

Oracle Financial Services  
Customer Analytical  
Applications Pack  
Installation and Configuration  
Guide

Version 8.0.3.0.0



## DOCUMENT CONTROL

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### Executive Summary

This document includes the necessary instructions to apply 8.0.3.0.0 Interim Release for OFS Advanced Analytical Applications Infrastructure Application Pack and perform the required post install configurations. You can find the latest copy of this document in [MOS](#).

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### Preface

This document provides step-by-step instructions to install the OFS CA Applications Pack 8.0.3.0.0 Interim Release.

This chapter discusses the following topics:

- [Audience](#)
- [How this Guide is organized](#)
- [Recommended Environment](#)
- [Related Documents](#)
- [Conventions Used](#)

### Audience

Oracle Financial Services Customer Analytical Applications Pack Installation and Configuration Guide is intended for administrators, and implementation consultants who are responsible for installing and maintaining the application pack components.

### Prerequisites for the Audience

The document assumes that you have experience in installing Enterprise components and basic knowledge about the following is recommended.

The following are the expected preparations from the administrator before starting the actual installation:

- Oracle Financial Services Customer Analytical Applications pack components
- OFSAA Architecture
- UNIX Commands
- Database Concepts
- Web Server/ Web Application Server

### How this Guide is Organized

The Oracle Financial Services Customer Analytical Applications Pack Installation and Configuration Guide include the following topics:

- [OFSAAI Release 8.0.1.0.0.](#)

### Recommended Environment

Infrastructure application has been tested with Microsoft Internet Explorer™ browser. For best viewing of Infrastructure pages, set the screen resolution to a minimum resolution of 1024 x 768 pixels.

### Related Documents

For more information, refer the Oracle Financial Services Customer Analytical Applications Pack 8.0.3.0.0 documents available in [MOS](#):

### Conventions and Acronyms

Conventions	Description
Actions are indicated in <b>Bold</b> .	
Command or query is indicated in <code>Courier New font</code> .	
AIX	Advanced Interactive eXecutive
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OFS AAAI	Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack
RHEL	Red Hat Enterprise Linux
IR	Interim Release
ML	Maintenance Level
Atomic Schema	Database schema where the application data model is uploaded.
Config Schema	Database schema which contains setup related configurations and metadata.

# 1 OFS Customer Analytics Application Pack Release 8.0.3.0.0

This Interim Release (IR) of OFS Customer Analytics Application Pack is cumulative and includes all enhancements and bug fixes done since the OFS Customer Analytics Application Pack v8.0 GA release. For more information, refer the [Oracle Financial Services Customer Analytical Applications Pack Installation and Configuration Guide – Release 8.0.0.0.0](#).

## 1.1 Supported Software Versions

The following table shows the minimum hardware and software requirements for installing OFS Customer Analytics Application Pack.

**Table 1: Configurations supported**

Requirement	Sub-Category	Value
Operating System	Oracle Linux / Red Hat Enterprise Linux (x86-64)	Oracle Linux Server release 6.0 and above - 64 bit <b>Note:</b> Same versions of RHEL is supported
	Shell	KORN Shell (KSH)
Java Runtime Environment	Oracle Linux / Red Hat Enterprise Linux	Oracle Java Runtime Environment (JRE) 1.7.x - 64 bit
Oracle Database Server and Client		Oracle Database Server Enterprise Edition 12c Release 1 (12.1.0.1.0 +)- 64 bit RAC/ Non-RAC with/ without partitioning option Oracle Client 12c Release 1 (12.1.0.1.0+) - 64 bit Oracle 12C Release 1 (12.1.0.1+) JDBC driver (Oracle thin driver) Oracle Distribution of R version 2.15.1, 2.15.2 or 2.15.3.(Optional) Oracle R Enterprise (Server) version 1.4. (Optional)
		<b>Note:</b> Ensure that the following patches are applied: <ul style="list-style-type: none"> <li>Oracle Server 12c, v12.1.0.1 – 17082699</li> </ul>

## OFSCA 8.0.3.0.0 Installation Guide

Requirement	Sub-Category	Value
	<ul style="list-style-type: none"> <li>▪ Oracle Server 12c, v12.1.0.2 - 19392604, 19649591</li> <li>▪ Also for latest information, refer <a href="http://support.oracle.com/">http://support.oracle.com/</a>, 12.1.0.2 Bundle Patches for Engineered Systems and DB In-Memory - List of Fixes in each Bundle (Doc ID 1937782.1)</li> </ul>	
OLAP	Oracle Hyperion Essbase	V 11.1.2.3+ (Server and Client) with Oracle 12c Database
	Oracle OLAP	V 12.1.0.1+ with Oracle 12c Database
	<p><b>Note:</b></p> <p>Oracle Hyperion Essbase &amp; Oracle OLAP is required only if you are using the OLAP feature of OFSAAI. For Oracle OLAP, ensure that you have configured the Oracle Database server with OLAP option.</p>	
Web Server/ Web Application Server	Oracle Linux / Red Hat Enterprise Linux	<p>Oracle HTTP Server 11.1.1.1/ Apache HTTP Server 2.2.x/ IBM HTTP Server</p> <p>Oracle 12c Database:</p> <ul style="list-style-type: none"> <li>▪ IBM WebSphere Application Server 8.5+ with IBM Java Runtime (64 bit)</li> </ul>
Big Data Software Hadoop distribution	Pivotal	<ul style="list-style-type: none"> <li>▪ Pivotal 2.0.1</li> <li>▪ Pivotal Command Center 2.3</li> <li>▪ PHD Enterprise 2.1.0</li> <li>▪ Hadoop-2.2.0-gphd-3.1.0.0</li> <li>▪ Hive-0.12.0-gphd-3.1.0.0</li> <li>▪ Pivotal HAWQ 1.2.1</li> </ul>
Desktop Requirements	Operating System	MS Windows 7/ Windows 8/ Windows 8.1
	Browser	MS Internet Explorer 9, 10, 11(Compatibility Mode) and 11 (Compatibility Mode)

Requirement	Sub-Category	Value
		Oracle Java plug-in 1.7.0+* <b>Note:</b> - Enable caching of static content (static files, images, CSS, and so on).
	Office Tools	MS Office 2007/ 2010/2013 Adobe Acrobat Reader 10 and 11
	Screen Resolution	1024*768 or 1280*1024
Directory Services		OFSAAI is qualified on both OPEN LDAP 2.2.29+ and Oracle Internet Directory v 11.1.1.3.0. However, it can be integrated with other directory services software like MS Active Directory.
		<b>Note:</b> Configuration of Directory services software for OFSAAI installation is optional. For more information on configuration, see Infrastructure LDAP Configuration. Open LDAP needs to be installed on MS Windows Server machine only.

## 1.2 Pre Installation Requirements

- You should have 8.0.0.0.0 CA as the minimum patch set level.
- Alter session set `NLS_TIMESTAMP_FORMAT = 'DD-MON-YY HH24:MI:SS'`; If this is not done, the weblog SCDs may fail to execute.
- You need to apply the following patch to avoid "more than 1000 columns" issue:  
 "Patch 19509982: DISABLE FIX FOR RAISING ORA-1792 BY DEFAULT"

## 1.3 How to Apply This Interim Release?

### 1.3.1 Installing OFS CA

Refer to the following instructions to download, extract, install, and configure this IR.

1. Install 8.0.2.0.0 AAI.



2. Install 8.0.2.0.0 CA.
3. Install 8.0.3.0.0 AAI. For more information, refer to the [Oracle Financial Services Analytical Applications Infrastructure User Guide](#).
4. Ensure that SYS.DBMS\_DATA\_MINING privilege is available to the atomic schema if not already provided. This is to run statistical models through Modelling Framework.
5. Login to <https://support.oracle.com/> and search for 20911620 under the *Patches & Updates* tab.
6. Download the OFS Customer Analytics Application Pack v8.0.3.0.0 IR archive file and copy it to your OFSAA server in **Binary** mode.

---

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

---

7. Shut down all the OFSAAI Services. For more information, refer to the *Start/Stop Infrastructure Services* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.0.0.0](#).
8. Assign WRITE permission to the files/ folders such as commonscripts, EXEWebService, ficapp, ficweb, and ficdb in the **\$FIC\_HOME** folder by executing the command:  

```
chmod -R 750 $FIC_HOME
```
9. If you have Unzip utility, skip to the next step. Download the Unzip utility (OS specific) **unzip\_<os>.Z** from the location <https://updates.oracle.com/unzips/unzips.html> and copy it in **Binary** mode to the directory that is included in your PATH variable, typically **\$HOME** path or directory in which you have copied the 8.0.3.0.0IR.

- Uncompress the unzip installer file using the command:

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

---

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

---

- Give EXECUTE permission to the file using the command:

```
chmod 751 OFSAAI_80100_<OperatingSystem>.zip.
```

10. Extract the contents of the 8.0.3.0.0IR archive file using the command:

```
unzip_<os> -a <name of the file to be unzipped>
```

**NOTE:** The above “-a” option is mandatory to unzip the archive file. For example:

```
unzip_aix -a OFSAAI_80100_<OperatingSystem>.zip
```

---

11. Give EXECUTE permission to the IR archive file. Navigate to the path *OFSAAI\_80100\_<OperatingSystem>.zip* and execute the command:

```
chmod 750 OFSAAIUpdate.sh
```

12. Execute **OFSAAIUpdate.sh** file.

Verify if the IR is applied successfully by checking the log file generated in the installation folder. You can ignore ORA-00001, ORA-00955, ORA-02260, and ORA-01430 errors in the log file. In case of any other errors, contact Oracle Support.

For any reasons, if execution fails due to Update Constraints Utility, then follow the instructions given in the section Troubleshooting in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.3.0.0](#)

13. For more information on securing your OFSAA Infrastructure, refer note [1540442.1](#) in My Oracle Support (MOS).
14. Refer to the additional configuration instructions explained in the [Additional Configuration](#) section to complete the installation of this IR.
15. After successful installation of IR, perform the these steps:
  - Clear the application cache. Navigate to the following path depending on the configured web application server and delete the files.
    - **Tomcat:**  
<Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp
    - **Weblogic:**  
<Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/\_WL\_user/<Application name>/qaelce/jsp\_servlet
    - **Websphere:**  
<Websphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>
16. Add umask 0027 in the `.profile` of the UNIX account which manages the WEB server to ensure restricted access permissions.
17. Make the necessary module specific configurations as mentioned in the *Dimension Management Module Configurations* section of the [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Administration Guide – Release](#)

[8.0.0.0.0](#). If you wish to make these configurations at a later time, proceed with the next step.

18. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the *Post Installation Configuration* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.0.0.0](#).
19. After the successful installation of the IR, restart all the OFSAAI services. For more information, refer to the *Start/Stop Infrastructure Services* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.0.0.0](#).

## 1.4 Post Installation Steps

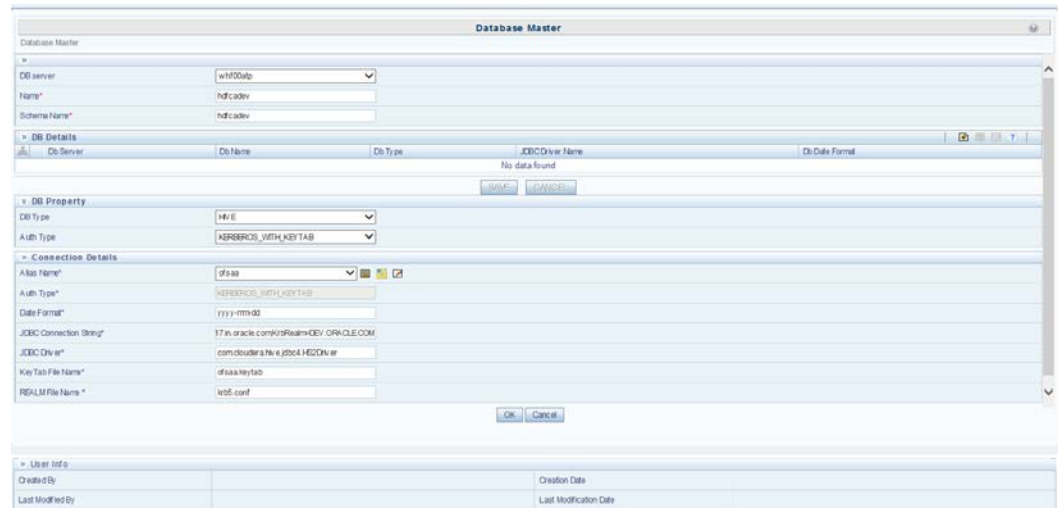
On successful installation of the Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack, perform the following post installation steps:

1. Create RCAUSER from sysadmin.
2. Authorize the user from sysauth.
3. Assign the user to RCA-related user groups.
4. Authorize the user group mapping to RCA.
5. Enable Big Data.
6. Create the metadom schema in rdbms for the hive infodom and add TNS entry for the same.
7. Execute GRANT scripts in CONFIG and SYSDBA to provide required privileges to the METADOM.
8. Create rdbms schema corresponding to the hive infodom and metadom and create database definition from sysadmin.

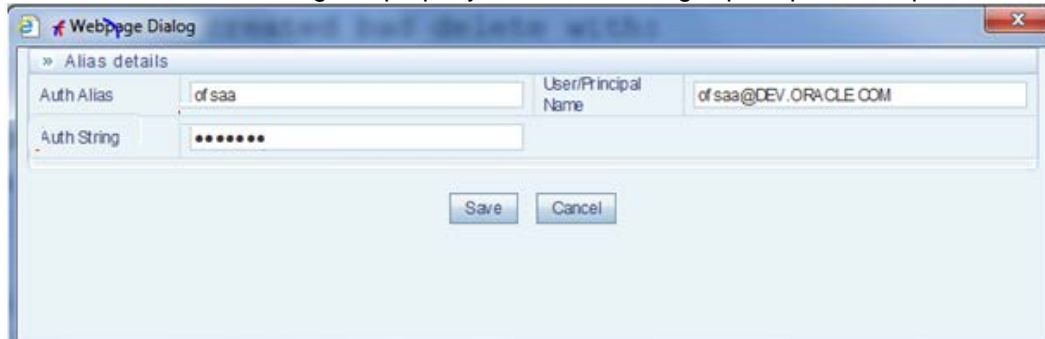
The screenshot shows the 'Database Master' configuration window. The 'Database Master' section includes fields for 'DB server' (set to 'HIS001'), 'Name' (set to 'DEVWLANDOM'), and 'Schema Name' (set to 'DEVWLANDOM'). The 'DB Details' section shows a table with columns 'Db Name', 'Db Type', 'JDBC Driver Name', and 'Db Date Format', which is currently empty. The 'DB Property' section includes 'DB Type' (set to 'ORACLE') and 'Auth Type' (set to 'DEFAULT'). The 'Connection Details' section includes fields for 'Alias Name' (set to 'DEVWLANDOM'), 'Auth Type' (set to 'DEFAULT'), 'TNS Entry String' (set to 'DEVW10C'), 'Date Format' (set to 'dd-mm-yyyy'), 'JDBC Connection String' (set to 'jdbc:oracle:thin:@HIS001:1521:DEVWLANDOM'), 'JDBC Driver' (set to 'oracle.jdbc.driver.OracleDriver'), and 'JDBC Name' (set to 'OFGAINFO').

9. Create database definition for the above created RDBMS schema. For more information, refer to the *System Configuration and Identity Management* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack User Guide – Release 8.0.2.0.0](#).
10. Stop all the services and make required changes in \$TOMCAT/conf/server.xml and \$FIC\_HOME/ficweb/webroot/WEB-INF/web.xml. For more information, refer to the *Configuring Resource Reference in Tomcat Application Server* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.2.0.0](#).

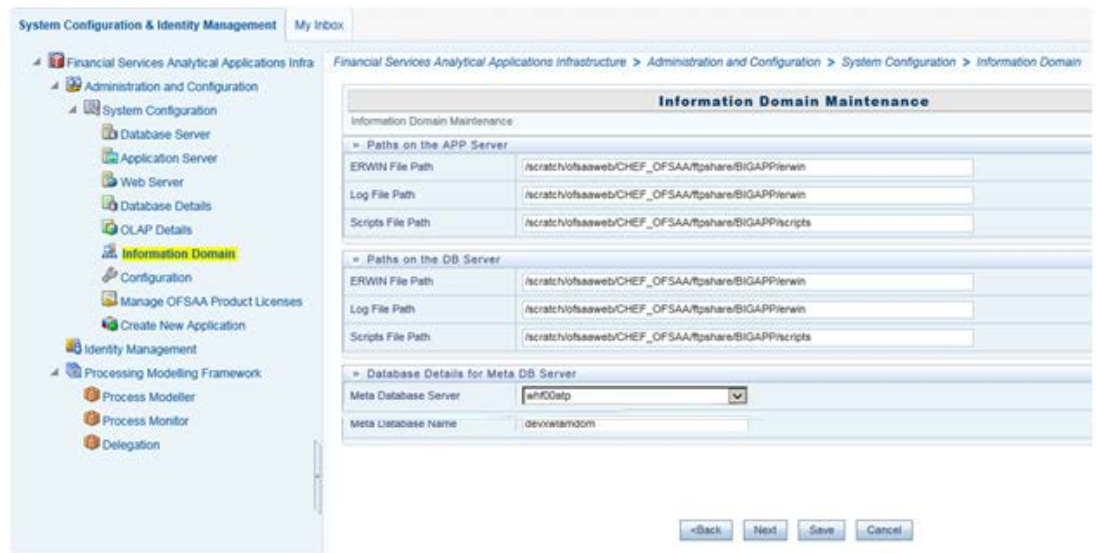
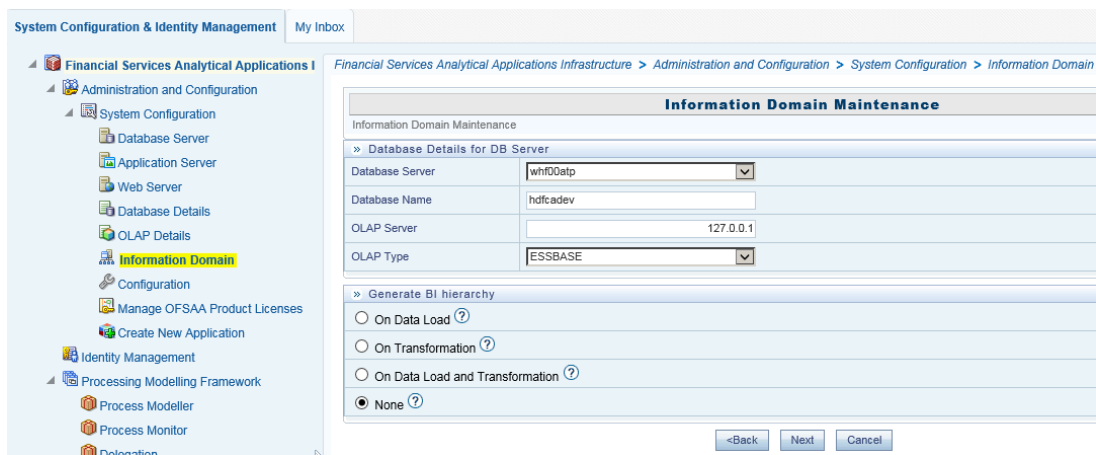
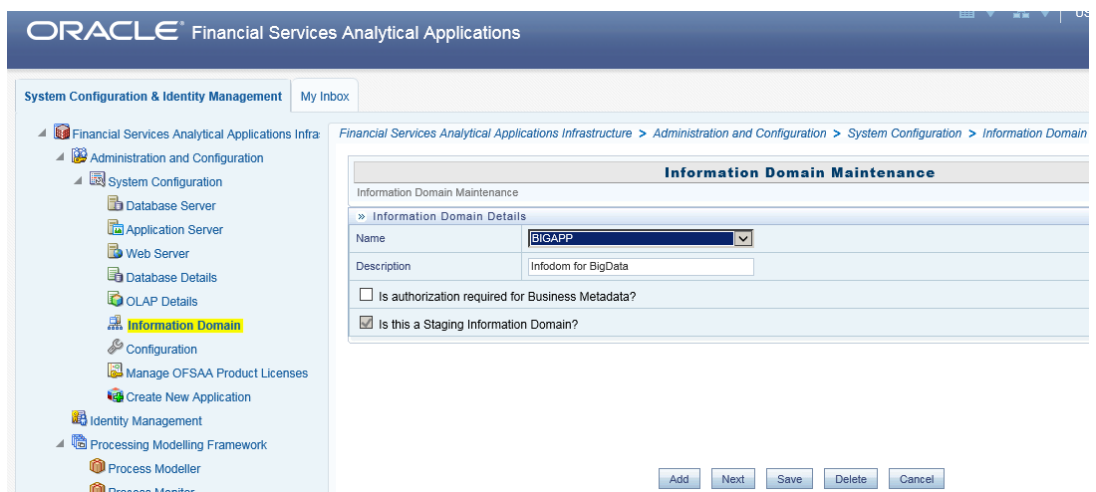
11. Copy Hive related jar files to \$FIC\_HOME/ext/lib and KEYTAB,conf files to \$FIC\_HOME/ficweb/webroot/conf; KEYTAB,conf.xml files \$FIC\_HOME/conf/clientconf; KEYTAB,conf files to \$FIC\_HOME/conf; modify Clusters.xml and provide <CONFPATH> value as \$FIC\_HOME/conf/clientconf.
12. Execute ant.sh from \$FIC\_HOME/ficweb
13. Copy all jars from \$FIC\_HOME/ext/lib to \$FIC\_HOME/ficapp/common/FICServer/lib if not moved already.
14. Replace the WAR file in \$FIC\_HOME/ficapp/common/FICServer/lib and remove the context directory.
15. Restart all the services
16. Create hive datadom in hive schema and create database definition from the admin interface as shown below:



The alias name should be given properly where auth string is principal users' password



17. Create BigData infodom with the name BIGAPP as shown below:



For more information, refer to the *Adding Database Detail for DB Server* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.2.0.0](#).

18. Create new Hive infodom.

19. Create segment as shown below:

The screenshot shows the 'Segment Maintenance' dialog box. The title bar reads 'Segment Maintenance'. Below the title bar, there is a breadcrumb trail: 'Segment Maintenance > Segment Definition (view)'. The main area contains a table with the following fields:

Domain *	BIGAPP	Segment Code *	WLASEG
Segment Name *	WLASEG	Segment Description	Segment for Big data infodom
Segment/Folder Type	Public	Owner Code	

At the bottom center of the dialog is a 'Close' button.

For more information, refer to the *Segment Maintenance* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack User Guide – Release 8.0.3.0.0](#).

20. Create Domain Map to Infodom as shown below:

The screenshot shows the 'User Group Domain Map' interface. On the left is a navigation tree with 'User Group Domain Map' highlighted. The main area has a search filter set to 'rca'. Below the search filter is a table of user groups:

User Group ID	Description
<input checked="" type="checkbox"/> UGRCAADMIN	RCA Application Administrator
<input type="checkbox"/> UGRCABIAN	RCA Application Analyst
<input type="checkbox"/> UGRCADAAN	RCA Application User

Below the user groups table is another section for 'Mapped Domains':

Mapped Domains
BIGAPP-WLASEG
OFSCAINFO-Folder For Enterprise Modeling
OFSCAINFO-OFSCASEG
OFSSBXCIRCA-CIRCASEG

For more information, refer to the *User Group Domain Map* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack User Guide – Release 8.0.3.0.0](#).

21. Authorize the created user roles/groups from sysauth

22. Assign the Hive infodom to RCAUSER.

23. Create application for web analytics with hive infodom as shown below:

**Create New Application**

Create New Application > Create New Application (view)

» Application

Application ID *	OFS_BIGAPP	Application Name *	BigApp
Application Description	Bigdata Application	Application Pack Name*	OFS_BIGAPP PACK
Information Domain*	BIGAPP	Enabled*	<input checked="" type="checkbox"/>

Close

24. Assign application roles to RCAUSER to access Hive infodom

25. Assign role for web analytics to groups as shown below:

**User Group Role Map**

User Group Role Map

» Search and Filter

User Group ID: rca X Description: [ ]

» User Group Role Map 1 - 3 / 3

User Group ID	Description
<input checked="" type="checkbox"/> UGRCAADMIN	RCA Application Administrator
<input type="checkbox"/> UGRCABIAN	RCA Application Analyst
<input type="checkbox"/> UGRCADAAAN	RCA Application User

» UGRCAADMIN 1 - 5 / 5

Mapped Roles

- CIRCA Administrator
- CIRCA BI Analyst
- CIRCA Data Analyst
- RCA Administrator
- Role to access OFS\_BIGAPP

26. Login to OFSAA as RCAUSER and select Hive application

27. Upload the WLA data model as shown below:

**Business Model Upload** Connected to: BIGAPP

Business Model Upload

» Upload Details

Name\* WLA\_803 Upload Mode New

» Model Upload Options

Upload Options  Erwin  DB Catalog

» Select Erwin in XML File

File Name OFS\_WLA\_Datamodel.xml Save New Erwin File In Server

» Upload Options

Update the database schema with Model changes  Yes  No

Alter constraints in NOVALIDATE State  Yes  No

Upload Model Cancel



For more information, refer to the *Upload Business Model* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack User Guide – Release 8.0.3.0.0](#).

28. Partition the hive utility using the following steps:

- a. Log in to hive
- b. On hive CLI or beeline prompt run use the hive datadome schema.
- c. Run all the scripts from the following folder:
  - <<install location>>/patch/OFS\_CA\_PACK/SQLScripts/

29. Alter the source table (FCT\_WLA\_LOG) to set the table property, fire the below query in the hive schema.

```
ALTER TABLE FCT_WLA_LOG SET TBLPROPERTIES ('serialization.null.format' = '');
```

This SQL query will take care of the duplicate entries for records that do not have the values for any of the fields after running the H2H\_FSI\_WLA\_ACTIVITY\_LOG process.

30. WLA models require dependent tables to be populated in sandbox. For this a data set is seeded. This data set will appear with name similar to 'Weblog Dataset'. By default, this dataset is not loaded on population of the Sandbox schema, since WLA feature may or may not be in use.

So to use WLA models, manual step is needed to add the WLA dataset to the sandbox along with other datasets before the sandbox population batch is executed.

» Sandbox Definition	
Sandbox Name *	RCASANDBOX
Is a logical definition?	<input type="radio"/> Yes <input checked="" type="radio"/> No
Source Dataset *	Sandbox dataset Channel Propensity Sandbox Dataset Weblog Dataset
Is data model upload required?	<input checked="" type="radio"/> Yes <input type="radio"/> No

### Dataset Addition Process

- a. In <Install root>/ftpshare/OFSCAINFO/erwin/sandbox find xml with sandbox id as file name.
- b. Add another node as below to add data set for web log after existing data sets:

```
<DATASET DESC="Weblog Dataset" ID="DSWLAAPP">
```

```
<FROMCLAUSE>FCT_WLA_CUST_EVENT_SUMMARY JOIN (SELECT
fsi_wla_model_event_map.v_event_code, dim_wla_event.n_event_skey
FROM fsi_wla_model_event_map JOIN dim_wla_event ON
fsi_wla_model_event_map.v_event_code = dim_wla_event.v_event_code
JOIN dim_wla_model ON fsi_wla_model_event_map.v_model_code=
DIM_WLA_MODEL.V_MODEL_CODE)FSI_DIM_WLA_EVENT on
```

```
    fct_wla_cust_event_summary.n_event_skey =  
    FSI_DIM_WLA_EVENT.n_event_skey</FROMCLAUSE>  
  
    <WHERECLAUSE>1=1</WHERECLAUSE>  
  
  </DATASET>
```

c. Resave the sandbox definition and restart OFSAAI server.

31. Define the CLUSTER.XML file.
32. Execute the Hive utility.
33. After installer utility is executed with success, the AAI\_ETL\_SOURCE table in config schema needs to be checked to confirm that the v\_db\_name attribute for WLAH2T definition is populated with hive db name. If not the hive db name needs to be updated.
34. Restart all the services.

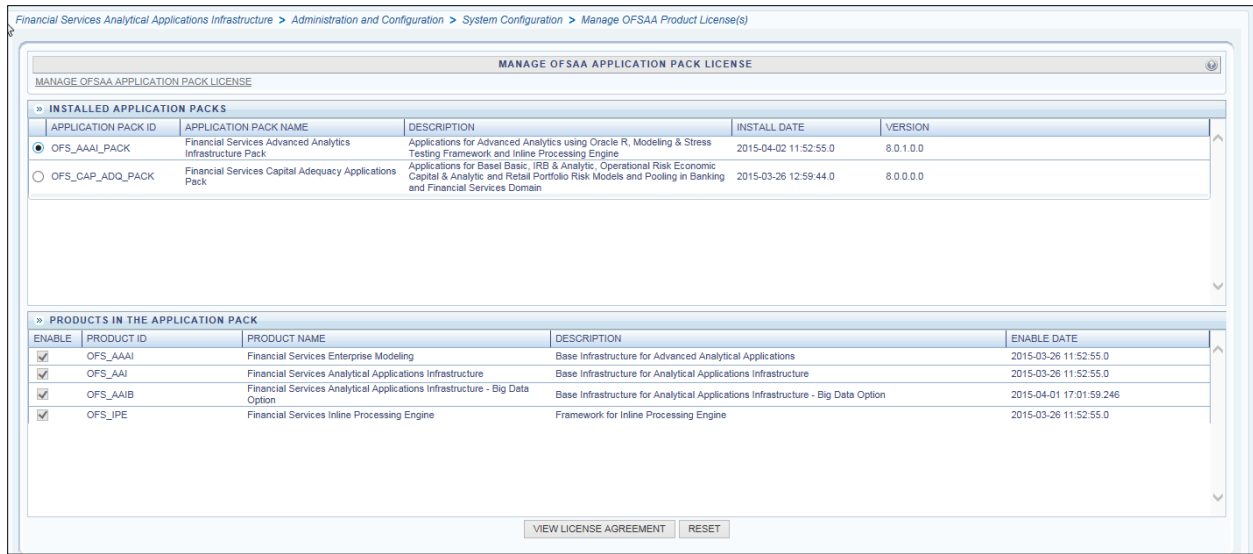
This section includes the following topics:

- [HDFS jars to be copied to OFSAA](#)
- [Copying KEYTAB and KRB5 files in OFSAAI](#)
- [Creating Application](#)

### 1.4.1 Enabling Big Data

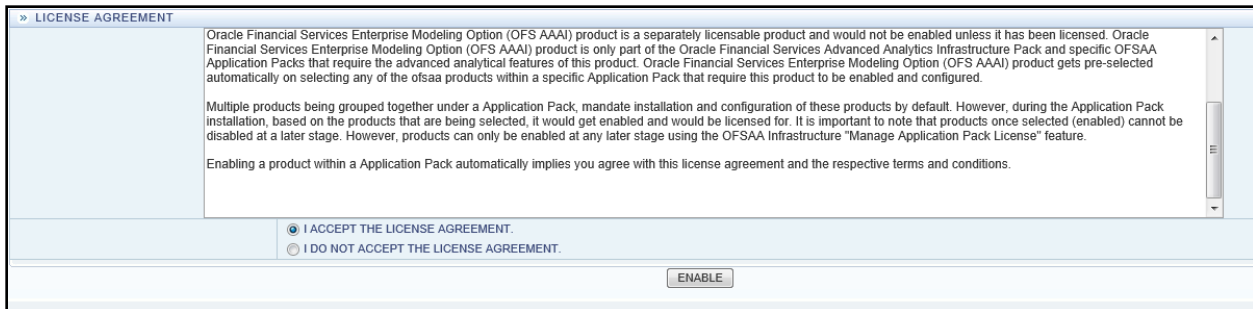
To enable Big Data option, follow these steps:

1. Login to the application as SYSADMN user or any user with System Administrator privileges.
2. Click **System Configuration & Identity Management** tab.
3. Expand Financial Services Analytical Applications Infrastructure, select Administration and Configuration and click System Configuration.
4. Click **Manage OFSAA Product License(s)**. The Manage OFSAA Application Pack License page is displayed.



**Figure 1: Manage OFSAA Application Pack License**

5. Select **OFS\_AAAI\_PACK** application pack in Installed Application Packs. The products in the application pack are displayed.
6. Select **Financial Services Analytical Applications Infrastructure - Big Data** option.
7. Click **VIEW LICENSE AGREEMENT**. The License Agreement section is displayed.



[Figure 2: License Agreement](#)

8. Select the option **I ACCEPT THE LICENSE AGREEMENT**.
9. Click **ENABLE**. A confirmation message is displayed showing that the product is enabled for the pack.

## 1.4.2 Grants to be given to METADOM Schema

Privilege Granted On (METADOM)	Target Resources of CONFIG Schema
<ul style="list-style-type: none"> <li>• Create SESSION</li> <li>• Create PROCEDURE</li> </ul>	grant select on <DEVXCACONF.CSSMS_USR_PROFILE> to <DEVWLAMDOM>; grant select on <DEVXCACONF.CSSMS_ROLE_MAST>

Privilege Granted On (METADOM)	Target Resources of CONFIG Schema
<ul style="list-style-type: none"> <li>• create SEQUENCE</li> <li>• create TABLE</li> <li>• create TRIGGER</li> <li>• create VIEW</li> <li>• create MATERIALIZED VIEW</li> <li>• create SYNONYM</li> <li>• CREATE SESSION</li> <li>• CREATE VIEW</li> <li>• CREATE SEQUENCE</li> <li>• CREATE TABLE</li> <li>• CREATE PROCEDURE</li> <li>• create RULE</li> <li>• CREATE TRIGGER</li> <li>• create type</li> <li>• Select on SYS.V_\$PARAMETER</li> <li>• select on sys.dba_free_space</li> <li>• select on sys.dba_tables</li> <li>• select on sys.Dba_tab_columns</li> <li>• CREATE SYNONYM</li> <li>• DEBUG CONNECT SESSION</li> <li>• DEBUG ANY PROCEDURE</li> <li>• CREATE MATERIALIZED VIEW</li> <li>• OLAP_USER</li> <li>• CONNECT</li> <li>• OLAP_USER</li> <li>• CREATE ANY MATERIALIZED VIEW</li> <li>• CREATE ANY TABLE</li> <li>• CREATE MATERIALIZED VIEW</li> <li>• CREATE PROCEDURE</li> <li>• CREATE SEQUENCE</li> <li>• CREATE SESSION</li> <li>• CREATE SYNONYM</li> <li>• CREATE TABLE</li> </ul>	<pre> to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.CSSMS_GROUP_MAS&gt;T to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.CSSMS_FUNCTION_MAST&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.CSSMS_USR_GROUP_MAP&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.CSSMS_USR_GROUP_DSN_SEG_MAP&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.CSSMS_ROLE_FUNCTION_MAP&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.CSSMS_GROUP_ROLE_MAP&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.CSSMS_SEGMENT_MAST&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.BATCH_TASK&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.CSSMS_USR_DSN_SEG_MAP&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.CSSMS_USR_ROLE_MAP&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.CSSMS_METADATA_SEGMENT_MAP&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.BATCH_RUN&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.PR2_FILTERS&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.PR2_TASK_FILTER&gt; to </pre>

Privilege Granted On (METADOM)	Target Resources of CONFIG Schema
<ul style="list-style-type: none"> <li>• CREATE TRIGGER</li> <li>• CREATE TYPE</li> <li>• CREATE VIEW</li> <li>• DEBUG CONNECT SESSION</li> </ul>	<pre> &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.PR2_TASK_FILTER_DETAIL&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.ST_STRESS_MASTER&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.ST_SCENARIO_MASTER&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.ST_SHOCK_MASTER&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.BATCH_MASTER&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.ICC_MESSAGELOG&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.PR2_MASTER&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.PR2_RUN_REQUEST&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.MF_MODEL_SCRIPT_MASTER&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.MF_INPUT_VALUES&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.MF_MODEL_OUTPUT_VALUES&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.DB_MASTER&gt; to &lt;DEVLAMDOM&gt;; grant select on &lt;DEVXCACONF.DSNMASTER&gt; to &lt;DEVLAMDOM&gt;;  grant select on &lt;DEVXCACONF.pr2_rule_map&gt; to &lt;DEVLAMDOM&gt;; grant delete on &lt;DEVXCACONF.pr2_rule_map_pr&gt; to </pre>

Privilege Granted On (METADOM)	Target Resources of CONFIG Schema
	<pre> &lt;DEVWLAMDOME&gt;; grant insert on &lt;DEVXCACONF.pr2_rule_map_pr&gt; to &lt;DEVWLAMDOME&gt;; grant update on &lt;DEVXCACONF.pr2_rule_map_pr&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.pr2_rule_map_pr&gt; to &lt;DEVWLAMDOME&gt;; grant delete on &lt;DEVXCACONF.pr2_rule_map_pr_tmp&gt; to &lt;DEVWLAMDOME&gt;; grant insert on &lt;DEVXCACONF.pr2_rule_map_pr_tmp&gt; to &lt;DEVWLAMDOME&gt;; grant update on &lt;DEVXCACONF.pr2_rule_map_pr_tmp&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.pr2_rule_map_pr_tmp&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.pr2_rule_map_exclude&gt; to &lt;DEVWLAMDOME&gt;; grant delete on &lt;DEVXCACONF.pr2_rule_map_exclude_pr&gt; to &lt;DEVWLAMDOME&gt;; grant insert on &lt;DEVXCACONF.pr2_rule_map_exclude_pr&gt; to &lt;DEVWLAMDOME&gt;; grant update on &lt;DEVXCACONF.pr2_rule_map_exclude_pr&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.pr2_rule_map_exclude_pr&gt; to &lt;DEVWLAMDOME&gt;; grant delete on &lt;DEVXCACONF.pr2_rule_map_exclude_pr_tmp&gt; to &lt;DEVWLAMDOME&gt;; </pre>

Privilege Granted On (METADOM)	Target Resources of CONFIG Schema
	<p>grant insert on &lt;DEVXCACONF.pr2_rule_map_exclude_pr_tmp&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant update on &lt;DEVXCACONF.pr2_rule_map_exclude_pr_tmp&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.pr2_rule_map_exclude_pr_tmp&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.pr2_run_object&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.pr2_run_object_member&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.pr2_run_map&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.pr2_run_execution_b&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.pr2_run_execution_filter&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.pr2_firerun_filter&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.pr2_filters to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.configuration&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.batch_parameter&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.component_master&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on &lt;DEVXCACONF.MDB_OBJECT_TYPE_ATT_LAYOUT&gt; to &lt;DEVWLAMDOME&gt;;</p> <p>grant select on</p>

Privilege Granted On (METADOM)	Target Resources of CONFIG Schema
	<pre> &lt;DEVXCACONF.REV_OBJECT_ATTRIBUTE_DTL&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.FORMS_LOCALE_MASTER&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.mdb_object_dependencies&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.mdb_execution_details&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.REV_STAT_DATA&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.REV_OBJECT_REPOSITORY_B&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.REV_OBJECT_REPOSITORY_TL&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.REV_OBJECT_ATTRIBUTE_DTL_MLS&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.REV_OBJECT_APPLICATION_MAP&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.MDB_OBJ_EXPR_DETAILS&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.MDB_EXECUTION_DETAILS&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.REV_OBJECT_TYPES_CD&gt; to &lt;DEVWLAMDOM&gt;; grant select on &lt;DEVXCACONF.REV_OBJECT_TYPES_MLS&gt; to &lt;DEVWLAMDOM&gt;; grant select on </pre>



Privilege Granted On (METADOM)	Target Resources of CONFIG Schema
	<pre> &lt;DEVXCACONF.REV_APPLICATIONS_CD&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.REV_APPLICATIONS_MLS&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.METADATA_BROWSER_LOCALE&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.MDB_STAT_DATA&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.MDB_OBJECT_TYPE_LAYOUT&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.ofsa_md_id_ref&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.MDB_ETL_MAPPING&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.setupinfo to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.LOCALEREPOSITORY&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.MF_MODEL_MASTER&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.MF_SANDBOX_MASTER&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.MF_VARIABLE_MASTER&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.MF_TECHNIQUE_MASTER&gt; to &lt;DEVWLAMDOME&gt;; grant select on &lt;DEVXCACONF.ST_SCENARIO_SHOCK_DATA&gt; to &lt;DEVWLAMDOME&gt;; </pre>

Privilege Granted On (METADOM)	Target Resources of CONFIG Schema
	<p>grant select on &lt;DEVXCACONF.MDB_RULE_SOURCE_HEADER&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant select on &lt;DEVXCACONF.MDB_RULE_TARGET_HEADER&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant select on &lt;DEVXCACONF.MDB_RULE_TARGET_MEMBER_HEADER&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant select on &lt;DEVXCACONF.MDB_RULE_GRID_DATA&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant select on &lt;DEVXCACONF.MDB_MODEL_MAPPING&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant delete on &lt;DEVXCACONF.AAI_MAP_MAPPER&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant insert on &lt;DEVXCACONF.AAI_MAP_MAPPER&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant update on &lt;DEVXCACONF.AAI_MAP_MAPPER&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant select on &lt;DEVXCACONF.AAI_MAP_MAPPER&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant select on &lt;DEVXCACONF.MDB_OBJECTS_GROUPING&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant select on &lt;DEVXCACONF.MDB_OBJECTS_GROUP_MASTER&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant select on &lt;DEVXCACONF.RTI_UI_EXCLUDE_PDM_LIST&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant select on &lt;DEVXCACONF.RTI_VIR_PHY_TBL_NAME&gt; to &lt;DEVWLAMDOM&gt;;</p> <p>grant select on &lt;DEVXCACONF.infodom_patches&gt; to</p>

Privilege Granted On (METADOM)	Target Resources of CONFIG Schema
	<DEVWLAMDOM>;

### 1.4.3 Copied Files for CDH

Hadoop jars, Kerberos files and client config of hadoop into \$FIC\_HOME/ext/lib and \$TOMCAT\_HOME/webapps/<context>/WEB-INF/lib. The files for CDH 5.3.1 are as shown below. Note that the version number is different for each CDH.

avro-1.7.6-cdh5.3.1.jar  
commons-cli-1.2.jar  
commons-collections-3.2.1.jar  
commons-configuration-1.6.jar  
commons-httpclient-3.1.jar  
commons-io-2.4.jar  
commons-logging-1.1.3.jar  
core-site.xml  
guava-11.0.2.jar  
hadoop-auth-2.5.0-cdh5.3.1.jar  
hadoop-common-2.5.0-cdh5.3.1.jar  
hadoop-core-2.5.0-mr1-cdh5.3.1.jar  
hadoop-core.jar  
hadoop-hdfs-2.5.0-cdh5.3.1.jar  
hdfs-site.xml  
hive-exec-0.13.1-cdh5.3.1.jar  
hive-exec.jar  
hive-jdbc-0.13.1-cdh5.3.1.jar  
HiveJDBC4.jar  
hive-jdbc.jar  
hive-metastore-0.13.1-cdh5.3.1.jar  
hive\_metastore.jar  
hive-service-0.13.1-cdh5.3.1.jar  
hive\_service.jar  
hive-site.xml  
httpclient-4.2.5.jar

httpcore-4.2.5.jar  
jackson-core-asl-1.8.8.jar  
jackson-mapper-asl-1.8.8.jar  
krb5.conf  
libfb303-0.9.0.jar  
libthrift-0.9.0-cdh5-2.jar  
libthrift-0.9.0.jar  
log4j-1.2.14.jar  
mapred-site.xml  
ofsaa.keytab  
protobuf-java-2.5.0.jar  
ql.jar  
servlet-api.jar  
slf4j-api-1.7.5.jar  
TCLIServiceClient.jar  
yarn-site.xml  
zookeeper-3.4.6.jar

Copy realm,Kerberos and CDH client config files to \$TOMCAT\_HOME/webapps/<context>/conf

### 1.4.4 HDFS related jars to be copied to OFSAAI

The HDFS jars deployed as part of Pivotal installation needs to be copied to OFSAAI from Pivotal installation directory.

To copy the HDFS jars, follow these steps:

1. Copy the following jars to the locations, \$FIC\_WEB\_HOME/webroot/WEB-INF/lib, \$FIC\_APP\_HOME/common/FICServer/lib, and \$FIC\_DB\_HOME/lib:
  - guava-11.0.2.jar file from /usr/lib/gphd/hadoop/lib folder
  - hadoop-common-2.2.0.jar file from /usr/lib/gphd/hadoop folder
  - hadoop-auth-2.2.0.jar file from /usr/lib/gphd/hadoop folder
  - hadoop-hdfs-2.2.0.jar file from /usr/lib/gphd/hadoop-hdfs folder
  - hadoop-mapreduce-client-core-2.2.0.jar file from /usr/lib/gphd/hadoop-mapreduce folder

- hive-metastore-0.12.0.jar file from /usr/lib/gphd/hive/lib folder
  - hive-jdbc-0.12.0.jar file from /usr/lib/gphd/hive/lib folder
  - hive-exec-0.12.0.jar file from /usr/lib/gphd/hive/lib folder
  - hive-service-0.12.0.jar file from /usr/lib/gphd/hive/lib folder
  - httpcore-4.2.4.jar file from /usr/lib/gphd/hive/lib folder
  - httpclient-4.2.5.jar file from /usr/lib/gphd/hive/lib folder
  - libfb303-0.9.0.jar file from /usr/lib/gphd/hive/lib folder
  - libthrift-0.9.0-.jar file from /usr/lib/gphd/hive/lib folder
2. The following jars available in \$FIC\_DB\_HOME/lib path of OFS AAI installation directory should be copied \$FIC\_WEB\_HOME/webroot/WEB-INF/lib and \$FIC\_APP\_HOME/common/FICServer/lib folders:
    - commons-collections-3.2.1.jar
    - commons-io-2.1.jar
    - commons-configuration-1.6.jar
    - slf4j-api-1.7.5.jar
  3. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the *Post Installation Configuration* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.0.0.0](#).

### 1.4.5 Copying of 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 for Kerberos applications, and mappings of hostnames onto Kerberos realms.

If the Database Authentication is configured as `KERBEROS_WITH_KEYTAB` for both Hive databases, then you must use the Keytab file to login to Kerberos. The Keytab and Kerberos files should be copied to `$FIC_HOME/conf` and `$FIC_WEB_HOME/webroot/conf` of OFS AAI Installation Directory.

Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the

*Post Installation Configuration* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.0.0.0](#).

#### 1.4.6 Template for the CLUSTER.XML file

The CLUSTER.XML file defines the cluster for the application. The template is as shown below:

```
<CLUSTERS>
<CLUSTER ID="KERBERIZEDCLUSTER">
<NAME>KERBERIZEDCLUSTER</NAME>
<AUTHTYPE>KRB</AUTHTYPE>
<PRINCIPAL>Kerberos Principal Name</PRINCIPAL>
<CONFPATH>Enter Path To Folder Containing The Below Files</CONFPATH>
<KEYTAB>Kerberos KeyTab File Name</KEYTAB>
<REALM>Kerberos Realm File Name</REALM>
<CORESITE>Name of core-site.xml</CORESITE>
<HDFSSITE>Name of hdfs-site.xml</HDFSSITE>
<MAPREDSITE>Name of mapred-site.xml</MAPREDSITE>
<YARNSITE>Name of yarn-site.xml</YARNSITE>
<DESCRIPTION>Details of the Kerberized Cluster</DESCRIPTION>
<CREATEDBY>NA</CREATEDBY>
<CREATETIME>NA</CREATETIME>
</CLUSTER>
<CLUSTER ID="NONSECURECLUSTER">
<NAME>NONSECURECLUSTER</NAME>
<AUTHTYPE>DEFAULT</AUTHTYPE>
<CONFPATH>Enter Path To Folder Containing The Below Files</CONFPATH>
<CORESITE>Name of core-site.xml</CORESITE>
<HDFSSITE>Name of hdfs-site.xml</HDFSSITE>
<MAPREDSITE>Name of mapred-site.xml</MAPREDSITE>
<YARNSITE>Name of yarn-site.xml</YARNSITE>
<DESCRIPTION>Details of the Non-Secure Cluster</DESCRIPTION>
```

```
<CREATEDBY>NA</CREATEDBY>
<CREATETIME>NA</CREATETIME>
</CLUSTER>
</CLUSTERS>
```

**Example:**

```
<CLUSTERS>
<CLUSTER ID="CDH531">
<NAME>CDH531</NAME>
<PRINCIPAL>ofsa@DEV.ORACLE.COM</PRINCIPAL>
<CONFPATH>/scratch/ofsaaweb/CHEF_OFSA/OFS_CA_PACK/conf/clientconf</CONFPATH>
<KEYTAB>ofsa.keytab</KEYTAB>
<REALM>krb5.conf</REALM>
<CORESITE>core-site.xml</CORESITE>
<HDFS_SITE>hdfs-site.xml</HDFS_SITE>
<MAPRED_SITE>mapred-site.xml</MAPRED_SITE>
<YARN_SITE>yarn-site.xml</YARN_SITE>
<DESCRIPTION>Cloudera Distribution for Hadoop with Hive 0.13.1</DESCRIPTION>
<CREATEDBY>sysadm</CREATEDBY>
<CREATETIME>2015/05/18 04:24:49 PM</CREATETIME>
</CLUSTER>
</CLUSTERS>
```

**1.4.7 Steps to execute the Hive utility**

Note that the server needs to be running in order to execute the file.

1. Run the following code:

```
$FIC_HOME/OFS_WLA/deploy_wla/conf file path
```

```
INFODOM=<rdms infodom>
```

```
HIVE_INFODOM=<hive info dom>
```

```
HIVE_SEGMENT=<hive infodom segment>
```

```
CLUSTER_ID=<cluster id from clusters.xml>
```

```
HDFS_FILE_PATH=<hdfs L2H template path>
```

```
METADATA_DBNAME=<metadom schema name for hive infodom>
```

2. Go to the OFS\_WLA/deploy\_wla/bin path.
3. Execute the etl\_wla.properties file using the `./appUtility.sh etl_wla.properties` command.

The log folder is in the \$FIC\_HOME/OFS\_WLA/deploy\_wla/logs path.

### 1.4.8 Configuration of Oracle R distribution and Oracle R enterprise (ORE)

You can refer the [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.0.0.0](#) for information on configuration of Oracle R distribution and Oracle R Enterprise.

### 1.4.9 Configuration of Open R

The R based models can be executed on open R runtime without ORE installed. By configuring OFSAAI and with a run time parameter, a model execution can be done on any node. The R server can be installed in the same machine as that of FIC\_DB layer or in a remote machine.

The R server details and the implementation details have to be configured in ModelingFramework.xml file which is available in \$FIC\_DB\_HOME/conf and \$FIC\_WEB\_HOME/webroot/conf folder. By default, the configuration is done with the implementation of open R invocation from Enterprise Modeling.

You must install the following packages as a prerequisite along with R (Version 3.0.1) in the R server machine:

- DBI - version 0.2-7 (Download link - <http://cran.r-project.org/web/packages/DBI/index.html>)
- Cairo - version 1.5-6 (Download link: <http://cran.r-project.org/web/packages/Cairo/index.html>)
- rJava- version 0.9-6(Download link - <http://cran.r-project.org/web/packages/rJava/index.html>)
- RJDBC - version 0.2-4(Download link - <http://cran.rproject.org/web/packages/RJDBC/index.html>)
- Rserve - version 1.8-0(Download link - <http://rforge.net/Rserve/files/>). This package is required only for remote mode of execution.

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

1. Navigate to \$FIC\_DB\_HOME/conf/ and \$FIC\_WEB\_HOME/webroot/conf.
2. Edit the tags mentioned in the following table in the ModelingFramework.xml file.

Tag Name	Description
<pre>&lt;HOST id="\$HOST\$" PRIMARY_NODE = "\$TRUE/FALSE\$" &gt;</pre>	<ul style="list-style-type: none"> <li>▪ Replace \$HOST\$ with IP Address/Host Name of the remote machine where Rserve is running. If the PRIMARY_NODE is \$TRUE, then it indicates that this is the primary node where it is executed when the host is not passed as a runtime execution.</li> </ul>



Tag Name	Description
	<ul style="list-style-type: none"> <li>▪ If it is local execution \$HOST\$ should be replaced with local.</li> </ul> <p><b>Note:</b> Online execution will always happen on the primary node.</p>
<REMOTE_FILE_PATH>\$FILE_PATH\$</REMOTE_FILE_PATH>	<ul style="list-style-type: none"> <li>▪ Replace \$FILE_PATH\$ with the path in the remote machine that has the complete access rights to all the users. This path contains the created R scripts and outputs.</li> <li>▪ In case of local R execution, the ftpshare area path is considered for creating the R file and the output file storage.</li> </ul>
<REMOTESERVICE_PORT>\$PORT\$</REMOTESERVICE_PORT>	Replace \$PORT\$ with the port configured for Rserve. The default Rserve port is 6311.
<USER> <NAME>\$USERNAME\$</NAME> <PASSWORD>\$PASSWORD\$</PASSWORD> </USER>	<ul style="list-style-type: none"> <li>▪ Replace the \$USERNAME\$ and \$PASSWORD\$ with user access to the Rserve.</li> <li>▪ For local execution Rserve is not required, so this tag values can be left blank.</li> <li>▪ Also, in case of remote execution authentication is disabled for Rserve these tag values can be left blank.</li> </ul>
<IS_OUTPUT_REQ_IN_OFSSAA>N</IS_OUTPUT_REQ_IN_OFSSAA>	This flag indicates whether the outputs are written back in the framework tables. If the value is 'Y', then RJDBC package is required.
<IS_DETAILED_OUTPUT_REQUIRED>Y</IS_DETAILED_OUTPUT_REQUIRED>	This flag indicates whether the csv output file has to be created in the machine where models are executed.
<CLASS_NAME>	This flag indicates the implementation class for executing the script in different engines.
<INPUT_DATA_IN_FILE>	<ul style="list-style-type: none"> <li>▪ This flag indicates input data is in file or not. If its blank the Data frame is created in R script.</li> </ul>
<PRE_SCRIPT_FILE>	This flag indicates the prescript to be appended to user script. By default R prescript is configured.
<POST_SCRIPT_FILE>	This flag indicates the post script to be appended to user script By default R postscript is configured.
<DELETE_RFILE>	This flag indicates the whether the script generated should be deleted or not. By default generated script file will be deleted.

Tag Name	Description
<IS_OUTPUT_REQ_IN_OFSA>	Enter Y if you want outputs in the OFSAA framework tables.

- In case of remote execution, for the hive connection the respective jar files (`apache - hadoop` and `hive jars / cdh - hadoop` and `hive jars`) should be copied to the lib folder of the remote R server node.

In case of local execution, the jar files should be copied in the `$FIC_DB_HOME/lib` folder .

- If RJDBC connection is required, place the `ojdbc7.jar` in the lib folder. RJDBC package is required if the outputs are required in Enterprise Modeling output tables.

For the Kerberos authentication the required `jaas-conf`, `krb-conf` and `keytab` files should be copied to conf folder of the remote R server node in case of remote execution.

In case of local execution, the conf files should be copied in the `$FIC_DB_HOME/conf` folder.

Create the `jaas-conf` file with the same name as that of the `keytab` file.

- The following jar files needs to be copied to `$FIC_DB_HOME/lib/` and `$FIC_WEB_HOME/webroot/WEB-INF/lib` folders:

- `RserveEngine.jar`
- `REngine.jar`

The download link is <https://rforge.net/Rserve/files/>

**NOTE:** Rserve is required only for remote node.

- Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the *Post Installation Configuration* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.0.0.0](#).

### 1.4.9.1 Configurations for Rserve in remote nodes where open -R engine is installed

Create `Rserv.conf` file in `/etc` and make following entries:

- `workdir /tmp/Rserv` - Provide complete access to this path.
- `pwdfile /etc/Rserveusers` - The username and password details should be configured in this file.
- `remote enable`

- auth enable
- plaintext enable - right now encrypted password validation is not handled.
- port 6311
- maxsendbuf 0
- control enable
- interactive no

For more information, refer the link: <http://rforge.net/Rserve/doc.html>

### 1.4.10 Known Issues

1. When installing multiple packs on a single environment, that is, OFS Profitability Pack on OFS Customer Analytics Pack or OFS Customer Analytics Pack on OFS Profitability Pack, the installation log of the latter pack will have the following SQL script error:

```
Error:ORA-00904: "N_PROJ_DATE_SKEY": invalid identifier
```

This is an error due to redundancy of a script when installing two packs on the same setup. This error will have no bearing on the functionality of the applications and needs to be ignored.

2. Duplicate entries for the T2T definition "T2T\_FCT\_PARTNER\_EXPENSE" in the ETLREPOSITORY.XML file. To fix this, do the following:
  - a. Open the ETLREPOSITORY.XML file.
  - b. Search for T2T\_FCT\_PARTNER\_EXPENSE.
  - c. Remove one of the two instances of T2T\_FCT\_PARTNER\_EXPENSE.
  - d. Save and close the file.

---

## Appendix A

### Configuration for WebLog analytics on Hive Infodom

Prerequisite:

1. Create RDBMS schema for Hive Metadom corresponding to Hive Infodom.
2. Create database definition for the above created RDBMS schema. For more information, refer to the *Adding Database Detail for DB Server* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack User Guide – Release 8.0.3.0.0](#).
3. Copy Hadoop jars, Kerberos files, and client config of hadoop into `$FIC_HOME/ext/lib` and `$TOMCAT_HOME/webapps/<context>/WEB-INF/lib`. Following are the files for CDH 5.3.1
4. Create Hive Schema and create Database definition for the Hive Schema created. For more information, refer to the *Adding Database Detail for DB Server* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack User Guide – Release 8.0.3.0.0](#).
5. Create big data.
6. Create segment. For more information, refer to the *Segment Maintenance* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack User Guide – Release 8.0.3.0.0](#). Select the same Big Data Information Domain that has been created.
7. Map the required user group to the Big Data Information Domain. For more information, refer to the *User Group Domain Map* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack User Guide – Release 8.0.3.0.0](#).
8. Create Application
9. Assign the required role for the web analytics to the user group. For more information, refer to the *User Group Role Map* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack User Guide – Release 8.0.3.0.0](#).
10. Upload WLA Data Model. For more information, refer to the *Upload Business Model* section in [Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack User Guide – Release 8.0.3.0.0](#).

## Appendix B

### Frequently Asked Questions

#### What checks does the 8.0.3.0.0 CA Release patch perform?

- Environment Check- As part of environment check, it performs Java validation, Environment Variables validation, OS specific validation, DB specific validation, and it shuts down all OFSAAI Services (Infrastructure Server, ICC Server, and back-end services).
- Post Install check- As part of Post install check, it checks if OFSAAI services can be successfully started.

#### Which version of ERwin Data Modeler does OFSAAI support?

OFSAAI now supports ERwin version 9.2 and 9.5 generated xmls in addition to ERwin 4.1, ERwin 7.1, ERwin 7.3 and ERwin 9.0 formats.

#### What should I do for viewing the log files in Debug level for troubleshooting?

By default, the log level is set as INFO. You need to manually change it to Debug to view the log files in debug level. Based on your requirement, you can change the log level to Warn, Error, or Fatal as well.

1. Navigate to `$FIC_HOME/conf` in the APP layer of your OFSAAI installation.
  - Change the **priority value** to **Debug** in the `RevLog4jConfig.xml` file.

For example:

```
<root>
  <priority value ="debug" />
  <appender-ref ref="ConsoleAppender1" />
</root>
```

- Change the value of **LOGGERLEVEL** in the `DynamicServices.xml` file from **20** to **0**. (**20** is the value for Info and **0** for Debug.)

---

**NOTE:** For multi-tier installation, you need to change the log level to Debug in the `DynamicServices.xml` and `RevLog4jConfig.xml` files, which are present in `$FIC_APP_HOME/conf`, `$FIC_DB_HOME/conf`, and `$FIC_WEB_HOME/conf` as well.

---

2. Navigate to `$FIC_WEB_HOME/webroot/conf` and change the **priority value** to **Debug** in the `ExportLog4jConfig.xml`, `MDBLogger.xml`, and `PR2Logger.xml` files for viewing log files in Debug level for the modules Archive/Restore, Metadata Browser and RRF respectively.
3. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the

*Post Installation Configuration* section in [OFS Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0](#).

4. Restart the OFSAAI Services (APP and WEB). For more information, refer to the *Start/Stop Infrastructure Services* section in [OFS Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0](#).

### **What naming conventions need to be followed for the Hive metadom and datadom schemas?**

The Big data processing requires manual steps to create the hive infodom. This requires one Hive-based schema for the datadom and one RDBMS-based schema for the metadom. Once these schemas are created, the RDBMS and hive schemas are used to create database definitions, which in turn are used to create the hive infodom. So, the naming convention that needs to be followed is that the hive database name and the metadom schema name must be the same.



OFSCA

8.0.3.0.0 Installation and Configuration Guide

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