

# OFS Liquidity Risk Solution Pack

## Installation Guide



Release 8.1.2.10.0

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## Part I OFSAA Support

## Part II Send Us Your Comments

# 1

## Preface

This document provides step-by-step instructions to install the Oracle Financial Services Liquidity Risk Solution (OFS LRS) Application Pack 8.1.2.10.0 Maintenance Level Release.

This chapter discusses the following topics:

### Audience

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

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

- Oracle Financial Services Liquidity Risk Solution Application Pack components
- OFSAA Architecture
- UNIX Commands
- Database Concepts
- Web Server or Web Application Server

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### Related Resources

See the below OFS Liquidity Risk Solution Applications Pack documents available on [OHC Documentation Library](#).

- Oracle Financial Services Liquidity Risk Measurement and Management User Guide
- Oracle Financial Services Liquidity Risk Regulatory Calculations for Reserve Bank of India User Guide
- Oracle Financial Services Liquidity Risk Regulatory Calculations for European Banking Authority User Guide
- Oracle Financial Services Liquidity Risk Measurement and Management Analytics User Guide
- Oracle Financial Services Liquidity Risk Measurement and Management US Federal Reserve
- Oracle Financial Services Liquidity Risk Regulatory Calculations for Bank of Thailand

- Oracle Financial Services Liquidity Risk Regulatory Calculations for Monetary Authority of Singapore
- Oracle Financial Services Liquidity Risk Regulatory Calculations for Hong Kong Monetary Authority
- Oracle Financial Services Liquidity Risk Regulatory Calculations for Bank Negara Malaysia
- Oracle Financial Services Deposit Insurance Calculations for Liquidity Risk Management
- Oracle Financial Services Performance Tuning User Guide
- Oracle Financial Services Analytical Applications Infrastructure User Guide
- Oracle Financial Services Analytical Applications Infrastructure Installation Guide
- Oracle Financial Services Liquidity Risk Measurement and Management Release Notes

## Conventions

The following text conventions are used in this document.

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

# 2

## OFS LRS Release 8.1.2.10.0

OFS LRS 8.1.2.10.0 Maintenance Level (ML) release includes all the bug fixes and minor enhancements done since the previous Major release, version 8.1.2.0.0.

This ML release of OFS LRS can be installed on a setup with any OFSAA version 8.1.2.0.0 Application Pack.

### 2.1 Pre-installation Requirements

The prerequisites are as follows:

- Ensure that you have OFS LRS version 8.1.2.0.0 as the minimum patch set level.
- Login to [My Oracle Support \(MOS\)](#), download and install the OFSAA 8.1.2.0.0 AAI ML RELEASE #5 8.1.2.5.0 (ID 36420089) before installing the LRS ML.
- Ensure that you apply the 37876070\_GENERIC.zip patch before installing the LRS 81210 ML.
- Ensure that you apply the 37622408\_GENERIC.zip patch before installing the LRS 81210 ML
- Ensure that you apply the 38008976\_GENERIC.zip patch before installing the LRS 81210 ML
- To resolve the Primary Key and Not Null Column changes in specific tables, follow these steps:

**Table 2-1 Pre-installation Steps to resolve Primary Key and Not Null Column changes**

Step No.	Pre-installation Steps	Example
1	Create a backup table of each of the following Tables if you upgrade from OFRLRS 8.1.2.1.0 or 8.1.2.2.0: <ul style="list-style-type: none"><li>– STG_PARTY_PARTY_RELATIONSHIP</li><li>– FCT_PARTY_PARTY_RELATIONSHIP</li><li>– STG_GL_DATA</li></ul> Create a backup table of only the following Table if you upgrade from OFSDF 8.1.2.4.0: <ul style="list-style-type: none"><li>– STG_GL_DATA</li></ul>	The backup table of STG_GL_DATA can be STG_GL_DATA_LRS_8127_BKP
2	Truncate the Original Table.	Truncate the STG_GL_DATA.

- If the upgrade is from 8.1.2.2.5 to 8.1.2.10.0 take the backup of the table STG\_INVESTMENTS into STG\_INVESTMENTS\_LRS\_81210\_BKP.

**Note**

If you have defined any custom run purpose, ensure to take a backup of the tables FSI\_LRM\_LOOKUP\_TL and FSI\_LRM\_PROCESS\_PURPOSE\_MAP, before you install the ML.

**Note**

OFSA Application Minor releases out-of-the-box (OOB) data models uses the latest Erwin Data Modeler version. The new Erwin Data Modeler version supported is 2021 R1.

## 2.2 Installing this Maintenance Level Release

To install this ML release, follow these steps:

**Note**

On Oracle Database 19.3, *SQL MERGE* statements will fail with the error ORA-01792 (maximum number of columns in a table or view is 1000). To resolve this issue, upgrade the database to Oracle 19c Release Update (RU) 19.18 or later versions.

1. Login to [My Oracle Support \(MOS\)](#) and search for **38483484** under the *Patches & Updates* tab. See the note in the [Pre-installation Requirements](#) section for details related to Data Model patch for this release.
2. Download the `OFS_LRS_8.1.2.10.0_LINUX.zip` archive file and copy it to your OFSAA server in Binary mode.

**Note**

There are different archive files for different operating systems such as Solaris, and RHEL or OEL.

**Note**

Download the OFS LRS 8.1.2.10.0 erwin Data Model patch **38813175** from My Oracle Support. You can search for the patch number and download the patch from the **Patches and Updates** tab.

3. Stop all the OFSAAI services. For more information, see the Stopping Infrastructure Services section in the [Oracle Financial Services Liquidity Risk Solution Installation Guide](#).
4. Login to the OFSAA server as a non-root user, navigate to the `$FIC_HOME` directory, and execute the command: `chmod -R 775 *`

5. If you have Unzip utility, skip to the next step, else 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 8.1.2.10.0 ML.
  - 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 utility using the command:`chmod 751 unzip_<os>`  
For example, `chmod 751 unzip_LINUX`
6. Extract the contents of the 8.1.2.10.0 ML archive file using either of the following commands:

```
unzip <name of the file to be unzipped>
```

7. Update the configuration file `params.conf` before triggering the installation. The file `params.conf` is available in the directory: `OFS_LRS_PACK/appsLibConfig/conf`.

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

```
UPLOAD_MODEL= 1  
MODEL_TYPE= 0
```

8. Give EXECUTE permission to the ML patch installer script. Navigate to the `OFS_LRS_PACK` directory and execute the command:

```
chmod 755 OFSAAIUpdate.sh
```

9. Execute the following install command:

```
./OFSAAIUpdate.sh
```

10. Verify if the ML is applied successfully by checking the log files generated in the following directories:
  - `OFS_LRS_PACK/OFS_LRM_DIC/logs`
  - `OFS_LRS_PACK/OFS_LRM_LCR/logs`
  - `OFS_LRS_PACK/OFS_LRM_LCR/OFS_LRM_LCR_RBI/logs`

You can ignore the **ORA-00001** and **ORA-02292** errors in the log file. In case of any other errors, contact [My Oracle Support \(MOS\)](#).

**Note**

See the [OFS Analytical Applications Technology Matrix](#) for a list of supported servers for OFS LRS 8.1.2.0.0.

11. After successful installation of the ML, perform the following steps:
  - a. Clear the application cache. Navigate to the following directory 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>
  - **WebSphere:** <WebSphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>
- b. Deploy the RPD and Web Catalog file(s)
- i. Take a backup of deployed RPD and catalog files from the OBIEE environment.
  - ii. Navigate to the `$FIC_HOME/OFS_LRM_DASHBOARDS/12.2.1.4.0/datamodel` directory which contains the following catalog files:
    - **Liquidity\_Risk\_Management\_pack.catalog:** `$FIC_HOME/OFS_LRM_DASHBOARDS/12.2.1.4.0/content/catalog`
    - **BNM.catalog:** `$FIC_HOME/OFS_LRM_LCR_BNM/OFS_LRM_DASHBOARDS/12.2.1.4.0/content/catalog`
    - **Bank of Thailand.catalog:** `$FIC_HOME/OFS_LRM_LCR_BOT/OFS_LRM_DASHBOARDS/12.2.1.4.0/content/catalog`
    - **HKMA.catalog:** `$FIC_HOME/OFS_LRM_LCR_HKMA/OFS_LRM_DASHBOARDS/12.2.1.4.0/content/catalog`
    - **RBI.catalog:** `$FIC_HOME/OFS_LRM_LCR_RBI/OFS_LRM_DASHBOARDS/12.2.1.4.0/content/catalog`
    - **USFED.catalog:** `$FIC_HOME/OFS_LRM_LCR_USFED/OFS_LRM_DASHBOARDS/12.2.1.4.0/content/catalog`
    - **Deposit Insurance.catalog:** `$FIC_HOME/OFS_LRM_DIC_USFED/OFS_LRM_DASHBOARDS/12.2.1.4.0/content/catalog`

#### ① Note

Ignore the existing files in `$FIC_HOME/OFS_LRM_DASHBOARDS/12.2.1.4.0/content/catalog` folder:

- BNM.catalog
- Bank of Thailand.catalog
- HKMA.catalog
- Deposit Insurance.catalog
- RBI.catalog
- USFED.catalog

- iii. Modify the connection pool and set the properties.
  - iv. Any customization performed on the older RPD and Web Catalog files requires to be manually carried over to the newer ones post-deployment.
  - v. Clear OBIEE cache, if enabled.  
For more information on deploying RPD and Web Catalog files, see *Deploying the application* section in [Oracle Financial Services Liquidity Risk Solution Installation Guide](#)
12. Delete the existing EAR or WAR file available in the folder `$FIC_HOME/ficweb`.

13. Add umask **0027** in the `.profile` of the UNIX account which manages web server to ensure restricted access permissions.
14. Navigate to the web component deployed area. If you are deploying on a fresh environment, then delete the generated `.war` file. If you are installing in an existing environment, then delete the generated `.war` file and the folder created along with it.
15. Generate the application EAR or WAR file and redeploy the application onto 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 [Oracle Financial Services Liquidity Risk Solution Installation Guide](#).
16. Restart all the OFSAAI services. For more information, see the Starting Infrastructure Services section in the [Oracle Financial Services Liquidity Risk Solution Installation Guide](#).

## 2.2.1 Configuring Tomcat for User Group Authorization, Data Mapping, and Disabling WADL for the Web Service

Users with system authorization roles can access User Group Authorization. However, to make it available on Tomcat web server, you have to perform the following configuration steps:

1. Navigate to the `$FIC_WEB_HOME/webroot/WEB-INF/` folder and open `web.xml` file.
2. Enter the following in the `web.xml` file.

```
<init-param>
<param-name>mappedfile</param-name>
<param-value>>false</param-value>
</init-param>
```

3. To disable the WADL for the Web Service, navigate to the following snippet in the `web.xml` file.

```
<servlet>
<servlet-name>CommonRETServlet</servlet-name>
<servlet-class>org.glassfish.jersey.servlet.ServletContainer</servlet-
class>
<init-param>
<param-name>javax.ws.rs.Application</param-name>
<param-value>com.ofs.fsapps.commonapps.util.ApplicationResourceConfig</
param-value>
</init-param>
<load-on-startup>1</load-on-startup>
</servlet>
```

4. Add the following snippet before the `<load-on-startup>1</load-on-startup>` attribute.

```
<init-param>
<param-name>jersey.config.server.wadl.disableWadl</param-name>
<param-value>true</param-value>
</init-param>
```

5. Save and close the file.

## 2.3 Post-installation Steps

Perform the following post-installation steps:

1. To resolve the Primary Key and Not Null Column changes in specific tables, follow these Post- installation steps:

### Note

Perform the following steps only if you have executed the Pre-installation Steps to resolve Primary Key and Not Null Column Changes in this release.

**Table 2-2 Post-installation Steps to resolve Primary Key and Not Null Column changes**

Step No.	Post-installation Steps	Example
1.	Inspect the data duplication based on the Primary Key Columns in the backup table.	In the STG_GL_DATA_LRS_81210_B KP Table, check the data duplication based on the Primary Key Columns.
2.	Remove the duplicate records in the backup tables.	In the STG_GL_DATA_LRS_81210_B KP Table, remove the duplicate records.
3.	Move the data from the backup tables to the original tables.	Move the data from STG_GL_DATA_LRS_81210_B KP to STG_GL_DATA.

2. If the upgrade is from 8.1.2.2.5 to 8.1.2.10 populate the column data of V\_ENCUMBRANCE\_TYPE from the backup table STG\_INVESTMENTS\_LRS\_81210\_BKP to V\_ENCUMBRANCE\_TYPE\_CODE in STG\_INVESTMENTS.

## 2.4 List of Hierarchies

Re-save the following hierarchies after executing the SCD's.

**Table 2-3 List of Hierarchies**

Hierarchy Code	Hierarchy Name	SKU
HLCOM001	LRM - Fund	LCR
HLCOM010	LRM - Standard Issuer	LCR
HLCOM011	LRM - Standard Guarantor	LCR
HLCOM017	LMR - Purchase party	LCR
HLRM002	LRM - Legal Entity	LCR
HLRM004	LRM - Business Unit	LCR
HLRM0252	LRM - Ownership Category	LCR
HLRM0254	LRM - Insurance Scheme	LCR

**Table 2-3 (Cont.) List of Hierarchies**

Hierarchy Code	Hierarchy Name	SKU
HLRM027	LRM - Date	LCR
HLRM0471	LRM - Mitigant Type	LCR
HLRM0482	LRM - LRM Product	LCR
HLRM0488	LRM - Branch	LCR
HLRM205	LRM - Legal Entity - Parent Child	LCR
HLRM454	LRM - Party Type	LCR
HLRM469	LRM - Credit Line Purpose	LCR
HLRM470	LRM - Netting Agreement	LCR
HLRM471	LRM - Product Balance Sheet Category	LCR
HLRM8006	RBI LCR - GL Code	RBI
HLRMI008	LRM - Intraday - Payment Settlement Systems	LCR
HLRMI009	LRM - Intraday - Counterparty Type	LCR
LRMINS39	LRM - Ownership Category ORC	USFED
LRMLA006	LRM - MLA Instrument Currency	MAS
LRMLA027	LRM-Account Purpose	LCR
HLCOM012	LRM - Standard Customer	LCR
LRMLA011	LRM - Issuer Name Instrument	MAS
LRMLA012	LRM - Issuer Name - Collateral	MAS

# 3

## Appendix A: Frequently Asked Questions

### **What checks does the 8.1.2.10.0 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 Post-install check, it checks if OFSAAI services can be successfully started.

### **Which version of erwin Data Modeler does OFS LRS support?**

OFS LRS 8.1.2.10.0 supports erwin v9.8

# Part I

## OFSAASupport

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

# Part II

## 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.

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