Oracle Financial Services
Retail Customer Analytics

Product Installation Manual

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Table of Contents

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About this Manual

The Oracle Financial Services Retail Customer Analytics (OFSRCA) product focalizes on Prospect/list scoring leveraging any internal/bureau information, cluster analysis and projected NPV, Predictive analysis to determine cross-sell/up-sell scores, product and channel propensities leveraging transactional/behavioral data, Customer Segmentation, Performance tracking of current campaigns across key measures like Sales, Asset and Liability balances, Fee-based product subscriptions and sustained performance over time, credit score distribution of new accounts sourced and early alerts on any negative skews, Wallet Share (spend diversity, activation, and so on) and Attrition analysis, ROI of campaigns over time (transaction performance needs to be measured for at least over 12 months for accurate LTV predictions).

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 OFSRCA v6.0.2.0.0 Product.

Scope

This manual provides a step-wise instruction to install the OFSRCA 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.

- o **Pre-Requisites** section identifies the hardware and base software environment that is required for a successful installation and functioning of the OFSAAI Solution.

- o **Pre-Installation** activities section details the pre-installation activities

- o **OFSRCA v6.0.2.0.0 Product Installation** section details the step-by-step instruction on the various installation options.

- o **Post installation Activities** section details the steps that are required to be performed after a successful installation of the OFSAAI 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:

- o 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**.

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Pre-Requisites

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 OFSRCA v6.0.2.0.0 Product requires the Oracle 11g R2 (11.2.0.2.0) version of **OFSAAI v7.3.3.3,** 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 OFSAAI 7.3.3.3 is available and adhered to.

Note:

- o If you are doing an up-gradation, make sure that OFSAAI has been upgraded from v7.2 (Release no – 7.2.10) to v7.3.3.3.

- o The OFSRCA v6.0.2.0.0 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 needs to be downloaded separately. This ERwin file should be used for any customization of the data model. The reference bug/patch where ERwin file can be downloaded is Bug 18919977.

Prerequisites

The Oracle 11g R2 (11.2.0.2.0) version of OFSAAI v7.3.3.3 and OBIEE 11.1.1.7.1 on any supported operating system once installed must be configured. The platform patch 18364603 has to be applied on top of OFSAAI v7.3.3.3.

After Installation of OBIEE 11.1.1.7.1, the following 3 patches are highly recommended for all the customers who are using Oracle Business Intelligence Enterprise Edition 11.1.1.6.0 which can be downloaded from Oracle support site.

- o 13742915
- o 13388423
- o 14003822

The following One-off patch has to be applied on top of OFSAAI 7.3.3.3.0: 18912901_GENERIC.zip

Front-End Access

- o Internet Explorer 8.0/9.0
- o Java Plug-in 1.6.0_21
- o Acrobat Reader 8.0

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o   The screen resolutions supported are 1024*768 and 1280*1024

Note:

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

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Pre-Installation Activities

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

o OFSAAI v7.3.3.3 must be successfully installed on Oracle 11gR2 (RAC) (11.2.0.2.0).

o If Infrastructure installation is on multitier environment, Execute the following commands in the DB Layer terminal

> chmod -R 777 < ftpshare folder >

o 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

o The Config and application schema should be two distinct oracle database users.

o Execute the following grants in config schema. Replace <ORACLE_USER> with Atomic 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>

o Oracle database User for Atomic 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>;

o The same set of privileges has to be granted for the sandbox atomic schema user.

o Copy the entire OFSRCA v6.0.2.0.0 installer download directory to the server location (Including the DataModel directory). Give read, write and execute permission to all the files present in this directory.

o Specify the log file path and name in the log4j.xml. Update the "value" attribute marked in the following picture

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```
<!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

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

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OFSRCA v6.0.2.0.0 Product Installation

The OFSAAI Product comprises of components that are installed in Web, Application, and Database layer. Hence, if you have installed OFSAAI 7.3 in a multi-tier architecture, the OFSRCA 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. 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:

o   This section holds applicable if OFSAAI v7.3.3.3.0 is installed on Oracle 11g on separate machines A, B, and C respectively.

o   If a silent installation is required, refer to **Silent Installation** section.

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Machine A – Product App Layer

Step 1

To begin OFSRCA v6.0.2.0.0 product installation, execute Setup.sh.
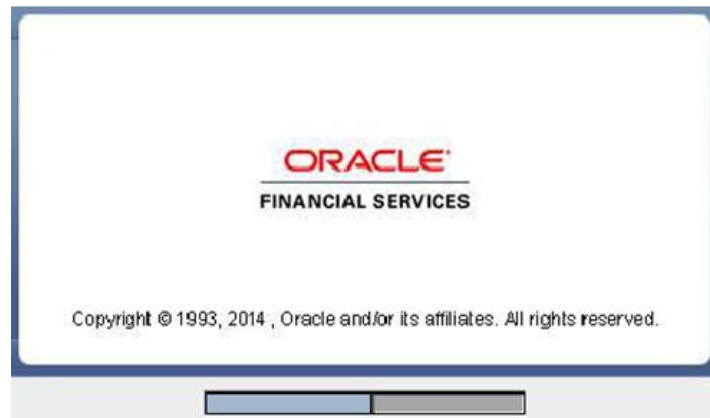
Figure 2: Installation Splash Screen

Step 2
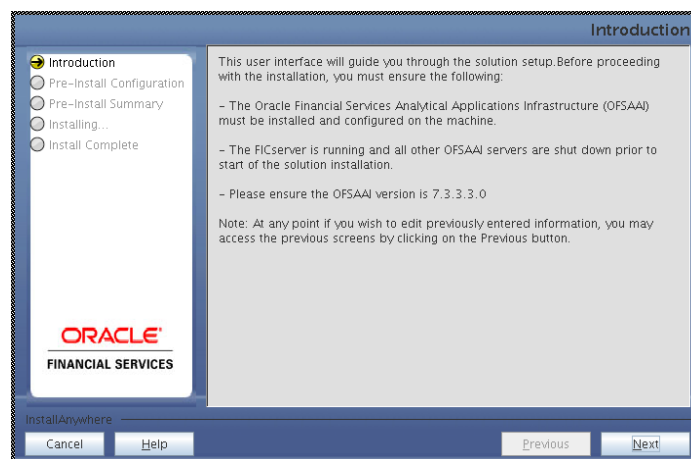
Figure 3: Introduction Screen

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.
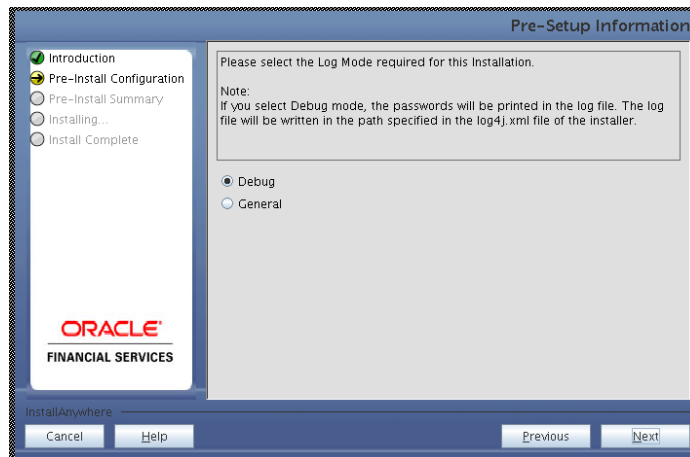
Figure 4: Log Mode Option Screen

Step 4

Provide the 9 digit Customer Identification number provided during the OFSAAI installation.
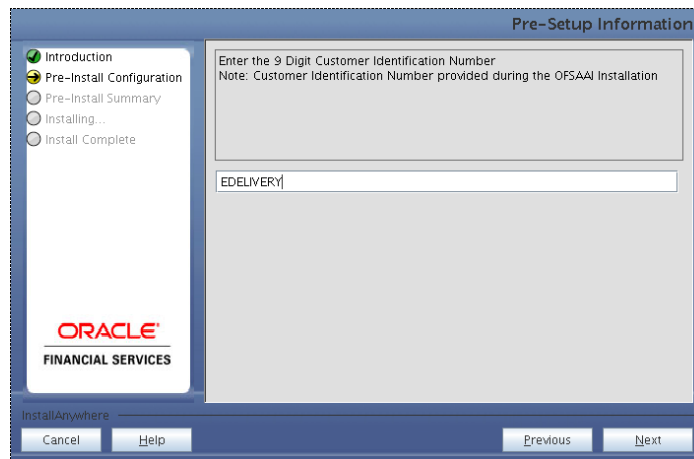
Figure 5: Customer ID Input Screen

Click **Next** to continue.

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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**
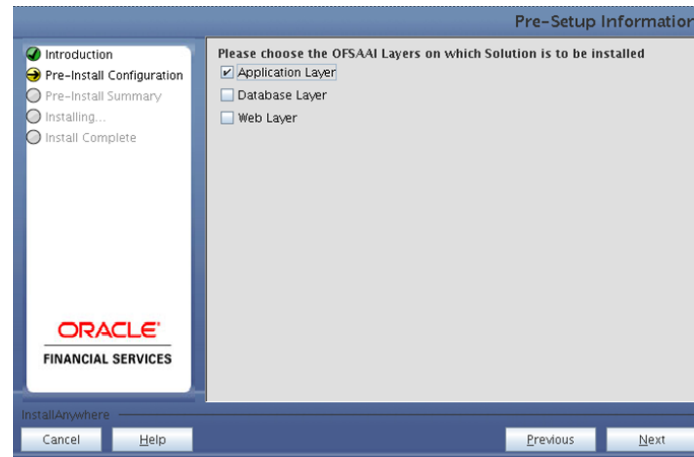
Figure 6: Pre-Setup Information Screen – Choose Application Layer to Install

Note:

- o For a single-tier OFSAAI v7.3.3.3.0 installation, select Application Layer, Database Layer, and Web Layer.

- o For a multi-tier OFSAAI v7.3.3.3.0 installation, select the corresponding layer installed on the machine.

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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.
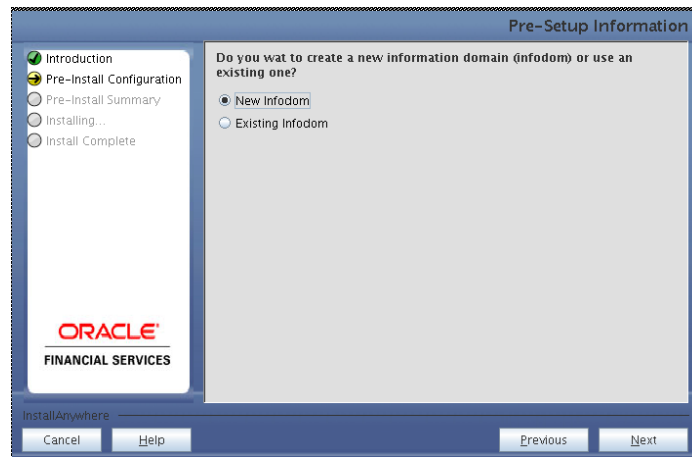
Figure 7: Pre-Setup Information Screen – Infodom type

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 which will seek information of the following details to create infodom.

Specify a DB name for the new Infodom and 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, and jdbc url in relevant fields.

Click **Next** to continue.
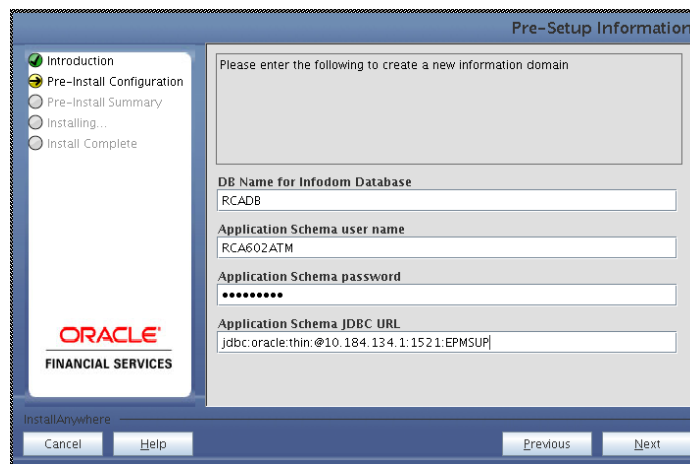
Figure 8: Database details for the new Infodom

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 9: Infodom details for creation of new Infodom

Note:

o   The OFSAAI user must have a role that is able to perform Add/Modify functions for OFSRCA 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 10: Pre-Infodom Creation Summary

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

11

Step 7-iv

If the option **Existing Infodom** was chosen in 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 the segment code and the application schema's TNS name.
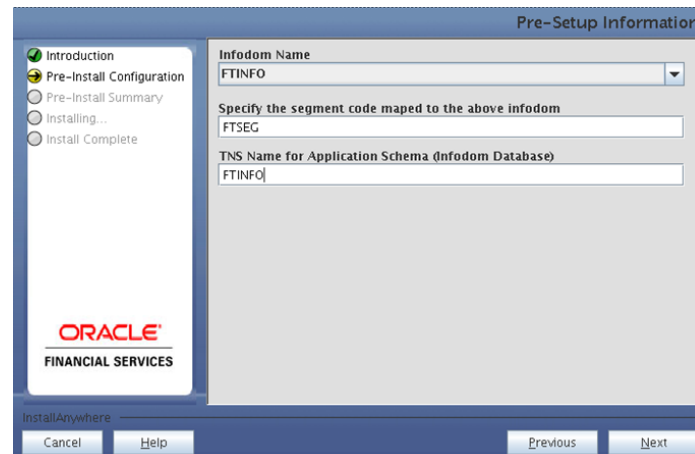
Segment code should not exceed 10 characters

Figure 11: Installation in Progress

Step 8

Sandbox Creation:

Specify whether you want to setup the Sandbox. This process would require fresh infodom creation. Hence an empty schema for the same has to be created. Follow all the pre-requisites mentioned in the Pre-Installation Activities section for application (Sandbox) schema.

Figure 12: Pre-Setup Information

Clicking **No** implies that sandbox creation is not required and the user is prompted for model upload step.

Clicking **Yes** implies that the following panel will be displayed which will seek information of the following details to create sandbox infodom.

Specify a DB name for the new Infodom and 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, and jdbc url in relevant fields.

Click **Next** to continue.

Figure 13: Pre-Setup Information

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 14: Pre-Setup Information

If the option **New Infodom** was chosen in the previous panel, then the following panel will be displayed following the panel 7-ii above which will display the pre-infodom creation details. Check and verify all the details before proceeding to the next step.
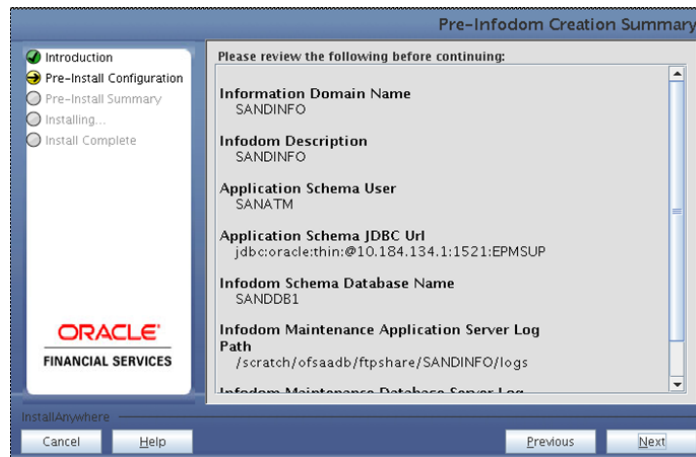
Figure 15: Pre-Infodom Creation Summary

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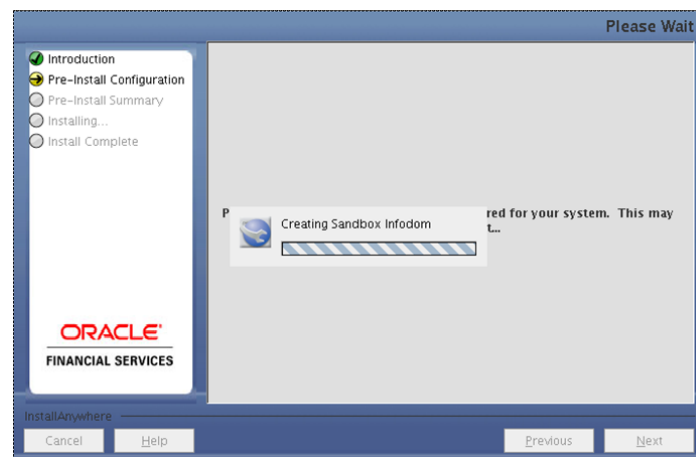

Figure 16: Infodom Creation

OFSRCA v6.0.2.0.0 data model is packaged as part of OFSRCA v6.0.2.0.0 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.
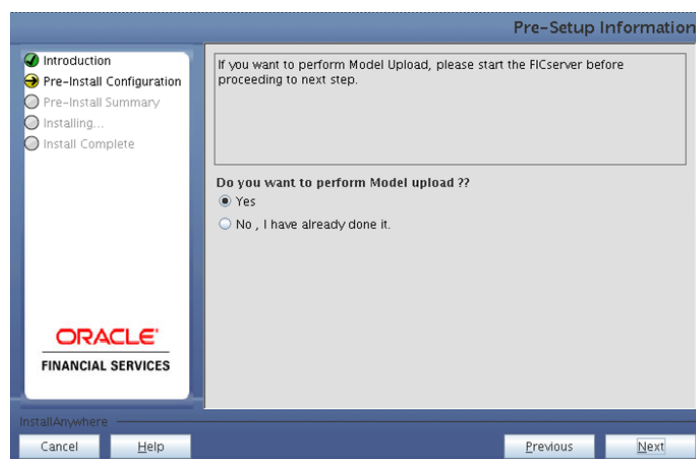
Step 9

Figure 17: Pre-Setup Information

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

On selecting **Released Data Model option**, the installer uploads the OFSRCA v6.0.2.0.0 data model that is packaged as part of the OFSRCA v6.0.2.0.0 product.

On selecting **Customized Data Model** option, the installer allows the user to select the data model. Choose the required option.
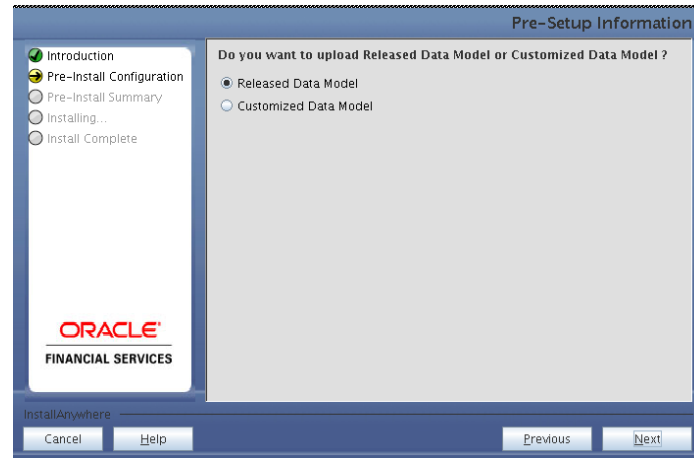
Click **Next** to proceed.

Figure 18: Pre-Setup information

Step 10

If the option **Customized Data Model** was 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:

o The data model xml file should be available in the server.

o In case 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, then the data model that is either customized or merged with other data models can be selected in this panel.
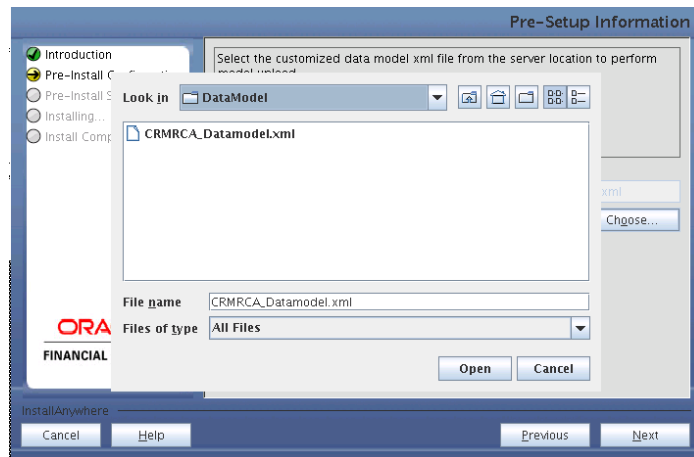
Figure 19: Pre-Setup information

Step 11

The following panel displays the pre-model upload details.

Verify the details before proceeding to the next step.

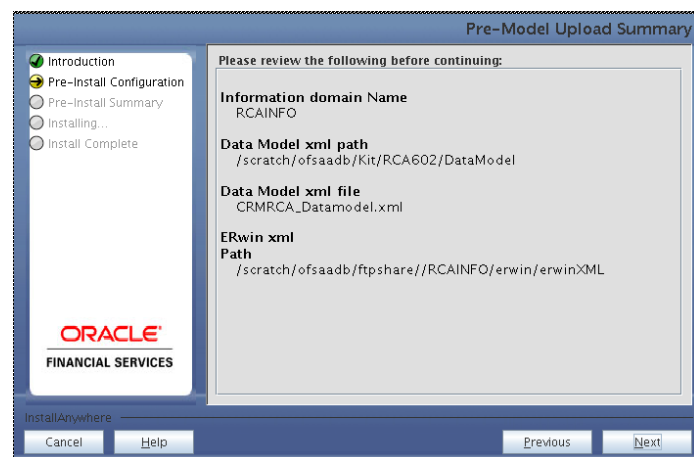Click **Next** to proceed for model upload.

Figure 20: 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 the 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. This step cannot be rolled back.

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

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

Note:

Some of the common errors during model upload are:

o   Insufficient heap memory on the client machine

- o Possible reason/resolution: The java memory settings in "reveleusstartup.sh" located in $FIC_APP_HOME/common/FICServer/bin directory should be increased.

- o Error while getting the Erwin File path

- o Possible reason/resolution: Restart the FICServer.

- o Error in Upload Operation:

  "FAILED WHILE SUPER CATEGORY - SUB CATEGORY RELATIONS HANDLING DELETING"

- o Possible reason/resolution: Incorrect Erwin.xsl file version in $FIC_APP_HOME/common/FICServer/conf directory.

- o Incremental/Sliced model upload might give errors in case 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 the user selects an existing application/source pair, then the existing ETL definitions under the source will be over-written with the packaged definitions. User 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.
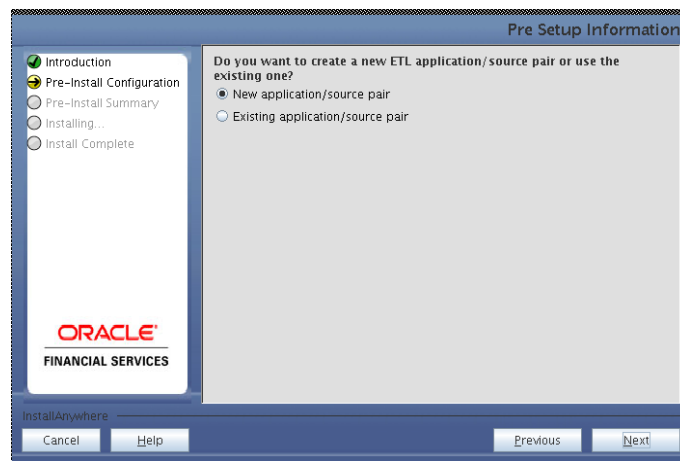
Click **Next** to continue

Figure 21: Pre-Setup Information

Step 13-i

If the option **New application/source pair** was chosen, then the following panel will be displayed seeking 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 22: 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** was chosen, then the following panel willl 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 23: Pre-Setup Information

Step 14

Specify the OFSAAI user id and OFSAAI Group Name (Specify in Capital Letters).
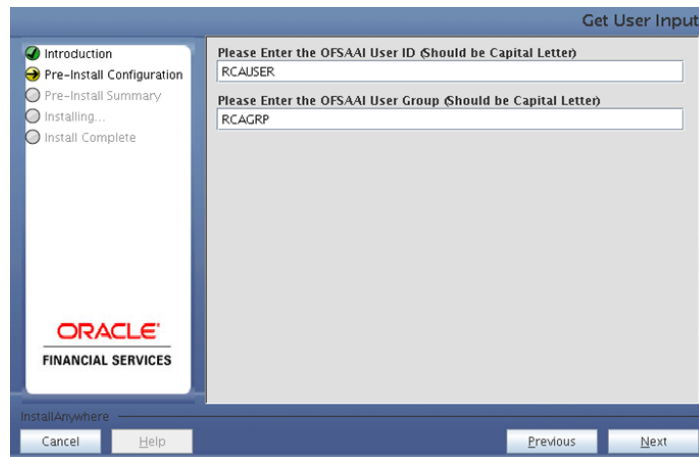
Figure 24: Pre-Setup Information Screen

Click **Next** to continue.

Figure 25: Pre-Installation Summary

Step 15

This panel displays all the pre-installation summary. Verify all the details and proceed.
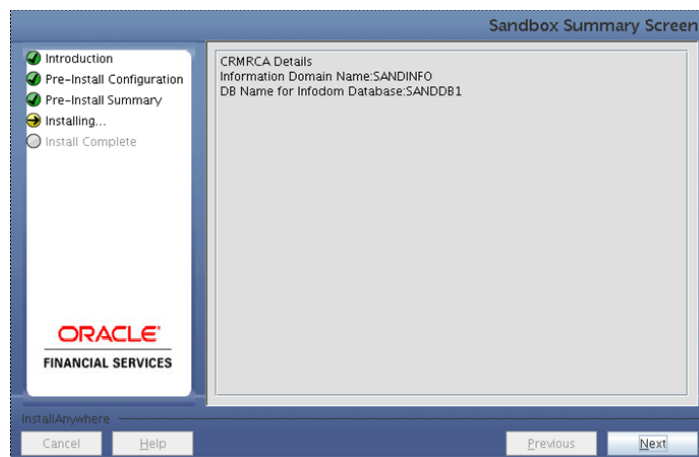
Click **Install** to proceed.

Figure 26: Sandbox Summary Screen

19

Click **Next** to Proceed.

Step 16

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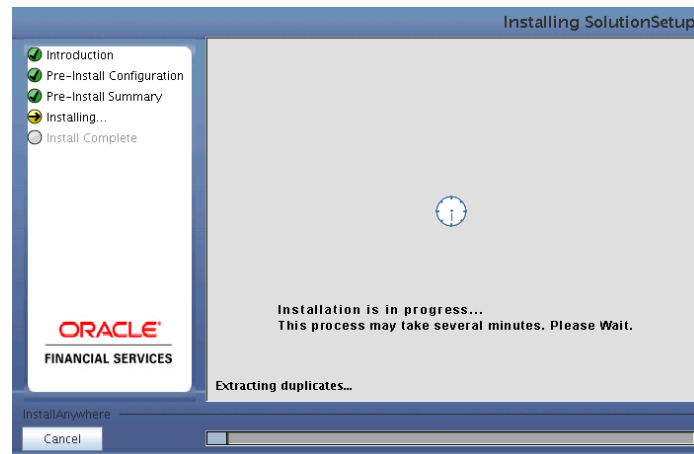

Figure 27: Installation is in progress

Step 17

The following screen displays the completion of installation of the OFSRCA Product Setup.
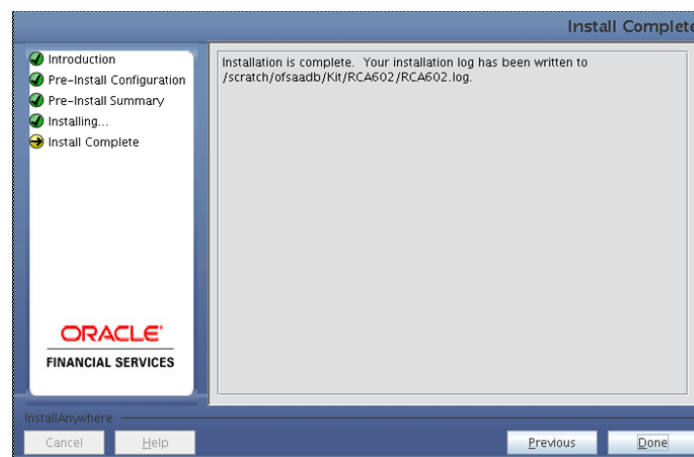
Click **Done** to exit.

Figure 28: Installation Complete

Machine B – Product Database Layer

Step 1

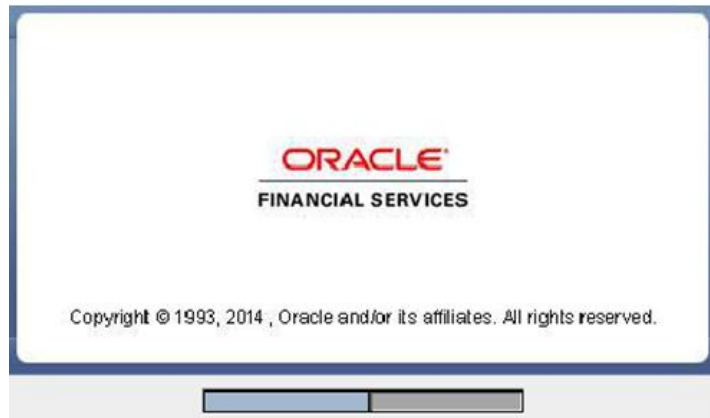To begin OFSRCA v6.0.2.0.0 Product installation, execute Setup.sh.

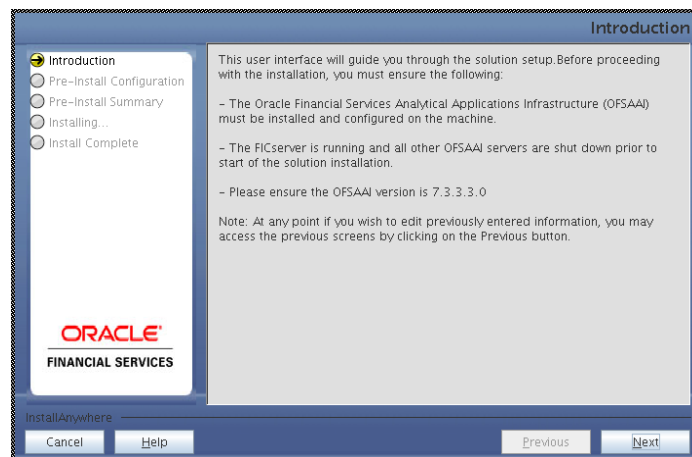**Figure 29: Installation Splash Screen**

Step 2

Figure 30: 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

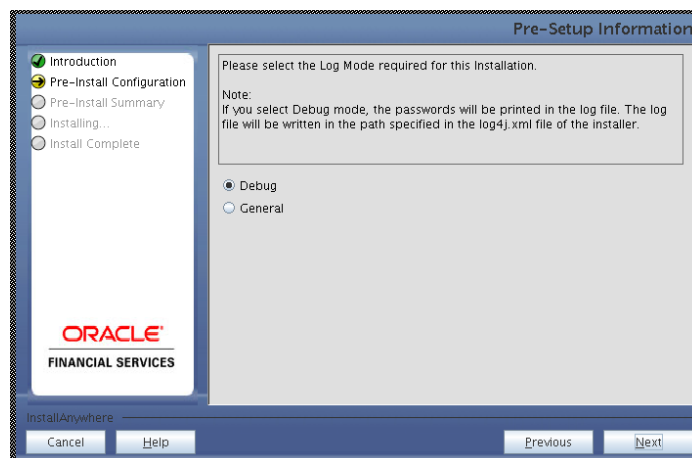Choose the log mode for this installer. Click **Next** to proceed.

Figure 31: Log Mode Option Screen

Step 4

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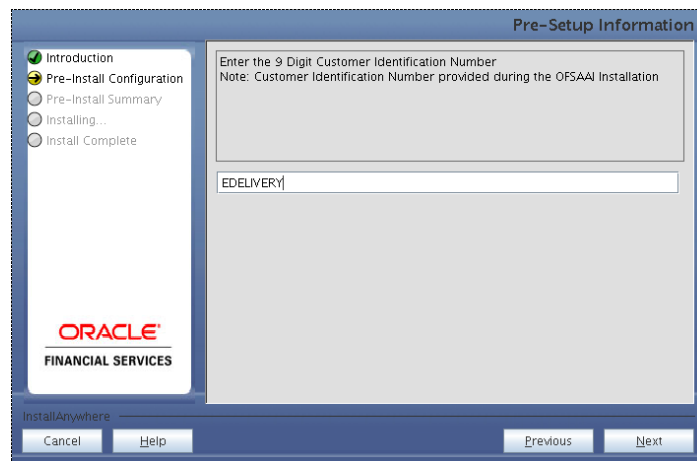

Figure 32: Customer ID Input Screen

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.
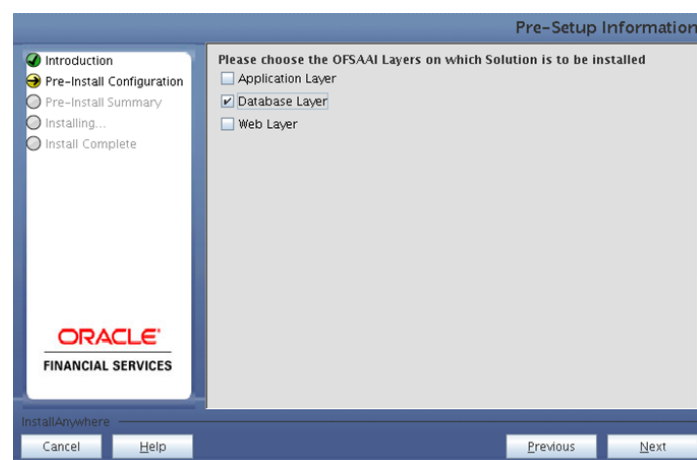
Example **Database Layer**

Figure 33: Pre-Setup Information Screen – Choose Database Layer to Install

Note:

   o   For a single-tier OFSAAI v7.3.3.3.0 installation, select App Layer, DB Layer, and Web Layer.

   o   For a multi-tier OFSAAI v7.3.3.3.0 installation, select the corresponding layer installed on the machine.

Step 6

22

The following panel will be displayed which will prompt to select the infodom from 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 34: Pre-Setup Information Screen

Step 7

Specify the OFSAAI user id and OFSAAI Group name in upper case.
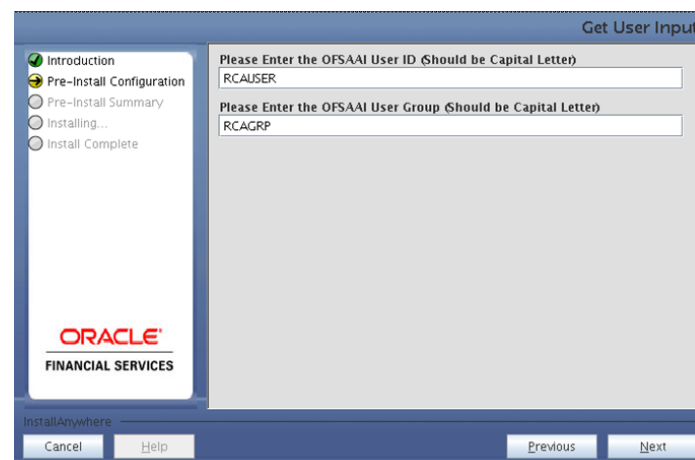
Figure 35: Pre-Setup Information Screen

Click **Next** to continue.

Step 8

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

Click **Install** to proceed.

Figure 36: Pre-Install Summary

Step 9

This panel displays the installation process. Wait until it completes.
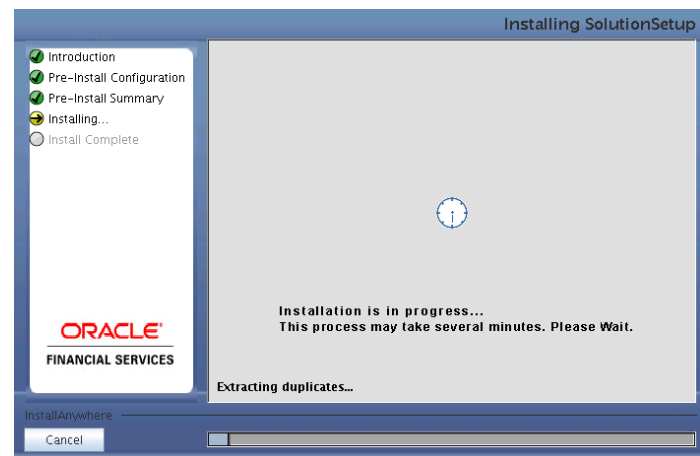
Figure 37: Installation is in progress

Step 10

Specify whether you want to setup the Sandbox. This process would require fresh infodom creation, hence an empty schema for the same. Follow all the pre-requisites mentioned in the Pre-Installation Activities section for application schema.

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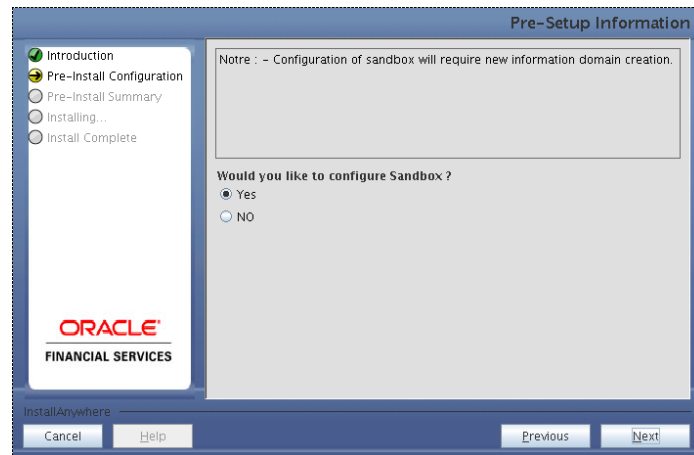
Figure 38: Post Install Configuration

Step 11-i

On selecting the option **Yes,** the following screen will appear.

On selecting the option **No,** the steps from 11-i to 11-iii will be skipped.

Specify all the details for new infodom creation.

Click **Next** to continue.
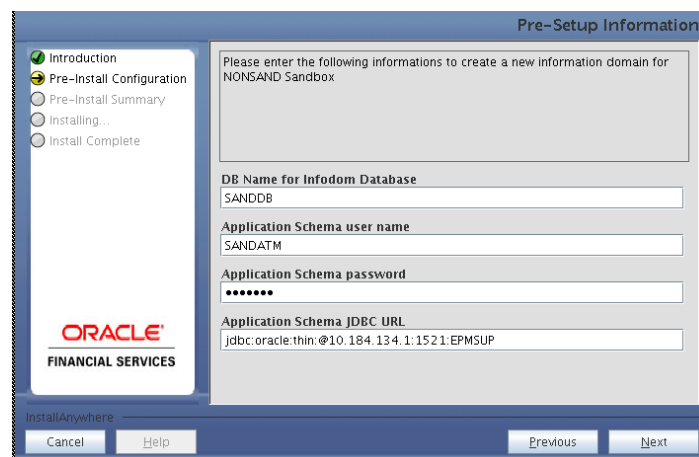
Figure 39: Post Install Configuration

Step 11-ii

Specify all the details required for new infodom creation.

Click **Next** to continue.

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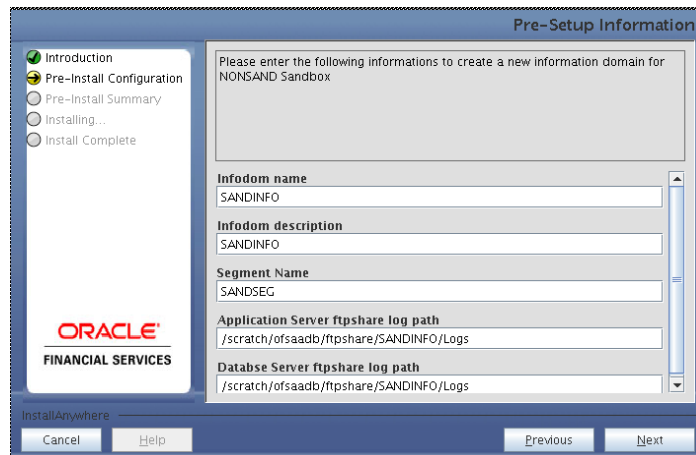
Figure 40: Post Install Configuration

Step 11-iii

Click **Next** to continue.
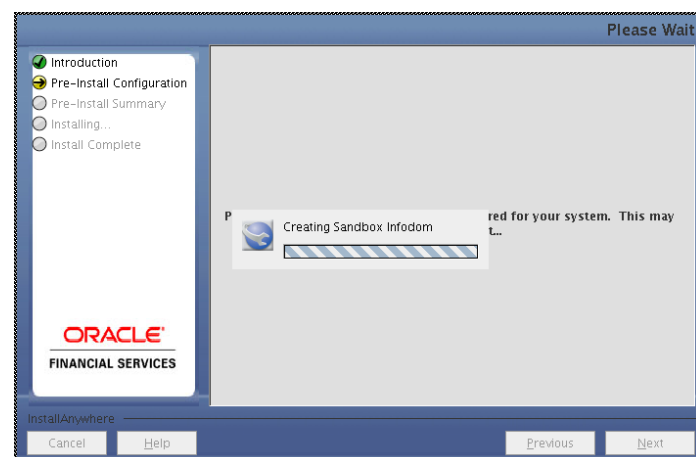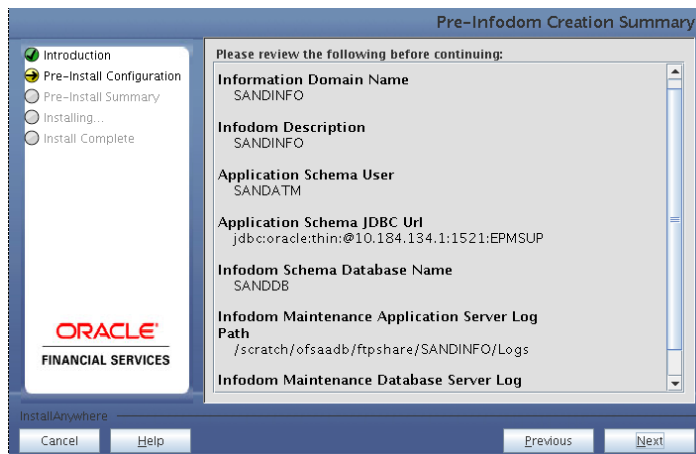
Figure 41: Post Install Configuration

Step 12

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The following screen displays the completion of installation of the OFSRCA v6.0.2.0.0 Product Setup.

Click **Done** to exit.
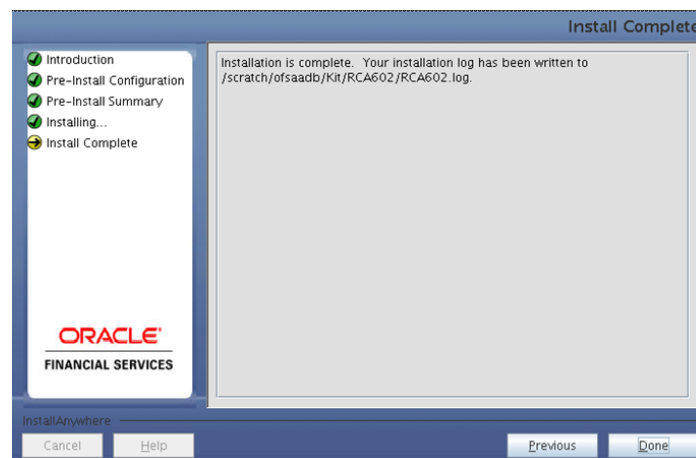
Figure 42: Installation Complete

Machine C – Product Web Layer

Step 1

To begin OFSRCA v6.0.2.0.0 Product installation, execute Setup.sh.

Figure 43: Installation Splash Screen

Step 2
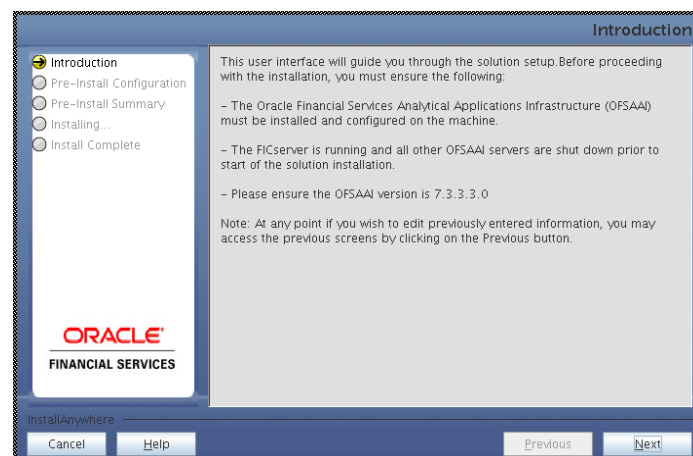
Figure 44: Introduction Screen

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.
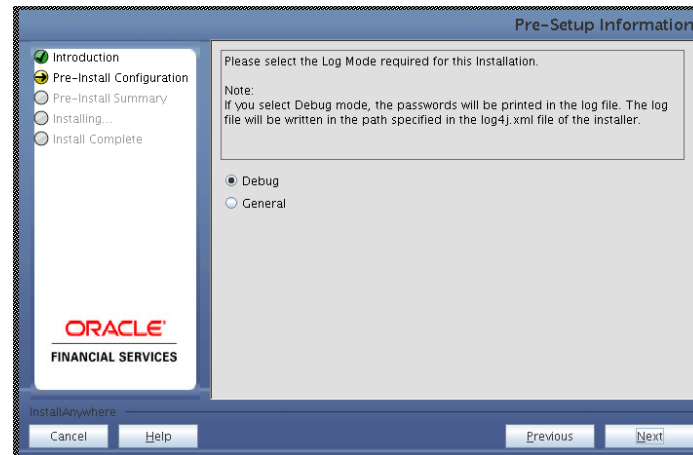
Figure 45: Log Mode Option Screen

Step 4

Provide the 9 digit Customer Identification number provided during the OFSAAI installation.
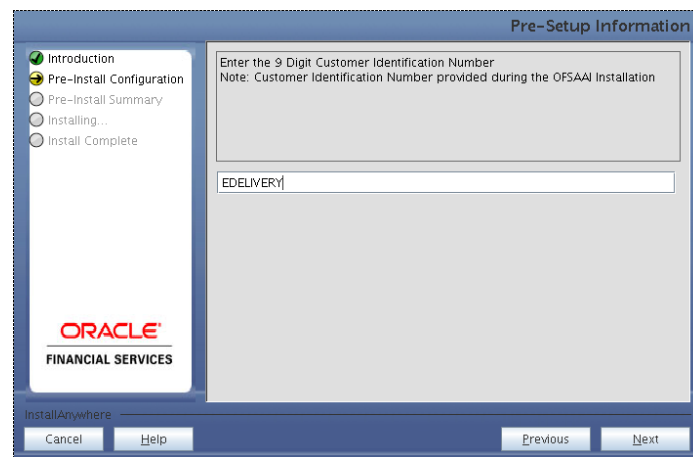
Figure 46: Customer ID Input Screen

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 **Web Layer**

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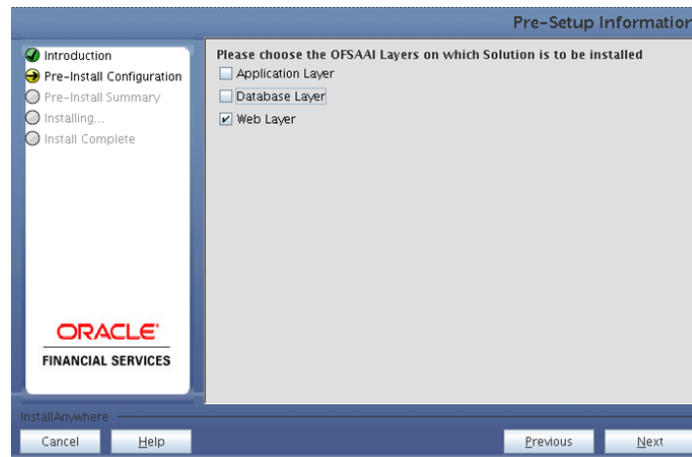
Figure 47: Pre-Setup Information Screen – Choose Web Layer to Install

Note:

- o For a single-tier OFSAAI v7.3.3.3.0 installation, select App Layer, DB Layer and Web layer.

- o 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 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.

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Step 7

Specify the OFSAAI user id and OFSAAI Group name in upper case.

Figure 49: Pre-Setup Information Screen

Click **Next** to continue.

Step 8

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

Click **Install** to proceed.

Figure 50: Pre-Install Summary

Step 9

This panel displays the installation process. Wait until it completes.
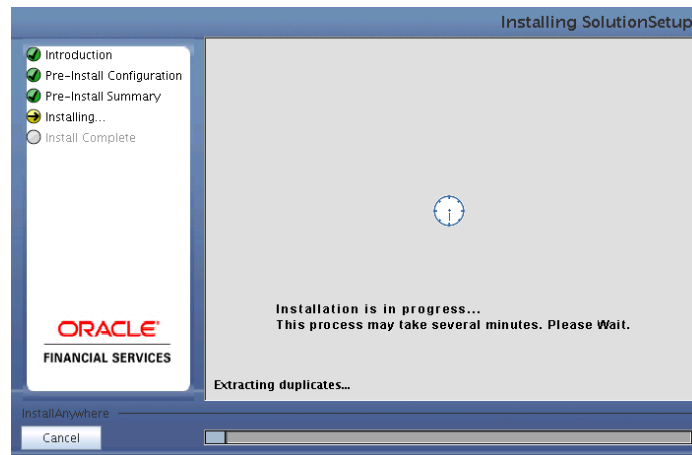
Figure 51: Installation is in progress

Step 10

Specify whether you want to setup the Sandbox. This process would require fresh infodom creation, hence an empty schema for the same. Follow all the pre-requisites mentioned in the Pre-Installation Activities section for application schema.
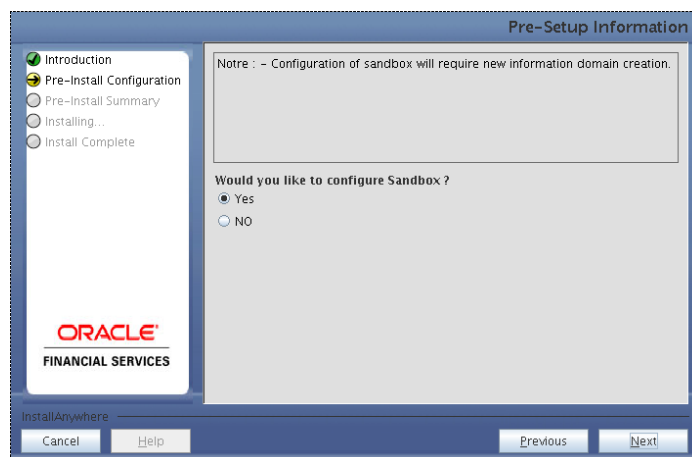
Figure 52: Post Install Configuration

Step 11-i

On selecting the option **Yes,** the following screen will appear.

On selecting the option **No,** the steps from 11-i to 11-iii will be skipped.

Specify all the details for new infodom creation.

Click **Next** to continue.

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Figure 53: Post Install Configuration

Step 11-ii

Specify all the details required for new infodom creation.

Click **Next** to continue.

Figure 54: Post Install Configuration

Step 11-iii

Click **Next** to continue.

32

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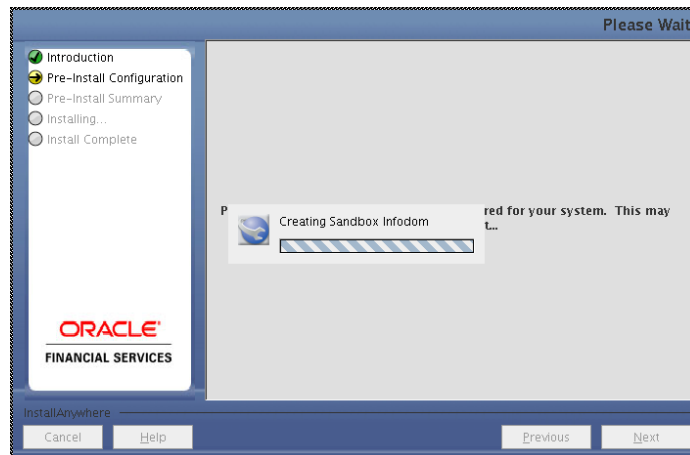
Figure 55: Post Install Configuration

Step 12

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

Click **Done** to exit.
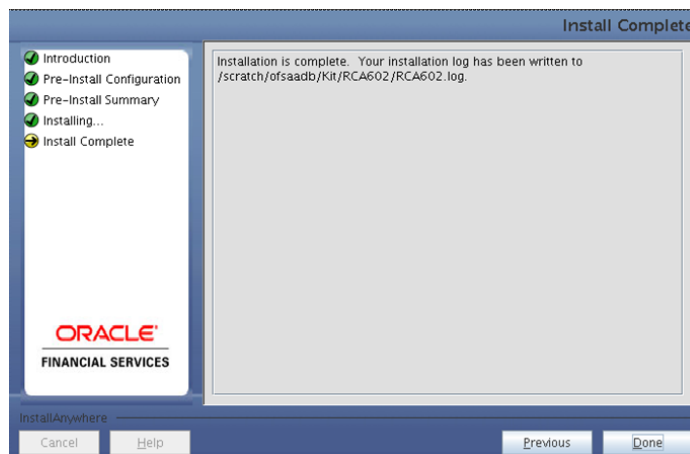
Figure 56: Installation Complete

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.

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

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.

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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_APP	Install Application-tier components be installed	0 = No 1 = Yes	Default: 0
INSTALL_DB	Install database-tier components	0 = No 1 = Yes	Default: 0
INSTALL_WEB	Install Web-tier components be installed	0 = No 1 = Yes	Default: 0
OFSAAI_USER_ID	Provide OFSAAI User ID	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
INFODOM_NAME	Information Domain(infodom)	Not Applicable	MANDATORY
SEGMENT_CODE	Segment Code	Not Applicable	MANDATORY Segment Code should not exceed 10 characters
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
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 DBLayer	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	0 = released 1 = customized	Mandatory if INSTALL_APP = 1

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	datamodel		
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_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_1_DESC	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_1_1_DESC	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
ETL_APP_1_NAME	The ETL application name	Not Applicable	# Mandatory if this an App Layer installation # Option selected for INSTALL_APP = 1
ETL_SRC_1_1_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

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| CONFIGURE_SANDBOX | Would you like to Configure the Sandbox | 0 = Yes
1 = No | # 0 = If you want to configure Sandbox
# 1 = If you don't want to configure Sandbox |
|---|---|---|---|
| CRMRCA_DBNAME | TNS Name of the sandbox database | Not Applicable | # Mandatory if this an APP Layer installation and CONFIGURE_SANDBOX = 0 |
| CRMRCA_USER | User-id of the Databse Schema for new sandbox | Not Applicable | # Mandatory if you want to create a new sandbox
Mandatory if this an APP Layer Installation and CONFIGURE_SANDBOX = 0 |
| CRMRCA_PWD | Password of the Databse Schema for new sandbox | Not Applicable | # Mandatory if you want to create a new sandbox
Mandatory if this an APP Layer Installation and CONFIGURE_SANDBOX = 0 |
| CRMRCA_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 |
| CRMRCA_SANDBOX | OFSAAI Information Domain(Sandbox) into which you wish to install | Not Applicable | # Mandatory if this an APP Layer installation and CONFIGURE_SANDBOX=0 |
| CRMRCA_DESC | Description of OFSAAI Information Domain (Sandbox) into which you wish to install | Not Applicable | # Mandatory if this an APP Layer installation and CONFIGURE_SANDBOX = 0 |
| CRMRCA_SEGMENT | Segment for new sandbox infodom | Not Applicable | # Mandatory if this an APP Layer installation and CONFIGURE_SANDBOX = |

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			0
CRMRCA_APPSERVER_FTP_LOGPATH	Infodom Maintenance log path(to be created) for the new Infodom for applayer	Not Applicable	# Mandatory if you want to create a new sandbox
CRMRCA_DBSERVER_FTP_LOGPATH	Infodom Maintenance log path(to be created) for the new Infodom for dblayer	Not Applicable	# Mandatory if this an APP Layer Installation and CONFIGURE_SANDBOX = 0
OFSAAI_USER_ID	OFSAAI user id	Not Applicable	
OFSAAI_USER_GROUP	OFSAAI group id	Not Applicable	

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Post Installation Activities

OSAAAI Server Memory Configuration

The OFSAAI 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 OFSRCA Product is completed, you must perform the following steps.

o Check the Log file (The path and file name specified in the log4j.xml).

o Ignore the following errors in the log file:

   o Error: ORA-02260: table can have only one primary key.

   o Error: ORA-00955: name is already used by an existing object.

   o Error: ORA-00001: unique constraint (<<UNIQUE KEY NAME>>) violated.

   o Error: ORA-02275: such a referential constraint already exists in the table.

   o Error: ORA-01430: column being added already exists in table.

   o Error: ORA-02303: cannot drop or replace a type with type or table dependents.

Configuration in Websphere Application Server

o 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).

o 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).

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

   Data sources>$DATA_SOURCE$>Connection pools

o 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.
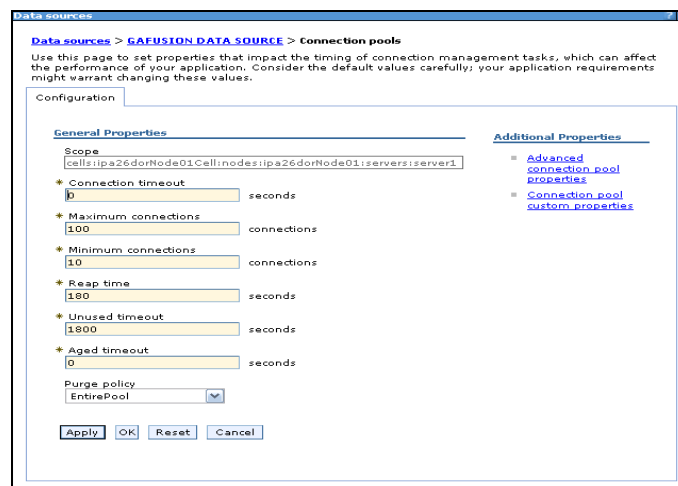

Figure 57: Data Sources

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- 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.
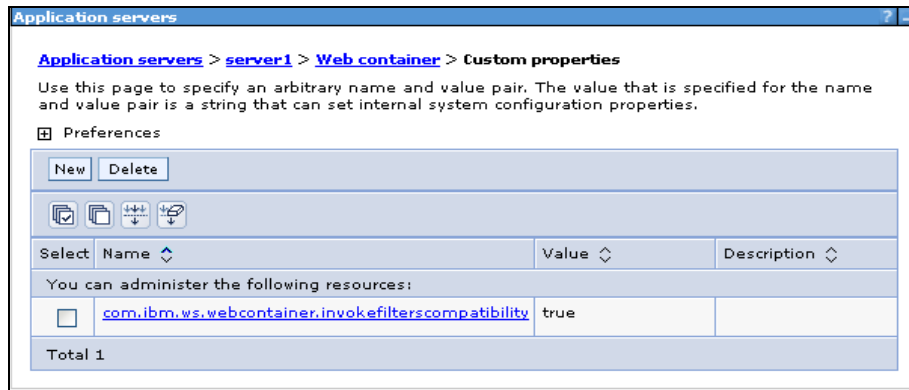
Figure 58: Application servers

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.

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- o CONTEXTNAME$ should be replaced by OFSAAI context frame.
- o $APP_DEPLOYED_PATH$ should be replaced by OFSAAI application deployed path.
- o $INFODOM_NAME$ should be replaced by Infodom Name
- o $ATOMICSCHEMA_USERNAME$ should be replaced by Atomic schema database user name.
- o $ATOMICSCHEMA_PASSWORD$ should be replaced by Atomic schema database password
- o $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

- o Configuration in Weblogic Application Server

  - o 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>**

  - o 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 59: Data Sources

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

Deploy the EAR or WAR file

- o 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 services should be directly started in the server.

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- o 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 services should be directly started in the server.

- o Start all the OFSAAI v7.3 Servers.

  Note:

  - o 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.

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OFSRCA v6.0.2.0.0 Configuration

1. Make sure Oracle Business Intelligence (Version 11.1.1.7.1) installation is completed with patches (13742915,13388423,14003822) 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.
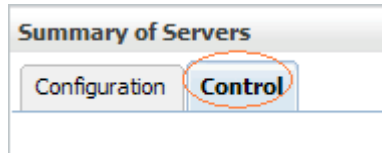
   e. Select the bi_server1 line by clicking on the left tick box,
   f. Click **Start** at the top of the list and confirm starting this service

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g. State will update to "RUNNING" mode after a few minutes.

6. Start 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,

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      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, please 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/CRMRCA/OBIEE11G/ which contains both CRMRCA.rpd and archived CRMRCA. Copy both the files to a local folder.

  b. Login to

      I.   OBIEE – Enterprise Manager URL (*http://<ip address>:<port>/em*).

      II.   Click the **coreapplication** hyperlink from **Business Intelligence** tab on the left.

      III.   Under **coreapplication**, select the tab **Deployment** and click **Lock and Edit Configuration** button located below title **coreapplication**. Following screen will show up.
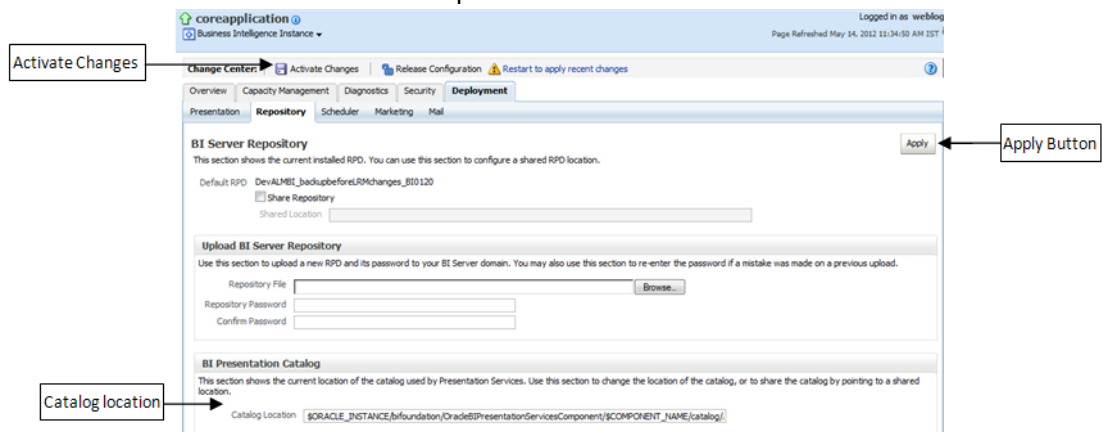
      IV.   RPD Deployment:

        1. Select **Browse** button available under *Upload BI Server Repository* section and select CRMRCA.rpd file from the local folder. Enter the Repository password as "Admin123".

      V.   Web catalog Deployment:

        1. Set the Catalog Location available under 'BI Presentation Catalog' like: "$ORACLE_INSTANCE/bifoundation/OracleBIPresentationServicesComponent/$COMPONENT_NAME/catalog/CRMRCA"

        2. Now click **Apply** and then click **Activate changes**. A pop up will be shown after successful activation.
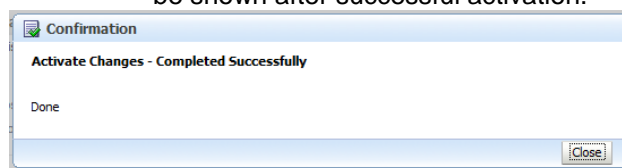
        3. Click **Close** and switch to **Capacity management** tab.

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

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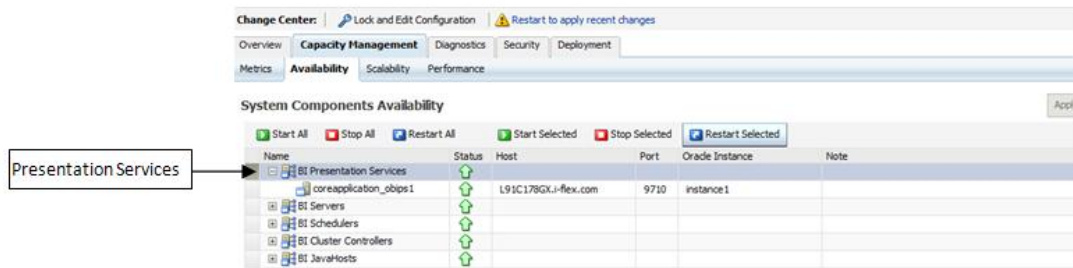
VI. Once the Presentation Service is restarted, it will give the pop-up for successful restart. Click **Close**.

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\CRMRCA

VIII. This 'CRMRCA' folder will be having a root folder which in turn contains three folders named 'shared', 'system' and 'users'.
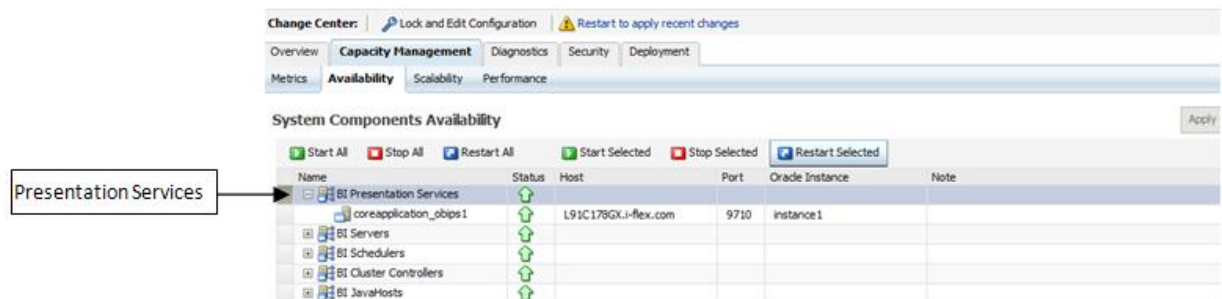
  c. Open the Catalog Manager
- a. Go to **File** and open the catalog online (File->Open catalog) by giving the necessary credentials based on your setup (Type - (online), URL - (*http://<ipaddress>:<port>/analytics/saw.dll*)).
- b. Once the catalog is opened, it will display a folder structure on left 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**.
- c. Select a driver specific to (Oracle BI Server 11g) and click **Finish**.
- 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**.

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  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 CRMRCA.rpd file.
  d. In the **Open** dialog box, select and open CRMRCA.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).
  t. Message.
  u. Close the RPD file (File/Exit).

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

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Trouble shooting

Problem: After logging into CRMRCA 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.

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Documentation

You can download the OBIEE installation and configuration guide from:

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

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Oracle Financial Services Retail Customer Analytics v6.0.2.0.0 Installation Manual

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Oracle Financial Services Retail Customer Analytics v6.0 Product

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