <PROPERTY ID="LOCATION" VALUE="" />
          </SCHEMA PROPERTIES>
          <CONNECTION PROPERTIES>
              <PROPERTY ID="JDBC DRIVER" VALUE="com.cloudera.hive.jdbc4.HS2Driver" />
              <PROPERTY ID="JDBC URL" VALUE=
              "jdbc:hive2://##MY HIVE SERVER HOST NAME OR IP##:10000/<<PREFIX>> <<SCHEMA NAME>>;AuthMech=1;KrbServi
              ceName=hive; KrbHostFQDN=##MY HIVE SERVER HOST NAME OR IP##; KrbRealm=##REALM##" />
              <PROPERTY ID="AUTH TYPE" VALUE="KERBEROS WITH KEYTAB" />
              <PROPERTY ID="AUTH ALIAS" VALUE="##ALIAS NAME FOR AUTHENTICATION##" />
              <PROPERTY ID="PRINCIPAL" VALUE="##AUTHENTICATION PRINCIPAL NAME##" />
              <PROPERTY ID="PASSWORD" VALUE="##HIVE_USER_PASSWORD##"/>
              <PROPERTY ID="KRB GSSJAAS FILE NAME" VALUE="##KEYTAB PATH AND FILE NAME##" />
              <PROPERTY ID="KRB REALM_FILE_NAME" VALUE="##REALM_CONFIG_PATH_AND_FILE_NAME##" />
          </CONNECTION PROPERTIES>
      </SCHEMA>
  </SCHEMAS>
/APPPACKSCHEMA>
```

Table 31: OFS_OIDF_SCHEMA_BIGDATA_IN.xml file (SCHEMA type HDFS Parameters for Stage on Hive and Results on RDBMS)

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=H DFS</schemas>	Type of schemas created.	Y		Refers to the DATADOM of the Application Pack installed.
<hive_server_host ></hive_server_host 	IP or HostName of the server where HIVE is installed.	Y		

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=H DFS</schemas>	Type of schemas created.	Υ		Refers to the DATADOM of the Application Pack installed.
<hive_lib_path></hive_lib_path>	Folder path where HIVE related drivers or jar files are copied.	Y		Needs to contain the list of jars mentioned in the section Copy the Jar Files to the OFSAA Installation Directory and krb5.conf, keytab files. Manually copy the preceding listed files from CDH distribution to this identified folder. NOTE: The Cloudera administrator provides these two files krb5.conf and keytab.
<schema>/NAME</schema>	By default, the schema names are seeded based on the Application Pack. You can edit the schema names if required. NOTE: The Schema Name has a prefix of the SETUPINFO/NAME attribute.		The permissible length is 20 characters and only alphanumeric characters are allowed. Example: HIVEHYBDATADOM	Schema Name should not be the same as Schema Name specified for Schema Type ATOMIC.
<schema>/TYPE</schema>	Identifies the type of schema where the Data Model entities reside.	Y	By default, the TYPE attribute in this tag is set to DATADOM.	DO NOT modify this value.
<schema>/APP_ID</schema>	By default, the Application ID is seeded based on the Application Pack.	Y	The supported value is OFS_OIDFHV.	

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=H DFS</schemas>	Type of schemas created.	Υ		Refers to the DATADOM of the Application Pack installed.
<schema>/DB_TYPE</schema>	Identifies the type of driver to be used for the connection.	Υ	By default, the only supported type is HIVE in this release.	In the upcoming releases, the type of value can be HIVE, IMPALA, and so on.
<schema>/INFODO M</schema>	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 the value is not specified for this attribute.	N	Permissible length is 16 characters and only alphanumeric characters are allowed. No special characters are allowed. For example: ##MY_HIVE_INFODOM## For Hive part in Stage on Hive and Results on RDBMS: Example: OIDFHVINFO	
<schema_properti ES>/<property>/C OMMENT</property></schema_properti 	COMMENTS for HIVE schema.	Z		
<schema_properti ES>/<property>/L OCATION</property></schema_properti 	You can optionally specify a location for the table data.	N	hdfs:// ##HIVE_SERVER_HOST_NAME_OR_IP ##:NamenodePort/user/hive/wareho use/< <prefix>><<schema_name>>/ NOTE: The <<prefix>> prefix is applicable only if the <prefix_schema_name> tag is "Y" in the <setupinfo> tag.</setupinfo></prefix_schema_name></prefix></schema_name></prefix>	

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=H DFS</schemas>	Type of schemas created.	Υ		Refers to the DATADOM of the Application Pack installed.
			For example: When <setupinfo name="OIDF" prefix_schema_name="Y"></setupinfo> . < <schema_name>> is the DATADOM schema name. Example: hdfs:// whf00bsy.in.oracle.com:8020/user/hi ve/warehouse/OIDF_BSYDATADOM/</schema_name>	
<connection_prop ERTIES>/ <property>/JDBC_ DRIVER</property></connection_prop 	HIVE JDBC driver details.	Y	com.cloudera.hive.j dbc4.HS2Driver	The default cloudera HiveServer 2 driver name.
<connection_prop ERTIES>/ <property>/JDBC_ URL</property></connection_prop 	Enter the HIVE JDBC URL.	Y	A valid Hive JDBC URL to be specified. jdbc:hive2://##HIVE_SERVER_HOST_ NAME_OR_IP##:10000/< <prefix>><<schema_name>>;AuthMech=1;Kr bServiceName=hive;KrbHostFQDN=## HIVE_SERVER_HOST_NAME_OR_IP## ;KrbRealm=##REALM## NOTE: <<prefix>> Prefix is applicable only if the <prefix_schema_name> tag is Y in <setupinfo> tag. For example, when <setupinfo name="OIDF" prefix_schema_name="Y"></setupinfo>. <<schema_name>> is the</schema_name></setupinfo></prefix_schema_name></prefix></schema_name></prefix>	Specify the Hive JDBC URL to connect to the Hive Server.

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=H DFS</schemas>	Type of schemas created.	Υ		Refers to the DATADOM of the Application Pack installed.
			DATADOM schema name. For example: jdbc:hive2://whf00bsy.in.oracle.com:1 0000/OIDF_ BSYDATADOM;AuthMech=1;KrbServic eName=hive;KrbHostFQDN=whf00bsy .in.oracle.com;KrbRealm=WHFBSY.OR ACLE.COM	
<connection_prop ERTIES>/ <property>/AUTH_ TYPE</property></connection_prop 	Authentication Type.	Y	Permissible values: KERBEROS_WITH_ KEYTAB.	Only "Kerberos with keytab" based authentication is supported in this release.
<connection_prop ERTIES>/ <property>/AUTH_ ALIAS</property></connection_prop 	Alias name for authentication credentials.	Y		An Alias name mapping to a principal and password combination is specified in the following tags.
<connection_prop ERTIES>/ <property>/PRINCI PAL</property></connection_prop 	Authentication Principal name.	Y		Principal name used in authentication to connect to the Hive Server.
<connection_prop ERTIES>/ <property>/PASSW ORD</property></connection_prop 	Authentication password.	Y		Password used in authentication to connect to the Hive Server.

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
<schemas>/TYPE=H DFS</schemas>	Type of schemas created.	Y		Refers to the DATADOM of the Application Pack installed.
<connection_prop ERTIES>/ <property>/KRB_G SSJAAS_FILE_NAME</property></connection_prop 	A keytab file containing pairs of Kerberos principals and an encrypted copy of that principal's key.	Y		This file needs to be copied to the location specified in <hive_lib_path>.</hive_lib_path>
<connection_prop ERTIES>/ <property>/KRB_R EALM_FILE_NAME</property></connection_prop 	REALM configuration file.	Y		This file needs to be copied to the location specified in <hive_lib_path>.</hive_lib_path>

4. Save the file.

5.5 Configure the OFSAAI_InstallConfig.xml File

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

- **1.** Navigate to the OFS_OIDF_PACK/OFS_AAI/conf/ directory.
- **2.** Open the <code>OFSAAI_InstallConfig.xml</code> 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 28: OFSAAI_InstallConfig.xml file Parameters

InteractionVariable Name	Significance and Expected Value	Mandatory
<layer name="GENERAL"></layer>		
InteractionGroup name="Web5	ServerType"	
WEBAPPSERVERTYPE	Identifies the web application server on which the OFSAA Infrastructure web components are deployed. Set the following numeric value depending on the type of web application server:	Yes
	Apache Tomcat = 1	
	 IBM WebSphere Application Server = 2 Oracle WebLogic Server = 3 	
	For example, <interactionvariable name="WEBAPPSERVERTYPE">3</interactionvariable>	
InteractionGroup name="OFSA	A Infrastructure Server Details"	
DBSERVER_IP	Identifies the hostname or IP address of the system on which the Database Engine is hosted.	Yes
	NOTE: For RAC Database, the value must be NA. For example, <interactionvariable name="DBSERVER_ IP">14.15.16.17</interactionvariable> or	
	<pre><interactionvariable name="DBSERVER_ IP">dbhost.server.com</interactionvariable></pre>	
InteractionGroup name="Data	pase Details"	
ORACLE_SID/SERVICE_NAME	Identifies the Oracle DB Instance SID or SERVICE_NAME NOTE: The Oracle_SID value must be the same as it is mentioned in JDBC_URL. For example, <interactionvariable name="ORACLE_SID/SERVICE_</td><td>Yes</td></tr><tr><td></td><td>NAME">ofsaser</interactionvariable>	

InteractionVariable Name	Significance and Expected Value	Mandatory
ABS_DRIVER_PATH	Identifies the directory where the JDBC driver (ojdbc <version>.jar) exists. This is typically the \$ORACLE_HOME/jdbc/lib directory.</version>	Yes
	For example, <interactionvariable name="ABS_DRIVER_PATH">">/oradata6/revwb7/oracle </interactionvariable>	
	NOTE: See Hardware and Software Requirements to identify the correct ojdbc <version>.jar file version to be copied.</version>	
InteractionGroup name="OLAF	P Detail"	
OLAP_SERVER_ IMPLEMENTATION	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: • YES: 1 • NO: 0 NOTE: If the value for OLAP_SERVER_IMPLEMENTATION is set to 1, the installer checks if the following environment variables are set in the .profile file: • ARBORPATH • HYPERION_HOME • ESSBASEPATH	No
InteractionGroup name="SFTP	Details"	
SFTP_ENABLE	Identifies if the SFTP (Secure File Transfer Protocol) feature is to be enabled. The following numeric value must be set depending on your choice: • SFTP: 1 • FTP: 0	Yes

interface.

InteractionVariable Name	Significance and Expected Value	Mandatory
Set SFTP_ENABLE to -1 to config	ure ftpshare and weblocal path as a local path mounted for the OFSAAI server.	
FILE_TRANSFER_PORT	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 SFTP_ENABLE is 0. For example, <interactionvariable name="FILE_TRANSFER_PORT">21</interactionvariable>	
InteractionGroup name="Locale	Detail"	
LOCALE	Identifies the locale information to be used during the installation. This release of the OFSAA Infrastructure supports only US English. For example, <interactionvariable name="LOCALE">en_US</interactionvariable>	Yes
NOTE: The following ports are use	Infrastructure Communicating ports" d internally by the various OFSAA Infrastructure services. The default values mentioned are set in the ire the parameter value accordingly, ensure that the port value is in the range 1025 to 65535, and the response.	-
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 I		
NOTE: If the value for HTTPS_EI server.	NABLE is set to 1, ensure that you have a valid certificate available from a trusted CA and it is configured	on your web application
HTTPS_ENABLE	<pre>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:</pre>	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, <interactionvariable name="WEB_SERVER_IP">10.11.12.13</interactionvariable> or <interactionvariable name="WEB_SERVER_IP">myweb.server.com</interactionvariable>	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: • 80, if the HTTPS_ENABLE variable is 1 • 443, if the HTTPS_ENABLE variable is 0 For example, <interactionvariable name="WEB_SERVER_PORT">80</interactionvariable>	No

InteractionVariable Name	Significance and Expected Value	Mandatory
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: <scheme>://<host>:<port>/<context-name>/ login.jsp</context-name></port></host></scheme>	Yes
	For example:	
	https://myweb:443/ofsaadev/login.jsp	
	For example, <interactionvariable name="CONTEXT_ NAME">ofsaadev</interactionvariable>	
WEBAPP_CONTEXT_PATH	 Identifies the absolute path of the exploded EAR file on the web application server. For Tomcat, specify the Tomcat directory path till /webapps. For example, /oradata6/revwb7/tomcat/webapps/. 	Yes
	• For WebSphere, specify the WebSphere path as <websphere directory="" profile="">/installedApps/<nodecellname>. For example, / data2/test//WebSphere/AppServer/profiles/<profile_name>/installedApps/aiximfNode01Cell, where aix-imf is the Hostname.</profile_name></nodecellname></websphere>	
	• For WebLogic, specify the WebLogic home directory path. For example, / <weblogic directory="" home="" path="">/bea/wlserver_10.3</weblogic>	
	NOTE: For WebLogic, the value specified for this attribute is ignored and the value provided against the attribute WEBLOGIC_DOMAIN_HOME is considered.	
WEB_LOCAL_PATH	Identifies the absolute path to any directory on the web application server that can	Yes
	hold temporary files, which are uploaded as part of the usage of the application.	
	Set this in the FTPSHARE location.	
	NOTE: During a clustered deployment, ensure that this path and the directory are the same on all the nodes.	
InteractionGroup name="Weblo	gic Setup Details"	
WEBLOGIC_DOMAIN_HOME	Identifies the WebLogic Domain Home.	Yes.
	For example, <interactionvariable name="WEBLOGIC_DOMAIN_HOME">/home/weblogic/bea/user_ projects/ domains/mydomain</interactionvariable>	Specify the value only if WEBAPPSERVERTYPE

InteractionVariable Name	Significance and Expected Value	Mandatory
		is set as 3 (WebLogic)
InteractionGroup name="OFSAA	I FTP Details"	
OFSAAI_FTPSHARE_PATH	Identifies the absolute path of the directory that is identified as the file system stage area. NOTE: The directory must exist on the same system on which the OFSAA Infrastructure is being installed (can be on a separate mount). The user mentioned in the APP_SFTP_USER_ID parameter in the following example must have RWX permission on the directory. For example, <interactionvariable name="APP_FTPSHARE_PATH">">/oradata6/revwb7/ftpshare</interactionvariable>	Yes
OFSAAI_SFTP_USER_ID	Identifies the user who has RWX permissions on the directory identified for the parameter APP_FTPSHARE_PATH.	Yes
OFSAAI_SFTP_PRIVATE_KEY	Identifies the SFTP private key for OFSAAI. For example, <interactionvariable name="OFSAAI_SFTP_PRIVATE_KEY">/home/ofsaapp/.ssh/id_rsa</interactionvariable> 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>. For more information on how to generate an SFTP Private key, see the Set Up SFTP Private Key section.</ofsaai_sftp_user_id>	No
OFSAAI_SFTP_PASSPHRASE	Identifies the passphrase for the SFTP private key for OFSAAI. For example, InteractionVariable name="OFSAAI_SFTP_PASSPHRASE">enter a pass phrase here By default, the value is NA. If the OFSAAI_SFTP_PRIVATE_KEY value is given and the OFSAAI_SFTP_PASSPHRASE	No

InteractionVariable Name	Significance and Expected Value	Mandatory
	value is NA , then the passphrase is identified as empty.	
InteractionGroup name="Hive I		
	action variables under this group is NA. equired only for Hive Configuration.	
HIVE_SERVER_PORT	Identifies the port used for the file transfer service. The default value is 22 (SFTP). To use this port for FTP, set this value to 21 .	Yes
	For example, <interactionvariable name="HIVE_SERVER_PORT">22</interactionvariable>	
HIVE_SERVER_FTPDRIVE	<pre>Identifies the absolute path to the directory identified as the file system stage area of the HIVE server. For example, <interactionvariable name="HIVE_SERVER_FTPDRIVE">/scratch/ofsaa/ftpshare</interactionvariable></pre>	Yes
HIVE_SERVER_FTP_USERID	Identifies the user who has RWX permissions on the directory identified under the parameter HIVE_SERVER_FTPDRIVE. For example, <interactionvariable name="HIVE_SERVER_FTP_USERID">ofsaa</interactionvariable>	Yes
HIVE_SERVER_FTP_PROTOCO L	<pre>If the HIVE_SERVER_PORT is 21, then set the value to FTP. If not, set it to SFTP. For example,</pre>	Yes

Installation

InteractionVariable Name	Significance and Expected Value	Mandatory
HIVE_SFTP_PRIVATE_KEY	Identifies the SFTP private key for the HIVE server.	
	For example, <interactionvariable name="HIVE_SFTP_PRIVATE_ KEVIL A contact the state of the st</td><td></td></tr><tr><td></td><td>KEY">/scratch/testuser/.ssh/id_rsa</interactionvariable> By default, the value is NA , which indicates that, for authentication, you are prompted to enter the password for the user <hive_server_ftp_userid>.</hive_server_ftp_userid>	
	For more information on generating SFTP Private key, see the Set Up SFTP Private Key section.	
HIVE_SFTP_PASSPHRASE	Identifies the passphrase for the SFTP private key for HIVE. For example, <interactionvariable name="HIVE_SFTP_ PASSPHRASE">NA</interactionvariable> By default, the value is NA. If the HIVE_SFTP_PRIVATE_KEY value is NA, then the passphrase is identified as empty.	

5.5.1 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-keygencommand. If required, set a 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

5.6 Configure the Silent.props File

Topics:

- Silent.template for RDBMS
- Silent.BIGDATA.template for Stage and Results on Hive
- Silent_Hybrid.template for Stage on Hive and Results on RDBMS

ATTENTION:

Do not install the new applications in the same segment if the pre-installed applications use Run Management.

5.6.1 Silent.template for RDBMS

This section is applicable for the newly licensed OIDF Application Pack Release 8.1.2.0.0 installation in the RDBMS mode.

NOTE:

In an integrated environment, Oracle recommends the customers use the same Staging source in the Silent.props file for the T2Ts that load data from the Stage tables into the Result tables.

To configure the Silent.props file for the fresh or new RDBMS installation, follow these steps:

- **1.** Navigate to the OFS OIDF PACK/appsLibConfig/conf/ directory.
- 2. Rename the Silent.template file to Silent.props.
- **3.** Edit the Silent.props file in a text editor and mention the parameters mentioned in the following table.

Figure 14: Sample of the Silent.props file (Silent.template) for the RDBMS installation

```
Specify Log Mode
# 1 = DEBUG Mode [Password will be printed in the log file]
# 0 = GENERAL Mode [Passwords will not be printed in the log file]
# Default is GENERAL
# Specify the Oracle Insurance Data foundation Segment Code
SEGMENT 1 CODE=
# Specify the Infodom Maintenance log path(to be created) for the new Infodom
# Please ignore if you are doing installation on an existing information domain
APPFTP LOG PATH=
DBFTP_LOG_PATH=
# Specify wheter you want to perform Model Upload
# 0 = If you have already performed Model Upload and want to skip model upload process
# 1 = If you want to perform Model Upload
UPLOAD_MODEL=
# Specify whether you want to use the released datamodel or customized datamodel for model upload process
\sharp 0 = If you want to upload the released datamodel \sharp 1 = If you want to upload the customized datamodel
MODEL TYPE=
# Specify the path(DM_DIRECTORY) and file(DATAMODEL) name for the cutomized datamodel
# Mandatory only if you want to upload the customized datamodel # i.e you have specified MODEL_TYPE=1
DM_DIRECTORY=
#Please specify if you want create new ETL Src or use an existing one.
# 0 = If you want to create a new ETL src
# 1 = If you want to use an existing src
ETL APPSRC TYPE=
# Specify the ETL and Source Name into ETL Area Definitions will be deployed. This is a Mandatory Field.
# Give new ETL SRC Names, if you have specified ETL_APPSRC_TYPE=0
# Give Exisitng ETL SRC Names, if you have specified ETL_APPSRC_TYPE=1
# Specify the ETL Application and Source Name into ETL Area Definitions will be deployed
#ETL FSDF Staging Source Name
ETL_SRC_1_NAME=
#ETL FSDF CAP ADQ Pack Integration Source Name
ETL SRC 2 NAME=
$ETL FSDF TR Pack Integration Source Name
ETL_SRC_3_NAME=
#ETL FSDF IFRS Pack Integration Source Name
ETL_SRC_4_NAME=
# Please give description for the ETL App/Src pair
# Mandatory if you want to create new ETL app/src pair
# i.e you have specified ETL_APPSRC_TYPE=0
#ETL FSDF Staging Source Description
ETL_SRC_1_DESC=
$ETL FSDF CAP ADQ Pack Integration Source Description
ETL_SRC_2_DESC=
#ETL FSDF TR Pack Integration Source Description
ETL SRC 3 DESC=
#ETL FSDF IFRS Pack Integration Source Description
ETL_SRC_4_DESC=
#Support for Parallelism
#ENABLE_CONCURRENCY=1
#CONCURRENCY LEVEL=10
```

Table 29: Parameters for the Silent.props File (Silent.template)

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Mode for logging	0 = Debug 1= General	# Optional; Default: 0
SEGMENT_1_CODE	Segment Code	Example: OIDFSEG	# Mandatory Segment Code must not exceed 10 characters and no special characters or extra spaces are allowed.
APPFTP_LOG_PATH	Information Domain Maintenance log path(to be created) for the new information Domain for App Layer	Example: /ftpshare/ <infodom_name>/logs</infodom_name>	# Mandatory if this an App Layer Installation and need to create an Information Domain
DBFTP_LOG_PATH	Information Domain Maintenance log path(to be created) for the new Information Domain for DB Layer	Example: /ftpshare/ <infodom_name>/logs</infodom_name>	# Mandatory if this an App Layer Installation and need to create an Information Domain
UPLOAD_MODEL	Whether you need to perform Model Upload	0 = No 1 = Yes	# Mandatory
MODEL_TYPE	Released Data Model or Customized Data Model	0 = released 1 = customized	# Mandatory only in the case of UPLOAD_MODEL=1
DATAMODEL	The file name for the customized Data Model	Not Applicable	# Mandatory only in the case of uploading the customized Data Model # Option selected for MODEL_TYPE=1

Property Name	Description of Property	Permissible values	Comments
DM_DIRECTORY	The path for the customized Data Model	Not Applicable	# Mandatory only in the case of uploading the customized Data Model # Option selected for MODEL_TYPE=1
ETL_APPSRC_TYPE	The ETL application name	0 = New Pair 1 = Existing	# Mandatory
ETL_SRC_1_NAME	ETL OIDF Staging Source Name	Example: STAGING	# Mandatory
ETL_SRC_2_NAME	ETL OIDF CAP ADQ Pack Integration Source Name	Example: OIDF_CAP_SRC	# Mandatory
ETL_SRC_3_NAME	ETL OIDF TR Pack Integration Source Name	Example: OIDF_TR_SRC	# Mandatory
ETL_SRC_4_NAME	ETL OIDF IFRS Pack Integration Source Name	Example: OIDF_IFRS_SRC	# Mandatory
ETL_SRC_1_DESC	ETL OIDF Staging Source Description	Example: STAGING	# Mandatory
ETL_SRC_2_DESC	ETL OIDF CAP ADQ Pack Integration Source Description	Example: OIDF_CAP_SRC	# Mandatory
ETL_SRC_3_DESC	ETL OIDF TR Pack Integration Source Description	Example: OIDF_TR_SRC	# Mandatory
ETL_SRC_4_DESC	ETL OIDF IFRS Pack Integration Source Description	Example: OIDF_IFRS_SRC	# Mandatory
ENABLE_CONCURRENCY	#Support for Parallelism	0 = No 1 = Yes	#Optional

Property Name	Description of Property	Permissible values	Comments
CONCURRENCY_LEVEL	#Support for Parallelism	Example: CONCURRENCY_LEVEL=10, which means 10 threads are triggered to handle the processing of fsapps.	#Optional

NOTE:

During the installation in an integrated environment the ETL_SRC_1_NAME must be the same for the applications.

4. Save the file.

5.6.2 Silent.BIGDATA.template for Stage and Results on Hive

This section is applicable for the newly licensed OIDF Application Pack Release 8.1.2.0.0 installation in the Big Data mode (Stage and Results on Hive).

To configure the Silent.props file for the fresh or new Big Data installation, follow these steps:

- 1. Navigate to the OFS_OIDF_PACK/appsLibConfig/conf/ directory.
- 2. Rename the file Silent.BIGDATA.template to Silent.props.
- **3.** Edit the Silent.props file in a text editor and mention the parameters mentioned in the following table.

Figure 15: Sample of the Silent.props file (Silent.BIGDATA.template) for the Big Data installation

```
# Specify Log Mode
# 1 = DEBUG Mode [Password will be printed in the log file]
# 0 = GENERAL Mode [Passwords will not be printed in the log file]
# Default is GENERAL
LOG_MODE=0
# Specify the Oracle Insurance Data foundation Segment Code
SEGMENT_1_CODE=
# Specify the Infodom Maintenance log path(to be created) for the new Infodom
# Please ignore if you are doing installation on an existing information domain
HIVE APPFTP LOG PATH=
HIVE_DBFTP_LOG_PATH=
# Specify wheter you want to perform Model Upload on hive infodom
# 0 = If you have already performed Model Upload and want to skip model upload process
# 1 = If you want to perform Model Upload
HIVE UPLOAD MODEL=
# Specify whether you want to use the released datamodel or customized datamodel for model upload process
# 0 = If you want to upload the released datamodel
# 1 = If you want to upload the customized datamodel
HIVE_MODEL_TYPE=
# Specify the path(DM_DIRECTORY) and file(DATAMODEL) name for the cutomized datamodel
# Mandatory only if you want to upload the customized datamodel
# i.e you have specified MODEL_TYPE=1
DATAMODEL HIVE=
DM_DIRECTORY=
#Please specify if you want create new ETL Src or use an existing one.
# 0 = If you want to create a new ETL src
# 1 = If you want to use an existing src
ETL_APPSRC_TYPE=
# Specify the ETL and Source Name into ETL Area Definitions will be deployed. This is a Mandatory Field.
# Give new ETL SRC Names, if you have specified ETL_APPSRC_TYPE=0
# Give Exisitng ETL SRC Names, if you have specified ETL_APPSRC_TYPE=1
# Specify the ETL Application and Source Name into ETL Area Definitions will be deployed
#ETL StagingHive Source Name
ETL_SRC_5_NAME=
ETL_SRC_5_DESC=
```

Table 30: Parameters for the Silent.props File (Silent.BIGDATA.template)

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Mode for logging	0 = Debug 1= General	# Optional; Default: 0
SEGMENT_1_CODE	Segment Code	Example: OIDFSEG	# Mandatory Segment Code must not exceed 10 characters and no special characters or extra spaces are allowed.

Property Name	Description of Property	Permissible values	Comments
HIVE_APPFTP_LOG_PATH	Infodom Maintenance log path(to be created) for the new Infodom	Example: /scratch/ofsaa/ftpshare/OIDFINFO/logs	# Mandatory to create a new Information Domain
HIVE_DBFTP_LOG_PATH	Information Domain Maintenance log path (to be created) for the new Information Domain for DB Layer	Example: /scratch/ofsaa/ftpshare/OIDFINFO/logs	# Mandatory to create a new Information Domain
HIVE_UPLOAD_MODEL	Whether you need to perform Model Upload on Hive Infodom	0 = No 1 = yes	# Mandatory
HIVE_MODEL_TYPE	Released Data Model or Customized Data Model for model upload process	0 = released 1 = customized	# Option selected for HIVE_MODEL_TYPE=0
DATAMODEL_HIVE	The file name for the customized Data Model in Hive	Not Applicable	# Mandatory only in the case of uploading the customized Data Model # Option selected for HIVE_MODEL_TYPE=1
DM_DIRECTORY	The path for the customized Data Model	Not Applicable	# Mandatory only in the case of uploading the customized Data Model # Option selected for HIVE_MODEL_TYPE=1
ETL_APPSRC_TYPE	The ETL	0=New Pair 1=Existing	# Mandatory

Property Name	Description of Property	Permissible values	Comments
	application name		
ETL_SRC_5_NAME	ETL OIDF HIVE Staging Source Name	Example: STAGING	# Mandatory
ETL_SRC_5_DESC	ETL OIDF HIVE Staging Source description	Example: STAGING	# Mandatory
ENABLE_CONCURRENCY	#Support for Parallelism	0 = No 1 = Yes	#Optional
CONCURRENCY_LEVEL	#Support for Parallelism	Example: CONCURRENCY_LEVEL=10, which means 10 threads are triggered to handle the processing of fsapps.	#Optional

NOTE:

During the installation in an integrated environment the ETL_SRC_1_NAME must be the same for the applications.

4. Save the file.

5.6.3 Silent_Hybrid.template for Stage on Hive and Results on RDBMS

This section is applicable for the newly licensed OIDF Application Pack Release 8.1.2.0.0 installation in the Big Data mode (Stage on Hive and Results on RDBMS).

To configure the Silent.props file for the fresh or new Big Data installation, follow these steps:

- 1. Navigate to the OFS OIDF PACK/appsLibConfig/conf/ directory.
- 2. Rename the file Silent_Hybrid.template to Silent.props.
- **3.** Edit the Silent.props file in a text editor and mention the parameters mentioned in the following table.

Figure 21: Sample of the Silent.props file (Silent_Hybrid.template) for the Big Data installation

```
# Specify Log Mode
# 1 = DEBUG Mode [Password will be printed in the log file]
# 0 = GENERAL Mode [Passwords will not be printed in the log file]
# Default is GENERAL
LOG MODE=0
# Specify the Oracle Insurance Data foundation Segment Code
SEGMENT_1_CODE=
# Specify the Infodom Maintenance log path(to be created) for the new Infodom
 Please ignore if you are doing installation on an existing information domain
 APPFTP LOG PATH=
DBFTP_LOG_PATH=
# Specify the Infodom Maintenance log path(to be created) for the new hive Infodom
# Please ignore if you are doing installation on an existing information domain
HIVE_APPFTP_LOG_PATH=
HIVE_DBFTP_LOG_PATH=
# Specify wheter you want to perform Model Upload
# 0 = If you have already performed Model Upload and want to skip model upload process
# 1 = If you want to perform Model Upload
UPLOAD_MODEL=
# Specify whether you want to use the released datamodel or customized datamodel for model upload process
# 0 = If you want to upload the released datamodel
# 1 = If you want to upload the customized datamodel
MODEL_TYPE=
# Specify the path(DM DIRECTORY) and file(DATAMODEL) name for the cutomized datamodel
# Mandatory only if you want to upload the customized datamodel
 i.e you have specified MODEL_TYPE=1
DATAMODEL=
DM_DIRECTORY=
# Specify wheter you want to perform Model Upload on hive infodom
# 0 = If you have already performed Model Upload and want to skip model upload process
# 1 = If you want to perform Model Upload
HIVE UPLOAD MODEL=
# Specify whether you want to use the released datamodel or customized datamodel for model upload process
# 0 = If you want to upload the released datamodel
# 1 = If you want to upload the customized datamodel
HIVE MODEL TYPE=
# Specify the path(DM_DIRECTORY) and file(DATAMODEL_HIVE) name for the cutomized datamodel
# Mandatory only if you want to upload the customized datamodel
# i.e you have specified HIVE UPLOAD MODEL=1
DATAMODEL_HIVE=
DM_DIRECTORY=
$Please specify if you want create new ETL Src or use an existing one.
# 0 = If you want to create a new ETL src
# 1 = If you want to use an existing src
ETL APPSRC TYPE=
# Specify the ETL and Source Name into ETL Area Definitions will be deployed. This is a Mandatory Field.
# Give new ETL SRC Names, if you have specified ETL_APPSRC_TYPE=0
# Give Exisitng ETL SRC Names, if you have specified ETL_APPSRC_TYPE=1
# Specify the ETL Application and Source Name into ETL Area Definitions will be deployed
#ETL OIDF Staging Source Name
ETL_SRC_1_NAME=
# Please give description for the ETL App/Src pair
# Mandatory if you want to create new ETL app/src pair
# i.e you have specified ETL_APPSRC_TYPE=0
#ETL OIDF Staging Source Description
ETL_SRC_1_DESC=
ETL_SRC_2_NAME=NOT_USED
ETL_SRC_2_DESC=NOT_USED_SOURCE
```

Table 35: Parameters for the Silent.props File (Silent.BIGDATA.template)

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Mode for logging	0 = Debug 1= General	# Optional; Default: 0
SEGMENT_1_CODE	Segment Code	Example: OIDFSEG	# Mandatory Segment Code must not exceed 10 characters and no special characters or extra spaces are allowed.
HIVE_APPFTP_LOG_PATH	Infodom Maintenance log path(to be created) for the new Infodom	Example: /scratch/ofsaa/ftpshare/OIDFINFO/logs	# Mandatory to create a new Information Domain
HIVE_DBFTP_LOG_PATH	Information Domain Maintenance log path (to be created) for the new Information Domain for DB Layer	Example: /scratch/ofsaa/ftpshare/OIDFINFO/logs	# Mandatory to create a new Information Domain
HIVE_UPLOAD_MODEL	Whether you need to perform Model Upload on Hive Infodom	0 = No 1 = yes	# Mandatory
HIVE_MODEL_TYPE	Released Data Model or Customized Data Model for model upload process	0 = released 1 = customized	# Option selected for HIVE_MODEL_TYPE=0
DATAMODEL_HIVE	The file name for the customized Data Model	Not Applicable	# Mandatory only in the case of uploading the customized Data Model

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Mode for logging	0 = Debug 1= General	# Optional; Default: 0
	in Hive		# Option selected for HIVE_MODEL_TYPE=1
DM_DIRECTORY	The path for the customized Data Model	Not Applicable	# Mandatory only in the case of uploading the customized Data Model # Option selected for HIVE_MODEL_TYPE=1
ETL_APPSRC_TYPE	The ETL application name	0=New Pair 1=Existing	# Mandatory
ETL_SRC_5_NAME	ETL OIDF HIVE Staging Source Name	Example: STAGING	# Mandatory
ETL_SRC_5_DESC	ETL OIDF HIVE Staging Source description	Example: STAGING	# Mandatory
ENABLE_CONCURRENCY	#Support for Parallelism	0 = No 1 = Yes	#Optional
CONCURRENCY_LEVEL	#Support for Parallelism	Example: CONCURRENCY_LEVEL=10, which means 10 threads are triggered to handle the processing of fsapps.	#Optional

NOTE:

During the installation in an integrated environment the ETL_SRC_1_NAME must be the same for the applications.

4. Save the file.

5.7 Backup the Configuration Files

Back up the following configuration files by creating a copy of the files in a separate directory. Ensure not to store this backup directory in the OIDF v8.1.2.0.0 kit:

Table 31: Directory of Files to Backup

File Name	Directory
OFS_OIDF_SCHEMA_IN.xml and OFS_OIDF_SCHEMA_BIGDATA_IN.xml	OFS_OIDF_PACK/schema_creator/conf
OFS_OIDF_SCHEMA_OUTPUT.xml	OFS_OIDF_PACK/schema_creator/
Silent.props	OFS_OIDF_PACK/appsLibConfig/conf
OFSAAI_InstallConfig.xml	OFS_OIDF_PACK/OFS_AAI/conf/

You can reuse the files in the future to upgrade the existing applications or install new applications.

5.8 Execute the Schema Creator Utility

Depending on the option selected to run the OFSAA Application Pack installer, you must select the appropriate schema creator utility execution mode from the following options: in

- 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 when Installing the subsequent Applications
 Pack

5.8.1 Execute the Schema Creator Utility in Offline Mode

Choose the Offline Mode option, if you do not have login credentials to the database with SYSDBA privileges. In this mode, the utility generates an SQL script with all the required DDLs for Users, Objects, and Grants. That script must be executed by the DBA on the appropriate database identified for OFSAA usage.

To execute the schema creator utility in the offline mode, you must have the following 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 OFS OIDF PACK/schema creator/bin/directory.
- **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/N).

Enter **Y** to start the script generation.

8. The following message is displayed:

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

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

Schema Creator executed successfully. Please execute

 ${\tt OFS_OIDF_PACK/schema_creator/sysdba_output_scripts.sql} \ {\tt before} \\ \ {\tt proceeding} \ {\tt with} \ {\tt the} \ {\tt installation}.$

Additionally, if you have configured the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file, a file called hive_output_scripts.hql is also created in the OFS_OIDF_PACK/schema_creator/directory.

NOTE:

If there are any errors during the SQL script execution, reconfigure the ${\tt OFS_OIDF_SCHEMA_IN.xml}$ and/or ${\tt OFS_OIDF_SCHEMA_}$

BIGDATA_IN.xml files and repeat steps in this procedure to execute the utility. This regenerates the scripts with the correct information.

- 9. Navigate to the OFS OIDF Pack/schema creator/directory.
- **10.** Log in to the database using credentials with SYSDBA privileges.
- 11. Execute the sysdba_output_scripts.sql file using the following command: SQL>@sysdba_output_scripts.sql

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

12. Log in to the Hue Browser with System Administrator privileges. Execute the script mentioned under hive_output_scripts.hql (omitting the slash ('/')) in the HIVE Query Editor. For example:

CREATE SCHEMA IF NOT EXIST <<HIVE SCHEMA NAME>>

NOTE:

See the <code>sysdba_output_scripts.log</code> file for execution status. If there are any errors, contact Oracle Support Services. If there are no errors in the execution, the log file is empty.

As a result of this procedure, the $OFS_OIDF_SCHEMA_OUTPUT.xml$ file is generated. Do not modify this file.

5.8.2 Execute the Schema Creator Utility in Online Mode

Choose the Online Mode option, if you have login credentials to the database with SYSDBA privileges. In this mode, the utility connects to the database and executes the DDLs for Users, Objects, and Grants.

To execute the utility in online mode, follow these steps:

- **1.** Edit the Application Schema file.
 - For the RDBMS only mode of installation, edit the file
 OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_IN.xml file
 in a text editor. See the Configure the OFS_OIDF_SCHEMA_IN.xml File section
 for values to modify in the XML file.
 - For the Big Data installation (Stage and Results on Hive), edit the file OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_BIGDATA_I N.xml file in a text editor. See the Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage and Results on Hive section for values to modify in the XML file.

- For the Big Data installation (Stage on Hive and Results on RDBMS), edit the file OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_BIGDATA_I N.xml file in a text editor. See the Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage on Hive and Results on RDBMS section for values to modify in the XML file.
- **2.** Execute the osc.sh file using the following command:

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

Figure 17: Schema Creation in the Online Mode



3. 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).

Enter Y to proceed.

Figure 18: Schema Creation in the Online Mode - DDL Execution

2. 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).

Enter Y to proceed.

Figure 19: Schema Creation in the Online Mode - Infodom Confirmation

```
hecking OFSAA installation...
OFSAA installation not found.

/alidating the dat file OFS_OIDF_CFG.dat started...

The path is:/scratch/ /kit/OFS_OIDF_PACK/schema_creator/conf

Successfully validated OFS_OIDF_CFG.dat file

/alidating the input XML file.../scratch/ /kit/OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_IN.xml
 nput XML file validated successfully.
alidating Connection URL ...jdbc:oracle:thin:
 onnection jdbc:oracle:thin:
uccessfully connected to User - sys as sysdba URL - jdbc:oracle:thin:
                             IPAddress -
 ocalhost name -
 NT_LB_HOST not there in schema
S_HYBRID not there in schema
DV_SEC_TAG not there in schema
                                 /kit/OFS_OIDF_PACK/schema_creator/../conf/OFS_OIDF_PACK.xml
arsing file: /scratch/
hecking: app: OFS_AAI schema_name: schema_type: CONFIG
hecking: app: OFS_OIDF schema_name: schema_type: ATOMIC
 ou have chosen to install this Application Pack on "
                                                                         " ATOMIC schema. Do you want to proceed? (Y/N)
   have chosen to install this Application Pack on INFODOM " ... Do you want to proceed? (Y/N)
```

4. Schema is created successfully.

Figure 20: Schema Creation in the Online Mode -Successful

```
ag Schemas started...

User successfully created on Default TableSpace : USERS on Temp TableSpace : TEMP creation scripts execution started...

creation scripts execution completed...

zion jdbcioracle:thin:

stilly connected to User successfully graded into the damaster table details updated into the dimaster table details updated into the aid do tent table details updated into the aid do tent table details updated into the dimaster table details updated into the dimaster table details updated into the aid do tent table details updated into the filmseafter table details updated into the filmseafter table details updated into the filmseafter table details updated into the said do detail table details updated into the said do much alias table details updated into the said be successfully created on Default TableSpace : USERS on Temp TableSpace : TEMP in specific IEE table create on of specific IEEE table create on of 
creation scripts execution started ...
creation scripts execution completed ...
alue of redaction flag in atomic schema isfalse
```

As a result of this procedure, the OFS OIDF SCHEMA OUTPUT.xml file is generated. Do not modify this file.

Execute the Schema Creator Utility in TCPS Mode 5.8.3

If you intend to run the OIDF Application Pack Installer in the TCPS mode, it is mandatory to execute the schema creator utility in the online mode.

Prerequisite:

Configure the Oracle Wallet with trusted certificates between the DB Server with TCPS configured and the DB Client 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 <u>Oracle Financial Services Advanced</u>
<u>Analytical Applications Infrastructure Administration and Configuration Guide</u>
<u>Release 8.1.x.</u>

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 Application Schema file.
 - For the RDBMS only mode of installation, edit the file
 OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_IN.xml file
 in a text editor. See the <u>Configure the OFS_OIDF_SCHEMA_IN.xml File</u> section
 for values to modify in the XML file.
 - For the Big Data installation (Stage and Results on Hive), edit the file OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_BIGDATA_I N.xml file in a text editor. See the <u>Configure the</u> <u>OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage and Results on Hive</u> section for values to modify in the XML file.
 - For the Big Data installation (Stage on Hive and Results on RDBMS), edit the file OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_BIGDATA_I N.xml file in a text editor. See the <u>Configure the</u> <u>OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage on Hive and Results on</u> <u>RDBMS</u> section for values to modify in the XML file.
- **2.** Execute the osc.sh file using the following command:

```
./osc.sh -s TCPS <WALLET_HOME>
For example: ./osc.sh -s TCPS /scratch/oraofss/wallet
```

Figure 21: Execution of the Schema Creator in the TCPS Mode



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.

The following message is displayed:

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

Figure 22: Schema Creation in the TCPS Mode - Install on Atomic Schema

- **5.** Enter **Y** to proceed.
- **6.** Schema is created successfully.

Figure 23: Successful Schema Creation in the TCPS Mode

As a result of this procedure, the OFS_OIDF_SCHEMA_OUTPUT.xml file is generated. Do not modify this file.

5.8.4 Execute the Schema Creator Utility when Installing the 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 the Online or Offline mode.

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

- **1.** Edit the Application Schema file.
 - For the RDBMS only mode of installation, edit the file
 OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_IN.xml file
 in a text editor. See the Configure the OFS_OIDF_SCHEMA_IN.xml File section
 for values to modify in the XML file.
 - For the Big Data installation (Stage and Results on Hive), edit the file OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_BIGDATA_I N.xml file in a text editor. See the <u>Configure the</u> <u>OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage and Results on Hive</u> section for values to modify in the XML file.

- For the Big Data installation (Stage on Hive and Results on RDBMS), edit the file OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_BIGDATA_I N.xml file in a text editor. See the Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage on Hive and Results on RDBMS section for values to modify in the XML file.
- **2.** Execute the utility with the -s option.

For Example: ./osc.sh -s -o

Figure 24: Execution of the Schema Creator Utility to install the subsequent Applications Pack

```
/Scratch/ / OFS_AAAI_PACK/schema_creator/bin>./osc.sh -s -o
hellol

You have chosen OFFLINE mode

Triggering the utility in OFFLINE mode will generate the script. Do you wish to proceed? (Y/N):
Y

Java Validation Started ...
Java found in : /scratch/ / J/dkl.8.0_202/bin
JAVA Version found : 18.0_202
JAVA Bit Version found : 64-bit
Java Validation Completed. Status : SUCCESS

B specific Validation Started ...
Enter the DB User Name with the following privileges:
1. CREATE SESSION
2. SELECT on DBA ROLES
3. SELECT on DBA ROLES
5. SELECT on DBA TOLESFACES
Enter the User Name:
sys as systha
Enter the User Name:
sys as systha
Enter the User Password:
Oracle Client version : 18.0.0.0.0. Status : SUCCESS

DB specific Validation Completed. Status : SUCCESS

FALSE -O

Generating Schema Creation Scripts Started

Checking OFSAA installation completed. Status : SUCCESS

FALSE -O

Generating Schema Creation Scripts Started

Checking OFSAA installation for Jound.
Validating the dat file OFS AAAI CFG.dat started...
The path is:/scratch/ OFS AAAI CFG.dat file
Validating the dat file OFS AAAI CFG.dat file
Validating the input XML file.../scratch/ OFS_AAAI PACK/schema_creator/conf
Successfully validated of OFS AAAI CFG.dat file
Validating the input XML file.../scratch/ OFS_AAAI PACK/schema_creator/conf
Successfully validated of OFS AAAI CFG.dat file
Validating Connection URL ...jdbc:: //ccmemicreation of Successfully validated successfully allocated of URL successfully as sysdba URL - jdbc:oracle:thin:@

Validating Connection URL successfully allotated on URL - jdbc:oracle:thin:@

Validating Connection URL successfully allotated on URL - jdbc:oracle:thin:@

Validating Connected to UBL - sys as sysdba URL - jdbc:oracle:thin:@

Validating Connected to UBL - sys as sysdba URL - jdbc:oracle:thin:@

Validating Connected to UBL - sys as sysdba URL - jdbc:oracle:thin:@

Validating Connected to UBL - sys as sysdba URL - jdbc:oracle:thin:@

Validating Connected to UBL - sys as sysdba URL - jdbc:oracle:thin:@
```

After successful schema creation, execute the sysdba_output_scripts.sql file

Figure 25: Execution of the sysdba_output_scripts.sql file to install the subsequent Applications Pack

You must use the same config schema user name as the previous Application Pack.

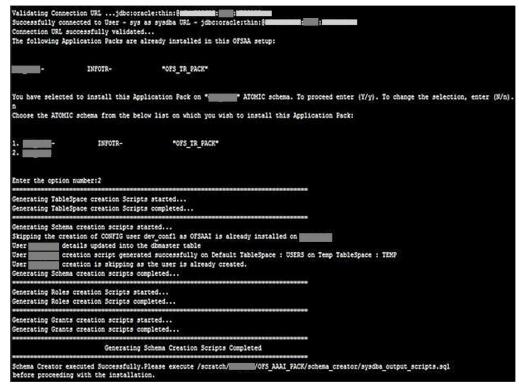
- **3.** The utility identifies the Application Packs that are already installed on the current OFSAA setup and displays the following on the console:
 - Atomic schema of the existing Application Pack
 - Information Domain Name of the existing Pack
 - List of Installed Application Packs

Figure 26: Select the Atomic Schema and Infodom to install the subsequent Applications Pack

```
Generating Schema Creation Scripts Started
Checking OFSAA installation...
Found OFSAA installation at /scratch/
                                       /OFSAAI
Validating the dat file OFS AAAI CFG.dat started...
Successfully validated OFS_AAAI_CFG.dat file
                    /OFSAAI/conf/DynamicServices.xml
Parsing /scratch/
Successfully connected to User - dev_conf1 URL - jdbc:oracle:thin:0
Validating the input XML file.../scratch/
                                            OFS AAAI PACK/schema creator/conf/OFS AAAI SCHEMA IN.xml
Input XML file validated successfully.
Validating Connection URL ...jdbc:oracle:thin:@
Successfully connected to User - sample URL - jdbc:oracle:thin:@d
Connection URL successfully validated...
You have chosen to install this Application Pack on "
                                                                      " ATOMIC sche
ma. Do you want to proceed? (Y/N)
You have chosen to install this Application Pack on INFODOM "
                                                                            ". Do y
ou want to proceed? (Y/N)
```

4. Select the Atomic User on which you need to install the Application Pack.

Figure 27: Successful Schema creation to install the subsequent Applications Pack



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

Success. Please proceed with the installation.

See If there are any errors, contact Oracle Support Services.

5.9 Verify the Schema Creator Log Files

See the following logs directory for more information:

- OFS OIDF PACK/schema creator/logs/
- The log file sysdba_output_scripts.log in the
 OFS_OIDF_PACK/schema_creator/logs/directory for execution status if
 executed in offline mode. This log will be empty if there are no errors in the
 execution.

5.10 Install the OIDF Application Pack

ATTENTION:

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

- 3. Configure the OS File System Settings and Environment Settings in the .profile File
- 4. Configure the OFS_OIDF_PACK.xml File
- 5. Configure the OFS_OIDF_SCHEMA_IN.xml File (for RDBMS installation)
- 6. Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage and Results on Hive or Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage on Hive and Results on RDBMS (for Big Data installation)
- 7. <u>Configure the OFSAAI InstallConfig.xml File</u> (do not configure this file if an installation of OFSAAI 8.1.2.0.0 already exists.)
- 8. Configure the Silent.props File
- 9. Silent.template for RDBMS
- 10. <u>Silent.BIGDATA.template for Stage and Results on Hive or Silent Hybrid.template for Stage on Hive and Results on RDBMS.</u>
- 11. Execute the Schema Creator Utility

NOTE:

Before installing the OIDF Application Pack in the Big Data mode of Stage on Hive and Results on RDBMS, install the OIDF Application Pack in the RDBMS mode .

To install the OIDF Application Pack v8.1.2.0.0, 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 using the following command:
 - . ./.profile
- **4.** For the Big Data mode of installation, give access permission using the following command:

```
chmod -R 775 ftpshare ftpshareh $FIC HOME libs
```

5. Create a folder kit/<release number> in the user's home.

For example:/scratch/ofsaa/kit/81200

6. For the Big Data mode of installation, place the installer zip folder in the path mentioned in the previous step, and then extract the installer using the following command:

```
unzip -a OFS OIDF 8.1.2.0.0 <Operating System>.zip
```

NOTE:

After the extraction, if you have a space issue, delete the .zip file.

- 7. For the Big Data mode of installation, ensure that the ofsaa-hive-udf.jarfile is present in the HiveAuxDir directory and spark2 lib is present in the CDH installed server. If it is a cluster, then each node must consist of the file in these locations:
 - /scratch/ofsaa/kit/<Release_Version>/OFS_OIDF_PACK/OFS_AAAI_ PACK/fichome/utility/DMT/UDF/lib/ofsaa-hive-udf.jar
 - SPARK2 lib directory
- **8.** If you are installing on the Big Data infodom, then navigate to the OFS OIDF PACK/OFS OIDF/conf/ directory:
 - For Stage and Results on Hive, do the following:
 - i. Rename the default.properties file to default.properties RDBMS.template.
 - **ii.** Rename the default.properties.BIGDATA.template file to default.properties.
- **9.** Navigate to the following directory:

```
OFS OIDF Pack/bin/
```

10. Execute the OIDF Application Pack installer in the SILENT mode using the following command:

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

Figure 28: Execute the OIDF installer in the SILENT mode

```
/scratch/www./kit/OFS_OIDF_PACK/bin>clear
/scratch/www./kit/OFS_OIDF_PACK/bin>./setup.sh SILENT
Current OS Type --- Linux
FIC_HOME : /scratch/www./OFSAAI
Environment check utility started...
```

The installer proceeds with the Pre-installation Checks.

Figure 29: Pre-installation Checks

```
nvironment Variables Validation Started ...
ORACLE_HOME : /scratch/
                                                  /product/19.3.0.0/
TNS ADMIN : /scratch/
nvironment Variables Validation Completed. Status : SUCCESS
S specific Validation Started ...
Checking en_US.utf8 locale. Status : SUCCESS Unix shell found : /bin/ksh. Status : SUCCESS
Total file descriptors : 65536. Status : SUCCESS
Total number of process : 65536. Status : SUCCESS
OS version : 7. Status : SUCCESS
S specific Validation Completed. Status : SUCCESS
B specific Validation Started ...
Oracle Client version : 19.0.0.0.0. Status : SUCCESS
lient version 19.0
Successfully connected to schema
CREATE SESSION has been granted to user. Status : SUCCESS
CREATE PROCEDURE has been granted to user. Status : SUCCESS
CREATE VIEW has been granted to user. Status : SUCCESS
CREATE TRIGGER has been granted to user. Status : SUCCESS CREATE MATERIALIZED VIEW has been granted to user. Status : SUCCESS
CREATE TABLE has been granted to user. Status : SUCCESS
CREATE SEQUENCE has been granted to user. Status : SUCCESS
SELECT privilege is granted for NLS_INSTANCE_PARAMETERS view. Current value : READ. Status : SUCCESS
NLS_LENGTH_SEMANTICS : BYTE. Current value : BYTE. Status : SUCCESS
NLS_CHARACTERSET : AL32UTF8. Current value : AL32UTF8. Status : SUCCESS
NLS_CHARACIENSEI: ALSZOIFG. CUFFERT VALUE: ALSZOIFG. STATUS: SOUCLESS

SELECT privilege is granted for V_$parameter view. Current value: SELECT. Status: SUCCESS

Open cursor value is greater than 1000. Current value: 1000. Status: SUCCESS

SELECT privilege is granted for USER_TS_QUOTAS view. Current value: READ. Status: SUCCESS

Schema is granted with at least 500 MB table space. Current value: Unlimited. Status: SUCCESS
racle db version 19
racle db R2 version 19.0
Oracle Server version Current value : 19.0.0.0.0. Status : SUCCESS
B specific Validation Completed. Status : SUCCESS
nvironment check utility Status : SUCCESS
```

11. Enter the OFSAA Processing Tier FTP/SFTP password value and proceed, when prompted in the command prompt.

Figure 30: OFSAA Processing Tier FTP/SFTP Password Prompt

NOTE:

Enter the password to access the Product Staging/Metadata repository directory FTPSHARE in the application server.

For the Big Data mode of installation, enter the Hive Server SFTP/FTP password value, when prompted at the command prompt.

NOTE:

Enter the password to access the OIDF Hive directory FTPSHAREH in the application server.

12. The process displays the OFSAA License. Enter **Y** and proceed.

Figure 31: The OFSAA License Agreement

```
OFSAA APPLICATION FACK LICENSE AGREEMENT

* Oracle Financial Services Analysical Applications (OFSAA) application packs are groups of OFSAA products packaged together into a single installer. Each application pack oracle Financial Services Analysical Applications (OFSAA) application pack installers

1. Oracle Financial Services Analysical Applications Infrastructure application options which are automatically installed by every application pack installers

2. Oracle Financial Services Manylical Applications Infrastructure (OFS AAI) is the base infrastructure for all OFSAA applications and is therefore automatically installed and enabled by the application pack installer.*

* The application pack installer always installs oracle Financial Services English and Oracle Financial Services and Processing application options along with the application pack installer always installs oracle Financial Services English and Oracle Financial Services English application that requires their function of the Services English and Oracle Financial Services English application for that is enabled using the "Manage OFSAA Product License Modeling, Oracle Financial Services English and Oracle Financial Services English application that services English and Oracle Financial Services English application for the services English Processing are individually licensable application options.

**Application that is enabled cannot be disabled. Application products not enabled on installation, may later be enabled using the "Manage OFSAA Product License (s)" feature of the platform.*

**Application the services and conditions mentioned above? [T/N]:
```

13. The installer installs the OFSAAI application.

Figure 32: OFSAAI Silent Mode Installation

14. After OFSAAI is installed, the OIDF Application Pack installation begins.

Figure 33: OIDF Application Pack Installation

- The Data Model upload may take several hours to complete. You can check the installation logs in the /OFS_OIDF_PACK/OFS_OIDF/logs/ directory.
- For the existing customers, with the DB XML, the time taken for the Data Model upload will be significantly reduced. You can upload the warehouse data from the operational systems to the database schema using the erwin XML or Database XML file. Using the stand-alone command-line utility for the TransformErwin.sh file, you can transform erwin XML into Database XML, and use the DB XML instead of erwin XML to speed up the model upload process. For more information, see the Command Line Utility for Transforming erwin XML to Database XML section in the Oracle Financial Services Advanced Analytical Applications Infrastructure User Guide Release 8.1.2.0.0.
- **15.** When the installation is complete, the following message is displayed in the console: *Installation complete...*

Figure 42: OIDF Application Pack Installation Complete

```
BUILD SUCCESSFUL
Total time: 3 minutes 27 seconds
Shutdown of OFSAAI services started...
nohup: appending output to 'nohup.out'
Shutdown of OFSAAI services done.
OFSAA App Layer Services start-up check started...
Starting startofsaai.sh service...
OFSAA Service - OK
Starting icc service...
ICC service - OK
Shutting down icc service...
Shutting down OFSAA service...
OFSAAI App Layer Services check Status: SUCCESSFUL.
OFSAAI DB Layer Services check started...
Calling agentshutdown.sh to check and kill, if any of the server is running...
MESSAGE Server service is not running.
AM service is not running.
ROUTER service is not running.
Starting ROUTER Service
ROUTER service started in background mode.
Starting AM Service
AM service started in background mode.
Starting MESSAGE SERVER Service
MESSAGE SERVER service started in background mode.
Stop MESSAGE Server service with Proces ID: 29631
Stop AM service with Proces ID: 29611
Stop ROUTER service with Proces ID: 29594
OFSAAI DB Layer File Services check Status: SUCCESSFUL.
Installation completed...
```

- **16.** The OFSAA Infrastructure installation performs a post-install health check automatically on the successful installation of the product.
- **17.** To verify if the release is applied successfully, check the log files mentioned in the section <u>Verify the Log File Information</u>.
- **18.** For the Big Data installation mode of installation (Stage and Results on Hive), follow these steps:

During both of the Big Data installation processes, for the Big Data SQL to refresh the data, ensure to truncate the Stage tables during the second time and onwards, and then load the data. Truncation is not required during the first time.

- If the OIDF installation machine and the Cloudera machine are different, then follow these steps:
 - i. Create a folder in the Cloudera machine.

For the list of CSV files, see the <u>Oracle Insurance Data Foundation Application</u> Pack Runchart Release 8.1.2.0.0 file.

- **iii.** Copy the shell script load-csv-hdfs-run.sh from the \$FIC_DB/bin/directory to the Cloudera machine folder mentioned in the first step.
- **iv.** Log in as the user having access to Hive in the Cloudera machine, and provide 775 permission to the <code>load-csv-hdfs-run.shfile</code> using the following command:

```
chmod -R 775 load-csv-hdfs-run.sh
```

- If the OIDF installation machine and the Cloudera machine are the *same*, then follow steps:
 - **i.** Create a directory in the Hive user's home and place the required CSV files in that directory.

NOTE:

For the list of CSV files, see the <u>Oracle Insurance Data Foundation Application</u> Pack Runchart Release 8.1.2.0.0 file.

- iii. Copy the shell script file load-csv-hdfs-run.sh from the \$FIC_DB/bin/ directory to the Cloudera machine folder mentioned in the first step.
- iv. Log in as the user having access to Hive in the Cloudera machine, and provide 775 permission to the load-csv-hdfs-run.sh file using the following command:

```
chmod -R 775 load-csv-hdfs-run.sh
```

v. To load the seeded data, run the following command:

```
./load-csv-hdfs-run.sh <HDFS_TEMP_DIR>
<HIVE SCHEMA NAME>
```

For example:

./load-csv-hdfs-run.sh /user/ofsaa/load datadom810

NOTE:

 ${\tt HDFS_TEMP_DIR}$ is not the Hive warehouse directory. Also, ensure that the path is not the Hive Metastore directory.

The script requires two parameters. They are <code>HDFS_TEMP_DIR</code> and <code>HIVE DATABASE NAME</code>.

```
Here, HDFS_TEMP_DIR is
/user/<Cloudera_hive_user_name>/<Any_Name>.
```

19. For the Big Data installation mode of installation (Stage on Hive and Results on RDBMS), follow these steps:

Grant the BIGDATA_SQL user privilege to all the schemas.

For example:

```
grant BDSQL_USER to <CONFIG SCHEMA>;
grant BDSQL_USER to <ATOMIC SCHEMA1>;
grant BDSQL_USER to <ATOMIC SCHEMA2>;
grant all privileges to <ATOMIC SCHEMA1>;
In $FIC_HOME/ficdb/bin, execute the file
externaltablecreator_OIDF.sh with these arguments:
$userId = SYSADMN
$infodom = RDBMS_INFODOM
$dbAlias= RDBMS_INFODOM Metadom alias
$hiveSchema = Hive Schema Name
$directory = Warehouse Directory(with double quotes)
$user connection url = metadomUID/password@SID
```

For example:

```
./externaltablecreator_OIDF.sh SYSADMN OIDFINFO META bszbdsdatadom "\"ORA_BIGDATA_CL_cluster\" " <ATOMIC SCHEMA1>/password123@OFSAA
```

NOTE

- When creating an External Table, ensure that the Hive Schema Name is in lowercase
- Disregard the NullPointerException error during the External Table execution.
- For more information about the External Tables, see the <u>Verify the External Tables Utility of Oracle</u> section.
- **20.** Perform the steps mentioned in the <u>Post-installation</u> section. For additional configuration information, see the <u>Additional Configuration</u> section.

5.11 Install a New OIDF Application Pack on an Existing OFSAA Instance

This is an installation scenario, where you have already installed an application pack from Release v8.1.2.0.0 and now you need to install the OIDF Application Pack from Release

v8.1.2.0.0. For example, the OFS CAP Application Pack v8.1.2.0.0 is already installed and now you need to install the OIDF Application Pack v8.1.2.0.0.

- 1. Configure the OFS OIDF PACK.xml File.
- **2.** Configure the Schema Creator Utility:
 - Configure the OFS_OIDF_SCHEMA_IN.xml File (for RDBMS installation)
 - Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage and Results on Hive (for Big Data installation)
 - Configure the OFS_OIDF_SCHEMA_BIGDATA_IN.xml file for Stage on Hive and Results on RDBMS (for the Big Data mode of installation)

NOTE:

Configuring the OFSAAI_InstallConfig.xml file is not required in this scenario.

- 3. Configure the Silent.props File
 - Silent.template for RDBMS
 - Silent.BIGDATA.template for Stage and Results on Hive
 - Silent_Hybrid.template for Stage on Hive and Results on RDBMS
- **4.** Execute the Schema Creator Utility

NOTE:

While defining the schema details for the application packs, provide the same schema details given in the previous v8.1.2.0.0 installation of the other application pack. The output file $OFS_OIDF_SCHEMA_OUTPUT.xml$ is generated as a result of the schema creation process.

- **5.** Trigger the Installation.
- **6.** Verify the Log File Information.
- **7.** Do the <u>Post-installation</u> steps. For additional configuration information, see the <u>Additional Configuration</u> section.

6 Use Oracle Autonomous Data Warehouse as the Database for OIDF

This section explains the deployment procedure of Oracle Insurance Data Foundation (OIDF) on Oracle Autonomous Data Warehouse (ADW).

Topics:

- Oracle Autonomous Data Warehouse
- Deployment Architecture for ADW Certification
- Download Client Credentials (Wallet)
- Using a JDBC URL Connection String with JDBC Thin Driver
- Installation Notes Specific to ADW
- Loading Data into OIDF
- Additional Note

6.1 Oracle Autonomous Data Warehouse

Oracle Autonomous Database is Oracle's new, fully managed database tuned and optimized for both data warehouse and transaction processing workloads with the market-leading performance of the Oracle Database. It delivers a completely new, comprehensive cloud experience for data warehousing and transaction processing workloads that is easy, fast, and elastic and requires no database administration.

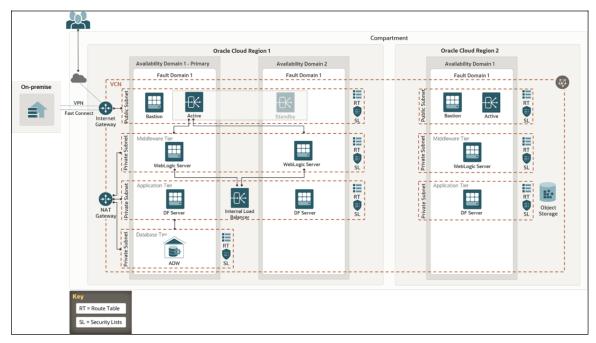
OIDF being an analytical data warehouse platform, it is qualified for ADW.

When you create an Autonomous Data Warehouse database, you can deploy it to one of two kinds of Exadata infrastructure:

- **Shared:** A simple and elastic choice. Oracle autonomously operates all aspects of the database life cycle from database placement to backup and updates.
- Dedicated: A private cloud in public cloud choice. A completely dedicated compute, storage, network and database service for only a single tenant. Dedicated infrastructure provides for the highest levels of security isolation and governance. The customer has customizable operational policies to guide Autonomous Operations for workload placement, workload optimization, update scheduling, availability level, over provisioning and peak usage.

6.2 Deployment Architecture for ADW Certification

The following illustration depicts the deployment architecture used for the ADW certification.



The deployment architecture consists of two Availability Domains used for OFSAA and WebLogic Server in the same Oracle Cloud Infrastructure (OCI) Compartment. Oracle Identity Cloud Service (IDCS) can be used to log in. The Load Balancer (LB) redirects the request to respective compute.

Both Availability Domain 1 and Availability Domain 2 computes use the ID-RSA key to transact between the nodes. The WebLogic Servers and DF Servers are configured to connect the ADW OFSAA schemas with the Wallet files.

Currently, Autonomous Database (ADB) provides 99.95% availability during any calendar month. For customers that need high availability, Autonomous Data Guard provides failover protection.

6.3 Download Client Credentials (Wallet)

Oracle client credentials (wallet files) are downloaded from Autonomous Data Warehouse by a service administrator. If you are not an Autonomous Data Warehouse administrator, your administrator must provide you with the client credentials.

To download the client instance (Wallet), you can use the following consoles:

- Oracle Cloud Infrastructure (OCI) console
- Autonomous Data Warehouse Service console

See the **Download Client Credentials (Wallets)** for more information.

6.4 Using a JDBC URL Connection String with JDBC Thin Driver

The connection string is found in the file tnsnames.ora which is a part of the client credentials download. The tnsnames.ora file contains the predefined services identifiable as high, medium, and low. Each service has its own TNS alias and connection string. See Predefined Database Service Names for Autonomous Data Warehouse for more information.

The following is a sample entry with <code>dbname_low</code> as the TNS alias and a connection string in the <code>tnsnames.ora</code> file:

6.5 Installation Notes Specific to ADW

This section provides additional steps applicable to the installation on ADW in OFSAA for OIDF.

6.5.1 Hardware and Software Requirements

For OIDF qualification on ADW, the following software are used:

- Database is ADW
- Web application server is Oracle WebLogic Server 14.x

See the <u>Oracle Financial Services Analytical Applications (OFSAA) Technology Matrix</u> <u>Release 8.1.2.0.0</u> for the hardware and software required for the installation of OIDF Application Pack Release 8.1.2.0.0.

6.5.2 Configure the Schema Creator Utility

The modifications applicable to configuring the schema creator utility for the OIDF installation on ADW are provided in this section.

NOTE:

The schema creator utility configuration is applicable for the OIDF installation on ADW also. See the <u>Configure the Schema Creator Utility</u> section for more information. The modifications applied to the OIDF installation on ADW are mentioned in this section.

The ADW specific modifications are as follows:

 When configuring the OFS_OIDF_SCHEMA_IN.xml file for ADW, follow these modifications: Set the <IS TCPS> tag to TRUE:

```
<IS TCPS>TRUE</IS TCPS>
```

NOTE:

The connections to ADW is through the ADW Wallet. Therefore, the <IS TCPS> tag must be always set to TRUE for OIDF installation on ADW.

- The tag <OPTION NAME="TDE" VALUE="TRUE"/> can be commented out because ADW is secure by default.
- Tha tag <TABLESPACES> can be commented out because ADW does not consider the TABLESPACES inputs.
- This is a sample of the <JDBC_URL> tag for connecting to the ADW:
 <JDBC URL>jdbc:oracle:thin::@##dbname## low</JDBC URL>

See the sections <u>Using a JDBC URL Connection String with JDBC Thin Driver</u>, <u>JDBC Thin Connections and Wallets</u> and <u>Predefined Database Service Names for Autonomous Data Warehouse</u> for more information about the predefined database service names for ADW.

6.5.3 OFSAAI Installation Notes Specific to ADW

The additional steps applicable to the OFSAAI installation on ADW are as follows:

NOTE:

OFSAAI installation is applicable for the OFSAAI on ADW also. See the <u>Oracle Financial Services Advanced Analytical Applications Infrastructure Installation Guide Release 8.1.2.0.0</u> for the detailed installation procedure. The additional steps applicable to the OFSAAI installation on ADW are mentioned in this section.

- 1. Extract the Wallet_<databasename>.zip folder into the directory path \$HOME/Wallet_<databasename>, where you are going to install OIDF on the OCI OEL 7.X virtual machine instance. This directory is also called as the WALLET_HOME. For information about downloading the Wallet for ADW, see Download Client Credentials (Wallets).
- **2.** WALLET_HOME=/home/Wallet_<databasename>.zip

Example:

/u02/ofsa/Wallet_OFSADB

3. For the above-mentioned directory, set the TNS_ADMIN in the .profile file. Edit the sqlnet.ora file for the Wallet path and other directives.

Example:

The contents of the sqlnet.ora files are as following:

```
SQLNET.WALLET_OVERRIDE = TRUE
WALLET_LOCATION = (SOURCE = (METHOD = file) (METHOD_DATA =
(DIRECTORY="/u02/ofsa/Wallet_OFSADB")))
SSL SERVER DN MATCH=yes
```

4. For the above-mentioned directory, set the parameter IS_ADW=TRUE in the .profile file, and point the ORACLE_HOME parameter to the Oracle Database 19c Client installation path.

Example:

Sample of the .profile file contents for OIDF with ADW on OCI is follows:

```
export FIC_HOME=/u02/ofsa/OFSAHOME
export TNS_ADMIN=/u02/ofsa/Wallet_OFSADB
export ORACLE_HOME=/u01/app/oracle/product/19.3.0/client_1
export JAVA_HOME=/usr/java/jdk1.8.0_121
export JAVA_BIN=/usr/java/jdk1.8.0_121/bin
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
export PATH=$ORACLE_HOME/bin:$JAVA_HOME:$JAVA_BIN:$PATH
export IS ADW=TRUE
```

- **5.** Follow the OFSAAI 8.1.0.0.0 installation procedure that supports TCPS. See the Oracle Financial Services Advanced Analytical Applications Infrastructure Installation Guide Release 8.1.2.0.0.
 - **a.** Before excecuting the Schema Creator utility, ensure to <u>Configure the Schema Creator Utility</u>.
 - **b.** Execute the Schema Creator utility:

Example:

```
$./osc.sh -s TCPS /u02/ofsa/Wallet OFSADB
```

This prompts you to enter USER having SYSDBA privileges.

Enter the ADMIN and password details provided to you during the ADW provisioning.

See the <u>Oracle Financial Services Advanced Analytical Applications Infrastructure</u> <u>Installation Guide Release 8.1.2.0.0</u> for more information.

6.5.4 OIDF Installation Notes Specific to ADW

The additional steps applicable to the OIDF installation on ADW are mentioned in this section.

NOTE:

OIDF installation is applicable for the OIDF on ADW also. See the <u>Install the OIDF Application Pack</u> section for the detailed installation procedure. The additional steps applicable to the OIDF installation on ADW are mentioned in this section.

The ModelUpgrade utility was triggered using the TCPS mode during installation on ADW because the connections to ADW is through the ADW Wallet.

The files configured for the OIDF installation are same for the OIDF installation on ADW also.

When configuring the OFSAAI_InstallConfig.xml file for ADW, follow these modifications:

- The <InteractionGroup name="OLAP Detail"> tag is not supported in ADW.
- Ensure to provide ADW database details similar to the following sample of the <InteractionGroup name="Database Details"> tag:

<InteractionGroup name="Database Details"><InteractionVariable
name="ORACLE_SID/SERVICE_NAME">##dbname##_low</InteractionVari
able><InteractionVariable
name="ABS_DRIVER_PATH">/u01/app/oracle/product/19.3.0/client_1
/jdbc/lib</InteractionVariable></InteractionGroup>

6.5.5 Installation of OIDF on ADW

Follow the OFSAAI 8.1.2.0.0 installation procedure and OIDF 8.1.2.0.0 installation procedure.

Execute the ./setup.sh command.

See the <u>Oracle Financial Services Advanced Analytical Applications Infrastructure Installation Guide Release 8.1.2.0.0</u> for installation and post-installation procedure required for OFSAAI with TCPS.

See the <u>Install the OIDF Application Pack</u> section for installation and the <u>Post-installation</u> section for the post-installation procedure required for OIDF with TCPS.

6.6 Loading Data into OIDF

For the OIDF deployment on ADW, the Object Store mechanism has been used as the repository for the inbound data.

The following steps were performed to load data to the OIDF schema on the ADW environment and to execute the OIDF batches:

- Importing Data into OIDF on ADW Using the OCI Object Storage
- Batch Execution in OIDF

6.6.1 Importing Data into OIDF on ADW Using the OCI Object Storage

To import data into OIDF using the Object Storage, follow these steps:

- **1.** To create an Object Storage in the OCI and load data into ADW, see Import Data Using Oracle Data Pump on Autonomous Data Warehouse.
- **2.** To choose appropriate mode to import data into schema, see Examples of Using
 Data Pump Import for the data pump examples with all the possible ways to import data.

6.6.2 Batch Execution in OIDF

To execute the OIDF batches, follow these steps:

- **1.** Log in to ADW OFSAA schemas and check the load status.
- **2.** Execute the OIDF batches. The tasks executed and data moved successfully to target as are follows:
 - ##INFODOM## POP DATES DIM
 - ##INFODOM## MASTER
 - ##INFODOM## DATA FOUNDATION SCD
 - ##INFODOM## DIM ACCOUNT SCD
 - ##INFODOM## POP MAPPER DATA
 - OIDF Source Run
 - OIDF Exe Run

See the <u>Oracle Insurance Data Foundation Application Pack User Guide Release 8.1.2.0.0</u> for more information about the OIDF batch execution.

6.7 Additional Note

Currently, OIDF Release 8.1.2.0.0 is the qualified for deployment on the ADW.

For more information, log a service request on My Oracle Support (MOS).

7 Post-installation

This section provides information for Post-installation required for the OIDF Application Pack.

Topics:

- Verify the Log File Information
- Stop the Infrastructure Services
- Create and Deploy the EAR/WAR Files
- EAR/WAR File Build Once and Deploy Across Multiple OFSAA Instances
- Start the Infrastructure Services
- Access the OFSAA Application
- OFSAA Landing Page
- Configure the excludeURLList.cfg File
- Configure the Big Data Processing
- Create the Application Users
- Map the Application User(s) to User Group
- Change the ICC Batch Ownership
- Add TNS entries in the TNSNAMES.ORA File
- Configure Transparent Data Encryption (TDE) and Data Redaction in OFSAA
- Implement Data Protection in OFSAA

NOTE:

See the *Post-Installation* section in the <u>Oracle Financial Services Advanced</u> <u>Analytical Applications Infrastructure Installation Guide Release 8.1.2.0.0</u> to complete these procedures.

For additional configuration information, see the <u>Additional Configuration</u> section.

7.1 Verify the Log File Information

See the following logs files for more information:

- Pack Install.log file in the OFS OIDF PACK/logs/ directory.
- OFS_OIDF_installation.log file and the OFS_OIDF_installation.err file in the OFS_OIDF_PACK/OFS_OIDF/logs directory.

- Infrastructure installation log files in the OFS_OIDF_PACK/OFS_AAI/logs/ directory.
- OFSAAInfrastucture_Install.log file in the \$FIC_HOME directory.

ATTENTION:

- You can ignore the "ORA-00001: unique constraint" error, and Object
 already exists and Table has a primary key warnings for the
 OFSA_CATALOG_OF_LEAVES table in the log file.
- In case of any other errors, contact <u>My Oracle Support (MOS)</u>.

7.2 Stop the Infrastructure Services

See the <u>Stop the Infrastructure Services</u> section in the *OFSAAI Release 8.1.2.0.0 Installation* and Configuration Guide for details.

7.3 Create and Deploy the EAR/WAR Files

See the <u>Create and Deploy the EAR/WAR Files</u> section in the *OFSAAI Release 8.1.2.0.0 Installation and Configuration Guide* for details.

7.4 EAR/WAR File - Build Once and Deploy Across Multiple OFSAA Instances

See the <u>EAR/WAR File</u> - <u>Build Once and Deploy Across Multiple OFSAA Instances</u> section in the *OFSAAI Release 8.1.2.0.0 Installation and Configuration Guide* for details.

7.5 Start the Infrastructure Services

See the <u>Start the Infrastructure Services</u> section in the *OFSAAI Release 8.1.2.0.0 Installation and Configuration Guide* for details.

7.6 Access the OFSAA Application

See the <u>Access the OFSAA Application</u> section in the *OFSAAI Release 8.1.2.0.0 Installation and Configuration Guide* for details.

7.7 OFSAA Landing Page

See the <u>OFSAA Landing Page</u> section in the *OFSAAI Release 8.1.2.0.0 Installation and Configuration Guide* for details.

7.8 Configure the excludeURLList.cfg File

See the section <u>Configure the excludeURLList.cfg File</u> in the *OFSAAI Release 8.1.2.0.0 Installation and Configuration Guide* for details.

7.9 Configure the Big Data Processing

This section is not applicable if you have enabled Financial Services Big Data Processing during the installation of OIDF 8.1.2.0.0 full installer. Follow instructions in this section if you intend to enable Big Data Processing.

Topics:

- Copy the Jar Files to the OFSAA Installation Directory
- Copy the KEYTAB and KRB5 Files in OFSAAI
- Configure the Apache Livy Interface
- Verify the External Tables Utility of Oracle

7.9.1 Copy the Jar Files to the OFSAA Installation Directory

- 1. Download the supported <u>Cloudera HIVE JDBC Connectors</u> and copy the following jars files to the \$FIC_HOME/ext/lib/ and \$FIC_WEB_HOME/webroot/WEB-INF/lib/ directory. For the latest supported versions, see <u>OFSAA Technology Matrix</u> v8.1.2.0.0.
 - hive service.jar
 - hive metastore.jar
 - HiveJDBC4.jar
 - zookeeper-3.4.6.jar
 - TCLIServiceClient.jar
- 2. Copy the following jars files from the <Cloudera Installation Directory>/jars/directory based on the CDH version to the \$FIC_HOME/ext/lib/ and \$FIC_WEB_HOME/webroot/WEB-INF/lib/directories.
 - CDH v5.13.0:
 - commons-collections-3.2.2.jar
 - commons-configuration-1.7.jar
 - commons-io-2.4.jar
 - commons-logging-1.2.jar
 - hadoop-auth-2.6.0-cdh5.13.0.jar

```
- hadoop-common-2.6.0-cdh5.13.0.jar
```

- hadoop-core-2.6.0-mr1-cdh5.13.0.jar
- hive-exec-1.1.0-cdh5.13.0.jar
- httpclient-4.3.jar
- httpcore-4.3.jar
- libfb303-0.9.3.jar
- libthrift-0.9.3.jar
- slf4j-api-1.7.5.jar
- slf4j-log4j12-1.7.5.jar
- CDH v6.3.0:
 - commons-collections-3.2.2.jar
 - commons-configuration2-2.1.1.jar
 - commons-io-2.6.jar
 - commons-logging-1.2.jar
 - hadoop-auth-3.0.0-cdh6.3.0.jar
 - hadoop-common-3.0.0-cdh6.3.0.jar
 - hive-exec-2.1.1-cdh6.3.0.jar
 - httpclient-4.5.3.jar
 - httpcore-4.4.6.jar
 - libfb303-0.9.3.jar
 - libthrift-0.9.3.jar
 - slf4j-api-1.7.25.jar
 - slf4j-log4j12-1.7.25.jar

7.9.2 Copy the KEYTAB and KRB5 Files in OFSAAI

A Keytab is a file containing pairs of Kerberos principals and encrypted keys (these are derived from the Kerberos password). The krb5.conf file contains Kerberos configuration information, including the locations of KDCs and admin servers for the Kerberos realms of interest, defaults for the current realm, and Kerberos applications, and mappings of hostnames onto Kerberos realms.

If the Authentication is configured as KERBEROS_WITH_KEYTAB for the Hive database, then you must use the Keytab file to login to Kerberos. The Keytab and Kerberos files must be copied to flet and flet and flet webroot/conf of the OFSAAAI installation directory.

Generate the application EAR/WAR file and redeploy the application onto your configured web application server.

Restart the Web application server and the OFSAAAI Application Server. For more information, see the <u>Start the Infrastructure Services</u> section.

7.9.3 Configure the Apache Livy Interface

Apache Livy is an Interface service that enables easy interaction with a Spark cluster over a REST interface.

Topics:

- Configure Spark
- Set metastore Path for Spark
- Cluster Configuration

Do the following configuration for the Big Data mode of installation.

7.9.3.1 Configure Spark

To configure Spark, you must configure crossJoin.

NOTE:

This section is applicable only during the Stage and Results on Hive installation.

To configure crossJoin, follow these steps:

- 1. Open the Cloudera Manager application.
- 2. Navigate to SPARK2 select Configuration, and search the spark-defaults.conf file.

For example:

/etc/spark2/conf.cloudera.spark2 on yarn/spark-defaults.conf

- **3.** Set the parameter **spark.sql.crossJoin.enabled** to **true**.
- **4.** Set the parameter **spark.executor.memory** to **10g**.

NOTE:

When the Spark memory settings are set to low values, T2T execution fails. To resolve this, adjust the value of the spark.executor.memory variable.

7.9.3.2 Set metastore Path for Spark

To set the metastore path for Spark, follow these steps:

This section is applicable during both the installation processes in Big Data.

1. Copy the hive-site.xml file from the hive conf directory to the SPARK2 conf directory.

For example:

```
cp /etc/hive/conf.cloudera.hive/hive-site.xml
/etc/spark2/conf.cloudera.spark2 on yarn
```

2. Edit the hive-site.xml file to add the following entries in the SPARK2 conf directory:

Table 32: Edit the hive-site.xml File

On hive conf	In SPARK2 conf
<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>
<pre><name>hive.metastore.warehouse.dir</name></pre>	<pre><name>spark.sql.warehouse.dir</name></pre>
<value>/user/hive/warehouse</value>	<value>/user/hive/warehouse</value>

NOTE:

When Cloudera is configured for a cluster, then all the nodes must adhere to this configuration.

7.9.3.3 Cluster Configuration

Configure DMT to provide Apache Livy Interface details.

NOTE:

This section is applicable only during the Stage and Results on Hive installation.

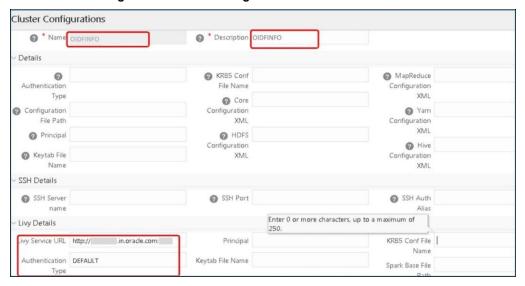
Ensure that you have the appropriate User Role to access this screen. To add a New Cluster, add the appropriate role to the user:

NOTE:

To add a new cluster and then register it, the user must have the DMTADMIN (Data Management Admin) role. Therefore, assign the DMTADMIN role to the user, and ensure to map the DMTADMIN role to the OIDFADMIN user group.

- From the OIDF Home, select Data Management Framework, select Data Management Tools, select DMT Configuration, select Register Cluster, and click Add Cluster.
- **2.** Enter the details as shown in the image. In the Livy Service URL field, enter the Livy Server URL of your environment.

Figure 35: Cluster Configurations



- **3.** To populate data in the DIM_DATES table, navigate to the **Batch Execution** screen. Perform these steps:
 - a. Run the batch OIDFINFO_POP_DATES_DIM_HIVE.

SCD batches (OIDFINFO_DATA_FOUNDATION_SCD, OIDFINFO_DIM_ACCOUNT_SCD) are sequenced with wait mode **Yes** enabled.

NOTE:

OIDFINFO_DATA_FOUNDATION_SCD and OIDFINFO_DIM_ACCOUNT_SCD batches are made sequential.

- b. Click Execute Batch.
- 4. Monitor the status of the batch in the **Batch Monitor** screen of OFSAAI.
- **5.** Execute T2T Batches in the **Process Modelling Framework**.

NOTE:

In the Process Modelling Framework, the OIDF_SOURCED_RUN Runs are made sequential to each other.

7.9.4 Verify the External Tables Utility of Oracle

NOTE

This section is applicable only for the Stage on Hive and Results on RDBMS mode of installation.

After the successful OIDF Application Pack installation in the Big Data mode (Stage on Hive and Results on RDBMS), use the External Tables Utility of Oracle to verify the list of created Hive External Tables. The External Tables Utility of Oracle facilitates Oracle Database to query the data stored outside of the database in the flat files in a way such that they are inside a database. You can create Views and synonyms against these External Tables. As a result, in the Extract Transform and Load (ETL) process of the Data Warehouses, there is no need of staging the data, and you can query the data in parallel. For more information, see External Tables Concepts.

To verify the External Tables created for Big Data, follow these steps:

- **1.** Navigate to the \$FIC_DB_HOME/log/OIDF/ directory.
- **2.** Open the CreateExternalTable.log file. This log file consists of the following acknowledgment for the created External Tables:

Created

- **3.** To verify the External Tables created in the database, follow these steps:
 - **a.** Open the database application.
 - **b.** Expand the **Tables** item. A list of External Tables is displayed.
 - In the query window, you can execute only the Read queries for these External Tables.

For example:

Select * from <external table name>;

7.10 Create the Application Users

Create the application users in the OFSAA setup before use.

For details, see the <u>User Administrator</u> section in the *Oracle Financial Services Analytical Applications Infrastructure User Guide Release 8.1.2.0.0*.

7.11 Map the Application User(s) to User Group

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

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

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

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

Table 33: Seeded	User Groups
------------------	-------------

Name	Description
OIDF Admin	A user mapped to this group will have access to all the menu items for the entire OIDF Application. The exclusive menus which are available only to this group of users are Application Preference and Global Preference under Settings Menu.
OIDF Data Modeler	A user mapped to this group will have access only to Data Model Management and Metadata Browser Menus.
OIDF Analyst	A user mapped to this group will have access to Data Management Framework, Dimension Management, and Metadata Browser Menus.
OIDF Operator	A user mapped to this group will have access to Rule Run Framework and Operations Menus.

7.12 Change the ICC Batch Ownership

All the seeded Batches in the OIDF application are automatically assigned to the SYSADMN user during installation. To see 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.

Example:

```
begin
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP
('SYSADMN','OIDFOP','OFSOIDFINFO');
end;
```

7.13 Add TNS entries in the TNSNAMES.ORA File

See the <u>Add TNS entries in the TNSNAMES.ORA File</u> section in the *OFSAAI Release* 8.1.2.0.0 Installation and Configuration Guide for details.

7.14 Configure Transparent Data Encryption (TDE) and Data Redaction in OFSAA

See the <u>Configure Transparent Data Encryption (TDE) and Data Redaction in OFSAA</u> section in the *OFSAAI Release 8.1.2.0.0 Installation and Configuration Guide* for details.

7.15 Implement Data Protection in OFSAA

See the <u>Oracle Insurance Data Foundation Application Pack Data Protection</u> Implementation Guide Release 8.1.x for details.

8 Upgrade

Topics:

- <u>Upgrade Scenarios</u>
- Prepare for Upgrade
- Upgrade the OIDF Application Pack from v8.1.0.0.0 or a Later Version to v8.1.2.0.0
- Upgrade the OIDF Application Pack from v8.1.0.0.0 or a Later Version to v8.1.2.0.0 on an Existing OFSAA Instance

NOTE:

- The user profile executing the installation must have the permission on /tmp before installation.
- Sufficient space must be available in /tmp before installation, else the installation will terminate, and logs are not generated.

8.1 Upgrade Scenarios

ATTENTION:

Ensure you run the upgrade installer only on the cloned environment.

Table 34: OIDF Release 8.1.2.0.0 Upgrade Scenarios

Scenario	Installation and Upgrade Instructions
Upgrade the OIDF Application Pack from v8.1.0.0.0 or a Later Version to v8.1.2.0.0	1. Clone your existing environment to the OFSAA Technology Matrix v8.1.2.0.0.
In this scenario, you are upgrading the OIDF Application Pack from Release v8.1.0.0.0 or a later version to Release v8.1.2.0.0.	2. Run the Environment Check Utility tool and ensure that the hardware and software requirements are installed as per the OFSAA Technology Matrix v8.1.2.0.0.
	 Update the OFS_OIDF_PACK.xml file to enable ONLY the existing installed applications. Update the Silent.props file present in the OIDF v8.1.2.0.0 installer pack. Trigger the installation.
Upgrade the OIDF Application Pack from v8.1.0.0.0 or a Later Version to v8.1.2.0.0 on an Existing OFSAA Instance In this scenario, an Application Pack of v8.1.2.0.0 is already installed and now you need to upgrade the	 Update the OFS_OIDF_PACK.xml file of the OIDF Application Pack. Update the Silent.props file of the OIDF Application Pack. Run the schema creator utility ONLY for the OIDF

Scenario	Installation and Upgrade Instructions
OIDF Application Pack from v8.1.0.0.0 or a later version to Release v8.1.2.0.0.	Application Pack. 4. Trigger the installation.
Example: OFS CAP v8.1.2.0.0 Application Pack is already installed and now you need to install the OIDF Application Pack.	

8.2 Prepare for Upgrade

This section provides information about the preparations that need to be done before proceeding with the upgrade installation.

Topics:

- Download the OIDF Application Pack Installer and Data Model
- Prepare the Environment for Upgrade

8.2.1 Download the OIDF Application Pack Installer and Data Model

This section provides the details of the download that you need to complete before triggering the application installation.

Topics:

- Download the OIDF Application Pack Installer
- Download the Data Model

8.2.1.1 Download the OIDF Application Pack Installer

To download the OIDF Application Pack installer Release v8.1.2.0.0, follow these steps:

- 1. Log in to the My Oracle Support (MOS) with a valid Oracle account.
- 2. In the **Patches & Updates** tab, search for the OIDF Application Pack installer patch **33024795** and download the patch. Copy the patch to your OFSAA server in the Binary mode in the setup identified for OIDF installation.

NOTE:

The archive files are different for every operating system like AIX, Solaris, and RHEL/Oracle Linux.

8.2.1.2 Download the Data Model

To download the OIDF OOB v8.1.2.0.0 Data Model, follow these steps:

This is an optional section that is applicable if you are performing the customized model upload.

- 1. Log in to the My Oracle Support (MOS) with a valid Oracle account.
- 2. In the **Patches & Updates** tab, search for the OIDF Data Model installer patch **33143379** and download the patch. See the Readme available with the patch for further instructions on downloading the patch and extracting the erwin files.

8.2.2 Prepare the Environment for Upgrade

Before you plan to upgrade any of your application packs to Release 8.1.2.0.0, ensure that all the application packs in your current OFSAA instance are available in the Release 8.1.2.0.0 version. Contact My Oracle Support (MOS) for more information about the release version details.

- **1.** Backup the following environment file from the OFS OIDF PACK/conf/directory:
 - OFS OIDF PACK.xml
- **2.** Backup the following environment files from the OFS OIDF PACK/schema creator/conf/ directory:
 - DBMASTER SC.xml
 - OFS OIDF SCHEMA IN.xml
 - OFS OIDF SCHEMA BIGDATA IN.xml
- **3.** Backup the following environment file from the OFS_OIDF_PACK/OFS_AAI/conf/directory:
 - OFSAAI InstallConfig.xml
- **4.** Ensure that the following property files are present in the OFS_OIDF_PACK/appsLibConfig/conf/ directory and make a backup:
 - Silent upgrade to 812.template
- **5.** See <u>OFSAA Technology Matrix</u> for the hardware and software required to upgrade to the OIDF Application Pack Release 8.1.2.0.0.
- **6.** Enable unlimited cryptographic policy for Java. For more information, see the *Enabling Unlimited Cryptographic Policy* section in the <u>Oracle Financial Services</u> Advanced Analytical Applications Infrastructure Administration and Configuration Guide Release 8.1.x.
- **7.** Clone your environment. For more information, see the <u>Oracle Financial Services</u> Analytical Applications Infrastructure Cloning Reference Guide Release 8.1.x.
- **8.** Execute the following SQL query in the Atomic Schema:

update rev_tables_b set version=0 where version is null;

commit;

8.3 Upgrade the OIDF Application Pack from v8.1.0.0.0 or a Later Version to v8.1.2.0.0

In this scenario, you are upgrading the OIDF Application Pack from v8.1.0.0.0 or a later version to v8.1.2.0.0.

NOTE:

If you are upgrading the OFSAA Application Pack to the release v8.1.2.0.0, to ensure successful deployment, you must upgrade the other packs installed in the same environment to the release v8.1.2.0.0.

Topics:

- Clone Your Existing Environment
- Extract the Software
- Update the OFS OIDF PACK.xml File
- Update the Silent.props File
- Execute the Schema Creator Utility
- Trigger the Installation
- Verify the Log File Information
- Post-installation Steps
- Additional Configuration

8.3.1 Clone Your Existing Environment

Clone your existing environment to the v8.1.2.0.0 of <u>OFSAA Technology Matrix</u>. For more information, see the <u>Oracle Financial Services Analytical Applications Infrastructure</u> Cloning Reference Guide Release 8.1.x.

ATTENTION:

- This step is required if you need to move from the Linux 7 to Linux 8 version.
- Always ensure you run the upgrade installer only on the cloned environment.

8.3.2 Extract the Software

You need to be logged in to the UNIX Operating System as a non-root user to perform the following steps. To extract the OIDF Application Pack software, follow these steps:

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

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

2. Assign the 751 permission to the file using the following command:

```
chmod 751 unzip_<os>
For example, chmod 751 unzip sparc
```

3. Extract the contents of the OIDF Application Pack Release v8.1.2.0.0 installer archive file in the download directory using the following command:

```
unzip OFS_OIDF_8.1.2.0.0_<Operating_System>.zip
```

NOTE

Do not rename the Application Pack installer folder name on extraction from the archive.

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

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

5. Navigate to the Download Directory and assign the 750 permission to the Installer Directory using the following command:

```
chmod -R 750 OFS OIDF PACK
```

8.3.3 Update the OFS_OIDF_PACK.xml File

Update the OFS OIDF PACK.xml file to enable the existing installed Application Packs.

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

- **1.** Navigate to the OFS_OIDF_PACK/conf/ directory.
- 2. Rename the file $ofs_oidf_pack.xml$ to $ofs_oidf_pack.xml$.template.
- **3.** Open the OFS OIDF PACK.xml file in a text editor.

4. Update the OFS_OIDF_PACK.xml file in the text editor as mentioned in the following table only for the specified parameter.

Figure 36: Sample OFS_OIDF_PACK.xml File with the Update for Upgrade

```
APP PACK CONFIG>
   <APP PACK_ID>OFS_OIDF_PACK</APP_PACK_ID>
   <APP_PACK_NAME>Financial Services Foundation Applications Pack</app_PACK_NAME>
   <APP_PACK_DESCRIPTION>Applications forming analytics foundation such for the Banking
   and Financial Services Domain</APP_PACK_DESCRIPTION>
   <VERSION>8.1.2.0.0</VERSION>
       <APP_ID PREREQ="" DEF_SEL_FLG="YES" ENABLE="YES">OFS_AAI</APP_ID>
       <APP_NAME>Financial Services Analytical Applications Infrastructure</APP_NAME>
       <APP DESCRIPTION>Base Infrastructure for Analytical Applications
       <VERSION>8.1.2.0.0</VERSION>
   </APP>
   <APP>
       <APP ID PREREQ="OFS AAI" ENABLE="YES">OFS OIDF</APP ID>
       <APP_NAME>Oracle Insurance Data Foundation</aPP_NAME>
       <APP_DESCRIPTION>Data Foundation for Insurance domain/APP_DESCRIPTION>
       <VERSION>8.1.2.0.0</VERSION>
   </APP>
/APP PACK CONFIG>
```

Table 35: Update Specific Parameters in the OFS_OIDF_PACK.xml file

Tag Name	Attribute Name	Description	Mandatory (Y/N)	Comments
APP_ID	ENABLE	Enable the Application or Product	YES if installing in the SILENT mode.	The default value is YES for Infrastructure. The default value is NO for Others. Permissible values are YES and NO. Set this attribute value to YES against every APP_ID, which is licensed and should be enabled for the upgrade. NOTE: You cannot disable the Application or Product after you enable it. However, the Application or Product not enabled during installation can be enabled later through the Administration UI.

5. Save the file.

8.3.4 Update the Silent.props File

Topics:

Silent Upgrade to OIDF v8.1.2.0.0 for RDBMS

8.3.4.1 Silent Upgrade to OIDF v8.1.2.0.0 for RDBMS

This section is applicable only for the RDBMS mode of OIDF Application Pack v8.1.2.0.0 upgrade installation.

NOTE

In an integrated environment, Oracle recommends the customers use the same Staging source in the Silent.props file for the T2Ts that load data from the Stage tables into the Result tables.

To configure the Silent.props file to upgrade to the OIDF Application Pack Release 8.1.2.0.0, follow these steps:

- **1.** Navigate to the installer kit OFS OIDF PACK/appsLibConfig/conf/ directory.
- 2. Rename the file Silent upgrade to 812.template to Silent.props.
- **3.** Open the Silent.props file in a text editor.
- **4.** Update the Silent.props file and mention the following parameters:

Figure 37: Sample of the Silent.props file (Silent_upgrade_to_812.template for RDBMS) for upgrade installation

```
# Specify Log Mode
# 1 = DEBUG Mode [Password will be printed in the log file]
# 0 = GENERAL Mode [Passwords will not be printed in the log file]
# Default is GENERAL
LOG_MODE=0
# Specify the Oracle Insurance Data foundation Segment Code
SEGMENT 1 CODE=
# Specify the Infodom Maintenance log path(to be created) for the new Infodom
# Please ignore if you are doing installation on an existing information domain
APPFTP LOG PATH=
DBFTP_LOG_PATH=
# Specify wheter you want to perform Model Upload
# 0 = If you have already performed Model Upload and want to skip model upload process
# 1 = If you want to perform Model Upload
UPLOAD_MODEL=
# Specify whether you want to use the released datamodel or customized datamodel for model upload process
# 0 = If you want to upload the released datamodel
# 1 = If you want to upload the customized datamodel
MODEL TYPE=
# Specify the path(DM DIRECTORY) and file(DATAMODEL) name for the cutomized datamodel
# Mandatory only if you want to upload the customized datamodel
# i.e you have specified MODEL_TYPE=1
DATAMODEL=
DM_DIRECTORY=
#Please specify if you want create new ETL Src or use an existing one.
# 0 = If you want to create a new ETL src
# 1 = If you want to use an existing src
ETL APPSRC TYPE=1
ETL NEW SRCS REQUIRED=N
```

Table 36: Parameters for the Silent.props File (Silent_upgrade_to_812.template for RDBMS)

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Mode for logging	1 = Debug 0= General	# Optional; Default: 0
SEGMENT_1_CODE	Segment Code	Example: OIDFSEG	# Mandatory Segment Code must be the same as the code that is used during the first OIDF installation (Base Pack)
APPFTP_LOG_PATH	Information Domain Maintenance log path (to be created) for the new Information Domain for App Layer	Example: /ftpshare/ <infodom_name>/logs</infodom_name>	# Mandatory Information Domain Maintenance log path must be the same as the log path that is used during the first OIDF installation (Base Pack)
DBFTP_LOG_PATH	Information Domain Maintenance log path (to be created) for the new Information Domain for DB Layer	Example: /ftpshare/ <infodom_name>/logs</infodom_name>	# Mandatory Information Domain Maintenance log path must be the same as the log path that is used during the first OIDF installation (Base Pack)
UPLOAD_MODEL	Whether you need to perform Model Upload	0 = No 1 = Yes	# Mandatory
MODEL_TYPE	Released Data Model or Customized Data Model	0 = released Data Model 1 = customized Data Model	# Mandatory only in the case of UPLOAD_MODEL=1

Property Name	Description of Property	Permissible values	Comments
DATAMODEL	The file name for the customized Data Model	Not Applicable	# Mandatory only in the case of uploading the customized Data Model # Option selected for MODEL_TYPE=1
DM_DIRECTORY	The path for the customized Data Model	Not Applicable	# Mandatory only in the case of uploading the customized Data Model # Option selected for MODEL_TYPE=1
ETL_APPSRC_TYPE	The ETL application name	0=New Pair 1=Existing	# Mandatory
ETL_NEW_SRCS_REQUIRED	Whether ETL new sources are required	N	# Mandatory
ENABLE_CONCURRENCY	#Support for Parallelism	0 = No 1 = Yes	#Optional
CONCURRENCY_LEVEL	#Support for Parallelism	Example: CONCURRENCY_LEVEL=10, which means 10 threads are triggered to handle the processing of fsapps.	#Optional

5. Save the file.

8.3.5 Execute the Schema Creator Utility

To execute the Schema Creator Utility, follow these steps:

NOTE:

While defining the schema details for the Application Packs, provide the same schema details given in the previous installation. The output file $\texttt{OFS_OIDF_SCHEMA_OUTPUT.xml} \ \ \textbf{is generated as a result of the schema creation process}.$

- 1. Configure the Schema Creator Utility:
 - For the RDBMS installation, edit the OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_IN.xml file in a text editor. See the <u>Configure the OFS_OIDF_SCHEMA_IN.xml File</u> section to modify the values in the XML file.
- **2.** Execute the utility with the -s option.

```
For Example: ./osc.sh -s
```

For more information, see the Execute the Schema Creator Utility section.

8.3.6 Trigger the Installation

In this upgrade installation process, an Application Pack of v8.1.2.0.0 is already installed and now you need to upgrade OIDF Application Pack from v8.1.0.0.0 or a later version to v8.1.2.0.0.

To upgrade the OIDF Application Pack to Release 8.1.2.0.0 on an existing v8.1.2.0.0 OFSAA instance, follow these steps:

- **1.** Ensure that you completed the following procedures:
 - a. Download the installer.
 - **b.** Perform the prerequisites for installation.
 - c. Prepare for Upgrade.
 - **d.** Extract the software.
 - e. Update the OFS OIDF PACK.xml file.
 - f. Update the Silent.props file.
 - g. Execute the Schema Creator Utility.
- **2.** Execute the following command in the console to initiate the OIDF Application Pack installation in the Silent mode:

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

- **3.** The installer proceeds with the Pre-installation Checks.
- **4.** Enter the OFSAA Processing Tier FTP or SFTP password value and proceed, when prompted in the command prompt.

Figure 38: OFSAA Processing Tier FTP or SFTP Password Prompt

Enter the password to access the Product Staging or Metadata repository directory FTPSHARE in the application server.

5. The process displays the OFSAA License. Enter **Y** and proceed.

Figure 39: Accept the OFSAA License Agreement

```
OFSAA APPLICATION FACK LICENSE ADREEMENT

* Orsale Financial Services Analyzical Applications (OFSAA) application packs are groups of OFSAA products packaged together into a single installer. Each application pack contains (OFSAA applications that address specific functional domains.*

* Every application pack also includes the following OFSAA infrastructure application options which are automatically installed by every application pack installer:

1. Oracle Financial Services Analyzical Applications Infrastructure explication options which are automatically installed by every application pack installer:

2. Oracle Financial Services Enterprise Modeling

3. Oracle Financial Services Enterprise Modeling

* Oracle Financial Services Bang bate Foocessing

* Oracle Financial Services Analyzical Applications Infrastructure (OFS AAI) is the base infrastructure for all OFSAA applications and is therefore automatically installed and enabled by the application pack installer:

* The application pack installer always installs Oracle Financial Services Enterprise Modeling, Oracle Financial Services In-line Processing Engine and Oracle Financial Services Enterprise Modeling, Oracle Financial Services Infrastructure, Oracle Financial Services Enterprise Modeling, Oracle Financial Services Infrastructure, Oracle Financial Services Enterprise Modeling, Oracle Financial Services Interprise Modeling, Oracle Financial Services In
```

6. The installer installs the OFSAAI application.

Figure 40: OFSAAI Silent Mode Installation

7. After OFSAAI is installed, the OIDF Application Pack installation begins.

Figure 41: OIDF Application Pack Installation

```
THE CS VERSION IS: 7
THE CLIENT VERSION IS: 19
Copying done for BE files...
tespair == 0102
THE LIVEYS_OTHER FACK_DIS
STATEMENT == 0102
THE LIVEYS_OTHER FACK_DIS
THE LIVEYS_OTHER FACK_DISTANCE
THE
```

- The Data Model upload may take several hours to complete. You can check the installation logs in the /OFS_OIDF_PACK/OFS_OIDF/logs/ directory.
- For the existing customers, with the DB XML, the time taken for the Data Model upload will be significantly reduced. You can upload the warehouse data from the operational systems to the database schema using the erwin XML or Database XML file. Using the stand-alone command-line utility for the TransformErwin.sh file, you can transform erwin XML into Database XML, and use the DB XML instead of erwin XML to speed up the model upload process. For more information, see the Command Line Utility for Transforming erwin XML to Database XML section in the Oracle Financial Services Advanced Analytical Applications Infrastructure User Guide Release 8.1.2.0.0.

Figure 42: OIDF Application Pack Installation Complete

```
BUILD SUCCESSFUL
Total time: 3 minutes 27 seconds
Shutdown of OFSAAI services started...
nohup: appending output to 'nohup.out'
Shutdown of OFSAAI services done.
OFSAA App Layer Services start-up check started...
Starting startofsaai.sh service...
OFSAA Service - OK
Starting icc service...
ICC service - OK
Shutting down icc service...
Shutting down OFSAA service...
OFSAAI App Layer Services check Status: SUCCESSFUL.
OFSAAI DB Layer Services check started...
Calling agentshutdown.sh to check and kill, if any of the server is running...
MESSAGE Server service is not running.
AM service is not running.
ROUTER service is not running.
Starting ROUTER Service
ROUTER service started in background mode.
Starting AM Service
AM service started in background mode.
Starting MESSAGE SERVER Service
MESSAGE SERVER service started in background mode.
Stop MESSAGE Server service with Proces ID: 29631
Stop AM service with Proces ID: 29611
Stop ROUTER service with Proces ID: 29594
OFSAAI DB Layer File Services check Status: SUCCESSFUL.
Installation completed...
```

- **8.** When the installation is complete, the following message is displayed in the console: *Installation completed...*
- **9.** The OFSAA Infrastructure installation performs a post-install health check automatically on the successful installation of the product.
- **10.** To verify if the release is applied successfully, check the log files mentioned in the section <u>Verify the Log File Information</u>.

If any applications are installed on top of the OFS AAAI Application Pack 8.1.2.0.0 version, execute the script

 $\label{local_params.sql} $$ update_dq_batches_optional_params.sql, which is available in the folder $$FIC_HOME/Post_AAI_Migration, after the installation of the applications.$

- **11.** For more information on securing your OFSAA Infrastructure, refer to the <u>Oracle Financial Services Analytical Applications Infrastructure Security Guide Release 8.1.x.</u>
- **12.** After successful installation, perform the Post-installation procedures. For detailed information, see the <u>Post-installation</u> section.

13. Perform the necessary Additional Configuration.

8.3.7 Verify the Log File Information

See the following logs files for more information:

- The Pack Install.log file in the OFS OIDF PACK/logs/directory.
- The OFS_OIDF_installation.log file and the OFS_OIDF_installation.err file in the OFS_OIDF_PACK/OFS_OIDF/logs_directory.
- The Infrastructure installation log files in the OFS_OIDF_PACK/OFS_AAI/logs/directory.
- The OFSAAInfrastucture Install.log file in the \$FIC HOME directory.

ATTENTION:

You can ignore the "ORA-00001: unique constraint" error, and Object already exists and Table has a primary key warnings for the OFSA_CATALOG_OF_LEAVES table in the log file. In case of any other errors, contact My Oracle Support (MOS).

8.3.8 Post-installation Steps

Follow the steps mentioned in the **Post-installation** section.

8.3.9 Additional Configuration

For additional configuration information, see the <u>Additional Configuration</u> section.

8.4 Upgrade the OIDF Application Pack from v8.1.0.0.0 or a Later Version to v8.1.2.0.0 on an Existing OFSAA Instance

In this upgrade installation scenario, an Application Pack of v8.1.2.0.0 is already installed and now you need to upgrade OIDF Application Pack from v8.1.0.0.0 or a Later Version to v8.1.2.0.0. For example, OFS CAP v8.1.2.0.0 Application Pack is already installed and now you need to install the OIDF Application Pack.

NOTE:

If you are upgrading the OFSAA Application Pack to the release v8.1.2.0.0, to ensure successful deployment, you must upgrade the other packs installed in the same environment to the release v8.1.2.0.0.

Topics:

- Extract the Software
- Update the OFS OIDF PACK.xml File
- Update the Silent.props File
- Execute the Schema Creator Utility Only for the OIDF Application Pack
- Trigger the Installation
- Verify the Log File Information
- Post-installation Steps
- Additional Configuration

8.4.1 Extract the Software

You must be logged in to the UNIX operating system as a non-root user to perform the following steps. To extract the OIDF Application Pack software, follow these 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. Uncompress the unzip installer file with the command:

```
uncompress unzip <os>.Z
```

NOTE:

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

2. Assign 751 permission to the file with the following command:

```
chmod 751 unzip_<os>
For example, chmod 751 unzip sparc
```

3. Extract the contents of the OIDF Application Pack Release v8.1.2.0.0 installer archive file in the download directory with the following command:

```
unzip OFS_OIDF_8.1.2.0.0_<Operating_System>.zip
```

NOTF.

Do not rename the Application Pack installer folder name on extraction from the archive.

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

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

5. Navigate to the Download Directory and assign 750 permission to the installer directory with the following command:

```
chmod -R 750 OFS OIDF PACK
```

8.4.2 Update the OFS_OIDF_PACK.xml File

Update the OFS_OIDF_PACK.xml file to enable only the existing installed Application Packs.

To configure the OFS OIDF PACK.xml file, follow these steps:

- 1. Navigate to the OFS OIDF PACK/conf/ directory.
- 2. Rename the file OFS_OIDF_PACK.xml to OFS_OIDF_PACK.xml.template
- **3.** Open the OFS OIDF PACK.xml file in a text editor.
- **4.** Update the OFS_OIDF_PACK.xml file as mentioned in the following table only for the specified parameter.

Figure 43: Sample OFS_OIDF_PACK.xml File with the Update for Upgrade

```
APP PACK CONFIG>
   <APP_PACK_ID>OFS_OIDF_PACK</APP_PACK_ID>
   <APP_PACK_NAME>Financial Services Foundation Applications Pack</APP_PACK_NAME>
   <APP_PACK_DESCRIPTION>Applications forming analytics foundation such for the Banking
   and Financial Services Domain</APP_PACK_DESCRIPTION>
   <VERSION>8.1.2.0.0</VERSION>
   <APP>
      <APP ID PREREQ="" DEF SEL FLG="YES" ENABLE="YES">OFS AAI</APP ID>
      <a href="APP_NAME">APP_NAME</a> Infrastructure</app_NAME>
      <APP_DESCRIPTION>Base Infrastructure for Analytical Applications</aPP_DESCRIPTION>
      <VERSION>8.1.2.0.0</VERSION>
   </APP>
   <APP>
      <APP ID PREREQ="OFS AAI" ENABLE="YES">OFS OIDF</APP ID>
      <APP NAME>Oracle Insurance Data Foundation</aPP NAME>
       <APP DESCRIPTION>Data Foundation for Insurance domain/APP DESCRIPTION>
      <VERSION>8.1.2.0.0</VERSION>
   </APP>
/APP PACK CONFIG>
```

Description Mandatory Tag Attribute **Comments** Name Name (Y/N) APP_ID **ENABLE** YES if installing Enable the The default value is YES for Infrastructure. **Application** in the SILENT The default value is NO for Others. or Product mode. Permissible values are YES and NO. Set this attribute value to YES against every APP_ID, which is licensed and should be enabled for the upgrade. **NOTE**: You cannot disable the Application or Product after you enable it. However, the Application or Product not enabled during installation can be enabled later through the Administration UI.

Table 37: Update Specific Parameters in the OFS_OIDF_PACK.xml file

5. Save the file.

8.4.3 Update the Silent.props File

Topics:

Silent Upgrade to OIDF v8.1.2.0.0 for RDBMS

ATTENTION:

Do not install the new applications in the same segment if the preinstalled applications use Run Management.

8.4.3.1 Silent Upgrade to OIDF v8.1.2.0.0 for RDBMS

This section is applicable only for the RDBMS mode of OIDF v8.1.2.0.0 upgrade installation.

NOTE:

In an integrated environment, Oracle recommends the customers use the same Staging source in the Silent.props file for the T2Ts that load data from the Stage tables into the Result tables.

To configure the Silent.props file to upgrade to the OIDF Application Pack Release 8.1.2.0.0, follow these steps:

- 1. Navigate to the installer kit OFS OIDF PACK/appsLibConfig/conf/directory.
- 2. Rename the Silent upgrade to 812.template file to Silent.props.
- **3.** Update the Silent.props file and mention the following parameters:

Figure 44: Sample of the Silent.props file (Silent_upgrade_to_812.template for RDBMS) for upgrade installation

```
# Specify Log Mode
# 1 = DEBUG Mode [Password will be printed in the log file]
# 0 = GENERAL Mode [Passwords will not be printed in the log file]
# Default is GENERAL
LOG MODE=0
# Specify the Oracle Insurance Data foundation Segment Code
SEGMENT_1_CODE=
# Specify the Infodom Maintenance log path(to be created) for the new Infodom
# Please ignore if you are doing installation on an existing information domain
APPFTP_LOG_PATH=
DBFTP_LOG_PATH=
# Specify wheter you want to perform Model Upload
# 0 = If you have already performed Model Upload and want to skip model upload process
# 1 = If you want to perform Model Upload
UPLOAD MODEL=
# Specify whether you want to use the released datamodel or customized datamodel for model upload process
# 0 = If you want to upload the released datamodel
# 1 = If you want to upload the customized datamodel
MODEL_TYPE=
# Specify the path(DM_DIRECTORY) and file(DATAMODEL) name for the cutomized datamodel
# Mandatory only if you want to upload the customized datamodel
# i.e you have specified MODEL TYPE=1
DATAMODEL=
DM DIRECTORY=
#Please specify if you want create new ETL Src or use an existing one.
# 0 = If you want to create a new ETL src
# 1 = If you want to use an existing src
ETL_APPSRC_TYPE=1
ETL_NEW_SRCS_REQUIRED=N
```

Table 38: Parameters for the Silent.props File (Silent_upgrade_to_812.template for RDBMS)

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Mode for logging	1 = Debug 0= General	# Optional; Default: 0
SEGMENT_1_CODE	Segment Code	Example: OIDFSEG	# Mandatory Segment Code must be the same as the code that is used during the first OIDF installation (Base Pack)

Property Name	Description of Property	Permissible values	Comments
APPFTP_LOG_PATH	Information Domain Maintenance log path (to be created) for the new Information Domain for App Layer	Example: /ftpshare/ <infodom_name>/logs</infodom_name>	# Mandatory Information Domain Maintenance log path must be the same as the log path that is used during the first OIDF installation (Base Pack)
DBFTP_LOG_PATH	Information Domain Maintenance log path (to be created) for the new Information Domain for DB Layer	Example: /ftpshare/ <infodom_name>/logs</infodom_name>	# Mandatory Information Domain Maintenance log path must be the same as the log path that is used during the first OIDF installation (Base Pack)
UPLOAD_MODEL	Whether you need to perform Model Upload	0 = No 1 = Yes	# Mandatory
MODEL_TYPE	Released Data Model or Customized Data Model	0 = released Data Model 1 = customized Data Model	# Mandatory only in the case of UPLOAD_MODEL=1
DATAMODEL	The file name for the customized Data Model	Not Applicable	# Mandatory only in the case of uploading the customized Data Model # Option selected for MODEL_TYPE=1
DM_DIRECTORY	The path for the customized Data Model	Not Applicable	# Mandatory only in the case of uploading the customized Data Model # Option selected

Property Name	Description of Property	Permissible values	Comments
			for MODEL_TYPE=1
ETL_APPSRC_TYPE	The ETL application name	0=New Pair 1=Existing	# Mandatory
ETL_NEW_SRCS_REQUIRED	Whether ETL new sources are required	N	# Mandatory
ENABLE_CONCURRENCY	#Support for Parallelism	0 = No 1 = Yes	#Optional
CONCURRENCY_LEVEL	#Support for Parallelism	Example: CONCURRENCY_LEVEL=10, which means 10 threads are triggered to handle the processing of fsapps.	#Optional

4. Save the file.

8.4.4 Execute the Schema Creator Utility Only for the OIDF Application Pack

To execute the schema creator utility, follow these steps:

NOTE:

While defining the schema details for the application packs, provide the same schema details given in the previous installation. The output file $\texttt{OFS_OIDF_SCHEMA_OUTPUT.xml} \ \ \textbf{is generated as a result of the schema creation process}.$

- **1.** Configure the Schema Creator Utility:
 - For the RDBMS installation, edit the
 OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_IN.xml file
 in a text editor. See the Configure the OFS_OIDF_SCHEMA_IN.xml File section
 to modify the values in the XML file.
- **2.** Execute the utility with the -s option.

For Example: ./osc.sh -s

For more information, see the Execute the Schema Creator Utility section.

8.4.5 Trigger the Installation

In this upgrade installation process, an Application Pack of v8.1.2.0.0 is already installed and now you need to upgrade OIDF Application Pack from v8.1.0.0.0 or a Later Version to v8.1.2.0.0.

To upgrade the OIDF Application Pack to Release 8.1.2.0.0 on an existing v8.1.2.0.0 OFSAA instance, follow these steps:

- 1. Ensure that you completed the following procedures:
 - **a.** <u>Download</u> the installer.
 - **b.** Perform the prerequisites for installation.
 - **c.** Prepare for Upgrade.
 - **d.** Extract the software.
 - e. Update the OFS OIDF PACK.xml file.
 - f. Update the Silent.props file.
 - g. Execute the Schema Creator Utility.
- **2.** Enter the following command in the console to execute the OIDF Application Pack installer with the Silent option:

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

- **3.** The installer proceeds with the Pre-installation Checks.
- **4.** Enter the OFSAA Processing Tier FTP/SFTP password value and proceed, when prompted in the command prompt.

Figure 45: OFSAA Processing Tier FTP/SFTP Password Prompt

NOTE:

Enter the password to access the Product Staging or Metadata repository directory FTPSHARE in the application server.

5. The process displays the OFSAA License. Enter **Y** and proceed.

Figure 46: Accept the OFSAA License Agreement

```
OFSAA APPLICATION FACK LICENSE ARREPORT

OFSAA APPLICATION FACK LICENSE ARREPO
```

6. The installer installs the OFSAAI application.

Figure 47: OFSAAI Silent Mode Installation

7. After OFSAAI is installed, the OIDF Application Pack installation begins.

THE CS VERSION IS: 7
THE CLIENT VERSION IS: 19
Copying done for BE files...
Harden For Be files...

Attended For Be files...

B

Figure 48: OIDF Application Pack Installation

- The Data Model upload may take several hours to complete. You can check the installation logs in the /OFS_OIDF_PACK/OFS_OIDF/logs/ directory.
- For the existing customers, with the DB XML, the time taken for the Data Model upload will be significantly reduced. You can upload the warehouse data from the operational systems to the database schema using the erwin XML or Database XML file. Using the stand-alone command-line utility for the TransformErwin.sh file, you can transform erwin XML into Database XML, and use the DB XML instead of erwin XML to speed up the model upload process. For more information, see the Command Line Utility for Transforming erwin XML to Database XML section in the Oracle Financial Services Advanced Analytical Applications Infrastructure User Guide Release 8.1.2.0.0.

Figure 49: OIDF Application Pack Installation Complete

```
BUILD SUCCESSFUL
Total time: 3 minutes 27 seconds
Shutdown of OFSAAI services started...
nohup: appending output to 'nohup.out'
Shutdown of OFSAAI services done.
OFSAA App Layer Services start-up check started...
Starting startofsaai.sh service...
OFSAA Service - OK
Starting icc service...
ICC service - OK
Shutting down icc service...
Shutting down OFSAA service...
OFSAAI App Layer Services check Status: SUCCESSFUL.
OFSAAI DB Layer Services check started...
Calling agentshutdown.sh to check and kill, if any of the server is running...
MESSAGE Server service is not running.
AM service is not running.
ROUTER service is not running.
Starting ROUTER Service
ROUTER service started in background mode.
Starting AM Service
AM service started in background mode.
Starting MESSAGE SERVER Service
MESSAGE SERVER service started in background mode.
Stop MESSAGE Server service with Proces ID: 29631
Stop AM service with Proces ID: 29611
Stop ROUTER service with Proces ID: 29594
OFSAAI DB Layer File Services check Status: SUCCESSFUL.
Installation completed...
```

- **8.** When the installation is complete, the following message is displayed in the console: *Installation completed...*
- **9.** The OFSAA Infrastructure installation performs a post-install health check automatically on the successful installation of the product.
- **10.** To verify if the release is applied successfully, check the log files mentioned in the section <u>Verify the Log File Information</u>.

NOTE

If any applications are installed on top of the OFS AAAI Application Pack 8.1.2.0.0 version, execute the script

update_dq_batches_optional_params.sql, which is available in the folder \$FIC_HOME/Post_AAI_Migration, after the installation of the applications.

11. For more information on securing your OFSAA Infrastructure, refer to the <u>Oracle Financial Services Analytical Applications Infrastructure Security Guide Release 8.1.x.</u>

- **12.** After successful installation, perform the Post-installation procedures. For detailed information, see the <u>Post-installation</u> section.
- **13.** Perform the necessary <u>Additional Configuration</u>.

8.4.6 Verify the Log File Information

See the following logs files for more information:

- The Pack Install.log file in the OFS OIDF PACK/logs/directory.
- The OFS_OIDF_installation.log file and the OFS_OIDF_installation.err file in the OFS_OIDF_PACK/OFS_OIDF/logs_directory.
- The Infrastructure installation log files in the OFS_OIDF_PACK/OFS_AAI/logs/directory.
- The OFSAAInfrastucture Install.log file in the \$FIC HOME directory.

ATTENTION:

When upgrading the OIDF Application Pack to v8.1.2.0.0 in an integrated environment, you can ignore the <code>Object already exists</code> and the <code>Table has a primary key warnings</code> for the <code>OFSA_CATALOG_OF_LEAVES</code> table in the log file.

You can ignore the "ORA-00001: unique constraint" error. In case of any other errors, contact My Oracle Support (MOS).

8.4.7 Post-installation Steps

Follow the steps mentioned in the <u>Post-installation</u> section.

8.4.8 Additional Configuration

For additional configuration information, see the <u>Additional Configuration</u> section.

9 Additional Configuration

This section provides information about the additional configuration required after the OIDF Application Pack installation. See the *Additional Configuration* section in the <u>Oracle Financial Services Advanced Analytical Applications Infrastructure Installation Guide Release 8.1.2.0.0</u> to complete the procedures listed in the following table.

NOTE:

OIDF uses the Process Modeling Framework (PMF) to execute two ready-to-use Runs (OIDF Sourced Run and OIDF Execution Run) for data loading. For more information about the Process Modeling Framework configuration, see the Oracle Financial Services Advanced Analytical Applications Infrastructure Administration and Configuration Guide Release 8.1.x and the Oracle Financial Services Analytical Applications Infrastructure Process Modelling Framework Orchestration Guide Release 8.1.2.0.0.

Table 39: Additional Configuration Checklist

	Table 59: Additional Configuration Checklist
Sl. No.	Activity
1	Configure the webserver.
2	Configure the Resource Reference in web application servers.
3	Configure the Work Manager in the web application servers.
4	Add the FTP/SFTP configuration for file transfer.
5	Configure the Process Modeling Framework.
6	Configure the Infrastructure Server Memory.
7	Change IP/Hostname, Ports, Deployed Paths of the OFSAA Instance.
8	Configure the Infrastructure LDAP.
9	Configure and deploy the OFSAAI web services.
10	Enable the parallel execution of DML statements.
11	Configure the message details in the Forms Designer.
12	Clear the application cache.
13	Configure the password changes.
14	Configure the Java Virtual Machine.
15	Configure the internal service (Document Upload/Download).
16	Migrate the Excel upload functionality.

Sl. No.	Activity
17	Remove the OFSAA Infrastructure.

10 Additional Information

This section provides additional information required for the OFSDF Application Pack installation.

See the section <u>Update the OFSAA 8.1.2.x Java 8 Instance to Java 11</u> in the *OFSAAI Release 8.1.2.0.0 Installation and Configuration Guide* for details.

Frequently Asked Questions (FAQs) and Error Dictionary

For FAQs and installation error-related information, see the section <u>Frequently Asked Questions (FAQs)</u> and <u>Error Dictionary</u> in the <u>Oracle Financial Services Advanced Analytical Applications Infrastructure Installation Guide Release 8.1.2.0.0</u>.

OFSAA Support



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- Is the information clearly presented?
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- What features did you like most about this manual?

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

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

