Oracle Financial Services International Financial Reporting Standards Application Pack

Installation Guide

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Version 8.0.4.1.0

ORACLE
Financial Services

DOCUMENT CONTROL

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Executive Summary

This document includes the necessary instructions to apply the 8.0.4.1.0 Maintenance Level release for OFS International Financial Reporting Standards Application Pack and perform the required post-install configurations. You can find the latest copy of this document in the OHC Documentation Library.

TABLE OF CONTENTS

Preface

This document provides step-by-step instructions to install the Oracle Financial Services Analytical Applications IFRS Pack 8.0.4.1.0 Interim Release.

This chapter discusses the following topics:

Audience

The Oracle Financial Services Analytical Applications (OFSAA) 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 OFSAA 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 Oracle Financial Services Analytical Applications (OFSAA) IFRS pack Installation and Configuration Guide includes the following topic:

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

This section identifies additional documents related to OFS IFRS Infrastructure. You can access Oracle documentation online from Documentation Library OHC Documentation Library.

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

Conventions and Acronyms

Conventions	Description
Actions are indicated in **Bold.** Command or query is indicated in `Courier New font.`	
AIX	Advanced Interactive eXecutive
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
ERM	Enterprise Resource Management
FTP	File Transfer Protocol
GUI	Graphical User Interface
HTTPS	Hypertext Transfer Protocol Secure
IR	Interim Release
J2C	J2EE Connector
J2EE	Java 2 Enterprise Edition
JDBC	Java Database Connectivity

Conventions	Description
JDK	Java Development Kit
JNDI	Java Naming and Directory Interface
JRE	Java Runtime Environment
JVM	Java Virtual Machine
ML	Maintenance Level
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OFS AAAI	Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack
OHC	Oracle Help Center
RHEL	Red Hat Enterprise Linux

1 OFS IFRS Pack Release 8.0.4.1.0

This Maintenance Level release (ML) of OFS Analytical Applications (OFSAA) IFRS is cumulative and includes all enhancements and bug fixes done since the OFS Analytical Applications (OFSAA) IFRS Application Pack v8.0 GA release. For more information, refer to the Oracle Financial Services IFRS Release 8.0.2.0.0 Installation Guide.

1.1 Pre Installation Requirements

- The minimum patch set level should be 8.0.4.0.0.
- If the Webserver used is WebLogic version 12.2.X or above, download and apply the patch **25343603** from the *Patches & Updates* tab in https://support.oracle.com/.
- OFS IFRS Application pack v8.0.4.1.0 installer download contains only the ERwin XML file that is required for uploading the model. This file is sufficient to install the v8.0.4.1.0 Application pack. However, this XML file cannot be opened in the ERwin Data modeler tool and hence cannot be used for any data model customization. ERwin file is delivered as a patch and needs to be downloaded separately. This ERwin file should be used for any customization of the data model. To download the Data Model Erwin file, log in to https://support.oracle.com/ and search for **26335451** under the *Patches & Updates* tab. If customization to the data model has been done in the environment being upgraded, then before uploading the same, customizations need to be applied again in the merged data model.

1.2 How to apply this patch?

1.2.1 Installing OFS IFRS

Refer to the following instructions to download, extract, install, and configure this patch:

1. Login to https://support.oracle.com/ and search for **26114116** under the *Patches & Updates* tab.
2. Download the OFSAA 8.0.4.0.0 IFRS ML RELEASE #1 archive file and copy it to your OFSAA server in Binary mode.

   NOTE: There are different archive files for different operating systems such as AIX, Solaris, and RHEL/OEL.

3. Stop all the OFSAAI services. For more information, see the Start/Stop Infrastructure Services section in Oracle Financial Services International Financial Reporting Standards Pack Installation Guide Release 8.0.2.0.0.
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 common scripts, EXEWebService, ficapp, ficweb, and ficdb in the $FIC_HOME folder by executing the command:

   chmod -R 775 *

6. If you have to 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 8.0.4.1.0 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.

7. Give EXECUTE permission to the utility using the command:

   chmod 751 unzip_<os>

8. Extract the contents of the 8.0.4.1.0 ML archive file using either 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 "-an" option is mandatory to unzip the archive file.

9. Update the **params.conf** file present in the *OFS_IFRS_PACK/OFS_IFRS/conf* folder. The update instructions are present in this file itself.

   If you do not have permission to create a new folder for backup, then provide an alternate location as value for BACKUP_LOCATION tag in **params.conf** file, present in the OFS_IFRS_PACK folder.

   In case of customized datamodel upload, then update the **params.conf** file present in the *OFS_IFRS_PACK/OFS_IFRS/conf/* folder accordingly.

10. Give EXECUTE permission to the ML patch installer script. Navigate to the folder OFS_AAI and execute the command:

    chmod 755 OFSAAIUpdate.sh

11. Execute the following command:

    ./OFSAAIUpdate.sh

12. Verify if the ML is applied successfully by checking the log files generated in *OFS_IFRS_PACK/OFS_IFRS/logs* and *OFS_IFRS_PACK/logs* folders. You can ignore ORA-00001 and ORA-02292 in the log file. In case of any other errors, contact Oracle Support.
13. Post successful installation of the ML, 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>
      - **Websphere**: <Websphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>
14. Delete the existing EAR/WAR file available in the folder *$FIC_HOME/ficweb*.
15. Execute the file **DeleteStrutsLibrary.sh** present under FIC_HOME directory using the following command. You need to execute this only if the patch OFS IFRS 8.0.4.0.1 (25769239) is NOT applied already.

    ./DeleteStrutsLibrary.sh
16. (**Mandatory**) Download and install the one-off patch **26590449** form the *Patches & Updates* tab of https://support.oracle.com/. For more information and installation instructions, refer to the Readme file attached within the patch.
17. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying the EAR/ WAR file, refer to the Post Installation Configuration section in Oracle Financial Services International Financial Reporting Standards Pack Installation Guide Release 8.0.2.0.0.
18. Restart all the OFSAAI services. For more information, refer to the Start/Stop Infrastructure Services section in Oracle Financial Services International Financial Reporting Standards Pack Installation Guide Release 8.0.2.0.0.
19. Install the one-off patch **25343603**, if OFSAA is deployed on Oracle WebLogic Server version 12.2.x. Refer to the Readme available with the patch for further instructions on installing the patch.

1.3 Post Installation Configurations

- Download and install the mandatory patch **30092768**, from My Oracle Support. See the Readme available with the patch for instructions on installing the patch.

- The default tasks present in the LLFP application are included in ECL and Stage runs to gather 100% table statistics. Based on the data volume, you need to optimize these tasks to gather statistics on the appropriate sample size. To do this, you need to modify the function **fn_gather_stats** in the atomic schema by passing the parameter **estimate_percent** to the **GATHER_TABLE_STATS** function call.
- Download and install the one-off patch **26590449** form the *Patches & Updates* tab of https://support.oracle.com/. For more information and installation instructions, refer to the Readme file attached within the patch.
- Install the security patch for OFS IFRS from the MOS Document 2308427.1.

1.3.1 Configurations for Verifying and Executing PD Model

This configuration procedure is specific to OFS LLFP and is required only if you have a licensed OFSAAI Enterprise Modelling Framework.

Once you license OFS AAAI, the following configurations must be made to use the PD Modelling feature in OFS LLFP application. These steps are required to verify and execute the PD model that is packaged with the LLFP application.

NOTE: Ensure that Oracle R Enterprise Server version 1.5 is installed on the database server and AAAI Runner Package is installed on the DB server before you perform these configurations. Also, you must access the application with the required privileges.

1. Create a new schema with the following grants:

```
grant create SESSION to <<schema_user>>;
grant create PROCEDURE to <<schema_user>>;
grant create SEQUENCE to <<schema_user>>;
grant create TABLE to <<schema_user>>;
grant create TRIGGER to <<schema_user>>;
grant create VIEW to <<schema_user>>;
grant create MATERIALIZED VIEW to <<schema_user>>;
grant create SYNONYM to <<schema_user>>;
```

2. Grant RQADMIN role to the Config schema user:

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

3. Create a new database from **System Configuration** menu.
4. Add the TNS entry for the newly created database.
5. Create a new Information Domain for Sandbox and create a new Segment.

6. Map the Sandbox Information Domain to the group **LLFP Admin Group**.
7. Map the EMF groups to the LLFP admin user.
8. Login to Config schema and execute the file **ofs_llfp_aai_model_menu.sql**. This file is present in *$FIC_HOME/scripts_OFS_IFRS_8.0.6.1.0/config/insert* folder.
9. Log in as LLFP Admin user and create a Sandbox from the OFSAAI menu. Use the dataset **IFRS ECL Consolidated** for creating this Sandbox.
10. Disable the FK constraint (FK_MF_MODEL_DS_QUERY_1) defined in the table MF_MODEL_DS_QUERY, in Config schema.
11. Replace the place holders **##LLFPSBXINFODOM##** and **##LLFPSANDBOX_ID##** with Sandbox Information Domain name and Sandbox ID respectively, in the following tables of Config schema:
    - MF_MODEL_MASTER
    - MF_MODEL_SCRIPT_MASTER
    - MF_MODEL_DS_QUERY
12. Enable the FK constraint **FK_MF_MODEL_DS_QUERY_1**, in Config schema.
13. Update all the occurrences of the term "**Timestamp**" to "**Date Time**" in the following files, present in the folder *ftpshare/<<SANDBOX_INFODOM>>/erwin/scripts/sandbox*:
    - FSI_TRANSITION_MATRIX_MST.xml
    - FSI_PERIOD_TM_MAP_MST.xml
    - FSI_IFRS_ECON_SCENARIO_MST.xml

Once these configurations are set, you can follow the OFSAAAI Installation Guide to view, execute, and deploy the model from Sandbox. For more information, see Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide available in Oracle Help Centre Documentation Library.

1.3.2 Data Transformation Resave

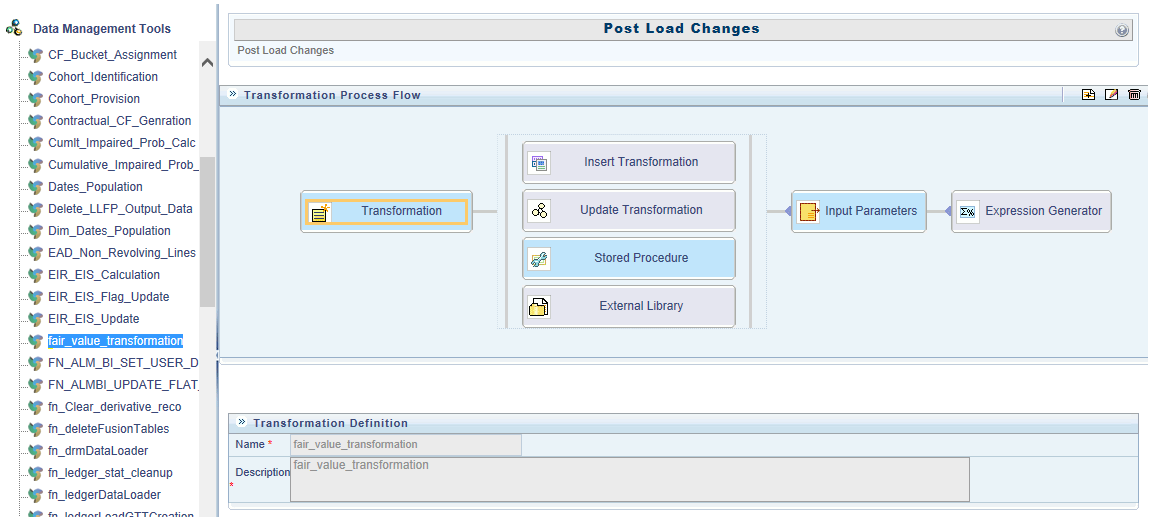
This configuration procedure is specific to OFS HM.

The valuation function - **fair_value_transformation**, for Level 3 contains only Level 1 and Level 2 valuation codes and does not reflect the latest changes done to the function, concerning Level 3.

To reflect the changes for Level 3, update the **fair_value_transformation** function from the Post Load changes section of OFSAAI, by performing the following procedure:

1. Navigate to *Data Management Tools* > *Post Load Changes*.

   The *Post Load Changes* section is displayed:



2. Select the function **fair_value_transformation** form the LHS list.

   The details of the function are displayed in the RHS in *Transformation Process Flow* and *Transformation Definition* grids.

3. Click button. The **Description** field is enabled for editing.

4. Click Next button.

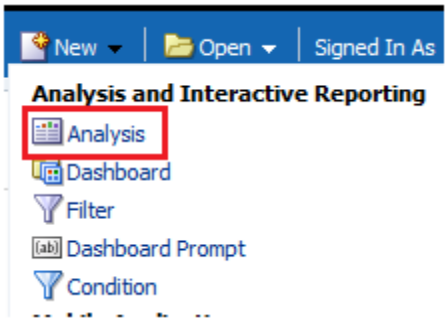
   The *Parameter Definition*, *Stored Procedure Editor*, and *Business Process Flow* grids are displayed.

5. Click Finish button. The function is saved and a dialog box confirming the save operation is displayed. Click Ok button.

1.3.3 Creating Global Variables for OBIEE

To create the global variables for OBIEE, in this release of IFRS application, perform the following procedure:

1. Host the RPD and Catalog for LLFP solution as part of this release.
2. Login into OBIEE/analytics using the application URL.
3. Click the **Analytics** link.

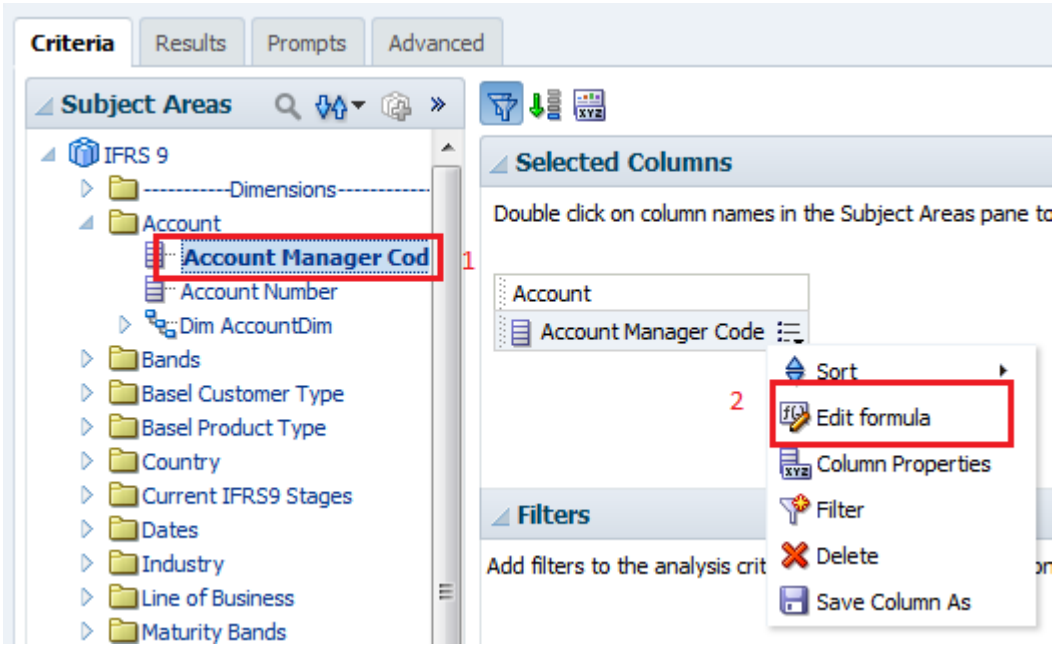


4. Click and select the subject area as **IFRS 9**.

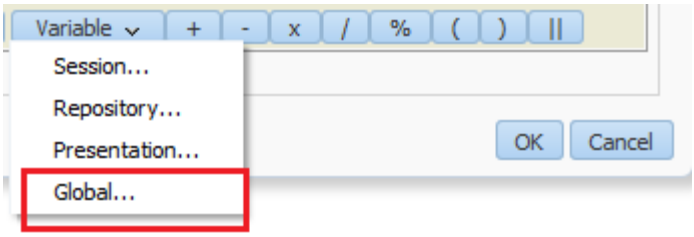
5. The subject area details are displayed.

   Expand a folder and double click on any column from the subject area.

   Click the **Edit formula** menu item.



6. Click the *Variables* tab and select the **Global** option from the menu.



7. Create a global variable with the following details:
   - Variable Name: **denomination**

     Value: **case when '@{denomination}{in thousand}' = 'in thousand' then 1000 else 1000000 end**

     This variable is used to divide all amount values by thousand or million, depending on the selected criteria.
   - Variable Name: **RSkey**

     Value: **case when "Run"."Run Execution Id" = '@{RunId}{1476270723292}' then "Run"."Run Skey" end**
   - Variable Name: **stage**

     Value: **"Previous IFRS9 Stages"."IFRS Stage Code"**
8. Refresh the materialized by executing the following queries:
   - ```
     EXECUTE
     DBMS_MVIEW.REFRESH(LIST=>'FCT_IFRS_STG_DETERMINATION_MV');
     ```

     This refreshing of MV should be done when there is a change to the Stage Determination table.
   - ```
     EXECUTE
     DBMS_MVIEW.REFRESH(LIST=>'FCT_COLLECTIVE_ASSESSMENT_MV');
     ```

1.3.4 Configurations to Deploy the LLFP/HM BI Application

The following are the steps to configure the LLFP/HM BI Analytics:

Before you begin this process, ensure that Oracle Business Intelligence (Version 11.1.1.9.0) installation is completed and is available.

1. Set the <Oracle BI Instance Home> directory.

   For example: /u01/OBIEE11G/instances/instance1
2. Start WebLogic AdminServer.
   a. Set the <BI Domain Home> directory.

i. **For Example: /u01/OBIEE11G/user_projects/domains/bifoundation_domain**

b. Navigate to <*BI Domain Home >/bin* and execute the following command:

nohup ./startWebLogic.sh &

NOTE: Bringing up this service may take a few minutes depending on your environment. Check the logs using the command: **tail –f nohup.out**

3. Start Node Manager.

   a. Set the < WebLogic Server Home > directory>.

      For example: /u01/OBIEE11G/wlserver_10.3

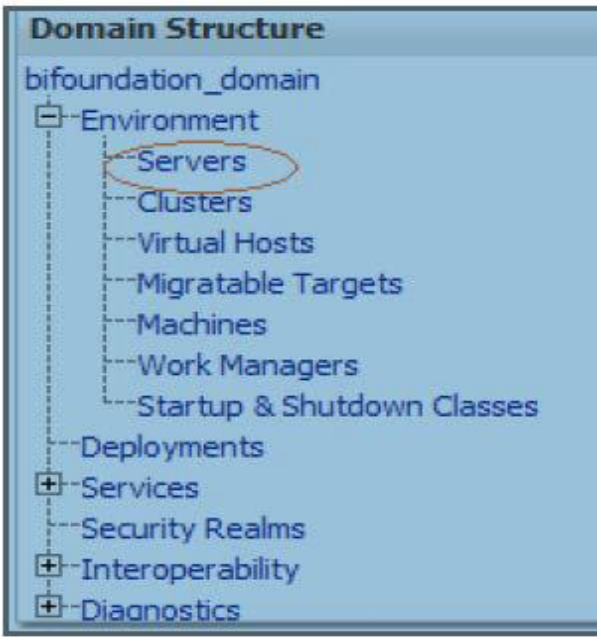
   b. Navigate to <*WebLogic Server Home>/server/bin* and execute the following command:

      nohup ./startNodeManager.sh &

4. Start WebLogic Managed Server (bi_server1).

   a. Login onto *http:///localhost:7001/console* using your Administrator credentials created during platform install (Replace the hostname based on your setup).

   b. Under the *Environment* tab, click the **Servers** link.



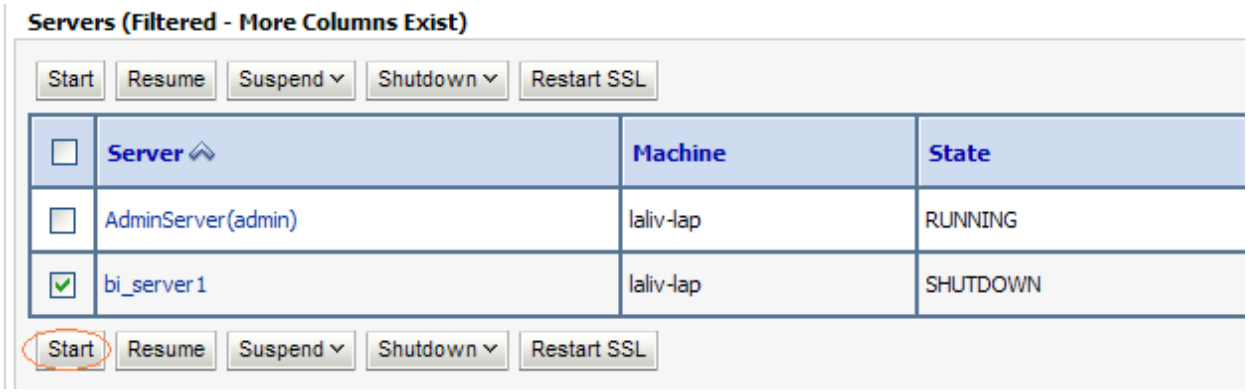
The bi_server1 displays the shutdown state at this point.

Server	Machine	State	Status of Last Action
AdminServer(admin)	laliv-lap	RUNNING	None
bi_server1	laliv-lap	SHUTDOWN	TASK COMPLETED

c. Click the *Control* tab.

d. Select the bi_server1 line by clicking on the left tick box.

e. Click the Start button at the top of the list and confirm starting this service.



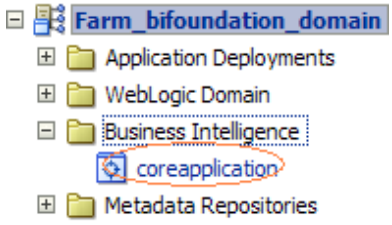
f. The state will update to the "RUNNING" mode after a few minutes.

5. Start OBIEE services and login

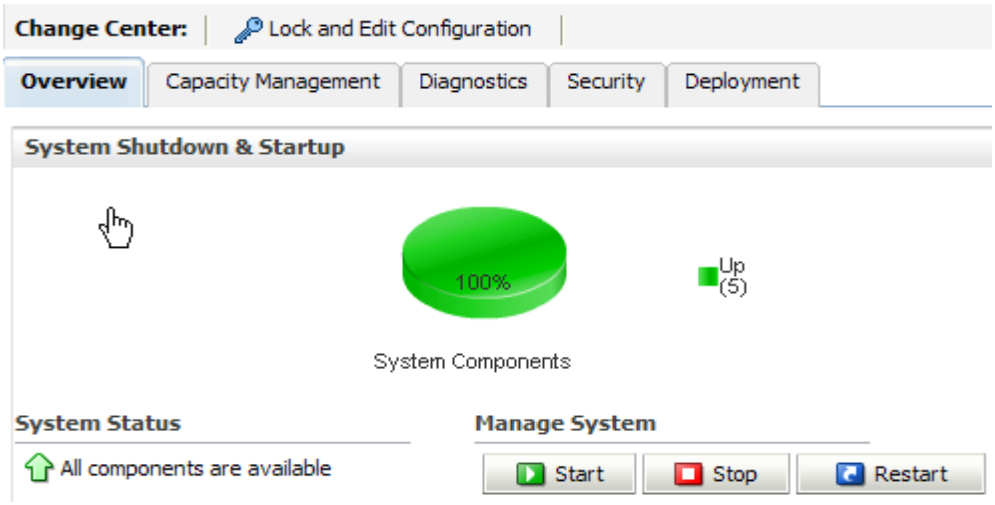
a. Starting services From EM screen:

i. Log in to the EM administration screen using the URL: *http:///localhost:7001/em* (Replace the hostname and port number based on your setup). Use the login you created in the OBIEE installation to log in.

ii. Expand the 'Business Intelligence' node on the left and choose the **Core application**.



iii. Click the Overview Tab.



iv. Click Restart (or Start) under the **Manage System** section.

v. Click **Yes** on the dialog box to confirm the action. Wait for a message that confirms the successful restart.

b. If the start process using EM is not successful and returning an error about OPMNCTL not up, follow the starting process with OPMNCTL.

i. Open a command prompt, navigate to <Oracle BI Instance Home>/bin.

ii. Execute the command **./opmnctl status**. This displays the status of all the OBIEE core services

iii. Execute the command **./opmnctl startall** or **./opmnctl stopall** depending on your requirement.

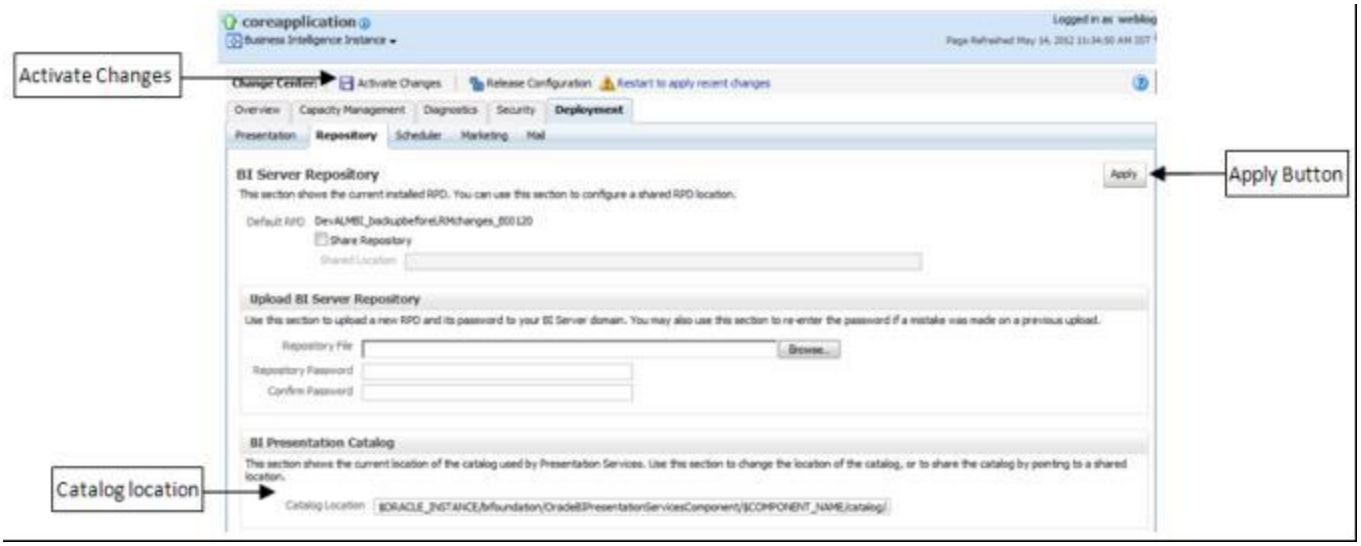
6. Deploy RPD and web catalog file(s).

a. Navigate to folder *$FIC_HOME/LLFP_DASHBOARDS//* which contains **LLFP.rpd** file and *$FIC_HOME/LLFP_DASHBOARDS//* which contains **LLFP.catalog** file.

i. Login to OBIEE – Enterprise Manager URL (http://<ip address>:<port>/em).

ii. Click on **core application** from the *Business Intelligence* tab on the left-hand side.

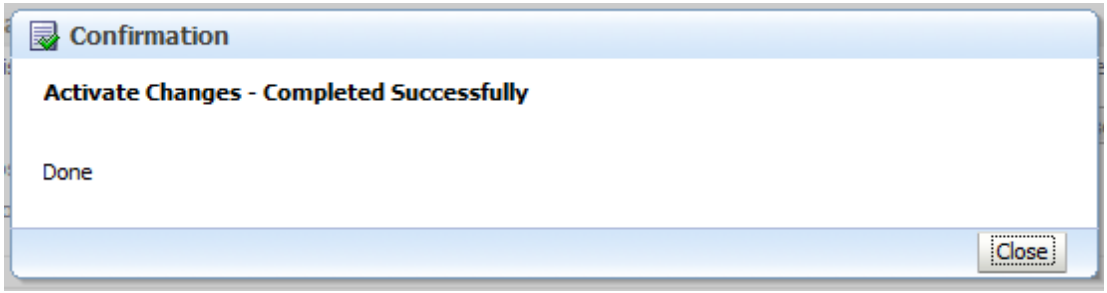
iii. Under **core application**, select the Deployment tab and click the **Lock and Edit Configuration** button located below the title **core application**. The following screen is displayed:



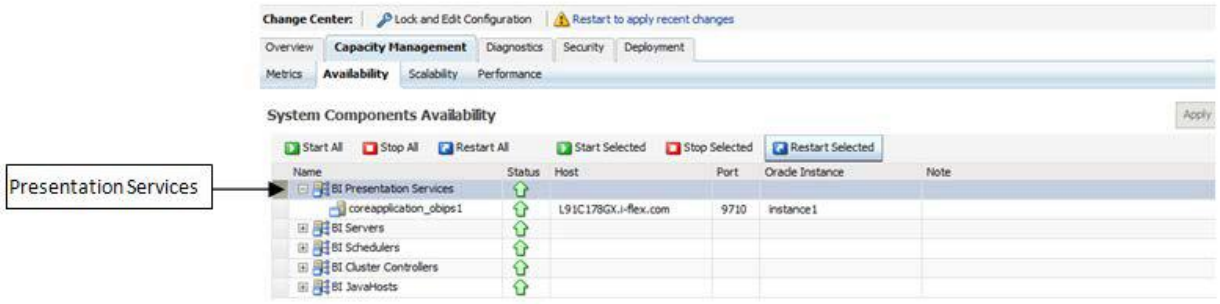
iv. RPD Deployment: Select the **Browse** button available under the *Upload BI Server Repository* section and select the **LLFP.rpd** file from the local folder. Enter the Repository password 'Administrator1'.

v. Web catalog Deployment:

- Create a new **web catalog** folder for the LLFPBI application through the Enterprise Manager of OBIEE.
- Set the Catalog Location available under 'BI Presentation Catalog' as *$ORACLE_INSTANCE/bifoundation/OracleBIPresentationServicesComponent/$COM PONENT_NAME/catalog/LLFPBI*.
- Click **Apply** and then click **Activate** changes. The following pop up is displayed after successful activation.



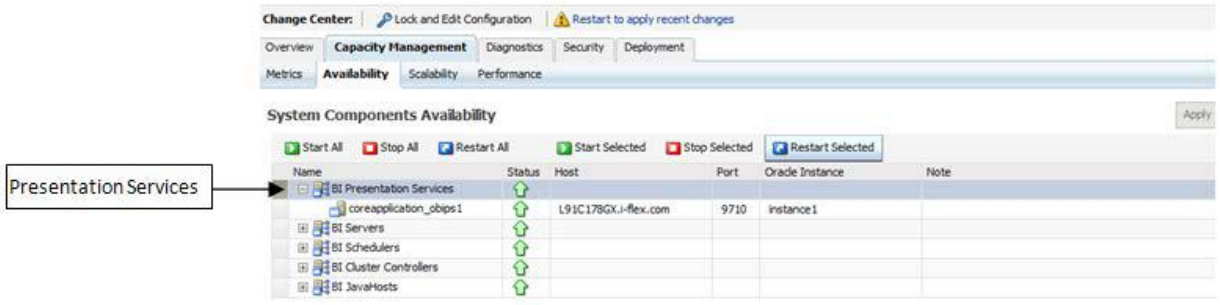
- Click the **Close** button and switch to the *Capacity management* tab.
- Restart the presentation services. Under the System Components Availability, select Presentation Services and click on Restart Selected option.



vi. Once the Presentation Service is restarted, it displays the pop up notifying the successful restart. Click **Close**.

vii. Verify that the new folder structure is created in the system. It can be found under path: *<Oracle BI Instance Home> \bifoundation\OracleBIPresentationServicesComponent\coreapplication_obips1 \catalog\LLFPBI*

viii. This **LLFPBI** folder will be having a root folder which in turn contains three folders named **shared**, **system,** and **users**.



b. Open the Catalog Manager

i. Navigate to File menu and open the catalog online (File->Open catalog) by giving the necessary credentials based on your setup (Type - (online), URL - (http://<ipaddress>:<port>/analytics/saw.dll).

ii. Once the catalog is opened, it displays a folder structure on the left-hand side. Select the shared folder in the LHS tree structure.

iii. Go to the 'File' menu and select 'Unarchive'. It asks for the path for a file.

iv. Browse the path of the archived catalog file saved in your local folder using the **Browse** button in the pop-up. Click **OK**.

v. The catalog is unarchived in a specified location. A pop up for successful operation is displayed. Restart the presentation services once again.

c. Open the analytics OBIEE URL- (http://<ipaddress>:<port>/analytics) and login with credentials based on your setup. Verify the availability of the catalog.

7. Configure tnsnames.ora.
    a. Open **tnsnames.ora** file under the folder - *<Oracle Home>/network/admin*.
    b. Make sure that an entry is made in the **tnsnames.ora** to connect to the atomic schema of the OFSAA application.
    c. Save the **tnsnames.ora** file.
8. Configure the ODBC data source to connect to Oracle BI Server.
    a. Navigate to *Control Panel>Administrative Tools>Data Sources (ODBC)*.
    b. Select the *System DSN* tab and click the **Add b**utton.
    c. Select a driver-specific to (Oracle BI Server 11g) and click the **Finish b**utton.
    d. Enter **Name** and Server details (specify the Host Name or IP Address of the BI Server) and click **Next**.
    e. Enter Oracle BI Server login id and password (Enter User Name and Password created at the time of OBIEE installation). Click **Next**.
    f. Click **Finish**.
9. Modify the connection pool and set the properties.
    a. Open the OBI Administration tool.
    b. Select *Start > Programs > Oracle Business Intelligence > BI Administration*.
    c. Select *File > Open > Online* and select **LLFP.rpd** file.
    d. In the *Open* dialog box, select and open **LLFP.rpd** file.
    e. Enter the Repository password as '**Administrator1**'.
    f. In the **Physical** layer, double-click the **Connect Pool**. The properties of **Connection Pool LLFP** is displayed.
    g. In the *General* tab, edit / check the following entries:
        i. Call Interface: (OCI 10g/11g).
        ii. Data source name: <tnsnames.ora entry created in the step 8.b connecting to OFSAA atomic schema>.
        iii. User name: <enter atomic db user name>.
        iv. Password: <enter atomic db user password>.
        v. Confirm password and Click **OK** to close the window.
        vi. Similarly, configure the connection pools for 'LLFPBI'.

NOTE: Repeat similar steps from (g) above for connection pool 'Connection Pool MR' under Database 'Market Risk'.

vii. Click **Save** to save the RPD file.

viii. Click **No** for the Global Consistency Message.

ix. Close the RPD file (File / Exit).

10. Login into LLFP/HM BI Application using the URL: http://localhost:<port number>/analytics.(Replace the port number based on your setup).

1.3.5 Enable Multiple ECL Runs in ECL Dashboard

Perform the following procedure to enable Multiple ECL Runs in ECL Dashboard:

1. Go to EDIT mode in ECL Dashboard.
2. Select **Prompt - Run Details** link and go to EDIT mode.
3. Click the *Options* tab, *General* tab, select the dropdown for **Choice List Values**.
4. Select SQL Results.
5. Enter an SQL query to modify the filter of Run ID selection. For example:

```
SELECT "Run"."Run Description" FROM "IFRS 9" WHERE "Run"."Run Type"=2 FETCH FIRST 65001 ROWS ONLY
```

6. Save the settings.

OFS IFRS 8.0.4.1.0 Installation Guide

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