Oracle Financial Services Data Foundation Application Pack - Java8

Installation Guide

Release 8.0.7.2.0

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OFS Data Foundation Application Pack Installation Guide

Document Control

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1   Preface

This section provides information about the Oracle Financial Services Data Foundation (OFSDF) Application Pack Installation Guide.

Topics:

- What is New in this Release for OFSDF Application Pack
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1.1   What is New in this Release for OFSDF Application Pack

This section lists new features and changes in the OFSDF Application Pack.

1.1.1   New Features

There are no new features in this release.

1.1.2   Deprecated Features

There are no deprecated features in this release.

1.1.3   Desupported Features

There are no desupported features in this release.

1.2   Audience

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

- OFSDF Application Pack components
- OFSAA Architecture
- UNIX Commands

- Database Concepts

- Web server/Web application server

1.3 How this Guide is Organized

The Installation Guide is organized into the following sections:

- Introduction: This section contains an introduction to the OFSAAI and its components, an introduction to the OFSDF Application Pack, and installation scenarios that the current release supports.

- Complete Installation Checklist: This section lists the procedures required for a complete OFS Data Foundation Application Pack installation.

- Pre-installation: This section contains the pre-installation requirements for a successful installation and functioning of the OFS Data Foundation Application Pack. This section recommends the hardware and base software environment, and the preparatory procedures required before triggering the installation.

- Installation: This section details the steps to follow during the OFS Data Foundation Application Pack installation.

- Frequently Asked Questions (FAQs) and Error Dictionary: This section contains a reference to the FAQs and installation error-related information.

1.4 Access to Oracle Support

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

1.5 Related Documents

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

- OFSDF Application Pack User Guide Release 8.0.7.0.0

- OFS Analytical Application Technology Matrix

1.6 Conventions

The following text conventions are used in this document.

Table 1: Document Conventions

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

1.7 Abbreviations

The following table lists the abbreviations used in this document.

Table 2: Abbreviations

Conventions	Description
AIX	Advanced Interactive executive
CDH	Cloudera Distribution Hadoop
DEFQ	Data Entry Forms and Queries
DML	Data Manipulation Language
EAR	Enterprise Archive
EJB	Enterprise JavaBean
ERM	Enterprise Resource Management
FTP	File Transfer Protocol
GUI	Graphical User Interface
HTTPS	Hypertext Transfer Protocol Secure
J2C	J2EE Connector
J2EE	Java 2 Enterprise Edition
JDBC	Java Database Connectivity
JDK	Java Development Kit
JNDI	Java Naming and Directory Interface
JRE	Java Runtime Environment
JVM	Java Virtual Machine
LDAP	Lightweight Directory Access Protocol

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

2 OFS Data Foundation Application Pack Maintenance Release 8.0.7.2.0

This Maintenance Release of OFS Data Foundation Application Pack is cumulative and includes all enhancements and bug fixes done since the OFSDF Application Pack v8.0.7.0.0 release.

NOTE	The schema or domain for FSDF is referred to as BFND.

2.1 Pre Installation Requirements

This section provides pre-installation requirements for OFSDF 8.0.7.2.0 Java8 Release.

- The OFSDF Application Pack Release v8.0.7.2.0 is compatible with the WebLogic v12.2.x and does not support the WebLogic v12.1.3. If the WebLogic version is 12.1.3, upgrade to the WebLogic 12.2.x version.

NOTE	To upgrade Java 7 in an existing OFSAA 8.0.8.x.x instance to Java 8, see *Appendix P* in the Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide.

ATTENTION	Refer to My Oracle Support - Doc ID 2890601.1 and install the appropriate compatibility patches based on your applications installed.

- Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) 8.0.7.0.0 (patch **28226275**) plus other prerequisite OFSAAI Patches (see the section **1.1 Pre-Installation Requirements** of OFS AAI Installation Guide) must be installed and configured in your machine (OHC Documentation Library).

- Oracle Financial Services Data Foundation (OFSDF) Application Pack version 8.0.7.0.0 (patch **28929704**) plus other prerequisite OFSDF Patches (see the section **3.1 Installer and Installation Prerequisites** of OFSDF Installation Guide) must be installed in your machine.

- Oracle Database Release 19c Server and Client configuration:

  For information about configuring the Oracle Database Release 19c Server and Client for existing installations of OFSAA running Oracle Database Release 12c Server and Client, see the MOS Doc ID: 2699715.1.

- Enable unlimited cryptographic policy. By default, JCE Policy JAR files are available for the Java versions mentioned in the following link and for later versions:

  https://bugs.java.com/view_bug.do?bug_id=JDK-8170157

For Java versions, where unlimited cryptographic policy is not enabled by default, perform the following steps:

1. Download the JCE Policy related JARs `local_policy.jar` and `US_export_policy.jar`.

   ▪ For Oracle Java, download `local_policy.jar` and `US_export_policy.jar` files from http://www.oracle.com/technetwork/java/javase/downloads/jce-7-download-432124.html.

   ▪ For IBM Java, download `local_policy.jar` and `US_export_policy.jar` files from https://www14.software.ibm.com/webapp/iwm/web/preLogin.do?source=jcesdk.

2. Copy (or replace) the downloaded JCE Policy related JARs `local_policy.jar` and `US_export_policy.jar` in to the `/jre/lib/security` folder of Java installation directory used for OFSAAI and the Web Application Servers.

> **NOTE** You can refer to the Technology Matrix, for Hardware and Software Requirements.

2.2 How to Apply This Maintenance Release?

2.2.1 Downloading OFS Data Foundation Application Pack

Refer to the following instructions to download and extract the release.

> **NOTE** This patch release is applicable only for the RDBMS installation.

1. Login to My Oracle Support and search for Patch ID **34317740** under the *Patches & Updates* tab.

2. Download the OFSDF Application Pack v8.0.7.2.0 archive file and copy it to your OFSAA Server in **Binary** mode.

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

3. 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 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.
	Ensure that you reapply the OFSAAI Mandatory Patch **33663417** whenever you Install or Upgrade the Application, or whenever you apply an Incremental Patch.

5. Log in to the OFSAA Server as a non-root user.

6. Execute the following command:

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

7. Assign WRITE permission to the files/ folders such as commonscripts, EXEWebService, ficapp, ficweb, and ficdb by executing the command:

   ```
   chmod -R 775 *
   ```

8. If you have Unzip utility, skip to the next step. Download the Unzip utility (OS specific) **unzip_<os>.Z** and copy it in **Binary** mode to the directory that is included in your PATH variable, typically **$HOME** path or directory in which you have copied the 8.0.7.2.0 installer.

   ▪ Uncompress the unzip installer file using the command:

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

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.

   ▪ Give EXECUTE permission to the file using the command:

   ```
   chmod 751 OFS_BFND_8.0.7.2.0_<OperatingSystem>.zip.
   ```

9. Extract the contents of the 8.0.7.2.0 archive file using the command:

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

NOTE	Rename or remove the existing OFSAA Application Pack folder from the OFSAA Server prior to extracting the contents from the release archive (.zip). For example: For this release when extracted from the archive creates a folder with name OFS_BFND_PACK. Rename or remove if a folder with the same name exists in the path where the release archive is copied.

	The above "-a" option is mandatory to unzip the archive file. For example:
	`unzip_aix -a`
	`OFS_BFND_8.0.7.2.0_<OperatingSystem>.zip.`

2.2.2 Pre Installation Activities

Model Upload Parameter

The configuration file (`params.conf`) should be updated before triggering the installation. The `params.conf` file is available in the `/OFS_BFND_PACK/OFS_BFND/conf` directory.

Following are the input parameters for `params.conf` file:

Model Upload Process: Input values required are 0/1

- **0** indicates Skip Model Upload Process

- **1** indicates Trigger Model Upload

If the value is **1**, then next option is to select the option of type of Model Upload:

- **0** indicates Released Data Model

- **1** indicates Customized Data Model

If the value is **1**, then provide the inputs for Data Model name and the path of Data Model.

NOTE	If you are upgrading from OFSDF 8.0.7.1.0 to 8.0.7.2.0, the Model Upload Parameter must be 0 and refrain from pre-script and post-script execution.
	If you are upgrading from OFSDF 8.0.7.0.0 to 8.0.7.2.0, the Model Upload Parameter must be 1 and the Model Type must be 0.

2.2.3 Installing OFS Data Foundation Application Pack

Perform the following steps to install the OSFDF application pack:

1. Give EXECUTE permission to the maintenance release archive file. Navigate to the path `./OFS_BFND_PACK` and execute the command:

```
chmod 750 OFSAAIUpdate.sh
```

2. Execute `OFSAAIUpdate.sh` file using the following command:

   `./OFSAAIUpdate.sh`

3. If OFSAA is deployed on Oracle WebLogic Server version 12.2.x, install the one-off patch **25343603**. Refer to the Readme available with the patch for further instructions on installing the patch.

> | **NOTE** | If the release is already applied as a part of 8.0.7.0.0, this step is not required. |
> |---|---|
> | | See the Technology Matrix for a list of supported servers for OFSAAI 8.0.7.0.0. |

If the release is already applied as part of 8.0.7.0.0, this step is not required. Verify if the release is applied successfully by checking the log file generated in the installation folder. Logs can be found in `/OFS_BFND_PACK/logs` and `/OFS_BFND_PACK/OFS_BFND/logs` directory. You can ignore ORA-00001, ORA-00955, ORA-02260, ORA-01031 and ORA-01430 errors in the log file. For any other errors, contact <u>My Oracle Support</u>.

2.2.4   Post Installation Activities

This section provides information on the post installation activities that must be performed after the OFSDF Installation.

Platform Related Post Installation Activities

Perform the following steps after the OSFDF application pack is installed:

1. After successful installation, follow 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>/<auto generated folder>/jsp_servlet

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

2. Add umask 0027 in the `.profile` file of the UNIX account which manages the WEB server to ensure restricted access permissions.

3. Perform the necessary additional configuration as mentioned in *Additional Configurations* section in *Oracle Financial Services Data Foundation Installation Guide 8.0.7.0.0*.

4. Apply the OFSAAI Mandatory Patch **33663417**.

   See the Readme that is packaged with the Patch for instructions about **installing the Patch**.

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.
	Ensure that you reapply the OFSAAI Mandatory Patch **33663417** whenever you Install or Upgrade the Application, or whenever you apply an Incremental Patch.

NOTE	If the release is already applied as a part of 8.0.7.0.0 or 8.0.7.1.0 this step is not required.

5. 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 Data Foundation Installation Guide 8.0.7.0.0*.

6. After the successful installation of the release, restart all the OFSAAI Services. For more information, refer to the *Start/Stop Infrastructure Services* section in *Oracle Financial Services Data Foundation Installation Guide 8.0.7.0.0*.

1.1.1.1 OFSDF Related Post Installation Activities

Change ICC Ownership

All the seeded Batches in OFSDF Applications Pack will be automatically assigned to SYSADMN user during Installation. If one user who wants to see the Batches in *Batch Maintenance* Menu, He needs to execute the following Queries in Config Schema of the Database.

Syntax:

```
begin

AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP
('fromUser','toUser','infodom');

end;

OR

begin
```

```
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP
('fromuser','touser');

end;
```

Where from User indicates the user who currently owns the batch, to User indicated the user to which the ownership has to be transferred. Infodom is optional parameter, if specified the ownership of batches pertaining to that Infodom will be changed.

For example:

```
begin

AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP
('SYSADMN','FSDFOP','OFSBFNDINFO');

end;
```

3   Appendix A

3.1   Frequently Asked Questions

1. **What checks does the 8.0.7.2.0 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.

2. **Which version of erwin Data Modeler does OFSAAI support?**

    OFSAAI now supports ERwin version 9.64 generated XMLs in addition to ERwin 9.5 generated XML files.

3. **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.

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.

OFSAA Support

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

Send Us Your Comments

Oracle welcomes your comments and suggestions on the quality and usefulness of this publication. Your input is an important part of the information used for revision.

- Did you find any errors?

- Is the information clearly presented?

- Do you need more information? If so, where?

- Are the examples correct? Do you need more examples?

- What features did you like most about this manual?

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

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