Oracle Financial Services Retail Performance Analytics

Product Installation Manual

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About this Manual

The Oracle Financial Services Retail Performance Analytics (OFSRPA) focalizes on Summary performance of the LOBs and overall profitability, Portfolio mix, LOB specific profitability reports to be analyzed against key dimensions like customer segments, product family, region, branch, risk scores etc, Product holdings and Relationship depth across the LOBs, Customer Trends across performance drivers like Sales, Balances, Deposits, Product subscriptions (revenue services), Credit scores and delinquency bands, losses, etc, Wallet Share analysis and customer lifetime value, Efficiency of investments (like marketing, branch, channel etc) over time.

Audience

This Manual is meant for use by the Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) System Administrator. It provides step-by-step instructions necessary for installing the OFSRPA v6.0.2 Product.

Scope

This manual provides a step-wise instruction to install OFSRPA Product in an existing OFSAAI hosted in Oracle 11g R2 (11.2.0.2.0) environment.

Organization of the Manual

The Installation Manual is organized into the following chapters.

- **Pre-Requisites** section identifies the hardware and base software environment that is required for a successful installation and functioning of OFSAAI.
- **Pre-Installation Activities** section details the pre-installation activities
- **OFSRPA v6.0.2.0.0 Installation** section details the step-by-step instruction on the various installation options.
- **Post installation Activities** section details the steps that are required to be performed after a successful installation of the Oracle Financial Services Analytical Applications Infrastructure Solution.

Conventions Used in this Manual

References to sections or chapters in the manual are displayed in *Italics*.

Screen names are displayed in the following manner:

Introduction screen

Options and buttons are displayed in **Bold.**

Notes are displayed as follows:

NOTE

- It is important that the password should be 6 characters long. If you do not adhere to this pre-requisite, you will see a system message that reads **Password must be at least 6 characters long**.

Prerequisites

The installation process requires certain environmental variables to be set prior to starting the installation. You must ensure that these requirements are met before starting the installation. You are requested to refer to the Release Notes for the latest updates on hardware or software requirements and the OFSAAI Installation Manual for the environment variables.

Environment

Installation of OFSRPA v6.0.2 Product requires the Oracle 11g R2 (11.2.0.2.0) version of **OFSAAI v7.3.3.3.0,** to be installed in either a single-tier or multi-tier environment. It is implicit that all base software versions and patch levels required by Oracle Financial Services Analytical Applications Infrastructure 7.3 is available and adhered to.

Note:

- The Oracle Financial Services Retail Performance Analytics v6.0.2 installer download contains only the ERwin XML file that is required for uploading the model. This file is sufficient to install the v6.0.2 product. 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 need to be downloaded separately. The reference bug/patch where ERwin file can be downloaded is 18630560.

Prerequisites

The Oracle 11g R2 (11.2.0.2.0) version of OFSAAI v7.3.3.3.0 and OBIEE 11.1.1.7.1 on any supported operating system once installed must be configured.

Front-End Access

- Internet Explorer 8.0/9.0
- Java Plug-in 1.6.0_21
- Acrobat Reader 8.0
- The screen resolutions supported are 1024*768 and 1280*1024

NOTE

- Ensure that Java Plug-in is enabled in the browser settings.

Pre-Installation Activities

The following is the Pre Installation checklist to ensure the readiness to start installing OFSRPA Product:

- Oracle Financial Services Analytical Applications Infrastructure v7.3.3.3.0 must be successfully installed on Oracle 11gR2 (RAC) (11.2.0.2.0).
- If Infrastructure installation is on multitier environment, execute the following commands in the DB layer terminal

  chmod -R 777 < ftpshare folder >
- Navigate to ftpshare folder and set the *umask* shown as below; this will make sure all the new files created will have 666 file permission.

  cd < ftpshare folder >

  umask 0000
- The Config and application schema should be two distinct oracle database users.
- Execute the following grants in config schema. Replace <ORACLE_USER> with application schema user.

  grant select on METADATA_MASTER to <ORACLE_USER>

  grant select on METADATA_ELEMENT_MASTER to <ORACLE_USER>

  grant select on METADATA_LOCALE_MASTER to <ORACLE_USER>

  grant select on BATCH_MASTER to <ORACLE_USER>
- Oracle database User for Application schema should have the below grants

  grant create session to <ORACLE_USER>;

  grant create ANY INDEX to <ORACLE_USER>;

  grant create PROCEDURE to <ORACLE_USER>;

  grant create SEQUENCE to <ORACLE_USER>;

  grant DEBUG CONNECT SESSION to <ORACLE_USER>;

  grant create TABLE to <ORACLE_USER>;

  grant create VIEW to <ORACLE_USER>;

  grant create trigger to <ORACLE_USER>;

  grant create type to <oracle_user>;

  grant select on sys.v_$parameter TO <oracle_user>;

  grant CREATE TYPE TO <_ORACLE_USER>;

  grant CREATE MATERIALIZED VIEW to < ORACLE_USER>;
- Copy the entire OFSRPA v6.0.2 installer download directory to the server location (Including the DataModel directory). Provide read, write and execute permission to all the files present in this directory.
- Specify the log file path and name in the log4j.xml. Update the “value” attribute marked in the following picture

```
<!DOCTYPE log4j:configuration SYSTEM "log4j.dtd">
<log4j:configuration xmlns:log4j="http://jakarta.apache.org/log4j/">

<appender name="ConfigReveleusFileAppender" class="org.apache.log4j.RollingFileAppender">
    <param name="file" value="/u02/setupkit/ALM60/log/FTP60.log"/>
    <param name="Append" value="true"/>
```

Figure 1: Log4j.xml file configuration

- Make sure the path given in the log4j.xml file has read/write/execute permission.
- Execute the “config_table_privileges_for_application_user.sql” script in configuration schema. This file will be present inside $FIC_HOME directory.
- Make sure FICServer is up and running before proceeding for installation.

OFSRPA v6.0.2.0.0 Installation

The OFSAAI Product comprises of components that are installed in Web, Application and Database layer. Hence, if you have installed OFSAAI 7.3.3.3.0 in a multi-tier architecture, the OFSRPA Product installer must be invoked on each of the machines that host the OFSAAI tier.

For a Single-tier installation, the installer is required to be invoked only once on the machine that hosts all the OFSAAI tiers.

This section describes the installation process where the Three Product setup components are installed on separate machines in with the Product installation on separate machines. Machine A will be used to install Product Application Layer components, Machine B will be used to install Product Database Layer components, and Machine C will be used to install Product Web Layer components.

NOTE

- This section holds applicable if OFSAAI v7.3.3.3.0 is installed on Oracle 11g on separate machines A, B, and C respectively.
- If a silent installation is required, refer to **Silent Installation** section.

Machine A – Product App Layer

Step 1

To begin OFSRPA product installation, execute Setup.sh.

Figure 1: Installation Splash Screen

Step 2

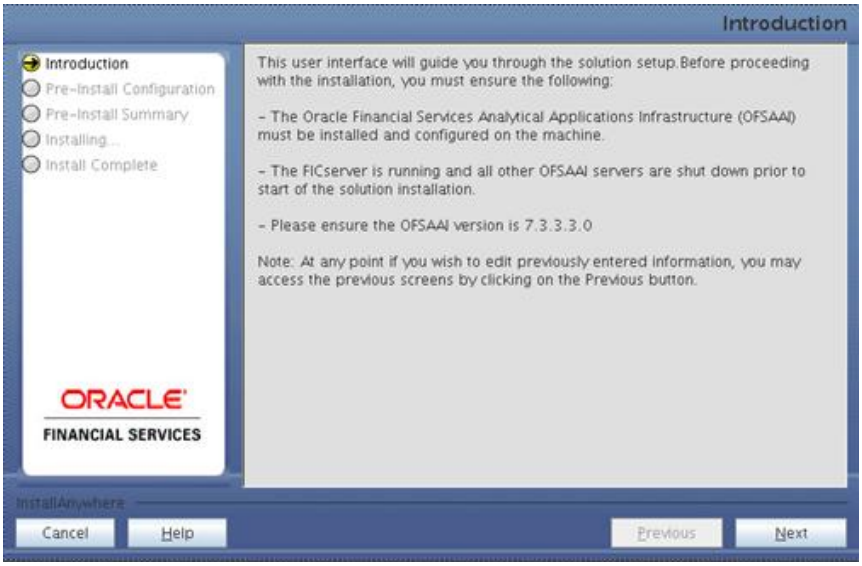


Figure 2: Introduction Screen

Upon invoking the installer, the **Introduction** screen will display the pre-requisites for installation. Ensure that the pre-requisites are satisfied before you proceed.

Step 3

Choose the log mode for this installer.

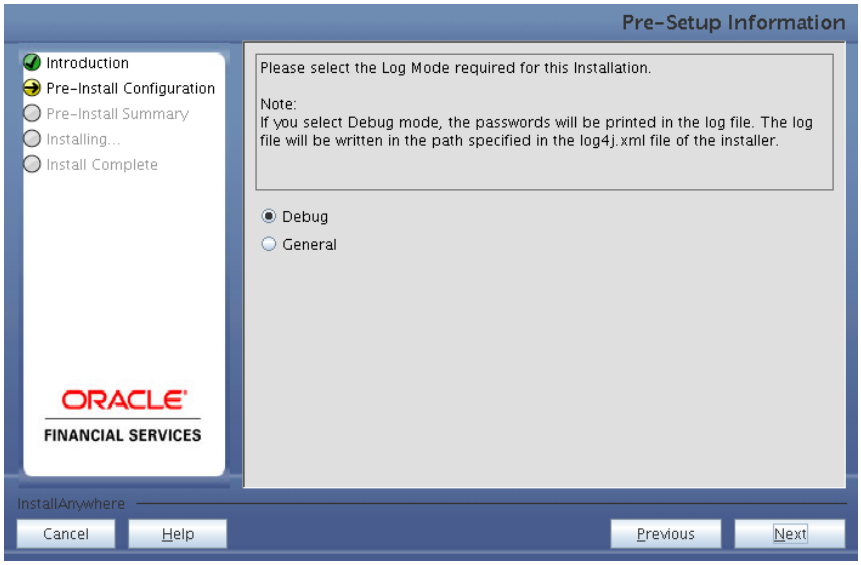


Figure 3: Log Mode Option Screen

Step 4

Provide the 9 digit Customer Identification number provided during the OFSAAI installation.

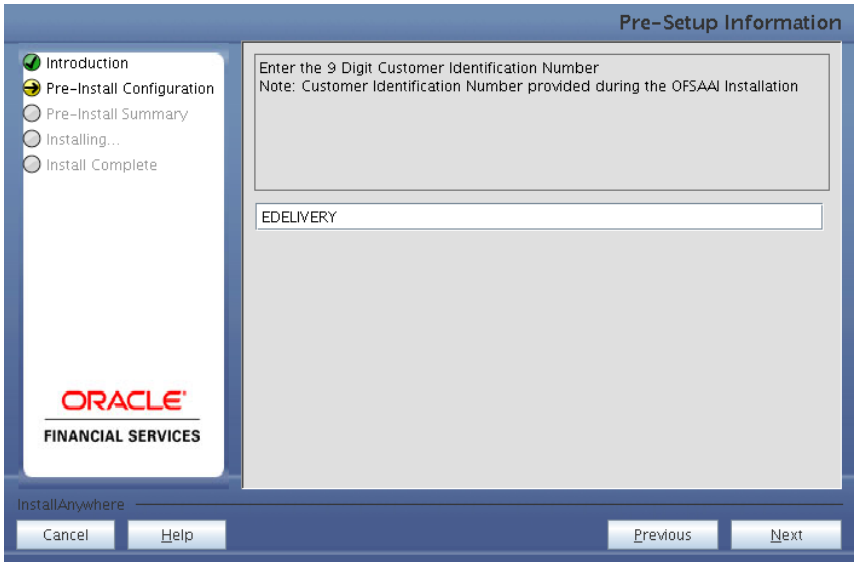


Figure 4: Customer ID Input Screen

Click **Next** to continue.

Step 5

The **Pre Setup Information** screen requests for setup information.

Select the appropriate OFSAAI layer that has been installed on the machine.

Example **AppLayer**

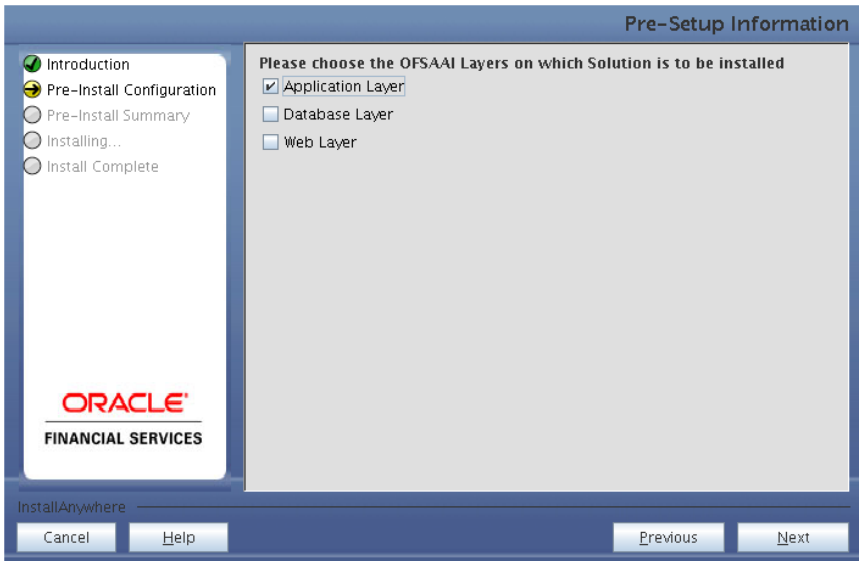


Figure 5: Pre Setup Information Screen – Choose Layer to Install

NOTE

- For a single-tier OFSAAI v7.3.3.3.0 installation, you must select **App Layer, Web Layer,** and **DB Layer**.
- For a multi-tier OFSAAI v7.3.3.3.0 installation, select the corresponding layer installed on the machine.

Step 6

This panel seeks infromation on whether a new infodom has to be created or the existing infodom to be used for apps installtion. Choose the required option.

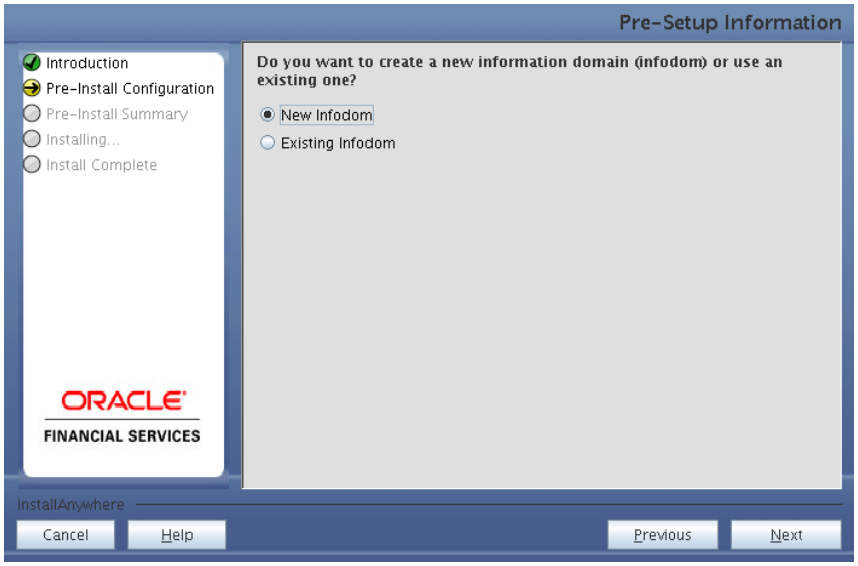


Figure 6: Pre Setup Information Screen – Infodom type

Click **Next** to continue.

Step 7-i

If the option **New Infodom** was chosen in the previous panel, then the following panel will be displayed seeking information of the following details to create infodom.

Specify a DB name for the new infodom. Make a TNS entry with the DB name specified in the tnsname.ora file in the oracle server.

Enter the newly created application schema user name, password, jdbc url in relevant fields.

Click **Next** to continue.

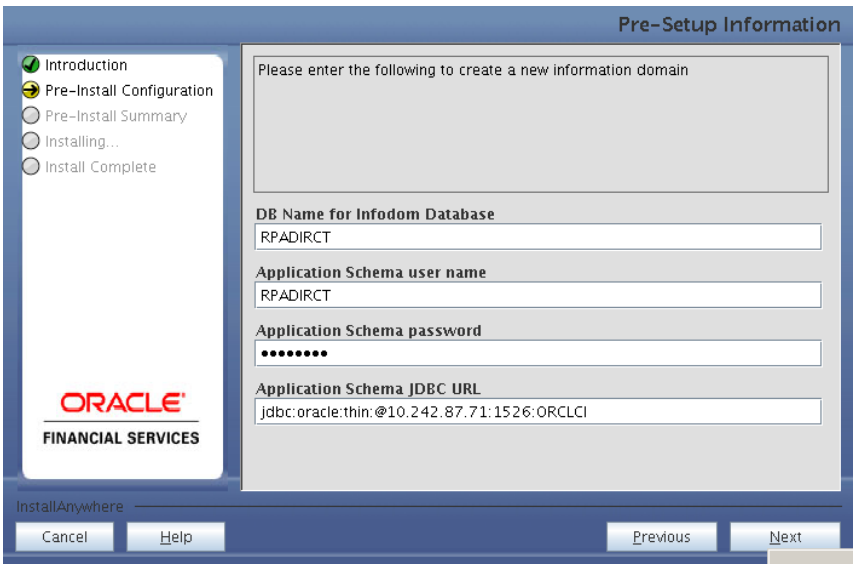


Figure 7: Database details for the new Infodom

Step 7-ii

If the option **New Infodom** was chosen in the previous panel then the following panel will be displayed following the panel 7-i which will seek further information of the following details to create infodom.

Specify the name and description for the new infodom to be created.

Specify a segment name to be created.

Note: Segment and INFODOM name should not exceed 10 Characters

Also specify the Application server and database server log path for infodom maintenance (to be created).

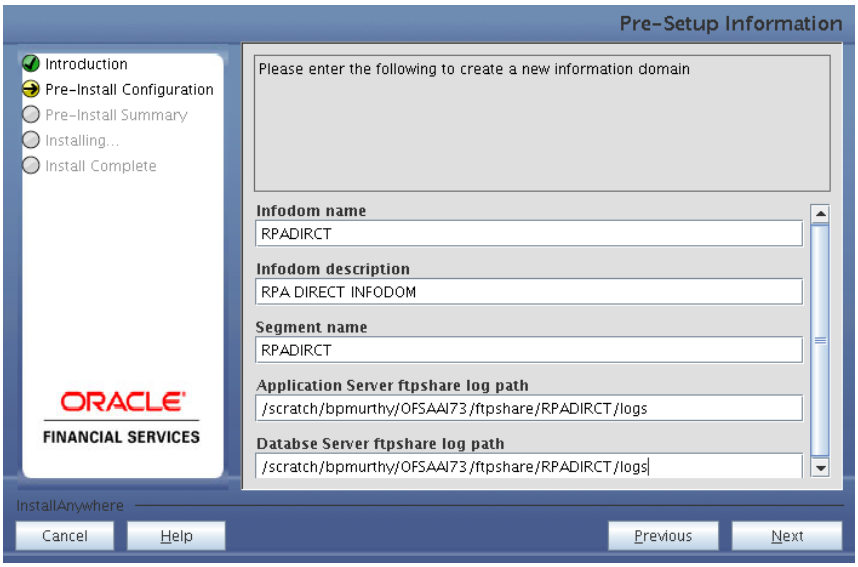


Figure 8: Infodom details for creation of new Infodom

Note:

- The OFSAAI user must have a role that is able to perform Add/Modify functions for OFSRPA metadata.

Click **Next** to continue.

Step 7-iii

If the option **New Infodom** was chosen in the previous panel, then the following panel will be displayed following the panel 7-ii which will display the pre-infodom creation details. Check and verify all the details before proceeding to the next step.

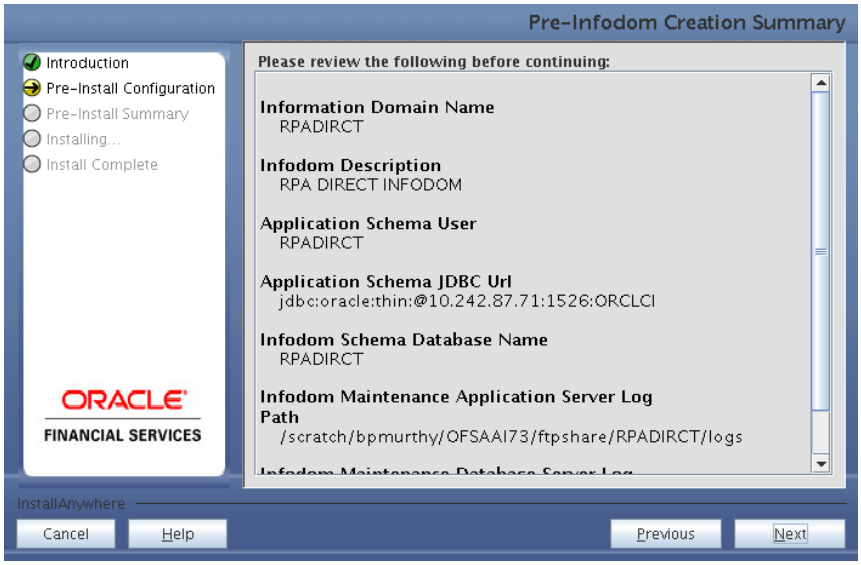


Figure 9: Pre Infodom Creation Summary

Click **Next** to continue creation of information domain. A new information domain will be created on clicking **Next**.

Step 7-iv

If the option **Existing Infodom** was chosen in the Step 6, then the following panel will be displayed which will prompt to select the infodom from list of infodoms present in the setup, enter segment code and enter the application schema's TNS name.

Segment code should not exceed 10 characters.

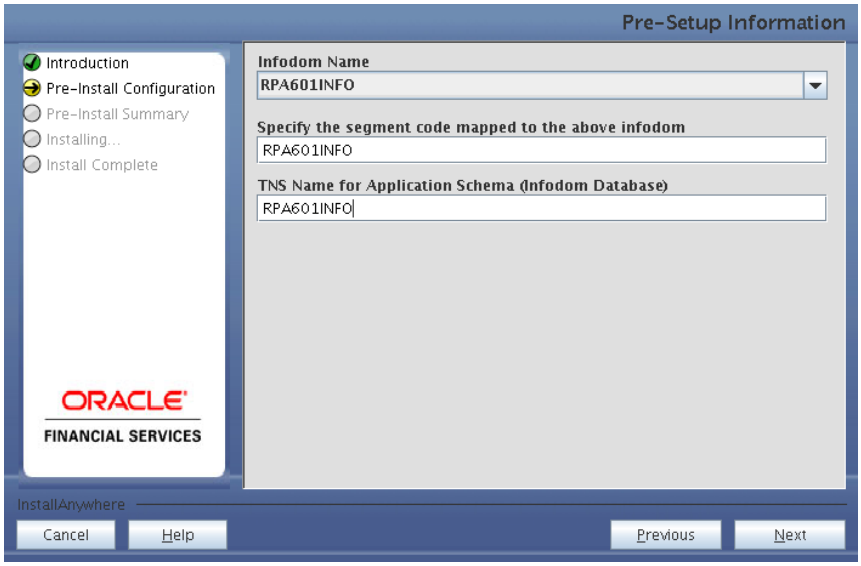


Figure 10: Installation in Progress

Step 8

OFSRPA v7.4.2 data model is packaged as part of OFSRPA v6.0.2 product installer and will be installed as part of the upcoming steps, if required.

The following screen prompts the user to opt for model upload process through installer.

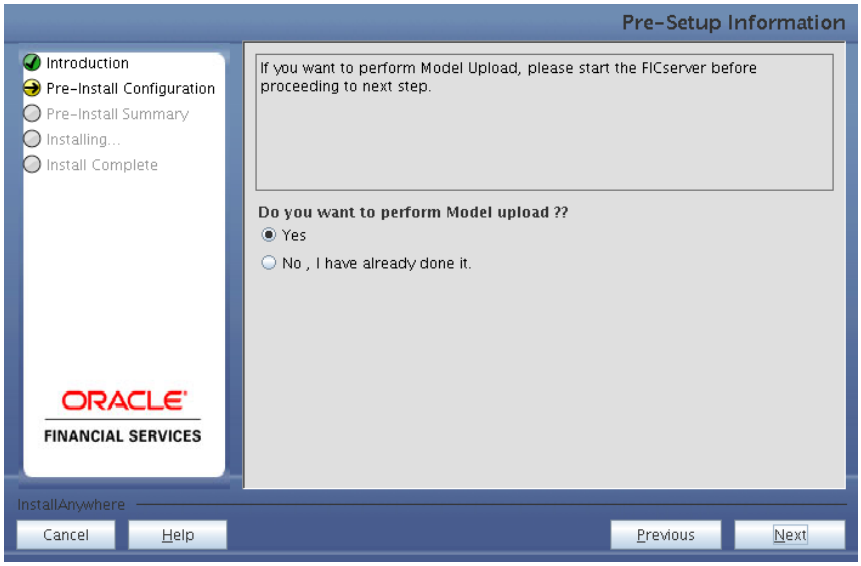


Figure 11: Pre-Setup Information

Clicking **No** implies that OFSRPA v6.0.2 model has been uploaded into information domain prior to this installation.

Clicking **Yes** will proceed with the OFSRPA v6.0.2 model upload process as part of the installation.

If the user selects **Yes**, Step 9 and 10 will be performed.

If the user selects **No**, Step 9 to 10 will be skipped.

Click **Next** to proceed.

Step – 9

The following panel prompts the user to choose whether the released version of Datamodel or the customized datamodel to be uploaded.

If the user selects **Released Data Model** option, installer uploads the OFSRPA v6.0.2 data model that is packaged as part of the OFSRPA v6.0.2 product.

If the user selects **Customized Data Model** option, installer allows the user to select the data model. Choose the required option.

Click **Next** to proceed.

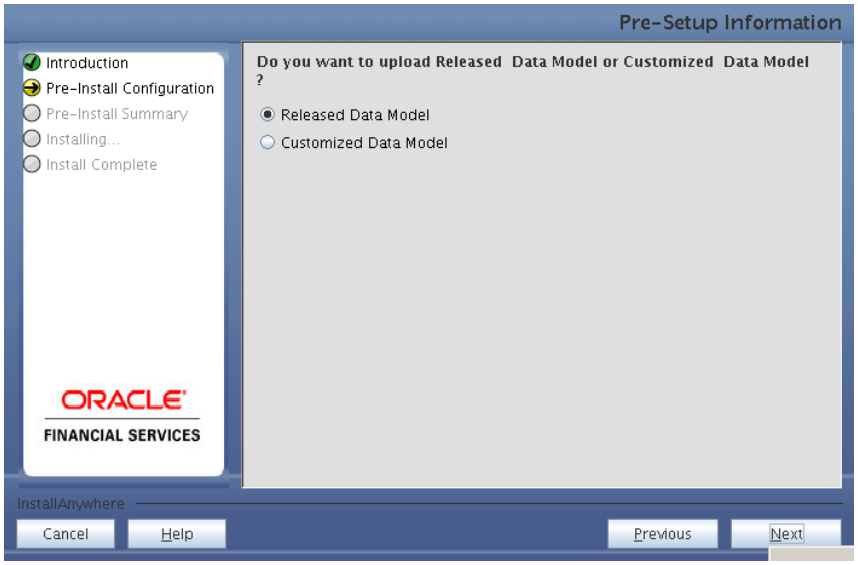


Figure 12: Pre – Setup information

Step – 10

If the option **Customized Data Model** is chosen, then the following panel will be displayed prompting the user to select the customized data model located in the machine.

Choose the customised datamodel file from the server.

Note:

- The data model xml file should be available in the server.
- If the installation is being performed on an existing information domain, the data model that is planned to be selected in this panel should be merged with the data model that was previously uploaded in the information domain.

If the installation is being performed on a new information domain, data model that is either customized or merged with other data models can be selected in this panel.

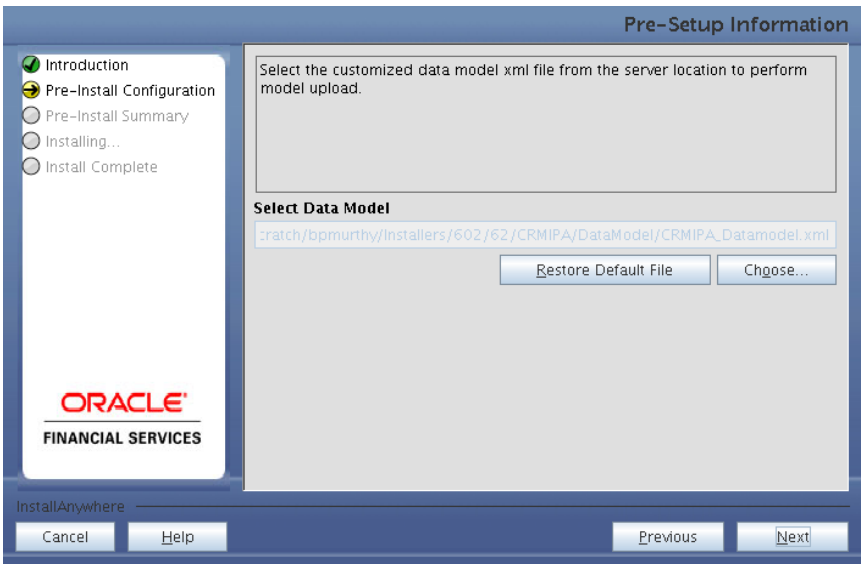


Figure 13: Pre – Setup information

Step – 11

The following panel displays pre-model upload details.

Verify the details before proceeding to the next step.

Click **Next** to proceed for model upload.

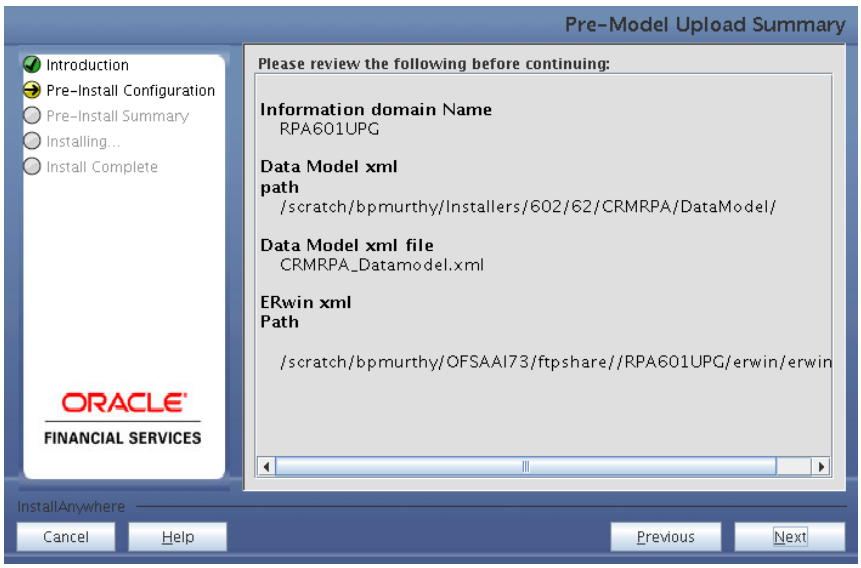


Figure 14: Pre – Model Upload Summary

Click **Next** to start the model upload process. This process will take some time depending on the size of the data model and available physical memory in the environment. User will not be able to take any further action on the screen, until the model upload process is complete. Also, this step cannot be rolled back.

If the model upload fails, then a message with relevant error and the log file path will be displayed.

Review errors and take relevant action. Continue with this step until the model upload is successful. The installer takes the user to next step.

Note:

Some of the common errors during model upload are:

- Insufficient heap memory on the client machine
- Possible reason/resolution: The java memory settings in “reveleusstartup.sh” located in $FIC_APP_HOME/common/FICServer/bin directory should be increased.
- Error while getting the Erwin File path
- Possible reason/resolution: Restart the FICServer
- Error in Upload Operation:

  “FAILED WHILE SUPER CATEGORY - SUB CATEGORY RELATIONS HANDLING DELETING”
- Possible reason/resolution: Incorrect Erwin.xsl file version in $FIC_APP_HOME/common/FICServer/conf directory.
- Incremental/Sliced model upload might give errors if there are NOT NULL columns that are being added to a table that already has rows or if the columns that are being dropped have values. Check the data model changes excel file for any such cases. In such a case, take a backup of the table and truncate the table. Insert records back into the table with a default value for the NOT NULL column.

Navigate to the previous screen and proceed with the steps mentioned above.

Step – 12

The following panel seeks input from the user on whether to create new ETL application/source pair or use an existing one.

In case of upgrade, if customer selects an **Existing application/source pair**, then existing ETL definitions under the source will be over-written with the packaged definitions. Customer can also choose to create a new application/source pair and then merge the changes between the packaged definition and their existing definitions offline.

Choose the required option.

Click **Next** to continue.

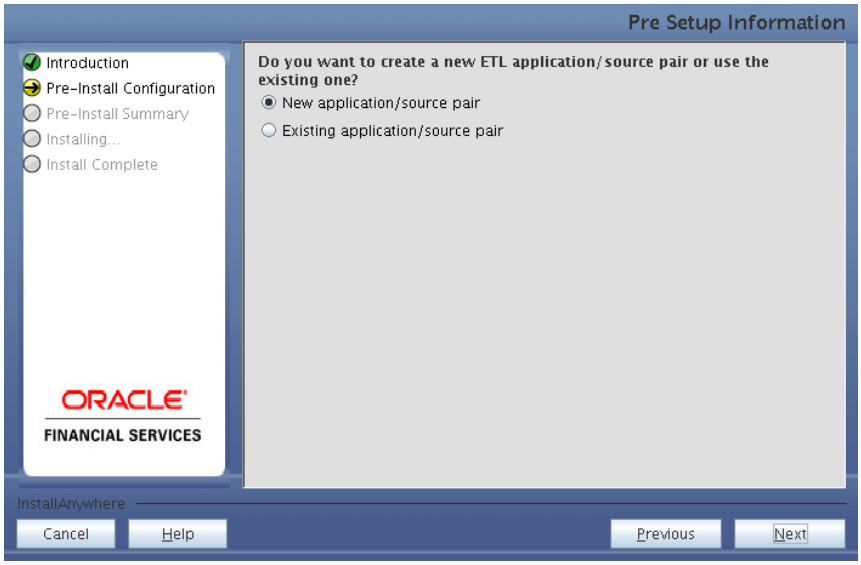


Figure 15: Pre – Setup Information

Step 13-i

If the option **New application/source pair** is chosen, then the following panel will be displayed asking the application and source name for creation of the same.

Specify all the details required for application and source creation.

Click **Next** to proceed.

Click **Next** to create application and source within OFSAAI. Source model will also be generated. This process will take some time depending on the number of entities/attributes in the application schema. This step cannot be rolled back.

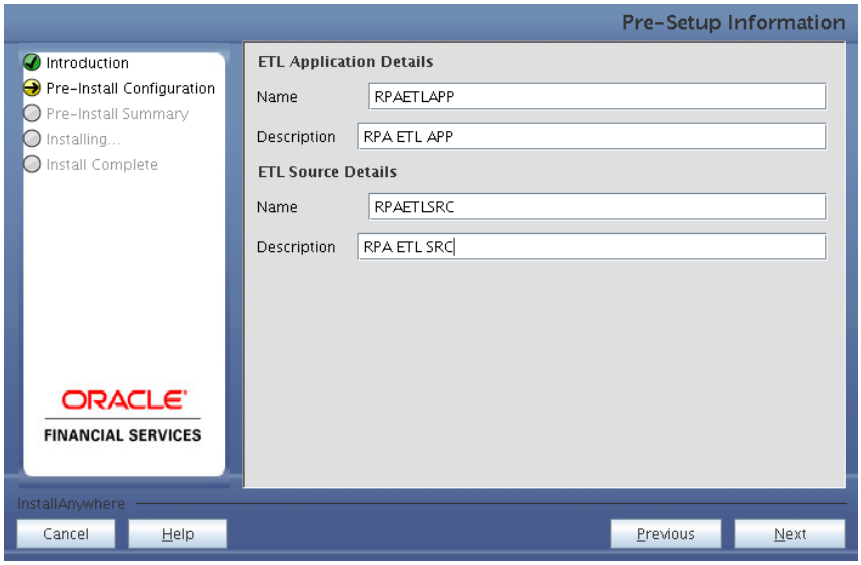


Figure 16: Pre – Setup Information

Note:

ETL Source will be created pointing to the information domain (application schema) that is specified during the installation.

Step 13-ii

If the option **Existing application/source pair** is chosen, the following panel will be displayed prompting the user to select app/source pair from the list of pairs already present.

Choose the required ETL application/source pair into which ETL definitions will be deployed.

Click **Next** to proceed.

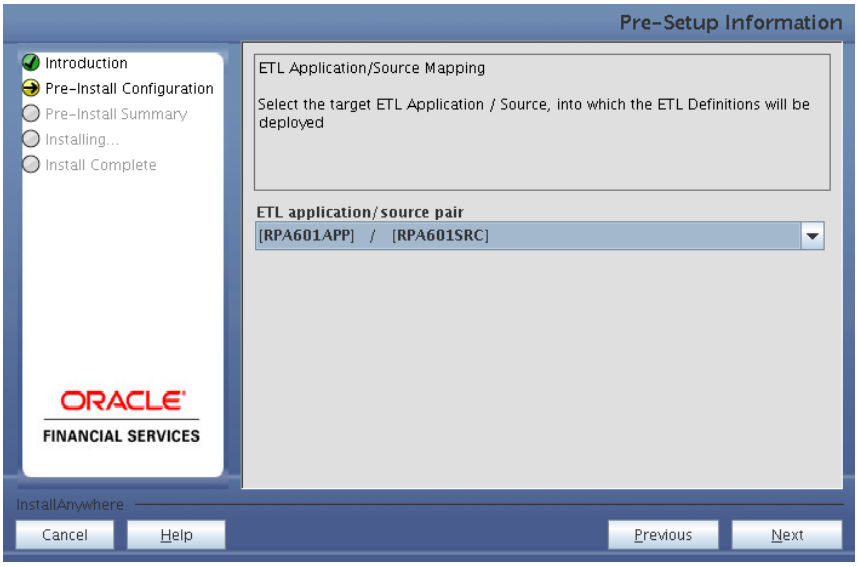


Figure 17: Pre – Setup Information

Step 14

Specify the OFSAAI user id.

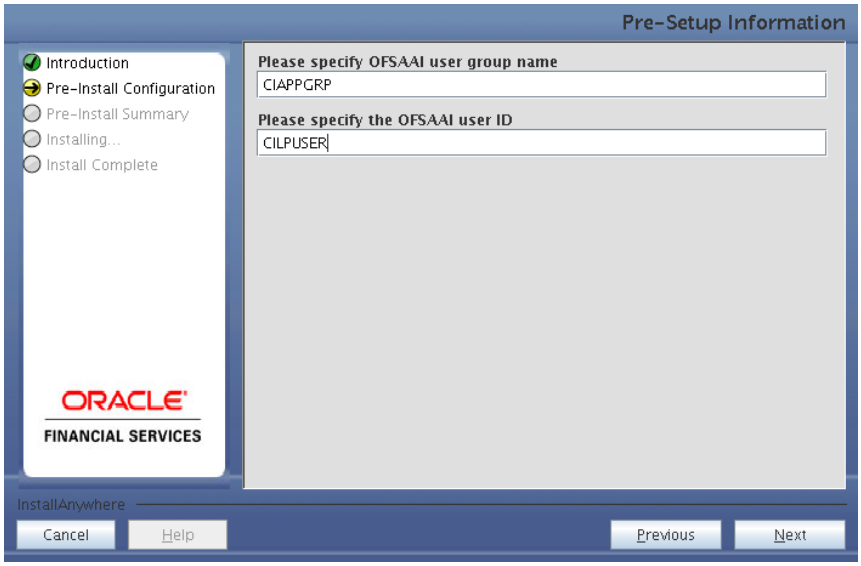


Figure 18: Pre Setup Information Screen

Note:

Enter the above information in upper case

Click **Next** to continue.

Step 15

This panel displays all the pre-installation summary. Verify all the details and proceed.

Click **Install** to proceed.

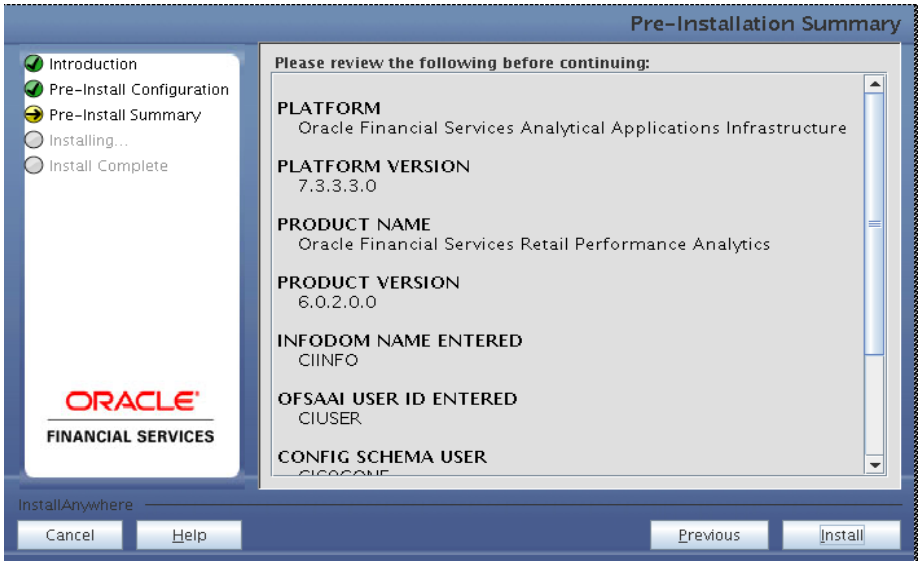


Figure 19: Pre – Install Summary

Step 16

This panel displays the installation process. Wait until it completes.

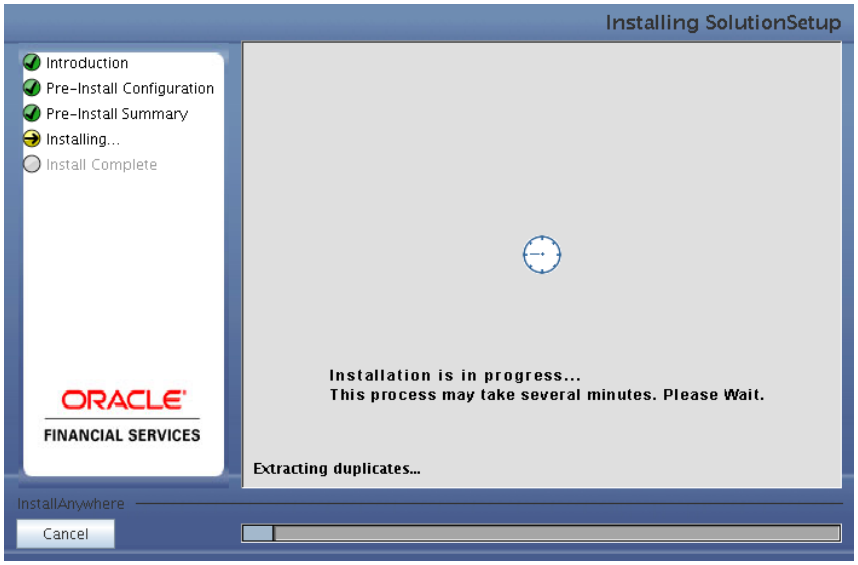


Figure 20: Installation is in progress

Step 17

The following screen displays the completion of installation of the OFSRPA Product Setup.

Click **Done** to exit.

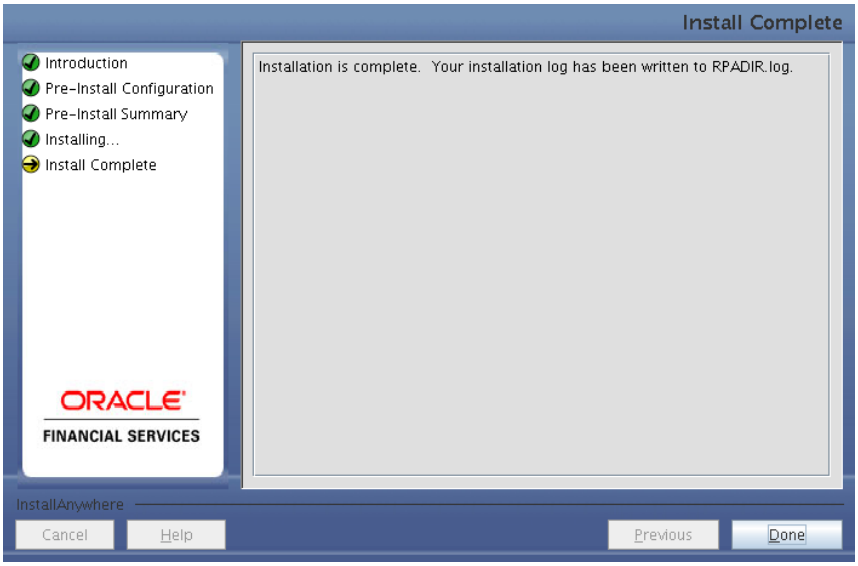


Figure 21: Installation Complete

Machine B – Product Database Layer

Step 1

To begin OFSRPA product installation, execute Setup.sh.

Figure 22: Installation Splash Screen

Step 2

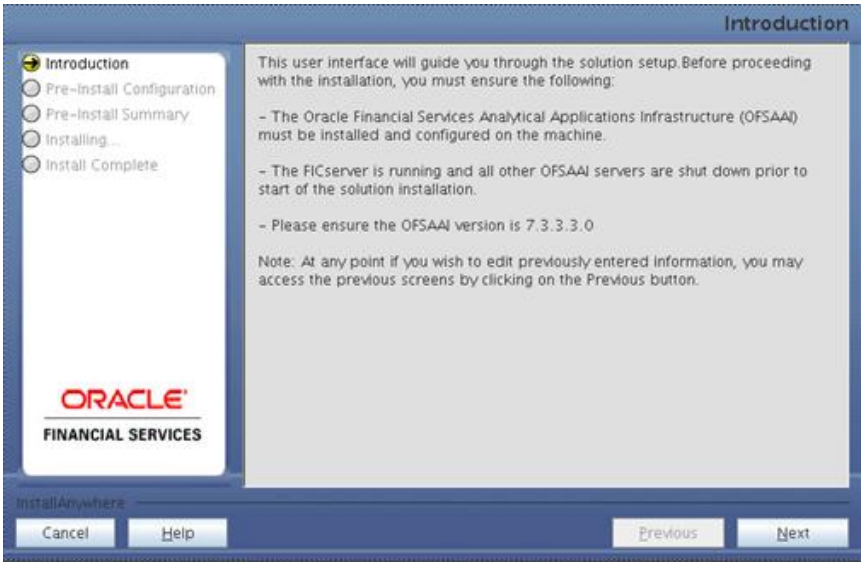


Figure 23: Introduction Screen

Upon invoking the installer, the **Introduction** screen will display the pre-requisites for installation. Ensure that the pre-requisites are satisfied before you proceed.

Step 3

Choose the log mode for this installer. Click **Next** to proceed.

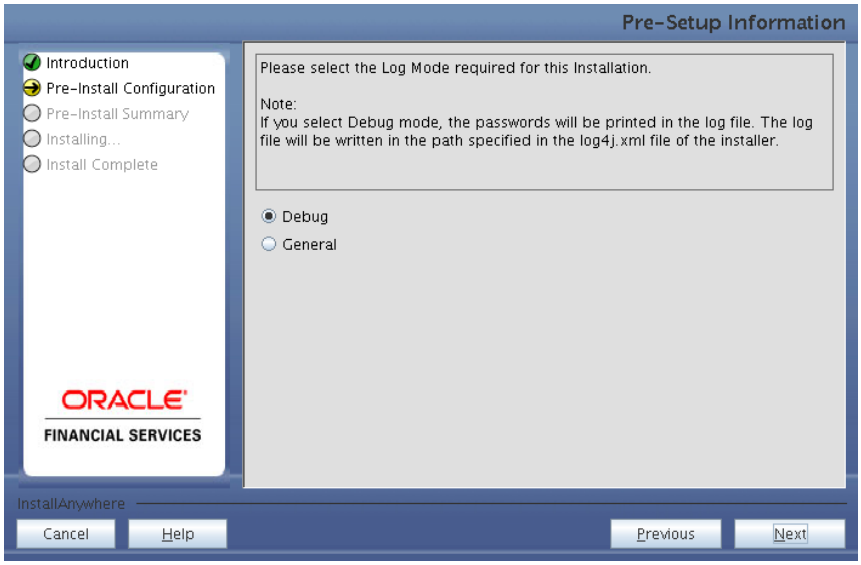


Figure 24: Log Mode Option Screen

Step 4

Provide the 9 digit Customer Identification number provided during the OFSAAI installation.

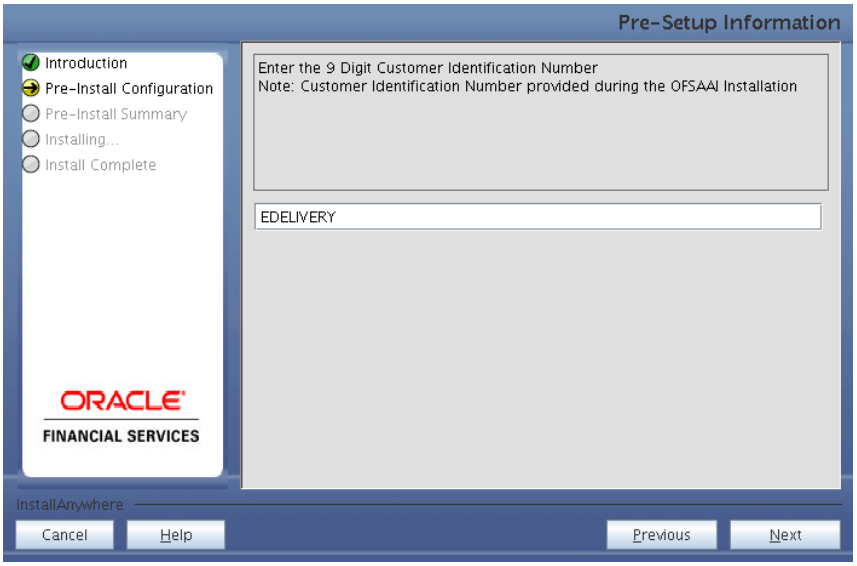


Figure 25: Customer ID Input Screen

Click **Next** to continue.

Step 5

The **Pre Setup Information** screen requests for setup information.

Select the appropriate OFSAAI layer that has been installed on the machine.

Example **Database Layer**

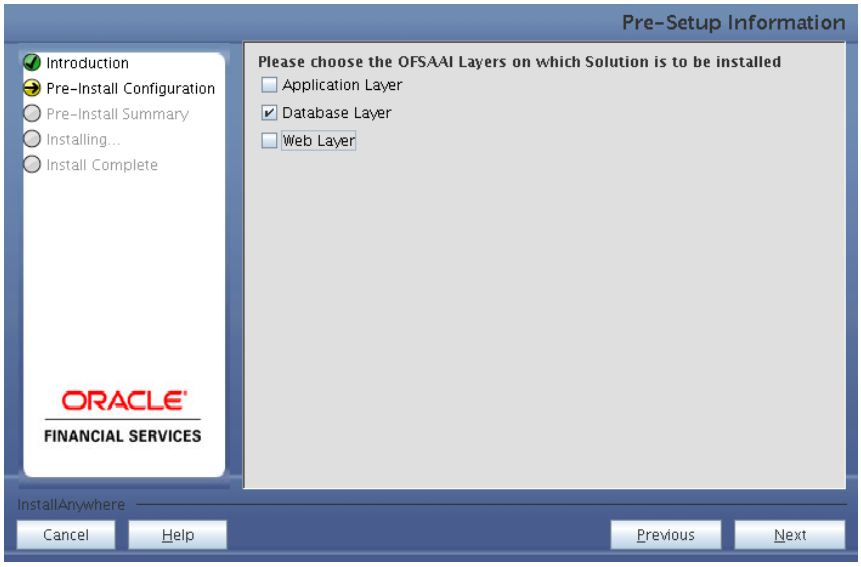


Figure 26: Pre Setup Information Screen – Choose Layer to Install

NOTE

- For a single-tier **OFSAAI** v7.3.3.3.0 installation, you must select **App Layer**, **DB Layer,** and **Web Layer**.
- For a multi-tier **OFSAAI** v7.3.3.3.0 installation, select the corresponding layer installed on the machine.

Step 6

The following panel will be displayed which will prompt to select the infodom from the list of infodoms present in the setup. Enter the segment code and the application schema's TNS name.

Segment code should not exceed 10 characters.

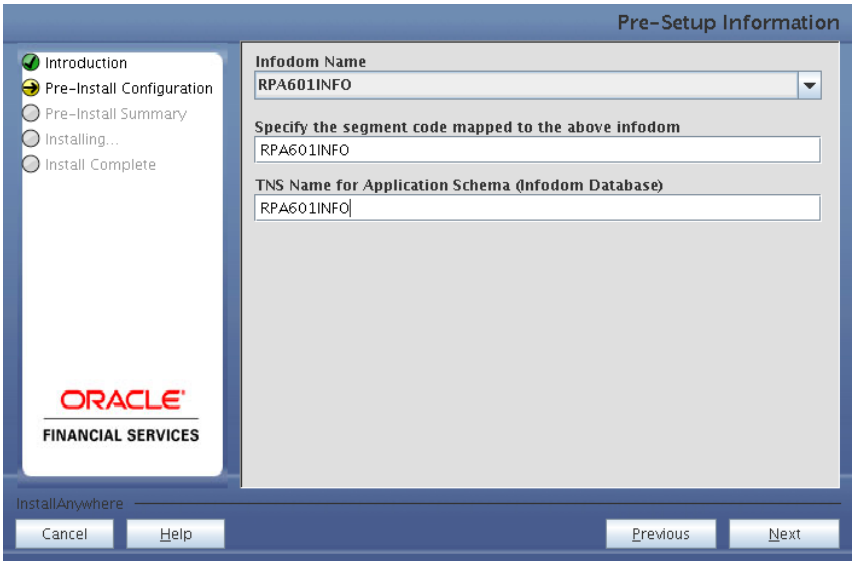


Figure 27: Pre Setup Information Screen

Step 7

Please specify the OFSAAI user id.

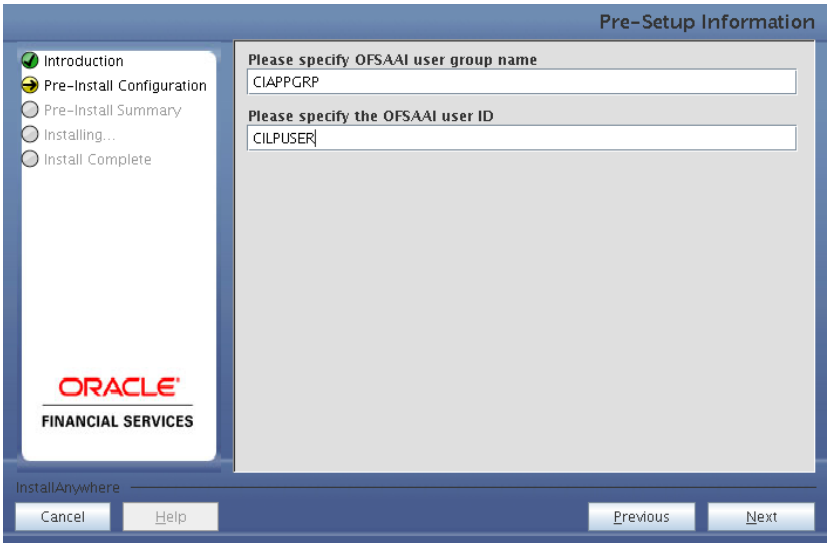


Figure 28: Pre Setup Information Screen

Click **Next** to continue.

Note:

Enter the above information in upper case

Step 8

This panel displays all the pre-installation summary. Verify all the details and proceed.

Click **Install** to proceed.

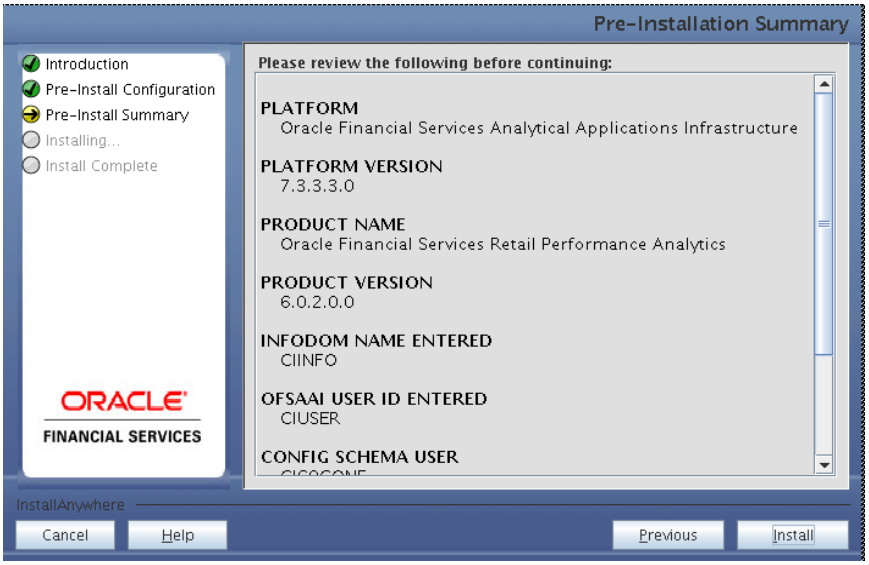


Figure 29: Pre – Install Summary

Step 9

This panel displays the installation process. Wait until it completes.

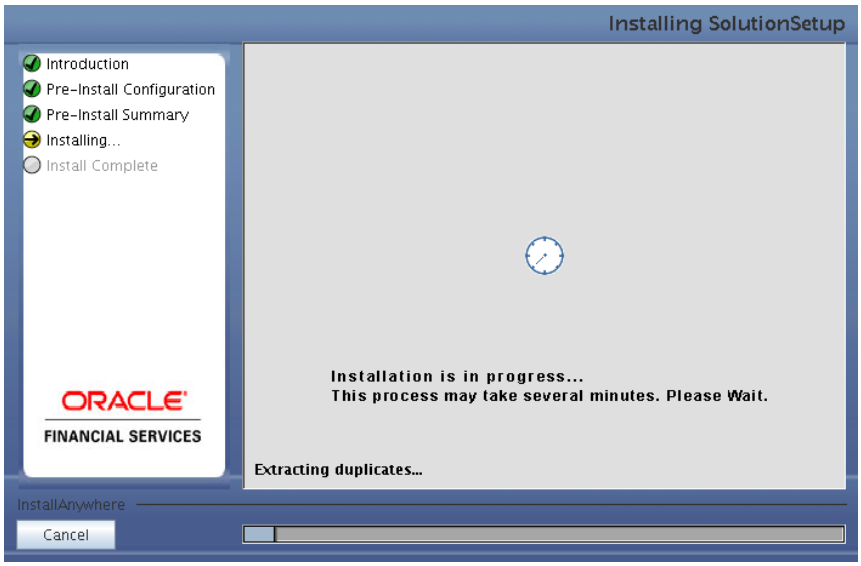


Figure 30: Installation is in progress

Step 10

The following screen displays the completion of installation of the OFSRPA Product Setup.

Click **Done** to exit.

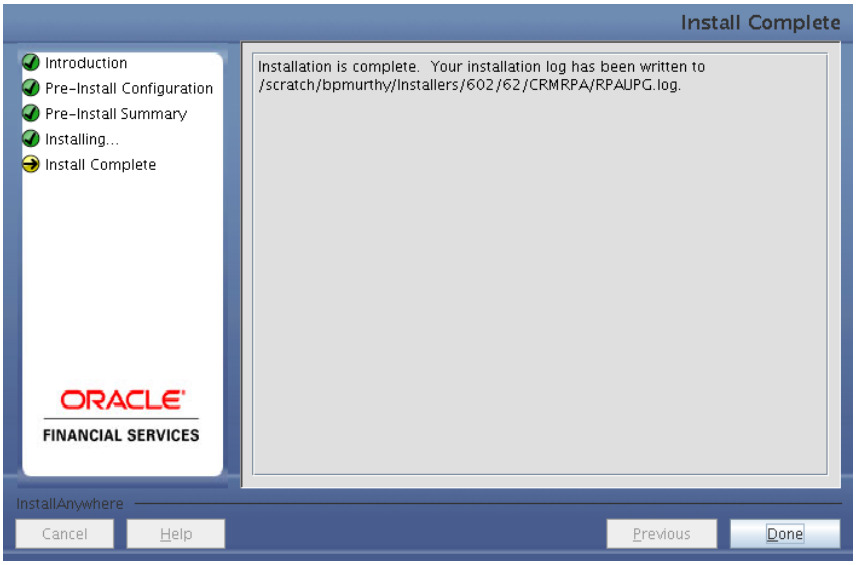


Figure 31: Installation Complete

Machine C – Product Web Layer

Step 1

To begin Oracle Financial Services Retail Performance Analytics product installation, execute Setup.sh.

Figure 32: Installation Splash Screen

Step 2

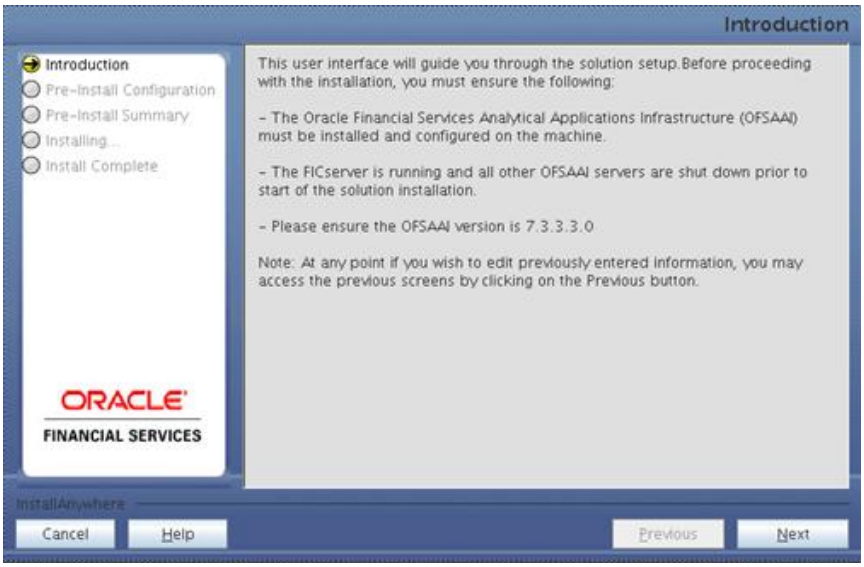


Figure 33: Introduction Screen

Upon invoking the installer, the **Introduction** screen will display the prerequisites for installation. Ensure that the prerequisites are satisfied before you proceed.

Step 3

Please choose the log mode for this installer. If Debug is selected, the Passwords will be printed in the Log File.

Click **Next** to proceed.

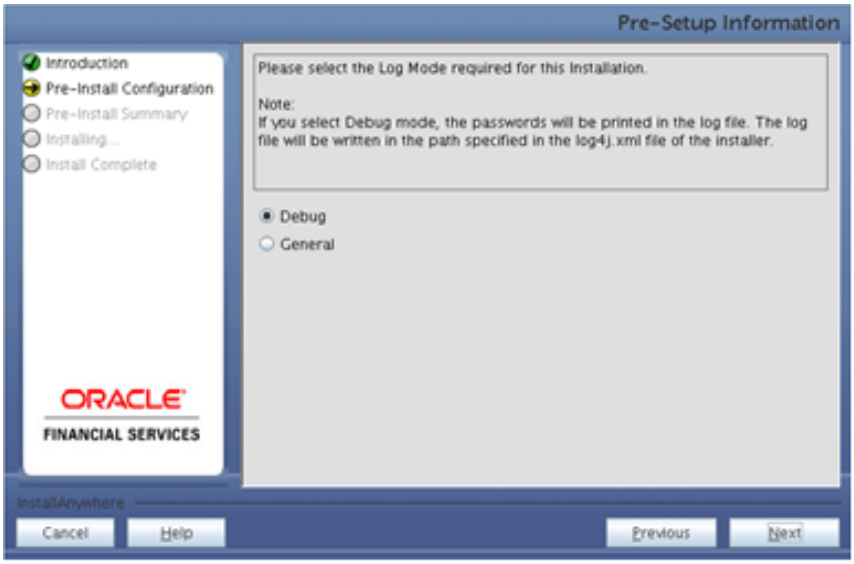


Figure34: Log Mode Option Screen

Step 4

Please provide the 9 digit Customer Identification number provided during the OFSAAI installation.

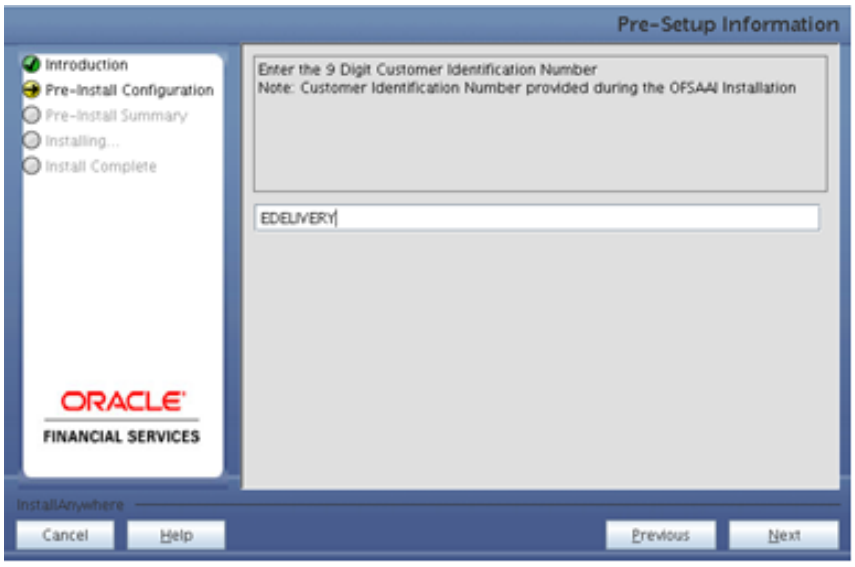


Figure35: Customer Id Input Screen

Click **Next** to continue.

Step 5

The **Pre Setup Information** screen requests for setup information.

Select the appropriate OFSAAI layer that has been installed on the machine. For example, **Web Layer**.

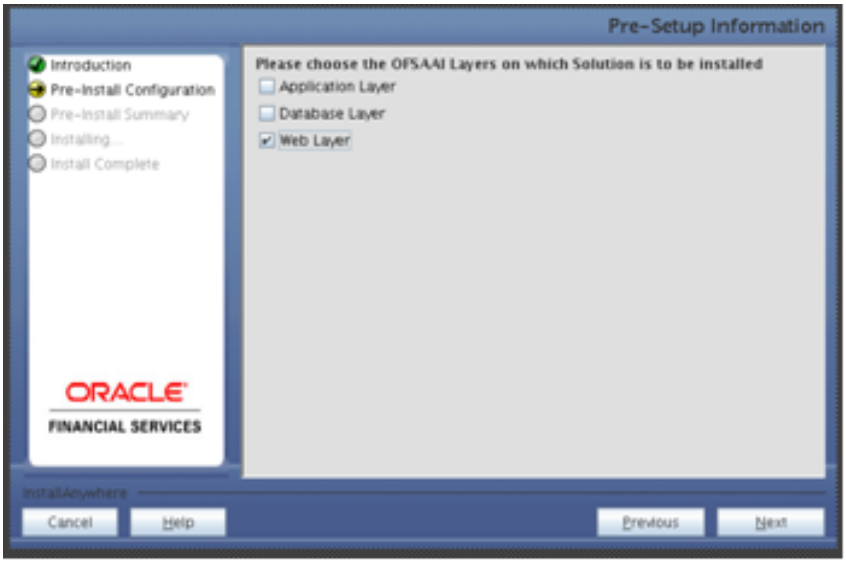


Figure 36: Pre Setup Information Screen – Choose Layer to Install

Choose the appropriate OFSAAI layer.

Note:

- For a single-tier **OFSAAI** v7.3.3.3.0 installation, you must select **App Layer**, **DB Layer** and **Web Layer**.
- For a multi-tier **OFSAAI** v7.3.3.3.0 installation, select the corresponding layer installed on the machine.

Step 6

If the option **Existing Infodom** is chosen in Step 6, then the following panel will be displayed which will prompt to select the infodom from the list of infodoms present in the setup, enter the segment code and enter the application schema's TNS name.

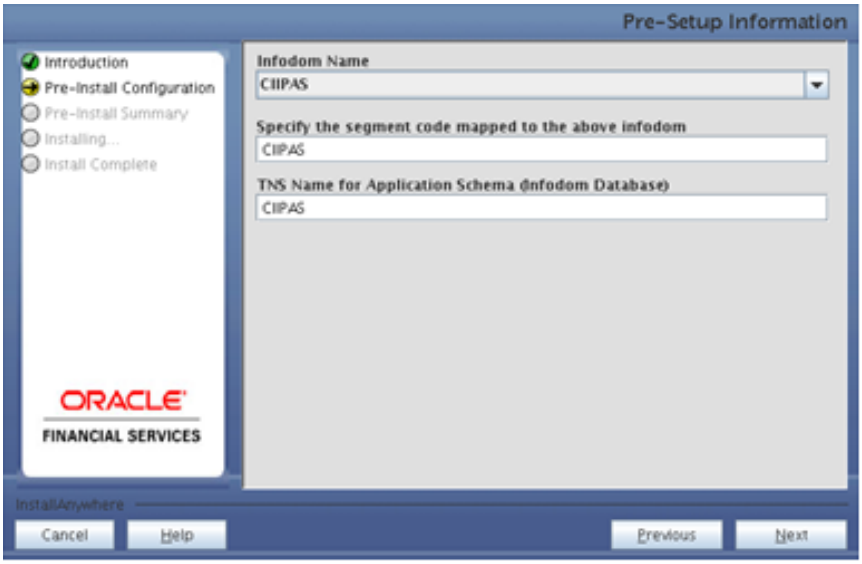


Figure 37: Pre Setup Information Screen

Step 7

Specify the OFSAAI user id.

Figure 38: Pre Setup Information Screen

Note:

Enter the above information in upper case.

Step 8

This panel displays the entire pre-installation summary. Verify all the details and proceed.

Click **Install** to proceed.

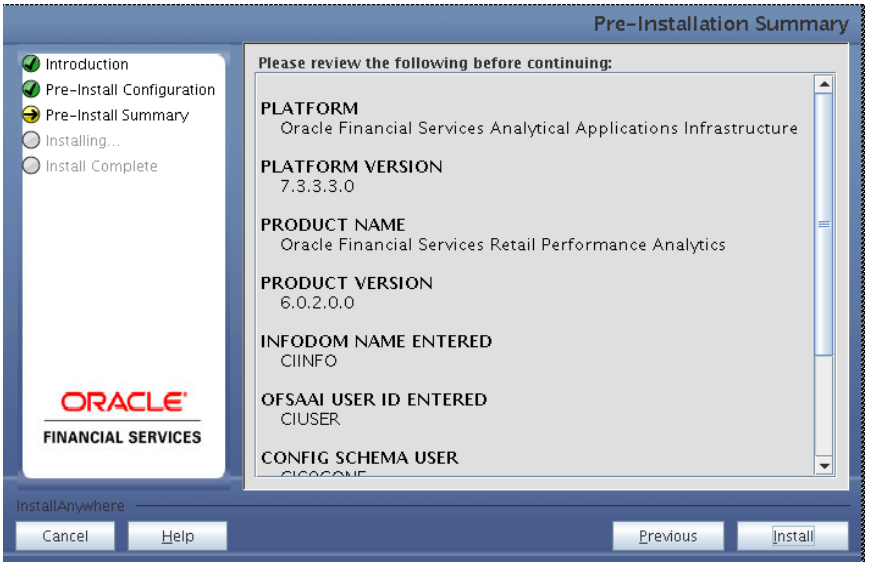


Figure 39: Pre – Install Summary

Step 9

This panel displays the installation process. Wait until it completes.

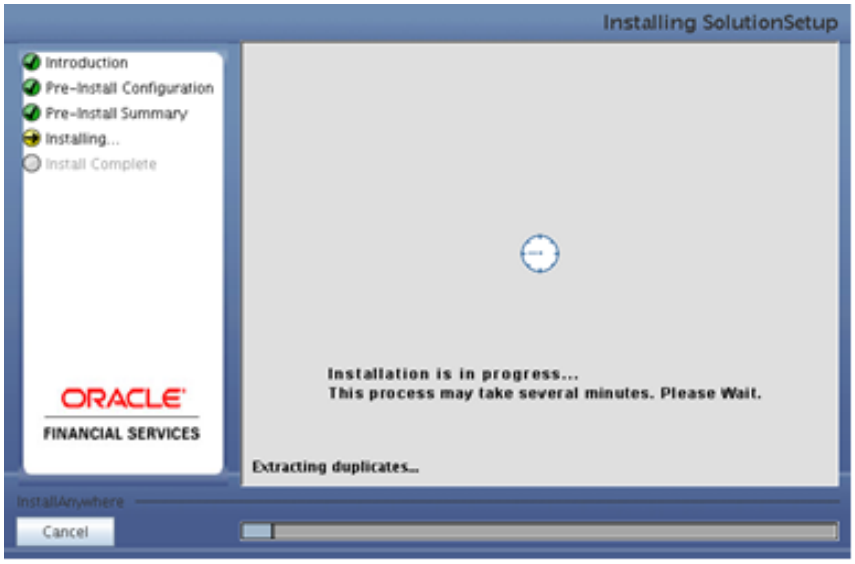


Figure 40: Installation is in progress

Step 10

The following screen displays the completion of installation of the Oracle Financial Services Retail performance management Product Setup.

Click **Done** to exit.

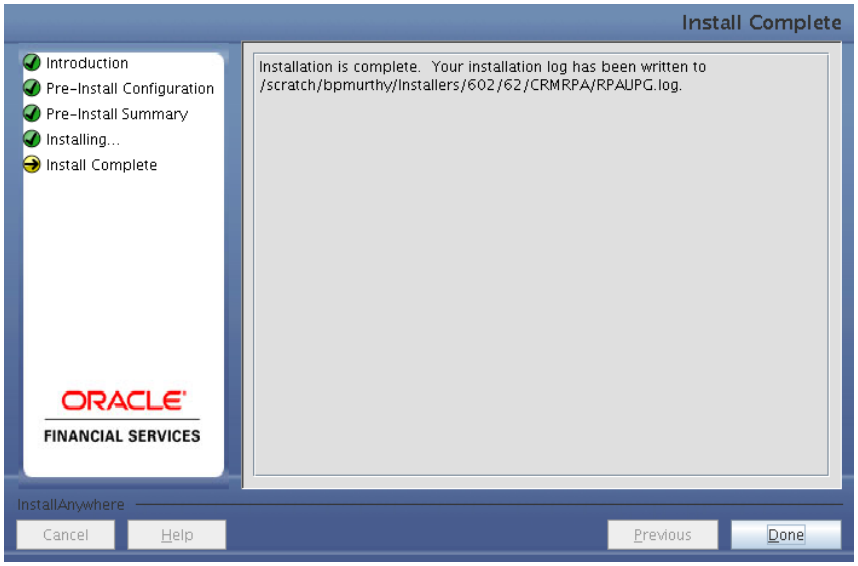


Figure 41: Installation Complete

Silent Installation

Silent installation is achieved via a properties file [Silent.props] that must be updated with proper values, before attempting to install using the silent mode.

How to install in Silent Mode

- The installer folder contains a template file “Silent.template”
- Create a copy of this file and rename the copy as “Silent.props”
- Edit the file “Silent.props” and specify the parameters as per the requirements
- On the UNIX Command prompt, execute the following command
    - “Setup.sh SILENT”

  Refer to the console log [or the file preinstall.log] for any error messages.

The following table lists all the properties that need to be specified:

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Mode for logging	0 = Debug 1= General	Optional; Default : 0
CUSTOMER_ID	Customer id specified while installing OFSAAI	Not Applicable	MANDATORY
INSTALL_DB	Install database-tier components	0 = No 1 = Yes	Default : 0
INSTALL_APP	Install Application-tier components be installed	0 = No 1 = Yes	Default : 0
INFODOM_NAME	Information Domain(infodom)	Not Applicable	MANDATORY
SEGMENT_CODE	Segment Code	Not Applicable	MANDATORY Segment Code should not exceed 10 characters
TABLESPACE	Tablespace name	Not Applicable	MANDATORY
INFODOM_TYPE	New Infodom or Existing Infodom	0 = New 1 = Existing	# Specify Infodom Type Mandatory if this an App Layer Installation and option selected for INSTALL_APP=1
APPL_TNS	TNS Name of the Infodom database	Not Applicable	MANDATORY
APPL_USER	User-id of the Database Schema for new Infodom	Not Applicable	# Mandatory if this an App Layer Installation and want to create a new infodom # Option selected for INSTALL_APP=1 and INFODOM_TYPE=0
APPL_PWD	Password of the Database Schema for new Infodom	Not Applicable	# Mandatory if this an App Layer Installation and want to create a new infodom

			# Option selected for INSTALL_APP=1 and INFODOM_TYPE=0
APPL_URL	JDBC Connection String of the the Database Schema for new Infodom	Not Applicable	# Mandatory if this an App Layer Installation and want to create a new infodom # Option selected for INSTALL_APP=1 and INFODOM_TYPE=0
RAC_STATUS	whether the Database Schema for new Infodom is a RAC database	0 = No 1 = Yes	# Mandatory if this an App Layer Installation and want to create a new infodom # Option selected for INSTALL_APP=1 and INFODOM_TYPE=0
INFODOM_DESC	Description for the Database Schema for new Infodom	Not Applicable	# Mandatory if this an App Layer Installation and want to create a new infodom # Option selected for INSTALL_APP=1 and INFODOM_TYPE=0
APPFTP_LOG_PATH	Infodom Maintenance log path(to be created) for the new Infodom for applayer	Not Applicable	# Mandatory if this an App Layer Installation and want to create a new infodom # Option selected for INSTALL_APP=1 and INFODOM_TYPE=0
DBFTP_LOG_PATH	Infodom Maintenance log path(to be created) for the new Infodom for DB Layer	Not Applicable	# Mandatory if this an App Layer Installation and want to create a new infodom # Option selected for INSTALL_APP=1 and INFODOM_TYPE=0
UPLOAD_MODEL	whether you want to perform Model Upload	0 = No 1 = yes	Mandatory if INSTALL_APP=1

MODEL_TYPE	Released datamodel or Customized datamodel	0 = released 1 = customized	Mandatory if INSTALL_APP=1
DATAMODEL	the path for the customized datamodel	Not Applicable	# Mandatory only in the case of uploading the customized datamodel # Option selected for MODEL_TYPE=1
DM_DIRECTORY	the file name for the customized datamodel	Not Applicable	# Mandatory only in the case of uploading the customized datamodel # Option selected for MODEL_TYPE=1
ETL_APP_NAME	The ETL application name	Not Applicable	# Mandatory if this an App Layer installation # Option selected for INSTALL_APP=1
ETL_SRC_NAME	The ETL Source into which the Table-2-Table ETL definitions on staging tables will be deployed.	Not Applicable	This Source must be mapped to the above ETL Application
ETL_APPSRC_TYPE	Create new ETL App/Src pair or use an existing one	0 = New 1 = Existing	# Mandatory if this an App Layer installation # Option selected for INSTALL_APP=1 # 0 = If you want to create a new ETL app/src pair # 1 = If you want to use an existing pair
ETL_APP_DESC	Please give description for the ETL App	Not Applicable	# Mandatory if you want to create new ETL app/src pair # Option selected for ETL_APPSRC_TYPE=0
ETL_SRC_DESC	Please give description for the ETL Src	Not Applicable	# Mandatory if you want to create new ETL app/src pair # Option selected for ETL_APPSRC_TYPE=0

Post Installation Activities

OFSAAI Server Memory Configuration

The OFSAAI Application Server is started using reveleusstartup.sh. This file can be edited for setting customized memory settings, garbage collector settings depending on the available hardware configuration.

Raise an SR in **support.oracle.com** if you have any queries related to EPM applications.

Once the installation of OFSRPA Product is completed, you must perform the following steps.

- Check the Log file (The path and file name specified in the log4j.xml).\
- The web.xml under the path $FIC_WB_HOME \webroot\WEB-INF\ should have Resource tag. If the tag is unavailable, add the tag and replace ORDEMO with the INFODOM name.
- <resource-ref>

  <description>DB ConnectionORDEMO</description>

  <res-ref-name>jdbc/ORDEMO</res-ref-name>

  <res-type>javax.sql.DataSource</res-type>

  <res-auth>Container</res-auth>

  </resource-ref>

Note:

Copy the above information into notepad, and then copy it from notepad into xml file. Take extra care to avoid formatting issue.

Configuration in Websphere Application Server

- Create JDBC Provider for the configuration of connection pool for the above created Infodom (Refer to the chapter: *Creating the JDBC Provider* of the Oracle Financial Services Analytical Applications Infrastructure 7.3 Installation Manual).
- Create a data source to access the data from the database. (Refer to the chapter: *Creating the Data Source* of the Oracle Financial Services Analytical Applications Infrastructure 7.3 Installation Manual).
- After creating a Data Source, click the newly created Data Source ($DATA_SOURCE$) and navigate to the path:

  Data sources>$DATA_SOURCE$>Connection pools

- Set the values for Connection timeout to 0 seconds, Maximum connections to 100 connections, and Minimum connections to 10 connections as shown in the below figure.

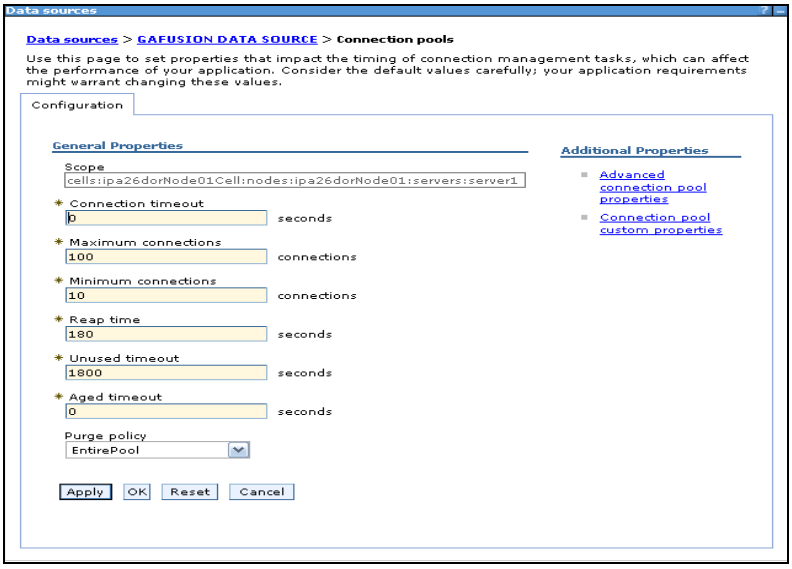


Figure 42: Data Sources

- Expand the **Server Types** under **Servers** option in the **LHS** menu. Click the **WebSphere application servers** option. This will display the **Application Servers** page.
- Navigate to the **Web Container** option of the application server. Under **Custom properties,** add a new property **com.ibm.ws.webcontainer.invokefilterscompatibility** and set the value to **true.**
- Save the new property. Use the below figure for reference.

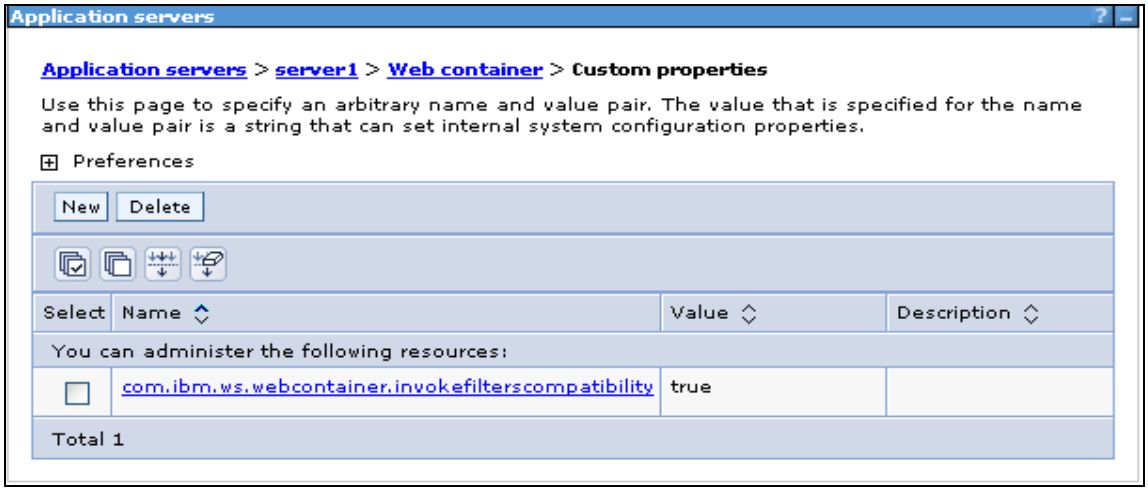


Figure 43: Application servers

Configuration in Tomcat Application Server

- Copy $ORACLE_HOME/jdbc/lib/ojdbc6.jar to the path: $TOMCAT_DIRECTORY/common/lib/
- Edit the server.xml present under the path $TOMCAT_DIRECTORY\conf\ with the below changes, which is required for connection pooling.

Note:

Copy the following information into notepad, and then copy it from notepad into xml file. Take extra care to avoid copying formatting characters into the xml file.

```
<Context path="/ $CONTEXTNAME$" docBase=" $APP_DEPLOYED_PATH$ "
debug="0" reloadable="true" crossContext="true">
    <Resource auth="Container"
        name="jdbc/ $INFODOM_NAME$"
        type="javax.sql.DataSource"
        driverClassName="oracle.jdbc.driver.OracleDriver"
        username=" $ATOMICSCHEMA_USERNAME$"
        password="$ATOMICSCHEMA_PASSWORD$"\
        url="$JDBC_CONNECTION_URL"
        maxActive="100"
        maxIdle="30"
        maxWait="10000"
        removeAbandoned="true" removeAbandonedTimeout="60"
        logAbandoned="true"/>
</Context>
```

Note:

- $TOMCAT_DIRECTORY$ should be replaced by Tomcat application installed path.
- CONTEXTNAME$ should be replaced by OFSAAI context frame.
- $APP_DEPLOYED_PATH$ should be replaced by OFSAAI application deployed path.
- $INFODOM_NAME$ should be replaced by Infodom Name
- $ATOMICSCHEMA_USERNAME$ should be replaced by Atomic schema database user name.
- $ATOMICSCHEMA_PASSWORD$ should be replaced by Atomic schema database password
- $JDBC_CONNECTION_URL should be replaced by JDBC connection string

  Example: jdbc:Oracle:thin:<IP>:<PORT>:<SID>

  jdbc:oracle:thin 10.80.50.53:1521:soluint

- Configuration in Weblogic Application Server
  - Create JDBC Provider for the configuration of connection pool and a data source to access the data from the database for the above created Infodom (Refer to the chapter: *Creating data Source – WebLogic* of the Oracle Financial Services Analytical Applications Infrastructure 7.3 Installation Manual).

    After creating a Data Source, click the newly created Data Source ($DATA_SOURCE$) and navigate to the path:

    Home >Summary of Services: JDBC >Summary of JDBC Data Sources>**JDBC Data Source<INFODDOM_NAME>**
  - Set the values for Initial Capacity to 10, Maximum capacity to 100 ,Capacity Increment by 1, Statement Cache Type to LRU, and Statement Cache size to 10 as shown in the below figure.

Figure 44: Data Sources

- All Oracle Financial Services Analytical Applications Infrastructure v7.3 Servers must be shut down.
- Oracle 11g service must be running.

Deploy the EAR or WAR file

- If the Web-Server is Tomcat, then recreate and redeploy the WAR file (OFSAAI war file).

  (Refer to: *Tomcat WAR Files Creation* and *Tomcat WAR Files Deployment* of the Oracle Financial Services Analytical Applications Infrastructure 7.3 Installation Manual). Ensure that the previously deployed applications in Tomcat are removed before starting the redeployment. Start all the OFSAAI servers. All the servers should be directly started in the server.

- If the Web-Server is Websphere, then recreate and redeploy the WAR file (OFSAAI war file). (Refer to: *Websphere WAR Files Creation* and *Websphere WAR Files Deployment* of the Oracle Financial Services Analytical Applications Infrastructure 7.3 Installation Manual). Ensure that the previously deployed applications in Websphere are removed before starting the redeployment. Start all the OFSAAI servers. All the servers should be directly started in the server.

- Start all the OFSAAI v7.3 Servers.

  Note:

  - If you need assistance in starting the servers, then refer to *Starting Oracle Reveleus Servers* in the Installation Guide of Oracle Financial Services Analytical Applications Infrastructure 7.3. Profile should be executed before starting any activity from the console.

OFSRPA Configuration

1. Make sure Oracle Business Intelligence (Version 11.1.1.7.1) installation is completed and available.

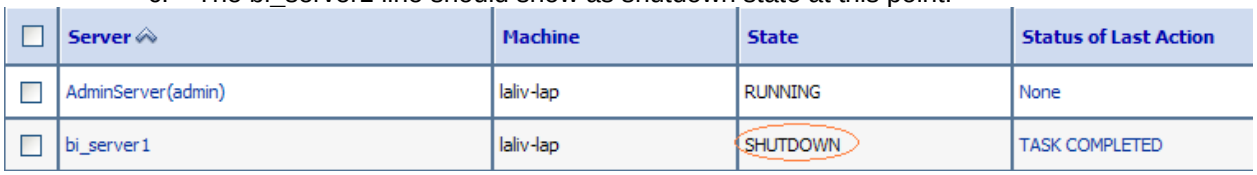
2. Set the <Oracle BI Instance Home> directory> => e.g. /u01/OBIEE11G/instances/instance1.

3. Start Weblogic AdminServer.
    a. Set the < BI Domain Home> directory> => e.g. /u01/OBIEE11G/user_projects/domains/bifoundation_domain.
    b. Navigate to < BI Domain Home >/bin and run 'nohup ./startWebLogic.sh &'
    c. Bringing up this service may take a few minutes depending on your environment.Check the logs using the command 'tail –f nohup.out'

4. Start Node Manager.
    a. Set the < WebLogic Server Home > directory> => e.g. /u01/OBIEE11G/wlserver_10.3.
    b. Navigate to <WebLogic Server Home>/server/bin and run 'nohup ./startNodeManager.sh &'.

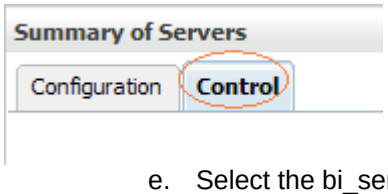
5. Start Weblogic Managed Server(bi_server1).
    a. Login onto http://localhost:7001/console using your Administrator credentials created during platform install (Replace the hostname based on your setup).
    b. Under Environment block (mid of page, towards left side), click on Servers link.

    c. The bi_server1 line should show as shutdown state at this point.

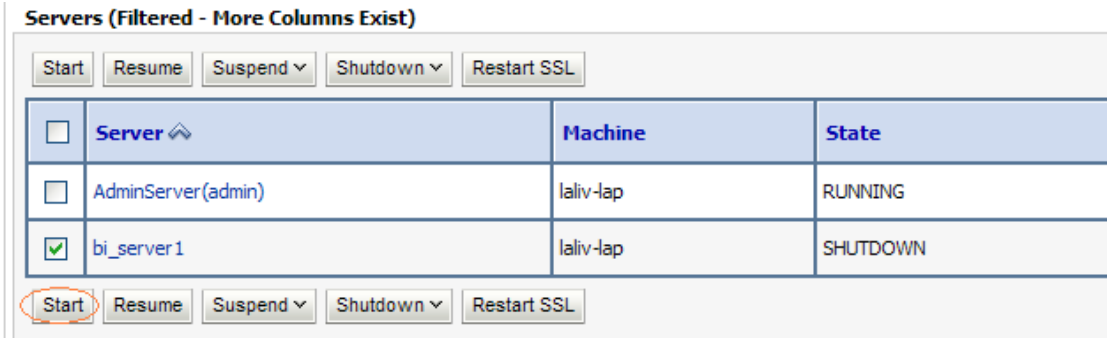


Server	Machine	State	Status of Last Action
AdminServer(admin)	laliv-lap	RUNNING	None
bi_server1	laliv-lap	SHUTDOWN	TASK COMPLETED

    d. Click on control page tab.

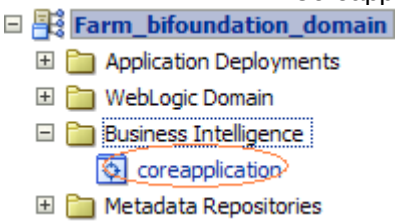


    e. Select the bi_server1 line by clicking on the left tick box.
    f. Click **Start** button at the top of the list and confirm starting this service.

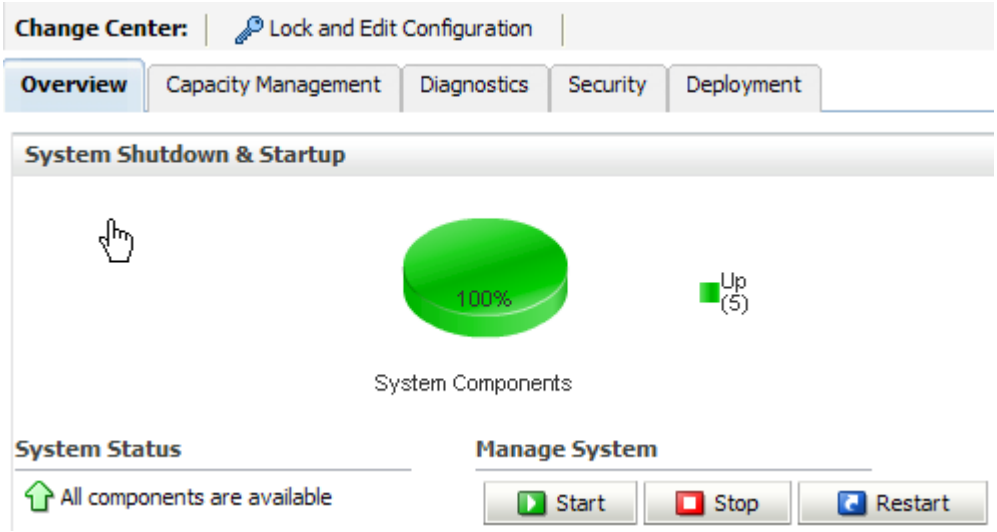


g. State will be updated to “RUNNING” mode after a few minutes.

6. Start the BIEE services and login.
   a. Starting services From EM screen
      i. Login 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 BIEE installation to log in.
      ii. Expand 'Business Intelligence' node on the left and choose Coreapplication.



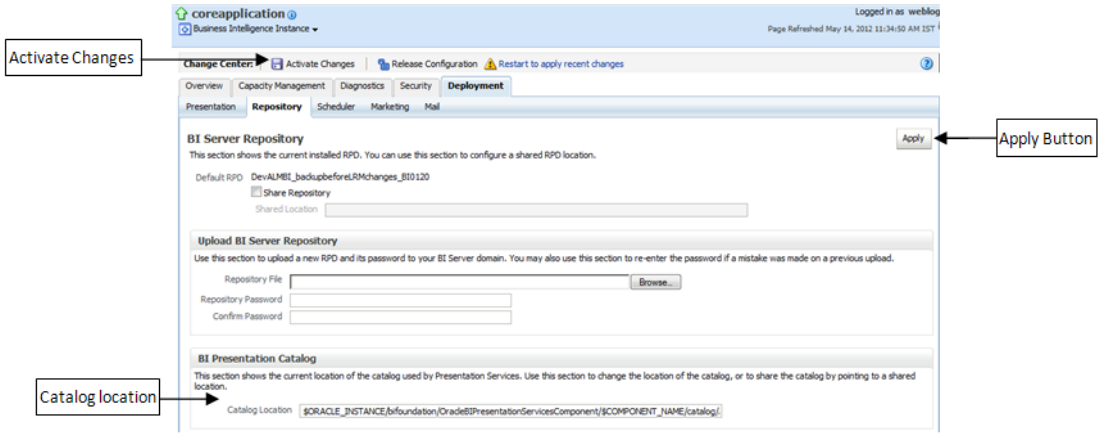
iii. Click the **Overview** Tab,



iv. Click the blue button **Restart** (or green button **Start**) under the Manage System category, middle of screen.
v. Click **Yes** on dialog box to confirm the move. Wait for message that confirms successful restart.

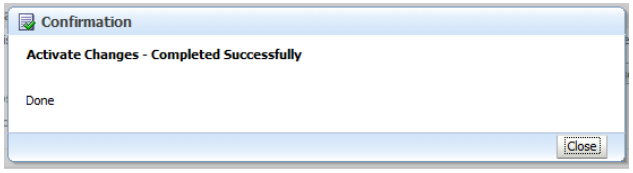
b. If starting using EM is not successful and complaining about OPMNCTL not up, follow starting process with OPMNCTL.
   i. Open a command prompt, navigate to <Oracle BI Instance Home>/bin.
   ii. Run "/opmnctl status, this will show you status of all the OBIEE core services.
   iii. Run "/opmnctl startall" or "./opmnctl stopall" depending on your need.

7. Deploy RPD and webcat file(s).
   a. Navigate to folder $FIC_HOME/CRMRPA/OBIEE11G/ which contains both CRMRPA.rpd and archived CRMRPA.catalog (contains the shared folder of CRMRPA application).Copy both the files to a local folder.
   b. Login to
      I. OBIEE – Enterprise Manager URL (*http://<ip address>:<port>/em*).
      II. Click on hyperlink 'coreapplication' from 'Business Intelligence' tab on left hand side.
      III. Under 'coreapplication', select the tab 'Deployment' and click 'Lock and Edit Configuration' button located below title 'coreapplication'. Following screen will show up.



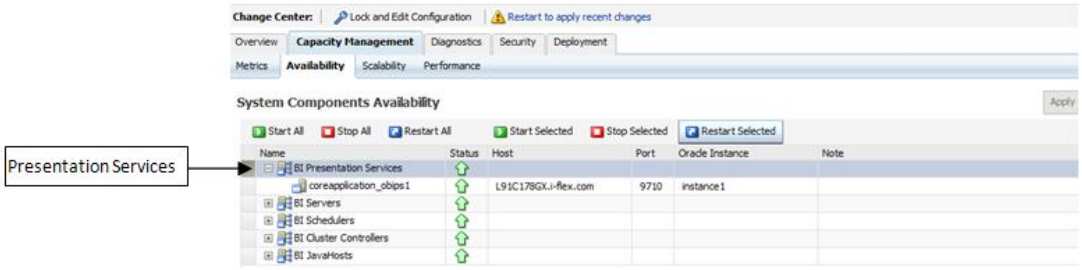
IV. RPD Deployment:
   1. Select **Browse** button under *Upload BI Server Repository* section and select CRMRPA.rpd file from the local folder. Enter Repository password "Admin123".

V. Web catalog Deployment:
   1. Set the Catalog Location available under 'BI Presentation Catalog' like: "$ORACLE_INSTANCE/bifoundation/OracleBIPresentationServicesComponent/$COMPONENT_NAME/catalog/CRMRPA"
   2. Click **Apply** and then **Click Activate changes**. A message will be shown after successful activation.



   3. Click **Close** and switch to **Capacity management** tab.

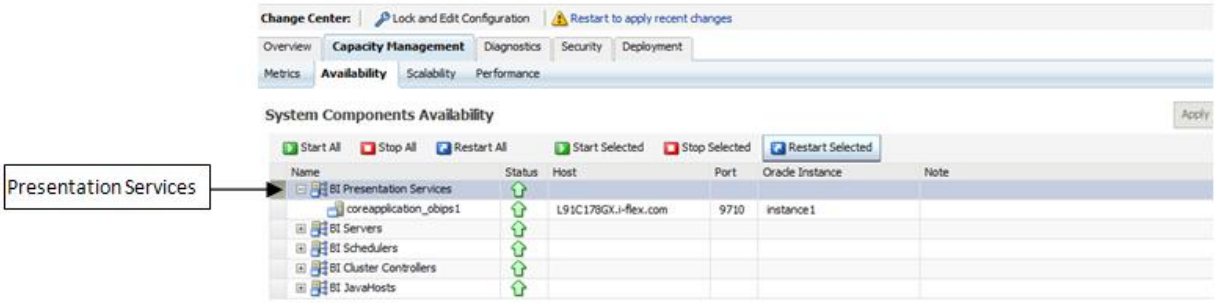
4. Restart the presentation services. Under the *System Components Availability*, select **Presentation Services** and click on **Restart Selected** option.



VI. Once the Presentation Service is restarted, it will give the pop up for successful restart. Click **Close**.

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

VIII. This “CRMRPA” folder will be having a root folder which in turn contains three folders named “shared”, ”system”, and “users”.



c. Open the Catalog Manager
   a. Go to **File** 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*).
   b. Once the catalog is opened, it will display a folder structure on left hand side. Select the shared folder under root folder in the LHS tree structure.
   c. Go to ‘File’ menu and select ‘Unarchive’. It will ask for the path for a file.
   d. Browse the path of the archived catalog file saved in your local folder using the **Browse** button in the pop up. Click **OK**.
   e. The catalog will be unarchived in specified location. A pop up for successful operation will be shown. Restart the presentation services once again.

d. Open the analytics OBIEE URL- (*http://<ipaddress>:<port>/analytics*) Login with credentials based on your setup, and verify that catalog is available.

8. Configure tnsnames.ora.
   a. Open "tnsnames.ora" file under the folder - <Oracle Home>/network/admin
   b. Make sure an entry is made in the tnsnames.ora to connect to application schema of OFSAA application.
   c. Save the tnsnames.ora

9. Configure ODBC data source to connect to Oracle BI Server.

   a. Go To Control Panel>Administrative Tools>Data Sources (ODBC).
   b. Select the **System DSN** tab and click **Add** button.
   c. Select a driver specific to (Oracle BI Server 11g) and click **Finish** button.

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**.

10. Modify 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 **CRMRPA.rpd** file.
    d. In the **Open** dialog box, select and open 'CRMRPA.rpd' file.
    e. Enter Repository password as "Admin123".
    f. In the "Physical" layer, double-click the CRM Connection Pool under CRM Database to open its properties.
    g. In the **General** tab, edit / check the following entries:
    h. Call Interface: (OCI 10g/11g).
    i. Data source name: <tnsnames.ora entry created in the step 8.b connecting to OFSAA application schema>.
    j. User name: <enter application db user name>.
    k. Password: <enter application db user password>.
    l. Confirm password and click **OK** to close the window.
    m. Repeat the same for CRM Connection Pool (Init Block)
    n. In the "Physical" layer, double-click the CRM Connection Pool under CRM Essbase to open its properties.
    o. Essbase Server :< ip address/Hostname of the Essbase server>Username : <Essbase username>
    p. Password : <Essbase password>
    q. Confirm password and Click **OK** to close the window and click **Save** to save the RPD file.
    r. Click **No** for the Global Consistency Message.
    s. Close the RPD file (File/Exit).

11. Login into CRMRPA Application using the URL: http://localhost:9704/analytics.(Replace the port number based on your setup).

User Roles in Customer Insight

All the users who need access to the OFSIPA reports should have an entry in FSI_M_USER_MANAGER_MAP table. The table FCT_ACCOUNT_MGR_REL should have the necessary details for the relationship manager to account mapping.

Prerequisites

There are 4 types of user roles in IPA.

- Relationship Manager Role
- Sales Representative Role
- Business Analyst Role
- Administrative role

All the users will be assigned with any of the roles mentioned above. Depending upon the roles, there are restrictions on the visibilities of Data, Report Pages, and Metadata.

Data visibility

Data visibility refers to the data control established on the results fetched by reports depending on the user logged in.

For each user, only those accounts which are directly handled or are handled by a subordinate are visible.

If the logged in user is an RM, then only those accounts which are associated to that user's organizational hierarchy will be fetched. This is achieved through FSI_M_USER_MANAGER_MAP table.

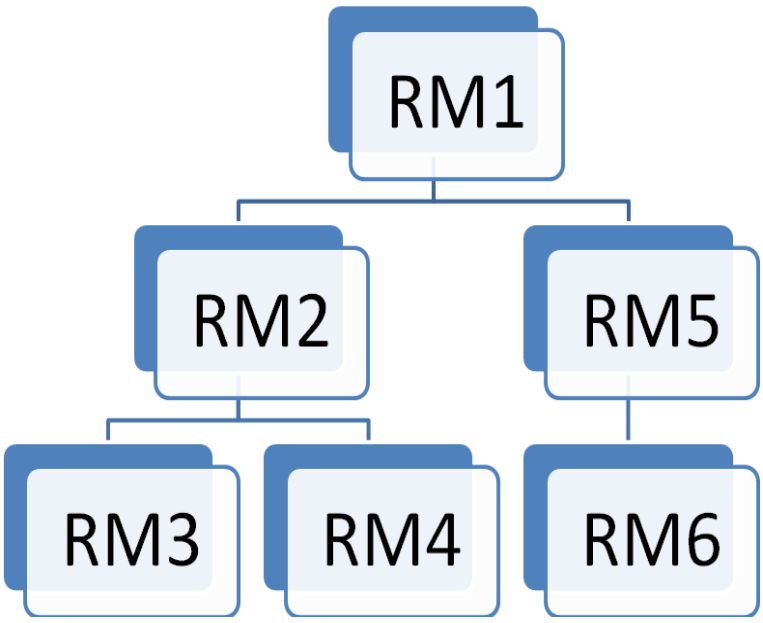
If a user is Relationship Manager (RM), then the particular log in ID and the manager code from DIM_MANAGEMENT table have to be populated into FSI_M_USER_MANAGER_MAP table.

A user logging in without any associated Manager code should have access to the entire data available.

The entries to FSI_M_USER_MANAGER_MAP table have to be manually inserted. It has two columns, V_USERNAME and V_MANAGER_CODE. The V_USERNAME has to be inserted with the login username created in OBIEE and V_MANGER_CODE has to be inserted with the manager code of the corresponding user from DIM_MANAGEMENT table.

Example

The following diagram depicts a hierarchy of Relationship Managers:



The data visibility for each of the Relationship Managers, starting from the top of the hierarchy is as follows:

- RM1 user has control over the data associated to that user along with the data associated to the immediate subordinates, that is, RM2, RM5, and their subordinates till the end of the hierarchy.
- RM2 user has control over the data associated to that user along with the data associated to the immediate subordinates, that is, RM3, RM4, and their subordinates till the end of the hierarchy.
- RM5 user has control over the data associated to that user along with the data associated to the immediate subordinate, that is, RM6 and his subordinates till the end of the hierarchy.

If the logged in user is a Sales Representative (SR), the data associated with the opportunities managed by the respective Sales Representatives are visible. Each Sales Representative will have unique skey values and accounts related to those skeys are displayed in reports.

If the logged in user is a Business Analyst (BA), then all the data will be fetched.

Report visibility

The Report's visibility are restricted as per the below table.

Application Role	Dashboards Available
Business Analyst	○ Summary ○ Customer Summary ○ Cross-Sell ○ Top 10 Opportunities ○ Opportunities ○ Activities ○ Customer Performance

	○ Product Performance ○ Line of Business Performance ○ Balance Sheet
Relationship Manager	○ Opportunities ○ Activities ○ Relationship Manager Performance
Sales Representative	○ Opportunities ○ Activities
Administrator	○ All Reports

The Reports visibility for the different roles has to be handled by setting proper catalog Permissions. The steps to setup these permissions are described in *Setting Up Dashboard Visibility* under Configure Roles and Groups of this document.

Metadata Visibility

Accessibility to presentation layer objects for creating ad-hoc reports varies from user-to-user depending on the application role the user is allocated.

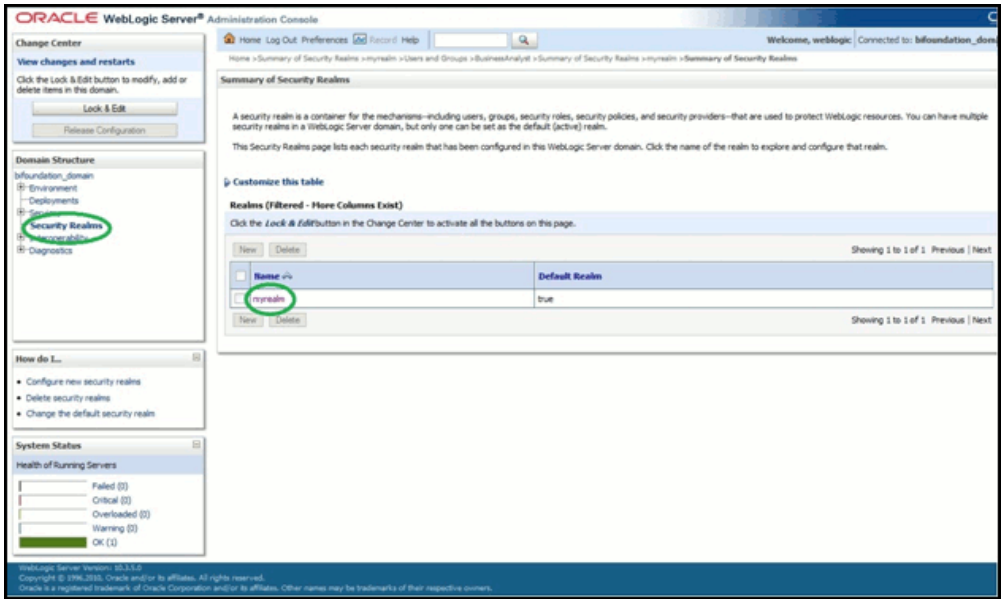
The following are the requirements for viewing the metadata in RPD:

Application Role	**Tables for Ad-hoc Reporting**
Business Analyst role	○ Fact-Account Summary ○ Fact Account Profitability ○ Fact Opportunity ○ Fact Opportunity Activity ○ Fact Management Forecast ○ Fact Customers
Relationship Manager role	○ Fact Relationship Manager Contribution ○ Fact Relationship Manager Profitability ○ Fact Opportunity ○ Fact Opportunity Activity
Sales Representative role	○ Fact Opportunity ○ Fact Opportunity Activity ○ Fact Sales Representative Compensation
Administrative role (WebLogic)	○ All tables

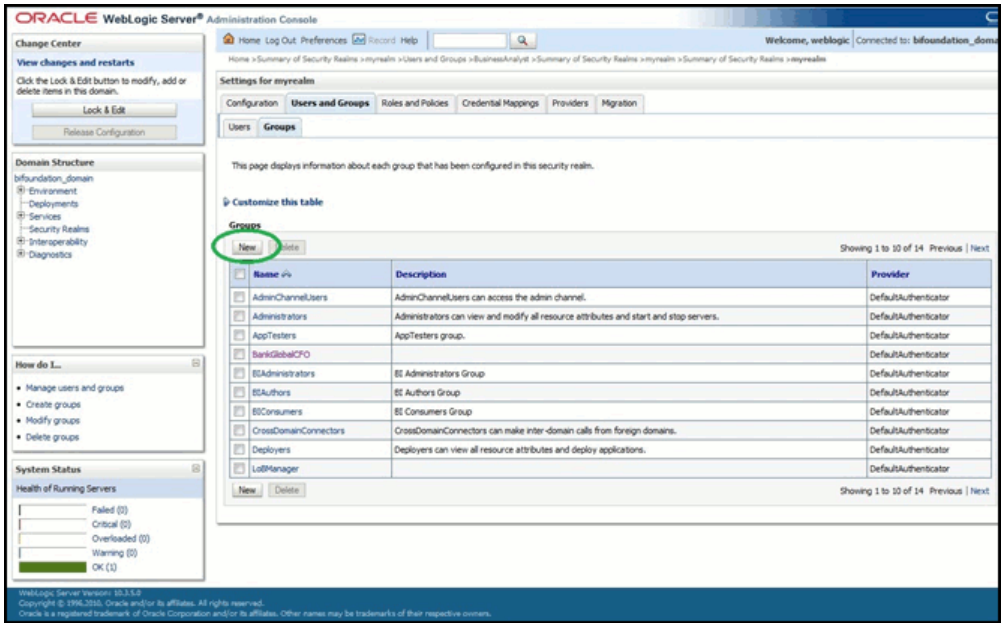
Configure Roles and Groups

A detailed procedure on how to enable different roles and give permissions to different user roles in Enterprise manager and console are explained in this section. For controlling data visibility in reports, it is necessary to use the User Groups and Roles. The following procedure helps in configuring groups, users, and roles in Console and Enterprise Manager.

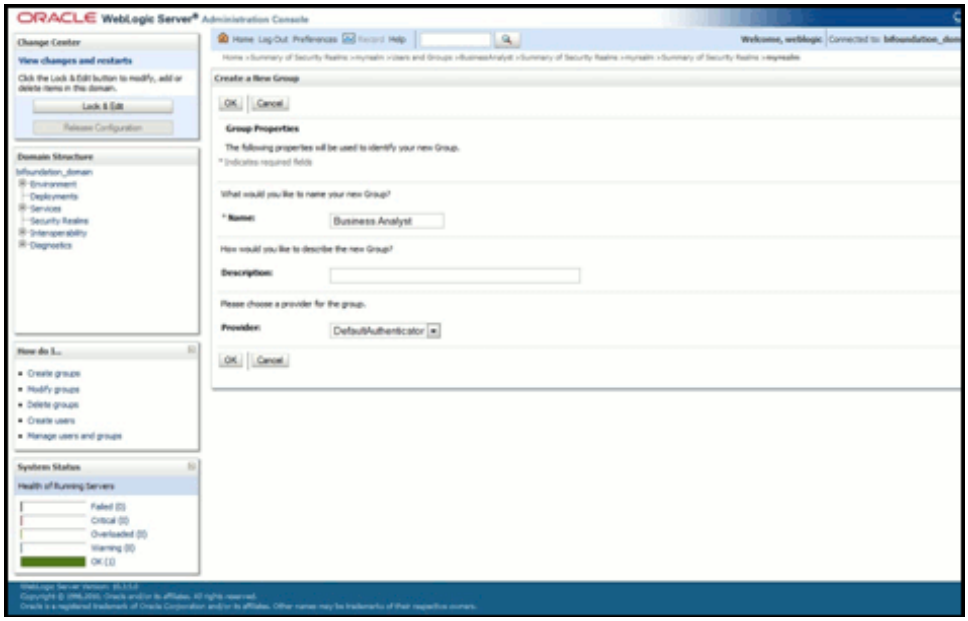
1. Open the Admin Console of OBIEE
2. Click **Security Realms** under **Domain Structure.**
3. Click **myrealm** under **Realms**.



4. Click **User and Groups** and then **Groups**.



5. Click **New** and create a new group **BusinessAnalysts**. Click **OK** after providing all the required information for this group.

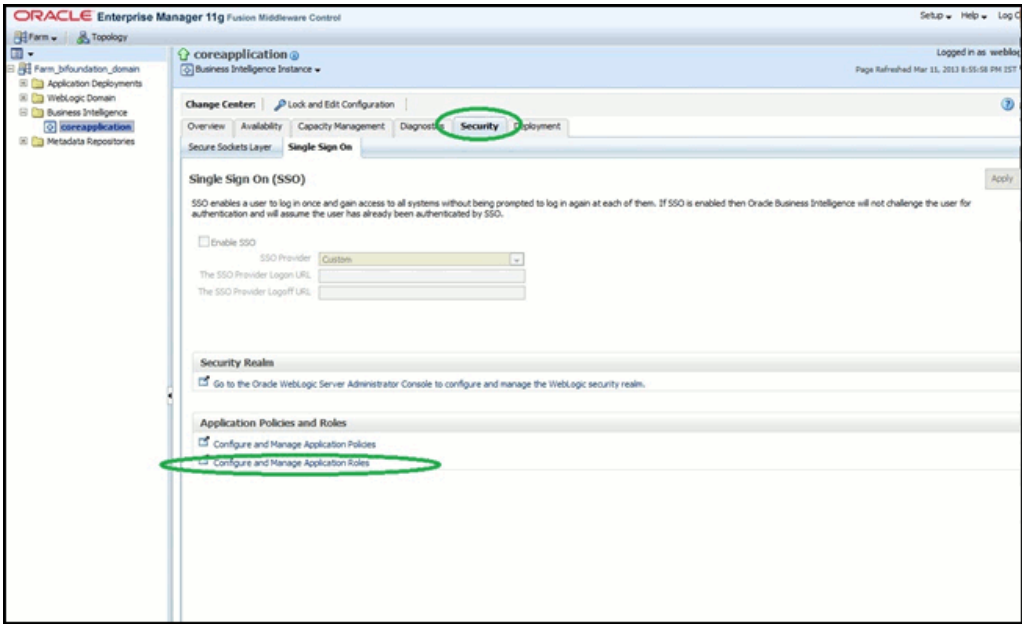


6. Click the newly created **BusinessAnalysts** group and assign the parent group. The Parent group determines the level of access provided to users in this user group. Allot the BIAuthors (this parent group give create permissions and edit permissions for the existing reports) parent group to this user group.
7. Create the required number of users and allot them to this user group, after creating the user group and allocating a parent group to the user group.
8. Create a new BusinessAnalyst user under Users tab of Users and Groups. Click **New** under users and provide the name of user as business analyst.
9. Enter a password (“weblogic123”) with which this user can log in into OBIEE analytics. Confirm the password and move to **Groups** tab.
10. Map the newly created user to respective group in the Groups tab. Assign “BusinessAnalysts” group created in *Step 6* to this “BusinessAnalyst” user.
11. Repeat the same procedure for all the required user groups. Create “SalesRepresentatives” and “RelationshipManagers” groups and then create “SalesRepresentative” and “RelationshipManager” users and allocate the respective groups to these users. All these three user groups should have “BIAuthors” as parent group.

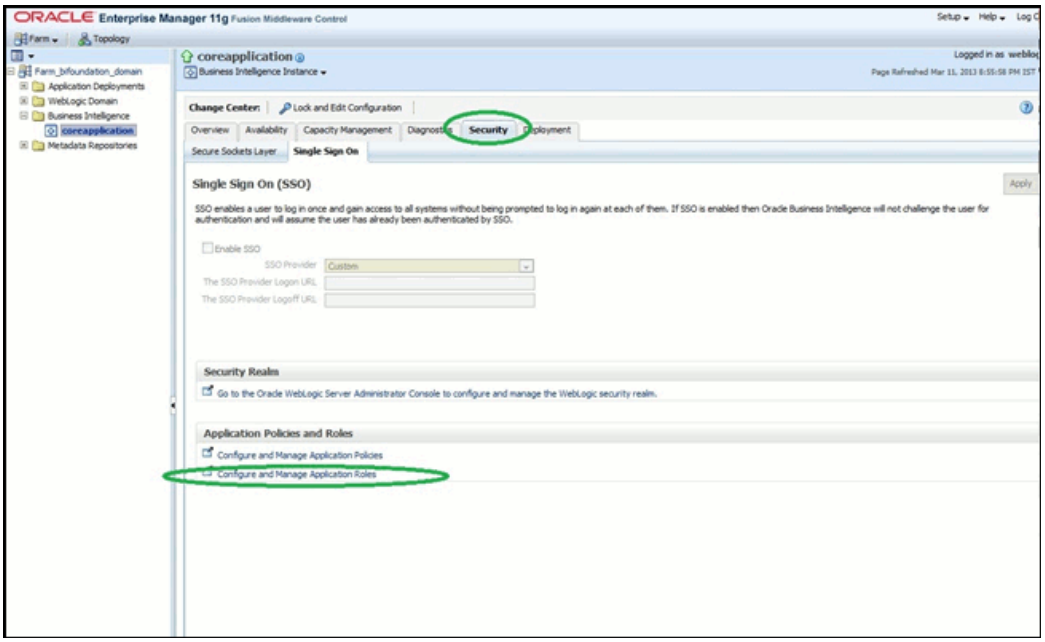
Application Roles Creation for User Groups

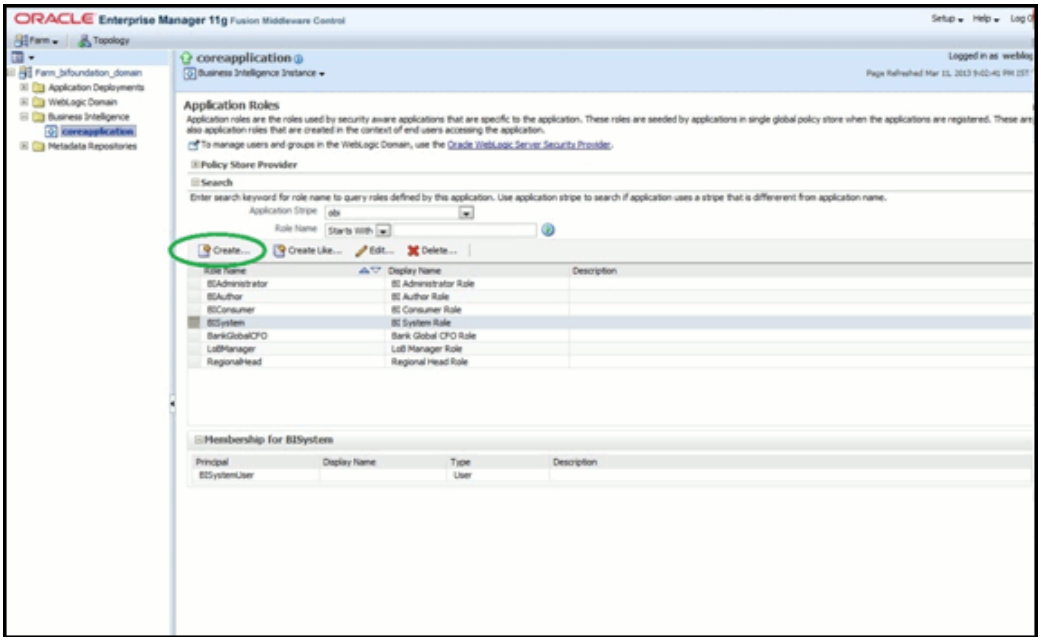
Once the user groups and users are created, you can proceed with new Application roles creation for each user group.

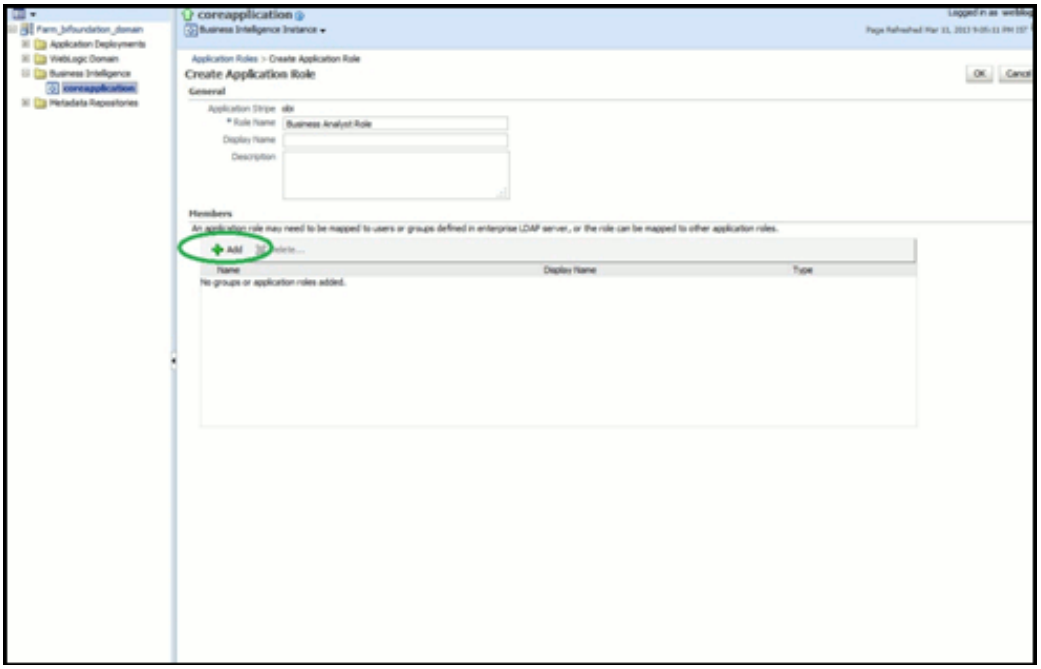
1. Open Enterprise Manager of OBIEE.
2. Navigate to **CoreApplication>Security>Single Sign On>Configure and Manage Application Roles**.



3. Create a new application role with the name “BusinessAnalystRole” with display name as “BusinessAnalystRole” and then search for group “Business Analysts” and allocate this role to the respective group.



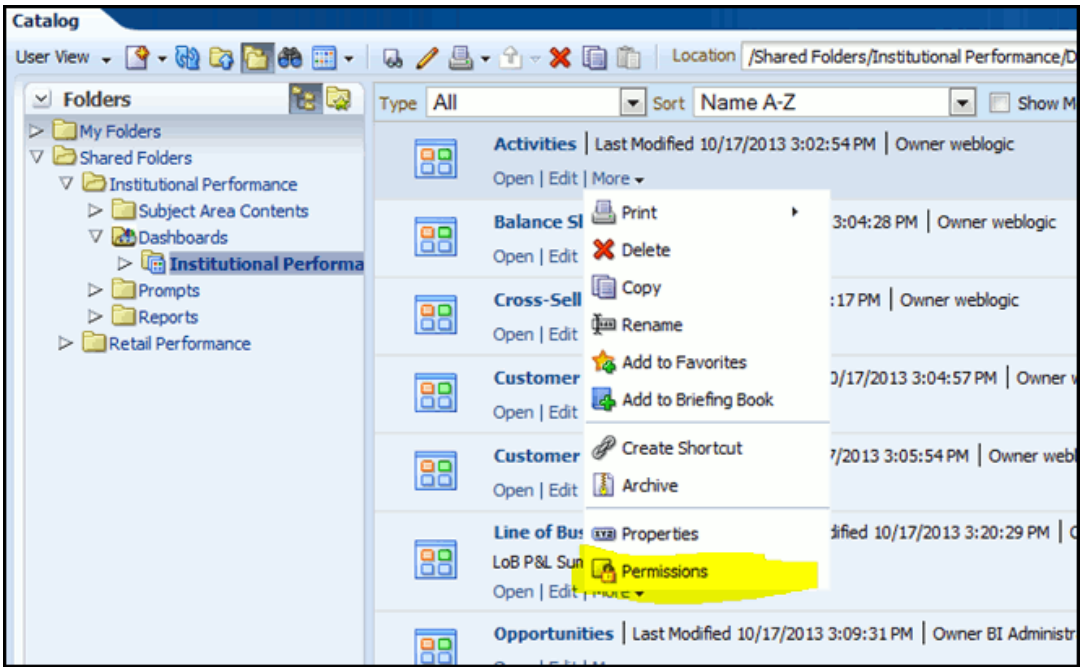




Follow the preceding procedure to create two new Application roles: Relationship ManagerRole and SalesRepresentativeRole and allocate them to respective groups.

Setting Up Page Visibility

1. Log into Analytics with administrator credentials and Unarchive the CRMRPA.catalog by selecting ACL as **Preserve**.
2. After unarchiving the catalog, navigate to dashboards and expand the dashboard pages.
3. Click **More>Permissions.**
4. From the Permissions window, provide *Read* access or *No* Access to different dashboard pages foreach of the application roles created.



Once the access permissions are set, log in to the application using any of the user names, “BusinessAnalyst”/”SalesRepresentative”/”RelationshipManager” and the corresponding password. Check for the proper display of the dashboards.

Note:

The dashboards which are set to No Access from Admin login will not be displayed.

Trouble shooting

Problem: After logging into CRMRPA Application, if end user experiences an error as "*Exceeded configured maximum number of allowed output prompts, sections, rows, or columns*" while accessing reports.

Solution:

1. Bring down OBIEE Presentation services.
2. Locate and take a back up of the file 'Instanceconfig.xml' in following folder structure <Oracle BI Instance Home>\config\OracleBIPresentationServicesComponent\coreapplication_obips1
3. Edit the file. Locate the tab '<view>' which in turn contains '<pivot>' tab in instanceconfig.xml.
4. Paste the following lines in between '<pivot>' and '</pivot>' tab.
   <MaxVisibleColumns>3000</MaxVisibleColumns>
   <MaxVisiblePages>10000</MaxVisiblePages>
   <MaxVisibleRows>50000</MaxVisibleRows>
   <MaxVisibleSections>250</MaxVisibleSections>
   <DefaultRowsDisplayed>30</DefaultRowsDisplayed>
5. Save the file and restart the presentation services.

Documentation

You can download the OBIEE installation and configuration guide from

http://www.oracle.com/technology/documentation/bi_ee.html

Oracle Financial Services Retail Performance Analytics v6.0.2.0.0 Installation Manual

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Oracle Financial Services Retail Performance Analytics v6.0 Product

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