Oracle® Financial Services Analytical Applications Infrastructure (OFSAAI)

Installation and Configuration Guide

Release 7.2

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Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide, Release 7.2

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Contents

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Preface

1   About this Manual

2   Pre-Installation Activities

3   Infrastructure Installation Options

10 Post Infrastructure Installation Activities

11 Starting Infrastructure

12 System Configuration

13 Configuring Database Server Details

19 Post Application Installation Activities

20 Configuration of OFSAAI

21 Frequently Asked Questions

A Defining Application Sources

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Preface

Intended Audience

Welcome to Release 7.2 of the *Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) Installation and Configuration Guide.*

This guide is meant for use by the OFSAInfrastructure Application System Administrator. It provides step-by-step instructions necessary for installing this application.

See Related Information Sources on page xii for more Oracle product information.

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Structure

1 **About this Manual**
2 **Pre-Installation Activities**
3 **Infrastructure Installation Options**
4 **Pre-Installation Infrastructure Activities Checklist**
5 **WebSphere Configuration for Infrastructure Application Deployment**
6 **WebLogic Configuration for Infrastructure Application Deployment**
7 **Installing Infrastructure**
8 **Installing Secondary Application Server**

Related Information Sources

1

About this Manual

Introduction

Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) is a business intelligence application, developed by Oracle Financial Services Software Limited. It is a decision-support system that helps deliver information required for strategic, tactical, and operational decision making.

OFSAAI is a data management tool-set that is platform independent, and is designed to meet the needs of small, medium, and enterprise customers. It is also web-enabled and has an n-tiered architecture that provides the required security, scalability, and high availability.

Scope

Infrastructure architecture provides a choice of platforms to the end-user. The available options enable the end-user to choose the environment based on their preference, system performance and cost parameters.

This manual details the steps involved in installing OFSAAI in the released environment.

Organization of the Manual

The Installation Manual is organized into the following chapters.

Pre-Installation Activities section identifies the hardware and base software components that are required for a successful installation and functioning of the Infrastructure application. It also gives information on the Infrastructure Architecture.

Infrastructure Installation Options provides information on the two modes of Infrastructure Installation.

The *Pre-Installation Infrastructure Activities Checklist* outlines the pre-installation

activities that must be completed successfully prior to initiating the Infrastructure Installation Kit run.

WebSphere Configuration for Infrastructure Application Deployment outlines the steps required to create / delete a new profile in WebSphere.

WebLogic Configuration for Infrastructure Application Deployment outlines the steps required to create / delete a new domain in WebLogic.

Installing Infrastructure section details the steps to be followed during the infrastructure installation.

Installing Secondary Application Server details the procedure to be followed for Secondary Application Server instance.

Configuring the Servlet Engine section outlines the steps required to create and deploy the EAR file in WebSphere, WebLogic, Oracle Application Server, and WAR file in Tomcat.

Post Infrastructure Installation Activities section details the list of activities to be performed after the installation of the Infrastructure application.

Starting Infrastructure details the sequence and the process of starting this application.

System Configuration provides information on Configuring Server details.

Configuring Database Server Details outlines the procedure to be followed for configuring as well as defining the database server.

Configuring Details chapter provides details on configuring the application server, web server, database as well as on configuring the information domain. This chapter also provides the steps to be followed while adding database server details for DB server.

Resource Reference Configuration chapter provides information regarding Configuration of Resource Reference in Infrastructure Application, WebSphere Application Server, Oracle Application Server, as well as Tomcat Application Server. This chapter also provides the steps to be followed for Creating the Data Source in WebSphere Application Server, WebLogic Application Server, Oracle Application Server, as well as Tomcat Application Server. Further, this chapter also provides details on Configuring Multi Data Sources.

Uninstalling Infrastructure Components section provides step by step instruction to uninstall the Oracle Financial Services Analytical Applications Infrastructure application.

The *Pre-Installation Applications Activities Checklist* outlines the pre-installation activities that must be completed successfully prior to initiating the Application Installation Kit run.

Applications Installation chapter describes the installation process where the Three Product setup components are installed on separate machines with the Product installation on separate machines.

The *Post Application Installation Activities* chapter outlines the post-installation activities that must be performed once the installation of the Oracle Financial Services FTP, PFT, ALM, / ALM BI, and PFT BI / TPOL / HM IFRS Products are completed.

Configuration of OFSAAI chapter outlines the steps involved in Configuring for Model Upload Utility as well as Configuration for Dimension and Hierarchy Management.

Frequently Asked Questions chapter attempts to provide answers in resolving few of the OFSAAI Installation and configuration issues.

Since Infrastructure makes use of the Third Party Freeware, the license agreements for the same are attached in the concluding section of this manual.

Defining Application Sources chapter provides the steps to create an application source.

2

Pre-Installation Activities

Introduction

The list of pre-requisite hardware and software required to install and run the OFSAAI application is stated in this section. The installation process requires certain environmental variables to be set prior to starting the installation. Ensure that these requirements are met before performing the installation. You are requested to refer to the Release Notes for any updates on hardware or software requirements.

Environment

Please refer to Support Note 1070591.1 at https://support.oracle.com, for information on technology components that are required to install Oracle Financial Service Analytical Infrastructure.

Control Panel Settings

The Infrastructure application is an internationalized application. Therefore, if the user requires the display of the application in the local language, the local settings need to be specified on the client machine. Contact your System Administrator for assistance in installing and configuring the language and regional settings.

> **Note:** The availability of local language support is governed by the application license issued.

Infrastructure Architecture

The Infrastructure application is architected into 3 layers:

- The Application layer that hosts the application's business logic.

- The Database layer that hosts the application's back-end components.

- The Web layer that hosts the applications' General User Interface (GUI) components

Each layer installs its corresponding components. As mentioned earlier in the Hardware Environment section, the components can be installed on a single machine (referred to as the single-tier mode) or on multiple machines (referred to as the multi-tier mode).

3

Infrastructure Installation Options

Introduction

As explained in the earlier section, OFSAAI supports multiple deployment architectures. You must choose the architecture that best suits your business and technology needs. It is mandatory that you select the scenario (architecture) before proceeding with the installation.

There are two modes of Infrastructure Installation, Single Tier and Multi Tier.

Single-Tier Installation

You can install all the Infrastructure components – Application, Web and Database components –on a single machine. This option further warrants the Servlet Engine to be installed on the same machine.

Single Tier Installation with Database Engine on Remote Machine

You can also choose an option in the single tier architecture where the database engine is pointed to a remote machine. This particular architecture would be as follows:

- Infrastructure Application and Database components and Web components are installed on Machine A.

- Database Engine is pointed to Machine B.

> **Note:** Make sure that you have a TNS entry of Machine B in Machine A. In such cases, make sure that the database client of same version is installed in Machine A.

Single Tier Installation with Web Server on Remote Machine

You can also choose an option in the single tier architecture where the servlet engine is installed on a remote machine. This particular architecture would be as follows:

- Infrastructure Application and Database components and Web components are installed on Machine A.

- Infrastructure Web components are installed on Machine A for the creation of Infrastructure Application files (EAR/WAR files).

- Infrastructure Application files or EAR/WAR files are deployed on the Web server installed on Machine B.

  - EAR/WAR files are the Infrastructure Deployed files.

  - The creation and deployment of EAR/WAR files will have to be done manually.

    For more information on WebSphere EAR Files Creation and Deployment, see the sections WebSphere Enterprise ARchive Files Creation, page 9-3 and WebSphere EAR Files Deployment, page 9-4.

  - For more information on Weblogic and Oracle Application Server (OAS) EAR Files Creation and Deployment, see the sections WebLogic Configuration, page 9-16, and Oracle Application Server Configuration, page 9-26 respectively.

  - For more information on Tomcat WAR Files Creation and Deployment, see Tomcat Configuration, page 9-11.

Multi-Tier Installation

OFSAAI also supports multi-tier installation. Four installation options are described in this section. In each of the options, the assumption is that the servlet engine, Tomcat is installed on the same machine that will be used to install OFSAAI Web components.

In all the cases below where Multi Tier option is selected in the Infrastructure Installation Mode screen, the components (Application, Database or Web), that are being installed in the particular machine must be selected in the Choose Component(s) screen.

Multi-Tier Installation-Option I

You may choose to install the three components on separate machines with the servlet engine on the same machine identified as the infrastructure web server.

This particular architecture would be as follows:

- Infrastructure database components are installed in Machine A

- Infrastructure Application components are installed on Machine B

- Infrastructure web components are installed on Machine C

- Web server is installed in on Machine C

Multi-Tier Installation-Option II

You may choose to collapse the Infrastructure Database and Application layers into one machine and host the Infrastructure web layer along with the servlet engine on a separate machine.

This particular architecture would be as follows:

- Infrastructure database and application components are installed on Machine A

- Infrastructure web components are installed on Machine B

- Web server is installed on Machine B

Multi-Tier Installation-Option III

You can choose to host the Infrastructure database components on a separate machine and collapse the Infrastructure application and web layers along with the servlet engine onto a separate machine.

This particular architecture would be as follows:

- Infrastructure database components are installed on Machine A

- Infrastructure application and web components are installed on Machine B

- Web server is installed on Machine B

Multi-Tier Installation-Option IV

You can also choose to host the Infrastructure Application components on a separate machine and collapse the Infrastructure database and web components along with the servlet engine on a separate machine.

This particular architecture would be as follows:

- Infrastructure database and web components are installed on Machine A

- Infrastructure application components are installed on Machine B

- Web server is installed on Machine A

Note

- For all multi-tier installation options stated, the Infrastructure database components must be installed first.

- In all multi tier installations, communication must be established between machines A and B either through IP addresses or hostnames.

- In all the above multi-tier options, you also have the provision to configure the database engine in a Remote machine. This requires a TNS entry of database engine machine in database components machine. In such cases, the machine that has the database components installed on it requires the database client of the same version to be also installed on it.

- In case of multi-tier installation, the tnsname and SID should be same in both the application and database layers.

Distributed Infrastructure Application Server

With the increase in data handled/managed by the Infrastructure server and its various services, it is increasingly becoming apparent that the server needs to be scaled out / distributed across different JVMs (machines). In earlier versions, the server did not have the functionality to distribute the various services. However, the current functionality allows the server for distributing the load based on different information domains. Each of this distributed Infrastructure Application Server known as Oracle Financial Services Analytical Applications Infrastructure application instance.

The main features of Infrastructure Application Instance are:

- Distribution based on both services and information domains.

- Availability of an Administrative Console to monitor the Servers which allows the user to decide the number of application server instances on which the instance needs to be distributed based on different services and information domains. Load balancing is achieved by the distribution of services.

The first Infrastructure application Instance would be termed as the Default Application

Instance.

4

Pre-Installation Infrastructure Activities Checklist

Introduction

Before the OFSAAI installation Kit program is run, ensure that the pre-installation activities mentioned in the checklist below are completed successfully.

√	Tasks
General Configuration	Ensure that the pre-requisite base software has been installed and administered on each machine, as outlined in the Environment, page 2-1.
	Make sure that you have approximately 1.4 GB hard disk space in your /tmp mount. This is required for Infrastructure installation and will be released once the installation is complete.
	Create a separate Unix user account on the released environment machines on which Infrastructure components will be installed. Note that the shell prompt set for these user accounts should be korn shell. These user ids will be used to log on to the machines and initiate the installation process. By default, the home directory would have 755 UNIX permission. Make sure that these newly created user accounts also have 755 UNIX permission. This user should not be the same user used for Oracle database application installations.

Note: This section is applicable if the OS is LINUX.

The total file descriptor for the user must be set to a minimum value of 3096.

To check total file descriptor use the following command:

```
ulimit –n
```

Ensure IBM XL V9 runtime compiler is installed on all the machines used for OFSAAI installation if this is on AIX. It can be downloaded from the following link

http://www-1.ibm.com/support/docview.wss?rs=2030&context=SSJT9L &uid=swg24015997&loc=en_US&cs=utf-8&lang=en

Download Package Name is xlcpp.rte.9.0.0.aix.base.tar.Z

Note: The above section is applicable if the OS is AIX.

Hummingbird Exceed 7.0 must be available on all the machines. This is required to run the Installation Kit. This is required to run the Installation Kit in **GUI** Mode. However this software is not required if the installation mode is **SILENT**.

On all machines in which Infrastructure components will be installed, the PATH variable in the user profile of the machines must point to Java Runtime installation. The machine on which the Infrastructure Web components are installed, the PATH variable in the user profile of the machine must point to Java Development Kit installation.

Note:

- In Java 64 bit installed on Solaris, the PATH variable must be set till *sparcv9*. The same path must be selected during the installation.

  Example

  /usr/jdk/instances/jdk1.6.0/bin/sparcv9

- In Java 64 bit installed on HPUX, the PATH variable must be set till *IA64W*.

  Example

  /opt/java6/bin/IA64W

It is recommended that Java is installed in the directory and the directory name should not contain spaces. If installed in the path with spaces, OFSAAI may not work

SMTP services must be running on any one of the machines. The machines need not be the ones identified for installation of Infrastructure components. This is required by the Rule Engine modules of Infrastructure. This configuration is optional.

The machines that will be used for the installation of Infrastructure components must be on the network and must be able to resolve each other's hostname. This is required in the event the installation is required to be performed using the hostnames instead of the IP addresses.

If multiple machines are used for the Infrastructure installation, the server date & time set at each machine must be the same. Different date-time settings on each machine will lead to improper functioning of the scheduler in the Infrastructure application.

ERwin 7.1 or 7.3 is used for data modeling; the RAM size of the infrastructure application-tier should be proportional to the size of the ERwin model. For optimal performance in Application Server layer of OFSAAI, the RAM size must be around 20 times the size of the Erwin model.

The minimum space required for installing the Infrastructure components is given below. Make sure that the machines in which the Infrastructure components are installed have the following minimum required space.

- Infrastructure Application Layer - 113 MB

- Infrastructure Database Layer - 125 MB

- Infrastructure Web Components - 275 MB

- Infrastructure EAR/WAR file deployment in web layer - 307 MB

- Space used for WebSphere Profile Creation – 200 MB

- Space for Oracle Application Server – 250 MB

- Space used for Tomcat - 270MB

Note: Make sure that /tmp area has a minimum of 1200 MB space.

Enable http-compression on the web-server (note that some web-servers may require specific plugins to enable http-compression). This has to be done by the data-center administrators.

Oracle Database Configuration

The Oracle Service and the Oracle TNS listener must be started on the machine which is designated as Infrastructure Database Server.

The Oracle SID that will be used by the application must be specified as an appropriate entry in tnsnames.ora.

In case of multi-tier installation, the tnsname and SID should be the same in both the Application and Database Layers.

The oracle instance must be created with the default NLS_NCHAR_ CHARACTERSET as AL16UTF16.

The oracle instance must be created with the default NLS_LENGTH_SEMANTICS as BYTE

The oracle database alias name created for oracle instance and oracle service name should be the same.

OFSAAI installation requires a minimum of two database schema users, usually referred to as the "Config" schema and "Atomic" schema in OFSAAI.

Configuration schema refers to the master schema, which stores the Server Details and Configurations required for the Infrastructure to work. The configuration schema also stores the Infrastructure security mapping and configurations along with Infrastructure and installed application(s) common Metadata. Atomic schema is specific to an Information domain created, which stores all the data and specific metadata for the application(s) being installed.

The database users (Config and Atomic schema) must be created prior to the Installation. These database users used by OFSAAI require a set of privileges (database permissions). Login to the database as **sys** and connect as **sysdba** user. Execute *privileges_config_user.sql* shared with the Infrastructure install kit to grant all the privileges required for the Config database user. Additional privileges for Atomic schema user should be granted post Infrastructure install. See Post Installation Configuration for further steps for the Atomic schema.

Note:

- Database cursors needs to be set to minimum 200

- Default and Temporary table space assigned to Oracle user should be allocated with required quotas.

- To check the OPEN_CURSORS value, use the following command. select * from v$parameter where NAME='open_cursors'

- To set the OPEN_CURSORS value, use the following command. ALTER SYSTEM SET OPEN_CURSORS=200

On the machine which is designated to be the Infrastructure database server, ensure that the ORACLE_HOME is set pointing to the Oracle installation path. This path should be included in the .profile file of the user installing the application.

Care should be taken to ensure that at least 512 MB temporary table space and at least 512 MB default table space of the oracle instance created are available in the machine in which Infrastructure Config schema will be installed.

Ensure that 10 MB quota is granted to the user on the default and temporary table space

If the Infrastructure database components and Infrastructure database server engine is designated on two different physical machines:

- Oracle client must be installed in the system where Infrastructure Database Components are being installed.

- The Oracle SID that will be used by the application must be specified as an appropriate entry in tnsnames.ora file in the system where Infrastructure Database Components are being installed and also in the system where Oracle Database Server Engine is installed.

- Make sure that the tnsname and SID are the same in both the Database Components Layer and Database Server Engine.

Ensure that you have the following Oracle details handy before you start the installation:

- Oracle connection string (SID) on the machine that hosts Oracle database.

- Port on which the Oracle service is running is available.

- Oracle username and password of the oracle instance on the machine that hosts the Oracle database.

- Oracle driver Path on the machine in which Infrastructure Database components will be installed.

In case of multi-tier installation of Infrastructure, where the Database server and Application Server are in different machines, the Application Server must have Oracle Database Client installed.

Locale Settings

The following locales must be installed on the machine in which Infrastructure Database components will be installed.

- en_US.UTF-8

- en_US.ISO8859-1

Tomcat related Prerequisites

Ensure that Tomcat is installed in directories where the directory names do not contain spaces. If the directory name contains spaces, then accessing the application may pose problems.

Uninstall any previously deployed applications hosted in Tomcat. This must be done prior to the start of the installation. (For more details, see Uninstalling Previously Deployed WAR Files in Tomcat, page 16-3).

Ensure that the Tomcat Server is not running.

The user ID that will be used to install the Infrastructure Web components must be given write permissions to the Tomcat installation directory.

Set the CATALINA_HOME environment variable to the Tomcat Installation directory.

You must have the following information about your Tomcat web server available and handy before you start the installation:

- The Tomcat Installation directory on the machine in which Infrastructure Web components will be installed.

- The path in which the Infrastructure Application files will be deployed in the machine that hosts Tomcat.

Example

Example: /home/revcat/apache-tomcat-6.0.20.

WebLogic related Prerequisites

- WebLogic Application Server should be up and running.

- A WebLogic Administration User ID having privileges to deploy an EAR file on the machine that hosts WebLogic must be created.

- Uninstall any previously deployed applications hosted in WebLogic. This must be done prior to the start of the installation. (For more information, see Uninstalling Previously Deployed EAR Files in WebLogic, page 16-5).

Oracle Application Server related Prerequisites

Session Timeout Setting

You must set the timeout value in the http.conf file in <Oracle Application Server Installation Directory >/ product/10.1.3.1/OracleAS_1/Apache/Apache/conf to 1800 minimum.

Default value is 300 and this needs to be increased accordingly when response could not be delivered within the set time.

Ensure that the Deploy Manager process in Oracle Application Server is running.

Default oc4j instance is created during the Oracle Application Server installation. Make sure that this oc4j instance is running.

Make sure that all the services of the Oracle Application Server are started using the following command:

```
<OAS HOME>opmn\bin\opmnctl startall
```

Note: When Oracle Application Server is started from command prompt using the "opmnctl start all" command, all the services of Oracle Application Server along with Deploy Manager process will be started. But, if the Deploy Manager process of the Oracle Application Server is not started properly, deployment may fail. Then, deployment of OFSAAI application will have to be done manually. For instructions on manual deployment, see Deploying OFSAAI Application in Oracle Application Server section, page 9-27.

Have the following information available and handy before you start the installation:

- Decide the architecture in which Infrastructure is to be deployed before you start the installation. The architecture options are briefly outlined in the Infrastructure Installation Options, page 3-1 For more information on the modes of installation, see Installing Infrastructure, page 7-1.

- Identify the machines on which Infrastructure Database, Application, and Web components will be installed.

- The Infrastructure License Key and alphanumeric Customer Identification Number that has been made available to you.

- The IP Addresses or Hostnames of the machine(s) in which Infrastructure components will be installed.

- The Full path where Infrastructure will be installed in each of the machines.

- The port number on which the servlet engine is running. (The default port for Websphere / Tomcat / Weblogic / Oracle Application Server is 9080 / 8080 / 7001 / 7777). If you use a port number that is different from the default value, you must configure the port immediately after the installation. Contact your WebSphere / Tomcat/ Weblogic / Oracle Application Server Administrator for more information. This port number is to be given as the servlet port during OFSAAI installation.

- If Infrastructure Application needs to be configured for HTTPS (SSL),

- For Websphere the HTTPS port would be configured during Profile creation. For more details, see WebSphere HTTPS Configuration section, page 9-11. This needs to be given as the servlet port during Installation.

- For Tomcat the HTTPS port would be configured in server.xml file under <Tomcat installed directory>/conf. For more details, see SSL Port Configuration, page 9-15. This needs to be given as the servlet port during Installation.

- If Oracle Infrastructure Application needs to be configured for HTTPS (SSL), note the HTTPS port that would be configured in Weblogic during Domain creation. For more details, see Weblogic HTTPS configuration, page 9-26. This needs to given as the Servlet port during Installation.

- For more details on configuring HTTPS in Oracle Application Server, see Oracle Application Server HTTPS Configuration, page 9-32.

- The path in which the EAR/ WAR file would be deployed in Web Container.

- The java Home Path on all machines.

SFTP Configuration

For SFTP configuration, **OpenSSH-4.3** software should be downloaded and installed in all the Infrastructure Server machines. You can download it from the following URL: http://www.openssh.com/openbsd.html.

Configuration of
Infrastructure Ports

The default ports that will be used on the machine in which Infrastructure Application components will be installed are as follows. Make sure that these ports are enabled on the machine before you start the installation.

- Infrastructure Server Java Port – 9999

- Infrastructure Server Native Port – 6666

- ICC Object Server Port – 6507

- ICC Native Server Port – 6509

- Servlet Port – 9080 (The default port for Websphere / Tomcat / Weblogic/ Oracle Application Server are 9080 / 8080 / 7001/ 7777).

The default ports that will be used on the machine in which Infrastructure Database Components will be installed are as follows. Make sure that these ports are enabled on the machine before you start the installation.

- Agent Port – 6510

- Router Port - 6500

- Activation Manager Port - 6505

- Message Server Port - 6501

- OLAP Data Server Port – 10101

- Servlet Port should be enabled in the machine on which WebSphere / Tomcat /WebLogic/ Oracle Application Server are installed.

Additional Information:

- The ports mentioned in the above two instances are the default ports. During the installation process, you are allowed to change the port numbers. If you are changing the port numbers, make sure that the ports are enabled on the machine.

- The servlet port can have 80 or 443 as port numbers if Default http/https ports are being used.

The FTP Port (21) or SFTP Port (22) and protocol must be enabled on

the machines on which Infrastructure Application and Database components will be installed.

Essbase
Configuration

On the machines in which OFSAAI Database components installed, the HYPERION_HOME and ARBORPATH environment variables in the user profile must point to the location where Hyperion Essbase has been installed and Hyperion Essbase Client Directory respectively.

Example

HYPERION_HOME=/oracle/essbase

export HYPERION_HOME

ARBORPATH =/oracle/essbase/AnalyticServicesClient

export ARBORPATH

Make sure that the following library paths exist.

$ARBORPATH/api/lib

$ARBORPATH/bin

$HYPERION_HOME/common/ODBC/Merant/5.2/lib

Additional Information:

- Hyperion Essbase is required only if you are using the OLAP feature of OFSAAI

- ESSBASEPATH and ARBORPATH both refer to the same path.

WebSphere related
Prerequisites

You must set the timeout value in the soap.client.props file in [WebSphere_Install_Directory>/AppServer/profiles/<profile name>/properties to zero.

Following configuration steps are required to process struts request on WebSphere.

These steps allow processing the struts filter.

- Log in to **WebSphere Admin Console**.

- Navigate to Application Servers- ><server>->WebContainer Settings ->Web Container->Custom Properties.

- Add the following property-

  Property Name: com.ibm.ws.webcontainer.invokefilterscompatibility

  Value: true

Uninstall any previously deployed applications hosted in WebSphere. This must be done prior to the start of the installation. (For more information, see Uninstalling Previously Deployed EAR Files in WebSphere, page 16-2.

Configuration of xml

The **OFSAAI_InstallConfig.xml** must be populated for pre-configuring the Infrastructure installation.

OFSAAI_InstallConfig.xml can be populated by following ways.

1. Using XML_Utility.jar: XML_Utility will allow user to populate/pre-populate the OFSAAI_InstallConfig.xml with the required Interaction parameters in a GUI mode.

   - Run XML_Utility.jar under OFSAAI Installation kit directory by executing java –jar XML_Utility.jar.

   - Enter interaction parameters as per the installation architecture and click, **Create XML** to create new OFSAAI_InstallConfig.xml.

     OR

   - Select the existing OFSAAI_InstallConfig.xml under OFSAAI installer kit directory by clicking Prepopulate XML. Enter the required interaction parameters as per the installation architecture. Click, **Create XML** to re-create

the OFSAAI_InstallConfig.xml.

2. Manually update OFSAAI_InstallConfig.xml with required interaction parameters as given in the following sections.

   Note

   1. Copy the populated OFSAAI_InstallConfig.xml to the OFSAAI installer kit directory before proceeding with OFSAAI installation.

   2. Hummingbird Exceed is required to invoke XML_Utility on the remote server.

This file contains the following four layers.

- GENERAL

- APPLICATION

- DATABASE

- WEB

Layers are divided into different Interaction Groups. The Interaction Group defines the type of Interaction Variables. Interaction Variables contains the Interaction Parameters required for the installation of Infrastructure.

> **Note:** No Interaction Variables value can be NULL. Retain NA for any variable that is not applicable for installation.

Layer - GENERAL

The Layer, GENERAL (<Layer name = "GENERAL">) contains the following nodes which enable to define the parameters for the following Interaction groups.

- OFSAA Infrastructure LicenseKey – Specify the LicenseKey for installation

- OFSAA Infrastructure Customer Code – Specify the Customer Code for the installation

- Infrastructure Installation Mode – Specifying the Installation Mode as Single Tier or Multi Tier

- Choose Component(s) – Choosing the Infrastructure components to be installed.

- Installation Directory – Specifying the path where Infrastructure components must be installed.

- WebServer Type – Specifying the servlet engine as Tomcat, WebSphere, WebLogic or OAS

- Absolute Java Path – Specifying the Java path where the Java executables resides.

- Infrastructure Server Details – Specifying the IP addresses of Application server, Web server, Database components, Database server and SMTP server.

- Database Details – Specifying the Config Schema user name, connect string (SID), port and driver path.

The variables under the Layer, GENERAL needs to be configured mandatorily for all types of installations. All the nodes for this layer are listed in the following sections.

OFSAA Infrastructure LicenseKey

This node is for License Key for installation. Following is the code for this node.

```
<InteractionGroup name="OFSAA Infrastructure LicenseKey">
  <InteractionVariable name="LICENSEKEY">NA</InteractionVariable>
</InteractionGroup>
```

> **Note:** This node can be left NA if installation is done in GUI mode.

OFSAA Infrastructure Customer Code

This node is for Customer Code for installation. Following is the code for this node.

```
<InteractionGroup name="OFSAA Infrastructure Customer Code">
  <InteractionVariable name="CUSTID">NA</InteractionVariable>
</InteractionGroup>
```

> **Note:** This node can be left NA if installation is done in GUI mode.

OFSAA Infrastructure Installation Mode

This node is for the Installation Mode. This can be as Single Tier or Multi Tier.

Following is the code for this node.

```
<InteractionGroup name="OFSAA Infrastructure Installation Mode">
<InteractionVariable name="INSTALLMODE">1</InteractionVariable>
</InteractionGroup>
```

INSTALLMODE variable requests the Installation Mode. You can select either Single Tier or Multi Tier depending on the Infrastructure application architecture you have decided.

For Single Tier, give 1 as parameter.

For Multi Tier, give 2 as parameter.

If Single Tier is selected, all the Infrastructure components (Infrastructure Web components, Infrastructure Application components, and Infrastructure Database components) are installed on one server machine. If Multi Tier is selected, each of the Infrastructure component(s) can be installed on different machines and you can choose the component which you want to install in a particular machine.

Choose Components

This node allows choosing the Infrastructure components to be installed.

Following is the code for this node.

```
<InteractionGroup name="Choose Component(s)">
<InteractionVariable name="ISAPPSERVER">1</InteractionVariable>
<InteractionVariable name="ISDBSERVER">1</InteractionVariable>
<InteractionVariable name="ISWEBSERVER">1</InteractionVariable>
</InteractionGroup>
```

Select the Infrastructure components that you want to install on the current machine. For Single Tier select all the components.

To select a component enter 1 as the parameter, else enter 0.

Installation Directory

This node allows specifying the path where Infrastructure components must be installed.

Following is the code for this node.

```
<InteractionGroup name="Installation Directory" >
 <InteractionVariable name=
"USER_INSTALL_DIR">/oradata6/revwb7/Oracle</InteractionVariable>
 </InteractionGroup>
```

Enter a valid path where all Infrastructure components (Web, Application, and Database Components) are required to be installed.

WebServerType

This node allows specifying the servlet engine as Tomcat, Websphere, Weblogic or Oracle Application Server.

Following is the code for this node.

```
InteractionGroup name="WebServerType" >
<InteractionVariable name="WEBSERVERTYPE">1</InteractionVariable>
</InteractionGroup>
```

For TOMCAT, give 1 as parameter.

For WEBSPHERE, give 2 as parameter.

For WEBLOGIC, give 3 as parameter.

For OAS, give 4 as parameter.

Absolute Java Path

This node allows specifying the Java path where the Java executable files reside.

Following is the code for this node.

```
<InteractionGroup name="Absolute Java Path" >
<InteractionVariable
name="JAVA_BIN">/usr/jdk/instances/jdk1.6.0/bin</InteractionVariable>
</InteractionGroup>
```

Enter the absolute path where the Java executable files reside.

OFSAA Infrastructure Server Details

This node allows specifying the IP addresses of Infrastructure Application server, Web server, Database components, Database server and SMTP server. Following is the code for this node.

```
<InteractionGroup name="OFSAA Infrastructure Server Details">
<InteractionVariable
name="APPSERVER">10.184.74.110</InteractionVariable>
<InteractionVariable
name="WEBSERVER">10.184.74.110</InteractionVariable>
<InteractionVariable
name="DBCOMP_IP">10.184.74.110</InteractionVariable>
<InteractionVariable name="DBSERVER">10.184.74.61</InteractionVariable>
<InteractionVariable name="SMTPSERVER"></InteractionVariable>
</InteractionGroup>
```

1. Enter the IP Address/hostname of the server under InteractionVariable name APPSEVER, in which the Infrastructure Application components is to be installed.

2. Enter the IP Address/hostname of the server under InteractionVariable name WEBSERVER, in which the Infrastructure WEB components is to be installed.

3. Enter the IP Address/hostname of the server under InteractionVariable name DBCOMP_IP, in which the Infrastructure Database components is to be installed.

4. Enter the IP Address/hostname of the server under InteractionVariable name DBSERVER, in which the Infrastructure Database Server is to be installed.

5. Enter the IP address of the machine on which SMTP service is running in the space provided under InteractionVariable name SMTPSERVER. This is optional and is required only for the mail configuration in the Data Entry Forms and Queries module of Oracle Financial Services Analytical Applications Infrastructure.

Database Details

This node allows specifying the Database user name to be configured as Config Schema, Instance ID (SID), Port on which database is listening and JDBC driver path.

Following is the code for this node.

```
<InteractionGroup name="RAC Details">
<InteractionVariable name="RAC_STATUS">0</InteractionVariable>
<InteractionVariable name="RAC_URL">
jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOS
T=10.184.108.91)(port=1521))(ADDRESS=(PROTOCOL=TCP)(HOST=10.184.108.92)(
PORT=1521))(LOAD_BALANCE=no)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=p
qadb))) </InteractionVariable>
</InteractionGroup>
```

> **Note:** The above code is applicable only if Oracle Database is configured to RAC

```
<InteractionGroup name="Database Details" >
<InteractionVariable name="DBUSER">configuser</InteractionVariable>
<InteractionVariable name="DBNAME">OracleSID</InteractionVariable>
<InteractionVariable name="DBPORT">1521</InteractionVariable>
<InteractionVariable name="ABS_DRIVER_PATH">/<<ORACLE_HOME>>/
jdbc/lib</InteractionVariable>
</InteractionGroup>
```

The ABS_DRIVER_PATH refers to the JDBC driver files path.

Additional Information:

- The absolute driver path should be mentioned.

- If 'RAC_STATUS' is 1, the DBSERVER value can remain as NA.

The Database user must have all the mentioned privileges in the Pre-installation checklist section.

Erwin Model Details
```
<InteractionGroup name="Erwin Model Size">
  <InteractionVariable name="ERWIN_VERSION">NA</InteractionVariable>
 </InteractionGroup>
```

> **Note:** ERWIN_VERSION will take value 7.1 or 7.3.

Layer - APPLICATION

The variables under this layer (LAYER name="APPLICATION") consists of the following nodes which must be configured for installations of Application layer as one of its component.

- Type of Application Server – Specifying the application server as Primary or Secondary server

- Secondary Application Server Details – If secondary application server is selected then javaport and native port details must be specified.

Type of Application Server

This node allows specify whether the application server is primary or secondary.

Following is the code for this node.

```
<InteractionGroup name="Type of Application Server" >
<InteractionVariable name="APP_SERVER_TYPE">1</InteractionVariable>
</InteractionGroup>
```

If you have already installed an Application Server and this is your secondary Application instance, select the Secondary Application Server Installation option by providing 2 as the value for APP_SERVER_TYPE.

Secondary Application Server Details

If the Secondary application server is selected then you must specify the Javaport and the Native port details.

Following is the code for this node.

```
<InteractionGroup name="Secondary Application Server Details" >
<InteractionVariable name="JAVAPORT">13410</InteractionVariable>
<InteractionVariable name="NATIVEPORT">13411</InteractionVariable>
</InteractionGroup>
```

Enter the Java Port and Native Port for the Secondary Application Server Instance.

The Port Numbers should range from 1025 to 65535.

Layer - DATABASE

The variables under this layer (LAYER name=" DATABASE") consists of the following nodes which must be configured for installations of DATABASE layer as one of its component

- WebServer-Context Root - Specifying the Context name for deployment.

- Infrastructure Communicating ports – Specifying the Infrastructure Java port, Infrastructure Native port, Agent port, ICC Object Server port, ICC Native Server port, Servlet port, Olap Data Server Port, Message Server port, Router port and the Activation Manager port.

WebServer-Context Root

Specifies the Context name for deployment. Following is the code for this node.

```
<InteractionGroup name="WebServer-Context Root" >
<InteractionVariable name="CONTEXT_PATH">OFSAAI</InteractionVariable>
<InteractionVariable name="HTTPS_ENABLE">0</InteractionVariable>
</InteractionGroup>
```

Context name will be used in your Application URL.

Example

http://<<WebserverIP>>:<<WebServer Port>>/<<ContextName>>/login.jsp

To select HTTPS as Server Protocol provide 1 as the parameter in variable HTTPS_ENABLE, else give 0

OFSAA Infrastructure communicating ports

The Infrastructure Java port (JAVAPORT), Infrastructure Native port (NATIVEPORT), Agent port (AGENTPORT), ICC Object port (ICCPORT), ICC Native Server port (ICCNATIVEPORT), Servlet port(SERVLETPORT), Message Server port (MSGPORT), Router port (ROUTERPORT)and the AM port (AMPORT) must be specified. Following is the code for this node.

```
<InteractionGroup name="OFSAA Infrastructure Communicating ports" >
<InteractionVariable name="JAVAPORT">9999</InteractionVariable>
<InteractionVariable name="NATIVEPORT">6666</InteractionVariable>
<InteractionVariable name="AGENTPORT">6510</InteractionVariable>
<InteractionVariable name="ICCPORT">6507</InteractionVariable>
<InteractionVariable name="ICCNATIVEPORT">6509</InteractionVariable>
<InteractionVariable name="SERVLETPORT">9080</InteractionVariable>
<InteractionVariable name="MSGPORT">6501</InteractionVariable>
<InteractionVariable name="ROUTERPORT">6500</InteractionVariable>
<InteractionVariable name="AMPORT">6505</InteractionVariable>
</InteractionGroup>
```

Enter the desired port numbers against the InteractionVariable.

The Port Numbers should range from 1025 to 65535.

The servlet port can have 80 or 443 as port numbers if Default http/https ports are being used.

You can choose to perform port changes as a post installation activity. For more details, see Configuration of Infrastructure Ports, page 10-9.

Layer - WEB

The variables under this layer (LAYER name=" WEB") consists of following nodes which must be configured for installations of WEB layer as one of its component.

- OFSAA Infrastructure Web Services – Specify if the web services needs to be configured.

- Explorer Proxy Details - If opted to configure OFSAA Infrastructure Web Services, configure the explorer proxy details.

- OFSAA Infrastructure Content Management Settings - Required to be configured with Oracle Financial Services Analytical Applications Infrastructure Content Management details if the OFSAAI Infrastructure license includes the Forms Framework module.

- WEBSERVER PATH – Specifying the Application Deployment Path under the selected Webserver.

- Weblogic Setup Details – Specifying the WebLogic Domain Home Path.

OFSAA Infrastructure Web Services

To configure Infrastructure Web Services provide 1 as the parameter in variable WEB_SERVICES, else give 0.

```
<InteractionGroup name="OFSAA Infrastructure Web Services">
<InteractionVariable name="WEB_SERVICES">1</InteractionVariable>
</InteractionGroup>
```

Explorer Proxy Details

If Infrastructure Web Services is selected, then provide the details that are required to communicate with external web service.

```
<InteractionGroup name="Explorer Proxy Details">
<InteractionVariable name="PROXYHOST">proxysouth.i-flex.com
</InteractionVariable>
<InteractionVariable name="PROXYPORT">8080</InteractionVariable>
<InteractionVariable name="PROXYUSERNAME"></InteractionVariable>
<InteractionVariable name="PROXYPASSWORD"></InteractionVariable>
<InteractionVariable name="NONPROXYHOST">
10.*;*.iflex.com;*.i-flex.com;192.168.*;202.46.217.*;*.oraclecorp.com;or
acle.com</InteractionVariable>
</InteractionGroup>
```

Http Proxy host: Specify the Address of the http Proxy Server

Http Proxy Port: Specify the Port Number for the Proxy Server

Http Proxy User Name: Specify the User ID to get authenticated by the Proxy Server

Http Proxy Password: Specify the User Password to get authenticated by Proxy Server

Http non-Proxy Hosts: Specify the hosts for which the proxy settings should get by-passed.

> **Note:** The hosts that are entered in the Http non-Proxy Hosts field must be separated by the "|" symbol. Example:
> 10.80.*|*.i-flex.com|10.90.195.*

Infrastructure Content Management Settings

Required to be configured with Infrastructure Content Management details if the OFSAA Infrastructure license includes the Forms framework module.

```
<InteractionGroup name=" OFSAA Infrastructure Content Management
Settings">
<InteractionVariable name="STORE_AS">NA</InteractionVariable>
<InteractionVariable name="UPLOAD_AREA_CM">NA</InteractionVariable>
<InteractionVariable name="DOWNLOAD_AREA_CM">NA</InteractionVariable>
</InteractionGroup>
```

Enter the Content Store Name for Oracle Financial Services Analytical Applications Infrastructure in the STORE_AS field.

Example
DocStorage

Give the path to the folder (Content Upload Folder) that is to be used for uploading the content in the UPLOAD_AREA_CM field.

Example

/db2/revmock/ftpshare/Uploaddoc

Give the path to the folder (Content Download Folder) that is to be used for downloading the content in the DOWNLOAD_AREA_CM field.

Example

/db2/revmock/ftpshare/Downloaddoc

WEBSERVER PATH

Specify the Application Deployment Path for the selected Web Container.

```
<InteractionGroup name="WEBSERVER PATH" >
<InteractionVariable
name="WEBSERVERPATH">/oradata6/revwb7/tomcat/webapps</InteractionVariabl
e>
</InteractionGroup>
```

Depending upon the webserver selected, give the webserver path as follows:

If the webserver is tomcat, then give the path for Tomcat directory. If you have a non-standard installation of Tomcat which does not have the typical

[Tomcat_installation_directory]/webapps directory structure, then you must provide the directory path till /webapps.

Example

/home/data1/tomcat/webapps(in Unix).

D:\Tomcat\webapps (in Windows)

For Websphere, enter the path up to <WebSphere profile directory>/installedApps/ <NodeCellName>

Example

/data2/test//WebSphere/AppServer/profiles/<Profile_Name>/installedApps/aix-imfNod e01Cell

where aix-imf is Host name

For weblogic, provide the Weblogic home directory path.

Example

/weblogic/webl1013/bea/wlserver_10.3

For Oracle Application Server, path for the Oracle Application Server installation directory is required.

Example

/home/OracleOAS/j2ee/home/applications.

Weblogic Setup Details

Enter the following Information if the Webserver is WebLogic.

```
<InteractionGroup name=" Weblogic Setup Details" >
 <InteractionVariable
name="WEBLOGIC_DOMAIN_HOME">/home/weblogic/bea/user_projects/domains/myd
omain</InteractionVariable>
<InteractionVariable name="REMOTE_WEBLOGIC">1</InteractionVariable>
</InteractionGroup>
```

Enter the WebLogic Domain Home Path. Enter 1 as parameter for REMOTE_WEBLOGIC if the WebLogic is installed on a remote machine (In scenario where the Oracle Financial Services Analytical Applications Infrastructure Web components and WebServer are on two different Machines).

5

WebSphere Configuration for Infrastructure Application Deployment

WebSphere Configuration

To enable deployment of multiple Infrastructure applications on a single WebSphere, one must create a stand-alone application server. However, you can use the Profile Creation wizard to create additional stand-alone application servers.

A profile is the set of files that define the runtime environment. At least one profile must exist to run WebSphere Application Server. You can create profiles using the below command in WebSphere.

Creation of New Profile in WebSphere

The Profile is created in WebSphere through command line using the **manageprofiles.sh** which resides in *<WebSphere Install directory>/Appserver/bin*.

The command to create a profile **without admin** security through command line is as follows:

```
"manageprofiles.sh -create –profileName <profile> -profilePath
<profile_path> -templatePath <template_path> -nodeName <node_name>
-cellName <cell_name> -hostName <host_name>"
```

Example
```
$usr/home>./manageprofiles.sh -create -profileName mockaix –profilePath
/websphere/webs64/Appserver/profiles/mockaix –templatePath
/websphere/webs64/Appserver/profileTemplates/default -nodeName
ipa020dorNode04 – cellName ipa020dorNode04Cell -hostName ipa020dor
```

The command to create a profile **with admin** security through command line is as follows:

```
"manageprofiles.sh -create –profileName <profile> -profilePath
<profile_path> -templatePath <template_path> -nodeName <node_name>
-cellName <cell_name> -hostName <host_name> -enableAdminSecurity true
-adminUserName <Admin User Name> -adminPassword < Admin User Password>"
```

Example

```
$usr/home>./manageprofiles.sh -create -profileName mockaix -profilePath
/websphere/webs64/Appserver/profiles/mockaix -templatePath
/websphere/webs64/Appserver/profileTemplates/default -nodeName
ipa020dorNode04 -cellName ipa020dorNode04Cell -hostName ipa020dor
-enableAdminSecurity true -adminUserName ofsaai -adminPassword ofsaai
```

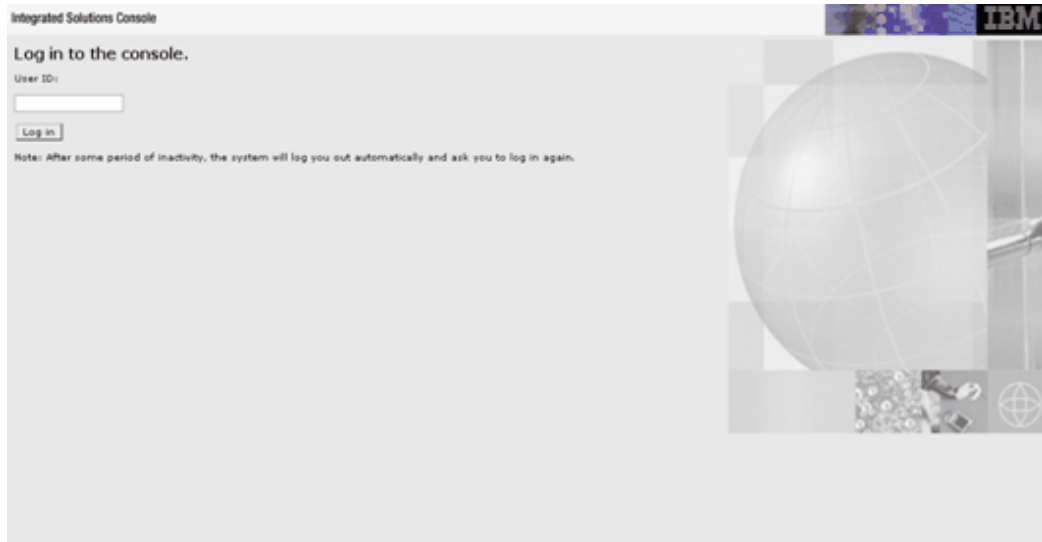To manage the installed applications in WebSphere, follow the steps given below:

Open this URL in the browser window:http://<ipaddress>:<Administrative Console Port>/ibm/console [http] .

The Administrative Console Port value can be taken from the **serverindex.xml** file in *<WebSphere Profile Directory>/config/cells/<Node Cell>/nodes/<Node Name>* directory.

The Integrated Solutions Console login screen is displayed. Log on with the user id that has admin rights.

Example

http://10.80.50.53:9003/ibm/console

In the left hand menu, expand the Applications > Application Type> WebSphere Enterprise Applications. The Enterprise Applications screen is displayed. All the installed applications are displayed in this screen.
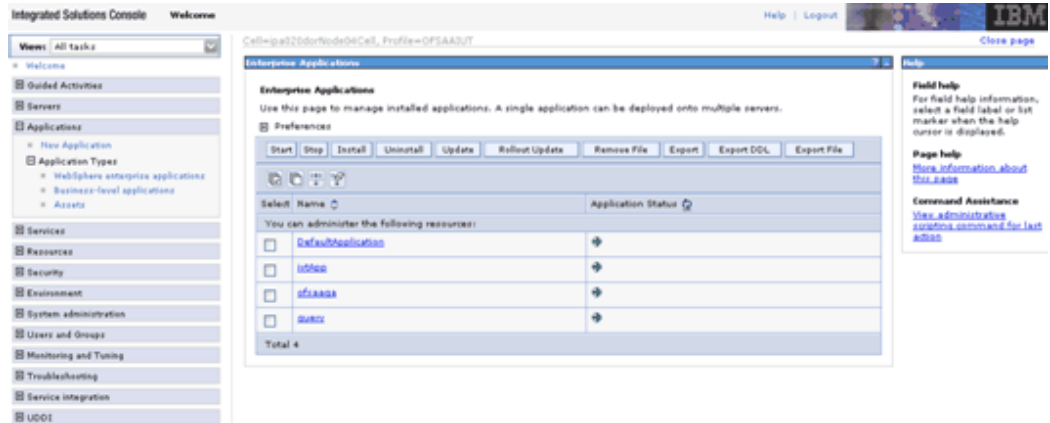
This page helps you in managing the installed applications. You can start or stop the Application Servers from here.

Deletion of WebSphere Profiles

The following steps can be done in cases where you need to delete a WebSphere profile:

- Stop the WebSphere profile to be deleted.

- Navigate to the <WebSphere_Installation_Directory>/AppServer/bin/ directory.

- Execute the following commands

- manageprofiles.sh -delete -profileName <profile_name>

- Delete the profile folder, for example:

  <WebSphere_Installation_Directory>/AppServer/profiles/profile_name>

- Execute **manageprofiles.sh -validateAndUpdateRegistry**.

6

WebLogic Configuration for Infrastructure Application Deployment

WebLogic Configuration

To enable deployment of multiple Infrastructure applications on a single WebLogic, one must create a stand-alone application server. However, you can use the Domain Creation wizard to create additional stand-alone application servers.

A domain is the set of files that define the runtime environment. At least one domain must exist to run Weblogic Application Server. Steps to create domain in Weblogic is stated below.

Creation of New Domain in WebLogic

Creating New Domain using Configuration Wizard in WebLogic

Navigate to the <weblogic_Home Directory>/wlserver_10.3/common/bin directory.

1. Execute **Config.sh** file. The Oracle WebLogic Configuration Wizard is displayed. This wizard will take you through the domain creation process.

Configuration Wizard

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ORACLE®
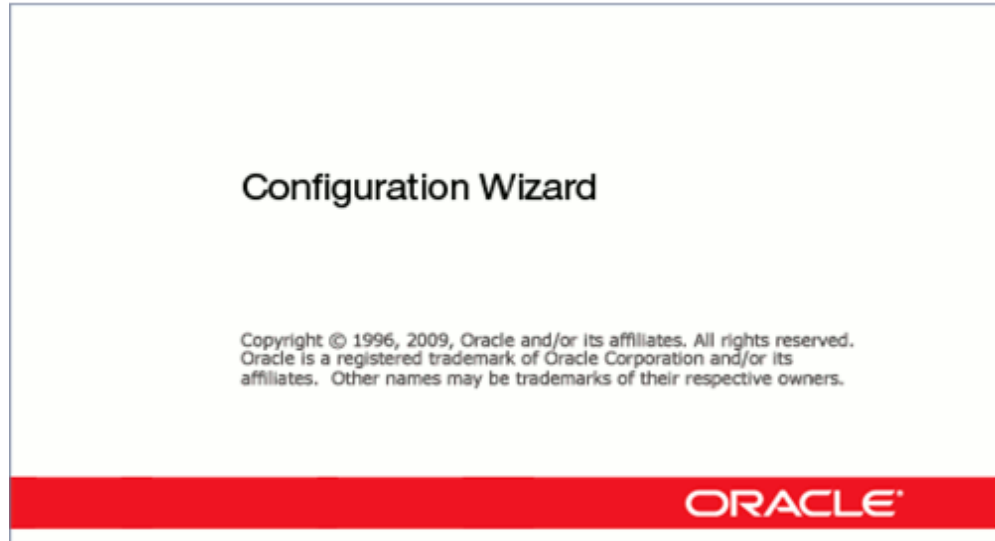
2. In the Welcome screen, to create a Weblogic domain, select the Create a new WebLogic domain option and click **Next**.
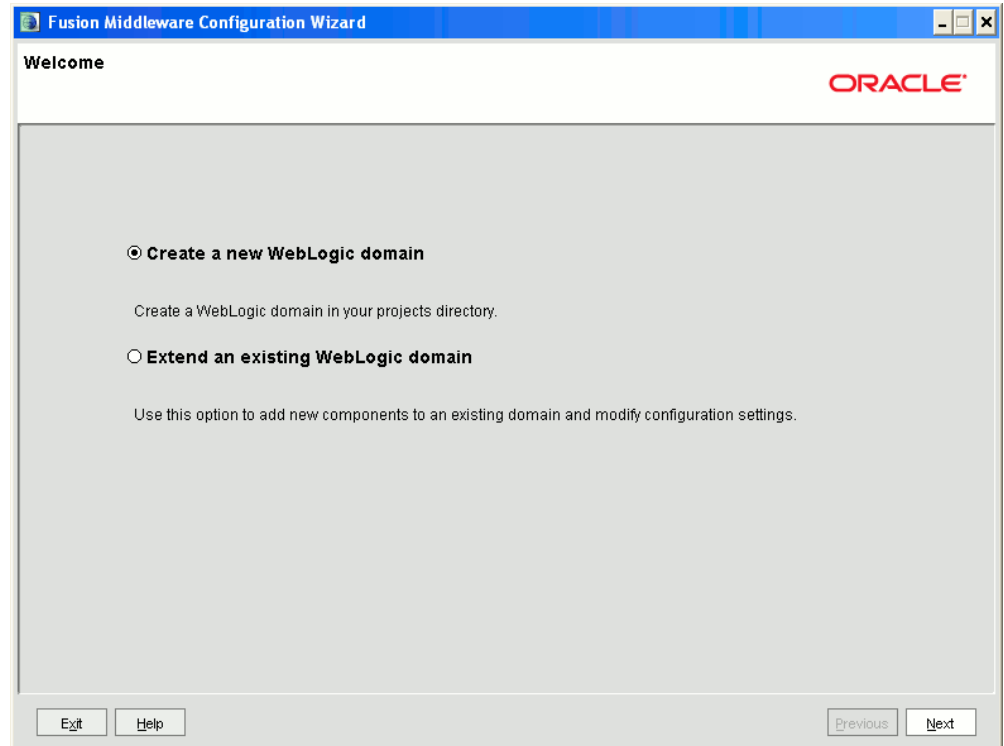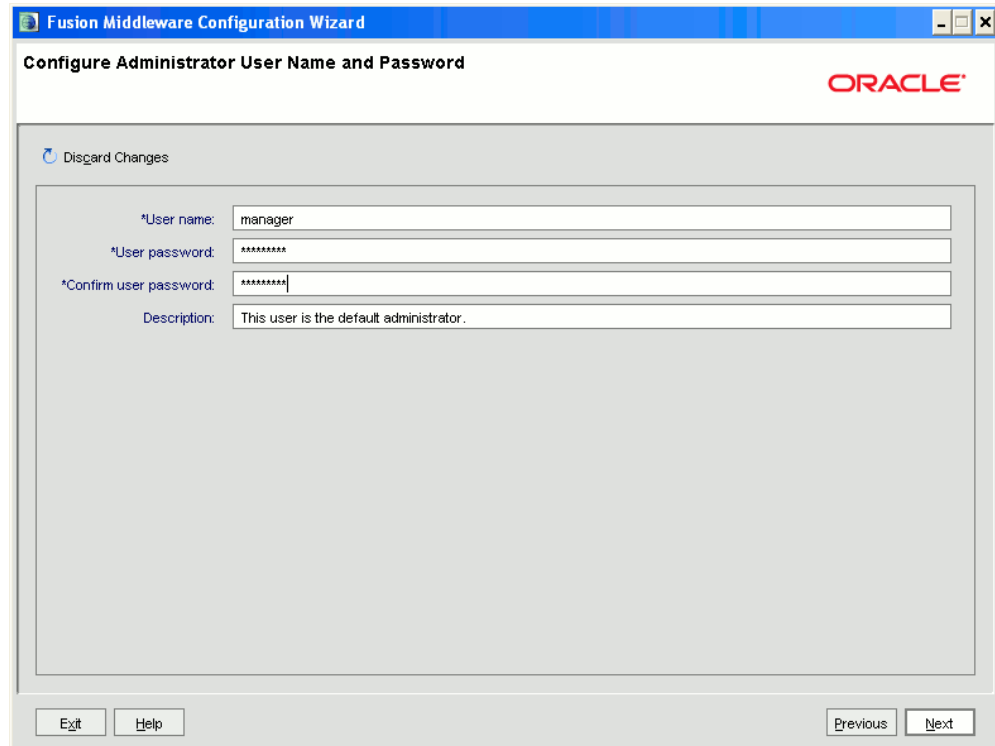
3. The Select Domain Source screen is displayed. Select Generate a domain configured automatically to support the following products option and click **Next**.
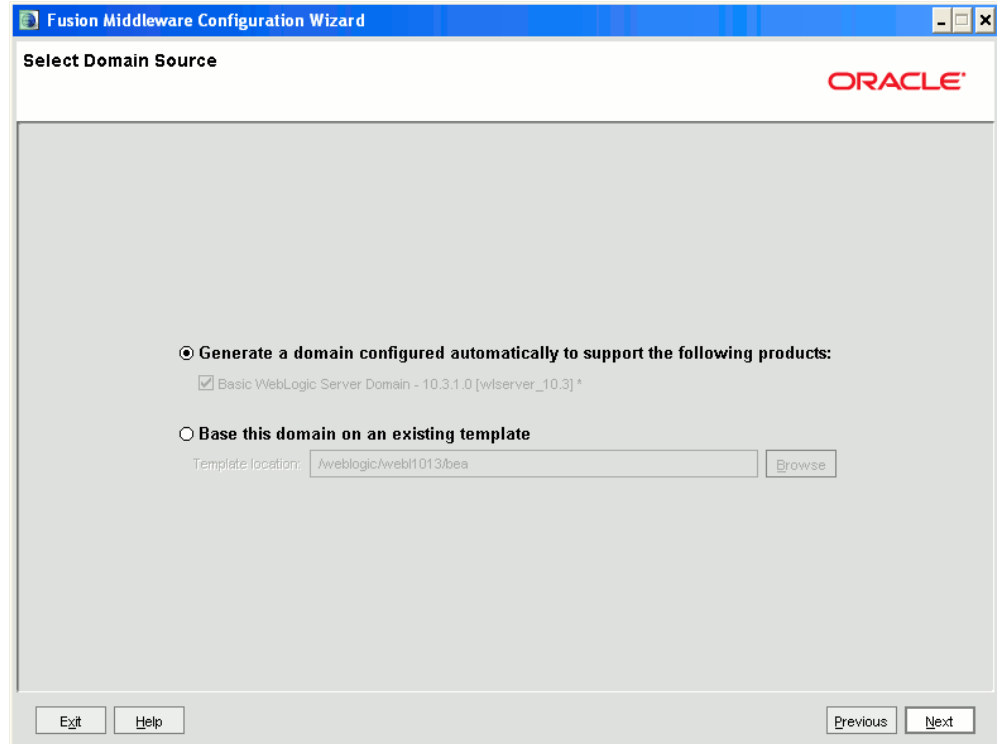
4. Enter the name and location for the domain and click **Next**. Click **Browse** to navigate to the WebLogic configuration directory.
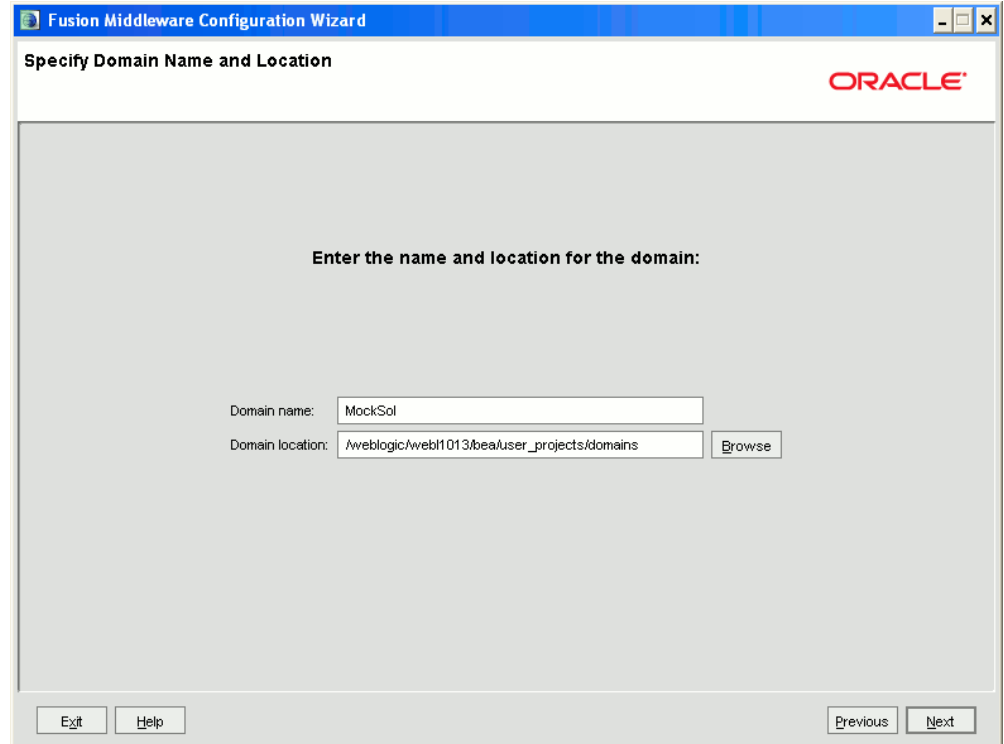
5. The Configure Administrator Username and Password screen is displayed. Enter the username and password to be assigned to the Administrator and click **Next**. Make sure that the password is of minimum 8 characters.

6. The Configure Server Start Mode and JDK screen is displayed. Under WebLogic Domain Startup Mode, select Development Mode. Under JDK Selection, select Other JDK option and Browse the required JDK option. Click **Next**.
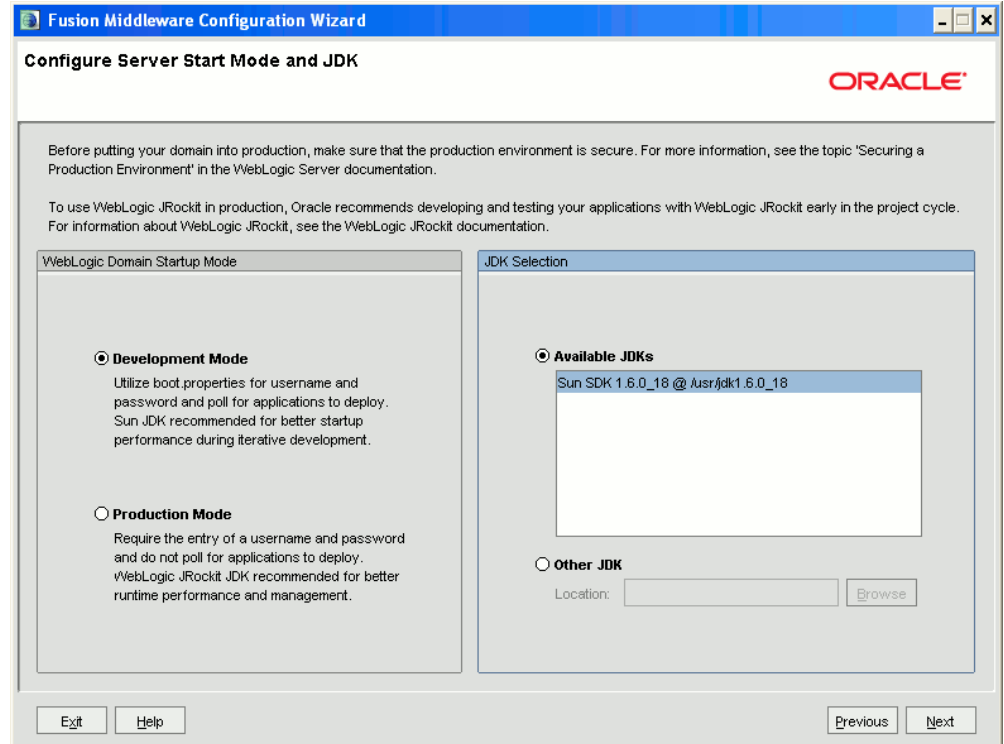
7. The Select Optional Configuration screen is displayed. Select the Administration Server option. The other two options (Manages Servers,Clusters and Machines and RDBMS Security Store) are optional. Click **Next** to continue.
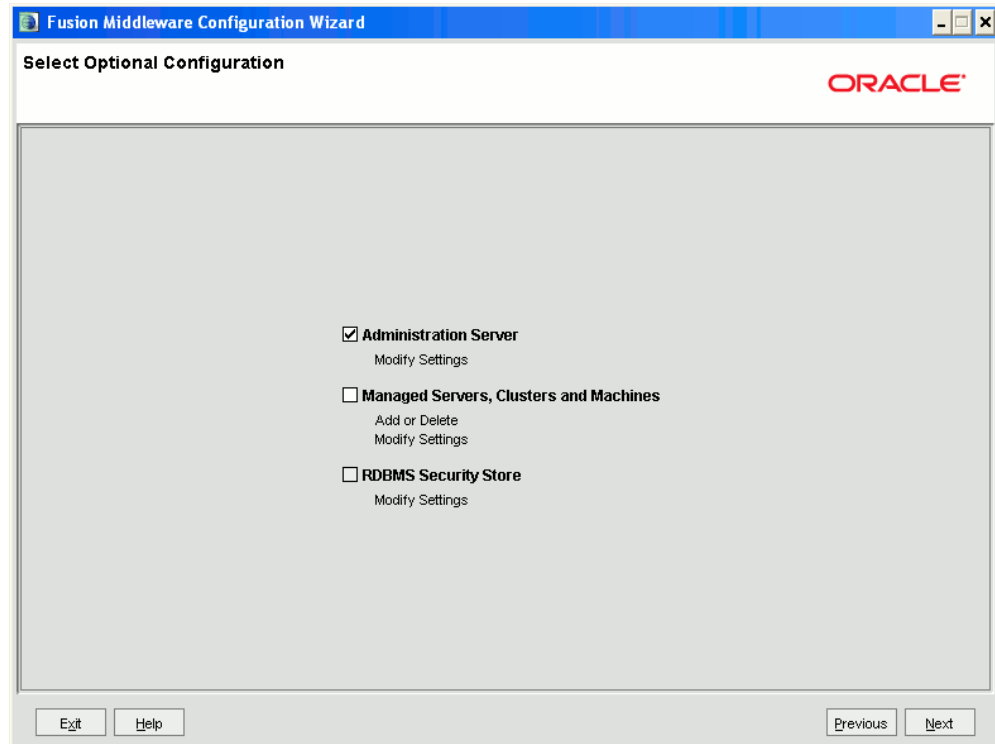
8. The Configure the Administration Server screen is displayed. Each WebLogic Server domain must have an Administration Server. Enter the details of the Administration Server such as the Name, Listen address, and Listen Port in the relevant fields.
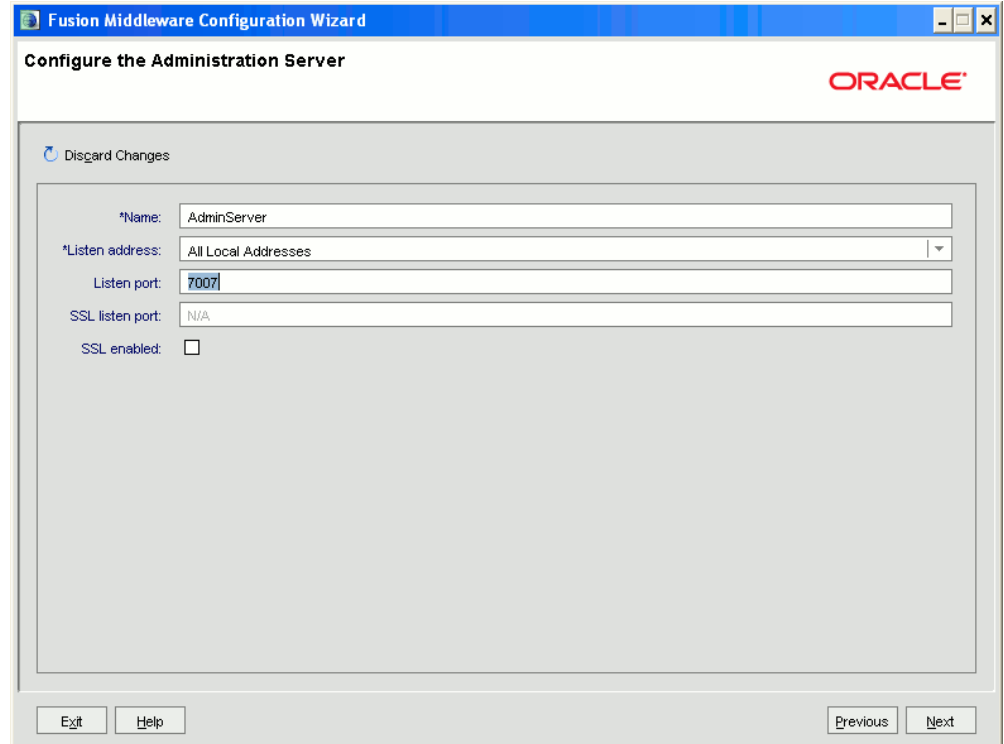
- Make a note of the Listen Port that would be keyed in here. Example: 7005. This port must be given in the servlet port field during Infrastructure installation.

9. The Review WebLogic Domain screen is displayed. Verify the contents of your domain in this screen and click **Create** to continue. This creates a domain server thereby enabling deployment of multiple Infrastructure applications on a single WebLogic.
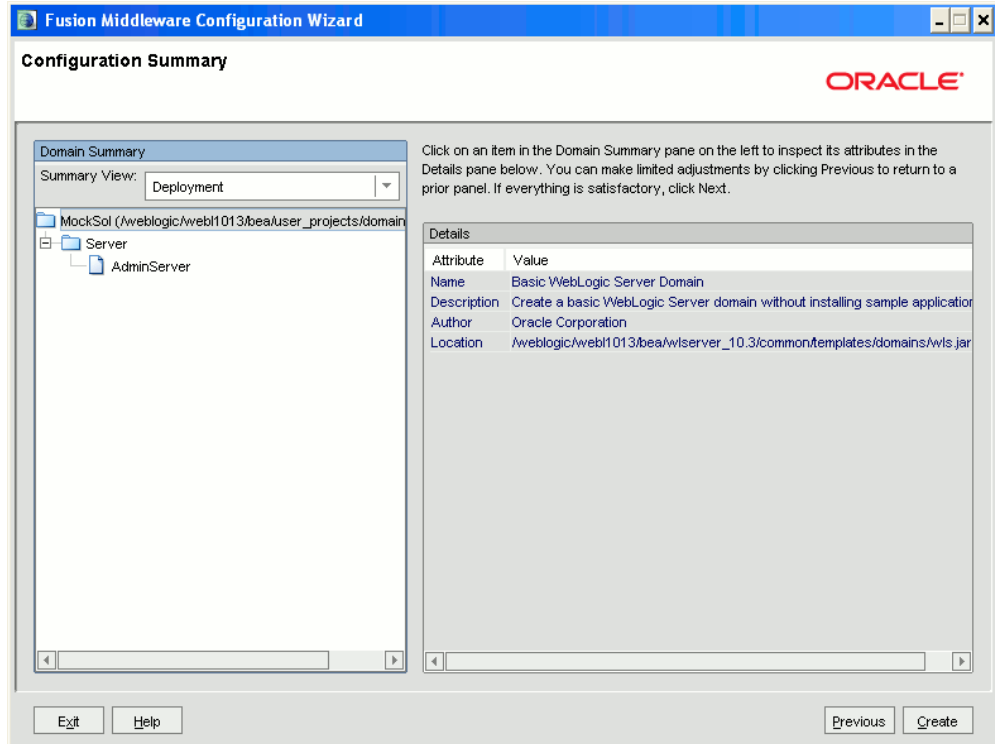
10. The Creating Domain screen displays the progress of the domain creation process. Once the domain is created successfully, click **Done**.
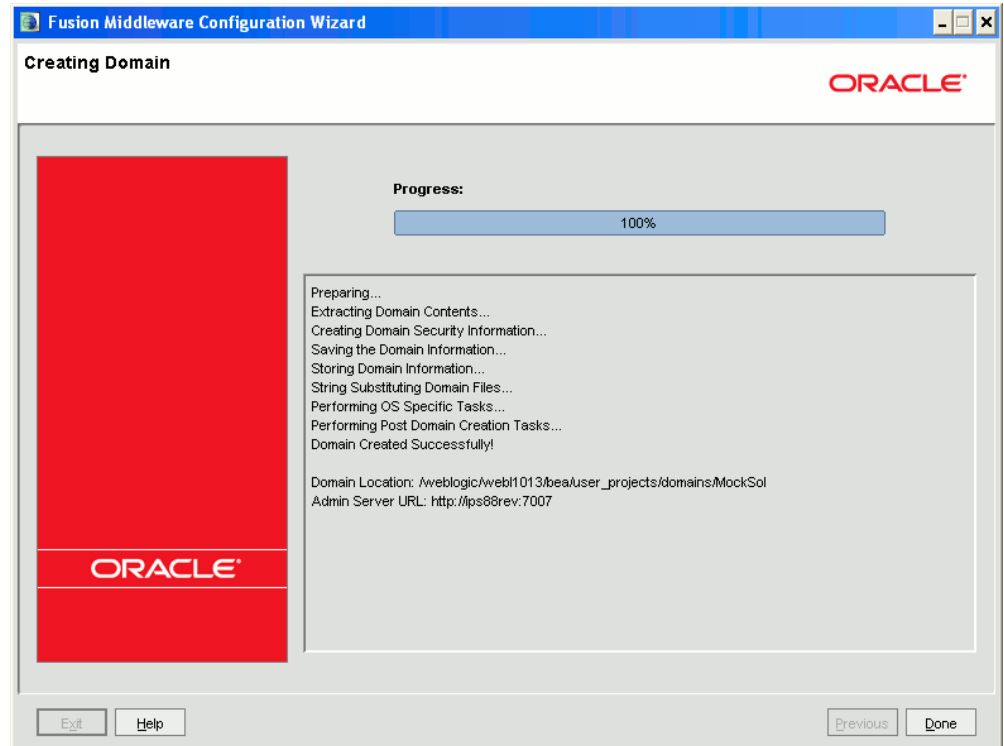
Deletion of a Domain in WebLogic

- Navigate to <WebLogic Installation directory>/user_projects/domains/<domain name to be deleted>/bin Directory.

- Execute stopWebLogic.sh to stop the Weblogic domain.

- Delete the directory<WebLogic Installation directory>/user_projects/domains/<domain name to be deleted>.

7

Installing Infrastructure

Installation Process

Step by step instructions for installing Infrastructure on a single tier mode is as follows:

1. Login with the Unix user on the machine and copy the files Setup.sh, OFSAA Infrastructure.bin, XML_Utility.jar, OFSAAI_InstallConfig.xml, validateXMLInputs.jar, libcpptripledes.so, libstlport.so.1 (Only if the installation is done on Solaris OS) and CustReg.DAT from the source (i.e. CD / E-delivery) into a particular directory.

   > **Note:** Copy Setup.sh, OFSAAI_InstallConfig.xml and CustReg.DAT in Text mode. Copy OFSAAInfrastructure.bin, XML_Utility.jar, validateXMLInputs.jar and libcpptripledes.so, libstlport.so.1 (if applicable) in binary mode to avoid control characters.

2. Grant execute permission for Setup.sh, OFSAAInfrastructure.bin, libcpptripledes.so, libstlport.so.1 (if applicable), OFSAAI_InstallConfig.xml, XML_Utility.jar, validateXMLInputs.jar and CustReg.DAT.

3. Pre-Populate/Populate the OFSAAI_InstallConfig.xml file with related information/values. For more information regarding the steps involved in populating the OFSAAI_InstallConfig.xml file, see Configuration of xml, page 4-13. This step is mandatory for both the modes of installation (GUI/SILENT).

4. Execute the **.profile.**

5. On the machine, navigate to the directory where Setup.sh has been copied. To begin the Infrastructure installation, Execute Setup.sh with either of the following options,

   - **./Setup.sh SILENT** - The SILENT mode of installation does not require any simulator. In SILENT mode of infrastructure installation you will be requested

key in some parameters in the command prompt. Provide the input requested data and proceed with the installation. On completion of the installation execute the .profile and check the installation logs.

> **Note:** Do not execute Setup.sh with SILENT option in the nohup mode.

- **./Setup.sh GUI** - The GUI Mode of installation requires Hummingbird Exceed to be running to bring up the installation Wizard/Panel. In GUI mode of installation you will be requested to key in some of the Installation parameters through the wizard.

6. You will return to the path from where you started the installation. Navigate to the user path. Run the .profile for the specified variables to take effect.

If the logs report a successful installation, you may proceed with the rest of the post installation activities as explained in the following chapters.

GUI Installation

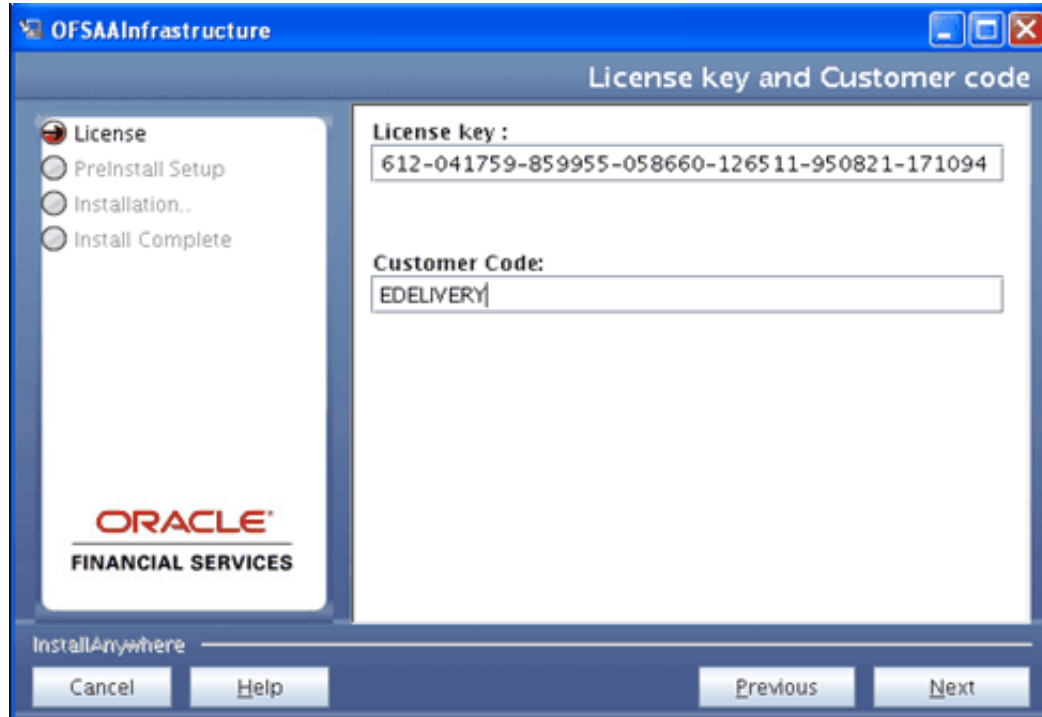The Installation process screen appears as shown in the figure.

The License Agreement screen displays the License Agreement. Accept the License Agreement and click **Next** to continue.
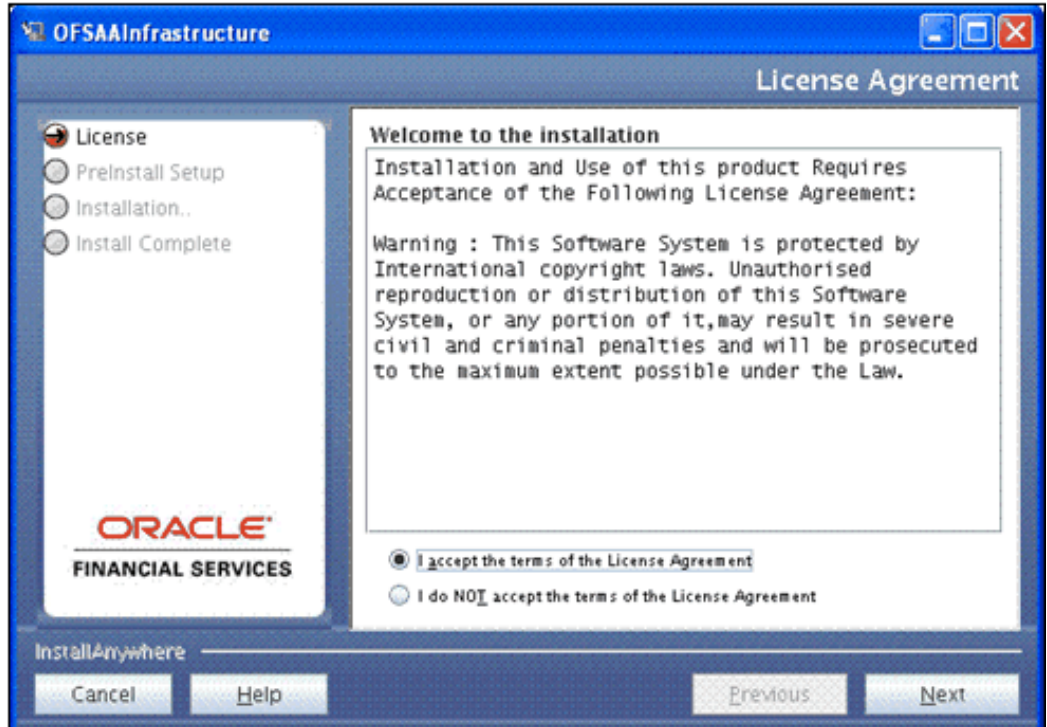
License Key and Customer Code:

Enter the license key in the License key field and **EDELIVERY** in all caps in the Customer Code text field.

- The License key is dependent upon the Applications to be installed. A different key is required if installing Oracle Funds Transfer Pricing, Oracle Profitability Management and/or Oracle Asset Liability Management. For further information on obtaining the correct key, please contact Oracle Financial Services Support.

- If an invalid license key is entered, an error message appears. Click **OK** to clear the error message and return to the License key screen to enter the correct license key.

License and Customer Details:

After the successful validation of the OFSAAI license and Customer Code, the License and Customer Details screen appears.

Details regarding the Operating System, Relational database, Number of licensed users, OFSAAI components license for installation, and local language support are displayed along with the customer who has acquired the OFSAAI License.

If the displayed information is different from the purchase order you have placed, exit from the installation and bring the discrepancy to the notice of Oracle Financial Service Support.
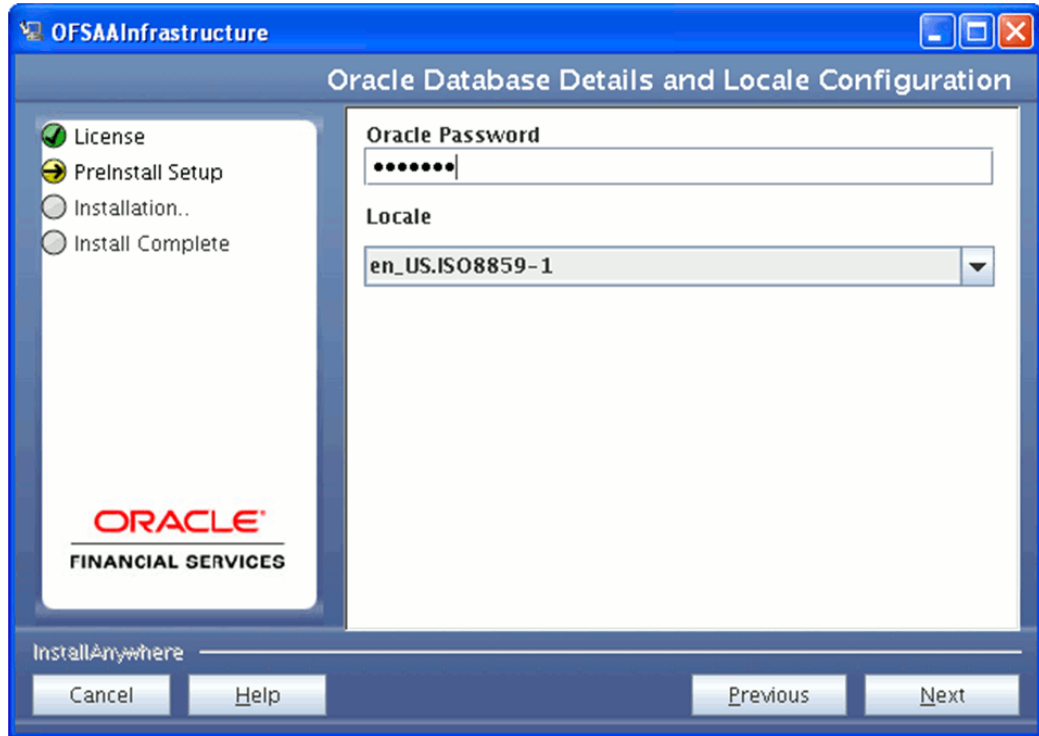
Click **Next** to continue.
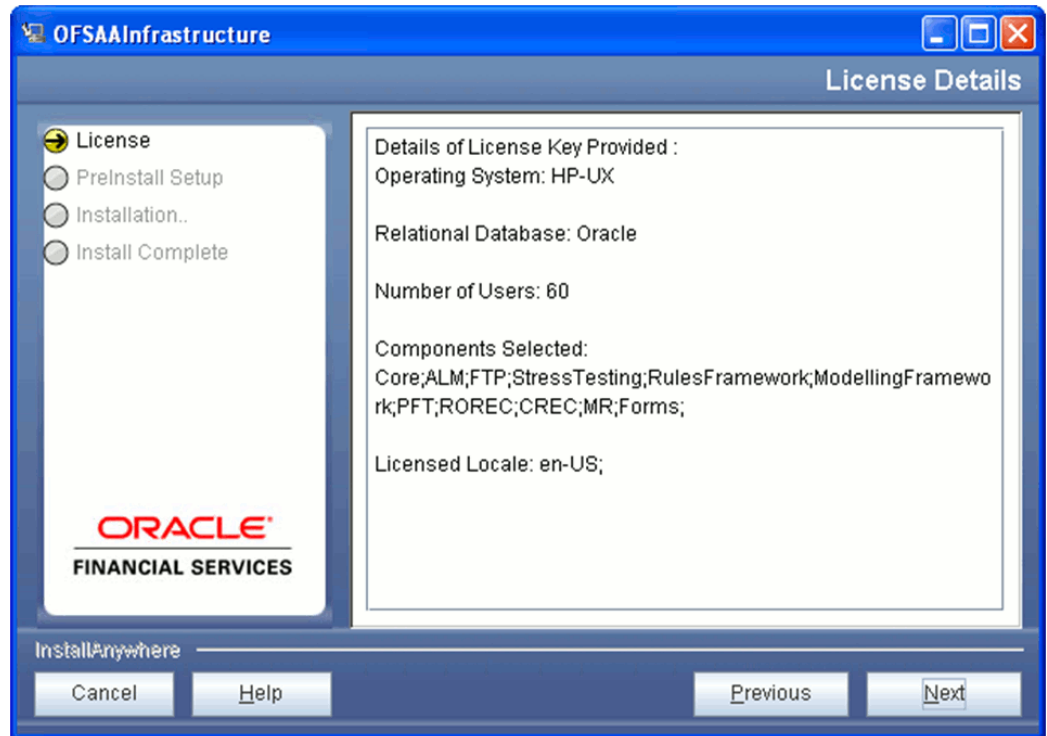
**Oracle Database Details and Locale Configuration:**

1. Enter the Oracle Config schema password in the Oracle Password field.

2. Select the locale installed on the OFSAAI database Server from the list and click **Next**.

Default Infrastructure Administrator and Authorizer User Password:
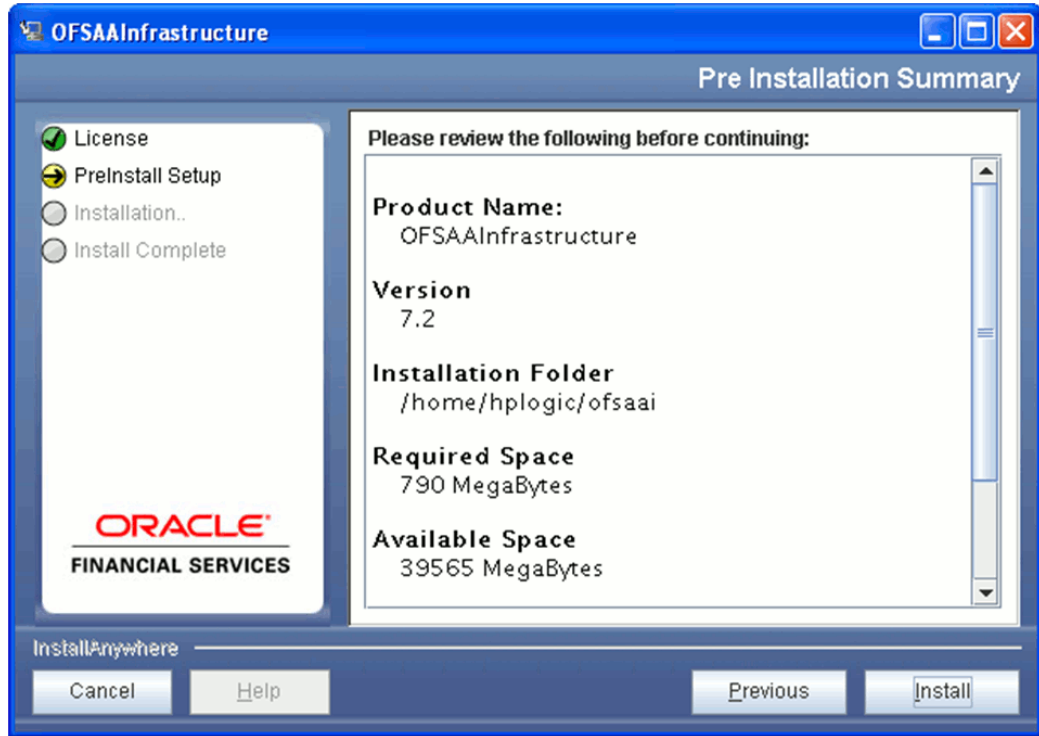
1. Enter the password for SYSADMIN user.

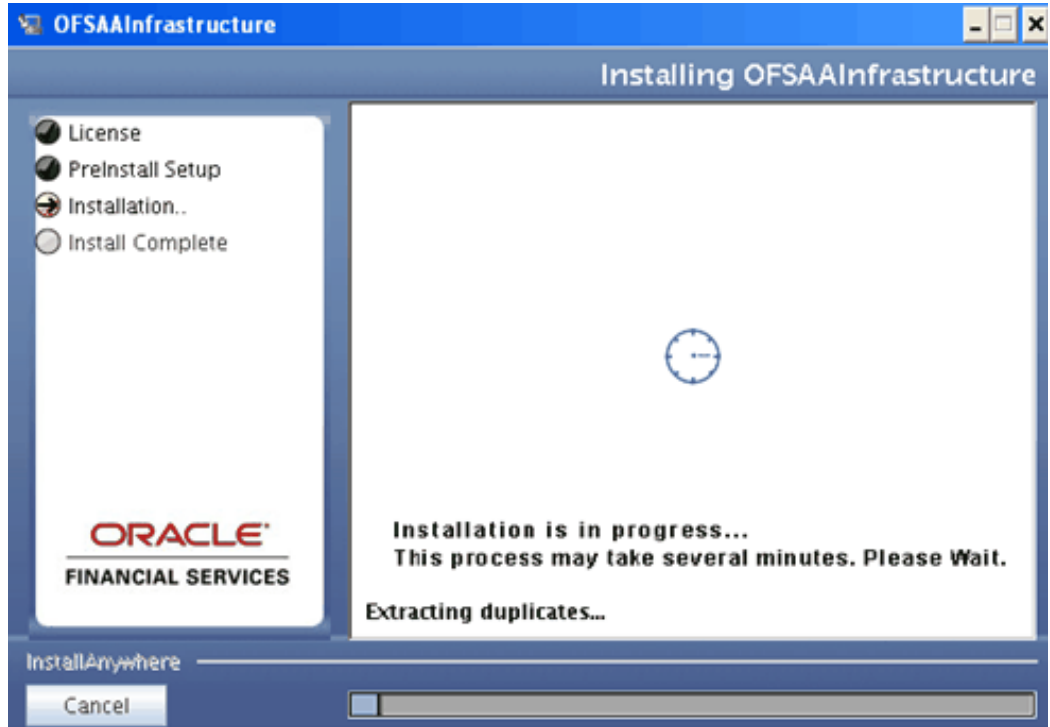2. Enter the password for SYSAUTH user.

Click **Next** to continue.
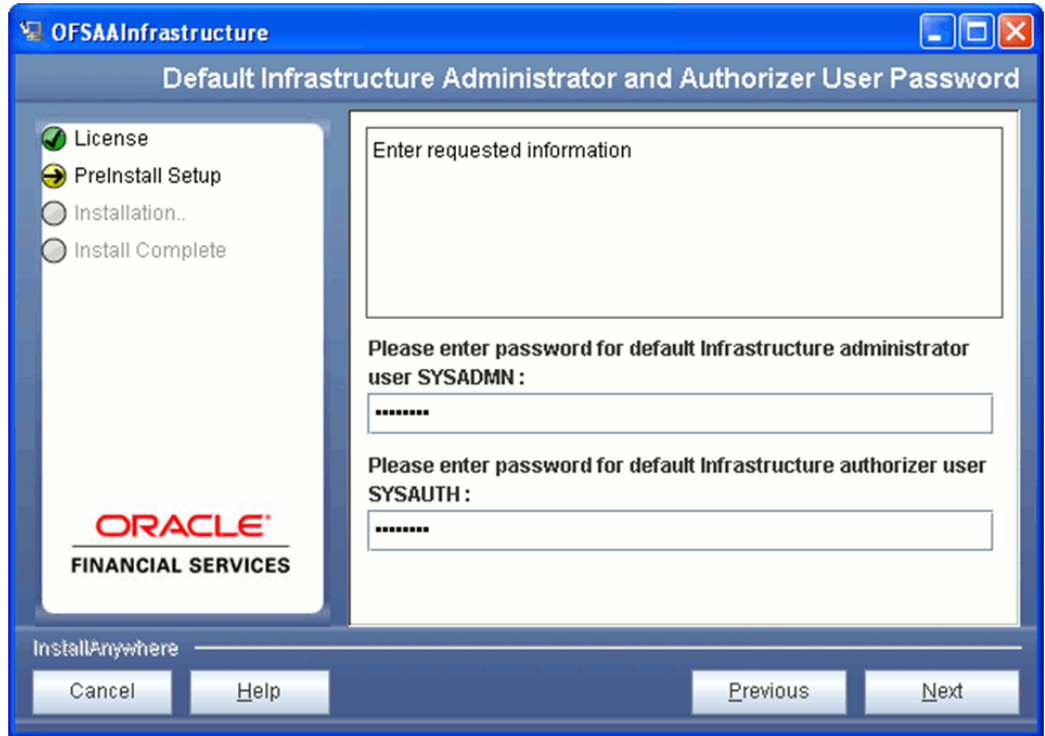
Pre Installation Summary

Review the Product Name, Version, Installation Folder, Required Space, Available Space, Selected Locale, and Warnings before continuing.
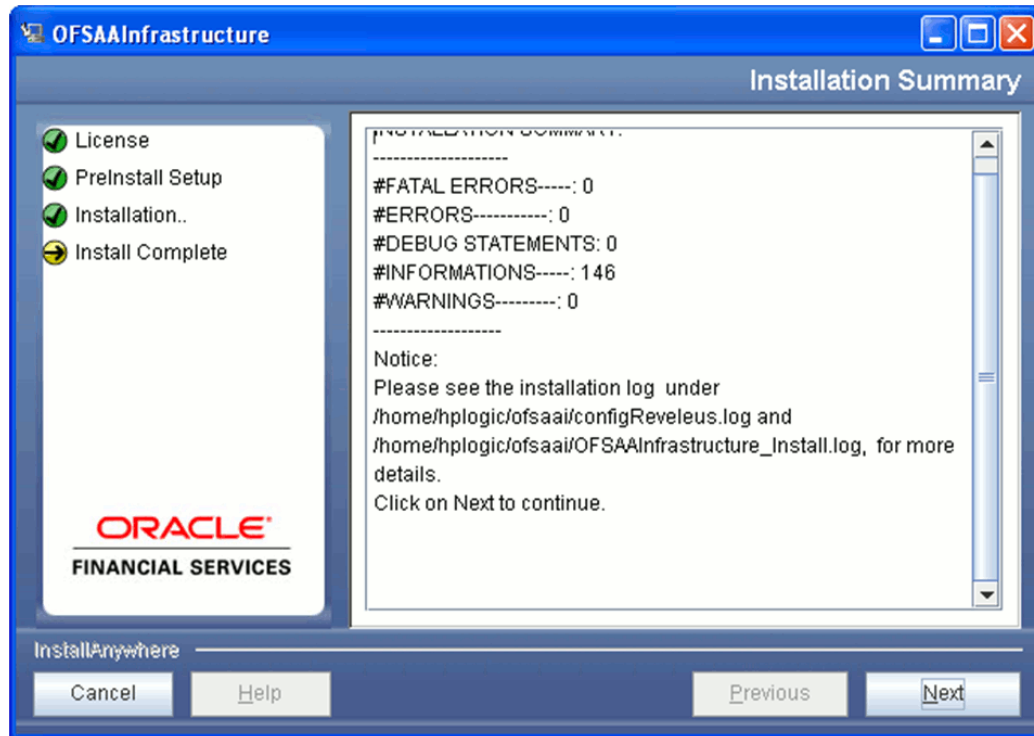
Installing OFSAAI

The installation process begins. This may take several minutes.

Installation Summary:

Once installation is completed, the Installation summary screen appears. This screen displays the number of errors, warnings, and so on along with the location of log files. Click **Next** to continue.
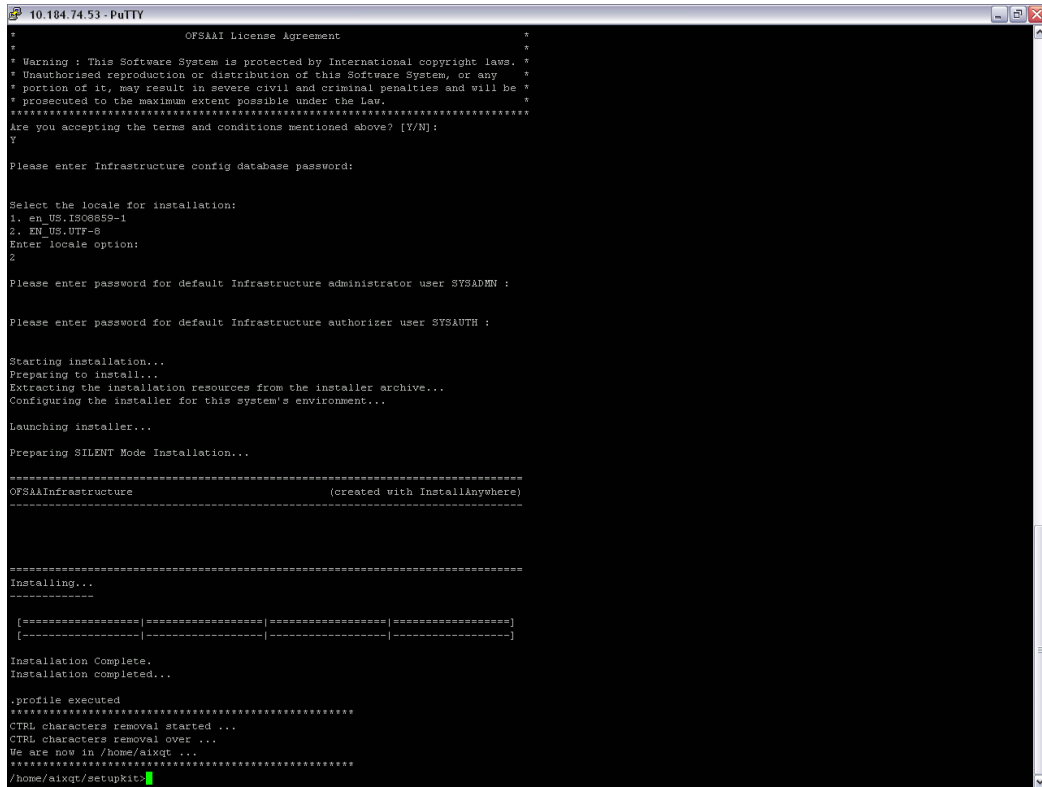
Installation Complete:

After OFSAAI has been installed, click **Done** to exit the installer.
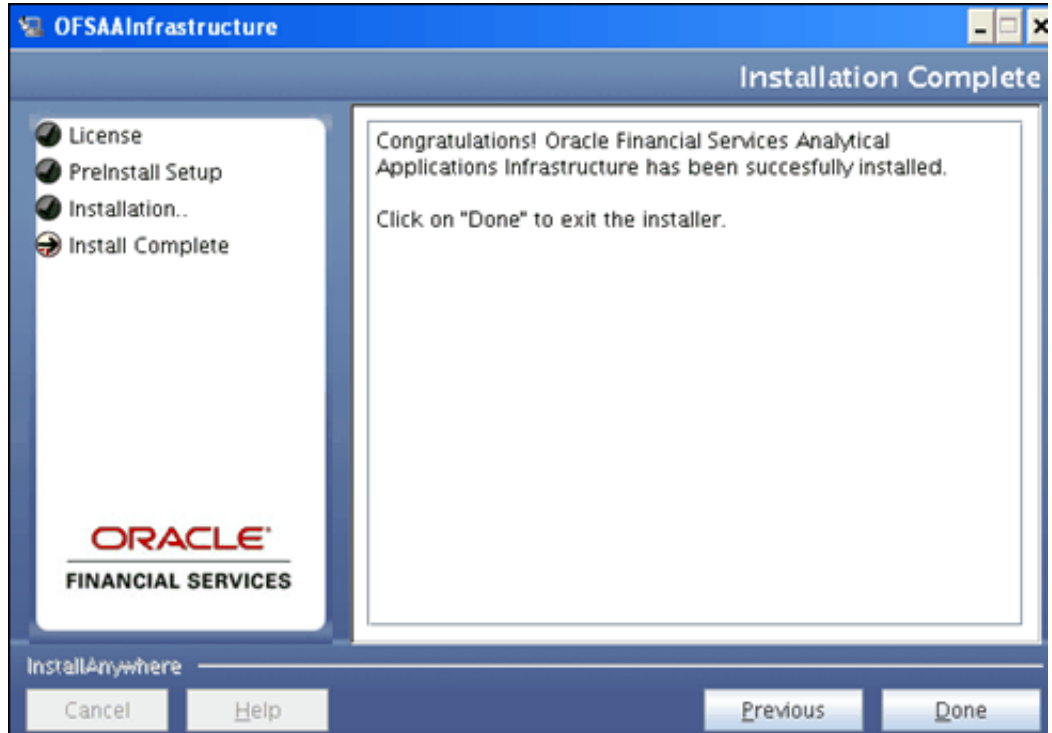
Note

- At any point during the installation process, if you click **Cancel**, an alert window is displayed. Click **Quit** on the alert window to abort the installation process and exit the setup. Click **Resume** to continue.

- At any point during the installation process, if you click **Previous**, you will return to the previous screen.

- Click **Help** button in the Infrastructure Installation screens to view the instructions specific to the screens.

Silent mode Installation

Following are the steps and input parameters to be given for those steps in the silent mode of installation.

1. **License Agreement**: To accept the License Agreement, input Y.

2. **Infrastructure Config Database Password**: Enter the config schema password.

3. **Locale for installation**: Choose the appropriate locale serial number.

4. **SYSADMN and SYSAUTH USER PASSWORDS**: Enter the passwords for the default administrator user, SYSADMN and default authorizer user, SYSAUTH

5. The installation process begins.

6. After the installation is completed, check the log files.

8

Installing Secondary Application Server

Introduction

Since Infrastructure Application Server instances can be distributed across different machines, it is possible to install a Secondary Application Server instance.

For more information about the distributed application server instances, see Distributed Infrastructure Application Server, page 3-4.

Procedure

1. For installing a Secondary Application Server instance, start the Infrastructure installation and in the Infrastructure Installation Mode screen, select the Multi Tier option.

2. Select the Application Components option in the Choose Component(s) screen.

3. The Type of Application Server screen is displayed. If you have already installed an Application Server and this is your secondary Application instance, select the Secondary Application Server Installation option and click **Next** to continue.

4. Click the **Help** button in the Infrastructure Installation screens to view the instructions specific to the screens.

5. On successful installation of Infrastructure Application component, the Installation Complete screen is displayed. Click **Done** to close the installer window.

9

Configuring the Servlet Engine

Introduction

The servlet engine required by the Infrastructure application is WebSphere/Weblogic/Tomcat/Oracle Application Server. The servlet engine is expected to be installed on the machine identified as the Infrastructure Web Server, as stated in theEnvironment, page 2-1. Instructions on configuring WebSphere/Weblogic/Tomcat/Oracle Application Server are given in the below section.

WebSphere Cache Configuration

WebCache mechanism for OFSAAI can optionally be distributable by an EJB (Stateless Session Bean) or using the Application server provided distributable caching mechanism. The default implementation is however non-distributable. This cache will cache hierarchies also, along with the original forms.

Criteria for caching the hierarchy

- The hierarchy should not have security defined on it.

- The hierarchy is being fetched with nodes via the SecureBusinessMetadata.

- The List hierarchies with nodes cannot be fetched via this API so is automatically ruled out from caching.

- Once cached the cache has to be cleared by user request.

Using WebSphere Cache Mechanism

To use the WebSphere specific caching the following steps needs to be followed.

1. The CACHE_CLASS value in $FIC_WEB_HOME/webroot/WEB-INF/web.xml file has to be updated to "com.iflex.reveleus.cache.websphere.DistributedMapCache"

manually.

2. Logon to WebSphere admin console.Navigate to the page

   >Resources> Cache Instances>Object Cache Instances

   Define 10 Object Cache Instances having the scope [Cell, Node, and Server] as below.

3. Make sure that the websphere.cache.properties file in $FIC_WEB_HOME/webroot/conf directory has been updated with the above Object Cache Instance names against their keys.

4. If required, configure the other optional parameters, such as TTL, Sharing, priority etc.

   For more information check the link:
   http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/index.jsp?topic=/com.ibm.w

ebsphere.nd.doc/info/ae/ae/tdyn_distmap.html

Using Stateless Session Bean for Caching

To use the Session bean for caching the following steps needs to followed

- The CACHE_CLASS value in $FIC_WEB_HOME/webroot/WEB-INF/web.xml file has to be updated to " com.iflex.reveleus.cache.distributable.DistributedCacheHandler" manually.

- Make sure that the CACHE_BEAN_NAME value in $FIC_WEB_HOME/webroot/WEB-INF/web.xml file has been updated with the value in session id parameter in $FIC_WEB_HOME/webroot/WEB-INF/lib > webcache.jar > ejb-jar.xml

  Example
  "ejb/StateLessCacheBeanBean__Bnd__1216298734789"

- Set application server specific distribution/clustering properties if any.

WebSphere Enterprise ARchive Files Creation

File Creation

The Enterprise ARchive (EAR) files is required to assemble servlets, .jsp files, web pages and other static content into a deployable unit. This EAR file creation is required to reflect the changes made to the web.xml file.

Following are the outlined steps:

1. On the machine in which Infrastructure Web components have been installed, navigate to the $FIC_WEB_HOME directory. At the prompt type ./ant.sh. This will trigger the creation of EAR file - <contextname>.ear.

   Note: <contextname> is the context name given during installation.

2. On completion of the EAR files creation, the following message will be displayed and you will be returned to the prompt.

   BUILD SUCCESSFUL

   Time taken

3. The EAR file - <contextname>.ear - is created on the machine on which Infrastructure Web components are installed under $FIC_WEB_HOME directory.

Note: This process overwrites any existing version of EAR file that exists in the path.

WebSphere EAR Files Deployment

This step is for deploying Infrastructure application in WebSphere.

Files Deployment

1. Open the URL in the browser window:http://<ipaddress>:<Administrative Console Port>/ibm/console. The login screen is displayed. Login with the user id that has admin rights.
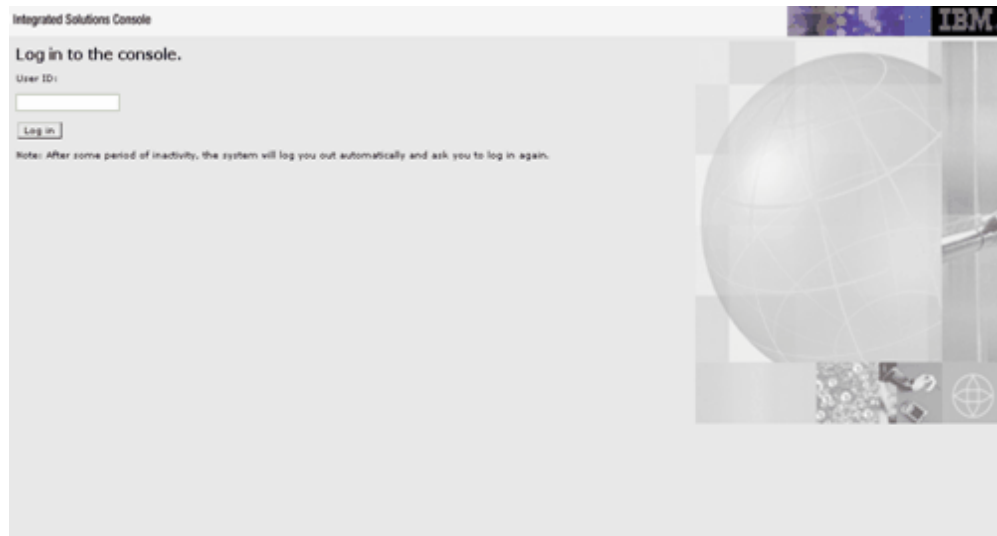
2. Navigate Applications > New Application. The New Applications window opens. Select New Enterprise Application option.

3. It will take you to the Preparing for the application installation page as shown in the following figure.
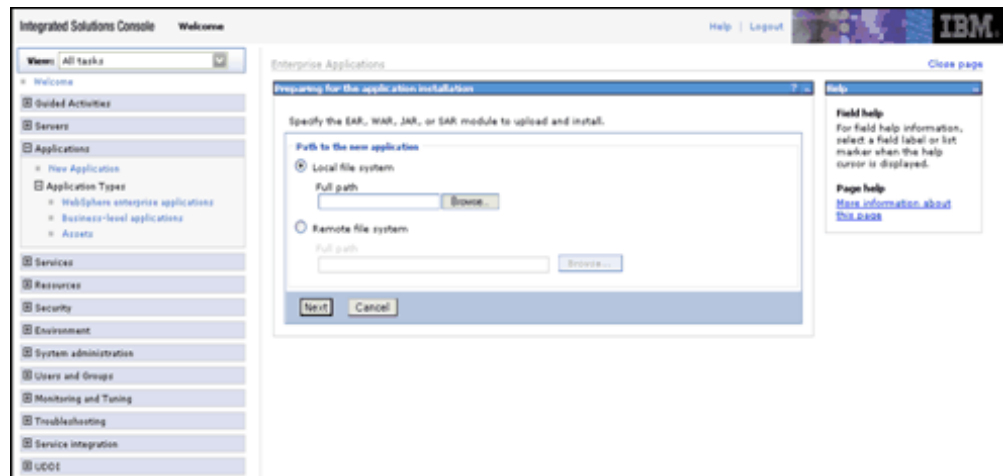
4. Select the remote file system and Click **Browse** to select the EAR file which is generated for OFSAAI to upload and install. This file name will be displayed in the Specify Path box provided. Click **Next**.
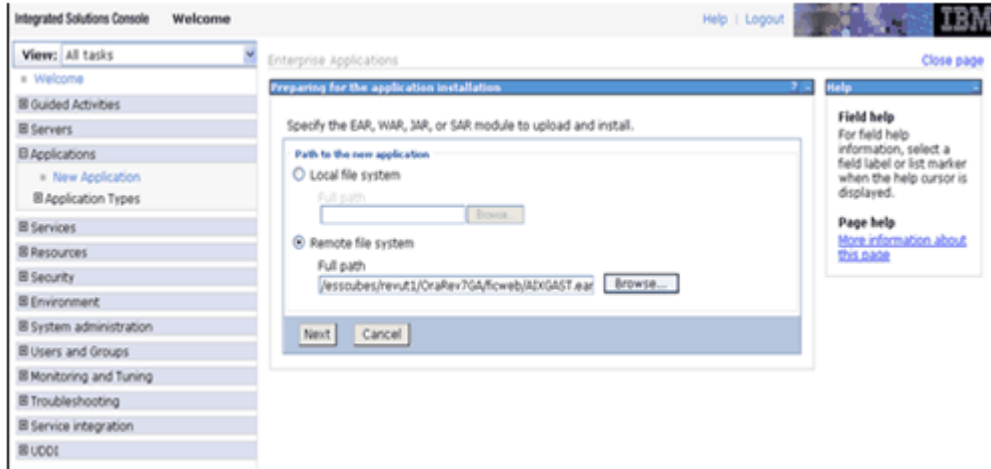
5. Chose the Fast path from the options available and click **Next**.
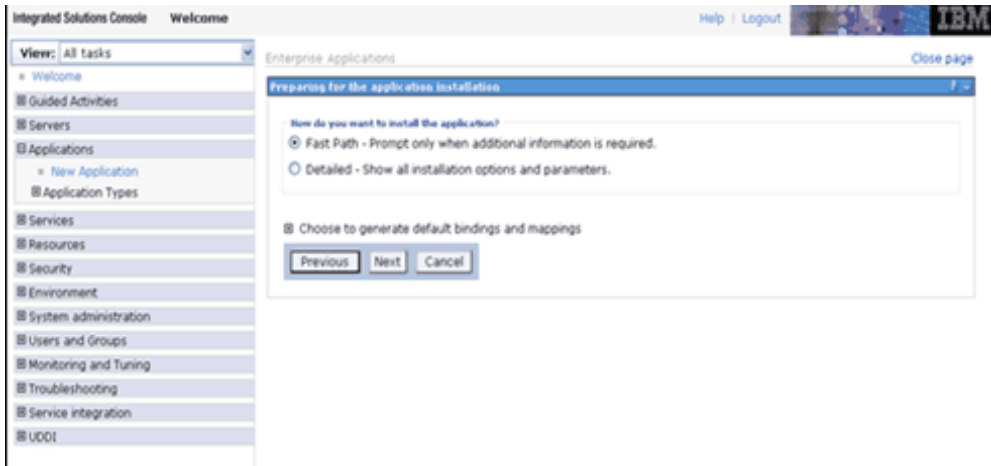
6. The select Installation page is displayed. Click **Next**.
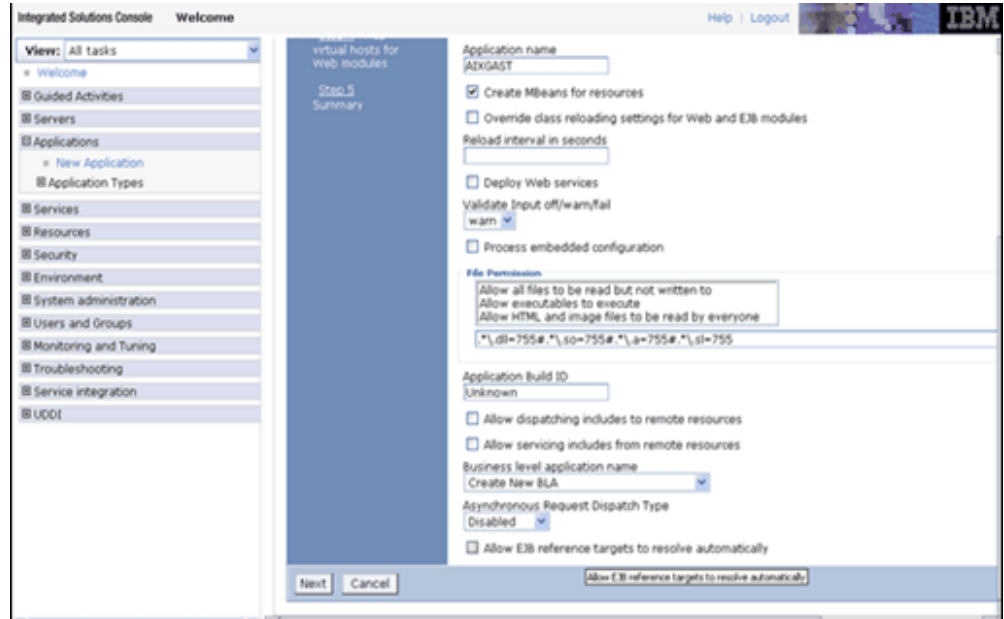
7. In the Map the modules to servers page select the Web Application and click **Next**.
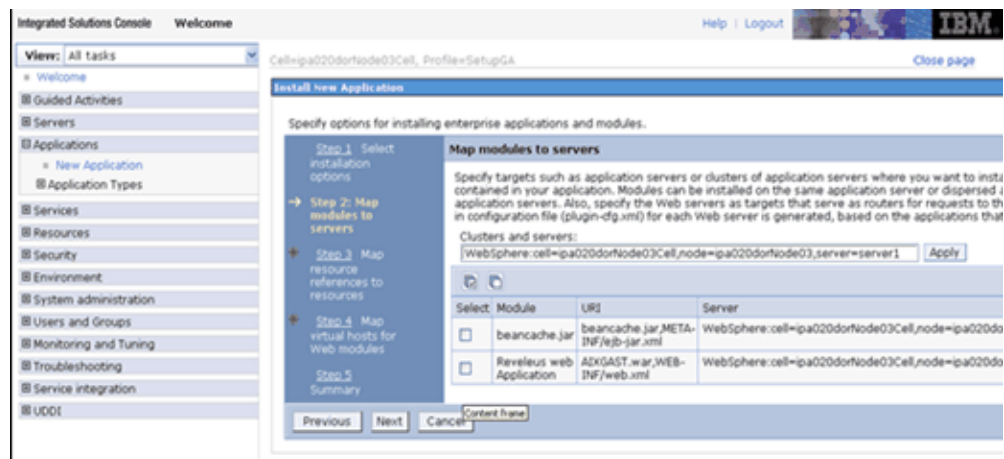
8. The Map resource references to resources page are displayed. Map each resource defined in your application to a resource JNDI name defined earlier.
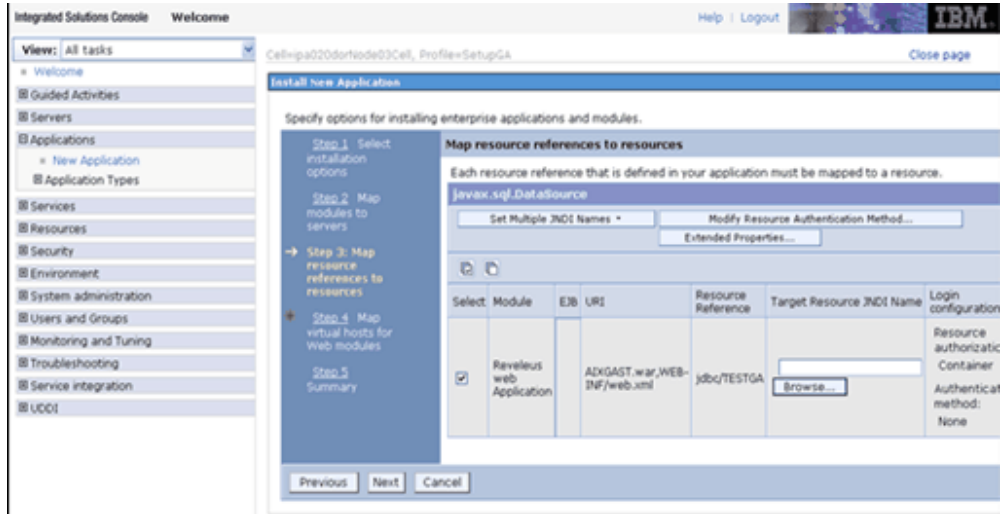
9. After mapping the resource reference, select Modify Resource Authentication Method option available. Specify the authentication method created earlier.
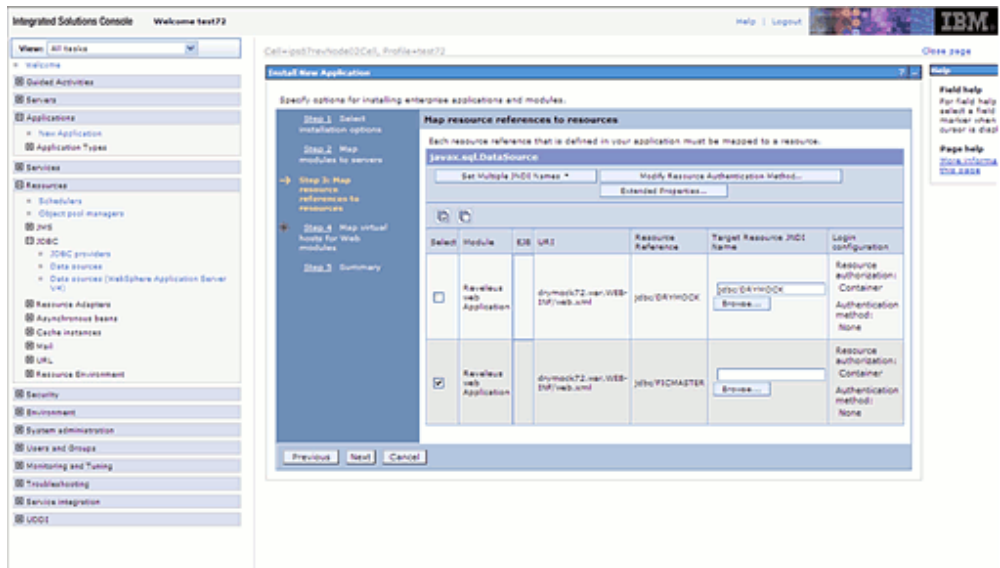
10. Select the Web Application check box and Click **Next**.
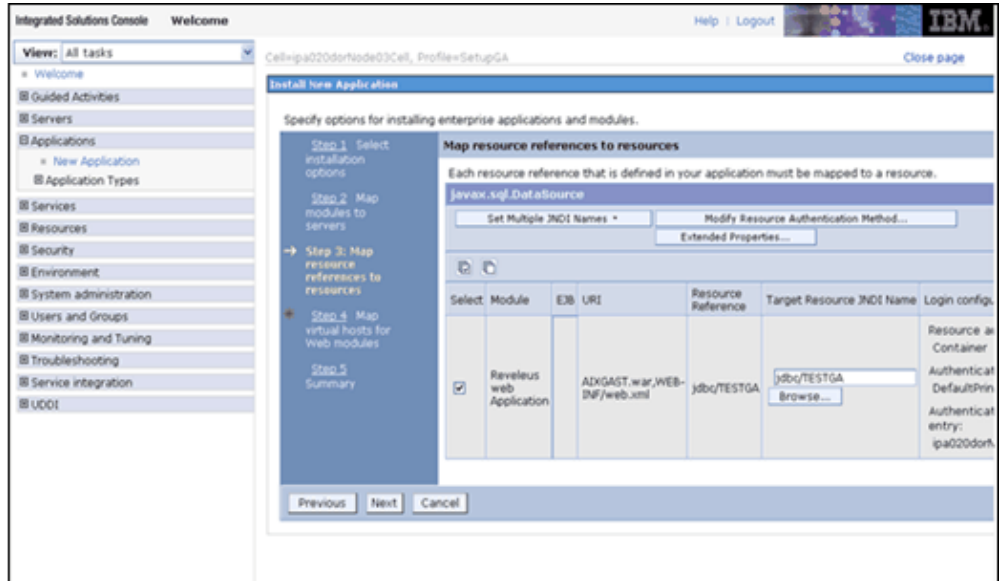
11. The Map Virtual hosts for Web Modules screen is displayed. Select the Web Application check box and Click **Next**.
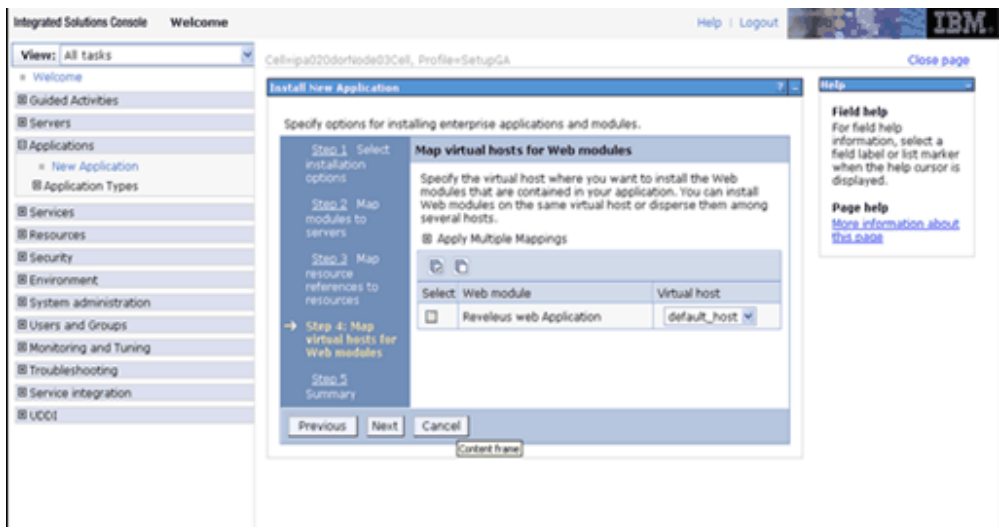
12. The summary page is displayed. Check the same and Click **Finish**.
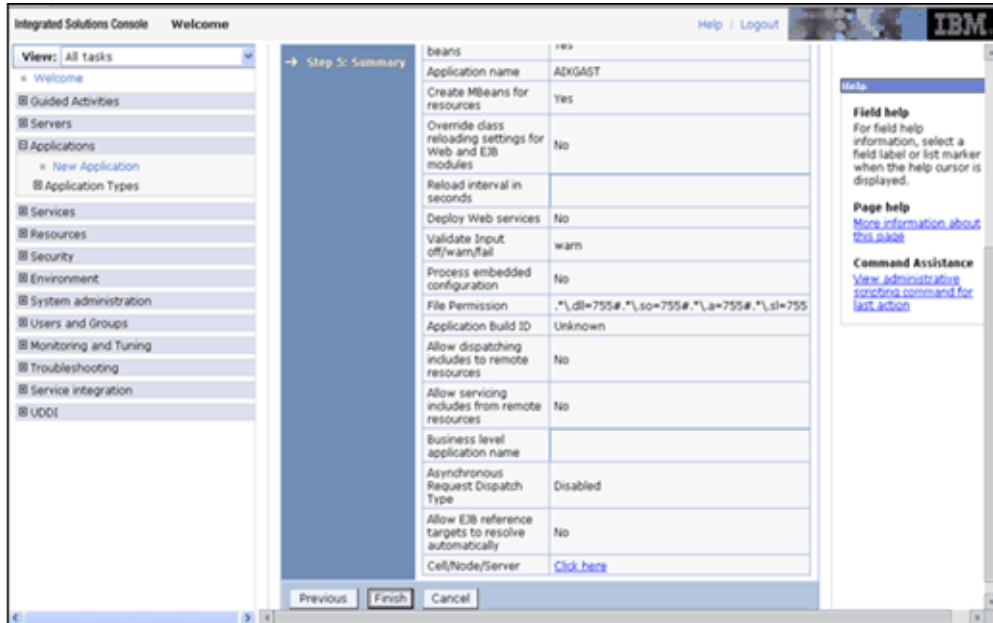
13. This will deploy the Infrastructure Application on WebSphere. Once the installation is successful message appears, Click **Save** to save the master file configuration.

14. To start the application, Expand Applications > Application Type > WebSphere Enterprise applications. The Enterprise Applications window opens. Select the application installed and click **Start**.
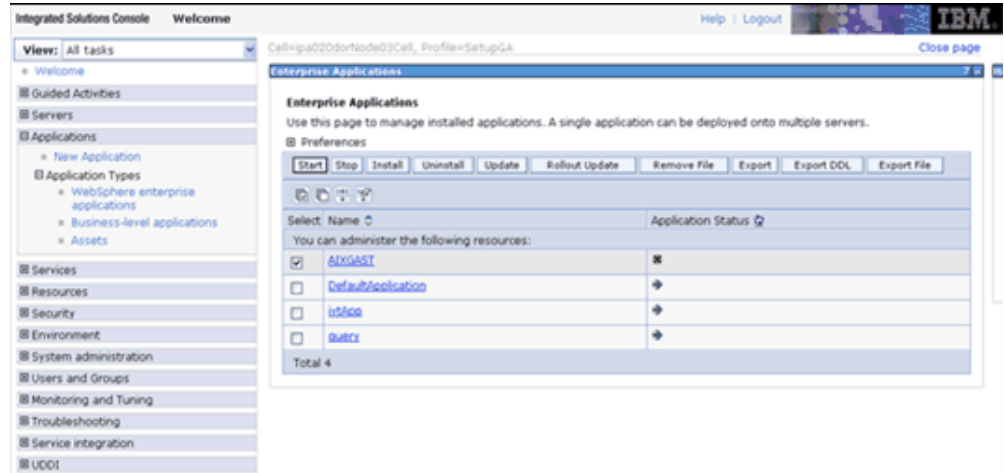
- <profile name> is the profile name given while creating the WebSphere profile. For more details, see WebSphere Configuration for Infrastructure Application Deployment, page 5-1.

- <cell name > is the cell name given during profile creation

- <contextname> is the context name given during installation.

WebSphere HTTPS Configuration

Ensure the below steps for Configuring an HTTPS Transport on Websphere.

1. Create a profile using the Profile Creation Wizard in WebSphere.

2. Note down the https port specified during this process and use the same as servlet port or web server port during OFSAAI Installation.

3. To enable https configuration on Infrastructure, assign value 1 to "HTTPS_ENABLE" in OFSAAI_InstallConfig.xml for Silent mode OFSAAI installation.

Tomcat Configuration

Tomcat Configuration

Note: This section is applicable if the web container is Tomcat

The servlet engine required by the Infrastructure application is Tomcat. The servlet engine is expected to be installed on the machine identified as the Infrastructure Web

Server, as stated in the section Environment, page 2-1. Instructions on configuring Tomcat are given in this section.

Tomcat User Administration

The Tomcat administration and manager application does not provide a default login. You are required to edit $CATALINA_HOME/conf/tomcat-users.xml as instructed below.

This file contains an XML <user> for each individual user, which will display the username and password used by admin to log into Tomcat, and the role names admin user is associated with.

Example
<user name="admin" password="admin" roles="standard,manager" >

Add the manager role to any one of the existing username/password combination as shown in the example above.

Use the same username/password to which the manager role has been assigned to access the Tomcat Application Manager.

If the Tomcat server is already running, it requires a re-start after the above configuration is done.

Configuring Tomcat to use the JAVA 64 bit Executables

Navigate to the $CATALINA_HOME/bin folder.

Edit the setclasspath.sh as explained below:

Under 'Set standard commands for invoking Java', change "$JAVA_HOME"/bin to "$JAVA_BIN".

Example
Edit the following block of text:

Set standard commands for invoking Java.

```
_RUNJAVA="$JAVA_HOME"/bin/java
if [ "$os400" != "true" ]; then
_RUNJDB="$JAVA_HOME"/bin/jdb
```

Change it to:

```
_RUNJAVA="$JAVA_BIN"/java
if [ "$os400" != "true" ]; then
_RUNJDB="$JAVA_BIN"/jdb
```

If the Tomcat server is already running, it requires a re-start after the above configuration is done.

Servlet Port Configuration

The **Servlet Port** specified during the Infrastrcture installation process must be configured in Tomcat if your web server is Tomcat. If you are using the default port

(8080), then you are not required to configure the same since it is already configured.

If you are using a different port number, you must first configure the port in the **server.xml** in the **conf** directory of Tomcat Installation directory. The following steps guide you through the configuration process.

Navigate to $CATALINA_HOME/conf. Open **server.xml** and locate the tag:

"Define a non-SSL HTTP/1.1 Connector on port 8080"

Against this tag, a parameter is specified 'Connector port = "8080"'. Edit this value to the new port number that was used during the Infrastructure installation process.

Save your changes in **server.xml**.

Tomcat WAR Files Creation

The WAR files is required to assemble servlets, .jsp files, web pages and other static content into a deployable unit.

The steps given below will guide you through the WAR files creation process.

1. On the machine in which Infrastructure Web components have been installed, navigate to the path $FIC_WEB_HOME.

2. At the prompt, execute **ant.sh**. This will trigger the creation of WAR file - <context-name>.war

    > **Note:** <context-name> is the context name given during installation.

3. On completion of the WAR files creation, a confirmation message will be displayed and you will be returned to the prompt.

4. The WAR file - **<context-name>.war** - is created on the machine on which Infrastructure Web components are installed under $FIC_WEB_HOME directory.

    > **Note:** • This process overwrites any existing version of WAR file that exists in the path. Proceed with the following steps for Tomcat WAR Files Deployment, page 9-13.
    >
    > • Log on to the server in which Tomcat is installed.

Now, proceed to the Tomcat WAR Files Deployment section.

Tomcat WAR Files Deployment

Before deploying the WAR files, ensure that the previously deployed applications of Infrastructure are uninstalled.

For the procedure to uninstall the previously deployed Infrastructure war files, see Uninstalling Previously Deployed WAR Files in Tomcat, page 16-3.

On the machine that hosts Tomcat, follow the steps outlined to deploy Infrastructure application.

1. Open the URL in Browser window: http://<IP address>:<Tomcat server port>. The Tomcat home page is displayed. Click the **Tomcat Manager** link on the LHS menu. Login with the user id that has admin rights. (For user creation in tomcat, refer to the section Tomcat User Administration, page 9-12)

2. This takes you to the Tomcat Web Application Manager. This displays all the applications deployed in Tomcat.

3. Enter the context name given during the installation under Deploy Context Path field as /<context-name>.

4. Enter the Path where the <context-name>.war file resides (by default $FIC_WEB_HOME/<context-name>.war) in the WAR or Directory URL and click **Deploy**.

5. Upon successful deployment of the application, the following confirmation message is displayed.
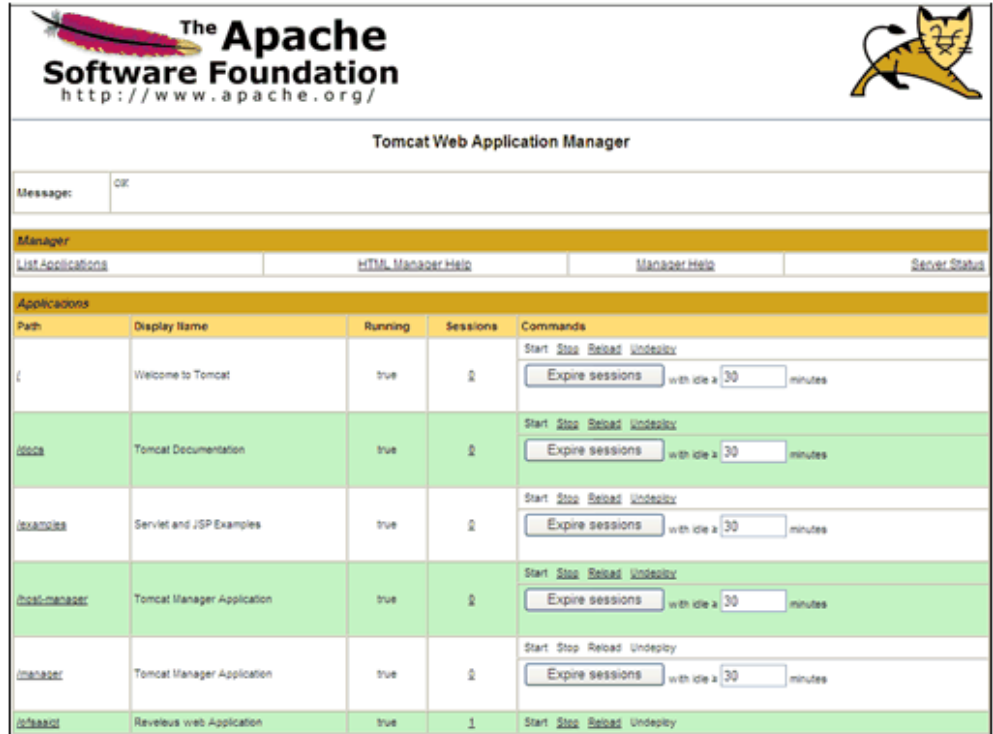
For information on starting the Tomcat server, see Starting Infrastructure, page 11-1. section.

Non SSL Port Configuration

Ensure that the following connect tag under **Define a non-SSL HTTP/1.1 Connector on port 8080** in *<Tomcat_installation_folder>/conf/server.xml* file is uncommented for Non-SSL Configuration. (By default, it is uncommented.)

<Connector port="8080" protocol="HTTP/1.1"

connectionTimeout="20000"

redirectPort="8443" />

<! Note: To disable connection timeouts, set connectionTimeout value to -1-->

> **Note:** • The port mentioned as connector port is the Web server port or servlet port in Infrastructure.

SSL Port Configuration

Ensure that the following connect tag under **Define a SSL HTTP/1/1 Connector on port 8443** in *<Tomcat_installation_folder>/conf/server.xml* file is uncommented for SSL Configuration. (By default, it is commented.)

<Connector port="8443" protocol="HTTP/1.1" SSLEnabled="true"

maxThreads="150" scheme="https" secure="true"

clientAuth="false" sslProtocol="TLS"

> **Note:** • The port mentioned as connector port is the Web server port or servlet port in Infrastructure.
>
> • For more information related to SSL Configuration on Tomcat, please see <http://tomcat.apache.org/>

WebLogic Configuration

The servlet engine is expected to be installed on the machine identified as the Infrastructure Web Server. Instructions on configuring WebLogic are given in this section.

> **Note:** If WebLogic is installed on a remote machine, then you must perform certain post-installation steps manually as stated in WebLogic EAR Files Deployment, page 9-17.

WebLogic EAR Files Creation

File Creation

The Enterprise ARchive (EAR) files is required to assemble servlets, .jsp files, web pages and other static content into a deployable unit. This EAR file creation is required to reflect the changes made to the web.xml file.

Following are the outlined steps:

1. On the machine in which Infrastructure Web components have been installed, navigate to the $FIC_WEB_HOME directory. At the prompt type ./ant.sh. This will trigger the creation of EAR file - <contextname>.ear.

    > **Note:** <contextname> is the context name given during installation.

2. On completion of the EAR files creation, the following message will be displayed and you will be returned to the prompt.

    BUILD SUCCESSFUL

    Time taken

3. The EAR file - <contextname>.ear - is created on the machine on which

Infrastructure Web components are installed under $FIC_WEB_HOME directory.

> **Note:** This process overwrites any existing version of EAR file that exists in the path.

WebLogic EAR Files Deployment

The steps for deploying Infrastructure application in WebLogic is given below.

On the machine in which WebLogic is installed, navigate to <WebLogic Installation directory>/user_projects/domains/<domain name>/</bin and execute startWebLogic.sh –d64 file to start WebLogic.

Open the URL in the browser window: http://<ipaddress>:<admin server port>/console. The Sign in screen of the WebLogic Server Administration Console is displayed.

Sign on with the WebLogic user name and password having privileges to deploy the EAR file.

From the left hand screen menu, under Domain Structure, click **Deployments**.

The Summary of Deployments screen appears. Click **Install**.
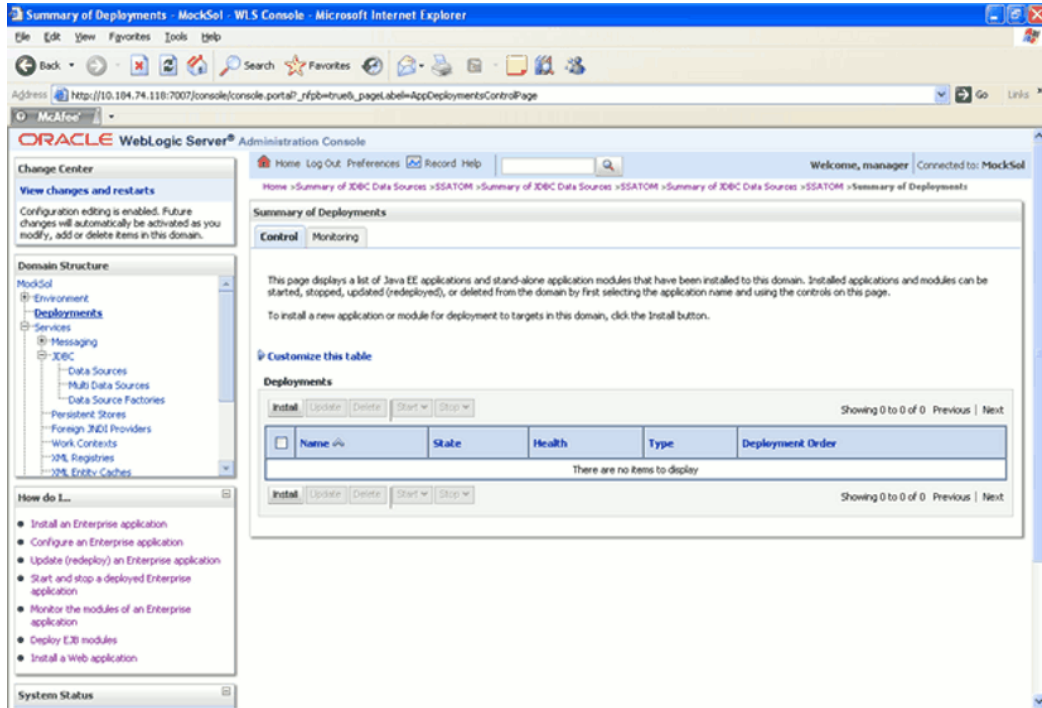
1. The Install Application Assistant screen is displayed. Select the **exploded EAR** directory after browsing to the directory where it is saved. Click **Next**.

   To **explode EAR**, follow the below steps.

   • Create the **applications** folder under domain name.
     /Bea/user_projects/domains/<Domain _name>/applications.

   • Create <context_name>.ear file under applications folder. Copy the
     <$FIC_WEB_HOME/<context_name>.ear file to
     <WEBLOGIC_INSTALL_DIR>/Bea/user_projects/domains/<DOMAIN_NAME>
     /applications/<context_name>.ear

   • Explode the <context_name>.ear file using the command jar –xvf
     <context_name>.ear

   • Delete the <context>.ear and <context>.war file(recently created).

   • Create a directory <context_name>.war under
     <WEBLOGIC_INSTALL_DIR>/Bea/user_projects/domains/<DOMAIN_NAME>
     /applications/<context_name>.ear

   • Copy <$FIC_WEB_HOME/<context_name>.war file to
     <WEBLOGIC_INSTALL_DIR>/Bea/user_projects/domains/<DOMAIN_NAME>
     /applications/<context_name>.ear/<context_name>.war

- Explode the <context_name>.war file using the command jar –xvf
  <context_name>.war to get the directory structure.
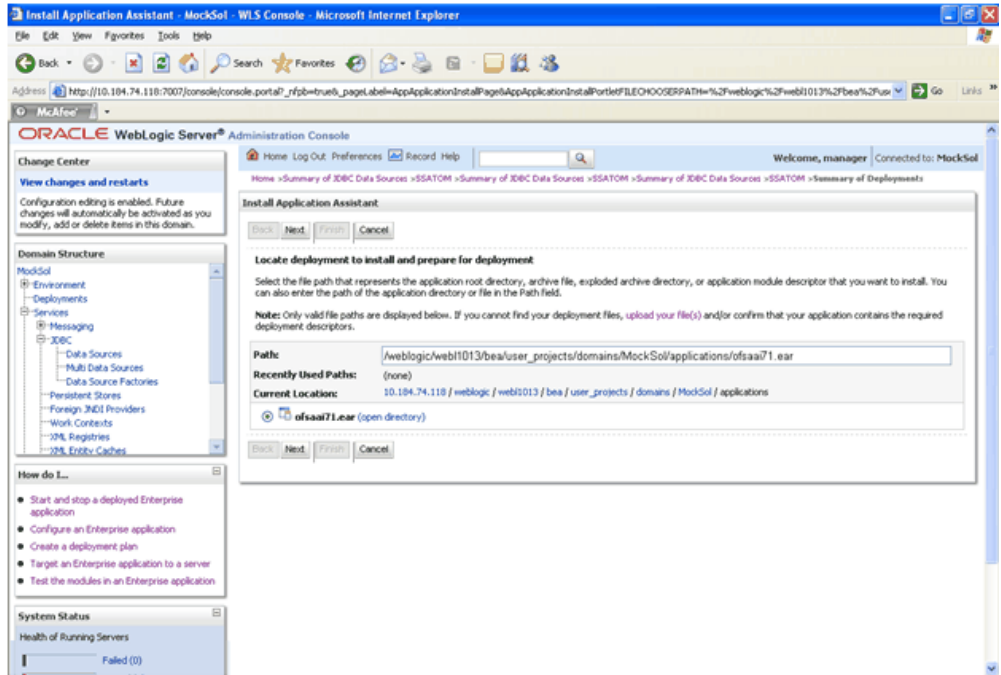
2. In the Choose targeting style screen, select the Install this deployment as an
   application and click **Next**.
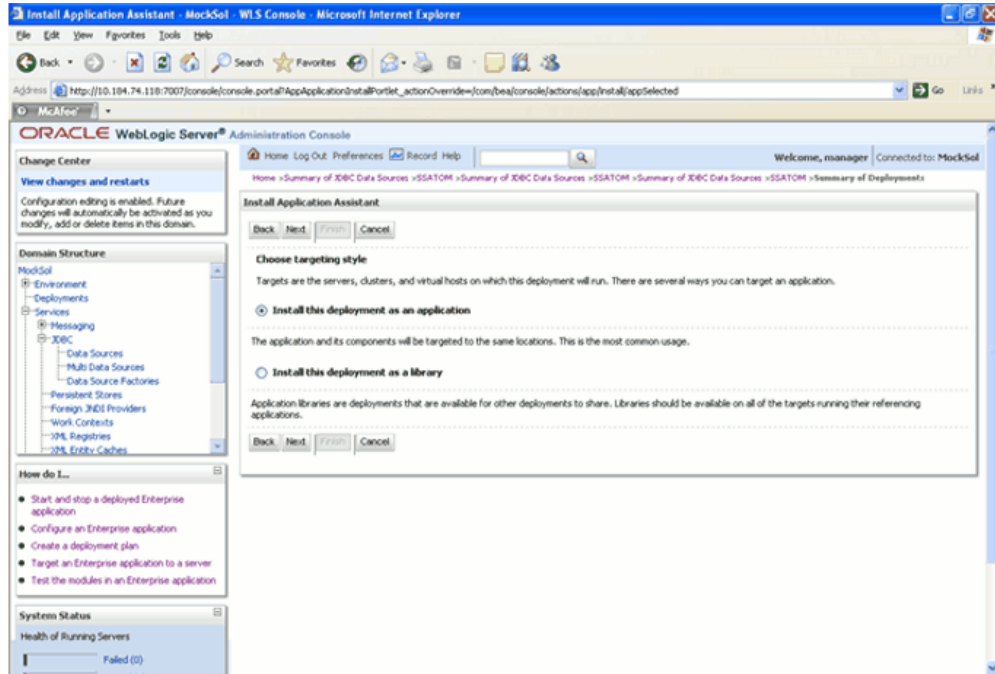
3. The Optional Settings screen is displayed. If required, enter a name for the deployment in the Name field. Select the **DD only** option to specify that only roles and policies that are defined in the deployment descriptors should be used. Also, select the **I will make the deployment available from the following location** option under Source accessibility. Click **Next** to continue.
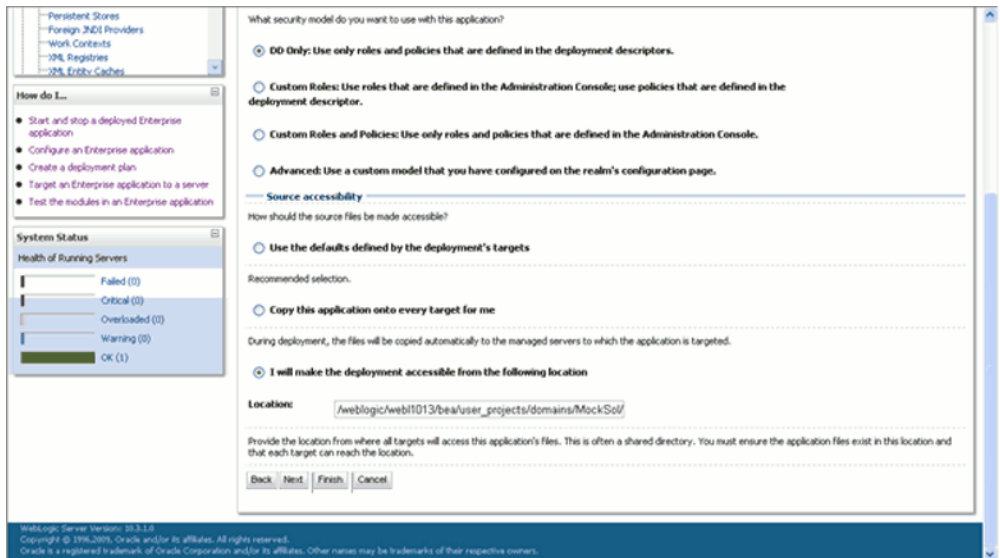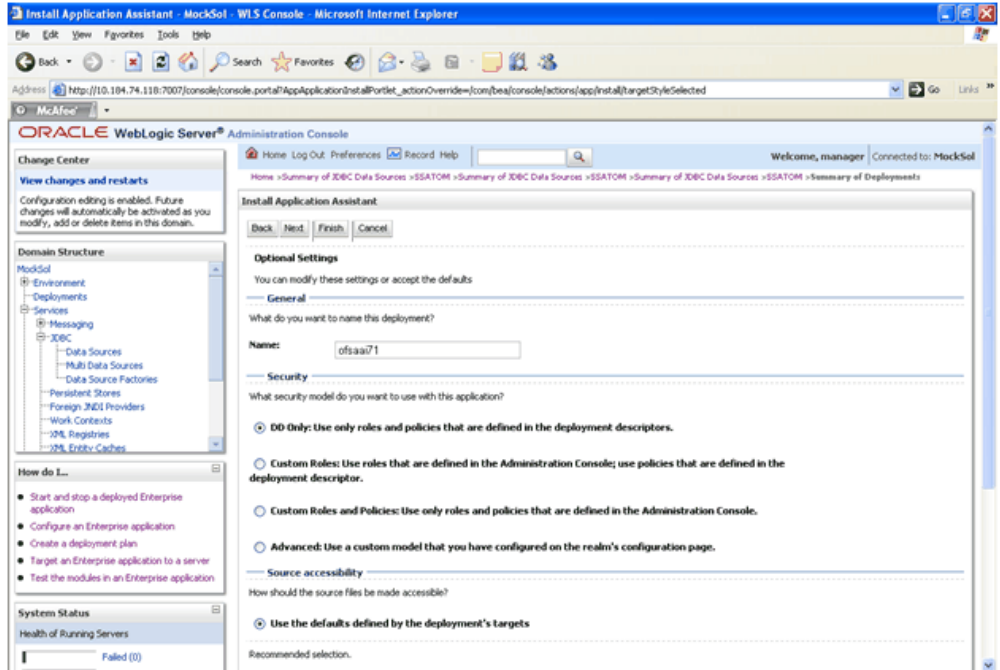
4. The deployment summary is displayed. Select, Yes, take me to the deployment's configuration screen option and click **Finish**.
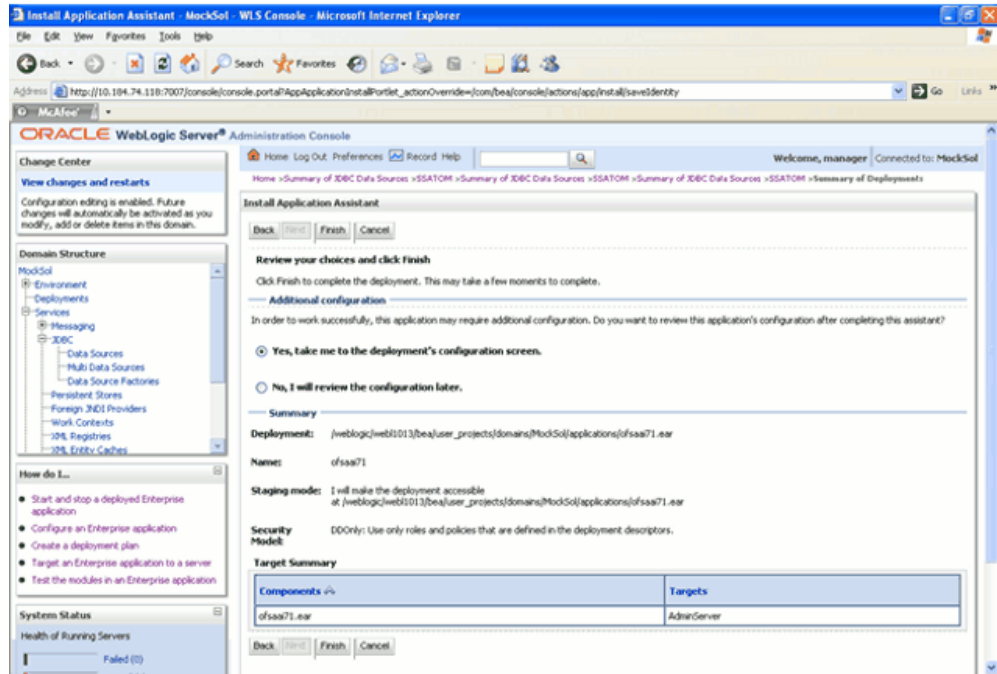
5. In the Settings for <Deployment Name> screen, review the general configuration details of the deployment. You can update the configuration of the deployment in this screen. Click **Save** to save the updates, if any.
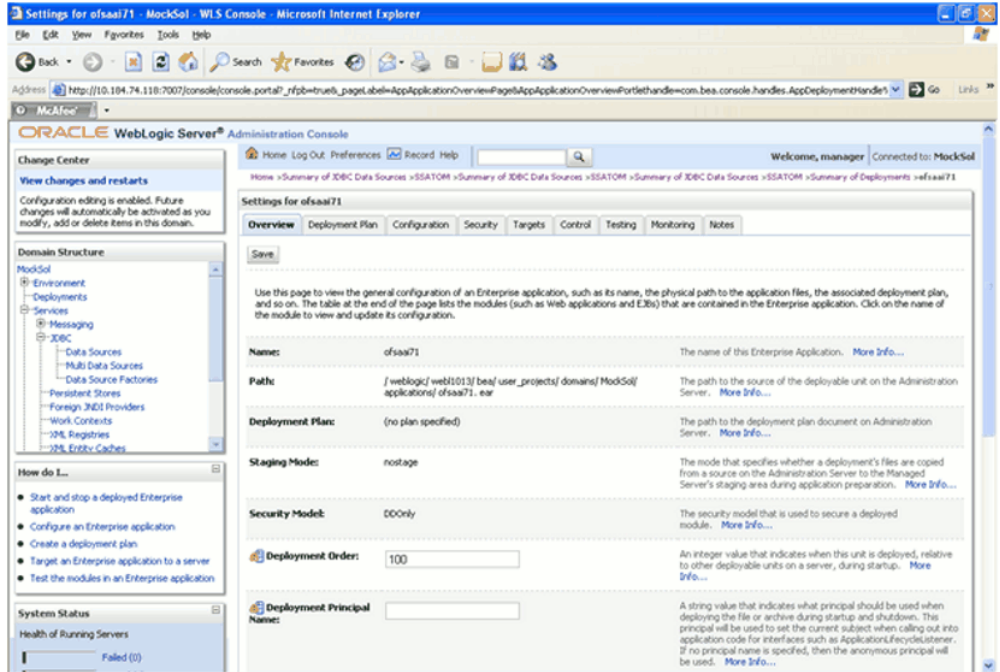
6. Click the **Overview** tab to view the complete configuration of the deployment.
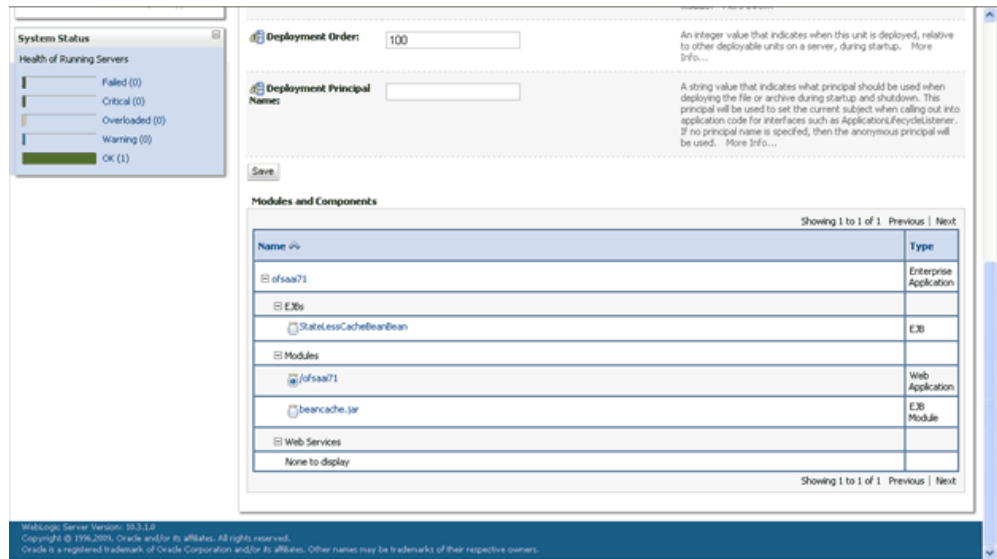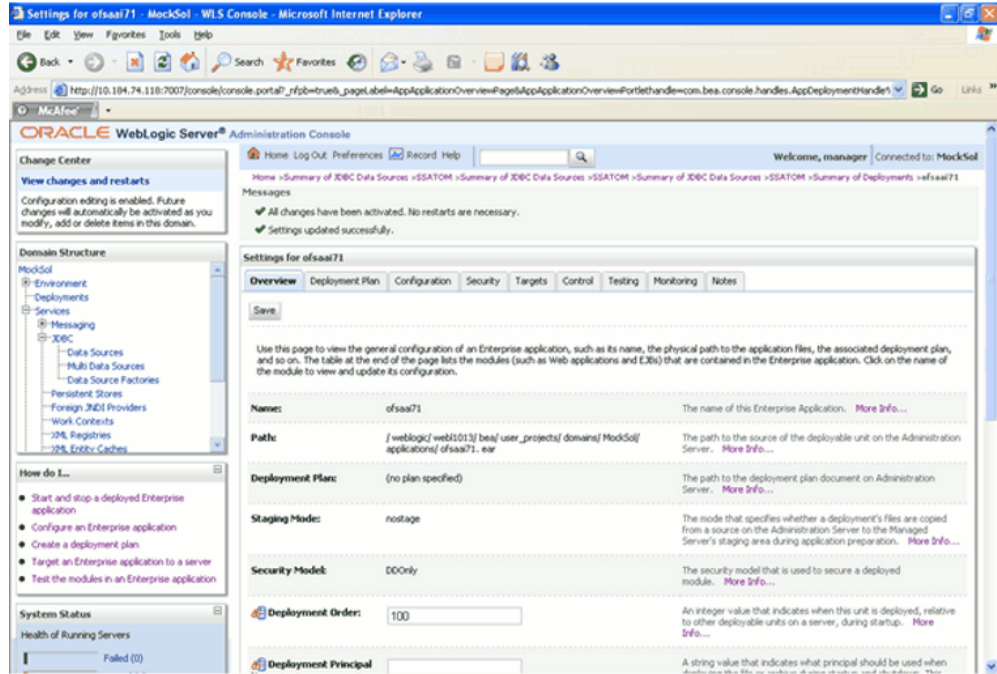
7. In the left menu, click **Deployments**. Select the newly deployed Infrastructure application and click Start > Servicing all requests (The Infrastructure server should be up and running).
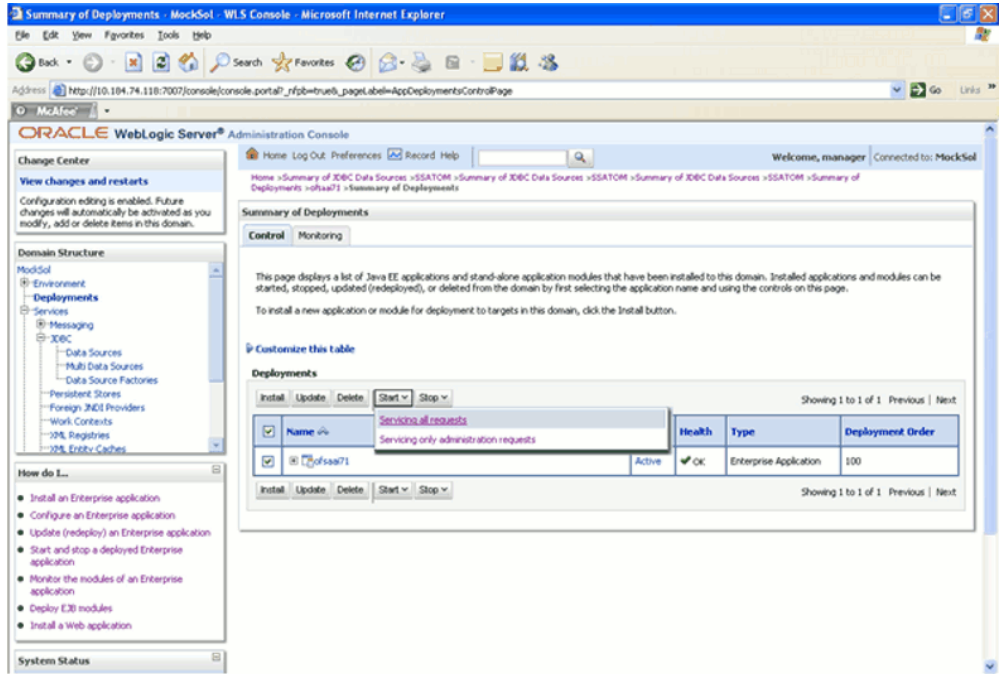
8. The following screen will confirm that the application has been started. The State of the deployed application will be displayed as Active if started successfully.
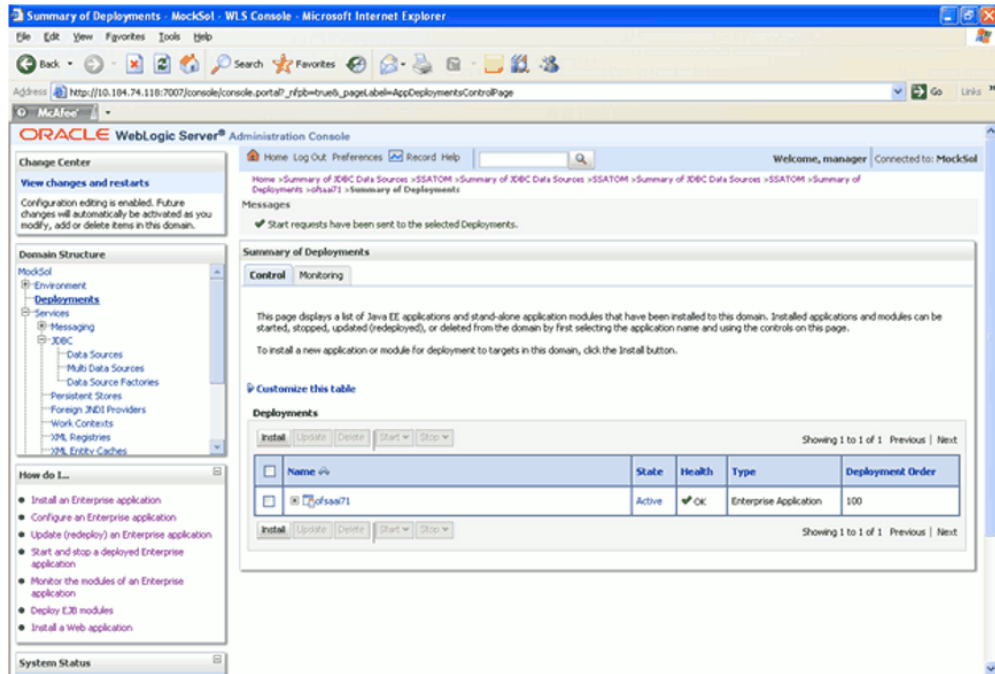
For more information on Deploying WebLogic Server Applications, refer to
http://e-docs.bea.com/wls/docs81/deployment/overview.html.

WebLogic HTTPS Configuration:

Ensure the below steps for Configuring an HTTPS Transport on Weblogic.

1. Create a domain using the Domain Creation Wizard in Weblogic.

2. Note down the https port specified during this process and use the same as servlet
   port or web server port during OFSAAI Installation.

3. To enable https configuration on Infrastructure, assign value 1 to
   "HTTPS_ENABLE" in OFSAAI_InstallConfig.xml for Silent mode OFSAAI
   installation.

Oracle Application Server Configuration

The servlet engine required by the OFSAAI application is Oracle Application Server
10.1.3.4.0. As stated in the section Environment, page 2-1 earlier, the servlet engine is
expected to be installed on the machine identified as the OFSAAI Web Server.
Instructions on configuring Oracle Application Server are given in this section.

Oracle Application Server EAR Files Creation

The EAR files is required to assemble servlets, .jsp files, web pages and other static content into a deployable unit. This EAR file creation is required to reflect the changes made to the web.xml file.

Follow the steps outlined below:

On the machine in which OFSAAI Web components have been installed, navigate to the $FIC_WEB_HOME directory. At the prompt, enter **tar –xvf apache-ant-1.6.5-bin.tar**. This would extract the apache. At the prompt type ./**ant.sh**. This will trigger the creation of EAR file - <contextname>.ear.

> **Note:** <contextname> is the context name given during installation.

On completion of the EAR files creation, the following message will be displayed and you will be returned to the prompt.

```
BUILD SUCCESSFUL
Time taken
```

> **Note:** This requires Java JDK 1.6.0.05 64-bit set in the PATH variable of the machine where Web Components are installed.

The EAR file - <contextname>.ear - is created on the machine on which OFSAAI Web components are installed under $FIC_WEB_HOME directory.

> **Note:** This process overwrites any existing version of EAR file that exists in the path.

Oracle Application Server for Infrastructure Application Deployment

1. Access the Oracle Enterprise Manager 10g Application Server Control by navigating to the URL mentioned in <OAS Installation area>/install/readme.txt. The Login page of the Oracle Enterprise Manager 10g Application Server Control is displayed.

2. Enter the User Name and Password for the Oracle Application Server administrator given during Oracle Application Server installation or enter the User Name and Password of the user having the privilege to deploy the application.

3. The list of Application Servers is displayed. Navigate to the oc4j instance given under Oracle Application Server during installation. The default oc4j instance is home.

4. Select the group on which your OC4J instance is running.

5. Select the **Applications** tab.
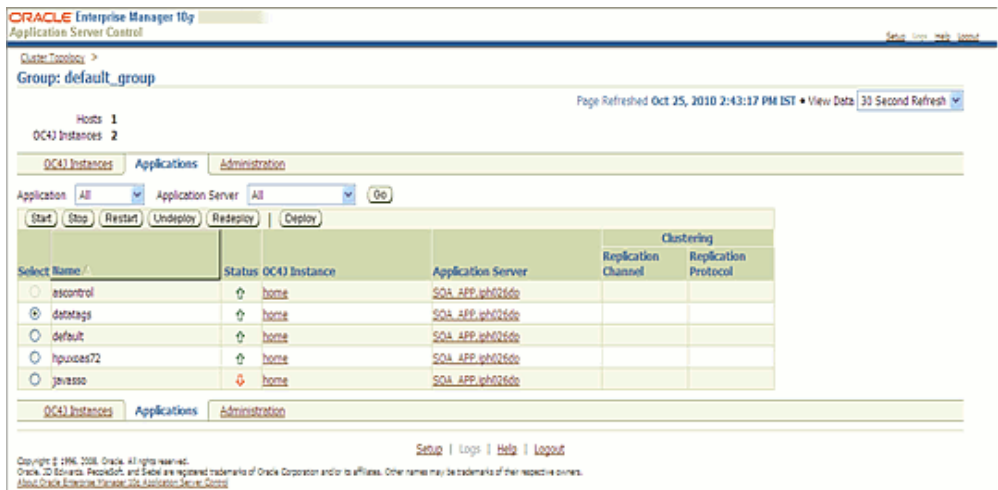
6. The options for starting, stopping, restarting, undeploying, redeploying and deploying tasks for J2EE applications are available in this page. Click **Deploy**.

> **Note:** Do not stop or perform any action on pre-deployed application such as ascontrol, bc4j etc.

7. The Deploy: Select Archive page is displayed. Select the Archive is already present on the server where Application Server Control is running option.

Enter the Archive EAR file of OFSAAI application in the Location on Server field.

In addition, select the Automatically create a new deployment plan option.

8. Click **Next**. The Deploy: Application Attributes screen is displayed.

Enter the Application Name. Select the Parent Application as default and the Bind Web Module to Site as default-web site.

Enter the Name entered in the Application Name field as the Context Root for the OFSAAI Application in the Context Root field.

Click **Next** to continue.

9. The Deploy: Deployment Settings page is displayed. It is possible to Edit and Save the Deployment Plan in this page.
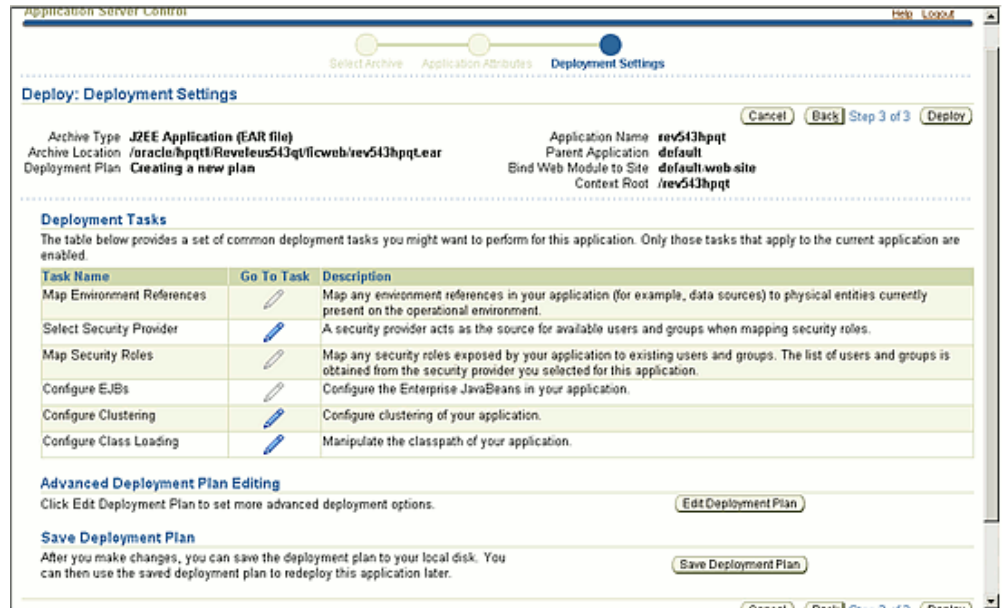
10. Click **Deploy**. After successful deployment, the Confirmation screen is displayed. Click the **Return** button.
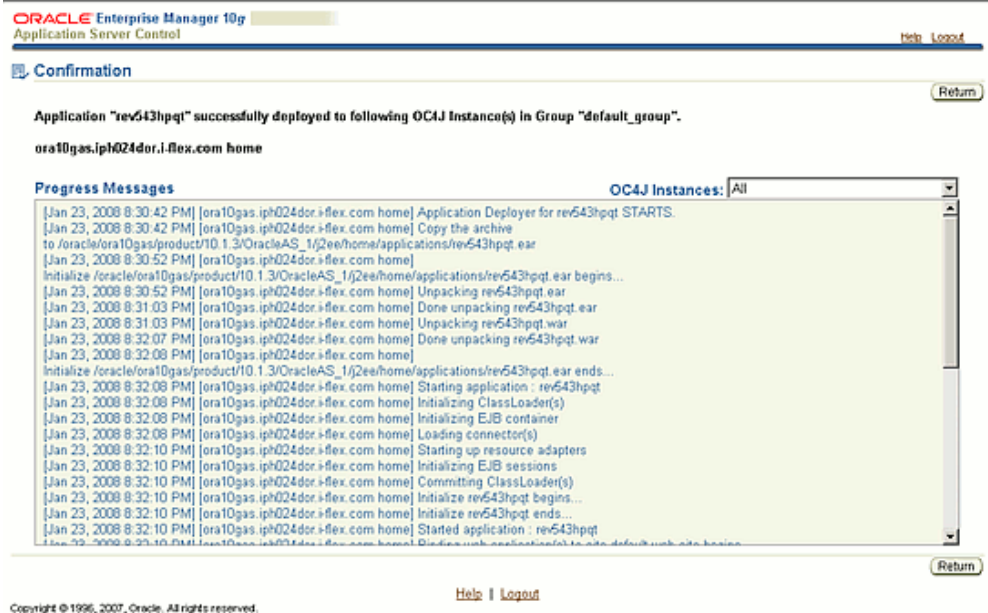
11. Expanded deployment will be found under <OAS Installation area>\j2ee\<instance name>\applications\ <application name>\<context name> folder in the web server host.

Oracle Application Server HTTPS Configuration:

Ensure the below steps for Configuring an HTTPS Transport on Oracle Application Server (OAS).

1. Navigate to <Oracle Application Server installation directory>/install/readme.txt to get the port number on which OAS HTTP Server is running. The port number is the port as given in the following text.

   Example
   ## SSL Support

   Listen 4444

   <VirtualHost _default_:4444>

   OR

   Execute the following command to find the https port on which HTTP Server is running <Oracle Application Server Installation Directory>/opmn/bin/opmnctl status -l

2. Note down the https port on which Oracle Application Server is running and use the same as servlet port or web server port during OFSAAI Installation.

3. To enable https configuration on Infrastructure, assign value 1 to "HTTPS_ENABLE" in OFSAAI_InstallConfig.xml for Silent mode OFSAAI installation.

10

Post Infrastructure Installation Activities

Introduction

Once the Infrastructure installation is completed successfully, certain post-installation steps are required to set configuration parameters. These configuration parameters are distributed across the machines on which Infrastructure Web; Application and Database components have been installed.

Configuring the libcpptripledes.so File

For WebSphere

Copy the libcpptripledes.so and libstlport.so.1 (Only if the installation is done on Solaris OS) file from $FIC_WEB_HOME\bin to <WebSphere installation path>\AppServer\bin.

Example: /websphere/ibm/AppServer/bin

For WebLogic

Copy libcpptripledes.so and libstlport.so.1 (Only if the installation is done on Solaris OS) files from $FIC_WEB_HOME\bin to <WebLogic Server Home>/server/native/<OS>/<LIB Folder>

Solaris

/weblogic/webl1013/bea/wlserver_10.3/server/native/solaris/sparc64

Linux

/weblogic/webl1013/bea/wlserver_10.3/server/native/linux/x86_64

AIX

/weblogic/webl1013/bea/wlserver_10.3/server/native/aix/ppc64

HPUX

/oracle/wl1031/Oracle/Middleware/wlserver_10.3/server/native/hpux11/IPF64

For Oracle Application Server

Copy libcpptripledes.so and libstlport.so.1 (Only if the installation is done on Solaris OS) files from $FIC_WEB_HOME\bin to <OAS installation path>/opmn/lib.

Example

/oracle/SOAnew10.1.3.1/product/10.1.3.1/OracleAS_1/opmn/lib

> **Note:** libcpptripledes.so configuration is required only if the web container is Websphere/Weblogic/Oracle Application Server.

Information Domain schema privileges

As the Information Domain Schema uses some of the tables from the config schema, ensure to execute the below file from the Infrastructure config database user before Information Domain is created.

<Infrastructure Database Layer Install Directory>/config_table_privileges_for_atomic_user.sql

Forms Framework

If the webserver is Tomcat, copy the jaxrpc.jar from the < OFSAAI Installation Directory >/axis-1_4/webapps/axis/WEB-INF/lib and place it in under <Tomcat Installation Directory>\lib.

Infrastructure Server Memory Configuration

Following sections describe the Memory Settings for Infrastructure Application Server, Tomcat, WebSphere, WebLogic, and Oracle Application Server.

> **Note:** You are requested to contact Infrastructure Support for guidance in altering the following memory settings, if required.

Infrastructure Application Server Memory Settings

Perform the Tomcat Memory Settings as follows:

Folder : <OFSAAI Installation Directory >/ficapp/common/FICServer/bin

File : reveleusstartup.sh

This file can be edited for setting customized memory settings and garbage collector settings depending on the available hardware configuration.

Modify X_ARGS appropriately. Currently it holds:

X_ARGS="-Xms200m"

X_ARGS=" "$X_ARGS" $DELIM -Xmx2048m"

> **Note:** The settings are base minimum and will need to be incremented taking the deployment metrics into account. The increments are usually handled in multiples of 128mb for heap and 64mb for stack.

Tomcat Memory Settings

Perform the Tomcat Memory Settings as follows:

Folder : <CATALINA_HOME>/bin

File : catalina.sh

This file can be edited for setting customized memory settings and garbage collector settings depending on the available hardware configuration.

Add the memory setting for Java Heap to -Xms512m -Xmx1024m.

Example
```
if [ -z "$LOGGING_MANAGER" ]; then
  JAVA_OPTS="$JAVA_OPTS -Xms512m -Xmx1024m
-Djava.util.logging.manager=org.apache.juli.ClassLoaderLogManager"
else
  JAVA_OPTS="$JAVA_OPTS -Xms512m -Xmx1024m $LOGGING_MANAGER"
fi
```

> **Note:** The settings are base minimum and will need to be incremented taking the deployment metrics into account. The increments are usually handled in multiples of 128mb for heap and 64mb for stack.

WebLogic Memory Settings

Perform the WebLogic Memory Settings as follows:

1. Folder : <DOMAIN_HOME>/bin

   File : setDomainEnv.sh

   This file can be edited for setting customized memory settings and garbage collector settings depending on the available hardware configuration.

   Change the memory setting for Java Heap to -Xms512m -Xmx1024m.

Example

```
if [ "${JAVA_VENDOR}" = "Sun" ] ; then
 WLS_MEM_ARGS_64BIT="-Xms512m -Xmx1024m"
 export WLS_MEM_ARGS_64BIT
 WLS_MEM_ARGS_32BIT="-Xms512m -Xmx1024m"
 export WLS_MEM_ARGS_32BIT
else
 WLS_MEM_ARGS_64BIT="-Xms512m -Xmx1024m"
 export WLS_MEM_ARGS_64BIT
 WLS_MEM_ARGS_32BIT="-Xms512m -Xmx1024m"
 export WLS_MEM_ARGS_32BIT
fi
```

2. Folder : common/bin

File : CommEnv.sh

Example

```
JAVA_VM=
MEM_ARGS="-Xms256m -Xmx1024m"
```

> **Note:** The settings are base minimum and will need to be incremented
> taking the deployment metrics into account. The increments are usually
> handled in multiples of 128mb for heap and 64mb for stack.

WebSphere Memory Settings

Perform the WebSphere Memory Settings as follows:
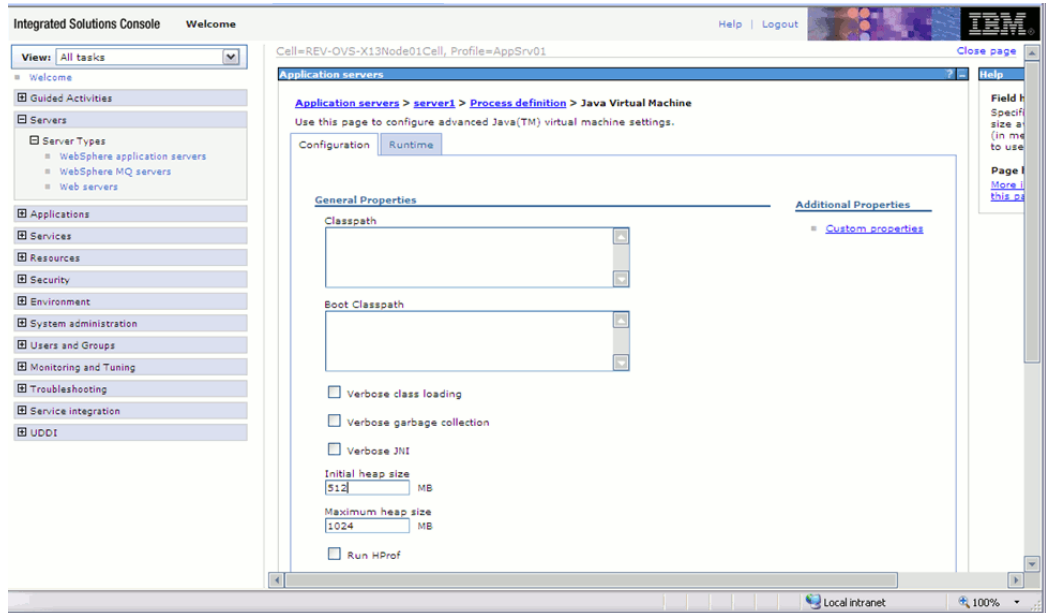
Navigate to Websphere applications server > Application servers > server1 > Process definition > Java Virtual Machine.

Change the memory setting for Java Heap to -Xms512m -Xmx1024m.

> **Note:** The settings are base minimum and will need to be incremented taking the deployment metrics into account. The increments are usually handled in multiples of 128mb for heap and 64mb for stack.

Oracle Application Server Memory Settings

To increase the Oracle Application Server Java heap size:

Open the *ORACLE_HOME*/opmn/conf/opmn.xml file in a text editor.

Locate the following memory setting:

`-XX:MaxPermSize=128M -ms512M -mx1024M`

Change the memory setting to:

`-ms1280m -mx1280m -XX:PermSize=128m -XX:MaxPermSize=256m`

Save and close the *ORACLE_HOME*/opmn/conf/opmn.xml file.

Report Display Configuration

> **Note:** This section is applicable if you are using the Insight module of OFSAAI.

The installation process automatically sets the configuration parameters for report display in DynamicServices.xml.

Do the following to set the display variable:

Log on to the machine where Hummingbird Exceed has been started. Set the DISPLAY variable to <IP address where Hummingbird Exceed is started> :< Passive communication Port set in Hummingbird Exceed>.0 and execute the command echo $DISPLAY from the command prompt. The value returned must be replaced in the WINDIR parameter in DynamicServices.xml.

The DynamicServices.xml file is present in <OFSAAI Installation Directory>/conf and for Websphere or Weblogic, DynamicServices.xml file will be present under <OFSAAI Application Deployment Area >/<contextname>.ear/<contextname>.war/conf in the web server.

Similarly for Tomcat the DynamicServices.xml file is present in <OFSAAI Application Deployment Area >/<contextname>.war/conf.

There are two instances of WINDIR parameter in DynamicServices.xml. You must replace both the instances, and then restart the servers for the changes to take effect.

Example
export DISPLAY=10.80.193.34:2.0

/home/<user> echo $DISPLAY

10.80.193.34:2.0

where, 10.80.193.34 is the client machine from which you are starting all the servers. The value of WINDIR in DynamicServices.xml must be replaced with this echoed value.

In case of application server and web server started from different Machines,

The WINDIR value in the DynamicServices.xml file present in <OFSAAI Installation Directory>/conf folder should be replaced with the echo $DISPLAY value taken from the machine on which Infrastructure application server is started.

The WINDIR value in the DynamicServices.xml file should be replaced with the echo $DISPLAY value taken from the machine on which web container is started.

For Weblogic and Websphere the DynamicServices.xml file will be present in <OFSAAI Application Deployment Area >/<contextname>.ear/<contextname>.war/conf folder.

Similarly for Tomcat, the DynamicServices.xml file will be present in <OFSAAI Application Deployment Area >/<contextname>.war /conf folder.

> **Note:** This step is applicable only when Hummingbird Exceed 7.0 is running.

Configuration of opmn.xml

Navigate to <Oracle Application Server Home>/opmn/conf/ directory. Open the

opmn.xml file and make the following changes:

1. Setting the java property value: Set the **java.awt.headless** property as false in the enabled OC4J instance on which the Reveleus application is deployed.

    Refer the block of text done for oc4j instance **home** and the group **appgrp**.

    ```
    .....
    ..
    <ias-component id="appgrp">
     <process-type id="home" module-id="OC4J" status="enabled">
     <module-data>
      <category id="start-parameters">
      <data id="java-options" value="-server
    -Djava.security.policy=$ORACLE_HOME/j2ee/home/config/java2.policy
    -Djava.awt.headless=false -Dhttp.webdir.enable=false"/>
      </category>
      <category id="stop-parameters">
      <data id="java-options"
    value="-Djava.security.policy=$ORACLE_HOME/j2ee/home/config/java2.po
    licy -Djava.awt.headless=false -Dhttp.webdir.enable=false"/>
      </category>
      </module-data>
      <start timeout="600" retry="2"/>
      <stop timeout="120"/>
      <restart timeout="720" retry="2"/>
      <port id="default-web-site" range="12501-12600" protocol="ajp"/>
      <port id="rmi" range="12401-12500"/>
      <port id="jms" range="12601-12700"/>
      <process-set id="appgrp" numprocs="1"/>
      </process-type>
            </ias-component>
    .....
    ...
    ```

2. Adding environment variable tag for the machine on which Oracle Application Server is installed:

    The opmn.xml file has an entry for the ias-instance id= "<OC4J Instance Name>.<hostname>"

    Refer the block of text done for group **appgrp** created for oc4j instance **home** on the host "iph024dor.i-flex.com".

    Add one more entry for DISPLAY variable given in bold below:

    ```
    .....
    ...
    <ias-instance id= ="home.iph024dor.i-flex.com "
     name="home.iph024dor.i-flex.com"
      <environment>
       <variable id="TMP" value="/tmp"/>
       <variable id="DISPLAY" value="<host name>:0.0"
        append="false"/>
      </environment>
    .....
    ...
    ```

> **Note:** For Oracle Application Server, the DISPLAY value is the value mentioned in the WINDIR attribute value in DynamicServices.xml.

OLAP Data Server Configuration

> **Note:** This section is applicable if you are using the OLAP feature of OFSAAI.

The following parameters must be set so as to ensure that the system limitations are not exceeded at any stage during the life of an instance of OLAP Data Server. The values for these OS parameters should be specified based on the expected load at each implementation site.

Example

Process Memory Limit

Max Thread Stack Size

Max Number of Threads per Process

You are requested to contact OFSAAI Support for guidance in altering the above settings.

Sort Buffer setting must be set at the Essbase application level appropriate to the anticipated load.

Shutdown and Restart: During shutdown of OFSAAI Server that has an instance of Data Services that is communicating with an OLAP Data Server, it is imperative to ensure that the cleanup of the old instance is completed on the OLAP Data Server before restarting the OFSAAI Server. Pause for a period of time based on the load the system was subjected to, before restarting the Data Services subsystem.

While viewing large Insight exports through the runner, an "Out Of Memory" error is likely to occur if the Web Server heap size is not appropriately set.

Configuration for User Attributes Screen

The User Attributes feature of Infrastructure allows you to enter additional attributes for a user. The CSSMS_ATTRIB_MAST table in the Config schema should be loaded with data based on the additional attributes that are required to be captured for a user. The field labels in the User Attributes screen of Infrastructure will be dependent on the values that are entered in this table.

Following is an example of the data to be loaded in the CSSMS_ATTRIB_MAST table:

CSSMS_ATTRIB_MAST table

ATTRIBUTE_ID	ATTRIBUTE_DESC	ALLOWED_VALUES	TYPE
PH	Phone Number		0
HT	Home town	Bangalore, Mumbai,Delhi,Chennai	1
MGR	Manager	select case when v_usr_id ='[<USER>]' then 'null' else v_usr_id end,v_usr_name from cssms_usr_profile	2

Here, ALLOWED_VALUES column holds the values that can be specified for the attribute and TYPE specifies how to get the allowed values.

The values that can be specified in the TYPE column are as follows:

• 0 – USER INPUT

• 1 – Comma Separated Values

• 2 – Execute the SQL select query in ALLOWED_VALUES column to get the list of allowed values. The query should select two columns, the first of which will be the actual values and the second, the description which will be displayed in the select list.

[<USER>] should be replaced with a valid Infrastructure user id.

Configuration of Infrastructure Ports

This step is applicable only in the event you wish to change any of the ports used by Infrastructure services after the installation process. The ports that are used by the Infrastructure application are distributed across the machines on which Infrastructure Web; Application and Database components have been installed. Therefore you must perform the port changes on all the machines on which Infrastructure components have been installed.

PortC.jar can be executed in the following two modes.

1. **GUI** - On each machine, navigate to the path **$FIC_HOME**. Enter the command *java –jar PortC.jar* GUI. The GUI Mode of PortC.jar requires Hummingbird Exceed to be running.

   The Configure OFSAA Infrastructure Port Numbers screen will be displayed.
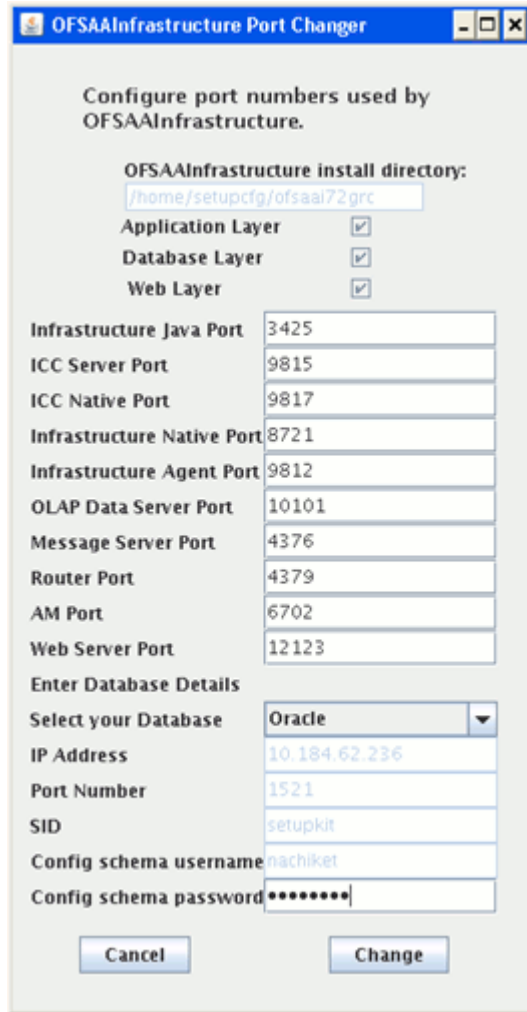
For more details about the Ports used in Infrastructure, see pre-installation activities check list, page 4-10.

The path in which Infrastructure components have been installed is displayed. The check-boxes corresponding to Application Layer, Database Layer or Web Layer are enabled based on the components that are installed on the current machine.

In the event you have performed a single-tier installation on the current machine, the check-boxes for all three components will be enabled.

If you have installed more than one category of components on the current machine, the corresponding check-boxes for the respective components you have installed will be enabled.

To edit the port value, enter the new port value. User has the option to change the required ports and leave the other ports unchanged. Only the ports for which values are modified will change and the ports that are unchanged will retain its default value.

Note

- All ports on a machine must be unique.

- The range of port numbers that are given should preferably be between 1025 and 65535.

- The servlet port can have 80 or 443 as port numbers if Default http/https ports are being used.

Select the Database Type as Oracle from the options provided in the dropdown.

The IP Address of the machine on which the corresponding database is installed will be populated.

The Port Number on which the database is listening is displayed.

The SID details are displayed.

The Config Schema username is displayed.

Enter the config schema password in the config schema password field.

Click the **Change** button to initiate the port changes. Click **Cancel** to exit the program.

2. **CMD** - On each machine, navigate to the path **$FIC_HOME**. Enter the command *java –jar PortC.jar CMD*.

Then enter the requested information to change the ports. Once the port numbers are changed in the Infrastructure configuration, a message will be displayed confirming the changes. The log Portchanger.log in the Infrastructure installation path provides the status of port changes performed.

For the above port changes to take effect, a re-start of all Infrastructure servers is required.

Note

- Do not execute the PortC.jar with CMD option in the nohup mode.

- These port changes are done only on the Infrastructure web components and not in the Web container installation directory (Infrastructure Application deployed directory) where EAR/WAR files are deployed. Thus, after the port changes on the Infrastructure web components are done, you will need to re-create the EAR/WAR files and re-deploy these files. (For more details, see Configuring the Servlet Engine, page 9-1).

Web Server Port Change

The Web Server Port is the same as the Servlet Port. In the event you wish to change the servlet port after the installation process, you must follow the same process as above in the Port Changes section. This will change the servlet port in the Infrastructure application.

Stop and start Infrastructure Server following the steps given in Starting Infrastructure, page 11-1

Re-start WebSphere / Tomcat / WebLogic/ Oracle Application server.

Check the connectivity from Servlet URL *<http://<IPaddress>:<PortNumber>/<context-name>/servlet/com.iflex.fic.ficml.FICMaster>*. The status should be successful for all the services.

Configuring HTTPs Certificate information

Update the <OFSAAI Deployment Path>/<ContextName.ear>/<ContextName.war>/conf/FICWeb.cfg with the HTTPs certificate related details.

Below is the section from FICWeb.cfg file to be updated.

```
# The foll properties are to be uncommented for a HTTPS setup and the
provider for websphere setup = "com.ibm.jsse.IBMJSSEProvider"
#MDD.PROTOCOL=$PROTOCOL
#MDD.TRUSTSTORE=$TRUSTSTORE
#MDD.TRUSTSTOREPASS=$TRUSTPASSWORD
#MDD.KEYSTORE=$KEYSTORE
#MDD.KEYSTOREPASS=$KEYPASSWORD
#PROVIDER=$PROVIDER
#DATE_FORMAT = MM/dd/yyyy
```

Infrastructure Configuration for LDAP

This provides you with the option of using LDAP (Lightweight Directory Access Protocol) authentication or Infrastructure SMS authentication for logging on to Infrastructure.

If you are using the Infrastructure authentication, the user and user group details, profile creation, function and role maintenance and other mappings can be done through the Infrastructure Administration module under Security Management. The data, in this case, will be updated in the CSSMS table.

However, if you wish to use LDAP for user authentication, then you have to ensure that the LDAP server is installed and configured.

Note

- Make sure that **OPEN LDAP 2.2.29+** is installed and configured.

- Before doing the following configuration, it is required to select the Authentication type as LDAP in the Configuration screen of Infrastructure. This screen can be accessed by selecting System Configuration > Configuration in the Left menu of Infrastructure.

- In the Windows machine in which LDAP Server is installed, go to the OpenLDAP installation directory through the command prompt and execute the following command to start the LDAP server

  slapd –d 1

Configuring Infrastructure Config Schema

In the Infrastructure Config schema make sure that the following entries are present in Configuration Table:

PARAMNAME	DESCRIPTION	PARAMVALUE EXAMPLES
AUTHENTICATION	AUTHENTICATION TYPE	2
TYPE		(AUTHENTICATIONTYPE value must be 2 for LDAP)
ROOTCONTEXT	The Root Context for the LDAP Directory	dc=<Reveleus>,dc=<com>
ROOTDN	The Root dn for LDAP directory	cn=<Manager>,dc=<Reveleus>,dc=<com>
ROOTPASS	Password for the Root	<secret>
LDAPURL	LDAP URL.	<ldap://10.80.193.35:389/>

Note: ROOTCONTEXT, ROOTDN, and ROOTPASS entries should be same as slapd.conf file.

Configuration of Openldap Files

1. Copy the reveleusSchema.schema from <Infrastructure Installation

Directory>/ficapp/common/ficserver/conf/LDAP_ldif folder to LDAPServer Schema folder.

2. Copy the Domains.ldif and Reveleus.ldif files from <Infrastructure Installation Directory>/ficapp/common/ficserver/conf/LDAP_ldif folder to OpenLDAPServer folder.

> **Note:** • Make sure that the ROOTCONTEXT in the Domains.ldif and Reveleus.ldif files are the same as slapd.conf file.

3. Make the appropriate entires for rootdn, rootpass and rootcontext in slapd.conf file in the OpenLDAPServer folder.

4. Add the following text as the first line of the slapd.conf file include schema/reveleusSchema.schema

> **Note:** • The above configuration is for OpenLDAP Server only. If you need to configure Infrastructure for ApacheDS Server or any other LDAP Server, you will have to make the changes appropriately. Contact Infrastructure Support for more clarifications.

5. In the command prompt, navigate to the LDAP installation directory and execute the following command:

ldapadd –D"ROOTDN" -w ROOTPASS –f/data/Reveleus.ldif

This is for creating the entries for Users, User Groups, Functions, Profiles, Segments, Domains, Roles, and HolidayMaster in the Data information Tree of LDAP.

6. For each information domain that is created through the Infrastructure UI, it is required to make an entry in the Domains.ldif file. To add an entry corresponding to the new information domain to the Domains.ldif file, add the following block of text with the appropriate values:

- dn: DSNID=<DSN ID>,ou=Domains,@LDAP_DIRECTORY_ROOTCONTEXT@

- changetype: add

- mappedsegments: <Mapped segments/~>

- dsnid: <DSN ID>

- infodomname: <Information Domain Name>

- objectClass: Infodom

- objectClass: top

- infodomdescription: <Information Domain Description>

Example
- dn: DSNID=FUSIONMOCK, ou=Domains, dc=FTP1,dc=com

- mappedsegments: ~

- dsnid: FUSIONMOCK

- infodomname: FUSIONMOCK

- objectClass: Infodom

- objectClass: top

- infodomdescription: FUSIONMOCK

Then, navigate to the LDAP installation directory and execute the following command:

ldapmodify –D"ROOTDN" -w ROOTPASS –f/data/Domains.ldif

> **Note:** You can add entries for multiple information domains at the same time.

Migration of Data from CSSMS tables to LDAP server

If you are using LDAP authentication, it is required to migrate all the details from the CSSMS table, which contains the information entered using the Infrastructure Administration module under Security Management to the LDAP Server.

1. In the command prompt, navigate to $FIC_HOME/MigrationUtilities/Migration_LDAP/bin and invoke the LDAP_Migration.sh file.

2. The Select Source & Destination for Migration window is displayed.

This screen provides you the option to migrate the data from CSSMS to LDAP or vice versa. Select the SMS to LDAP option to migrate all the user information from

the CSSMS table to the LDAP server.

3. The Select Entities to Migrate window will be displayed. You can select the data that you wish to migrate such as Users, User Groups, Functions, Roles, Segment, Profiles, Holiday Master, Function Role Maps, User – User Group Maps, User Group Role Map, and User Group- Domain Map.

```
┌─Select Entities To Migrate────────┐
│                                    │
│     ☑ User                         │
│     ☑ User Group                   │
│     ☐ Function                     │
│     ☐ Role                         │
│     ☐ Segment                      │
│     ☐ Profile                      │
│     ☐ Holiday                      │
│     ☐ Function – Role Map          │
│     ☐ User – User Group Map        │
│     ☐ User Group – Role Map        │
│     ☐ User Group – Domain Map      │
│                                    │
│     [  Migrate  ]   [  Close  ]    │
│                                    │
└────────────────────────────────────┘
```

Select the entities that you wish to migrate and click **Migrate**. The migration will take place and a confirmation window will be displayed. You can verify the data migrated to LDAP server through the LDAP Browser.

4. You should also enter the passwords for all the users as passwords are not migrated in migration process.

Kindly contact Infrastructure support for more information on Infrastructure Configuration for LDAP.

Configuring OFSAAI Web Services

Web Services in OFSAAI is meant for exposing a web service to asynchronously or synchronously execute requested tasks offered by OFSAAI. The configuration steps given below are to be done only if you are using the Web Services feature of OFSAAI. Please contact OFSAAI Support to know more about OFSAAI Web Services.

Configuring DynamicWSConfig.xml File

For each third party web service that needs to be accessed using the OFSAAI Web services framework and the operations to be invoked, corresponding entries are to be made in the DynamicWSConfig.xml template file.

The DynamicWSConfig.xml file will be available in the <OFSAAI Installation
Directory>/EXEWebService/ <WebServer>/ROOT/conf directory. This file can be placed
in any directory that is accessible by the application and this location must be specified
in the web.xml file, as WSCONFIGFILE parameter.

The DynamicWSConfig.xml template file will be in <WebServer Deployment Path>/
EXEWebService.ear/EXEWebService.war/conf directory

This template is given below:

```
<XML>
<WEBSERVICES>
<WEBSERVICE CODE="$CODE"
ENDPOINT="$ENDPOINT" TARGETNAMESPACE="$TARGETNAMESPACE"
XMLNS_XSD="$XMLNS_XSD" ENCODINGSTYLE="$ENCODINGSTYLE"
SERVICENAME="$SERVICENAME" PORTTYPENAME="$PORTTYPENAME"
SESSION_MAINTAIN_PROPERTY="$SESSION_MAINTAIN_PROPERTY"
USERNAME="$USERNAME"
PASSWORD="$PASSWORD" STYLE="$WEBSERVICESTYLE"
STUBIMPLEMENTATION="$STUBIMPLEMENTATION">
<OPERATION CODE="$CODE"
NAME="$NAME"
SOAPACTION="$SOAPACTION"
STYLE="$STYLE"
PACKAGENAME="$PACKAGENAME">
<INPUT ORDER="$ORDER"
PARAMNAME="$PARAMNAME"
ARGTYPE="$ARGTYPE"
CLASSNAME="$CLASSNAME"/>
<OUTPUT PARAMNAME="$PARAMNAME"
RETURNTYPE="$RETURNTYPE"
CLASSNAME="$CLASSNAME"/>
</OPERATION>
</WEBSERVICE>
</WEBSERVICES>
</XML>
```

The DynamicWSConfig.xml has the following placeholders, which has to be updated
depending on the web service chosen and the mode of accessing it.

Attributes for WEBSERVICE tag

$CODE - Unique number within the xml file and cannot be 999 or 0.

$ENDPOINT – soap:address location in the wsdl:service name tag of the wsdl file.

$TARGETNAMESPACE – The attribute value for the targetNamespace of the
wsdl:definitions tag.

$XMLNS_XSD - The attribute value for the xmlns:s of the wsdl:definitions tag

$ENCODINGSTYLE - The attribute value for the xmlns:soapenc of the wsdl:definitions
tag.

$SERVICENAME – Name of the service found under the wsdl:service name tag of the

wsdl file.

$PORTTYPENAME – wsdl port type name as mentioned in the wsdl file

$SESSION_MAINTAIN_PROPERTY- This could be given as "" also.

$USERNAME – User name to access the web services. Enter "" if no user name is required.

$PASSWORD – Password to access the web services. Enter "" if no password is required.

$WEBSERVICESTYLE – This can take either "rpc" in case of DII mode of invoking web services or "stub" in case of static mode. This is a mandatory parameter.

$STUBIMPLEMENTATION – Fully qualified class name (package name.classname). Attributes for OPERATION tag

$CODE – Should be unique within the Webservice tag.

$NAME – The name of the Function that is to be called by the wsdl file.

$SOAPACTION – The URL for the Operation to access. This is associated with the Operation tag of the wsdl file.

$STYLE – This can take either "rpc" in case of DII mode of invoking web services or "stub" in case of static mode. This is a mandatory parameter.

$PACKAGENAME – Represents the JAXB package of input object.

> **Note:** For each operation to be accessed, the operation tag must be repeated.

Attributes for INPUT tag

$ORDER – The sequential number of the INPUT tag. Should start from 0. This is in line with the input order of the arguments that the API accepts which is called by this operation.

$PARAMNAME – Input parameter name to be called by the wsdl file.

$ARGTYPE – Input Parameter Data Type. If the input argument type is complex object, specify $ARGTYPE as "xmlstring".

$CLASSNAME – Represents class name of input object parameter.

Attributes for OUTPUT tag

$PARAMNAME - Output parameter name to be returned by the web service.

$RETURNTYPE - Output parameter Data Type. If the web service response is a complex object, then specify $RETURNTYPE as "object".

$CLASSNAME - Represents class name of output object parameter.

Note

- For each web service to be accessed, the entire webservice tag in the DynamicWSConfig.xml file must be repeated.

- These placeholders explained above should be set in accordance to the parameters published in the third party wsdl files (webservices) to be accessed.

- The stub class specified must implement the com.iflex.Oracle Reveleus.execution.webservice.EXEWebIF interface.

Entries to be made in web.xml

Navigate to <OFSAAI Installation Directory>/EXEWebService/<WebServer>/ROOT/WEB-INF/ and edit the web.xml file as explained below

Entry for WSConfig File

The WSCONFIG file (DynamicWSConfig.xml) is available in the <WebServer Deployment Path>/ EXEWebService.ear/EXEWebService.war/conf directory. This file can be placed in any directory that is accessible by the application.

The path where the WSCONFIG file is placed must be specified in place of $WSCONFIGFILELOCATION$ in the below block of text in web.xml.

```
<context-param>
    <description>WebServices Configuration File</description>
    <param-name>WSCONFIGFILE</param-name>
    <param-value>$WSCONFIGFILELOCATION$</param-value>
    <!--Specify the Location of DynamicWSConFig.xml-->
  </context-param>
```

Proxy Settings

In the following block of text in web.xml file, replace the <param-value> given in bold below with appropriate values.

If no values are required, leave the <param-value> blank.

```
<context-param>
    <description>http Proxy Host</description>
    <param-name>http.proxyHost</param-name>
    <param-value>$PROXYHOST$</param-value>
    <!-- Specify the IP Address of the http proxy server-->
  </context-param>
  <context-param>
    <description>http Proxy Port</description>
    <param-name>http.proxyPort</param-name>
    <param-value>$PROXYPORT$</param-value>
    <!--Port Number for the Proxy Server-->
  </context-param>
  <context-param>
    <description>http proxy UserName</description>
    <param-name>http.proxyUserName</param-name>
    <param-value>$PROXYUSERNAME$</param-value>
    <!-- User ID To get authenticated by proxy server-->
  </context-param>
  <context-param>
    <description>http proxy Password</description>
    <param-name>http.proxyPassword</param-name>
    <param-value>$PROXYPASSWORD$</param-value>
    <!-- User Password To get authenticated by proxy server-->
  </context-param>
  <context-param>
    <description>http non-ProxyHosts</description>
    <param-name>http.nonProxyHosts</param-name>
    <param-value>$NONPROXYHOST$</param-value>
    <!--Hosts for which the proxy settings should get by-passed (Note:
Separate them by "|" symbol) -->
</context-param>
```

OFSAAI Home Entry

This entry should point to the Application layer / Web layer of the OFSAAI installation and should be accessible.

Replace FIC_HOME in the following block of text in web.xml with <WebServer Deployment Path>/EXEWebService.ear/EXEWebService.war.

```
<context-param>
    <description>OFSAAI Web Home</description>
    <param-name>FIC_HOME</param-name>
    <param-value>$FIC_HOME$</param-value>
    <!--OFSAAI Installation Folder-->
</context-param>
  <context-param>
    <description>OFSAAI Web Home</description>
    <param-name>FIC_PHYSICAL_HOME</param-name>
    <param-value>$FIC_HOME$</param-value>
    <!--OFSAAI Installation Folder-->
  </context-param>
```

DynamicWSConfig.xml

For each third party web service that needs to be accessed using the OFSAAI Web services framework, and the operation to be invoked, make corresponding entries into this file. This file is to be placed in the location that is specified in the web.xml, as

WSCONFIGFILE parameter.

Deploying OFSAAI Web Services

If you have chosen not to configure OFSAAI Web Services as part of the installation, after completing the manual configuration of OFSAAI Web Services, navigate to <OFSAAI Installation Directory>/EXEWebService/<WebServer> and execute ant.sh.

This will trigger the EAR/WAR file creation, which is required for the deployment. Deploy the generated EXEWebService.EAR/EXEWebService.WAR file into the WebServer.

If you have already chosen to configure OFSAAI Web Services as part of the installation, just deploy the generated EXEWebService.EAR/ EXEWebService.WAR file into the OFSAAI Deployment area in WebServer profile.

IE Settings

The following browser settings have to be specified at every client machine prior to accessing the Infrastructure application.

Open Internet Explorer. Select Tools > Internet Options. The Internet Options window is displayed. Click the **Settings** button. The Settings window is displayed. Select the Everytime I Visit the webpage option. Click **OK**.
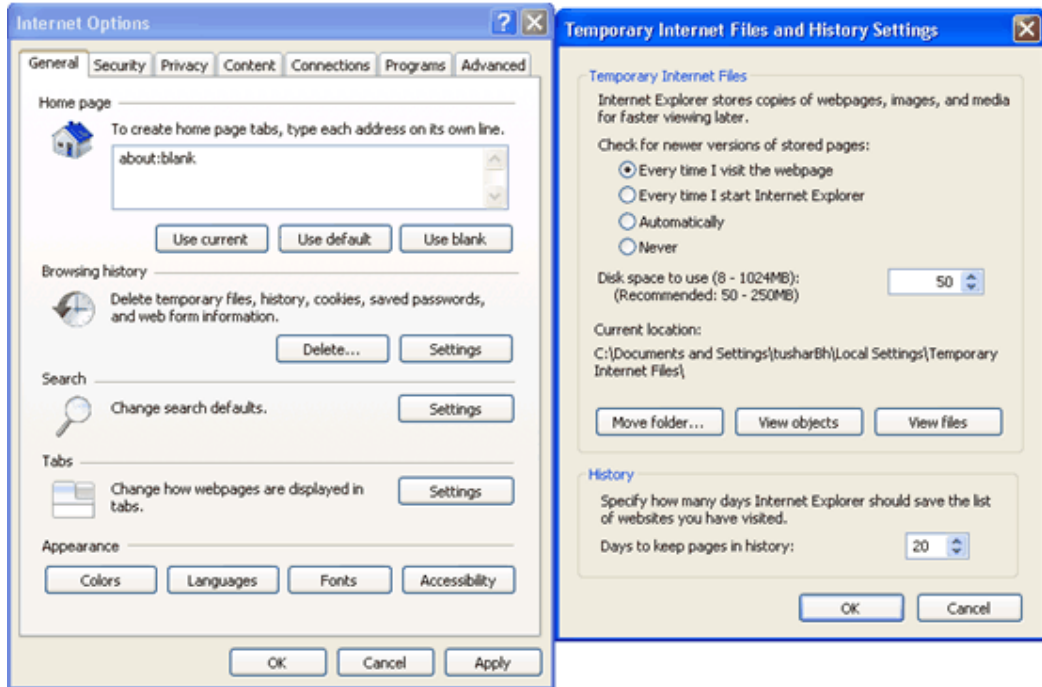
In the Internet Options window, select the Security tab and select the Internet option under Select the Web content zone to specify its security settings.

Click **Default Level** under Security level for this zone.
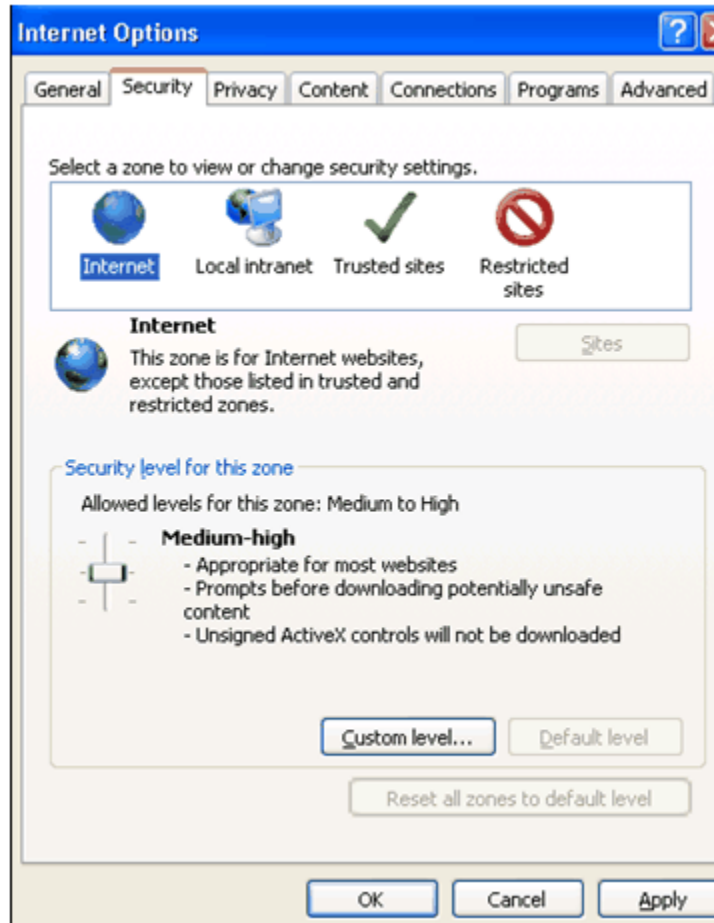
If the browser is accessed through Windows XP, this Infrastructure installation site needs to be added to the list of trusted sites. This can be done from the Internet Options window.

Select the **Security** tab and select the **Trusted** Sites option. Click the **Sites…** button. In the Trusted Sites window that is displayed, enter the Infrastructure URL in the Add this Web site to the zone box. Click **Add**.
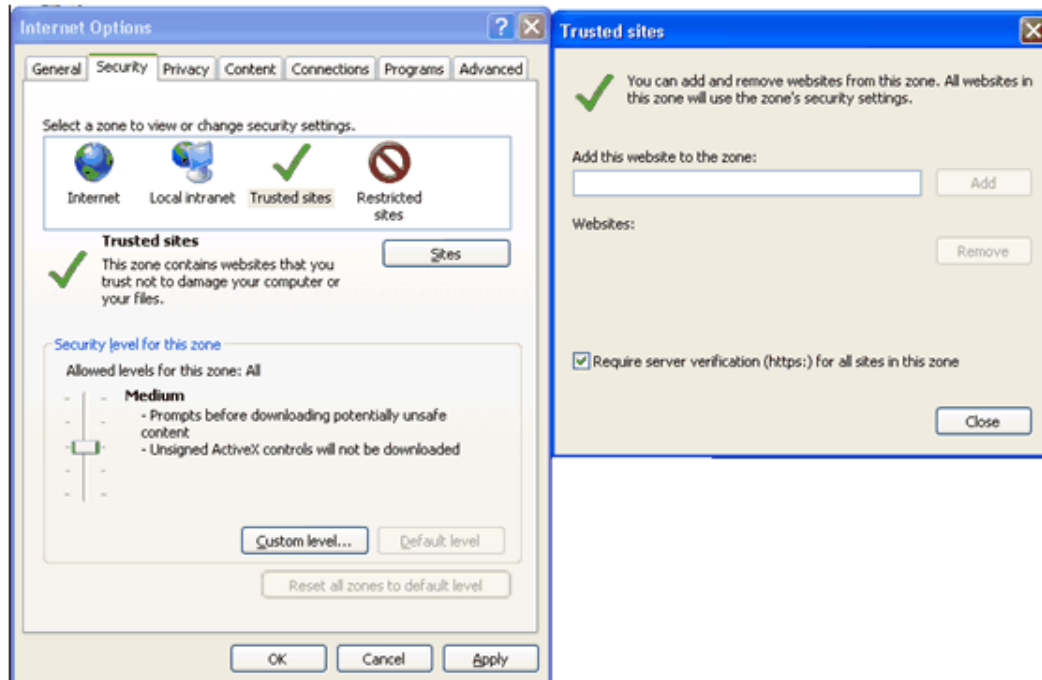
Click **OK** in the Internet Options window to save the settings.

SFTP and FTP Configuration

The user can choose the type of FTP configuration required. The user can choose to have either Secure FTP or FTP. Based on the choices made, the users used for installation of each of the Infrastructure components should be configured appropriately.

The SFTP/FTP services should be enabled and the respective ports should be open for connection.

In case of multi-tier installation of Infrastructure, when choosing FTP or SFTP configuration, make sure that the same configuration is done for Database, Application and Web Servers.

> **Note:** For SFTP configuration, openssh-4.3 software should be downloaded and installed in all the Infrastructure Server machines. You can download it from http://www.openssh.com/openbsd.html

FTP/SFTP services are required when configuring all Server Details for the Database Server and Application Server as documented in Configuring Database Server Details, page 13-1.

The command below can be used on either the Database Server, Application Server or Web Server to verify the availability and connectivity of ftp/sftp services:

ftp/sftp <<IP address or HOSTNAME>>

Information on Patches installed in the environment

For getting details on the patches that are installed in the OFSAAI environment, query the table INFODOM_PATCHES in the <configuration> schema.

select * from infodom_patches;

INFODOM_PATCHES table in configuration schema gives the information of the patches which are already applied in OFSAAI environment.

Table Name	Description
V_INFODOM	Name of INFODOM
N_SERIAL_NO	Serial No. of patch
V_PATCH_NAME	Version of the patch applied
V_REMARKS	Remarks
D_APPLIED_DATE	Patch application date

The user can run the below query to get information about the patches which are applied.

select v_patch_name from infodom_patches;

11

Starting Infrastructure

Introduction

Once the installation of Infrastructure has been completed successfully and the post-installation steps are completed, the servers must be started. Log on to each machine and run the **.profile** file. All servers mentioned must be started from the same shell encoding. The servers mentioned below are dependent on each other. It is mandatory to maintain the order in which the servers are started. Allow each of the servers to initialize completely before starting the next server.

Starting the Infrastructure Server

On the machine in which Infrastructure Application components have been installed, navigate to *$FIC_APP_HOME/common/FICServer/bin* and execute the following command to start the Infrastructure Server:

./reveleusstartup.sh

- When starting the server the first time, it must be done in the foreground to answer prompts. Enter the password of the Oracle Config schema, when it prompts for a system password. This password is asked only the first time of starting Infrastructure server.

- If the Oracle Config schema password is changed, delete the Reveleus.SEC file under $FIC_HOME/conf and start the server.

- When saving Database Server Details during Infrastructure Configuration, the Infrastructure server must also be started in the foreground to answer the following prompt on save:

  The host 10.123.45.678 is currently unknown to the system

  The host key fingerprint is: 1023: 1e 35 46 7f 81 e7 16 6b 33 e8 59 f7 d cf 5b b1

Do you want to allow this host key? [Yes|No|Always]:

Always should be entered when prompted.

- After the initial startup of the Infrastructure server and completion of Infrastructure configuration, the server may be started as a background process using the following:

nohup ./reveleusstartup.sh

- Any router connection errors in the revappserver.log may be ignored.

> **Note:** Enter any user-defined password when prompted.

Starting Websphere profile

On the machine where Websphere is installed, navigate to [Webshpere_Install_Directory] / AppServer/<profiles>/<profile name>/bin and execute the following command to start the Websphere server:

startServer.sh server1

Starting the Tomcat Application

On the machine in which Tomcat is installed, go to the <Tomcat_Install_ Directory>/bin and execute the following command to start the Tomcat server:

./catalina.sh run

Starting WebLogic profile

On the machine in which Weblogic is installed, navigate to <WebLogic Installation directory>/user_projects/domains/<domain name>/bin and execute the following command to start the Weblogic server

startWebLogic.sh –d64

> **Note:** If WebLogic is already running, access the WebLogic Admin Console. Stop & start the application <context name>.ear

Starting Oracle Application Server

On the machine in which Oracle Application Server is installed, navigate to [Oracle Application Server_Install_Directory]\opmn\bin

- Opmnctl start

Starting the Information Command Center (ICC) Server

On the machine in which Infrastructure default Application components have been installed, navigate to $FIC_HOME/ficapp/icc/bin and execute the following command to start the ICC server:

./iccserver.sh

> **Note:** Only the Infrastructure Default Application Server would hold the ICC components.

Starting the Back-end Server

On the machine on which Infrastructure Database components have been installed, navigate to $FIC_DB_HOME/bin and execute the command to start agent server:

./agentstartup.sh

> **Note:** This agent will internally start the Router, Message Server, OLAP data server and AM servers.

Starting the Infrastructure Server Administrative Console

Under default Application Instance, navigate to $FIC_HOME/ficapp/common/FICServer/bin and execute the following command to start the Infrastructure Server Administrative Console:

./AdminConsole.sh

> **Note:** The Administrative Console must be started either directly on the server or via Hummingbird Exceed as a GUI window will appear once started.

Logging into Oracle Financial Services Analytical Applications

All applications services have now been started. The application can be accessed from a client machine. From a client workstation, open the client browser and provide the URL as http://<IP address>:<servlet port>/<context-name>/login.jsp.

Example
http://10.80.122.228:8888/reveleus/login.jsp

> **Note:** If https configuration is enabled, the client browser will need to disable the proxy servers through the client browser's internet options.

This displays the login screen of Infrastructure.

There are two in-built system administration users provided by the system:

- SYSADMN:

    Login with the password that was provided during installation.

- SYSAUTH:

    Login with the password that was provided during installation.

Log on to the application using **SYSADMN** as the User Id. The first time you log in, you will be prompted to change the password.

> **Note:** There is no I in the SYSADMN login.

Note

- Several configuration activities are to be carried out before starting working on Infrastructure. Refer to the following configuration chapters in this guide for more details.

- Each new file that is created in the **ftpshare** folder of any installation layer should be granted specific / explicit permission

If you encounter any problems during setup, please contact Infrastructure Support.

For any Post Installation queries, see OFSAAI Infrastructure Post Installation Steps, page 10-1.

12

System Configuration

Introduction

The **System Configuration** function enables you to define Server, Database, Information Domain and Configuration.

System Configuration activities should be performed by the system administrator using a System Administrator User Id.

Click **+** to access the list of System Configuration options.

System Configuration activities can be categorized into three logical groups.

Group I assists the administrator while configuring various server components and miscellaneous activities. This needs to be done in the following order:

- Server Details

- Database Details

- Configuration

Group II assists the system administrator while configuring activities relating to setting up of the warehouse for various information analytics.

- Information Domain

See Also: Administration > Security Management > System Administrator >**Function Maintenance** section.

For more information on Infrastructure Administration section see also, *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

Configuring Server Details

This feature helps the administrator to configure the various server setup details in

Infrastructure .

Prerequisites

- Successful completion of Infrastructure Installation.

- Infrastructure System Administration User Id / Password.

- Availability of FTP/SFTP services, User Id with appropriate rights and Password information in the Application Server, Database Server(s) and Web Server(s).

FTP/SFTP services are required when configuring all Server Details for the Database Server and Application Server as documented in Configuring Database Server Details.

See System Configuration, page 12-1, Configuring Database Server Details, page 13-1 and Configuring Details, page 14-1 (contains Information Domain creation information)

The command below can be used on either the Database Server, Application Server or Web Server to verify the availability and connectivity of ftp/sftp services:

ftp <IP Addr or Hostname>

sftp <USER ID>@<IP Address or HOSTNAME>

13

Configuring Database Server Details
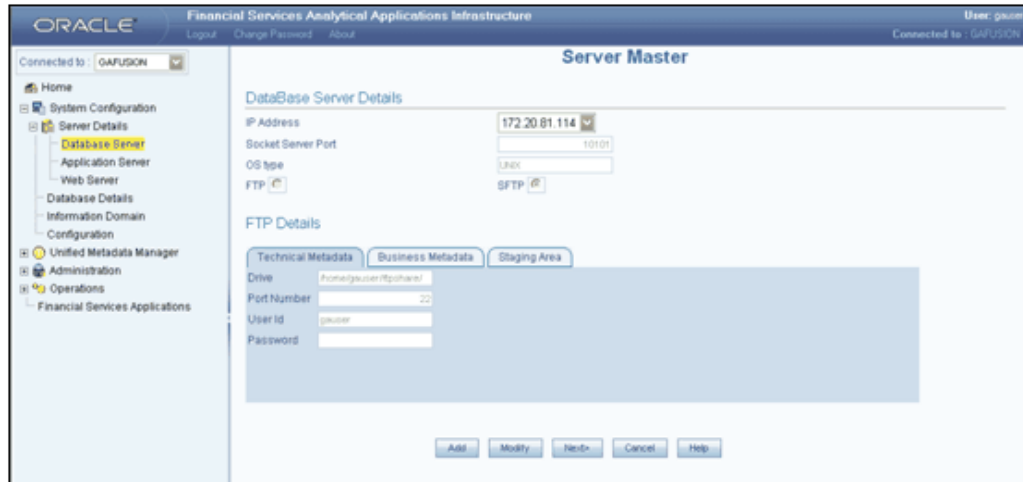
To configure database server

Click **Server Details** to expand its sub-options, namely Database Server, Application Server and Web Server.

The database layer of Infrastructure can be represented by a single database server. This option helps the user to capture the database server(s) set-up details.

Click the **Database Server** option to open the Server Master screen.

> **Note:** Several information domains can reside on the same database server. However one information domain can be mapped to only one database layer.

> See Also : Configuring an Information Domain, page 14-23 section.

Using the Server Master wizard, you can specify details of the machines on which Infrastructure Database, Application and Web components have been installed. You can use the **Add** and **Edit** modes in the Server Master screen.

Configuring Database Server Details

The Add option in the DataBase Server Details screen enables the user to provide set-up details for a database server and add multiple servers.The IP addresses of all the three Infrastructure servers entered during setup cannot be modified. The first screen accepts the Database server information like Database FTP/SFTP drive details, user Id and password.

The user should create the FTP/SFTP information manually, prior to entering the details.

The application will check if the details provided are correct. Apart from the FTP information, the screen also considers the socket server port in the database machine by default. Be sure to have the Infrastructure server started in the foreground to answer the following prompt which will appear in the Unix server command window when saving Database Server Details:

The host 10.123.45.678 is currently unknown to the system

The host key fingerprint is: 1023: 1e 35 46 7f 81 e7 16 6b 33 e8 59 f7 d cf 5b b1

Do you want to allow this host key? [Yes|No|Always]:

Always should be entered when prompted.

The FTP/SFTP information is accepted based on the following details in the Database Server:

Technical Metadata: Information related to the Entities and Attributes are stored in this path.

Business Metadata: Business Logic XML's are stored in this path.

Staging Area: The raw data files are moved or transferred into this folder. The system also transfers the extracted data file into this folder.

> **Note:** In UNIX, you will not require an FTP/SFTP share name. The drive name is captured as share name.

Validations

- FTP/SFTP information cannot be blank.

- The Host DB type cannot be blank.

Modifications

The system allows modifications of the PATH and other related FTP/SFTP information. However the old files should be physically moved to the new path. The system ensures that all new files are generated / transferred into the new path.

In the second screen the user is required to enter the security details for the server settings. For each of the entries there will be single line help on the same screen. The **Information Command Center** (ICC) will use this information for judiciously using the system resources.

In the third and fourth screens the user is required to enter Web server and Application server details.

Note

- This feature cannot be used as a migration tool. It is usable only in cases where the user has changed the IP address of the physical machine in use as the Database Server.

- Changing the IP address of the physical machine in use will have no impact on the activities being performed on that machine.

- However, if the user chooses to move the DB server from one machine to another machine, the IP address of the machine will definitely be different. In this case it is mandatory to setup/install the DB server on the new machine. The following example illustrates the point.

Web IP Address	App IP Address	DB IP Address

| 14.16.1.1 | 14.16.1.2 | 14.16.1.3 |
| 14.16.1.1 | 14.16.1.2 | 14.16.1.4 |

Scenario 1

• The IP Address of the machine on which the DB server is installed is 14.16.1.3. For some reason you change this IP Address to 14.16.1. 4. The system will handle this scenario, by modifying the address in relevant places. Since there is no need for a migration in this case, the system will work with the changed IP address. This is possible because the activities being performed on the machine will continue on the same physical machine with the only change being that of the IP address.

Scenario 2

• There is a change in the Physical DB Machine from 14.16.1.3 to 14.16.1.4. In this case, the User should run the DB Server setup utility and the Migration utility to change the Db server information.

• Unlike scenario 1 where only the IP address of the physical DB machine had undergone a change, scenario 2 explains a situation where the DB server is moved to another physical machine, hence the system processes will not be able to function till the DB server is setup and configured on the new physical machine.

Defining Server Details

Click Server Details to expand the options within it, namely Database Server, Application Server and Web Server. Select Database Server to view the Database Server Details screen.
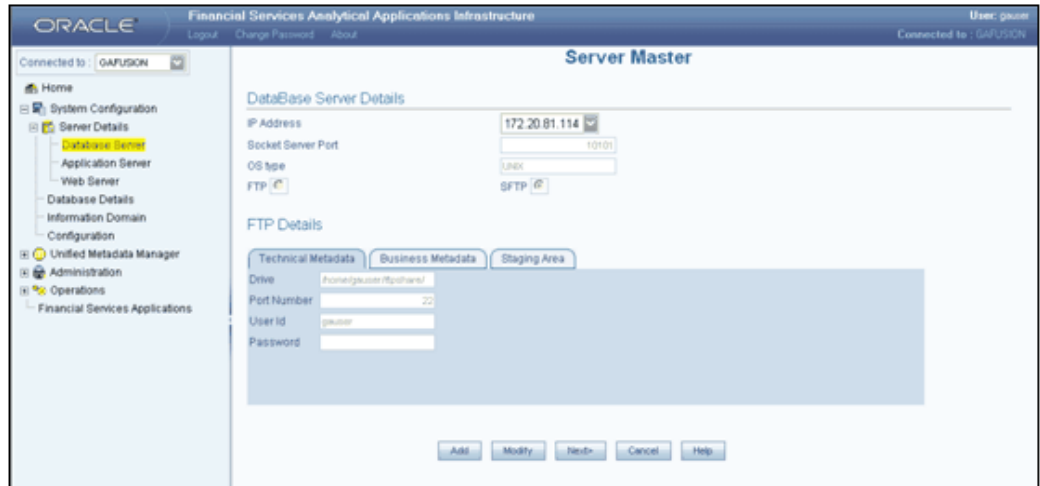
- FTP/SFTP service should be installed on the Web/Application and DB Server.

- The FTP/SFTP ID for Web/App and DB server needs to be created through the Computer Management option under Administrative Tools for all the installations other than UNIX installations. This user should belong to the administrator group.

- The FTP/SFTP password for Web/App and DB server needs to be specified in the Computer Management option under Administrative Tools. Select the Password Never Expires option.

Entering Database Server Details

Click Database Server option to open the Database Server Details screen.

In the first screen of the wizard, you are required to specify the database details. To define database details, click **Add**, which will cause the screen to refresh and display blank fields.
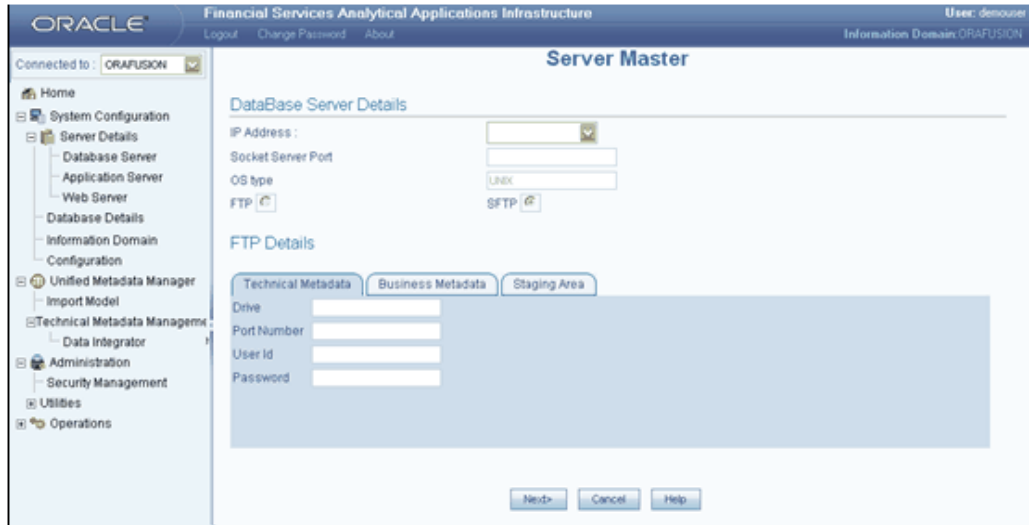
Specifying the IP Address

The IP Address refers to the IP configuration of the machine where the database server is installed. This should be the same IP Address that the systems administrator had specified during the Infrastructure (Database Layer) Installation.

Specifying the Socket Server Port

As the Socket Server Port is already fetched by default, this field should be left with the default port number.

Specifying the OS Type

The **OS type** (Operating System) of the database is detected by the Infrastructure Application and cannot be edited.

Example

NT

Note

- The current system supports only similar OS types in a single implementation. That is, all database servers should be installed in machines with same OS types. In case of UNIX implementations, all the database servers can be of type UNIX (same version).

- Infrastructure does not support UNIX and NT combination.

Entering FTP/SFTP Details for the Database Server

FTP refers to the transfer of files from one server to another. Database servers, Application server and Web servers of Infrastructure need to transfer files such as metadata and staging files between each other.

SFTP refers to secure FTP for transfer of files from one server to another database server. For each database server, the FTP or SFTP path for receiving and sending files, user id / password details need to be defined for Technical Metadata, Business Metadata and Staging Area related files transfer.

The FTP share directory/path must have a "/" at the end of the directory (for example, /app/ftpshare/).

Select the FTP or SFTP option button based on your requirements.

Infrastructure allows users to maintain the paths on the servers where metadata is expected to reside based on their machine configuration. The paths include Scripts or Business Metadata, Log, Erwin or Technical Metadata and Stage. Infrastructure creates files into these paths that include the following:

- Erwin Path, currently referred to as path for Technical Metadata, stores

- TFM and Database Model XML files

- Table Creation scripts

- SCRIPTS Path, currently referred to as path for Business Metadata, stores

- Log Path, stores the Log files for all the Backend and Front-end components.

- Stage that stores the FLAT file to be loaded through Data Integrator. This is the only path that is not tagged to any Information Domain.

Users can individually maintain the above-mentioned paths in different drives based on the machine configuration.

Example
Erwin Path (Technical Metadata) can be in (Windows) - c:\Infrastructure \Erwin (or) (UNIX) - /usr/Infrastructure /Erwin

Scripts Path (Business Metadata) can be in (Windows) - f:\Infrastructure \scripts (or) (UNIX) - /usr/Infrastructure /scripts

Log Path can be in (Windows) - d:\Infrastructure \Logs (or) UNIX - /usr/Infrastructure /logs

Infrastructure requires individual FTP/SFTP share information into all these folders. The users can choose to create all these folders in the same drive also.

Example
Erwin Path (Technical Metadata) can be in (Windows) - c:\Infrastructure \Erwin (or)

(UNIX) - /usr/Infrastructure /Erwin

Scripts Path (Business Metadata) can be in (Windows) - c:\Infrastructure \scripts (or) (UNIX) - /usr/Infrastructure /scripts

Stage Path can be in (Windows) – c:\Infrastructure \Stage\ or (UNIX) - /usr/Infrastructure /Stage/

Defining Technical Metadata

The Technical Metadata tab is selected by default.

Infrastructure creates the following set of files under this category.

The ERWin path, currently referred to as the path for Technical Metadata, stores the following:

- TFM and Database Model XML files

- Table Creation scripts

The Information entered in this screen is automatically copied to Business metadata and staging area as default values.

Specifying Drive Information

Specify the physical path of the FTP/SFTP shared directory/drive of the database in the Drive field.

Example
e:/dbftp/

Specifying the Share Name

Enter the Share Name of the folder. The share name has to be created as a virtual directory under the FTP/SFTP default sites, and should point to the directory specified in the above step.

Example

Db ftp

Specifying the Port Number

The port number refers to the database FTP/SFTP port number. Enter the Port Number.

> **Note:** The default SFTP port number is 22. This can be changed by the user as required provided the port is enabled for the same.

Specifying the User Id

The User Id refers to the user Id that will be used to perform an FTP/SFTP in the machine where the database server is located. It is mandatory that you enter an FTP/SFTP User Id.

> **Note:** The FTP/SFTP ID for Web, Application and Database server needs to be created through the Computer Management option under Administrative tools for all installations other than UNIX installations. This user should belong to the administrator group.

Specifying the Password

The FTP/SFTP Password is the password for the FTP/SFTP user Id that the administrator has specified. Enter the FTP/SFTP Password. The password is represented by asterisk (*) to prevent others from knowing the password.

While specifying the password certain characters are restricted. The only characters which are allowed are listed below.

"@", "-", "_", "\", "/", ":", "."
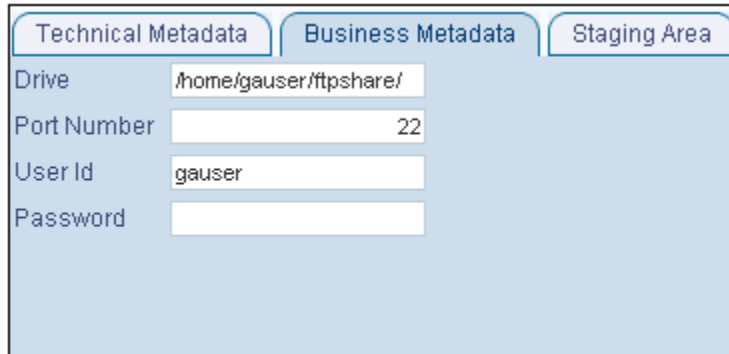
For more information on Password creation guidelines, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

Note

- The FTP/SFTP password for Web, Application and Database server must be specified in the Computer Management option under Administrative Tools. Select the Password Never Expires option.

- The accessibility to the Database, Application and Web servers using the Id / password will be confirmed before saving.

Defining Business Metadata

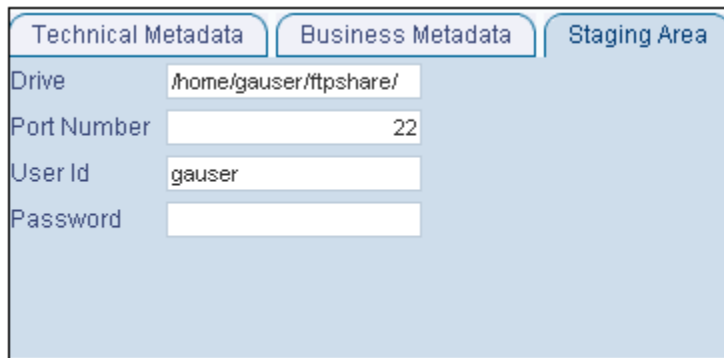Select the Business Metadata tab.

Infrastructure creates the following set of files under this category Scripts Path, currently referred to as path for Business Metadata. It stores basically the business logic XMLs.

- Cube Configuration files

- Hierarchy Parentage files

By default, it displays the details entered in the Technical Metadata screen and can be edited. The data input is similar to the Technical Metadata screen for data entry.

Specifying Staging Information

Select the Staging Area tab.

The Infrastructure Stage area stores the FLAT files (data files) to be loaded through Data Integrator. This is the only path that is not tagged to any Information Domain. These flat files could be created or transferred by the user by some Infrastructure process.

By default, it displays the details entered in the Technical metadata screen and can be

edited. The data input is similar to the Technical Metadata tab.

Click **Next>** to go to the next screen. If you wish to clear the fields, click **Cancel**. Click **Help** to open help for the Server Master screen.

Adding Security Details

In the Security Details screen you are required to enter Security Details for the Database Server.

In this screen, the administrator can define the Security User Id, the Security Password and the Security Share Name.

Specifying the Security User Id

The Security User Id that is specified in this screen should be assigned the same rights as the user who installed Infrastructure.

The Application server needs to pass the database user Id / Password to the database server(s) for connection purposes. These details can be transferred using the same FTP share area / user id and password used for transferring the Technical / Business/Stage area related files.

Alternatively for secure FTP, a different User Id and Password can also be used.

Example
secuser

> **Note:** Ensure that the user using this user Id has been provided rights to perform an FTP/SFTP in the database server.

Specifying the Security Password

The Security Password is the password of the user who will be accessing the security share name. The password is represented by asterisk (*) to prevent others from knowing the password.

For more information on Password creation guidelines see, *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

Specifying the Security Share Name

During the Infrastructure Installation the user would have identified the path where DB components would be stored. The Security Share Name that the System Administrator provides in the Security Details screen should point to the DB components installation folder.

Example
D:/Infrastructure

For the UNIX setup

The security Id should be the Id of the user who has the same user right as the User who installed Infrastructure. This user should have write permissions on the DB Components Installation folder like /usr/users/user1/Infrastructure

The security password is the user password of the user who will be accessing the security share name.

The security share name that you provide in the security details screen should point to the DB components installation folder. Enter the Security Share Name in the field provided for security share name.

Example

/usr/users/user1/Infrastructure

Click <**Back**> to go to the previous screen. Click **Save** to save the server details. Click **Cancel** to reset the definition and return to the first screen. Click **Help** to open help for the Security Details screen.

Be sure to have the Infrastructure server started in the foreground to answer the following prompt which will appear in the Unix server command window when saving Database Server Details:

The host 10.123.45.678 is currently unknown to the system

The host key fingerprint is: 1023: 1e 35 46 7f 81 e7 16 6b 33 e8 59 f7 d cf 5b b1

Do you want to allow this host key? [Yes|No|Always]:

Always should be entered when prompted.

14

Configuring Details

Configuring Application Server Details

The Application layer of the Infrastructure system is maintained by the Application server. The Application layer houses shared services, sub system services, ICC server and so on to manage the warehouse operations.

This feature helps the user to capture the Application Server set-up details. Click the **Application Server** option in the function menu list to open the Application Sever Details screen.

In this screen you are required to enter Application Server Details and FTP/SFTP Details.

Note

- Once the Infrastructure installation is complete and while entering the Application Server set-up details for the first time, the Server

Master screen opens in the Add mode.

- On having added application server information, the next time the administrator accesses the application server screen it will be displayed in the View mode.

The Server Master screen accepts the Application server information. Application server details can be viewed or modified after the first time definition.

The three tabs available for FTP/SFTP Share details are the **Technical Metadata**, **Business Metadata** and **Staging Area**.

By default the IP Address of the Application Server is displayed in the IP Address field in the Application Server Details section.

The Add option enables the user to provide set-up details for an application server.

Enter the details accordingly.

Click **Save** to save the Application server details. Click **Cancel** to reset the definition.

Click **Help** to open help for the Application Server Details screen.

Modifying Application Server Details.

The system administrators can modify FTP/SFTP details.

> **Note:** When there is a change to the FTP/SFTP path, the old files should be physically moved to the new path. The system ensures that all new files are generated /transferred into the new path.

How to handle Change in IP Address

There could be two scenarios where the IP Address of the Application server could change.

- Change in IP Address of the Application server machine in use.

- Application server is physically moved from one machine to another.

Please contact Infrastructure Support for further details.

Configuring Web Server Details

The Infrastructure presentation layer could be implemented in two ways:

- Installation of Single Web Server.

- Installation of Primary Web Server and one more secondary servers.

This option helps the user to capture the Primary and Secondary Web Server set-up details. Click the **Web Server** option under Server Details in the function menu to open the Web Server Details screen.
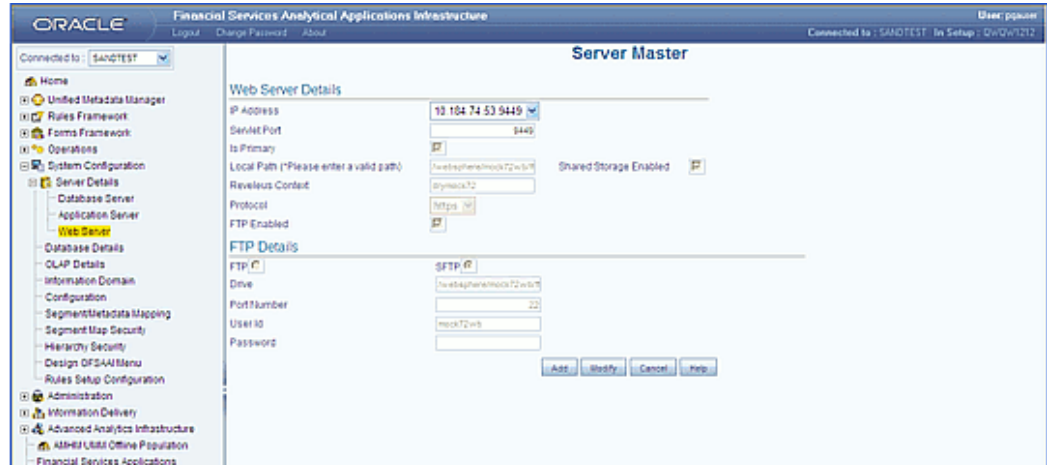
In this screen, you are required to enter Web Server Details and FTP/SFTP Details. The Server Master screen accepts the web server information. Web server details can be viewed, added or modified.

Shared storage: In this option, files will be written and read from the web server as local. No transfer or copy of the files is done. This option is to be used when there is SAN available or folders of different web servers can be shared. SAN is storage area network designed to attach computer storage devices such as disk array controllers and tape libraries to servers.

Is Primary (Primary Web Server): In this option all the static files are transferred to the primary web server.

Infrastructure supports FTP/SFTP into Web Server and streaming of files. There may be cases where FTP/SFTP is not allowed into a Web Server due to security reasons. In those circumstances, Infrastructure can stream data across the Web Servers, so that the Client need not compromise on their Security policy. Infrastructure supports both HTTP and HTTPS protocols for this reason.

Adding Web Server Details

Infrastructure allows the creation of one or more Web Servers. However, one Web server needs to be defined as primary server.

An example, to why there is a need for two or more web servers, is to route users through different web servers. There could be a need of routing internal users through one web server and other users through another Web server.

Click **Add** to enter the web server details.

Specifying the IP Address

To enter Web Server details, click the IP Address list and select the IP address. The IP addresses that are displayed are those that were created during the Infrastructure installation.

Example

10.80.50.226

Specifying the Servlet Port Number

The port number is the web server port number. Enter the **Servlet Port number**.

Example

21

Selecting the Primary Web Server

If the administrator selects the Is Primary check box; all static files will be placed in the primary web server.

Specifying the Local Path

In the Local Path field, the administrator needs to mention the location for the static files in the primary server. The web server contains files copied from Infrastructure Insight and Portal, which serve as static pages.

The FTP share directory/path must have a "/" at the end of the directory (for example, /app/ftpshare/).

Example

e:/revftp/

The file reference between web servers is possible through three methods:

1. Shared storage.

2. Copying and transferring files across Web servers using the FTP/SFTP option.

3. Streaming of data across Web servers using HTTP or HTTPS protocols.

4. For Excel Upload to work, the Web server local path should have 777 permission.

Enabling Shared Storage

Shared storage files will be written and read from the web server as local. It is not possible to transfer or copy these files. This option can be used when a shared area network is available or folders of different web servers can be shared. Select the Shared Storage Enabled checkbox to enable this option.

Enabling FTP

Click to select the FTP Enabled field. Infrastructure supports FTP/SFTP into web server and streaming of files.

Note

- There is an option to configure more than one web server details with the Add option. Click **Add** to add the new web server details.

- The user can configure the web server installed in the other machine as the current web server for the existing set up by selecting the Is Primary option, while defining the web server details.

FTP/SFTP Details of the Web Server

Based on whether FTP/SFTP is allowed on a Web Server, Infrastructure will accept the Servlet Port. The Drive, Share Name, Port Number, User Id and Password fields become available when you select the FTP Enabled check box.

For each database server, the FTP or SFTP path for receiving and sending files, user id / password details need to be defined for **Technical Metadata**, **Business Metadata** and **Staging Area** related files transfer.

The FTP share directory/path must have a "/" at the end of the directory (for example, /app/ftpshare/).

Select the **FTP** or **SFTP** option button based on your requirements.

Specifying the FTP Drive

When FTP/SFTP is allowed for web servers to communicate with each other, the FTP/SFTP drive needs to be identified. Enter the FTP/SFTP drive in the Drive field.

Example

D:/ftpshare/

Specifying the Share Name

Enter the Share Name of the folder. The share name has to be created as a virtual directory under the **FTP/SFTP default sites**, and should point to the directory specified in the above step.

Example

ftpshare

Specifying the Port Number

The port number refers to the database FTP/SFTP port number. Enter the Port Number.

Example

22

Specifying the FTP User Id

The FTP/SFTP User Id refers to the user Id that will be used to perform an FTP/SFTP in the machine where the web server is located.

Example

revtest

> **Note:** The FTP/SFTP ID for Web/App and DB server needs to be created through the Computer Management option under Administrative tools. This user should belong to the administrator group.

The Password is the password for the FTP/SFTP User Id the administrator has specified. The password is represented by asterisk (*) to prevent others from knowing the password.

Example

****

While specifying the password certain characters are restricted. The only characters which are allowed are listed below.

"@", "-", "_", "\", "/", ":", "."

For more information on Password creation guidelines, see *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

Note

- The FTP/SFTP password for Web, Application and Database servers needs to be specified in the Computer Management option under Administrative Tools. Select the Password Never Expires option.

- The accessibility to the Database, Application and WEB server using the Id / password will be confirmed before saving.

Adding Servlet Port /FTP/SFTP Details – FTP Not Enabled

There may be cases where FTP/SFTP is not allowed into a web server due to security reasons. In those circumstances, Infrastructure can stream data across web servers, so that the client does not compromise on his/her security policy. To achieve this, Infrastructure supports both HTTP and HTTPS protocols.

If FTP/SFTP is not allowed into the web server, do not select the FTP Enabled checkbox. In this case, the fields that will be displayed are Protocol and Infrastructure Context.

Specifying the Protocol

Choose the protocol **HTTP** or **HTTPS** from the list down box.

Specifying the Infrastructure Context

Enter the context in the **Infrastructure Context** field.

Click **Add** to define a new Web server details. Click **Modify** to edit the existing Web server details. Click **Cancel** to reset the definition in case you are defining details of a new Web server. In case you are modifying the details of an existing Web server, **Cancel** resets the fields to its original settings. Click **Help** to open help for the Web Server Details screen.

Modifying Web Server Details

The administrator can modify any of the following servlet options:

- Primary WEB Server Selection / De-Selection

- Local Path

- Enabling or Disabling Shared Storage

- Enabling or Disabling FTP/SFTP

- FTP Drive

Note

- Changes to any of the above would require all the old files to be manually transferred to the new location.

- The accessibility to the WEB server using the Id / password will be confirmed before saving.

How to Handle Change in IP Address

There could be two scenarios where the IP address of the Application server could change.

- Change in IP Address of the Web server machine in use.

- Web server is physically moved from one machine to another.

Please contact Infrastructure Support for further details.

Configuring Database Details

Currently Distributed Data warehouse is also supported with the Application server being in a single machine. Only Atomic Databases can be distributed across machines, not the Infrastructure Config schema. Multiple Atomic databases on a single machine (that is, multiple SIDs) are also supported. The Infrastructure DB components are however installed only on the DB server and are not distributed across machines.

1. Single tier Infrastructure Install with multiple Information domains hosted on different machines

Machine A - Reveleus Install

Reveleus Web Server

Reveleus Application Server

Reveleus DB Server Config Schema

Ora = SID 1

INFODOM 1

Atomic DB

Ora = SID 2

Machine B

INFODOM 2

Atomic DB

Ora = SID 3

Machine C

INFODOM 3

Atomic DB

Ora = SID 4
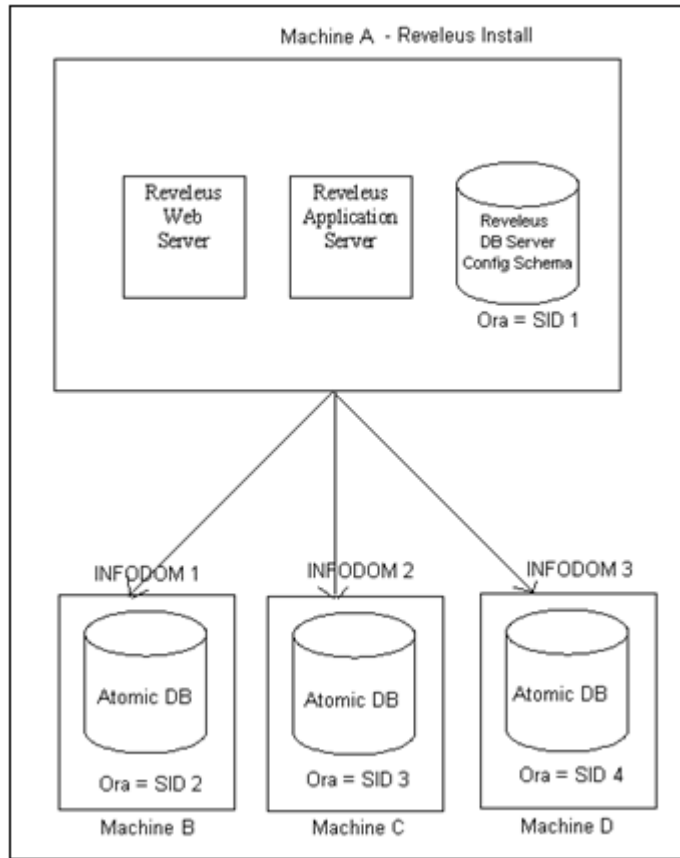
Machine D

2. Multi-tier Infrastructure Install with Multiple Information domains hosted on different machines.
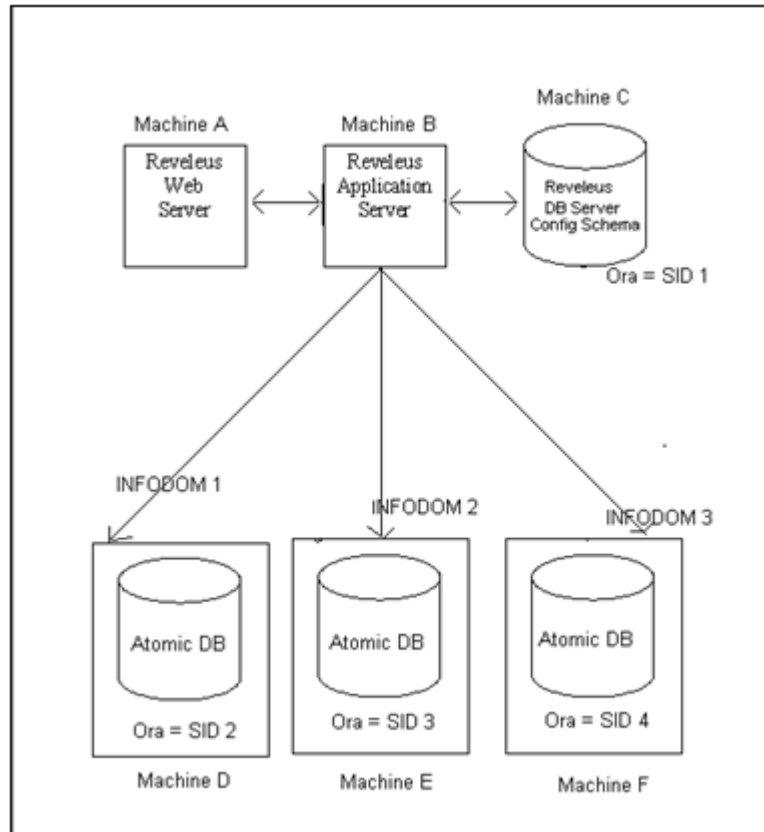
3. Single tier Infrastructure Install with single Information domain on the same machine.
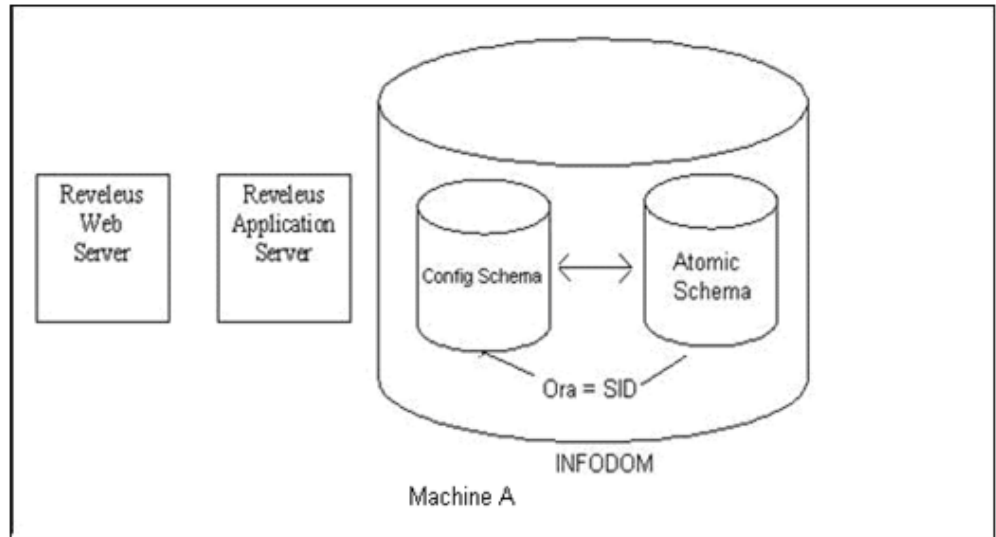
- The Config Schema and Atomic Schema is created under the same SID in Infrastructure DB Server.
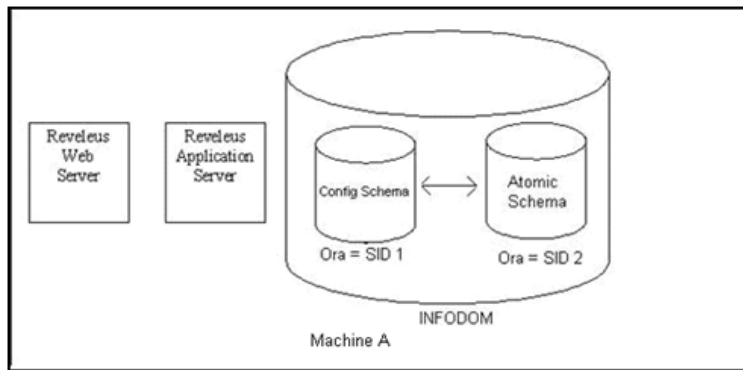
- There are two Oracle instances on the machine. Config Schema is installed under one of the SID where as Atomic Schema is created under the 2nd SID in Infrastructure DB Server.

4. Multi tier Infrastructure Install with single Information domain on the same machine as Infrastructure DB Server.
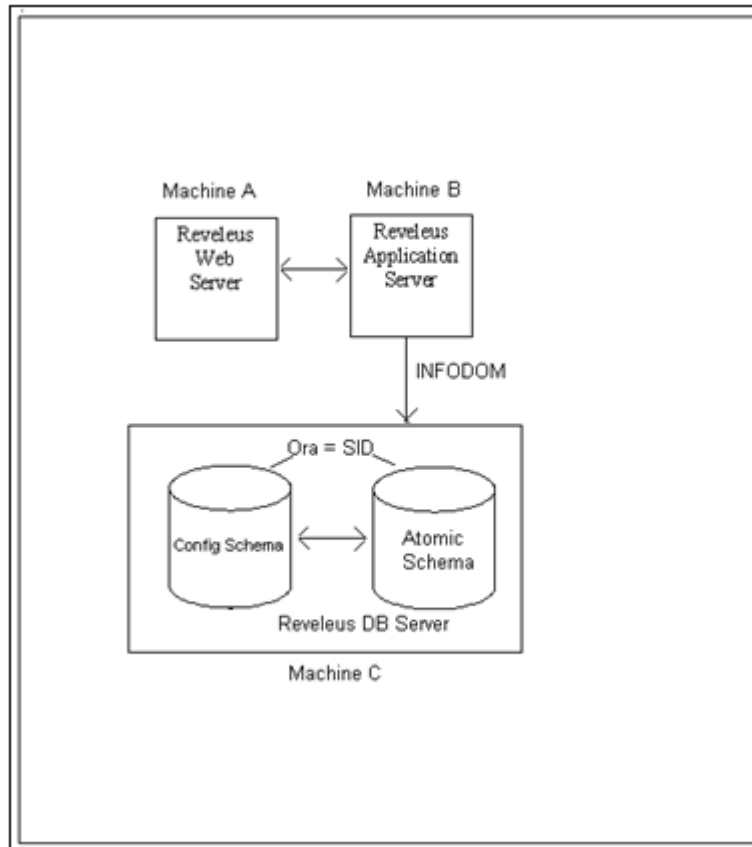
- The Config Schema & Atomic Schema is created under the same SID in Infrastructure DB Server.
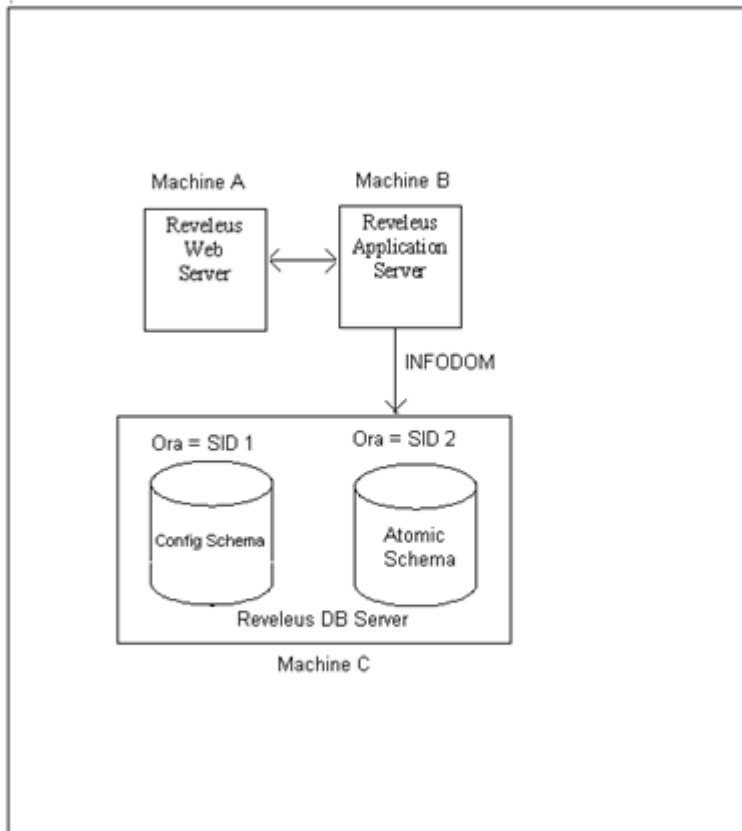
- There are two Oracle instances on the machine. Config Schema is installed under one of the SID where as Atomic Schema is created under the 2nd SID in Infrastructure DB Server.

OFSAA Tablespaces

A tablespace consists of one or more datafiles. OFSAA installation requires a minimum of two tablespaces with the naming conventions listed in the following table:

Tablespace Name	Contents and Usage
DATA_TS	Location of the OFSAA tables.
INDEX_TS	Location of the OFSAA indexes.

You also need to define a temporary tablespace and a rollback tablespace. The recommended naming convention for these tablespaces is TEMP_TS and

ROLLBACK_TS respectively.

Instrument tables such as FSI_D_MORTGAGES, FSI_D_TERM_DEPOSITS, FSI_D_LOAN_CONTRACTS or LEDGER_STAT can be moved from the DATA_TS to different tablespaces, depending on performance requirements. User can use table partitioning as a method of placing segments of a table's data into different tablespaces.

Indexes on the above tables can be created in INDEX_TS tablespace.

- The DATA_TS tablespace is currently only required by the Asset Liability Management (ALM) application.

- The DATA_TS tablespace is only used to create new output tables for ALM process execution. Atomic schema tables created prior to installation of ALM application need not be moved to DATA_TS tablespace.

- The DATA_TS tablespace should not be created as locally managed.

- Atomic schema user needs to have adequate quota on DATA_TS to create output tables for ALM process execution.

OFSAA Datafiles

Examples of the naming conventions for datafiles associated with each of the required tablespaces are provided in the following table:

Tablespace Name	Naming Convention Example
DATA_TS	<dbname>_DATA_01.DBF
	<dbname>_DATA_02.DBF
INDEX_TS	<dbname>_INDEX_01.DBF
	<dbname>_INDEX_02.DBF

Follow the numbering convention in this example for multiple datafiles within tablespaces. The number of datafiles for a tablespace can vary from database to database.

Datafile Location

The location of the datafiles for your tablespaces varies based on many factors, including whether your database is on raw devices or file systems.

If the database is on raw devices the datafiles are defined by a logical volume management program such as Volume Manager and must be mapped into logical

volumes.

If the database is on file systems, the datafiles are located in directories that can use the following naming conventions: /db/d02/oradata/<dbname>, /db/d03/oradata/<dbname>, /db/d04/oradata/<dbname>, and so forth. The datafiles are located in the **oradata/<dbname>**subdirectory.

Adding Database Server Details for DB Server

After you have specified server details, you will have to provide database details for the database(s) configured on the machine. Click the Database Details sub-function from the function menu. The Database Details for DB Server screen is displayed. By default, the database server name defined during set-up is displayed.

The fields that the administrator defines in this screen are described below.

In the Add mode, the database machine name or the IP address will be displayed in the list. The database type will be the same for an installation and therefore this field cannot be edited. The database name, user id and password should be entered in the respective areas. The Database Administrator should ensure that there is a TNS entry for the Database name provided. The Database name provided should be the name of the Atomic Schema. The TNS entry should be added to the $ORACLE_HOME/network/admin/tnsnames.ora file, located in the machine where Oracle database server is installed.

For example:

```
Atomic Schema: OFSAAATOMIC
SID: OFSAA

tnsnames.ora entry to add:

OFSAAATOMIC =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = ofsasupport-lxn4)(PORT = 1521))
    (CONNECT_DATA =
       (SERVICE_NAME = OFSAA)
    )
  )
```

Specifying the IP Address

Select the Database IP Address from the IP Address list. This list will display the database server IP address defined during the set-up.

Example

10.80.50.226

Selecting the Database Type

The Database Type will be the same for an installation and is populated automatically based on the IP address selection. This field cannot be modified.

Specifying the Database Name

The name entered should match the Atomic Schema User from the database. This should be in-line with the database created by the user in the database server.

Enter the Database name in the Name field or select it from the list.

Example

ofsaaatomic

Specifying the Locale Identifier

The **Locale Identifier** value is identified at the localization set-up. The user simply has to select the value.

Example

en_US

Specifying the User Id

In the User Id field, enter the User Id that will authenticate the access to the database.

Example

pqatest

Specifying the Password

In the Password field, enter a password to qualify the User ID authentication.

Example

****

While specifying the password certain characters are restricted. The only characters which are allowed are listed below.

"@", "-", "_", "\", "/", ":", "."

Note

- For oracle, the TNS entry database name should be the same as SID.

- Ensure that the actual database is created before this entry is made. On saving the database details, an authentication will be performed to check for the existence of the database, user name and password and connection string.

Specifying the JDBC Driver Name

The default JDBC Driver Name and the connection string are provided by the application depending on the database type in the fields provided for JDBC driver/JDBC connection string.

If the database type is **Oracle** then the JDBC Driver Name will be oracle.jdbc.driver.OracleDriver.

If the database type is **SQLServer** then the JDBC Driver Name will be com.merant.sequelink.jdbc.SequeLinkDriver.

If the database type is **DB2UDB** then the JDBC Driver Name will be com.ibm.db2.jdbc.net.DB2Driver.

> **Note:** The user can modify the same. No validations will be performed.

The JDBC Connection string

If the database type were Oracle, then the Connection string will be: jdbc:oracle:thin:@<<DB Server IP Address>>:<<Oracle PortNumber>>:<<SID>>

The user would have to provide the Port number where Oracle is running like 1521 and the SID like ORCL.

If the database type is **SQL Server**, then the Connection string will be

jdbc:sequelink://<<DB Server IP Address>>:<<Port>>; databaseName=<<DBName>>

If the database type is **DB2UDB** then the Connection string will be

jdbc:db2://<<DB IP Address>>/<<dbname>>

The user will have to fill in the details of the fields within << >>

Specifying the Date Format

Enter the Date Format of the database in the **Date Format field**.

Example

mm-dd-yyyy

Specifying the Block Size

If the selected database type is Oracle, then the user has to provide the Block Size. This would be set in the INIT.ORA for that instance.

Grants to be given to the Infodom schema user before creating Infodom

Each Information Domain will be created in a separate Atomic Schema. The Oracle database Atomic Schema User should have the following grants:

```
grant select on sys.v_$parameter to &atomic_db_user;
grant select on sys.dba_free_space to &atomic_db_user;
grant select on sys.dba_tables to &atomic_db_user;
grant select on sys.Dba_tab_columns to &atomic_db_user;
grant create INDEX to &atomic_db_user;
grant create PROCEDURE to &atomic_db_user;
grant create RULE to &atomic_db_user;
grant create SEQUENCE to &atomic_db_user;
grant create SYNONYM to &atomic_db_user;
grant create TABLE to &atomic_db_user;
grant create VIEW to &atomic_db_user;
grant drop INDEX to &atomic_db_user;
grant drop PROCEDURE to &atomic_db_user;
grant drop RULE to &atomic_db_user;
grant drop SEQUENCE to &atomic_db_user;
grant drop SYNONYM to &atomic_db_user;
grant drop VIEW to &atomic_db_user;
grant drop TABLE to &atomic_db_user;
grant create session to &atomic_db_user;
grant create any trigger to &atomic_db_user;
grant drop any trigger to &atomic_db_user
```

In addition, as the Information Domain Schema or Atomic Schema uses some of the tables from the Config schema, ensure to provide the below grants to the Atomic Schema user from the Config Schema user before the Information Domain is created. This will ensure the capability to view the **Security** based Analytics reports from the Administrative Reports.

Execute the following grants from the Config Schema user:

```
grant select on CSSMS_USR_PROFILE to &atomic_db_user;
grant select on CSSMS_ROLE_MAST to &atomic_db_user;
grant select on CSSMS_GROUP_MAST to &atomic_db_user;
grant select on CSSMS_FUNCTION_MAST to &atomic_db_user;
grant select on CSSMS_USR_GROUP_MAP to &atomic_db_user;
grant select on CSSMS_USR_GROUP_DSN_SEG_MAP to &atomic_db_user;
grant select on CSSMS_ROLE_FUNCTION_MAP to &atomic_db_user;
grant select on CSSMS_GROUP_ROLE_MAP to &atomic_db_user;
grant select on CSSMS_SEGMENT_MAST to &atomic_db_user;
grant select on BATCH_TASK to &atomic_db_user;
grant select on CSSMS_USR_DSN_SEG_MAP to &atomic_db_user;
grant select on CSSMS_USR_ROLE_MAP to &atomic_db_user;
grant select on CSSMS_METADATA_SEGMENT_MAP to &atomic_db_user;
grant select on BATCH_RUN to &atomic_db_user;
grant select on PR2_FILTERS to &atomic_db_user;
grant select on PR2_TASK_FILTER to &atomic_db_user;
grant select on PR2_TASK_FILTER_DETAIL to &atomic_db_user;
grant select on STRESS_MASTER to &atomic_db_user;
grant select on SCENARIO_MASTER to &atomic_db_user;
grant select on SHOCK_MASTER to &atomic_db_user;
```

Modifying Database Details for DB Server

In the Edit mode the user can change/edit all the details except the database type and the database name.

A change in date format does not have any impact on the following:

- Database date format need to be changed manually. (The NLS_DATE_FORMAT of the database need to be changed manually in the database parameters. For e.g. for the Oracle DB, the Init.ora file needs to be changed and the Oracle database needs to be restarted).

- If this value matches the data format in the excel format to_date function translation will not be performed at the time of data loading.

Click Save to save the database details for the DB server that you have defined. Click Cancel to exit the screen without saving the database server details.

Configuring OLAP Server Details

The system design makes it mandatory for the administrator to specify OLAP (On-line Analytical Processing) details for each server. Once defined, the user cannot change the details except for changing the user Id and password.

However, it will not be possible to have multiple OLAP servers in a single database server. Once defined, the user cannot change the details with exception of changing the user Id and password. Therefore the data in this screen is only a one-time entry. This option helps the system administrator to define the OLAP details.

Pre-requisites

- Successful completion of Database server configuration in OFSAAI.

- Successful completion of OLAP server installation in the database server.

Defining OLAP Details

Click OLAP Details in the function menu to open the OLAP Details screen. By default, the details of the defined OLAP are displayed and it can be modified. Click **Add** to add new OLAP details.
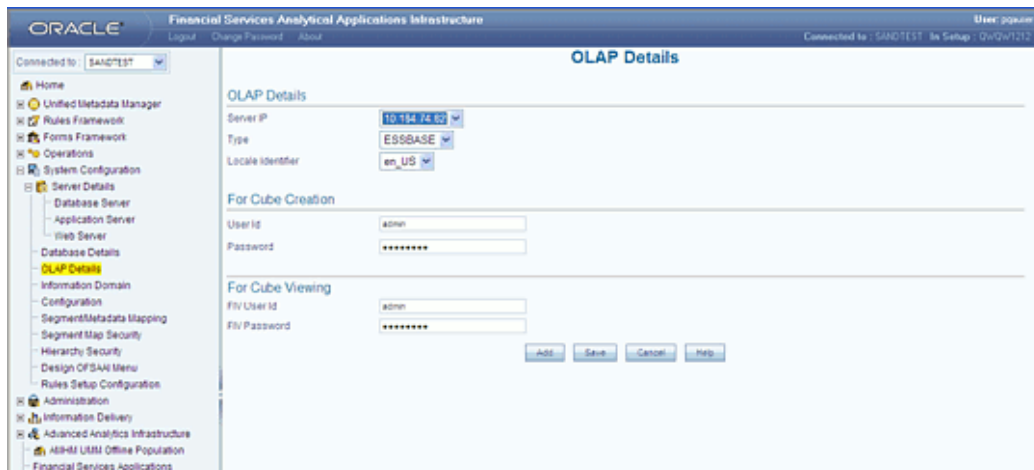
Specifying the Server IP

The OLAP Server IP address is the IP address of the machine on which the OLAP server is running. Select the OLAP Server IP address from the Server IP list.

Example

10.80.1.146

Specifying the OLAP Server Type

The three available OLAP database types are MSSQLOLAP, Hyperion Essbase and Oracle Espress. Select the server type from the Type list.

Example

ESSBASE

Note

- The database type that the administrator chooses will have an effect

on the OLAP details you are specifying.

- Choosing ESSBASE and DB2OLAP requires user id and password for Cube Verification and Cube Viewing.

- Choosing SQLOLAP / ESPRESS requires just single set of user id which is used for both cube creation and viewing.

- In the same server, different OLAP types can be installed and thus configured in OFSAAI.

Specifying the Locale Identifier

Select the Locale Identifier of the database from the list box. The value is set-up at the time of localization process and it is mandatory that the user selects the value.

Example
en_US

Adding Cube Creation Details

A separate User Id for Cube creation and Cube View are required only when the OLAP selected is ESSBASE or DB2OLAP. For the remaining OLAP tools, only one set of user id / password is required for cube creation / view.

Essbase/DB2OLAP requires two ids to avoid locking of the cube when the cube is being built.

Specifying a User Id

Enter User Id for cube creation.

Example
user1

Specifying a Password

The password is represented by asterisk (*) to prevent others from viewing it.

Note

- User Id and Password will not be confirmed at this time.

- These User Ids should be created in Essbase / DB2OLAP with appropriate privileges.

  See Also: *Essbase / DB2OLAP* Manual

SQLOLAP – The User Id should be windows user id which has the permission for cube creation.

Espress – User Id should be created in Espress with appropriate privileges.

See Also: *Espress manual*

Adding Cube View Details

Specifying the FIV User Id and Password

Enter the FIV User Id to view the cube. If Hyperion Essbase is selected as the database type, the cube view user id and password will have to be specified, so that the cube can be viewed in Insight.

Example
User2

Enter the FIV Password. The password is represented by asterisk (*) to prevent others from viewing it.

Note

- The User Id and Password will not be confirmed at this time.

- User Ids should be created in Essbase /DB2OLAP with appropriate privileges.

See Also: *Essbase / DB2OLAP Manual* for user id creation and maintenance.

SQLOLAP – The User Id should be windows user id which has the permission for cube creation.

Espress – User Id should be created in Espress with appropriate privileges.

See Also: *Espress Manual* for user id creation.

Modifying OLAP Details

In the Edit mode, the user can change the Id or password provided for cube creation and viewing.

For Hyperion Essbase

If Hyperion Essbase is selected as the Database Type the cube view user Id and password will have to be specified, so that the cube can be viewed in the Insight.

In the Cube Viewing field enter the Insight User Id and Password. With this user Id and password the Insight screen can be accessed.

Click **Save** to save the OLAP details that you have defined. Click **Cancel** to exit the screen without saving the OLAP details. Click **Help** to open help for the OLAP Details screen.

Configuring an Information Domain

An Information Domain is the area of analysis. It forms the backbone for all the analysis inside Infrastructure . It is the knowledge domain where information is stored, which consists of specific data models, Technical and Business definition of data to help in processing data for analysis.

This option helps the user to define an Information domain and related maintenance details.

Click the Information Domain sub-function within the System Configuration function menu to display the Information Domain Maintenance screen, which displays details of defined information domains.

This screen is displayed in two modes - Add and/or Edit.

Note

- The Information Domain screen cannot be accessed until the Server details are complete and at least one database has been created.

- One information domain can be mapped to only one database and one database can have only one information domain mapped to it.

- When the user accesses the screen for the first time, the screen will

open in the add mode.

- As the Information Domain Schema uses some of the tables from the config schema, ensure to execute the below file from the Infrastructure config database user before Information Domain is created. <Infrastructure Database Layer Install Directory>/config_table_privileges_for_atomic_user.sql.

Adding Information Domain Details

The Add option is enabled only when a database is defined and not mapped to any information domain. Click **Add** to create a new Information Domain.

Specifying the Information Domain Name

Enter the name of the information domain that you are creating in the Name field.

Example
BASELSOL

Specifying the Description

Enter the description of the Information Domain you are creating in the Description field. This should be the full name or the detailed description about the Short name given for the Information Domain.

Example
baselsol

Authorizing Business Metadata, Specifying Staging Details, Replicating the existing Information Domain

There is no specific functionality attached for these features in the present release and it should be the same as default selection.

Click **Next>** to go to the next screen. You are required to enter Database Details in this screen.

Adding Database Details

In the Database Details for DB Server screen, two sets of lists will be displayed. The first lists all the database servers configured for the application and the second will display the databases contained in the machine. The mapping between the databases and the information domain is created.

Selecting the Database Server

Select the name of the Database Server, from the list containing all the available database server names.

Example

10.80.50.226

Selecting the Database Name

Select the Database Name from the list that contains all the available databases defined under database details option.

Example

Basel2

Selecting the OLAP Server, Type and Defining BI Hierarchy Details

There is no specific functionality attached for these features in the present release and it should be the same as default selection.

Click **Next>** to display the next screen of the wizard. In the next screen, the user is required to define paths in the APP Server / DB Server

Paths on the APP Server / DB Server

One information domain should be mapped to one database. The details provided for the database and the machine details will be mapped to the information domain. A consolidated data would be stored in the DSNMASTER table in the Config schema database.

> **Note:** On saving an Information Domain the following tables will be created in the Atomic database, mapped to this information domain.

- bp_meas_map

- cubedetails

- exceptions

- fsi_data_type_desc

- fsi_db_info

- fsi_engine_lookup

- fsi_id_type_cd

- fsi_id_type_mls

- fsi_message_log

- fsi_mls

- fsi_m_auto_balancing

- fsi_m_lookup_b

- fsi_m_lookup_master

- fsi_m_lookup_tl

- fsi_m_object_definition_b

- fsi_m_object_definition_tl

- fsi_m_object_defn_comments

- fsi_process_errors

- fsi_rollup_signage_cd

- fsi_rollup_signage_mls

- fsi_signage_cd

- fsi_signage_mls

- rev_amhm_umm_hier_def

- rev_amhm_umm_hier_execution

- rev_amhm_umm_hier_levels

- rev_app_preferences_metadata

- rev_app_user_preferences

- rev_bihier

- rev_column_properties

- rev_column_property_cd

- rev_column_property_mls

- rev_column_requirements

- rev_cube

- rev_data_filter

- rev_description_tables

- rev_dimensions_b

- rev_dimensions_tl

- rev_dimension_type_code_cd

- rev_dimension_type_code_mls

- rev_dim_attributes_b

- rev_dim_attributes_tl

- rev_dim_mgmt_comments

- rev_expression_details

- rev_fusion_macros

- rev_glbl_preferences_metadata

- rev_glbl_user_preferences

- rev_group_filter

- rev_hierarchies

- rev_hierarchy_filter

- rev_hierarchy_levels

- rev_hier_definitions

- rev_hier_maintanance

- rev_locale_hier

- rev_member_dependencies

- rev_mf_process_output_details

- rev_mf_process_output_master

- rev_model_output_details

- rev_model_output_master

- rev_model_primary_key_details

- rev_model_simulation_details

- rev_model_simulation_master

- rev_object_dependencies

- rev_property_columns

- rev_property_stp

- rev_tables_b

- rev_tables_tl

- rev_table_classification_b

- rev_table_classification_tl

- rev_table_class_assignment

- rev_table_class_properties

- rev_table_properties

- rev_tab_columns

- rev_tab_columns_mls

- rev_user_bihier

- rev_user_cube

- rev_virtual_tables

- rev_virtual_tables_mls

- sys_stg_join_master

- sys_tbl_master

If these tables have not been created, there could be a problem in connecting to the database or there may not be enough space in the database. Ensure that there is enough space allocated and then save the information domain.

Adding Paths for APP Server, DB Server and Web Server

The requisite paths for Infrastructure will be created in the database machine on saving it. Based on the FTP/SFTP drive defined by the user in the server detail screen, the path creation will take place.

- Erwin Path, currently referred to as path for Technical Metadata, stores

- TFM and Database Model XML files

- Table Creation scripts

- Log Path, stores the Log files for all the Backend and Front-end components

- Stage that stores the FLAT file to be loaded through Data Integrator. This is the only path that is not tagged to any Information Domain.

ERWIN and Script Paths are derived from the information given at the time of App Server and DB Server Definition and displayed as default values. This path information can not be modified.

Specifying the Log File Path for APP Server and DB Server

Enter the Log file path in the Application Server and Database Server.

The following paths will be created in the Application server:

- Erwin Path, Scripts Path.

The following paths will be created in the database server:

- Erwin Path, Scripts Path

- The paths are created in the FTP Drive of the respective machines.

   Note: On Save Operation, The following paths will be created in the Application server: Erwin Path, Scripts Path, Log File Path and MDB Path.

Example

If the FTP drive were provided as "d:/FICFTP" then the erwin path would be " d:/FICFTP/<<InformationDomainName>>/erwin"

The User can specify a complete Log path for the Information domain. This Path can be anywhere in the Database Server. The application should have write rights on that folder. By default the Log path will be NULL.

The requisite paths for Infrastructure will be created in the database machine on saving it.

- The log path will not be created by the Infrastructure . Hence the path should be present in the server before mapping it in the Information Domain screen.

- The user can specify a complete log path for the information domain. This path can be anywhere in the database server. The application should have write rights on that folder. By default the log path will be null.

Click **<Back** to return to the previous screen.

Click **Save** to save the changes entered in the screen or click **Cancel** to refresh the screen without saving the changes made in the screen.

Modifying Information Domain Details

In the Edit mode, the user can change only the information domain description. The Scripts / ERWIN path information cannot be changed. However, it will be changed by the system if the server details have been changed. For the Log and MDB path change, the old files need to be moved manually to the new path.

In this mode, the user can change the following:

- Information Domain Description

- Log File Path
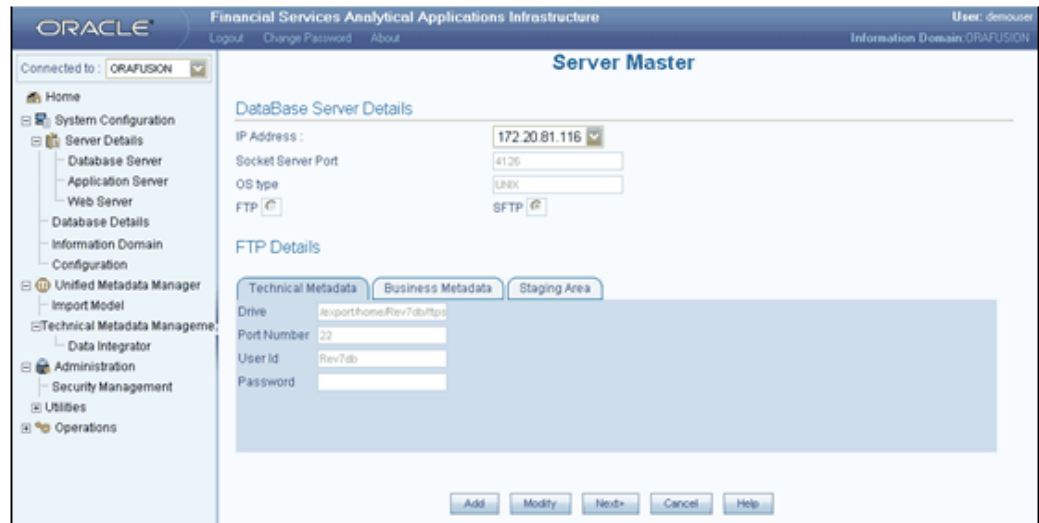
- The Information in this screen cannot be edited. The information is provided only for viewing purposes.

- In a windows distributed architecture, log folder should be created manually in the DB server (That is, if the APP server and DB server are in two different machines).

- During information domain creation, if the Application server and the DB server are in two different machines the log folder path for the DB server should hold only /ftpshare/ <infodomname>/logpath

Saving Information Domain Details

Consolidated information about the information domain and database mapping would be stored in DSNMASTER table in the Config schema database.

On saving an Information Domain the following tables will be created in the Atomic database, mapped to this information domain:

- bp_meas_map

- cubedetails

- exceptions

- fsi_data_type_desc

- fsi_db_info

- fsi_engine_lookup

- fsi_id_type_cd

- fsi_id_type_mls

- fsi_message_log

- fsi_mls

- fsi_m_auto_balancing

- fsi_m_lookup_b

- fsi_m_lookup_master

- fsi_m_lookup_tl

- fsi_m_object_definition_b

- fsi_m_object_definition_tl

- fsi_m_object_defn_comments

- fsi_process_errors

- fsi_rollup_signage_cd

- fsi_rollup_signage_mls

- fsi_signage_cd

- fsi_signage_mls

- rev_amhm_umm_hier_def

- rev_amhm_umm_hier_execution

- rev_amhm_umm_hier_levels

- rev_app_preferences_metadata

- rev_app_user_preferences

- rev_bihier

- rev_column_properties

- rev_column_property_cd

- rev_column_property_mls

- rev_column_requirements

- rev_cube

- rev_data_filter

- rev_description_tables

- rev_dimensions_b

- rev_dimensions_tl

- rev_dimension_type_code_cd

- rev_dimension_type_code_mls

- rev_dim_attributes_b

- rev_dim_attributes_tl

- rev_dim_mgmt_comments

- rev_expression_details

- rev_fusion_macros

- rev_glbl_preferences_metadata

- rev_glbl_user_preferences

- rev_group_filter

- rev_hierarchies

- rev_hierarchy_filter

- rev_hierarchy_levels

- rev_hier_definitions

- rev_hier_maintanance

- rev_locale_hier

- rev_member_dependencies

- rev_mf_process_output_details

- rev_mf_process_output_master

- rev_model_output_details

- rev_model_output_master

- rev_model_primary_key_details

- rev_model_simulation_details

- rev_model_simulation_master

- rev_object_dependencies

- rev_property_columns

- rev_property_stp

- rev_tables_b

- rev_tables_tl

- rev_table_classification_b

- rev_table_classification_tl

- rev_table_class_assignment

- rev_table_class_properties

- rev_table_properties

- rev_tab_columns

- rev_tab_columns_mls

- rev_user_bihier

- rev_user_cube

- rev_virtual_tables

- rev_virtual_tables_mls

- sys_stg_join_master

- sys_tbl_master

If these tables have not been created, there could be a problem in connecting to the database or there may not be enough space in the database. Ensure that there is enough space allocated and then save the information domain.

> **Important:** An Information Domain can be deleted from Infrastructure system, provided there are no users mapped to it and using it.

Configuring Password changes

OFSAA Infrastructure Config Schema password modification in Post Installation

To change the Config Schema password, perform the following steps:

1. Change the Config schema user password in the database.

2. Delete the $FIC_HOME/conf/Reveleus.SEC file.

3. Shutdown the OFSAAI App service:

   cd $FIC_APP_HOME/common/FICServer/bin

   ./reveleusshutdown.sh

4. Start the Infrastructure Server in foreground directly on the server or through X-Windows software using the command:

   ./reveleusstartup.sh

5. A pop-up window will appear with a prompt Enter System Password. Enter the new Config schema password. The service will start and initialize itself if it was able to successfully connect to the DB.

6. Post successful startup of the service, if wanted, the Infrastructure server may be shutdown and restarted in the background using nohup mode.

OFSAA Infrastructure Atomic Schema password modification in Post Installation

To change the Atomic Schema password perform the following steps:

1. Login to the application from the browser using SYSADMN account or any user-id which has System Administrator role mapped.

2. Change the Atomic schema user password in the database.

3. Login to OFSAA.

4. Navigate to System Configuration > Database Details screen. Select the appropriate connection and edit the password.

5. Navigate to Unified Metadata Manager > Technical Metadata> Data Integrator > Define Sources screen. Update the appropriate Source details.

6. If using Apache Tomcat as Web server, update the <Context> -> Resource tag details in Server.xml file from the $CATALINA_HOME/conf folder. (In case of Tomcat only Atomic <Resource> will exist).

    If using WebSphere as Web server, Login to the Web sphere Administration Console, from the left side menu, navigate to Resources >JDBC >Data Sources . A list of data sources will be populated on the right side. Select the appropriate Data Source and edit the connection details. (In this case both Config and Atomic data sources will need to be modified.)

    If using WebLogic as Web server, Login to the Weblogic Administration Console, from the left side menu, under Domain Structure list box, expand the appropriate Domain and navigate to Services > JDBC >Data Sources. A list of data sources will be populated on the right side. Select the appropriate Data Source and edit the connection details. (In this case both Config and Atomic data sources will need to be modified.)

7. Restart the OFSAAI services.

15

Resource Reference Configuration

Configuration of Resource Reference in Infrastructure Application

The **web.xml** file has to be updated with the Information Domain name as the resource reference name. This is required for connection pooling with the Atomic database schema.

Navigate to $FIC_WEB_HOME/webroot/WEB-INF.

Add the Information Domain name in the following block of text at the end of the web.xml file.

<resource-ref>

<res-ref-name>jdbc/<INFORMATION DOMAIN NAME></res-ref-name>

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

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

</resource-ref>

Here, <INFORMATION DOMAIN NAME> is the name of the Information Domain you have created.

- This block of text must be repeated for each of the information domains that are created.

- The sample bundled with web.xml has ORDEMO entered in the <INFODOM NAME> tag. This needs to be replaced with the information domain created for the application installation.

Configuration of Resource Reference in Websphere Application Server

Creating the JDBC Provider

1. Open this URL in the browser window: http://<ipaddress>:<administrative console port>/ibm/console. The login screen is displayed. Login with the user id that has admin rights.

2. Expand the Resources option in the left hand screen menu. Click JDBC > JDBC Providers option. This will display the JDBC Providers page.
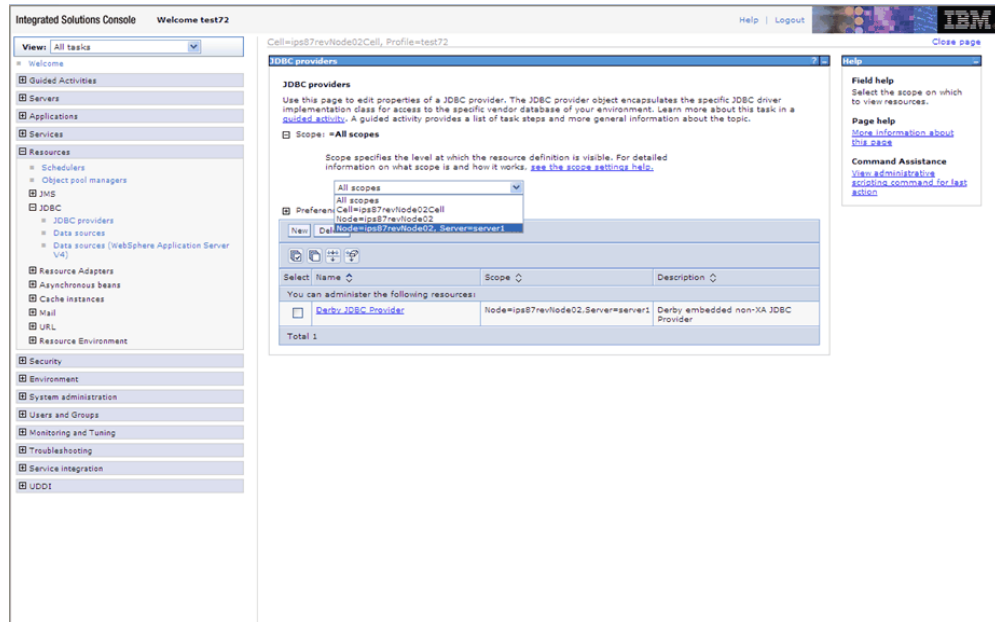
3. Click **New** to add new JDBC Provider. The Create a new JDBC Provider screen contains the following. Enter the following mentioned options.

    Database Type - Oracle

    Provider Type – Oracle JDBC Driver

    Implementation Type – Connection pool data source

    Name – The required display name for the resource.

    Description – The optional description for the resource

    Click **Next**
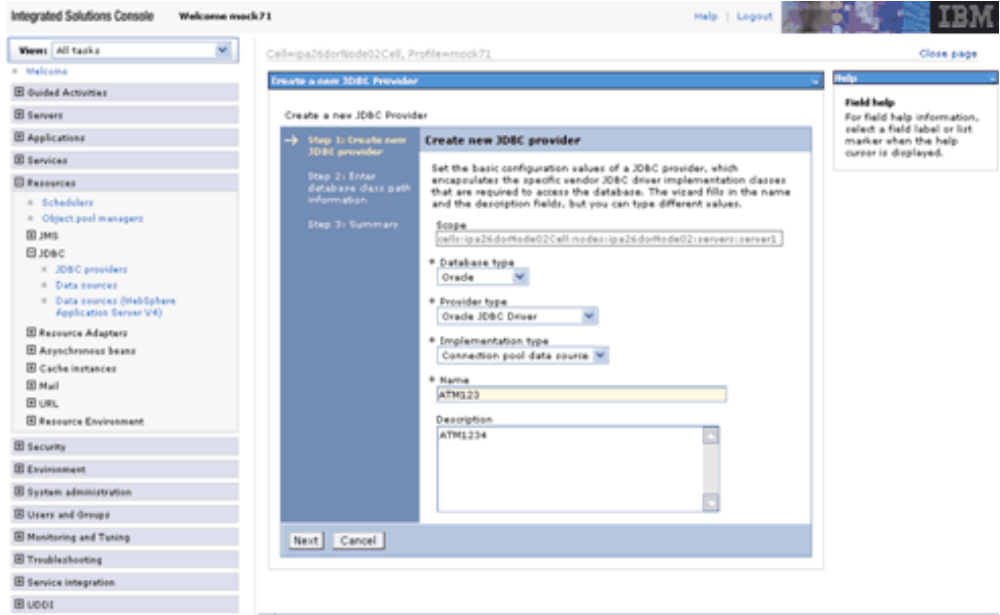
4. Specify the directory location for ojdbc6.jar file. Do not use trailing slash file separators. Click **Next**.
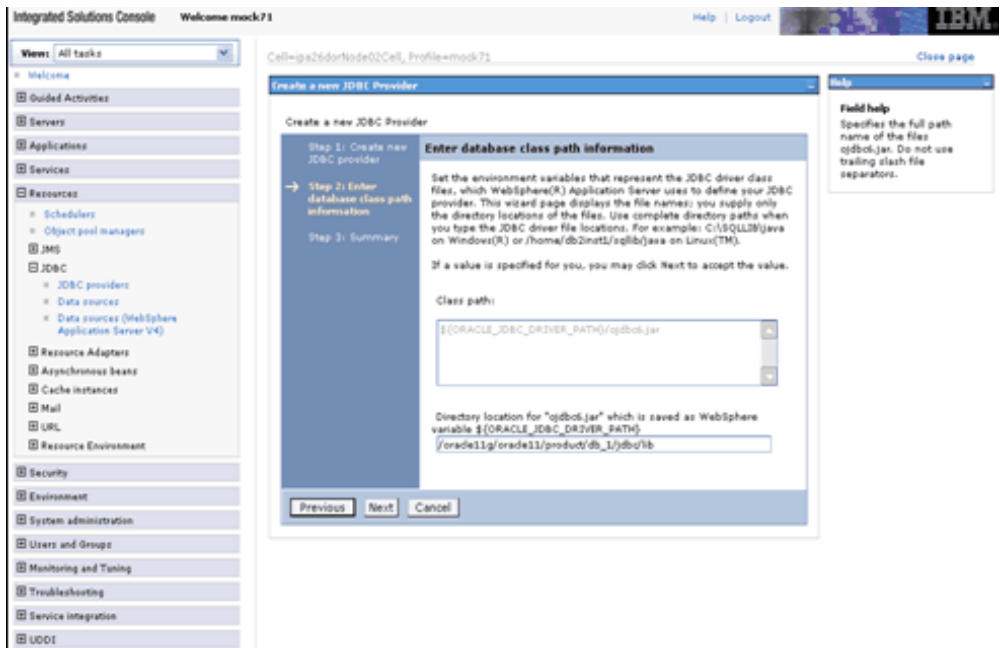
- The Oracle JDBC driver (Download ojdbc6.jar for Oracle 11g R2 / ojdbc14.jar for Oracle 10g R2) file corresponding to the required version of Oracle Client can be downloaded from the

following URL:

http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/index.html

- This file can be downloaded and placed in any folder in your system. Make sure that the path to the jar file in this folder is given in the Class path field in the Enter database class path information screen while creating the JDBC Provider.

- When using an Oracle 10g Database with Websphere Application Server Version 7.0, the Oracle 11g JDBC Driver is required, that is, ojdbc6.jar.

5. Check the details you have entered and click **Finish** to create the JDBC Provider.
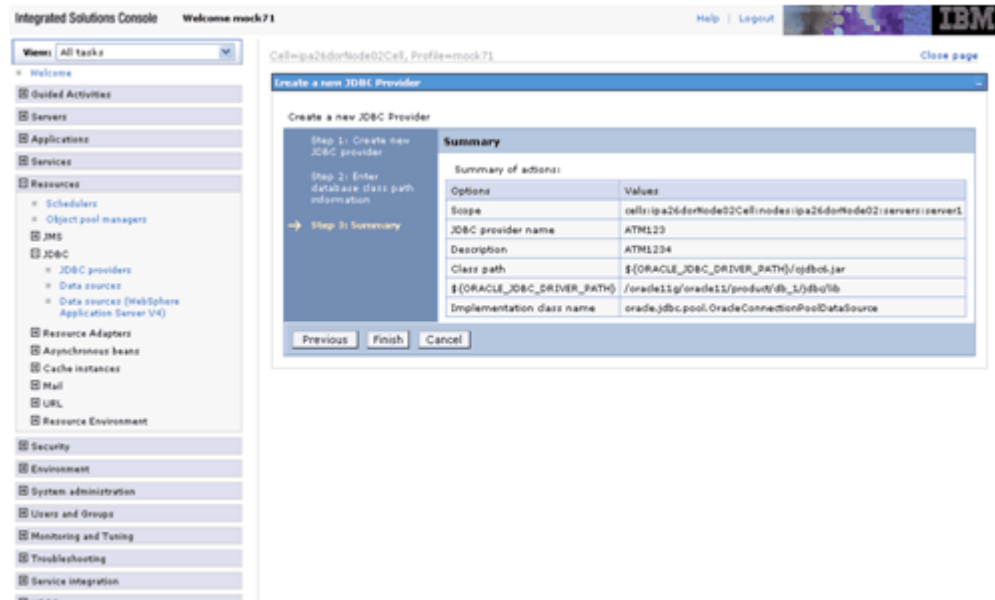
6. The option of Save and Review is displayed. Click **Save** before proceeding.
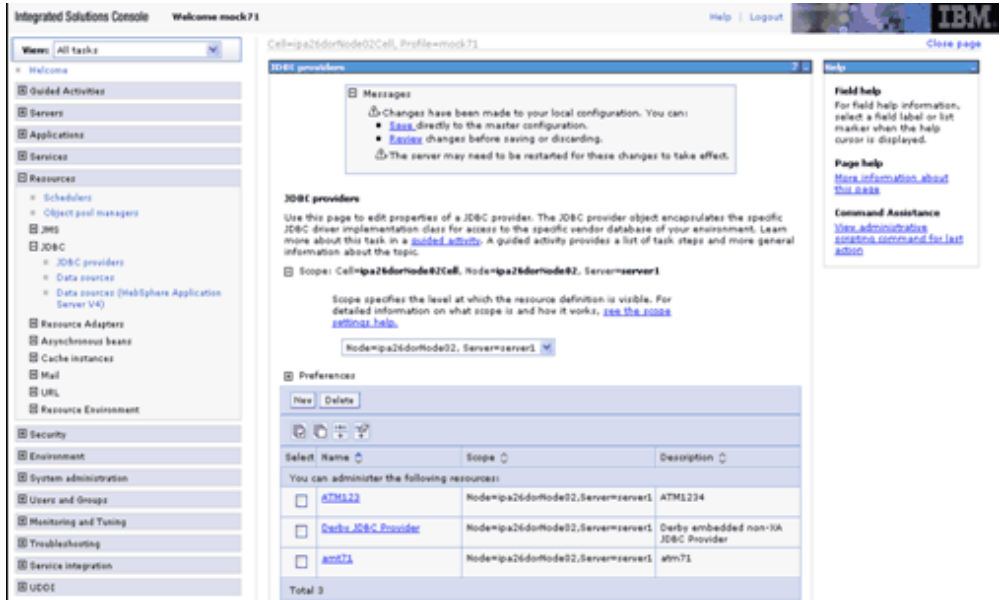
Creating the Data Source in Websphere Application Server

Creating the Data Source

1. Expand the Resources option in the left hand screen menu. Click JDBC > Data sources option. This will display the Data sources page.
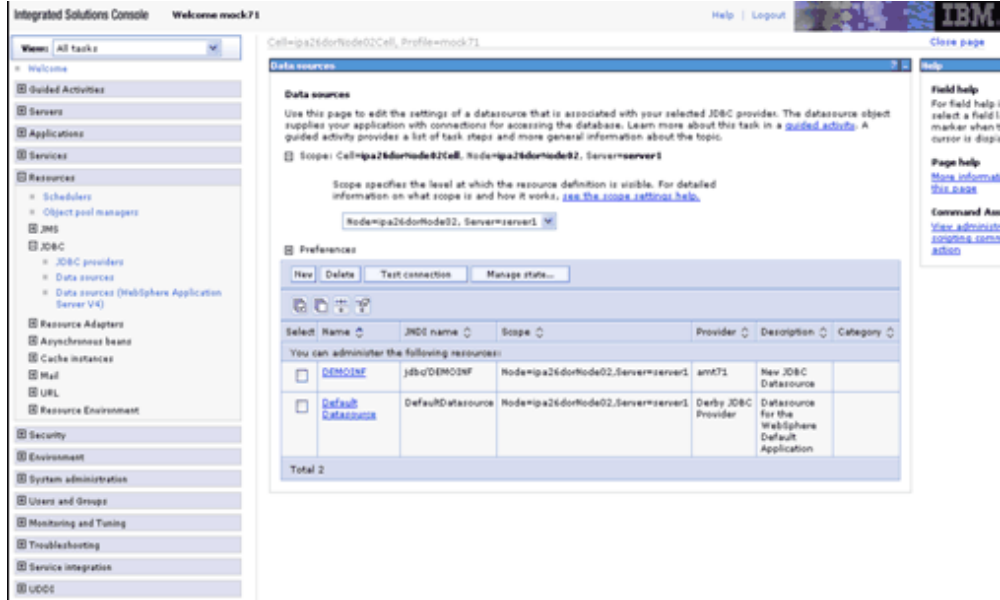
2. Specify the Data Source name and the JNDI name for the new data source (the JNDI and Data Source name is case sensitive. JNDI Name should be same as the Infodom name).
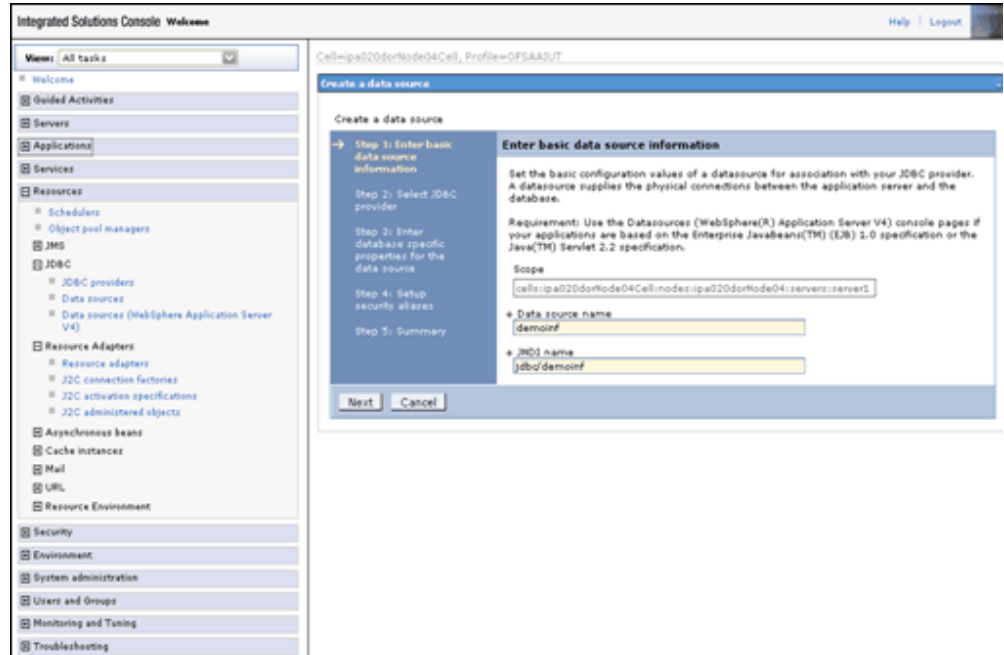
3. Select an existing JDBC provider from a drop-down list which is been created already.
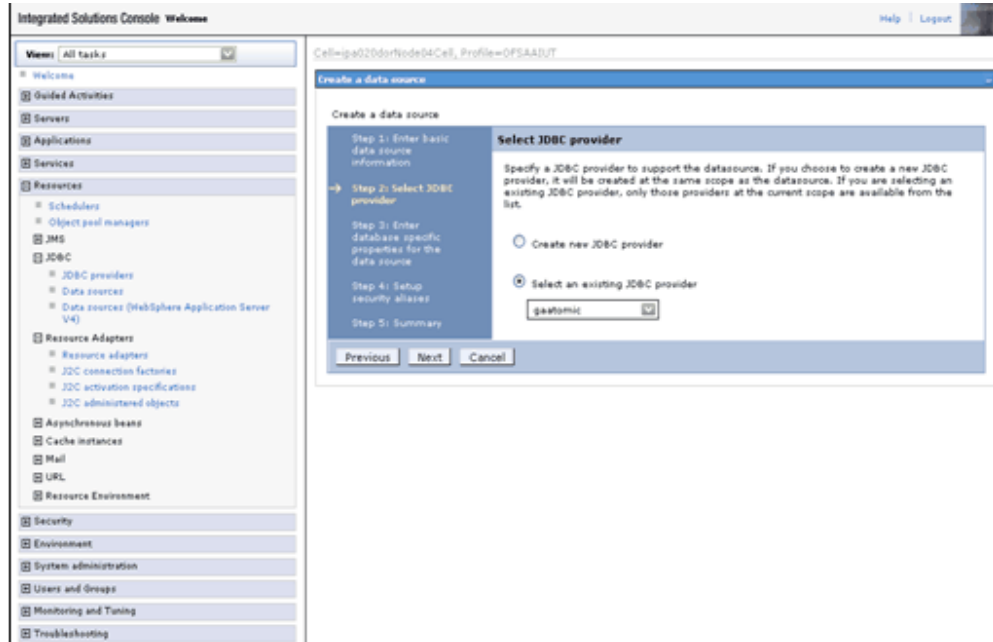
4. Specify the URL of the database from which the data source obtains connections. The connection URI is of the type jdbc:oracle:thin:@<DB_SERVER_IP>:<DB_SERVER_PORT>:<SID>.
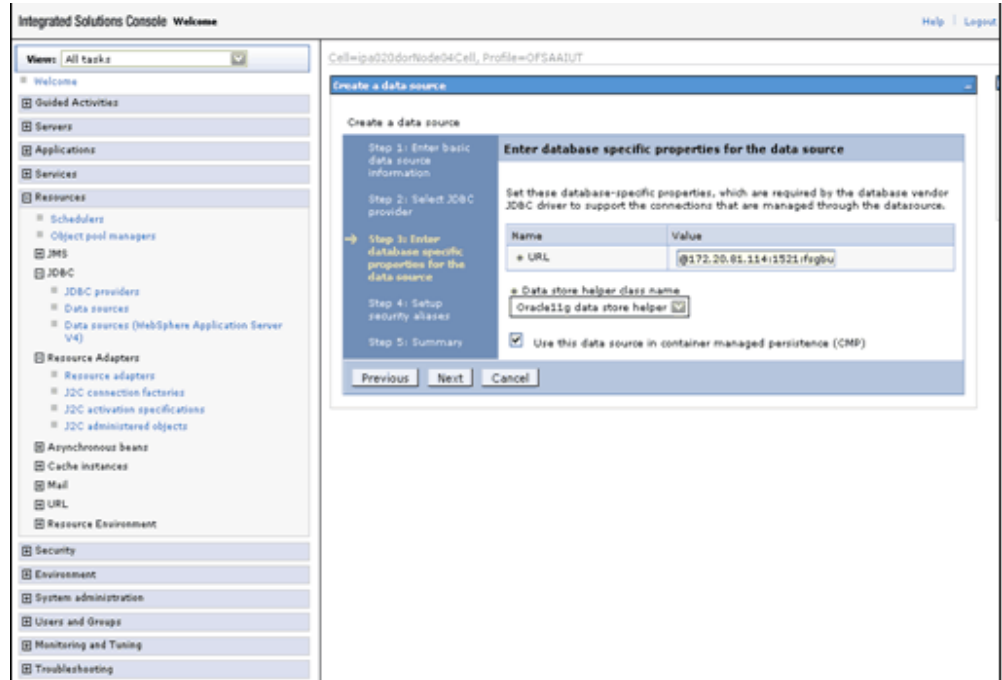
> **Note:** For RAC configuration, provide the RAC url provided
> during installation.

Example

jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TC
P)(HOST=10.184.108.91)(port=1521))(ADDRESS=(PROTOCOL=TCP)(HOST=10.184.
108.92)(PORT=1521))(LOAD_BALANCE=no)(FAILOVER=yes))(CONNECT_DATA
=(SERVICE_NAME=pqadb)))

5. Map the J2C- authentication alias, if already created. You can create a new J2C
   authentication alias by accessing the link given (**Global J2C authentication alias**) or
   you can continue with the data source creation by clicking on Next and then Finish.
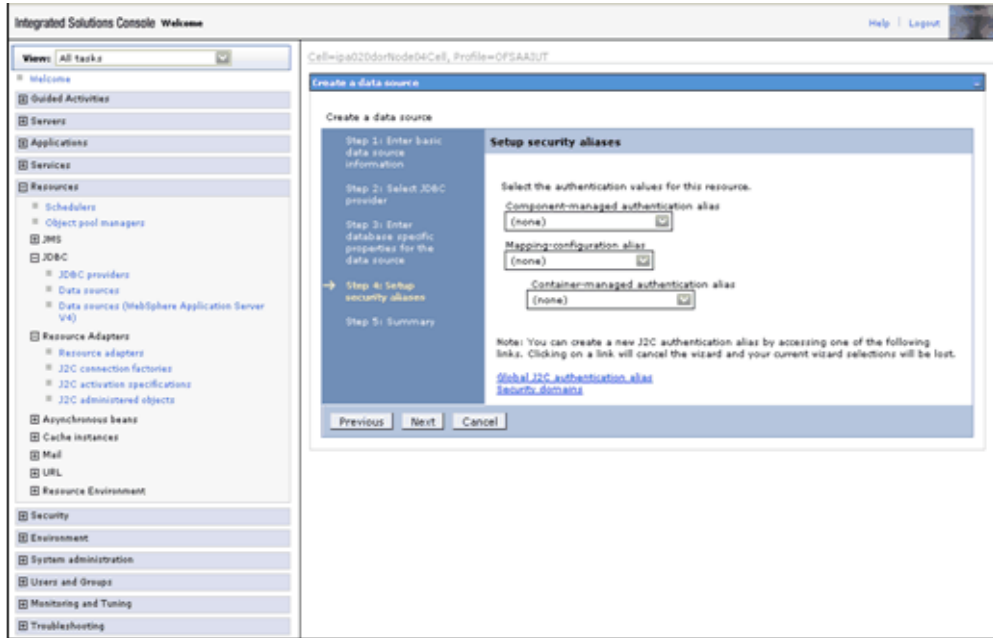
On clicking Next, the summary page appears. Click **Finish**.
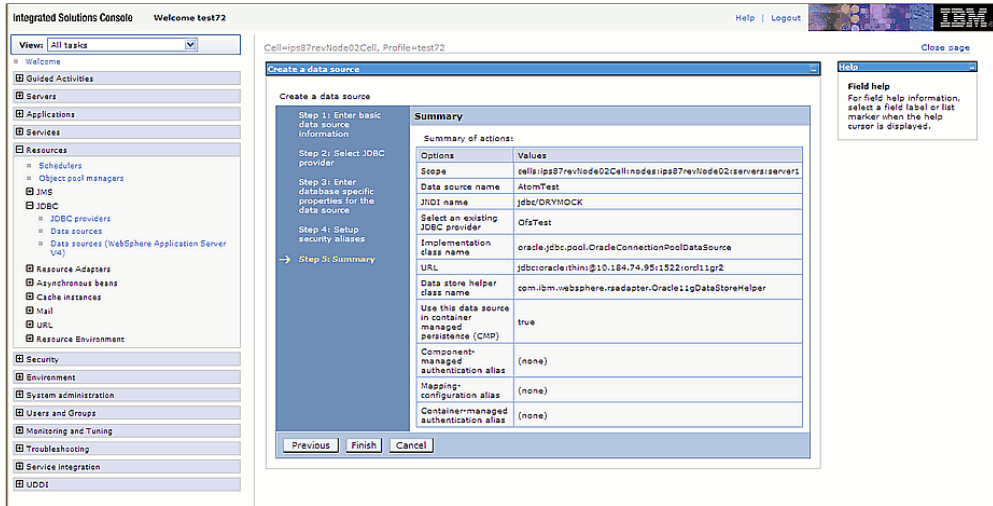
The creation and mapping of J2C authentication alias can be done after the data source creation as well

One more Data source should be created with jdbc/FICMASTER as JNDI name pointing to the config schema of Infrastructure.

J2C Authentication Details

Click the newly created Data Source and click the JAAS – J2C authentication data link under Related Items. Click **New** to specify a list of User IDs and passwords for Java 2 Connector Security to use. Save the input information.
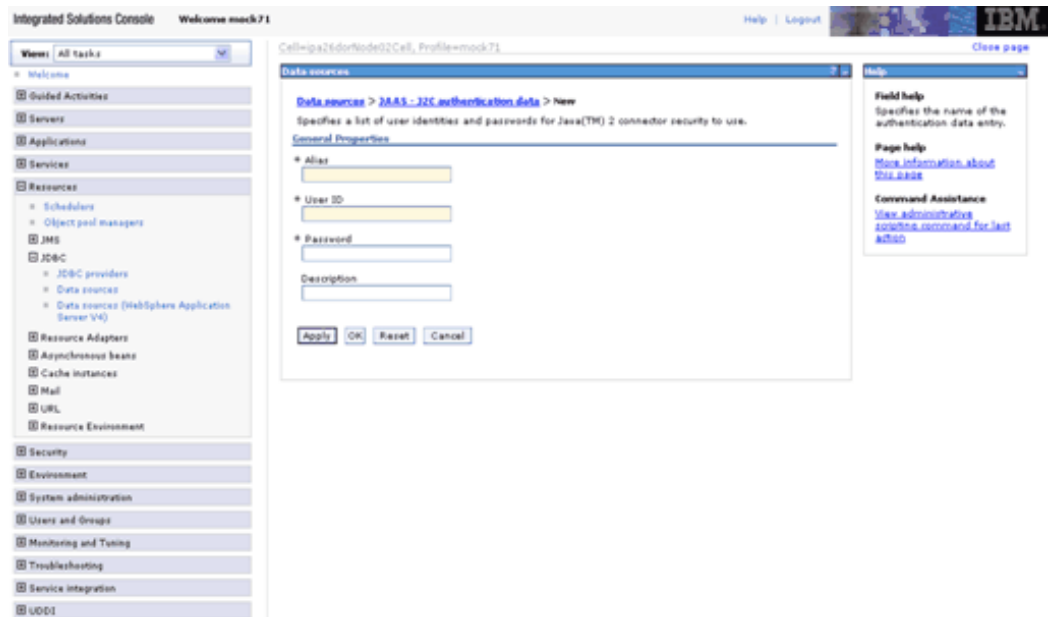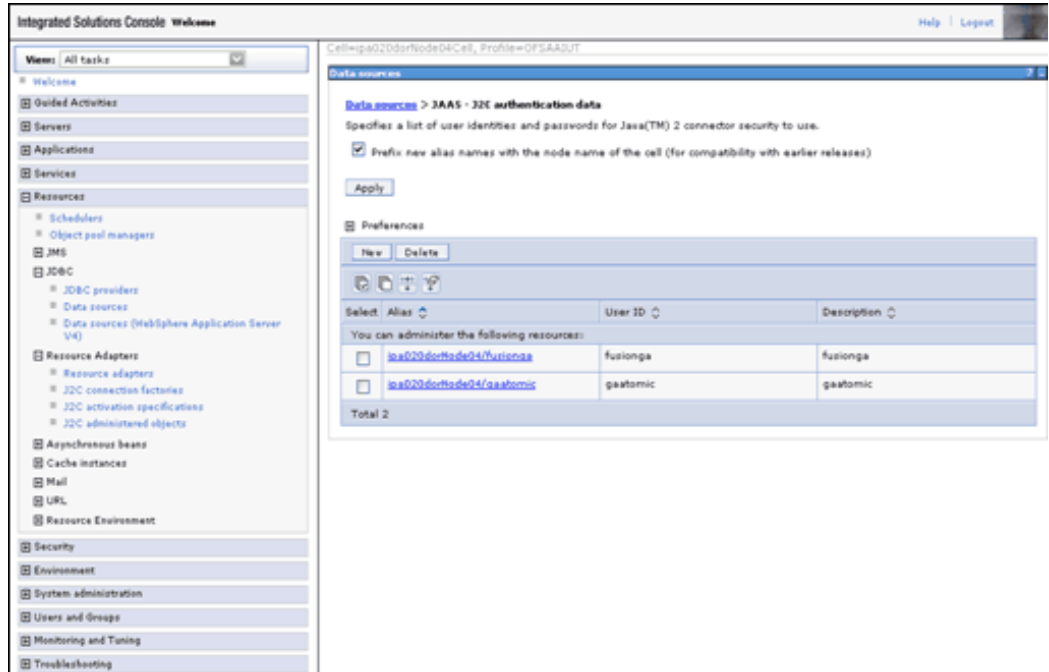
- The User ID to be specified is the Oracle user ID that is created for the respective Information Domain.

- The User ID to be specified for data source with FICMASTER as JNDI name should be the Oracle user ID created for the config schema.

- 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 following figure.
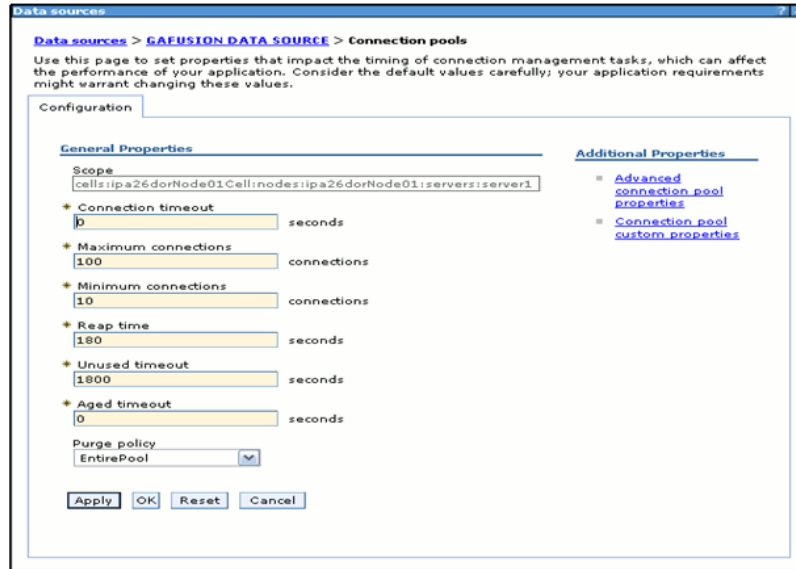
- Refer the WebSphere online help (Page Help – More Information about this page link) in the right side of the same screen for more information.

Configuration of Resource Reference in Tomcat Application Server

- For Oracle 11g R2, copy the Oracle JDBC driver file, ojdbc6.jar from <Oracle Home>/jdbc/lib and place it in <Tomcat Home>/lib.

- For Oracle 10gR2, copy the ojdbc14.jar from <Oracle Home>/jdbc/lib and place it in <Tomcat Home>/lib. Include.

Creating the Data Source in Tomcat Application Server

Navigate to *<Tomcat Home>/conf* and edit the following block of text in server.xml by replacing the actual values of the text given below. This is for creating a data source for the Infrastructure application.

<Context path ="/<context name>" docBase="<Tomcat Installation

Directory>/webapps/<context name>"debug="0" reloadable="true" crossContext="true">

```
<Resource auth="Container"
    name="jdbc/FICMASTER"
    type="javax.sql.DataSource"
    driverClassName="oracle.jdbc.driver.OracleDriver"
    username="<user id for the config schema database>"
    password="<password for the above user id>"
    url="jdbc:oracle:thin:@<DB engine IP address>:<DB Port>:<SID>"
    maxActive="100"
    maxIdle="30"
  maxWait="10000"/>

<Resource auth="Container"
    name="jdbc/< INFORMATION DOMAIN NAME >"
  type="javax.sql.DataSource"
    driverClassName="oracle.jdbc.driver.OracleDriver"
    username="<user id for the database>"
    password="<password for the above user id>"
    url="jdbc:oracle:thin:@<DB engine IP address>:<DB Port>:<SID>"
    maxActive="100"
    maxIdle="30"
    maxWait="10000"/>
  removeAbandoned="true" removeAbandonedTimeout="60"
  logAbandoned="true"/>
</Context>
```

Note

- The <Resource> tag must be repeated for each of the information domains that are created.

- After the above configuration, the WAR file has to be created and deployed in Tomcat. For more instructions, refer the Tomcat WAR Files Creation, page 9-13 and Tomcat WAR Files Deployment, page 9-13 sections.

Creating the Data Source in WebLogic Application Server

1. Open this URL in the browser window: http://<ipaddress>:<administrative console port>/console. The login screen is displayed. Login with the user id that has admin rights.

2. From the left hand screen menu, under Domain Structure, click Services > JDBC > Data Sources.

   The Summary of JDBC Data Sources screen is displayed.
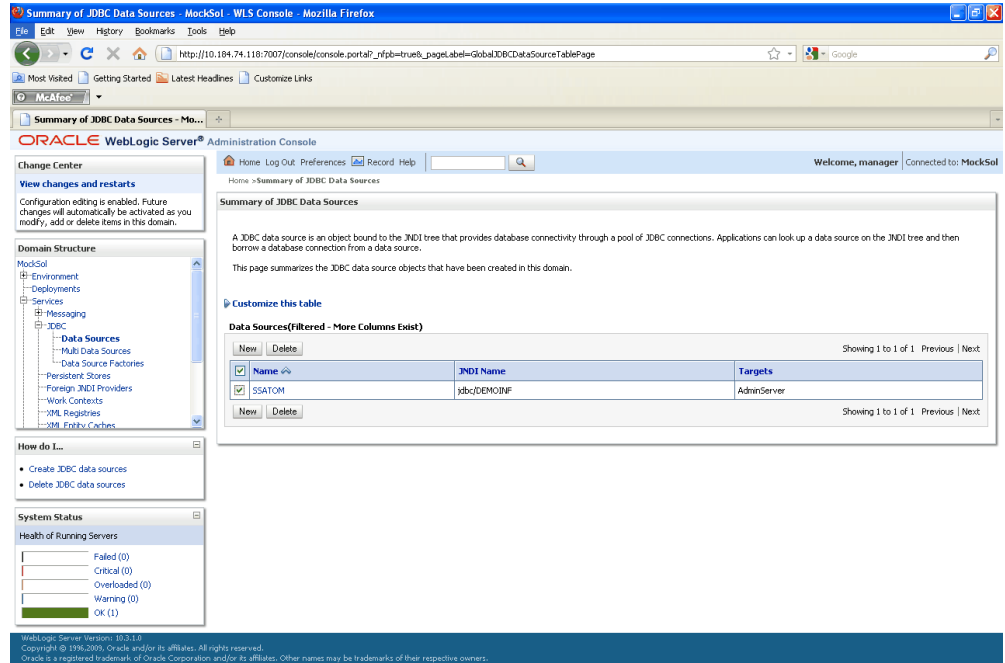
3. Click the **New** button on the right hand side of the screen. The Create a New JDBC Data Source screen is displayed.
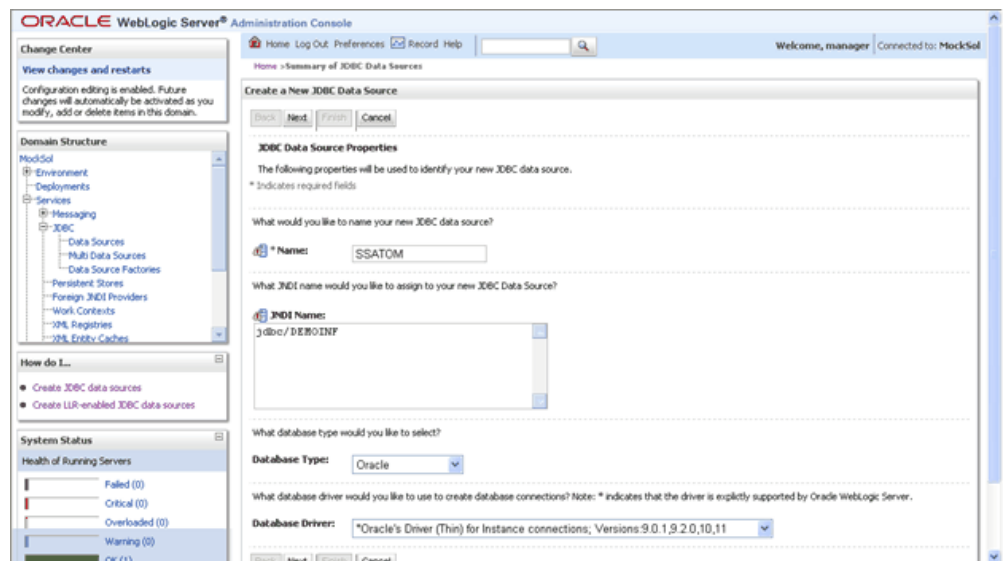
Enter the JDBC Data Source name, JNDI name, Database type and the Database driver name in the respective fields. Click **Next**.

- The data source name must be provided in the Name field.

- In the JNDI Name field, provide the jdbc/infodomname

- Same steps must be followed to create a mandatory data source pointing to the configuration schema of infrastructure with jdbc/FICMASTER as JNDI name.

- JNDI Name provided should be the same name that will be mentioned in the web.xml file of OFSAAI Application.

- Required Database Type and Database Driver should be selected

4. In the next screen, select the Supports Global Transactions check box and select the One-Phase Commit option.
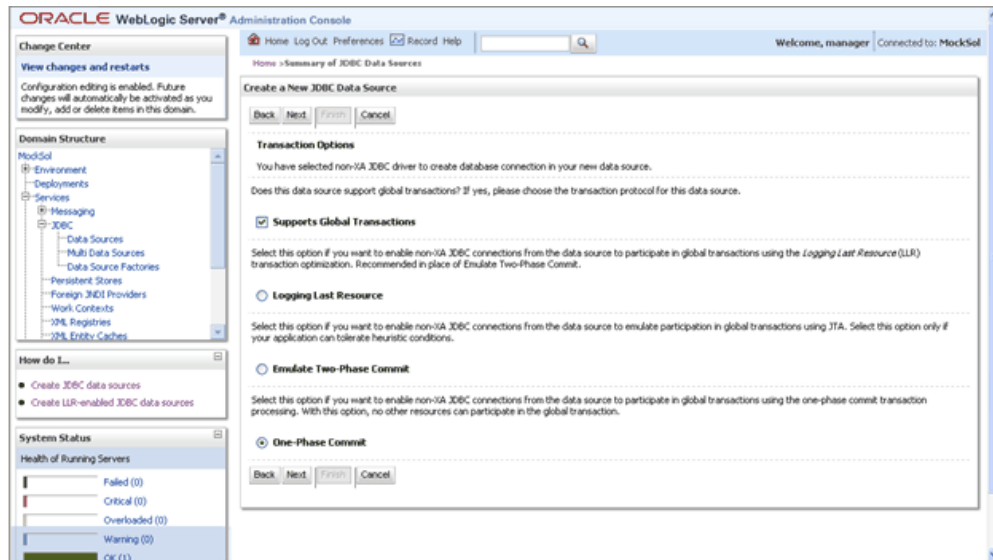
5. Click **Next** to continue. The Connection Properties screen is displayed.
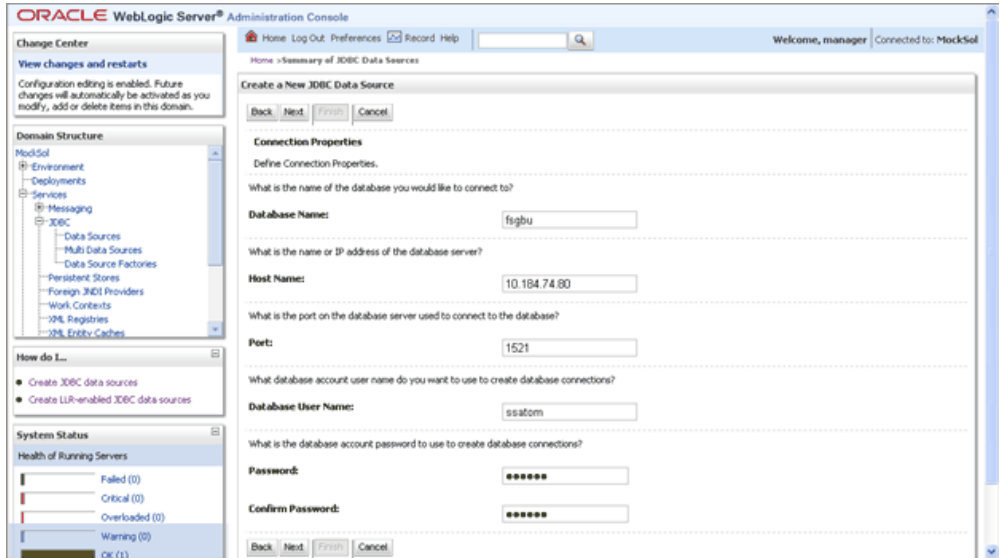
Enter the required details such as the Database Name, Host Name, Port, Oracle Atomic Schema User Name and Password and click **Next**.

6. The Test Database Connection screen is displayed.

Verify the details displayed and ensure that they are correct. Click **Test Configuration** to test the configuration settings.

A confirmation message will be displayed stating "Connection test succeeded."

Click **Finish**. The newly created Data Source will be displayed under the list of Data Sources.

Note:

- The User ID to be specified is the Oracle user ID that is created for the respective infodom.

- The User ID to be specified for data source with FICMASTER as JNDI name should be the Oracle user ID created for the config schema.

- Refer the Weblogic online help (Page Help – More Information about this page link) in the right side of the same screen for more information.

Click the Data Source created. The Settings for <Data Source Name> screen is displayed.
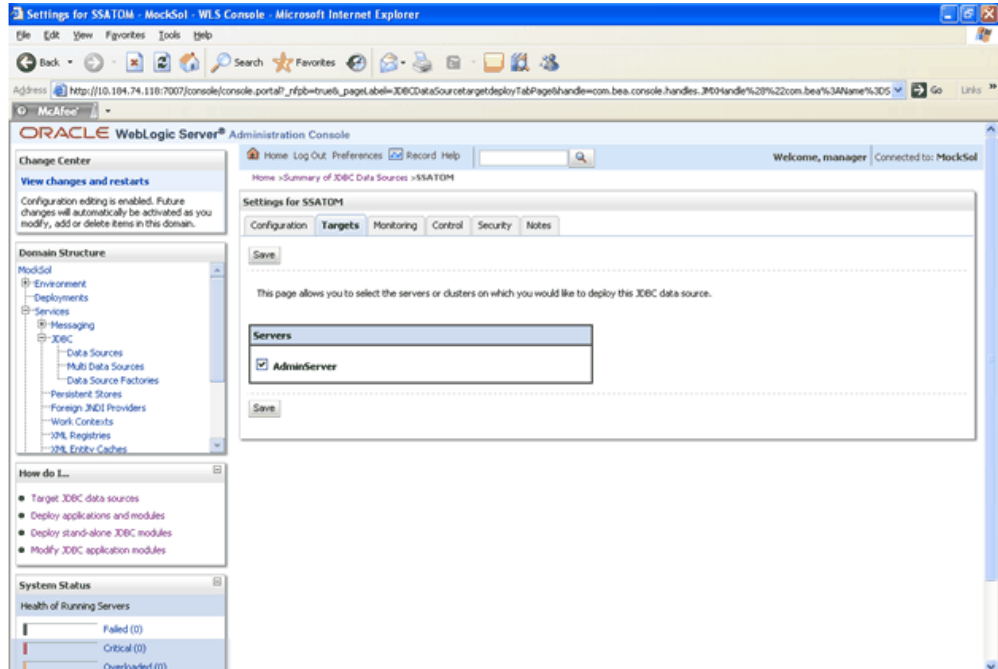
Click the **Targets** tab and check the AdminServer option.

Click **Save**.

7. **Advanced Settings for Data Source.** Click the Data Source created. The Settings for <Data Source Name> screen is displayed. Select Connection Pooling tab given under Configuration. Go to the Advanced option at the bottom of the page, and check the Test Connection of Reserve checkbox (Enables WebLogic Server to test a connection before giving it to a client).

8. To check whether the data source is valid, select the Data Source name (For example FICMASTER).
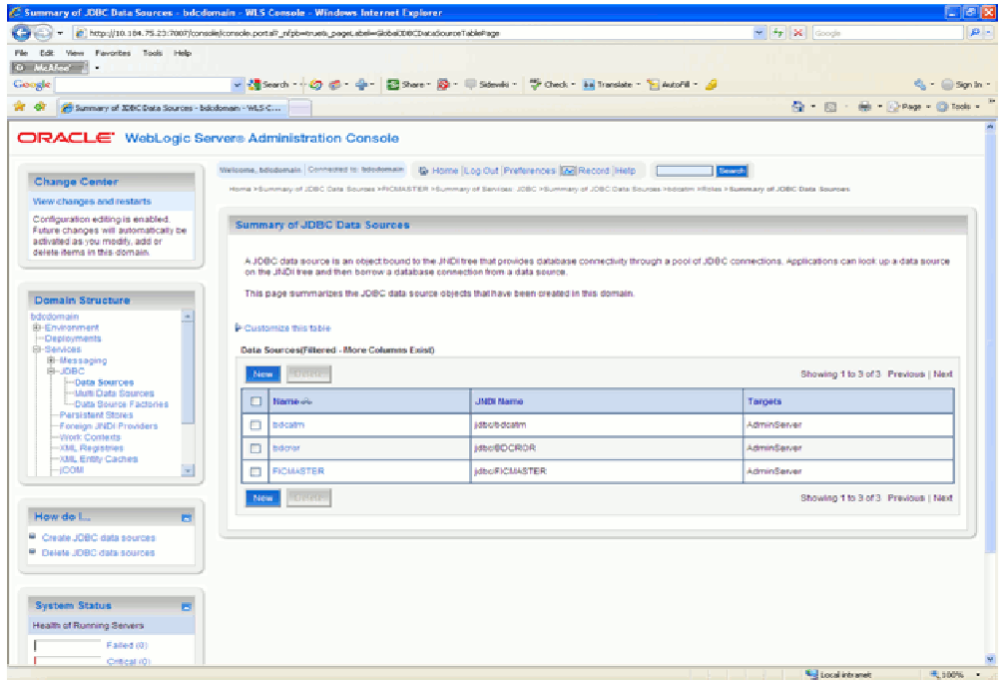
Select the server and click **Test Data Source**.
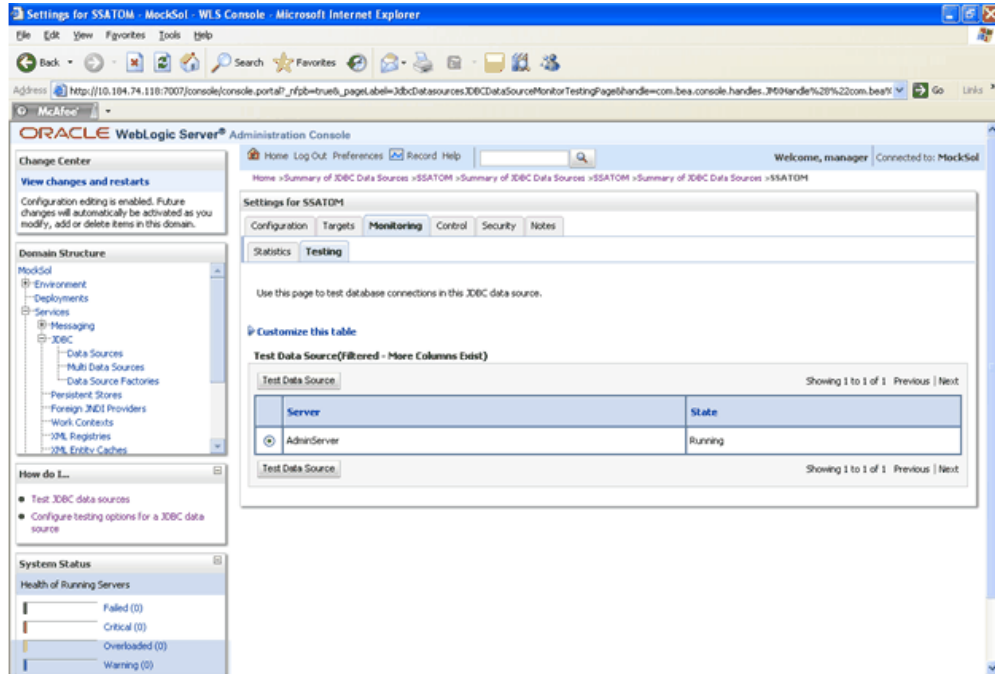
A message comes up stating that the test was successful.
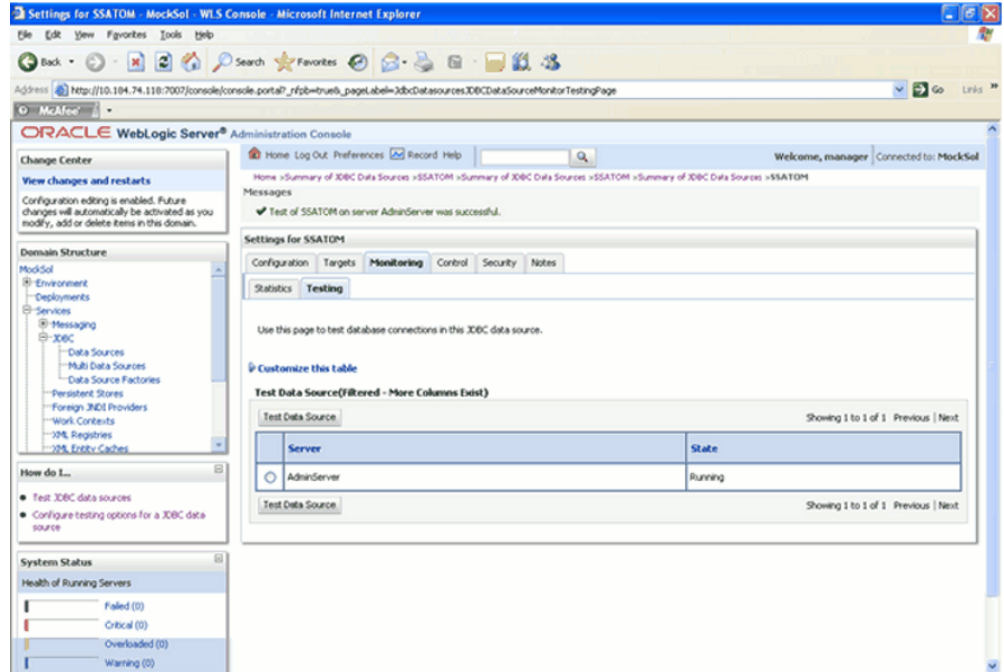
9. Two messages appear, "All changes have been activated. No restart is necessary" and "Settings updated successfully". This shows that the Data Source has been created successfully.

If not, follow the steps given earlier to recreate the data source.
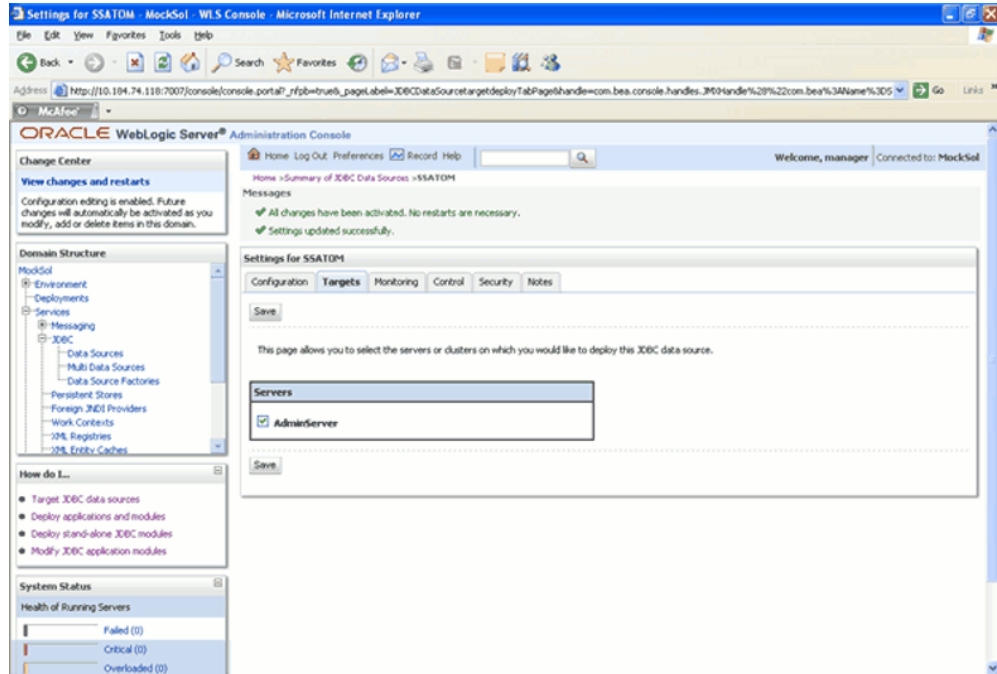
10. After creating a Data Source, Click the newly created Data Source ($DATA_SOURCE$).

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

Grid Link Data Source Creation:

1. From the left hand screen menu, under Domain Structure, click Services > JDBC > Data Sources.

The Summary of JDBC Data Sources screen is displayed.
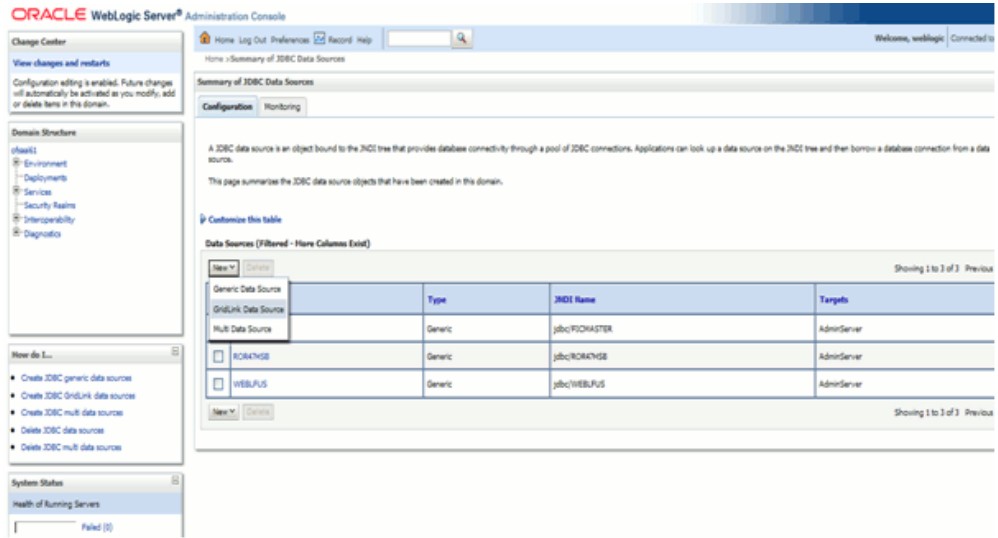
2. Click the **New** button on the right hand side of the screen. Then select GridLink Data Source. The Create a New JDBC GridLink Data Source screen is displayed.
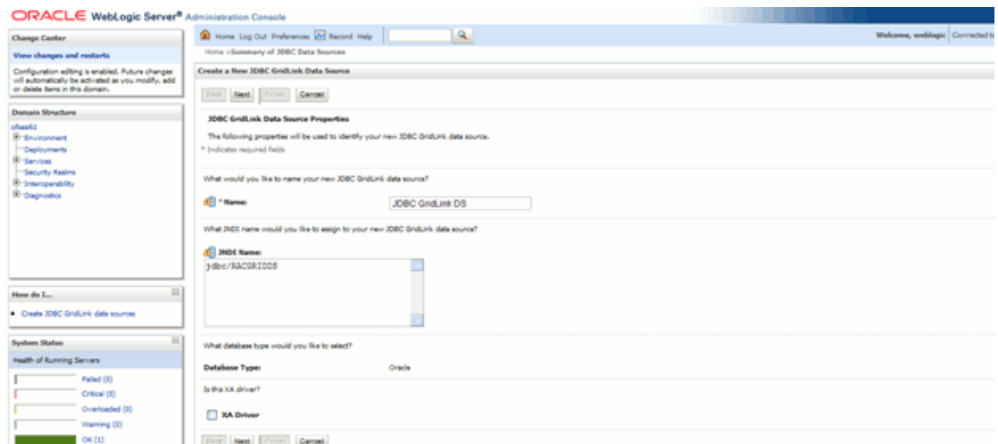
Enter the JDBC Grid Link Data Source name, JNDI name, Database type and the XA driver name in the respective fields. Click **Next**.

- The data source name must be provided in the Name field.

- In the JNDI Name field, provide the jdbc/infodomname

- Same steps must be followed to create a mandatory data source pointing to the configuration schema of infrastructure with jdbc/FICMASTER as JNDI name.

- JNDI Name provided should be the same name that will be mentioned in the web.xml file of OFSAAI Application.

- Required Database Type and XA Driver should be selected

3. In the next screen, select the Supports Global Transactions check box and select the One-Phase Commit option.
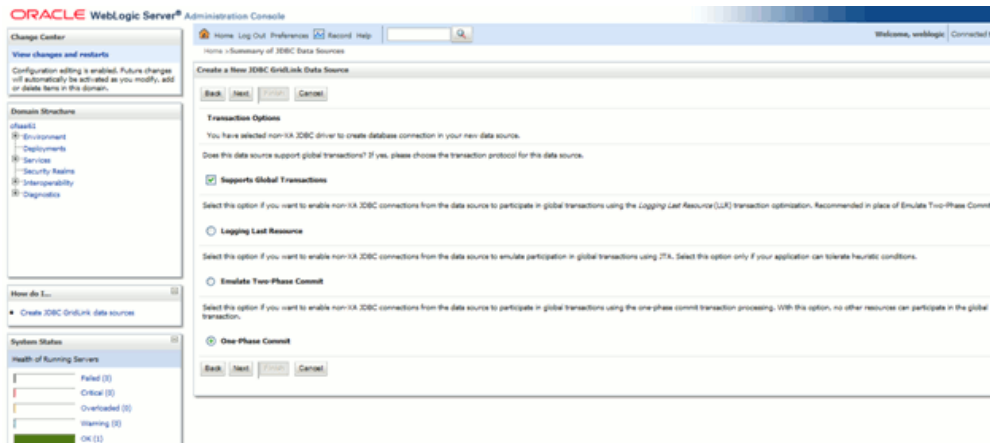
Click **Next** to continue.

4. You can either enter the complete JDBC URL or enter individual host and port pair and let the assistant generate the JDBC URL.

5. Click **Next** to continue. The Connection Properties screen is displayed.
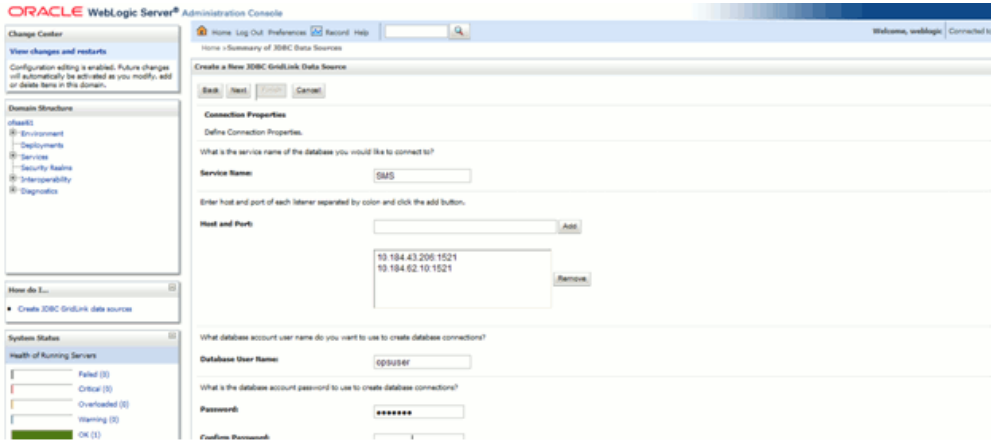
Enter the required details such as the Service Name of the database, Host Name, Port, Oracle Atomic Schema User Name and Password and click **Next**.

6. The Test GridLink Database Connection screen is displayed.
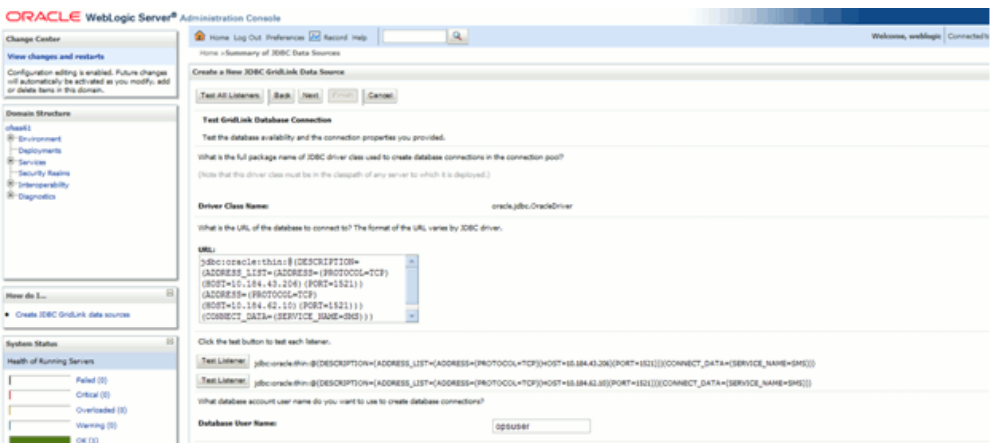
Verify the details displayed and ensure that they are correct. Click **Test All Listeners** to test the configuration settings.

A confirmation message will be displayed stating "Connection test succeeded."
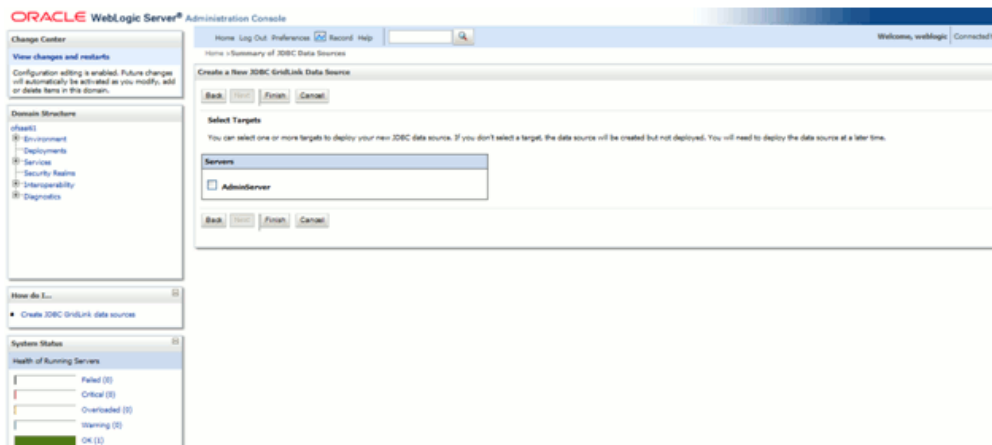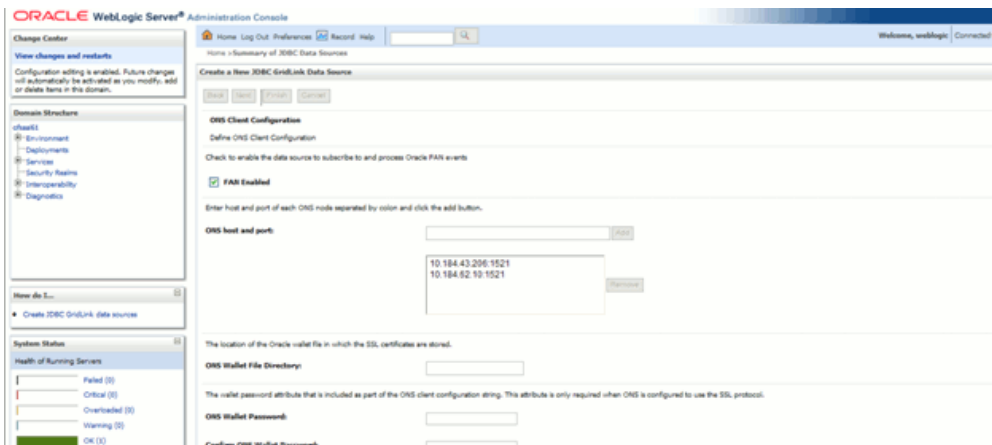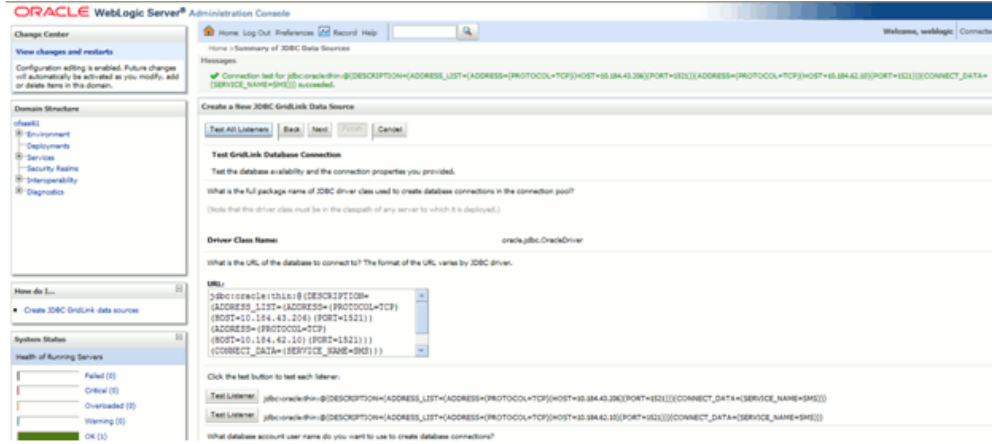
You can select one or more targets to deploy your new JDBC data source. If you do not select a target, the data source will be created but not deployed. You will need to deploy the data source at a later time.

Check the AdminServer option.

Click **Finish.**

Configuring Multi Data Sources

A JDBC multi data source is an abstraction around a group of data sources that provides load balancing and failover between data sources. As with data sources, multi data sources are also bound to the JNDI tree. Applications can look up a multi data source on the JNDI tree and then reserve a database connection from a data source. The multi data source determines from which data source to provide the connection.

When database used is **Oracle RAC (Real Application Clusters)** which allows Oracle Database to run across a set of clustered servers, then group of data sources can be created for instances running on set of clustered servers and a JDBC multi data source can be created so that applications can look up a multi data source on the JNDI tree to reserve database connection. If a clustered server fails, Oracle continues running on the remaining servers.

1. Open this URL in the browser window: http://<ipaddress>:<administrative consoleport>/console.The login screen is displayed. Login with the user id that has admin rights.

2. From the left hand screen menu, under Domain Structure, click Services > JDBC > Multi Data Sources.

The Summary of JDBC Multi Data Sources screen is displayed.
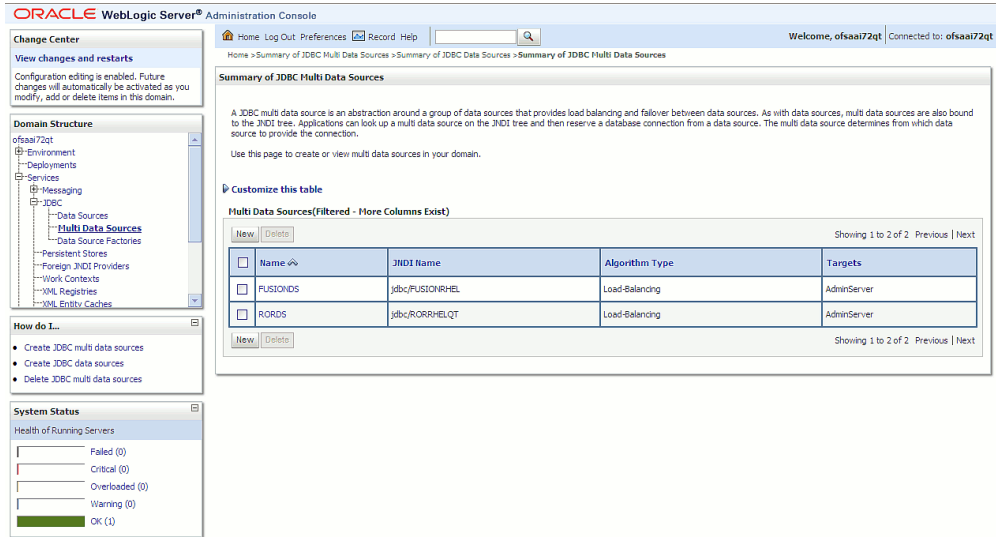
3. Click the **New** button. The Create a New JDBC Multi Data Source screen is displayed.

> **Note:** Data Sources which needs to be added to new JDBC Multi Data Source should be already created.

For more information on creating Data Source refer, Creating the Data Source, page 15-37.
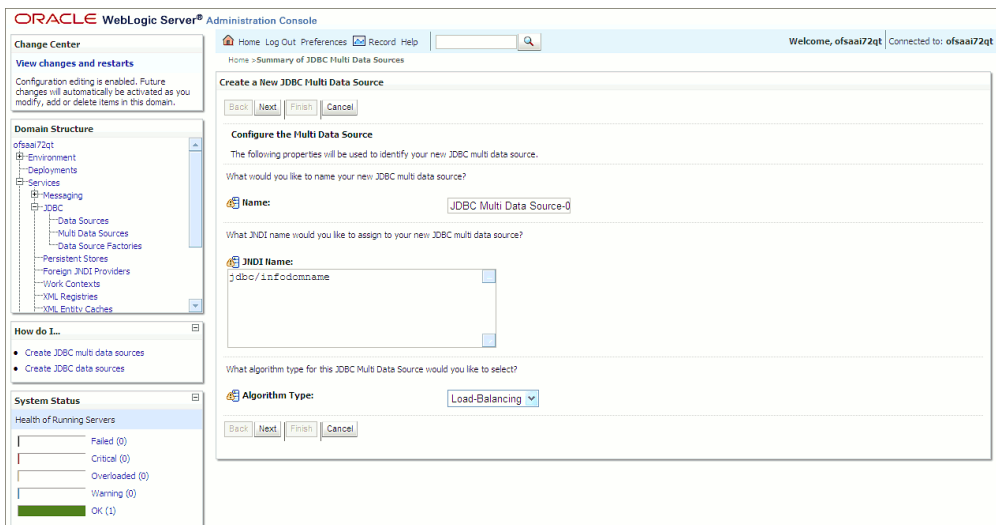
Enter the JDBC source name, JNDI name, and the Algorithm Type in the respective fields. Click **Next**.

Additional Information:

- The data source name needs to be provided in the Name field.

- In the JNDI Name field, provide the jdbc/infodomname for Multi Data Source.

- JNDI Name of the Data Sources that will be added to new JDBC Multi data source should be different from the JNDI name specified during Multi Data Source.

- Same steps needs to be followed to create a mandatory data source pointing to the configuration schema of infrastructure with jdbc/FICMASTER as JNDI name for Data Source.

- JNDI Name provided in multi data source should be the same name that will be mentioned in the web.xml file of OFSAAI Application.

- You can select the Algorithm Type as **Load-Balancing**.

4. Select the AdminServer check box and click **Next**.
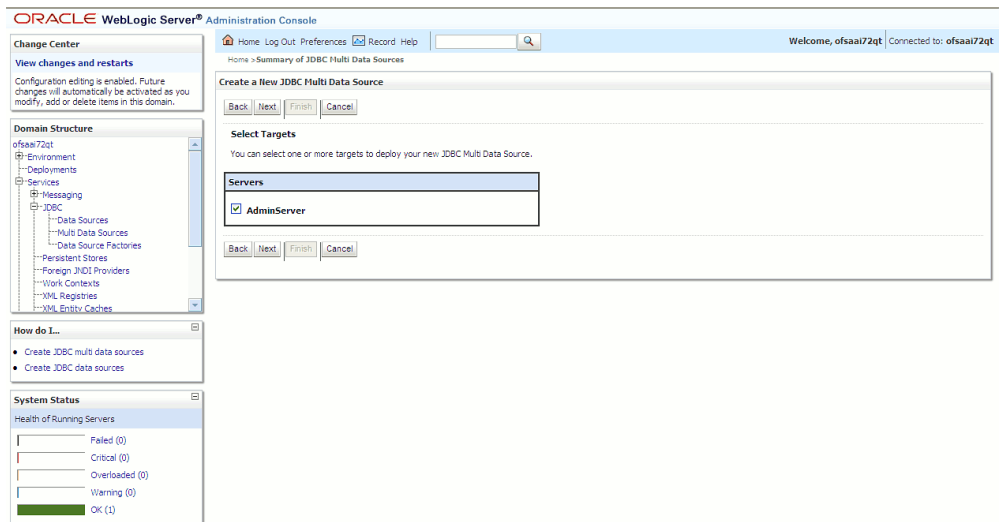
5. In the Select Data Source Type screen, select the type of data source which will be added to new JDBC Multi Data Source.
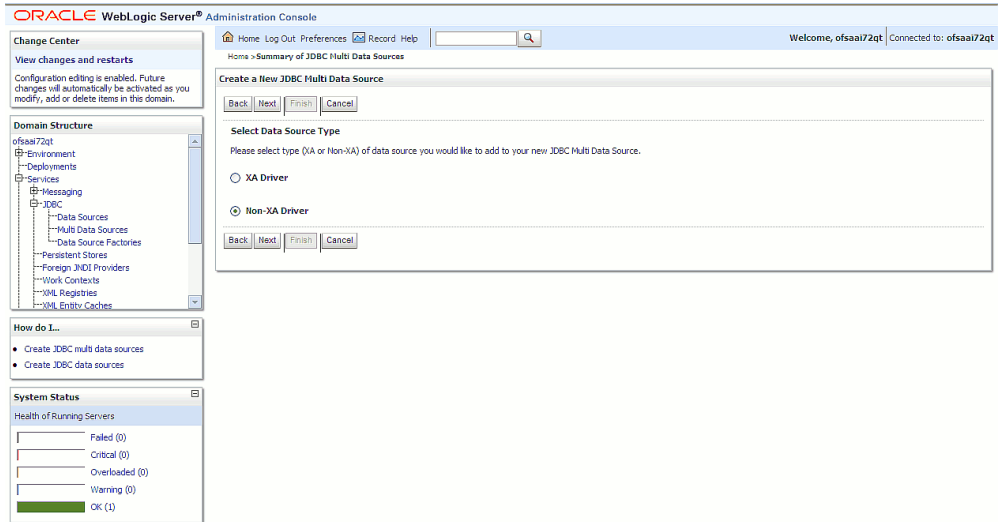
6. Map the required Data Source from the Available Data Sources. Click **Finish**.
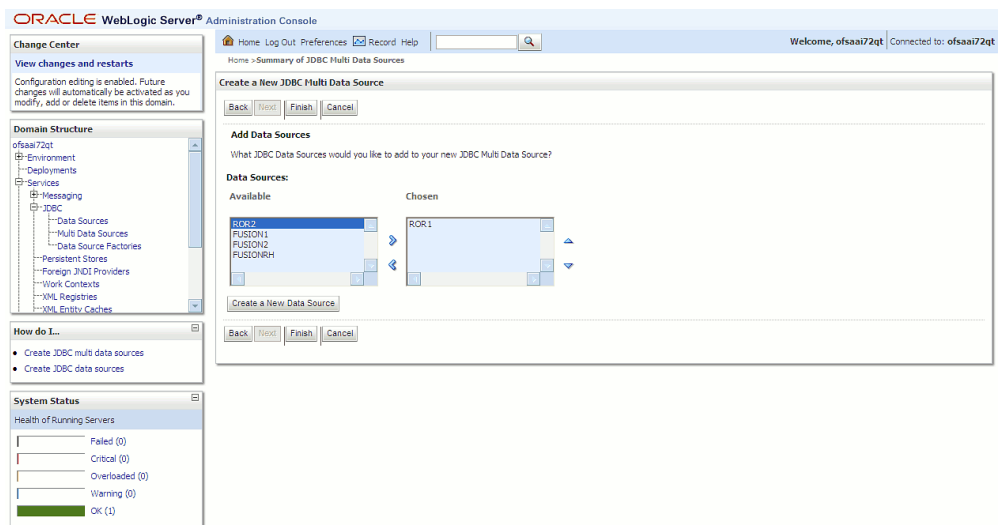
New JDBC Multi Data Source is created with added data sources.

Configuration of Resource Reference in Oracle Application Server

Creating the Connection Pool
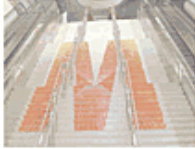
1. Open the URL http://:<ipaddress>:<administrative console port>/console in the browser window. The homepage appears.

   Click the Application Server Control option in the right side.

2. The login screen is displayed. Login with the user id that has admin rights.

3. After logging in, select Default Group option.

The Default Group page is displayed. Click the **Administration** tab.

This page consists of the Task Name, Go To Task and its Description. Click **Go to Task** of JDBC Resources in the Task Name column.
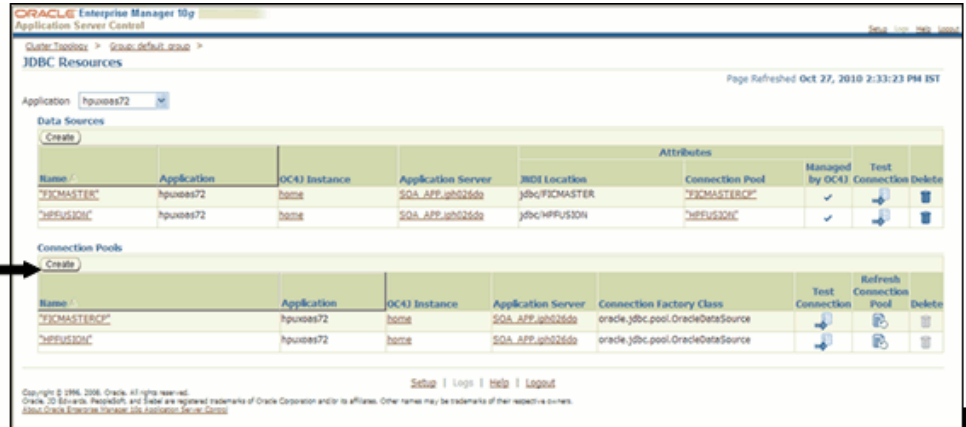
4. The JDBC Resources page appears. Select the Application from the drop down menu.

Click **Create** under the Connection Pools.

5. The Create Connection Pool – Application page appears.

   Ensure New Connection Pool is selected under Connection Pool Type. Click **Continue**.

   Enter the Name, Connection Factory Class and the JDBC URL in the respective fields. Under Credentials, ensure the Tip option is checked and the **Use Cleartext Password** is selected.

   Click **Test Connection**.

Note:

- The User ID to be specified is the Oracle user ID that is created for the respective Information Domain.

- The User ID to be specified for connection pool on which data source with FICMASTER as JNDI name will be created should be the Oracle user ID created for the config schema.

The Test Connection Page appears. Click **Test**.

6. The Create Connection Pool page appears. Click **Finish**.
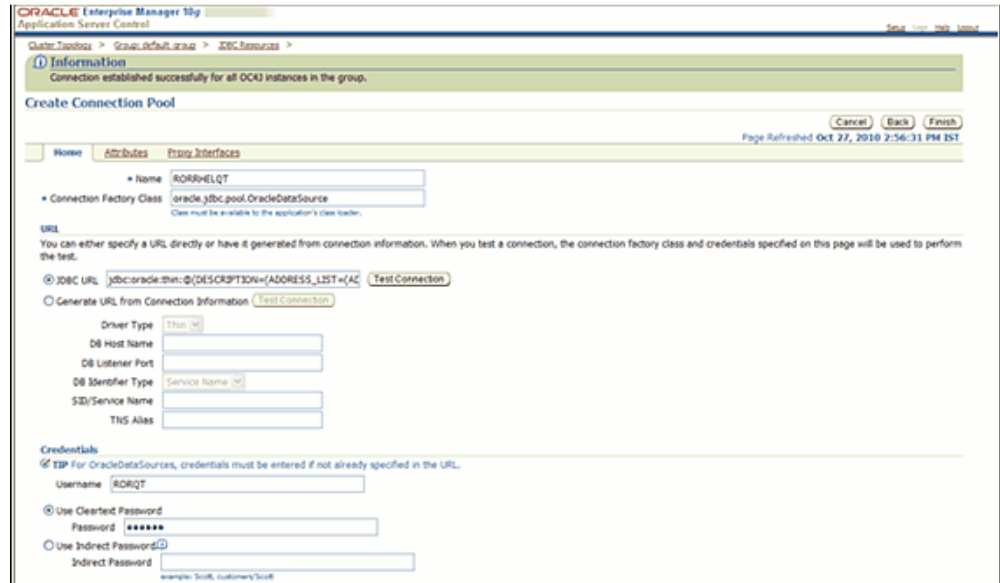
Creating the Data Source

1. To create data source from JDBC Resources page, click **Create** under Data Sources.
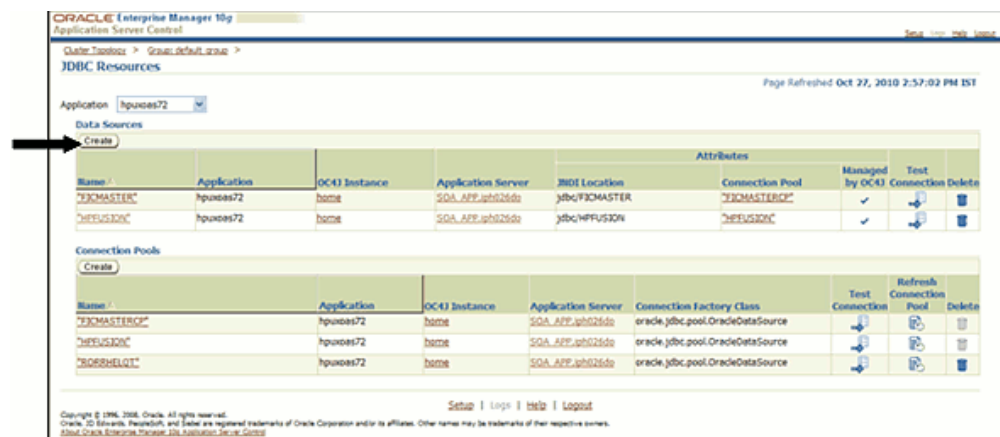
2. The Create Data Source – Application and Type page appears.

   Select the Application where data source needs to be created from the drop down menu. Select the Data Source Type as **Managed Data Source**.

   Click **Continue**.

The Create Data Source – Managed Data Source page appears.

Mention the Name, JNDI Location and Login Timeout in their respective fields. Select the Transaction Level and appropriate Connection Pool from the drop down menu.

Click **Finish**.

Note:

- In the JNDI Name field, provide the jdbc/infodomname.

- Another Data source should be created with jdbc/FICMASTER as JNDI name pointing to the config schema of Infrastructure.

3. The JDBC Resource has been successfully created.

Resource Reference Mappings in Oracle Application Server

1. Login with the user id that has admin rights.

2. After logging in, select **Default Group** option.

3. In the Default Group page, click Home under Select OC4J Instance.

4. The Home page appears. Select the Application tab and click the required application name.
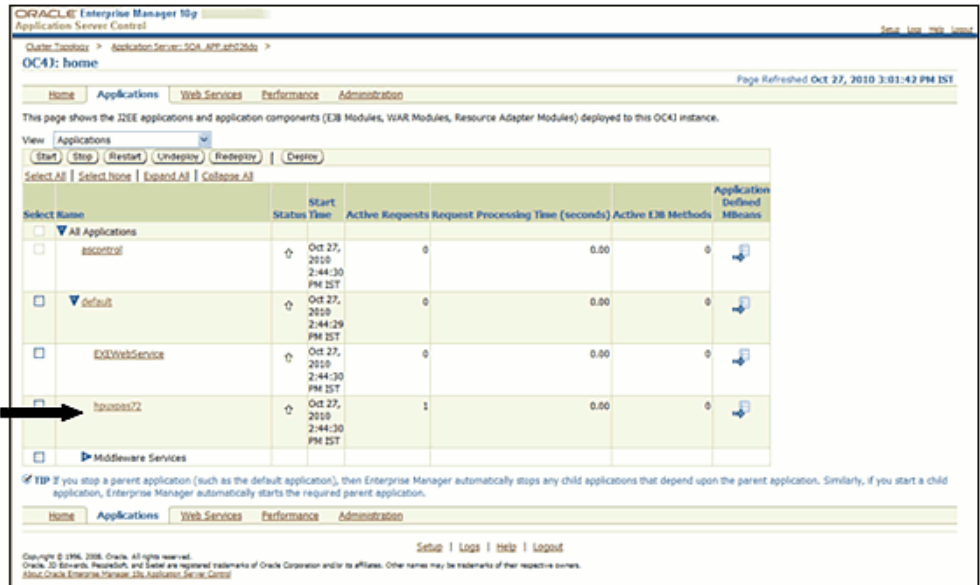
5. The selected application page appears. Click the Web Module name.
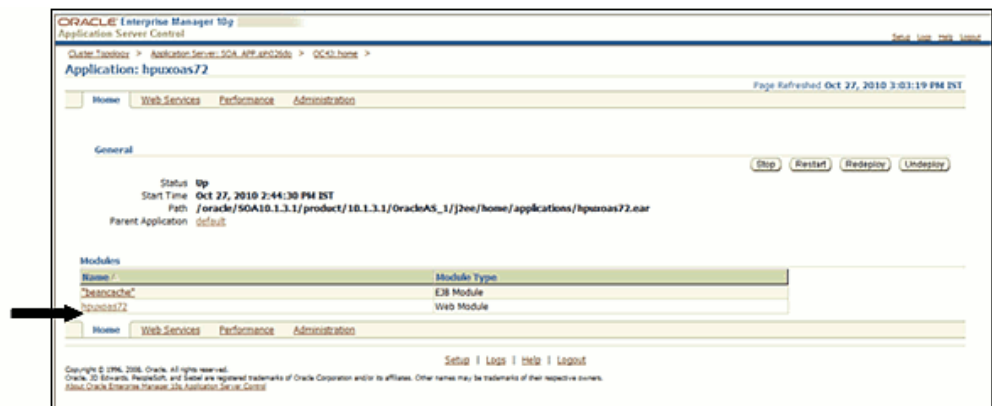
6. The selected Web Module page appears. Click the **Administration** tab.

   Click Go to task icon of Resource Reference mapping.
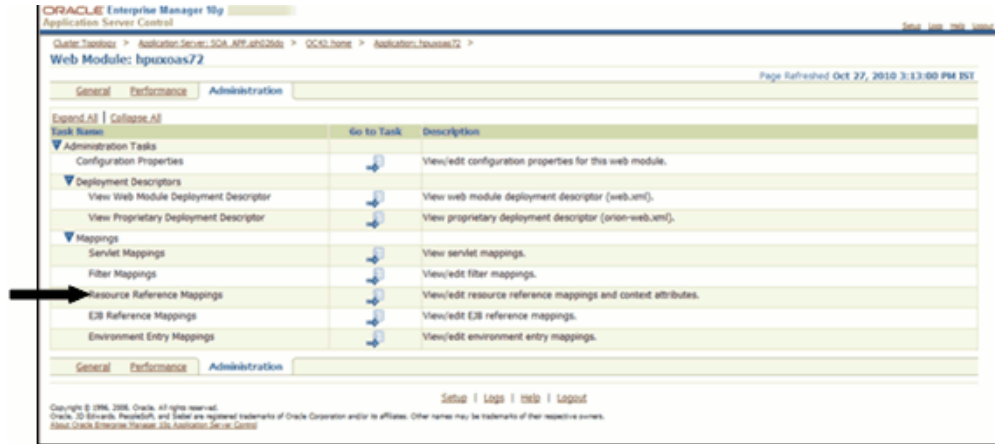
7. The Resource Reference mapping page appears.

   Mention the appropriate JNDI Location and click **OK**.

The Resource Reference Mapping is thus created.

16

Uninstalling Infrastructure Components

Introduction

The uninstallation process will uninstall all Infrastructure and FS Application related files from the installed directory. Before you start the uninstallation process, ensure that no open connections exist to the Config schema and Infrastructure servers are shutdown.

To uninstall Infrastructure, run the .profile.

Navigate to $FIC_HOME directory and grant execute permission to UnInstall.sh file.

Execute UnInstall.sh and follow the instructions.

- Uninstallation will not un-deploy the Infrastructure application from Web Server. This has to be done manually.

- The entries in the .profile file will have to be removed manually.

- In case of multi-tier architecture, uninstallation must be performed on all the machines in which Infrastructure components are installed.

- Make sure that no user is connected to the database while uninstalling the Infrastructure Database Layer.

- All the Database objects from atomic schemas have to be dropped manually after executing the uninstall.sh file.

- The ftpshare directory and all files need to be manually deleted after executing the uninstall.sh file.

Uninstalling Previously Deployed EAR Files

Uninstalling Previously Deployed EAR Files in Websphere

Following are the steps outlined to uninstall any previously deployed application.

1. Open the URL in the browser window: http://<ipaddress>:<Administrative Console Port>/ibm/console. The login screen is displayed. Login with the user id that has admin rights.

2. Expand Applications > Application Types > WebSphere enterprise applications from the left hand screen. The Enterprise Applications screen displays all the deployed applications.
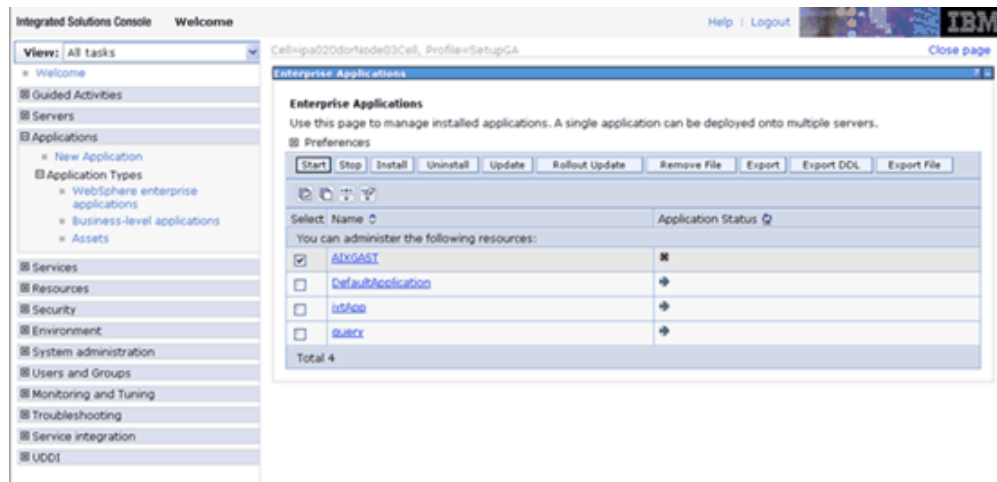
3. Select the application to be uninstalled and click Stop and Uninstall. Click **OK** to confirm uninstall.

4. Click **Save** to save the master file configuration.
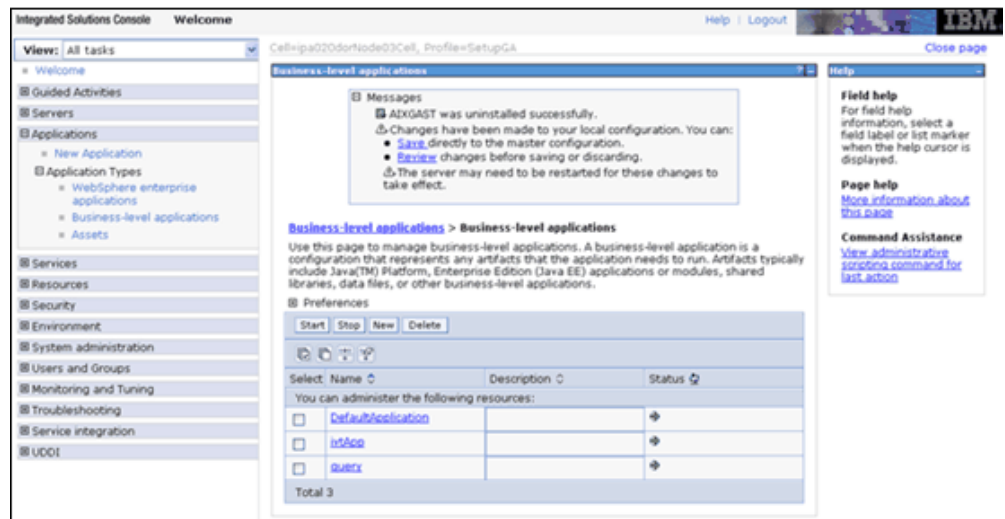
Uninstalling Previously Deployed WAR Files in Tomcat

On the machine that hosts Tomcat, follow the steps outlined to uninstall any previously deployed application.

1. Comment out Context path section from server.xml file in $CATALINA_HOME/conf directory to avoid conflict during undeploy and re-deploy of the WAR file.

   Place comment <!-- --> in between the context path section.

   For example:

```
<!--
<Context path="/ofsaatom"
docBase="/home/ofsasupport/OFSAA/tomcat/apache-tomcat-6.0.20/webapps/ofsaatom"

 debug="0" reloadable="true" crossContext="true">
    <Resource auth="Container"
      name="jdbc/INFODOMNAME"
      type="javax.sql.DataSource"
        driverClassName="oracle.jdbc.driver.OracleDriver"
      username="atomic user"
        password="password"
      url="jdbc:oracle:thin:@10.123.92.19:1521:ofsaa"
      maxActive="100"
      maxIdle="30"
      maxWait="10000"/>
   </Context>
-->
```

2. Open the URL in Browser window: http://<IP address>:<Tomcat server port>. The Tomcat home page is displayed. Click the **Tomcat Manager** link on the Left menu.

   Login with the user id that has admin rights. (For user creation in tomcat, refer to the section Tomcat User Administration, page 9-12.)

3. This takes you to the Tomcat Web Application Manager. This displays all the applications deployed in Tomcat. Click the Undeploy link against the deployed Infrastructure application. This removes the Infrastructure application deployed.

4. The following screen gives the confirmation message on the application /Infrastructure being undeployed.

Uninstalling Previously Deployed EAR Files in WebLogic

On the machine that hosts Weblogic, follow the steps outlined to uninstall any previously deployed application.

Open the URL in the browser window: http://<ipaddress>:<admin server port>/console. The login screen of the WebLogic Server Administration Console is displayed. Login with the WebLogic user id and password having administration privileges. The WebLogic Server Administration Console is displayed.

Click the **Deployments** link on the LHS menu. The Summary of Deployments screen is displayed. To do a new deployment, click **Install**.

1. To deploy an application on an existing EAR file, stop the service first by clicking Stop > Force Stop Now.
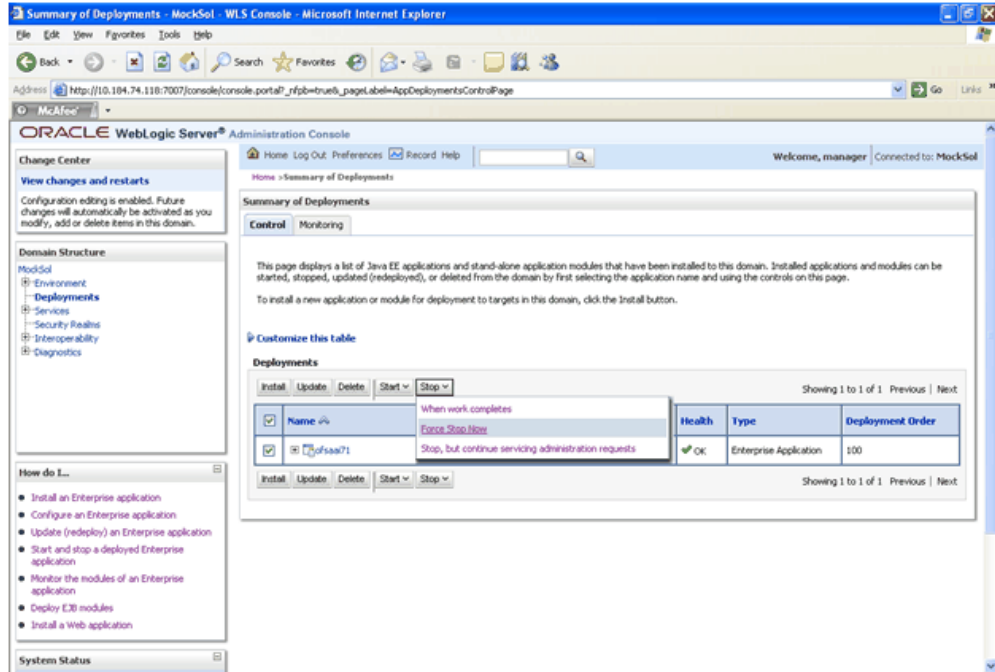
2. A confirmation message will be displayed asking to click **Yes** to stop the selected deployment. Click **Yes** to continue. A confirmation message will be displayed and the state of the deployment will change from Active to Prepared.
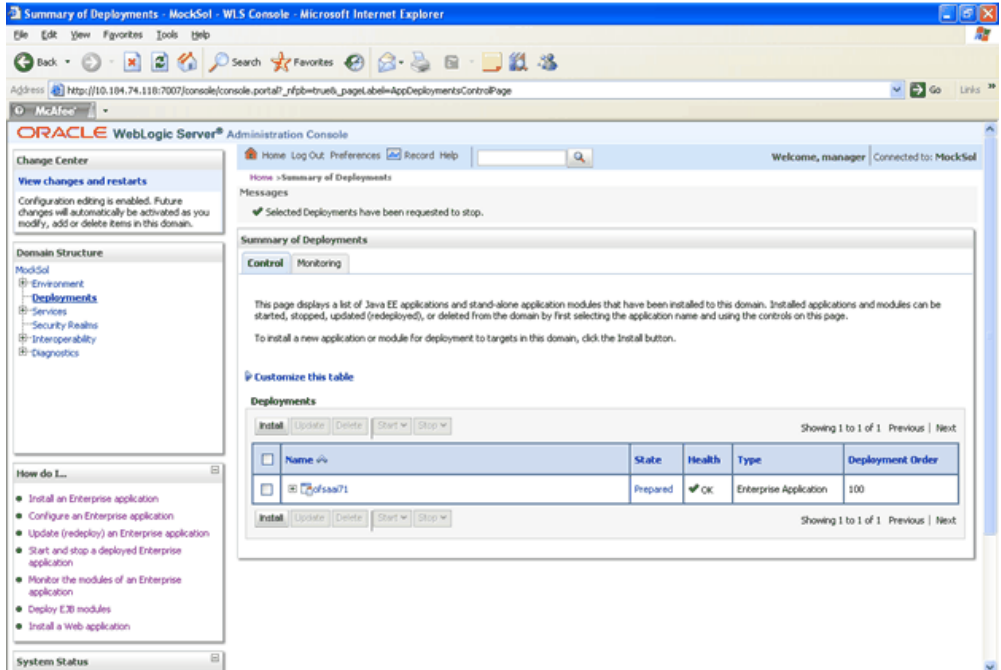
3. The Delete button will be enabled. Click **Delete**, to delete the selected Deployment.
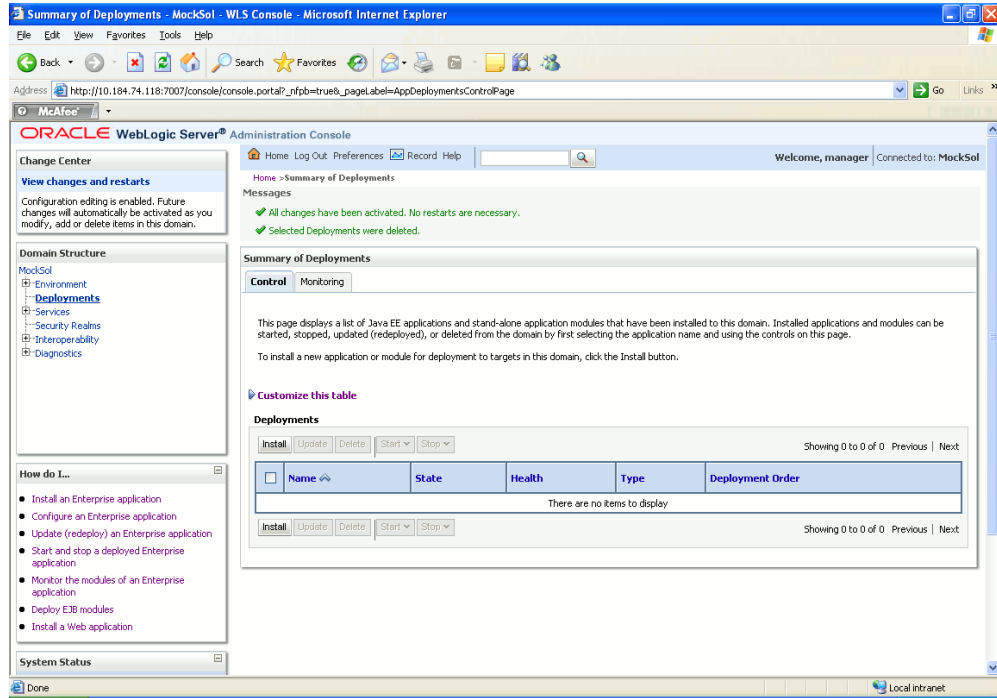
A message will be displayed to confirm the removal of the selected deployment from the domain configuration. Click **Yes** to continue.

The deployment will be deleted and a message will be displayed confirming the removal. A message will be displayed confirming that all the changes have been activated and no restart of the server is required.

Uninstalling Previously Deployed EAR Files in Oracle Application Server

Instructions for un-deploying OFSAAI application in Oracle Application Server are given in this section.

1. Access the Oracle Enterprise Manager 10g Application Server Control by navigating to the URL mentioned in <OAS Installation area>/install/readme.txt. The Login page of the Oracle Enterprise Manager 10g Application Server Control is displayed.

2. Enter the User Name and Password for the Oracle Application Server administrator given during ORACLE APPLICATION SERVER installation or enter the User Name and Password of the user having the privilege to deploy the application.

3. The list of Application Servers is displayed. Navigate to the oc4j instance given under Oracle Application Server during installation. The default oc4j instance is home.

4. Select the group on which your OC4J instance is running.

5. In the Applications tab, select the Application name you wish to un-deploy and click **Undeploy**.
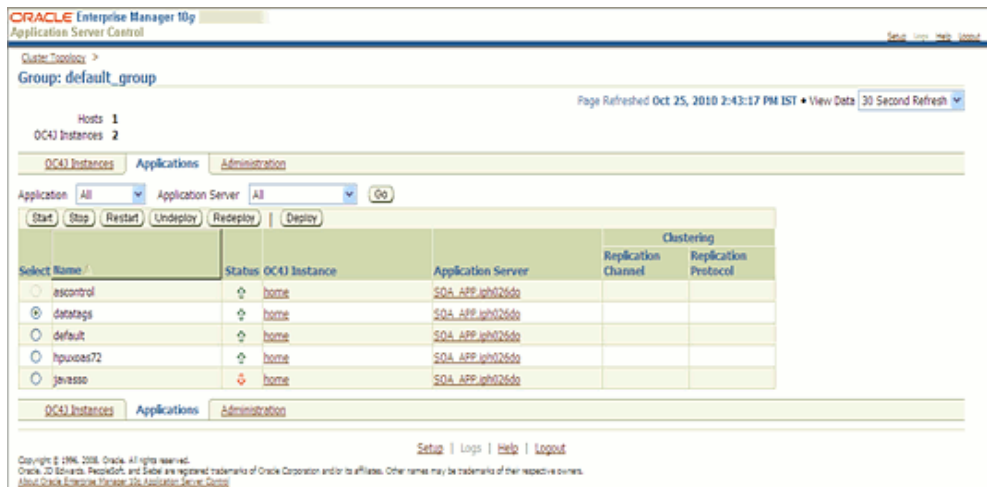
6. A confirmation message appears if you would like to proceed with the un-deployment process. Click **Yes**.
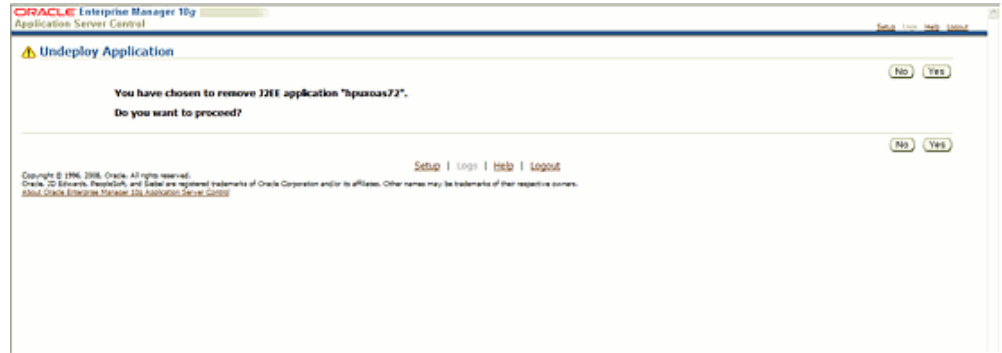
Un- deploying the application is done successfully.

17

Pre-Installation Applications Activities Checklist

Pre-Installation Applications Activities Checklist

Before any Financial Services Application Installation Kit programs are run, ensure that the pre-installation activities mentioned in the checklist below are all completed successfully. The Financial Services Application Installation Kits include the following applications:

- Oracle Financial Services Asset Liability Management

- Oracle Financial Services Profitability Management

- Oracle Financial Services Funds Transfer Pricing

- Oracle Financial Services Pricing Management, Transfer Pricing Component

- Oracle Financial Services Profitability Management Analytics

- Oracle Financial Services Asset Liability Management Analytics

- Oracle Financial Services Hedge Management IFRS Valuations

The Tasks are as follows.

- Oracle Financial Services Analytical Applications Infrastructure must be successfully installed on a certified environment.

- Oracle Financial Services Profitability Management Analytics can be installed after installing Oracle Financial Services Profitability Management on the infodom.

- Oracle Financial Services Asset Liability Management Analytics can be installed after installing Oracle Financial Services Asset Liability on the infodom.

- It is implicit that all base software versions and patch levels required by the operating system of Oracle Financial Services Analytical Applications Infrastructure v 7.2 is available and adhered to.

- 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 correct Financial Services Applications License Key should have been provided during installation of OFSAAI. This license key number is unique to the combination of Financial Services applications being installed. For example, the License Key if only installing Oracle Profitability Management is different than if installing Oracle Financial Services Profitability Management in conjunction with Oracle Financial Services Asset Liability Management. For information on updating your License Key once Infrastructure has already been installed, please contact Oracle Financial Services Support.

- The Config and Atomic schema should be two distinct Oracle database users.

- The correct database privileges and tablespace quota should have been granted to the Config Schema user prior to OFSAAI installation. The correct database privileges and tablespace quota should have been granted to the Atomic Schema user prior to Information Domain (or Infodom) creation. For more information on Information Domain creation, see Configuring Details, page 14-1.

- All Infrastructure Configuration Steps should have been completed including:

  - Configuring the Database Server

  - Configuring the Application Server

  - Configuring the Web server

  - Configuring Database Details

  - Creating the Information Domain

- The Database Administrator should ensure that there is a TNS entry for the Database name provided. The Database name provided should be the name of the Atomic Schema. The TNS entry should be added to the $ORACLE_HOME/network/admin/tnsnames.ora file, located in the machine where the Oracle database server is installed.

- The Information Domain name is required during the application installation. A new Information Domain must be created pointing to the Atomic schema. Alternately, an existing Information Domain may also be used.

- There must be at least one segment mapped to this Information Domain. For more information on System Administration, Defining Segment Maintenance Details, see *Oracle Financial Services Analytical Applications Infrastructure User Guide.*

- An OFSAAI Administrator user must be created. This User ID will be required during application installation. For more information on Maintaining User Administrator Details, see *Oracle Financial Services Analytical Applications Infrastructure User Guide.*This Administrative user should be created after the above checklist items are complete using the following steps. The privileges documented below are the minimum required.

  1. Create a new Oracle Financial Services Analytical Applications Administrator user.

  2. Assign the new Oracle Financial Services Analytical Applications user to the User Groups **ADMIN** and **AUTH**.

  3. Map the new Oracle Financial Services Analytical Applications user's User Group to the Information Domain.

  4. Assign the following roles to the new OFSAAI user's User Group.

  - System Administrator

  - System Authorizer

  - ETL Analyst

  5. Authorize the new Oracle Financial Services Analytical Applications Administrator while logged in as 'sysauth'.

- Expand the **Server Types** under Servers option in the Left menu. Click, **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 following figure for reference.
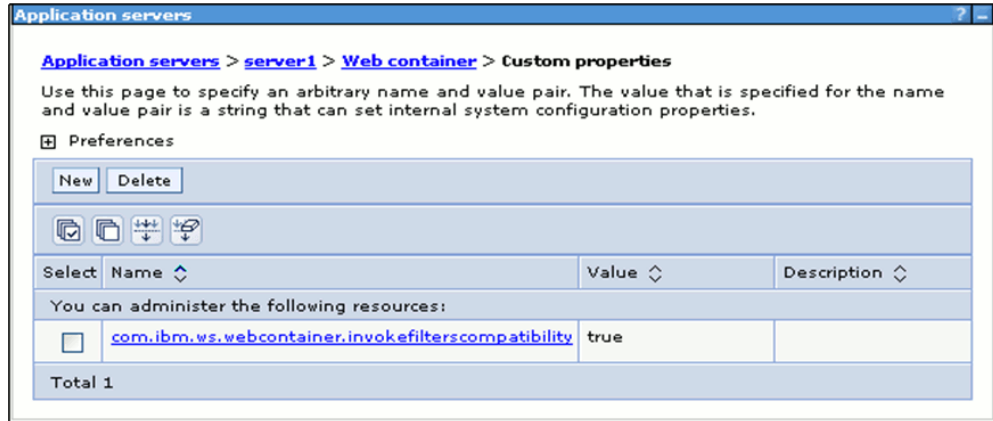
- Web Server Resource Reference Configuration must be complete. Refer to Resource Reference Configuration , page 15-1 for further information.

  Check the $FIC_WEB_HOME/webroot/WEB-INF/web.xml for the correct Resource tag. If not present add the tag to the end of the file and replace ORDEMO with the Infodom name.

  ```
  <resource-ref>
    <description>DB Connection ORDEMO</description>
    <res-ref-name>jdbc/ORDEMO</res-ref-name>
    <res-type>javax.sql.DataSource</res-type>
    <res-auth>Container</res-auth>
  </resource-ref>
  ```

  For example:

  ```
  <resource-ref>
    <description>DB Connection OFSAAINFOD</description>
    <res-ref-name>jdbc/OFSAAINFOD</res-ref-name>
    <res-type>javax.sql.DataSource</res-type>
    <res-auth>Container</res-auth>
  </resource-ref>
  ```

  Additionally, if using Apache Tomcat, check the following two items:

  1. Check that the $CATALINA_HOME/lib/ojdbc6.jar file has been copied from the $ORACLE_HOME/jdbc/lib.

  2. Check the $CATALINA_HOME/conf/server.xml for the correct data source tag.

  The following should be included at the end of the file:

```
    <Context path="/<context name>" docBase="<Tomcat Installation
Directory>/webapps/<context name>" debug="0" reloadable="true"
crossContext="true">
    <Resource auth="Container"
      name="jdbc/<ORDEMO>"
      type="javax.sql.DataSource"
        driverClassName="oracle.jdbc.driver.OracleDriver"
      username="<Atomic Schema>"
        password="<Atomic Schema password>"
        url="jdbc:oracle:thin:@<DB engine IP address>:<DB Port>:<SID>"
      maxActive="100"
      maxIdle="30"
      maxWait="10000"/>
  </Context>
```

For example:

```
    <Context path="/ofsaa"
docBase="/OFSAA/tomcat/apache-tomcat-6.0.20/webapps/ofsaatom" debug="0"
reloadable="true" crossContext="true">
    <Resource auth="Container"
      name="jdbc/OFSAAINFOD"
      type="javax.sql.DataSource"
        driverClassName="oracle.jdbc.driver.OracleDriver"
      username="ofsaaatomic"
        password="ofsaaatomic"
      url="jdbc:oracle:thin:@10.123.18.22:1521:ofsaa"
      maxActive="100"
      maxIdle="30"
      maxWait="10000"/>
  </Context>
```

- The Oracle Financial Services Funds Transfer Pricing / Asset Liability Management / Profitability Management Data Model / Hedge Management IFRS Valuations must be successfully uploaded to the Information Domain.

    Note: For more information on uploading the data model into the Information Domain, see *Oracle Financial Services Analytical Applications Infrastructure User Guide.*

For uploading the model, pick up the following XML file from installation folder.

- For Asset Liability Management installation, choose ALM_Datamodel.xml

- For Funds Transfer Pricing installation, choose FTP_Datamodel.xml

- For Profitability Management installation, choose PFT_Datamodel.xml

- For Oracle Financial Services Hedge Management IFRS Valuations, choose HM_Datamodel.xml.

The Pricing Management, Transfer Pricing Component Data Model is a subset of the Funds Transfer Pricing Data Model. No model upload is required for this application. However, it must be installed into the same Information Domain as the Funds Transfer Pricing Application.

If installing multiple applications into the Infodom, the data models for the applications must first be merged using CA Erwin. For assistance with merging data models, please contact Oracle Financial Services Support.

If any other solution is already installed in an Infodom (atomic schema), then we need to perform Incremental Model Upload by merging the new model with already uploaded model.

- The Application and Sources must be created, with the wanted name, they must be defined and the models must be generated as documented in Appendix A: Defining Application Sources, page A-1.

> **Note:** For Pricing management the Application and Source names are not dynamic. The Application must be created with the name as PRICING_APP and Source as PRICING_SRC.

- All Oracle Financial Services Analytical Applications Infrastructure Servers must be shut down and Oracle 11g database must be running.

Have the following information available and handy before starting the Application Installation:

- Information Domain name

- The ftpshare path as configured in the Configuring Database Server Details

- TNS Name for the Atomic Schema

- OFSAAI Administrator user ID

18

Applications Installation

Introduction

The Oracle Financial Services Analytical Applications Infrastructure Product comprises of components that are installed in Web, Application and Database layer. Hence, if you have installed Oracle Financial Services Analytical Applications Infrastructure in a multi-tier architecture, the Oracle Financial Services Applications installer must be invoked on each of the computers that host the Oracle Financial Services Analytical Applications Infrastructure tier. This chapter is applicable for the following products:

- Oracle Financial Services Asset Liability Management

- Oracle Financial Services Profitability Management

- Oracle Financial Services Funds Transfer Pricing

- Oracle Financial Services Pricing Management, Transfer Pricing Component

- Oracle Financial Services Profitability Management Analytics

- Oracle Financial Services Asset Liability Management Analytics

- Oracle Financial Services Hedge Management IFRS Valuations

For a Single-tier installation, the installer is required to be invoked only once on the machine that hosts all the Oracle Financial Services Analytical Applications Infrastructure tiers.

This section describes the installation process where the Three Product setup components are installed on separate machines 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 Oracle Financial Services Analytical Applications Infrastructure is installed on separate machines A, B and C respectively.

- The setup steps outlined in the following sections for the 3 layers gives a generic overview for installation of ALM/FTP/PFT/BI Apps/Pricing Management. However, for more detailed instructions regarding the installation of the specific applications, namely, BI Apps, Pricing Management and IFRS, see the *Instal Manual.pdf* of the concerned application available from the Release Area/EDELIVERY.

GUI Installation

Machine A – Product App Layer

Procedure

1. Copy the Setup.bin, and Setup.sh to a folder on the machine that hosts the Oracle Financial Services Analytical Applications Infrastructure application. To begin Oracle Financial Services Analytical Applications installation, execute Setup.sh.

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

3. Choose the log mode for this installer. In case the Debug is selected, the Passwords will be printed in the Log File ($FIC_HOME/SolutionLOG.log for all apps and $FIC_HOME/SolutionsLOG.log for Pricing management).

> **Note:** Except for Pricing management, preceding Log name format will be renamed to Application Name_<INFODOM_NAME>_SolutionLOG-<DATE>-<TIME>.log only after the installation is completed.

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

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

Select the appropriate Oracle Financial Services Analytical Applications
Infrastructure layer that has been installed on the machine.

Example

AppLayer

Along with appropriate Oracle Financial Services Analytical Applications
Infrastructure layer, select **Administrative Reports** to configure the Administrative
Reports application.

Note:

- For a single-tier Oracle Financial Services Analytical Applications Infrastructure
  7.2 installation, you must select App Layer, DB Layer and Web layer. For a
  multi-tier Oracle Financial Services Analytical Applications Infrastructure 7.2
  installation, select the corresponding layer installed on the machine.

- In case, Admin BI is already configured through the previous product
  installation, the subsequent product installation without Admin BI option may
  alter the existing Admin BI configuration settings.

- In the case of ALM BI and PFT BI solutions, the preceding screen would look as
  following.

6. Enter the Information Domain in which the Oracle Financial Services Analytical Applications data model has been successfully uploaded and Segment name that is mapped with the infodom.

   Enter the valid path that has been configured as the FTPshare Path in Oracle Financial Services Analytical Applications Infrastructure. You may click **Choose** to select the path. Click **Restore Default** to reset the path in case of erroneous entry.

   Enter the TNS name for the Atomic schema (same as what you have given in Database Master while creating the infodom)
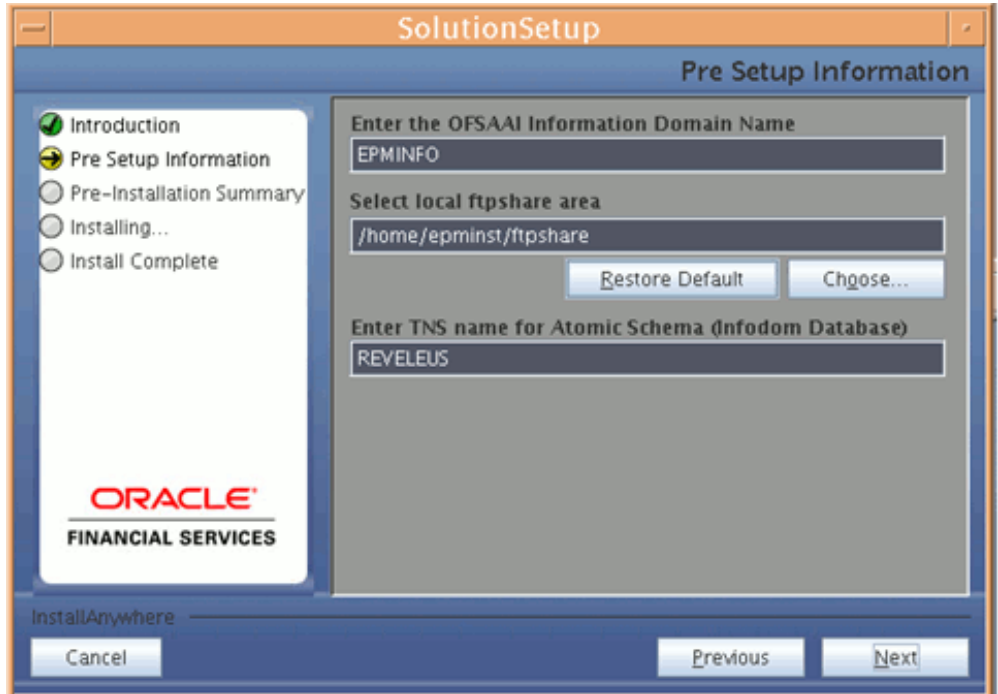
Click **Next** to continue.

7. Select the application / source pair, which has the source you have created for processing, in the first list.

   Select the application / source pair which has the source you have created for staging in the second list.

   Click **Next** to continue.
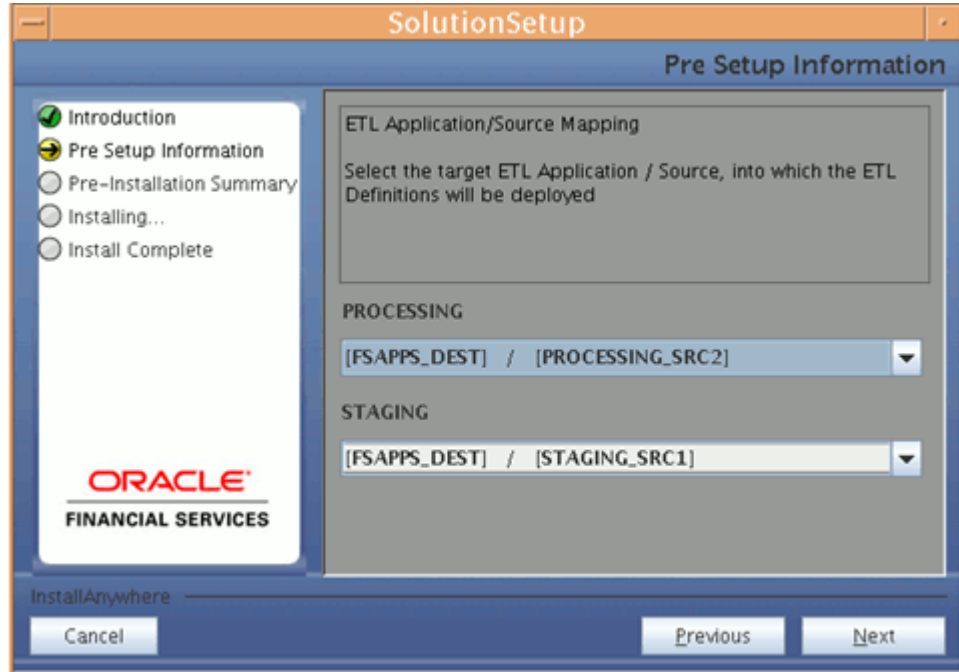
8. The Pre Setup Information screen requests for the Oracle Financial Services Analytical Applications Infrastructure user ID.

   Enter the Oracle Financial Services Analytical Applications Infrastructure user ID that has been mapped to the Information Domains provided earlier.

> **Note:** The Oracle Financial Services Analytical Applications
> Infrastructure user must have a role that is able to perform
> Add/Modify functions for ALM/ FTP/ PFT metadata.

Click **Next** to continue.

9. The Pre-Installation Summary screen outlines the general information about the set up

Pre Installation Summary screen will display the Oracle Financial Services Analytical Applications Infrastructure name, Oracle Financial Services Analytical Applications Infrastructure Version, Product name, Product Version, Infodom name, Segment name and so on. If you want to edit the input values like Infodom name or Segment name, you can do the same by clicking **Previous** Otherwise.

Click **Install** to continue.

10. The following screen displays the progress of the installation. Upon completion of the process, the installation status is published on the screen.

   You must access the file, SolutionLOG.log for all apps and SolutionsLOG.log for Pricing management, in the path $FIC_HOME, to check for errors, if any.

> **Note:** FIC_HOME is the environment variable set during the Oracle Financial Services Analytical Applications Infrastructure installation. It refers to the Oracle Financial Services Analytical Applications Infrastructure Installation directory.

11. The following screen displays the successful installation of the Oracle Financial Services Analytical Applications Setup.

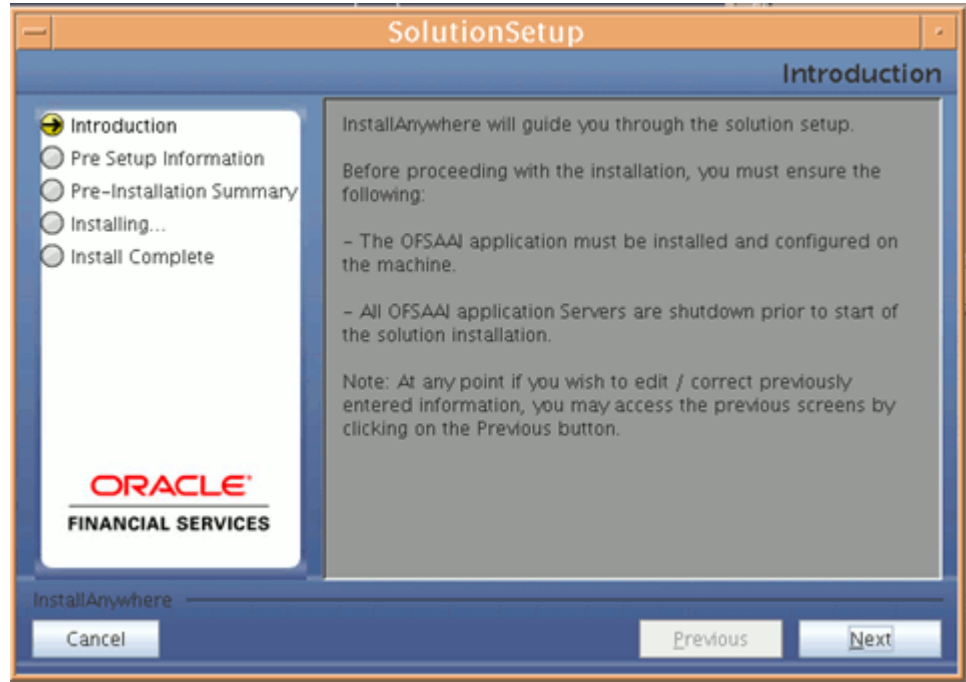Click **Done** to quit the installer.

Machine B – Product Database Layer

Procedure

1. Copy the Setup.bin, and Setup.sh to a folder on the machine that hosts the Oracle Financial Services Analytical Applications Infrastructure application. To begin Oracle Financial Services Analytical Applications installation, execute Setup.sh
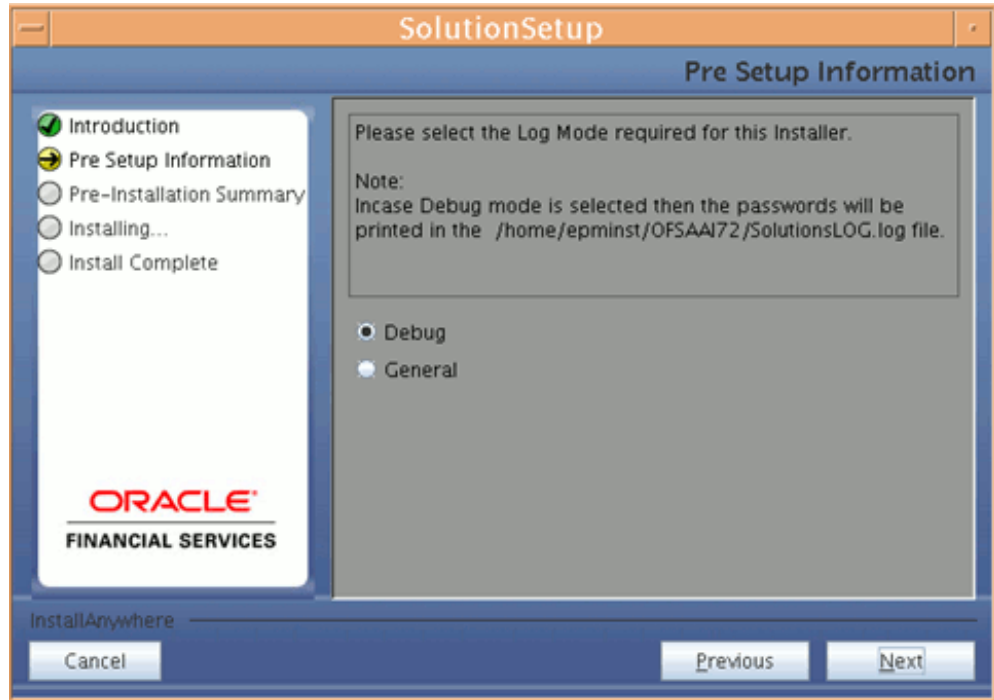

2. Upon invoking the installer, the Introduction screen will display the pre-requisites for installation. Ensure that the pre-requisites are satisfied before you proceed.
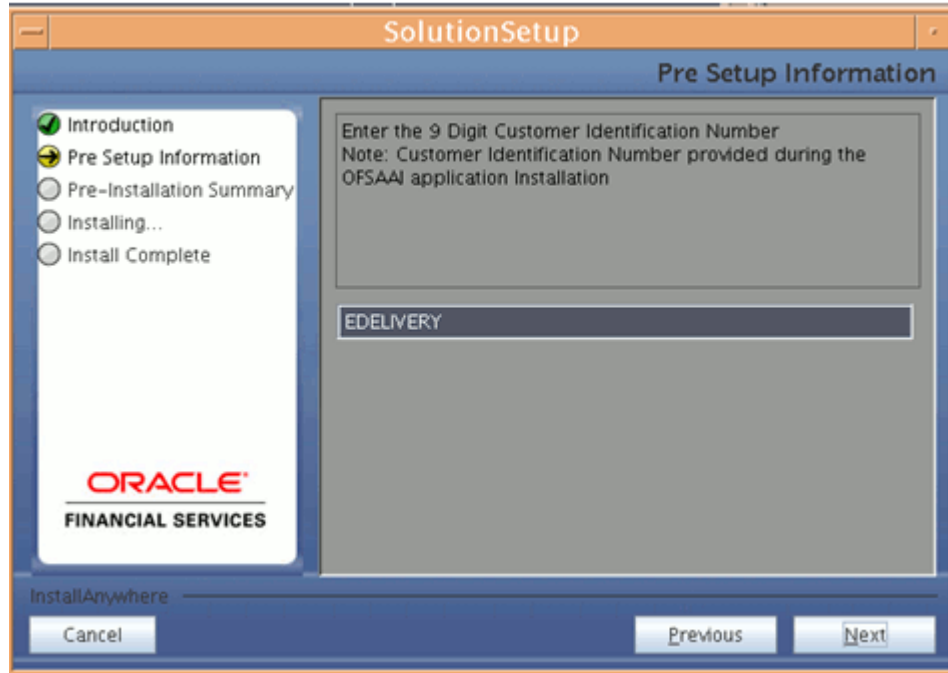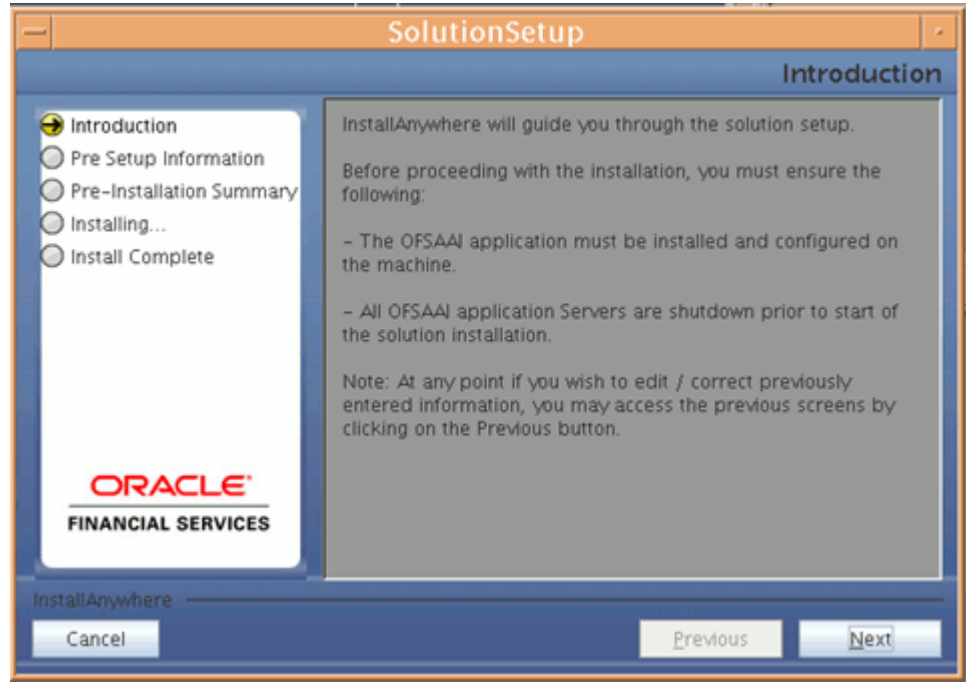
3. Choose the log mode for this installer. In case if the Debug is selected, the Passwords will be printed in the Log File ($FIC_HOME/SolutionLOG.log for all apps and SolutionsLOG.log for Pricing management).

> **Note:** Except for Pricing management preceding Log name format will be renamed to Application Name_<INFODOM_NAME>_SolutionLOG-<DATE>-<TIME>.log only after the installation is completed.
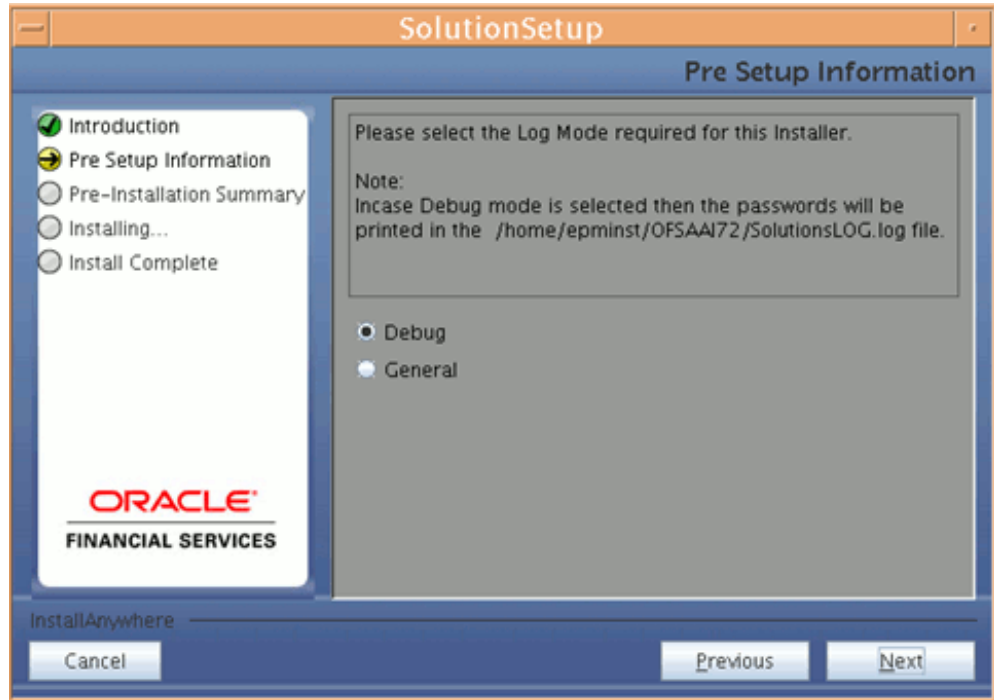
4. Provide the 9 digit Customer Identification number provided during the OFSAAI installation.
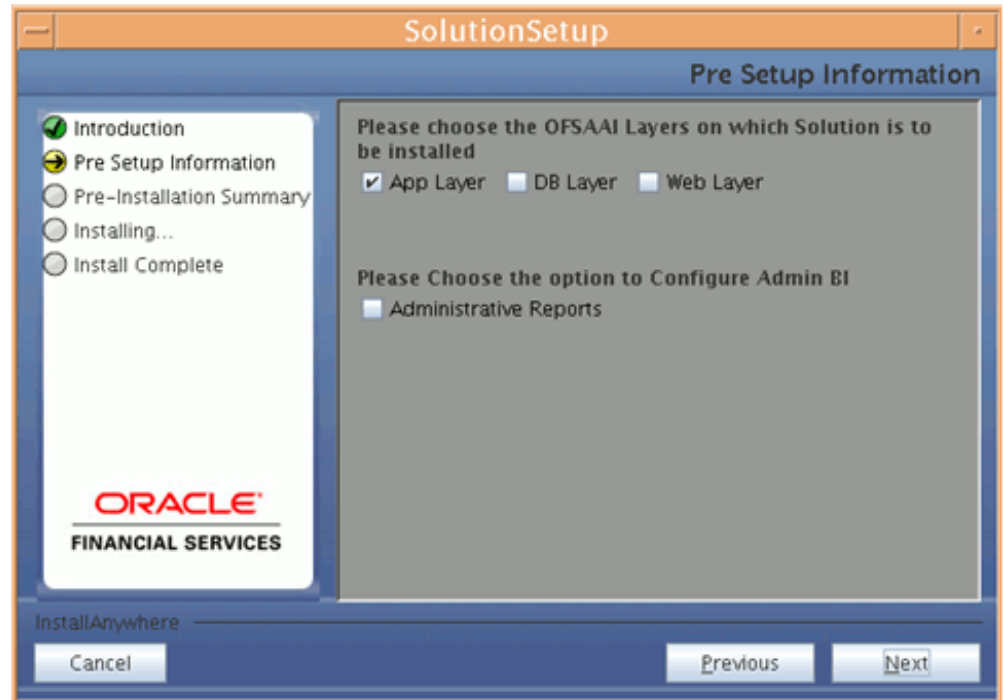
5. The Pre Setup Information screen requests for setup information.

Select the appropriate Oracle Financial Services Analytical Applications Infrastructure layer that has been installed on the machine.
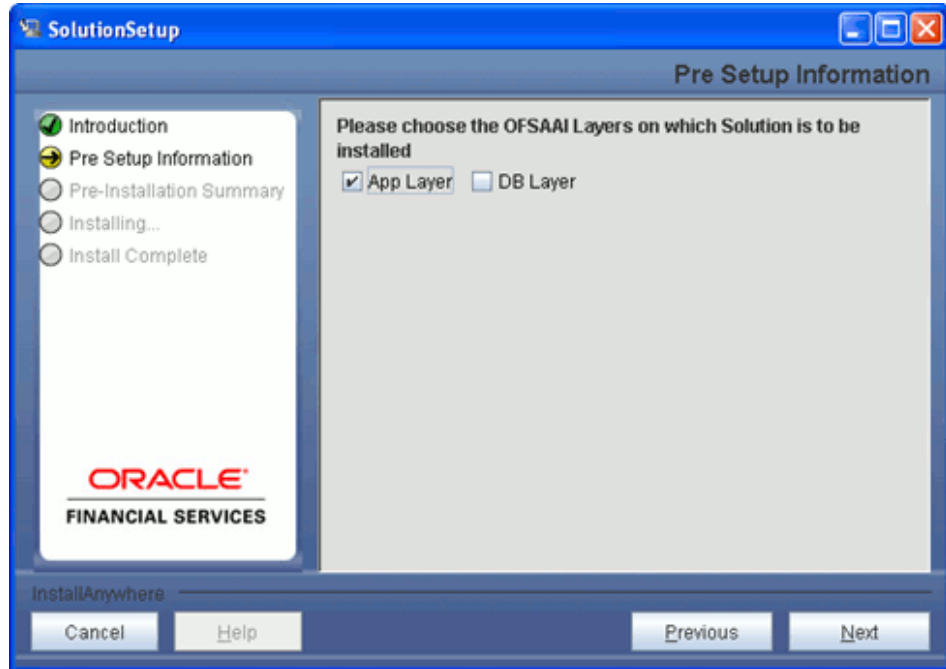
Example
DB Layer

Along with appropriate Oracle Financial Services Analytical Applications Infrastructure layer, select **Administrative Reports** to configure the Administrative Reports application.

Note:

- For a single-tier Oracle Financial Services Analytical Applications Infrastructure 7.2 installation, you must select App Layer, Web Layer and DB Layer. For a multi-tier Oracle Financial Services Analytical Applications Infrastructure 7.2 installation, select the corresponding layer installed on the machine.

- In case, Admin BI is already configured through the previous product installation; the subsequent product installation without Admin BI option may alter the existing Admin BI configuration settings.

- In the case of ALM BI and PFT BI solutions the preceding screen would look as following.

6. Enter the Information Domain in which the Oracle Financial Services Analytical Applications data model has been successfully uploaded.

Enter the valid path that has been configured as the FTPShare Path in Oracle Financial Services Analytical Applications Infrastructure. You may click **Choose** to select the path. Click **Restore Default** to reset the path in case of erroneous entry.

Enter the Config schema user ID. Also enter the Config schema db driver details and the connection URL. (DB driver and the connection urn can be taken from the Dynamic services.xml in the $FIC_HOME/conf folder of the app layer.

Enter the TNS name for the Atomic schema as mentioned in Database master while creating the infodom.
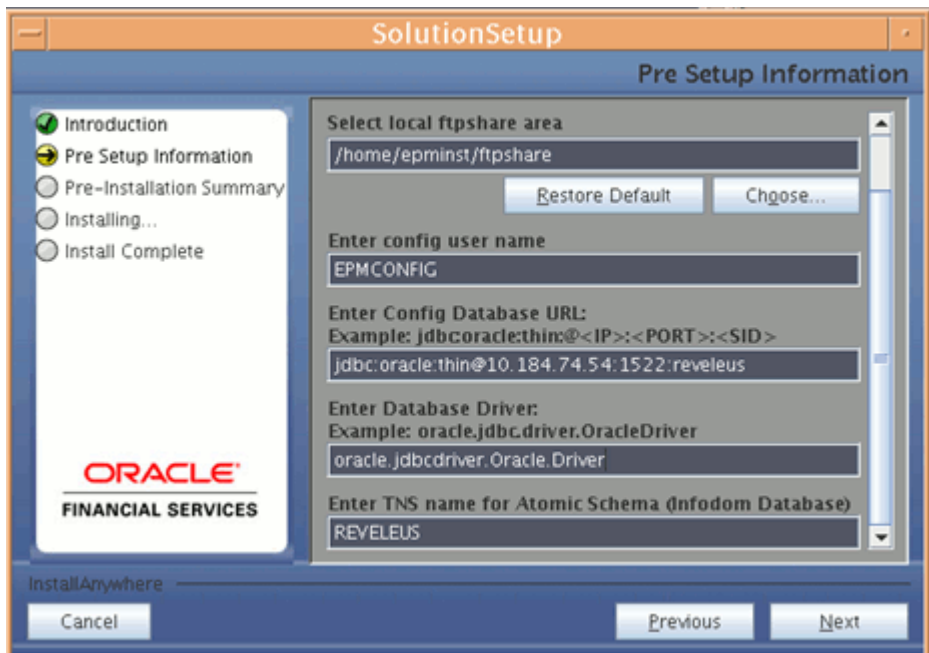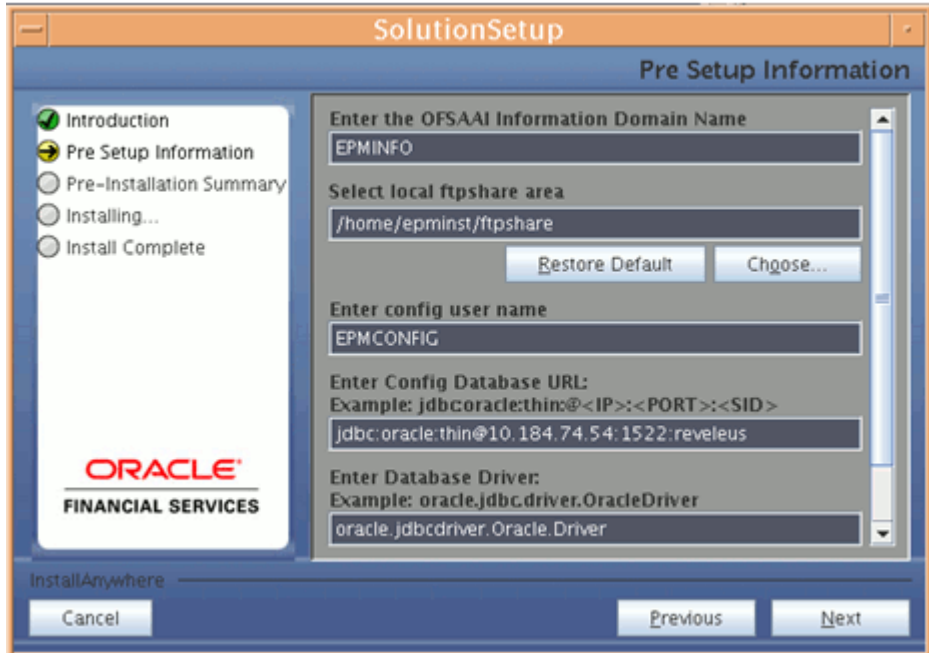
7. The Pre Setup Information screen requests for the Oracle Financial Services Analytical Applications Infrastructure user ID.

   Enter the Oracle Financial Services Analytical Applications Infrastructure user ID that has been mapped to the Information Domains provided earlier.
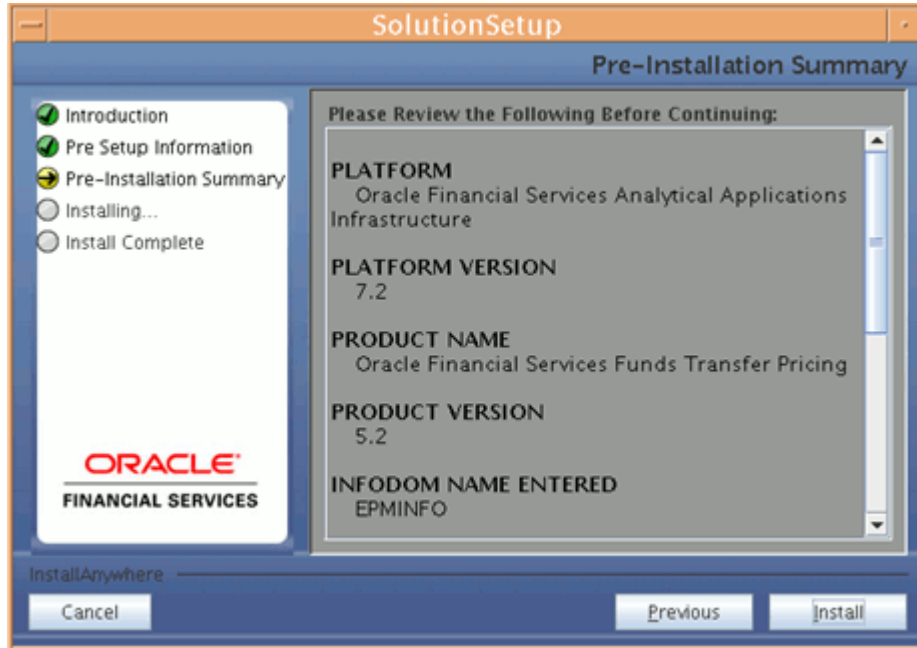
> **Note:** The Oracle Financial Services Analytical Applications
> Infrastructure user must have a role that is able to perform
> Add/Modify functions for ALM/ FTP/ PFT metadata.

Click **Next** to continue.

8. The Pre-Installation Summary screen outlines the general information about the set
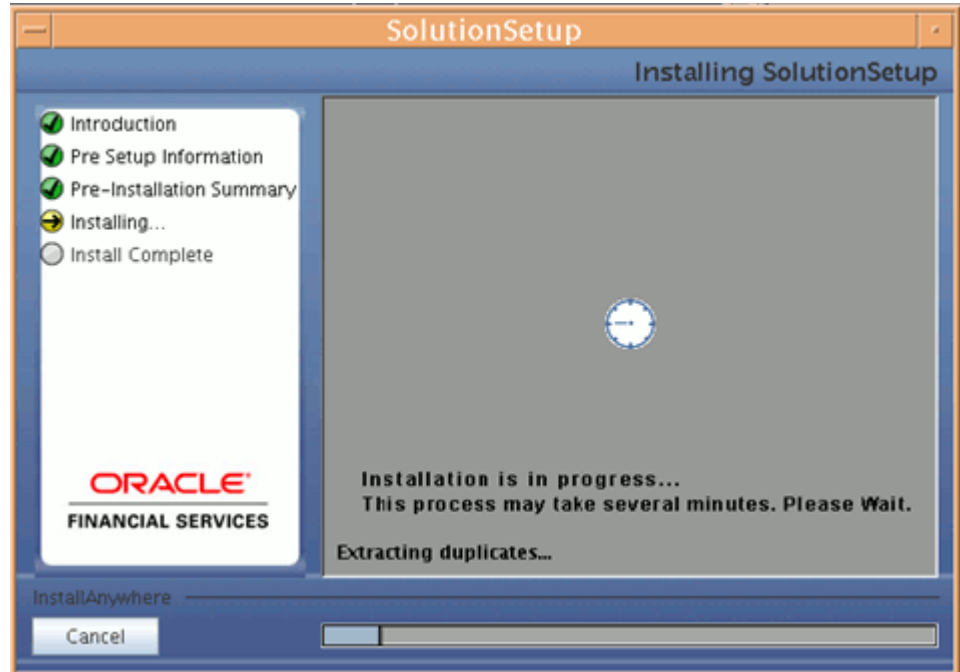   up
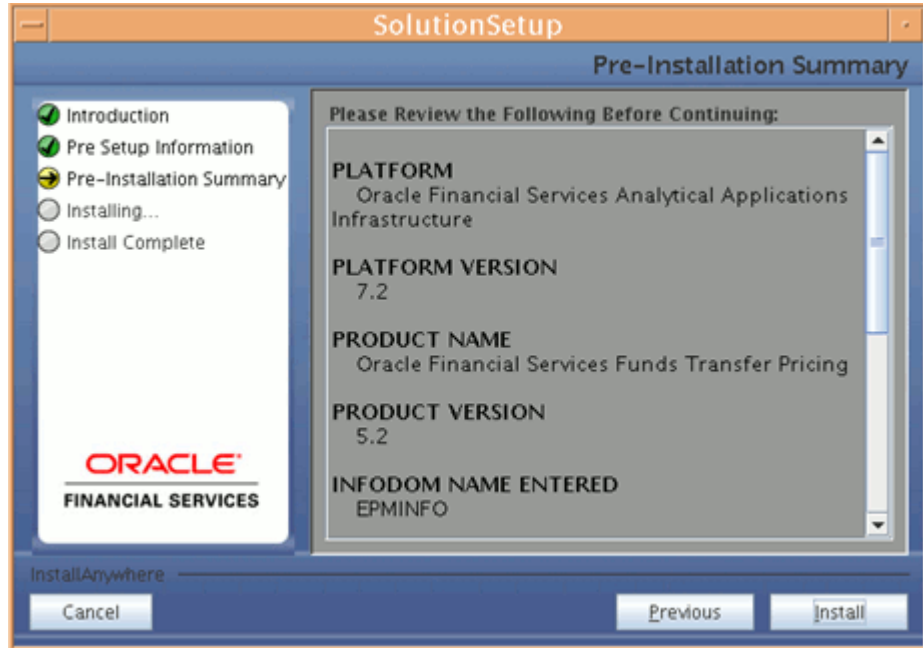
Pre Installation Summary screen will display the Oracle Financial Services Analytical Applications Infrastructure name, Oracle Financial Services Analytical Applications Infrastructure Version, Product name, Product Version, Infodom name, Segment name and so on. If you want to edit the input values like Infodom name, Segment name you can do the same by clicking **previous** Otherwise.
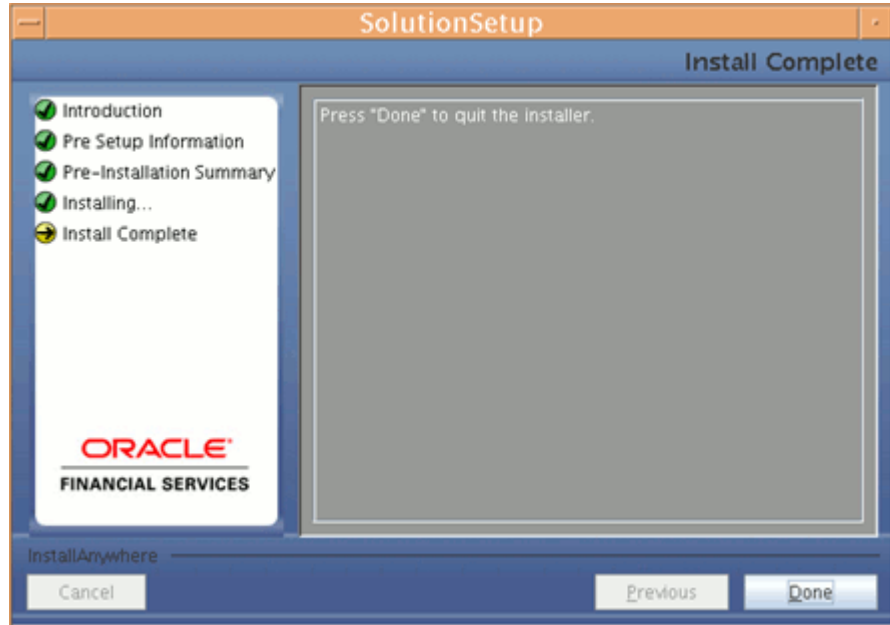
Click **Install** to continue.

9. The following screen displays the progress of the installation. Upon completion of the process, the installation status is published on the screen.

You must access the file, SolutionLOG.log for all apps and SolutionsLOG.log for Pricing management, in the path $FIC_HOME, to check for errors if any.
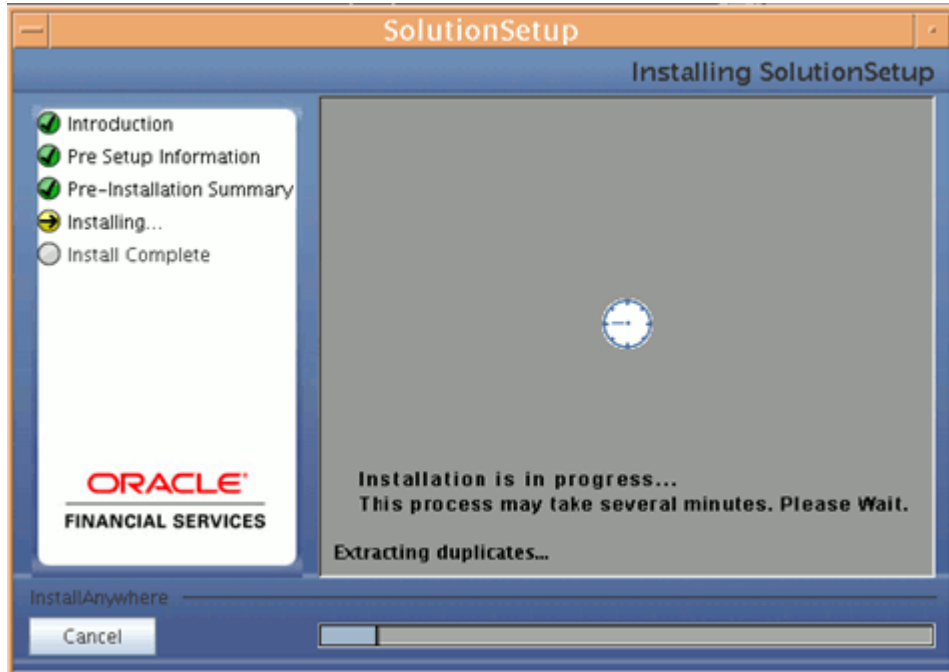
> **Note:** FIC_HOME is the environment variable set during the Oracle
> Financial Services Analytical Applications Infrastructure
> installation; it refers to the Oracle Financial Services Analytical
> Applications Infrastructure Installation directory.

10. The following screen displays the completion of installation of the Oracle Financial
Services Analytical Applications Setup.
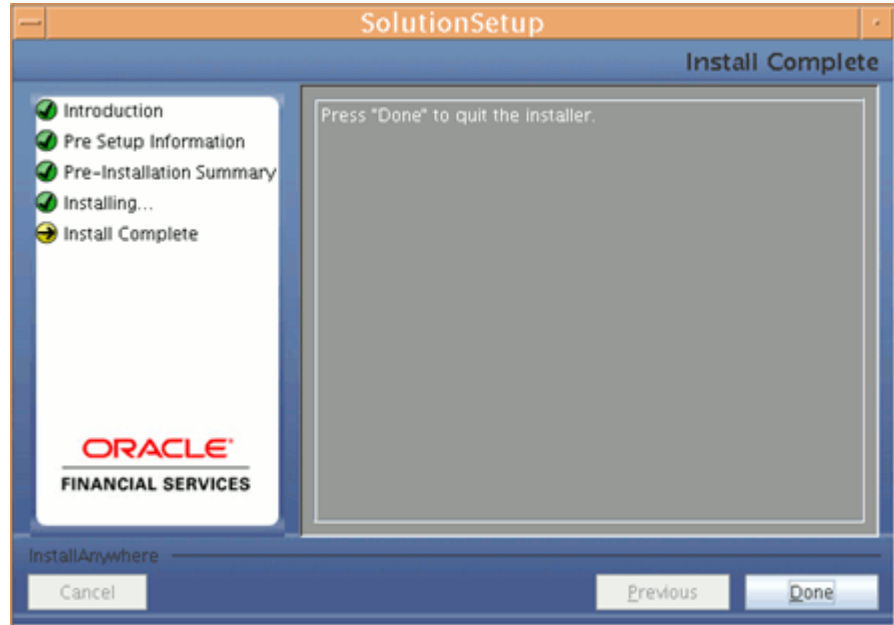
Click **Done** to quit the installer.

Machine C – Product Web Layer

Procedure

1. Copy the Setup.bin, and Setup.sh to a folder on the machine that hosts the Oracle Financial Services Analytical Applications Infrastructure application. To begin Oracle Financial Services Analytical Applications installation, execute Setup.sh.
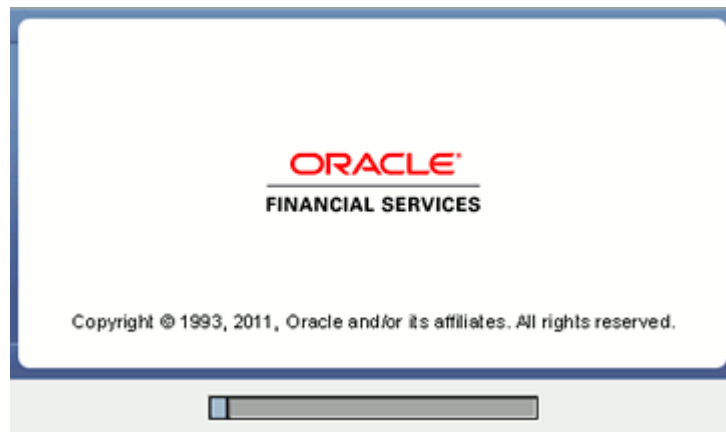
2. Upon invoking the installer, the Introduction screen will display the pre-requisites for installation. Ensure that the pre-requisites are satisfied before you proceed.
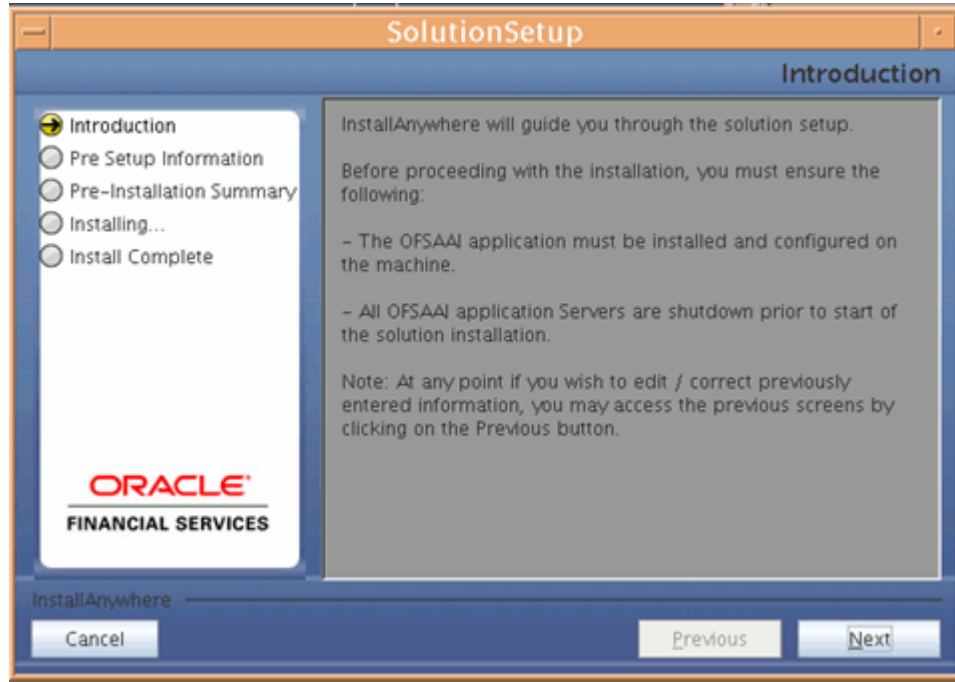
Click **Next** to continue.

- At any point during the installation process, if you Click **Cancel**, the installation process will be aborted and you will exit this setup.

- At any point during the installation process, if you Click **Previous**, you will return to the previous screen.

3. Choose the log mode for this installer. In case the Debug is selected, the Passwords will be printed in the Log File ($FIC_HOME/SolutionLOG.log for all apps and $FIC_HOME/SolutionsLOG.log for Pricing management).

> **Note:** Except for Pricing management, preceding Log name format will be renamed to Application Name_<INFODOM_NAME>_SolutionLOG-<DATE>-<TIME>.log only after the installation is completed.
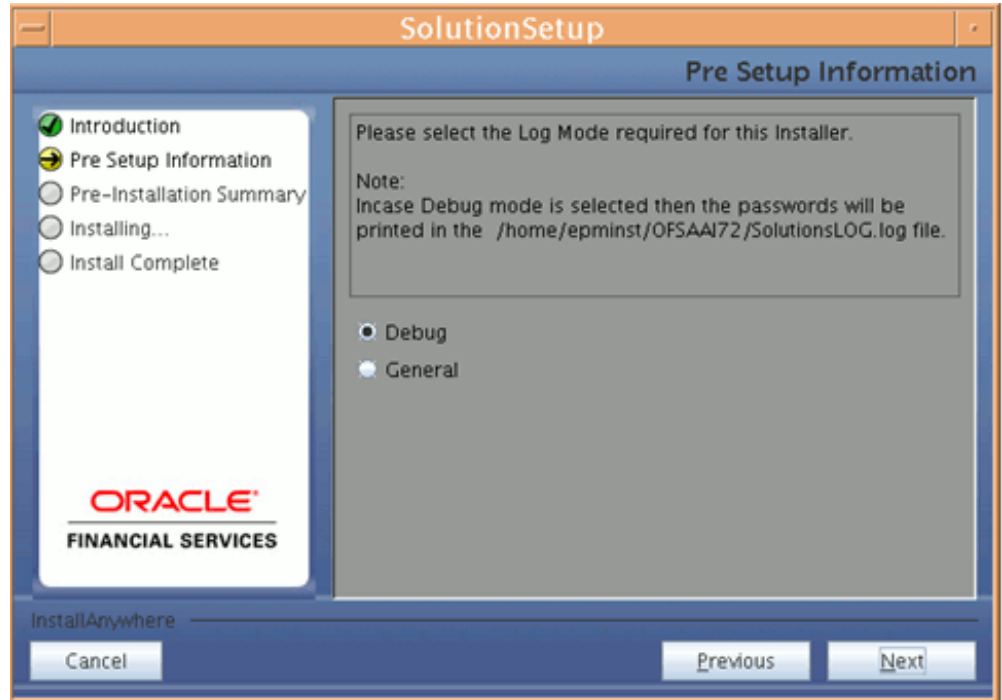
4. Provide the 9 digit Customer Identification number provided during the OFSAAI installation.

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

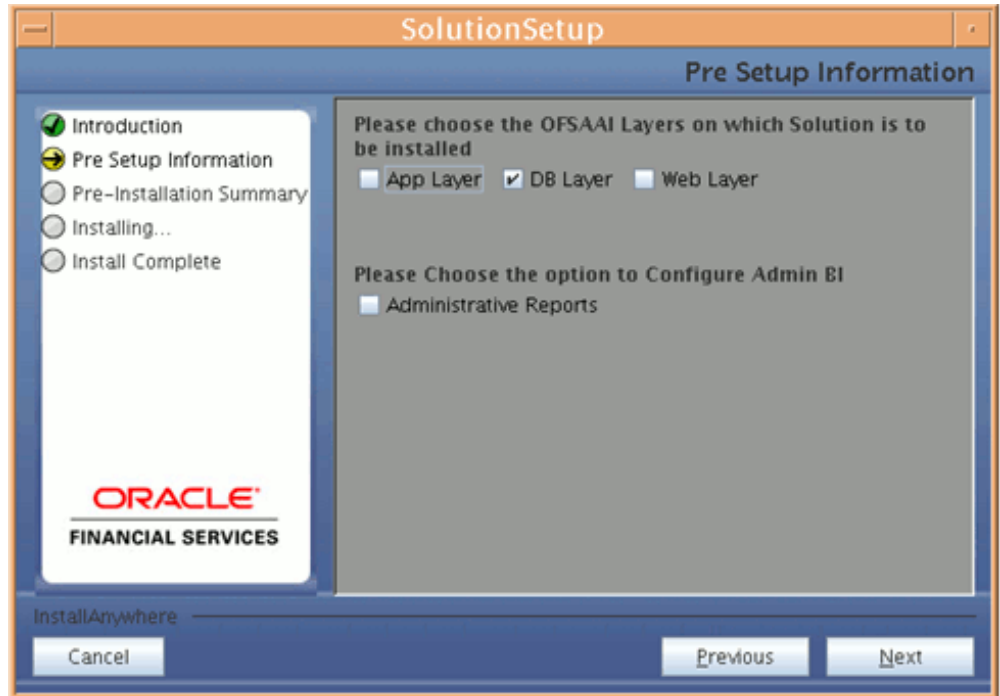Select the appropriate Oracle Financial Services Analytical Applications Infrastructure layer that has been installed on the machine.
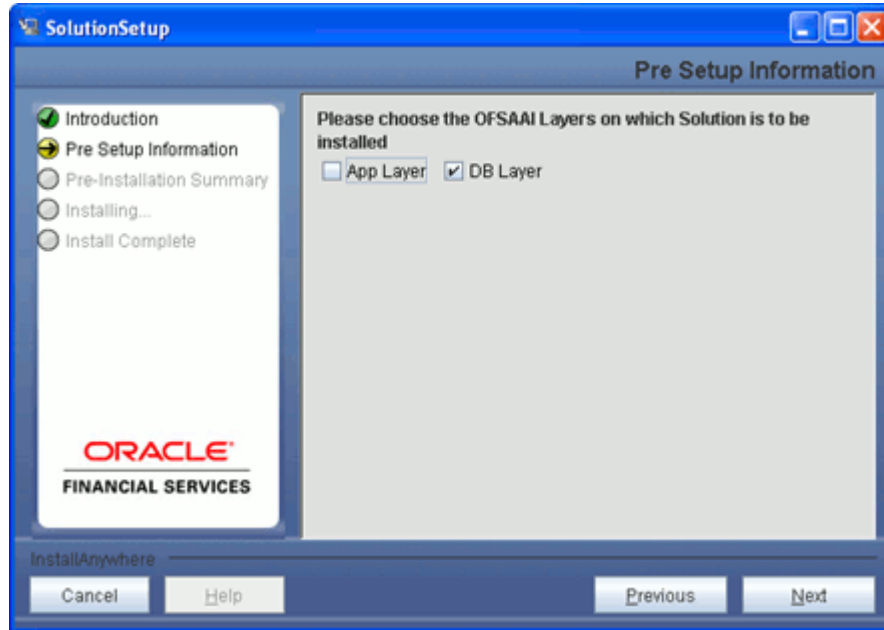
Example

Web Layer

Along with appropriate Oracle Financial Services Analytical Applications Infrastructure layer, select **Administrative Reports** to configure the Administrative Reports application.

Note

- For a single-tier Oracle Financial Services Analytical Applications Infrastructure 7.2 installation, you must select App Layer, Web Layer and DB Layer. For a multi-tier Oracle Financial Services Analytical Applications Infrastructure 7.2 installation, select the corresponding layer installed on the machine.

- In case, Admin BI is already configured through the previous product installation; the subsequent product installation without Admin BI option may alter the existing Admin BI configuration settings.

6. Enter the Information Domain in which the Oracle Financial Services Analytical Applications data model has been successfully uploaded.

Enter the valid path that has been configured as the FTP Share Path in Oracle Financial Services Analytical Applications Infrastructure. You may click **Choose** to select the path. Click **Restore Default** to reset the path in case of erroneous entry. Enter the Config schema user ID and the password.
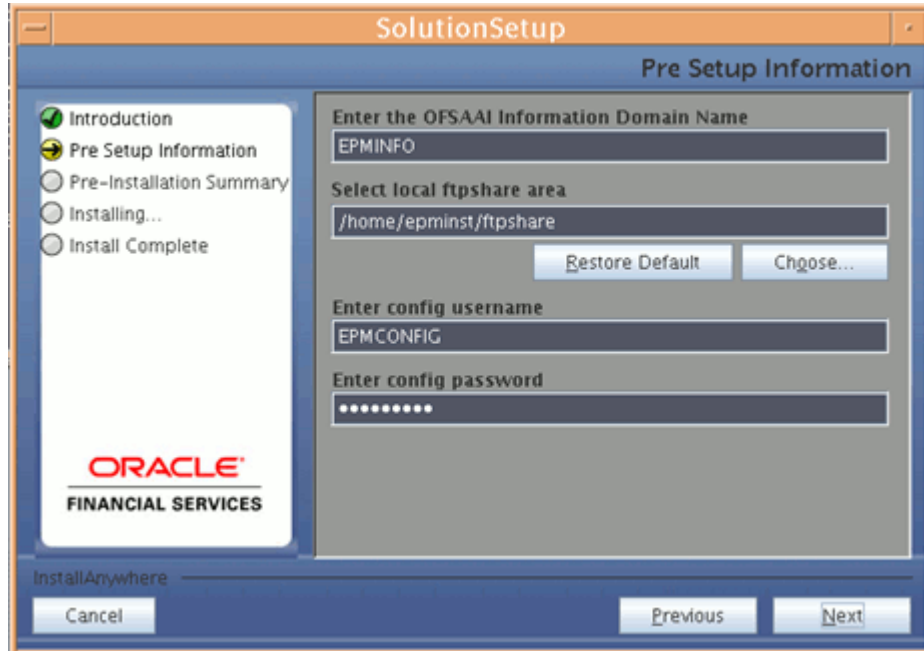
Click **Next** to continue.

7. The Pre Setup Information screen requests for the Oracle Business Intelligence installed host machine IP, port-number and context name.

> **Note:** This step is applicable to all apps, except Pricing Management.
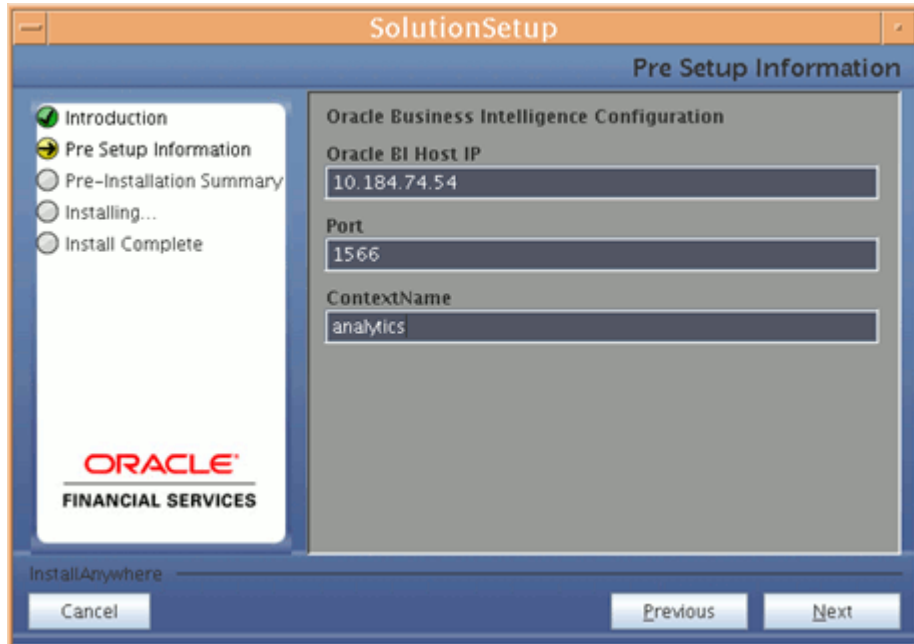
8. The Pre Setup Information screen requests for the Oracle Financial Services Analytical Applications Infrastructure user ID.

Enter the Oracle Financial Services Analytical Applications Infrastructure user ID that has been mapped to the Information Domain provided earlier. Enter the TNS name for the Atomic schema (Same as what you give in Database Master while you create the infodom)

> **Note:** The Oracle Financial Services Analytical Applications
> Infrastructure user must have a role that is able to perform
> Add/Modify functions for ALM/ FTP/ PFT metadata.

9. The Pre-Installation Summary screen outlines the general information about the set up

Pre Installation Summary screen will display the Oracle Financial Services Analytical Applications Infrastructure name, Oracle Financial Services Analytical Applications Infrastructure Version, Product name, Product Version, Infodom name, Segment name and so on. If you want to edit the input values like Infodom name, Segment name you can do the same by clicking **Previous** Otherwise.

Click **Install** to continue.

10. The following screen displays the progress of the installation. Upon completion of the process, the installation status is published on the screen. You must access the file, SolutionLOG.log for all apps and SolutionsLOG.log for Pricing management, in the path $FIC_HOME, to check for errors if any.

> **Note:** FIC_HOME is the environment variable set during the Oracle
> Financial Services Analytical Applications Infrastructure
> installation; it refers to the Oracle Financial Services Analytical
> Applications Infrastructure Installation directory.

11. The following screen displays the successful installation of the Oracle Financial
    Services Analytical Applications Setup.

Click **Done** to quit the installer.

Silent Installation

> **Note:** Silent Installation can be performed for all apps, except Pricing Management.

Silent installation is achieved through 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 must be specified.

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Mode for logging	0= Debug 1= General	Optional; Default : 0
INFODOM_NAME	Information domain in to which the application will be installed	Not Applicable	MANDATORY

Property Name	Description of Property	Permissible values	Comments
OFSAAI_USER_ID	A valid OFSAAI user-id	Not Applicable	MANDATORY
FTP_SHARE_PATH	Absolute FTP Share path	Not Applicable	MANDATORY The FTP share directory/path must have a "/" at the end of the directory (For example, /app/ftpshare/).
CUSTOMER_ID	Customer id specified while installing OFSAAI	Not Applicable	MANDATORY
TNS_NAME	The TNS Entry used to access the configuration/application schema of the OFSAAI installation	Not Applicable	MANDATORY
INSTALL_WEB	Install web-tier components	0= No 1= Yes	Default : 0
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
INSTALL_ADMIN_BI	Install admin-BI components	0= No 1=Yes	Default : 0 Applicable only if INSTALL_WEB=1 OR INSTALL_DB=1

Property Name	Description of Property	Permissible values	Comments
RAC_JDBC_URL	The JDBC URL to be used in case of a RAC setup	Not Applicable	Applicable if INSTALL_DB=1 AND INSTALL_WEB=0 AND INSTALL_APP=0
ORA_HOST	Host Name of the database server on which the Configuration Schema is present	Not Applicable	Applicable if INSTALL_DB = 1; Ignored if RAC_JDBC_URL has a value specified
ORA_PORT	Port number of the TNS Listener for the preceding database Host	Not Applicable	Applicable if INSTALL_DB=1; Ignored if RAC_JDBC_URL has a value specified
ORA_SID	SID of the preceding database	Not Applicable	Applicable if INSTALL_DB = 1; Ignored if RAC_JDBC_URL has a value specified
CONFIG_USER	User-id of the OFSAAI configuration schema	Not Applicable	Applicable if INSTALL_WEB = 1 AND INSTALL_DB=0 AND INSTALL_APP=0
CONFIG_PASSWD	Password of the OFSAAI configuration schema	Not Applicable	Applicable if INSTALL_WEB = 1 AND INSTALL_DB=0 AND INSTALL_APP=0
OBI_HOST	Host Name of the OBIEE Server	Not Applicable	Applicable if INSTALL_ADMIN_BI =1

Property Name	Description of Property	Permissible values	Comments
OBI_PORT	Port Number of the OBIEE Server	Not Applicable	Applicable if INSTALL_ADMIN_BI =1
OBI_CONTEXT	Context Name of the OBIEE Server	Not Applicable	Applicable if INSTALL_ADMIN_BI =1
ETL_APPLICATION	The ETL application name	Not Applicable	
ETL_SOURCE_STAGING	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 preceding ETL Application
ETL_SOURCE_PROCESSING	The ETL Source into which the Table-2-Table ETL definitions on processing tables will be deployed	Not Applicable	This Source must be mapped to the preceding ETL Application

How to install in Silent Mode

1. The installer folder contains a template file, **Silent.template**. Create a copy of this file and rename the copy as **Silent.props**.

2. Edit the file **Silent.props** and specify the parameters as per the requirements.

3. On the UNIX Command prompt, execute the following command
   - `Setup.sh SILENT`

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

19

Post Application Installation Activities

Post Application Installation Checklist

Once the installation of Oracle Financial Services FTP, PFT, ALM / ALM BI, PFT BI / TPOL and HM IFRS Products are completed, you must perform the following steps.

> **Note:** The application cache must be cleared prior to the deployment of Infrastructure and Application Service Packs / One-off patches. This is applicable to all Web Server (WebSphere, WebLogic, Tomcat, and Oracle Application Server) and OS combinations.

√	Tasks
	Check the Log files SolutionLOG.log, SolutionSetup_InstallLog.log under $FIC_HOME, for all apps except for Pricing Management.
	For Pricing Management, check the Log files SolutionsLOG.log, SolutionSetup_InstallLog.log under $FIC_HOME. **Note:** Except for Pricing management, above Log name format will be renamed to Application Name_<INFODOM_NAME>_SolutionLOG-<DATE>-<TIME>.log only after the installation is completed.
	Ignore the Unique key/ primary key violated constraints.
	For OBI configuration follow the steps mentioned in Readme_OFSPAv5.2_PostInstall_Steps.txt under app layer's $FIC_HOME/Application Name

Re-create and re-deploy the WAR file (context name.war>file).

For more information, see WebSphere EAR Files Creation and WebSphere EAR Files Deployment, page 9-3.

.profile should be executed before starting any activity from the console.

> **Note:** In case of Multitier Installation
> Readme_OFSPAv5.2_PostInstall_Steps.txt will be available under
> $FIC_HOME/adminbi folder of App Layer installation.

Start all Oracle Financial Services Analytical Applications Infrastructure Servers.

Start the Web Server (that is: Tomcat, Weblogic, or Websphere)

For assistance in starting the servers, see Starting Oracle Financial Services Analytical Applications Infrastructure Servers, page 11-1.

Recompile any invalid Functions, procedures and views.

Assign the appropriate administrator application role to the Oracle Financial Services Analytical Applications Administrator user:

ALM Admin

FTP Admin

PFT Admin

TPOL Admin

HM ADMIN

Login as the new user and define global and application preference settings.

Batch with **Batch_Table_Class_Req** task needs to be created and executed [for any Information date]. This step will ensure the object-registrations are validated and made available to the individual applications. Once the batch is setup, every time a data model is uploaded or a new dimension is registered, this batch needs to be executed.

Steps to create and execute a batch for Batch_Table_Class_Req task:

1. Navigate to Operations then Batch Scheduling.

2. Define a New Batch.

3. Use the following for the new Batch Definition:

   Define a New Batch.

   Select an Empty Batch and Name the Batch.

   Component ID: Transform Data

   Description: Object Registration

   Click Parameter

   Datastore Type: EDW

   Datastore Name: <select from list of value>

   IP Address: <select from list of values>

   Rule Name: Batch_Table_Class_Req

   Parameter List: Null

4. Execute the new Batch.

5. Navigate to Batch Monitoring to verify the Batch run was successful.

The Oracle Financial Services Funds Transfer Pricing, Profitability Management, Asset Liability Management / Profitability Management Analytics, Asset Liability Management Analytics / Pricing Management, Transfer Pricing Component / and Hedge Management IFRS Valuations are now ready to be used.

Oracle Financial Services Analytical Applications Infrastructure v7.2 OFSPA Look–up Table Configuration

• Erwin model to be extended with the required lookup tables.

• Columns to be registered as processing keys/balance ranges.

• Post the model change a incremental model upload should be done for the

application to reflect the changes.

If you encounter any problems during setup, kindly contact Oracle Financial Services Support.

OBIEE Installation and Configuration Guide Link

> **Note:** Refer the following link to down load the OBIEE installation and configuration guide document.

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

Configuration of FusionApps.properties

FusionApps.properties file is used by Financial Services Applications. It is located in WEB-INF/props under context root. It contains the following properties populated by the Application Installers:

- Date_Format_Count – There are a total of 19 supported date formats for the UI. This list of date formats is supported by Financial Services Applications and is initialized in Global Preferences.

- Equivalent Oracle DB date formats for UI date format.

> **Note:** These date formats are for internal usage and the user should not modify them.

- <infodom>_SOURCE_NAME - This is the Source Name respective to the infodom used for T2T definitions.

- SIMPLE_BATCH_PAGE_SIZE – This controls the number of tasks listed per page. The recommended default value is 50 records/page.

Annexure

Third Party Freeware

The Apache Software License, Version 1.7.1

This product includes software developed by the Apache Software Foundation (http://www.apache.org).

Apache License

Version 2.0, January 2004

http://www.apache.org/licenses/

Quadbase Systems, Inc.

Copyright © 2006 Quadbase Systems, Inc. All rights reserved

EspressReport is a fully embeddable reporting component that integrates seamlessly with the OFSAA Infrastructure application.

NAG Limited

NAG Limited ® 2005

Portions utilize NAG's C library - All rights reserved

Gnuplot, V 4.2.0

Copyright 1986 - 1993, 1998, 2004

http://www.gnuplot.info/

20

Configuration of OFSAAI

Configuration for Model Upload Utility

The Model Upload Utility uploads the Data Model through the command line parameter by executing a shell script file. It is used to upload Models that are huge in size. The ERwin file that contains the Data Model information must be placed at the following location.

<ftpshare>/<infodom>/erwin/erwinXML

File required to run Model Upload Utility

Upload.sh - This is a shell script to run the utility. Upload.sh is present at the following location.

$FIC_HOME/ficapp/common/FICServer/bin

Running the Model Upload Utility

Procedure

1. Open Upload.sh and enter the following arguments in the file

   1. <infodom> - Refers to the DSN name.

   2. <entire file path> – Refers to the Erwin File Path

   3. <username>

   4. <uploadmode N/R/AM> - Refers to the Upload Choice Code

      • N - Refers to the New Model Upload

      • AM - Refers to the Incremental Model Upload

- R - Refers to the Complete Model Rebuild Upload

5. <runscriptsFlag> - Refers to the running of SQL Script

- <true>- Updates the database/schema with the Model changes

- <false>- Does not update the database/schema with Model changes

2. Execute the script using the command ./upload.sh

> **Note:** You should be having the execute permission to do execute the same.

3. Logs are updated in regular Model Upload log in the following location

ftpshare/<infodom>/logs/<infodom>_LOG_<last data model version>_<MM.DD.YYYY>-<HH.MM.SS>.log

> **Note:** During incremental model upload i.e when the uploadmodel is set as AM, some of mappings done in Data Integrator may get invalidated hence it's required to resave these mappings.

Model Upload Details

The following table shows the Java settings details which needs to configured while uploading the data model with various size of xml's by

- Picking file from the server option

- Model Upload Utility

- Browsing the file in the local computer

Note

- The below table consists of the Java settings done on both client and server machines. These Java settings will differ depending on the availability of RAM.

- Ensure Default and Temporary table space assigned to Oracle user is allocated with required quotas.

	SIZE OF XML FILE	TRANSFORMING TIME	TOTAL MODEL UPLOAD TIME	JAVA SETTINGS IN THE SERVER	JAVA SETTINGS IN CLIENT
PICK FILE FROM THE SERVER OPTION	50MB	10 min	14 min	200M to 400M	
	90MB	26 min	30 min	200M to 800M	
	156MB	30 min	34 min	200M to 1000M	
	185MB	31 min	36 min	200M to 1200M	
	215MB	33 min	40 min	200M to 1200M	
THROUGH UTILITY	50MB	10 min	14 min	200M to 400M	
	90MB	26 min	30 min	200M to 800M	
	156MB	30 min	34 min	200M to 1000M	
	185MB	31 min	36 min	200M to 1200M	
	215MB	33 min	40 min	200M to 1200M	
BROWSING FILE	50MB	10 min	15 min	200M to 400M	200M to XMx350M
	90MB	26 min	32 min	200M to 800M	
	156MB	30 min	40 min	200M to 1000M	200M to XMx400M
	185MB	31 min	45 min	200M to 1200M	200M to XMx600M
	215MB	33 min	48 min	200M to 1200M	
					200M to XMx600M
					200M to XMx800M

Steps to Change the Java Setting on Server:

1. Edit the $FIC_HOME/ficapp/common/FICServer/bin/reveleusstartup.sh script X_ARGS prior to performing model upload.

   The following is an example what parameters to change from -Xmx200m to -Xmx1800m:

   From:

   X_ARGS="-Xms200m"

   X_ARGS=" "$X_ARGS" $DELIM -Xmx200m"

To:

X_ARGS="-Xms200m"

X_ARGS=" "$X_ARGS" $DELIM -Xmx1800m"

2. Re-run reveleusstartup.sh to restart the Infrastructure server.

Steps to Change the Java Setting on Client:

1. Change the setting for Client PC where model upload will be executed.

   Navigation: Go to Control Panel -> Java ->Java Tab:

2. Update Java Runtime Parameter for JRE 1.6.0_07

   The following is an example to update the parameter to -Xmx800m.

   Product Name: JRE

   Version: 1.6.0_07

   Location: C:\Program Files\Java\jre1.6.0_07

   Java Runtime Parameters: -Xmx800m

Configuration for Dimension and Hierarchy Management

Open the file AMHMConfig.properties present in the $FIC_WEB_HOME/webroot/conf directory to set the properties for the following.

- Member Deletion

- Attribute Default Date Format

- Members Reverse Population

- Hierarchy Reverse Population

- Maximum levels allowed in Hierarchies

- Node Limit for a Hierarchy Tree

   - Configuration for Dimension and Hierarchy Management has to be done only after the application/solution installation is done.

   - These properties are specific to infodom

      $INFODOM$ = Name of the infodom.

      $DIMENSION_ID$=Dimension ID for which the property to be set.

> **Important:** For any change made to the AMHMConfig.properties file to take effect, restart the webserver.

Configuring Member Deletion

This property should be set to allow the user to delete the Members for the Dimension

VALUE	CODE	EXAMPLE
# Member Deletion Configuration - VALUE- Y/N	MEMBER_DEL-$INFODOM$-$DIMENSION_ID$=$VALUE$	MEMBER_DEL-ORAFUSION-1=Y

Configuring Attribute Default Date Format

This property should be set to display the Default Date Format for Date type Attribute in Attributes screen.

VALUE	CODE	EXAMPLE
# Attribute Default Date Format - DB_DATE_FORMAT:DD-MON-YYYY	ATTR_DEF_DATE_FORMAT-$INFODOM$=DB_DATE_FORMAT	ATTR_DEF_DATE_FORMAT-ORAFUSION=DD/MON/YYYY

Configuring Members Reverse Population

This property should be set for reverse population of Members for the Dimensions in required Information Domains.

VALUE	CODE	EXAMPLE
# Members Reverse population - VALUE- Y/N	MEMBER_REVERSE_POP-$INFODOM$-$DIMENSION_ID$=$VALUE$	MEMBER_REVERSE_POP-ORAFUSION-1=Y

Configuring Hierarchy Reverse Population

This property should be set for reverse population of Hierarchies for the Dimensions in

required Information Domains.

VALUE	CODE	EXAMPLE
#Hierarchy Reverse population - VALUE- Y/N	HIERARCHY_REVERSE_POP-$INFODOM$-$DIMENSION_ID$=$VALUE$	HIERARCHY_REVERSE_POP-ORAFUSION-1=Y

Configuring Maximum Levels allowed in Hierarchies

This property is required to set the maximum levels allowed to build the Hierarchies tree structure.

VALUE	CODE	EXAMPLE
#Hierarchy Maximum level allowed for the hierarchy in particular infodom - VALUE - Integer number	MAX_DEPTH-$INFODOM$=$VALUE$	MAX_DEPTH-FUSION=15

- The Maximum Levels allowed in the hierarchies is less than or equal to 15. If the Hierarchy Reverse population is set as **Y** and more than 15 levels are created then the alert will be displayed as " The number of levels exceeding the limit".

- If the maximum level allowed is set as more than 15 and hierarchy reverse population is set as **Y** then an error will be displayed as " Error occurred in Reverse populating the hierarchy"

Configuring Node Limit for a Hierarchy Tree

This property is required to display the Hierarchy as a small or a large hierarchy. If the tree node limit exceeds the set limit, Hierarchies are treated as large Hierarchy.

VALUE	CODE	EXAMPLE
#Tree node limit for the hierarchy - Values is Integer number	TREE_NODE_LIMIT=$VALUE$	TREE_NODE_LIMIT=30

21

Frequently Asked Questions

Introduction

This article is attempted to help with answers in resolving few of the OFSAAI Installation and configuration issues. This is not an official OFSAAI support site. We have made an attempt to share knowledge and help others on solving problems.

What is Oracle Financial Services Analytical Applications Infrastructure?

Oracle Financial Services Analytical Applications Infrastructure powers the Oracle Financial Services Analytical Applications family of products. It performs the processing, categorizing, selection and manipulation of data and information needed to analyze, understand and report on specific performance, risk, compliance and customer insight issues.

What is the purpose of OFSAA Infrastructure?

Oracle Financial Services analytical applications infrastructure helps control data quality and provides a consistent approach across applications for assigning business assumptions and accessing shared data for computations underlying Oracle's Financial Services analytical applications

Infrastructure is comprised of a set of frameworks that operates on and with the Oracle Financial Services Analytical Applications Data Model. This infrastructure delivers unified metadata across the stack and provides a single set of computational engines, stochastic modeling methods and business rules to feed overlapping, but independent, analytical business functions such as profitability, economic capital, FTP, and regulatory capital. Pre-integrated and extensible with common objects and dimensions, this infrastructure powers business user analyses with performance that scales to meet the demands of the world's largest institutions.

OFSAAI Installation FAQ's

Where can I get more information on OFSAA Infrastructure?

More information is available on the oracle.com web site.

What are the different components that get installed during OFSAA Infrastructure?

OFSAA Infrastructure installation processes are categorized into three layers - Infrastructure Web Server, Infrastructure Application Server and Infrastructure Database Server components.

What are the different modes of OFSAA Infrastructure installation?

Infrastructure components can be installed on a single machine (referred to as the single-tier mode) or on multiple machines (referred to as the multi-tier mode).

Is JDK required during installation of OFSAA Infrastructure and can it be uninstalled after OFSAA Infrastructure installation?

Yes, JDK is required during installation of OFSAA Infrastructure as well after installation for the application to work.

What are the different files required to perform OFSAA Infrastructure Installation?

Setup.sh, OFSAAInfrastructure.bin, libcpptripledes.so and CustReg.DAT

Is OFSAA Infrastructure license Application specific?

Yes, OFSAA Infrastructure license is application specific.

Execution of ./Setup.sh exits without proceeding with installation, what needs to be done?

- If error message resembles "Execute Permission denied" then check whether all the files provided for OFSAA Infrastructure installation has execute permissions.

- If error resembles "Graphical installers are not supported by the VM. The console mode will be used instead..." then check whether any of the X-windows software has been installed eg: Hummingbird Exceed is started and configured to Graphical mode installation.

- If error resembles "No Java virtual machine could be found from your PATH environment variable. You must install a VM prior to running this program", then check whether java path is set in PATH variable. For details on setting the environment variables, refer to the OFSAA Infrastructure Installation guide, under section pre-requisites.

- Check whether sufficient temporary space is available.

- Ensure the movement of OFSAA Infrastructure Installer text files to the target system is done in the Text mode so that Setup.sh file does not contain control line feed characters (^M).

During installation if error message shows "OracleDriver Files Not Found,Please Choose The Right Path To Continue" ?

Check whether the provided path for Oracle Driver files is correct and whether the user has permissions to access the files.

During installation if error always resembles "User must have CREATE TABLE, CREATE VIEW, CREATE TRIGGER, CREATE INDEX, CREATE SEQUENCE, CREATE PROCEDURE " though the oracle schema user created has the mentioned privileges?

OFSAA Infrastructure installer validates the database details provided during installation, so ensure

- Whether the oracle schema user has the required set of privileges for successful installation.

- Whether the oracle schema user has been created with quota privileges on table space to create database objects.

Detailed instructions can be found in the Pre-requisite Steps of Oracle Financial Services Analytical Applications Infrastructure Installation Manual.

What when error message resembles "java.lang.Exception: [TripleDES] cpptripledes Library not loaded" during OFSAA Infrastructure installation?

OFSAA Infrastructure Installer loads the libcpptripledes.so file provided for installation, so ensure the following:

- Libcpptripledes.so file has execute permissions.

- Whether the JAVA version set in the PATH variable is same on which OFSAA Infrastructure was qualified.

Detailed instructions of the software's on which OFSAA Infrastructure is qualified can be found in Software Environments section of Oracle Financial Services Analytical Applications Infrastructure Installation Manual.

Installation of OFSAA Infrastructure was completed successfully! What next?

Post the successful completion of OFSAA Infrastructure, one has to perform the Post Installation Steps. Detailed instructions can be found in the Post Installation Steps , page 10-1of Oracle Financial Services Analytical Applications Infrastructure Installation Manual.

OFSAA Infrastructure Installation is unsuccessful?

OFSAA Infrastructure installer generates log files in the Infrastructure Installation Directory. The installer generates logs namely OFSAAInfrastructure_Install.log and configReveleus.log. The log OFSAAInfrastructure_Install.log provides the status of the installation of Infrastructure components. The log configReveleus.log provides the status of execution of scripts, creation of tables and port changes. Any of these reported, Warnings / Non Fatal Errors / Fatal Errors / Exceptions in each of these logs should be brought to the notice of the OFSAAI Infrastructure Support. Recommended not to proceed, until the reported problems are adequately addressed.

How do I Completely Uninstall OFSAA Infrastructure?

OFSAA Infrastructure can be completely uninstalled by performing the steps provided in the Uninstalling Infrastructure Components of Oracle Financial Services Analytical Applications Infrastructure Installation Manual.

OFSAAI Configuration FAQ's

On the UNIX System terminal, Error message shows "./reveleusstartup.sh: /java: Execute permission denied" while executing ./reveleusstartup.sh file.

- Ensure JAVA_BIN environment variable path is set on the unix user terminal from where the reveleusstartup.sh file is invoked.

- Ensure the .profile where the environment / path settings are made has been executed successfully.

OFSAAI Application server (Infrastructure Server) does not proceed after providing the system password?

- System Password provided when prompted should match with the Oracle Config password provided during installation and check whether connection to the Config schema can be established through sqlplus.

- If Revappserver log under $FIC_APP_HOME/common/FICServer/logs displays error message resembling "java.lang.Exception: [TripleDES] cpptripledes Library not loaded" check whether JAVA_BIN path selected during installation is same as mentioned in the Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide.

When logging into OFSAA Infrastructure with valid user id and password, pop-up window displays message as cpptripledes could not be loaded?

Applicable if Websphere is chosen as web server,

- libcpptripledes.so file should be copied from $FIC_WEB_HOME/bin into <WebSphere installation path>/AppServer/bin

- Make sure the Websphere java version is same as mentioned in the Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide.

Applicable if Tomcat is chosen as web server,

- LIBPATH/LD_LIBRARY_PATH should be set to $FIC_WEB_HOME/bin on the terminal where the tomcat server will be started.

- Make sure the java version on which tomcat server is pointing should be same as mentioned in the Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide.

OFSAA Infrastructure installation completed successfully, however when OFSAA Infrastructure servers are started and the application URL is accessed, gives an error " the page cannot be found or displayed" or "Could not retrieve list of languages from Server. Please contact the system administrator".

- Ensure OFSAA Infrastructure servers are started and running successfully. On the server start up parameters options, please refer to Starting Infrastructure , page 11-1 of Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide.

- Further details on the issue, refer on to the Revappserver log in

$FIC_APP_HOME/common/FICServer/logs directory or the Web Server log files.

Is it necessary to provide the specified grants to the Oracle schema user before installation, if yes, can it be revoked after completion of installation?

Oracle schema user requires the necessary grants specified before, during and after the installation process. Grants provided should never be revoked as the application makes use of these grants all the time.

Can we have distributed OFSAA Infrastructure Application Server for load balancing?

OFSAA Infrastructure Application server can be scaled out/distributed across different JVM's (machines) based on the various services and information domains, in other words Load balancing could be achieved with distribution of services. Further instructions on setting up the distributed environment can be referred to Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide.

Why do we need ftpshare? Why on all the layers? Can we have ftpshare on another machine other than the machines where OFSAAI is installed?

All the files used in Infrastructure are stored in the FTP folders. The ftpshare folder is a metadata repository directory that contains folders for each information domain. Each information domain folder holds a corresponding Erwin, log, and scripts folder. For any operation, the data needs to be transferred from the client to the database. The entities, such as Tables, are generated in the Database Layer. The transfer of data among the three servers in Infrastructure takes place through FTP/SFTP. Hence it is required to have an ftpshare folder in each Infrastructure server. Full permissions should be granted to this directory and its sub folders and files by executing the command 'chmod 777' and then inside the ftpshare, execute the 'umask 0000' command.

Bind exception, port binding issues, Can the ports used by Infrastructure services changed after the installation process?

Port Change utility could be used to have the Port number modified, which are currently being used by the Infrastructure application. On Further instruction, refer to Configuration of Infrastructure Ports , page 10-9in Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide.

Are there any in-built system administration users within OFSAA Infrastructure Application?

Two in-built system administration users are provided to configure and setup the OFSAA Infrastructure

- SYSADMN: Login with the password that was provided during installation.

- SYSAUTH: Login with the password that was provided during installation

Does OFSAA Infrastructure Application support both FTP and SFTP?

OFSAA Infrastructure supports both FTP and SFTP configuration. Further instructions refer to Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide

Enabling the FTP/SFTP services.

Yes, enabling of FTP/SFTP services and its ports is a pre-requisite step towards using the OFSAA Infrastructure. OFSAAI Installation and Configuration Guide gives the steps in enabling these services

OFSAAI Configuration, Unable to save the server details?

- Ensure the input user id, password and share name are correct.

- Ensure FTP/SFTP services are enabled.

- Have a test FTP/SFTP connection made and confirm if they are successful.

During Information Domain creation, message appears "Please create a database and then create the information domain"?

Information Domain is mapped to only one Database; and thus before the creation of Information Domain, at least one database details would need to exist.

"ConnectToDatabase: FatalError, could not connect to the DB server" during startup of backend engine message server?

- Verify whether connection to the Config schema can be established through sqlplus.

- Verify Config schema password is modified post installation.

- Ensure oracle database alias name created for oracle instance and oracle service name are same.

- On a multi tier Installation mode, ensure TNSNAME and SID are the same in both the Application and Database Layers.

engine message server?

Ensure Reveleus.sec file exists under the $FIC_HOME/conf directory where the Database components are installed.

Does OFSAA Infrastructure Application support LDAP authentication?

OFSAA Infrastructure supports LDAP configuration and authentication. Further instructions refer to Oracle Financial Services Analytical Applications Infrastructure Installation and Configuration Guide.

Does OFSAA Infrastructure support multi-lingual?

OFSAA Infrastructure supports multi-lingual. Currently English is the language on which OFSAA Infrastructure is certified.

Does OFSAA Infrastructure provide for any data back-up features?

OFSAA Infrastructure does not have built-in back-up facility. It's recommended external storage infrastructure for backups.

What kind of security features does your OFSAA Infrastructure provide?

OFSAA Infrastructure provides security at

- Segment Level - Users can access only the segment they are mapped to.

- Application Level - Users can perform an operation only if mapped to appropriate role and functions.

Does OFSAA Infrastructure have the ability to enforce periodic password change?

OFSAA Infrastructure provides configurable parameters to define number of days after which the user password would expire and then the user is forced to change the password after expiration period.

What is the password policy followed in OFSAA Infrastructure?

OFSAA Infrastructure enforces a minimum password length with a combination of Upper and Lower case characters and alpha-numeric string.

Which version of Erwin Data Modeller does OFSAA Infrastructure support?

The current certified CA Erwin versions are 7.1.2 and 7.3 via Patch: 9227983. Refer, Note 1070591.1 at https://support.oracle.com.

Tech stack doc was updated to include specific support of Erwin 7.1.2 and 7.3.0.

Does OFSAA Infrastructure provide mechanism to upload Business Data model?

OFSAA Infrastructure provides easy to use GUI based Model upload mechanism to upload the Business Data Model.

Business Data model undergoes changes, how does this incremental change get applied to the existing model?

Modified data model can be uploaded into the system and OFSAA Infrastructure has the ability to compare the changes within the data model with respect to the one already present in the system and enables propagation of incremental changes in a consistent manner.

What are the different modes of uploading a business data model?

OFSAA Infrastructure supports uploading of business data model from client desktop and also by picking up the data model from the server location.

Does upload of Business Data model depend on Java Memory?

Business data model upload through OFSAA Infrastructure depends on the Java memory settings on the client and server machines. Java memory setting varies with the data model size and the available RAM. Please contact OFSAA Infrastructure support for more details. Please refer to Configuration of OFSAAI, page 20-1 for more details.

A

Defining Application Sources

Introduction

Application Sources must be created within Data Integrator for the Application Installation to copy the relevant files for the seeded loaders. For more information about the Data Integrator and Defining Sources, see *Oracle Financial Services Analytical Applications Infrastructure User Guide.*

Creating an Application Source

Follow the steps below to create the application sources that are necessary for the installation to copy the relevant files for the seeded loaders:

1. Verify user's group for which the application user has been assigned ETL Analyst role. This allows the user to access the Data Integrator menu.

2. Confirm that an FS Data Model has already been successfully uploaded to the Information Domain.

3. Login as the application user and navigate to Unified Metadata Manager > Data Integrator Framework > Warehouse Designer > Data Sources.

4. Define Source Applications:

   - Create Applications with the wanted name.

   - Save the application by clicking the **Save** icon that appears in the toolbar of the Define Applications block.

5. Use the Define Applications block to create the data sources.

   To create an RDBMS data source, select the **RDBMS** option, under Source type.

   Note

   To create RDBMS Data Source

   - Enter the Atomic User for USER ID and Table Owner.

   - Enter the Database Name for Database Name.

   - Specify the TNS-Name.

   - Select the required Source Date Format.

   - Select the required locale

   - Select Database as Oracle

   - Select JDBC drivers as Oracle Driver -- JDBC driver list will NOT appear unless using certified browser, either version IE 7 or IE 8.

   - Enter Complete JDBC URL if using Real Application Clusters (RAC)
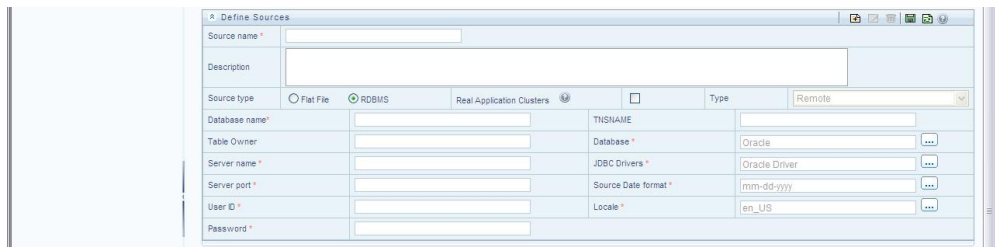

   Save the data source by clicking the **Save** icon that appears in the toolbar of the Define Sources block.

   To create another data source, click the **add** icon in the same toolbar and repeat the same process as above. It is required to create TWO data sources for OFSAA installation, one for Processing and one for Staging.

6. Map the data sources to the application:

- Choose the application from the **Application** list within the Map block.

- Map the two required sources from the Available Sources list by moving it to the Source Applications block.

- Click **Save**, after mapping is completed.
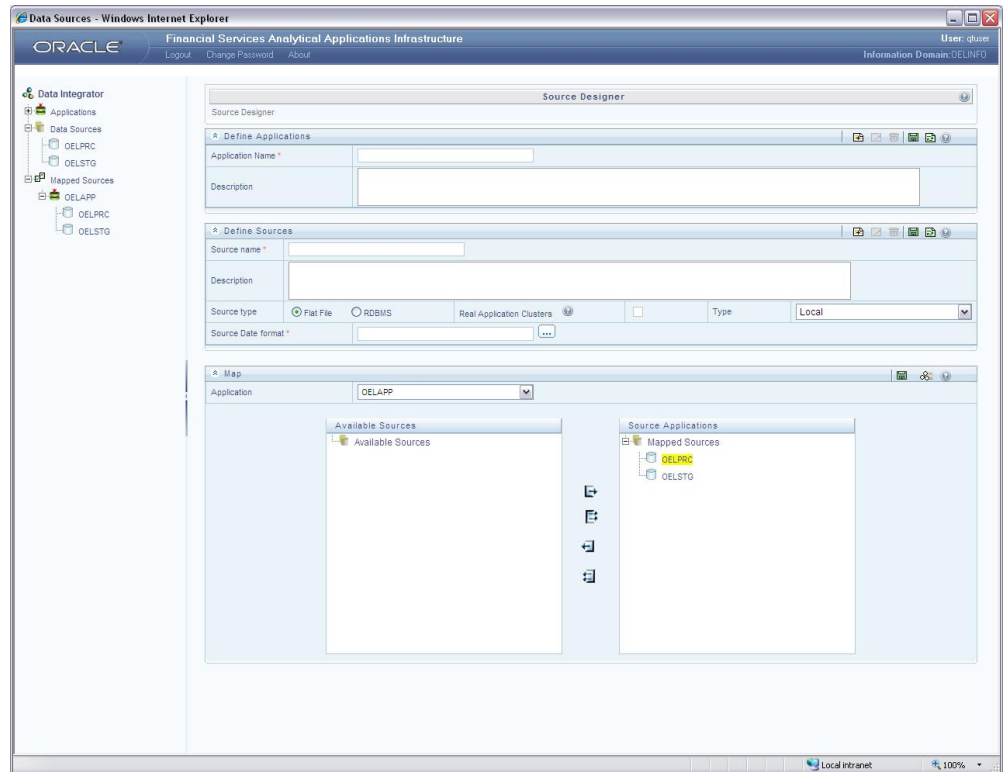
7. Generate Source Model for the each Source created.

   - In the Map block, select the required source from the Source applications list and click the **Generate source model** icon. Generate Source Model -- Webpage Dialog window appears.

   - Select the **Erwin or Catalog** option.

   - When Catalog option is selected, the source model is generated by establishing a JDBC connection and reading the database metadata. Optionally, specify the required filters for table-names.

   - When Erwin option is selected, specify the path of the Erwin data model.

   - Generate the model, by clicking the **Generate** icon.
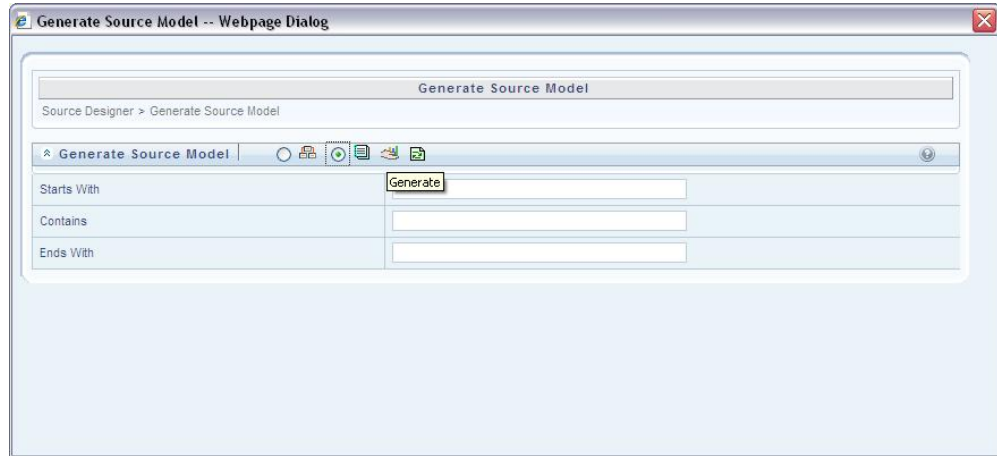
Note

- Application and Source names are dynamic except for Pricing Management. For Pricing management, they have to be the exact name as mentioned in the *Installation manual of Oracle Pricing Management*.

- The installer will ask to select the application / source pair during installation. For Pricing Management, the installer assumes that the application and sources have been created. Thus, the ETL definitions are deployed into this source when you run setup.sh.

- The source recommended may be an RDBMS based source, in which case the source should be defined on the same schema as the one in which the solution is being installed.

- Once an application and source has been created in the framework, you cannot create a new application and source with the same name. The source created earlier will hence be re-used for installing the new OFS Applications, be it on an information domain (infodom) already containing an OFS Application or a new infodom. As a result, if you need to install an OFS Application into an infodom #2, there will be a mismatch since the pre-created source will point to schema of infodom #1.

- It is recommended for the current release, that you do not create multi-infodom installation unless you intend to do it on a non-production environment where ETL activities will NOT be performed through OFS Infrastructure.