Oracle Financial Services International Financial Reporting Standards Application Pack

Installation Guide

Part Number E63693-01

Version 8.0.1.0.0

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Financial Services

Document Control

Version Number	Revision Date	Changes Done
1.0	Created: April 2015 Updated: August 2015	Captured 8.0.1.0.Release enhancement updates.
2.0	Modified: April 2017	Added details of consolidated one-off patch 25777667.
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Executive Summary

This document includes the necessary instructions to apply 8.0.1.0.0 Minor 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 the OHC Documentation Library.

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Preface

This document provides step-by-step instructions to install the Oracle Financial Services International Financial Reporting Standards Application Pack (OFS IFRS) 8.0.1.0.0 Minor Release.

This chapter discusses the following topics:

- Audience
- How this Guide is Organized
- Recommended Environment
- Related Documents
- Conventions and Acronyms

Audience

The OFS IFRS pack Installation and Configuration Guide is intended for administrators and implementation consultants who are responsible for installing and maintaining the application pack components.

The document assumes you have experience in installing Enterprise components. Basic knowledge about the OFS IFRS pack components, OFSAA Architecture, UNIX commands, Database concepts, and Web Server/ Web Application Server is recommended.

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 Advanced Analytical Applications Infrastructure pack components
- OFSAA Architecture
- UNIX Commands
- Database Concepts
- Web Server/Web Application Server

How this Guide is Organized

The OFS IFRS pack Installation and Configuration Guide includes the following topic:

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- OFS IFRS Release 8.0.1.0.0.

Recommended Environment

The 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 to the OFS IFRS Pack 8.0.1.0.0 documents available in OHC Documentation Library.

- *Oracle Financial Services International Financial Reporting Standards Application Pack Installation Guide 8.0.0.0.0*

- *Oracle Financial Services Loan Loss Forecasting and Provisioning User Guide 8.0.1.0.0*

- *Oracle Financial Services Hedge Management User Guide 8.0.1.0.0*

Conventions and Acronyms

Conventions	Description
Actions are indicated in **Bold.** Command or query is indicated in `Courier New font.`	
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
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.
DEFQ	Data Entry Forms and Queries
DML	Data Manipulation Language
EAR	Enterprise Archive
EJB	Enterprise JavaBean

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Conventions	Description
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

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1   OFS IFRS Pack Release 8.0.1.0.0

This Minor Release of Oracle Financial Services International Financial Reporting Standards Application Pack (OFS IFRS) is cumulative and includes all enhancements and bug fixes done since the OFS IFRS Application Pack v8.0.0.0.0 GA release. For more information, refer the *Oracle Financial Services IFRS Release 8.0.0.0.0 Installation Guide* in OHC Documentation Library.

1.1   Supported Software Versions

You can refer to the OFSAA Technology Matrix 8.0.1.0.0 in OHC Documentation Library to know more about the software versions that are supported by this release of OFS IFRS.

1.2   Pre Installation Requirements

▪ Ensure that you have installed IFRS Pack 8.0.0.0.0 GA as the minimum patch set level.

▪ Upgrade of IFRS Application Pack to 8.0.1.0.0 mandates upgrade of Oracle Financial Services Asset Liability Management Application Pack and Oracle Financial Services Profitability Application Pack to 8.0.1.0.0 release. Until these dependent Application Packs are upgraded, the respective Applications within these packs will be disabled from the UI.

▪ The PATH variable in the **.profile** file should be set to include the Java Runtime Environment absolute path. The path should include the java version (java 6, java 7, or java 8) based on the configuration.

▪ Download the consolidated one-off patch 25777667 from My Oracle Support.

1.3   How to Apply for This Minor Release?

1.3.1   Installing OFS IFRS

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

1. Login to https://support.oracle.com/ and search for **21523595** under the *Patches & Updates* tab.

2. Download the OFS IFRS Application Pack v8.0.1.0.0 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.

3. Shut down all the OFSAAI Services. For more information, refer to the *Start/Stop Infrastructure Services* section in *Oracle Financial Services IFRS Release 8.0.0.0.0 Installation Guide* in OHC Documentation Library.

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4. Assign WRITE permission to the files/ folders such as common scripts, EXEWebService, ficapp, ficweb, and ficdb in the **$FIC_HOME** folder by executing the command:

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

5. If you have Unzip utility, skip to the next step. 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 8.0.1.0.0.

    ▪ Uncompress the unzip installer file using the command:

    ```
    uncompress <unzip utility filename>
    ```

    > **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.
    ```

6. Extract the contents of the 8.0.1.0.0 archive file using the command:

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

    > **NOTE:** The above "**-**an" option is mandatory to unzip the archive file. For example:
    > ```
    > unzip_aix -a OFSAAI_80100_<OperatingSystem>.zip
    > ```

7. Give EXECUTE permission to the archive file. Navigate to the path *OFSAAI_80100_<OperatingSystem>.zip* and execute the command:

    ```
    chmod 750 OFSAAIUpdate.sh
    ```

8. Update the parameters in **params.conf** file present in *OFS_IFRS_PACK/OFS_IFRS/conf* directory. The update instructions are present in the file itself.

9. Execute **OFSAAIUpdate.sh** file.

    Verify if the Minor Release is applied successfully by checking the following log files generated in the installation folder:

    ▪ <IFRS_Patch_Installer_Folder>/OFS_IFRS_PACK/logs/OFSAAIUpdate.log

    ▪ <IFRS_Patch_Installer_Folder>/OFS_IFRS_PACKOFS_IFRS/logs/<log>

    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.

10. Install the consolidated one-off patch **25777667**. Refer to the Readme available with the patch for further instructions on installing the patch.

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11. For more information on securing your OFSAA Infrastructure, refer to the Security Guide in OHC Documentation Library.

12. After successful installation of this Minor Release, perform these steps:

    ▪ Clear the application cache. Navigate to the following path depending on the configured web application server and delete the files.

        ▪ **T**omcat:
        <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

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

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

14. 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 IFRS Release 8.0.0.0.0 Installation Guide* in OHC Documentation Library.

15. After the successful installation of the Minor Release, restart all the OFSAAI services. For more information, refer to the *Start/Stop Infrastructure Services* section in *Oracle Financial Services IFRS Release 8.0.0.0.0 Installation Guide* in OHC Documentation Library.

1.4   Post Install Configurations

1.4.1   Configure excludeURLList.cfg file

To configure **excludeURLList.cfg** file, follow these steps:

1. Locate the webserver deployed area webroot/conf/excludeURLList.cfg file.

2. Modify the following entries:

    ▪ [SQLIA]./dataIntegrator/ to [ALL]./dataIntegrator/

    ▪ [SQLIA]./ETLExtractionServlet to [ALL]./ETLExtractionServlet

3. Save the changes and restart the webserver.

4. Resave the definition.

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1.5 Additional Configurations

1.5.1 Configurations for Enterprise Modeling

The following configurations are applicable only if OFS Enterprise Modeling is licensed and enabled in the OFSAA instance on which this release is being installed.

1.5.1.1 Configuration of Oracle R distribution and Oracle R Enterprise (ORE)

You can refer the *OFS Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.0.0.0*, available in OHC Documentation Library for information on the configuration of Oracle R distribution and Oracle R Enterprise.

1.5.1.2 Configuration of Open R

OFSAAI Remote invocation of R distribution (Open-R, Revo-R & others) is an enhancement to the framework which enables remote execution of R scripted Models on a remote server (node). By configuring OFSAAI with a run-time parameter, you can execute a model on any node.

NOTE: The reference implementation provided by Oracle is for Open-R distribution. Any other distribution requires custom plug-in based well-published interface-specification to interchange data/parameters and output handling.

The R script models can be executed on open R distributions. The R server can be installed in the same machine as that of the `OFSAA Server` or in a remote machine. The R server details and the implementation details have to be configured in the `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 should 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.

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

1. Navigate to `$FIC_DB_HOME/conf/` (DB Layer) and `$FIC_WEB_HOME/webroot/conf` (Web Layer).

2. Edit the tags mentioned in the following table in the `ModelingFramework.xml` file.

Tag Name	Description
`<Target id="$HOST$"  PRIMARY_NODE = "$TRUE/FALSE$"  LANGUAGE = "$R$" EXE_ENV="$Standard R Engine$" INPUT_DATA_TYPE = "$DF$" NAME="$Logical Name for the target$" >`	▪ **Target id**: Replace $HOST$ with IP Address/Host Name of the remote machine where Rserve is running. ▪ **Primary Node**: Enter TRUE, which indicates that this is the primary node where execution happens when the host is not passed as a runtime execution parameter. **Note**: Online execution will always happen on the primary node. ▪ **Language**: Enter the language in which the script is written. In this release, only R script language is supported. ▪ **EXE_ENV**: Enter the execution engine in which the script should be executed. In this release, only the Standard R engine is supported. ▪ **INPUT_DATA_TYPE**: Enter the data type format. In this release, only Data Frame is supported. ▪ **NAME**: Enter a unique name for the combination of language, execution engine, and input data type.
`<CLASS_NAME>modeling.client.impl.ExecuteScript</CLASS_NAME>`	
`<DELETE_RFILE>N</DELETE_RFILE>`	
`<REMOTE_FILE_PATH>$FILE_PATH$</REMOTE_FILE_PATH>`	Replace $FILE_PATH$ with the path in the remote machine that has the complete access rights to all the users. When a model is executed then only the R script file and outputs are created. **Note**: The *lib* and *conf* folders have to be created under the path mentioned in `<REMOTE_FILE_PATH>` tag.
`<REMOTESERVICE_PORT>$PORT$</REMOTESERVICE_PORT>`	Replace $PORT$ with the port configured for Rserve. The default Rserve port is 6311.
`<USER>` `<NAME>$USERNAME$</NAME>`	Replace the $USERNAME$ and $PASSWORD$ with the user who can access to the Rserve. Location

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Tag Name	Description
`<PASSWORD>$PASSWORD$</PASSWORD>` `</USER>`	**Note**: It should be the same as the entry made in the `Rserveusers` file.
`<IS_OUTPUT_REQ_IN_OFSAA>N</IS_OUTPUT_REQ_IN_OFSAA>`	This flag indicates whether the outputs are written back in the framework tables
`<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.
Note: You should set `<IS_OUTPUT_REQ_IN_OFSAA>` or `<IS_DETAILED_OUTPUT_REQUIRED>` tags to Y. To view the Models in the Model Output window, at least one of the tags should be set to `Yes`.	
`<PRE_SCRIPT_FILE>REXECUTION_PREFIX,$PRE SCRIPT FILE NAME$</PRE_SCRIPT_FILE>`	This flag indicates the prescript to be appended to the user script. The OFSAA prescript is configured by default. A place holder is mentioned in the pre-script configuration tag. If additional pre-scripts are required, you can replace this with a pre-script file name, else remove this place holder. **Note**: The custom pre-script file name provided should be with the extension '.R' and it has to be placed under `$FIC_DB_HOME/conf` folder.
`<POST_SCRIPT_FILE></POST_SCRIPT_FILE>`	This flag indicates the postscript to be appended to the user script. By default, R postscript is configured. The OFSAA postscript is considered by default. You can configure this tag if you want to have a different postscript file name.

3. If RJDBC connection is required, place the `ojdbc<version>.jar` in the `$FIC_DB_HOME/lib` folder. RJDBC package is required if the outputs are required in Enterprise Modeling output tables.

> **NOTE:** The version of the `ojdbc<version>.jar` file is based on the Java version.

4. 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/

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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 *OFS Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide – Release 8.0.0.0.0*, available in OHC Documentation Library.

1.5.1.3 Configurations for Rserve in remote nodes where open –R engine is installed

Create `Rserv.conf` file in the `/etc` folder. The configuration entries mentioned in the following table should be done in the `Rserv.conf` file:

Tags	Possible Values	Description
workdir	Path: `/etc/workdir`	Provide the path of the working directory.
pwdfile		The username and password details should be configured in this file, which is available in the /etc/Rserveusers folder.
remote	enable/ disable	This option should be enabled.
auth	enable/ disable	This option should be enabled.
plaintext	enable/ disable	This option should be enabled.
port	6311	Enter the port number.
maxsendbuf	0=unlimited	Enter the size in kb.
control	Enable/ disable	
interactive	No	

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

1.5.1.4 Configuration for Tomcat

To stop generating static content with one print statement per input line, you need to configure the `web.xml` file.

To configure the `web.xml` file, follow these steps:

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1. Navigate to the `tomcat/conf` folder.

2. Edit `web.xml` file as explained below:

   Set the mapped file parameter to false in the servlet tag mentioned with
   `<servlet-name>jsp</servlet-name>`.

   `<init-param>`

   `<param-name>mappedfile</param-name>`

   `<param-value>false</param-value>`

   `</init-param>`

1.5.2 Configurations for Inline Processing Engine (IPE)

You should create an additional resource reference as JDBC/<INFODOMNAME> pointing to the same atomic schema for IPE Infodom. For information on creating resource reference, refer *Appendix B* in *Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide*, available in OHC Documentation Library.

For example:

JDBC/OFSAAAIINFO

JDBC/OFSAAAIINFOCNF

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Appendix A

Frequently Asked Questions

What checks does the 8.0.1.0.0 CA Release patch perform?

- Environment Check- As part of the 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 the 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 XML 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 the 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 the 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.

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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 IFRS Installation and Configuration Guide – Release 8.0.0.0.0*, available in OHC Documentation Library.

4. Restart the OFSAAI Services (APP and WEB). For more information, refer to the *Start/Stop Infrastructure Services* section in *OFS IFRS Installation and Configuration Guide – Release 8.0.0.0.0*, available in OHC Documentation Library.

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