

**Oracle® Financial Services Customer Analytics  
Application Pack**

Installation Guide

Release 8.0.0.0.0

**E60049-01**

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# Installation Guide, Release 8.0.0.0.0

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# Preface

This Preface provides supporting information for the Oracle Financial Services Insurance Performance Pack (OFS CA) Installation Guide and includes the following topics:

- [Summary](#)
- [Audience](#)
- [Documentation Accessibility](#)
- [Related Documents](#)
- [Conventions](#)
- [Abbreviations](#)

## Summary

You can find the latest copy of this document in Oracle Technology Network (OTN) Library which includes all the recent additions/revisions (if any) done till date.

Before you begin the installation, ensure that you have an access to the Oracle Support Portal with the required login credentials to quickly notify us of any issues at any stage. You can obtain the login credentials by contacting Oracle Support.

## Audience

Oracle Financial Services Customer Analytics Pack Installation Guide is intended for administrators, and implementation consultants who are responsible for installing and maintaining the application pack components.

### Prerequisites for the Audience

Following are the expected preparations from the administrator before starting the actual installation:

The document assumes that you have experience in installing Enterprise components and basic knowledge about the following are recommended:

- Oracle Oracle Financial Services Customer Analytics pack components
- OFSAA Architecture
- UNIX Commands
- Database Concepts

- Web Server/Web Application Server

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**Note:**

The Customer Analytics Pack installer download contains a primary ERwin XML file that is required for uploading the model. This file is sufficient to install the v8.0.0.0.0 product. However, this XML file cannot be opened in ERwin Data modeler tool and hence cannot be used for any data model customization. This ERwin file is delivered as a patch and need to be downloaded separately. This ERwin file should be used for any customization of the data model.

Reference bug/patch where the primary ERwin file can be downloaded is Bug 20469016 - OFS Customer Analytics 8.0.0.0.0 Data Model

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## Documentation Accessibility

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## Related Documents

This section identifies additional documents related to OFS CA. You can access Oracle documentation online from Documentation Library for Oracle Financial Services Customer Analytics (OTN).

### OFSAI Related Documents

- *Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide*
- *Oracle Financial Services Analytical Applications Infrastructure Environment Check Utility Guide*
- *Oracle Financial Services Analytical Applications Infrastructure Administration Guide*
- *Oracle Financial Services Analytical Applications Infrastructure User Guide*
- *Oracle Financial Services Analytical Applications Infrastructure Language Pack Guide*

### OFS CA Application Related Documents

- *Oracle Financial Services Customer Analytics User Guide*
- *Oracle Financial Services Customer Analytics Release Notes*

The following document is available in My Oracle Support (MOS) and you should have SSO credentials to access MOS.

- *Oracle Financial Services Analytical Applications Infrastructure Security Guide*

## Conventions

The following text conventions are used in this document:

**Table 0–1 Convention and their meaning**

<b>Convention</b>	<b>Meaning</b>
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

## Abbreviations

The following table lists the abbreviations used in this document:

**Table 0–2 Abbreviations and their meaning**

<b>Abbreviation</b>	<b>Meaning</b>
CA	Customer Analytics
GUI	Graphical User Interface
HTTPS	Hypertext Transfer Protocol Secure
J2C	J2EE Connector
J2EE	Java 2 Enterprise Edition
JDBC	Java Database Connectivity
LDAP	Lightweight Directory Access Protocol
LHS	Left Hand Side
MOS	My Oracle Support
OFSA	Oracle Financial Services Analytical Application
OFSAI	Oracle Financial Services Analytical Application Infrastructure
OLAP	On-Line Analytical Processing
OTN	Oracle Technology Network
OS	Operating System
SFTP	Secure File Transfer Protocol
URL	Uniform Resource Locator
Web Archive	WAR
XML	Extensible Markup Language





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## About OFS CA Application Pack

This chapter provides complete details about Customer Analytics (CA) Application pack.

This chapter includes the following topics:

- [About Oracle Financial Services Analytical Applications \(OFSAA\)](#)
- [About Oracle Financial Services Analytical Applications \(OFSAA\) Application Packs](#)
- [Introduction to Oracle Financial Services Customer Analytics \(OFS CA\) Application](#)
- [About Oracle Financial Services Analytical Applications Infrastructure \(OFSAAI\)](#)

### About Oracle Financial Services Analytical Applications (OFSAA)

In today's turbulent markets, financial institutions require a better understanding of their risk-return, while strengthening competitive advantage and enhancing long-term customer value. Oracle Financial Services Analytical Applications (OFSAA) enable financial institutions to measure and meet risk adjusted performance objectives, cultivate a risk management culture through transparency, lower the costs of compliance and regulation, and improve insight into customer behavior.

OFSAA uses industry-leading analytical methods, shared data model and applications architecture to enable integrated risk management, performance management, customer insight, and compliance management. OFSAA actively incorporates risk into decision making, enables to achieve a consistent view of performance, promote a transparent risk management culture, and provide pervasive intelligence.

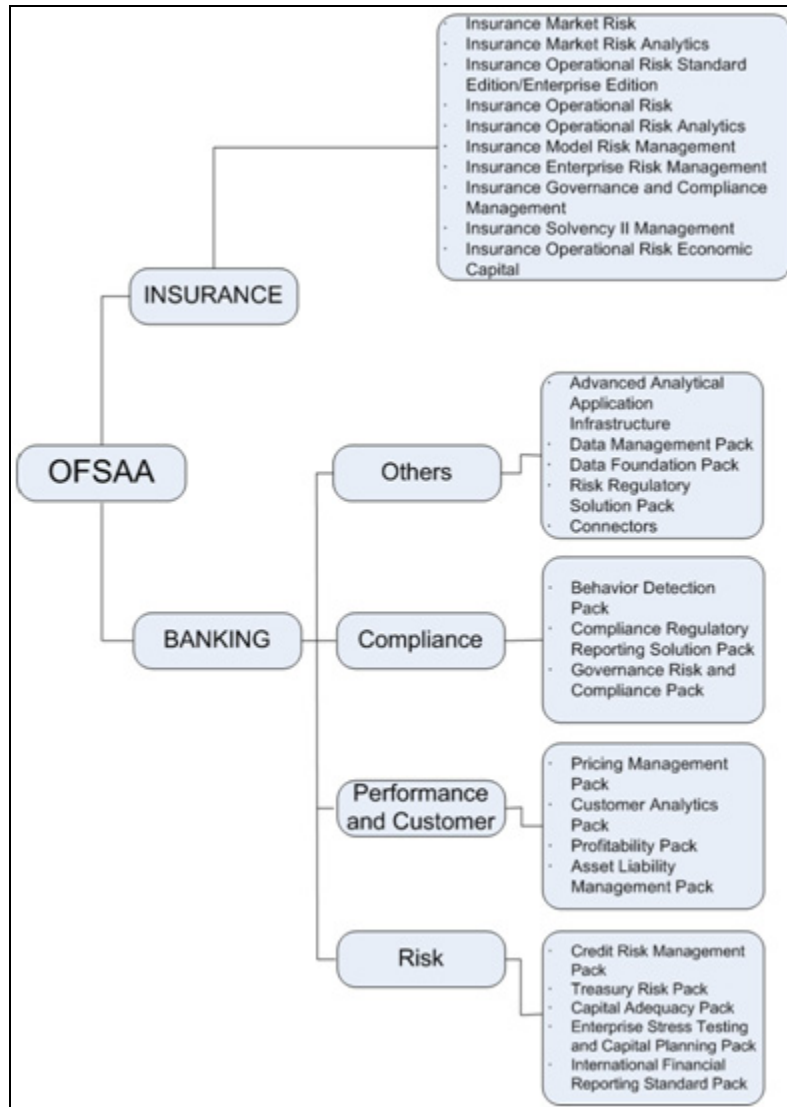
With the help of OFSAA, the financial services organizations can achieve, management excellence with a lower total cost of ownership, due to our integrated, architecture, combining performance and risk applications into a single, seamlessly integrated framework.

OFSAA delivers a comprehensive and integrated suite of financial services analytical applications for both banking and insurance domain.

### About Oracle Financial Services Analytical Applications (OFSAA) Application Packs

The following figure depicts the various application packs that are available across the OFSAA Banking and Insurance domains:

**Figure 1–1 OFSAA Applications Packs**



## Introduction to Oracle Financial Services Customer Analytics (OFS CA) Application

OFS CA Application is a complete end-to-end web-based Business Intelligence solution for Customer Analytics. It provides tools for data integration and includes customizable, pre-built dashboards and reports, a reporting data model, and user friendly functional subject areas for ad-hoc reporting. It enables you to actively plan, manage, and track marketing investments with pre-built reports, dashboards, and underlying data structures.

## About Oracle Financial Services Analytical Applications Infrastructure (OFSAAI)

Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) powers the Oracle Financial Services Analytical Applications family of products to perform 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 by providing a strong foundation for the entire family of Oracle Financial Services Analytical Applications across the domains of Risk, Performance, Compliance, and Customer Insight.

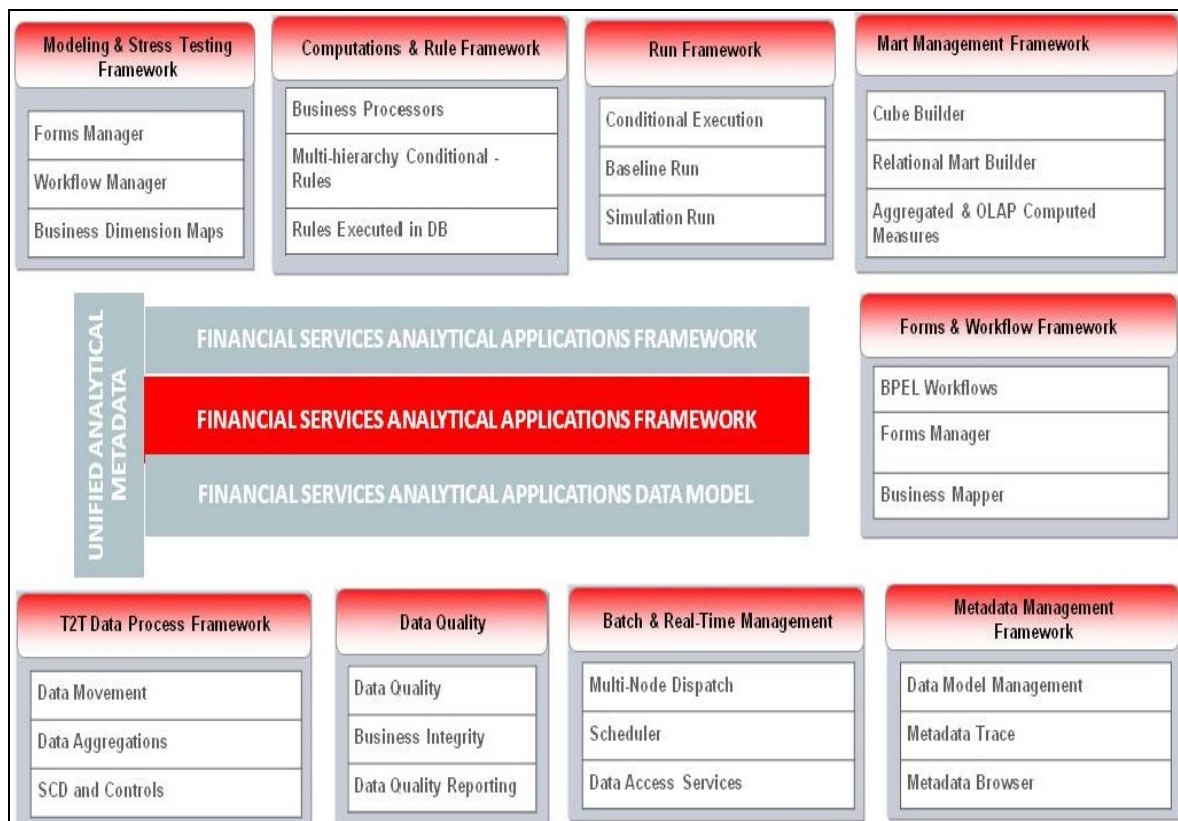
## Components of OFSAAI

The OFSAA Infrastructure is comprised of a set of frameworks that operates on and with the Oracle Financial Services Analytical Applications Data Model and form the array of components within the Infrastructure.

The OFSAA Infrastructure components/frameworks are installed in two layers: primarily the metadata server and Infrastructure services run on one layer, and the UI and presentation logic runs on the other. The UI and presentation layer is deployed on any of the supported J2EE Servers.

The following figure depicts the various frameworks and capabilities that make up the OFSAA Infrastructure:

**Figure 1–2 Components of OFSAAI**



## OFSAA Infrastructure High Availability

The current release of the OFSAA Infrastructure supports only "Single Instance" installation for the Infrastructure components. However, the High Availability (HA) for the Database Server and the Web Application Server clustering and deployment are supported in this release.

This release supports Active-Passive model of implementation for OFSAAI components. For more information, refer [Configuration for High Availability - Best Practices Guide](#).

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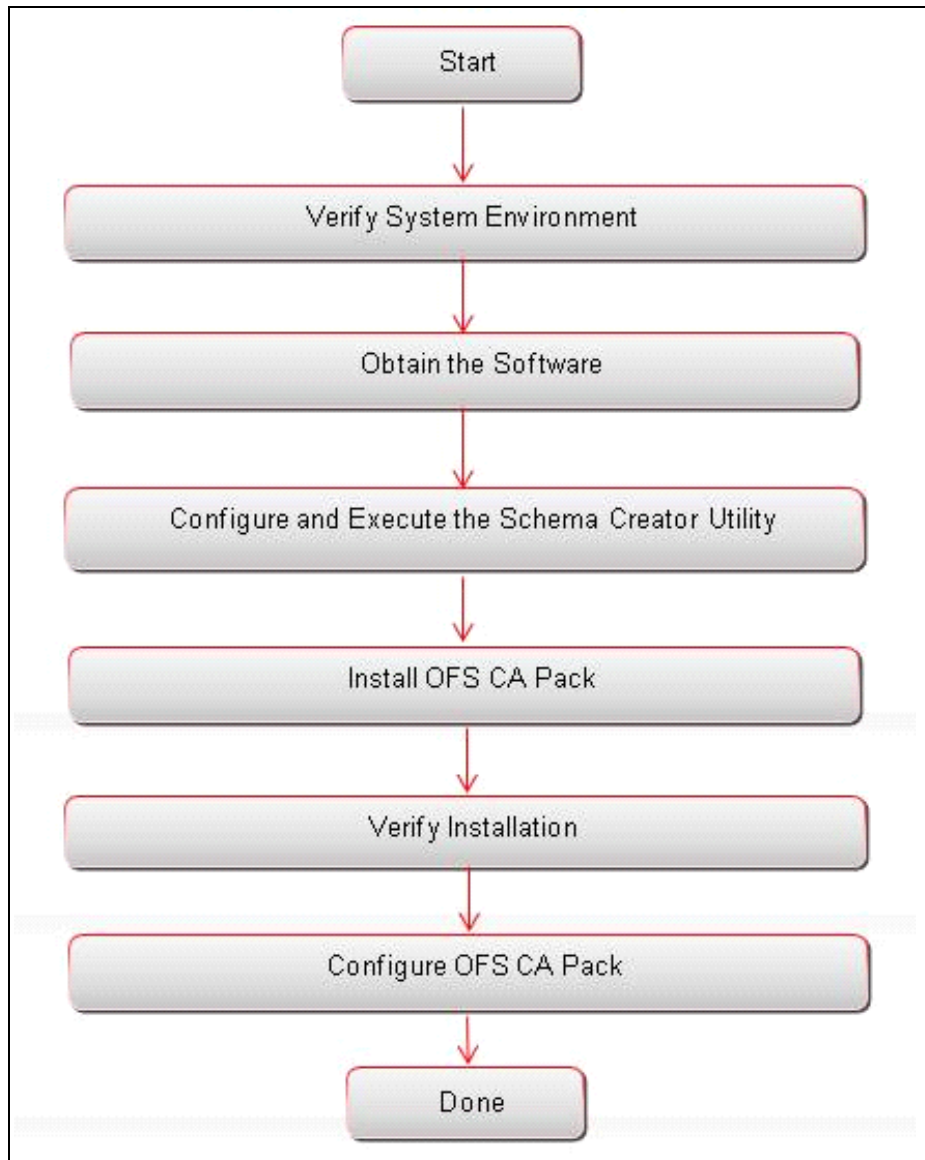
## Understanding OFS CA Pack Installation

This chapter includes the following topics:

- [Installation Overview](#)
- [Logical Deployment Architecture](#)
- [Hardware and Software Requirements](#)
- [Verifying the System Environment](#)
- [Understanding the Installation Mode](#)

### Installation Overview

This section gives an overview of the OFS CA Pack Installation. [Figure 2-1](#) shows the order of procedures you will need to follow:

**Figure 2–1 Installation Overview**

The following lists provide additional information and links to specific documentation for each task in the flowchart.

- **Verify System Environment:** This section provides details to verify that your system meets the minimum necessary requirements for installing and hosting the OFS CA Application Pack. For more information, see [Hardware and Software Requirements](#) and [Verifying the System Environment](#).
- **Obtain the Software:** This section provides details about obtaining the software. For more information, see [Obtaining the software](#).
- **Configure and Execute the Schema Creator Utility:** This section provides details about configuring and executing the schema creator utility. For more information, see [Configuring and Executing the Schema Creator Utility](#).
- **Install OFS CA Pack:** This section provides details about installing the OFS CA Pack Installer. For more information, see [Running the OFS CA Installer](#).

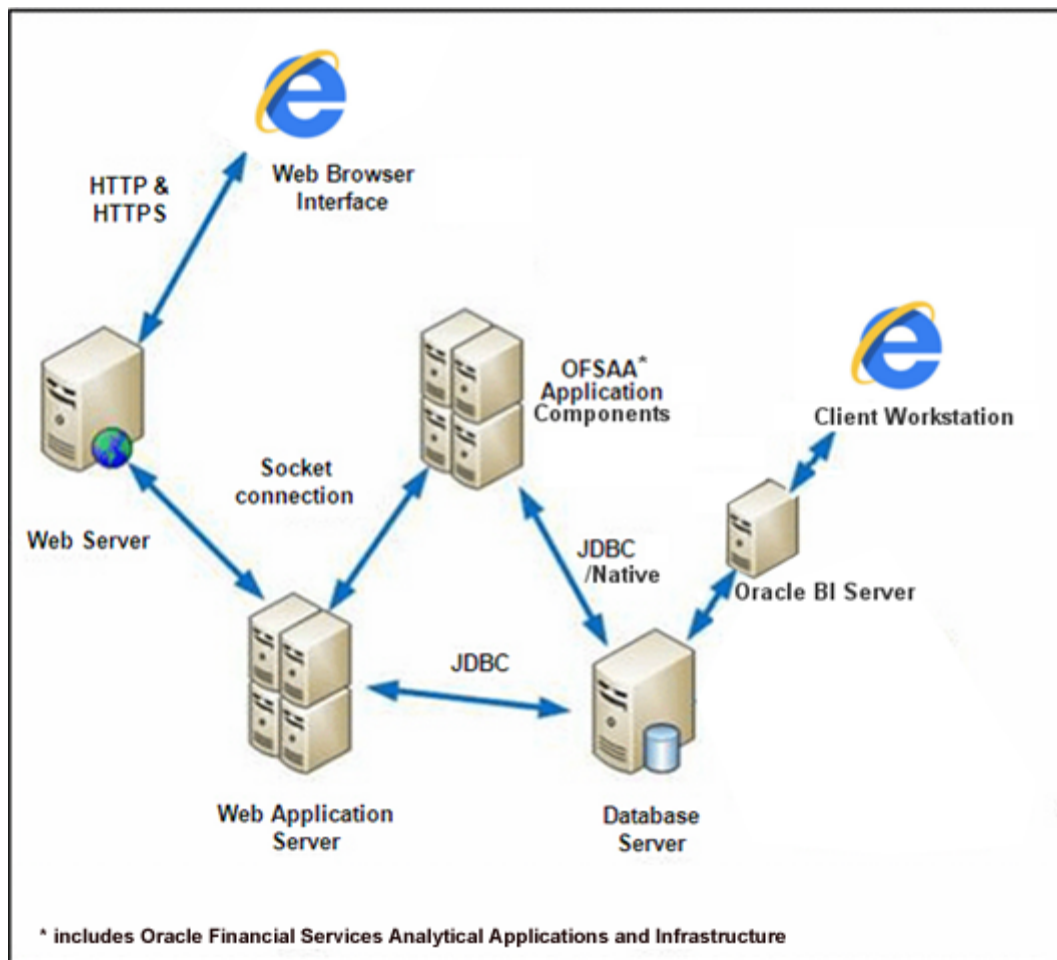
- **Configure OFS CA Pack:** This section provides details about post installation configuration. For more information, see [Post Installation Configuration](#).
- **Verify Installation:** This section provides details about verifying the installation. For more information, see [Verifying the Installation](#).

## Logical Deployment Architecture

The deployment architecture depicts the mapping of a logical architecture to a physical environment.

The physical environment includes the computing nodes in an intranet or Internet environment, CPUs, memory, storage devices, and other hardware and network devices.

*Figure 2–2 Logical Deployment Architecture*



## Hardware and Software Requirements

This section describes the various Operating Systems, Database, Web Server, and Web Application Server versions, and other variant details on which this release of the OFS CA Application Pack has been qualified.

**Note:**

OFS CA Application Pack installation can be performed on both Virtual and Physical servers.

## Configurations supported for Java 8

The following table shows the minimum hardware and software requirements for installing OFS CA Application Pack (Java 8):

**Table 2–1 Configurations Supported for Java 8**

<b>Operating System</b>	
Oracle Linux / Red Hat Enterprise Linux (x86-64)	<ul style="list-style-type: none"> <li>Oracle Linux Server release 5.3 up to 5.10 - 64 bit</li> <li>Oracle Linux Server release 6.0 and above - 64 bit</li> </ul> <p><b>Note:</b> Same versions of RHEL is supported</p>
Oracle Solaris(SPARC)/ Solaris x86	<ul style="list-style-type: none"> <li>Oracle Solaris v5.10 Update 11 and above - 64 bit</li> <li>Oracle Solaris v5.11 update 1 and above - 64 bit</li> </ul>
IBM AIX (POWERPC)	<ul style="list-style-type: none"> <li>AIX 6.1 (TL 09 and above) - 64 bit</li> </ul>
Shell	<ul style="list-style-type: none"> <li>KORN Shell (KSH)</li> </ul>
<p><b>Note :</b></p> <ul style="list-style-type: none"> <li>If the OS is IBM AIX 6.1, configure the size parameter setting for "Large File Support". Refer link <a href="http://www-01.ibm.com/support/docview.wss?uid=isg3T1000290">http://www-01.ibm.com/support/docview.wss?uid=isg3T1000290</a> for more details.</li> <li>If the operating system is RHEL, install the package lsb_release using one of the following commands by logging in as root user: <ul style="list-style-type: none"> <li>yum install redhat-lsb-core</li> <li>yum install redhat-lsb</li> </ul> </li> </ul>	
<b>Java Runtime Environment</b>	
Oracle Linux / Red Hat Enterprise Linux Oracle Solaris	<ul style="list-style-type: none"> <li>Oracle Java Runtime Environment (JRE) 1.8.x - 64 bit</li> </ul>
IBM AIX	<ul style="list-style-type: none"> <li>IBM AIX Runtime, Java Technology JRE 1.8.x - 64 bit</li> </ul>
<b>Oracle Database Server and Client</b>	
<ul style="list-style-type: none"> <li>Oracle Database Server Enterprise Edition 11g Release 2 (11.2.0.3.0 +) - 64 bit RAC/ Non-RAC with/ without partitioning option</li> <li>Oracle Database Server Enterprise Edition 12c Release 1 (12.1.0.1.0 +)- 64 bit RAC/ Non-RAC with/ without partitioning option</li> <li>Oracle Client 11g Release 2 (11.2.0.3.0+) - 64 bit</li> <li>Oracle Client 12c Release 1 (12.1.0.1.0+) - 64 bit</li> <li>Oracle 11g Release 2 (11.2.0.3+) JDBC driver (Oracle thin driver)</li> <li>Oracle 12C Release 1 (12.1.0.1+) JDBC driver (Oracle thin driver)</li> <li>Oracle Distribution of R version 2.15.1, 2.15.2 or 2.15.3.(Optional)</li> <li>Oracle R Enterprise (Server) version 1.4. (Optional)</li> <li>Oracle R Enterprise 1.4 requires Oracle Database Enterprise Edition 11.2.0.3/ 11.2.0.4/ 12.1.0.1</li> </ul>	



**Table 2–1 (Cont.) Configurations Supported for Java 8**

<b>Note:</b> Ensure that the following patches are applied:	
<ul style="list-style-type: none"> <li>• Oracle Server 12c, v12.1.0.1 – 17082699</li> <li>• Oracle Server 12c, v12.1.0.2 - 19392604, 19649591</li> <li>• Also for latest information, refer <a href="http://support.oracle.com/">http://support.oracle.com/</a> , 12.1.0.2 Bundle Patches for Engineered Systems and DB In-Memory - List of Fixes in each Bundle (Doc ID 1937782.1)</li> <li>• Oracle R Enterprise 1.4 requires Oracle Database Enterprise Edition 11.2.0.3/ 11.2.0.4/ 12.1.0.1</li> </ul>	
<b>OLAP</b>	
Oracle Hyperion Essbase	<ul style="list-style-type: none"> <li>• V 11.1.2.1+ (Server and Client) with Oracle 11g Database</li> <li>• V 11.1.2.3+ (Server and Client) with Oracle 12c Database</li> </ul>
Oracle OLAP	<ul style="list-style-type: none"> <li>• V 11.2.0.3+ with Oracle 11g Database</li> <li>• V 12.1.0.1+ with Oracle 12c Database</li> </ul>
<b>Note:</b>	
<ul style="list-style-type: none"> <li>• Oracle Hyperion Essbase &amp; Oracle OLAP is required only if you are using the OLAP feature of OFSAAI. For Oracle OLAP, ensure that you have configured the Oracle Database server with OLAP option.</li> </ul>	
<b>Web Server/ Web Application Server</b>	
Oracle Linux / Red Hat Enterprise Linux / IBM AIX Oracle Solaris	Oracle HTTP Server 11.1.1.1/ Apache HTTP Server 2.2.x/ IBM HTTP Server <ul style="list-style-type: none"> <li>• Oracle WebLogic Server 12.1.3+ (64 bit)</li> <li>• Apache Tomcat 8.0.x (64 bit)</li> </ul> <b>Note:</b> IBM WebSphere 8.5.x (Full Profile) on Java 8 is not available.
<b>Note:</b>	
<ul style="list-style-type: none"> <li>• OFSAA Infrastructure web component deployment on Oracle WebLogic Server with Oracle JRockit is not supported.</li> <li>• For deployment on Oracle WebLogic Server 12.1.3+ (64 bit) with Java 8, download and install patch 18729264 from <a href="http://support.oracle.com/">http://support.oracle.com/</a>.</li> </ul>	
<b>Desktop Requirements</b>	
Operating System	MS Windows 7/ Windows 8/ Windows 8.1
Browser	<ul style="list-style-type: none"> <li>• MS Internet Explorer 9 , 10(Compatibility Mode) and 11 (Compatibility Mode)</li> <li>• Oracle Java plug-in 1.7.0+* (64-bit)</li> </ul> Turn off Pop-up blocker settings. For more information, see <a href="#">Internet Explorer Settings</a> .
Office Tools	<ul style="list-style-type: none"> <li>• MS Office 2007/2010/2013</li> <li>• Adobe Acrobat Reader 8 or above</li> </ul>
Screen Resolution	1024*768 or 1280*1024
<b>Other Software</b>	
Directory Services	OFSAAI is qualified on both OPEN LDAP 2.2.29+ and Oracle Internet Directory v 11.1.1.3.0. However, it can be integrated with other directory services software like MS Active Directory.

**Table 2–1 (Cont.) Configurations Supported for Java 8**

<p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• Configuration of Directory services software for OFSAAI installation is optional. For more information on configuration, see <a href="#">Appendix E</a>.</li> <li>• Open LDAP needs to be installed on MS Windows Server machine only.</li> </ul>
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OFS CA Application Pack recommends the following software combinations for deployment:

**Table 2–2 Recommended Software Combinations**

Operating System	Database	Web Application Server	Web Server
Oracle Linux 5.3 up to 5.10/ 6.0 and above	Oracle Database	Oracle WebLogic Server /Apache Tomcat Server	Oracle HTTP Server/ Apache HTTP Server
Oracle Solaris 5.10/ 5.11	Oracle Database	Oracle WebLogic Server /Apache Tomcat Server	Oracle HTTP Server/ Apache HTTP Server
IBM AIX 6.1	Oracle Database	IBM WebSphere Application Server /Apache Tomcat Server	IBM HTTP Server/ Apache HTTP Server

## Verifying the System Environment

To verify that your system environment meets the minimum requirements for the installation, a Pre-Install Check utility is available within the Install Kit archive file. This utility can also be obtained separately by contacting Oracle Support.

Though the system environment verification is an integral and automated part of the installation of this software product, Oracle strongly recommends running this utility prior to beginning the installation as part of your organization's "Installation Readiness Verification Process".

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**Note:**

For more details on download and usage of this utility, see Oracle Financial Services Analytical Applications Infrastructure Environment Check Utility Guide given in the Related Documents section.

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## Understanding the Installation Mode

The following modes of installation are available for the OFS CA Application Pack.

- [GUI Mode](#)
- [Silent Mode](#)

### GUI Mode

This mode launches the product installation in a Graphical User Interface (GUI) mode. Users need to enter the required information on various panels within the UI in a user interaction format at various stages.

## **Silent Mode**

This mode mandates updating the installation files with required details and performs installation in a "Silent" non user interactive format.



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## Preparing for Installation

This chapter provides necessary information to review before installing the Oracle Financial Services Customer Analytics (OFS CA) Pack v8.0.0.0.0.

This chapter includes the following topics:

- [Installer and Installation Prerequisites](#)
- [Obtaining the software](#)
- [Common Installation Tasks](#)

### Installer and Installation Prerequisites

[Table 3–1](#) mentions the list of prerequisites required before beginning the installation for OFS CA application. The Pre-Install Check utility notifies you if any requirements are not met.

**Table 3–1 Prerequisite Information**

Category	Sub-Category	Expected Value
Environment Settings	Java Settings	<ul style="list-style-type: none"> <li>• PATH in .profile to be set to include the Java Runtime Environment absolute path. The path should include java version (java 6, or java 8) based on the configuration.</li> </ul> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• Ensure the absolute path to JRE/bin is set at the beginning of PATH variable.</li> <li>• For example, PATH=/usr/java/jre1.6/bin:\$ORACLE_HOME/bin:\$PATH</li> </ul> <p>Ensure no SYMBOLIC links to JAVA installation is being set in the PATH variable.</p>
	Oracle Database Settings	<ul style="list-style-type: none"> <li>• TNS_ADMIN to be set in .profile pointing to appropriate tnsnames.ora file</li> <li>• ORACLE_HOME to be set in .profile pointing to appropriate Oracle Client installation</li> <li>• PATH in .profile to be set to include appropriate \$ORACLE_HOME/bin path</li> <li>• Ensure to add an entry (with SID/ SERVICE NAME) in the tnsnames.ora file on the OFSAA server.</li> </ul>
	Oracle Essbase Settings	<ul style="list-style-type: none"> <li>• ARBORPATH, ESSBASEPATH, HYPERION_HOME to be set in the .profile pointing to an appropriate Oracle Essbase Client installation.</li> </ul> <p><b>Note:</b></p> <p>These settings are required only if you want to use Oracle Hyperion Essbase OLAP features.</p>

**Table 3–1 (Cont.) Prerequisite Information**

Category	Sub-Category	Expected Value
OS/File System Settings	File Descriptor Settings	Greater than 15000
	Total Number of Process Settings	Greater than 4096
	Port Settings	Default port numbers to be enabled on the system are 6500, 6501, 6505, 6507, 6509, 6510, 6666, 9999, and 10101.
	.profile permissions	User to have 755 permission on the .profile file.
	Staging Area/ Metadata Repository	<ul style="list-style-type: none"> <li>• A directory to hold the application metadata artifacts and additionally act as staging area for flat files.</li> <li>• The directory should exist on the same system as the OFSAA Installation. This directory can be configured on different mount or under a different user profile.</li> <li>• Set 777 permission on this directory.</li> </ul>
	Installation Directory	<ul style="list-style-type: none"> <li>• A directory where the installation files will be installed.</li> <li>• Set 755 permission on this directory.</li> <li>• This directory needs to be set as FIC_HOME.</li> </ul>
	Download Directory	<ul style="list-style-type: none"> <li>• A directory where the product installer files will be downloaded/ copied.</li> <li>• Set 755 permission on this directory.</li> </ul>
Database Settings	Database Instance Settings	<ul style="list-style-type: none"> <li>• NLS_CHARACTERSET to be AL32UTF8</li> <li>• NLS_LENGTH_SEMANTICS to be BYTE</li> <li>• Available OPEN CURSORS limit to be greater than 1000</li> </ul>
Web Application Server	WebSphere/ WebLogic/ Tomcat	<p>Web Application Server should be installed and profile/ domain created.</p> <p>You will be prompted to enter the WebSphere Profile path or WebLogic Domain path or Tomcat Deployment path during OFSAAI installation.</p> <p><b>Note:</b> Refer <a href="#">Appendix A</a> for WebSphere Profile Creation and WebLogic Domain Creation.</p>
Web Server	Apache HTTP Server/ Oracle HTTP Server/ IBM HTTP Server	<p>This is an optional requirement. HTTP Server Installation to be present. You will be required to enter the Web Server IP/Hostname and Port details during installation.</p> <p><b>Note:</b> Refer <a href="#">Appendix A</a> for Web Server installation.</p>

**Table 3–1 (Cont.) Prerequisite Information**

Category	Sub-Category	Expected Value
Others	Oracle R/ Oracle R Enterprise	<ul style="list-style-type: none"> <li>This is an optional requirement.</li> </ul> Refer section <a href="#">Installation of Oracle R distribution and Oracle R Enterprise (ORE)</a> for more details.
	OFSAA	<ul style="list-style-type: none"> <li>For installation on Java 8, login to <a href="https://support.oracle.com/">https://support.oracle.com/</a> and search for <b>21160684</b> under the Patches &amp; Updates tab. This is applicable only when you have installed 8.0.0.0.0 OFSAAI pack and not required for 8.0.0.1.0.</li> <li>For installation of this release on an existing OFSAA instance version 8.0.1.0.0, login to <a href="https://support.oracle.com/">https://support.oracle.com/</a> and search for 21133780 under the Patches and Updates tab</li> <li>For installation of this release on an existing OFSAA instance version 8.0.2.0.0, login to <a href="https://support.oracle.com/">https://support.oracle.com/</a> and search for 21657319 under the Patches and Updates tab.</li> </ul>

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**Note:** Ensure that the tablespace(s) used for the database user(s) is set to AUTOEXTEND ON.

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## Obtaining the software

This release of OFS CA Application Pack v8.0.0.0.0 can be downloaded from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>). You need to have a valid Oracle account in order to download the software.

## Common Installation Tasks

The following are the common pre-installation activities that you need to carry out before installing the OFS CA application pack.

This section includes the following topics:

- [Identifying the Installation Directory](#)
- [Configuration for GUI Mode Installation](#)
- [Copying and Extracting the Software](#)
- [Setting Up the Web Application Server](#)

### Identifying the Installation Directory

This would typically be the User home directory and requires you to copy the following files:

- **OFSAA Download Directory** - Create a download directory and copy the OFSAA Application Pack Installer File (Archive). This is the directory where the downloaded file is available.
- **OFSAA Installation Directory** - Create an installation directory. This is the directory where the installer would install the product files. `$FIC_HOME` to be set in the `.profile` pointing to the OFSAA Installation Directory.



- **OFSAA Staging/Metadata Directory** - Create a Staging/Metadata Directory. This is also referred as "FTP SHARE".

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**Note:**

Ensure the user permission set to 755 on the installation directory.

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## Configuration for GUI Mode Installation

To install OFS CA Application Pack in GUI mode, you need to ensure the below software and configurations are available:

- Install and configure any PC X Server software such as Open Text Exceed (formerly Hummingbird Exceed) on the user desktop system from which the installation is triggered.
- Configure the **DISPLAY** variable.

Ensure to set the DISPLAY variable on the system on which the OFSAA will be installed, to point to the user desktop system where the PC X Server software has been installed.

**Syntax:**

```
export DISPLAY=hostname:n.n1
```

where hostname is the IP Address/Host Name of the user desktop system and n is the sequence number (usually 0).

For example, 10.11.12.13:0.0 or myhostname:0.0

## Copying and Extracting the Software

Once you obtain the installer, copy the installer (in BINARY mode) to the system on which the OFSAA Infrastructure components will be installed.

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**Note:**

You must be logged in to the UNIX operating system as a non-root user.

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1. Download the unzip utility (OS specific) `unzip_<os>.Z` from the location <https://updates.oracle.com/unzips/unzips.html>, and copy it in Binary mode to the directory that is included in your PATH variable. If you already have the unzip utility to extract the contents of the downloaded archive, skip to the next step.
2. Uncompress the unzip installer file using the command:

```
uncompress unzip_<os>.Z
```

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**Note**

In case you notice an error message "uncompress: not found [No such file or directory]" when the package is not installed, contact your UNIX administrator.

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3. Give EXECUTE permission to the file using the command:

```
chmod 751 unzip_<OS>
```

For example, `chmod 751 unzip_sparc`

4. Extract the contents of the Oracle Financial Services Customer Analytics Application Pack 8.0.0.0 in Download Directory installer archive file using the following command:

```
unzip OFS_CA_80000.zip
```

5. Give EXECUTE permission to the installer script. Navigate to the path and execute the command

```
chmod 755 setup.sh
```

## Setting Up the Web Application Server

For setting up the environment based on your selected Web Application Server, refer to [Configuring Web Application Servers](#).

## Installation of Oracle R distribution and Oracle R Enterprise (ORE)

This is an optional step and required only if you intend to use Oracle R scripting in the Oracle Financial Services Enterprise Modeling Application. Ensure the below sequence of prerequisites are followed:

1. Install Oracle R Distribution and Oracle R Enterprise (Server Components) on the Oracle Database server. See [Oracle® R Enterprise Installation and Administration Guide for Windows, Linux, Solaris, and AIX, Release 1.3.1](#).
2. Oracle R Distribution versions supported- Oracle Distribution of R version 2.15.1, 2.15.2 or 2.15.3.
3. ORE version supported- Oracle R Enterprise (Server) version 1.4.

Skip this step if it is already installed.

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**Note:** Oracle R Enterprise 1.4 requires Oracle Database Enterprise Edition 11.2.0.3+ / 12.1.0.1+.

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## Installing OFS CA Pack

Follow the instructions in this chapter to install the OFS CApack depending on the offline and online modes of installation.

This chapter includes the following sections:

- [Schema creator utility](#)
- [Configuring and Executing the Schema Creator Utility](#)
- [Running the OFS CA Installer](#)

### Schema creator utility

Creating database users/schemas is one of the primary steps in the complete OFSAA installation. This release of OFSAA provides a utility to quickly get started with the OFSAA 8.0 installation by allowing easier and faster creation of database User(s)/ Schema(s), assign the necessary GRANT(s), and so on. Additionally, it also creates the required entities in these schemas.

The different types of schemas available for configuration in the OFSAA instance and their use is mentioned as follows:

- **CONFIG** - This schema denotes the unique OFSAA setup configuration schema and holds entities and other objects required to hold the unique OFSAA setup information.

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Note: There can be only one CONFIG schema per OFSAA instance.

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- **ATOMIC** - This schema denotes the schema that holds the data model entities. One ATOMIC schema is attached to one Information Domain.

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Note: There can be multiple ATOMIC schemas per OFSAA Instance and an Information Domain can have only one ATOMIC schema.

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- **SANDBOX** - This schema denotes the schema that holds the data for all Sandbox executions. One SANDBOX schema is attached to one Sandbox Information Domain.

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**Note:** There can be multiple SANDBOX schemas per OFSAA Instance and a Sandbox Information Domain can have only one SANDBOX schema.

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- **ADDON** - This schema denotes any additional schema used by the OFSAA Applications.

## Execution Modes in Schema Creator Utility

The Schema Configuration Utility supports the following modes of execution:

- **Online Mode:** In the Online mode, the utility connects to the database and executes the DDLs for Users, Objects and Grants. If you have the SYSDBA privileges you can execute the Schema Creator Utility in Online mode and thereby create the Users, Objects, and Grants during the execution process.

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**Note:** To execute the utility in Online mode, you need to connect as "SYS AS SYSDBA" user.

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- **Offline Mode:** In the Offline mode, the utility generates SQL script with all the required DDLs for User, Objects and Grants. This script needs to be executed by the DBA on the appropriate database identified for OFSAA usage. If you do not have the SYSDBA privileges, you can execute the Schema Creator Utility in Offline mode and generate the script file that contains the Schemas, Objects, and Grants information. Subsequently, a SYSDBA user can execute the script file manually.

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**Note:** To execute the utility in Offline mode, you need to connect as any user with the following grants:

- SELECT ON DBA\_ROLES
- SELECT ON DBA\_USERS
- SELECT ON DBA\_USERS
- SELECT ON DBA\_DIRECTORIES
- SELECT ON DBA\_TABLESPACES
- CREATE SESSION

For more details refer, Executing the Schema Creator Utility in Offline Mode.

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**Note:**

1. Do not modify the <PACK>\_SCHEMA\_OUT.XML file generated after the execution of this utility.
  2. If there are any errors during the script execution, reconfigure the <PACK>\_SCHEMA\_IN.XML file and execute the utility. This regenerates the scripts with corrected information.
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## Execution Options in Schema Creator Utility

Depending on the option selected to run the OFSAA Application Pack Installer, you need to select the schema creator utility execution option. If you try to run the OFSAA

Application Pack installer in SILENT mode, it is mandatory to execute the schema creator utility with `-s` option.

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**Note:** If the schema creator utility is executed without the option `-s`, it is mandatory to run the OFSAA Application Pack Installer in GUI mode.

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## Configuring and Executing the Schema Creator Utility

This section includes the following topics:

- [Prerequisites](#)
- [Configuring the Schema Creator Utility](#)
- [Executing the Schema Creator Utility](#)
- [Verifying the Log File](#)

### Prerequisites

The following prerequisites must be satisfied before configuring the Schema Creator Utility:

- You must have the Oracle User ID/Password with SYSDBA privileges.
- You must have the JDBC Connection URL for RAC/Non RAC database.
- You must have the HOSTNAME/IP of the server on which OFSAA is getting installed.
- For Java 8, navigate to `OFS_AAI_PACK/bin/` and modify the value for property `JAVA_VERSION` to 1.8 in the `VerInfo.txt` file and save the changes.

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**Note:**

- If this release of the OFS AAI Application Pack version 8.0.0.0.0 is being installed on an OFSAA setup where the underlying OFSAA Infrastructure (OFS AAI) version is upgraded to version 8.0.1.x.x, download and install the patch for schema creator utility (Bug 21133780) by following the instructions in the `Readme.txt` packaged in it prior to executing the utility.
- If this release of the OFS AAI Application Pack version 8.0.0.0.0 is being installed on an OFSAA setup where the underlying OFSAA Infrastructure (OFS AAI) version is upgraded to version 8.0.2x.x, download and install the patch for schema creator utility (Bug 21657319) by following the instructions in the `Readme.txt` packaged in it prior to executing the utility.

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### Configuring the Schema Creator Utility

This section explains the steps to configure the Schema Creator Utility.

To configure the Schema Creator Utility, follow these steps:

1. Navigate to the following path: `OFS_CA_PACK/schema_creator/conf` folder.
2. Edit the `OFS_CA_SCHEMA_IN.xml` file in a text editor.
3. Configure the following elements as described in the table:

**Table 4–1 Prerequisite Information**

<b>Element Name</b>	<b>Description</b>	<b>Permissible Value</b>	<b>Mandatory/Optional change</b>
APP_PACK_ID	Application Pack ID as per Product Management	-	Mandatory This value should not be edited.
<JDBC_URL>	Enter the JDBC URL.  <b>Note:</b> You can enter RAC and NON-RAC enabled database connectivity URL.	Example, jdbc:oracle:thin:@<HOST/IP>:<PORT>:<SID>	Mandatory
<JDBC_DRIVER>	By default this driver is seeded.  <b>Note:</b> Do not edit this attribute value.	Example, oracle.jdbc.driver.OracleDriver	Mandatory
<HOST>	Enter the Hostname or the IP Address of the system on which you are installing the OFSAA components.	Host Name/IP Address	Mandatory
<SETUPINFO>/NAME	Enter the acronym for the type of implementation. This information will be displayed in the OFSAA Home Page.  <b>Note:</b> On executing the schema creator utility, this value will be prefixed with each schema name. For example: dev_ofsaaconf, uat_ofsaaatm.	Accepts strings with a minimum length of two and maximum of four.  Example, DEV, SIT, PROD	Mandatory

Table 4-1 (Cont.) Prerequisite Information

Element Name	Description	Permissible Value	Mandatory/Optional change
<PASSWORD>/APPLYSAMEFORALL	<p>Enter as Y if you want to apply the password specified in DEFAULT attribute for all the schemas.</p> <p>If you enter as N, then you need to provide individual passwords for all schemas.</p> <p><b>Note:</b> In case you have entered Y in APPLYSAMEFORALL attribute and also have specified individual passwords for all the schemas, then the specified individual passwords will take precedence.</p>	Y/N	<p>Mandatory</p> <p><b>Note:</b> Setting this attribute value is mandatory, If DEFAULT attribute is set.</p>
<PASSWORD>/DEFAULT*	<p>Enter the password if you want to set a default for all schemas.</p> <p><b>Note:</b> You also need to set APPLYSAMEFORALL attribute as Y to apply the default password for all the schemas.</p>	The maximum length allowed is 30 characters. Special characters are not allowed.	Optional
<SCHEMA>TYPE	<p>The different types of schemas that are supported in this release are ATOMIC, CONFIG, and SANDBOX.</p> <p>By default, the schemas types are seeded based on the Application Pack.</p> <p><b>Note:</b> Do not edit this attribute value.</p>	ATOMIC/CONFIG/SANDBOX/ADDON	Mandatory

**Table 4–1 (Cont.) Prerequisite Information**

Element Name	Description	Permissible Value	Mandatory/Optional change
<SCHEMA> NAME	<p>By default, the schemas names are seeded based on the Application Pack.</p> <p>You can edit the schema names if required.</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• The Schema Name will have a prefix of the SETUPINFO/NAME attribute.</li> <li>• SCHEMA NAME must be same for all the ATOMIC Schemas of applications within an Application Pack.</li> <li>• The permissible length for schema name is 15 characters.</li> </ul>	-	<p>To identify which schema is associated to this Application.</p> <p>Cannot be blank</p>



Table 4–1 (Cont.) Prerequisite Information

Element Name	Description	Permissible Value	Mandatory/Optional change
<SCHEMA>/ PASSWORD*	Enter the password of the schema to be created. <b>Note:</b> <ul style="list-style-type: none"> <li>If this attribute is left blank, then the password specified in the &lt;PASSWORD&gt;/DEFAULT attribute is applied as the Schema Password.</li> <li>The permissible length and allowed characters for schema password as defined by Oracle Database User naming convention</li> </ul>	The maximum length allowed is 30 characters. Special characters are not allowed.	Optional <b>Note:</b> You need to mandatorily enter the password if you have set the <PASSWORD>/APPLYSAMEFORALL attribute as N.
<SCHEMA>/ APP_ID	By default, the Application ID is seeded based on the Application Pack. <b>Note:</b> Do not edit this attribute value.	-	Mandatory
<SCHEMA>/ DEFAULTTABLESPACE	Enter the available default tablespace for DB User. <b>Note:</b> If this attribute is left blank, then USERS is set as the default tablespace.	-	Optional
<SCHEMA>/ TEMPTABLESPACE	Enter the available temporary tablespace for the DB User. <b>Note:</b> If this attribute is left blank, then TEMP is set as the default tablespace.	-	Optional

**Table 4–1 (Cont.) Prerequisite Information**

Element Name	Description	Permissible Value	Mandatory/Optional change
<SCHEMA>/QUOTA	Enter the quota to be set on DEFAULTTABLESPACE attribute for the schema/user. By default, the quota size is set to 500M.	Minimum: 500M or Unlimited on default Tablespace. For example, <ul style="list-style-type: none"> <li>• 600M/m</li> <li>• 20G/g</li> <li>• UNLIMITED/unlimited</li> </ul>	Optional

4. Save the OFS\_CA\_PACK\_SCHEMA\_IN.xml file.
5. Navigate to BIN folder and run the schema creator utility.

## Executing the Schema Creator Utility

You can execute the schema creator utility either in Online Mode or Offline Mode. This section includes the following topics:

- [Executing the Schema Creator Utility in Online Mode](#)
- [Executing the Schema Creator Utility in Offline Mode](#)
- [Executing the Schema Creator Utility in Silent Mode](#)
- [Executing the Schema Creator Utility while Installing Subsequent Application Pack](#)

### Executing the Schema Creator Utility in Online Mode

In Online Mode, the Schema Creator Utility will create all the Schemas, Schema Objects, Grants, and Roles in the database during the execution process.

To execute the schema creator utility while creating the schemas for the first application pack, follow these steps:

1. Navigate to the following folder path: OFS\_CA\_Pack/schema\_creator/bin/
2. Execute the osc.sh file using the following command:

```
./osc.sh
```
3. The following message is displayed: *You have chosen ONLINE mode.*
4. Enter the DB Username with SYSDBA Privileges. For example: SYS as SYSDBA.
5. Enter the User Password.

Figure 4–1 Schema Creation

```

$ ./osc.sh
=====
You have chosen ONLINE mode
=====
Triggering the utility in ONLINE mode will execute the DDLs directly on the Database. Do you wish to proceed? (Y/y or N/n):
y
=====
Java Validation Started ...
Java found in : /scratch/ofsaajdk1.6.0_25/jre/bin
JAVA Version found : 1.6.0_25
JAVA Bit Version found : 64-bit
Java Validation Completed. Status : SUCCESS
=====
DB specific Validation Started ...
Enter the DB User Name With SYSDBA Privileges:
sys as sysdba
Enter the User Password:
Oracle Client version : 11.2.0.3.0. Status : SUCCESS
Oracle Server version Current value : 11.2.0.3.0. Status : SUCCESS
DB specific Validation Completed. Status : SUCCESS
=====

```

6. The console runs the initial validation checks and then displays the following message: *You have chosen to install this Application Pack on <Name of the Atomic Schema>ATOMIC schema. Do you want to proceed? (Y/N)*
7. Enter Y to start the schema creation.  
Or  
Enter N if you want to quit executing the schema creation.

Figure 4–2 Schema Creation

```

All the prechecks execution completed successfully.
=====
Executing TableSpace Scripts started...
Executing TableSpace Scripts completed...
=====
Creating Schemas started...
CONFIG User dev_conf14 successfully created on Default TableSpace : USERS on Temp TableSpace : TEMP
Grants creation scripts execution started...
Grants creation scripts execution completed...
Successfully connected to User - dev_conf14 URL - jdbc:oracle:thin:@ofss220623:1521:MEDIADB
Scripts execution for CONFIG schema started ...
Scripts execution for CONFIG schema completed ...
User dev_conf14 details updated into the dbmaster table
User dev_atml4 details updated into the dbmaster table
User dev_atml4 is successfully created on Default TableSpace : USERS on Temp TableSpace : TEMP
User dev_atml4 already exists in dbmaster table.
Creating Schemas completed ...
=====
Roles creation scripts execution started ...
Roles creation scripts execution completed ...
=====
Grants creation scripts execution started...
Grants creation scripts execution completed...
=====
Schemas Creation Completed
=====
Schema Creator executed Successfully.Please proceed with the installation.
$ █

```

---

**Note:** On successful execution of schema creator utility, the console displays the following status message:

*Success. Please proceed with the installation.*

Refer log file in OFS\_CA\_PACK/schema\_creator/logs folder for execution status. In case of any errors, contact Oracle Support.

---

## Executing the Schema Creator Utility in Offline Mode

In Offline Mode, the Schema Creator Utility creates an output in SQL file format. This script has to be executed manually by logging as database user with SYSDBA privileges. The SQL file will contain the creation of Schemas, Schema Objects, and Roles.

### Prerequisites:

- DBA\_ROLES
- DBA\_USERS
- DBA\_DIRECTORIES
- DBA\_TABLESPACES
- CREATE\_SESSION

---

**Note:** Explicit Grants to the user are required. Grants assigned through Roles are not supported.

---

To execute the schema creator utility in the offline mode, follow these steps:

1. Navigate to the following folder path: OFS\_CA\_Pack/schema\_creator/bin
2. Execute the osc.sh file using the following command:  

```
./osc.sh -o
```
3. The following message is displayed: *You have chosen OFFLINE mode.*
4. Enter the DB Username with SELECT privileges.
5. Enter the User Password.

```

You have chosen OFFLINE mode
=====
Triggering the utility in OFFLINE mode will generate the script. Do you wish to proceed? (Y/y or N/n):
y
=====
Java Validation Started ...
Java found in : /scratch/ofsaajdk1.6.0_25/jre/bin
JAVA Version found : 1.6.0_25
JAVA Bit Version found : 64-bit
Java Validation Completed. Status : SUCCESS
=====
DB specific Validation Started ...
Enter the DB User Name with SELECT privileges on following tables
1. DBA_ROLES
2. DBA_USERS
3. DBA_DIRECTORIES
4. DBA_TABLESPACES
sys as sysdba
Enter the User Password:
Oracle Client version : 11.2.0.3.0. Status : SUCCESS

```

6. The console runs the initial validation checks and displays the following message:  
*You have chosen to install this Application Pack on <Name of the Atomic Schema>ATOMIC schema. Do you want to proceed? (Y/N)*

```

Generating Schema Creation Scripts Started
=====
Checking OFSAA installation...
OFSAA installed not found.
Validating the dat file OFS_AAAI_CFG.dat started...
Successfully validated OFS_AAAI_CFG.dat file
Validating the input XML file.../scratch/ofsaapp/OFS_AAAI_PACK/schema_creator/conf/OFS_AAAI_SCHEMA_IN.xml
XSD validation completed successfully.
=====
Prechecks Execution started on ../OFS_AAAI_SCHEMA_IN.xml
Validating Connection URL ...jdbc:oracle:thin:@ofss220623:1521:MEDIADB
Successfully connected to User - sys as sysdba URL - jdbc:oracle:thin:@ofss220623:1521:MEDIADB
Connection URL successfully validated...
You have chosen to install this Application Pack on "dev_atm14" ATOMIC schema. Do you want to proceed? (Y/N)

```

7. Enter Y to start the script generation.

Or

Enter N if you want to quit the script generation.

```

All the prechecks execution completed successfully.
=====
Generating TableSpace creation Scripts started...
Generating TableSpace creation Scripts completed...
=====
Generating Schema creation scripts started...
CONFID User dev_confid creation script generated successfully on Default TableSpace : USERS on Temp TableSpace : TEMP
Generation of grants creation scripts started...
Generation of grants creation scripts completed...
Scripts Generation for CONFID schema started ...
Scripts Generation for CONFID schema completed ...
User dev_confid details updated into the $master table
User dev_atm14 details updated into the $master table
User dev_atm14 creation script generated successfully on Default TableSpace : USERS on Temp TableSpace : TEMP
User dev_atm14 creation is skipping as the user is already created.
Generating Schema creation scripts completed...
=====
Generating Roles creation Scripts started...
Generating Roles creation Scripts completed...
=====
Generating Grants creation scripts started...
Generating Grants creation scripts completed...
=====
Generating Schema Creation Scripts Completed
=====
Schema Creator executed Successfully. Please execute /scratch/ofsaapp/OFS_AAAI_PACK/schema_creator/sysdba_output_scripts.sql before proceeding with the installation.

```

**Note:** On successful execution of schema creator utility, the console displays the following status message:

*Success. Please execute OFS\_CA\_Pack/schema\_creator/sysdba\_output\_scripts.sql before proceeding with the installation.*

8. Navigate to the directory: OFS\_CA\_Pack/schema\_creator.

9. Login to SQLPLUS with a user having SYSDBA Privileges.

```

$ cd ..
$ sqlplus sys/oracle@MEDIADB as sysdba

SQL*Plus: Release 11.2.0.3.0 Production on Mon Dec 15 12:16:03 2014

Copyright (c) 1982, 2011, Oracle. All rights reserved.

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> @/scratch/ofsaapp/OFS_AAAI_PACK/schema_creator/sysdba_output_scripts.sql
Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

```

10. Execute the sysdba\_output\_scripts.sql file using the following command:

```
SQL>@sysdba_output_scripts.sql
```

Alternatively, you can copy the `sysdba_output_scripts.sql` file and `SQLScripts` folder to a remote server and execute `sysdba_output_scripts.sql` file.

---

---

**Note:** Refer log `sysdba_output_scripts.log` file for execution status. In case of any errors, contact Oracle Support.

---

---

### Executing the Schema Creator Utility in Silent Mode

If you try to run the OFSAA Application Pack Installer in SILENT mode, it is mandatory to execute the schema creator utility with `-s` option.

Follow these steps to execute the utility with `-s` option:

1. Edit the file `OFS_CA_PACK/schema_creator/conf/OFS_CA_SCHEMA_IN.xml` in text editor.

---

---

**Note:** The maximum acceptable length of the infodomain name is 16 characters.

---

---

2. Set the value for attribute "INFODOM" of <SCHEMA> tag(s) to specify a specific Information Domain name. By default, the value is empty and the utility will derive the Information Domain name. If the attribute value is set, the utility/installer will configure the Information Domain against this <SCHEMA>.
3. Execute the utility with `-s` option. For example, `./osc.sh -s`.

---

---

**Note:** If the utility is executed without the `-s` option, it is mandatory to launch the OFSAA Application Pack Installer in GUI mode.

---

---

---

---

**Note:** To execute the utility in OFFLINE mode with SILENT option, type. `./osc.sh -o -s`.

---

---

### Executing the Schema Creator Utility while Installing Subsequent Application Pack

While executing the schema creator utility for subsequent Application Pack, you can choose to install the pack either on the same Information Domain/Atomic Schema or on a new Information Domain/Atomic Schema. You can execute the Schema Creator Utility either in Online or Offline Mode.

To execute the schema creator utility while installing OFS CA Pack over an existing Application pack, follow these steps:

1. Perform the steps 1 to 5 from the [Executing the Schema Creator Utility](#) section.
2. The console identifies the Application Packs that are already installed on the current OFSAA setup and displays the following:
  - Atomic schema of the Existing Application Pack
  - Information Domain Name of the Existing Pack
  - List of Installed Application Packs.

```

$ ./oac.sh
-----
Java Validation Started ...
Java found in : /scratch/ofsaa/jdk1.6.0_25/bin
JAVA Version found : 1.6.0_25
JAVA Bit Version found : 64-bit
Java Validation Completed. Status : SUCCESS
-----
You have chosen ONLINE mode.
Enter the DB User Name With SYSDBA Privileges: sys as sysdba
Enter the User Password:
-----
Schema Creation Started
-----
OFSAAI installation status...
OFSAAI is installed at online
validating the dat file OFS_AAAI_CFG.dat started...
Successfully validated OFS_AAAI_CFG.dat file
Parsing /scratch/ofsaaeh/OFSAAI/conf/TypesetServices.xml
Successfully connected to User - dev_omsf URL - jdbc:oracle:thin:@fas220423:1521:MEDIADB
Validating the input XMC file.../scratch/ofsaaeh/OFS_AAAI_PACK/schema_creator/conf/OFS_AAAI_SCHEMA_IN.xml
XSD validation completed successfully.
-----
Freshcheck Execution started on ...OFS_AAAI_SCHEMA_IN.xml
Validating Connection URL ...jdbc:oracle:thin:@fas220423:1521:MEDIADB
Successfully connected to User - sys as sysdba URL - jdbc:oracle:thin:@fas220423:1521:MEDIADB
Connection URL successfully validated...
The following Application Packs are already installed in this OFSAA setup:

dev_atal-          OFSDFWINFO-          *OFS_BFMD_PACK*

You have selected to install this Application Pack on "dev_atal" ATOMIC schema. To proceed enter (Y/y). To change the selection, enter (N/n). Do you want to proceed? (Y/N)

```

3. Enter Y to start the schema creation.

Or

Enter N if you want to quit executing the schema creation.

---

**Note:** On successful execution of schema creator utility, the console displays the following status message:

*Success. Please proceed with the installation.*

Refer log file in OFS\_CA\_PACK/schema\_creator/logs folder for execution status, if scripts are executed in online mode.

Refer log sysdba\_output\_scripts.log file for execution status, if executed in offline mode.

In case of any errors, contact Oracle Support.

---

## Verifying the Log File

Figure 4–3 Log file

```

ofss222582.in.oracle.com - PuTTY
Skipping the creation of role MANTAS_LOADER_ROLE
Skipping the creation of role DATA_LOADER_ROLE
Skipping the creation of role KDD_ALGORITHM_ROLE
Skipping the creation of role MANTAS_READER_ROLE
Skipping the creation of role KDD_LOADER_ROLE
Skipping the creation of role KDD_ANALYST_ROLE
Skipping the creation of role KDD_MINER_ROLE
Skipping the creation of role DATA_READER_ROLE
Roles creation scripts execution completed ...
-----
Directory creation scripts execution started ...
Directory creation scripts execution completed ...
-----
Grants creation scripts execution started...
Grants creation scripts execution completed...
-----
Schemas Creation Completed
-----
Status : SUCCESS.Please proceed with the installation.
$

```

If schema creation is successful, the console would display an appropriate message. If the schema creation runs into errors, refer the following log file:

- << OFSCA Installer folder >>/<<OFS\_ CA \_PACK >>/schema\_creator/logs/
- <<OFS\_CA >>\_osc\_<timestamp>.log for further details

You may contact Oracle support anytime for assistance.

### Grants

The following grants need to be added:

- grant rqadmin to dev\_rcaconf1;
- grant rqrole to dev\_rcaconf1;

## Running the OFS CA Installer

Follow the instructions in this section to install the OFS CA Application Pack depending on the mode of installation.

This section covers the following topics:

- [Silent Mode Installation](#)
- [GUI Mode Installation](#)

### Silent Mode Installation

In the Silent Mode Installation you must configure the product xml files and follow the instructions in command prompt.



## Configuring OFSAAI\_InstallConfig.xml

Follow these instructions to configure OFSAAI\_InstallConfig.xml file:

1. Log in to the system as non-root user.
2. Identify a directory for installation and set the same in the user .profile file as the following:

```
FIC_HOME=< OFSAA Installation Directory >
export FIC_HOME
```

3. Execute the user .profile.
4. Navigate to the file: OFS\_CA\_PACK/OFS\_AAI/conf/OFSAAI\_InstallConfig.xml
5. Configure the OFSAAI\_InstallConfig.xml as mentioned in the following table:

**Table 4–2 Prerequisite Information**

InteractionVariableName	Significance and Expected Value	Mandatory
<b>&lt;Layer name="GENERAL"&gt;</b>		
WEBAPPSERVERTYPE	Identifies the web application server on which the OFSAA Infrastructure web components would be deployed.  The below numeric value should be set depending on the type: Apache Tomcat = 1 IBM WebSphere Application Server = 2 Oracle WebLogic Server = 3  For example, <InteractionVariable name="WEBAPPSERVERTYPE">3</InteractionVariable>	Yes
DBSERVER_IP	Identifies the hostname or IP address of the system on which the Database Engine is hosted.  Note: For RAC Database , the value should be NA.  For example, <InteractionVariable name="DBSERVER_IP">14.15.16.17</InteractionVariable> or  <InteractionVariable name="DBSERVER_IP">dbhost.server.com</InteractionVariable>  >	Yes

**Table 4–2 (Cont.) Prerequisite Information**

InteractionVariableName	Significance and Expected Value	Mandatory
ORACLE_SID/SERVICE_NAME	Identifies the Oracle DB Instance SID or SERVICE_NAME  Note: The Oracle_SID value should be exactly the same as it is mentioned in JDBC_URL.  For example, <InteractionVariable name="ORACLE_SID/SERVICE_NAME">ofsaser</InteractionVariable>	Yes
ABS_DRIVER_PATH	Identifies the directory where the JDBC driver (ojdbc6.jar) exists. This would typically be the \$ORACLE_HOME/jdbc/lib  For example, <InteractionVariable name="ABS_DRIVER_PATH">"/oradata6/revwb7/oracle</InteractionVariable>	Yes
OLAP_SERVER_IMPLEMENTATION	Identifies if the OFSAA Infrastructure OLAP component needs to be configured depending on whether you intend to use the OLAP feature. The following numeric value should be set depending on the choice: <ul style="list-style-type: none"> <li>• YES - 1</li> <li>• NO - 0</li> </ul>	No
<b>Note:</b> If value for OLAP_SERVER_IMPLEMENTATION is set to 1, it checks for following environment variables are set in .profile:		
SFTP_ENABLE	Identifies if the SFTP (Secure File Transfer Protocol) feature is to be enabled. The below numeric value should be set depending on the choice: <ul style="list-style-type: none"> <li>• SFTP - 1</li> <li>• FTP - 0</li> </ul>	Yes
<b>Note:</b> The default value for SFTP_ENABLE is 1, which signifies that SFTP will be used. Oracle recommends using SFTP instead of FTP because SFTP is considered more secure. However, a client may choose to ignore this recommendation and to use FTP by setting SFTP_ENABLE to 0. This selection may be changed later by using the OFSAAI administration interface.		
FILE_TRANSFER_PORT	Identifies the port used for the file transfer service. The default value specified is 22 (SFTP). Specify value as 21 or any other PORT value if value for SFTP_ENABLE is 0.  For example, <InteractionVariable name="FILE_TRANSFER_PORT">21</InteractionVariable>	Yes

**Table 4–2 (Cont.) Prerequisite Information**

InteractionVariableName	Significance and Expected Value	Mandatory
LOCALE	Identifies the locale information to be used during the installation. This release of the OFSAA Infrastructure supports only US English.  For example, <InteractionVariable name="LOCALE">en_US</InteractionVariable>	Yes
<b>Note:</b> The following ports are used internally by the various OFSAA Infrastructure services. The default values mentioned below are set in the installation. If you intend to specify a different value, update the parameter value accordingly and ensure this port value is in the range of 1025 to 65535 and the respective port is enabled.		
JAVAPORT	9999	Yes
NATIVEPORT	6666	Yes
AGENTPORT	6510	Yes
ICCPORT	6507	Yes
ICCNATIVEPORT	6509	Yes
OLAPPORT	10101	Yes
MSGPORT	6501	Yes
ROUTERPORT	6500	Yes
AMPORT	6505	Yes
<b>&lt;Layer name="OFSAAI_WEB_LAYER"&gt;</b>		
HTTPS_ENABLE	Identifies if the UI should be accessed using HTTP or HTTPS scheme. The default value set is 0. The following numeric value should be set depending on the choice:  <ul style="list-style-type: none"> <li>• Yes - 1</li> <li>• No - 0</li> </ul>	Yes
WEB_SERVER_IP	Identifies the HTTP Server IP/ Hostname or Web Application Server IP/ Hostname, to be used for accessing the UI. This IP would typically be the HTTP Server IP.  If no separate HTTP Server is available, the value should be Web Application Server IP/Hostname.  For example, <InteractionVariable name="WEB_SERVER_IP">10.11.12.13</InteractionVariable>  or  <InteractionVariable name="WEB_SERVER_IP">myweb.server.com</InteractionVariable>	No

**Table 4–2 (Cont.) Prerequisite Information**

InteractionVariableName	Significance and Expected Value	Mandatory
WEB_SERVER_PORT	<p>Identifies the Web Server Port. This would typically be 80 for non SSL and 443 for SSL. If no separate HTTP Server exists, the value should be the port configured for Web Server.</p> <p>Note: The port value will not be accepted as 80 if HTTPS_ENABLE is 1 and as 443, if HTTPS_ENABLE is 0.</p> <p>For example, &lt;InteractionVariable name="WEB_SERVER_PORT"&gt;80&lt;/InteractionVariable&gt;</p>	No
CONTEXT_NAME	<p>Identifies the web application context name which will be used to build the URL to access the OFSAA applications. The context name can be identified from a URL as below:</p> <p>&lt;scheme&gt;://&lt;host&gt;:&lt;port&gt;/&lt;context-name&gt;/login.jsp</p> <p>Sample URL:</p> <p>https://myweb:443/ofsaadev/login.jsp</p> <p>For example, &lt;InteractionVariable name="CONTEXT_NAME"&gt;ofsaadev&lt;/InteractionVariable&gt;</p>	Yes

**Table 4–2 (Cont.) Prerequisite Information**

InteractionVariableName	Significance and Expected Value	Mandatory
WEBAPP_CONTEXT_PATH	<p>Identifies the absolute path of the exploded .ear file on the web application server.</p> <p>For Tomcat, specify the Tomcat directory path till /webapps, such as /oradata6/revwb7/tomcat/webapps/.</p> <p>For WebSphere, enter the WebSphere path as &lt;WebSphere profile directory&gt;/installedApps/&lt;NodeCellName&gt;. For example, /data2/test//WebSphere/AppServer/profiles/&lt;Profile_Name&gt;/installedApps/aix-imfNode01Cell. Where aix-imf is Host name.</p> <p>For WebLogic, provide the WebLogic home directory path as /&lt;WebLogic home directory path&gt;/bea/wlserver_10.3</p> <p><b>Note:</b> For WebLogic, value specified for this attribute is ignored and value provided against attribute WEBLOGIC_DOMAIN_HOME is considered.</p>	Yes
WEB_LOCAL_PATH	<p>Identifies the absolute path to any directory on the web application server that can hold temporary files being uploaded as part of the applications usage.</p> <p><b>Note:</b> In case of a clustered deployment, ensure this path and directory is same on all the nodes.</p>	Yes
WEBLOGIC_DOMAIN_HOME	<p>Identifies the WebLogic Domain Home. Specify the value only if WEBSERVERTYPE is set as 3 (WebLogic).</p> <p>For example, &lt;InteractionVariable name="WEBLOGIC_DOMAIN_HOME"&gt;/home/weblogic/bea/user_projects/domains/mydomain&lt;/InteractionVariable&gt;</p>	No

**Table 4–2 (Cont.) Prerequisite Information**

InteractionVariableName	Significance and Expected Value	Mandatory
OFSAAI_FTPSHARE_PATH	Identifies the absolute path to the directory identified as file system stage area.  Note: 1.The directory should exist on the same system on which the OFSAA Infrastructure is being installed (can be on a separate mount). 2.The user mentioned in APP_SFTP_USER_ID parameter below should have RWX permission on the directory.  For example, <InteractionVariable name="APP_FTPSHARE_PATH">>/oradata6/revwb7/ftpshare</InteractionVariable>	Yes
OFSAAI_SFTP_USER_ID	Identifies the user who has RWX permissions on the directory identified under parameter APP_FTPSHARE_PATH above.	Yes

6. Navigate to the file: `OFS_CA_PACK/conf/OFS_CA_Pack.xml` and select the applications to be enabled.

**For Java 8:** Edit the `VerInfo.txt` file to modify the value for property `JAVA_VERSION` to 1.8. Save the changes and proceed with step 6.

---



---

**Note:** Enter **Yes** in ENABLE tag to enable application.

---



---

### Configure Silent.props

To configure `Silent.props`, follow these steps:

1. The installer folder contains a template file “`Silent.template`”
2. Create a copy of this file and rename the copy as “`Silent.props`”
3. Edit the file “`Silent.props`” and specify the parameters as per the requirements. For details, see [Silent.props](#)

### Silent.props

Silent installation is achieved via a properties file [`Silent.props`] that must be updated with proper values, before attempting to install using the silent mode. The following table lists all the properties that need to be specified:

**Table 4–3 Silent.Props Properties**

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Specify Log Mode	1 = Debug Mode 0= General Mode	Password will be printed in the log file Password will not be printed in the log file. Default is GENERAL
SEGMENT_1_CODE	Specify the Data Management Segment Code	User Input	
APFFTP_LOG_PATH	Specify the Infodom Maintenance log path(to be created) for the new Infodom Please ignore if you are doing installation on an existing information domain	User Input	
DBFTP_LOG_PATH	Specify the Infodom Maintenance log path(to be created) for the new Infodom Please ignore if you are doing installation on an existing information domain	User Input	
UPLOAD_MODEL	Specify whether you want to perform Model Upload	0 = If you have already performed Model Upload and want to skip model upload process 1 = If you want to perform Model Upload	
MODEL_TYPE	Specify whether you want to use the released datamodel or customized datamodel for model upload process	0 = If you want to upload the released datamodel 1 = If you want to upload the customized datamodel	
DATAMODEL_CA_DIRECTORY	Specify the path (CA_DIRECTORY) and file (DATAMODEL) name for the customized datamodel Mandatory only if you want to upload the customized datamodel i.e you have specified MODEL_TYPE=1	User Input	

**Table 4–3 Silent.Props Properties**

Property Name	Description of Property	Permissible values	Comments
ETL_APPSRC_TYPE	Please specify if you want create new ETL App/Src pair or use an existing one.	0 = If you want to create a new ETL app/src pair 1 = If you want to use an existing pair	
ETL_APP_1_DESC	ETL Data Management Application description	User Input	Please give description for the ETL App/Src pair Mandatory if you want to create new ETL app/src pair, that is, you have specified ETL_APPSRC_TYPE = 0
ETL_SRC_1_1_DESC	ETL Data Management source description	User Input	Please give description for the ETL App/Src pair Mandatory if you want to create new ETL app/src pair, that is, you have specified ETL_APPSRC_TYPE = 0
ETL_APP_1_NAME	ETL Data Management Application name	User Input	Specify the ETL Application and Source Name into ETL Area Definitions will be deployed
ETL_SRC_1_1_NAME	ETL Data Management source name	User Input	Specify the ETL Application and Source Name into ETL Area Definitions will be deployed
CIRCA_APPSERVER_ FTP_LOGPATH	Specify the Sandbox	User Input	Infodomain Maintenance log path (to be created) for the Sandbox Infodomain name specified during schema creation. If left blank during schema creation, the default sandbox infodomain name would be "OFSSBXCIRCA"
CIRCA_DBSERVER_ FTP_LOGPATH	Specify the Sandbox	User Input	Infodomain Maintenance log path (to be created) for the Sandbox Infodomain name specified during schema creation. If left blank during schema creation, the default sandbox infodomain name would be "OFSSBXCIRCA"



## Running the installer in Silent Mode

To install the OFSAA Infrastructure in Silent mode, execute the following command:

```
./setup.sh SILENT
```

in the console.

---



---

### Note:

For Java 8: Edit the `VerInfo.txt` file to modify the value for property `JAVA_VERSION` to 1.8.

---



---

## Completing the installation in Silent Mode

On launching the installer in silent mode, the environment check utility is executed. Enter the required information to execute the utility as explained:

**Table 4–4** *Webserver start up options*

Console Prompts	User Inputs
Enter OFSAAI CONFIG Schema user name	Enter the user name for OFSAAI configuration schema.
Enter password	Enter the configuration schema password.
Enter Oracle SID/ SERVICE name	Enter the SID or service name of the Oracle database instance.
The status of each checks performed by the utility is displayed as shown in the figure If the status of the utility is Success, it proceeds with the installation.	

---



---

**Note:** The above table item is asked if environment check utility is executed in the standalone mode.

---



---

**Table 4–5** *Webserver start up options*

Console Prompts	User Inputs
Enter Infrastructure FTP/SFTP password	Enter the password to access Product Staging/Metadata repository directory in the application server.  <b>Note:</b> During installation stage, you need to enter the config schema password again.

1. The OFSAAI License Agreement is displayed as shown in the figure:

```

/scratch/ofsaapp/OFS_AAAI_PACK/bin>ls
install.jar OFSAAI.jar pack_install.bin pack_installsilent.bin setup.sh
/scratch/ofsaapp/OFS_AAAI_PACK/bin>./setup.sh SILENT
FIC_HOME : /scratch/ofsaapp/OFSAAI
Environment check utility started...
=====
Java Validation Started ...
Java found in : /usr/bin
JAVA Version found : 1.6.0_45
JAVA Bit Version found : 64-bit
Java Validation Completed. Status : SUCCESS
=====
Environment Variables Validation Started ...
ORACLE_HOME : /scratch/OracleClient11g/product/11.2.0/client_1
TNS_ADMIN : /scratch/ofsaapp
Environment Variables Validation Completed. Status : SUCCESS
=====
OS specific Validation Started ...
Unix shell found : /bin/ksh. Status : SUCCESS
Total file descriptors : 16240. Status : SUCCESS
Total number of process : 16240. Status : SUCCESS
OS version : 5. Status : SUCCESS
OS specific Validation Completed. Status : SUCCESS
=====
DB specific Validation Started ...
Oracle Client version : 11.2.0.3.0. Status : SUCCESS
CREATE SESSION has been granted to user. Status : SUCCESS
CREATE PROCEDURE has been granted to user. Status : SUCCESS
CREATE VIEW has been granted to user. Status : SUCCESS
CREATE TRIGGER has been granted to user. Status : SUCCESS
CREATE MATERIALIZED VIEW has been granted to user. Status : SUCCESS
CREATE TABLE has been granted to user. Status : SUCCESS
CREATE SEQUENCE has been granted to user. Status : SUCCESS
SELECT privilege is granted for V_nls_parameters view. Current value : SELECT.
Status : SUCCESS
NLS_LENGTH SEMANTICS : BYTE. Current value : BYTE. Status : SUCCESS
NLS_CHARACTERSET : AL32UTF8. Current value : AL32UTF8. Status : SUCCESS
SELECT privilege is granted for V_$parameter view. Current value : SELECT. Stat
us : SUCCESS
Open cursor value is greater than 1000. Current value : 1200. Status : SUCCESS
SELECT privilege is granted for USER_TS_QUOTAS view. Current value : SELECT. St
atus : SUCCESS
Schema is granted with at least 500 MB table space. Current value : 10239.60113
52539063 MB. Status : SUCCESS
Oracle Server version Current value : 11.2.0.3.0. Status : SUCCESS
DB specific Validation Completed. Status : SUCCESS
=====
Environment check utility Status : SUCCESS
=====

```

2. Accept the License Agreement

**Table 4-6 Webservice start up options**

Console Prompts	User Inputs
Are you accepting the terms and conditions mentioned above? [Y/N]	Enter Y if you accept the license agreement and want to proceed with installation.

**Table 4–6 (Cont.) Webserver start up options**

Console Prompts	User Inputs
Enter password for default Infrastructure administrator user SYSADMN	Enter the password for the System Administrator.
Re-enter password for default Infrastructure administrator user SYSADMN	Enter the same password again to confirm its validity.
Enter password for default Infrastructure authorizer user SYSAUTH	Enter the password for the System Authorizer.
Enter password for default Infrastructure authorizer user SYSAUTH	Enter the same password again to confirm its validity.

---

**Note:** SYSADMN and SYSAUTH are the two default OFSAAI administrative users created.

---



---

**Note:** The installation process continues on the console. Do not close the console until the installation process is complete.

---

## GUI Mode Installation

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**Note:** Ensure you have followed the steps as mentioned in the [Configuration for GUI Mode Installation](#) section prior to proceeding with the next steps

---

1. Log in to the system as non-root user.
2. Identify a directory for installation and set the same in the user .profile file as the following:

```
FIC_HOME=<ofsaa_install_dir>
export FIC_HOME
```
3. Execute the user .profile.
4. Navigate to the path: OFS\_CA\_PACK/bin
5. To install OFS CA Application Pack on Java 8, edit the VerInfo.txt file to modify the value for property JAVA\_VERSION to 1.8. Save the changes and proceed with step 6.
6. Execute ./setup.sh GUI in the console.

---

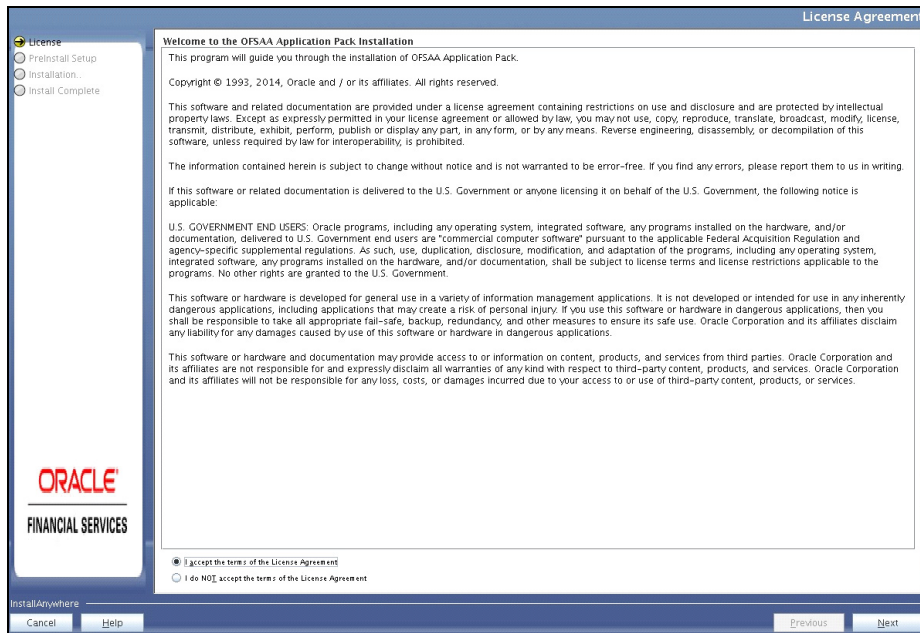
**Note:** Refer the console for any errors during Pre-install checks.

---

**Figure 4–4 Initialization Window**

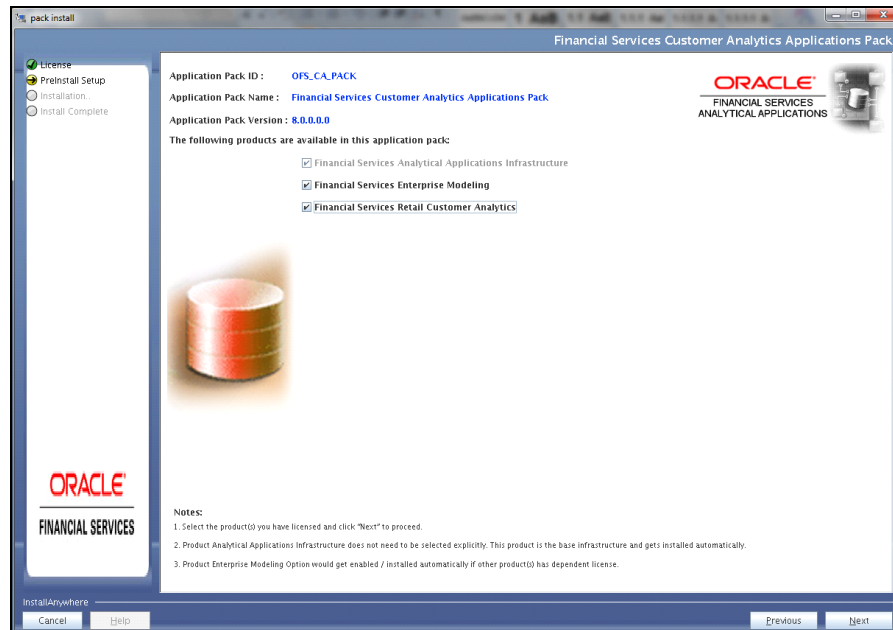


**Figure 4–5 License Agreement**

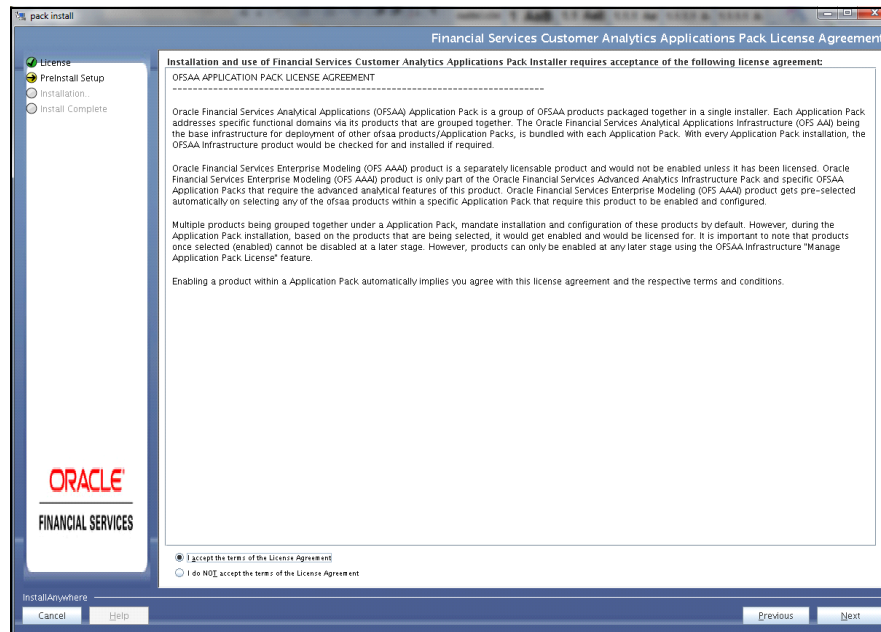


7. Select **I accept the terms if the License Agreement** option.
8. Click **Next**.

The Financial Services Customer Analytics Application Pack details are displayed.

**Figure 4–6 Application Pack Details**

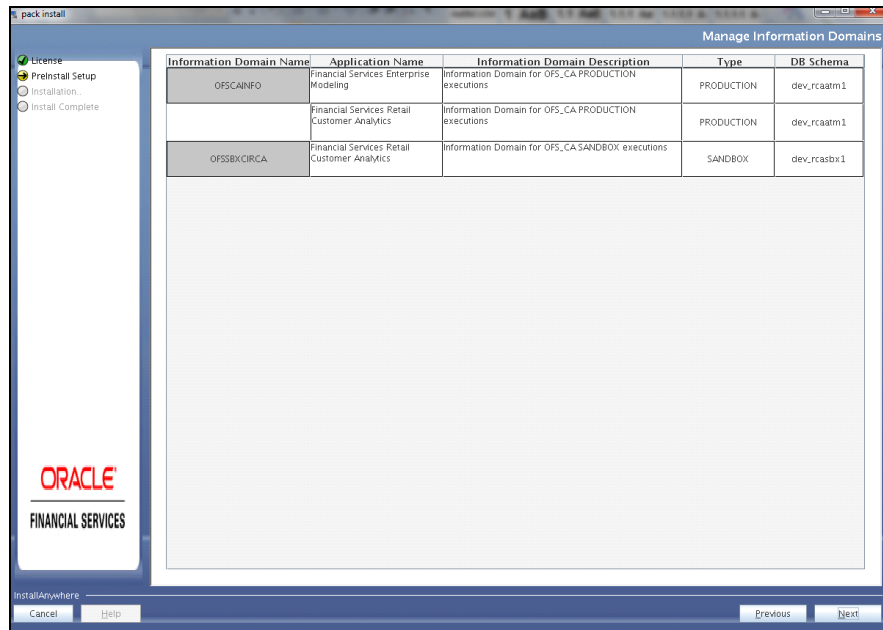
9. Select the product to enable for which you have already obtained license.
10. Click **Next**. The License Agreement page is displayed.

**Figure 4–7 License Agreement page**

11. Select **I accept the terms of the License Agreement** option.
12. Click **Next**.

The Manage Information Domain page is displayed.

**Figure 4–8** Manage Information Domain page



13. Edit the Information Domain Name if it is a new Information domain or if you want to change the name of the information domain name.

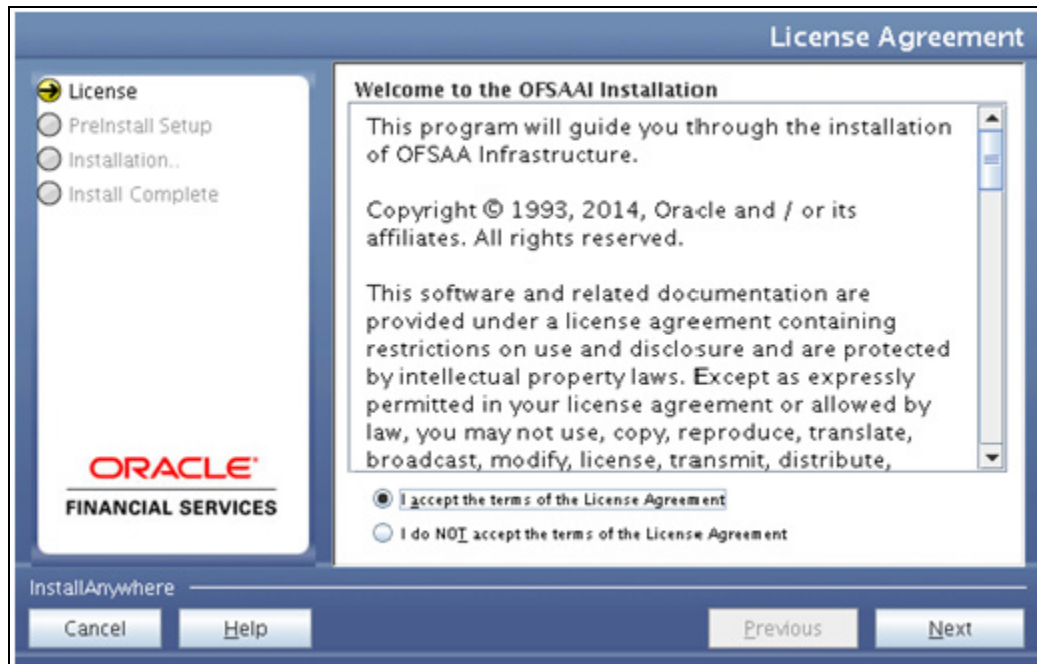
---

**Note:** In case of subsequent Application Pack installation on the same Information Domain, you cannot edit the name.

---

14. Click **Next**. The License Agreement window is displayed.

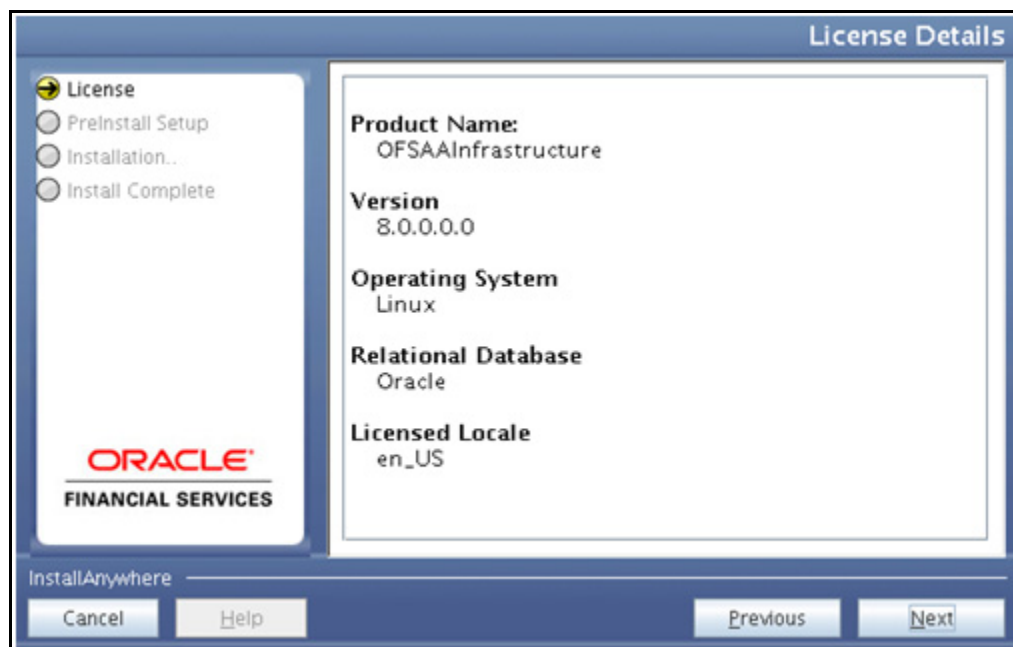
Figure 4–9 License Agreement Window



15. Select **I accept the terms of the License Agreement** option.

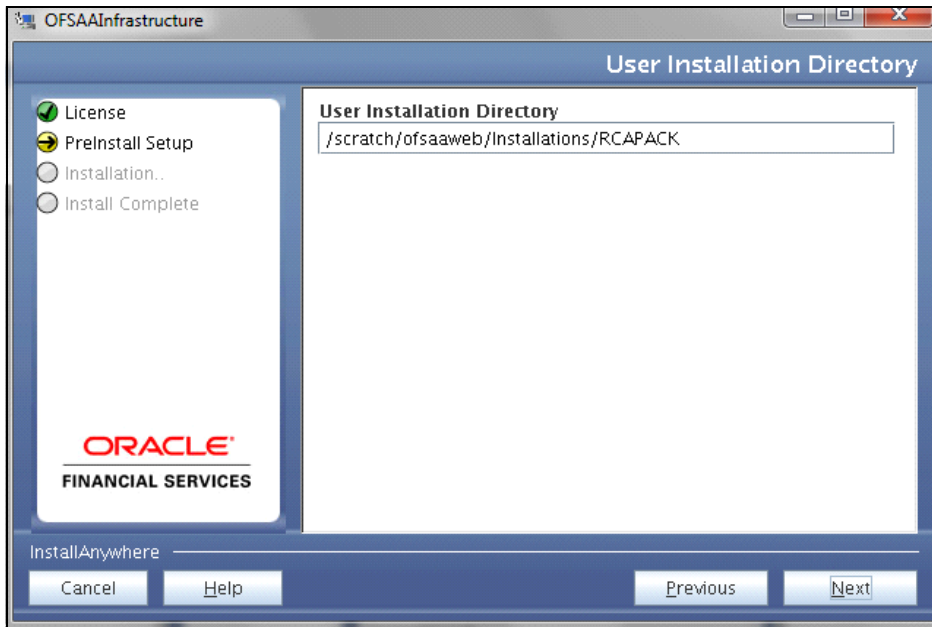
16. Click **Next**. The License Details page is displayed.

Figure 4–10 License Details Page



17. Click **Next**. The User Installation Directory window is displayed.

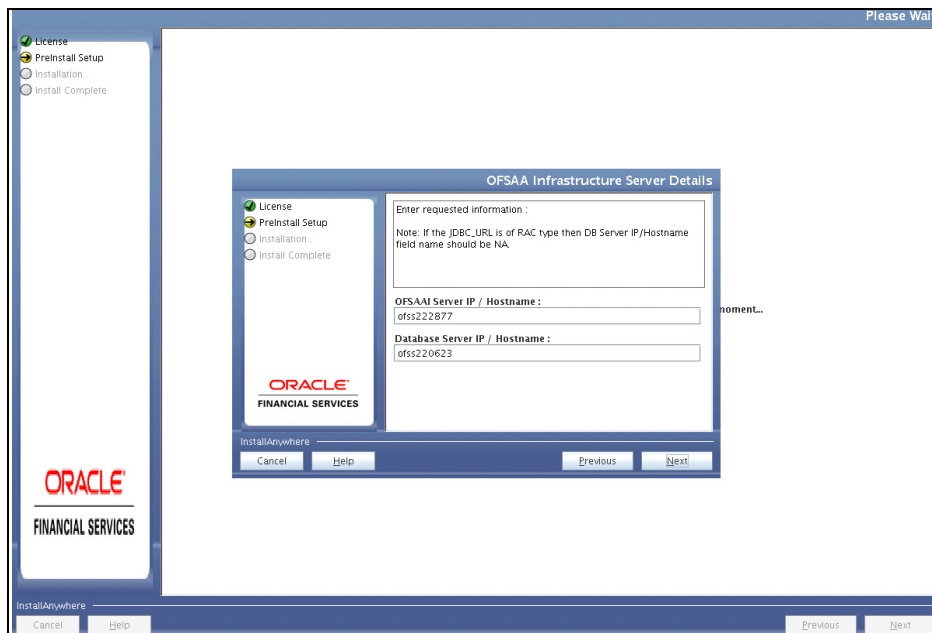
**Figure 4–11 User Installation Directory**



**Note:** The User Installation Directory path is auto-populated from the path you have set in the user .profile file in step 2.

18. Click **Next**. The OFSAA Infrastructure Server Details window is displayed.

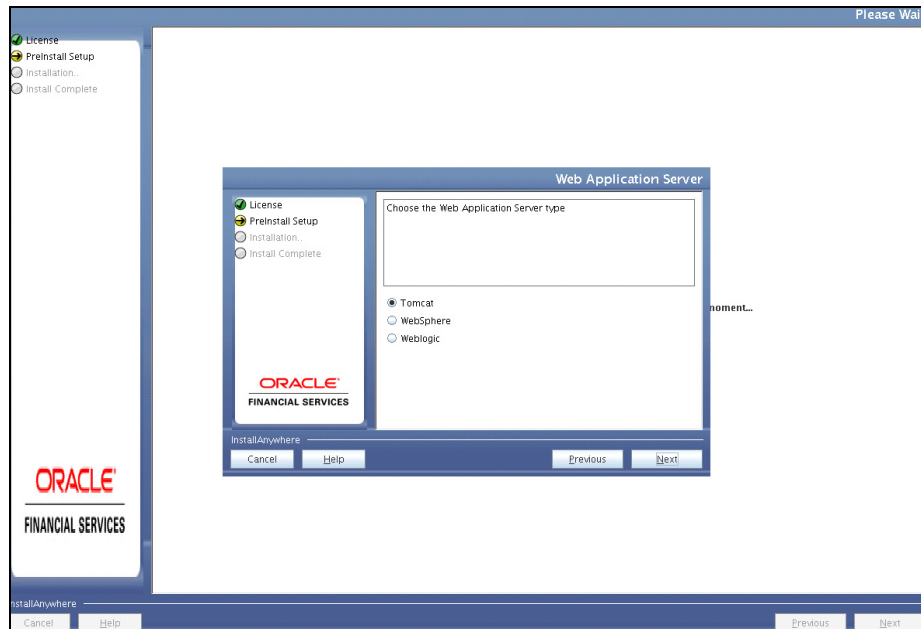
**Figure 4–12 OFSAA Infrastructure Server Details**



19. Enter the IP address or hostname of the OFSAAI server and Database server.

20. Click **Next**. The *Web Application Server* window is displayed.

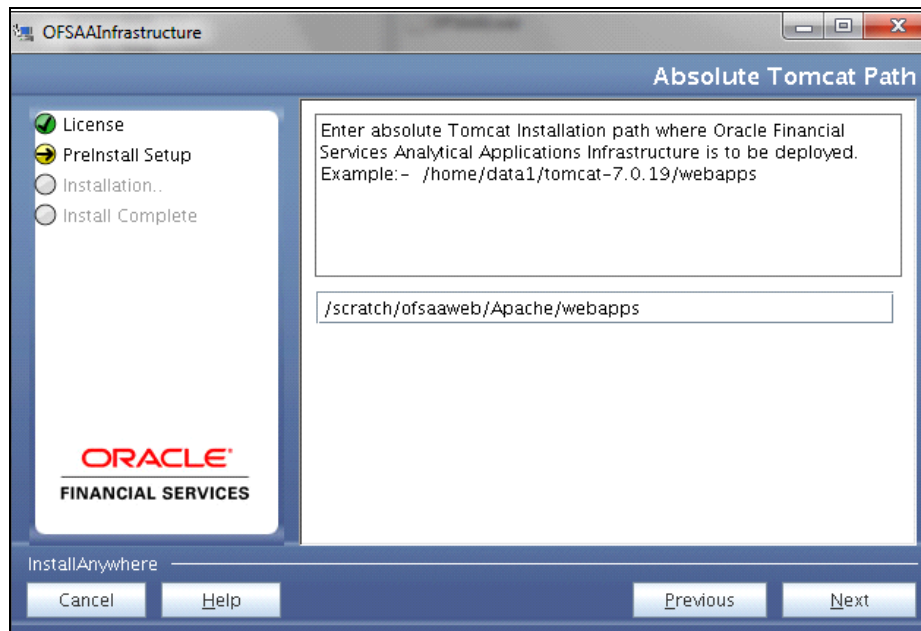


**Figure 4–13 Web Application Server**

21. Select the appropriate Web Application server type. The options are Tomcat, WebSphere, and WebLogic.

22. Click **Next**. Based on the selection, corresponding screens are displayed.

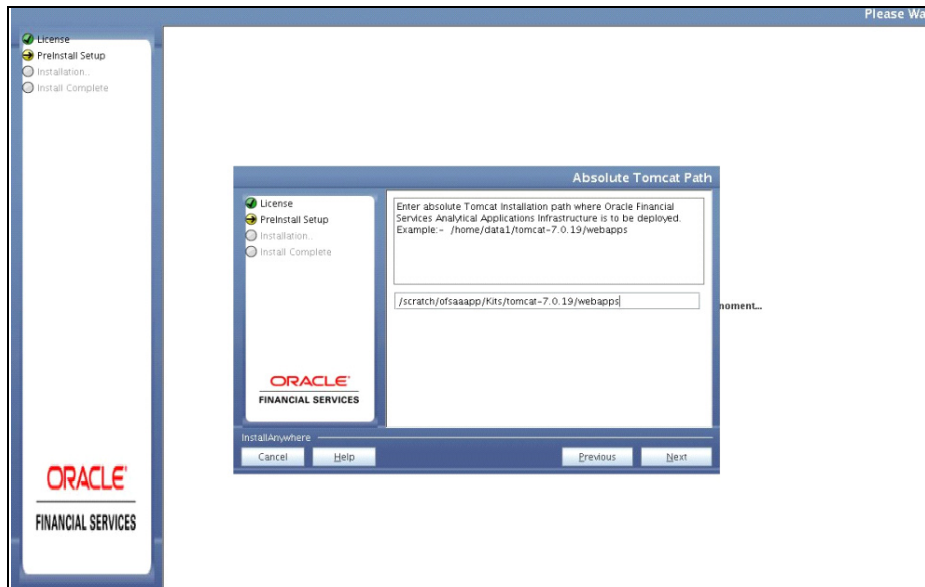
**For Tomcat:** The Absolute Tomcat Path window is displayed.

**Figure 4–14 Absolute Tomcat Path**

23. Enter the Tomcat installation path (till/webapps) where OFSAAI will be deployed.

**For WebSphere:** The WebSphere Setup Details window is displayed.

**Figure 4–15 WebSphere Setup Details**



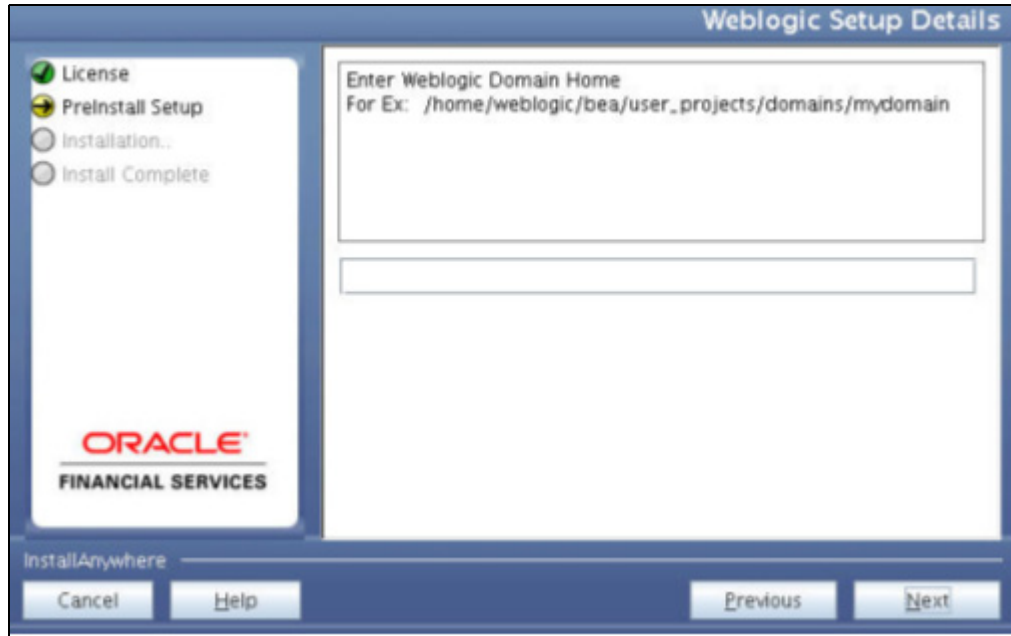
24. Enter the installation path (up to the host name directory) of the WebSphere. The format is WebSphere path <WebSphere profile directory>/installedApps/<NodeCellName>.

**For WebLogic:** The Weblogic Home window is displayed.

**Figure 4–16 Weblogic Home**

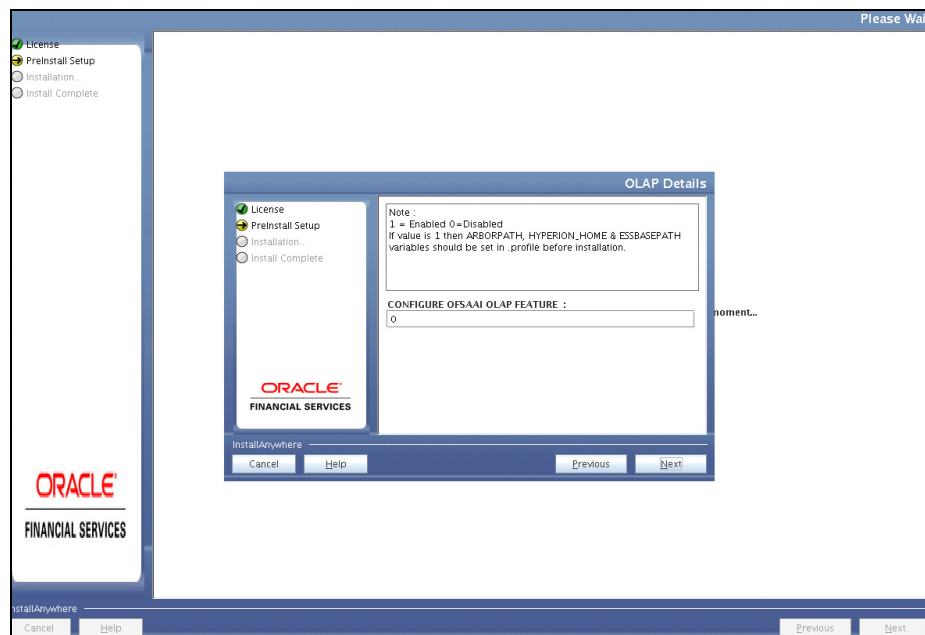


25. Enter the WebLogic home directory path.



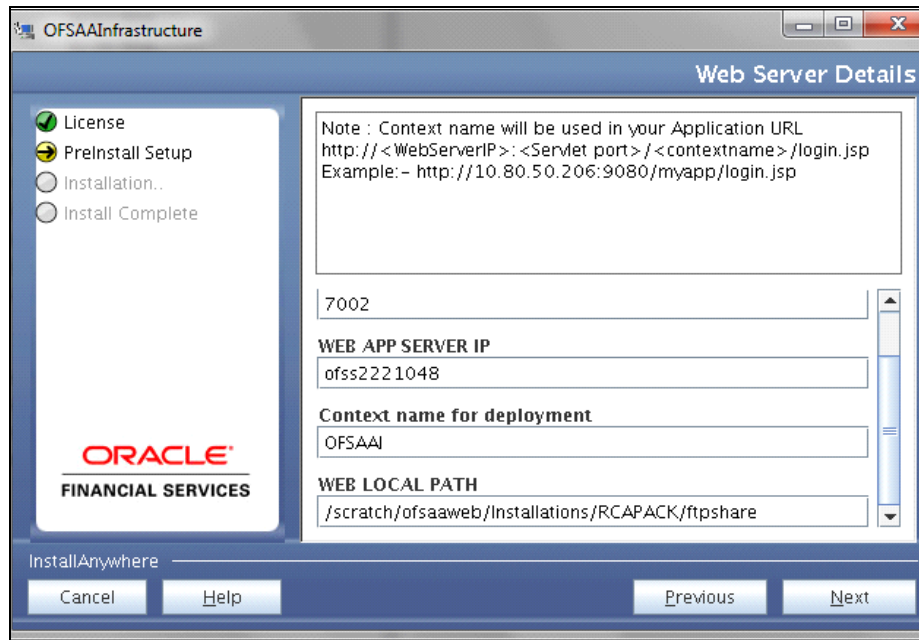
26. Enter the path of the Weblogic domain home directory and click **Next**. The OLAP Details window is displayed.

**Figure 4-17 OLAP Details**



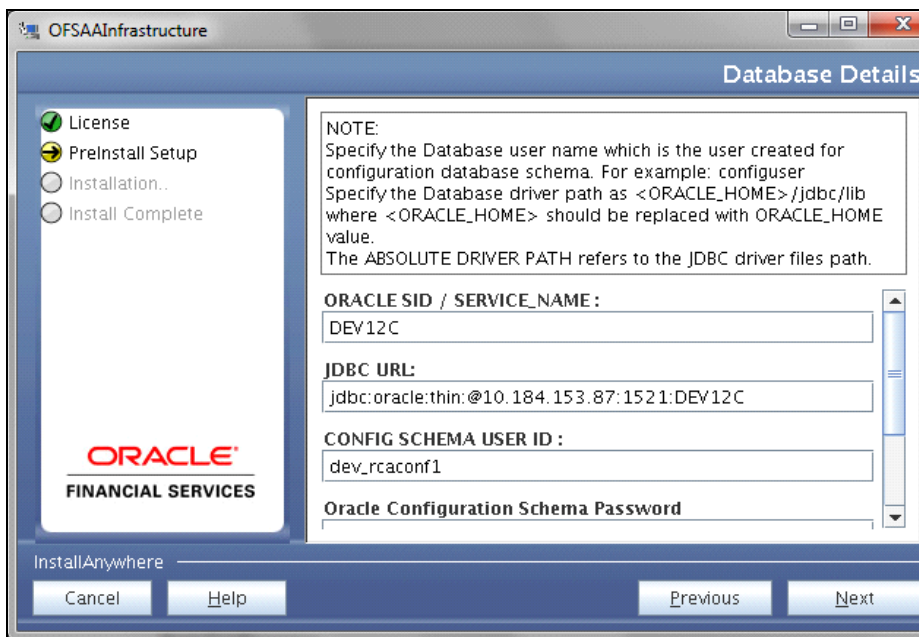
27. Enter 1 if you want to configure OFSAAI OLAP feature. By default, 0 is displayed.
28. Click **Next**. The Web Server Details window is displayed.

**Figure 4–18 Web Server Details**



29. Select **Enable HTTPS** checkbox to configure HTTPS.
30. Enter Web Server (HTTP Server) Port, Web App Server (HTTP Server) IP address, context name for deployment and the local path to any folder on the Web Application Server (Tomcat/ Websphere/ Weblogic).
31. Click **Next**. The Database Details window is displayed.

**Figure 4–19 Database Details**



32. Enter Oracle SID/Service Name, JDBC URL, Configuration Schema User ID and Password, and Absolute Driver Path.

---

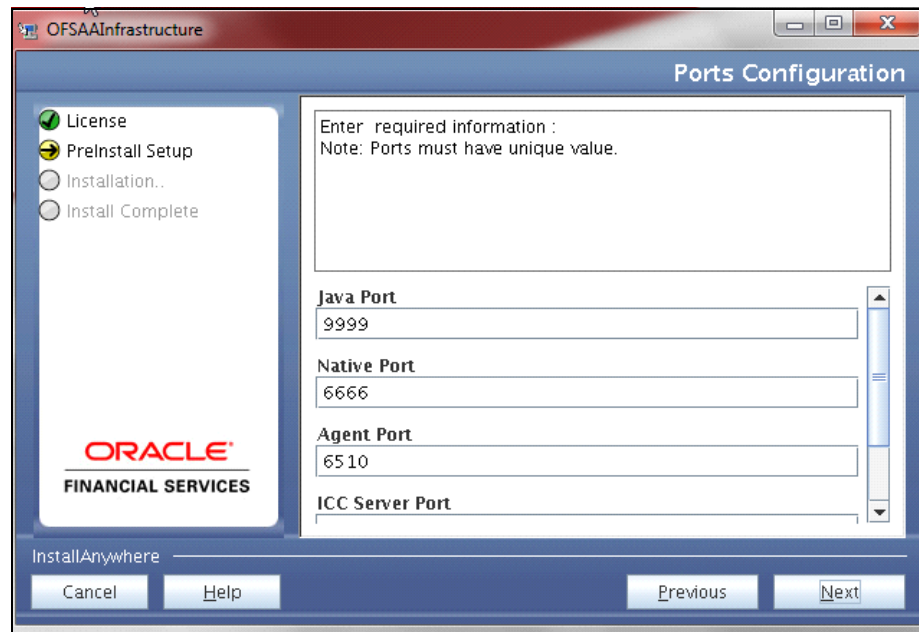
**Note:**

Absolute Driver Path can be the path where Oracle DB client is installed or JDBC driver is installed. For example,  
`/scratch/oracle/app/oracle/product/11.2.0/client_1/jdbc/lib`

---

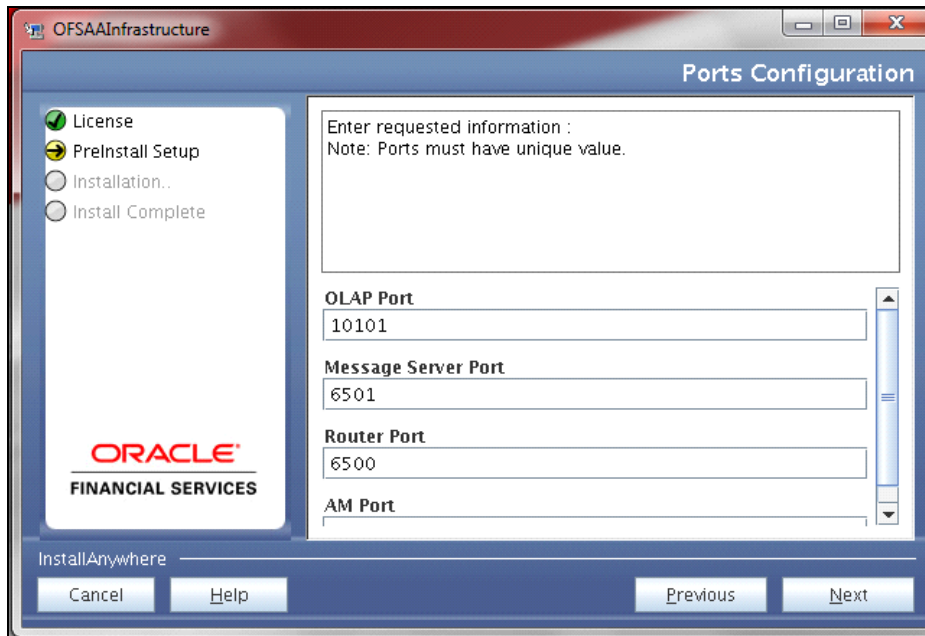
33. Click **Next**. The Ports Configuration window is displayed.

**Figure 4–20 Ports Configuration**



34. Enter the Java Port, Native Port, Agent Port, ICC Server Port, and ICC Native Ports. You can proceed with the default port values configured.
35. Click **Next**. The Ports Configuration window is displayed.

**Figure 4–21 Ports Configuration**



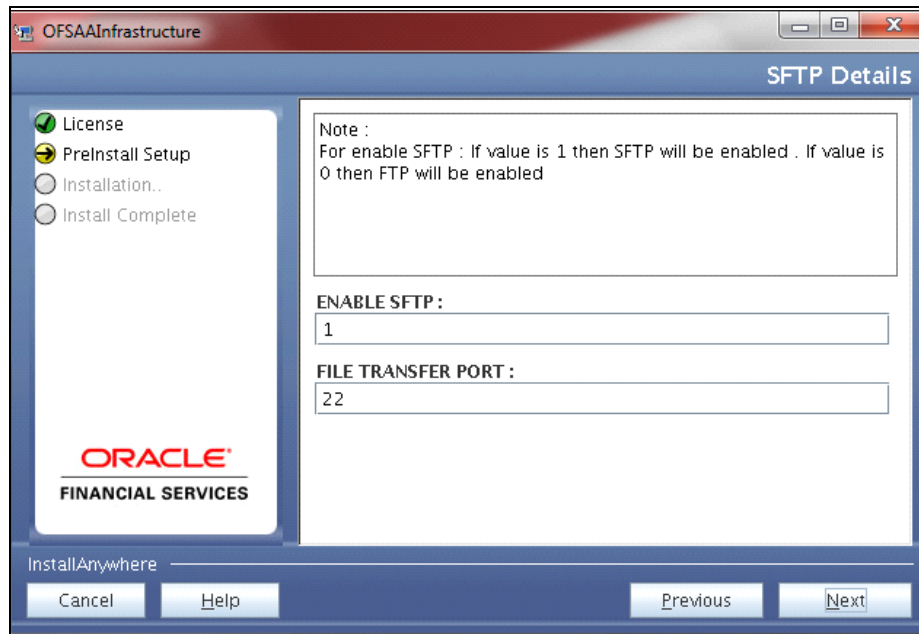
36. Enter OLAP Port, Message Server Port, Router Port, and AM Port.
37. Click **Next**. The Default Infrastructure Administrator and Authorizer User Password window is displayed.

**Figure 4–22 Default Infrastructure Administrator and Authorizer User Password**



38. Enter the passwords for default System Administrator and System Authorizer users.
39. Click **Next**. The SFTP Details window is displayed.

Figure 4–23 SFTP Details



40. Enter 1 to enable SFTP or 0 to enable FTP.

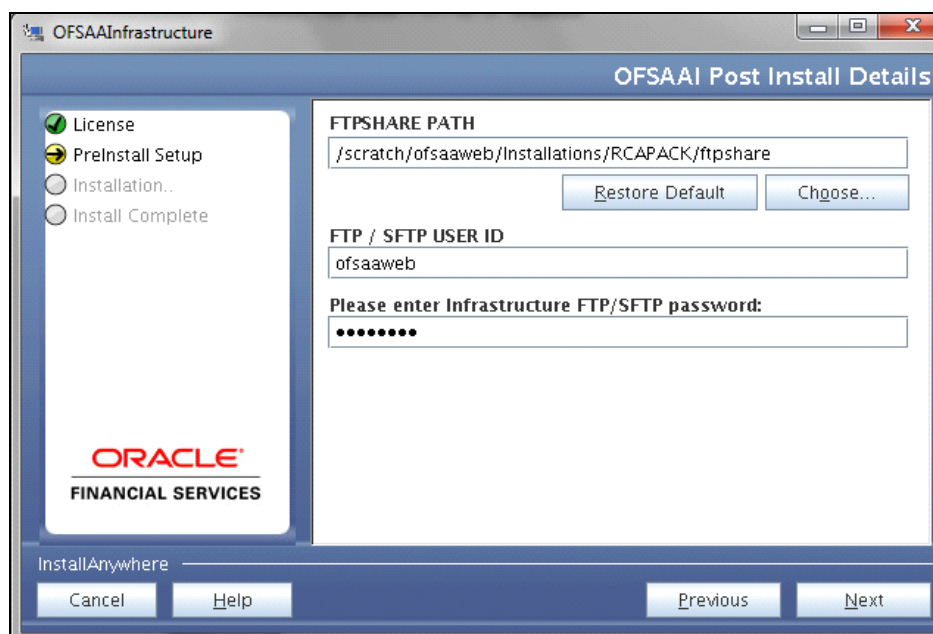
---

**Note:** Ensure the system on which the OFSAA Infrastructure is being installed, has either FTP/SFTP enabled.

---

41. Enter the port to be used for file transfer.
42. Click **Next**. The OFSAAI Post Install Details window is displayed.

Figure 4–24 OFSAAI Post Install Details



43. Enter the FTPSHARE Path, FTP/SFTP User ID and Password for OFSAAI Server.

---

---

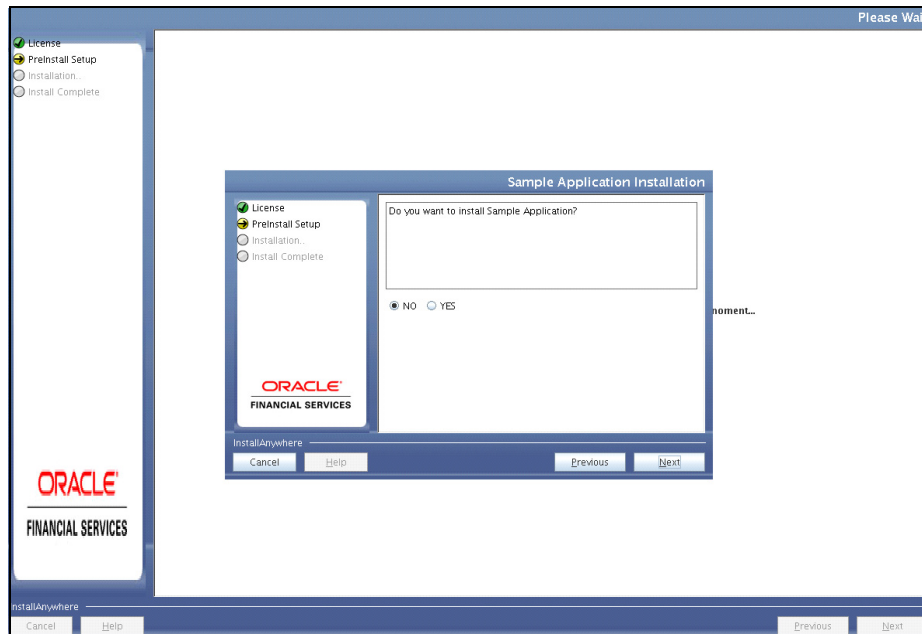
**Note:** The transfer of data (files) between the OFSAAI Server and the Web Application Server happens over FTP/SFTP. Ensure the necessary host configurations are made for a successful handshake.

---

---

44. Click **Next**. The Sample Application Installation window is displayed.

**Figure 4–25 Sample Application Installation**



45. Select **Yes** if you want to install Sample Application.

---

---

**Note:** Ensure the appropriate DB schemas are created for holding the Sample Application data. See Database User/ SchemaDatabase User/ Schema Database User/ Schema section.

---

---

46. Click **Next**. The Pre Installation Summary window is displayed.

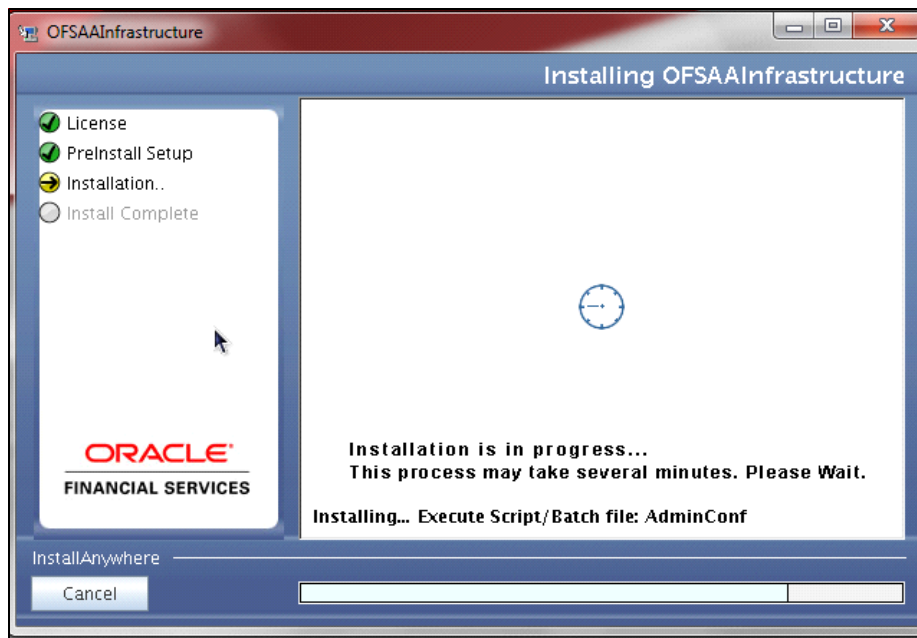


Figure 4–26 Pre Installation Summary



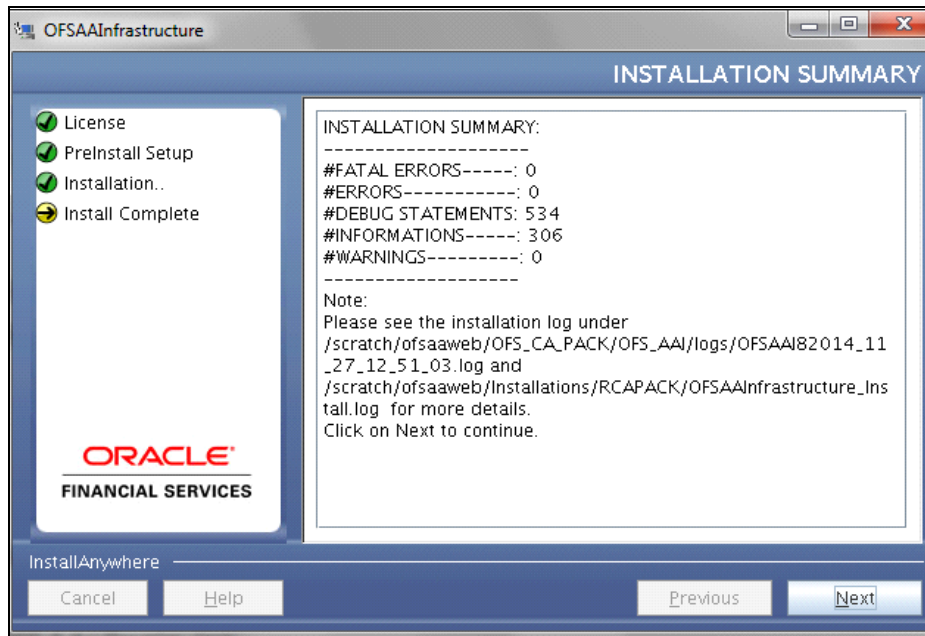
47. Click **Install**. The Installing OFSAA Infrastructure window is displayed.

Figure 4–27 Installing OFSAA Infrastructure



Anytime during the installation you can click **Cancel** to stop the installation. Once completed, the Installation Summary window is displayed.

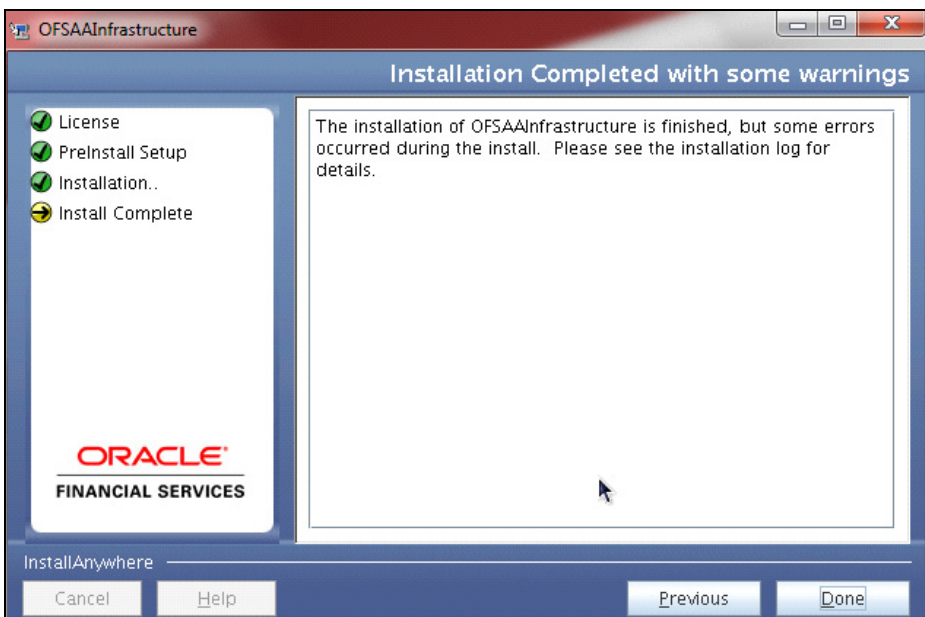
**Figure 4–28 Installation Summary**



The Summary window displays the number of Fatal Errors, Errors, Debug Statements, Informations, and Warnings along with the location of log files.

48. Click **Next**. The Installation Complete window is displayed.

**Figure 4–29 Installation Complete**



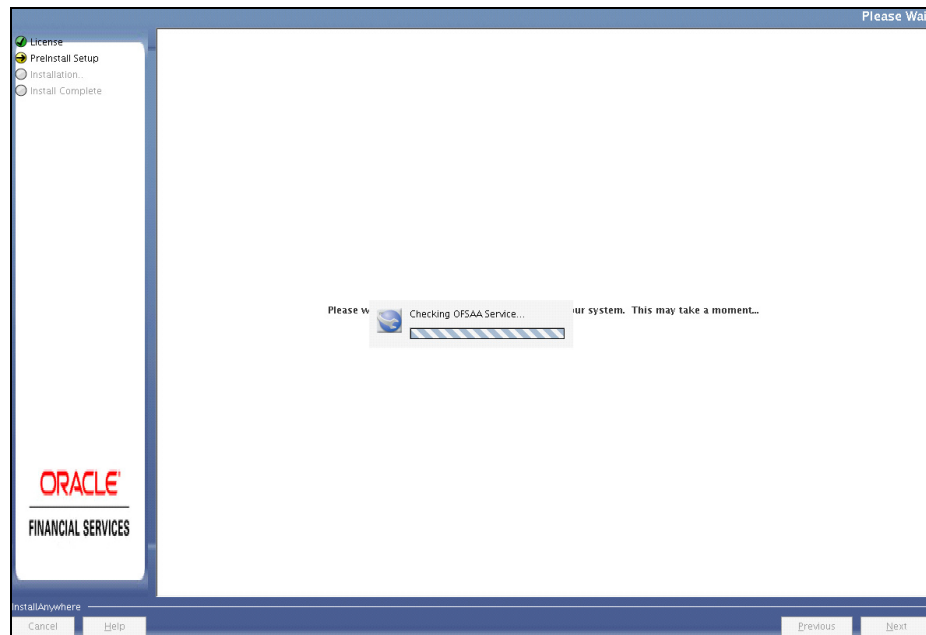

---

**Note:** If the installation is successful with some warnings, you can navigate to the installation log for more details and address them.

---

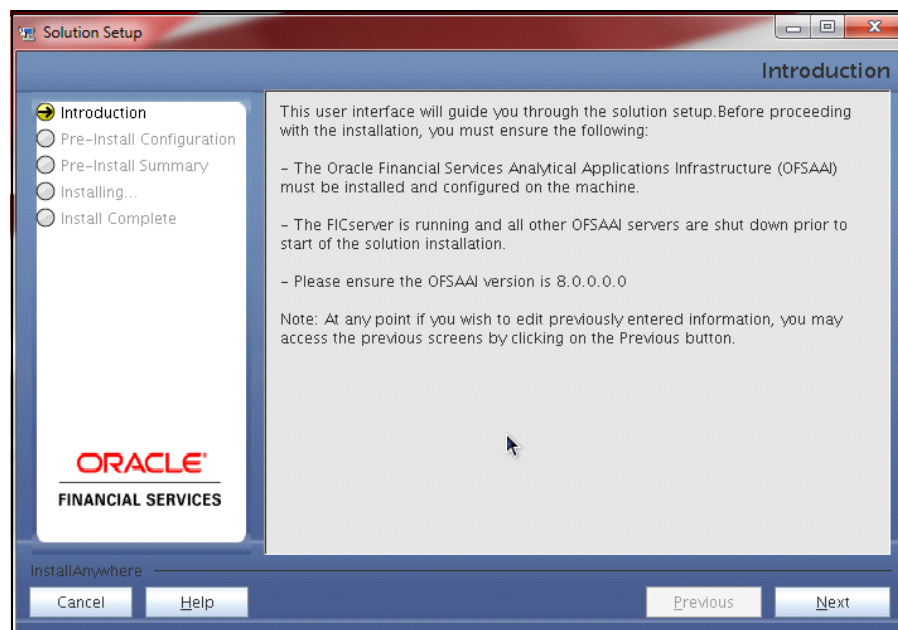
49. Click **Done**. The following message is displayed: *Please wait, pack\_install is being configured for your system. This may take a moment.*

**Figure 4–30** *Checking OFSAAI Services*



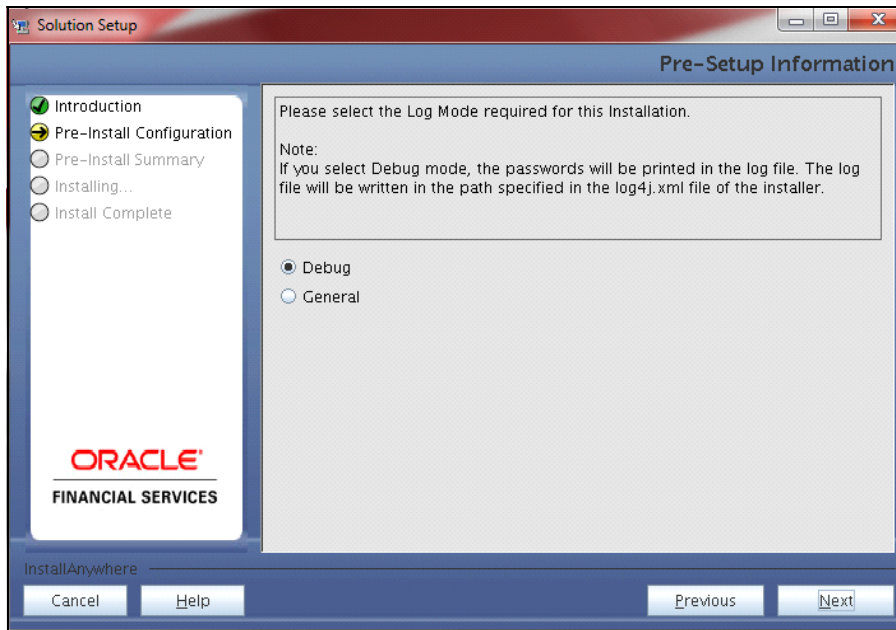
50. The Installer will prepare to install Oracle Financial Services Customer Analytics Application Pack.
51. The Solution Setup - Introduction window is displayed.

**Figure 4–31** *Solution Setup Introduction Window*



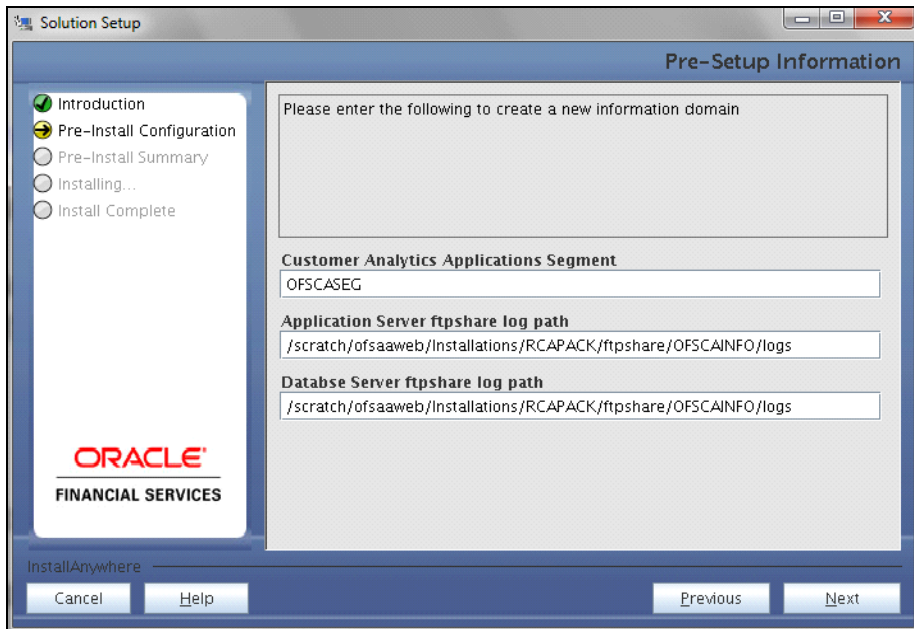
52. Click **Next**. The Log mode window is displayed. Select the Log Mode.

**Figure 4–32 Log Mode Window**



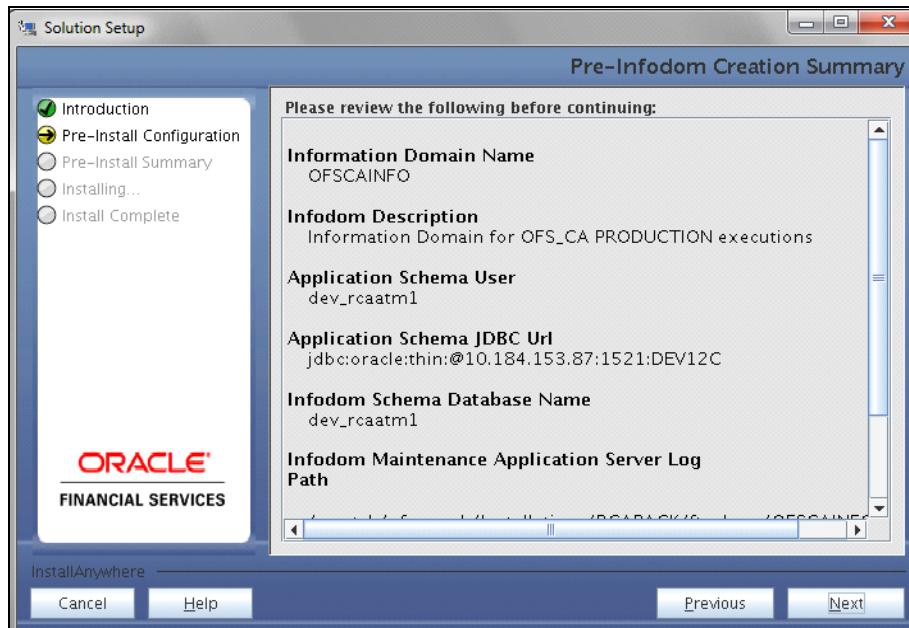
53. Click **Next**. The Segment creation window is displayed. Enter the log paths.

**Figure 4–33 Segment Creation Window**



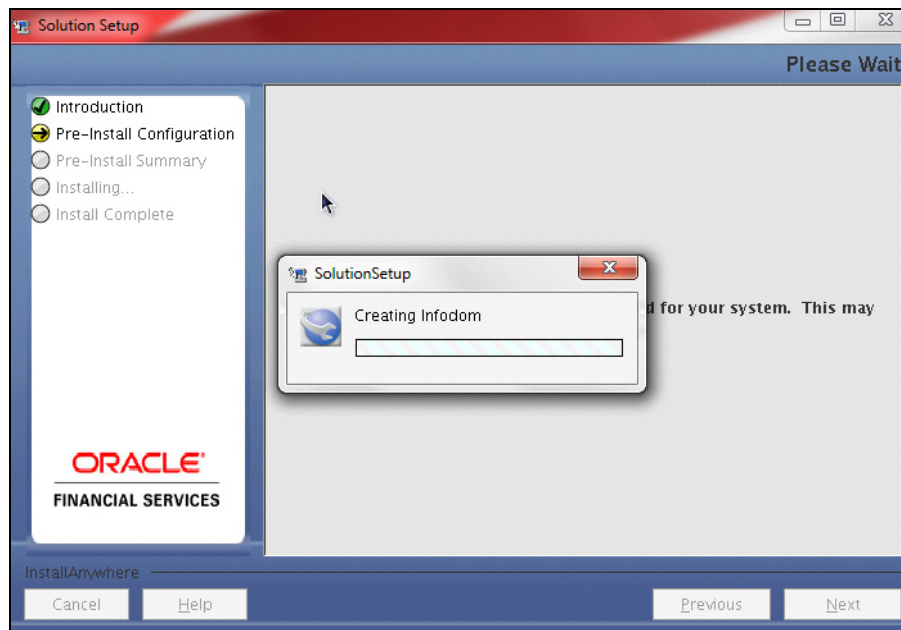
54. Click **Next**. The Pre-Infodom Creation Summary window is displayed.

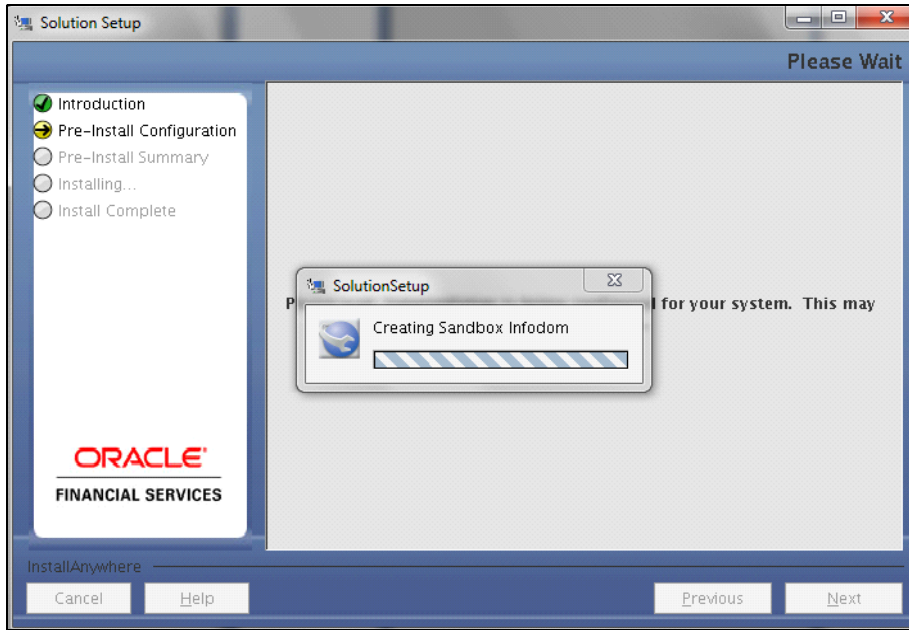
Figure 4–34 Pre-Infodom Creation Summary window



55. Click **Next**. The Infodom creation window is displayed.

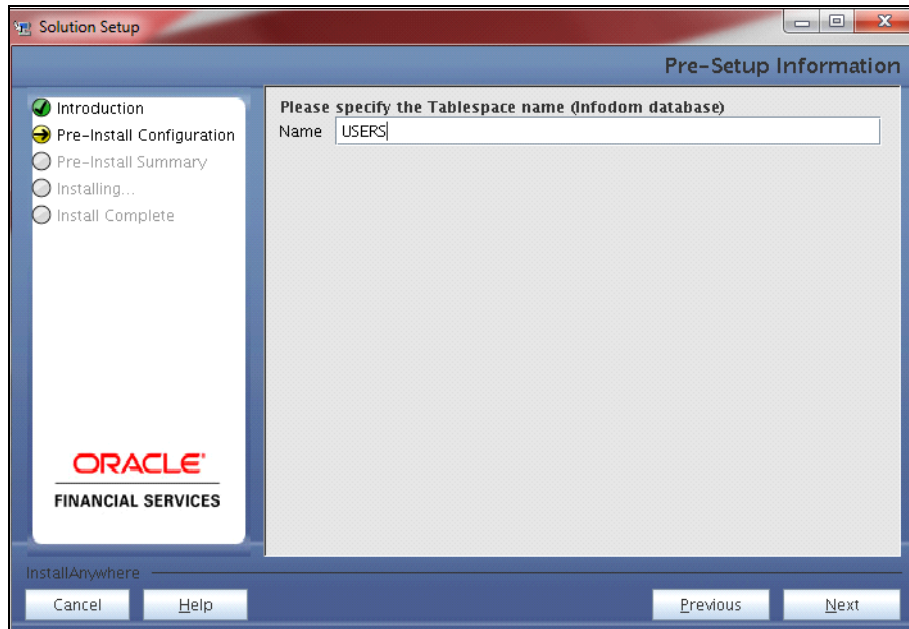
Figure 4–35 Infodom creation Window



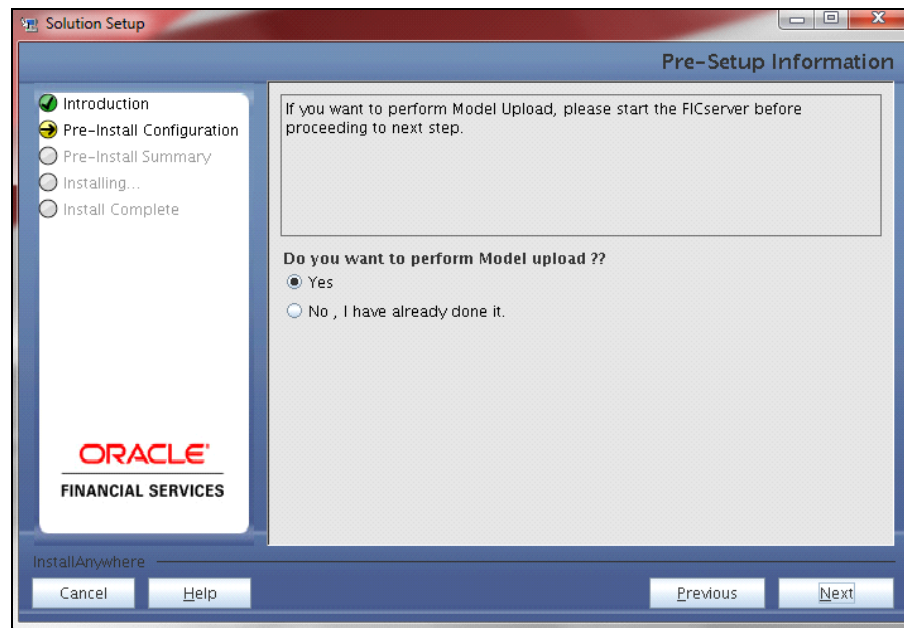


56. After creation of infodom, the Tablespace specification window is displayed.

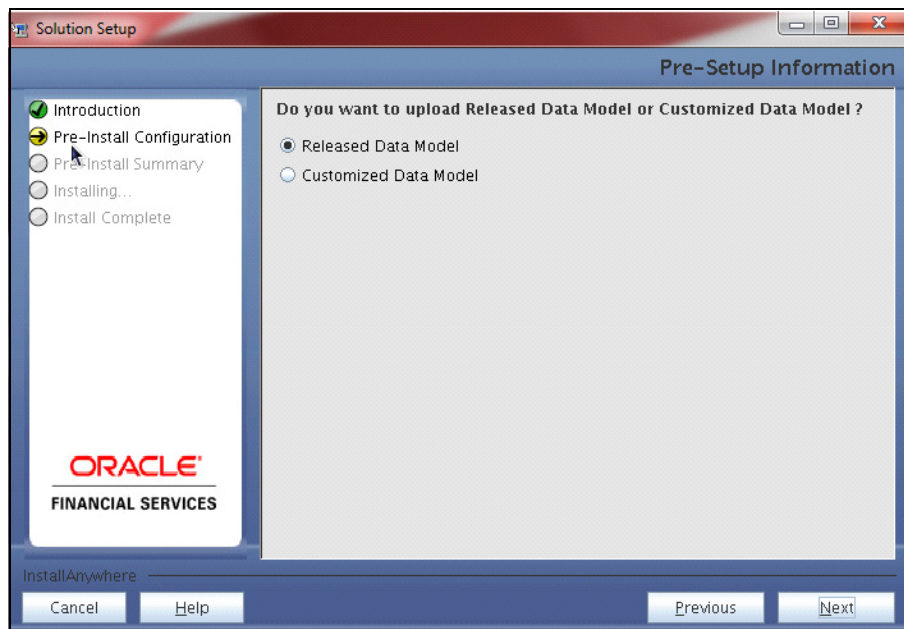
**Figure 4-36 Tablespace Specification Window**



57. Click **Next**. The Model Upload Window is displayed

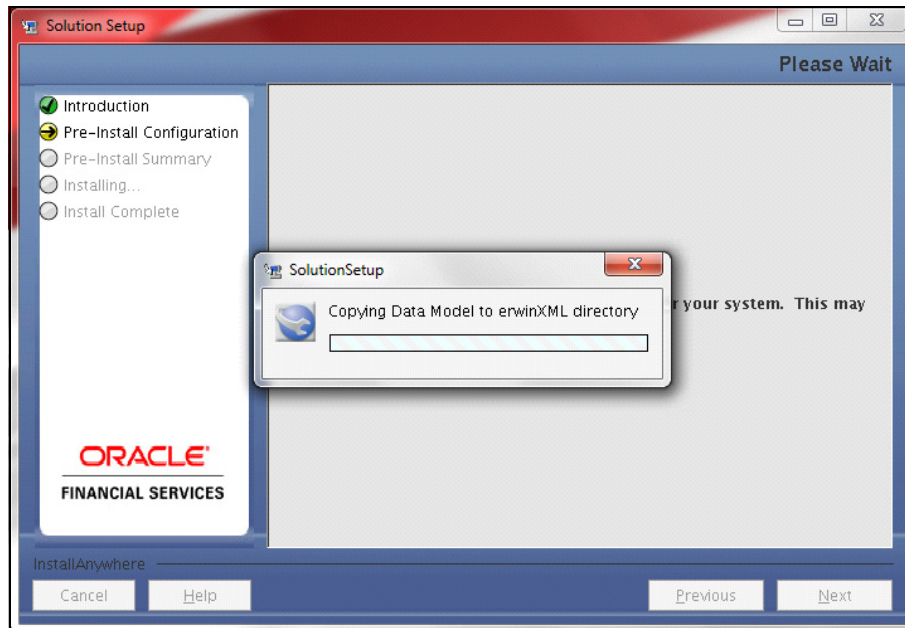
**Figure 4–37 Model Upload Window**

58. Select **Yes** and click **Next**. The Model Type window is displayed.

**Figure 4–38 Model Type Window**

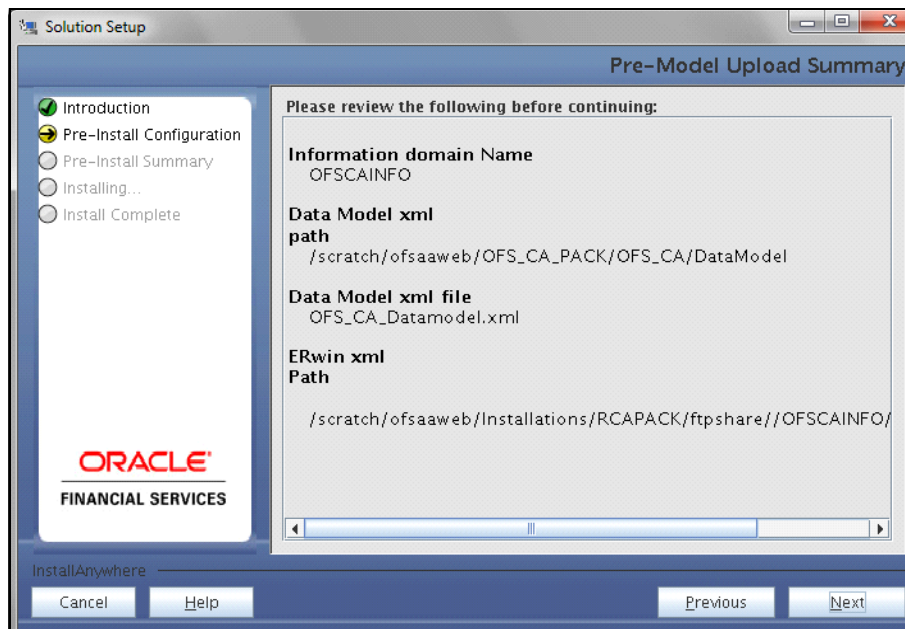
59. Select **Released Data Model** and click **Next**. The Model is copied into ftpshare.

**Figure 4–39 Model Copy Window**



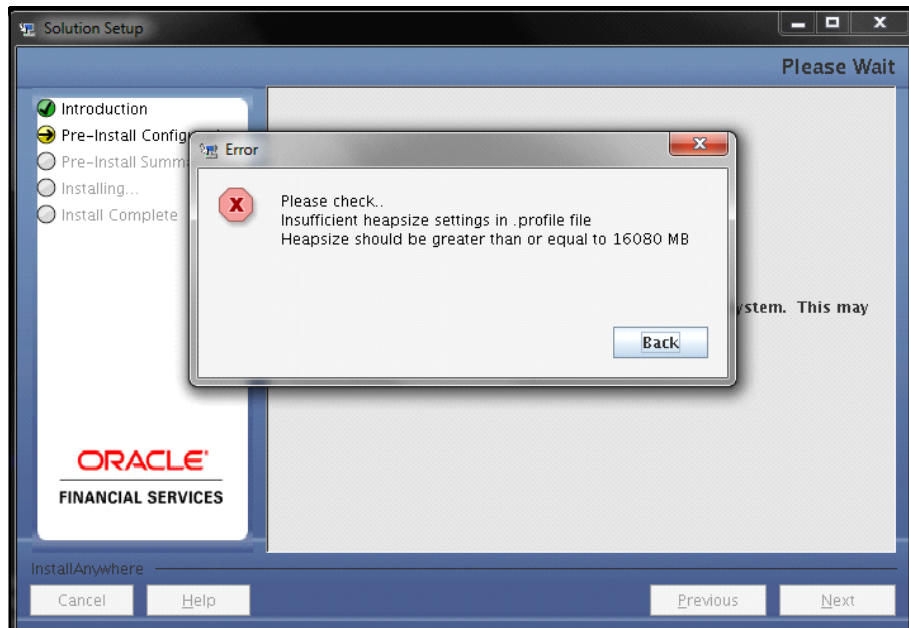
60. The Model Review Window is displayed.

**Figure 4–40 Model Review Window**



61. Click **Next**. It will check for the Heap Memory Warning. The Model Heap Memory Warning Window is displayed.



**Figure 4–41 Model Heap Memory Warning Window**

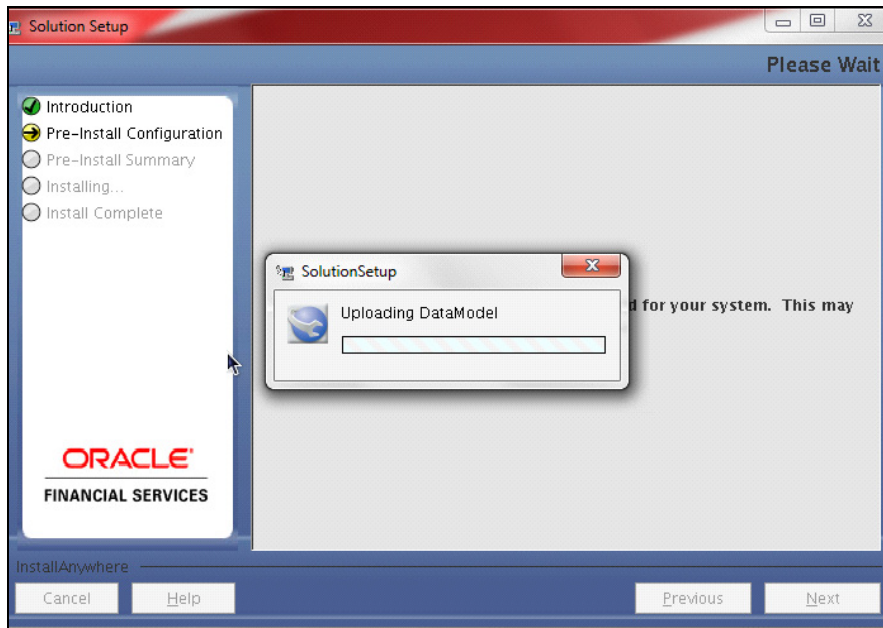
**62.** Click **Back**. Update your `.profile` entry with required heap memory size.

- Open a new session in Putty
- Shutdown Reveleus server using `$FIC_HOME/ficapp/common/FICServer/bin/stopofsaai.sh`
- Update the `X_ARGS_APP` entry in `.profile`. Following is an example:
 

```
X_ARGS_APP="-Xms2g -Xmx18g -XX:+UseAdaptiveSizePolicy
-XX:MaxPermSize=1024M -XX:+UseParallelOldGC
-XX:+DisableExplicitGC"
```
- Run `.profile`
- Start Reveleus using `$FIC_HOME/ficapp/common/FICServer/bin/startofsaai.sh`
- Proceed for model Upload by clicking **Next**

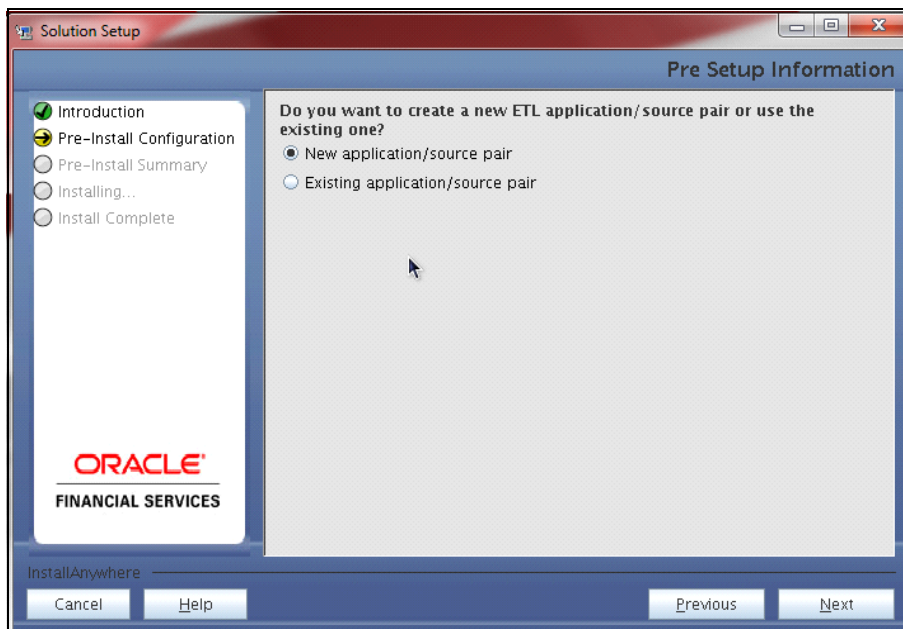
**63.** Click **Next** again. The Upload starts. This takes an approximate time of 3 Hours.

**Figure 4–42 Model Upload Window**

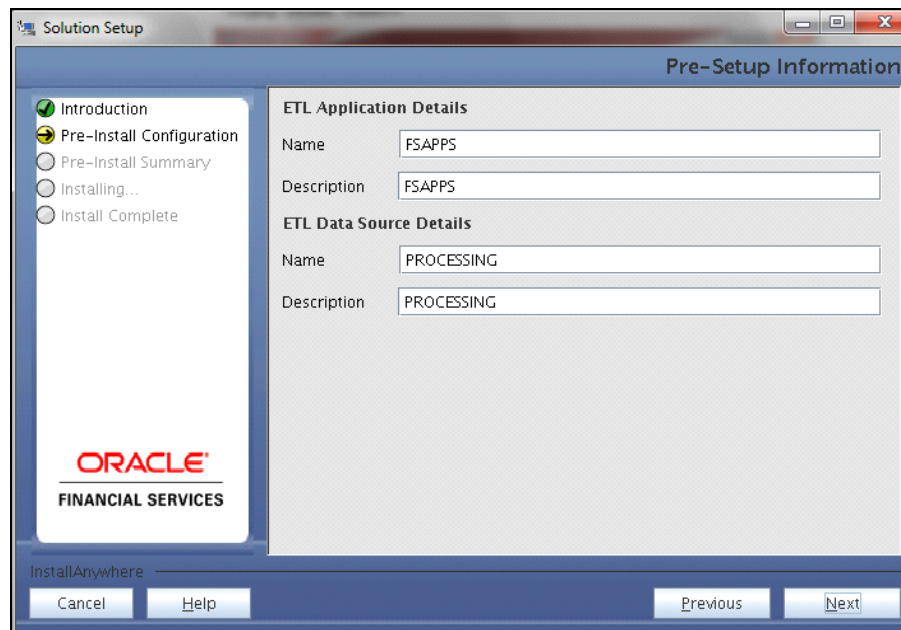


64. After Model Upload completion, the Source Pair window is displayed.

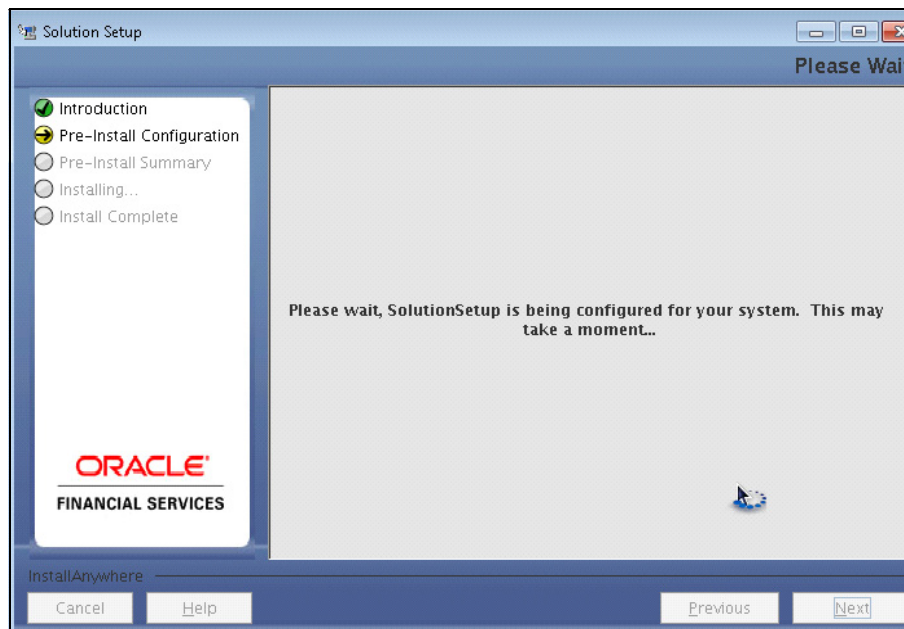
**Figure 4–43 Source Pair Window**



65. Select **New Application** source and click **Next**. The Staging details Window is displayed.

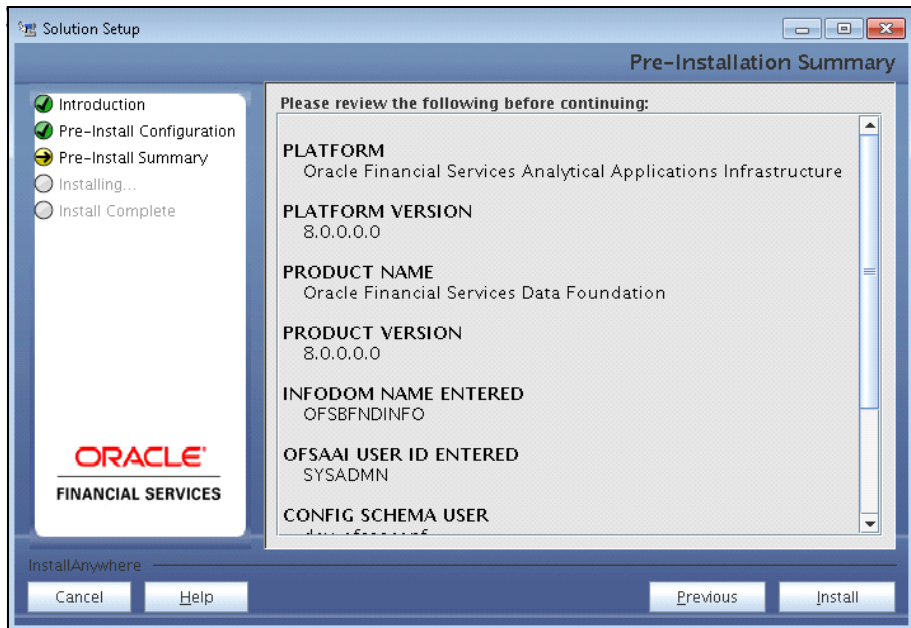
**Figure 4–44 Staging Details Window**

66. Click **Next**. This creates the staging source folder.

**Figure 4–45 Staging Creation Window**

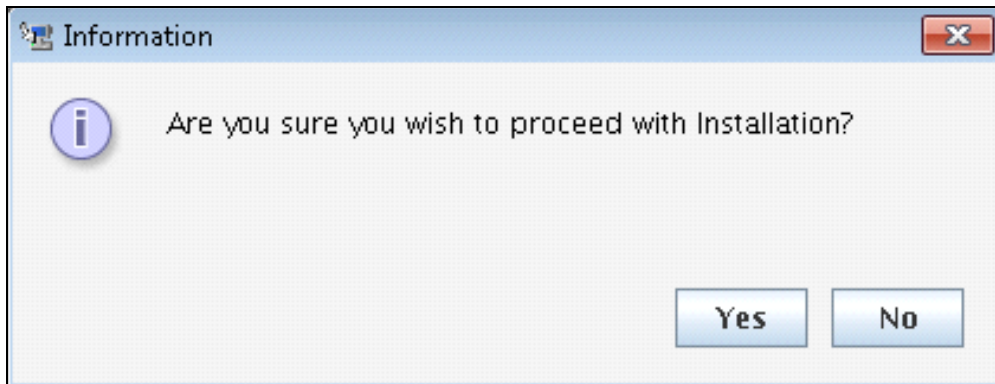
67. After creation, click **Next**. The Installation Details Review window opens.

**Figure 4–46** Installation Details Review Window

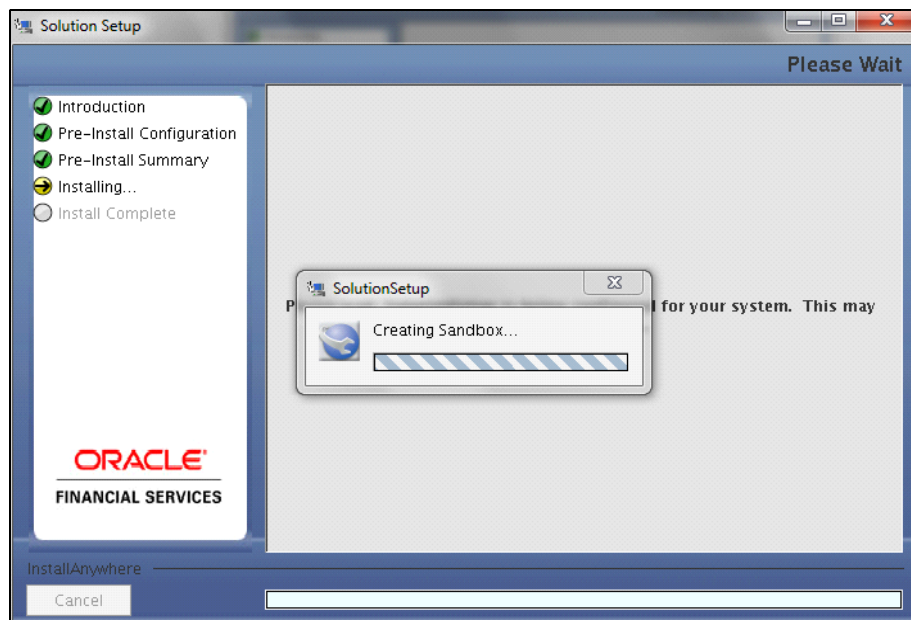
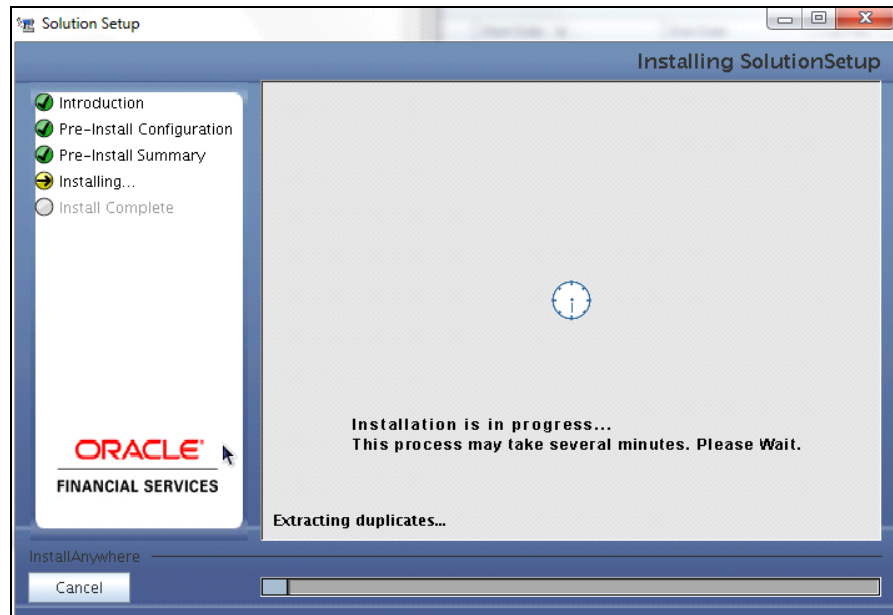


68. Click **Install**. The Confirmation window is displayed.

**Figure 4–47** Confirmation Window

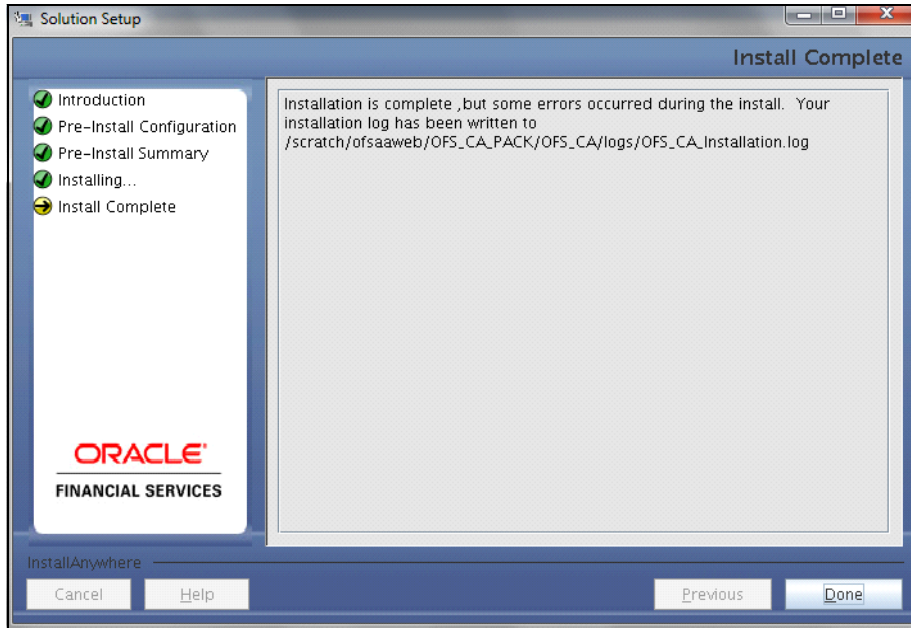


69. Click **Yes**. The Installation starts and the Installation Progress is displayed in the Installation Progress window.

**Figure 4–48 Installation Progress Window**

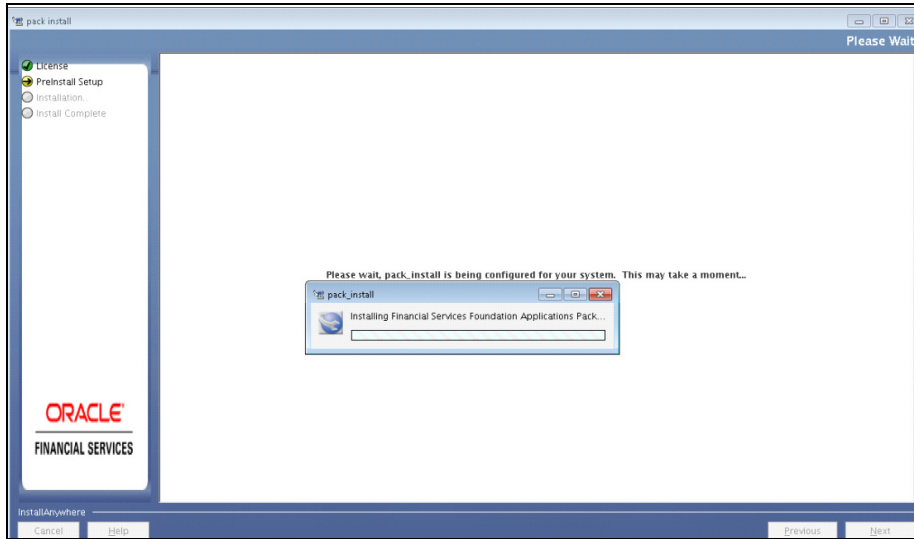
70. After Installation completion, the Installation Completion window is displayed.

**Figure 4–49 Installation Completion Window**

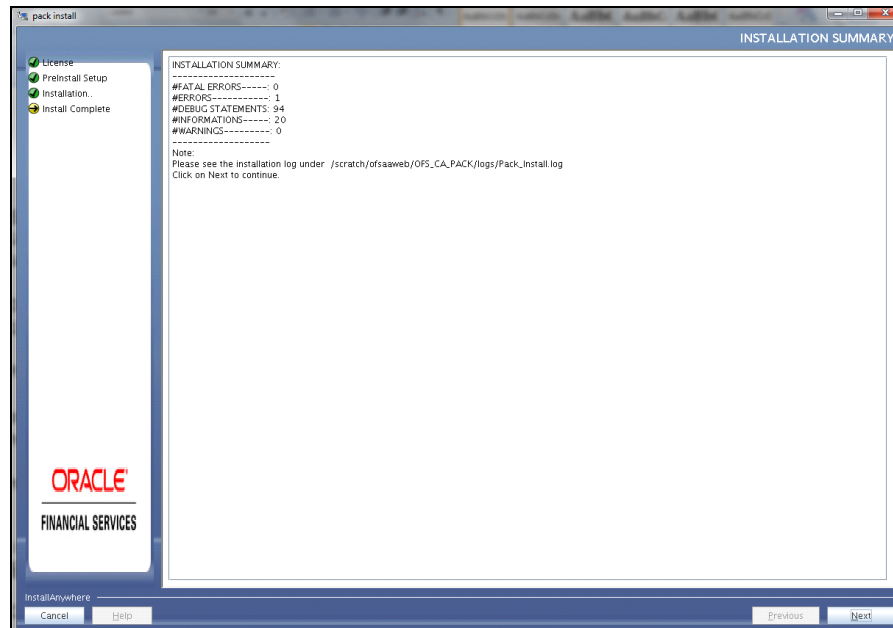


71. Click **Done**. The Panel navigates back to Main Application Pack Installation Window.

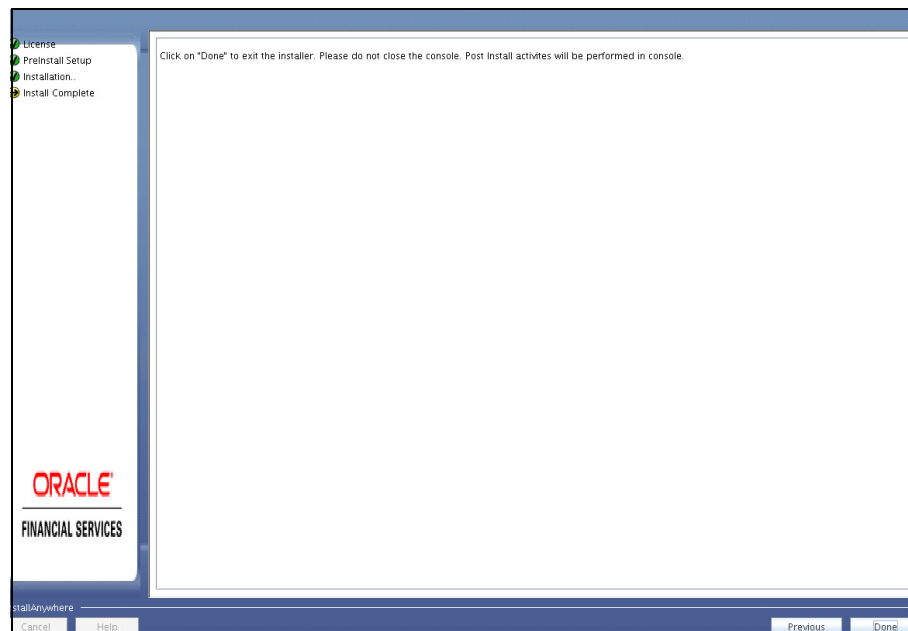
**Figure 4–50 Application Pack Installation Window**



72. The Installation Summary window is displayed.

**Figure 4–51 Installation Summary Window**

73. Click **Done**. The Installation Complete Window is displayed.

**Figure 4–52 Installation Complete Window**

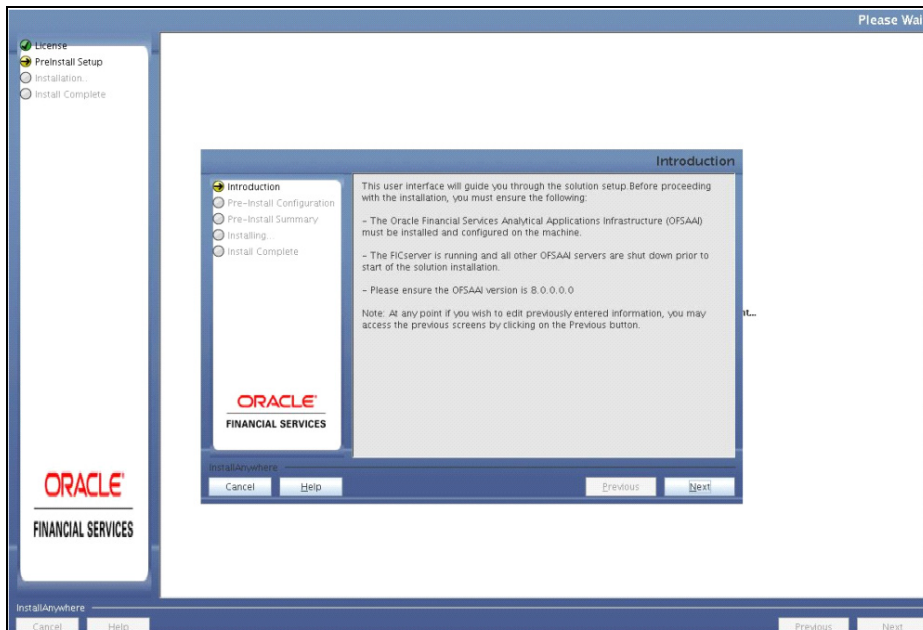
74. Click **Done**.

---

**Note:** The installation process continues on the console. Do not close the console until the installation process is complete.

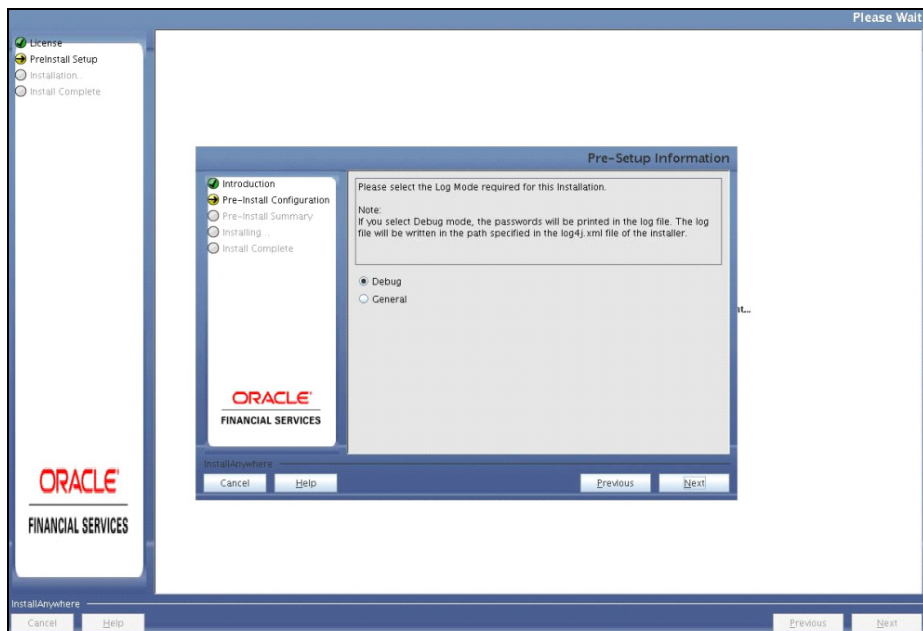
---

**Figure 4-53 Installation Complete Window**



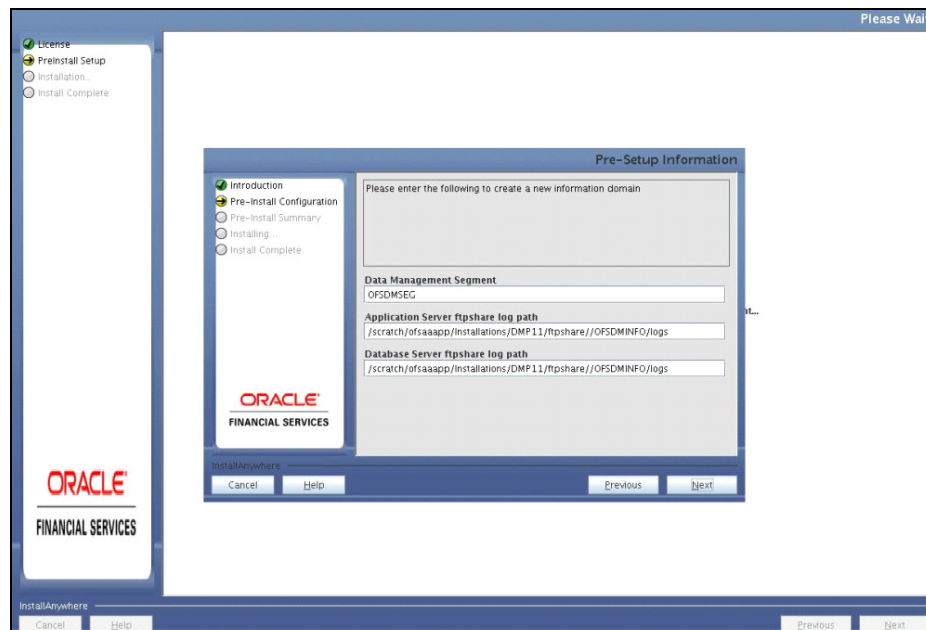
75. Select the log mode and click **Next**.

**Figure 4-54 Log Mode**

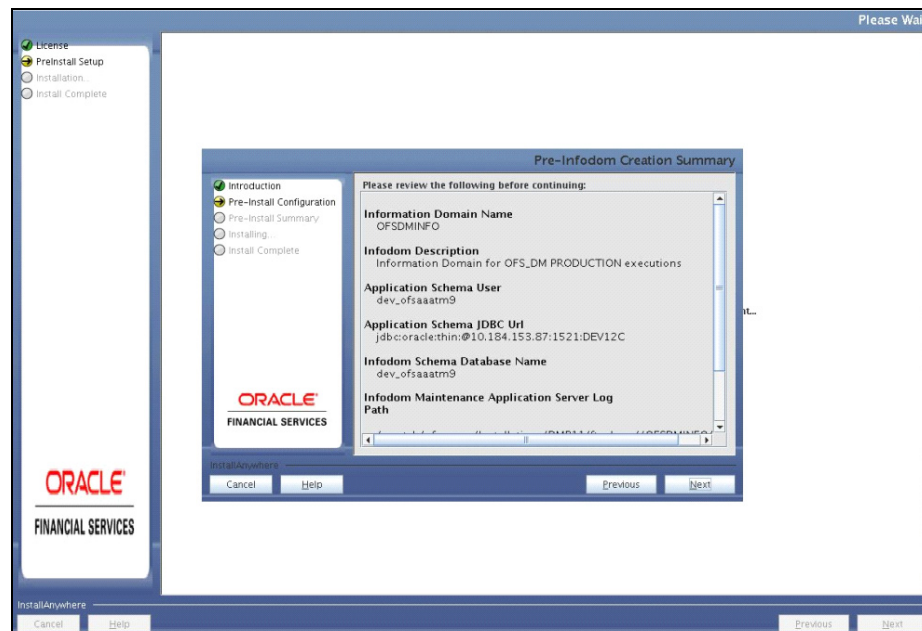


76. Enter the details to create a information domain, and click **Next**.



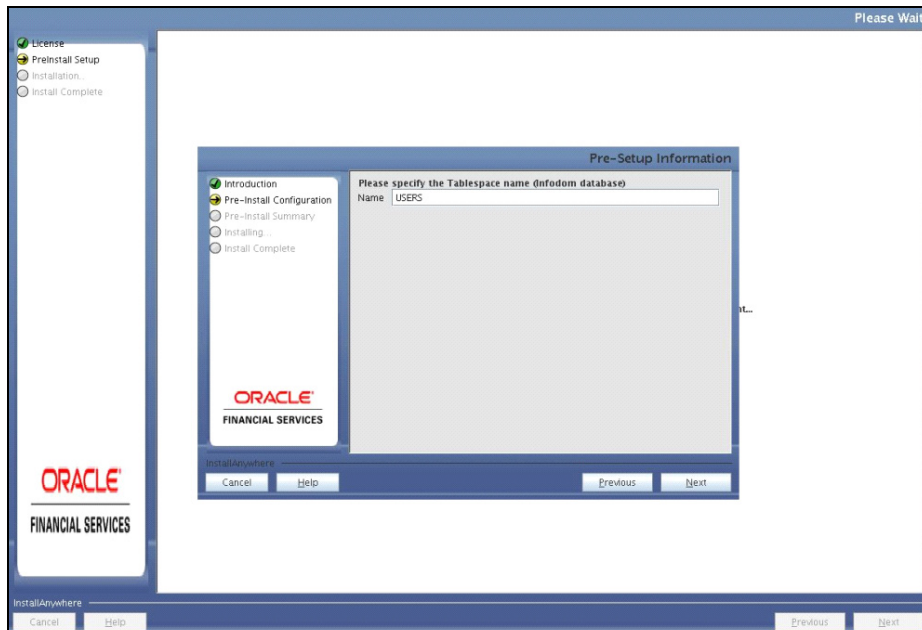
**Figure 4–55 Information domain**

77. Verify the details and click **Next**.

**Figure 4–56 Pre-Infodom Creation Summary**

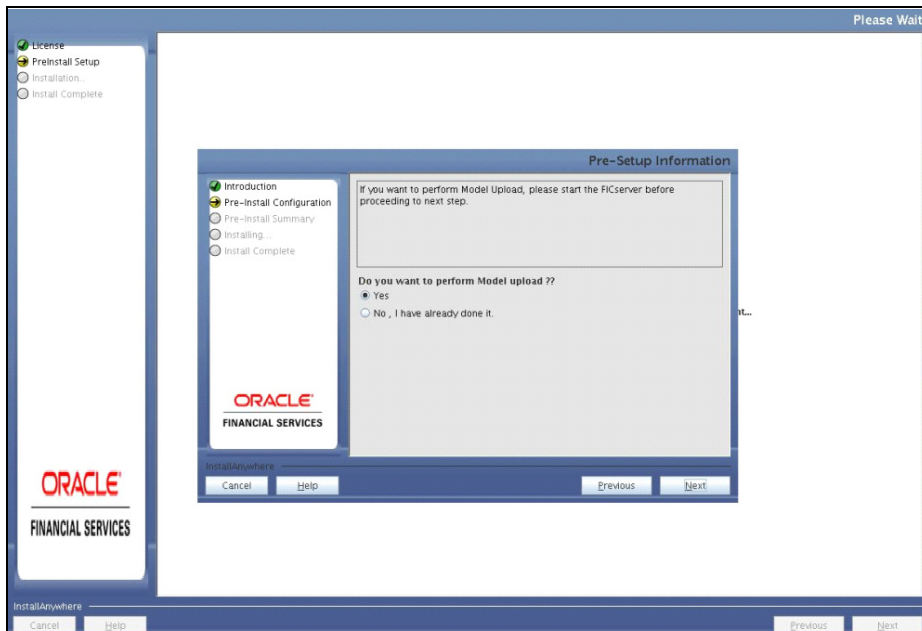
78. Enter the tablespace name (Infodom database) and click **Next**.

**Figure 4-57** *Tablespace Name*

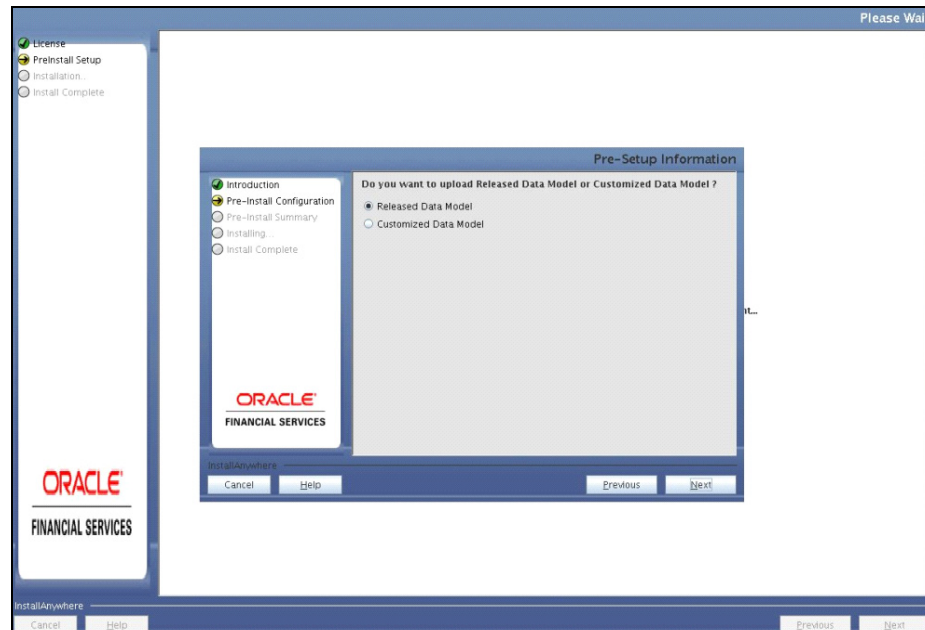


79. Select **Yes** if you want to perform model upload and click **Next**.

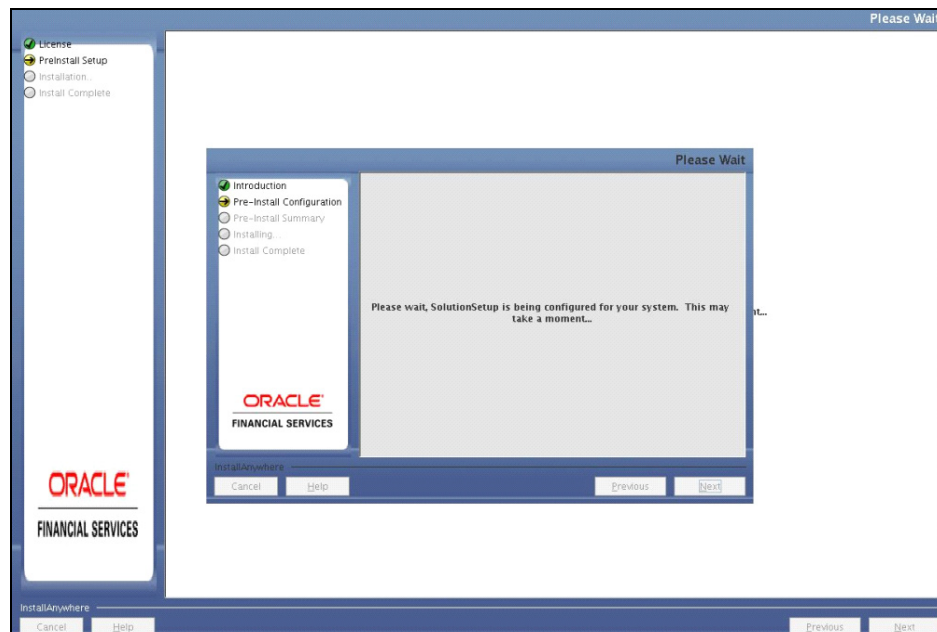
**Figure 4-58** *Model Upload Window*



80. Select the type of data model, and click **Next**.

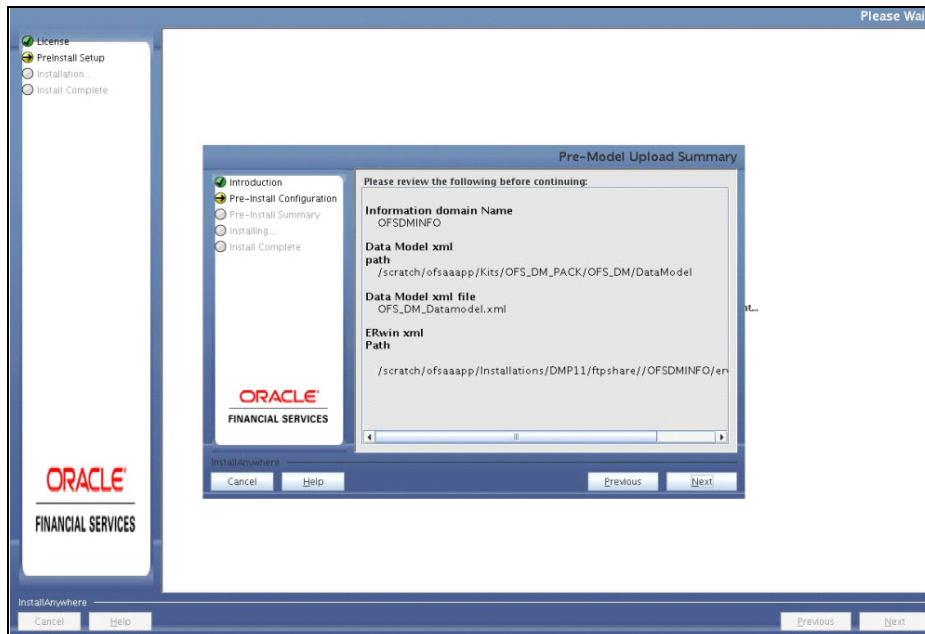
**Figure 4–59 Model Type Window**

81. The following panel is displayed. Wait for some time to configure the solution setup and click **Next**.

**Figure 4–60 Solution - Setup Window**

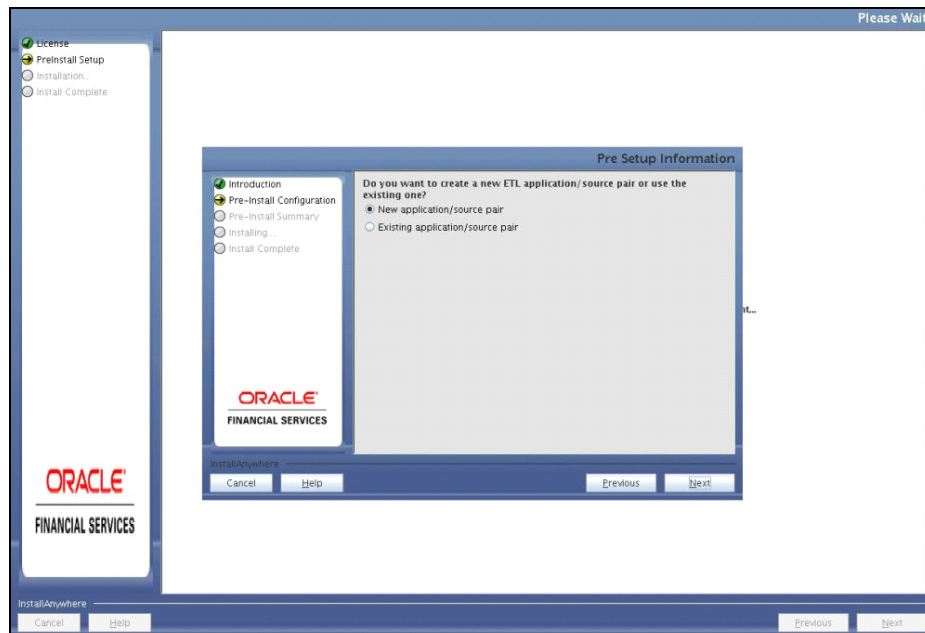
82. Verify the summary details, and click **Next**.

**Figure 4–61 Pre-Upload Model Summary Window**

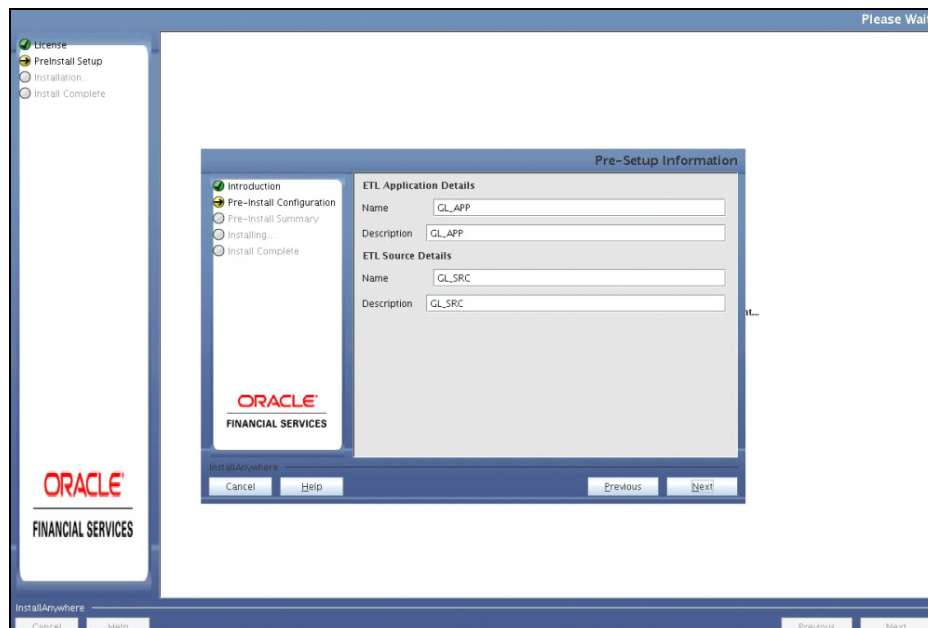


83. Select the ETL application/source, and click Next.

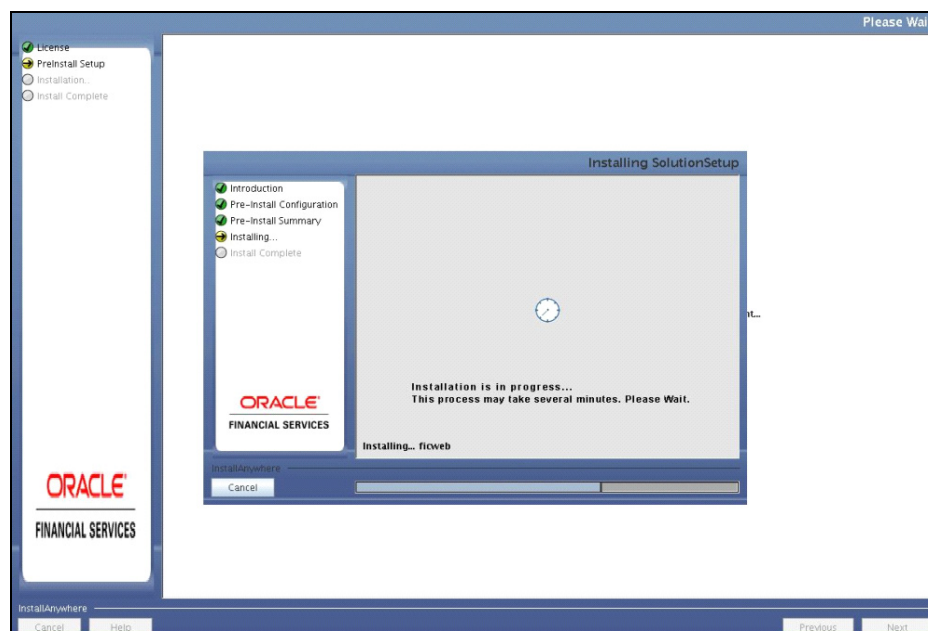
**Figure 4–62 Application Source details**



84. Enter the ETL application details, and click Next.

**Figure 4–63 ETL Application Details**

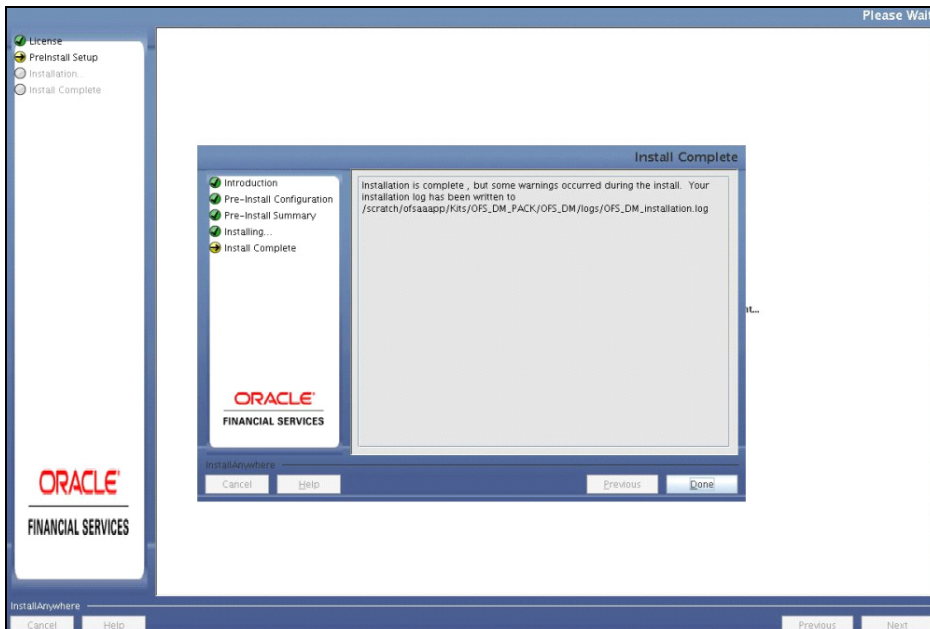
85. Click **Install**. The Installing OFSAA Infrastructure window is displayed.

**Figure 4–64 Installing OFSAA Infrastructure**

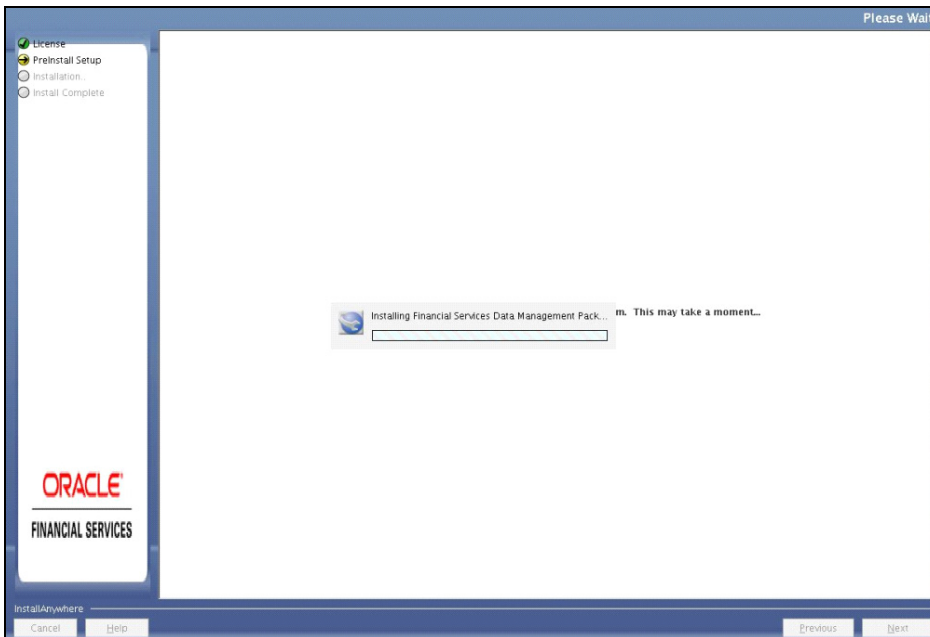
Anytime during the installation you can click **Cancel** to stop the installation. Once completed, the Installation Summary window is displayed.

86. Click **Done**.

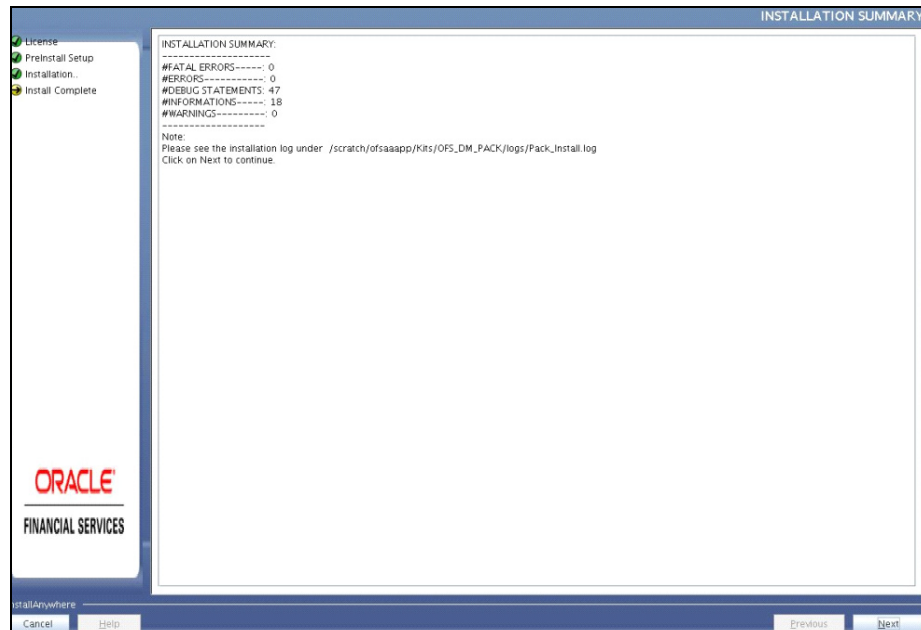
**Figure 4–65 Installation Complete Window**



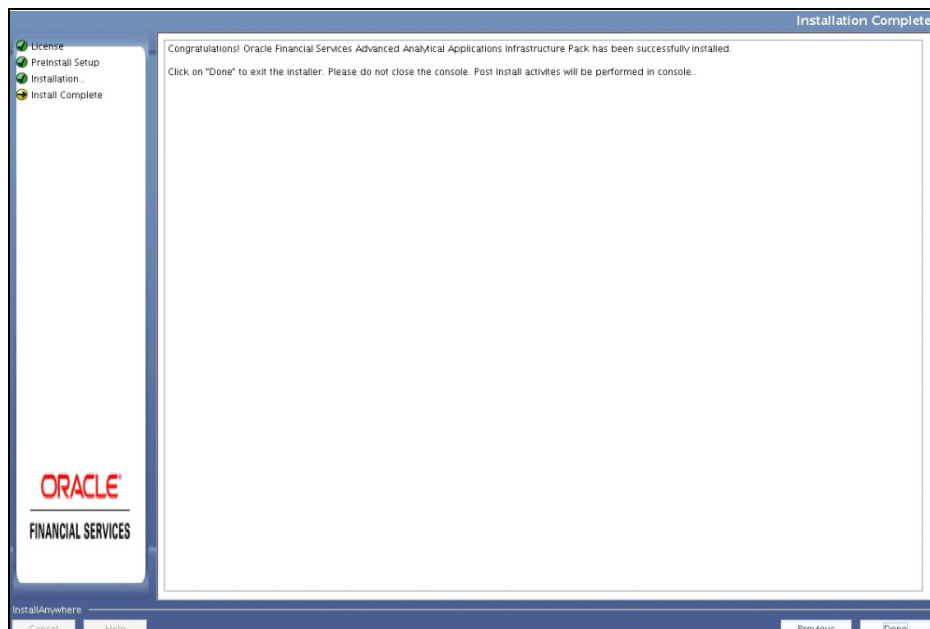
The following message is displayed: *Please wait, pack\_install is being configured for your system. This may take a moment.*



**87.** Click **Next**. The installation summary page is displayed.

**Figure 4–66 Installation Summary Window**

88. Click **Done** to finish the installation.

**Figure 4–67 Installation Complete Window**

Post Install Health checks are displayed:

**Figure 4–68 Installation Complete**

```

xterm
$ ./_profile
$ pwd
/scratch/ofsaaweb
$ cd ..
$ chmod -R 777 ofsaaweb
$ cd ofsaaweb/OFS_CA_PACK/bin
$ ./setup.sh GUI
FIC_HOME : /scratch/ofsaaweb/Installations/RCAPACK
Environment check utility started...
=====
Java Validation Started ...
Java found in : /scratch/java_home/jdk1.6.0_25/bin
JAVA Version found : 1.6_0_25
JAVA Bit Version found : 64-bit
Java Validation Completed, Status : SUCCESS
=====
Environment Variables Validation Started ...
ORACLE_HOME : /scratch/ora12c_client/app/oracle/product/12.1.0/client_1
TNS_ADMIN : /scratch/ora12c_client/app/oracle/product/12.1.0/client_1/network/admin
Environment Variables Validation Completed, Status : SUCCESS
=====
OS specific Validation Started ...
Unix shell found : /bin/ksh, Status : SUCCESS
Total file descriptors : 18000, Status : SUCCESS
Total number of process : 18000, Status : SUCCESS
OS version : 6, Status : SUCCESS
OS specific Validation Completed, Status : SUCCESS
=====
DB specific Validation Started ...
Oracle Client version : 12.1.0.2.0, Status : SUCCESS
CREATE SESSION has been granted to user, Status : SUCCESS
CREATE PROCEDURE has been granted to user, Status : SUCCESS
CREATE VIEW has been granted to user, Status : SUCCESS
CREATE TRIGGER has been granted to user, Status : SUCCESS
CREATE MATERIALIZED VIEW has been granted to user, Status : SUCCESS
CREATE TABLE has been granted to user, Status : SUCCESS
CREATE SEQUENCE has been granted to user, Status : SUCCESS
SELECT privilege is granted for V_$nls_parameters view, Current value : SELECT, Status : SUCCESS
NLS_LENGTH_SEMANTICS : BYTE, Current value : BYTE, Status : SUCCESS
NLS_CHARACTERSET : AL32UTF8, Current value : AL32UTF8, Status : SUCCESS
SELECT privilege is granted for V_$parameter view, Current value : SELECT, Status : SUCCESS
Open cursor value is greater than 1000, Current value : 1200, Status : SUCCESS
Oracle Database Partitioning Feature is enabled, Current value : Partitioned, Status : SUCCESS
SELECT privilege is granted for USER_TS_QUOTAS view, Current value : SELECT, Status : SUCCESS
Schema is granted with at least 500 MB table space, Current value : 1.0737E+10, Status : SUCCESS
Oracle Server version Current value : 12.1.0.1.0, Status : SUCCESS
DB specific Validation Completed, Status : SUCCESS
=====
Environment check utility Status : SUCCESS
=====
Starting installation...
Preparing to install...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...

Launching installer...

*****
CTRL characters removal started ...
CTRL characters removal over ...
Windows executable files removal started ...
Windows executable files removal over ...
We are now in /scratch/ofsaaweb/Installations ...
*****
Installation completed...
*****
$
$
$

```

## Verifying the Log File

The log files OFS\_CA\_installation.log and OFSAAInfrastructure\_Install.log can be found in the installation path \$FIC\_HOME location of the installer, in this case OFS\_CA\_PACK. The log files contain detailed summary of installation processes. It also shows the number of Fatal Errors, Errors, Debug Statements, Information, and Warnings.

There are three log files:

- Application Pack specific log file (overall status of the app pack installation): OFS\_CA\_PACK/logs/ Pack\_Install.log
- AAI Installation log file: /scratch/ofsaaweb/MP1/OFS\_CA\_PACK/OFS\_AAI/logs/OFSAAI8<timestamp>.log
- Application installation log file: OFS\_CA\_PACK/OFS\_CA/logs
  - OFS\_CA\_Installation\_debug.log
  - OFS\_CA\_installation.log

---

**Note:** The warnings "IMP-00041: object created with compilation warnings" present in sampleapp.log can be ignored.

---



## Verifying the Installation

This section explains the steps to verify your installation of application.

To verify that you have successfully installed the Customer Analytics pack, follow these steps:

1. Login in to the atomic/\*schema.
2. Verify the application log (it must not have any error).
3. Verify all the database objects like view, procedure, and functions must have been complied without any compilation error.
4. Deploy the war file and check whether the application screen is coming or not.



---

---

## Post Installation Configuration

On successful installation of the Oracle Financial Service Customer Analytics Application Pack, refer the following post installation sections:

This chapter includes the following sections:

- [Configuring Resource Reference](#)
- [Configuring Web Application Server](#)
- [Creating and Deploying the Application Pack Web Archive](#)
- [Changing Batch ownership](#)
- [Updating OBIEE URL](#)
- [Configurations for Java 8](#)

---

---

**Note:** Ensure to clear the application cache prior to the deployment of Application Pack Web Archive. This is applicable to all Web Servers (WebSphere, WebLogic, and Tomcat). For more information, refer [Clearing Application Cache](#) section.

---

---

### Configuring Resource Reference

This section describes the details for configuring the resource reference in WebSphere, Weblogic, and Tomcat Application Servers. For detailed information, refer to [Configuring Resource Reference](#).

### Configuring Web Application Server

This section describes the details to configure the different web application servers for OFSAA Infrastructure deployment namely, IBM Websphere, Oracle Weblogic, and Apache Tomcat Servers. For detailed information, refer to [Configuring Web Application Servers](#).

### Creating and Deploying the Application Pack Web Archive

To create and deploy the application pack web archive, follow these steps:

1. Navigate to the \$FIC\_WEB\_HOME directory.
2. Execute the command:  

```
./ant.sh
```

3. This will trigger the creation of EAR/WAR file - <contextname>.<extn>. Here <contextname> is the context name given during installation.
4. On completion of the EAR/WAR files creation, the "BUILD SUCCESSFUL" and "Time Taken" message is displayed and you are returned to the prompt.
5. The EAR/WAR file - <contextname>.<extn> - is created under "\$FIC\_WEB\_HOME" directory.

---

**Note:** This process overwrites any existing version of EAR/WAR file in the path. If the web application server is Apache Tomcat, the file created would be <contextname>.war.

---

6. Deploy the generated EAR/WAR file on to the web application server. For detailed information, refer [Deploying EAR/WAR File](#).

## Changing Batch ownership

All the seeded batches are created with SYSADMN as the owner by default. This needs to be updated with username of the user who is responsible for maintenance of the batches. This can be done by executing the following procedure in the config schema:

```
begin
```

```
AAI_OBJECT_ADMIN.TRANSFER_BATCH_
OWNERSHIP('fromUser','toUser','infodom;
```

```
end;
```

```
OR
```

```
begin
```

```
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP('fromuser','touser');
```

```
end;
```

where "FromUser" indicates the user who currently owns the batch and "toUser" indicates the user to which ownership needs to be transferred to "Infodom" is an optional parameter.

## Updating OBIEE URL

To access the respective Business Intelligence Analytics Application, you need to update the OBIEE url in the table 'AAI\_MENU\_B', once the OBIEE environment is up and running.

Following update statement needs to be executed in the config schema:

```
UPDATE AAI_MENU_B
```

```
SET V_MENU_URL = '<obieeURL>'
```

```
WHERE V_MENU_ID IN ('<List of enabled BI Analytical Links for a particular
Media Pack >')
```

```
/
```

```
COMMIT
```

```

/
For CA Media Pack as an example:
UPDATE AAI_MENU_B
SET V_MENU_URL = 'http://RCA:port/analytics'
WHERE V_MENU_ID IN ('OFS_RCABI_LINK')
/
COMMIT
/

```

## Configurations for Java 8

Refer to the following instructions to extract and apply the patch.

1. Copy the downloaded patch file ( **21160684**) to your OFSAA server in Binary mode.

For more information on downloading the patch files, refer [Prerequisite Information](#) section >> Category - Others >> Sub-Category - OFSAA.

2. Follow the instructions given in the Readme to apply the patch.
3. If the Oracle Database version is 12c, copy `ojdbc7.jar` from `$ORACLE_HOME/jdbc/lib` to the following locations:
  - `$FIC_HOME/utility/OFSAAGenerateRepository/lib/`
  - `$FIC_HOME/realtime_processing/WebContent/WEB-INF/lib/`
  - `$FIC_HOME/ficdb/lib/`
  - `$FIC_HOME/ficapp/icc/lib/`
  - `$FIC_HOME/ficapp/common/FICServer/lib/`
  - `$FIC_HOME/FMStandalone/FormsManager/WEB-INF/lib/`
  - `$FIC_HOME/ficweb/webroot/WEB-INF/lib/`
  - `$FIC_HOME/ficdb/etl/classes/`
4. If the Oracle Database version is 11g, copy `ojdbc6.jar` from `$ORACLE_HOME/jdbc/lib` to the following locations:
  - `$FIC_HOME/utility/OFSAAGenerateRepository/lib/`
  - `$FIC_HOME/realtime_processing/WebContent/WEB-INF/lib/`
  - `$FIC_HOME/ficdb/lib/`
  - `$FIC_HOME/ficapp/icc/lib/`
  - `$FIC_HOME/ficapp/common/FICServer/lib/`
  - `$FIC_HOME/FMStandalone/FormsManager/WEB-INF/lib/`
  - `$FIC_HOME/ficweb/webroot/WEB-INF/lib/`
  - `$FIC_HOME/ficdb/etl/classes/`



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## Start and Stop of Infrastructure Services

This chapter details about how to start and stop Infrastructure services. This chapter includes the following topics:

- [Starting Infrastructure Services](#)
- [Stopping Infrastructure Services](#)

### Starting Infrastructure Services

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.

1. 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.

```
./startofsaai.sh
```

---

---

**Note:** You can also start the Infrastructure Server by executing the command `"nohup ./ startofsaai.sh &"`. Starting the process using `"nohup"` and `"&"` will return the command prompt without having to wait till the process completes. However, this command cannot be used when you are starting the server for the first time or starting after changing user password in the configuration database schema. You can also start the Infrastructure Server by executing the command `"nohup ./ startofsaai.sh &"`. Starting the process using `"nohup"` and `"&"` will return the command prompt without having to wait till the process completes. However, this command cannot be used when you are starting the server for the first time or starting after changing user password in the configuration database schema.

---

---

2. Select the required webserver start up option from the following table:

**Table 6–1 Webserver start up options**

Start up Option	Description
Starting WebSphere profile	On the machine in which Web sphere is installed, navigate to [Webshpere_Install_Directory] /AppServer/<profiles>/<profile name>/bin and execute the command: ./startServer.sh server1
Starting WebLogic Domain	On the machine in which WebLogic is installed, navigate to <WebLogic Installation directory>/user_projects/domains/<domain name>/bin and execute the command: startWebLogic.sh -d64  <b>Note:</b> If WebLogic is already running, access the <i>WebLogic Admin Console</i> . Stop and start the application <context name>.ear
Starting Tomcat Application	On the machine in which Tomcat is installed, navigate to <Tomcat_Install_ Directory>/bin and execute the command: ./catalina.sh run

3. Start ICC server:

- a. On the machine in which Infrastructure default Application components have been installed, navigate to \$FIC\_HOME/ficapp/icc/bin and execute the command:

```
./iccserver.sh
```

---



---

**Note:** Only Infrastructure Default Application Server would hold ICC component.

---



---

4. To start Back-end Services:

- a. 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
```

Or

Start Back-end services using the command:

```
nohup./agentstartup.sh &
```

---



---

**Note:** This agent internally starts the Router, Message Server, OLAP data server, and AM services.

---



---

## Stopping Infrastructure Services

To stop Infrastructure services, follow these steps:

1. On the machine in which Infrastructure Application components have been installed, navigate to \$FIC\_APP\_HOME/common/FICServer/bin and execute the command:

```
./stopofsaai.sh
```



2. To stop ICC server, on the machine in which Infrastructure default Application components have been installed, navigate to `$FIC_HOME/ficapp/icc/bin` and execute the command:

```
./iccserversshutdown.sh
```

---

---

**Note:** Only Infrastructure Default Application Server would hold ICC component.

---

---

3. To stop Back-end server, on the machine in which Infrastructure database components have been installed, navigate to `$FIC_DB_HOME/bin` and execute the command:

```
./agentsshutdown.sh
```



---

---

## Post Deployment Configuration

This chapter includes the following topics:

- [Deploying the Application](#)
- [Logging as System Administrator](#)
- [Creating Users](#)
- [Mapping User to User Group](#)

### Deploying the Application

This section explains steps to deploy the application. Web Layer deployment is required, For more information refer Appendix.

### Logging as System Administrator

Post installation, only a System Administrator can login into Infrastructure through user id "sysadmn". This ID is created at the time of installation with the password provided during installation. Enter login id as "sysadmn" and the password that was provided during installation. Click **Login**. For more information, refer [OFSAAI Login](#).

### Creating Users

User Maintenance facilitates you to create user definitions, view, manage, modify, and delete user information. You can access User Maintenance by expanding User Administrator section within the tree structure of LHS menu.

The User Maintenance screen displays user details such as User ID, Name, Profile Name, Start and End dates. You can also identify the user status if enabled to access the Infrastructure system.

To add a user in the User Maintenance screen, follow these steps:

1. Select the Add button from the User Maintenance toolbar. This button is disabled if you have selected any User ID in the grid. The New User screen is displayed.

**Figure 7-1 User Maintenance Window**

2. Enter the user details as tabulated:

**Table 7-1 Prerequisite Information**

Fields	Description
User ID	Enter a unique user id. Ensure that there are no special characters and extra spaces in the id entered.
User Name	Enter the user name. The user name specified here will be displayed on the Infrastructure splash screen. Ensure that the User Name does not contain any special characters or spaces except "-", "'", and ".".
Contact Address	Enter the contact address of the user. It can be the physical location from where the user is accessing the system. Ensure that Contact Address does not contain any special characters except ".", "#", "-", ",".
Date Of Birth	Specify the date of birth. You can use the popup calendar to enter the date.
Designation	Enter the user designation. Ensure that Designation does not contain any special characters except "_", ":" and "-".

**Table 7-1 (Cont.) Prerequisite Information**

<b>Fields</b>	<b>Description</b>
Profile Name	Select the profile name by clicking on the drop-down list.
User Start Date	Specify the user start date based on the day slot the user is enabled to access the system. Ensure that User Start Date is greater than today's date. You can use the popup calendar to enter the date.
User End Date	Specify the user end date based on month and year when the user Id expires. Ensure that user End Date is greater than User Start Date. You can use the popup calendar to enter the date.
Password	Enter the default password for the user for the initial login. User needs to change the default password during the first login.  A user is denied access in case the user has forgotten the password or enters the wrong password for the specified number of attempts (as defined in the Configuration screen). To enable access, enter a new password here.
Notification Time	<ul style="list-style-type: none"> <li>(Optional) Specify the notification start and end time within which the user can be notified with alerts.</li> </ul>
E-mail ID	Enter the e-mail address of the user.
Mobile No	(Optional) Enter the mobile number of the user
Pager No	(Optional) Enter the pager number of the user.
Enable User	Select the checkbox to allow user to access the system.  A deselected checkbox denies access to the user.

**3.** Click **Save** to upload the user details.

The new User details are populated in the User Authorization screen which has to be authorized by System Authorizers. Once authorized, the User details are displayed in User Maintenance screen and can then be mapped to the required user group in the User UserGroup Map screen.

## Mapping User to User Group

User UserGroup Map facilitates you to map user(s) to specific user group which in turn is mapped to a specific Information Domain and role. Every UserGroup mapped to the infodom needs to be authorized. Else, it cannot be mapped to users.

User UserGroup Map screen displays details such as User ID, Name, and the corresponding Mapped Groups. You can view and modify the existing mappings within the User UserGroup Maintenance screen.

You can access User UserGroup Map by expanding User Administrator section within the tree structure of LHS menu.

The following user groups are used in Customer Analytics Pack:

- CA Admin
- CA Analyst
- CA Authorizer

---



---

## OFS CA Configuration

This chapter explains the following steps that are to be followed for configuring Retail Customer Analytics v8.0.0.0.0 Dashboards and Reports after OBIEE installation (Server):

### A. Preliminary Installation of Software

1. Make sure Oracle Business Intelligence (Version 11.1.1.7.1) installation is completed and available.
2. If the OBIEE is installed in other than Windows environment, ensure that a standalone OBIEE Client is installed in a Windows environment.

### B. Modify Repository Connection Pool Settings

#### For Windows Server

1. Copy the Repository file from the \$FIC\_HOME/CIRCA and place it in the Repository folder where OBIEE is installed.

```
<OBIEE Install Folder>/instances/instance1/bifoundation/  
OracleBIServerComponent/coreapplication_obis1/repository
```

2. Select **Start >Programs >Oracle Business Intelligence>Administration**.
3. Select **File >Open >Offline**.
4. Locate the CIRCA.rpd and open.
5. Provide Repository password. The Repository password is "Admin123".  
Set the Connection Pool Properties:
6. In the "Physical" layer, under Database object, double-click the **Connection Pool** to update its properties.
7. In the **General** tab, edit/check the following entry:  
Call Interface: Default (OCI 10g/11g)
8. Update Data source name as give in the following example:  

```
(DESCRIPTION= (ADDRESS_LIST= (ADDRESS= (PROTOCOL=TCP) (HOST=<Database IP Address>) (PORT=<Port no>))) (CONNECT_DATA= (SID=<Database name>)))
```
9. Enter Database Schema user name in the User Name field.
10. Enter Database Schema password in the Password field.
11. Click **OK** to close the window and click **Save** to save the RPD file.
12. Click **No** for the Global Consistency Message.
13. Close the RPD file (File/Exit).

---

---

**Note:**

Repeat the same configuration for all the connection pools in the RPD.

---

---

**For Other Servers**

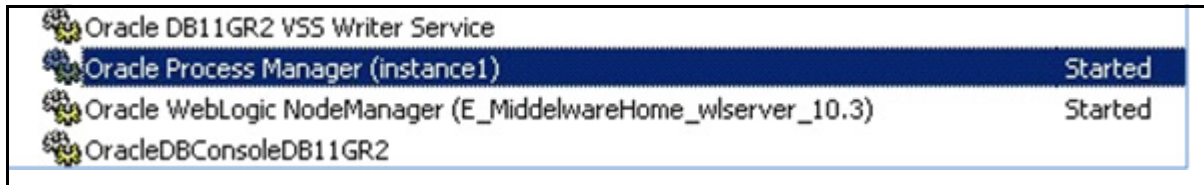
1. Copy the Repository file from the \$FIC\_HOME/CIRCA and place it anywhere in the local Windows system.
2. Open the BI Administration tool in the windows environment.
3. Select **Start >Programs >Oracle Business Intelligence Enterprise Edition Plus Client>Administration.**
4. Select **File >Open > Offline.**
5. Locate the file CIRCA.rpd and open.
6. Provide Repository password. The Repository password is "Admin123".  
Set the Connection Pool Properties as described in the above steps 6...14.

**C. Starting Node manager and Weblogic Servers**

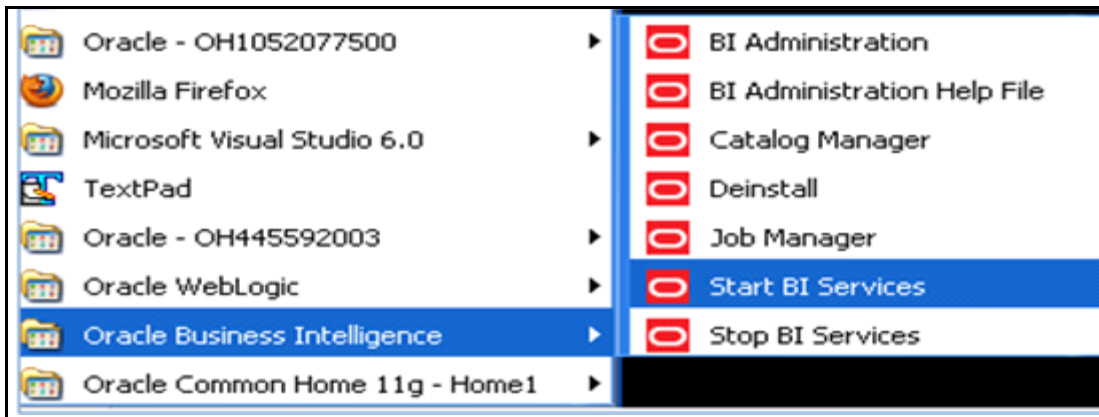
1. Check if the Node Manager is running or not. If not then follow the following steps.

**For Windows Server**

1. Go to the services.
2. Start the Service Oracle Weblogic NodeManager.



Alternatively you can start Node Manager and all the managed services from the **All Programs -> Oracle Business Intelligence-> Start BI Services** option in the **Start** menu.



**For Other Servers**

1. Navigate to < OBIEE Install Folder >/ wlserver\_10.3/server/bin folder.



- 
2. Run the following command: `nohup ./startNodeManager.sh &`

Check if the Weblogic AdminServer is running or not. If not, then follow these steps.

#### For Windows Server

- Navigate to **< OBIEE Install Folder >/user\_projects/domains/bifoundation\_domain/bin**
- Run the following command: `startWebLogic.cmd`

---

---

**Note:** The Weblogic Admin Server would have been already started if you had started through the All Programs -> Oracle Business Intelligence-> Start BI Services option as stated above

---

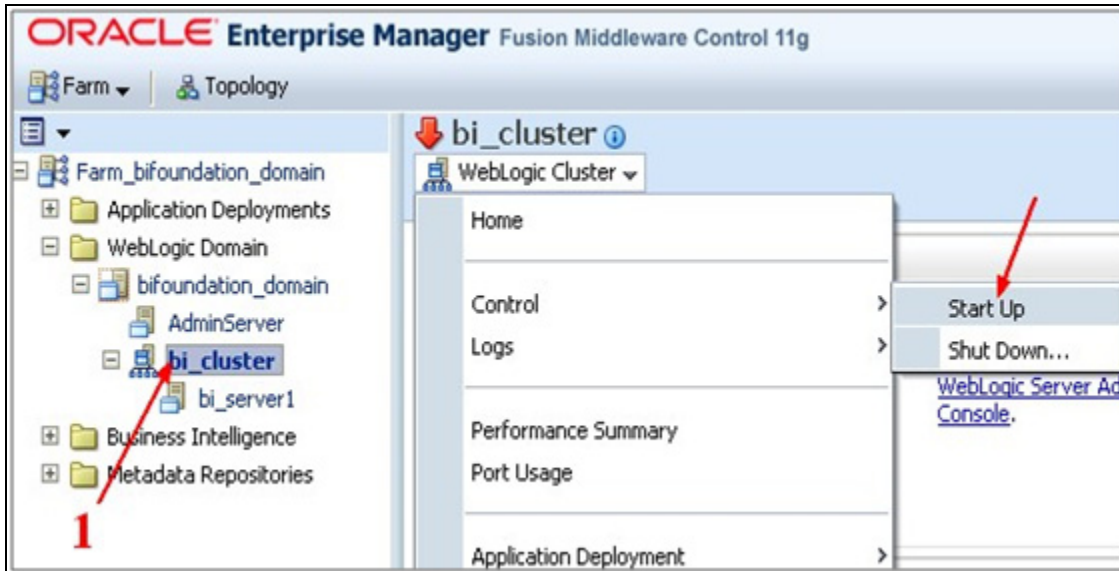
---

#### For Other Servers

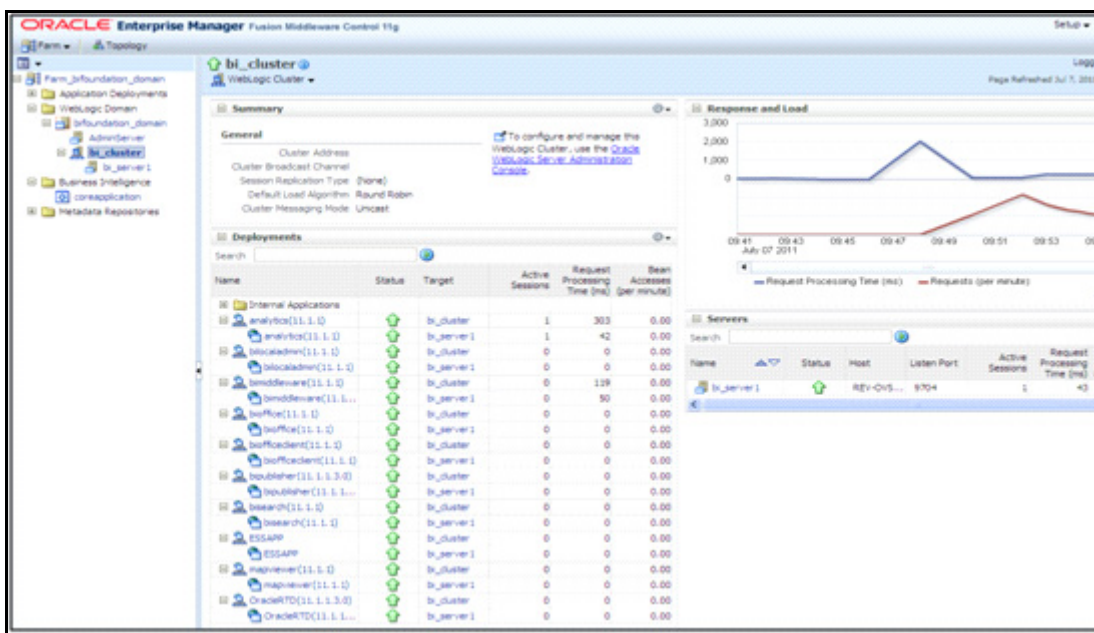
- Navigate to **< OBIEE Install Folder >/user\_projects/domains/bifoundation\_domain/bin**
- Run the following command: `./startWebLogic.sh`
- Enter the weblogic credential defined during the installation.
- Bringing up this service can take a few minutes depending on your environment, wait until the command line stops scrolling and indicates server in RUNNING mode.

```
Aug 25, 2010 10:32:06 AM CEST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING>
Aug 25, 2010 10:32:06 AM CEST> <Notice> <WebLogicServer> <BEA-000360> <Server started in RUNNING mode>
```

- Start Weblogic Managed Server (`bi_server1`)
- Log in to Fusion Middleware Control `http://<hostserver name or IP>:<Port No Default is 7001>/em` using the weblogic credentials defined during installation.
- Under the **WebLogic** Domain, expand the **bifoundation\_domain** node in the navigation tree.
- Select **bi\_cluster** and click the *WebLogic Cluster* menu to the right of it. Select the **Control** option from the menu, and select **Start Up** to start the Managed Servers.



- Verify the status of the applications.



## D. Deployment

### Deploy RPD file

1. Log in to Fusion Middleware Control <http://<hostserver name or IP>:<Port No Default is 7001>/em> using the weblogic credentials defined during installation.
2. Go to **Business Intelligence folder > coreapplication> Deployment** and click **Lock and Edit Configuration**.



3. In the Upload BI Server Repository click **Browse** and locate the folder where the new CIRCA.rpd which has to be deployed is present.
4. Now put the existing RPD Password. Then **Apply >Activate Changes**.
5. You can see the new Default RPD as the CIRCA\_BI0001.



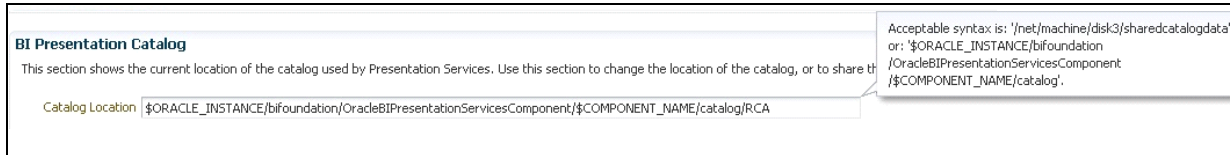
6. Restart the BI Server as mentioned in the Starting the Analytics services section.
7. Modify the NQSCONFIG.INI file to incorporate User Roles and Group Id changes in case any GUID related error occurs. The location is < OBIEE Install Folder>  
`/instances/instance1/config/OracleBIServerComponent/coreapplication_obis1`  
 Change the FMW\_UPDATE\_ROLE\_AND\_USER\_REF\_GUIDS to YES.  
 For example: FMW\_UPDATE\_ROLE\_AND\_USER\_REF\_GUIDS = YES;
8. After modifying the file, restart the BI services again to remove the above error.

## Deploy Web Catalog

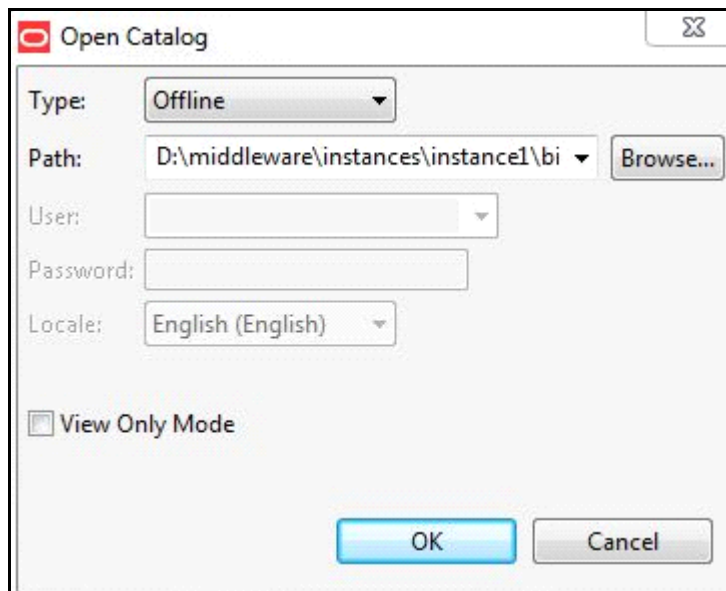
1. Copy the `CIRCA.catalog` file from `$FIC_HOME/CIRCA` folder.
2. Go to **Business Intelligence folder > coreapplication> Deployment** and check for the Catalog name. Change to `RCA` then apply and activate changes. This will create a new empty catalog with the name given.

For example

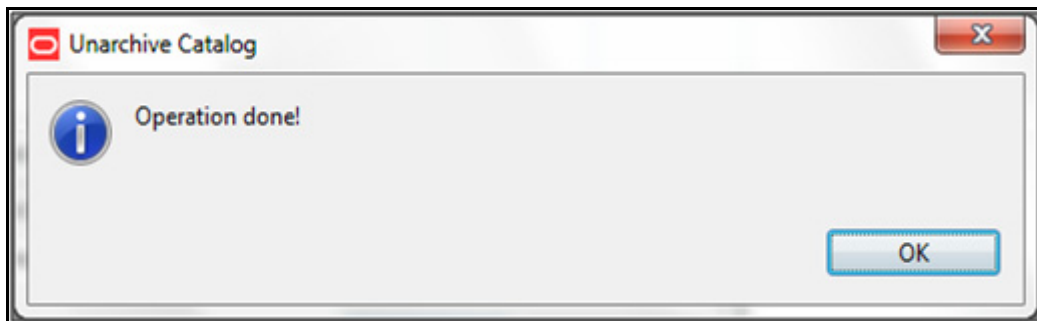
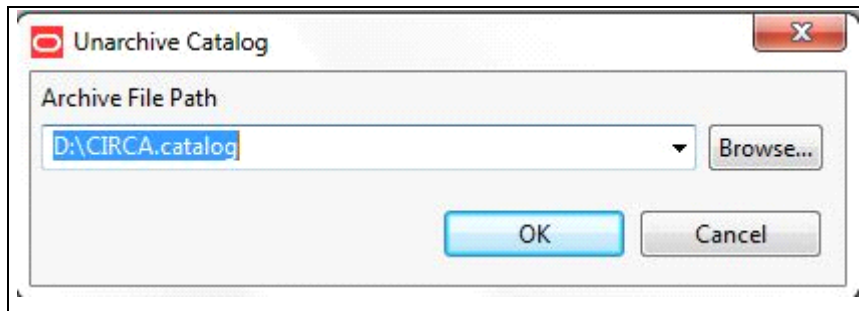
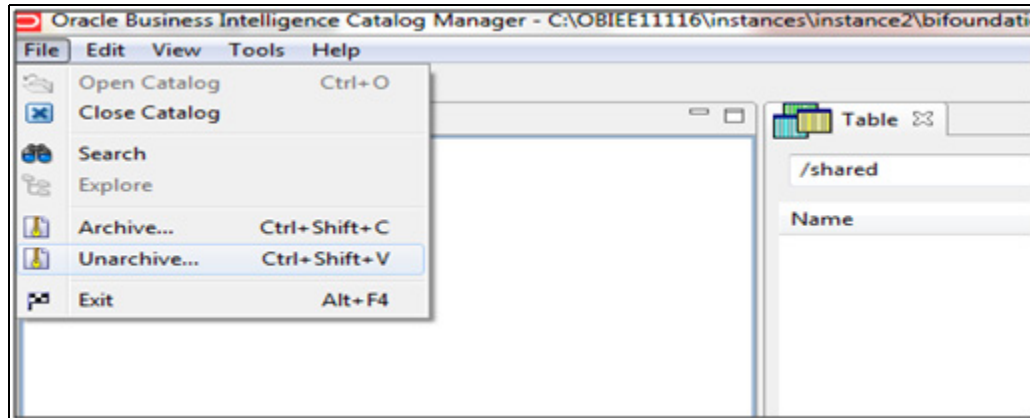
```
$ORACLE_  
INSTANCE/bifoundation/OracleBIPresentationServicesComponent/$COMPONENT_  
NAME/catalog/RCA
```



3. Go to **Catalog Manager**. Open the newly created catalog File -> Open Catalog.
4. Open the catalog online -> Browse to the catalog path. Click **OK**.



5. Now navigate to the **/shared** folder in the catalog manager and unarchive by selecting the path where the `CIRCA.catalog` was present. Then press **OK**.



6. Verify that the Retail Customer Analytics folder appears under **/shared** folder.
7. Once the Unarchive is done. Restart the BI Presentation Services(see Starting the Analytics services) to apply the change.
8. Modify the `instanceconfig.xml` file in case of any GUID error related to the BI Presentation Server to instruct Presentation Services to refresh GUIDs on restart.

The location of `instanceconfig.xml` file is `< OBIEE Install Folder>/instances/instance1/config/OracleBIPresentationServicesComponent/coreapplication_obips1`

Edit the file to add the line `<UpdateAccountGUIDs>UpdateAndExit</UpdateAccountGUIDs>` and restart the BI presentation services once again.

9. The steps mentioned above will force the BI Presentation Services to shut down after updating the Account GUIDS.

In that case, go to `instanceconfig.xml` file and revert back the changes made, that is, remove the line

---

<UpdateAccountGUIDs>UpdateAndExit</UpdateAccountGUIDs> from the instanceconfig.xml file and restart the services again.

## E. Starting the Analytics services

The Oracle Business Intelligence system components can start in any of the following manner.

### Through OPMN controller

#### For Windows Server

1. Open a command prompt, navigate to <OBIEE Install Folder>/instances/instance1/bin
2. Run the opmnctl startall command.

#### For Other Servers

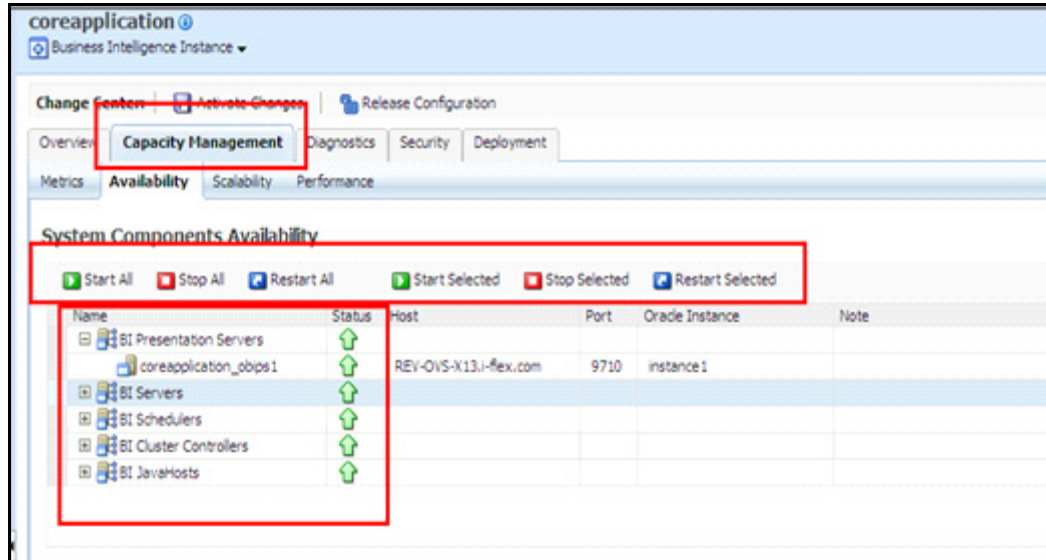
1. Navigate to < OBIEE Install Folder > /instances/instance1/bin
2. Run the command ./opmnctl startall
3. Check the status by running the command ./opmnctl status

```
[obiee11g@REV-OVS-X13 bin]$ ./opmnctl startall
opmnctl startall: starting opmn and all managed processes...
[obiee11g@REV-OVS-X13 bin]$ ls
opmnctl
[obiee11g@REV-OVS-X13 bin]$ ./opmnctl status

Processes in Instance: instance1
-----+-----+-----+-----+
ias-component          | process-type          | pid | status
-----+-----+-----+-----+
coreapplication_obiccs1 | OracleBIClusterCo~   | 23604 | Alive
coreapplication_obisch1 | OracleBIScheduler~   | 23602 | Alive
coreapplication_obijh1  | OracleBIJavaHostC~   | 23606 | Alive
coreapplication_obips1  | OracleBIPresentat~   | 23603 | Alive
coreapplication_obis1   | OracleBIServerCom~   | 23605 | Alive
[obiee11g@REV-OVS-X13 bin]$ █
```

### Through Enterprise Manager

1. Login to the EM administration screen using the url <http://<hostserver name or IP>:<Port No Default is 7001>/em>
2. Expand **Business Intelligence** node on the left and select **Core application**.
3. Navigate to **Capacity management > Availability**.
4. Click the necessary buttons to start and stop the services.



5. In case of any problems, check for the log files present in the respective diagnostic folders of analytics server, that is, <OBIEE Install Folder>/instances/instance1/diagnostics/logs.

#### F. Testing the Analytics reports

1. Log in to `http:// <host server name or IP>:<Port No default is 7001>/analytics/saw.dll?Dashboard` using your Administrator credentials created during platform install.
2. Check for the reports availability.
3. In case of any problems, check for the log files present in the respective diagnostic folders of analytics server, that is, <OBIEE Install Folder>/instances/instance1/diagnostics/logs.





This chapter covers the following topics:

- [Configuring Web Server](#)
- [Configuring Web Application Servers](#)

### Configuring Web Server

The Web Server (HTTP Server) supported in this release of OFSAA are Oracle HTTP Server, Apache HTTP Server, and IBM HTTP Server.

Refer the product specific installation guide to install and configure the Web Server. If an installation already exists, skip and proceed to the next step.

---

---

**Note:** Make a note of the IP Address/Hostname and Port of the web server. This information is required during the installation process.

---

---

---

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**Note:** Refer OFSAA Secure Configuration Guide/Security Guide for additional information on securely configuring your Web Server.

---

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**Note:** Ensure to enable sticky session/ affinity session configuration on the web server. Refer the respective product specific Configuration Guide for more details. Additionally, you also need to enable the sticky session/ affinity session configuration at Load Balancer level if you have configured a Load Balancer in front of the web server(s).

---

---

### Configuring Web Application Servers

You can deploy multiple OFSAA applications on different profiles of a WebSphere application server. To create multiple WebSphere "Profiles", use the command line option as explained below. A profile is the set of files that define the runtime environment. At least one profile must exist to run WebSphere Application Server.

This section includes the following topics:

- [Configuring WebSphere for Application Deployment](#)
- [Configuring WebLogic for Application Deployment](#)
- [Configuring Apache Tomcat Server for Application Deployment](#)

---

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**Note:** Refer OFSAA Secure Configuration Guide/Security Guide for additional information on securely configuring your Web Application Server.

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## Configuring WebSphere for Application Deployment

*Applicable only if the web container is WebSphere.*

You can deploy multiple Infrastructure applications on different profiles of a stand-alone WebSphere application server. To create multiple WebSphere "Profiles" in a stand-alone server, use the command line option as explained below. A profile is the set of files that define the runtime environment. At least one profile must exist to run WebSphere Application Server.

This section covers the following topics:

- [Creation of New Profile in WebSphere](#)
- [Manage Applications in WebSphere](#)
- [Delete WebSphere Profiles](#)
- [WebSphere HTTPS Configuration](#)
- [WebSphere Memory Settings](#)

### 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> -samplespassword <sample 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 -samplespassword ofsaai"
```

---

**Note:** While using the `manageprofiles.sh` command to create a New Profile in WebSphere, you can also use `"-validatePorts"` to validate if the specified ports are not reserved or in use. Additionally, you can specify new ports with `"-startingPort <base port>"` which specifies the starting port number to generate and assign all ports for the profile. For more information on using these ports, refer [WebSphere manageprofiles command](#).

---

## Manage Applications in WebSphere

To manage the installed applications in WebSphere, do the following:

1. Open the administrator console using the following URL:

```
http://<ipaddress>:<Administrative Console Port>/ibm/console
```

Example: `http://10.111.222.333:9003/ibm/console` (https if SSL is enabled)

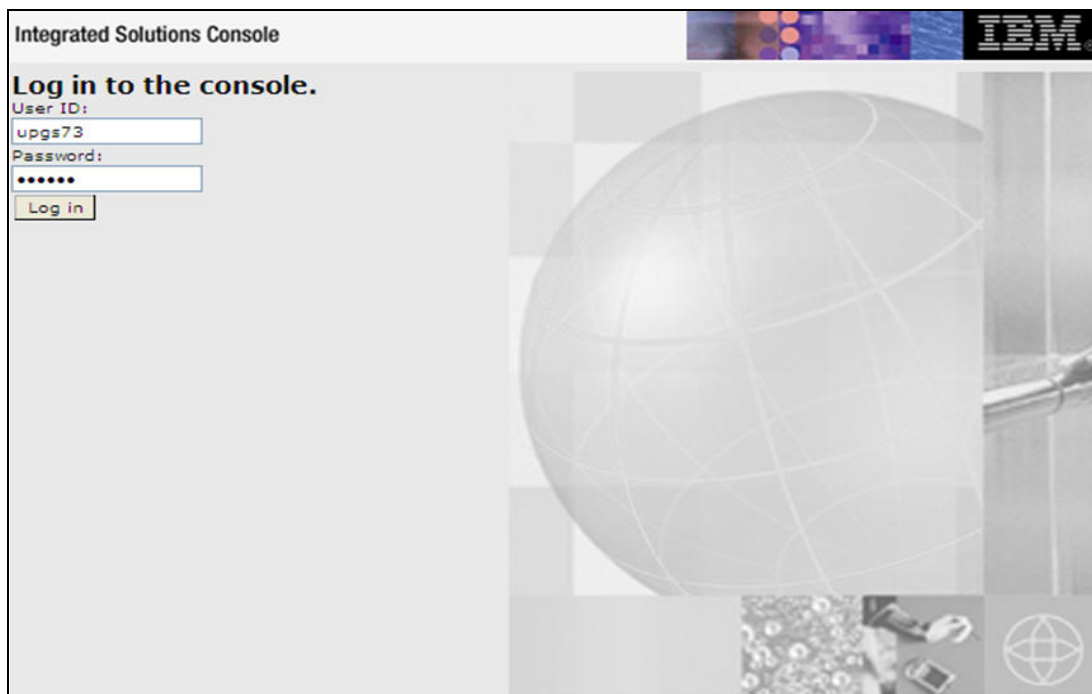
---

**Note:** Administrative Console Port value is available in `serverindex.xml` file within `<WebSphere Profile Directory>/config/cells/<Node Cell>/nodes/<Node Name>` directory.

---

The *Integrated Solutions Console Login* window is displayed.

**Figure 8–1** *Integrated Solutions Console Login*

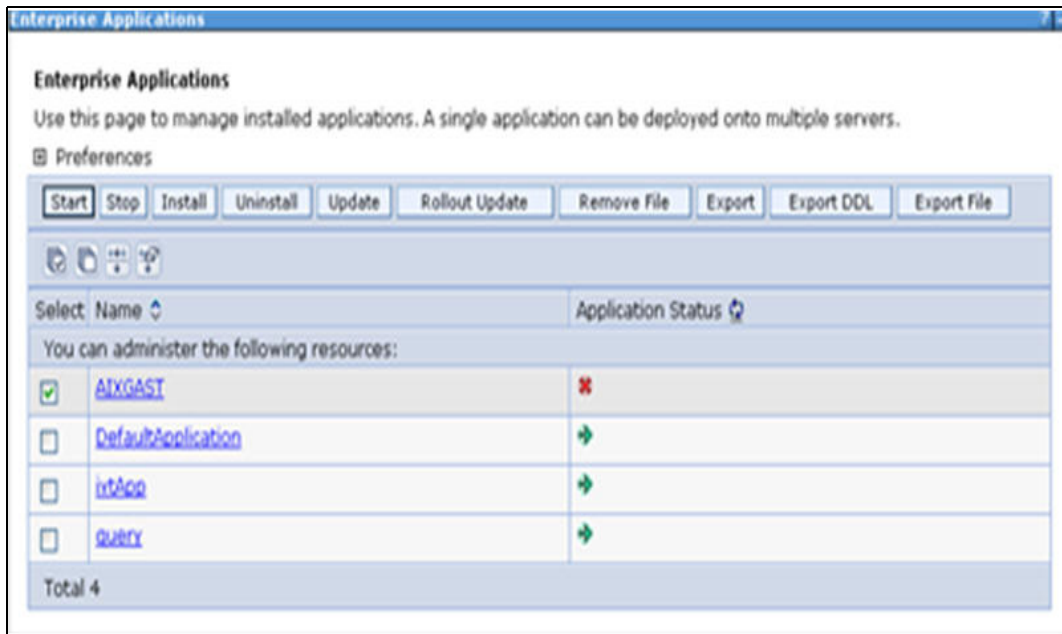


2. Log on with the **User ID** provided with the admin rights.

- From the LHS menu, expand the **Applications > Application Type> WebSphere Enterprise Applications**.

The *Enterprise Applications* screen is displayed.

**Figure 8–2 Enterprise Applications**



This Enterprise Applications screen helps you to:

- Install new application
- Uninstall existing applications
- Start or Stop the installed applications

### Delete WebSphere Profiles

To delete a WebSphere profile, do the following:

- Select the checkbox adjacent to the required application and click **Stop**.
- Stop** the WebSphere profile to be deleted.
- Navigate to WebSphere directory:

`<WebSphere_Installation_Directory>/AppServer/bin/`

- Execute the command:

```
manageprofiles.sh -delete -profileName <profile_name>
```

- Delete profile folder.

Example: `<WebSphere_Installation_Directory>/AppServer/profiles/<profile_name>`

- Execute the command:

```
manageprofiles.sh -validateAndUpdateRegistry
```

## WebSphere HTTPS Configuration

Following are the steps for configuring an HTTPS Transport on WebSphere:

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

---



---

**Note:** Note down the https port specified during this process and use the same as servlet port or web server port during OFSAAI installation.

---



---

2. To enable https configuration on Infrastructure, assign value 1 to "HTTPS\_ENABLE" in OFSAAI\_InstallConfig.xml for Silent mode OFSAAI installation.

## WebSphere Memory Settings

To configure the WebSphere Memory Settings:

1. Navigate to Websphere applications server > Application servers > server1 > Process definition > Java Virtual Machine.
2. Change the memory setting for Java Heap:

Initial heap size = 512

Maximum heap size = 3072

## Configuring WebLogic for Application Deployment

You can deploy multiple Infrastructure applications on different domains of a stand-alone weblogic application server. To create multiple WebLogic "Domains" in a stand-alone server you can use the Domain Creation wizard. A domain is the set of files that define the runtime environment. At least one domain must exist to run WebLogic Application Server.

---



---

**Note:**

For deployment on Oracle WebLogic Server 12.1.2+ (64 bit) with Java 8, download and install patch 18729264.

---



---

This section covers the following topics:

- [Creating Domain in WebLogic Server](#)
- [Delete Domain in WebLogic](#)
- [WebLogic Memory Settings](#)

### Creating Domain in WebLogic Server

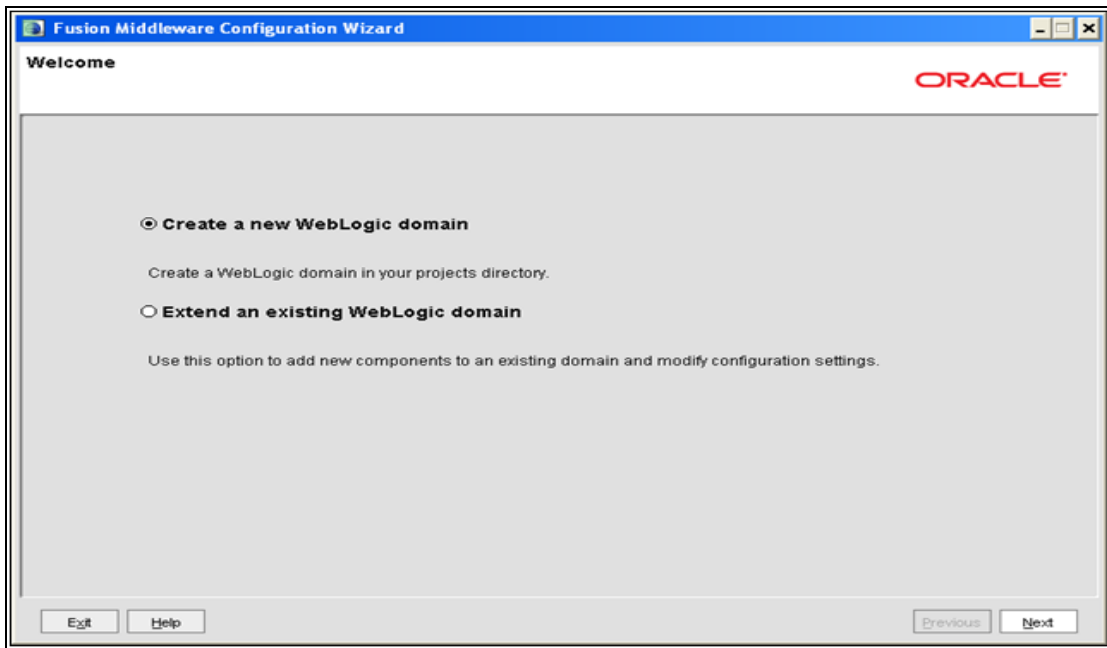
To create a new domain using Configuration Wizard in WebLogic, do the following:

1. Navigate to the directory <weblogic\_Home Directory>/wlserver\_10.3/common/bin and execute the command:

```
.\config.sh
```

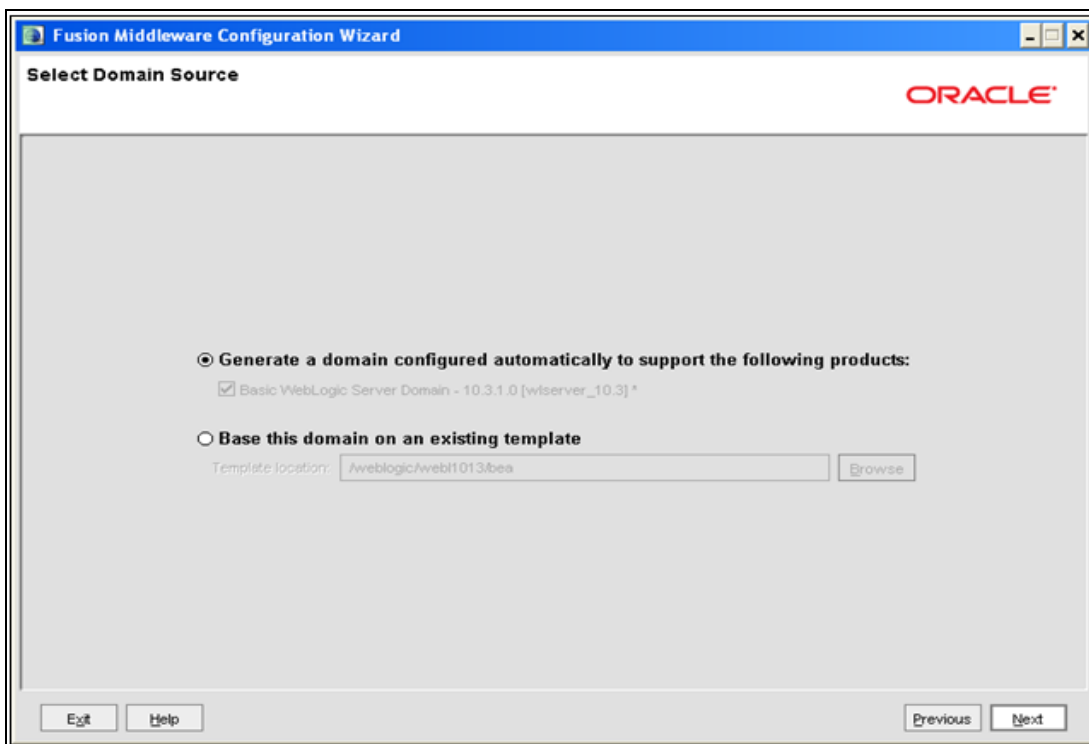
The Welcome window of the Configuration Wizard is displayed.

**Figure 8–3 Welcome**



2. Select **Create a new WebLogic domain** option and click **Next**.  
The *Select Domain Source* window is displayed.

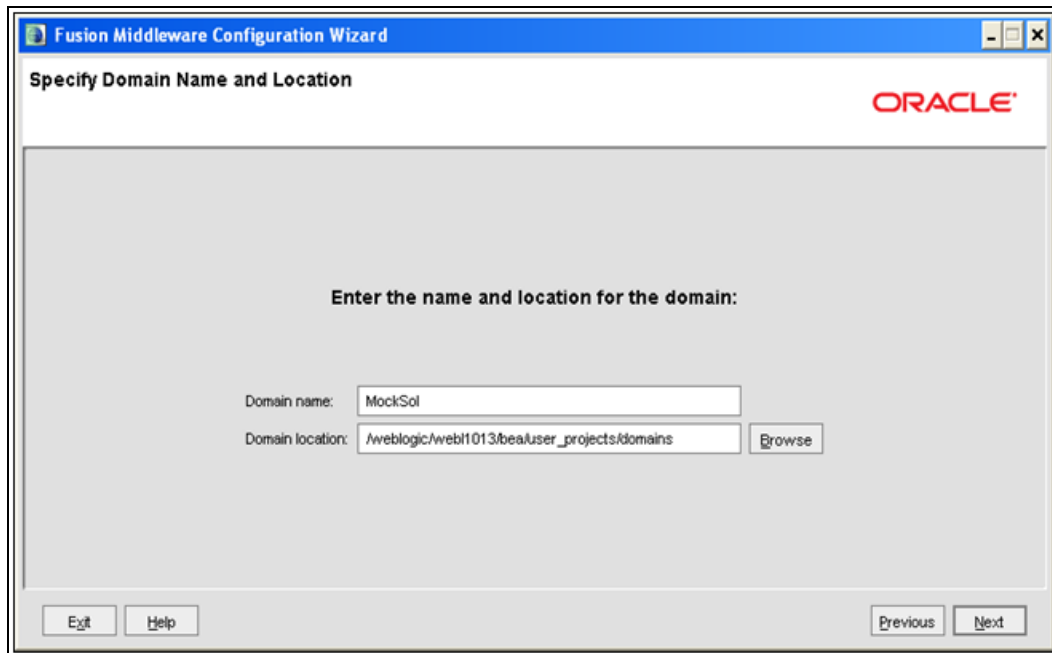
**Figure 8–4 Select Domain Source**



3. Select the **Generate a domain configured automatically to support the following products** option and click **Next**.

The *Specify Domain Name and Location* window is displayed.

**Figure 8–5 Specify Domain Name and Location**



The screenshot shows a window titled "Fusion Middleware Configuration Wizard" with the subtitle "Specify Domain Name and Location". The Oracle logo is in the top right corner. The main area contains the instruction "Enter the name and location for the domain:". Below this, there are two input fields: "Domain name:" with the text "MockSol" and "Domain location:" with the text "/weblogic/web1013/beealuser\_projects\domains". A "Browse" button is next to the domain location field. At the bottom, there are "Exit", "Help", "Previous", and "Next" buttons.

4. Enter the **Domain Name** and **Location**. Click **Browse** to navigate and specify the location. Click **Next**.

The *Configure Administrator Username and Password* window is displayed.

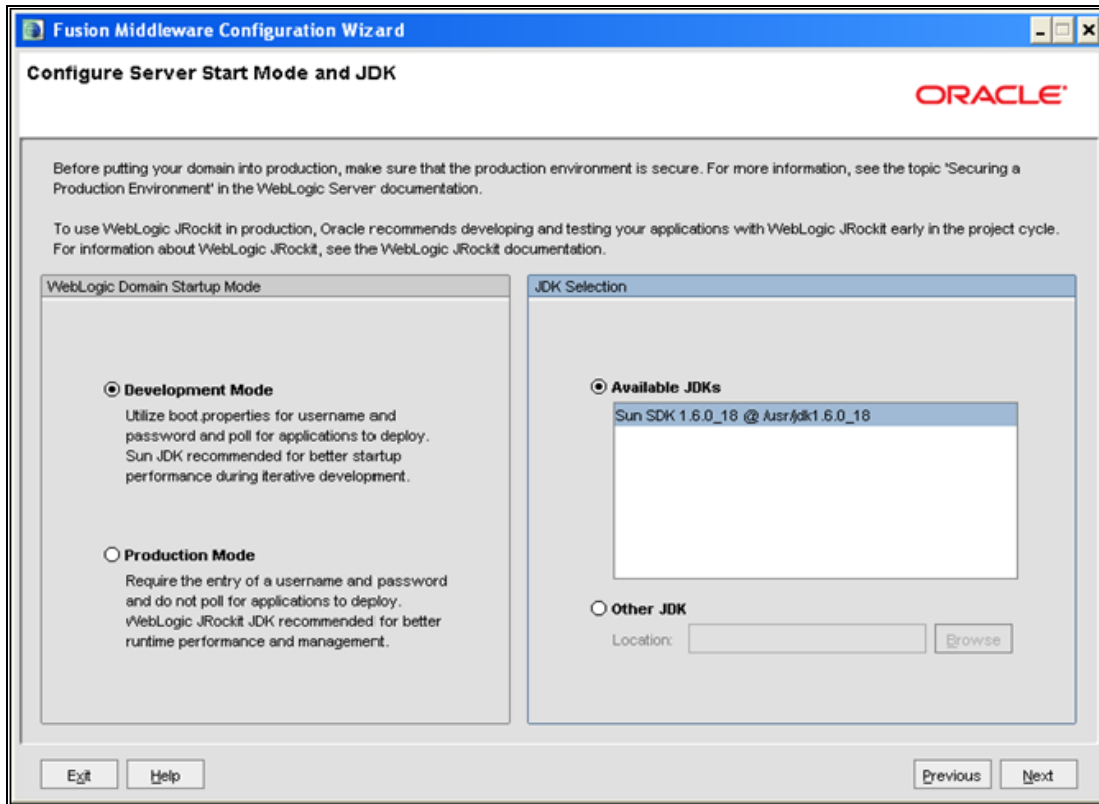
**Figure 8–6 Configure Administrator Username and Password**



The screenshot shows a window titled "Fusion Middleware Configuration Wizard" with the subtitle "Configure Administrator User Name and Password". The Oracle logo is in the top right corner. There is a "Disgard Changes" link with a circular arrow icon. Below this, there are four input fields: "\*User name:" with the text "manager", "\*User password:" with masked characters "\*\*\*\*\*", "\*Confirm user password:" with masked characters "\*\*\*\*\*", and "Description:" with the text "This user is the default administrator.". At the bottom, there are "Exit", "Help", "Previous", and "Next" buttons.

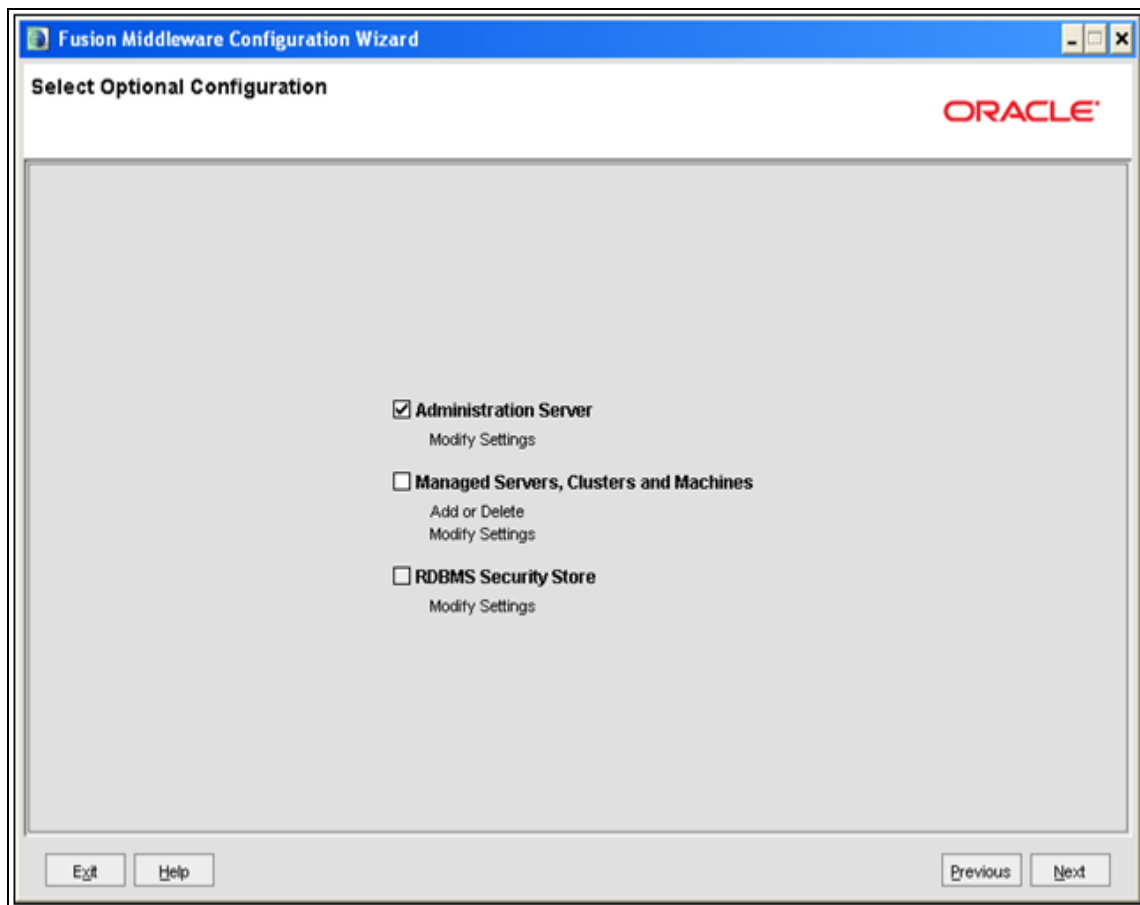
5. Enter the **User name** and **User password** to be assigned to the Administrator. Ensure that the password is of minimum 8 characters in length.
6. Re-enter the password for confirmation and add a brief **Description**. Click **Next**.  
The *Configure Server Start Mode and JDK* window is displayed.

**Figure 8–7 Configure Server Start Mode and JDK**



7. Select the following options:  
 In the WebLogic Domain Startup Mode section, select the required mode (Development Mode or Production Mode).  
 In the JDK Selection section, select **Other JDK**. Click **Browse** and navigate to the JDK location. Click **Next**.  
 The Select Optional Configuration window is displayed.

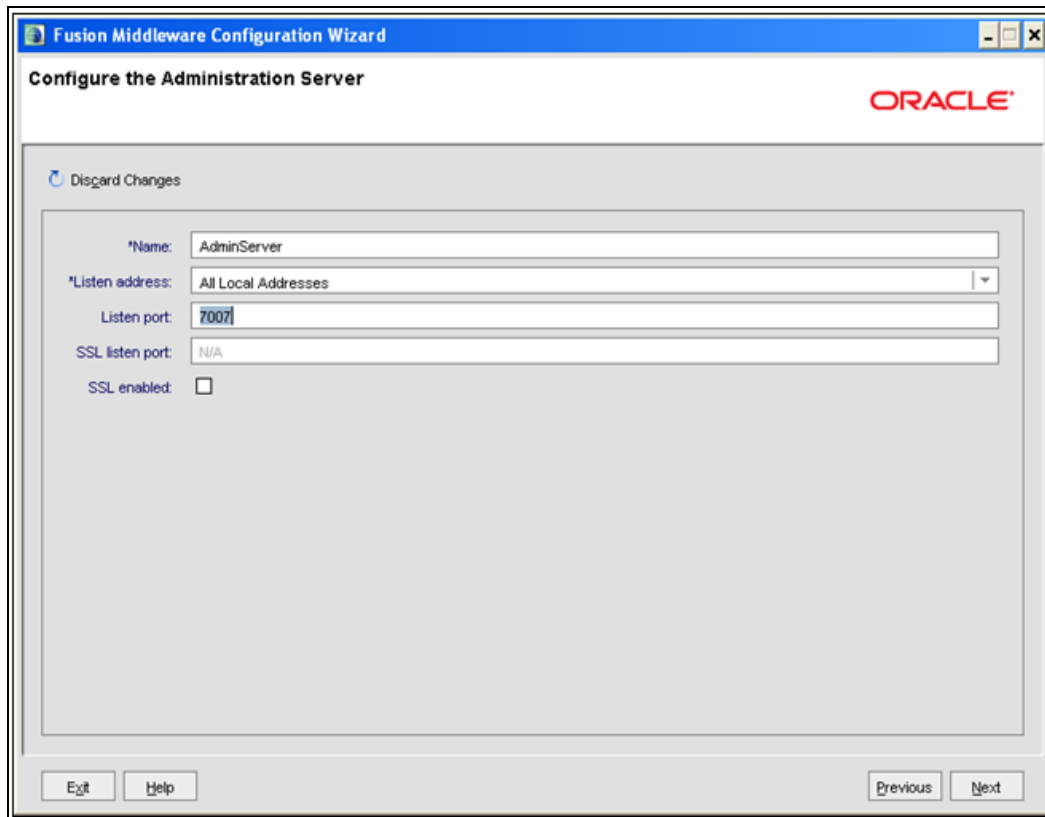


**Figure 8–8 Select Optional Configuration**

8. Select **Administration Server**. A WebLogic Server domain must have an Administration Server. You can also select Manages Servers, Clusters and Machines and RDBMS Security Store if required. Click **Next**.

The Configure the Administration Server window is displayed.

**Figure 8–9 Configure the Administration Server**



9. Enter Administration Server details such as the Name, Listen address, Listen Port, SSL listen port, and SSL enabled (for secure login using https) check box. Click **Next**.

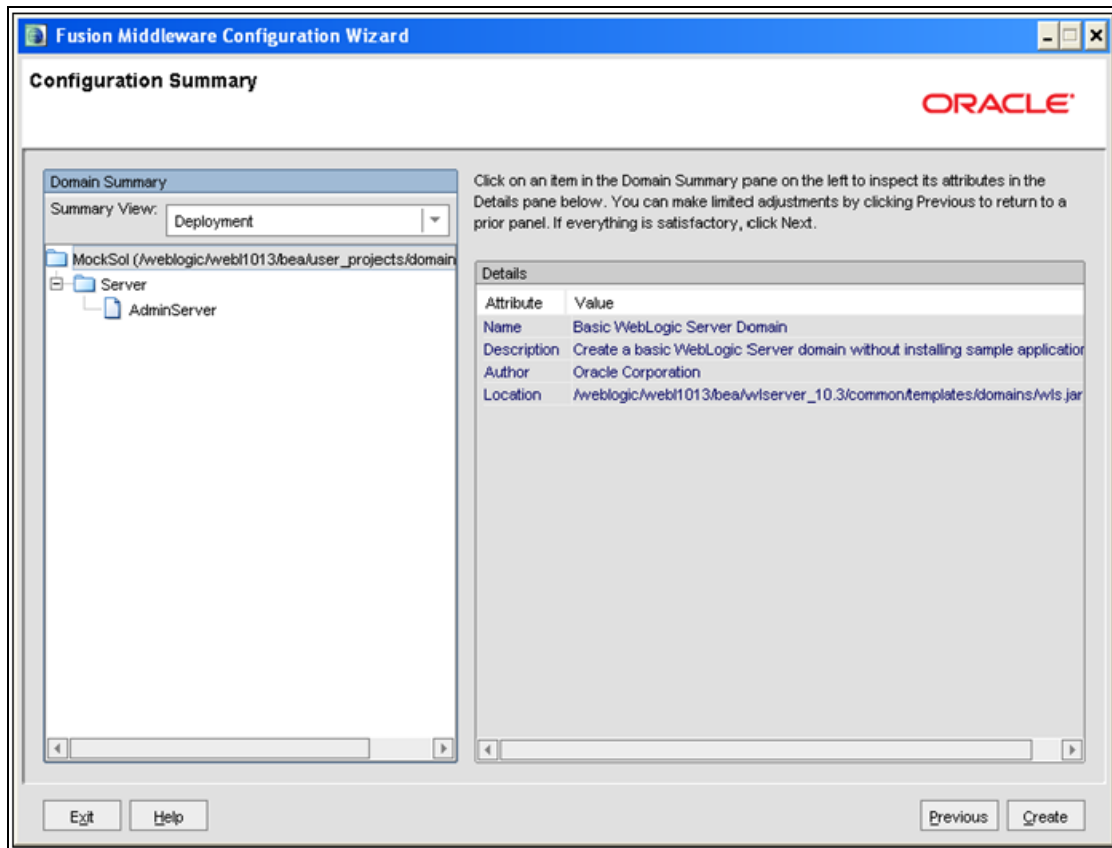
The Configuration Summary window is displayed.

---

**Note:** Make a note of the Listen Port or SSL Listen Port value (ex: 7007), since the same has to be re-entered in the Servlet port field during Infrastructure installation.

---

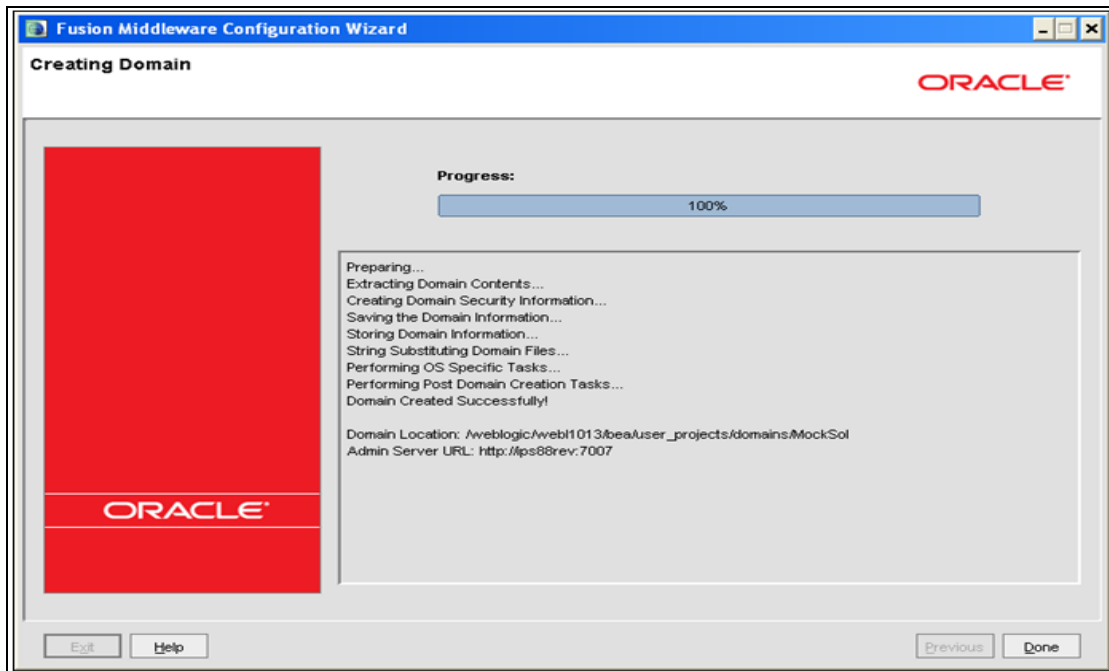
Figure 8–10 Configure Server Start Mode and JDK



10. Verify the configuration details of the WebLogic domain and click **Create**.

The Creating Domain window is displayed with the status indication of the domain creation process.

Figure 8–11 Configure Server Start Mode and JDK



11. Click **Done** when complete. The domain server is created enabling the deployment of multiple Infrastructure applications on a single WebLogic.

### Delete Domain in WebLogic

1. Navigate to the following directory:
 

```
<WebLogic Installation directory>/user_projects/domains/<domain name>/bin
```
2. Execute **stopWebLogic.sh** to stop the Weblogic domain.
3. Delete the Weblogic domain.

### WebLogic Memory Settings

To configure the WebLogic Memory Settings:

1. Change the memory setting for Java Heap to `-Xms512m -Xmx3072m` in `setDomainEnv.sh` file, which resides in the folder `<DOMAIN_HOME>/bin` and in `CommEnv.sh` file which resides in the folder `common/bin`.
2. Edit this file for customizing memory settings and garbage collector settings depending on the available hardware configuration.

Example 1:

```
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

```

Example 2:

```

JAVA_VM=
MEM_ARGS="-Xms256m -Xmx1024m"

```

## Configuring Apache Tomcat Server for Application Deployment

This section is applicable only when the Web Application Server type is Tomcat.

This section covers the following topics:

- [Tomcat User Administration](#)
- [Configure Tomcat to use JAVA 64 bit Executables](#)
- [Configure Servlet Port](#)
- [Create Tomcat WAR Files](#)
- [SSL Port Configuration](#)
- [Apache Tomcat Memory Settings](#)
- [Uninstalling WAR Files in Tomcat](#)
- [Configuration for Axis API](#)

### 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 on to Tomcat, and the role names to which the admin user is associated with. For example, <user name="admin" password="admin" roles="standard,manager" />

1. Add the manager role to any one of the existing username/password combination as shown in the example above.
2. Use the same username/password to which the manager role has been assigned to access the Tomcat Application Manager.
3. If the Tomcat server is already running, it requires a re-start after the above configuration is done.

### Configure Tomcat to use JAVA 64 bit Executables

1. Navigate to the "\$CATALINA\_HOME/bin" folder.
2. Edit the setclasspath.sh as explained below:
3. 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:

```
# Set standard commands for invoking Java.
_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.

### Configure Servlet Port

The Servlet Port specified during the Infrastructure installation process must be configured if your Web Application 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:

1. Navigate to \$CATALINA\_HOME/conf. Open server.xml and locate the tag:  
"Define a non-SSL HTTP/1.1 Connector on port 8080 "
2. 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.
3. Save your changes in "server.xml".

### Create Tomcat WAR Files

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

The following steps 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. Execute the command:  

```
./ant.sh
```

This will trigger the creation of WAR file - <contextname>.war. The <contextname> is the 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 - <contextname>.war- is created on the machine on which Infrastructure Web components are installed under \$FIC\_WEB\_HOME directory.

Note the following:

- This process will not overwrite any existing version of WAR file that exists in the path. Rename/delete any existing war file.

- Proceed with the Tomcat WAR Files Deployment.
- Log on to the server in which Tomcat is installed.

### 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 Application Server port or servlet port in Infrastructure.

---

For more information related to SSL Configuration on Tomcat, refer to <http://tomcat.apache.org/>.

### Apache Tomcat Memory Settings

To configure the Apache Tomcat Memory Settings, follow these steps:

1. Locate the file `catalina.sh` which resides in the folder `<CATALINA_HOME>/bin`
2. Edit this file for customizing the memory settings and garbage collector settings depending on the available hardware configuration.
3. Add the memory setting for Java Heap to `-Xms512m -Xmx1024m`.
4. For 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
```

### Uninstalling WAR Files in Tomcat

On the machine that hosts Tomcat, perform the following steps 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="/pr2test"
docBase="/home/perfuser/tomcat-7.0.19/webapps/pr2test" debug="0"
reloadable="true" crossContext="true">
<Resource auth="Container"
```

```
name="jdbc/PR2ATM"  
type="javax.sql.DataSource"  
driverClassName="oracle.jdbc.driver.OracleDriver"  
username="pr2atm"  
password="pr2atm"  
url="jdbc:oracle:thin:@10.184.74.99:1521:PERFTEST"  
maxActive="100"  
maxIdle="30"  
maxWait="10000"/>  
</Context>  
-->
```

Restart the Tomcat service by doing the following:

- Login to the "Unix server" through a terminal emulator.
  - Navigate to `$catalina_home/bin` directory.
  - Stop the tomcat services using the command `./shutdown.sh`
  - Start the tomcat services using the command `./startup.sh`
2. Open the URL in a browser window: `http://<IP address>:<Tomcat server port>`. (https if SSL is enabled). The Tomcat home window is displayed.
  3. Click the Manager App. The Connect to window is displayed.
  4. Login with the user credentials having admin rights. The Tomcat Web Application Manager window is displayed with the list of all applications deployed in Tomcat.




Figure A-1 Tomcat Web Application Manager

Home Documentation Configuration Wiki Mailing Lists Find Help

## Apache Tomcat/7.0.19

The Apache Software Foundation  
http://www.apache.org/

If you're seeing this, you've successfully installed Tomcat. Congratulations!

 Recommended Reading:

- [Security Considerations HOW-TO](#)
- [Manager Application HOW-TO](#)
- [Clustering/Session Replication HOW-TO](#)

Server Status  
Manager App  
Host Manager

### Developer Quick Start

- [Tomcat Setup](#)
- [Realms & AAA](#)
- [Servlet Examples](#)
- [Servlet Specifications](#)
- [First Web Application](#)
- [JDBC DataSources](#)
- [JSP Examples](#)
- [Tomcat Versions](#)

#### Managing Tomcat

For security, access to the `manager.webapp` is restricted. Users are defined in:

```
SCATALINA_HOME/conf/tomcat-users.xml
```

In Tomcat 7.0 access to the manager application is split between different users.  
[Read more...](#)

[Release Notes](#)  
[Changelog](#)  
[Migration Guide](#)  
[Security Updates](#)

#### Documentation

[Tomcat 7.0 Documentation](#)  
[Tomcat 7.0 Configuration](#)  
[Tomcat Wiki](#)

Find additional important configuration information in:

```
SCATALINA_HOME/RUNNING.txt
```

Developers may be interested in:

- [Tomcat 7.0 Bug Database](#)
- [Tomcat 7.0 JavaDocs](#)
- [Tomcat 7.0 SVN Repository](#)
- [Tomcat 7.0 Examples](#)

#### Getting Help

[FAQ](#)  
[Mailing Lists](#)

The following mailing lists are available:

- [announce@tomcat.apache.org](mailto:announce@tomcat.apache.org)  
Important announcements, releases, security vulnerability notifications. (Low volume).
- [users@tomcat.apache.org](mailto:users@tomcat.apache.org)  
User support and discussion
- [taglibs-user@tomcat.apache.org](mailto:taglibs-user@tomcat.apache.org)  
User support and discussion for [Apache Taglibs](#)
- [dev@tomcat.apache.org](mailto:dev@tomcat.apache.org)  
Development mailing list, including commit messages

Other Downloads	Other Documentation	Get Involved	Miscellaneous	Apache Software Foundation
<a href="#">Tomcat Connectors</a>	<a href="#">Tomcat Connectors</a>	<a href="#">Overview</a>	<a href="#">Contact</a>	<a href="#">Who We Are</a>
<a href="#">Tomcat Native</a>	<a href="#">read_it Documentation</a>	<a href="#">SVN Repositories</a>	<a href="#">Legal</a>	<a href="#">Heritage</a>
<a href="#">Taglibs</a>	<a href="#">Tomcat Native</a>	<a href="#">Mailing Lists</a>	<a href="#">Sponsorship</a>	<a href="#">Apache Home</a>
<a href="#">Deployer</a>	<a href="#">Deployer</a>	<a href="#">Wiki</a>	<a href="#">Thanks</a>	<a href="#">Resources</a>

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- Click the **Undeploy** link against the deployed Infrastructure application. A confirmation message is displayed on the application /Infrastructure being uninstalled.

### Configuration for Axis API

This step is optional and required only if the web application server used in Apache Tomcat. If you use any other web application server, skip and proceed to next step.

Copy the `jaxrpc.jar` from the `<OFSAA Installation Directory>/axis-1_4/webapps/axis/WEB-INF/lib` and place it in under `<Tomcat Installation Directory>/lib` and restart the Tomcat Server.



### Configuring Resource Reference in Web Application Servers

This section covers the following topics:

- [Configuring Resource Reference in WebSphere Application Server](#)
- [Configuring Resource Reference in Weblogic Application Server](#)
- [Configuring Resource Reference in Tomcat Application Server](#)

### Configuring Resource Reference in WebSphere Application Server

This section is applicable only when the Web Application Server type is WebSphere.

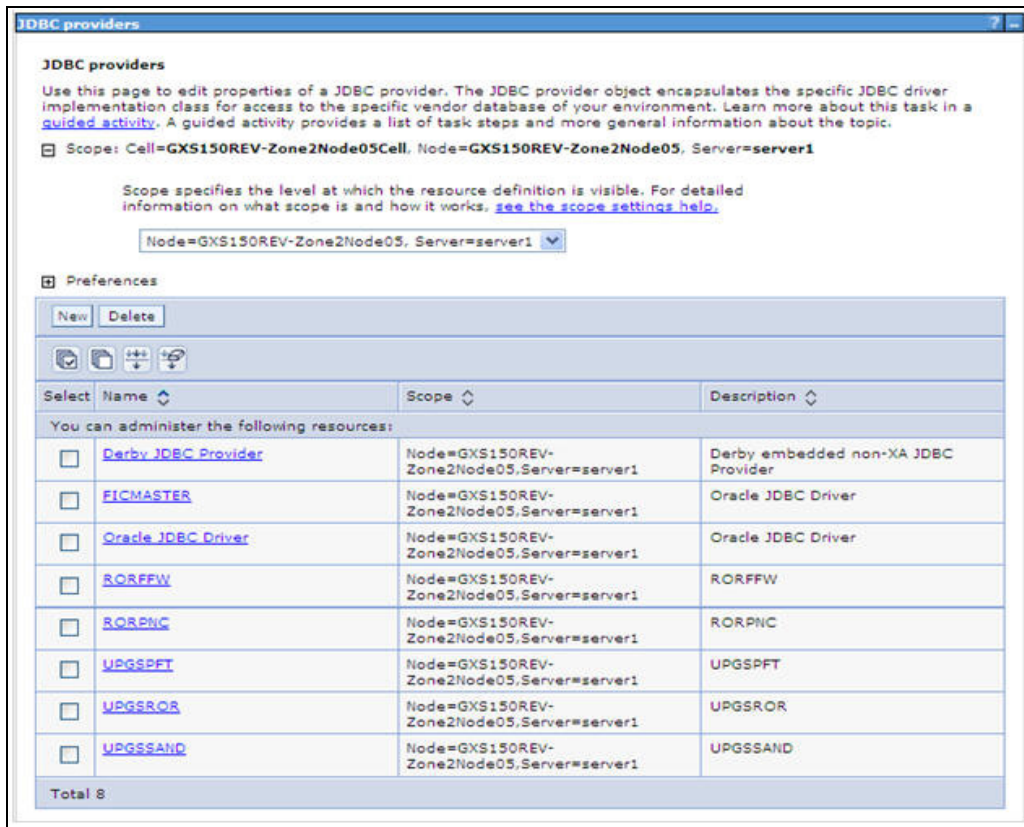
This section covers the following topics:

- [Creating JDBC Provider](#)
- [Creating Data Source](#)
- [J2C Authentication Details](#)
- [JDBC Connection Pooling](#)

#### Creating JDBC Provider

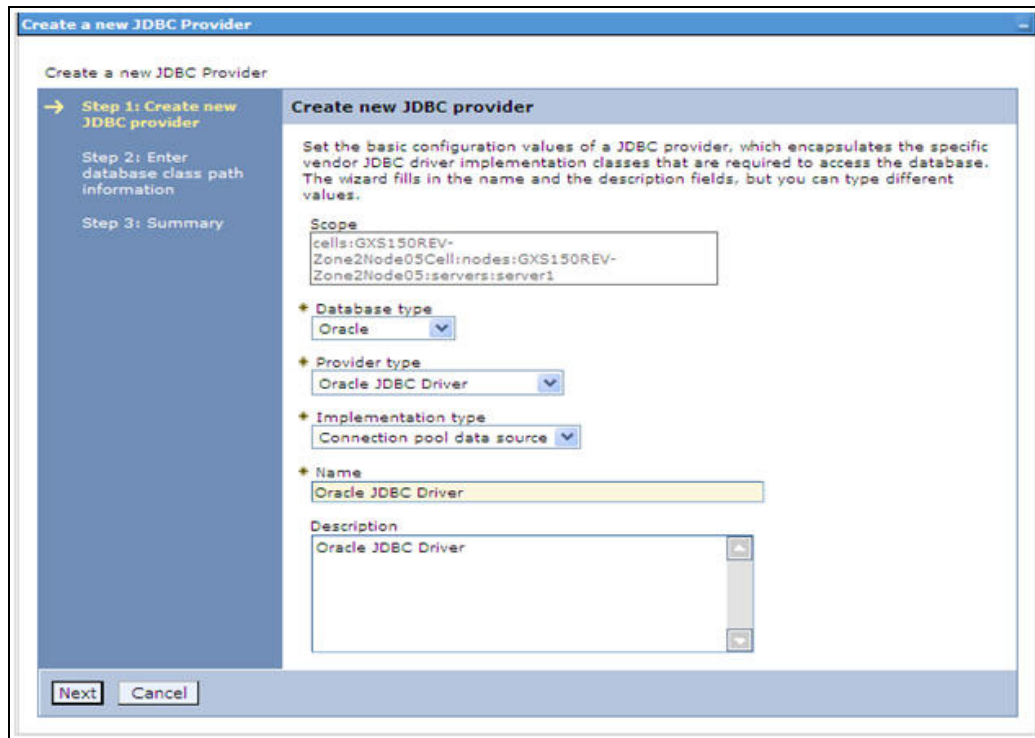
1. Open the WebSphere admin console in the browser window:  
`http://<ipaddress>:<administrative console port>/ibm/console`. (https if SSL is enabled). The *Login* window is displayed.
2. Login with the user id that has admin rights.
3. Expand the **Resources** option in the LHS menu and click **JDBC > JDBC Providers**. The JDBC Providers window is displayed.

Figure 8–12 JDBC Providers



4. Select the **Scope** from the drop-down list. Scope specifies the level at which the resource definition is visible.
5. Click **New** to add new JDBC Provider under the *Preferences* section. The Create new JDBC provider window is displayed.

**Figure 8–13 Create a new JDBC Provider**



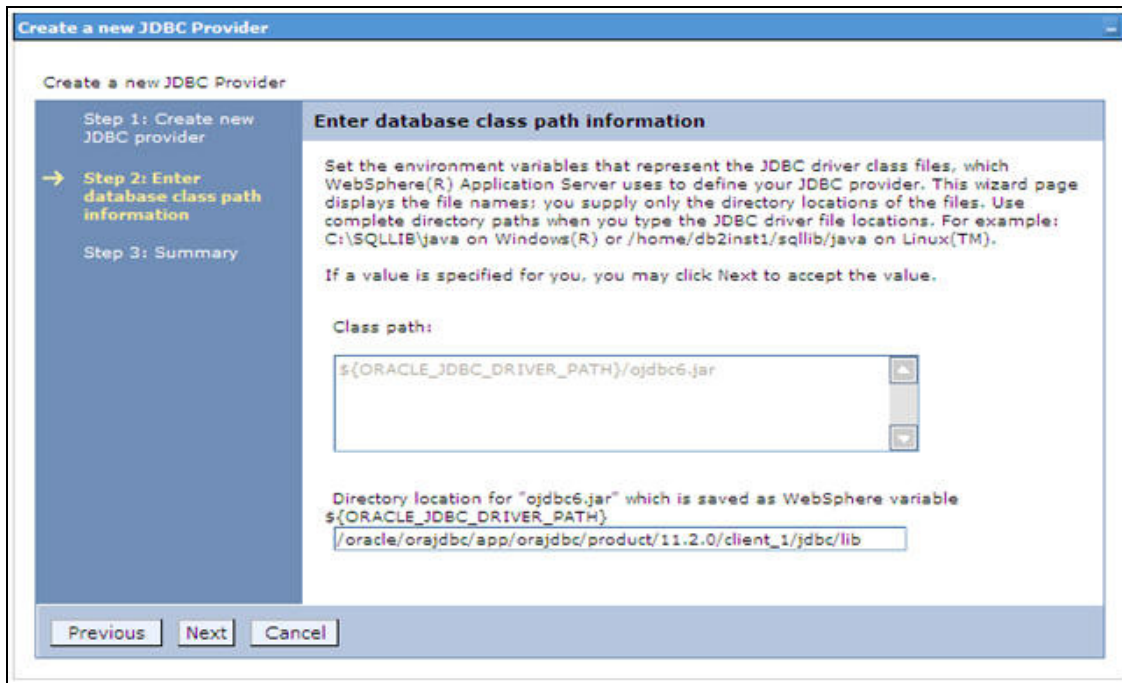
6. Enter the following details:

**Table B–1 Fields and their description**

Field	Description
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

7. Click **Next**.

**Figure 8–14 Enter database class path information**



8. Specify the directory location for "ojdbc<version>.jar" file. Ensure that you do not use the trailing slash file separators. .

The Oracle JDBC driver can be downloaded from the following Oracle Download site:

- Oracle Database 11g Release 2 (11.2.0.4) JDBC Drivers
- Oracle Database 12c Release 1 (12.1.0.1) JDBC Drivers

Once downloaded, you need to copy the file in the required folder on the server.

---



---

**Note:**

Refer [Appendix I](#) for identifying the correct ojdbc<version>.jar version to be copied.

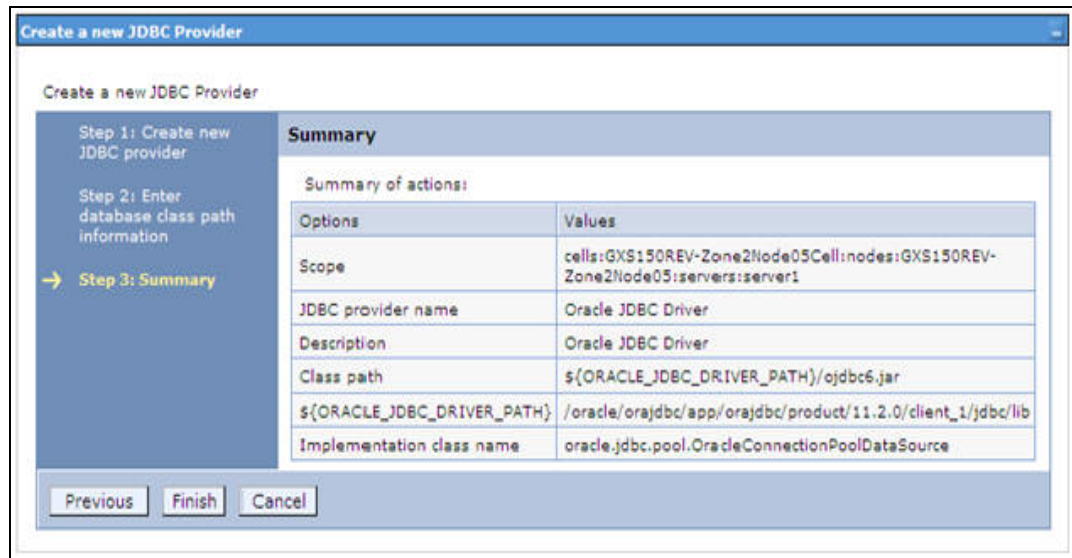
---



---

9. Click **Next**. The Summary window is displayed.

Figure 8–15 Summary



10. Verify the details and click **Finish** to create the JDBC Provider.

11. The options to **Save** and **Review** are displayed. Click **Save**.

### Creating Data Source

The steps given following are applicable for both config and atomic data source creation.

1. Open this URL in the browser window: `http://<ipaddress>:<administrative console port>/ibm/console`. (https if SSL is enabled). The *Login* window is displayed.
2. Login with the user id that has admin rights.
3. Expand the **Resources** option in the LHS menu and click **JDBC > Data sources** option. The Data sources window is displayed.

Figure 8–16 Data Sources



4. Select the **Scope** from the drop down list. Scope specifies the level at which the resource definition is visible.
5. Click **New**. The Create a Data Source window is displayed.



Figure 8–17 Create a data source

The screenshot shows the 'Create a data source' wizard. On the left, a navigation pane lists five steps: Step 1 (selected), Step 2, Step 3, Step 4, and Step 5. The main area is titled 'Enter basic data source information' and contains the following text: 'Set the basic configuration values of a datasource for association with your JDBC provider. A datasource supplies the physical connections between the application server and the database. Requirement: Use the Datasources (WebSphere(R) Application Server V4) console pages if your applications are based on the Enterprise JavaBeans(TM) (EJB) 1.0 specification or the Java(TM) Servlet 2.2 specification.' Below this, there are three input fields: 'Scope' with the value 'cells:GXS150REV- Zone2Node05Cell:nodes:GXS150REV- Zone2Node05:servers:server1', 'Data source name' with the value 'AtomT', and 'JNDI name' with the value 'jdbc/DRYMOCK'. At the bottom, there are 'Next' and 'Cancel' buttons.

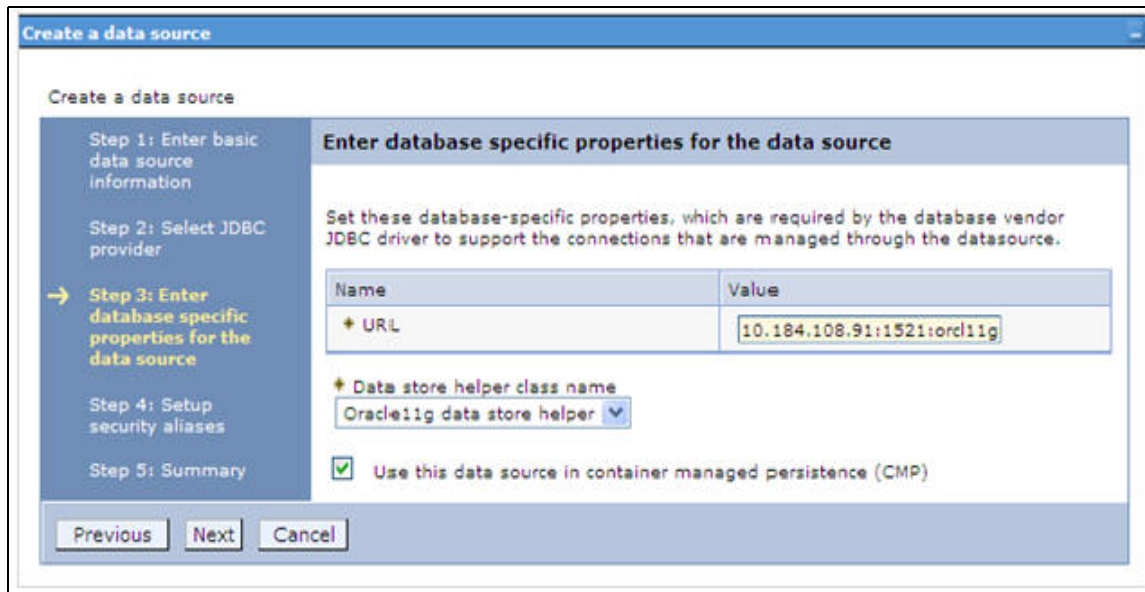
6. Specify the **Data Source name** and **JNDI name** for the new "Data Source".  
The **JNDI** and **Data Source** name are case sensitive and ensure that JNDI name is same as the "Information Domain" name.
7. Click **Next**. The Select JDBC provider window is displayed.

Figure 8–18 Select JDBC provider

The screenshot shows the 'Create a data source' wizard at Step 2, 'Select JDBC provider'. The left navigation pane shows Step 2 selected. The main area contains the text: 'Specify a JDBC provider to support the datasource. If you choose to create a new JDBC provider, it will be created at the same scope as the datasource. If you are selecting an existing JDBC provider, only those providers at the current scope are available from the list.' There are two radio button options: 'Create new JDBC provider' (unselected) and 'Select an existing JDBC provider' (selected). Below the radio buttons is a drop-down menu showing 'Oracle JDBC Driver'. At the bottom, there are 'Previous', 'Next', and 'Cancel' buttons.

8. Select the option **Select an Existing JDBC Provider** and select the required JDBC provider from the drop-down list. Click **Next**.

**Figure 8–19** Enter database specific properties



9. Specify the database connection URL.

For example: `jdbc:oracle:thin:@<DB_SERVER_IP>:<DB_SERVER_PORT>:<SID>`

10. Select **Data Store Helper Class Name** from the drop-down list and ensure that the checkbox **Use this data source in container managed persistence (CMP)** is selected.

---

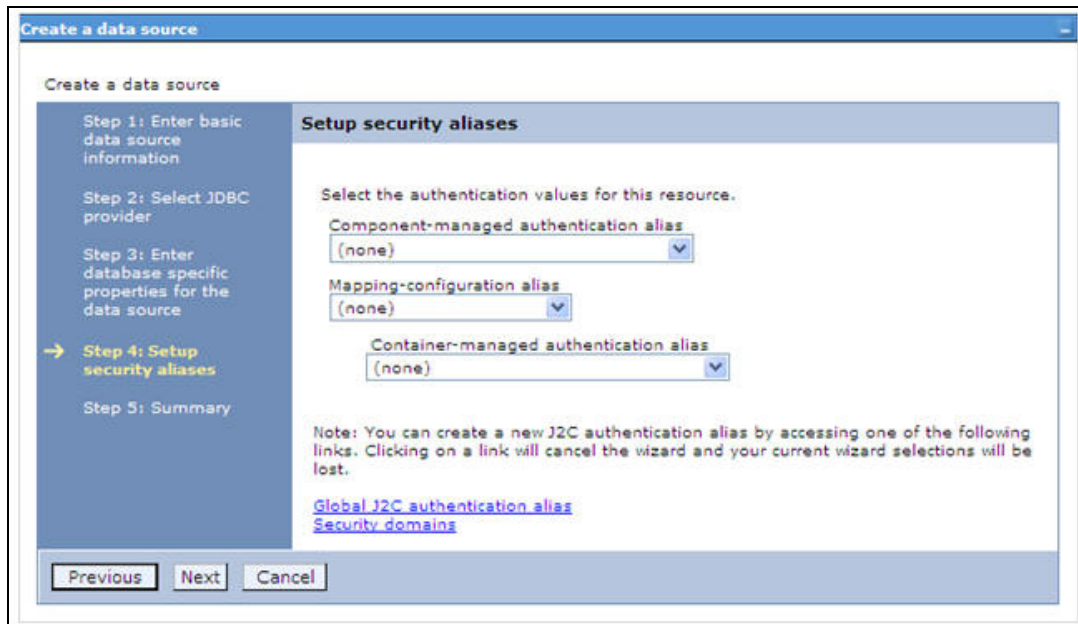
**Note:** For RAC configuration, provide the RAC url specified during installation.

---

**Example:** `jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=10.11.12.13)(port=1521))(ADDRESS=(PROTOCOL=TCP)(HOST=10.11.12.14)(PORT=1521))(LOAD_BALANCE=no)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=pqadb)))`

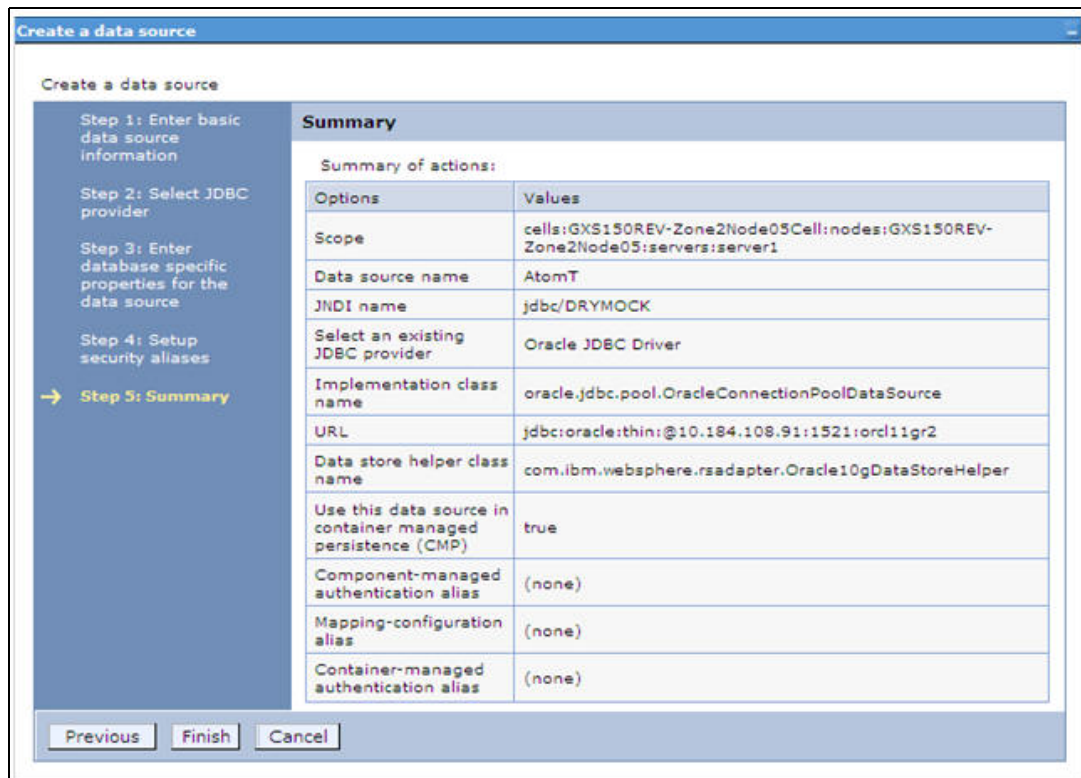
11. Click **Next**.

Figure 8–20 Setup security aliases



12. Map the J2C authentication alias, if already created. If not, 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 **Next** and then **Finish**.

Figure 8–21 Summary



You can also create and map J2C authentication alias after creating the data source.

13. You must create another Data source by following the aforementioned procedure with jdbc/FICMASTER as JNDI name pointing to the "configuration schema" of Infrastructure.

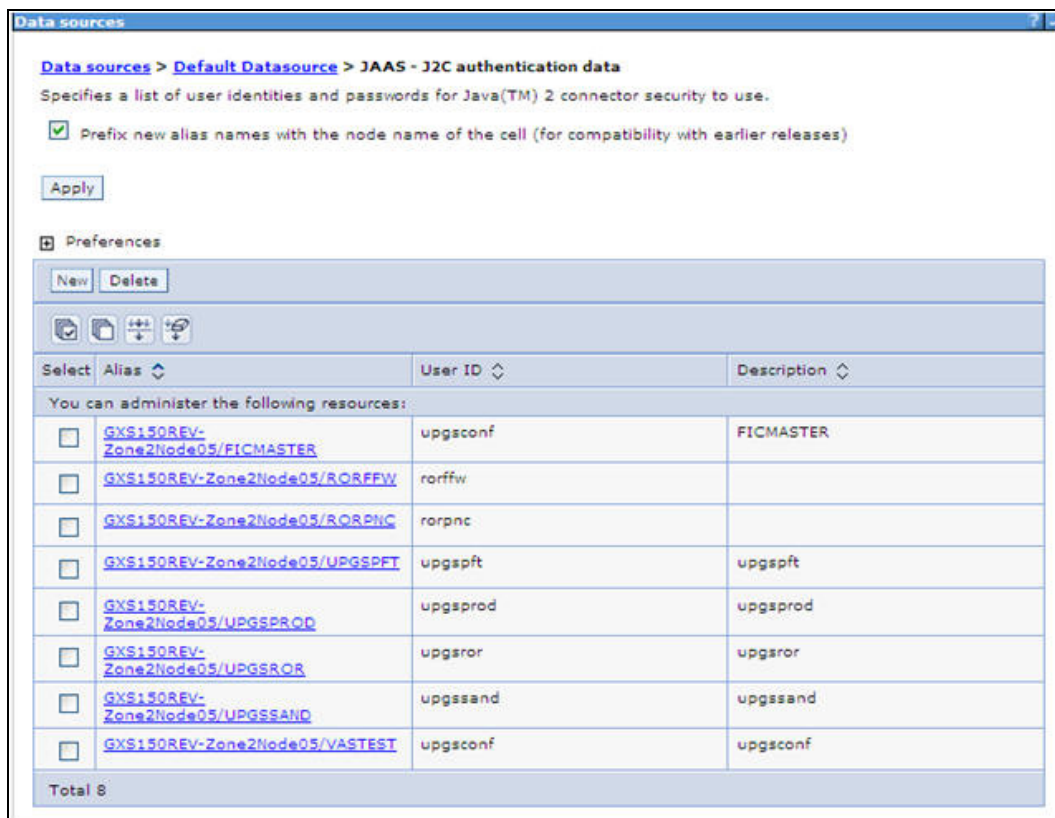
### J2C Authentication Details

The steps given following are applicable for creating both config and atomic J2C Authentication.

To create J2C Authentication details:

1. Select the newly created Data Source and click **JAAS - J2C authentication data** link under **Related Items**.

**Figure 8-22** JAAS-J2C authentication data



2. Click **New** under the Preferences section.

Figure 8–23 JAAS- J2C authentication data- New

Data sources > Default Datasource > JAAS - J2C authentication data > New

Specifies a list of user identities and passwords for Java(TM) 2 connector security to use.

General Properties

Alias  
Atm

User ID  
upgs73

Password  
\*\*\*\*\*

Description  
Atomic Instance

Apply OK Reset Cancel

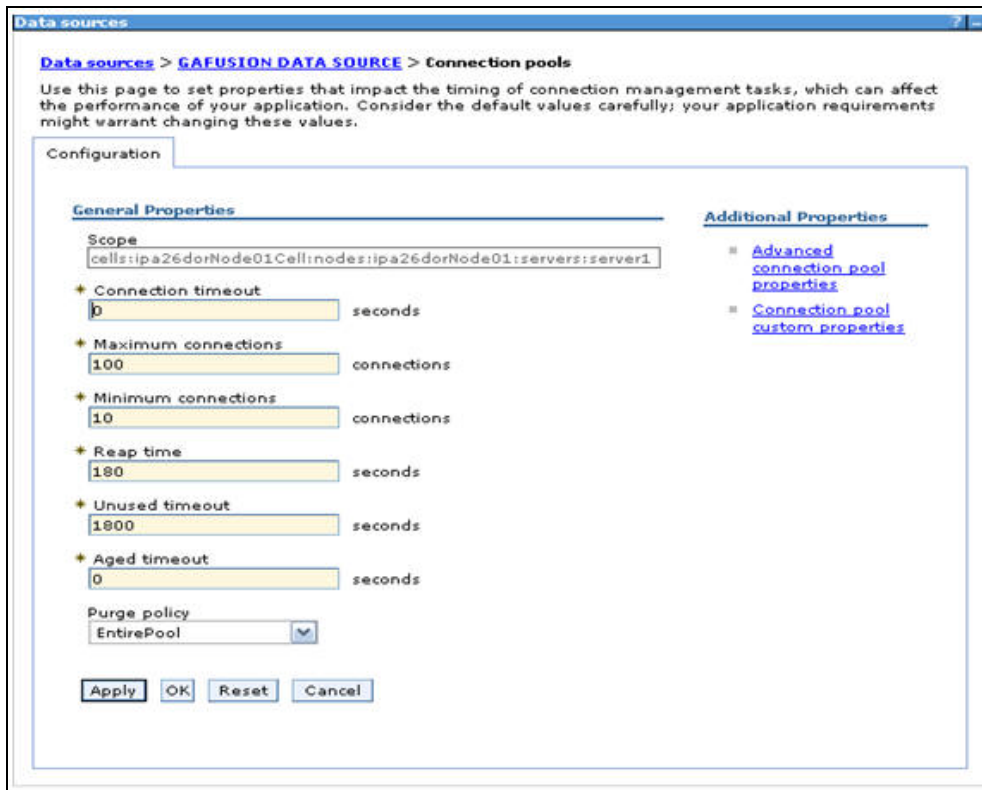
3. Enter the **Alias**, **User ID**, **Password**, and **Description**. Ensure the following:
  - User ID is the Oracle user ID created for the respective CONFIG and ATOMIC Schema for the "Information Domain".
  - Specify the CONFIG database user ID and password information for the jdbc/FICMASTER data source, and specify the ATOMIC database user ID and password information for the ATOMIC schema data source that you created earlier.
4. Click **Apply** and save the details.

### JDBC Connection Pooling

To define the JDBC connection pooling ensure that you have created JDBC Provider and Data source to access the data from the database.

1. Expand the **Resources** option in the LHS menu and click **JDBC > Data sources option**. The Data sources window is displayed.
2. Click the newly created Data Source \$DATA\_SOURCE\$ and navigate to the path Data sources>\$DATA\_SOURCE\$>Connection pools.

**Figure B–1 Connection pools**



3. Set the values for **Connection timeout** to 0 seconds, **Maximum connections** to 100 connections, and **Minimum connections** to 10 connections as shown in the aforementioned figure. You can also define **Reap Time**, **Unused Timeout**, and **Aged Timeout** as required.

## Configuring Resource Reference in Weblogic Application Server

This section is applicable only when the Web Application Server type is WebLogic. This section includes the following topics:

- [Create Data Source](#)
- [Create GridLink Data Source](#)
- [Configure Multi Data Sources](#)
- [Advanced Settings for Data Source](#)
- [JDBC Connection Pooling](#)
  - For a Non RAC Database instance, Generic Data Source can be created. See [Creating Data Source](#).
  - For a RAC Database instance, Gridlink Data Source has to be created. See [Create GridLink Data Source](#).
  - When Load Balancing/Fail over is required, Multi Data Source has to be created. See [Configure Multi Data Sources](#).

## Create Data Source

The steps given following are applicable for both config and atomic data source creation.

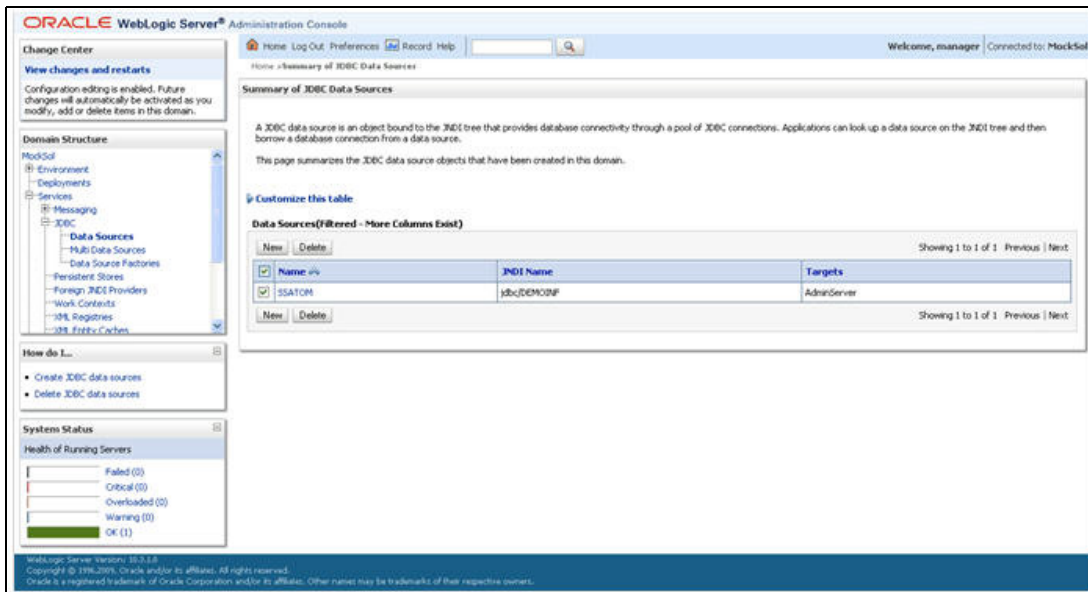
1. Open the following URL in the browser window:  
`http://<ipaddress>:<administrative console port>/console`. (https if SSL is enabled). The Welcome window is displayed.
2. Login with the Administrator **Username** and **Password**.

**Figure 8–24** Welcome



3. From the LHS menu (Domain Structure), click **Services > Data Sources**. The Summary of JDBC Data Sources window is displayed.

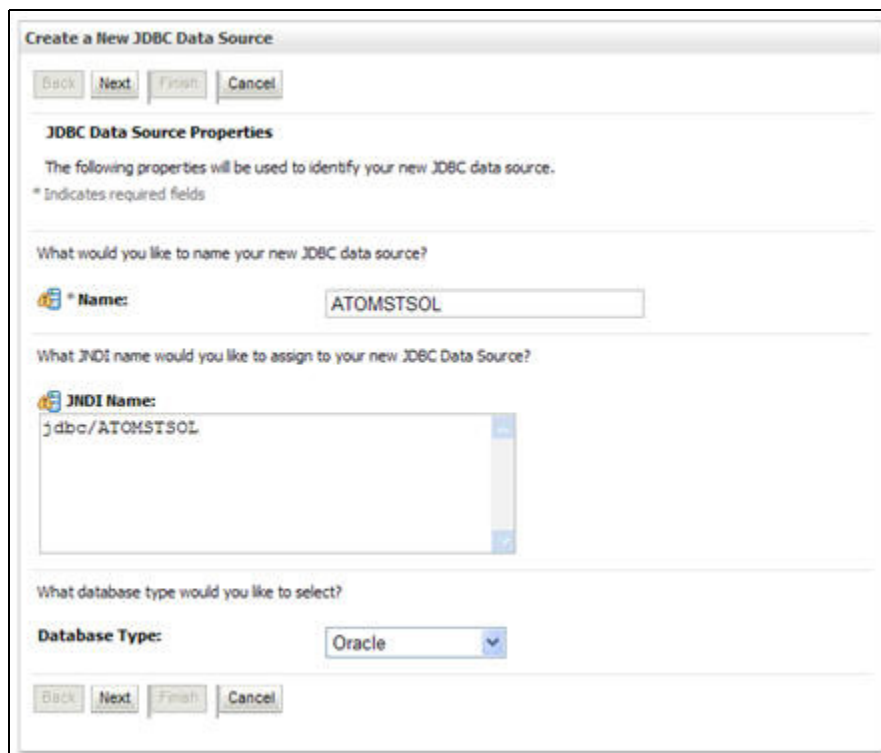
Figure 8–25 Summary of JDBC Data Sources



4. Click **New** and select **Generic Data Source** option. The Create a New JDBC Data Source window is displayed.

You can also select **GridLink Data Source** or **Multi Data Source** while creating a Data Source. For more information, see [Creating Data Source](#) or [Configure Multi Data Sources](#).

Figure 8–26 Create a New JDBC Data Source





5. Enter JDBC data source **Name**, **JNDI Name**, and select the **Database Type** from the drop-down list. Click **Next**.

Ensure the following:

- The JNDI Name field should be in the format "jdbc/informationdomain"
- 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.
- JNDI Name is the same as mentioned in `web.xml` file of OFSAAI Application.
- Required "Database Type" and "Database Driver" should be selected.

**Figure 8–27** *JDBC Data Source Properties*

Create a New JDBC Data Source

Back Next Finish Cancel

**JDBC Data Source Properties**

The following properties will be used to identify your new JDBC data source.

**Database Type:** Oracle

What database driver would you like to use to create database connections? Note: \* indicates that the driver is explicitly supported by Oracle WebLogic Server.

**Database Driver:** \*Oracle's Driver (Thin XA) for Instance connections; Versions: 9.0.1 and later

Back Next Finish Cancel

6. Select the **Database Driver** from the drop-down list. You need to select the Database Driver depending on database setup, that is, with or without RAC. Click **Next**.

**Figure 8–28** *Transaction Options*

**Create a New JDBC Data Source**

Back Next Finish Cancel

**Transaction Options**

You have selected non-XA JDBC driver to create database connection in your new data source.

Does this data source support global transactions? If yes, please choose the transaction protocol for this data source.

**Supports Global Transactions**

Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the *Logging Last Resource (LLR)* transaction optimization. Recommended in place of Emulate Two-Phase Commit.

**Logging Last Resource**

Select this option if you want to enable non-XA JDBC connections from the data source to emulate participation in global transactions using JTA. Select this option only if your application can tolerate heuristic conditions.

**Emulate Two-Phase Commit**

Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the one-phase commit transaction processing. With this option, no other resources can participate in the global transaction.

**One-Phase Commit**

Back Next Finish Cancel

7. Select the **Supports Global Transactions** checkbox and the **One-Phase Commit** option.
8. Click **Next**. The Connection Properties window is displayed.

**Figure 8–29** *Connection Properties*

The screenshot shows a wizard window titled "Create a New JDBC Data Source". At the top, there are four buttons: "Back", "Next", "Finish", and "Cancel". Below the title bar, the section is labeled "Connection Properties" with the instruction "Define Connection Properties." The form contains several fields with labels and questions:

- Question: "What is the name of the database you would like to connect to?"  
Field: "Database Name:" with the value "fsgbu".
- Question: "What is the name or IP address of the database server?"  
Field: "Host Name:" with the value "10.184.74.80".
- Question: "What is the port on the database server used to connect to the database?"  
Field: "Port:" with the value "1521".
- Question: "What database account user name do you want to use to create database connections?"  
Field: "Database User Name:" with the value "ssatom".
- Question: "What is the database account password to use to create database connections?"  
Field: "Password:" with masked characters "\*\*\*\*\*".
- Field: "Confirm Password:" with masked characters "\*\*\*\*\*".

At the bottom of the form, there are four buttons: "Back", "Next", "Finish", and "Cancel".

9. Enter the required details such as the **Database Name**, **Host Name**, **Port**, **Oracle User Name**, and **Password**.
10. Click **Next**. The Test Database Connection window is displayed.

**Figure 8–30** Test Database Connection

The screenshot shows a web-based configuration wizard titled "Create a New JDBC Data Source". The current step is "Test Database Connection". At the top, there are navigation buttons: "Test Configuration", "Back", "Next", "Finish", and "Cancel".

The main content area includes the following sections:

- Test Database Connection:** A heading followed by the instruction "Test the database availability and the connection properties you provided." and a question: "What is the full package name of JDBC driver class used to create database connections in the connection pool?" (Note that this driver class must be in the classpath of any server to which it is deployed.)
- Driver Class Name:** A text input field containing "oracle.jdbc.OracleDriver".
- URL:** A text input field containing "jdbc:oracle:thin:@10.184.". Above it is the instruction: "What is the URL of the database to connect to? The format of the URL varies by JDBC driver."
- Database User Name:** A text input field containing "ssatom". Above it is the question: "What database account user name do you want to use to create database connections?"
- Password:** A masked text input field (dots) for the password.
- Confirm Password:** A masked text input field (dots) for confirming the password.
- Properties:** A text area containing "user=ssatom". Above it is the question: "What are the properties to pass to the JDBC driver when creating database connections?"
- System Properties:** An empty text area. Above it is the instruction: "The set of driver properties whose values are derived at runtime from the named system property."
- Test Table Name:** A text area containing "SQL SELECT 1 FROM DUAL". Above it is the question: "What table name or SQL statement would you like to use to test database connections?"

At the bottom of the form, there are navigation buttons: "Test Configuration", "Back", "Next", "Finish", and "Cancel".

11. Verify the details and click **Test Configuration** and test the configuration settings.

A confirmation message is displayed stating "Connection test succeeded."

12. Click **Finish**. The created "Data Source" is displayed in the list of Data Sources.

Note the following:

- "User ID" is the Oracle user ID that is created for the respective "Information Domain".

- "User ID" to be specified for data source with "FICMASTER" as "JNDI" name should be the Oracle user ID created for the "configuration schema".

13. Select the new Data Source and click the Targets tab.

**Figure 8–31** *Select Targets*

The screenshot shows a wizard window titled "Create a New JDBC Data Source". At the top, there are navigation buttons: "Back", "Next", "Finish", and "Cancel". Below the title bar, the section is titled "Select Targets". A descriptive text reads: "You can select one or more targets to deploy your new JDBC data source. If you don't select a target, the data source will be created but not deployed. You will need to deploy the data source at a later time." Below this text is a table with the heading "Servers". The table contains one entry, "AdminServer", which has a checked checkbox to its left. At the bottom of the window, there are navigation buttons: "Back", "Next", "Finish", and "Cancel".

14. Select the **AdminServer** option and click **Finish**.

### Create GridLink Data Source

If you have selected the option, **New > GridLink Data Source** while creating the "Data Source", you can directly specify the JDBC URL as indicated.

**Figure 8–32** *Create a New JDBC GridLinkData Source*

The screenshot shows a wizard window titled "Create a New JDBC GridLink Data Source". At the top, there are navigation buttons: "Back", "Next", "Finish", and "Cancel". Below the title bar, the section is titled "JDBC GridLink Data Source Properties". A descriptive text reads: "The following properties will be used to identify your new JDBC GridLink data source." Below this text, a note says: "\* Indicates required fields". The first question is "What would you like to name your new JDBC GridLink data source?". The "Name:" field contains the text "xyz". The second question is "What JNDI name would you like to assign to your new JDBC GridLink data source?". The "JNDI Name:" field contains the text "jdbc/xyz". The third question is "What database type would you like to select?". The "Database Type:" field contains the text "Oracle". The fourth question is "Is this XA driver?". The "XA Driver" checkbox is unchecked. At the bottom of the window, there are navigation buttons: "Back", "Next", "Finish", and "Cancel".

1. Enter Data Source **Name**, and **JNDI Name**.

Ensure that the "JNDI Name" field is specified in the format "jdbc/infodomainname" and the **XA Driver** checkbox is not selected. Click **Next**.

**Figure 8–33** JDBC GridLinkData Source- Connection Properties

2. Specify **Complete JDBC URL**, **Database User Name**, and **Password**. Click **Finish**. The created "Data Source" is displayed in the list of Data Sources.

### Configure 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 the 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 a 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 WebLogic Admin Console in the browser window:  
<http://<ipaddress>:<administrative console port>/console>. (https if SSL is enabled). The *Login* window is displayed.
2. Login with the "User ID" that has admin rights.
3. In the LHS menu (Domain Structure), select **Services > JDBC > Multi Data Sources**. The Summary of JDBC Multi Data Sources window is displayed.

**Figure 8–34 Summary of JDBC Multi Data Sources**

**Summary of JDBC 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.

Use this page to create or view multi data sources in your domain.

[Customize this table](#)

**Multi Data Sources (Filtered - More Columns Exist)**

New Delete Showing 1 to 2 of 2 Previous | Next

<input type="checkbox"/>	Name ↕	JNDI Name	Algorithm Type	Targets
<input type="checkbox"/>	FUSIONDS	jdbc/FUSIONRHEL	Load-Balancing	AdminServer
<input type="checkbox"/>	RORDS	jdbc/RORRHELQT	Load-Balancing	AdminServer

New Delete Showing 1 to 2 of 2 Previous | Next

- Click **New**. The New JDBC Multi Data Source window is displayed.

---

**Note:** Ensure that the Data Sources which needs to be added to new JDBC Multi Data Source has been created.

---

**Figure 8–35 Configure the Multi Data Source**

**Create a New JDBC Multi Data Source**

Back Next Finish Cancel

**Configure the Multi Data Source**

The following properties will be used to identify your new JDBC multi data source.

What would you like to name your new JDBC multi data source?

Name: JDBC Multi Data Source-0

What JNDI name would you like to assign to your new JDBC multi data source?

JNDI Name: jdbc/tn#odomain

What algorithm type for this JDBC Multi Data Source would you like to select?

Algorithm Type: Load-Balancing

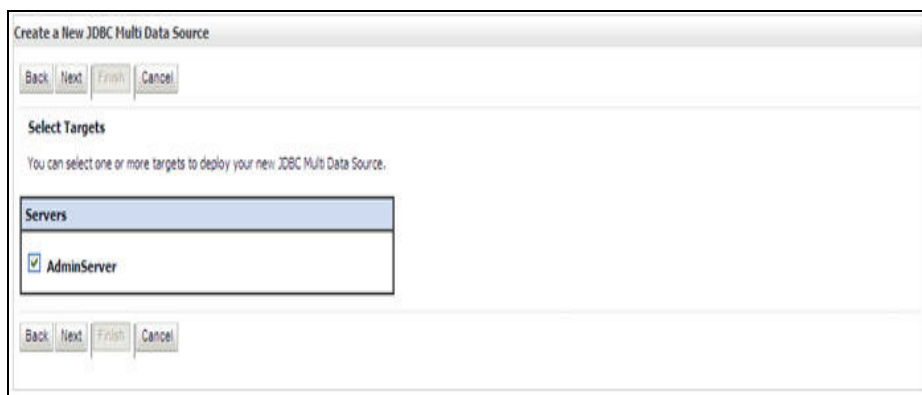
Back Next Finish Cancel

- Enter the JDBC Source **Name**, **JNDI name**, and select the **Algorithm Type** from the drop-down list. Click **Next**.

Note the following:

- The JNDI Name has to be specified in the format `jdbc/infodomain`.
- 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**.

**Figure 8–36 Select Targets**



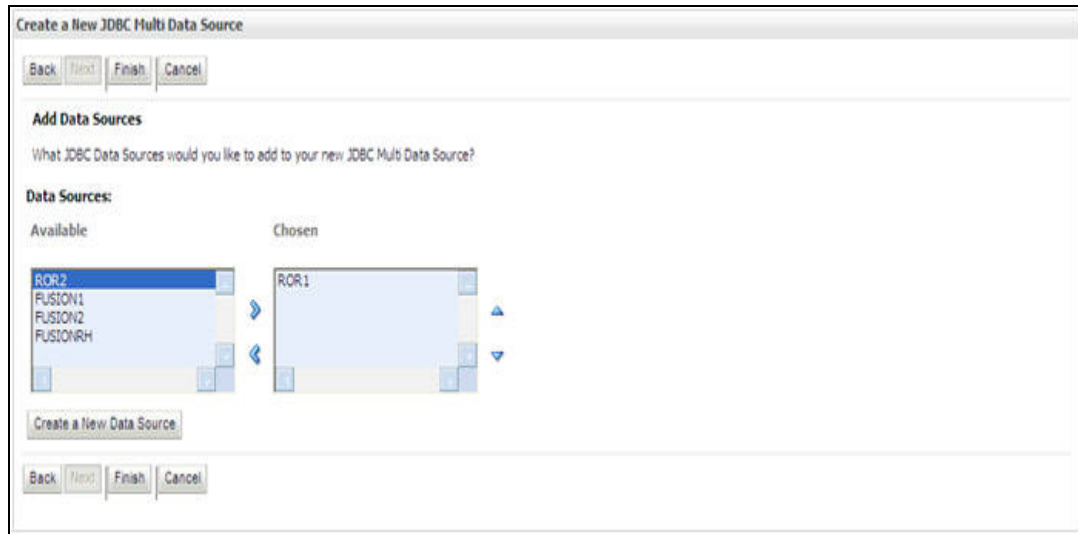
6. Select the **AdminServer** check box and click **Next**.

**Figure 8–37 Select Data Source Type**



7. Select the type of data source which will be added to new JDBC Multi Data Source. Click **Next**.



**Figure 8–38 Add Data Sources**

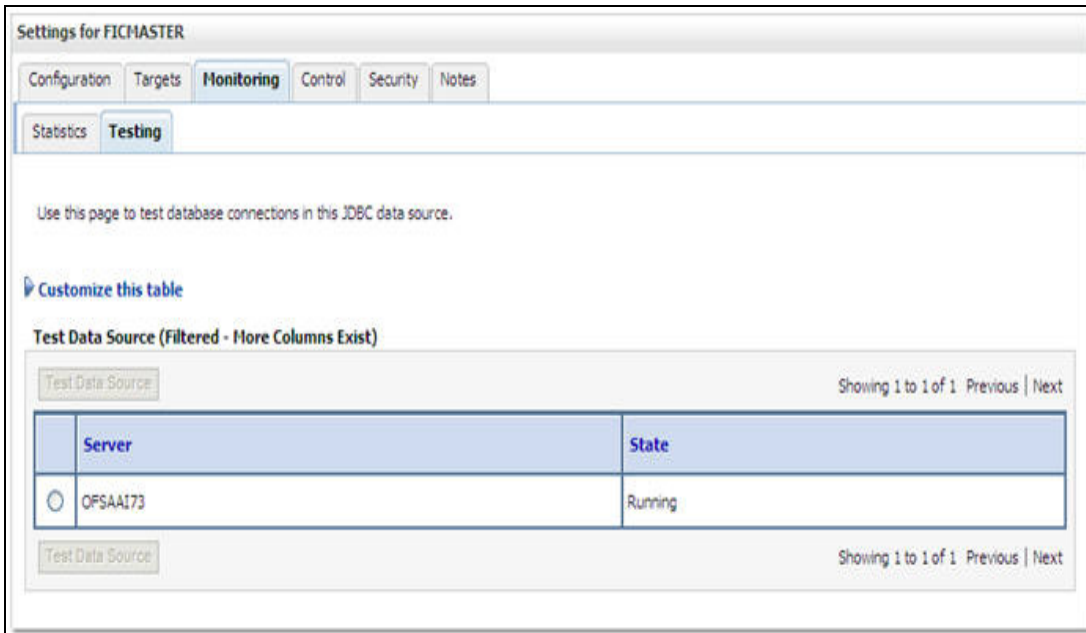
8. Map the required Data Source from the Available Data Sources. Click **Finish**.  
The New JDBC Multi Data Source is created with added data sources.

### Advanced Settings for Data Source

1. Click the new Data Source from the Summary of JDBC Data Sources window. The Settings for <Data Source Name> window is displayed.
2. Select the **Connection Pooling** tab given under Configuration.
3. Go to the **Advanced** option at the bottom of the window, and check the **Test Connection of Reserve** checkbox (Enables Weblogic Server to test a connection before giving it to a client).

To verify if the data source is valid, select "Data Source name". For example, FICMASTER.

**Figure 8–39 Settings for <Data Source Name>**



4. Select the server and click **Test Data Source**.  
A message is displayed indicating that the test was successful.
5. Once the "Data Source" is created successfully, the following messages are displayed:
  - All changes have been activated. No restart is necessary.
  - Settings updated successfully.
 If not, follow the steps given aforementioned to recreate the data source.

**JDBC Connection Pooling**

To define the JDBC connection pooling, ensure that you have created JDBC Provider and Data source to access the data from the database.

1. Click the newly created Data Source \$DATA\_SOURCE\$ and navigate to the path *Home >Summary of Services: JDBC >Summary of JDBC Data Sources >JDBC Data Source-<INFODDOM\_NAME>*
2. Set the values for **Initial Capacity** to 10, **Maximum Capacity** to 100, **Capacity Increment** by 1, **Statement Cache Type** to LRU, and **Statement Cache Size** to 10.
3. Click **Save**.

**Configuring Resource Reference in Tomcat Application Server**

This section is applicable only when the Web Application Server type is Tomcat.

Copy the JDBC driver file depending on your Oracle database version. As OFSAAI is certified on Oracle 11gR2, copy the Oracle JDBC driver file, "ojdbc6.jar" from <Oracle Home>/jdbc/lib and place it in <Tomcat Home>/lib.

This section covers the following topics:

- [Create Data Source](#)

- [JDBC Connection Pooling](#)

### Create Data Source

To create "data source" for Infrastructure application, navigate to <Tomcat Home>/conf and edit the following block of text by replacing the actual values in server.xml.

```
<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 configuration schema database>"
    password="<password for the aforementioned 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 aforementioned user id>"
    url="jdbc:oracle:thin:@<DB engine IP address>:<DB Port>:<SID>"
    maxActive="100"
    maxIdle="30"
    maxWait="10000"/>
</Context>
```

Note the following:

---



---

**Note:** The <Resource> tag must be repeated for each Information Domain created. After the aforementioned configuration, the "WAR" file has to be created and deployed in Tomcat.

---



---

### JDBC Connection Pooling

To define the JDBC connection pooling, do the following:

1. Copy \$ORACLE\_HOME/jdbc/lib/ojdbc6.jar to the path \$TOMCAT\_DIRECTORY/lib/.
2. Edit the server.xml present under the path \$TOMCAT\_DIRECTORY/conf/ with the following changes, which is required for connection pooling.

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

Note the following:

- \$TOMCAT\_DIRECTORY\$ should be replaced by Tomcat application installed path.
- \$CONTEXTNAME\$ should be replaced by OFSAAI context name.
- \$APP\_DEPLOYED\_PATH\$ should be replaced by OFSAAI application deployed path.
- \$INFODOM\_NAME\$ should be replaced by Infodom Name.
- \$ATOMICSCHEMA\_USERNAME\$ should be replaced by Atomic schema database user name.
- \$ATOMICSCHEMA\_PASSWORD\$ should be replaced by Atomic schema database password.
- \$JDBC\_CONNECTION\_URL should be replaced by JDBC connection string jdbc:Oracle:thin:<IP>:<PORT>:<SID>. For example, jdbc:oracle:thin 10.80.50.53:1521:soluint

## Configuring OFS\_CA\_PACK.xml file

The customeranalytics.xml file holds details on the various OFSAA products that are packaged in a particular Application Pack.

The following table gives details about the various tags/parameters available in the file and the values that need to be updated. Prior to installing the OFSAA Application Pack in SILENT mode, it is mandatory to update this file.

---

**Note:** If you are installing in the GUI mode, then this file need not be updated.

---

**Table C-1 OFS\_CA\_PACK.XML Parameters**

Tag Name/Attribute Name	Description	Mandatory (Y/ N)	Default Value/ Permissible Value	Comments
APP_PACK_ID	Unique Application Pack Identifier	Y	Unique Seeded Value	DO NOT modify this value.
APP_PACK_NAME	Unique Application Pack Name	Y	Unique Seeded Value	DO NOT modify this value.
APP_PACK_DESCRIPTION	Unique Application Pack Description	Y	Unique Seeded Value	DO NOT modify this value.
VERSION	Unique release version	Y	Unique Seeded Value	DO NOT modify this value.
APP	Unique Application Entries	Y	Unique Seeded Value	DO NOT remove these tags.
APP_ID	Unique Application Identifier	Y	Unique Seeded Value	DO NOT modify this value.

**Table C-1 OFS\_CA\_PACK.XML Parameters**

APP_ID/ PREREQ	Prerequisite Application/ Product	Y	Unique Seeded Value	For most applications Infrastructure would be the prerequisite set. For certain other applications, an appropriate Application ID would be set. DO NOT modify this value.
APP_ID/ DEF_ SEL_FLAG	Default Selected Flag	Y	Default - YES	In all Application Packs, Infrastructure would have this value set to "YES". DO NOT modify this value.
APP_ID/ ENABLE	Enable Application/ Product	YES if installing in SILENT mode.	Default – YES for Infrastructure NO for Others  Permissible - YES or NO	Set this attribute-value to YES against every APP_ID which is licensed and should be enabled for use.  Note: Application/ Product once enabled cannot be disabled. However, Application/ Product not enabled during installation can be enabled later through the Administration UI.
APP_NAME	Unique Application/ Product Name	Y	Unique Seeded Value	DO NOT modify this value.
APP_ DESCRIPTION	Unique Application/ Product Name	Y	Unique Seeded Value	DO NOT modify this value.
VERSION	Unique release version	Y	Unique Seeded Value	DO NOT modify this value.

# D

---

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## Appendix

### OFS\_CA\_SCHEMA\_IN.xml file

Creating database schemas, object with schemas and assigning appropriate grants are the primary steps in the installation process of OFSAA Applications. The OFS\_CA\_SCHEMA\_IN.xml file contains details on the various application schemas that should be created prior to the Application Pack installation.

The following table gives details about the various tags/parameters available in the file and the values that need to be updated. Prior to executing the schema creator utility, it is mandatory to update this file.

**Table D-1 OFS\_CA\_SCHEMA\_IN.xml parameters**

Tag Name/ Attribute Name	Description	Mandatory/ Optional	Default Value/ Permissible Value	Comments
<APP_PACK_ID>	Unique Application Pack Identifier	Mandatory	Unique Seeded Value	DO NOT modify this value.

**Table D-1 OFS\_CA\_SCHEMA\_IN.xml parameters**

<JDBC_URL>	Enter the JDBC URL.  Note: You can enter RAC and NON-RAC enabled database connectivity URL.	Mandatory	Example,  jdbc:oracle:thin:@<HOST/IP>:<PORT>:<SID>  or  jdbc:oracle:thin:@//[HOST][:PORT]/SERVICE  or  jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=[HOST]))(port=[PORT]))(ADDRESS=(PROTOCOL=TCP)(HOST=[HOST]))(PORT=[PORT]))(LOAD_BALANCE=yes)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=[SERVICE])))  For example, jdbc:oracle:thin:@//dbhost.server.com:1521/service1  or  jdbc:oracle:thin:@//dbshost.server.com:1521/scan-1  or  jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=dbhost1.server.com)(port=1521))(ADDRESS=(PROTOCOL=TCP)(HOST=dbhost2.server.com)(PORT=1521))(LOAD_BALANCE=yes)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=service1)))	Ensure to add an entry (with SID/ SERVICE NAME) in the tnsnames.ora file on the OFSAA server. The entry should match with the SID/ SERVICE NAME used in the JDBC URL.
<JDBC_DRIVER>	By default this driver name is seeded.  Note: Do not edit this attribute value.	Mandatory	Example,  oracle.jdbc.driver.OracleDriver	Only JDBC Thin Driver is supported. DO NOT modify this value.
<HOST>	Enter the Hostname/ IP Address of the system on which you are installing the OFSAA components.	Mandatory	Host Name/ IP Address	



**Table D-1 OFS\_CA\_SCHEMA\_IN.xml parameters**

<SETUPINFO >/ NAME	Enter the acronym for the type of implementation. This information will be displayed in the OFSAA Home Page.  Note: On executing the schema creator utility, this value will be prefixed with each schema name. For example: dev_ofsaaconf, uat_ofsaaconf, uat_ofsaaatm.	Mandatory	Accepts strings with a minimum length of two and maximum of four.  Example, DEV, SIT, PROD	This name would appear in the OFSAA Landing Page as "Connected To: xxxx"  The schemas being created would get this prefix. For E.g. dev_ofsaaconf, uat_ofsaaconf etc.
<PASSWORD >/ DEFAULT*	Enter the password if you want to set a default password for all schemas.  Note: You also need to set APPLYSAMEF ORALL attribute as Y to apply the default password for all the schemas.	Optional	The maximum length allowed is 30 characters. Special characters are not allowed.	

**Table D-1 OFS\_CA\_SCHEMA\_IN.xml parameters**

<p>&lt;PASSWORD &gt;/ APPLYSAMEF ORALL</p>	<p>Enter as Y if you want to apply the password specified in DEFAULT attribute for all the schemas.</p> <p>If you enter as N, you need to provide individual passwords for all schemas.</p> <p>Note: In case you have entered Y in APPLYSAMEF ORALL attribute and also have specified individual passwords for all the schemas, then the specified individual passwords will take precedence.</p>	<p>Mandatory</p>	<p>Default – N Permissible – Y or N</p>	<p>Note: Setting this attribute value is mandatory, If DEFAULT attribute is set.</p>
--	---	------------------	---	--

**Table D-1 OFS\_CA\_SCHEMA\_IN.xml parameters**

<SCHEMA>/ TYPE	<p>The different types of schemas that are supported in this release are ATOMIC, CONFIG, SANDBOX, and ADDON.</p> <p>By default, the schemas types are seeded based on the Application Pack.</p> <p>Note: Do not edit this attribute value.</p>	Mandatory	<p>ATOMIC/CONFIG/SANDBOX/ADDON</p> <p>Note: SANDBOX AND ADDON schemas are not applicable for OFS AAI Application Pack.</p>	<p>Only One CONFIG schema can exist in the file. This schema identifies as the CONFIGURATION schema that holds the OFSAA setup details and other metadata information.</p> <p>Multiple ATOMIC/SANDBOX/ADDON schemas can exist in the file.</p> <p>ATOMIC schema refers to the Information Domain schema. SANDBOX schema refers to the SANDBOX schema. ADDON schema refers to other miscellaneous schema (not applicable for this Application Pack).</p>
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**Table D-1 OFS\_CA\_SCHEMA\_IN.xml parameters**

<SCHEMA.>/ NAME	<p>By default, the schemas names are seeded based on the Application Pack.</p> <p>You can edit the schema names if required.</p> <p>Note:</p> <p>The Schema Name will have a prefix of the SETUPINFO/NAME attribute.</p> <p>SCHEMA NAME must be same for all the ATOMIC Schemas of applications within an Application Pack.</p>	Mandatory	The permissible length is 15 characters and only alphanumeric characters allowed. No special characters allowed except underscore '_'.	<p>SETUPINFO/NAME attribute value would be prefixed to the schema name being created. For E.g. if name is set as 'ofsaaatm' and setupinfo as 'uat' then schema being created would be 'uat_ofsaaatm'.</p> <p>NAME should be same where APP_GRP=1 for all SCHEMA tags (Not applicable for this Application Pack).</p>
<SCHEMA>/ PASSWORD*	<p>Enter the password of the schema to be created.</p> <p>Note:</p> <p>If this attribute is left blank, then the password specified in the &lt;PASSWORD&gt;/DEFAULT attribute is applied as the Schema Password.</p>	Optional	The maximum length allowed is 30 characters. Special characters are not allowed.	<p>Note: You need to mandatorily enter the password if you have set the &lt;PASSWORD&gt;/APPLYSAMEF ORALL attribute as N.</p>
<SCHEMA>/ APP_ID	<p>By default, the Application ID is seeded based on the Application Pack.</p> <p>Note: Do not edit this attribute value.</p>	Mandatory	Unique Seeded Value	<p>Identifies the Application/Product for which the schema is being created.</p> <p>DO NOT modify this value.</p>

**Table D-1 OFS\_CA\_SCHEMA\_IN.xml parameters**

<SCHEMA>/ DEFAULTTAB LESPACE	Enter the available default tablespace for DB User.  Note: If this attribute is left blank, then USERS is set as the default tablespace.	Optional	Default – USERS Permissible – Any existing valid tablespace name.	Modify this value to associate any valid tablespace with the schema.
<SCHEMA>/ TEMPTABLES PACE	Enter the available temporary tablespace for the DB User.  Note: If this attribute is left blank, then TEMP is set as the default tablespace.	Optional	Default – TEMP Permissible – Any existing valid temporary tablespace name.	Modify this value to associate any valid tablespace with the schema.
<SCHEMA>/ QUOTA	Enter the quota to be set on DEFAULTTAB LESPACE attribute for the schema/ user. By default, the quota size is set to 500M. Minimum: 500M or Unlimited on default Tablespace	Optional	Example, 600M/m 20G/g UNLIMITED/unlimited	Modify this value to grant the specified quota on the mentioned tablespace to the user.
<SCHEMA>/ INFODOM	Enter the name of the Information Domain to associate this schema. The schema creator utility automatically derives an Information Domain Name based on the Application Pack if no value is specified for this attribute.	Optional	Permissible length is 16 characters and only alphanumeric characters allowed. No special characters allowed.	



This appendix covers the following topics:

- [Creating EAR/WAR File](#)
- [Deploying EAR/WAR File](#)
- [Additional Configurations](#)
- [Installation Checklist](#)
- [OFSAA Landing Page](#)

## Creating EAR/WAR File

This section includes the following topics:

- [Creating WebSphere EAR/WAR File](#)
- [Creating WebLogic EAR/WAR File](#)
- [Creating Tomcat EAR/WAR File](#)

## Creating WebSphere EAR/WAR File

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

To create WebSphere EAR/WAR File, follow these steps:

1. Navigate to the "\$FIC\_WEB\_HOME" directory on the machine in which Infrastructure Web components have been installed and execute the command:  

```
./ant.sh
```
2. This triggers the creation of EAR file -<contextname>.ear. The <contextname> is the name given during installation.
3. On completion of the EAR files creation, the "BUILD SUCCESSFUL" and "Time taken" message is displayed and you will be returned to the prompt.
4. 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.

---

---

## Creating WebLogic EAR/WAR File

The EAR files are 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.

To create WebLogic EAR/WAR File, follow these steps:

1. Navigate to the path "<WEBLOGIC\_INSTALL\_DIR>/Bea/user\_projects/domains/<DOMAIN\_NAME>/bin/".
2. Start WebLogic Domain by executing the command:  

```
./startWeblogic.sh -d64
```
3. Navigate to the "\$FIC\_WEB\_HOME" directory in the machine in which Infrastructure Web components have been installed.
4. Execute the command:  

```
./ant.sh
```

This will trigger the creation of EAR file - <contextname>.ear. Here <contextname> is the context name given during installation.
5. On completion of the EAR files creation, the "BUILD SUCCESSFUL" and "Time Taken" message is displayed and you will be returned to the prompt.
6. 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 in the path.

---

---

## Creating Tomcat EAR/WAR File

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

To create Tomcat EAR/WAR File, follow these steps:

1. On the machine in which Infrastructure Web components have been installed, navigate to the path \$FIC\_WEB\_HOME.
2. Execute the command:  

```
./ant.sh
```

This will trigger the creation of WAR file - <contextname>.war. The <contextname> is the 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 - <contextname>.war- is created on the machine on which Infrastructure Web components are installed under \$FIC\_WEB\_HOME directory.

Note the following:

- This process will not overwrite any existing version of WAR file that exists in the path. Rename/delete any existing war file.
- Proceed with the Tomcat WAR Files Deployment.



- Log on to the server in which Tomcat is installed.

## Deploying EAR/WAR File

This section covers the following topics:

- [Deploying WebSphere EAR Files](#)
- [Deploying EAR/WAR file for WebLogic](#)
- [Deploying Tomcat WAR Files](#)

### Deploying WebSphere EAR Files

To deploy Infrastructure application in WebSphere:

1. Start WebSphere Profile by navigating to the path "`/<Websphere_Installation_Directory>/IBM/WebSphere/AppServer/profiles/<Profile_Name>/bin/`" and execute the command:

```
./startServer.sh server1
```

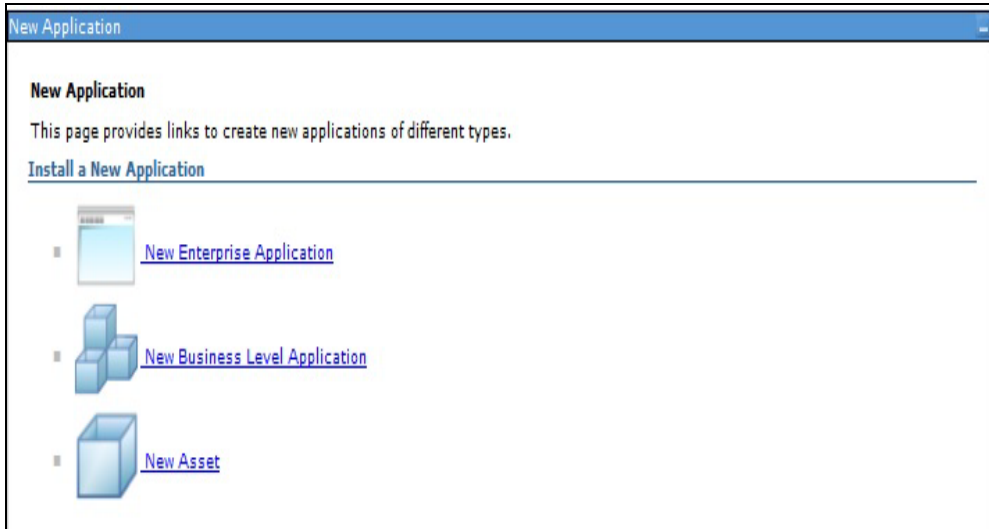
2. Open the following URL in the browser: `http://<ipaddress>:<Administrative Console Port>/ibm/console`. (https if SSL is enabled). The login screen is displayed.

**Figure 8–39** Login Window



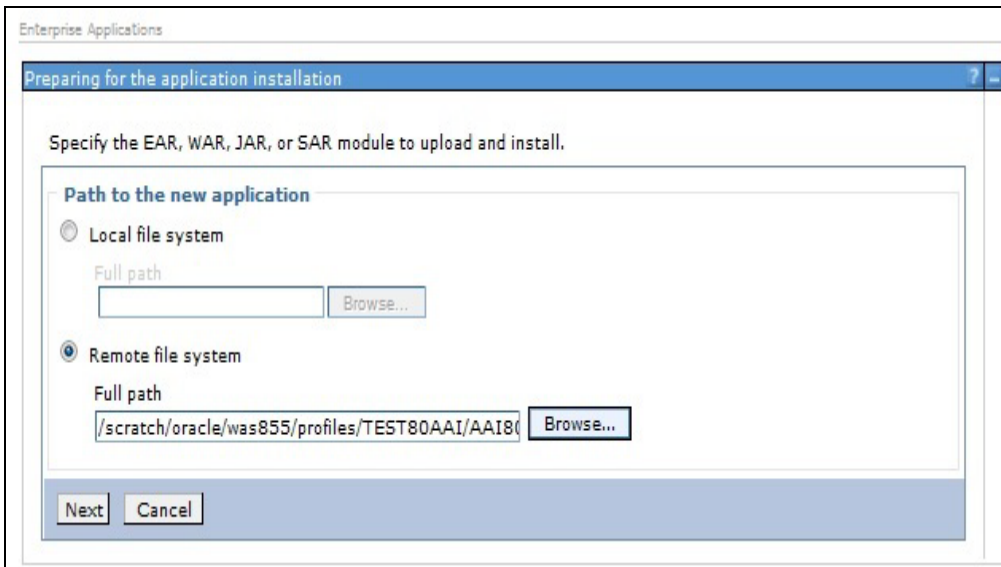
3. Enter the user credentials which has administrator rights and click **Log In**.
4. From the LHS menu, select **Applications** and click **New Application**. The New Application window is displayed.

**Figure 8–40** *New Application*

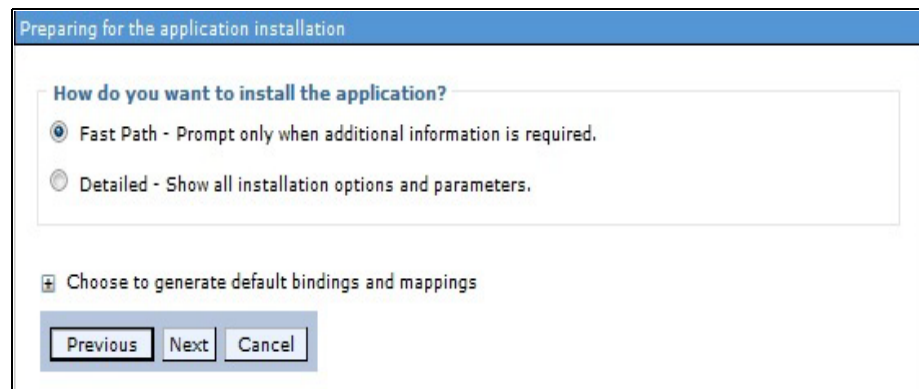


5. Click **New Enterprise Application**. The Preparing for the application installation window is displayed.

**Figure 8–41** *Preparing for the application installation*



6. Select **Remote File System** and click **Browse**. Select the EAR file generated for OFSAAI to upload and install. Click **Next**.

**Figure 8-42** *Installation Options*

7. Select the **Fast Path** option and click **Next**. The Install New Application window is displayed.

**Figure 8–43** *Install New Application*

Specify options for installing enterprise applications and modules.

→ **Step 1: Select installation options**

[Step 2: Map modules to servers](#)

[Step 3: Summary](#)

### Select installation options

Specify the various options that are available for your application.

Precompile JavaServer Pages files

Directory to install application

Distribute application

Use Binary Configuration

Deploy enterprise beans

Application name

Create MBeans for resources

Override class reloading settings for Web and EJB modules

Reload interval in seconds

Deploy Web services

Validate Input off/warn/fail

Process embedded configuration

**File Permission**

Allow all files to be read but not written to  
 Allow executables to execute  
 Allow HTML and image files to be read by everyone

Application Build ID

Allow dispatching includes to remote resources

Allow servicing includes from remote resources

Business level application name

Asynchronous Request Dispatch Type

Allow EJB reference targets to resolve automatically

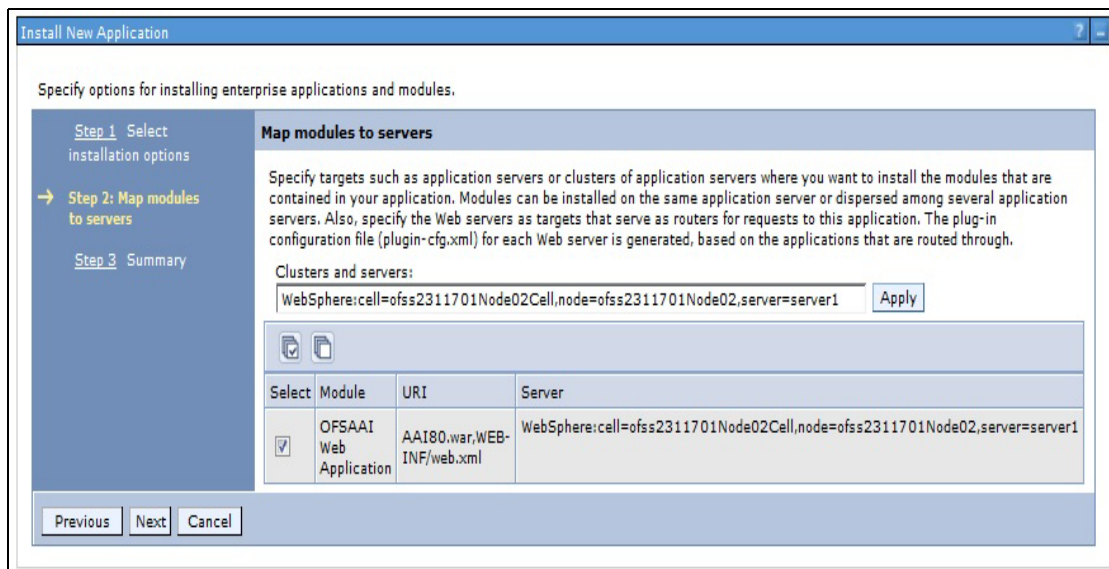
Deploy client modules

Client deployment mode

Validate schema

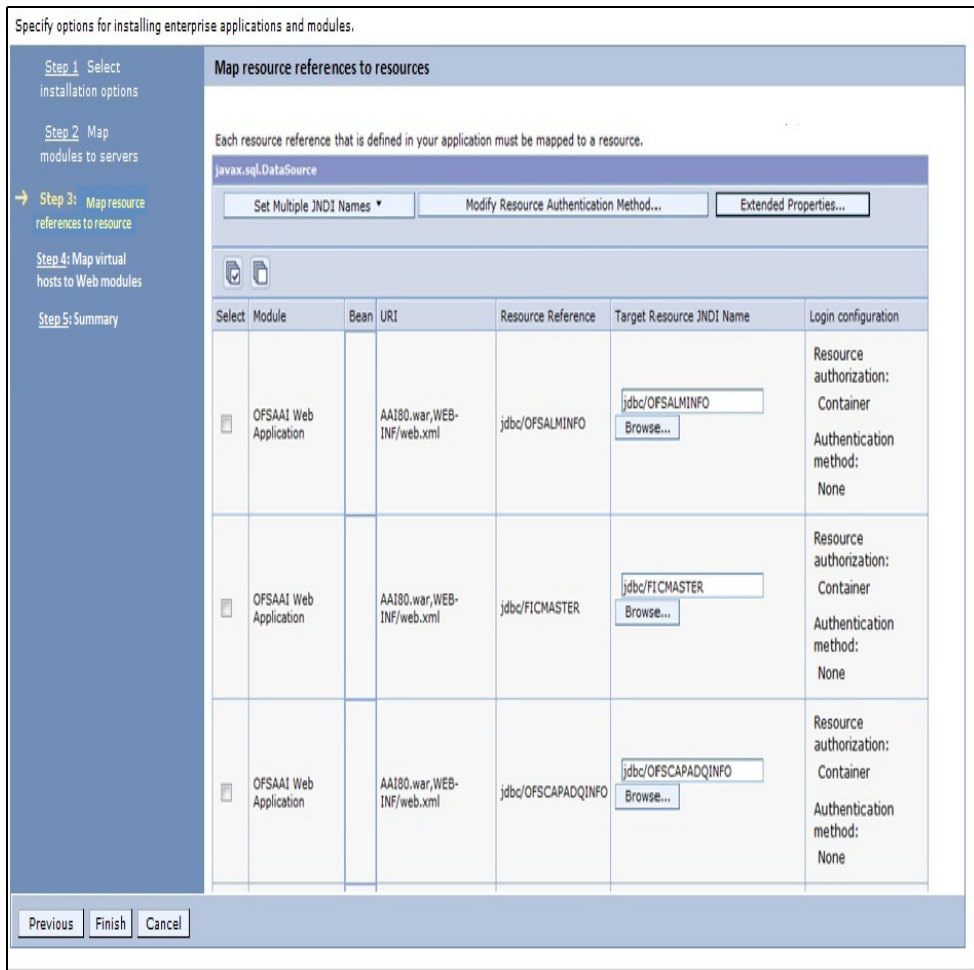
8. Enter the required information and click **Next**. The Map Modules to Servers window is displayed.

Figure 8-44 Map Modules to Servers



9. Select the **Web Application** and click **Next**. The Map Resource References to Resources window is displayed.

**Figure 8–45** Map Resource References to Resources

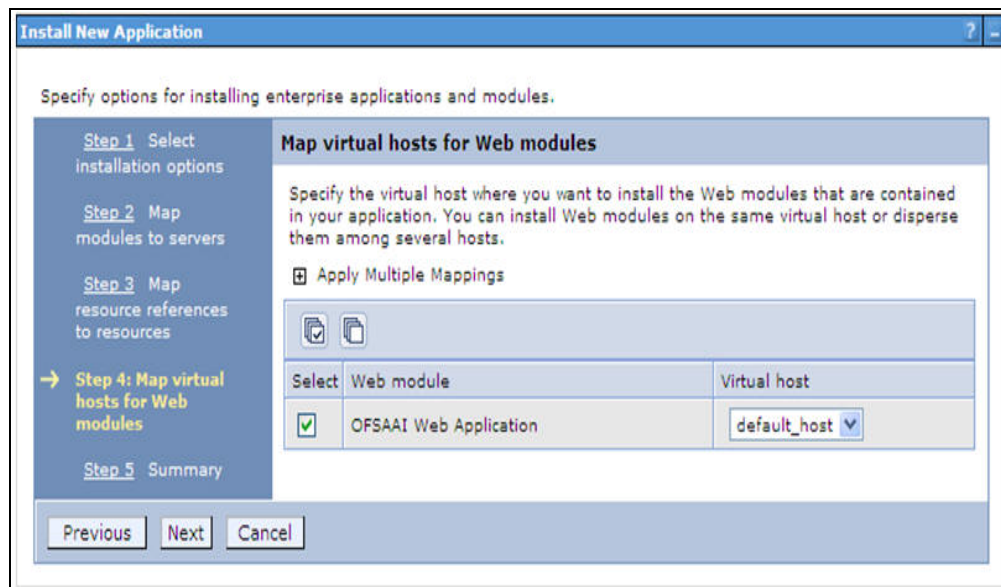


10. Map each resource defined in the application to a resource JNDI name defined earlier.

11. Click **Modify Resource Authentication Method** and specify the authentication method created earlier.

You can specify "config" for FICMASTER resource or "atomic" for atomic resource as the authentication method.

12. Select the **OFSAAI Web Application** check box and click **Next**. The Map Virtual hosts for Web Modules window is displayed.

**Figure 8–46** Map Virtual host for Web Modules

13. Select the **Web Application** check box and click **Next**. The Summary page is displayed.

**Figure 8–47 Summary**

Specify options for installing enterprise applications and modules.

[Step 1](#) Select installation options

[Step 2](#) Map modules to servers

[Step 3](#) Map resource references to resources

[Step 4](#) Map virtual hosts for Web modules

→ **Step 5: Summary**

### Summary

Summary of installation options

Options	Values
Precompile JavaServer Pages files	No
Directory to install application	
Distribute application	Yes
Use Binary Configuration	No
Deploy enterprise beans	Yes
Application name	AAI80
Create MBeans for resources	Yes
Override class reloading settings for Web and EJB modules	No
Reload interval in seconds	
Deploy Web services	No
Validate Input off/warn/fail	warn
Process embedded configuration	No
File Permission	*\,dll=755*.*\,so=755*.*\,a=755*.*\,sl=755
Application Build ID	Unknown
Allow dispatching includes to remote resources	No
Allow servicing includes from remote resources	No
Business level application name	
Asynchronous Request Dispatch Type	Disabled
Allow EJB reference targets to resolve automatically	No
Deploy client modules	No
Client deployment mode	Isolated
Validate schema	No
Cell/Node/Server	<a href="#">Click here</a>

Previous Finish Cancel

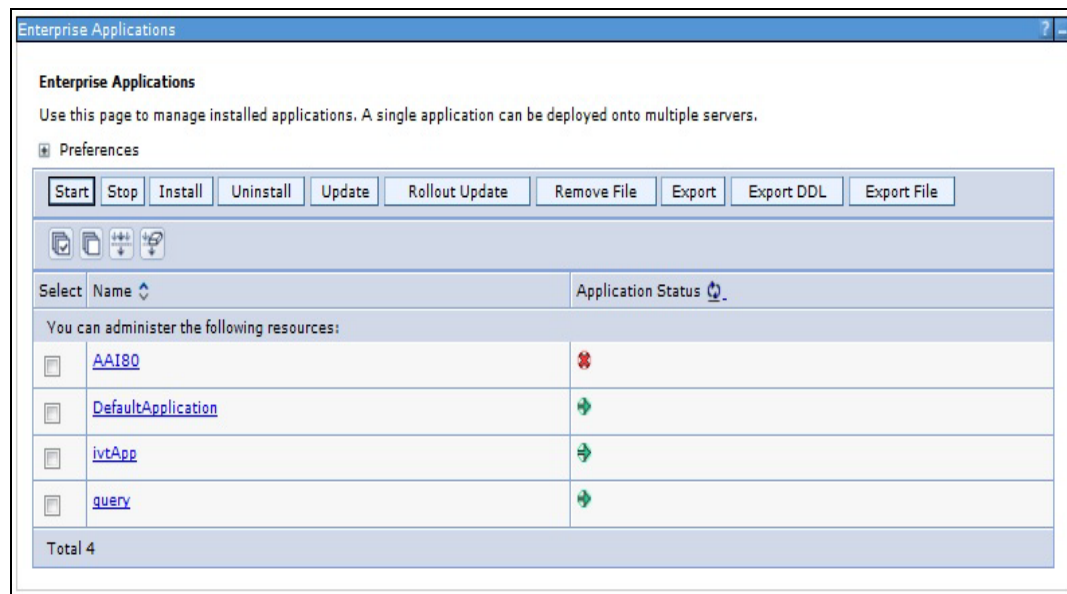
14. Click **Finish** and deploy the Infrastructure Application on WebSphere.
15. On successful installation, a message is displayed. Click **Save** and save the master file configuration. The details are displayed in the Master File Configuration window.

**To start the application:**

1. Expand **Applications > Application Type > WebSphere enterprise applications**. The Enterprise Applications window is displayed.



Figure 8–48 Enterprise Applications



2. Select the installed application and click **Start**.

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**Note:**

- <profile name> is the profile name given while creating the WebSphere profile.
  - <cell name > is the cell name given during profile creation
  - <contextname> is the context name given during installation.
- 
- 

### Deploying EAR/WAR file for WebLogic

Following are the steps for deploying Infrastructure application that would be created during installation:

1. Navigate to the path "`<WebLogic Installation directory>/user_projects/domains/<domain name>/bin`" in the machine in which WebLogic is installed.
2. Start WebLogic by executing the command:  

```
./startWebLogic.sh -d64 file
```
3. Open the URL in the browser window: `http://<ipaddress>:<admin server port>/console`. (https if SSL is enabled). The Sign in window of the WebLogic Server Administration Console is displayed.

---



---

**Note:** Ensure that you have started Infrastructure Server by executing "`./startofsaai.sh`" as mentioned in [Starting Infrastructure Services](#) section.

---

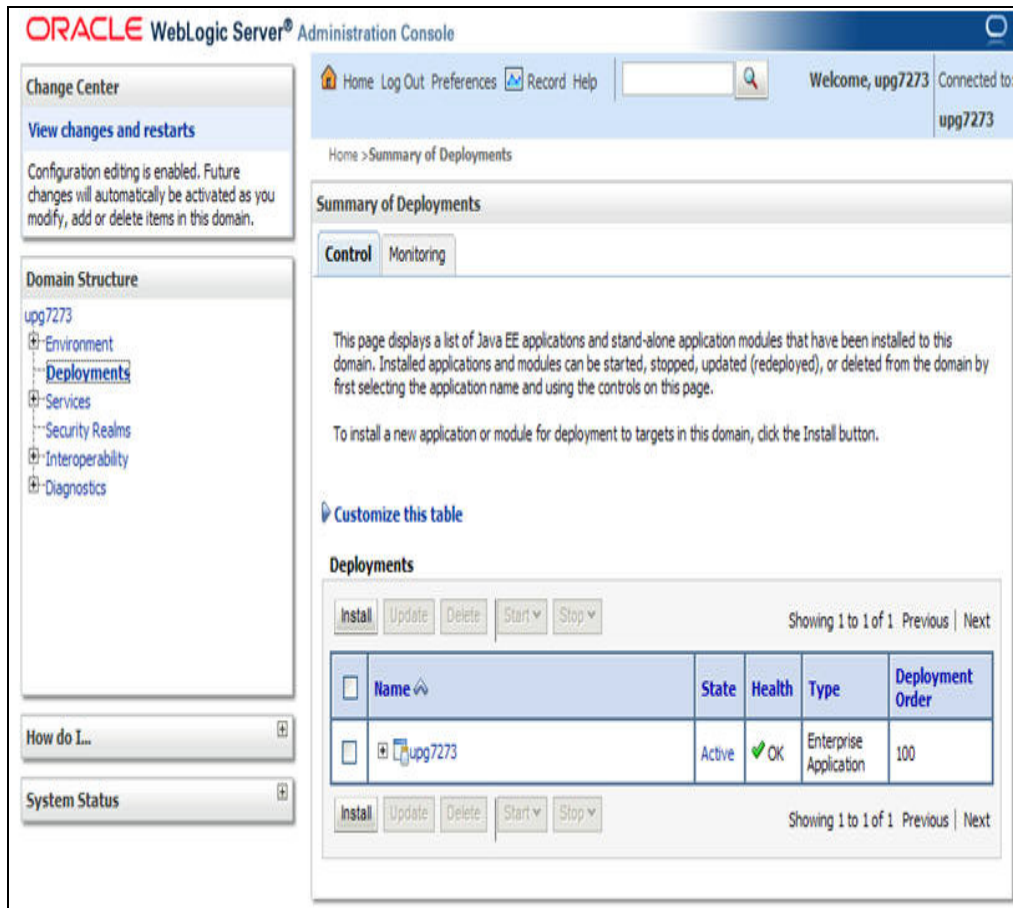


---

4. Log on to the WebLogic Server by entering the user credentials having privileges to deploy the EAR file.

- From the **Domain Structure** LHS menu, click **Deployments**. The Summary of Deployments window is displayed.

**Figure 8–49** Summary of Deployments



- Click **Install**. The Install Application Assistant window is displayed.
- Select the Exploded EAR directory after browsing to the directory where it is saved and click **Next**.

### Explode EAR

To explode EAR, follow the below steps:

- Create the "applications" folder under domain name. For example, "/Bea/user\_projects/domains/ <Domain\_name>/applications".
- Create <context\_name>.ear folder under "applications" folder.
- Copy the <\$FIC\_WEB\_HOME/<context\_name>.ear file to <WEBLOGIC\_INSTALL\_DIR>/Bea/user\_projects/domains/<DOMAIN\_NAME>/applications/.
- Explode the <context\_name>.ear file by executing 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.

7. Copy `<$FIC_WEB_HOME/<context_name>.war` file to `<WEBLOGIC_INSTALL_DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/<context_name>.ear/`.
8. Explode the `<context_name>.war` file by executing the following command to get the directory structure:  

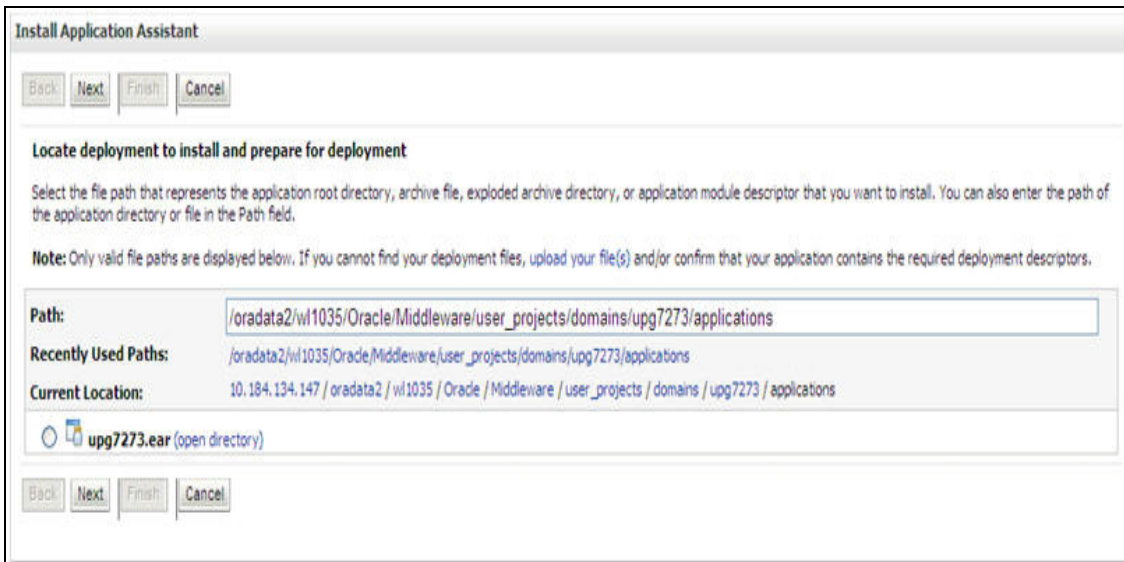
```
jar -xvf <context_name>.war
```

### Install Application

To install Application:

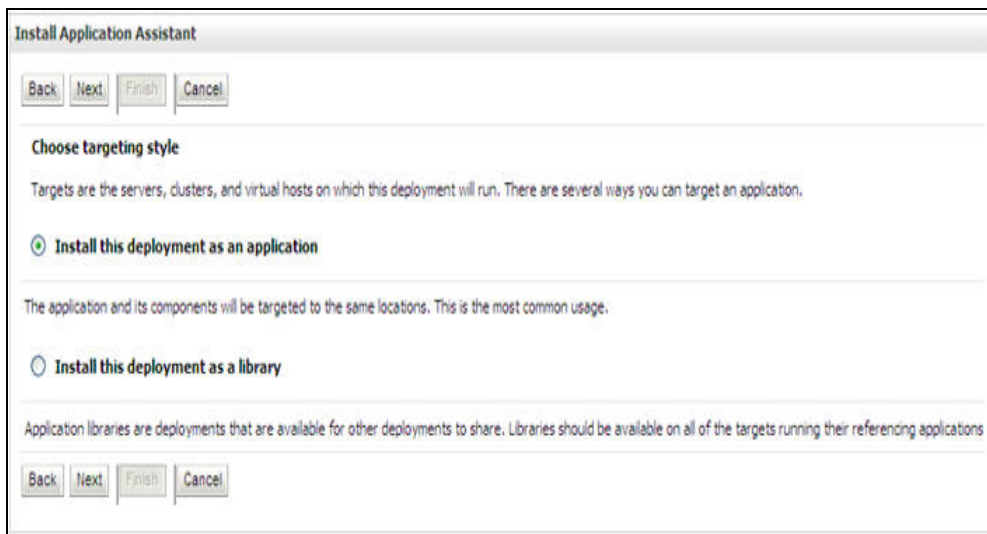
1. Open the Install Application Assistant.

**Figure 8–50** *Install Application Assistant*



2. Click Next.

**Figure 8–51** *Install Application Assistant*



3. From the Choose targeting style section, select the **Install this deployment as an application** option and click **Next**. The Optional *Settings* window is displayed.

Figure 8–52 Optional Settings

**Install Application Assistant**

Back Next Finish Cancel

**Optional Settings**  
You can modify these settings or accept the defaults:

**General**

What do you want to name this deployment?

Name:

**Security**

What security model do you want to use with this application?

**DD Only:** Use only roles and policies that are defined in the deployment descriptors.

**Custom Roles:** Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.

**Custom Roles and Policies:** Use only roles and policies that are defined in the Administration Console.

**Advanced:** Use a custom model that you have configured on the realm's configuration page.

**Source accessibility**

How should the source files be made accessible?

**Use the defaults defined by the deployment's targets**

Recommended selection:

**Copy this application onto every target for me**

During deployment, the files will be copied automatically to the managed servers to which the application is targeted.

**I will make the deployment accessible from the following location**

Location:

Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.

Back Next Finish Cancel

4. Enter a **Name** for the deployment if required.
5. Under the Security section, select the **DD only** option to specify that only roles and policies that are defined in the deployment descriptors should be used.
6. Select the **I will make the deployment available from the following location** option under the Source accessibility section.
7. Click **Next** to continue. The Deployment Summary window is displayed.

**Figure 8–53** Deployment Summary

**Install Application Assistant**

Back Next Finish Cancel

**Review your choices and click Finish**

Click Finish to complete the deployment. This may take a few moments to complete.

**Additional configuration**

In order to work successfully, this application may require additional configuration. Do you want to review this application's configuration after completing this assistant?

**Yes, take me to the deployment's configuration screen.**

**No, I will review the configuration later.**

**Summary**

**Deployment:** /oradata2/wl1035/Oracle/Middleware/user\_projects/domains/upg72733/applications/upg72733.ear

**Name:** upg72733

**Staging mode:** Use the defaults defined by the chosen targets

**Security Model:** DDOnly: Use only roles and policies that are defined in the deployment descriptors.

**Target Summary**

Components	Targets
upg72733.ear	AdminServer

Back Next Finish Cancel

8. Select the **Yes, take me to the deployment's configuration screen** option and click **Finish**. The Settings for <Deployment Name> window is displayed.

Figure 8-54 Settings for &lt;Deployment Name&gt;

Settings for upg7273

Overview | Deployment Plan | Configuration | Security | Targets | Control | Testing | Monitoring | Notes

Save

Use this page to view the general configuration of an Enterprise application, such as its name, the physical path to the application files, the associated deployment plan, and so on. The table at the end of the page lists the modules (such as Web applications and EJBs) that are contained in the Enterprise application. Click on the name of the module to view and update its configuration.

**Name:** upg7273 The name of this Enterprise Application. [More Info...](#)

**Path:** / oradata2/wl1035/Oracle/Middleware/user\_projects/domains/upg7273/applications/upg7273.ear The path to the source of the deployable unit on the Administration Server. [More Info...](#)

**Deployment Plan:** (no plan specified) The path to the deployment plan document on Administration Server. [More Info...](#)

**Staging Mode:** (not specified) The mode that specifies whether a deployment's files are copied from a source on the Administration Server to the Managed Server's staging area during application preparation. [More Info...](#)

**Security Model:** DDOnly The security model that is used to secure a deployed module. [More Info...](#)

**Deployment Order:**  An integer value that indicates when this unit is deployed, relative to other deployable units on a server, during startup. [More Info...](#)

**Deployment Principal Name:**  A string value that indicates what principal should be used when deploying the file or archive during startup and shutdown. This principal will be used to set the current subject when calling out into application code for interfaces such as ApplicationLifecycleListener. If no principal name is specified, then the anonymous principal will be used. [More Info...](#)

Save

**Modules and Components**

Showing 1 to 1 of 1 Previous | Next

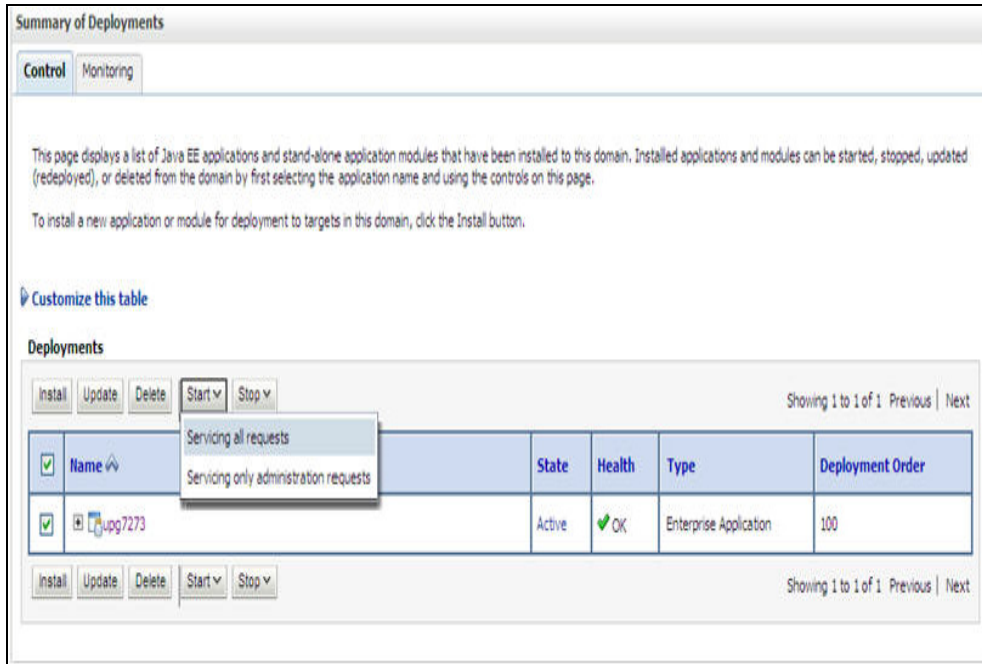
Name	Type
[-] upg7273	Enterprise Application
[-] EJBs	
[-] StatelessCacheBeanBean	EJB
[-] Modules	
[-] /upg7273	Web Application
[-] beancache.jar	EJB Module
[-] Web Services	
None to display	

Showing 1 to 1 of 1 Previous | Next

9. Review the general configuration details of the deployment. You can also update the configuration of the deployment in this window. In the Overview tab, you can view the complete deployment configuration.
10. Click **Save** to update the changes, if any.

- From the LHS menu, click **Deployments**. The Summary of Deployments window is displayed.

**Figure 8–55** Summary of Deployments



- Select the newly deployed Infrastructure application and click **Start > Servicing all requests**. Ensure that the Infrastructure server is up and running.



Figure 8–56 Summary of Deployments

Messages

✔ Start requests have been sent to the selected Deployments.

Summary of Deployments

Control Monitoring

This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.


To install a new application or module for deployment to targets in this domain, click the Install button.

[Customize this table](#)

Deployments

Install Update Delete Start Stop

Showing 1 to 1 of 1 Previous Next

<input type="checkbox"/>	Name ↕	State	Health	Type	Deployment Order
<input type="checkbox"/>	 upg7273	Active	✔ OK	Enterprise Application	100

Install Update Delete Start Stop

Showing 1 to 1 of 1 Previous Next

The **State** of the deployed application will be displayed as **Active** if started successfully.

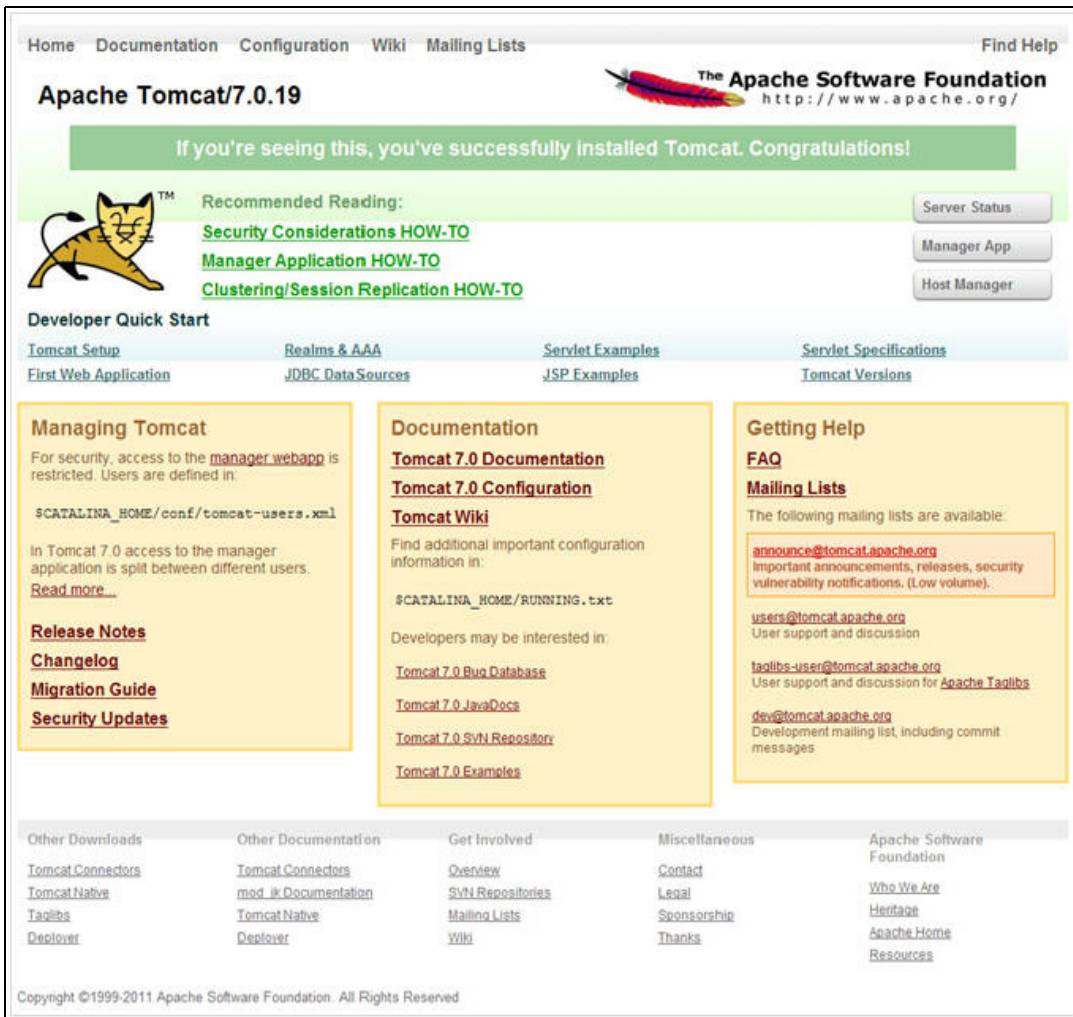
## Deploying Tomcat WAR Files

Before deploying the WAR files, ensure that the previously deployed applications of Infrastructure are uninstalled. See *Uninstalling Previously Deployed WAR Files in Tomcat* for the procedure to uninstall the previously deployed Infrastructure war files.

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>`. (https if SSL is enabled). The Tomcat home window is displayed.

Figure 8-57 Tomcat home



2. Click **Manager App**. The Connect to dialog box is displayed.
3. Enter the **User Id** and **Password** that has admin rights and click **OK**. (For user creation in tomcat, see "[Tomcat User Administration](#)". The Tomcat Web Application Manager window is displayed with the list of all the applications deployed.

Figure 8–58 Tomcat Web Application Manager

Context Path	Application Name	Enabled	State	Operations
/host-manager	Tomcat Host Manager Application	true	0	Start Stop Reload Undeploy Expire sessions with idle > 30 minutes
/manager	Tomcat Manager Application	true	1	Start Stop Reload Undeploy Expire sessions with idle > 30 minutes
/ofsa73st	OFSAAI Web Application	true	0	Start Stop Reload Undeploy Expire sessions with idle > 30 minutes

**Deploy**

Deploy directory or WAR file located on server

Context Path (required):

XML Configuration file URL:

WAR or Directory URL:

---

WAR file to deploy

Select WAR file to upload:

---

**Diagnostics**

Check to see if a web application has caused a memory leak on stop, reload or undeploy

This diagnostic check will trigger a full garbage collection. Use it with extreme caution on production systems.

---

**Server Information**

Tomcat Version	JVM Version	JVM Vendor	OS Name	OS Version	OS Architecture	Hostname	IP Address
Apache Tomcat/7.0.19	1.6.0_25-b06	Sun Microsystems Inc.	Linux	2.6.18-194.el5xen	amd64	ICLV86DOR	10.184.134.146

Copyright © 1999-2011, Apache Software Foundation

4. In the *Deploy* section, enter the **Context Path** provided during the installation as `"/<context-name>".`
5. Enter the path where the `<context-name>.war` file resides (by default `"$FIC_WEB_HOME/<context-name.war>"`) in the **WAR or Directory URL** field and click **Deploy**.

On successful application deployment, a confirmation message is displayed.

- For information on starting the Tomcat server, see [Starting Infrastructure Services](#).

## Additional Configurations

Refer to the following sections for detailed module specific post installation configurations.

This section covers the following topics:

- [FTP/SFTP Configuration for Excel/Document Upload](#)
- [Configuration for Dimension and Hierarchy Management](#)
- [Configure Infrastructure Server Memory](#)
- [Internet Explorer Settings](#)
- [Retrieve Patch Information](#)
- [OLAP Data Server Configuration](#)
- [Changing IP/ Hostname, Ports, Deployed Paths of the OFSAA Instance](#)
- [Configure OFSAAI Web Services](#)
- [Configure OFSAAI Web Services](#)

- [Deploy OFSAAI Web Services](#)
- [Configuration to Enable Parallel Execution of DML statements](#)
- [Configure Message Details in Forms Designer](#)
- [Clearing Application Cache](#)
- [Configuring Password Changes](#)
- [Configure Java Virtual Machine](#)
- [Configure Internal Service \(Document Upload/Download\)](#)

## FTP/SFTP Configuration for Excel/Document Upload

In OFSAA, certain modules require transfer of files from the web application server to the OFSAA server over SSH. Follow these steps to ensure the OFSAA server recognizes the web application server during file transfers.

1. Login to the web application server.  
Example: `<App Layer path>scp nohup.out <user>@<Web Server path>:/export/home/<user>`
2. Type `sftp <user>@<OFSAA Server>`
3. Specify Yes when prompted for permission. Are you sure you want to continue connecting (Yes/No)?
4. This will add an entry into the "known\_hosts" file.
5. A confirmation message is displayed: Permanently added <OFSAA Server> RSA to the list of known hosts..

## Configuration for Dimension and Hierarchy Management

These configuration changes are applicable when Dimension Management features provided in OFSAAI are used. You can open `AMHMConfig.properties` file present in the `$FIC_WEB_HOME/webroot/conf` directory to set the properties for the following:

- [Configure Member Deletion](#)
- [Configure Attribute Default Date Format](#)
- [Configure Members Reverse Population](#)
- [Configure Members Reverse Population](#)
- [Configure Maximum Levels allowed in Hierarchies](#)
- [Configure Node Limit for a Hierarchy Tree](#)

Configuration for Dimension and Hierarchy Management has to be done only after the application/solution installation is done. The properties specific to Information Domain are:

- `$INFODOM$=<Name of the Information Domain>`
- `$DIMENSION_ID$=<Dimension ID for which the property to be set>`

### Configure Member Deletion

This property should be set to allow the user to delete the Members for the Dimension.

**Table E-1 Member Deletion Configuration**

Value	Code	Example
# Member Deletion Configuration - VALUE- Y/N	MEMBER_ DEL-\$INFODOM\$-\$DIME NSION_ID\$=\$VALUE\$	MEMBER_ DEL-ORAFUSION-1=Y

**Configure Attribute Default Date Format**

This property should be set to display the Default Date Format for Date type Attribute in *Attributes* window.

**Table E-2 Attribute Default Date Format**

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=D D/MON/YYYY

**Configure Members Reverse Population**

This property should be set for reverse population of Members for the Dimensions in required Information Domains.

**Table E-3 Members Reverse population**

Value	Code	Example
# Members Reverse population - VALUE- Y/N	MEMBER_REVERSE_ POP-\$INFODOM\$-\$DIME NSION_ID\$=\$VALUE\$	MEMBER_REVERSE_ POP-ORAFUSION-1=Y

**Configure Hierarchy Reverse Population**

This property should be set for reverse population of Hierarchies for the Dimensions in required Information Domains.

**Table E-4 Hierarchy Reverse population**

Value	Code	Example
#Hierarchy Reverse population - VALUE- Y/N	HIERARCHY_REVERSE_ POP-\$INFODOM\$-\$DIME NSION_ID\$=\$VALUE\$	HIERARCHY_REVERSE_ POP-ORAFUSION-1=Y

**Configure Maximum Levels allowed in Hierarchies**

This property is required to set the maximum levels allowed to build the Hierarchies tree structure.

**Table E-5 Hierarchy Maximum level allowed**

Value	Code	Example
#Hierarchy Maximum level allowed for the hierarchy in particular Information Domain - VALUE - Integer number	MAX_ DEPTH-\$INFODOM\$=\$VA LUE\$	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 an alert is 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 is displayed as "*Error occurred in Reverse populating the hierarchy*".

### Configure 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, the Hierarchies are treated as large Hierarchy.

**Table E-6 Hierarchy Tree node limit**

Value	Code	Example
#Tree node limit for the hierarchy - Values is Integer number	TREE_NODE_LIMIT=\$VALUE\$	TREE_NODE_LIMIT=30

## Configure Infrastructure Server Memory

The memory settings for Infrastructure Application Server, Tomcat, WebSphere, and WebLogic can be edited for customizing memory settings and garbage collector settings depending on the available hardware configuration as explained below. These settings are base minimum and has to be incremented considering the deployment metrics into account. The increments are usually handled in multiples of 128mb for heap and 64mb for stack.

### Infrastructure Application Server Memory Settings

You can configure the Infrastructure Application Memory settings as follows:

1. Locate .profile file.
2. Edit X\_ARGS field in this file for customizing memory settings and garbage collector settings depends on the hardware configuration.

This has a default value `X_ARGS="-Xms200m"`

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

---

**Note:** This parameter is modified in 7.3.2 IR and you need to modify X\_ARGS\_APP variable in the .profile file to customize Java Memory Settings for Model Upload based on the Data Model size.

---

## Internet Explorer Settings

---

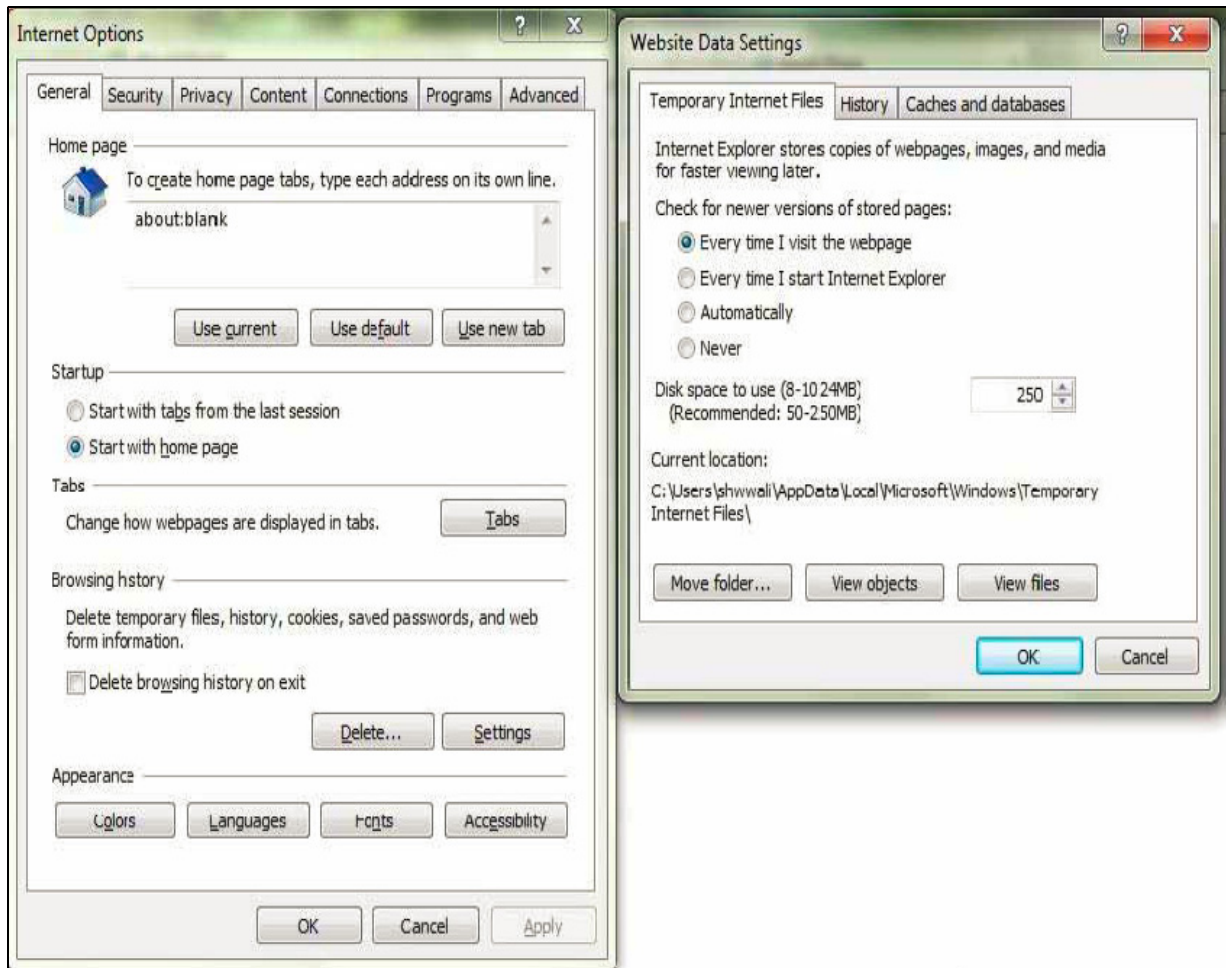
**Note:** OFSAAI supports only default zoom setting in Internet Explorer, that is, 100%.  
Cookies should be enabled.

---

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

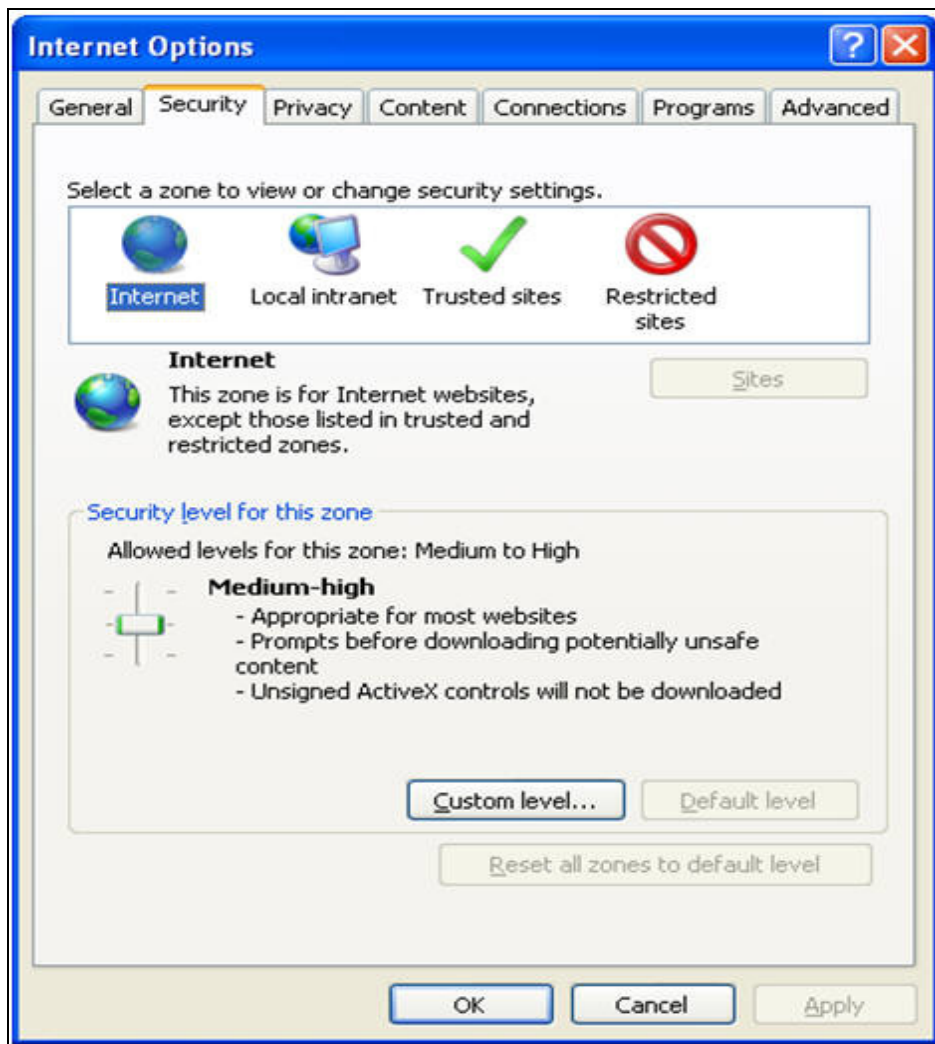
1. Open **Internet Explorer**. Select **Tools > Internet Options**. The *Internet Options* window is displayed.
2. Click the **Settings** button. The *Settings* window is displayed.
3. Select the option **Everytime I Visit the webpage** and click **OK**.

**Figure E-1 Internet Options**



4. In the *Internet Options* window, select the **Security** tab and select the **Internet** option under **Select a zone to view or change the security settings**.
5. Click **Default Level** under **Security level for this zone**.

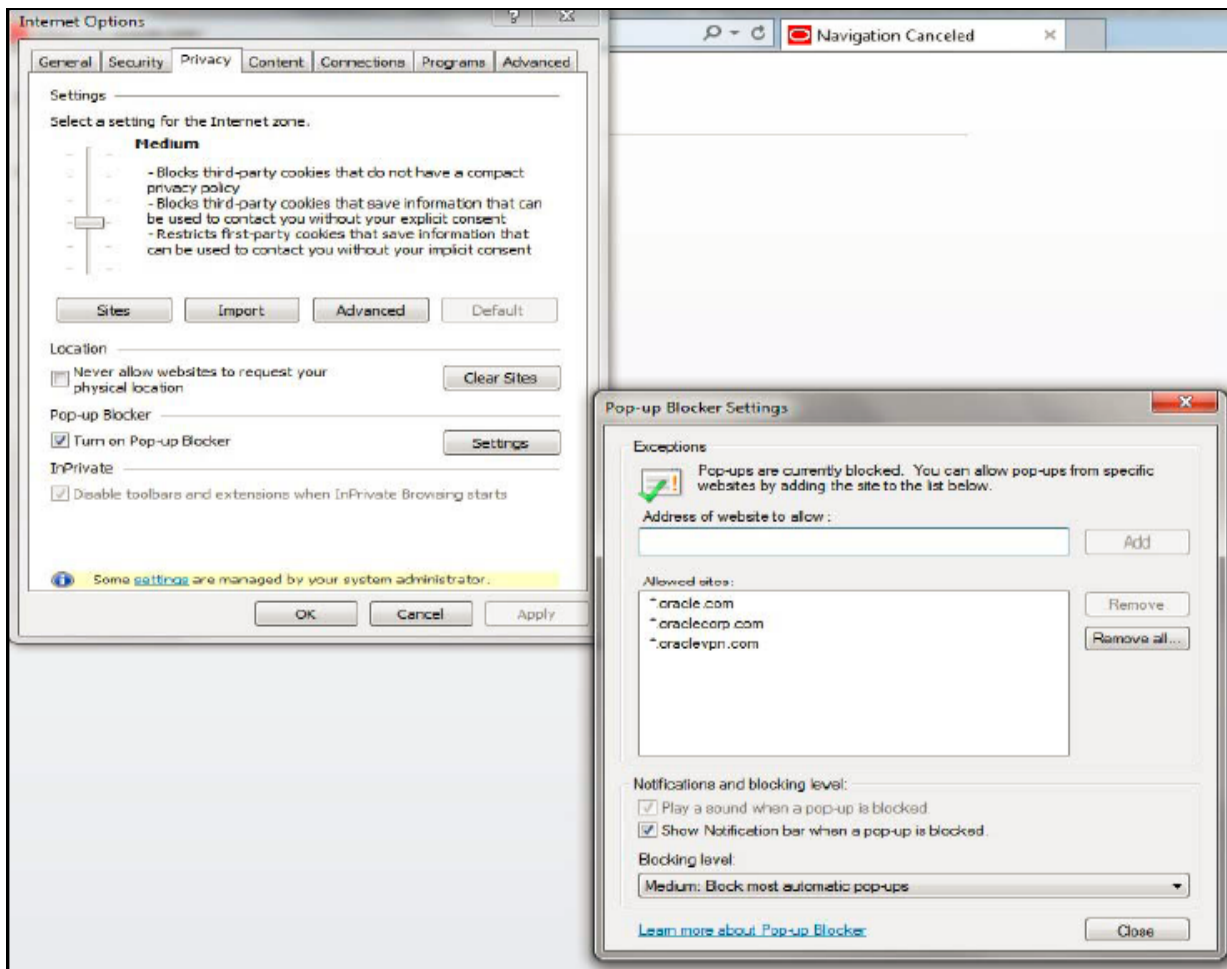
Figure E-2 Internet Options



6. Click **OK** to save.
7. Click **Internet Explorer >> Tools >> Compatibility View Settings**.
8. Enter the OFSAA setup URL in the **Add this website** field.
9. Click **Add**.
10. Ensure the URL is listed under **Websites you've added to Compatibility View**.
11. In the *Internet Options* window, select the **Privacy** tab and select the **Turn on Pop-up Blocker** option under **Pop-up Blocker** settings.



Figure E-3 Internet Options- Popup Blocker Settings



12. Click **Settings**. The *Pop-up Blocker Settings* window is displayed.
13. Enter the URL of the OFSAA Application in the **Address of Website to Allow** field.
14. Click **Add**. The OFSAA URL is displayed in the Allowed Sites section.
15. Click **Close**.
16. Click **OK** in the *Internet Options* window.

## Retrieve Patch Information

To identify the list of patches installed on your OFSAA setup, follow these steps:

1. Login to the OFSAA application as a user with Object AdminAdvanced Role.
2. Navigate to Object Administration tab.
3. Click **System Utilities**.
4. Click **Patch Information**.
5. The page displays the list of patches installed on the OFSAA setup across Applications/Platform.

## OLAP Data Server Configuration

This section is applicable if you are using the OLAP feature of OFSAAI.

The following parameters must be set to ensure that the system limitations are not exceeded at any stage. 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

- **Sort Buffer settings:** This 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.

## Changing IP/ Hostname, Ports, Deployed Paths of the OFSAA Instance

For information on this section, refer OFS Analytical Applications Infrastructure Administration User Guide in [OTN](#).

## OFSAAI Setup Information Fetching Tool

Executing the `SetupInfo.jar` file available in the `FIC_HOME` path will help you retrieve the related information about the OFSAAI Set up such as Operating System Name and version, Database Type and Version, OFSAAI architecture, Log file locations and so on.

To execute "SetupInfo.jar" in console:

1. Navigate to the path `$FIC_HOME`.
2. Enter the command:

```
java -jar SetupInfo.jar
```

After execution, the output file location is displayed in the console.

## Encryption Changer

This utility helps you to regenerate the new `AESCryptKey.ext` file and encrypt all the encrypted values of the OFSAAI setup according to the new key.

To execute `EncryptC.jar` in console:

1. Navigate to the path `$FIC_HOME`.
2. Enter the command:

```
java -jar EncryptC.jar
```

A confirmation message is displayed after execution.

Once executed, you need to create and deploy the EAR / WAR file depending on the configured Web Application Server. For more information, see , "[Configuring Web Application Servers](#)".

## Infrastructure LDAP Configuration

For information on LDAP configuration, see *OFSAAI Administration Guide*.

## Configure 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.

### Configure 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 variable `<WebServer>` denotes any one of the application server, i.e. WebSphere, WebLogic, or Tomcat.

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" PORTTYPE= "$PORTTYPE"
SESSION_MAINTAIN_PROPERTY= "$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"
```

```

RETURNRTYPE=" $RETURNRTYPE"
CLASSNAME=" $CLASSNAME" />
</OPERATION>
</WEBSERVICE>
</WEBSERVICES>
</XML>

```

The `DynamicWSConfig.xml` has the placeholders as tabulated below. These have to be updated depending on the web service chosen and the mode of accessing it. For each Web service to be accessed, the entire `webservice` tag in the `DynamicWSConfig.xml` file must be repeated. The placeholders tabulated below 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.

### Attributes for WEBSERVICE tag

**Table E-7 WEBSERVICE tag**

Placeholder	Description
\$CODE	Unique number within the xml file and cannot be 999 or 0.
\$ENDPOINT	soap: address location in the <code>wSDL</code> : service name tag of the <code>wSDL</code> file.
\$TARGETNAMESPACE	The attribute value for the <code>targetNamespace</code> of the <code>wSDL</code> : definitions tag.
\$XMLNS_XSD	The attribute value for the <code>xmlns:s</code> of the <code>wSDL</code> : definitions tag
\$ENCODINGSTYLE	The attribute value for the <code>xmlns:soapenc</code> of the <code>wSDL</code> : definitions tag.
\$SERVICENAME	Name of the service found under the <code>wSDL</code> : service name tag of the <code>wSDL</code> file.
\$PORTTYPE	<code>wSDL</code> port type name as mentioned in the <code>wSDL</code> 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

Ensure that the "operation tag attributes" are repeated for each of the operation tags.

**Table E-8 OPERSTION tag**

Placeholder	Description
\$CODE	Should be unique within the Webservice tag.

**Table E-8 (Cont.) OPERSTION tag**

Placeholder	Description
\$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 "rpc" if the web services invoking is in DII mode or "stub" if it is in static mode. This is a mandatory parameter.
\$PACKAGENAME	Represents the JAXB package of input object.

**Attributes for INPUT tag****Table E-9 INPUT tag**

Placeholder	Description
\$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****Table E-10 OUTPUT tag**

Placeholder	Description
\$PARAMNAME	Output parameter name to be returned by the web service.
\$RETURNRTYPE	Output parameter Data Type. If the web service response is a complex object, then specify \$RETURNRTYPE as "object".
\$CLASSNAME	Represents class name of output object parameter.

**web.xml Entries**

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

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 or hostname 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.

## Deploy OFSAAI Web Services

You can deploy OFSAAI Web Services separately if you had not configured OFSAAI Web Services as part of the installation.

1. Complete the manual configuration of OFSAAI Web Services.
2. Navigate to `<OFSAAI Installation Directory>/EXEWebService/<WebServer>` and execute the command:

```
./ant.sh
```

This will trigger the EAR/WAR file creation, which is required for the deployment.

3. Deploy the generated `EXEWebService.EAR/EXEWebService.WAR` file into the WebServer.

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

## Configuration to Enable Parallel Execution of DML statements

A configuration file, `OracleDB.conf` has been introduced to accommodate any configurable parameter related to operations on oracle database. If you do not want to set a parameter to a specific value, then the respective parameter entry can be

removed/commented off from the OracleDB.conf file which resides in the path \$FIC\_DB\_HOME/conf.

As of now, the OracleDB.conf file has only one parameter namely CNF\_DEGREE\_OF\_PARALLELISM. This parameter indicates the degree of parallelism to be used for a DML operation if parallel DML is explicitly enabled in the session with the ENABLE PARALLEL DML clause of the ALTER SESSION statement. The default mode of a session is DISABLE PARALLEL DML. If CNF\_DEGREE\_OF\_PARALLELISM is not set, then the default degree, as decided by Oracle will be used.

## Configure Message Details in Forms Designer

You can configure the Message Details in Forms Designer under Data Entry Forms and Queries module by updating the details of mail server in the "NotificationConfig.cfg" file which resides in the path \$FIC\_APP\_HOME/common/FICServer/conf.

Ensure that the "authorized User details" for whom you need to configure the Message details are included in *Administration > Security Management > User Administrator > User Maintenance* window.

Update the following parameters in the "NotificationConfig.cfg" file:

**Table E-11 NotificationConfig.cfg File**

Parameter	Description
SMTP_SERVER_IP	Specify the hostname or IP address of SMTP Server.
SMTP_DEBUG_MODE	To run SMTP service in Debug mode, set value to 'true', otherwise set value to 'false'.
SMTP_AUTHORIZATION	Set to 'true' if SMTP server requires the client to be authenticated, otherwise set to 'false'.
SMTP_USERNAME	Username required for logging into SMTP server, if authentication is not required use a dummy value.
SMTP_PASSWORD	Password required for logging into SMTP server, if authentication is not required use a dummy value.
SMTP_MAILID	If the Messages has to go from a Particular ID that ID need to be added. Exchange server forces you set a valid ID that is there in the exchange server. (Based on Security settings)

Ensure that the authorized User details are included in *Administration > Security Management > User Administrator > User Maintenance* window.

## Clearing Application Cache

This is applicable to all Web Servers (that is, WebSphere, WebLogic, and Tomcat).

Prior to the deployment of Infrastructure or Application Service Packs / One-off patches, navigate to the following path depending on the WebServer configured and clear the cache:

- **Tomcat:** <Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp
- **WebLogic:** <Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/\_WL\_user/<Application name>/qaelce/jsp\_servlet



- **WebSphere:** <Websphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>

## Configuring Password Changes

This section explains about how to modify the OFSAA Infrastructure Config Schema and Atomic Schema passwords.

### OFSAA Infrastructure Config Schema password modification

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
./stopofsaai.sh
```
4. Start the Infrastructure Server in foreground directly on the server or through X-Windows software using the command:
 

```
./startofsaai.sh
```
5. At the prompt, enter System Password. Enter the "new Config schema" password. The service will start and initialize itself if it is able to successfully connect to the DB.
6. Post successful startup of the service, if required, the Infrastructure server may be shut down and restarted in the background using nohup mode.

### OFSAA Infrastructure Atomic Schema password modification

To change the Atomic Schema password, perform the following steps:

1. Change the Atomic schema User Password in the database.
2. Login to the application from the browser using SYSADMN account or any user id, which has System Administrator role mapped.
3. Navigate to *System Configuration > Database Details* window. Select the appropriate connection and edit the password.
4. Navigate to *Data Management Tools > Data Source > Data Integrator > Sources Designer* window. Update the appropriate Source details.
5. If you are 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 you are using WebSphere as Web server:

- a. Login to the WebSphere Administration Console, from the left side menu.
- b. Navigate to *Resources > JDBC > Data Sources*. A list of data sources will be populated on the right side.
- c. 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 you are using WebLogic as Web server:

- a. Login to the WebLogic Administration Console, from the left side menu
  - b. 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.
  - c. Select the appropriate Data Source and edit the connection details. (In this case, both Config and Atomic data sources need to be modified).
6. Restart the OFSAAI services.

## Configure Java Virtual Machine

While running several database intensive tasks in parallel, fetching the database connection from connection pool may face an error. To ensure no such error is encountered, add the line `securerandom.source=file:/dev/./urandom` in the **java.security** configuration file available in `$JAVA_HOME/jre/lib/security/` path.

This needs to be configured only on the machine where the OFSAAI database components (ficdb layer) are installed.

## Configure Internal Service (Document Upload/Download)

This step can be ignored if it has already been configured as part of any previous IR/ML installation. The Document Upload/Download feature has undergone a change and can now be configured to use Internal service for document upload / download instead of the earlier ExeWebService. To facilitate Internal service for document upload / download, perform the following configurations:

1. Create the folders **download**, **upload**, **TempDocument**, and **Temp** in the local path of Web application server and provide **Read/Write** permission.
  - To find the exact location, execute the following query in `CONFIG` schema:

```
select localpath from web_server_info
```
  - To create folders with Read/Write permission, execute the command:

```
mkdir -m 777 download upload TempDocument Temp
```
2. Create **DocStorage** folder in the FTPSHARE location of APP tier and provide **Read/Write** permission.
  - To find the exact location, execute the query in `CONFIG` schema:

```
select ftpdrive from app_server_info
```
  - To create folder with **Read/Write** permission, execute the command:

```
mkdir -m 777 DocStorage
```

By default, the parameter **DOCUMENT\_SERVICE\_TYPE\_EXTERNAL** value is set to **FALSE** in the Configuration table in `CONFIG` schema and hence the application “ExeWebService” will not be used. It is recommended that the value to be set to **FALSE** and use the Internal service for document upload / downloads. If you intend to continue using the External ExeWebService, set the value to **TRUE**.

Navigate to `$FIC_HOME/EXEWebService/<WEBSERVER_TYPE>` directory of WEB tier and type `./ant.sh`. This triggers the creation of EAR/WAR file `EXEWebService.ear/.war`. The EAR/WAR file `EXEWebService.ear/.war` will be created in `$FIC_HOME/EXEWebService/<WEBSERVER_TYPE>` directory of WEB tier. Redeploy the generated EAR/WAR file onto your configured web application server.

## Installation Checklist

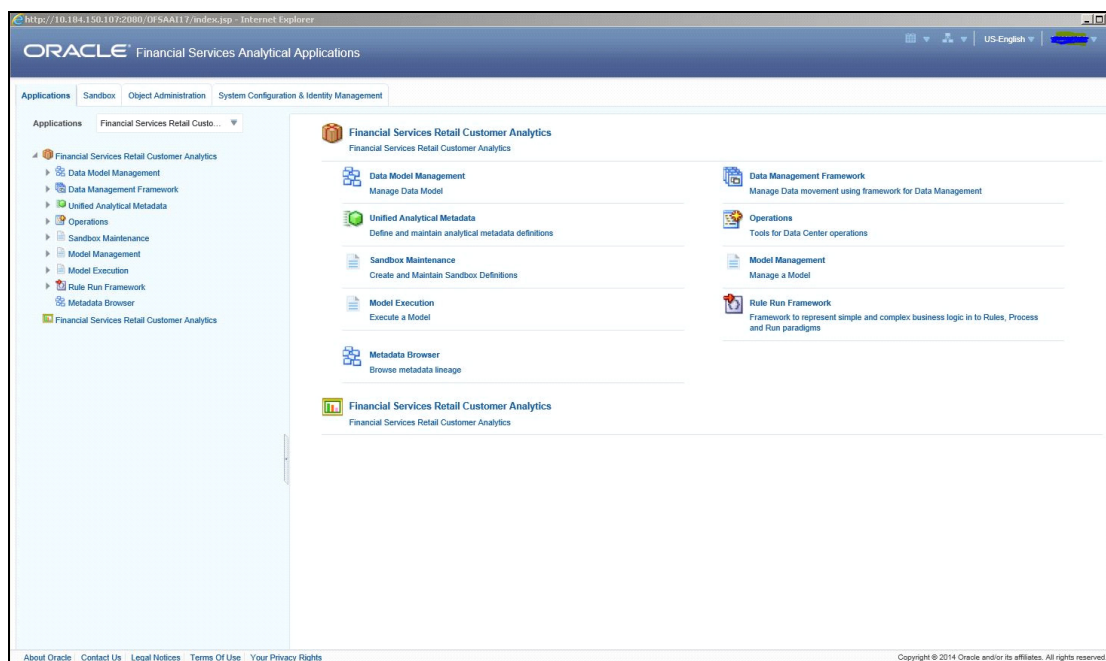
Before starting on the OFSAAI Installation Kit, ensure that the following pre-installation activities checklist is completed successfully. It is recommended to take a print out of the checklist and follow the checklist step by step.

**Table E-12 General, Pre-Install, Install, and Post Install) Checklist**

Step No	Task	Done
<b>General</b>		
1	Check the OFS Customer Analytics Release Notes and Read Me document for any additional steps to be performed on OFS Customer Analytics Pack or OFSAAI.  <b>Note:</b> For more details, contact Oracle support.	Yes/No
<b>Customer Analytics Application Pre Installation + During Installation</b>		
1	Prior to installation, ensure that sufficient free temp space (minimum 1 GB free) is available in /tmp directory of unix server hosting OFSAAI.	Yes/No
<b>CA Application Pack Post Installation</b>		
1	Perform post-installation steps. For more information, refer to <i>Post Installation</i> .	Yes/No

## OFSAA Landing Page

**Figure E-4 OFSAA Landing Page**



Infrastructure can be accessed through your web-browser as soon as the System Administrator (SA) installs and configures Oracle Financial Services Analytical Applications Infrastructure.

The SA will provide you a link through which you can access Oracle Financial Services Analytical Applications Infrastructure. You can access the Infrastructure application login screen through your web-browser using the URL: <IP Address of the Web Server > :<servlet port>/<context name>/login.jsp.

You can also login to the Infrastructure application with the host name instead of the IP address. To do this, it is necessary to have the host name mapped to the IP address in the hosts file the client Windows machine. The hosts file will be in %systemroot%\system32\ drivers\etc\ directory.

## OFSAAI Login

While accessing Oracle Financial Services Analytical Applications Infrastructure, the Splash screen is as displayed:

**Figure E-5 OFSAAI Login Page**



You can select the required language from the Language drop-down list. The language options displayed in the drop-down list are based on the license. Based on the Language selected, the appropriate language login screen is displayed.

Enter the **User ID** and **Password** provided by the System Administrator and click **Login**. You will be prompted to change your password on your first login. Alternatively, you can also choose to change your password any time.

Figure E-6 OFSAAI Login Page

In the Change Password screen, enter a new password, confirm it and click **OK** to view the Splash screen. Refer to the following guidelines for Password Creation:

- Passwords are displayed as asterisks (stars) while you enter. This is to ensure that the password is not revealed to other users.
- Ensure that the entered password is at least six characters long.
- The password must be alphanumeric with a combination of numbers and characters.
- The password should not contain spaces.
- Passwords are case sensitive and ensure that the Caps Lock is not turned ON.
- By default, the currently used password is checked for validity if password history is not set.
- New password should be different from previously used passwords based on the password history which can be configured.
- If you encounter any of the following problems, contact the System Administrator:
  - Your user ID and password are not recognized.
  - Your user ID is locked after three consecutive unsuccessful attempts.
  - Your user ID has been disabled.
  - Guest user cannot change the password.

### Activating/Enabling a Product within an Application

Each product is marketed by a separate team and which is headed by a Sales Manager who reports to the Sales Head. Each Sales Manager in turn has two Sales Officers who are responsible for sales and profitability of the product.

The Sales Head has decided that the Sales Officer of each product will not have access to the information of other products. However, each Sales Manager will have access to Sales figures of the other products.

Using the Oracle Infrastructure Security Hierarchy feature, Administrator can provide information security at hierarchy level by defining security options for each hierarchy node. Thus, the Bank can control access of information at a node level and not increase the overheads.

This is how it is done in Oracle Infrastructure:

- Firstly, the users are created in Oracle Infrastructure and then, a business hierarchy (as defined above) is created.
- Now, the bank can restrict access of certain information to certain people in the Hierarchy Security configuration.
- The administrator can control security by mapping the users to various nodes in hierarchy.

For example, the administrator maps Sales Officer 1 and Sales Officer 2 to only the Personal Loans Node in the Product hierarchy. This restricts Sales Officer 1 and 2 to only viewing and maintaining their particular node in the hierarchy.

By default, all the users mapped to a domain can access all the hierarchy levels to which they are mapped. This function allows the administrator to restrict or exclude a user/s from accessing restricted nodes.

### Patching Your OFSAA Infrastructure Installation

Oracle strongly recommends installing the latest available patchset so as to be up to date with the various releases of the OFSAA Infrastructure product.

You can refer to the below links on <http://support.oracle.com> for more information on latest releases and upgrade compatibility:

[Latest OFSAAI 7.3 Release and OFSAA 6.0 and 6.1 Release Information \(Doc ID 1456593.1\)](#)

[OFSAAI 7.3 Upgrade and Compatibility Reference \(Doc ID 1590502.1\)](#)





### Cloning OFSAA Instance

There is a consistent need for a faster and effective approach of replicating an existing OFSAA instance for further project developments, that is, setting up OFSAA instances that are exact copies of the current OFSAA instance. For more information on cloning, refer [OFSAA Cloning Reference Guide](#).



This Appendix discusses the following sections:

- [Grants for Atomic Schema](#)
- [Grants for Config Schema](#)
- [Grants for Config Schema Entities for Atomic Users](#)

### Grants for Atomic Schema

The following are the Grants for Atomic Schema:

```
GRANT CREATE SESSION TO &database_username
/
GRANT CREATE VIEW TO &database_username
/
GRANT CREATE SEQUENCE TO &database_username
/
GRANT CREATE TABLE TO &database_username
/
GRANT CREATE PROCEDURE TO &database_username
/
grant create RULE to &database_username
/
GRANT CREATE TRIGGER TO &database_username
/
grant create type to &database_username
/
grant select on SYS.V_$PARAMETER to &database_username
/
grant select on sys.dba_free_space to &database_username
/
grant select on sys.dba_tables to &database_username
```

```
/
grant select on sys.Dba_tab_columns to &database_username
/
GRANT CREATE SYNONYM TO &database_username
/
GRANT DEBUG CONNECT SESSION TO &database_username
/
GRANT DEBUG ANY PROCEDURE TO &database_username
/
GRANT CREATE MATERIALIZED VIEW TO &database_username
/
GRANT OLAP_USER TO &database_username
/
GRANT CONNECT TO &database_username
/
GRANT OLAP_USER TO &database_username
/
GRANT CREATE ANY MATERIALIZED VIEW TO &database_username
/
GRANT CREATE ANY TABLE TO &database_username
/
GRANT CREATE MATERIALIZED VIEW TO &database_username
/
GRANT CREATE PROCEDURE TO &database_username
/
GRANT CREATE SEQUENCE TO &database_username
/
GRANT CREATE SESSION TO &database_username
/
GRANT CREATE SYNONYM TO &database_username
/
GRANT CREATE TABLE TO &database_username
/
GRANT CREATE TRIGGER TO &database_username
/
GRANT CREATE TYPE TO &database_username
/
```

```
GRANT CREATE VIEW TO &database_username
/
GRANT DEBUG CONNECT SESSION TO &database_username
/
GRANT RQADMIN to &database_username
/
GRANT RQROLE to &database_username
/
```

## Grants for Config Schema

The following are the Grants for Config Schema:

```
grant select on CSSMS_USR_PROFILE to &database_username
/
grant select on CSSMS_ROLE_MAST to &database_username
/
grant select on CSSMS_GROUP_MAST to &database_username
/
grant select on CSSMS_FUNCTION_MAST to &database_username
/
grant select on CSSMS_USR_GROUP_MAP to &database_username
/
grant select on CSSMS_USR_GROUP_DSN_SEG_MAP to &database_username
/
grant select on CSSMS_ROLE_FUNCTION_MAP to &database_username
/
grant select on CSSMS_GROUP_ROLE_MAP to &database_username
/
grant select on CSSMS_SEGMENT_MAST to &database_username
/
grant select on BATCH_TASK to &database_username
/
grant select on CSSMS_USR_DSN_SEG_MAP to &database_username
/
grant select on CSSMS_USR_ROLE_MAP to &database_username
/
grant select on CSSMS_METADATA_SEGMENT_MAP to &database_username
/
```

```
grant select on BATCH_RUN to &database_username
/
grant select on PR2_FILTERS to &database_username
/
grant select on PR2_TASK_FILTER to &database_username
/
grant select on PR2_TASK_FILTER_DETAIL to &database_username
/
grant select on ST_STRESS_MASTER to &database_username
/
grant select on ST_SCENARIO_MASTER to &database_username
/
grant select on ST_SHOCK_MASTER to &database_username
/
grant select on BATCH_MASTER to &database_username
/
grant select on ICC_MESSAGELOG to &database_username
/
grant select on PR2_MASTER to &database_username
/
grant select on PR2_RUN_REQUEST to &database_username
/
grant select on MF_MODEL_SCRIPT_MASTER to &database_username
/
grant select on MF_INPUT_VALUES to &database_username
/
grant select on MF_MODEL_OUTPUT_VALUES to &database_username
/
grant select on DB_MASTER to &database_username
/
grant select on DSNMASTER to &database_username
/
grant select on pr2_rule_map to &database_username
/
grant delete on pr2_rule_map_pr to &database_username
/
grant insert on pr2_rule_map_pr to &database_username
```

```
/
grant update on pr2_rule_map_pr to &database_username
/
grant select on pr2_rule_map_pr to &database_username
/
grant delete on pr2_rule_map_pr_tmp to &database_username
/
grant insert on pr2_rule_map_pr_tmp to &database_username
/
grant update on pr2_rule_map_pr_tmp to &database_username
/
grant select on pr2_rule_map_pr_tmp to &database_username
/
grant select on pr2_rule_map_exclude to &database_username
/
grant delete on pr2_rule_map_exclude_pr to &database_username
/
grant insert on pr2_rule_map_exclude_pr to &database_username
/
grant update on pr2_rule_map_exclude_pr to &database_username
/
grant select on pr2_rule_map_exclude_pr to &database_username
/
grant delete on pr2_rule_map_exclude_pr_tmp to &database_username
/
grant insert on pr2_rule_map_exclude_pr_tmp to &database_username
/
grant update on pr2_rule_map_exclude_pr_tmp to &database_username
/
grant select on pr2_rule_map_exclude_pr_tmp to &database_username
/
grant select on pr2_run_object to &database_username
/
grant select on pr2_run_object_member to &database_username
/
grant select on pr2_run_map to &database_username
/
```

```
grant select on pr2_run_execution_b to &database_username
/
grant select on pr2_run_execution_filter to &database_username
/
grant select on pr2_firerun_filter to &database_username
/
grant select on pr2_filters to &database_username
/
grant select on configuration to &database_username
/
grant select on batch_parameter to &database_username
/
grant select on component_master to &database_username
/
grant select on MDB_OBJECT_TYPE_ATT_LAYOUT to &database_username
/
grant select on REV_OBJECT_ATTRIBUTE_DTL to &database_username
/
grant select on FORMS_LOCALE_MASTER to &database_username
/
grant select on mdb_object_dependencies to &database_username
/
grant select on mdb_execution_details to &database_username
/
grant select on REV_STAT_DATA to &database_username
/
grant select on REV_OBJECT_REPOSITORY_B to &database_username
/
grant select on REV_OBJECT_REPOSITORY_TL to &database_username
/
grant select on REV_OBJECT_ATTRIBUTE_DTL_MLS to &database_username
/
grant select on REV_OBJECT_APPLICATION_MAP to &database_username
/
grant select on MDB_OBJ_EXPR_DETAILS to &database_username
/
grant select on MDB_EXECUTION_DETAILS to &database_username
```



```
/
grant select on REV_OBJECT_TYPES_CD to &database_username
/
grant select on REV_OBJECT_TYPES_MLS to &database_username
/
grant select on REV_APPLICATIONS_CD to &database_username
/
grant select on REV_APPLICATIONS_MLS to &database_username
/
grant select on METADATA_BROWSER_LOCALE to &database_username
/
grant select on MDB_STAT_DATA to &database_username
/
grant select on MDB_OBJECT_TYPE_LAYOUT to &database_username
/
grant select on ofsa_md_id_ref to &database_username
/
grant select on MDB_ETL_MAPPING to &database_username
/
grant select on setupinfo to &database_username
/
grant select on LOCALEREPOSITORY to &database_username
/
grant select on MF_MODEL_MASTER to &database_username
/
grant select on MF_SANDBOX_MASTER to &database_username
/
grant select on MF_VARIABLE_MASTER to &database_username
/
grant select on MF_TECHNIQUE_MASTER to &database_username
/
grant select on MDB_RULE_SOURCE_HEADER to &database_username
/
grant select on MDB_RULE_TARGET_HEADER to &database_username
/
grant select on MDB_RULE_TARGET_MEMBER_HEADER to &database_username
/
```

```
grant select on MDB_RULE_GRID_DATA to &database_username
/
grant select on MDB_MODEL_MAPPING to &database_username
/
grant delete on AAI_MAP_MAPPER to &database_username
/
grant insert on AAI_MAP_MAPPER to &database_username
/
grant update on AAI_MAP_MAPPER to &database_username
/
grant select on AAI_MAP_MAPPER to &database_username
/
grant select on RTI_UI_EXCLUDE_PDM_LIST to &database_username
/
grant select on RTI_VIR_PHY_TBL_NAME to &database_username
/
grant select on infodom_patches to &database_username
/
grant create SESSION to &database_username
/
grant create PROCEDURE to &database_username
/
grant create SEQUENCE to &database_username
/
grant create TABLE to &database_username
/
grant create TRIGGER to &database_username
/
grant create VIEW to &database_username
/
grant create MATERIALIZED VIEW to &database_username
/
grant olap_user to &database_username
/
grant select on SYS.V_$PARAMETER to &database_username
/
grant create SYNONYM to &database_username
```

/

## Grants for Config Schema Entities for Atomic Users

The following are the Grants for Config Schema entities for Atomic Users:

```
GRANT SELECT ON CSSMS_USR_PROFILE TO &database_username
```

/

```
GRANT SELECT ON CSSMS_ROLE_MAST TO &database_username
```

/

```
GRANT SELECT ON CSSMS_GROUP_MAST TO &database_username
```

/

```
GRANT SELECT ON CSSMS_FUNCTION_MAST TO &database_username
```

/

```
GRANT SELECT ON CSSMS_USR_GROUP_MAP TO &database_username
```

/

```
GRANT SELECT ON CSSMS_USR_GROUP_DSN_SEG_MAP TO &database_username
```

/

```
GRANT SELECT ON CSSMS_ROLE_FUNCTION_MAP TO &database_username
```

/

```
GRANT SELECT ON CSSMS_GROUP_ROLE_MAP TO &database_username
```

/

```
GRANT SELECT ON CSSMS_SEGMENT_MAST TO &database_username
```

/

```
GRANT SELECT ON BATCH_TASK TO &database_username
```

/

```
GRANT SELECT ON CSSMS_USR_DSN_SEG_MAP TO &database_username
```

/

```
GRANT SELECT ON CSSMS_USR_ROLE_MAP TO &database_username
```

/

```
GRANT SELECT ON CSSMS_METADATA_SEGMENT_MAP TO &database_username
```

/

```
GRANT SELECT ON BATCH_RUN TO &database_username
```

/

```
GRANT SELECT ON PR2_FILTERS TO &database_username
```

/

```
GRANT SELECT ON PR2_TASK_FILTER TO &database_username
```

/

```
GRANT SELECT ON PR2_TASK_FILTER_DETAIL TO &database_username
```

```
/
GRANT SELECT ON ST_STRESS_MASTER TO &database_username
/
GRANT SELECT ON ST_SCENARIO_MASTER TO &database_username
/
GRANT SELECT ON ST_SHOCK_MASTER TO &database_username
/
GRANT SELECT ON BATCH_MASTER TO &database_username
/
GRANT SELECT ON ICC_MESSAGELOG TO &database_username
/
GRANT SELECT ON PR2_MASTER TO &database_username
/
GRANT SELECT ON PR2_RUN_REQUEST TO &database_username
/
GRANT SELECT ON PR2_RULE_MAP TO &database_username
/
GRANT ALL PRIVILEGES ON PR2_RULE_MAP_PR TO &database_username
/
GRANT ALL PRIVILEGES ON PR2_RULE_MAP_PR_TMP TO &database_username
/
GRANT SELECT ON PR2_RULE_MAP_EXCLUDE TO &database_username
/
GRANT ALL PRIVILEGES ON PR2_RULE_MAP_EXCLUDE_PR TO &database_username
/
GRANT ALL PRIVILEGES ON PR2_RULE_MAP_EXCLUDE_PR_TMP TO &database_username
/
GRANT SELECT ON PR2_RUN_OBJECT TO &database_username
/
GRANT SELECT ON PR2_RUN_OBJECT_MEMBER TO &database_username
/
GRANT SELECT ON PR2_RUN_MAP TO &database_username
/
GRANT SELECT ON PR2_RUN_EXECUTION_B TO &database_username
/
GRANT SELECT ON PR2_RUN_EXECUTION_FILTER TO &database_username
/
```

```
GRANT SELECT ON PR2_FIRERUN_FILTER TO &database_username
/
GRANT SELECT ON PR2_FILTERS TO &database_username
/
GRANT SELECT ON CONFIGURATION TO &database_username
/
GRANT SELECT ON BATCH_PARAMETER TO &database_username
/
GRANT SELECT ON COMPONENT_MASTER TO &database_username
/
GRANT SELECT ON MDB_OBJECT_TYPE_ATT_LAYOUT TO &database_username
/
GRANT SELECT ON REV_OBJECT_ATTRIBUTE_DTL TO &database_username
/
GRANT SELECT ON FORMS_LOCALE_MASTER TO &database_username
/
GRANT SELECT ON MDB_OBJECT_DEPENDENCIES TO &database_username
/
GRANT SELECT ON MDB_EXECUTION_DETAILS TO &database_username
/
GRANT SELECT ON REV_STAT_DATA TO &database_username
/
GRANT SELECT ON REV_OBJECT_REPOSITORY_B TO &database_username
/
GRANT SELECT ON REV_OBJECT_REPOSITORY_TL TO &database_username
/
GRANT SELECT ON REV_OBJECT_ATTRIBUTE_DTL_MLS TO &database_username
/
GRANT SELECT ON REV_OBJECT_APPLICATION_MAP TO &database_username
/
GRANT SELECT ON MDB_OBJ_EXPR_DETAILS TO &database_username
/
GRANT SELECT ON MDB_EXECUTION_DETAILS TO &database_username
/
GRANT SELECT ON REV_OBJECT_TYPES_CD TO &database_username
/
GRANT SELECT ON REV_OBJECT_TYPES_MLS TO &database_username
```

```
/
GRANT SELECT ON REV_APPLICATIONS_CD TO &database_username
/
GRANT SELECT ON REV_APPLICATIONS_MLS TO &database_username
/
GRANT SELECT ON METADATA_BROWSER_LOCALE TO &database_username
/
GRANT SELECT ON MDB_STAT_DATA TO &database_username
/
GRANT SELECT ON MDB_OBJECT_TYPE_LAYOUT TO &database_username
/
GRANT SELECT ON OFSA_MD_ID_REF TO &database_username
/
GRANT SELECT ON MDB_ETL_MAPPING TO &database_username
/
GRANT SELECT ON SETUPINFO TO &database_username
/
GRANT SELECT ON LOCALEREPOSITORY TO &database_username
/
GRANT SELECT ON INFODOM_PATCHES TO &database_username
/
grant select on CSSMS_GROUP_MAST to &database_username
/
grant select on MF_MODEL_SCRIPT_MASTER to &database_username
/
grant select on MF_MODEL_OUTPUT_VALUES to &database_username
/
grant select on DB_MASTER to &database_username
/
grant select on DSNMASTER to &database_username
/
grant select on MF_MODEL_MASTER to &database_username
/
grant select on MF_SANDBOX_MASTER to &database_username
/
grant select on MF_VARIABLE_MASTER to &database_username
/
```

```
grant select on MF_TECHNIQUE_MASTER to &database_username
/
grant select on MDB_RULE_SOURCE_HEADER to &database_username
/
grant select on MDB_RULE_TARGET_HEADER to &database_username
/
grant select on MDB_RULE_TARGET_MEMBER_HEADER to &database_username
/
grant select on MDB_RULE_GRID_DATA to &database_username
/
grant select on MDB_MODEL_MAPPING to &database_username
/
grant delete on AAI_MAP_MAPPER to &database_username
/
grant insert on AAI_MAP_MAPPER to &database_username
/
grant update on AAI_MAP_MAPPER to &database_username
/
grant select on AAI_MAP_MAPPER to &database_username
/
grant select on RTI_UI_EXCLUDE_PDM_LIST to &database_username
/
grant select on RTI_VIR_PHY_TBL_NAME to &database_username
/
grant select on MF_INPUT_VALUES to &database_username
/
grant select on METADATA_MASTER to &database_username
/
grant select on METADATA_ELEMENT_MASTER to &database_username
/
grant select on METADATA_ATTRIBUTE_MASTER to &database_username
/
grant select on METADATA_LOCALE_MASTER to &database_username
/
```





---

---

# Appendix

The `ojdbc<version>.jar` file should be copied based on Database & Java version. Refer to the following table for details.

**Table I-1 JDBC Jar files version details**

<b>Oracle Database Version</b>	<b>JDK Version Supported</b>	<b>JDBC Jar files specific to the release</b>
12.1 or 12cR1	JDK 8 and JDK 6	ojdbc7.jar for JDK 8 ojdbc6.jar for JDK 6
11.2 or 11gR2	JDK 6 & JDK 5	ojdbc6.jar for JDK 6 ojdbc5.jar for JDK 5



This section of the document consists of resolution to the frequently asked questions and error codes noticed during OFSAAI installation.

- [Frequently Asked Questions](#)
- [Error Dictionary](#)

OFSAAI installer performs all the pre-requisite validation check during installation. Any errors encountered in the process is displayed with an appropriate Error Code. You can refer to the Error Dictionary to find the exact cause and resolution to rectify the error.

## Frequently Asked Questions

You can refer to the Frequently Asked Questions which has been developed with the interest to help you resolve some of the OFSAAI Installation and configuration issues. This intends to share the knowledge of problem resolution to a few of the known issues. This is not an official support document and just attempts to share the knowledge of problem resolution to a few of the known issues.

- [OFSAAI FAQs](#)
- [Application Pack 8.0.0.0.0 FAQs](#)
- [Forms Framework FAQs](#)

## OFSAAI FAQs

*What are the different components that get installed during OFSAAI?*

The different components of OFSAAI are illustrated in [Figure 1–2, "Components of OFSAAI"](#).

Same is applicable for OFSAAAI installers available for specific Operating Systems.

*What are the different modes of OFSAAI installation?*

OFSAAI can be installed in two modes, Silent Mode, and GUI mode.

*Can the OFSAA Infrastructure components be installed on multi-tier?*

No. OFSAA Infrastructure components (ficapp, ficweb, ficdb) cannot be installed on multi-tier. By default, they will be installed on single-tier. However, OFSAA Infrastructure can be deployed within the n-Tier architecture where the Database, Web Server and Web Application Server is installed on separate tiers.

***Is JDK (Java Development Kit) required during installation of OFSAA? Can it be uninstalled after OFSAA installation?***

JDK is not required during installation of OFSAA and only a run time is needed for details. Refer [Table 2-2, "Recommended Software Combinations"](#), Java Runtime Enviromen section.

***Is JRE required during installation of OFSAA? Can it be uninstalled after OFSAAI installation?***

Only JRE (Java Runtime Environment) is required during installation of OFSAA and cannot be uninstalled as the JRE is used by the OFSAA system to work.

***How do I know what is the Operating system, webservers and other software versions that OFSAA supports?***

Refer to OFSAA Technology Stack Matrices.

***What are the different files required to install OFSAAI?***

The following files are required:

- setup.sh.
- envCheck.sh
- preinstallcheck.sh
- VerInfo.txt
- OFSAAInfrastructure.bin
- validatedXMLinputs.jar
- MyResources\_en\_US.properties
- log4j.xml
- OFSAAI\_PostInstallConfig.xml
- OFSAAI\_InstallConfig.xml
- privileges\_config\_user.sql
- privileges\_atomic\_user.sql
- XML\_UTILITY.jar

***What should I do if I get the following error message during installation, "Execute Permission denied"?***

Please check whether all the files provided for OFSAAI installation has execute permissions.

To give execute permissions,

- Navigate to the path OFSAAI\_80000 and execute the command  
`chmod 755`

***"Graphical installers are not.."***

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.

Example: Hummingbird Exceed is started and configured to Graphical mode installation.

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**Note:** Type 'xclock' from prompt and this should display clock in graphical mode.

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***"No Java virtual machine could be..."***

If the error message reads "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. See the [Table 3–1, "Prerequisite Information"](#) section in this document.
- Check whether sufficient temporary space is available.
- Ensure that the movement of OFSAAI 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 the installation, what should one do if the 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, what is to be done if the error always reads "User must have CREATE TABLE, CREATE VIEW, CREATE TRIGGER, CREATE INDEX, CREATE SEQUENCE, CREATE PROCEDURE" even though the oracle schema user created has the mentioned privileges?***

OFSAAI 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 tablespace to create database objects.

See the [Table 3–1, "Prerequisite Information"](#) section in this document.

***Installation of OFSAAI was completed successfully! What next?***

Post the successful completion of OFSAAI installation, one has to perform the Post Installation steps. See [Chapter 5, "Post Installation Configuration"](#).

***What is to be done when OFSAAI Installation is unsuccessful?***

OFSAAI installer generates log file `OFSAAIInfrastructure_Install.log` in the Infrastructure Installation Directory. There is also another log file created in the path configured in `Log4j.xml`. The logs of any of these reported, Warnings/Non Fatal Errors/Fatal Errors/Exceptions should be brought to the notice of the OFSAAI Customer Support. It is recommended not to proceed, until the reported problems are adequately addressed.

***How do I completely uninstall OFSAAI?***

OFSAAI can be completely uninstalled by performing the steps provided in *Uninstalling OFSAA Installation* in the OFS AAI Installation and Configuration Guide Release 8.0.

***Can OFSAAI config and atomic schemas be on different databases?***

OFSAAI requires both config and atomic schemas to be present on the same database instance.

***How to grant privileges if a new information domain is created?***

If you are creating a new information domain, provide a set of privileges (database permissions) to the new Atomic schema.

- Log into the database as **sys** and connect as **sysdba** user.
- Execute the file `privileges_config_user.sql` available under `$FIC_HOME` directory
- Enter the database schema for which you want to grant privileges.

***When should I run the MLS utility?***

See the Multiple Language Support (MLS) Utility section in *OFSAAI Administration Guide* in the [OTN](#) section.

***Does OFSAAI support Oracle Linux versions other than 5.5?***

OFSAAI supports the Oracle Linux versions from 5.5 up to 5.10 and also from 6.0 and above.

***On the UNIX System terminal, error message shows "Insert New Media. Please insert Disk1 or type it's location" while executing .lsetup.sh, what should be done?***

1. Login as root user on the Unix machine where OFSAAI is getting installed.
2. Navigate to the path `/etc/security/`.
3. Edit the file `limits.conf` to add/edit a row for the unix user installing OFSAA:

```
<Unix User> soft nofile 9216
```

4. After saving the changes, log in as unix user with which OFSAAI is getting installed and execute the command:

```
ulimit -n
```

The command should return the value 9216.

***How do I verify if the system environment is ready for OFSAAI installation?***

To verify the system environment meets the minimum requirements for the installation, a Pre-Install Check utility is available within the Install Kit archive file. This utility can also be obtained separately by contacting Oracle Support.

See [Verifying the System Environment](#) section for additional information.

***How do I know if the installation is completed successfully?***

The OFSAA Infrastructure installation performs a post install health check automatically on successful installation of the product. To rerun the post install verification at a later time, perform the following steps:

1. Navigate to the path `$FIC_HOME` (Product Installation Directory).
2. Execute the command:

```
./piverify.sh
```

***What should I do if the installation in GUI mode is not invoked?***

There are set of configuration steps required to be performed during the installation in GUI mode. Verify whether the steps mentioned under [Configuration for GUI Mode Installation](#) section are done correctly.

*What should I do if there are any exceptions or errors in installation and how to proceed?*

1. Please backup the installation logs.
2. Share the backup logs with Oracle support.

*On Solaris 11 system, if one gets the following error message during OFSAAI installation, what should be done:*

*"Error: OFSAAI-1108*

*ORA-00604: error occurred at recursive SQL level 1*

*ORA-01882: timezone region not found"*

Or

*"Time zone cannot be set as null or 'localtime' "*

This happens if the time zone is not set, that is NULL or it is set as 'localtime'. Set the environment variable TZ to a valid time zone region in the .profile file. For example,

```
TZ=Asia/Calcutta
export TZ
```

*What happens if the installation process is abruptly terminated or aborted? What should I do?*

If the installation is abruptly terminated, then the installation process will be incomplete. To recover from this, follow the below steps:

1. Drop the DB objects in the config schema created by OFSAAI installation.
2. Open the .profile and remove the entries made by the OFSAAI installation which are made between the comment statements, #Beginning of entries by OFSAA Infrastructure installation and #End of entries by OFSAA Infrastructure installation.
3. Delete the OFSAA install directory created by the OFSAAI installer.
4. Perform the OFSAAI installation again.

*Would OFSAA support any other web server types, other than the ones stated in tech matrix and installation guide?*

No, all the supported softwares and versions are stated in the OFSAA Technology Stack Matrices.

*What should I do if the database connection from connection pool throws an error "java.sql.SQLException: IO Error: Connection reset"?*

This happens while running several database intensive tasks in parallel. To correct this error, add the line `securerandom.source=file:/dev/./urandom` in the `java.security` configuration file available in `$JAVA_HOME/jre/lib/security/` path.

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**Note:** This needs to be configured on all the machines or VMs where the OFSAAI components are installed.

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If the issue is not resolved even with the above settings, check the MTU(Maximum Transmission Unit) settings on the linux box. For details on MTU settings and updating them, contact your system Administrator.

*When I invoke setup.sh file from my install archive, it throws syntax errors/file not found error messages, what should I do?*

This could mostly happen:

- When installer was not unzipped rightly or corrupted during unzip.
- setup.sh file which resides within the install archive was not transferred in ASCII or text mode, which could have corrupted the file.

To correct this, follow the steps:

1. Copy the installer (in BINARY mode) to the system on which the OFSAA Infrastructure components will be installed.
2. Unzip the installer using the command:  

```
unzip <OFSAAI_Installer>.zip
```
3. The corrupted setup.sh file would have introduced certain ^M characters into the file. You can remove ^M characters from setup.sh file by following the below steps:
  - a. Login to the server where the installer is copied.
  - b. Navigate to the directory OFSAAI\_80000.
  - c. Open the setup.sh file in the vi editor using the command: vi setup.sh.
  - d. Inside vi editor in Esc mode, type: %s/^M//g

---

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**Note:** To enter ^M, hold the CTRL key then press V and M in succession.

---

---

- e. Save the setup.sh file by typing: wq!

*Does OFSAA support Oracle DB 11g Standard edition?*

The OCI client and the jdbc driver does not change depending on whether it is a standard or enterprise edition. So, OFSAAI will work with standard edition as well.

We do not recommend standard edition because it will not scale and does not support partition pack, database security vault, or advanced analytics.

*What should I do if I get the following error message while executing .!startofsaai.sh file on the UNIX System terminal ".!startofsaai.sh: !java: Execute permission denied"?*

- Ensure JAVA\_BIN environment variable path is set on the "unix user" terminal from where the startofsaai.sh file is invoked.
- Ensure the .profile where the environment/ path settings are made has been executed successfully.

*What happens when the OFSAAI Application Server does not proceed even after providing the system password?*

Ensure that, the System Password provided when prompted should match with the "Oracle Configuration password" provided during installation. Also check



whether the connection to the "configuration schema" can be established through sqlplus.

*Although the OFSAAI installation has completed successfully, when OFSAAI servers are started, and the application URL is accessed, it gives an error message "the page cannot be found or displayed" or "Could not retrieve list of languages from Server. Please contact the system administrator". What should one do?*

Ensure OFSAAI servers have been started and are running successfully. On the server start up parameters options, see [Starting Infrastructure Services](#) section.

For more 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?**

The "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 I have distributed OFSAAI Application Server for load balancing?*

OFSAAI 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.

*Why do I need Ftpshare? Why is it needed on all the layers? Can I have ftpshare on another machine other than the machines where OFSAAI is installed?*

Ftpshare is a Metadata Repository directory. All the metadata related files used in Infrastructure are stored in the ftpshare directory. The ftpshare contains folders for each Information Domain, with each Information Domain folders holding Erwin, log, and scripts folder. The transfer of data among the Web, Application, and Database servers in Infrastructure takes place through FTP/SFTP.

You need to configure FTP/SFTP and enable communication between the servers by providing App server's FTP/SFTP credentials to the Web server and DB server users.

Yes, we can have ftpshare on another machine other than the machines where OFSAAI is installed.

*Is it mandatory to provide the ftp/sftp password?*

Yes, OFSAAI needs credentials of the user which has complete permissions on ftpshare directory, and should be able to independently login to the unix server.

*What are the permissions required for ftpshare and when should I give them?*

It is recommended to provide permissions on ftpshare in case of installations done across different machines or VMs (multitier installation).

In case of single tier installation, 770 permissions can be provided if the unix users of OFSAAI and web server belong to the same unix group.

And on any new file that is created in the 'ftpshare' folder of any installation layer should be granted specific/explicit permission.

Port Change utility could be used to have the Port number modified, which are currently being used by the Infrastructure application. For more information, refer [Changing IP/Hostname, Ports, Deployed Paths of the OFSAA Instance](#) section.

*Are there any in-built system administration users within OFSAAI Application?*

The three in-built system administration users are provided to configure and setup OFSAAI.

- SYSADMN
- SYSAUTH
- GUEST

***Does OFSAAI Application support both FTP and SFTP?***

OFSAAI supports both FTP and SFTP configuration.

***Is it necessary to enable the FTP/SFTP services to use the OFSAAI?***

Yes, enabling of FTP/SFTP services and its ports is a pre-requisite step towards using the OFSAAI.

***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, the message "Please create a database and then create the information domain" appears. What should be done?***

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.

***The message "ConnectToDatabase: FatalError, could not connect to the DB server" appears during startup of backend engine message server. What does one need to do?***

- Verify whether connection to the "configuration schema" can be established through sqlplus.
- Verify "configuration 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.

***The message "Fatal Error, failed to get user ID from LibSmsConnect" appears during the startup of backend engine message server. What has to be done?***

Ensure Reveleus.sec file exist under the \$FIC\_HOME/conf directory where the Database components are installed.

***Does OFSAAI Application support LDAP authentication?***

OFSAAI supports LDAP configuration and authentication.

***Does OFSAAI support multiple languages?***

Yes, OFSAAI supports multiple languages.

***Does OFSAAI provide any data back-up features?***

OFSAAI does not have built-in back up facility. External Storage Infrastructure is recommended for back-up.

***What kind of security features does the OFSAAI provides?***

OFSAAI 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 OFSAAI have the ability to enforce periodic password change?***

OFSAAI 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 OFSAAI?***

OFSAAI enforces a minimum password length with a combination of Upper and Lower case characters and alpha-numeric strings.

***Which version of Erwin Data Modeller does OFSAAI support?***

OFSAAI now supports ERwin version 9.2 and 9.5 generated xmls in addition to ERwin 4.1, ERwin 7.1, ERwin 7.3 and ERwin 9.0 formats.

***Does OFSAAI provide the mechanism to upload Business Data model?***

OFSAAI provides two mechanisms for business data model upload:

- Easy to use GUI based Model upload mechanism to upload the Business Data Model through Unified Metadata Manager --> Import Model.
- OFSAAI also provides a model upload utility "upload.sh" for uploading the business data model through the command line parameter by executing this shell script file under the path <FIC\_HOME>/ficapp/common/FICServer/bin.

Refer the section *Run Model Upload Utility* of the [OTN](#) for details.

***The 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 OFSAAI 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 types of uploading a business data Model?***

OFSAAI supports uploading of business data model from client desktop and also by picking up the data model from the server location.

***Can the OFSAAI "Configuration Schema" password be modified post installation?***

The OFSAAI "configuration schema" password can be modified post installation. OFSAAI application stores the password in the database and few configuration files, thus any changes to the "configuration schema" password would necessitate updating in these. Contact OFSAAI support for more details.

***Can the OFSAAI "Atomic Schema" password be modified?***

The OFSAAI "Atomic Schema" password can be modified. OFSAAI application stores the atomic schema password in the database and few configuration files, thus any change to the atomic schema password would necessitate updating the password.

To change the Atomic Schema password, follow the steps:

1. Login to OFSAA.
2. Navigate to System Configuration > Database Details window. Select the appropriate connection, provide the modified password and save.

3. Navigate to Unified Metadata Manager > Technical Metadata> Data Integrator > Define Sources window. Update the appropriate Source details.
  - a. If you are 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).
  - b. If you are using WebSphere as Web server:
    - \* Login to the WebSphere 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 need to be modified).
  - c. If you are 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 need to be modified).
4. Restart the OFSAAI services

---

---

**Note:** If the modified passwords are not updated, OFSAAI logs displays the message ORA-28000: the account is locked.

---

---

#### *Does the upload of Business Data model depend on Java Memory?*

Business data model upload through OFSAAI 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. Contact OFSAAI support for more details.

#### *Why do the Business Metadata Management screens (Business Processors screen) in User Interface, takes longer time to load?*

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

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

Increase the cache size limit in `Dynamicservices.xml` located at `<FIC_HOME>/conf`, depending on the currently logged count for the specific metadata.

1. Generate the Log report by executing the below query in config schema.

```
select count(1), t.metadata_name, m.dsn_id
from metadata_master m, metadata_type_master t
```

```
where m.metadata_type = t.metadata_type
group by t.metadata_name, m.dsn_id
```

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

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

4. Restart Reveleus/OFSAAI servers (Web and APP) and check the issue.

#### ***What should I do if I get OutOfMemoryError while deploying EAR file in WebSphere application server?***

The Java memory needs to be increased in ejbdeploy.sh file which is present under <WebSphere Install directory>/AppServer/deploytool/itp. For example,

```
$JAVA_CMD \  
-Xbootclasspath/a:$ejbd_bootpath \  
Xms256m -Xmx1024m \  

```

#### ***What configurations should I ensure if my data model size is greater than 2GB?***

In order to upload data model of size greater than 2GB in OFSAAI Unified Metadata Manager- Import Model, you need to configure the required model size in struts.xml file available in the path \$FIC\_WEB\_HOME/webroot/WEB-INF/classes.

---

**Note:** The size requirements have to be always specified in bytes.

---

For example, if you need to configure for model size of 2.5GB, then you can approximately set the max size to 3GB (3221225472 bytes) as indicated below, in order to avoid size constraints during model upload.

```
<constant name="struts.multipart.maxSize" value="3221225472"/>
```

After configuring struts.xml file, generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, see [Configuring Web Application Servers](#).

#### ***What should I do if my Hierarchy filter is not reflecting correctly after I make changes to the underlying Hierarchy?***

In some cases, the Hierarchy Filters do not save the edits correctly if the underlying Hierarchy has been changed. This can occur in hierarchy maintenance, where you have moved a member to another hierarchy branch, and that member was explicitly selected in the Filter and is now a child of a node which is already selected in the Filter.

Please refer to [Support Note](#) for the workaround.

#### ***How do I turn off unused information domains (infodoms) from cache?***

Follow the below steps to turn off unused infodoms from cache:

Navigate to \$FIC\_HOME/conf in the APP layer of your OFSAAI installation.

1. In the DynamicServices.xml file, identify the section for <Service code="20">.
2. Modify the value of parameter CACHE\_ON\_STARTUP to 0 (default is 1).
3. Repeat the same in the WEB layer too. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, see [Configuring Web Application Servers](#).
4. Restart the OFSAAI Services (APP and WEB). For more information, see [Start and Stop of Infrastructure Services](#).

---

---

**Note:** This setting will cache the Infodom metadata only for the infodoms that get accessed upon user login. Infodoms which do not get accessed, will not be cached.

---

---

Sample code is pasted below:

```
<SERVICE CODE="20"
CLASS="com.iflex.fic.metadata.services.MetadataServiceProvider"
NAME="BMD"
SERVERID="DEFAULT" PATH=" " LOGGERNAME="UMMLOGGER" LOGGERLEVEL="10">
<PARAMETERS>
<PARAMETER NAME="CACHE_ON_STARTUP" VALUE="0" />
<PARAMETER NAME="BACKUP_XML" VALUE="1" />
<PARAMETER NAME="MAX_BACKUP_XML" VALUE="2" />
<PARAMETER NAME="PC_NONBI_BI_SWITCH" VALUE="2048" />
<PARAMETER NAME="HIERARCHY_NODE_LIMIT" VALUE="2000" />
<PARAMETER NAME="ALIAS_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="DATASET_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="MEASURE_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="HIERARCHY_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DIMENSION_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="HIERARCHYATTRIBUTE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="CUBE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="RDM_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="BUSINESSPROCESSOR_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DERIVEDENTITY_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="LOG_GET_METADATA" VALUE="false" />
<PARAMETER NAME="METADATA_PARALLEL_CACHING" VALUE="0" />
</PARAMETERS>
</SERVICE>
```

***Can I install an Application Pack on an existing Atomic schema/ Information Domain created manually?***

No, you cannot install an Application Pack on existing Atomic schema/Information Domain created manually. Application Packs can be installed only on Atomic Schemas/Information Domain created using schema creator utility and/ or the Application Pack installer.

***When trying to view the model outputs in Model Outputs screen, I get "Exception ->Local Path/STAGE/Output file name (No such file or directory)".***

Ensure you have created a folder "STAGE" under the path mentioned as "Local Path" in the web server details screen. This folder needs to be created under the local path on every node ,in case of web application server clustering.

***During OFSAA services startup, I get Exception in thread "main" java.lang.UnsatisfiedLinkError: net (Not a directory)?***

Ensure the JRE referred in .profile is not a symbolic link. Correct the path reference to point to a physical JRE installed.

***What is the optimized memory settings required for "New" model upload?***

The following table lists the optimized memory settings required for "New" model upload.

**Table J-1 Optimized Memory Settings for New Model Upload**

<b>Model Upload Options</b>	<b>Size of Data Model XML File</b>	<b>X_ARGS_APP ENV Variable in OFSAAI APP Layer</b>
Pick from Server	106 MB	"-Xms1024m -Xmx1024m
	36 MB	"-Xms2048m -Xmx2048m
	815 MB	"-Xms4096m -Xmx4096m
	1243 MB	"-Xms6144m -Xmx6144m
Model Upload Utility	106 MB	"-Xms1024m -Xmx1024m"-Xms2048 m -Xmx2048m
	336 MB	"-Xms4096m -Xmx4096m
	815 MB	"-Xms4096m -Xmx4096m
	1243 MB	"-Xms6144m -Xmx6144m
Save New Erwin File In Server	106 MB	"-Xms1024m -Xmx1024m
	336 MB	"-Xms2048m -Xmx2048m
		"-Xms4096m -Xmx4096m
		"-Xms6144m -Xmx6144m

*What is the resolution if I get the error - ORA 01792 maximum number of columns in a table or view is 1000 during T2T execution?*

You should apply the below patch set from Oracle. Applicable only for 12c.

<https://support.oracle.com/epmos/faces/DocumentDisplay?id=1937782.1>

*I did not enable OFS Inline Processing Engine Application license during the installation. However, I have enabled it post installation, using the Manage OFSAA Product License(s) in the Admin UI. Are there any other additional configurations that I need to do?*

Yes. Follow the instructions explained in the [OFS Inline Processing Engine Configuration Guide](#).

*I get an error when I try to build an Oracle OLAP cube. What should I do?*

Execute the below grant on the appropriate ATOMIC schema

```
grant olap_user to &database_username
```

*How do I turn off unused Information Domains (Infodoms) from caching?*

Follow these steps to turn off unused infodoms from caching:

1. Navigate to \$FIC\_HOME/conf in the APP layer of your OFSAAI installation.
2. In the DynamicServices.xml file, identify the section for <Service code="20">.
3. Modify the value of parameter CACHE\_ON\_STARTUP to 0 (default is 1).
4. Repeat the same in the WEB layer too. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the [Post Installation Configuration](#) section.
5. Restart the OFSAAI Services (APP and WEB). For more information, refer to the [Starting Infrastructure Services](#) section.

---

---

**Note:** This setting will cache the Infodom metadata only for the infodoms that get accessed upon user login. Infodoms which do not get accessed, will not be cached.

---

---

Sample code is pasted below:

```
<SERVICE CODE="20"
CLASS="com.iflex.fic.metadata.services.MetadataServiceProvider" NAME="BMD"
SERVERID="DEFAULT" PATH=" " LOGGERNAME="UMMLOGGER" LOGGERLEVEL="10">
<PARAMETERS>
<PARAMETER NAME="CACHE_ON_STARTUP" VALUE="0" />
<PARAMETER NAME="BACKUP_XML" VALUE="1" />
<PARAMETER NAME="MAX_BACKUP_XML" VALUE="2" />
<PARAMETER NAME="PC_NONBI_BI_SWITCH" VALUE="2048" />
<PARAMETER NAME="HIERARCHY_NODE_LIMIT" VALUE="2000" />
<PARAMETER NAME="ALIAS_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="DATASET_CACHE_SIZE" VALUE="2000" />
```



```

<PARAMETER NAME="MEASURE_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="HIERARCHY_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DIMENSION_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="HIERARCHYATTRIBUTE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="CUBE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="RDM_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="BUSINESSPROCESSOR_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DERIVEDENTITY_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="LOG_GET_METADATA" VALUE="false" />
<PARAMETER NAME="METADATA_PARALLEL_CACHING" VALUE="0" />
</PARAMETERS>
</SERVICE>

```

*"While creating an Excel Mapping, after specifying the excel worksheet, the target table, and mapping each column in the worksheet to a target table, I click SAVE and nothing happens. But when I click CANCEL, a message pops up informing me that all changes will be discarded", what is to be done.*

Check if the excel mapping creation is done using I.E 8 with JRE 1.4 plug in enabled on machine. If so, upgrade the JRE plug in to 1.7+.

## OFSAAI FAQs

***What are the different components that get installed during OFSAAI?***

The different components of OFSAAI are illustrated in [Figure 1–2, "Components of OFSAAI"](#).

***What are the different modes of OFSAAI installation?***

OFSAAI can be installed in two modes, Silent Mode, and GUI mode.

***Can the OFSAA Infrastructure components be installed on multi-tier?***

No. OFSAA Infrastructure components (ficapp, ficweb, ficdb) cannot be installed on multi-tier. By default, they will be installed on single-tier. However, OFSAA Infrastructure can be deployed within the n-Tier architecture where the Database, Web Server and Web Application Server is installed on separate tiers.

***Is JDK (Java Development Kit) required during installation of OFSAA? Can it be uninstalled after OFSAA installation?***

JDK is not required during installation of OFSAA and only a run time is needed for details. Refer [Configurations Supported for Java 7](#) and [Configurations Supported for Java 8](#), Java Runtime Enviromen section.

***Is JRE required during installation of OFSAA? Can it be uninstalled after OFSAAI installation?***

Only JRE (Java Runtime Environment) is required during installation of OFSAA and cannot be uninstalled as the JRE is used by the OFSAA system to work.

***How do I know what is the Operating system, webservers and other software versions that OFSAA supports?***

Refer to OFSAA Technology Stack Matrices.

***What are the different files required to install OFSAAI?***

The following files are required:

- setup.sh.
- envCheck.sh
- preinstallcheck.sh
- VerInfo.txt
- OFSAAInfrastructure.bin
- validatedXMLinputs.jar
- MyResources\_en\_US.properties
- log4j.xml
- OFSAAI\_PostInstallConfig.xml
- OFSAAI\_InstallConfig.xml
- privileges\_config\_user.sql
- privileges\_atomic\_user.sql
- XML\_Utility.jar

***What should I do if I get the following error message during installation, "Execute Permission denied"?***

Please check whether all the files provided for OFSAAI installation has execute permissions.

To give execute permissions,

- Navigate to the path OFSAAI\_80000 and execute the command  
`chmod 755`

***"Graphical installers are not.."***

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.

Example: Hummingbird Exceed is started and configured to Graphical mode installation.

---

---

**Note:** Type 'xclock' from prompt and this should display clock in graphical mode.

---

---

***"No Java virtual machine could be..."***

If the error message reads "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. See the [Table 3-1, "Prerequisite Information"](#) section in this document.
- Check whether sufficient temporary space is available.

- Ensure that the movement of OFSAAI 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 the installation, what should I do if the 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, what is to be done if the error always reads "User must have CREATE TABLE, CREATE VIEW, CREATE TRIGGER, CREATE INDEX, CREATE SEQUENCE, CREATE PROCEDURE" even though the oracle schema user created has the mentioned privileges?***

OFSAAI 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 tablespace to create database objects.

See the [Table 3–1, "Prerequisite Information"](#) section in this document.

***Installation of OFSAAI was completed successfully! What next?***

Post the successful completion of OFSAAI installation, one has to perform the Post Installation steps. See [Chapter 5, "Post Installation Configuration"](#).

***What is to be done when OFSAAI Installation is unsuccessful?***

OFSAAI installer generates log file `OFSAAIInfrastructure_Install.log` in the Infrastructure Installation Directory. There is also another log file created in the path configured in `Log4j.xml`. The logs of any of these reported, Warnings/Non Fatal Errors/Fatal Errors/Exceptions should be brought to the notice of the OFSAAI Customer Support. It is recommended not to proceed, until the reported problems are adequately addressed.

***How do I completely uninstall OFSAAI?***

OFSAAI can be completely uninstalled by performing the steps provided in Uninstalling OFSAA Infrastructure in the OFS AAI Installation and Configuration Guide Release 8.0.

***Can OFSAAI config and atomic schemas be on different databases?***

OFSAAI requires both config and atomic schemas to be present on the same database instance.

***How to grant privileges if a new information domain is created?***

If you are creating a new information domain, provide a set of privileges (database permissions) to the new Atomic schema.

- Log into the database as `sys` and connect as `sysdba` user.
- Execute the file `privileges_config_user.sql` available under `$FIC_HOME` directory
- Enter the database schema for which you want to grant privileges.

***When should I run the MLS utility?***

See the Multiple Language Support (MLS) Utility section in *OFSAAI Administration Guide* in the [OTN](#) section.

***Does OFSAAI support Oracle Linux versions other than 5.5?***

OFSAAI supports the Oracle Linux versions from 5.5 up to 5.10 and also from 6.0 and above.

***On the UNIX System terminal, error message shows "Insert New Media. Please insert Disk1 or type it's location" while executing .lsetup.sh, what should be done?***

1. Login as root user on the Unix machine where OFSAAI is getting installed.
2. Navigate to the path `/etc/security/`.
3. Edit the file `limits.conf` to add/edit a row for the unix user installing OFSAA:

```
<Unix User> soft nofile 9216
```

4. After saving the changes, log in as unix user with which OFSAAI is getting installed and execute the command:

```
ulimit -n
```

The command should return the value 9216.

***How do I verify if the system environment is ready for OFSAAI installation?***

To verify the system environment meets the minimum requirements for the installation, a Pre-Install Check utility is available within the Install Kit archive file. This utility can also be obtained separately by contacting Oracle Support.

See [Verifying the System Environment](#) section for additional information.

***How do I know if the installation is completed successfully?***

The OFSAA Infrastructure installation performs a post install health check automatically on successful installation of the product. To rerun the post install verification at a later time, perform the following steps:

1. Navigate to the path `$FIC_HOME` (Product Installation Directory).
2. Execute the command:

```
./piverify.sh
```

***What should I do if the installation in GUI mode is not invoked?***

There are set of configuration steps required to be performed during the installation in GUI mode. Verify whether the steps mentioned under [Configuration for GUI Mode Installation](#) section are done correctly.

***What should I do if there are any exceptions or errors in installation and how to proceed?***

1. Please backup the installation logs.
2. Share the backup logs with Oracle support.

***On Solaris 11 system, if one gets the following error message during OFSAAI installation, what should be done:***

***"Error: OFSAAI-1108***

***ORA-00604: error occurred at recursive SQL level 1***

***ORA-01882: timezone region not found"***

Or

*"Time zone cannot be set as null or 'localtime' "*

This happens if the time zone is not set, that is NULL or it is set as 'localtime'. Set the environment variable TZ to a valid time zone region in the .profile file. For example,

```
TZ=Asia/Calcutta
```

```
export TZ
```

*What happens if the installation process is abruptly terminated or aborted? What should I do?*

If the installation is abruptly terminated, then the installation process will be incomplete. To recover from this, follow the below steps:

1. Drop the DB objects in the config schema created by OFSAAI installation.
2. Open the .profile and remove the entries made by the OFSAAI installation which are made between the comment statements, #Beginning of entries by OFSAA Infrastructure installation and #End of entries by OFSAA Infrastructure installation.
3. Delete the OFSAA install directory created by the OFSAAI installer.
4. Perform the OFSAAI installation again.

*Would OFSAA support any other web server types, other than the ones stated in tech matrix and installation guide?*

No, all the supported softwares and versions are stated in the OFSAA Technology Stack Matrices.

*What should one do if the database connection from connection pool throws an error "java.sql.SQLException: IO Error: Connection reset"?*

This happens while running several database intensive tasks in parallel. To correct this error, add the line securerandom.source=file:/dev/./urandom in the java.security configuration file available in \$JAVA\_HOME/jre/lib/security/path.

---

**Note:** This needs to be configured on all the machines or VMs where the OFSAAI components are installed.

---

If the issue is not resolved even with the above settings, check the MTU(Maximum Transmission Unit) settings on the linux box. For details on MTU settings and updating them, contact your system Administrator.

*When I invoke setup.sh file from my install archive, it throws syntax errors/file not found error messages, what should I do?*

This could mostly happen:

- When installer was not unzipped rightly or corrupted during unzip.
- setup.sh file which resides within the install archive was not transferred in ASCII or text mode, which could have corrupted the file.

To correct this, follow the steps:

1. Copy the installer (in BINARY mode) to the system on which the OFSAA Infrastructure components will be installed.

2. Unzip the installer using the command:  

```
unzip <OFSAAI_Installer>.zip
```
3. The corrupted `setup.sh` file would have introduced certain `^M` characters into the file. You can remove `^M` characters from `setup.sh` file by following the below steps:
  - a. Login to the server where the installer is copied.
  - b. Navigate to the directory `OFSAAI_80000`.
  - c. Open the `setup.sh` file in the `vi` editor using the command: `vi setup.sh`.
  - d. Inside `vi` editor in Esc mode, type: `%s/^M//g`

---

---

**Note:** To enter `^M`, hold the CTRL key then press V and M in succession.

---

---

- e. Save the `setup.sh` file by typing: `wq!`

#### ***Does OFSAA support Oracle DB 11g Standard edition?***

The OCI client and the jdbc driver does not change depending on whether it is a standard or enterprise edition. So, OFSAAI will work with standard edition as well.

We do not recommend standard edition because it will not scale and does not support partition pack, database security vault, or advanced analytics.

#### ***What should I do if I get the following error message while executing .reveusstartup.sh file on the UNIX System terminal ".reveusstartup.sh: /java: Execute permission denied"?***

- Ensure JAVA\_BIN environment variable path is set on the "unix user" terminal from where the `reveusstartup.sh` file is invoked.
- Ensure the `.profile` where the environment/ path settings are made has been executed successfully.

#### ***What happens when the OFSAAI Application Server does not proceed even after providing the system password?***

Ensure that, the System Password provided when prompted should match with the "Oracle Configuration password" provided during installation. Also check whether the connection to the "configuration schema" can be established through `sqlplus`.

#### ***Although the OFSAAI installation has completed successfully, when OFSAAI servers are started, and the application URL is accessed, it gives an error message "the page cannot be found or displayed" or "Could not retrieve list of languages from Server. Please contact the system administrator". What should I do?***

Ensure OFSAAI servers have been started and are running successfully. On the server start up parameters options, see [Starting Infrastructure Services](#) section.

For more 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?***

The "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 I have distributed OFSAAI Application Server for load balancing?***

OFSAAI 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.

***Why do I need Ftpshare? Why is it needed on all the layers? Can I have ftpshare on another machine other than the machines where OFSAAI is installed?***

Ftpshare is a Metadata Repository directory. All the metadata related files used in Infrastructure are stored in the ftpshare directory. The ftpshare contains folders for each Information Domain, with each Information Domain folders holding Erwin, log, and scripts folder. The transfer of data among the Web, Application, and Database servers in Infrastructure takes place through FTP/SFTP.

You need to configure FTP/SFTP and enable communication between the servers by providing App server's FTP/SFTP credentials to the Web server and DB server users.

Yes, we can have ftpshare on another machine other than the machines where OFSAAI is installed.

***Is it mandatory to provide the ftp/sftp password?***

Yes, OFSAAI needs credentials of the user which has complete permissions on ftpshare directory, and should be able to independently login to the unix server.

***What are the permissions required for ftpshare and when should I give them?***

It is recommended to provide permissions on ftpshare in case of installations done across different machines or VMs (multitier installation).

In case of single tier installation, 770 permissions can be provided if the unix users of OFSAAI and web server belong to the same unix group.

And on any new file that is created in the 'ftpshare' folder of any installation layer should be granted specific/explicit permission.

Port Change utility could be used to have the Port number modified, which are currently being used by the Infrastructure application. For more information, refer [Changing IP/Hostname, Ports, Deployed Paths of the OFSAA Instance](#) section.

***Are there any in-built system administration users within OFSAAI Application?***

The three in-built system administration users are provided to configure and setup OFSAAI.

- SYSADMIN
- SYSAUTH
- GUEST

***Does OFSAAI Application support both FTP and SFTP?***

OFSAAI supports both FTP and SFTP configuration.

***Is it necessary to enable the FTP/SFTP services to use the OFSAAI?***

Yes, enabling of FTP/SFTP services and its ports is a pre-requisite step towards using the OFSAAI.

***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, the message "Please create a database and then create the information domain" appears. What should be done?*

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.

*The message "ConnectToDatabase: FatalError, could not connect to the DB server" appears during startup of backend engine message server. What do I need to do?*

- Verify whether connection to the "configuration schema" can be established through sqlplus.
- Verify "configuration 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.

*The message "Fatal Error, failed to get user ID from LibSmsConnect" appears during the startup of backend engine message server. What has to be done?*

Ensure Reveleus.sec file exist under the \$FIC\_HOME/conf directory where the Database components are installed.

*Does OFSAAI Application support LDAP authentication?*

OFSAAI supports LDAP configuration and authentication.

*Does OFSAAI support multiple languages?*

Yes, OFSAAI supports multiple languages.

*Does OFSAAI provide any data back-up features?*

OFSAAI does not have built-in back up facility. External Storage Infrastructure is recommended for back-up.

*What kind of security features does the OFSAAI provides?*

OFSAAI 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 OFSAAI have the ability to enforce periodic password change?*

OFSAAI 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 OFSAAI?*

OFSAAI enforces a minimum password length with a combination of Upper and Lower case characters and alpha-numeric strings.

*Which version of Erwin Data Modeller does OFSAAI support?*

OFSAAI now supports ERwin version 9.2 and 9.5 generated xmls in addition to ERwin 4.1, ERwin 7.1, ERwin 7.3 and ERwin 9.0 formats.



***Does OFSAAI provide the mechanism to upload Business Data model?***

OFSAAI provides two mechanisms for business data model upload:

- Easy to use GUI based Model upload mechanism to upload the Business Data Model through Unified Metadata Manager --> Import Model.
- OFSAAI also provides a model upload utility "upload.sh" for uploading the business data model through the command line parameter by executing this shell script file under the path <FIC\_HOME>/ficapp/common/FICServer/bin.

Refer the section *Run Model Upload Utility* of the [OTN](#) for details.

***The 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 OFSAAI 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 types of uploading a business data Model?***

OFSAAI supports uploading of business data model from client desktop and also by picking up the data model from the server location.

***Can the OFSAAI "Configuration Schema" password be modified post installation?***

The OFSAAI "configuration schema" password can be modified post installation. OFSAAI application stores the password in the database and few configuration files, thus any changes to the "configuration schema" password would necessitate updating in these. Contact OFSAAI support for more details.

***Can the OFSAAI "Atomic Schema" password be modified?***

The OFSAAI "Atomic Schema" password can be modified. OFSAAI application stores the atomic schema password in the database and few configuration files, thus any change to the atomic schema password would necessitate updating the password.

To change the Atomic Schema password, follow the steps:

1. Login to OFSAA.
2. Navigate to System Configuration > Database Details window. Select the appropriate connection, provide the modified password and save.
3. Navigate to Unified Metadata Manager > Technical Metadata > Data Integrator > Define Sources window. Update the appropriate Source details.
  - a. If you are 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).
  - b. If you are using WebSphere as Web server:
    - \* Login to the WebSphere 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 need to be modified).
  - c. If you are 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 need to be modified).
4. Restart the OFSAAI services

---

---

**Note:** If the modified passwords are not updated, OFSAAI logs displays the message ORA-28000: the account is locked.

---

---

#### *Does the upload of Business Data model depend on Java Memory?*

Business data model upload through OFSAAI 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. Contact OFSAAI support for more details.

#### *Why do the Business Metadata Management screens (Business Processors screen) in User Interface, takes longer time to load?*

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

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

Increase the cache size limit in `Dynamicservices.xml` located at `<FIC_HOME>/conf`, depending on the currently logged count for the specific metadata.

1. Generate the Log report by executing the below query in config schema.

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

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

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

4. Restart Reveleus/OFSAAI servers (Web and APP) and check the issue.

#### *What should I do if I get OutOfMemoryError while deploying EAR file in WebSphere application server?*

The Java memory needs to be increased in `ejbdeploy.sh` file which is present under `<WebSphere Install directory>/AppServer/deploytool/itp`. For example,

```
$JAVA_CMD \  
-Xbootclasspath/a:$ejbd_bootpath \  
Xms256m -Xmx1024m \  

```

### ***What configurations should I ensure if my data model size is greater than 2GB?***

In order to upload data model of size greater than 2GB in OFSAAI Unified Metadata Manager- Import Model, you need to configure the required model size in `struts.xml` file available in the path `$FIC_WEB_HOME/webroot/WEB-INF/classes`.

---

**Note:** The size requirements have to be always specified in bytes.

---

For example, if you need to configure for model size of 2.5GB, then you can approximately set the max size to 3GB (3221225472 bytes) as indicated below, in order to avoid size constraints during model upload.

```
<constant name="struts.multipart.maxSize" value="3221225472" />
```

After configuring `struts.xml` file, generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, see [Configuring Web Application Servers](#).

### ***What should I do if my Hierarchy filter is not reflecting correctly after I make changes to the underlying Hierarchy?***

In some cases, the Hierarchy Filters do not save the edits correctly if the underlying Hierarchy has been changed. This can occur in hierarchy maintenance, where you have moved a member to another hierarchy branch, and that member was explicitly selected in the Filter and is now a child of a node which is already selected in the Filter.

Please refer to [Support Note](#) for the workaround.

### ***How do I turn off unused information domains (infodoms) from cache?***

Follow the below steps to turn off unused infodoms from cache:

Navigate to `$FIC_HOME/conf` in the APP layer of your OFSAAI installation.

1. In the `DynamicServices.xml` file, identify the section for `<Service code="20">`.
2. Modify the value of parameter `CACHE_ON_STARTUP` to 0 (default is 1).
3. Repeat the same in the WEB layer too. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, see [Configuring Web Application Servers](#).
4. Restart the OFSAAI Services (APP and WEB). For more information, see [Chapter 6, "Start and Stop of Infrastructure Services"](#).

---

---

**Note:** This setting will cache the Infodoms metadata only for the infodoms that get accessed upon user login. Infodoms which do not get accessed, will not be cached.

---

---

Sample code is pasted below:

```
<SERVICE CODE="20"
CLASS="com.iflex.fic.metadata.services.MetadataServiceProvider"
NAME="BMD"
SERVERID="DEFAULT" PATH=" " LOGGERNAME="UMMLOGGER" LOGGERLEVEL="10">
<PARAMETERS>
<PARAMETER NAME="CACHE_ON_STARTUP" VALUE="0" />
<PARAMETER NAME="BACKUP_XML" VALUE="1" />
<PARAMETER NAME="MAX_BACKUP_XML" VALUE="2" />
<PARAMETER NAME="PC_NONBI_BI_SWITCH" VALUE="2048" />
<PARAMETER NAME="HIERARCHY_NODE_LIMIT" VALUE="2000" />
<PARAMETER NAME="ALIAS_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="DATASET_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="MEASURE_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="HIERARCHY_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DIMENSION_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="HIERARCHYATTRIBUTE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="CUBE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="RDM_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="BUSINESSPROCESSOR_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DERIVEDENTITY_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="LOG_GET_METADATA" VALUE="false" />
<PARAMETER NAME="METADATA_PARALLEL_CACHING" VALUE="0" />
</PARAMETERS>
</SERVICE>
```

***Can I install an Application Pack on an existing Atomic schema/Information Domain created manually?***

No, you cannot install an Application Pack on existing Atomic schema/Information Domain created manually. Application Packs can be installed only on Atomic Schemas/Information Domain created using schema creator utility and/ or the Application Pack installer.

***When trying to view the model outputs in Model Outputs screen, I get "Exception ->Local Path/STAGE/Output file name (No such file or directory)".***

Ensure you have created a folder "STAGE" under the path mentioned as "Local Path" in the web server details screen. This folder needs to be created under the local path on every node ,in case of web application server clustering.

*During OFSAA services startup, I get Exception in thread "main" java.lang.UnsatisfiedLinkError: net (Not a directory)?*

Ensure the JRE referred in .profile is not a symbolic link. Correct the path reference to point to a physical JRE installed.

*What is the optimized memory settings required for "New" model upload?*

The following table lists the optimized memory settings required for "New" model upload.

**Table J-2 Optimized Memory Settings for New Model Upload**

<b>Model Upload Options</b>	<b>Size of Data Model XML File</b>	<b>X_ARGS_APP ENV Variable in OFSAI APP Layer</b>
Pick from Server	106 MB	"-Xms1024m -Xmx1024m
	36 MB	"-Xms2048m -Xmx2048m
	815 MB	"-Xms4096m -Xmx4096m
	1243 MB	"-Xms6144m -Xmx6144m
Model Upload Utility	106 MB	"-Xms1024m -Xmx1024m"-Xms2048 m -Xmx2048m
	336 MB	"-Xms4096m -Xmx4096m
	815 MB	"-Xms4096m -Xmx4096m
	1243 MB	"-Xms6144m -Xmx6144m
Save New Erwin File In Server	106 MB	"-Xms1024m -Xmx1024m
	336 MB	"-Xms2048m -Xmx2048m
		"-Xms4096m -Xmx4096m
		"-Xms6144m -Xmx6144m

*What is the resolution if I get the error - ORA 01792 maximum number of columns in a table or view is 1000 during T2T execution?*

You should apply the below patch set from Oracle. Applicable only for 12c.

<https://support.oracle.com/epmos/faces/DocumentDisplay?id=1937782.1>

*I did not enable OFS Inline Processing Engine Application license during the installation. However, I have enabled it post installation, using the Manage OFSAA Product License(s) in the Admin UI. Are there any other additional configurations that I need to do?*

Yes. Follow the instructions explained in the [OFS Inline Processing Engine Configuration Guide](#).

***I get an error when I try to build an Oracle OLAP cube. What should I do?***

Execute the below grant on the appropriate ATOMIC schema

```
grant olap_user to &database_username
```

***How do I turn off unused Information Domains (Infodoms) from caching?***

Follow these steps to turn off unused infodoms from caching:

1. Navigate to \$FIC\_HOME/conf in the APP layer of your OFSAAI installation.
2. In the DynamicServices.xml file, identify the section for <Service code="20">.
3. Modify the value of parameter CACHE\_ON\_STARTUP to 0 (default is 1).
4. Repeat the same in the WEB layer too. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the [Post Installation Configuration](#) section.
5. Restart the OFSAAI Services (APP and WEB). For more information, refer to the [Starting Infrastructure Services](#) section.

---

---

**Note:** This setting will cache the Infodom metadata only for the infodoms that get accessed upon user login. Infodoms which do not get accessed, will not be cached.

---

---

Sample code is pasted below:

```
<SERVICE CODE="20"
CLASS="com.iflex.fic.metadata.services.MetadataServiceProvider" NAME="BMD"
SERVERID="DEFAULT" PATH=" " LOGGERNAME="UMMLOGGER" LOGGERLEVEL="10">
<PARAMETERS>
<PARAMETER NAME="CACHE_ON_STARTUP" VALUE="0" />
<PARAMETER NAME="BACKUP_XML" VALUE="1" />
<PARAMETER NAME="MAX_BACKUP_XML" VALUE="2" />
<PARAMETER NAME="PC_NONBI_BI_SWITCH" VALUE="2048" />
<PARAMETER NAME="HIERARCHY_NODE_LIMIT" VALUE="2000" />
<PARAMETER NAME="ALIAS_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="DATASET_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="MEASURE_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="HIERARCHY_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DIMENSION_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="HIERARCHYATTRIBUTE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="CUBE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="RDM_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="BUSINESSPROCESSOR_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DERIVEDENTITY_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="LOG_GET_METADATA" VALUE="false" />
```

```
<PARAMETER NAME="METADATA_PARALLEL_CACHING" VALUE="0" />
</PARAMETERS>
</SERVICE>
```

*"While creating an Excel Mapping, after specifying the excel worksheet, the target table, and mapping each column in the worksheet to a target table, I click SAVE and nothing happens. But when I click CANCEL, a message pops up informing me that all changes will be discarded", what is to be done.*

Check if the excel mapping creation is done using I.E 8 with JRE 1.4 plug in enabled on machine. If so, upgrade the JRE plug in to 1.7+.

#### **Can Multiple OFSAA Infrastructure instances share the same config schema?**

No, only one OFSAA environment can be installed using one config schema.

#### **Can Atomic schema be shared?**

Yes, it can be shared between two OFSAA instances.

**While setting a firewall, which ports should be opened for communication between the Web Server (Apache HTTP Server/ Oracle HTTP Server/ IBM HTTP Server) and the Web Application Server (WebSphere/ WebLogic/ Tomcat) for OFSAAI to operate properly?**

The OFSAA Servlet port which is same as Web server port should be open. Also the web application port should be open.

#### **Can I modify the NLS\_LENGTH\_SEMANTICS to BYTE from CHAR for the Database where older versions of OFSAA is Installed?**

Yes, NLS\_LENGTH\_SEMANTICS can be modified to BYTE from CHAR if you are not intending to use multi language support.

#### **Can I install already installed application in a different infodom?**

#### **How can I configure the OFSAA application for High Availability?**

OFSAA can have active-passive high availability. For more details, refer [Configuration for High Availability- Best Practices Guide](#).

**During OFSAA installation should I provide web application server's IP /Hostname and port or web server's IP/Hostname and port, if the Apache HTTP Server/ Oracle HTTP Server/ IBM HTTP Server are configured?**

In case the web server is configured, you should enter the Web Server IP Address/Hostname and Port details during OFSAA installation. Here the Servlet port should be same as the Web Server port.

If Web Server is not configured, the Web Application Server's IP Address/ Hostname and Port is required during the installation process. Here the Servlet port should be same as the Web application Server port.

#### **Is "ReveleusAdminConsoleAgent" applicable for OFSAAI 8.0.0.0 and higher versions?**

No, ReveleusAdminConsoleAgent is not applicable starting OFSAAI 7.3.3.0.0. There is a change in the way agentservers are managed through AGENTSTARTUP.SH & AGENTSHUTDOWN.SH.

**What should I do when the message server process does not open and I get the following error message, "CI18NProvider::CI18NProvider, Error, unable to connect to the config database"?**

This error is displayed due to the following reasons:

- The Config Schema password is already expired.
- If the config schema password is going to expire soon and the message like "ORA-28002: the password will expire within 6 days" displays while connecting to config schema through sqlplus.
- The Config schema password is Modified.

To resolve the error, re-set the config schema password to the old password. Else, if the config schema password is modified to something else then follow the below steps:

1. Delete the `$FIC_HOME/conf/Reveleus.SEC` file.
2. Shutdown the OFSAAI App service: `cd $FIC_APP_HOME/common/FICServer/bin ./stopofsaai.sh`
3. Shutdown the OFSAAI App service: `cd $FIC_APP_HOME/common/FICServer/bin ./stopofsaai.sh`
4. Start the Infrastructure Server in foreground directly on the server or through XWindows software using the command: `./startofsaai.sh`
5. Enter System Password.
6. Enter the new Config schema password. The service starts and initializes if it is able to successfully connect to the DB and generates the `Reveleus.SEC` file.
7. Post successful startup of the service, if required, the Infrastructure server may be shut down and restarted in the background using `nohup` mode.

#### **What is the mechanism of Log File sizing and backup?**

OFSAAI Log files created under `$FIC_APP_HOME/common/FICServer/logs` & `<OFSAAI_DEPLOYED_AREA>/<CONTEXT.war>/logs` is configurable in `RevLog4jConfig.xml`.

The default size of the log files (`MaxFileSize`) is set to max 5000kb & number of max backup log files (`MaxBackupIndex`) retained is set to 5, both of which are configurable. Increasing these parameters to a higher value should depend on the server HW configurations and may reduce the performance.

To configure the Logs file size on OFSAA Application server, follow these steps:

1. Navigate to `$FIC_HOME/conf` where OFSAA is installed.
2. Edit the following parameters in the file `RevLog4jConfig.xml`
  - `<param name="file"` : Enter the path where the Logs are to be generated.
  - `<param name="MaxFileSize"` : Provide the required file size.
  - `<param name="MaxBackupIndex"` : Provide the required number of backup files to be created.

Example:

```
<appender name="REVERSERVERAPPENDER"
class="org.apache.log4j.RollingFileAppender">
<param name="file" value="$FIC_
HOME/ficapp/common/FICServer/logs/RevAppserver.log"/>
<param name="Append" value="true" />
<param name="MaxFileSize" value="5000kb" />
<param name="MaxBackupIndex" value="5" />
```



```

<layout class="org.apache.log4j.PatternLayout">
<param name="ConversionPattern" value="[REVELEUSLOG] %m%n"/>
</layout>
</appender>

```

To configure the Deployed area logs file, follow these steps:

1. Navigate to <EAR/WAR Deploy area>/conf folder.
2. Repeat step 2 from the above section.

### Can we modify the Log file path?

Yes, Log file path is configurable, it can be configured in RevLog4jConfig.xml.default log file path (file) is set by the installer . This can be configured to another path.

### Can I point the environment with HTTP enabled to HTTPS after installation and vice versa?

Follow these steps:

1. Create SSL related certificates and import to respective servers.
2. Enable SSL on a desired Port ( example 9443 ) on your existing and already deployed web application servers.
3. Replace the protocol as https and new ssl port (FIC\_SERVLET\_PORT) configured and in all the URLs specified on below files:
  - \$FIC\_HOME/ficapp/common/FICServer/conf/FICWeb.cfg and \$FIC\_HOME/ficweb/webroot/conf/FICWeb.cfg
  - \$FIC\_HOME/ficapp/icc/conf/WSMREService.properties
  - \$FIC\_HOME/ficweb/webroot/conf/ModelExecution.properties
  - \$FIC\_HOME/ficdb/conf/MDBPublishExecution.properties
  - \$FIC\_HOME/ficdb/conf/ObjAppMap.properties
  - \$FIC\_HOME/utility/Migration/conf/WSMigration.properties
  - \$FIC\_HOME/utility/WSExecution/conf/WSExecution.properties
  - \$FIC\_HOME/EXEWebService/WebSphere/ROOT/WEB-INF/wsdl/EXEWebServiceImpl.wsdl
  - \$FIC\_HOME/EXEWebService/Tomcat/ROOT/WEB-INF/wsdl/EXEWebServiceImpl.wsdl
  - \$FIC\_HOME/EXEWebService/weblogic/ROOT/WEB-INF/wsdl/EXEWebServiceImpl.wsdl
4. Replace XML attribute/Node values as specified on below files:
  - \$FIC\_HOME/ficweb/webroot/WEB-INF/web.xml  
FIC\_WEBSERVER\_PORT=9443
  - FIC\_WEBPROTOCOL=https  
\$FIC\_HOME/conf/LookUpServices.xml and \$FIC\_HOME/ficweb/webroot/conf/LookUpServices.xml  
PORT=" 9443 "    PROTOCOL="https:"

5. Login to config schema and execute below SQL command to replace protocol and SSL port.

```
SQL> update configuration cn set cn.paramvalue='9443' where
cn.paramname='SERVLET_ENGINE_PORT';
```

```
SQL> update configuration cn set
cn.paramvalue=replace(cn.paramvalue,'http:','https:') where
cn.paramname='FormsManagerCacheReload';
```

```
SQL> update web_server_info ws set
ws.servletport='9443',ws.servletprotocol='https';
```

6. Create EAR/WAR file and Re-Deploy.

#### **What should I do if the sliced data model upload takes a long time to complete?**

If the metadata cache size is set to a lower value than the actual count of each metadata type ( hierarchy, dataset, dimension etc), then it gets into performance degrade issues. We have to increase the cache size for each metadata type according to the count in the environment.

Following are the parameters in DynamicServices.xml to be configured depends on the metadata count in your environment.

```
<PARAMETER NAME="HIERARCHY_NODE_LIMIT" VALUE="2000"/>
<PARAMETER NAME="ALIAS_CACHE_SIZE" VALUE="1000"/>
<PARAMETER NAME="DATASET_CACHE_SIZE" VALUE="2000"/>
<PARAMETER NAME="MEASURE_CACHE_SIZE" VALUE="3000"/>
<PARAMETER NAME="HIERARCHY_CACHE_SIZE" VALUE="2000"/>
<PARAMETER NAME="DIMENSION_CACHE_SIZE" VALUE="2000"/>
<PARAMETER NAME="CUBE_CACHE_SIZE" VALUE="1000"/>
<PARAMETER NAME="BUSINESSPROCESSOR_CACHE_SIZE" VALUE="2000"/>
<PARAMETER NAME="DERIVEDENTITY_CACHE_SIZE" VALUE="1000"/>
```

Metadata count can be derived based on the following queries:

```
select count(1) from metadata_master where metadata_version=0 --- for all
metadata
```

```
select count(1) from metadata_master where metadata_version=0 and
metadata_type=1 --- for measure
```

```
select count(1) from metadata_master where metadata_version=0 and
metadata_type=2 --- for Dimension
```

```
select count(1) from metadata_master where metadata_version=0 and
metadata_type=3 --- for HCY
```

```
select count(1) from metadata_master where metadata_version=0 and
metadata_type=4 --- for DATASET
```

```
select count(1) from metadata_master where metadata_version=0 and
metadata_type=59 --- for BP's
```

```
select count(1) from metadata_master where metadata_version=0 and
metadata_type=54 --- for Alias
```

```
select count(1) from metadata_master where metadata_version=0 and
metadata_type=5 --- for CUBES
```

```
select count(1) from metadata_master where metadata_version=0 and
metadata_type=856 --- for Derived Entity
```

**For LDAP authentication , which server connects with the LDAP server, the Application server (where ofsaai is installed), or Web Application server (where EAR is deployed)?**

For LDAP authentication, the Application server (ficapp) connects with the LDAP server.

**The LDAP server in the setup listens on secure protocol ldaps ( port 636). I have the root certificate of the LDAP server for SSL, and would like to know where to offload this certificate?**

You need to import the certificate into the JDK/JVM used by Reveleus server in ficapp layer.

**How to relocate FTPSHARE folder?**

You can run the PortC.jar utility. For more details, refer Changing IP/ Hostname, Ports, Deployed Paths of the OFSAA Instance section in the OFSAAI Admin Guide available on [OTN](#).

**How do we identify the list of ports that are used by/configured in an OFSAA environment?**

1. Navigate to \$FIC\_HOME folder on Target.
2. Run the PortC.jar utility using the command:

```
java -jarPortC.jar DMP
```

A file with the name DefaultPorts.properties will be created under \$FIC\_HOME directory which will contain the ports. For more information, refer Changing IP/ Hostname, Ports, Deployed Paths of the OFSAA Instance section in the OFSAAI Admin Guide available on [OTN](#).

**What should I do if I get the following error message, "Error while fetching open cursor value Status : FAIL"?**

This error occurs while executing envCheck.sh because the user does not have access to V\$parameter. This error does not occur due to sysdba or non sysdba privileges provided they have access/grants to V\$parameter.

**What should I do when an entity containing many attributes (>100 columns) is selected as Source entity and the Data Mapping (T2T definition) save operation takes longer than expected with the hourglass in the UI continuously rotating?**

In such cases, the user might falsely assume that T2T definition save has failed. The reason for this occurrence is that the FilerServlet has taken considerable amount of time to validate the xml data that was passed. If we skip validation in excludeURLList.cfg, there will be no latency in Data Mapping save operation. To rectify this, follow these steps:

1. Locate the webserver deployed area webroot/conf/excludeURLList.cfg file.
2. Modify the following entries:
  - [SQLIA]./dataIntegrator/ to [ALL]./dataIntegrator/
  - [SQLIA]./ETLExtractionServlet to [ALL]./ETLExtractionServlet
3. Save the changes and restart the webserver.
4. Resave the definition.

## Application Pack 8.0.0.0 FAQs

*What is an Application pack?*

An Application Pack is suite of products. For more information, refer [About Oracle Financial Services Analytical Applications \(OFSAA\)](#).

*Can I get a standalone installer for OFSAAI 8.0?*

No. AAI is part of every application pack and installs automatically.

*How does OFSAA 8.0 Application pack relate to OFSAA 7.x series?*

8.0 is a new major release consolidating all products from OFSAA product suite.

*Can existing OFSAA 7.x customers upgrade to OFSAA 8.0 Application Pack?*

There is no upgrade path available. However, we will have migration kit / path for every product to 8.0 application pack. Further details will be available with Oracle Support.

*Does OFSAA 8.0 Application pack UPGRADE's automatically existing environments?*

No. Refer Point 5. OFSAA 8.0 application pack has to be installed in a new environment and subsequently migration path / migration kit needs to be run to migrate from 7.x to 8.0. Please note we will have migration path only from the previously released version of OFSAA products.

*Where can I download OFSAA 8.0 Application Pack?*

You can download the OFSAAI 8.0 Application Pack from [Oracle Software Delivery Cloud \(OSDC\)](#).

*What are the minimum system and software requirements for OFSAA 8.0 Application Pack?*

Refer installation guide section [Hardware and Software Requirements](#) section.

*Is my environment compatible with OFSAA 8.0 Application Pack?*

Environment Check utility performs the task. It is part of install and can also be run separately.

*Has OFSAA 8.0 Application Pack is supports all Operating systems?*

LINUX, AIX, SOLARIS 10, 11. Refer to [Technology Matrix](#) for the technology matrix that OFSAA suite products are/ will be qualified on.

*How can I install OFSAA 8.0 Application Pack?*

Refer to Oracle Financial Services Advanced Analytical Infrastructure Installation And Configuration Guide published in [OTN](#) for the application pack installers.

*Does this installation require any Third party Software's?*

Oracle Financial Services Advanced Analytical Infrastructure Installation And Configuration Guide published in [OTN](#) lists the third party software that needs to be installed.

*What languages are supported during OFSAA 8.0 Application Pack installation?*

US English is the language supported.

*What mode of installations OFSAA Application Pack supports? [i.e., Silent , GUI]*

OFSAA Application Packs supports both, GUI and Silent Mode.

*Does OFSAA 8.0 Application Pack support Multi tier Installations?*

OFSAA 8.0 does single tier installation. For more information refer to [OFSAAI FAQs](#) section.

***Does this Application Pack validate all Pre-requisites required for this installation i.e., Memory, Disk Space etc.?***

Yes. The pre-requisite checks are done by the respective application pack installer.

***What happens if it aborts during installation of any application with in Application pack?***

Customer needs to restore the system and retrigger the installation

***Does this Application pack 'Rolls Back' if any of application installation fails due to errors?***

Rollback of installation is not supported.

***Does the Application pack installs all applications bundled?***

All application pack system files are installed but there is an option to enable the licensed products.

***Can I re-install any of the Application Packs?***

You can retrigger in case of failure.

***Does Application pack allow enabling / disabling any of the applications installed?***

Yes. You cannot disable once the product is enabled in an environment.

***I have installed one application in a Application pack and can I install any of new applications within the Application pack later point of time?***

No, installation is not required. Enabling the application is an option to use it later.

***How many OFSAA Infrastructures can be installed in a single server?***

There is no issue in installing separate OFSAAI installations, each with their own PFT/FTP installations and separate associated database instances and separate Web Server installations on the same server as long as adequate memory is allocated for each instance and as long as each OFSAAI installation is installed using a separate UNIX user and profile. Care should be taken if running multiple OFSAAI installations on a single server. Adequate memory will be required for each installation as several OFSAAI processes (model upload, DEFQ services, etc) take significant amounts of memory. So it depends on your server memory.

***Is it possible to Install OFSAA 8.0 Application pack on any one of the existing 'Infodom' where another OFSAA 8.0 application is installed?***

Yes. But Behavioral Detection Pack and Compliance Regulatory Reporting pack are the exceptions. They need to be installed in a different INFODOM.

***Can I select an Infodom in Application pack during installation?***

Yes. You can select or change the required infodom.

***Can I install all Application Packs in a 'Single Infodom'?***

Yes. But Behavioural Detection Pack and Compliance Regulatory Reporting Pack are the exceptions. They need to be installed in a different INFODOM.

***Is it possible to install applications on different Infodom within the Application pack? (That is if you want to install LRM & MR in two infodoms)***

Applications within application pack have to be installed in the same information domain in the same environment.

***How many Infodoms can be created over a single OFSAA Infrastructure of 8.0.1.0.0?  
Frequently Asked Questions***

You can install only one infodom during installation. But after installation, you can create multiple infodoms.

***Is the 'Data Model' bundled specific to an Application pack or to an individual application?***

A merged data model for all applications within the application pack is bundled and uploaded.

***Is it possible to install OFS Enterprise Modeling later?***

OFS Enterprise Modeling is a separate product and can be enabled as an option later from any application pack that bundles Enterprise Modeling.

***Does the Application pack create sandbox automatically for the required applications?***

Yes, Sandbox creation is part of application install process.

***Are upgrade Kits available for individual applications or the complete Application Pack?***

Maintenance Level (ML) Release / Minor Release upgrades are available across all applications.

***Can I upgrade AAI only?***

Yes, you can upgrade AAI alone.

***Can I upgrade one application within the Application Pack? i.e., LRM will be upgraded in Treasury Application pack, but MR won't be upgraded.***

No. Not possible Upgrade is applied across packs.

***Is it possible to uninstall any Application from the Application pack?***

No, it is not possible to uninstall any Application from the Application Pack.

***Can I uninstall entire Application Pack?***

No, you cannot uninstall the Application Pack.

***Is it possible to uninstall only application and retain AAI in the installed environment?***

No, you cannot uninstall only the application and retain AAI in the installed environment.

***Does Application Pack contain all Language Packs supported?***

Language Packs need to be installed on 8.0 application packs.

***Can I install an Application Pack over another Application Pack (that is same infodom or different infodom)?***

Yes, you can install an Application Pack over another Application Pack in the same information domain or different information domain. But Behavioural Detection Application Pack and Compliance Regulatory Reporting Application Pack, Asset Liability Management Application Pack and Profitability Application Pack are the exceptions. They need to be installed in a different INFODOM.

***Can I use an existing manually created schema as information domain for application pack installation?***

No. Schemas required by OFSAA applications have to be created using Schema Creator Utility.

***Does OFSAA 8.0 support on WebLogic 10.3.6 with Oracle 12c?***

Yes, OFSAA 8.0 will support on WebLogic 10.3.6 with Oracle 12c. WebLogic 10.3.6 supports oracle 12c with some additional configurations. Refer the link [http://docs.oracle.com/cd/E28280\\_01/web.1111/e13737/ds\\_12cdriver.htm#JDBCA655](http://docs.oracle.com/cd/E28280_01/web.1111/e13737/ds_12cdriver.htm#JDBCA655) for additional configurations.

***While running the schema creator utility, I get an error "HostName in input xml is not matching with the local hostname"?***

One possible reason could be the machine is configured for zonal partitioning. Ensure all the known IP Addresses of the machine are present in the /etc/hosts file.

***What are the Java versions supported in OFS CA Application Pack version 8.0.0.0.0?***

OFS CA Application Pack supports Java 1.8.x.

***Is this release of the OFS CA Application Pack version 8.0.0.0.0 supported on Java 8?***

Yes. To install this release of the OFS CA Application Pack version 8.0.0.0.0 on Java 8. For more information, refer to specific notes mentioned in the sections [Prerequisite Information Configurations supported for Java 8](#), [Configuring the Schema Creator Utility](#), [GUI Mode Installation](#), [GUI Mode Installation](#).

## Forms Framework FAQs

***What should I do when I have large volume of data to be exported?***

It is recommended to use BIP reports or OBIEE reports if you have to export large volume of data

***How do I export the columns added to the grid by Field Chooser option?***

Perform Grid Export operation to export the columns added to the grid by Field Chooser option

## Error Dictionary

This contents of this section has been created with the interest to help you resolve the installation issues if any. There is a compilation of all the possible errors that might arise during the installation process with the possible cause and the resolution to quickly fix the issue and proceed further with the installation.

## Accessing Error Dictionary

Instead of scrolling through the document to find the error code, you can use the pdf search functionality. In the "Find" dialog available in any of the Adobe Acrobat version that you are using to view the pdf document, follow the below instructions to quickly find the error resolution.

1. With the Installation pdf open, press **Ctrl+F** or select **Edit > Find**.
2. The *Find* dialog is displayed as indicated.
3. Enter the error code that is displayed on screen during Infrastructure installation.
4. Press **Enter**. The search results are displayed and highlighted as indicated below.

Figure 8-61 Error Dictionary

Error code - OFSAAI-1003	
Cause	JAVA_HOME/bin not found in PATH variable.
Resolution	Import <JAVA_HOME>/bin into PATH variable. Example: <code>PATH = \$JAVA_HOME/bin:\$PATH export PATH.</code>

View the details of the issues, its cause, and resolution specific to the error code. Repeat the step to find an answer to any other errors that you notice during installation. If you are not able to resolve the issue even after following the steps provided in resolution, you can contact [support.oracle.com](http://support.oracle.com) along with log files and appropriate screen shots.

## Error Code Dictionary

### Error code - OFSAAI-1001

Cause	Unix shell is not "korn" shell.
Resolution	Change the shell type to "korn". Use <code>chsh</code> unix command to change SHELL type. Shell type can also be changed by specifying shell path for the Unix user in <code>/etc/passwd</code> file. Note: <code>chsh</code> command is not available in Solaris OS.

### Error code - OFSAAI-1002

Cause	No proper arguments are available.
Resolution	Provide proper arguments. Invoke <code>Setup.sh</code> using either SILENT or GUI mode. Example: <code>./Setup.sh SILENT</code> or <code>./Setup.sh GUI</code>

### Error code - OFSAAI-1004

Cause	File <code>.profile</code> is not present in <code>\$HOME</code> .
Resolution	Create <code>.profile</code> in <code>\$HOME</code> , i.e. in the home directory of user.

### Error code - OFSAAI-1005

Cause	File <code>OFSAAInfrastructure.bin</code> is not present in current folder.
Resolution	Copy <code>OFSAAInfrastructure.bin</code> into installation kit directory.

### Error code - OFSAAI-1006

Cause	File <code>CustReg.DAT</code> is not present in current folder.
Resolution	Copy <code>CustReg.DAT</code> into installation kit directory.



**Error code - OFSAAI-1007**

<b>Cause</b>	File OFSAAI_InstallConfig.xml is not present in current folder.
<b>Resolution</b>	Copy OFSAAI_InstallConfig.xml into installation kit directory.

**Error code - OFSAAI-1008**

<b>Cause</b>	File validateXMLInputs.jar is not present in current folder.
<b>Resolution</b>	Copy validateXMLInputs.jar into installation kit directory.

**Error code - OFSAAI-1009**

<b>Cause</b>	File log4j.xml is not present in current folder.
<b>Resolution</b>	Copy log4j.xml into installation kit directory.

**Error code - OFSAAI-1010**

<b>Cause</b>	Unknown error occurred.
<b>Resolution</b>	Make sure to provide proper argument (SILENT or GUI) to the Setup.sh file.

**Error code - OFSAAI-1011**

<b>Cause</b>	XML validation failed.
<b>Resolution</b>	Check InfrastructurePreValidations.Log for more details.

**Error code - OFSAAI-1012**

<b>Cause</b>	Property file with locale name does not exist.
<b>Resolution</b>	Copy MyResources_en_US.properties to the setup kit directory and keep en_US in LOCALE tag of OFSAAI_InstallConfig.xml.

**Error code - OFSAAI-1013**

<b>Cause</b>	File OFSAAI_InstallConfig.xml/OFSAAI_PostInstallConfig.xml not found.
<b>Resolution</b>	Copy OFSAAI_InstallConfig.xml/OFSAAI_PostInstallConfig.xml to the setup kit directory.

**Error code - OFSAAI-1014**

<b>Cause</b>	XML node value is blank.
<b>Resolution</b>	Make sure all node values except SMTPSERVER, PROXYHOST, PROXYPORT, PROXYUSERNAME, PROXYPASSWORD, NONPROXYHOST, or RAC_URL are not blank.

**Error code - OFSAAI-1015**

<b>Cause</b>	XML is not well formed.
<b>Resolution</b>	Execute the command <code>dos2unix OFSAAI_InstallConfig.xml</code> to convert plain text file from DOS/MAC format to UNIX format. OR Make sure that <code>OFSAAI_InstallConfig.xml</code> is valid. Try to open the file through Internet Explorer for a quick way to check validity. If it is not getting opened, create new <code>OFSAAI_InstallConfig.xml</code> using the <code>XML_Utility.jar</code> .

**Error code - OFSAAI-1016**

<b>Cause</b>	User installation directory contain blank spaces.
<b>Resolution</b>	Provide an installation path that does not contain spaces. Check the tag <code>USER_INSTALL_DIR</code> in <code>OFSAAI_InstallConfig.xml</code> file. This path should not contain any spaces.

**Error code - OFSAAI-1017**

<b>Cause</b>	User installation directory is invalid.
<b>Resolution</b>	Provide a valid installation path. Check if you are able to create the directory mentioned in <code>USER_INSTALL_DIR</code> tag value of <code>OFSAAI_InstallConfig.xml</code> file.