

**Oracle Financial Services**  
**Asset Liability Management Application**  
**Pack**  
**Installation Guide**  
**Release 8.1.1.1.0**  
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**ORACLE**  
Financial Services

**ORACLE**

## **OFS ALM Installation Guide**

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## Document Control

This section lists all the details of document control:

**Table 1: Document Control**

<b>Version</b>	<b>Revision Date</b>	<b>Change Log</b>
<b>Version</b>	<b>Revision Date</b>	<b>Change Log</b>
1.0	July 2021	First version of the AL Installation Guide version 8.1.1.1.0

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# Preface

This section provides information about the Oracle Financial Services Asset Liability Management (OFS ALM) Application Pack.

You can find the latest copy of this document in the [OHC Documentation Library](#) 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:

- [Intended Audience](#)
- [How this Guide is Organized](#)
- [Access to Oracle Support](#)
- [Related Information Sources](#)
- [Conventions](#)
- [Abbreviations](#)

# Audience

OFS ALM 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 ALM pack components
- OFSAA Architecture
- UNIX Commands
- Database Concepts
- Web server or Web application server

# How this Guide is Organized

The Installation Guide is organized into the following sections:

- [OFS ALM Release v8.1.1.0](#)
- [Appendix A - Installation of R and Oracle R Enterprise \(ORE\)](#)

## 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.

## 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.

- [Oracle Financial Services Asset Liability Management User Guide](#)
- [Oracle Financial Services Asset Liability Management Analytics User Guide](#)
- [Oracle Financial Services Analytical Applications Technology Matrix](#)
- [Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide](#)
- [Oracle Financial Services Asset Liability Management User Guide](#)
- [Oracle Financial Services Asset Liability Management Analytics User Guide](#)
- [Oracle Financial Services Analytical Applications Technology Matrix](#)
- [Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide](#)

## Conventions

The following text conventions are used in this document.

Table 1: Document Conventions

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with a command, or a section header.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you substitute data.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, and text that you enter.
<a href="#">Hyperlink</a>	Hyperlink type indicates the links to external websites and internal documents.

## Abbreviations

The following table lists the abbreviations used in this document."

Abbreviation	Meaning
BDP	Big Data Processing
DBA	Database Administrator
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
OFSA	Oracle Financial Services Analytical Applications
OFSAI	Oracle Financial Services Analytical Application Infrastructure
OFSAAI	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
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

# OFS ALM Release v8.1.1.1.0

OFS Asset Liability Management Installation Guide (OFS ALM) Maintenance Level (ML) release v8.1.1.1.0 includes all the bug fixes and minor enhancements done since the previous Minor release v8.1.1.0.0.

This ML release of OFS ALM can be installed on a setup with any Oracle Financial Services Asset Liability Management (OFS ALM) v8.1.1.0.0 Application Pack.

## Pre-installation Requirements

The following are the pre-installation requirements for this release:

- The minimum patch level installed must be OFS ALM Release **8.1.1.0.0**. AAI 8.1.1.1.0 is automatically installed with ALM 8.1.1.1.0.

### NOTE

See the [OFS Analytical Applications Technology Matrix](#), for hardware and software requirements. For more details on Java 11, see the [Update the OFSAA 8.1.1.x Java 8 Instance to Java 11 section](#).

## Installing this Release

To install this release patch, follow these steps:

1. Log in to [My Oracle Support](#) and search for **32631557** under the Patches & Updates tab.
2. Download the OFS ALM 8.1.1.1.0 ML Release archive file and copy to your OFSAA server in **Binary** mode.

### NOTE

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

3. Stop all the OFS AAI services. For more information, see the *Stopping Infrastructure Services* section in the [Oracle Financial Services Asset Liability Management Installation and Configuration Guide 8.1.1.0.0](#).

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](#).

4. Log in to the OFSAA server as a non-root user and navigate to the `$FIC_HOME` directory.
5. Assign WRITE permission to the files and directories such as commonscripts, EXEWebService, ficapp, ficweb, and ficdb using the command:

```
chmod -R 775 *
```

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 8.1.1.1.0 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.

- Assign EXECUTE permission to the utility using the command:

```
chmod 751 unzip_<os>
```

For example, `chmod 751 unzip_linux`

7. Extract the contents of the 8.1.1.1.0 ML archive file using one of the following commands:

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

Or

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

**NOTE**

The above “`-a`” option is mandatory to extract the archive file. An example for AIX operating system,

```
unzip_linux -a p32631557_81110_linux.zip
```

8. Update the parameters in the `params.conf` file present in the `/OFS_ALM_PACK/appsLibConfig/conf` directory. The update instructions are present in the file (`param.conf`) itself.
9. Navigate to the `/OFS_ALM_PACK` directory to assign EXECUTE permission to the ML patch installer script using the command:
 

```
chmod 755 OFSAAIUpdate.sh
```
10. Complete the patch upgrade using the command:
 

```
./OFSAAIUpdate.sh
```
11. Verify if the ML patch is applied successfully by checking the log file generated in the `/OFS_ALM_PACK/logs`, `/OFS_ALM_PACK/OFS_ALM/logs`, and `/OFS_ALM_PACK/OFS_ALMBI/logs` directories. Ignore the error codes ORA-00001, ORA-02292, ORA-00955, and ORA-02260 in the log file. For any other errors, contact [My Oracle Support](#).

#### NOTE

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

12. After successful installation of the ML, follow these steps:
  - Execute the `.profile` file using the following command:
 

```
. $HOME/.profile
```
  - Clear the application cache. Navigate to the following path depending on the configured web application server and delete the files.
    - **Tomcat:**  
`<Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp`
    - **WebLogic:**  
`<WebLogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>`
    - **WebSphere:**  
`<WebSphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>`
13. Delete the existing EAR or WAR file available in the `$FIC_HOME/ficweb` directory.
14. 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

[Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide 8.1.1.0.0.](#)

15. Restart all the OFSAAI services. For more information, see the *Starting Infrastructure Services* section in the [Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide 8.1.1.0.0.](#)
16. 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 Analytical Applications Infrastructure Installation and Configuration Guide 8.1.1.0.0.](#)
17. Configure the document upload settings. See the *Configure Document Upload Settings* section in the [Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide 8.1.1.0.0](#) for more information.

## Additional Steps

**NOTE**

The following steps are applicable only if you have upgrade and integrated setup (already running an OFSAA instance).

### Pre installation Steps

Execute the following queries in the Atomic schema take the backup of the AAI\_OBJECT\_B table.

```
create table AAI_OBJECT_B_temp as select * from AAI_OBJECT_B;
```

### Post installation Steps

Execute the following queries in the Atomic schema.

Query 1:

```
create table AAI_OBJECT_B_BKP as select * from AAI_OBJECT_B;
```

Query 2:

```
MERGE INTO AAI_OBJECT_B x
  USING AAI_OBJECT_B_temp y
  ON (x.V_OBJ_CODE = y.V_OBJ_CODE and x.V_INFODOM_CODE =
y.V_INFODOM_CODE and x.N_VERSION = y.N_VERSION and x.V_OBJ_ID =
y.V_OBJ_ID)
  WHEN MATCHED THEN
    UPDATE SET x.F_IS_RECORD_LATEST = y.F_IS_RECORD_LATEST
```

```
WHERE x.V_OBJ_CODE not in (select distinct(V_OBJ_CODE) from
AAI_OBJECT_B where V_OBJ_SUBTYPE_CODE ='T2T' and V_OBJ_ID not
in(select V_OBJ_ID from AAI_OBJECT_B_temp));
```

**NOTE**

Post verification if all the functionalities are working as expected, then the following temporary tables can be dropped:

- AAI\_OBJECT\_B\_temp
- AAI\_OBJECT\_B\_BKP

## Appendix A - Installation of R and Oracle R Enterprise (ORE)

This is an optional step and required only if you intend to use Term Structure Parameter Estimation functionality under Interest Rates of Rate Management for computing term structure parameters. Both OFS Funds Transfer Pricing and OFS Asset Liability Management applications require term structure parameters for all Monte Carlo engine-based calculations (OAS, VaR, and EaR).

The following are the prerequisites:

- Install R and Oracle R Enterprise Server on the Oracle Database server. For more information, see the [Oracle® R Enterprise Installation and Administration Guide](#)
- Oracle R Enterprise (Server) version 1.4.1
- Configuration for Oracle R Enterprise
- Grant the RQADMIN role to atomic schema

You can grant the RQADMIN role in SQL\*Plus by logging in to the database with DBA privileges and provide the following privilege to Atomic Schema:

RQADMIN by executing the command:

```
GRANT RQADMIN TO < atomic_schema>;
```

## OFSA Support

Raise a Service Request (SR) in [My Oracle Support \(MOS\)](#) for queries related to 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 My Oracle Support site that has all the revised/recently released documents.

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