

Oracle Financial Services Capital Adequacy Pack

Installation Guide

Version 8.0.4.0.0

Part Number: E66061-03

June 2017

ORACLE®
Financial Services

DOCUMENT CONTROL

Version Number	Revision Date	Changes Done
1.0	Created: April 2016 Updated: July 2016	Captured 8.0.2.0.0 Release enhancement updates.
2.0	Updated: September 2016	Captured 8.0.3.0.0 Release enhancement updates.
3.0	Updated: April 2017	Captured 8.0.4.0.0 Release enhancement updates.
4.0	Updated: June 2017	Minor updates in post installation steps for Solaris.
Created by: Naveen Harry D'Cruz	Reviewed by: Selvakumar / Kumaran	Approved by: Surag / Kumaran

Executive Summary

This document includes the necessary instructions to apply 8.0.4.0.0 Minor Release of OFS Capital Adequacy Pack and perform the required post install configurations. You can find the latest copy of this document in [OTN Documentation Library](#).

TABLE OF CONTENTS

PREFACE	4
Audience	4
Prerequisites for the Audience	4
How this Guide is Organized	4
Recommended Environment	5
Related Documents	5
Conventions and Acronyms	5
1 OFSCAP APPLICATION PACK RELEASE 8.0.4.0.0	6
1.1 Supported Software Versions	6
1.2 Pre-Installation Requirements	6
1.3 How to Apply this Minor Release?	11
1.3.1 Installing OFSCAP	11
1.4 Post-Installation Steps	13
1.4.1 Post-Installation Steps for Solaris	14
1.5 Additional Configurations	16
1.5.1 Map Application User(s) to User Group	16
1.5.2 Configurations for OFS OREC	16
1.5.2.1 Configurations for Enterprise Modeling	16
1.5.2.1.1 Configuration of Oracle R Distribution (ORD) and Oracle R Enterprise (ORE)	16
1.5.2.1.2 Installation and Configuration of R Packages	16
1.5.2.1.3 Syntax for Installing R Packages	17
1.5.2.1.4 Installing Additional R Packages	17
1.5.2.1.4.1 Automated Installation (Recommended)	18
1.5.2.1.4.2 Manual Installation	19
1.5.3 Configuration for Tomcat	21
1.6 Update Constraints Utility	21
1.6.1 How to Execute the Utility	22
1.6.2 Troubleshooting	23
APPENDIX A.....	27

Preface

This document provides step-by-step instructions to install the Oracle Financial Services Capital Adequacy Pack (OFSCAP) version 8.0.4.0.0 Minor Release.

This chapter discusses the following topics:

- ◆ [Audience](#)
- ◆ [How this Guide is Organized](#)
- ◆ [Recommended Environment](#)
- ◆ [Related Documents](#)
- ◆ [Conventions Used](#)

Audience

OFSCAP Installation Guide is intended for administrators and implementation consultants who are responsible for installing and maintaining the application pack components.

Prerequisites for the Audience

The document assumes that you have experience in installing Enterprise components. The following are the expected preparations by an administrator before initiating the actual installation:

- ◆ OFSCAP Components
- ◆ Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Architecture
- ◆ UNIX Commands
- ◆ Database Concepts
- ◆ Web Server/ Web Application Server

Expected preparations by an administrator for installing Oracle Financial Services Capital Adequacy Pack - Operational Risk Economic Capital are:

- ◆ Oracle R Installation - Oracle R Distribution (ORD) v3.1.1 (Recommended)
- ◆ Oracle R Enterprise Installation – Oracle R Enterprise (ORE) v1.4.1 (Recommended)
- ◆ R Packages Installation

How this Guide is Organized

The Oracle Financial Services Capital Adequacy Pack Installation Guide includes the following topic:

- ◆ [OFSCAP Application Pack Release 8.0.4.0.0](#)

Recommended Environment

Infrastructure application is 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

- ◆ *Oracle Financial Services Capital Adequacy Pack User Guide 8.0.4.0.0*
- ◆ *Oracle Financial Services Capital Adequacy Pack Installation Guide 8.0.4.0.0*

These documents are available at [OHC Documentation Library](#).

Conventions and Acronyms

Conventions	Description
AIX	Advanced Interactive eXecutive
CAP	Capital Adequacy Pack
GA	General Availability
CA	Controlled Availability
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OFS AAI	Oracle Financial Services Advanced Analytical Applications Infrastructure
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.

- ◆ Actions are indicated in **Bold**.
- ◆ Command or query is indicated in `Courier New` font.

1 OFSCAP Application Pack Release 8.0.4.0.0

This Minor Release of OFSCAP Application Pack is cumulative and includes all enhancements and bug fixes done since the OFSCAP Application Pack v8.0.0.0.0 GA (General Availability) release. For more information, refer to [Oracle Financial Services Capital Adequacy Pack – Release 8.0.0.0.0](#) page in OHC Documentation Library.

1.1 Supported Software Versions

You can refer to the [OFSAA Technology Matrix](#) 8.0.4.0.0 in OHC Documentation Library to know more about the software versions that are supported by this release of OFSCAP.

1.2 Pre-Installation Requirements

Perform the following procedure before installing the OFSCAP v8.0.4.0.0 pack:

1. If the CAP installation is upgraded from 8.0.3.0.0 to 8.0.4.0.0, then please complete the following as a pre-installation step:
 - a. In 8.0.3.0.0, following tables are introduced:
 - ◆ FSI_RUN_PARAMETERS
 - ◆ FSI_CVA_EXPOSURES
 - b. In 8.0.4.0.0, these tables are deprecated and the attributes from these tables are added to the following tables respectively:
 - ◆ RUN_PARAMETERS
 - ◆ FCT_NON_SEC_EXPOSURES
 - c. If the executions are done in 8.0.3.0.0, the following scripts must be executed to move the processing data from the deprecated tables to the target tables:
 - i. To merge data from FSI_RUN_PARAMETERS to RUN_PARAMETERS table, execute the following script in the atomic schema:
[FSI_RUN_PARAMETERS_MERGE.sql](#)
 - ii. To merge data from FSI_CVA_EXPOSURES to FCT_NON_SEC_EXPOSURES table, execute the following script in the atomic schema:
[FSI_CVA_EXPOSURES_MERGE.sql](#)

The data from these tables are merged to the target tables for customer's future reference.
2. You should have OFSCAP 8.0.0.0.0 GA as the minimum patch set level.

3. *Bug 23251358-Object Registration is failing with duplicate Constraint Names* is regularized in this OFS AAI application pack 8.0.4.0.0. This is bundled as a utility - **Update Constraints Utility**, and is executed as part of the 8.0.4.0.0 patch installation.

NOTE: Skip the following steps if the existing platform version is 8.0.3.x.x.

Perform the following steps and apply the change before you proceed further with the patch upgrade.

- a. Backup the Atomic Schema for each Information Domain in the OFSAA instance before applying the patch.
 - b. Execution of the utility is a memory intense process as the entire steps involved for performing a full model upload is carried out as part of the utility for each of the Infodom. The OFSAA installation server needs to have twice the allocated memory, which is assigned using parameter `X_ARGS_APPS`.
 - c. Utility creates three temporary tables- `REV_TAB_CONSTRAINTS_U`, `REV_TAB_REF_CONSTRAINTS_U`, and `REV_TAB_CONSTRAINT_COLUMNS_U`. If the Atomic Schema has any of these tables already created for a different purpose, take a backup and drop/rename.
 - d. For the applications that follow logical model upload like `OFS_AML` in BD pack, the utility does not play any role, since persistence of the model is outside the purview of the utility.
 - e. For more information about the utility execution and log files information, see [Update Constraints Utility](#) section.
4. Connect to the database as user with DBA privileges. Execute the following grant statement:
- ```
GRANT CREATE TYPE TO [<ATOMIC SCHEMA>];
```

---

**NOTE:** This GRANT should be executed for all existing Atomic Schemas.

---

5. For Installation of this release on existing Governance, Risk, and Compliance Application Pack (GRC) Instance, the order of installation should be as follows:
- GRC 8.0.2 (minimum patch set) → CAP 8.0 → CAP 8.0.0.0.2 (Bug ID-21767340) → CAP 8.0.3 → CAP 8.0.4
6. When installing **Oracle Financial Services Capital Adequacy Pack 8.0.4.0.0 – Operational Risk Economic Capital**, you should have already installed **Oracle R Distribution (ORD) v3.1.1** and **Oracle R Enterprise (ORE) v1.4.1** and provided grants to `CONFIG`, `ATOMIC`, `SANDBOX` Schemas for role **RQADMIN** and **RQROLE**.

For more information on installation and configuration, you can refer to the *Common Installation Tasks* section in *OFS Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide Release 8.0.0.0.0*

**NOTE:** The *OFS Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide Release 8.0.0.0.0* document mentions Oracle Distribution of R version 3.0.1 and Oracle R Enterprise (Server) version 1.4, whereas recommended version for Operational Risk Economic Capital is Oracle R Distribution (ORD) v3.1.1 and Oracle R Enterprise (ORE) v1.4.1. If AAI with lower version of ORD and ORE are present, you can decide to either upgrade the version or not. If you do not upgrade to the above recommended versions of ORE and ORD, you must find compatible R Packages listed in *Section 1.4.2.4 Oracle Financial Services Capital Adequacy Pack*.

---

7. If CAP\_REPORT\_SRC and CAP\_OR\_OREC\_SRC sources are not present, then perform the following steps, else these steps must be skipped.
    - a. Navigate to **Common Tasks** → **Data Management** → **Data Sources**.
    - b. Click the **Add** button under **Data Sources** → **Define Sources** and provide the following details for CAP\_REPORT\_SRC:
      - Source name: CAP\_REPORT\_SRC
      - Description: Source name for Reporting T2Ts
      - Select Source Type: Table
      - Select Based On: RDBMS
      - Select server name from drop down
      - Select database name from drop down
      - Provide the Table Owner name and click **Save**.
    - c. Click the **Add** button under **Data Sources** → **Define Sources** and provide the following details CAP\_OR\_OREC\_SRC:
      - Source name: CAP\_OR\_OREC\_SRC
      - Description: Source name for OR – OREC Integration T2Ts
      - Select Source Type: Table
      - Select Based On: RDBMS
      - Select server name from drop down
      - Select database name from drop down
      - Provide the Table Owner name and click **Save**.
- 
- NOTE:** Table Owner name for both the above sources is Atomic Schema name.
- 
- d. Click **Mapped Sources** and then click **Map**.
  - e. Select **Capital Adequacy Application** from dropdown. For example, **CAP\_APP\_SRC**.
  - f. Select **CAP\_REPORT\_SRC** and **CAP\_OR\_OREC\_SRC** from list of available source and map it to the application.



- g. Click **Save**.
- h. Navigate to *ftpshare/⟨Infodomain⟩/erwin/Sources* and check whether CAP\_REPORT\_SRC and CAP\_OR\_OREC\_SRC folders are created.  
  
If CAP\_REPORT\_SRC and CAP\_OR\_OREC\_SRC folders are not created, create these two folders in the location *ftpshare/⟨Infodomain⟩/erwin/Sources* and provide 0775 permission recursively.
- i. Select **CAP\_REPORT\_SRC** from list of Mapped Sources and click **Generate Source Model**. A new window is opened. Click **Catalogs** and then click **Generate**.
- j. If **OFS GRC** is installed on OFS CAP in same Information Domain, select **CAP\_OR\_OREC\_SRC** from list of Mapped Sources and click **Generate Source Model**. A new window is opened. Click **Catalogs** and then click **Generate**.

---

**NOTE:** If OFS GRC is not installed on OFS CAP, source model generation is not required.

---

- k. Replace the placeholder <INFODOM> in the following **insert** statement with the Infodomain name and execute it in the Config Schema.

```
insert into CONFIGURATION (PARAMNAME, PARAMVALUE, DESCRIPTION) values
('OFS_CAP_ADQ_SRC_⟨INFODOM⟩_CAP_REPORTING_SRC',
'CAP_REPORT_SRC', 'Captured ETL Application/Source Names')
```

/

```
insert into CONFIGURATION (PARAMNAME, PARAMVALUE, DESCRIPTION) values
('OFS_CAP_ADQ_SRC_⟨INFODOM⟩_CAP_OROREC_SRC', 'CAP_OR_OREC_SRC',
'Captured ETL Application/Source Names')
```

/

```
commit;
```

For example, if the INFODOM name is UATCAPINFO, then the statement is as follows:

```
insert into CONFIGURATION (PARAMNAME, PARAMVALUE, DESCRIPTION) values
('OFS_CAP_ADQ_SRC_UATCAPINFO_CAP_REPORTING_SRC',
'CAP_REPORT_SRC', 'Captured ETL Application/Source Names');
```

/

```
insert into CONFIGURATION (PARAMNAME, PARAMVALUE, DESCRIPTION) values
('OFS_CAP_ADQ_SRC_UATCAPINFO_CAP_OROREC_SRC', 'CAP_OR_OREC_SRC',
'Captured ETL Application/Source Names');
```

/

```
commit;
```

- 
- l. Increase the cache size limit in `DynamicServices.xml` located at `<$FIC_HOME>/conf` directory depending on the currently logged count for the specific metadata.

---

**NOTE:** The log file in `DynamicServices.xml` which resides in `$FIC_HOME/conf` directory is continuously updated/refreshed to cache metadata. This can be observed when you are starting with the `reveleusstartup.sh` command and if any of the log file (for example: `SMSService.log`) in `DynamicServices.xml` is being continuously refreshed for longer time.

By default, the Metadata Log file cache size is set to 1000. If in case the log is being updated beyond this limit, retrospectively the preceding entries are overwritten. For example, the 1001th entry is overwritten by deleting the first entry. This results in the application screen taking a longer time to load.

---

- Generate the Log report by executing the below query in Config Schema.

```
select count(1), t.metadata_name, m.dsn_id from
metadata_master m, metadata_type_master t where
m.metadata_type = t.metadata_type group by t.metadata_name,
m.dsn_id
```

- The above query returns a list of codes with their respective metadata count. You can refer to "metadata\_type\_master" table to identify the metadata name.
- View the log report to identify the metadata which is updated or refreshed beyond the specified cache size limit. Accordingly, increase the cache size limit in `DynamicServices.xml` depending on the currently logged count for the specific metadata.

For example, if the "MEASURE\_CACHE\_SIZE" is set to 1000 and total measure reported in log is 1022, increase the limit to 2000 (approximately).

- Restart Reveleus/OFSAAI servers (Web and APP) and check the cache size.

- m. Restart all the OFSAAI services. For more information, refer to the *Start/Stop Infrastructure Services* section in [OFS AAAI 8.0.0.0.0 Installation and Configuration Guide](#).

## 1.3 How to Apply this Minor Release?

### 1.3.1 Installing OFSCAP

Perform the following procedure to download, extract, and install this minor release.

1. Login to <https://support.oracle.com/> and search for **25901363** under the *Patches & Updates* tab.
2. Download the OFSCAP Application Pack v8.0.4.0.0 archive file and copy it to your OFSAA server in **Binary** mode.

---

**NOTE:** The archive files are different for every operating system such as AIX, Solaris, and RHEL/Oracle Linux.

---

3. Shut down all the OFSCAP Services. For more information, refer to the *Start/Stop Infrastructure Services* section in [Oracle Financial Services Capital Adequacy Pack Installation Guide – Release 8.0.0.0.0](#).
4. Login to the OFSAA server as a non-root user and navigate to the **\$FIC\_HOME** folder.
5. Assign WRITE permission to the files/ folders such as **commonscripts**, **EXEWebService**, **ficapp**, **ficweb**, and **ficdb** in the **\$FIC\_HOME** folder by executing the command:

```
chmod -R 755 *
```

6. If you have Unzip utility, skip to the next step. Download an 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 OFSCAP 8.0.4.0.0 application pack.

- ◆ Uncompress the unzip installer file using the command:

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

---

**NOTE:** If you notice an error message “**uncompress: not found [No such file or directory]**” and the package is not installed, contact your UNIX administrator.

---

- ◆ Execute the following command to provide EXECUTE permission to the application pack file:

```
chmod 751 OFSCAP_80400_<OperatingSystem>.zip
```

7. Extract the contents of the OFSCAP 8.0.4.0.0 application pack archive using the command:

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

---

**NOTE:** The above “-a” option is mandatory to unzip the archive file.  
For example: `unzip_aix -a OFSCAP_80400_<OperatingSystem>.zip`

---

8. Update the **UPLOAD\_MODEL**, **MODEL\_TYPE**, **DATAMODEL**, and **DM\_DIRECTORY** parameters in **params.conf** file present in **OFS\_CAP\_ADQ\_PACK/OFS\_CAP\_ADQ/conf/** location as detailed in the file.

9. Segment creation:
- When OFSCAP Application Pack v8.0.2.0.0 is the base version, execute the following scripts in CONFIG schema after updating the values of **##INFODOM##** and **##EUSEG##** fields, as detailed in the files:

[BASEL\\_CRDIV\\_OFSAA\\_SETUP\\_APPLN\\_DTLS.sql](#)

- When OFSCAP Application Pack v8.0.0.0.0 is the base version, execute the following scripts in CONFIG schema after updating the values of **##INFODOM##**, **##EUSEG##**, and **##FCSEG##** fields, as detailed in the files:

[BASEL\\_CRDIV\\_OFSAA\\_SETUP\\_APPLN\\_DTLS.sql](#)

[BASEL\\_FORECAST\\_OFSAA\\_SETUP\\_APPLN\\_DTLS.sql](#)

10. Provide EXECUTE permission to the OFSAAIUpdate.sh file. Navigate to the location where the OFSCAP application is extracted and execute the command:

```
chmod 750 OFSAAIUpdate.sh
```

11. Execute **OFSAAIUpdate.sh** file.

```
./OFSAAIUpdate.sh
```

Verify if the application is applied successfully by checking the log file generated in the installation folder. You can ignore the following ORA-00001, ORA-00955, ORA-02260, and ORA-01430 errors and warning mentioned in the log file. For any other errors, contact Oracle Support Services.

- Object already exists
- Table already has a primary key
- Table already has a referential constraint with same name

---

**NOTE:** If you are not installing / enabling **Oracle Financial Services Capital Adequacy Pack 8.0.3.0.0 – Operational Risk Economic Capital**, please ignore the error in CAP installation log file for the file OREC\_Sys\_Scripts.sql.

---

12. For more information on securing your OFSAA Infrastructure, refer note [2107008.1](#) in My Oracle Support (MOS).
13. After successful installation of OFSCAP 8.0.4.0.0 application, perform the following 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>/qaelce/jsp_servlet`
  - **WebSphere:**  
`<WebSphere installation directory>/AppServer/profiles/<Profile  
 name>/temp/<Node name>/server1/<Application name>/<.war file name>`
  - Remove all occurrences of below mentioned tag from \$FIC\_WEB\_HOME/webroot/WEB-INF/web.xml file.  
`<url-pattern>/basel/AttributionAnalysis/*</url-pattern>`
  - Remove the AttributionStruts.xml tag from the \$FIC\_WEB\_HOME/webroot/WEB-INF/classes/Struts.xml file.
  - Delete the AttributionStruts.xml file from \$FIC\_WEB\_HOME/webroot/WEB-INF/classes folder.
  - Map the Attribution UI function codes to Attribution roles such as Attribution Admin, Attribution Analyst, and Attribution Audit.
14. Add **umask 0027** in the `.profile` of the UNIX account which manages the Web server to ensure restricted access permissions.
  15. 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 Capital Adequacy Pack Installation Guide – Release 8.0.0.0.0](#).
  16. After the successful installation of the application pack, restart all the OFSCAP services. For more information, refer to the *Start/Stop Infrastructure Services* section in [Oracle Financial Services Capital Adequacy Pack Installation Guide – Release 8.0.0.0.0](#).

If you have modified the application metadata before applying this patch, it gets overwritten post upgrade. The [MODIFIED METADATA 80400](#) lists the metadata modified as part of OFS CAP v8.0.4.0.0.

## 1.4 Post-Installation Steps

Perform the following procedure after installing the OFSCAP v8.0.4.0.0 pack:

1. If the Webserver is Tomcat, the `jaxb-impl.jar` must be replaced with `jaxb-impl-2.2_1.jar` in the `<deployed_location>/WEB-INF/lib` directory. This is required for the resave functionality of AAI utilities model and Sandbox. You can access this file from the following link:  
[jaxb-impl-2.2\\_1.jar](#)
2. For source model generation:

If OFS GRC is not installed on OFS CAP, then exclude the following definitions from Source **CAP\_PROCESSING\_SRC** in `ETLRepository.xml` file present in the `/ftpshare/etlapphome` directory before re-generating the source model.

- a. EXT\_INCIDENT\_OPS\_RISK\_DATA\_POPULATION
  - b. INCIDENT\_INT\_OPS\_RISK\_DATA\_POPULATION
  - c. INSURANCE\_MAPPING\_DATA\_POPULATION
  - d. INSURANCE\_OPS\_RISK\_DATA\_POPULATION
  - e. INT\_SCENARIO\_SEVERITY\_DATA\_POPULATION
  - f. SCENARIO\_INT\_DATA\_POPULATION
3. To resave Capital Adequacy Pack models, navigate to the `$FIC_HOME/utility/sandboxutil/bin` directory and execute the following command:
 

```
./updatesandbox.sh
```

For more information navigate to How to Run the Utility section of [OFS AAI Application Pack Installation Guide 8.0.3.0.0](#) in OHC Documentation library.

---

**NOTE:** Perform the following steps, after every edit/resave of the Sandbox.

---

4. Select the Application and navigate to **Operational Risk Economic Capital > Modeling Options > Sandbox Maintenance > Sandbox Creation**.
5. Resave the Sandbox Definition for Operational Risk Economic Capital.
6. Navigate to `/ftpshare/<OREC Sandbox Infodom>/erwin/scripts/sandbox` directory and edit the following XMLs:
  - ◆ DIM\_UOM\_B.xml
  - ◆ DIM\_ORG\_PROCESS.xml
7. Replace the **Timestamp** to **Date Time** and save the XMLs.
8. Execute the Batch for Sandbox population.
9. Execute the [RCA.sql](#) script in the Config Schema, if OFS REG REP USFED v8.0.4.0.0 application pack is already installed in the system.

---

**NOTE:** Replace the place holders (##INFODOM##, ##REVUSER##) with required INFODOM and USER in the [RCA.sql](#) file.

---

### 1.4.1 Post-Installation Steps for Solaris

Perform the following steps after installing the OFSCAP v8.0.4.0.0 pack in Solaris:

1. Execute the following queries in Config Schema to find the Infodom name, T2T stage and Processing source information:
  - a. **For Infodom name:**

```
select V_INFODOM from infodom_patches where
V_APP_ID='BASEL_BASIC' and V_PATCH_NAME ='8.0.0.0.0';
```

**b. For Stage source:**

```
select PARAMVALUE from configuration where paramname = (select
'OFS_CAP_ADQ_SRC_' || V_INFODOM || '_CAP_STAGE_SRC' from
infodom_patches where V_APP_ID='BASEL_BASIC' and V_PATCH_NAME
='8.0.0.0.0');
```

**c. For Processing source:**

```
select PARAMVALUE from configuration where paramname = (select
'OFS_CAP_ADQ_SRC_' || V_INFODOM || '_CAP_PROCESSING_SRC' from
infodom_patches where V_APP_ID='BASEL_BASIC' and V_PATCH_NAME
='8.0.0.0.0');
```

2. Login to the OFSAA server as a non-root user and navigate to \$FIC\_HOME/ficdb/bin directory and edit the config.properties file with the values found in Step 1.

For example:

- ◆ If the INFODOM name is BASELINFO, then replace placeholder ##INFODOM## as BASELINFO
- ◆ If the Stage source is BASEL\_STAG\_SRC, then replace placeholder ##CAP\_STAGE\_SRC## as BASEL\_STAG\_SRC
- ◆ If the Processing source is BASEL\_PROC\_SRC, then replace placeholder ##CAP\_PROCESSING\_SRC## as BASEL\_PROC\_SRC

The updated content in the file is as follows:

```
#####Infodom name IUTCAPINFO
BASELINFO
#####staging table source CAP_STG_SRC
BASEL_STAG_SRC
#####processing table source CAP_PROC_SRC
BASEL _PROC_SRC
```

3. Execute the T2T\_Rename\_script.sh file in the same path using either of the following commands (this depends based on shell environment):

```
sh T2T_Rename_script.sh
```

OR

```
ksh T2T_Rename_script.sh
```

## 1.5 Additional Configurations

### 1.5.1 Map Application User(s) to User Group

---

**NOTE:** Configuration for OFS OREC can be ignored if it is already performed as part of OFS OREC 8.0.2, OFS OREC 8.0.3, or OFS OREC 8.0.3.1 release.

---

Once the OFSCAP application pack is installed, the following User Groups have to be mapped to the respective Domains, as detailed in the following table:

| User Group Name | Domain Name                       |
|-----------------|-----------------------------------|
| OREC Modeler    | OREC Sandbox and OREC Application |
| OREC Approver   | OREC Sandbox and OREC Application |

These mappings are required to enable the Modeler and Approver functionalities of OREC application. Once the preceding mapping is done, you can map Users to the OREC Modeler and OREC Approver User Groups.

You can perform these tasks from the **User Group Map** and **User Group Maintenance** sections of Oracle Financial Services Analytical Applications Infrastructure. For more information refer to *Oracle Financial Services Analytical Applications Infrastructure User Guide* available at [OHC Documentation Library](#).

### 1.5.2 Configurations for OFS OREC

---

**NOTE:** Configuration for OFS OREC can be ignored if it is already performed as part of OFS OREC 8.0.2, OFS OREC 8.0.3, or OFS OREC 8.0.3.1 release.

---

#### 1.5.2.1 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.

##### 1.5.2.1.1 Configuration of Oracle R Distribution (ORD) 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 configuration of Oracle R distribution and Oracle R Enterprise.

##### 1.5.2.1.2 Installation and Configuration of R Packages

1. Install OFSAAIRunner package which is available in \$FIC\_DB\_HOME/lib folder. This acts as bridge between OFSAAI and ORE/R.

---

**NOTE:** You must restart the OFSAAI Services (APP and WEB) post installing R Packages.

---



For more information, refer to *Post Installation Configuration* section of OFSAAI Installation Guide available at [OHC Documentation Library](#).

2. Install the following packages:

- ◆ Package **zoo** - **zoo\_1.7-12.tar.gz** - <https://cran.r-project.org/web/packages/zoo/index.html>
- ◆ Package **xts** - **xts\_0.9-7.tar.gz** - <https://cran.r-project.org/web/packages/xts/index.html>
- ◆ Package **PerformanceAnalytics\_1.4.3541.tar.gz** - <https://cran.r-project.org/web/packages/PerformanceAnalytics/index.html>
- ◆ Package **moments\_0.14.tar.gz** - <https://cran.r-project.org/web/packages/moments/index.html>
- ◆ Package **fitdistrplus\_1.0-5.tar.gz** - <https://cran.r-project.org/web/packages/fitdistrplus/index.html>
- ◆ Package **plyr\_1.8.3.tar.gz** - <https://cran.r-project.org/web/packages/plyr/index.html>
- ◆ Package **Rcpp\_0.12.2.tar.gz** - <https://cran.r-project.org/web/packages/Rcpp/index.html>
- ◆ Package **hexbin\_1.27.1.tar.gz** - <https://cran.r-project.org/web/packages/hexbin/index.html>
- ◆ Package **evir\_1.7-3.tar.gz** - <https://cran.r-project.org/web/packages/evir/index.html>

### 1.5.2.1.3 Syntax for Installing R Packages

For OFSAAI Runner on Database server:

1. Login as oracle user on Database server.
2. Type `ORE` to get ORE console.
3. Enter `install.packages("<OFSAAIRunner package name>")` and press enter.

For other packages, login as relevant user with which Oracle R is installed:

1. Type `R` to get R console.
2. Enter `install.packages("<package name as listed in point 3>")` and press enter.

---

**NOTE:** Ensure that the `ORACLE_SID` is set in `ORACLE` profile.

---

### 1.5.2.1.4 Installing Additional R Packages

After `R` installation is done, base packages get installed with `R`. After installation is complete, you must install the following additional packages used for modeling in `OREC`:

- `library(PerformanceAnalytics)`
- `library(MASS)`
- `library(fitdistrplus)`
- `library(evd)`
- `library(truncgof)`
- `library(truncdist)`
- `library(actuar)`

- library(GeneralizedHyperbolic)
- library(plyr)
- library(timeSeries)
- library(timeDate)
- library(bbmle)
- library(stats)
- library(DistributionUtils)
- library(copula)
- library(moments)
- library(hexbin)
- library(evir)
- library(lattice)
- library(kSamples)
- library(SuppDists)
- library(cramer)
- library(matrixcalc)
- library(EnvStats)
- library(lqmm)
- library(vcd)

You can install the packages using any of the following methods.

#### **1.5.2.1.4.1 Automated Installation (Recommended)**

As the installation of additional packages in R can be a repetitive process, to avoid manual effort and packages inter-dependency related errors and issues, following are the steps that automate the packages installation process to a great extent.

1. Log in to the host Linux machine where R is installed with your NIS credentials or any other user which has sudo privileges.
2. Once logged in change to root user using either of the command below:

```
sudo su root
```

OR

```
sudo su - root
```

3. If this host machine is behind proxy servers in your network, then it fails to connect to CRAN website from where the packages were downloaded. Therefore, set the proxy with following command:

```
export http_proxy=http://jp-proxy.jp.oracle.com:80
```

---

**NOTE:** Note that this setting is valid only for the current session. If you like to set the proxy permanently for your server, then copy the above command in your `.profile` file.

---

4. Create a R script with the following R code:

```
list.of.packages <-
c("PerformanceAnalytics","MASS","fitdistrplus","evd","truncgof","tr
uncdist","actuar","GeneralizedHyperbolic","plyr","timeSeries",
"timeDate","bbmle","stats","DistributionUtils","copula","plyr","mome
nts","hexbin","evir","lattice","kSamples","SuppDists","cramer","matr
ixcalc","EnvStats","lqmm","vcd")

new.packages <- list.of.packages[!(list.of.packages %in%
installed.packages()[,"Package"])]

if(length(new.packages))
install.packages(new.packages,dependencies=TRUE,
repos="http://cran.uk.r-project.org")
```

Create a file, paste the above code and name the file with `.R` extension. For example, `test.R`.

In this case, you must give the packages names. If the package is not installed, the following script automatically installs using the existing mirror set in `.profile` file.

---

**NOTE:** Ensure that the firewall is not enabled.

---

You can explicitly set the repository path, if any repository is not working. Repos if not passed is taken from the `.R` profile file.

5. After the R script is created and saved, execute the following script at the Linux command prompt:

```
Rscript --no-save --no-restore --verbose test.R > test.log 2 > &1
```

Where, `test.R` is the R script that you have created and `test.log` is the log file that is created in the current directory and contains the output of the commands, warnings, and errors if any.

#### 1.5.2.1.4.2 Manual Installation

If the host machine does not have access to the internet or if setting proxy is not allowed, perform the following procedure to install the additional packages:

1. Get all the packages along with their dependencies copied to the host machine's local directory. For example: `/home/ofsaa/`

You can get the packages either downloading it from CRAN from the machine which has internet access or can copy from any other machine if it has the packages.

---

**NOTE:** Make sure all the dependent packages are also copied to the host.

---

2. Once logged in change to root user using either of the command below:

```
sudo su root
```

OR

```
sudo su - root
```

3. Create a R script (for example `test.R`) with the following R code:

```
list.of.packages <- c("hexbin",
"plyr","xts","zoo","PerformanceAnalytics","moments","Rcpp","fitdistr
plus","actuar","evir","SuppDists","cramer","kSamples")

new.packages <- list.of.packages[!(list.of.packages %in%
installed.packages()[,"Package"])]

if (length(new.packages))
{

install.packages("kSamples",contriburl="file:/// /home/ofsaa/")
install.packages("cramer",contriburl="file:/// /home/ofsaa/")
install.packages("SuppDists",contriburl="file:/// /home/ofsaa/")
install.packages("GeneralizedHyperbolic",contriburl="file:/// /
/home/ofsaa/")
install.packages("evd",contriburl="file:/// /home/ofsaa/")
install.packages("actuar",contriburl="file:/// /home/ofsaa/")
install.packages("bbmle",contriburl="file:/// /home/ofsaa/")
install.packages("fitdistrplus",contriburl="file:/// /home/ofsaa/")
install.packages("moments",contriburl="file:/// /home/ofsaa/")
install.packages("PerformanceAnalytics",contriburl="file:/// /
/home/ofsaa/")
install.packages("zoo",contriburl="file:/// /home/ofsaa/")
install.packages("xts",contriburl="file:/// /home/ofsaa/")
install.packages("Rcpp",contriburl="file:/// /home/ofsaa/")
install.packages("plyr",contriburl="file:/// /home/ofsaa/")
install.packages("evir",contriburl="file:/// /home/ofsaa/")
install.packages("hexbin",contriburl="file:/// /home/ofsaa/")
```

---

```
}

```

4. After the R script is created and saved, execute the following script at the Linux command prompt:

```
Rscript --no-save --no-restore --verbose test.R > test.log 2 > &1
```

Where, `test.R` is the R script that you have created and `test.log` is the log file that is created in the current directory and contains the output of the commands, warnings, and errors if any.

---

**NOTE:** If you are getting an error about the missing dependency package(s), then download those packages and include in the directory where all other packages are available and run the script again.

---

### 1.5.3 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 `web.xml` file, follow these steps:

1. Navigate to `tomcat/conf` directory.
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>
```

### 1.6 Update Constraints Utility

This utility applies a new naming convention to constraints (PK and FK) to resolve the following issues:

- For tables with similar names which are relatively long (>27 characters) where initial few characters differ (for example, `STG_COMMON_ACCOUNT_SUMMARY`, `FCT_COMMON_ACCOUNT_SUMMARY`), the constraint names get generated as same causing an Oracle error of duplicate constraints.
- When number of foreign keys for a table is more than 100, the length of the constraint name exceeds the permissible limits allowed by Oracle Database.

In the new naming convention, a unique ID gets generated for each data model entities. The new constraint name is generated by appending the unique ID with 'FK' or 'PK' (along with a

sequence for FK). For example, PK on DIM\_ACCOUNT is formed as PK\_101, where 101 is the unique ID of DIM\_ACCOUNT. Similarly, FKs on FCT\_ACCOUNT\_SUMMARY is FK\_206\_01, FK\_206\_02, FK\_206\_03, and FK\_206\_04, where 206 is the unique ID of FCT\_ACCOUNT\_SUMMARY and the table has 4 FKs.

This utility is executed during the OFSAAI 8.0.4.0.0 patch installation. After successful installation of the OFSAAI 8.0.4.0.0 installer patch, verify the messages in the `Update.log` file located at `$FIC_HOME/utility/UpdateConstraints/logs` directory for any errors. This directory is created by the Update Constraints Utility.

You can also verify the installation status from the value in `AAI_MU_UTIL_UPDATE_CONS.V_FLAG_VALUE` of the Config Schema table. If the value is 'N' against an Infodom, it is identified as failure.

For errors, identify and troubleshoot the failed Infodoms. After you have completed the troubleshooting, execute the utility for the failed Infodoms.

### 1.6.1 How to Execute the Utility

The utility performs the backup of the following files under `ftpshare/<INFODOM>_encon_bkp` directory, but restoration is not done.

- `ftpshare/<INFODOM>/erwin/fipxml/<INFODOM>_DATABASE.xml`
- Constraint scripts under `ftpshare/<INFODOM>/erwin/scripts/table`
- Constraint scripts under `ftpshare/<INFODOM>/scripts`

To execute the utility, perform the following steps:

1. Navigate to `$FIC_HOME/utility/UpdateConstraints/bin/` folder and grant RWX (755) permissions for all executables (.sh files).
2. Execute the utility manually for each of the failed information domains.

```
$FIC_HOME/utility/UpdateConstraints/bin/execute.sh $INFODOM
```

3. If the process is successful, verify the following references for new constraint names:

- `ftpshare/<INFODOM>/erwin/fipxml/<INFODOM>_DATABASE.xml`
- Constraint scripts under `ftpshare/<INFODOM>/erwin/scripts/table`
- Constraint scripts under `ftpshare/<INFODOM>/scripts`
- Object registration tables for constraints, `REV_TAB_CONSTRAINTS`, `REV_TAB_REF_CONSTRAINTS`, and `REV_TAB_CONSTRAINT_COLUMNS`.
- Oracle Data Dictionary in respective Atomic Schema for each Infodom.

4. In case of failure, refer the utility's log and identify the cause of the failure. Resolve the issues before proceeding with the re-run of the utility. For more queries, contact Oracle Support Services.

## 1.6.2 Troubleshooting

The utility goes through six different steps, which can be traced with the following messages.

**NOTE:** At every stage, identify the cause of the failure and resolve the issues before proceeding with the re-run of the utility.

Steps	Description	Action to be taken
1	Generate Scripts and updating DATABASE.XML	<p><b>Step 1:</b> Restore the file backed up at <b>ftpshare/&lt;INFODOM&gt;_encon_bkp/erwin/fipxml/&lt;INFODOM&gt;_DATABASE.xml</b> to the destination directory <b>ftpshare/&lt;INFODOM&gt;/erwin/fipxml/&lt;INFODOM&gt;_DATABASE.xml</b>.</p> <p><b>Step 2:</b> Restore the folders backed up at <b>ftpshare/&lt;INFODOM&gt;_encon_bkp/erwin/scripts/table</b> to the destination directory <b>ftpshare/&lt;INFODOM&gt;/erwin/scripts/table</b>.</p> <p><b>Step 3:</b> Restore the folders backed up at <b>ftpshare/&lt;INFODOM&gt;_encon_bkp/scripts</b> to the destination directory <b>ftpshare/&lt;INFODOM&gt;/scripts</b>.</p> <p><b>Step 4:</b> Re-run the utility.</p>
2	Triggering Object Registration	<p><b>Step 1:</b> Restore the file backed up at <b>ftpshare/&lt;INFODOM&gt;_encon_bkp/erwin/fipxml/&lt;INFODOM&gt;_DATABASE.xml</b> to the destination directory <b>ftpshare/&lt;INFODOM&gt;/erwin/fipxml/&lt;INFODOM&gt;_DATABASE.xml</b>.</p> <p><b>Step 2:</b> Restore the folders backed up at <b>ftpshare/&lt;INFODOM&gt;_encon_bkp/erwin/scripts/table</b> to the destination directory <b>ftpshare/&lt;INFODOM&gt;/erwin/scripts/table</b>.</p> <p><b>Step 3:</b> Restore the folders backed up at <b>ftpshare/&lt;INFODOM&gt;_encon_bkp/scripts</b> to the destination directory <b>ftpshare/&lt;INFODOM&gt;/scripts</b>.</p> <p><b>Step 4:</b> Re-run the utility.</p>

Steps	Description	Action to be taken
3	Gathering information about previous constraint names	<p><b>Step 1:</b> Restore the file backed up at <code>ftpshare/&lt;INFODOM&gt;_encon_bkp/erwin/fipxml/&lt;INFODOM&gt;_DATABASE.xml</code> to the destination directory <code>ftpshare/&lt;INFODOM&gt;/erwin/fipxml/&lt;INFODOM&gt;_DATABASE.xml</code>.</p> <p><b>Step 2:</b> Restore the folders backed up at <code>ftpshare/&lt;INFODOM&gt;_encon_bkp/erwin/scripts/table</code> to the destination directory <code>ftpshare/&lt;INFODOM&gt;/erwin/scripts/table</code>.</p> <p><b>Step 3:</b> Restore the folders backed up at <code>ftpshare/&lt;INFODOM&gt;_encon_bkp/scripts</code> to the destination directory <code>ftpshare/&lt;INFODOM&gt;/scripts</code>.</p> <p><b>Step 4:</b> Re-run the utility.</p>



Steps	Description	Action to be taken
4	Alter constraints	<p><b>Step 1:</b> Execute the following statements to drop the back up tables in Atomic Schema:</p> <pre>Drop table REV_TAB_CONSTRAINTS_U;  Drop Table REV_TAB_REF_CONSTRAINTS_U ;  Drop table REV_TAB_CONSTRAINT_COLUMNS_U;</pre> <p><b>Step 2:</b> Restore the file backed up at <b>ftpshare/&lt;INFODOM&gt;_encon_bkp/erwin/fipxml/&lt;INFODOM&gt;_DATAB ASE.xml</b> to the destination directory <b>ftpshare/&lt;INFODOM&gt;/erwin/fipxml/&lt;INFODOM&gt;_DATABASE.xml.</b></p> <p><b>Step 3:</b> Restore the folders backed up at <b>ftpshare/&lt;INFODOM&gt;_encon_bkp/erwin/scripts/table</b> to the destination directory <b>ftpshare/&lt;INFODOM&gt;/erwin/scripts/table.</b></p> <p><b>Step 4:</b> Restore the folders backed up at <b>ftpshare/&lt;INFODOM&gt;_encon_bkp/scripts</b> to the destination directory <b>ftpshare/&lt;INFODOM&gt;/scripts.</b></p> <p><b>Step 5:</b> Modify the file, <code>r_rename_cons.sql</code> available in the <code>\$FIC_HOME/utility/UpdateConstraints/Scripts/&lt;INFODOM&gt;</code> directory by adding semicolon at the end of each line.</p> <p><b>Step 6:</b> Execute the file, <code>r_rename_cons.sql</code> in the Infodom Atomic Schema.</p> <p><b>Note:</b> Ignore any ORA errors related to 'constraint does not exist'.</p> <p><b>Step 7:</b> Re-run the utility.</p>

Steps	Description	Action to be taken
5	Clear data of previous constraints	<p>This can be considered as a successful case. However, you must execute the following SQL commands.</p> <p><b>Step 1:</b> Execute the following statements to drop the back up tables in Atomic Schema:</p> <pre>Drop table REV_TAB_CONSTRAINTS_U; Drop Table REV_TAB_REF_CONSTRAINTS_U ; Drop table REV_TAB_CONSTRAINT_COLUMNS_U;</pre> <p><b>Step 2 :</b> Execute the statement in Configuration Schema, after replacing &lt;INFODOM&gt; with the respective information domain:</p> <pre>UPDATE aai_mu_util_update_cons SET V_FLAG_VALUE='Y',V_UPDATE_DATE=SYSDATE where DSNID= '&lt;INFODOM&gt;'</pre>
6	Update Successful	--

## Appendix A

### Frequently Asked Questions

#### What checks does the 8.0.4.0.0 Controlled Availability (CA) 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.

#### Which version of ERwin Data Modeler does OFSAAI support?

OFSAAI now supports ERwin version 9.2 and 9.5 generated XMLs 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 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` directory 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` directories.

---

2. Navigate to `$FIC_WEB_HOME/webroot/conf` directory 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 [Oracle Financial Services Capital Adequacy Pack Installation Guide – Release 8.0.0.0.0](#).
4. Restart the OFSAAI Services (APP and WEB). For more information, refer to the *Start/Stop Infrastructure Services* section in [Oracle Financial Services Capital Adequacy Pack Installation Guide – Release 8.0.0.0.0](#).



Oracle Financial Services Capital Adequacy Pack Installation Guide 8.0.4.0.0

Oracle Corporation  
World Headquarters  
500 Oracle Parkway  
Redwood Shores, CA 94065  
U.S.A.

Worldwide Inquiries:  
Phone: +1.650.506.7000  
Fax: +1.650.506.7200  
[www.oracle.com/industries/financial-services/index.html](http://www.oracle.com/industries/financial-services/index.html)

Copyright © 2017, Oracle Financial Services Software Limited. All rights reserved.

No part of this work may be reproduced, stored in a retrieval system, adopted or transmitted in any form or by any means, electronic, mechanical, photographic, graphic, optic recording or otherwise, translated in any language or computer language, without the prior written permission of Oracle Financial Services Software Limited.

Due care has been taken to make this Installation Guide and accompanying software package as accurate as possible. However, Oracle Financial Services Software Limited makes no representation or warranties with respect to the contents hereof and shall not be responsible for any loss or damage caused to the user by the direct or indirect use of this Installation Guide and the accompanying Software System. Furthermore, Oracle Financial Services Software Limited reserves the right to alter, modify or otherwise change in any manner the content hereof, without obligation of Oracle Financial Services Software Limited to notify any person of such revision or changes.

All company and product names are trademarks of the respective companies with which they are associated.

---