

# **OFS Analytical Applications Infrastructure**

## **Cloning Reference Guide**

**Release 8.0.x**

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**ORACLE**  
Financial Services

## OFS Analytical Applications Infrastructure Cloning Reference Guide

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# Document Control

Version Number	Revision Date	Changes Log
1.0	Created: December 2015	Captured steps to set up an OFSAA Instance Clone for the 8.0.x.0.0 release.
2.0	Modified: May 2016	Added notes for Bug 23228276 and 22554485.
3.0	Modified: Jan 2018	Updated the document for Bug 27374642 and 27374657.
4.0	Modified: Nov 2018	<ul style="list-style-type: none"> <li>Added a prerequisite based on Bug 28715332.</li> <li>Updated for Doc 28728073.</li> <li>Updated for Doc 28929363.</li> </ul>
5.0	Modified: Apr 2019	Updated the document for Doc 29722514.
6.0	Updated: May 2019	<ul style="list-style-type: none"> <li>Added the OFSAA_LOG_HOME variable in the section <a href="#">Copy and Restore the OFSAA File System</a> (Doc 29641604).</li> <li>Added note for the table batch_parameter in the section <a href="#">Run the Port Changer Utility</a> (Doc 29448257).</li> </ul>
7.0	Updated: Aug 2019	Updated notes in the section <a href="#">Run the Port Changer Utility</a> (Doc 29862507).
8.0	Updated: Dec 2019	<ul style="list-style-type: none"> <li>Added information for (Doc 30649409): <ul style="list-style-type: none"> <li>Versions 8.0.5.4.0, 8.0.6.0.0, and higher, in the <a href="#">General Requirements</a> section.</li> <li>Added the <a href="#">Provide Grants and Set Passwords Using the SysDBA User Login</a> section.</li> </ul> </li> <li>Updated information for version 8.0.6.0.0 and higher in the <a href="#">Run the Port Changer Utility for the OFS AAI Versions 8.0.2.2.0, 8.0.3.3.0, 8.0.4.2.0 to 8.0.4.5.0, 8.0.5.2.0 to 8.0.5.4.0, or 8.0.6.0.0, and Higher</a> section (Doc 30452275).</li> </ul>
9.0	Updated: Mar 2020	<ul style="list-style-type: none"> <li>Added a note in the <a href="#">Target System Requirements</a> section to upgrade the Target OS (Doc 30849532).</li> <li>Updated the <a href="#">Appendix A</a> for the following (Doc 30849532): <ul style="list-style-type: none"> <li>Step 1 - updated the table for new column names and added the note for value for V_DB_NAME.</li> <li>Step 2 - updated the note for OFS AAI versions 8.0.6 and higher.</li> <li>Step 3 - added one-off information for OFS AAI versions 8.0.6 and higher.</li> <li>Step 4 - added note for OFS AAI versions 8.0.6 and higher.</li> </ul> </li> <li>Added a quickstart table in the <a href="#">Cloning Process</a> section.</li> </ul>

Version Number	Revision Date	Changes Log
10.0	Updated: May 2020	<ul style="list-style-type: none"> <li>Removed the <i>Run the EncryptC.jar Utility to Change the Key and Encryption Strings</i> section since it does not apply to the OFSAA application Releases 8.0.x any longer due to enhancements (Doc 31289780).</li> <li>Added details for the OFSAALogger.xml and ICCLog4jConfig.xml files in the <a href="#">Copy and Restore the OFSAA File System</a> section (Doc 31389739).</li> </ul>
11.0	Updated: Aug 2021	<ul style="list-style-type: none"> <li>Removed references to encryptc (Doc 30740418).</li> <li>Updated the <a href="#">Run the Port Changer Utility</a> section (Doc 33165413).</li> <li>Updated the <a href="#">Copy and Restore the OFSAA File System</a> section (Doc 29641604).</li> </ul>
12.0	Updated: Sep 2021	Updated the <a href="#">Perform the Post-Cloning Configurations</a> section (Doc 33196424).
13.0	Updated: Nov 2021	Updated the <a href="#">Target System Requirements</a> section (Doc 28673124).
14.0	Updated June 2022	Updated the <a href="#">Run the Port Changer Utility</a> section to replace target environment values.

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# 1 Preface

The purpose of this document is to serve as the reference material to the OFSAA administrators. This document contains detailed steps to set up an OFSAA Instance Clone for the 8.0.x.x.x releases.

## 1.1 Background

There is a consistent requirement for a faster and effective approach of replicating an existing OFSAA instance for further project developments. The approach is to set up the OFSAA instances that are exact copies of the current OFSAA instance.

## 1.2 Assumptions

The assumptions made in this document are:

- A working source OFSAA 8.0.x instance is in place.
- An appropriate target system exists for the new OFSAA setup.

## 1.3 Audience

This reference guide is for the administrators and implementation consultants responsible for the cloning of an OFSAA instance.

## 1.4 Conventions

The following text conventions are used in this document:

Conventions	Description
8.0.x	The OFSAA 8.0.x release.
Atomic Schema	The Database Schema where the application data model is uploaded.
Boldface	The boldface font type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
Configuration Schema (Config Schema)	The Database Schema which contains setup related configurations and metadata.
Italic	The italic font type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
Monospace	The monospace font type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.
Source	The source OFSAA system.

Conventions	Description
Target	The target OFSAA system.

## 1.5 Abbreviations

The following table lists the abbreviations used in this document:

Abbreviations	Description
OS	Operating System
UI	User Interface of the application

## 2 Setting Up an OFSAA Instance Clone for the 8.0.x Release

This chapter contains information about the prerequisites, cloning, and post-cloning configurations for the 8.0.x release when setting up an OFSAA Instance Clone. For details, see the following sections:

- [Prerequisites](#)
- [Cloning Process](#)

### 2.1 Prerequisites

To set up an OFSAA Instance Clone for the 8.0.x release, complete the following prerequisites:

1. [General Requirements](#)
2. [Source System Requirements](#)
3. [Target System Requirements](#)

#### NOTE

Complete the prerequisites and then perform the procedures mentioned in the [Cloning Process](#) section.

#### 2.1.1 General Requirements

Complete the following general requirements before beginning the cloning process:

1. The FTP/SFTP service is running on the OFSAA target system and the User credentials are available before you begin the cloning activities.
2. For any specific version of the OFS AAI (platform) application installed on your system, perform the corresponding action mentioned in the following table:

**Table 1: Version-Specific Upgrade Information**

THE VERSION OF THE OFS AAI APPLICATION IN USE	PERFORM THE FOLLOWING ACTION
8.0.0.0.0	Download the patch <b>20422514</b> from <a href="#">My Oracle Support</a> and install it in the source system.
8.0.1.0.0	Download the patch <b>22329222</b> from <a href="#">My Oracle Support</a> and install it in the source system.
8.0.5.0.x	Download the OFS AAI 8.0.5.2.0 ML patch <b>27552096</b> from <a href="#">My Oracle Support</a> and install it in the source system to upgrade it to version 8.0.5.2.0.
8.0.5.1.x	Download the OFS AAI 8.0.5.4.0 ML patch <b>29922464</b> from <a href="#">My Oracle Support</a> and install it in the source system to upgrade it to version 8.0.5.4.0.

## 2.1.2 Source System Requirements

In the source system, complete the following requirements:

1. All the OFSAA services are brought down.
2. Database connection details such as the RAC/NON-RAC URL, the SID/Service Name, and the User credentials are available.

## 2.1.3 Target System Requirements

In the target system, complete the following requirements:

1. All the basic software required for the installation of OFSAA applications (including infrastructure) is installed and is working on the machine identified as the Target OFSAA instance. You can use the Environment Check utility to verify system readiness. For details on how to use the Environment Check Utility, see the [OFS Analytical Applications Environment Check Utility Guide](#).

For details on the software and hardware requirements, see the *Hardware and Software Requirements* section in the Release 8.0.2.0.0 and Release 8.0.7.0.0 of the [OFS AAI Application Pack Installation and Configuration Guide](#).

### NOTE

- Upgrade the Target OS version to the same version as that of the Source OS. Binaries are OS version-specific and cloning requires that there is no mismatch of library files.
- OFS AAI is not required to be installed in the Target Instance before you begin the Cloning Process.
- See the Hardware and Software Requirements Section in the required Application Pack Installation Guides for a detailed list of the prerequisites.

2. The Web Server and the Web Application Server are configured. For details on how to configure web servers, see the *Configuring Web Server* section in the Release 8.0.2.0.0 and Release 8.0.7.0.0 of the [OFS AAI Application Pack Installation and Configuration Guide](#).
3. The OFSAA installation directory is set as `$FIC_HOME` with the 750 permission.  
For example, `/scratch/ofsaanew/OFSAA`
4. The OFSAA staging/metadata repository directory is set as `ftpshare` with the 775 permission.  
For example, `/scratch/ofsaanew/ftpsharenew`
5. The database connection details such as the RAC/NON-RAC URL, the SID/Service Name, and the User credentials are available.

**NOTE**

1. Create a new database instance that is different from the database instance used in the Source OFSAA instance.
2. Ensure that the Target Server can connect to the Source Database so that you can run **Portc.jar**. If not, the following error will occur:

```
$java -jar PortC.jar DMP
java.sql.SQLRecoverableException: IO
Error: Unknown host specified.
```

6. The Web Server and the Web Application Server identified for the deployment of the OFSAA applications are installed and configured on the machine which is identified as the Web Server and Web Application Server.

**NOTE**

If you intend to use the same Web Application Server, then create a separate profile (WebSphere) or a domain (WebLogic).

7. The details of the WebSphere profile or the WebLogic domain or the Tomcat context are available.

**NOTE**

Before executing the utility, ensure to configure the file `RevLog4jConfig.xml` with the default log paths.

## 2.2 Cloning Process

Before initiating the cloning process, perform these steps to retrieve the schema names:

1. Log in to the Source Config Schema.
2. Execute the following query to retrieve the Config Schema name and Atomic Schema name.

```
select dbuserid from db_master;
```

In the **expdp** and **impdp** database utilities, you can use the schema names in the SCHEMAS attribute.

Subsequent steps for cloning are described in the subsections in this topic and the following table is a quickstart with a summary view of the cloning process:

**Table 2: Quickstart for Cloning**

Sl. No.	Cloning Process (click the links to go to the specified steps in the document)
1.	<a href="#">Export</a> the complete Configuration and Atomic Schemas from the source environment
2.	<a href="#">Restore</a> the complete exported dumps into the target environment database

Sl. No.	Cloning Process (click the links to go to the specified steps in the document)
	<ul style="list-style-type: none"> <li>• <a href="#">Restore</a> the complete exported dumps into the target environment database with a different database user name (schema)</li> </ul>
3.	<p><a href="#">Provide grants and set passwords</a> using the SysDBA user login</p> <ol style="list-style-type: none"> <li><a href="#">Provide</a> the select grants permission on the sys.V_\$parameter view to the Config and Atomic Schemas of the target environment database</li> <li>When you import into different schema names, <a href="#">set the passwords</a> for the Config and Atomic Schemas of the target environment database same as that of the password in the source</li> </ol>
4.	<a href="#">Log in</a> to the Config Schema of the target environment database
5.	<a href="#">Copy and restore</a> the OFSAA file system
6.	<a href="#">Modify</a> files in the path \$FIC_HOME when you import the files into different schemas
7.	<p><a href="#">Run</a> the Port Changer utility</p> <ul style="list-style-type: none"> <li>• <a href="#">Run</a> the Port Changer utility for the OFS AAI versions 8.0.2.2.0, 8.0.3.3.0, 8.0.4.2.0 to 8.0.4.5.0, 8.0.5.2.0 to 8.0.5.4.0, or 8.0.6.0.0, and higher</li> </ul>
8.	<a href="#">Perform</a> the post-cloning configurations
9.	<a href="#">Create and deploy</a> the .ear/.war files
10.	<a href="#">Access</a> the UI

## 2.2.1 Export the Complete Configuration and Atomic Schemas From the Source Environment

Export all the Configuration and Atomic Schemas from the Source environment.

For example:

```
expdp SYSTEM/oracle@OFSAA12C2DB DIRECTORY=data_pump_dir
DUMPFILE=ofsaaconf_ofsaaatm_%U.dmp filesize=2G
SCHEMAS=ofsaaconf,ofsaaatm LOGFILE=ofsaaconf_ofsaaatm_exp.log
```

### NOTE

Running the preceding command creates data dumps in the files in multiples of 2GB. You can use any other equivalent commands/tools to archive the schemas.

## 2.2.2 Restore the Complete Exported Dumps Into the Target Environment Database

Restore all the exported dumps into the Target environment database.

For example:

```
impdp SYSTEM/oracle@OFSAA12nDB DIRECTORY=data_pump_dir
DUMPFILE=ofsaaconf_ofsaaatm_%U.dmp SCHEMAS=ofsaaconf,ofsaaatm
LOGFILE=ofsaaconf_ofsaaatm_imp.log
```

#### NOTE

Restoring the exported dumps creates the Config and Atomic Schemas with the same user credentials as that of the user credentials in the Source, along with the existing grants.

### 2.2.2.1 Restore the Complete Exported Dumps Into the Target Environment Database With a Different Database User Name (Schema)

Restore all the exported dumps into the Target environment database with a different database user name (schema).

For Example:

```
impdp SYSTEM/oracle@OFSAA12nDB DIRECTORY=data_pump_dir
DUMPFILE=ofsaaconf_ofsaaatm_%U.dmp REMAP_SCHEMA=
ofsaaconf:newofsaaconf,ofsaaatm:newofsaaatm
LOGFILE=new_ofsaaconf_ofsaaatm_imp.log
```

#### NOTE

- Restoring the exported dumps creates the Config and Atomic Schemas with the users mentioned under the *REMAP\_SCHEMA* attribute. The *REMAP\_SCHEMA* attribute is replaced as that of the Source along with the existing grants as in the Source environment.
- Ignore the **ORA-39082** object type created with the compilation errors. You can rectify this later in the subsequent steps.

### 2.2.3 Provide Grants and Set Passwords Using the SysDBA User Login

[Restore the Complete Exported Dumps into the Target Environment Database with a Different Database User Name \(Schema\)](#) does not provide the select grants permission. You must log in with the SysDBA user role to provide the select grants permission and set the passwords. The following subsections provide the instructions.

#### 2.2.3.1 Provide the Select Grants Permission on the `sys.v_$parameter` View to the Config and Atomic Schemas of the Target Environment Database

Provide the select grants permission on the `sys.v_$parameter` view to the Config and Atomic Schemas of the target environment database.

For example:

Log in as the sys user and run the following commands:

```
SQL> GRANT SELECT ON SYS.V_$PARAMETER TO ofsaacnf;  
Grant succeeded  
SQL> GRANT SELECT ON SYS.V_$PARAMETER TO ofsaatm;  
Grant succeeded
```

### 2.2.3.2 Set the Passwords for the Config and Atomic Schemas of the Target Environment Database with Different Schema Names

When you import into the Target environment database with different schema names, set the passwords for the Config and Atomic Schemas the same as that in the Source environment database.

**NOTE** If this step is not applicable, ignore it and proceed to the next step.

For example:

Log in as the sys user and run the following commands:

```
SQL> ALTER USER newofsaacnf IDENTIFIED BY welcome1;  
User Altered  
SQL> ALTER USER newofsaatm IDENTIFIED BY welcome1;  
User Altered
```

### 2.2.4 Log In to the Config Schema of the Target Environment Database

Log in to the Config Schema of the Target environment database. Update the values in the Config Schema table as mentioned in *Table 1* in [Appendix A](#).

**NOTE** This step is applicable if you have imported into different schema names for the OFS AAI (platform) versions 8.0.5.2.x, 8.0.5.3.x, 8.0.5.4.x, and higher.

### 2.2.5 Copy and Restore the OFSAA File System

To copy and restore the OFSAA file system, follow these steps:

1. Navigate to the `$FIC_HOME/utility/Clone/bin` path in the Source environment and grant the 750 permission to all the files present in the directory.
2. Execute the command:  

```
./OFSAA_Archive.sh
```

This step creates zipped files for the `$FIC_HOME` and `FTP SHARE` directories in their respective locations in the Source.

For example:

```
<FIC_HOME>.zip
```

```
<FTP SHARE>.zip
```

3. Copy the `<FIC_HOME>` and `<FTP SHARE>` archive files from the Source to the Target in their respective locations, that is, as per the directories created in the `$FIC_HOME` and `FTP SHARE` directories. For more information, see [Set the OFSAA installation directory as \\$FIC\\_HOME](#) and [Set the OFSAA staging/metadata repository directory as ftpshare](#) in the *Target System Requirements* section.

**NOTE** Transfer the archives in the BINARY mode.

4. The OFSAA installer made entries in the `.profile` file of the Source. Copy the entries to the `.profile` file of the Target in the respective locations.
5. To unzip, navigate to the directory where the zipped directory is present in the Target environment and execute the following command:

```
unzip -a <<Zipped_file>>
```

For example:

```
unzip -a ftpshare.zip
```

Perform this step for both the `<FIC_HOME>` and `<FTP SHARE>` zipped files. Extract both files to their respective locations in the Target environment.

6. Give the 750 permission recursively to the `$FIC_HOME` directory and the 775 permission to the `FTP SHARE` directory extracted in the Target environment.

For example:

```
chmod -R 750 $FIC_HOME
```

```
chmod -R 775 FTP SHARE
```

7. In the `.profile` file of the Target environment, modify the variables `FIC_HOME`, `JAVA_BIN`, `PATH`, `ORACLE_HOME`, `TNS_ADMIN`, `ORACLE_SID` and `OFSAA_LOG_HOME` in the entries made by the installer according to the required values of the Target environment.

For example, change the path to Java Runtime in the `JAVA_BIN` variable according to the Java Runtime installation on the Target environment and also modify the Java installed paths in `LD_LIBRARY_PATH` and `PATH` occurrences. Ensure that all these paths are accessible.

8. Update the cloned FTP shared paths in the `OFSAALogger.xml` file that exists in the following directories:
  - `$FIC_HOME/icc/conf`
  - `$FIC_HOME/ficdb/conf`

For example:

```
<RollingFile name="OFSAAAppender"
fileName="/home/ofsa807/ftpshare_new/logs/OFSAA.log"
filePattern="/home/ofsa807/ftpshare_new/logs/OFSAA-%i.log">
```

**NOTE** The preceding step applies to OFSAA Releases 8.0.6 and later.

9. Update the OFSA home directory path in the `ICCLog4jConfig.xml` file that exists in the `$FIC_HOME/ficapp/icc/conf/` directory.

For example:

```
<File name="ICCApender"
fileName="/home/ofsa807/OFSAAI_807_NEW/logs/iccserver.log"
append="false">
```

**NOTE** The preceding step applies to OFSAA Releases 8.0.6 and later.

10. Execute the `.profile` file in the Target environment.
11. Edit the `tnsnames.ora` file present in the `$TNS_ADMIN` directory to add or edit the connection details to the OFSAA schemas of the Target environment.

## 2.2.6 Modify Files in the Path `$FIC_HOME` When You Import the Files into Different Schemas

After importing the files into different schemas, modify the files in the `$FIC_HOME` path. Follow these steps:

1. In the OFS AAI server, navigate to the `$FIC_HOME` directory.
2. Modify values in the files as specified in step 2 of [Appendix A](#) and follow subsequent steps in the Appendix.

**NOTE** This step is applicable only for the OFS AAI (platform) versions 8.0.5.2.x to 8.0.5.4.x.

## 2.2.7 Run the Port Changer Utility

Before running the Port Changer Utility, complete the following prerequisites:

- Ensure that the `RevLog4jConfig.xml` of the `$FIC_HOME/conf` and the **AAI\_SETUP\_PROPS** Table of the Config Schema for the param name `LOGHOME` is configured with the default log paths before executing the utility.

The default log path for `RevLog4jConfig.xml` is `$FIC_HOME/logs` and the default log path to be set for the **AAI\_SETUP\_PROPS** Table of the Config Schema for the param name LOGHOME is `<deployed area of web server>/logs`.

- For more information, see *How to Find and Maintain OFSAA and OFSAAI Log and Configuration Files (Doc ID 1095315.1)* available in [My Oracle Support](#).
- This utility connects to the Config Schema to collect all the configurations. Therefore, in the `$FIC_HOME/conf` directory, you must edit the `DynamicServices.xml` file for the `DEFAULT_CONNECTION_URL` attribute. Ensure that the VALUE is a qualified jdbc URL of the Target database.

**NOTE**

If your OFS AAI version is 8.0.2.2.0, 8.0.3.3.0, 8.0.4.2.0 to 8.0.4.5.0, 8.0.5.2.0 to 8.0.5.4.0, or 8.0.6.0.0, and higher, ignore the following instructions in this section and go to the section [Run the Port Changer Utility for the Versions 8.0.2.2.0, 8.0.3.3.0, 8.0.4.2.0 to 8.0.4.5.0, 8.0.5.2.0 to 8.0.5.4.0, or 8.0.6.0.0, and Higher](#).

To run the Port Changer Utility, follow these steps:

1. Navigate to the `$FIC_HOME` directory in the Target.
2. Run the **PortC.jar** utility using the command:

```
java -jar PortC.jar DMP
```

Running the above command creates a file with the name **DefaultPorts.properties** in the `$FIC_HOME` directory. The directory contains the information related to the ports, IPs, and paths currently in use.

**NOTE**

It is mandatory to run the Port Changer utility using the DMP parameter every time before executing the utility using the UPD command.

3. Make the necessary changes to those ports, IPs, and paths in the **DefaultPorts.properties** file as per the Target environment. Save the changes.

**NOTE**

In the properties file, ensure that the `JDBC_URL` parameter does not contain space(s). Entering the `JDBC_URL` parameter with space(s) leads to errors in accessing the *System Configuration* window.

4. Run the **PortC.jar** utility using the command:

```
java -jar PortC.jar UPD
```

Running the above command changes the ports, IPs and paths in the `.profile` file (in the home directory), all the files in the `$FIC_HOME` directory, and the database tables according to the values mentioned in the **DefaultPorts.properties** file.

- Execute the `.profile` file and create the EAR/WAR file. Then restart the OFSAA services and redeploy to the configured web application server.

**NOTE**

- The table `batch_parameter` is not updated with the new IP after you run the file `portc.jar`. The table holds the batch execution details of the batches that were executed earlier. The table `batch_parameter_master` holds the new IP after you run `portc.jar`.
- Check the logs for more information, and contact [My Oracle Support](#) if you encounter any errors.

### 2.2.7.1 Run the Port Changer Utility for the OFS AAI Versions 8.0.2.2.0, 8.0.3.3.0, 8.0.4.2.0 to 8.0.4.5.0, 8.0.5.2.0 to 8.0.5.4.0, or 8.0.6.0.0, and Higher

To run the Port Changer Utility for the OFS AAI versions 8.0.2.2.0, 8.0.3.3.0, 8.0.4.2.0 to 8.0.4.5.0, 8.0.5.2.0 to 8.0.5.4.0 or 8.0.6.0.0, and higher, follow these steps:

- Navigate to the `$FIC_HOME/utility/PortC/bin` directory on the Target.
- Run the **PortC.sh** utility using the command:

```
./PortC.sh DMP
```

Running the above command creates a file with the name **DefaultPorts.properties** in the `$FIC_HOME` directory. The directory contains the information related to the ports, IPs, and paths currently in use.

**NOTE**

It is mandatory to run the Port Changer utility using the DMP parameter every time before executing the utility using the UPD command.

- Make the necessary changes to those ports, IPs, and paths in the **DefaultPorts.properties** file as per the Target environment. Save the changes.
- Run the **PortC.sh** utility using the command:

```
./PortC.sh UPD
```

Running the above command changes the ports, IPs and paths in the `.profile` file (in the home directory), all the files in the `$FIC_HOME` directory, and the database tables according to the values mentioned in the **DefaultPorts.properties** file.

- The above step (**Step 4**) does not change the file `LookupServices_LB.xml` located in the folder `$FIC_HOME/conf`. Replace with the target environment details.

For more information, refer to KM 2736685.1 from [support.oracle.com](http://support.oracle.com)

- Execute the `.profile` file and create the EAR/WAR file. Then restart the OFSAA services and redeploy to the configured web application server.

## 2.2.8 Perform the Post-Cloning Configurations

Perform the post-cloning configurations as mentioned in the *Post Installation Configurations* section in the versions 8.0.2.0.0 and 8.0.7.0.0 of the [OFS AAI Application Pack Installation and Configuration Guide](#).

**NOTE**

After the Cloning Process is complete, the Load Balancer IP or Host Name and the Port values may change.

Ensure that you apply the Oracle recommended configuration mentioned in the **Configure Referrer Header Validation** section in the [Oracle Financial Services Analytical Applications Security Guide](#) to update the information.

## 2.2.9 Create and Deploy the .ear/.war files

To create and deploy the .ear/.war files, follow these steps:

1. Navigate to the \$FIC\_WEB\_HOME directory in the Target environment.
2. Delete the OFSAA application \*.war/\*.ear file present in this directory.
3. Execute the command:  

```
./ant.sh
```
4. Copy the generated .ear/.war file to the Web Application Server identified for this OFSAA instance.
5. Modify all the Database connection resources done on the Web Application Server that are mapped to the new JDBC URL and Database User Credentials. Verify the test connection to validate.
6. Deploy the .ear/.war file using the *Web Application Server Admin Console*.

### 2.2.9.1 Access the UI

Access the UI by using the new IP Address/Host Name, the new Port, and the new Context Name.

For example:

```
http://<IP ADDRESS/ HOSTNAME>:<PORT>/<CONTEXT NAME>/login.jsp
```

### 3 Appendix A

Manually modify the occurrences of the Source database user name with a new Target database user name (see the REMAP\_SCHEMA attribute mentioned in the [Restore the Complete Exported Dumps Into the Target Environment Database](#) subsection of the [Cloning Process](#) section).

1. Log in to the newly imported Config Schema and update the column values as mentioned in the following table (Ignore if there are no rows found):

**Table 3: Update Config Schema Columns**

SI. No.	TABLE NAME	COLUMN NAME
1.	DB_MASTER	DBUSERID
		DBNAME
2.	AAI_DB_AUTH_ALIAS	V_AUTH_USERNAME
		V_AUTH_ALIAS
3.	AAI_DB_DETAIL	V_SCHEMA_NAME
		V_DB_NAME
4.	AAI_DMT_SOURCE	V_TABLE_OWNER
		V_DB_NAME
5.	AAI_ETL_SOURCE	V_TABLE_OWNER
		V_DB_NAME
6.	ETLSOURCEDETAILS	V_SCHEMA
7.	DSNMASTER	DBNAME
		V_INFO_DB_NAME
		CREATEDUSR
8.	AAI_DB_PROPERTY	V_PROPERTY_VALUE
		V_DB_NAME
9.	METADATA_ELEMENT_MASTER	V_ELEMENT_VALUE
10.	VIEW_DERIVED_ENTITY_TPOSE	SCHEMA_NAME
11.	I18NMASTER	REVCONTEXT

**NOTE**

V\_DB\_NAME and DBNAME values are TNS aliases for Atomic Schema and must not contain underscores.

For example, assuming that the Target Schema Name is PROD\_OFSAATMNEW, then the value for V\_DB\_NAME must be entered as PRODOFSAATMNEW.

2. Manually modify the occurrences of the Source Config database user name with the new Target Config database user name. See the following table for details:

**Table 4: Source and Target Config Database User Name Files**

Sl. No.	Directory Path	File Name
1.	\$FIC_HOME/conf/	Reveleus.SEC
2.	\$FIC_HOME/utility/OFSAAGenerateRepository/conf/	Reveleus.SEC
3.	\$FIC_HOME/conf/	DynamicServices.xml
4.	\$FIC_HOME/MigrationUtilities/Migration_LDAP/conf/	DynamicServices.xml
5.	\$FIC_HOME/utility/OFSAAGenerateRepository/conf/	DynamicServices.xml
6.	\$FIC_HOME/ficweb/webroot/conf/	DynamicServices.xml
7.	\$FIC_HOME/EXEWebService/Tomcat/ROOT/conf/	DynamicServices.xml
8.	\$FIC_HOME/EXEWebService/WebSphere/ROOT/conf/	DynamicServices.xml
9.	\$FIC_HOME/EXEWebService/weblogic/ROOT/conf/	DynamicServices.xml
10.	\$FIC_HOME/commonscripts/	ofs_aai_create_atomic.ora

**NOTE**

- Based on the Web Application Server, choose the relevant directory path from Sl. No. 7, 8, or 9 from the preceding table.
- The file mentioned in Sl. No. 10 is not applicable for new installations (are not upgrade installations from previous versions) of the OFS AAI versions 8.0.6 and higher. However, it is mandatory for OFS AAI upgrade installations for version 8.0.2.x.x and higher.

**3.** Execute the following one-off patch steps:

**NOTE**

- This step is applicable for new installations (are not upgrade installations from previous versions) of the OFS AAI versions 8.0.6 and higher.
- Skip this step for OFS AAI versions 8.0.5.4.x and lower since it is not required.

- a. Log in to <https://support.oracle.com/> and search for the one-off patch **30828901** under the *Patches & Updates* tab.
- b. Download the patch and apply it. See the *Readme.txt* file packaged with the patch for details on how to apply it.
- c. Enter details for the following information when prompted:

```
Enter Connect String :
newofsaaatm/<PASSWORD>@OFS12nDB
Enter Folder Path :
```

```
/scratch/ofsaapp/tmp_stage
Enter new Config Schema name :
newofsaconf
Enter infodom name :
OFSAAIINFO
```

After entering the details, the patch creates the SQLScripts\_OFSAAI\_\$INFODOM directory, replaces placeholder values in the metadom files, and then executes SQL scripts in the metaschema as mentioned in the connect string.

4. Execute scripts on the Atomic Schemas to update the new Target Config database user name as mentioned in the following steps:

**NOTE** This step is not applicable for new installations (are not upgrade installations from previous versions) of the OFS AAI versions 8.0.6 and higher. However, it is mandatory for OFS AAI upgrade installations for version 8.0.2.x.x and higher.

- a. On the *Putty* console, navigate to the `$FIC_HOME/commonscripts/` path on the OFS AAI server.
- b. Create a copy of the file `ofs_aai_create_atomic.ora` as `ofs_aai_create_atomic_<INFODOM>.ora`.
- c. Replace the `$INFODOM` placeholder with the actual infodom name in the file `ofs_aai_create_atomic_<INFODOM>.ora`.

**NOTE** Enclose the actual infodom name within a single quote.

INFODOM is associated with each Atomic Schema. Therefore, you must create individual files for each Atomic Schema.

You can fetch the INFODOM value associated with each Atomic Schema by executing the following query in the newly modified Config Schema.

```
SQL> select h.dbuserid, g.dsnid from dsnmaster g, db_master h
where g.dbname = h.dbname and h.dbname <> 'CONFIG';
```

- d. Connect to the Atomic Schemas using the `sqlplus` utility of the `$ORACLE_HOME/bin` directory.
- e. Execute the `ofs_aai_create_atomic_<INFODOM>.ora` file and ignore the **ORA-00001** and **ORA-02292** errors in the log file. If there are other errors, contact [My Oracle Support](#).

```
SQL> spool aai_create_<INFODOM>.log
SQL> @ofs_aai_create_atomic_<INFODOM>.ora
SQL> spool off
SQL> exit;
```

**NOTE** Repeat this step for all the Atomic Schemas.  
After the execution, delete all the files created as  
ofs\_aai\_create\_atomic\_<INFODOM>.ora.

- f. Log in to the newly imported Atomic Schemas. Perform the following steps on each Atomic Schema to modify the interdependent object:

Run the following query in each Atomic Schema for the verification of invalid object status:

```
select object_type, object_name from user_objects
where object_type in ('FUNCTION','PACKAGE','PACKAGE
BODY','PROCEDURE','TRIGGER','VIEW') and status = 'INVALID'
order by object_type , object_name;
```

If the preceding query lists out the objects, then you can compile the invalid objects and enable the object registration elements by following these steps:

- i. Run the following anonymous block to compile the invalid objects:

```
BEGIN
  FOR cur_rec IN ( select object_type, object_name from
user_objects
where object_type in ('FUNCTION','PACKAGE','PACKAGE
BODY','PROCEDURE','TRIGGER','VIEW') and status = 'INVALID'
order by object_type , object_name )
  LOOP
    BEGIN
  IF cur_rec.object_type = 'PACKAGE BODY' THEN
    EXECUTE IMMEDIATE 'ALTER PACKAGE ' || ' "' ||
cur_rec.object_name || '" COMPILE BODY';
    COMMIT;
    ELSE
    EXECUTE IMMEDIATE 'ALTER ' || cur_rec.object_type || ' "' ||
cur_rec.object_name || '" COMPILE';
    COMMIT;
    END IF;
  EXCEPTION
    WHEN OTHERS THEN NULL;
  END;
  END LOOP;
END;
```

- ii. Run the following scripts to enable the object registration elements:

```
spool <Validpath>/restore_owner.log
alter table REV_TABLES_TL disable constraint FK_REV_TABLES_TL_1
```

```

/
alter table REV_TABLE_CLASS_ASSIGNMENT disable constraint
FK_V_TABLE_CLASS_ASSIGNMENT_2
/
alter table REV_TAB_COLUMNS disable constraint
FK_REV_TAB_COLUMNS_1
/
alter table REV_TABLE_LOG_CLASS_ASMNT disable constraint
FK_V_TABLE_CLASS_LOG_ASMNT_2
/
alter table REV_TAB_CONSTRAINTS disable constraint
FK_REV_TAB_CONSTRAINTS
/
alter table REV_TAB_CONSTRAINT_COLUMNS disable constraint
FK_REV_TAB_CONST_COLUMNS
/
alter table REV_TAB_INDEXES disable constraint
FK_REV_TAB_INDEXES
/
update FSI_DB_INFO set owner=USER
/
update REV_COLUMN_PROPERTIES set owner=USER
/
update REV_DESCRIPTION_TABLES set owner=USER ,
DESCRIPTION_TABLE_OWNER=USER
/
update REV_TABLES_B set owner=USER
/
update REV_TABLES_TL set owner=USER
/
update REV_TABLE_CLASS_ASSIGNMENT set owner=USER
/
update REV_TAB_COLUMNS set owner=USER
/
update REV_TAB_COLUMNS_MLS set owner=USER
/
update REV_VIRTUAL_TABLES set owner=USER
/
update REV_VIRTUAL_TABLES_MLS set owner=USER
/

```

```

update REV_VIRTUAL_TABLES_TL set owner=USER
/
update REV_TAB_CONSTRAINTS set owner=USER
/
update REV_SYNONYMS set table_owner=USER
/
update REV_TABLE_LOG_CLASS_ASMNT set owner=USER
/
update REV_TAB_CONSTRAINT_COLUMNS set owner=USER
/
update REV_TAB_INDEXES set owner=USER
/
update REV_TAB_REF_CONSTRAINTS set owner=USER
/
alter table REV_TABLE_LOG_CLASS_ASMNT enable constraint
FK_V_TABLE_CLASS_LOG_ASMNT_2
/
alter table REV_TAB_CONSTRAINTS enable constraint
FK_REV_TAB_CONSTRAINTS
/
alter table REV_TAB_CONSTRAINT_COLUMNS enable constraint
FK_REV_TAB_CONST_COLUMNS
/
alter table REV_TAB_INDEXES enable constraint FK_REV_TAB_INDEXES
/
alter table REV_TAB_COLUMNS enable constraint
FK_REV_TAB_COLUMNS_1
/
alter table REV_TABLE_CLASS_ASSIGNMENT enable constraint
FK_V_TABLE_CLASS_ASSIGNMENT_2
/
alter table REV_TABLES_TL enable constraint FK_REV_TABLES_TL_1
/
commit
/
spool off
exit;

```

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