OFS Price Creation and Discovery

Installation Guide

Release 8.0.7.5.0

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OFS Price Creation and Discovery Application Pack Installation Guide

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Document Control

Version Number	Revision Date	Change Log
1.0	November 2021	Created the document to capture the OFS PCD Applications Pack 8.0.7.5.0 Maintenance Level Release installation instructions.

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1 OFS Price Creation and Discovery Application Pack

This section provides information about the Oracle Financial Services Price Creation and Discovery (OFS PCD) Applications Pack.

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

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

Topics:

- Audience
- How this Guide is Organized
- Access to Oracle Support
- Related Documents
- Conventions
- Abbreviations

1.1 Audience

OFS PCD Application Pack Installation Guide is intended for Administrators and Implementation Consultants who handle installing and maintaining the application pack components.

This document assumes that you have experience in installing Enterprise Components and basic knowledge about the following:

- OFS PCD Applications Pack Components
- OFSAA Architecture
- UNIX Commands
- Database Concepts
- Web Server or Web Application Server

1.2 How this Guide is Organized

The Installation Guide is organized into the following sections:

- OFS PCD Application Pack Release v8.0.7.4.0
- Pre-installation Requirements
- Installing this Release
- Additional Configurations

1.3 Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For 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.

1.4 Related Documents

We strive to keep this and all other related documents updated regularly; visit the OHC Documentation Library to download the latest version available there. The list of related documents is provided here.

- OFS Price Creation and Discovery Release Notes 8.0.7.4.0
- OFS Price Creation and Discovery User Guide 8.0.7.0.0

Additional Documents to Read:

- OFS Funds Transfer Pricing User Guide
- OFS Analytical Applications Technology Matrix
- OFS Analytical Applications Infrastructure Installation and Configuration Guide

1.5 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.	
<u>Hyperlink</u>	Hyperlink type indicates the links to external websites and internal document links.	

1.6 Abbreviations

The following table lists the abbreviations used in this document.

Table 2: Abbreviations

Abbreviation	Meaning
BDP	Big Data Processing
DBA	Database Administrator

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

Abbreviation	Meaning
SID	System Identifier
SSL	Secure Sockets Layer
TNS	Transparent Network Substrate
URL	Uniform Resource Locator
VM	Virtual Machine
WAR	Web Archive
XML	Extensible Markup Language

2 OFS PCD Application Pack Release v8.0.7.5.0

OFS Price Creation and Discovery Application Pack Installation Guide Maintenance Level (ML) Release v8.0.7.5.0 includes all the bug fixes and minor enhancements since the previous Minor Release v8.0.7.0.0.

This ML Release of the OFS PCD Application Pack can be installed on a setup with any Oracle Financial Services Profitability (OFS PCD) v8.0.7.0.0 Application Pack.

Note that the following software versions are not supported from this release of OFS PCD:

- Operating System: OEL6, Solaris Spark 10, Solaris x86 10, and AIX 6
- Oracle Database and Client: 11g, 12c, and 18c
- Application Server: IBM WebSphere Application Server

The OFS PCD Applications Pack v8.0.7.5.x release supports Oracle Database Release 19c in addition to the continued support on Oracle Database Release 12c.

2.1 Pre-installation Requirements

Ensure that the following prerequisites are present before you install this Maintenance Release:

- The minimum patch level installed must be OFS PCD Release v8.0.7.0.0.
- The unlimited Cryptographic Policy for Java is enabled during the installation of OFS PCD 8.0.7.0.0.
 For more information, see the Enabling Unlimited Cryptographic Policy Section in the OFS Analytical Applications Infrastructure Administration Guide.
- It is mandatory to install the OFS PCD v8.0.7.5.0 ML only on *Java 8 with JCE enabled*. Therefore, configure the Java version of the following to *Java 8 with JCE enabled*.
 - OFSAA Processing Tier (where the ML will be installed)
 - Web Server (Tomcat or WebLogic)

NOTE

To upgrade Java 7 to Java 8 in an existing OFSAA v8.0.7.x.x instance, see *Appendix H* in the <u>OFS Price Creation and Discovery Application pack Installation and Configuration Guide 8.0.7.0.0.</u>

- You have executed the .profile file.
- Apex 21.1.0 and ORDS 21.1 Software Installation to Database.

2.1.1.1 Apex 21.1.0 and ORDS 21.1 Software Installation to Database

- 1. Ensure that Apex 21.1.0 is installed.
 - a. Download the APEX 21.1.0 software from the following link:
 https://www.oracle.com/tools/downloads/apex-downloads.html
 - b. Installation Guide

https://docs.oracle.com/en/database/oracle/application-express/21.1/htmig/index.html

- 2. Install ORDS.
 - **a.** Download the ORDS 21.1 software from the following link:

https://www.oracle.com/tools/downloads/apex-downloads.html

Installation Guide

https://docs.oracle.com/en/database/oracle/oracle-rest-data-services/21.1/aelig/index.html

2.1.1.1.1 Mandatory Steps during ORDS Installation

The following are the mandatory steps to follow while installing the ORDS:

Unzip the ORDS distribution as follows:

```
cd /scratch/<user>/ORDS
unzip ords.21.3.zip
```

1. Make a directory to hold the configuration under the ORDS Zip Kit Path

```
mkdir -p /scratch/<user>/ORDS/conf
```

2. Edit the following details in the ords/params/ords_params.properties file provided with the ORDS Software such as hostname, port, and servicename.

Figure 1: ords params.properties File

```
db.hostname=whf00bel
db.port=1521
db.servicename=OFSAAWS2
db.sid=
db.username=APEX_PUBLIC_USER
migrate.apex.rest=false
rest.services.apex.add=
rest.services.ords.add=true
schema.tablespace.default=SYSAUX
schema.tablespace.temp=TEMP
standalone.http.port=8080
standalone.static.images=
user.tablespace.default=USERS
user.tablespace.temp=TEMP
```

3. Use the ords.war file to specify the Configuration Directory using the following command.

```
java -jar ords.war configdir /scratch/<user>/ORDS/conf
```

4. Configure ORDS using the following command.

```
java -jar ords.war
```

5. Database connection and URL Mapping ORDS Commands.

Ensure that OFSAA is the Database Connection Name. Run the following command:

```
java -jar ords.war setup --database ofsaa
```

6. Create a URL Mapping to the new Database Connection by running the following command:

```
$JAVA HOME/bin/java -jar ords.war map-url --type base-path /ofsaa ofsaa
```

7. Copy the Apex images from its Apex Installer Kit Extract to Webapps Path (Deployment location in server)

```
mkdir $CATALINA_HOME/webapps/i/
  cp -R /scratch/<user>/Apex/apex/images/* $CATALINA_HOME/webapps/i/
```

- 8. Deploy ORDS on server like Tomcat or WebLogic.
 - If it is Tomcat, configure server.xml with ords context_name.
 - i. Open the web.xml file in <ORDS>/WEBINF/ folder.
 - ii. Update the web.xml file with the and give config.dir path as follows:

NOTE: ords conf path is the path where configuration files of ORDS are present.

iii. In WebLogic deploy and create the Datasource for ords as well.

For deploying on WebLogic server, follow these steps:

i. In the setup where Apex images are present run the following command which will generate i.war.

```
java -jar ords.war static apex/images/
```

- ii. Move the configuration folder of the ORDS Setup to the WebLogic host location.
- iii. Create a folder at the deployed location ords.ear.
- iv. Create ords.war folder in the ords.ear folder and place ords.war file in it.
- v. Inflate the ords.war file using the command:

```
jar -xvf ords.war
```

- vi. Update the web.xml file in ords.war/WEBINF/ to give config.dir path.
- vii. Delete the ords.war file in ords.war folder.
- **viii.** Create a folder at the deployed location i.ear.
- ix. Create an i.war folder in the i.ear folder and place i.war in it.
- **x.** Inflate the i.war file using the command:

```
jar -xvf i.war
```

- **xi.** Delete the i.war file in the i.war folder.
- **xii.** Copy the Apex images into the i.war folder.
- **xiii.** Navigate to the WebLogic Console and then deploy i.war and ords.war.
- **9.** Check the conf path (/scratch/<user>/ORDS/conf) in the web.xml file of ords if it is correctly configured.

This path holds the configurations for ords

```
<deployed_path>/ords/WEB-INF/web.xml
```

10. Start the Servers: Oracle Apex Login Page should be displayed for the following link: http://<server-name>:<port>/ords/

2.2 Pre-installation Procedures

Perform the following procedures as pre-installation steps for Existing Customers and Bulk Pricing modules.

2.2.1 Existing Customers

- 1. Customize the datamodel to include the table in the EXISTING CUSTOMER FSDF.xls.
- 2. Upload the datamodel.
- 3. Execute the 80750 installer with the customized Datamodel.

2.2.2 Bulk Pricing

Customize the datamodel to include the table in the **BULK_PRICING_FSDF.xlsx**.

2.2.3 Pre-upgrade Step

If you are upgrading from PCD version 8.0.7.4.0 to PCD version 8.0.7.5.0 and existing EPM applications are on version 8.0.7.4.0, then take a backup of the $FIC_DB_HOME/libFSGBU$ folder.

You should restore the backup after the upgrade is complete. For more information, see <u>Restoring the Backed up Files</u> section.

INSTALLING THIS RELEASE

2.3 Installing this Release

To install this release patch, follow these steps:

- 1. Log in to My Oracle Support and search for **30782598** under the Patches & Updates Tab.
- 2. Download the OFS PCD 8.0.7.5.0 OFS PCD ML Release archive file and copy it to your OFSAA Server in **Binary** Mode.

NOTE

There are different archive files for different Operating Systems such as AIX, Solaris, and RHEL or OEL.

- **3.** Stop all the OFS AAI Services. For more information, see the *Stopping Infrastructure Services* Section in the OFS Price Creation and Discovery Application pack Installation and Configuration Guide 8.0.7.0.0.
- **4.** Log in to My Oracle Support, search for the **33663417** Mandatory Patch in the Patches & Updates Tab and download it.

ATTENTION

On the 10th of December 2021, Oracle released Security Alert CVE-2021-44228 in response to the disclosure of a new vulnerability affecting Apache Log4J prior to version 2.15. The application of the 33663417 Mandatory Patch fixes the issue.

For details, see the My Oracle Support Doc ID 2827801.1.

- **5.** Log in to the OFSAA Server as a non-root user and navigate to the \$FIC HOME directory.
- **6.** Assign WRITE permission to the files or directories such as commonscripts, EXEWebService, ficapp, ficweb, and ficdb using the command:

```
chmod -R 775 *
```

- 7. If you have the Unzip utility, skip to the next step or download the Unzip utility (OS-specific) and copy it in Binary Mode to the directory that is included in your PATH variable, typically \$HOME path or directory in which you have copied the v8.0.7.5.0 ML.
 - Uncompress the unzip installer file using the command:

```
unzip -a OFS_PM_8.0.7.5.0_<OS>.zip
```

NOTE

If you notice an error message "uncompress: not found [No such file or directory]" when the package is not installed, contact your UNIX Administrator.

Assign EXECUTE permission to the utility using the command:

```
chmod 751 unzip <os>
```

For example, chmod 751 unzip aix

8. Extract the contents of the v8.0.7.5.0 ML archive file using one of the following commands:

NOTE

The above "-a" option is mandatory to extract the archive file. An example of the AIX Operating System,

unzip_aix -a p30782598_80750_AIX64.zip

9. Update the parameters in the params.conf file present in the OFS_PM_PACK/OFS_PM/conf directory for the following parameters:

UPLOAD MODEL=0

10. Navigate to the OFS_PM_PACK directory to assign EXECUTE permission to the ML Patch Installer Script using the command:

chmod 755 OFSAAIUpdate.sh

11. Complete the patch upgrade using the command:

./OFSAAIUpdate.sh

12. Verify if the ML patch is applied successfully by checking the log file generated in the OFS_PM_PACK/OFS_PM/conf directory. You can ignore error codes ORA-00001 and ORA-02292 in the log file. You can also ignore the errors "Object already exists" and "Table already has a referential constraint with the same name".

For any other errors, contact My Oracle Support.

NOTE

For an upgrade on Hive Infodom, you may encounter an exception "PL/SQL: ORA-00942: table or view does not exist". You can ignore this error.

- **13.** After successful installation of the ML, follow these steps:
 - Run the following command to execute the .profile file:
 - . \$HOME/.profile
 - Clear the Application Cache. Navigate to the following path depending on the configured Web Application Server and delete the files.
 - Tomcat:

 $\verb| <Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp| \\$

— WebLogic:

<WebLogic installation location>/domains/<Domain
name>/servers/<Server name>/tmp/ WL user/<Application name>

- WebSphere:
 - <WebSphere installation directory>/AppServer/profiles/<Profile
 name>/temp/<Node name>/server1/<Application name>/<.war file name>
- 14. Delete the existing EAR or WAR file available in the \$FIC HOME/ficweb directory.
- **15.** Install the OFSAAIRunner Package. This is an optional step and applicable only if you have installed Oracle R Enterprise Edition (ORE). For more information, see *Install the Updated OFSAAI Runner* Section in OFS AAI Installation Guide Release 8.0.7.4.0.
- **16.** Generate the application EAR or WAR file and redeploy the application on your configured Web Application Server. For more information on generating and deploying the EAR or WAR file, see the *Post Installation Configurations* Section in the <u>OFS Price Creation and Discovery Application pack</u> Installation and Configuration Guide 8.0.7.0.0.
- **17.** Restart all the OFSAAI Services. For more information, see the *Starting Infrastructure Services* Section in the OFS Price Creation and Discovery Application pack Installation and Configuration Guide 8.0.7.0.0.

TIP

When you install PCD 80700, PCD 80750, PFT Pack 80700, and PFT PACK 80750, some integrity constraint errors will be present in PFT 807 Installation. You can ignore these errors.

3 Appendix A: Post-installation Changes

Perform the following procedures after the installation is complete for Existing Customers and Bulk Pricing modules.

3.1 Existing Customers

- 1. Execute dimension table data loading script file: MergeDIMTabs.sql in the atomic schema.
- **2.** Execute the following script files in the config schema:
 - **a.** Execute the SQL script file <u>DM_T2T_FLAS_STG_LOAN_CONTRACTS.sql</u> in the config schema replacing ##INFODOM## with applicable infodom name in block letters, ##USER## with SYSADMN, and ##SOURCE2## with OFSAASTAGE.
 - **b.** Execute the SQL script file <u>DM_T2T_PAYMENT_SCHEDULE.sql</u> in the config schema replacing ##INFODOM## with applicable infodom name in block letters, ##USER## with SYSADMN, and ##SOURCE2## with OFSAASTAGE.
 - **c.** Execute the SQL script file <u>DM_T2T_STG_LOANS_CAS.sql</u> in the config schema replacing ##INFODOM## with applicable infodom name in block letters, ##USER## with SYSADMN, and ##SOURCE2## with OFSAASTAGE.

You should do this to establish the source to destination mapping of the new columns.

3. Recompile all the DB packages.

3.2 Bulk Pricing

Recompile all the DB packages.

3.3 Cleaning up Customer Insight Artifacts

This is applicable only if OFS PCD is a stand-alone application in the environment.

NOTE

This SQL script contains the Table Back up and Delete statements. If there are already Backed up tables with the same names, then ensure that you provide a unique backup table name. The naming convention used in this SQL Scripts is <Table Name>_bkp.

Execute the following SQL to clean the CI Artifacts.

Delete_CI_Rule_Run_Process.sql

3.4 Restoring the Backed up Files

After you upgrade PCD from version 8.0.7.4.0 to version 8.0.7.5.0, restore the following files from the backed up location into plooned ploo

- libaccess.so
- libcftm.so
- libengdb.so
- libexecf.so
- libiomod.so
- libofsabase.so
- librevdtl.so
- libtptm.so
- libunix.so
- libvparse.so
- libadcoadapter.so
- libdbmem.so
- libeng.so
- libfcmain.so
- libmoodysadapter.so
- libppay.so
- libte.so
- libtscdbg.so
- libutils.so
- libbcservices.so
- libdbviews.so
- liberrlog.so
- libglbl.so
- liboci.so
- librates.so
- libtp.so
- libtsctask.so
- libvlib.so

3.5 Integrating OFS FTP with OFS PCD

The following steps are required if you want to test the OFS FTP Integration with OFS PCD.

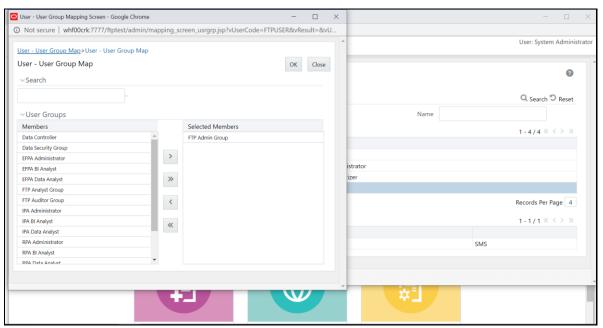
OFS PFT Pack v8.0.7.4.0 Maintenance Level Release is mandatory for this integration.

Step 1: Enable the Default RM Icon in the Application Preferences Screen:

Update the parameter DEFAULT_RELATIONSHIP_MANAGER = `Y' in the backend table REV APP PREFERENCES METADATA.

Step 2: Deploy War and Test Data Execution:

- Create a new user by logging in as sysadmn and authorize using User in the OFS FTP Client.
- Map the FTP Admin Group to the new user and authorize using sysauth User in the OFS FTP Client.



• Navigate to the deployed path /WEB-INF/classes folder and update the Infodom Name and UserID for OFS FTP in the ofsaaws.properties file.

Path example: /scratch/pmuser/apache-tomcat-8.5.31/webapps/ofsaapcd/WEB-INF/classes

```
infodom=OFSPFTINFO
userId=pftuser
pollFrequency=1000
pollIterations=3
Instrument_tables=210,230~FSI_D
```

- After this configuration, restart the Tomcat Server.
- Execute the products and IRC files in FTP Atomic Schema.

NOTE

This step is required only if the data in the FTP Setup and PCD Setup is not the same, that is the underlying database for both the applications is different.

• If FTP OFSAA Instance is present in a different Host, add the following entry in the web.xml file present in the \$CATALINA_HOME/webapps/<FTP context>/web-inf/web.xml directory.

```
<filter>
     <filter-name>FilterServlet</filter-name>
     <filter-class>com.iflex.fic.filters.FilterServlet</filter-class>
        <init-param>
            <param-name>AllowOrigin</param-name>
            <param-value>http://<PCD HOST NAME>:<PORT></param-value>
       </init-param>
</filter>
Example:
<filter>
     <filter-name>FilterServlet</filter-name>
     <filter-class>com.iflex.fic.filters.FilterServlet</filter-class>
        <init-param>
            <param-name>AllowOrigin</param-name>
            <param-value>http://whf00crk:8080</param-value>
        </init-param>
</filter>
```

OFSAA Support

Raise a Service Request (SR) in My Oracle Support (MOS) for queries related to the OFSAA Applications.

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