

# **Oracle Financial Services Profitability Management Application Pack**

Installation and Configuration Guide

Release 8.0.5.0.0



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# Preface

This Preface provides supporting information for the Oracle Financial Services Analytical Applications Profitability Pack Installation Guide and includes the following topics:

- ⑩ Summary
- ⑩ Audience
- ⑩ Documentation Accessibility
- ⑩ Related Documents
- ⑩ Conventions

## Summary

You can find the latest copy of this document in [OHC 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

The Oracle Financial Services Analytical Applications (OFSAA) profitability pack Installation and Configuration Guide is intended for Administrators, Business User, Strategists, and Data Analyst, who are responsible for installing and maintaining the application pack components.

The document assumes you have experience in installing Enterprise components. Basic knowledge about the OFSAA PROFITABILITY pack components, OFSAA Architecture, UNIX commands, Database concepts and Web Server/ Web Application Server is recommended.

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

- ⑩ Awareness of the OFSAA Tier Architecture. For more information, see the Application Tiers section.
- ⑩ Decision on the appropriate OFSAA Deployment Option. For more information, see the Recommended Deployment Options section.

## Related Documents

This section identifies additional documents related to OFSAA Infrastructure. You can access Oracle documentation online from Documentation Library ([OHC](#)).

- ⑩ Oracle Financial Services Funds Transfer Pricing Management User Guide
- ⑩ Oracle Financial Services Profitability Management User Guide
- ⑩ Oracle Financial Services Enterprise Financial Performance Analytics User Guide
- ⑩ Oracle Financial Services Institutional Performance Analytics User Guide
- ⑩ Oracle Financial Services Retail Performance Analytics User Guide

## Conventions and Acronyms

Conventions	Description
AIX	Advanced Interactive executive
DEFQ	Data Entry Forms and Queries
DML	Data Manipulation Language
EAR	Enterprise Archive
EJB	Enterprise JavaBean
ERM	Enterprise Resource Management
FTP	File Transfer Protocol
GUI	Graphical User Interface
HTTPS	Hypertext Transfer Protocol Secure
J2C	J2EE Connector
J2EE	Java 2 Enterprise Edition
JDBC	Java Database Connectivity
JDK	Java Development Kit
JNDI	Java Naming and Directory Interface
JRE	Java Runtime Environment
JVM	Java Virtual Machine

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CHAPTER 1

# *About OFSAA and OFSAA Application Packs*

This chapter includes the following topics:

- ⑩ [About Oracle Financial Services Analytical Applications \(OFSAA\)](#)
- ⑩ [About Oracle Financial Services Analytical Applications \(OFSAA\) Pack](#)
- ⑩ [About Oracle Financial Services Profitability 8.0.5.0.0 Applications Pack](#)
- ⑩ [About Oracle Financial Services Analytical Applications Infrastructure \(OFS AAI\)](#)

## ***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.

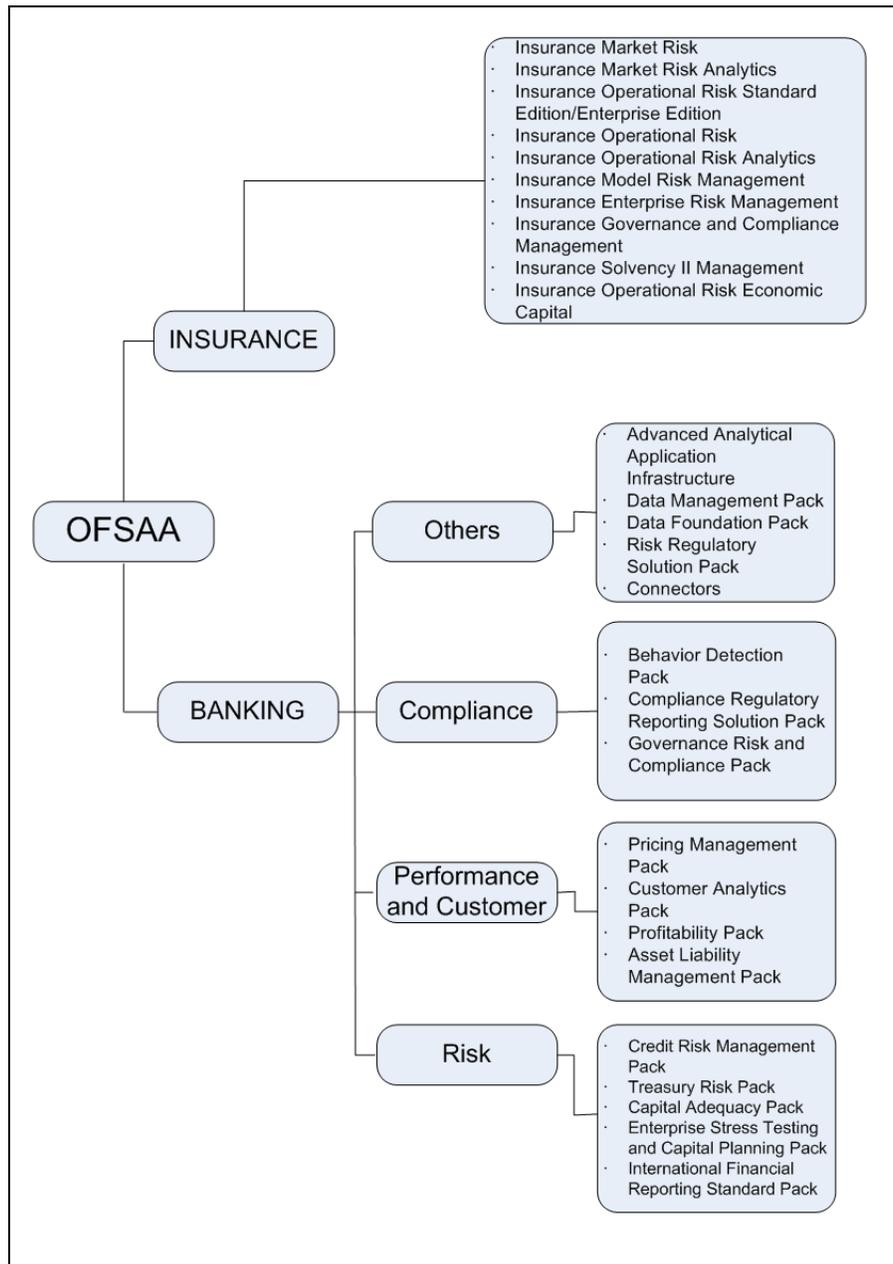
OFSAA uses industry-leading analytical methods, shared data model and applications architecture to enable integrated risk management, performance management, customer insight, and compliance management. OFSAA actively incorporates risk into decision making, enables to achieve a consistent view of performance,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

Oracle Financial Services Analytical Applications delivers a comprehensive, integrated suite of financial services analytical applications for both banking and insurance domain.

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

OFSAA applications are packaged, and released as Application Packs starting from 8.0 release. An Application Pack is a group of OFSAA products packaged together in a single installer and addresses specific functional area via its products that are grouped together. Packaging applications in a group ensures simplified installation, maintenance, development and integration in an integrated deployment.

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



## About Oracle Financial Services Profitability 8.0.5.0.0 Applications Pack

OFS Profitability 8.0.5.0.0 Pack includes the following applications:

- Oracle Financial Services Analytical Applications Infrastructure:** Oracle Financial Services Analytical Applications Infrastructure (OFS AAI) 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.

- ⑩ **Oracle Financial Services Funds Transfer Pricing Management:** It enables the bank to apply various transfer pricing methods on products to calculate funds transfer price. It calculates transfer price across all product types varying in terms of characteristics like fixed rate or floating rate instruments, bullet or amortizing or fixed tenor or perpetual instruments. In addition it also supports the calculation of transfer price at account level or ledger level including migration of charge or credit to ledger if required.
- ⑩ **Oracle Financial Services Profitability Management:** It helps Banks and Financial services institutions manage and monitor interest rate risk, liquidity risk, foreign currency risk and earnings risk. The application models every loan, deposit, investment portfolio individually to help institutions better understand the risks they have assumed and their sensitivity to economic conditions.
- ⑩ **Oracle Financial Services Enterprise Financial Performance Analytics:** It is based upon a dedicated reporting mart built on the new Financial Services Data Model. OFSEFPA leverages several components of OBIEE technology including Dashboards and Answers. It includes various Dashboards and Reports for the user to carry out various Profitability Management based analytics.
- ⑩ **Oracle Financial Services Institutional Performance Analytics:** It provides strategic insights on - Profitability of the business and the underlying customers, Product holdings and Relationship depth across the organization, Behavioral and Engagement trends of it's target segments - exposures, commitments, line utilization, assets/liabilities, deposits, withdrawals, Fees, Income, recent transactions and so on, Efficiency of investments (like marketing, partner development), Efficiency of the sales force in terms of ongoing customer revenue generation, cross-sell and up-sell, product usage and pipeline.
- ⑩ **Oracle Financial Services Retail Performance Analytics:** It focuses on Summary performance of the LOBs and overall profitability, Portfolio mix, LOB specific profitability reports to be analyzed against key dimensions like customer segments, product family, region, branch, risk scores and so on, Product holdings and Relationship depth across the LOBs, Customer Trends across performance drivers like Sales, Balances, Deposits, Product subscriptions (revenue services), Credit scores and delinquency bands, losses, and so on, Wallet Share analysis and customer lifetime value, Efficiency of investments (like marketing, branch, channel and so on) over time.

## ***About Oracle Financial Services Analytical Applications Infrastructure (OFS AAI)***

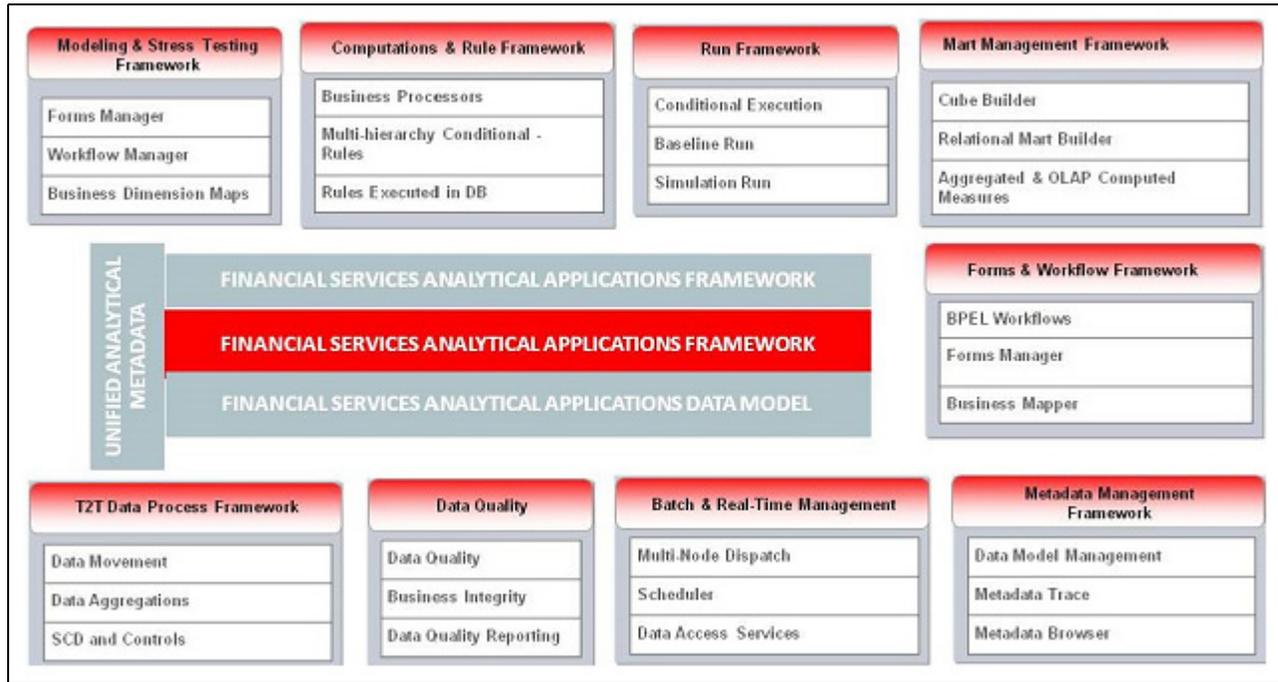
Oracle Financial Services Analytical Applications Infrastructure (OFS AAI) powers the Oracle Financial Services Analytical Applications family of products to perform the processing, categorizing, selection and manipulation of data and information needed to analyze, understand and report on specific performance, 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:



## 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/ or 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, see [Configuration for High Availability- Best Practices Guide](#).



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**CHAPTER 2**

# *Understanding OFS Profitability Application Pack Installations*

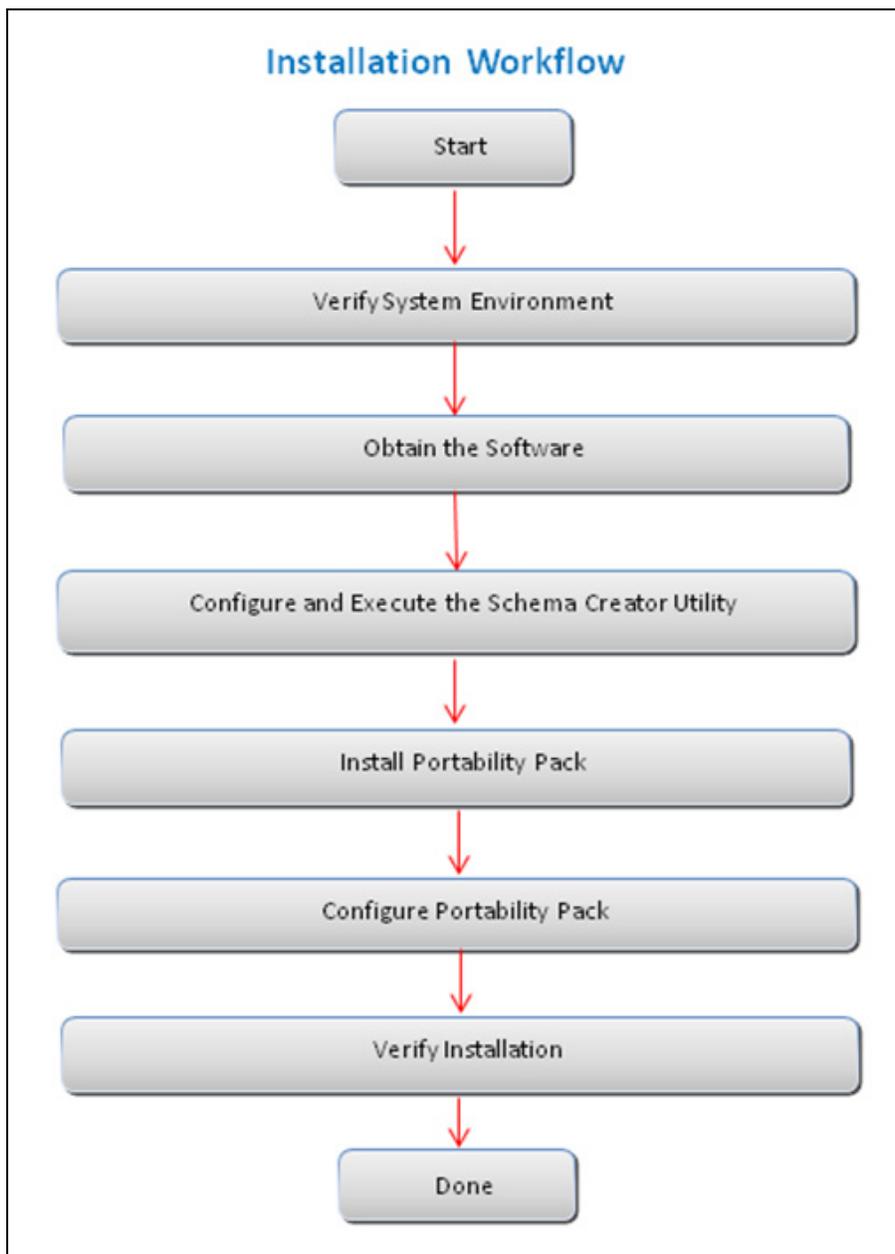
This chapter includes the following topics:

- ⑩ [Installation Overview](#)
- ⑩ [Hardware and Software Requirements](#)
- ⑩ [Verifying the System Environment](#)
- ⑩ [Understanding Installation Modes](#)

## ***Installation Overview***

This release (8.0.5.0.0) of the OFS Profitability Application Pack bundles the upgrade patch set along with the base installer. Users/ Administrators who wish to install a new OFS Profitability Application Pack 8.0.5.0.0 instance or upgrade an existing OFS Profitability Application Pack 8.0.x instance to 8.0.5.0.0 should download this installer. Figure 1 shows the order of procedures you will need to follow to install a new OFS Profitability Pack 8.0.5.0.0 instance. For upgrading a current OFS Profitability Application Pack 8.0.x instance to 8.0.5.0.0 release, see [Upgrading to OFS Profitability Application Pack 8.0.5.0.0](#).

This section gives an overview of the OFS Profitability Applications Pack Installation. The following figure shows the order of procedures you need to follow:



The following table describes the tasks and their descriptions:

Tasks	Details and Documentation
Verify Systems Environment	To verify that your system meets the minimum necessary requirements for installing and hosting the OFS Profitability Application Pack, see <a href="#">Verifying the System Environment</a> .
Obtain the software	To access and download the OFS Profitability Application Pack, see <a href="#">Obtaining the Software</a> .
Configure and Execute the Schema Creator Utility	For instructions on creating the database schemas, see <a href="#">Configuring and Executing the Schema Creator Utility</a> .
Install OFS Profitability Application Pack	For instructions on Installing OFS Profitability Application Pack, see <a href="#">Installing the OFS Profitability Applications Pack</a> .
Configure OFS Profitability Setup	See <a href="#">Post Installation Configuration</a> .

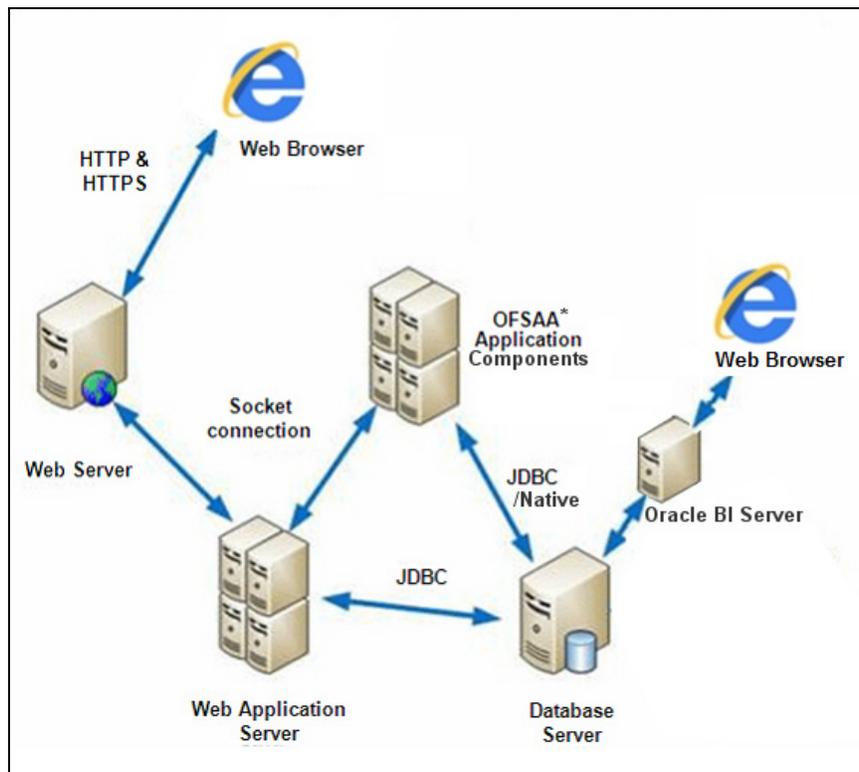
## Upgrading to OFS Profitability Application Pack 8.0.5.0.0

To upgrade the current OFS Profitability Application Pack 8.0.x instance to 8.0.5.0.0, follow these steps:

1. See the sections [Downloading and Copying the OFS Profitability Applications Pack Installer](#) and [Copying and Extracting the Software](#).
1. See [Upgrading the OFS PFT Application Pack](#) for detailed instructions.

## Deployment Topology

The following figure depicts the typical deployment topology implemented for OFSAA Applications.



## 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 Oracle Financial Services Profitability Application Pack has been qualified.

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**Note:** OFS Profitability Application Pack installation can be performed on both Virtual and Physical servers.

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## Configurations Supported for Java 7

The following table shows the minimum hardware and software requirements for installing OFS Profitability Application Pack (for Java 7).

Requirement	Sub-Category	Value
Operating System	Oracle Linux / Red Hat Enterprise Linux (x86-64)	Red Hat Enterprise Linux or Oracle Linux Server release 6 update 6 to latest update version  Red Hat Enterprise Linux or Oracle Linux Server release 7 update 1 to latest update version
	Oracle Solaris (SPARC)/ Solaris x86	Oracle Solaris v5.10 Update 11 and above - 64 bit  Oracle Solaris v5.11 update 1 and above - 64 bit
	IBM AIX (PowerPC)	AIX 6.1 (TL 09 and above) - 64 bit
	Shell	KORN Shell (KSH)
<p><b>Note:</b></p> <ul style="list-style-type: none"> <li>● If the OS is IBM AIX 6.1 and the file size limit for the AIX user on the target server is too small, configure the size parameter setting for "Large File Support". Follow these steps:  Change the file size limit for the user that initiates the transfer on the AIX system. To change the file size limit for a particular user, add or edit the fsize attribute for the user in the /etc/security/limits file on the AIX system. Change the file size limit to unlimited (fsize = -1) or to a size equal to the size of the file being transferred. This may require a restart of the AIX server to pick up the new configuration. For more information, see IBM Support.</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> <p>The above is required as during the installation process, the following command is executed to get the OS version and release: lsb_release -r</p> </li> <li>● To install this release on Oracle Solaris OS, refer to the following list for version specific information: <ul style="list-style-type: none"> <li>■ "Solaris 11 - Upgrade to Oracle Solaris 11.3 with SRU09 or higher. See <a href="https://docs.oracle.com/cd/E60778_01/html/E60743/gouaw.html#scrolltoc">https://docs.oracle.com/cd/E60778_01/html/E60743/gouaw.html#scrolltoc</a> to upgrade to SRU09 if you have a lower SRU version. Additionally, install the required runtime libraries. For more information, see <a href="#">Installing Only the Runtime Libraries on Oracle Solaris 11</a>.</li> <li>■ "Solaris 10 - Install the required OS patches. For more information, see <a href="#">Installing the Required Oracle Solaris 10 Patches</a>. Additionally, install the required runtime libraries. For more information, see <a href="#">Installing Only the Runtime Libraries on Oracle Solaris 10</a>.</li> </ul> <p><b>Note:</b> In an OFSAA instance where multiple OFSAA application packs have been installed/ deployed, it is mandatory to upgrade all OFSAA application packs to 8.0.4.0.0 release. You should start the upgrade of OFS AAAI&lt;&lt;your pack name&gt;&gt;pack, only after confirming that all of the application packs in your OFSAA instance are available for upgrade to 8.0.4.0.0 version. For information on availability of the required OFSAA Application Packs, see <a href="#">2246606.1</a>.</p> <p>Based on the returned information, the installer copies the appropriate binary and library files into the \$FIC_DB_HOME/bin and \$FIC_DB_HOME/lib folders.</p> </li> </ul>		
Java Runtime Environment	Oracle Linux / Red Hat Enterprise Linux	Oracle Java Runtime Environment (JRE) 1.7.x - 64 bit
	IBM AIX	IBM AIX Runtime, Java Technology JRE 1.7.x - 64 bit

Requirement	Sub-Category	Value
Oracle Database Server and Client		<p>Oracle Database Server Enterprise Edition 11g Release 2 (11.2.0.3.0+) - 64 bit RAC/ Non-RAC with/ without partitioning option</p> <p>Oracle Database Server Enterprise Edition 12c Release 1 (12.1.0.1.0+) - 64 bit RAC/ Non-RAC with/ without partitioning option</p> <p>Oracle Client 11g Enterprise Edition Release 2 (11.2.0.3.0+) - 64 bit</p> <p>Oracle Client 12c Enterprise Edition Release 1 (12.1.0.1.0+) - 64 bit</p> <p>Oracle 11g Enterprise Edition Release 2 (11.2.0.3+) JDBC driver (Oracle thin driver)</p> <p>Oracle 12C Enterprise Edition Release 1 (12.1.0.1+) JDBC driver (Oracle thin driver)</p> <p>Oracle Distribution of R version 3.0.1 (Optional)</p> <p>Oracle R Enterprise (Server) version 1.4. (Optional)</p> <p><b>Note:</b> Ensure that the following patches are applied:</p> <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, see <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>
	<p>In Oracle release 12.2, the default value for the SQLNET.ALLOWED_LOGON_VERSION_SERVER parameter is "12", i.e. Exclusive Mode. It is recommended to set this parameter as described below. This will relax the SQLNET.ALLOWED_LOGON_VERSION_SERVER setting in the <code>sqlnet.ora</code> file to a more permissive setting.</p> <p>Set the following parameters as below:</p> <pre>SQLNET.ALLOWED_LOGON_VERSION_CLIENT = 8 SQLNET.ALLOWED_LOGON_VERSION_SERVER = 8</pre>	
OLAP	Oracle Hyperion Essbase	<p>V 11.1.2.1+ (Server and Client) with Oracle 11g Database</p> <p>V 11.1.2.3+ (Server and Client) with Oracle 12c Database</p>
	Oracle OLAP	<p>V 11.2.0.3+ with Oracle 11g Database</p> <p>V 12.1.0.1+ with Oracle 12c Database</p>
	<p><b>Note:</b></p> <p>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.</p>	

Requirement	Sub-Category	Value
Web Server/ Web Application Server	Oracle Linux / Red Hat Enterprise Linux Oracle Solaris IBM AIX	Oracle HTTP Server 11.1.1.1/ Apache HTTP Server 2.2.x/ IBM HTTP Server 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+ with jersey 1.18</li> <li>● Oracle Weblogic Server 12.2.x (8) with jersey 2.25</li> <li>● IBM WebSphere Application Server WebSphere 8.5.5.9+</li> <li>● Apache Tomcat 8.0.46 (64 bit)</li> </ul> <b>Note:</b> Apply the mandatory patch <b>26803128</b> for Tomcat versions above 8.0.32.
	<b>Note:</b> OFSAA Infrastructure web component deployment on Oracle WebLogic Server with Oracle JRockit is not supported.	
Desktop Requirements	Browser	MS Internet Explorer 9, 10 and 11 Oracle Java plug-in 1.7.0+* (64- bit) /Oracle Java plug-in 1.8.0+ (64- bit) Turn off Pop-up blocker settings. For more information, see <a href="#">Internet Explorer Settings</a> .
	Office Tools	MS Office 2007/ 2010/2013 Adobe Acrobat Reader 8 and above
	Screen Resolution	1024*768 or 1280*1024
Other Softwares	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.
	<b>Note:</b> Configuration of Directory services software for OFSAAI installation is optional. For more information on configuration, see Infrastructure LDAP Configuration. Open LDAP needs to be installed on MS Windows Server machine only.	

## Configurations Supported for Java 8

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

Requirement	Sub-Category	Value
Operating System	Oracle Linux / Red Hat Enterprise Linux (x86-64)	Red Hat Enterprise Linux or Oracle Linux Server release 6 update 6 to latest update version  Red Hat Enterprise Linux or Oracle Linux Server release 7 update 1 to latest update version
	Oracle Solaris (SPARC)/ Solaris x86	Oracle Solaris v5.10 Update 11 and above - 64 bit  Oracle Solaris v5.11 update 1 and above - 64 bit
	IBM AIX (PowerPC)	AIX 6.1 (TL 09 and above) - 64 bit
	Shell	KORN Shell (KSH)
<p><b>Note:</b></p> <ul style="list-style-type: none"> <li>● If the OS is IBM AIX 6.1 and the file size limit for the AIX user on the target server is too small, configure the size parameter setting for "Large File Support". Follow these steps:  Change the file size limit for the user that initiates the transfer on the AIX system. To change the file size limit for a particular user, add or edit the fsize attribute for the user in the /etc/security/limits file on the AIX system. Change the file size limit to unlimited (fsize = -1) or to a size equal to the size of the file being transferred. This may require a restart of the AIX server to pick up the new configuration. For more information, see IBM Support.</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> The above is required as during the installation process, the following command is executed to get the OS version and release:  <pre>lsb_release -r</pre> </li> <li>● To install this release on Oracle Solaris OS, refer to the following list for version specific information: <ul style="list-style-type: none"> <li>■ <b>"Solaris 11</b> - Upgrade to Oracle Solaris 11.3 with SRU09 or higher. See <a href="https://docs.oracle.com/cd/E60778_01/html/E60743/gouaw.html#scrolltoc">https://docs.oracle.com/cd/E60778_01/html/E60743/gouaw.html#scrolltoc</a> to upgrade to SRU09 if you have a lower SRU version. Additionally, install the required runtime libraries. For more information, see <a href="#">Installing Only the Runtime Libraries on Oracle Solaris 11</a>.</li> <li>■ <b>"Solaris 10</b> - Install the required OS patches. For more information, see <a href="#">Installing the Required Oracle Solaris 10 Patches</a>. Additionally, install the required runtime libraries. For more information, see <a href="#">Installing Only the Runtime Libraries on Oracle Solaris 10</a>.</li> </ul> <p><b>Note:</b> In an OFSAA instance where multiple OFSAA application packs have been installed/ deployed, it is mandatory to upgrade all OFSAA application packs to 8.0.4.0.0 release. You should start the upgrade of OFS AAAl&lt;&lt;your pack name&gt;&gt;pack, only after confirming that all of the application packs in your OFSAA instance are available for upgrade to 8.0.4.0.0 version. For information on availability of the required OFSAA Application Packs, see <a href="#">2246606.1</a>.</p> <p>Based on the returned information, the installer copies the appropriate binary and library files into the \$FIC_DB_HOME/bin and \$FIC_DB_HOME/lib folders.</p> </li> </ul>		
Java Runtime Environment	Oracle Linux / Red Hat Enterprise Linux//IBM AIX/	Oracle Java Runtime Environment (JRE) 1.8.x - 64 bit
	Oracle Solaris	
	IBM AIX	IBM AIX Runtime, Java Technology JRE 1.8.x - 64 bit

Requirement	Sub-Category	Value
Oracle Database Server and Client		Oracle Database Server Enterprise Edition 11g Release 2 (11.2.0.3.0+) - 64 bit RAC/ Non-RAC with/ without partitioning option  Oracle Database Server Enterprise Edition 12c Release 1 (12.1.0.1.0+) - 64 bit RAC/ Non-RAC with/ without partitioning option  Oracle Client 11g Release 2 (11.2.0.3.0+) - 64 bit Oracle Client 12c Release 1 (12.1.0.1.0+) - 64 bit  Oracle 11g Release 2 (11.2.0.3+) JDBC driver (Oracle thin driver)  Oracle 12C Release 1 (12.1.0.1+) JDBC driver (Oracle thin driver)  Oracle Distribution of R version 2.15.1, 2.15.2 or 2.15.3.(Optional)  Oracle R Enterprise (Server) version 1.4. (Optional)
	<p><b>Note:</b> Ensure that the following patches are applied:</p> <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, see <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>	
	<p>In Oracle release 12.2, the default value for the SQLNET.ALLOWED_LOGON_VERSION_SERVER parameter is "12", i.e. Exclusive Mode. It is recommended to set this parameter as described below. This will relax the SQLNET.ALLOWED_LOGON_VERSION_SERVER setting in the <code>sqlnet.ora</code> file to a more permissive setting.</p> <p>Set the following parameters as below:</p> <pre>SQLNET.ALLOWED_LOGON_VERSION_CLIENT = 8 SQLNET.ALLOWED_LOGON_VERSION_SERVER = 8</pre>	
OLAP	Oracle Hyperion Essbase	V 11.1.2.1+ (Server and Client) with Oracle 11g Database  V 11.1.2.3+ (Server and Client) with Oracle 12c Database
	Oracle OLAP	V 11.2.0.3+ with Oracle 11g Database V 12.1.0.1+ with Oracle 12c Database
	<p><b>Note:</b></p> <p>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.</p>	
Web Server/ Web Application Server	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

Requirement	Sub-Category	Value
Server		Oracle 11g and 12c Database: <ul style="list-style-type: none"> <li>● Oracle WebLogic Server 12.1.3+ (64 bit)</li> <li>● Apache Tomcat 8.0.46 (64 bit)</li> </ul> <b>Note:</b> Apply the mandatory patch <b>26803128</b> for Tomcat versions above 8.0.32.
	<b>Note:</b> OFSAA Infrastructure web component deployment on Oracle WebLogic Server with Oracle JRockit is not supported.  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> .	
Desktop Requirements	Operating System	MS Windows 7/ Windows 8/ Windows 8.1
	Browser	MS Internet Explorer 9, 10 and 11  Oracle Java plug-in 1.7.0+* (64- bit)  Turn off Pop-up blocker settings. For more information, see <a href="#">Internet Explorer Settings</a> .
	Office Tools	MS Office 2007/ 2010/2013  Adobe Acrobat Reader 8 and above
	Screen Resolution	1024*768 or 1280*1024
Other Software	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.
	<b>Note:</b> Configuration of Directory services software for OFSAAI installation is optional. For more information on configuration, see Infrastructure LDAP Configuration.  Open LDAP needs to be installed on MS Windows Server machine only.	

**Note:** To upgrade an existing OFSAA 8.0.x Java 7 instance to Java 8, see [Upgrading an Existing OFSAA 8.0.x Java 7 Instance to Java 8](#).

OFS PFT Application Pack recommends the following software combinations for deployment:

<b>Operating System</b>	<b>Database</b>	<b>Web Application Server</b>	<b>Web Server</b>	<b>R</b>
Red Hat Enterprise Linux or Oracle Linux Server release 6 update 6 to latest update version  Red Hat Enterprise Linux or Oracle Linux Server release 7 update 1 to latest update version	Oracle Database	Oracle WebLogic Server/ Apache Tomcat Server	Oracle HTTP Server/ Apache HTTP Server	3.0.1
Oracle Solaris 5.10/ 5.11	Oracle Database	Oracle WebLogic Server/ Apache Tomcat Server	Oracle HTTP Server/ Apache HTTP Server	3.0.1
IBM AIX 6.1	Oracle Database	IBM WebSphere Application Server/ Apache Tomcat Server	IBM HTTP Server/ Apache HTTP Server	3.0.1

## ***Verifying the System Environment***

To verify if your system environment meets the minimum requirements for the installation, a Pre-Install Check utility (Environment Check) 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 Installation Modes***

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

### **GUI Mode**

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

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**Note:** See [GUI Mode Installation](#) for details on configuration required for GUI Mode installation.

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## SILENT Mode

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

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**Note:** See [SILENT Mode Installation](#) for details on configuration required for SILENT Mode installation.

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CHAPTER 3

# Preparing for Installation

This chapter provides necessary information to review before installing the OFS Profitability Pack v8.0.5.0.0.

This chapter includes the following topics:

- ⑩ [Installer and Installation Prerequisites](#)
- ⑩ [Obtaining the Software](#)
- ⑩ [Common Installation Tasks](#)

## Installer and Installation Prerequisites

The following table mentions the list of prerequisites required before beginning the installation for OFS Profitability Application Pack. The Installer/ Environment Check utility notifies you if any requirements are not met.

Requirement	Sub-Category	Expected Value
Environment Settings	Java Settings	<p>PATH in <code>.profile</code> to be set to include the Java Runtime Environment absolute path. The path should include Java version (Java 6, Java 7 or Java 8) based on the configuration.</p> <p><b>Note:</b> Ensure the absolute path to JRE/bin is set at the beginning of PATH variable.</p> <p>For example, <code>PATH=/usr/java/jre1.6/bin:\$ORACLE_HOME/bin:\$PATH</code></p> <p>Ensure no SYMBOLIC links to JAVA installation is being set in the PATH variable.</p>
	Oracle Database Settings	<p>TNS_ADMIN to be set in <code>.profile</code> pointing to appropriate <code>tnsnames.ora</code> file</p> <p>ORACLE_HOME to be set in <code>.profile</code> pointing to appropriate Oracle Client installation</p> <p>PATH in <code>.profile</code> to be set to include appropriate <code>\$ORACLE_HOME/bin</code> path.</p> <p>Ensure to add an entry (with SID/ SERVICE NAME) in the <code>tnsnames.ora</code> file on the OFSAA server.</p>
	Oracle Essbase Settings	<p>ARBORPATH, ESSBASEPATH, HYPERION_HOME to be set in the <code>.profile</code> pointing to an appropriate Oracle Essbase Client installation.</p> <p><b>Note:</b> These settings are required only if you want to use Oracle Hyperion Essbase OLAP features.</p>

Requirement	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.
	Installation Directory	A directory where the product files will be installed/ copied.  Set 755 permission on this directory.  This directory needs to be set as FIC_HOME.
	Staging Area/ Metadata Repository	A directory to hold the application Metadata artifacts and additionally act as staging area for flat files.  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.  Set 775 permission on this directory.
	Download Directory	A directory where the product installer files will be downloaded/ copied.  Set 755 permission on this directory.
	OS Locale	<ul style="list-style-type: none"> <li>● Linux: en_US.utf8</li> <li>● AIX: EN_US.UTF-8</li> <li>● Solaris: en_US.UTF-8</li> </ul> <p>To check the locale installed, execute the following command:</p> <pre>locale -a   grep -i 'en_US.utf'</pre>
Database Settings	Database Instance Settings	NLS_CHARACTERSET to be AL32UTF8  NLS_LENGTH_SEMANTICS to be BYTE  OPEN CURSORS limit to be greater than 1000
Web Application Server	WebSphere/ WebLogic/ Tomcat	Web Application Server should be installed and profile /domain created.  You will be prompted to enter the WebSphere Profile path or WebLogic Domain path or Tomcat Deployment path during OFSAAI installation.  <b>Note:</b> See <a href="#">Configuring Web Server</a> for WebSphere Profile Creation and WebLogic Domain Creation.  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> .
Web Server	Apache HTTP Server/ Oracle HTTP Server/ IBM HTTP Server	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.  <b>Note:</b> See <a href="#">Configuring Web Server</a> for Web Server configuration.

Requirement	Sub-Category	Expected Value
Others	Oracle R/ Oracle R Enterprise	This is an optional requirement. For more details, see <a href="#">Configuration for Oracle R distribution and Oracle R Enterprise (ORE)</a> .
OFS AAI	1-Off	Download the consolidated one-off patch for bug number 26589735 from <a href="http://support.oracle.com">http://support.oracle.com</a> .

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

## Obtaining the Software

This release of OFS Profitability Application Pack v8.0.5.0.0 is available for download in MOS as **Patch 26744949**. 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 Profitability Application Pack.

This section includes the following topics:

- ⑩ [Configuration for GUI Mode Installation](#)
- ⑩ [Identifying the Installation, Download and Metadata Repository Directories](#)
- ⑩ [Downloading and Copying the OFS Profitability Applications Pack Installer](#)
- ⑩ [Copying and Extracting the Software](#)
- ⑩ [Setting up the Web Server/ Web Application Server](#)
- ⑩ [Installation of Oracle R Distribution](#)

## Configuration for GUI Mode Installation

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

- ⑩ 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.
- ⑩ Configure DISPLAY variable.
- ⑩ 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

## Identifying the Installation, Download and Metadata Repository Directories

For installation of any OFSAA Application Pack, the below folders/ directories required to be created.

- ⑩ **OFSAA Download Directory (Optional):** Create a download directory and copy the OFSAA Application Pack Installer File (Archive). This is the directory where the downloaded installer/ patches can be copied.
- ⑩ **OFSAA Installation Directory (Mandatory):** Create an installation directory. This is the directory where the installer installs or copies the product files. FIC\_HOME variable to be set in the .profile pointing to this OFSAA Installation Directory.
- ⑩ **OFSAA Staging/ Metadata Repository Directory (Mandatory):** Create a Staging/ Metadata Repository Directory. This is the directory where you should copy data loading files, save data extracts and so on. Additionally, this folder also maintains the OFSAA Metadata artifacts. This is commonly referred as "FTP SHARE".

---

**Note:** Ensure that the user permission is set to 755 on the Installation and Download Directory and the user permission is set to 775 on the Staging Directory.

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## Downloading and Copying the OFS Profitability Applications Pack Installer

To download and copy the OFS Profitability Applications Pack Installer, follow these steps:

- ⑩ This release of OFS Profitability Application Pack v8.0.5.0.0 is available for download in MOS as **Patch 26744949**. You need to have a valid Oracle account in order to download the software.
- ⑩ Copy the downloaded installer archive to the Download Directory (in Binary Mode) on the setup identified for OFSAA installation.

## 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.

---

1. Download the unzip utility (OS specific) `unzip_<os>.Z` 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
```

---

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

---

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 Advanced Analytical Applications Infrastructure Application Pack 8.0.5.0.0 to Download Directory using the following command:

```
unzip OFS_PFT_PACK.zip
```

---

**Note:** DO NOT rename the Application Pack installer folder name on extraction from the archive.

---

5. Give below permission to the installer folder. Navigate to the Download Directory and execute the command:

```
chmod -R 750 OFS_PFT_PACK
```

### **Setting up the Web Server/ Web Application Server**

For more information to set up the environment based on your selected Web Server/ Web Application Server, see [Configuring Web Server](#) and [Configuring Web Application Server](#).

### **Installation of Oracle R Distribution**

This is an optional step and required only if you intend to use Oracle R scripting in the Oracle Financial Services Enterprise Modeling Application. Follow these steps:

- ⑩ Install Oracle R Distribution on the Oracle Database server. See Oracle® R Enterprise Installation and Administration Guide for Windows, Linux, Solaris and AIX, Release 1.5 at [Oracle R Enterprise Documentation Library](#).
- ⑩ Oracle R Distribution versions supported- Oracle Distribution of R version 3.2.0.



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## CHAPTER 4

# *Installing OFS Profitability Application Pack*

This chapter describes the steps to be followed to install the OFS Profitability pack.

This chapter includes the following sections:

- ⑩ [Schema Creator Utility](#)
  - [About Schema Creator Utility](#)
  - [Execution Modes in Schema Creator Utility](#)
  - [Execution Options in Schema Creator Utility](#)
- ⑩ [Configuring and Executing the Schema Creator Utility](#)
  - [Prerequisites](#)
  - [Configuring the Schema Creator Utility](#)
  - [Executing the Schema Creator Utility](#)
- ⑩ [Installing the OFS Profitability Applications Pack](#)
  - [GUI Mode Installation](#)
  - [SILENT Mode Installation](#)

## ***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 database objects in these schemas. The schema creator utility should be configured and executed mandatorily every time prior to installation of any OFSAA Application Pack.

This section includes the following topics:

- ⑩ [About Schema Creator Utility](#)
- ⑩ [Execution Modes in Schema Creator Utility](#)
- ⑩ [Execution Options in Schema Creator Utility](#)

## **About Schema Creator Utility**

The schema creator utility should be configured and executed mandatorily every time prior to installation of any OFSAA Application Pack.

The following are the types of schemas that can be configured in the OFSAA:

- ⑩ **CONFIG** - Denotes the unique OFSAA setup configuration schema. It contains entities and other objects required for OFSAA setup information.

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

---

- ⑩ **ATOMIC** - Denotes the schema that contains the data model entities. One ATOMIC schema is attached to one Information Domain.

---

**Note:** For some application packs, there can be multiple ATOMIC schemas per OFSAA Instance, but the Profitability Pack supports only one atomic schema per OFSAA instance.

---

- ⑩ **SANDBOX** - Denotes the schema that contains the data for all Sandbox executions. One SANDBOX schema is attached to one Sandbox Information Domain.

---

**Note:** This Schema type is not applicable for OFS Profitability Application Pack. There can be multiple SANDBOX schemas per OFSAA Instance and a Sandbox Information Domain can have only one SANDBOX schema.

---

- ⑩ **ADDON** - Denotes any additional schema used by the OFSAA Applications.

---

**Note:** This Schema type is not applicable for OFS Profitability Application Pack.

---

## Execution Modes in Schema Creator Utility

The Schema Configuration Utility supports the following modes of execution:

- ⑩ **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.

---

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

---

- ⑩ **Offline Mode:** In the Offline mode, the utility generates SQL script with all the required DDLs for Users, 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.

1. To execute the utility in Offline mode, you need to connect as any user with below grants (alternatively, you can also connect as a user with SYSDBA privileges):

```
SELECT ON DBA_ROLES
SELECT ON DBA_USERS
SELECT ON DBA_DIRECTORIES
SELECT ON DBA_TABLESPACES
```

CREATE SESSION

For more details, see [Executing the Schema Creator Utility in Offline Mode](#).

2. If there are any errors during the script execution, reconfigure the OFS\_PFT\_SCHEMA.XML file and execute the utility. This generates the scripts with corrected information. For more information, see [Configuring OFS\\_PFT\\_SCHEMA\\_IN.xml](#).

---

**Note:** Do not modify the OFS\_PFT\_SCHEMA\_OUT.XML file generated after the execution of this utility.

---

## Execution Options in Schema Creator Utility

Depending on the option you choose to run the OFSAA Application Pack Installer, you need to choose the schema creator utility execution option. To run the OFSAA Application Pack installer in SILENT mode, it is mandatory to execute the schema creator utility with -s option.

---

**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.

---

## Configuring and Executing the Schema Creator Utility

This section includes the following topics:

- ⑩ [Prerequisites](#)
- ⑩ [Configuring the Schema Creator Utility](#)
- ⑩ [Executing the Schema Creator Utility](#)

### Prerequisites

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

- ⑩ Download and apply the one-off patch for Bug **28149904** from MOS in case there's a pack over pack installation, where the pack version that is already installed is lower than version 8.0.5.0.0. For example, install this patch if you have to install PFT release 8.0.5.0.0 application using the full installer in a setup that has ALM release 8.0.2.0.0 or later. For detailed instructions, see the `Readme.txt` file packaged along with the patch.
- ⑩ You must have the Oracle User ID/Password with SYSDBA privileges.
- ⑩ You must have the JDBC Connection URL for RAC/Non RAC database.
- ⑩ The HOSTNAME/IP of the server on which OFSAA is getting installed.
- ⑩ The following configuration is required only if you intend to use Oracle Linux/Red Hat Enterprise Linux v7.x for OFSAAI 8.0.5.0.0 version.

For Oracle Linux/RHEL 7.x, navigate to `OFS_PFT_PACK/bin/` and modify the value for property `Linux_VERSION` to include 7 in the `VerInfo.txt` file and save the changes.

For example, `Linux_VERSION=6,7`

- ⑩ For IBM AIX 7.1, navigate to OFS\_PFT\_PACK/bin/ and modify the value for property AIX\_VERSION to include 7.1 in the VerInfo.txt file and save the changes.  
For example, AIX\_VERSION=6.1,7.1
- ⑩ It is recommended to set the PGA\_AGGREGATE\_LIMIT database-parameter value sufficiently, when Oracle 12c is installed
- ⑩ You must add a TNS entry before the installation.

---

**Note:** The TNS Entry for an atomic schema should be without any special character, i.e ' '. If the atomic schema name is like 'DEV\_ATOM', the TNS name should be like 'DEVATOM'.

If this release of the OFS PFT Application Pack version 8.0.5.0.0 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 PFT Application Pack version 8.0.5.0.0 is being installed on an OFSAA setup where the underlying OFSAA Infrastructure (OFS AAI) version is upgraded to version 8.0.2.x.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.

---

## Configuring the Schema Creator Utility

To configure the Schema Creator Utility, follow these steps:

1. Log in to the system as non-root user.
2. Navigate to the following path: OFS\_PFT\_PACK/schema\_creator/conf.
3. Edit the OFS\_PFT\_SCHEMA\_IN.xml file in a text editor.
4. Configure the elements as described in the [Configuring OFS\\_PFT\\_SCHEMA\\_IN.xml](#).
5. Save the OFS\_PFT\_SCHEMA\_IN.xml file.

---

**Note:** On successful execution of the utility, the entered password in the OFS\_AAAI\_SCHEMA\_IN.xml file is nullified.

---

## Executing the Schema Creator Utility

This section includes the following topics:

- ⑩ [Executing the Schema Creator Utility in Online Mode](#)
- ⑩ [Executing the Schema Creator Utility in Offline Mode](#)
- ⑩ [Executing the Schema Creator Utility with -s option](#)
- ⑩ [Executing the Schema Creator Utility for Subsequent Application Pack](#)
- ⑩ [Verifying the Log File](#)

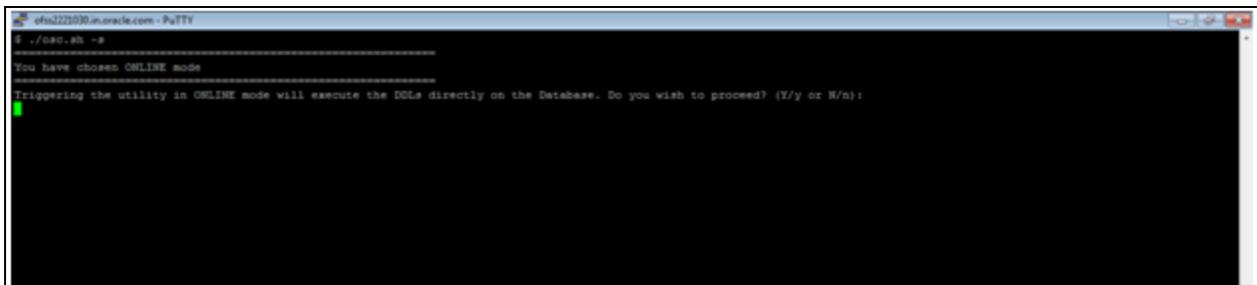
## Executing the Schema Creator Utility in Online Mode

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

To execute the Schema Creator Utility in Online Mode, follow these steps:

1. Log in to the system as non-root user.
2. Navigate to the following folder path: OFS\_PFT\_PACK/schema\_creator/bin/
3. Execute the following command:  

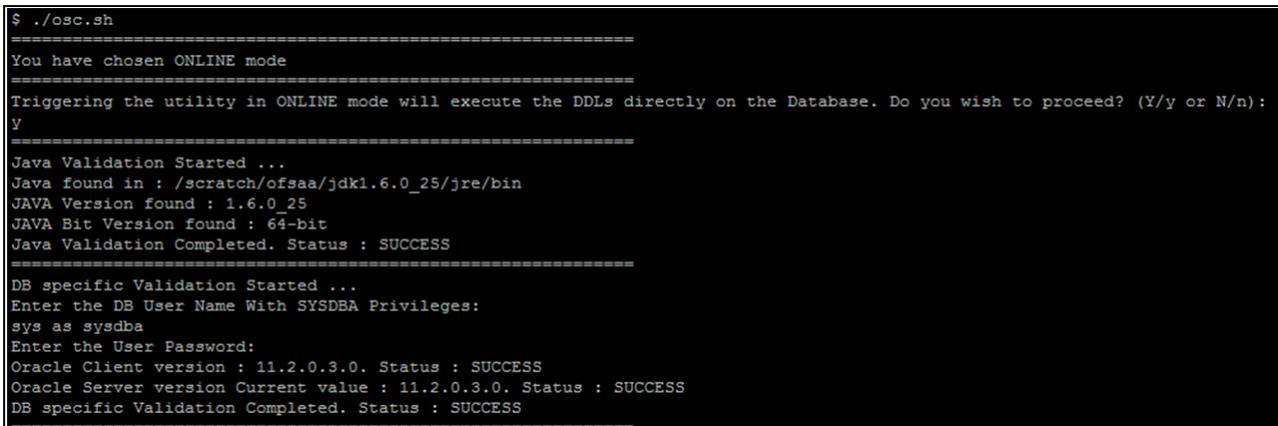
```
./osc.sh
```
4. The following message is displayed: *You have chosen ONLINE mode. Triggering the utility in ONLINE mode will execute the DDLs directly on the Database. Do you wish to proceed? (Y/y or N/n).*



```
ofo222@ora11g.com: ~$ ./osc.sh -a
=====
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):

```

5. Enter Y/y to proceed.
6. Enter the DB Username with SYSDBA Privileges.  
For example: SYS as SYSDBA.
7. Enter the User Password.



```
ofo222@ora11g.com: ~$ ./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
=====

```

8. 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).*  
*You have chosen to install this Application Pack on <Name of the Infodomain>. Do you want to proceed? (Y/N).*

```
Java Validation Started ...
Java found in : /usr/java/jdk1.6.0_25/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 : 11.2.0.1.0. Status : SUCCESS
DB specific Validation Completed. Status : SUCCESS
=====
Schema Creation Started
=====
Checking OFSAA installation...
OFSAA installation not found.
Validating the dat file OFS_PFT_CFG.dat started...
successfully validated OFS_PFT_CFG.dat file
Validating the input XML file../scratch/ofsaebas/installer/OFS_PFT_PACK/schema_creator/conf/OFS_PFT_SCHEMA_IN.xml
Input XML file validated successfully.
=====
Validating Connection URL ...jdbc:oracle:thin:@ofss222763:1521:FTPDEV
Successfully connected to User - sys as sysdba URL - jdbc:oracle:thin:@ofss222763:1521:FTPDEV
Connection URL successfully validated...
You have chosen to install this Application Pack on "dev_ofsaaatm" ATOMIC schema. Do you want to proceed? (Y/N)
Y
You have chosen to install this Application Pack on INFODOM "ofspftinfo". Do you want to proceed? (Y/N)
Y
=====
Executing TableSpace Scripts started...
```

9. Enter Y/y to start the schema creation.

Or

Enter N/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:

*Schema Creator executed successfully. Please proceed with the installation.*

See log file in *OFS\_PFT\_PACK/schema\_creator/logs* folder for execution status. If there are any errors, contact Oracle Support.

---

## Executing the Schema Creator Utility in Offline Mode

In Offline Mode, the Schema Creator Utility will create 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 scripts for creation of Schemas, Schema Objects, Tablespaces, Grants, and Roles.

Prerequisites:

- ⑩ Database user with below privileges:
  - SELECT ON DBA\_ROLES
  - SELECT ON DBA\_USERS
  - SELECT ON DBA\_DIRECTORIES
  - SELECT ON 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. Log in to the system as non-root user.
2. Navigate to the following path: OFS\_PFT\_PACK/schema\_creator/bin
3. Execute the osc.sh file using the following command:

```
./osc.sh -o
```

4. The following message is displayed:

*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).*

5. Enter Y/y to proceed.
6. Enter the DB Username with SELECT privileges.
7. Enter the User Password.

```
osc.sh
$ ./osc.sh -o
.profile executed
=====
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/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 the following privileges:
1. CREATE SESSION
2. SELECT on DBA_ROLES
3. SELECT on DBA_USERS
4. SELECT on DBA_DIRECTORIES
5. SELECT on DBA_TABLESPACES
Enter the User Name:
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
=====
```

8. 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).*

*You have chosen to install this Application Pack on <Name of the Infodomain>. Do you want to proceed? (Y/N).*

```
Java Validation Started ...
Java found in : /usr/java/jdk1.6.0_25/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 : 11.2.0.1.0. Status : SUCCESS
DB specific Validation Completed. Status : SUCCESS
=====
Schema Creation Started
=====
Checking OFSAA installation...
OFSAA installation not found.
Validating the dat file Ofs_PFT_CFG.dat started...
Successfully validated Ofs_PFT_CFG.dat file
Validating the input XML file../scratch/ofsaebas/installer/OFS_PFT_PACK/schema_creator/conf/OFS_PFT_SCHEMA_IN.xml
Input XML file validated successfully.
=====
Validating Connection URL ...jdbc:oracle:thin:@ofss222763:1521:FTPDEV
Successfully connected to User - sys as sysdba URL - jdbc:oracle:thin:@ofss222763:1521:FTPDEV
Connection URL successfully validated...
You have chosen to install this Application Pack on "dev_ofsaaatm" ATOMIC schema. Do you want to proceed? (Y/N)
Y
You have chosen to install this Application Pack on INFODOM "ofspftinfo". Do you want to proceed? (Y/N)
Y
=====
Executing TableSpace Scripts started...
```

9. Enter Y/y to start the script generation.

Or

Enter N/n if you want to quit the script generation.

```
Executing TableSpace Scripts started...
Executing TableSpace Scripts completed...
=====
Creating Schemas started...
CONFIG User dev_ofsaaconf 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_ofsaaconf URL - jdbc:oracle:thin:@ofss222763:1521:FTPDEV
Scripts execution for CONFIG schema started ...
Scripts execution for CONFIG schema completed ...
User dev_ofsaaconf details updated into the dbmaster table
User dev_ofsaaatm details updated into the dbmaster table
User dev_ofsaaatm is successfully created on Default TableSpace : USERS on Temp TableSpace : TEMP
User dev_ofsaaatm 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:

*Schema Creator executed successfully. Please execute  
scratch/ofsaapp/OFS\_PFT\_PACK/schema\_creator/sysdba\_output\_scripts.sql before  
proceeding with the installation.*

---

10. Navigate to the directory: OFS\_PFT\_PACK/schema\_creator.
11. Login to SQLPLUS with a user having SYSDBA Privileges.
12. 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, after providing appropriate execute permissions.

---

**Note:** See log `sysdba_output_scripts.log` file for execution status. If there are any errors, contact Oracle Support. This log would be empty if there are no errors in the execution.

---

## Executing the Schema Creator Utility with -s option

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

To execute the utility with -s option, follow these steps:

1. Edit the file `OFS_PFT_PACK/schema_creator/conf/OFS_PFT_SCHEMA_IN.xml` in text editor.
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.

---

To execute the utility in OFFLINE mode with SILENT option, enter following command:

```
./osc.sh -o -s.
```

## Executing the Schema Creator Utility for 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.

---

**Note:** OFS PFT Application Pack can be installed on any Information Domain/ Atomic schema where any OFS Application Packs are installed other than OFS Behavior Detection Application Pack or OFS Compliance Regulatory Reporting Application Pack.

---

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

1. Repeat the steps 1 to 9 from the Executing the Schema Creator Utility section.

---

**Note:** Ensure to use the same config schema user name as the previous Application Pack.

---

2. The utility identifies the Application Packs that are already installed on the current OFSAA setup and displays the following on console:
  - Atomic schema of the Existing Application Pack
  - Information Domain Name of the Existing Pack, and the
  - List of Installed Application Packs Execute the `./osc.sh` file.

```

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...
The following Application Packs are already installed in this OFSAA setup:

dev_atm1-          INFOTR-          "OFS_IR_PACK"

You have selected to install this Application Pack on "dev_atm3" ATOMIC schema. To proceed enter (Y/y). To change the selection, enter (N/n).
n
Choose the ATOMIC schema from the below list on which you wish to install this Application Pack:

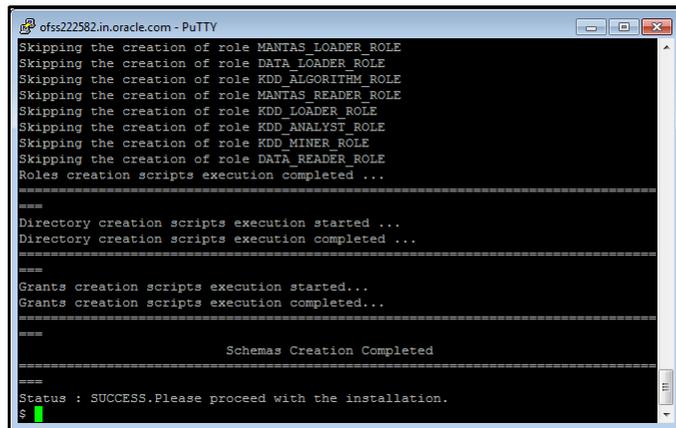
1. dev_atm1-          INFOTR-          "OFS_IR_PACK"
2. dev_atm3

Enter the option number:2
=====
Generating TableSpace creation Scripts started...
Generating TableSpace creation Scripts completed...
=====
Generating Schema creation scripts started...
Skipping the creation of CONFIG user dev_conf1 as OFSAAI is already installed on dev_conf1
User dev_atm3 details updated into the dmaster table
User dev_atm3 creation script generated successfully on Default TableSpace : USERS on Temp TableSpace : TEMP
User dev_atm3 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/ofsaadb/OFS_AAAI_PACK/schema_creator/sysdba_output_scripts.sql before proceeding with the installation.
$
    
```

3. Select the Atomic User, on which you want to install the Application Pack.
4. On successful execution of schema creator utility, the following message is displayed: Schemas Creation Completed.  
 See the log file in *OFS\_PFT\_PACK/schema\_creator/logs* folder for execution status.  
 See the log *sysdba\_output\_scripts.log* file for execution status, if executed in offline mode. This log would be empty if there are no errors in the execution.  
 If there are any errors, contact Oracle Support.

### Verifying the Log File

If schema creation is successful, the console would display an appropriate message.



If the schema creation runs into errors, see the log files:  
 <<OFS\_PFT Installer folder>>/<<OFS\_PFT\_PACK>>/schema\_creator/logs/ and <<OFS\_PFT>>\_OSC\_<timestamp>.log for further details.  
 You may contact Oracle support anytime for assistance.

## Installing the OFS Profitability Applications Pack

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

This section includes the following topics:

- ⑩ [GUI Mode Installation](#)
- ⑩ [SILENT Mode Installation](#)
- ⑩ [Verifying the Log File](#)

---

**Note:** If this release of the OFS Profitability Applications Pack is being installed for Oracle Database Server Release 12cR2 that is 12.2.x, then copy the file `envCheck.sh` before triggering the installation:

From Location - `OFS_PFT_PACK/OFS_AAI/bin/envCheck.sh`

To Location - `OFS_PFT_PACK/OFS_AAAI_PACK/OFS_AAI/bin/envCheck.sh`

---

### GUI Mode Installation

Ensure that 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 below:

```
ORACLE_HOME=<oracle_installed_dir>
Export FIC_HOME
```
3. Execute the user `.profile`.
4. Navigate to path: `OFS_PFT_Pack`.
5. Edit the `OFS_PFT_PACK/schema_creator/conf/OFS_PFT_SCHEMA_IN.xml` file to set the appropriate attribute values.

---

**Note:** See [Configuring OFS\\_PFT\\_SCHEMA\\_IN.xml](#) file for details on configuring this XML file.

---

6. Execute the schema creator utility.

---

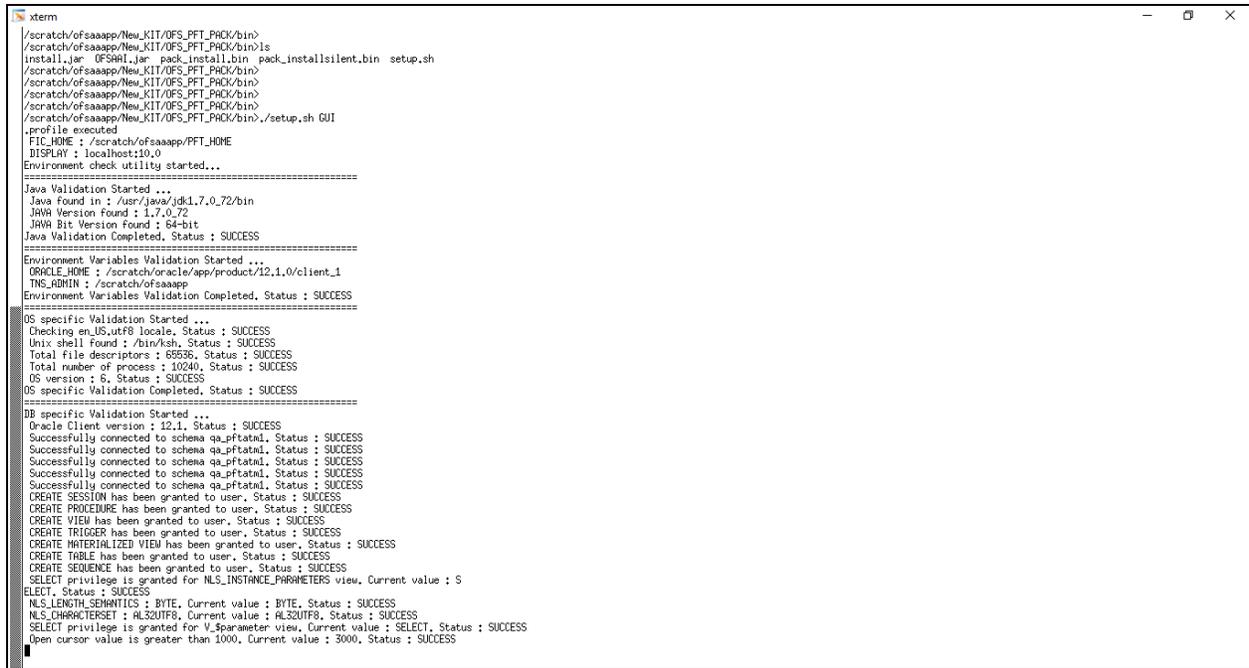
**Note:** This step is mandatory and should be executed before every OFSAA Application Pack installation. See [Executing the Schema Creator Utility](#) for more details.

---

7. Navigate to the path: `OFS_PFT_PACK/bin`.
8. To install OFS PFT Application Pack on:
  - For Java 6 and 7: Proceed with step 9.

- 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 9.
9. Execute ./setup.sh GUI in the console.

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



```
xterm
/scratch/ofsaapp/New_KIT/OFS_PFT_PACK/bin>
/scratch/ofsaapp/New_KIT/OFS_PFT_PACK/bin>ls
install.jar OFSAMI.jar pack_install.bin pack_installsilent.bin setup.sh
/scratch/ofsaapp/New_KIT/OFS_PFT_PACK/bin>
/scratch/ofsaapp/New_KIT/OFS_PFT_PACK/bin>
/scratch/ofsaapp/New_KIT/OFS_PFT_PACK/bin>
/scratch/ofsaapp/New_KIT/OFS_PFT_PACK/bin>
/scratch/ofsaapp/New_KIT/OFS_PFT_PACK/bin>
/scratch/ofsaapp/New_KIT/OFS_PFT_PACK/bin>./setup.sh GUI
profile executed
FIC_HOME : /scratch/ofsaapp/PFT_HOME
DISPLAY : localhost:10.0
Environment check utility started...
=====
Java Validation Started ...
Java Found in : /usr/java/jdk1.7.0_72/bin
Java Version Found : 1.7.0_72
Java Bit Version Found : 64-bit
Java Validation Completed, Status : SUCCESS
=====
Environment Variables Validation Started ...
ORACLE_HOME : /scratch/oracle/app/product/12.1.0/client_1
TNS_ADMIN : /scratch/ofsaapp
Environment Variables Validation Completed, Status : SUCCESS
=====
OS specific Validation Started ...
Checking en_US.utf8 locale, Status : SUCCESS
Unix shell Found : /bin/ksh, Status : SUCCESS
Total file descriptors : 65536, Status : SUCCESS
Total number of process : 10240, Status : SUCCESS
OS version : 6, Status : SUCCESS
OS specific Validation Completed, Status : SUCCESS
=====
DB specific Validation Started ...
Oracle Client version : 12.1, Status : SUCCESS
Successfully connected to schema qa_pftatml, 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 NLS_INSTANCE_PARAMETERS view, Current value : S
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 : 3000, Status : SUCCESS
```

Figure 1. Validating the Installation

# Installing the OFS Profitability Applications Pack

## Chapter 4—Installing OFS Profitability Application Pack

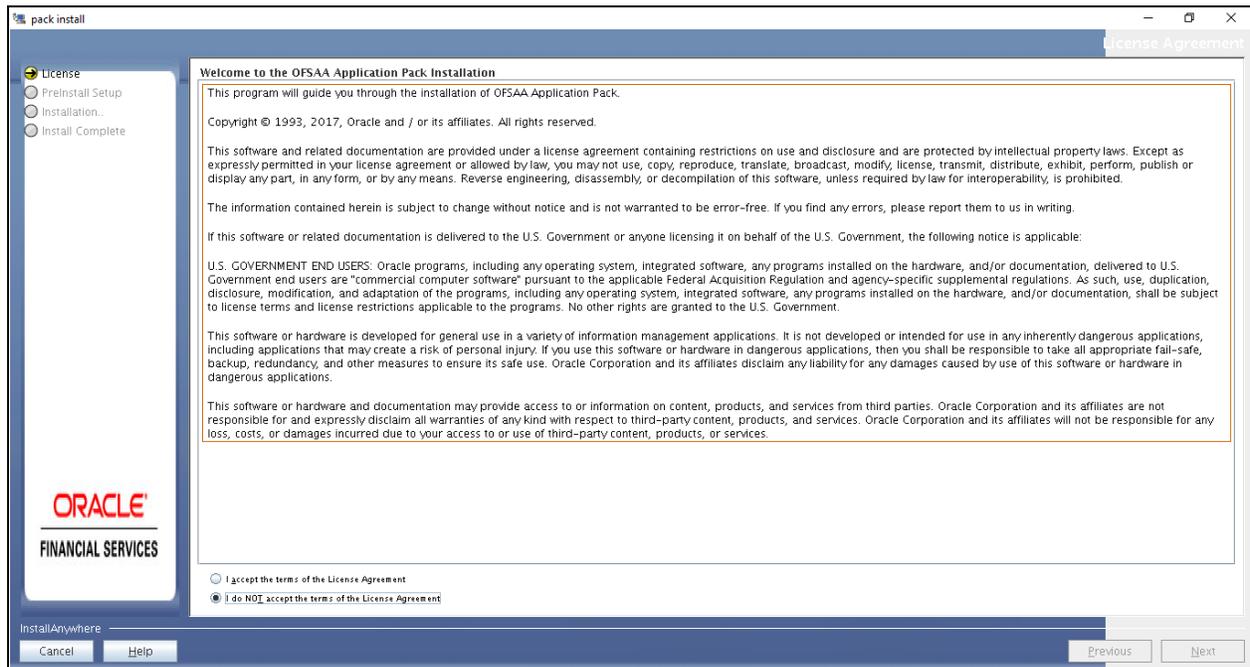
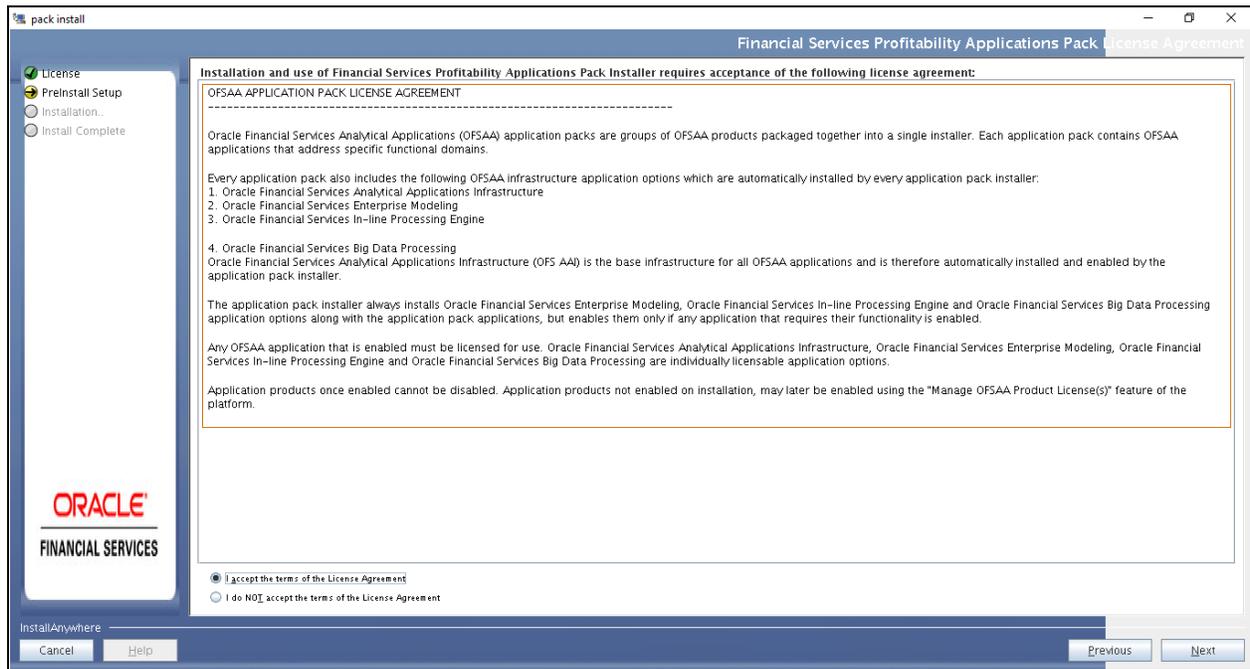


Figure 2. License Agreement

10. Select **I accept the terms if the License Agreement** option.
11. Click **Next** to display the The Application Pack details.

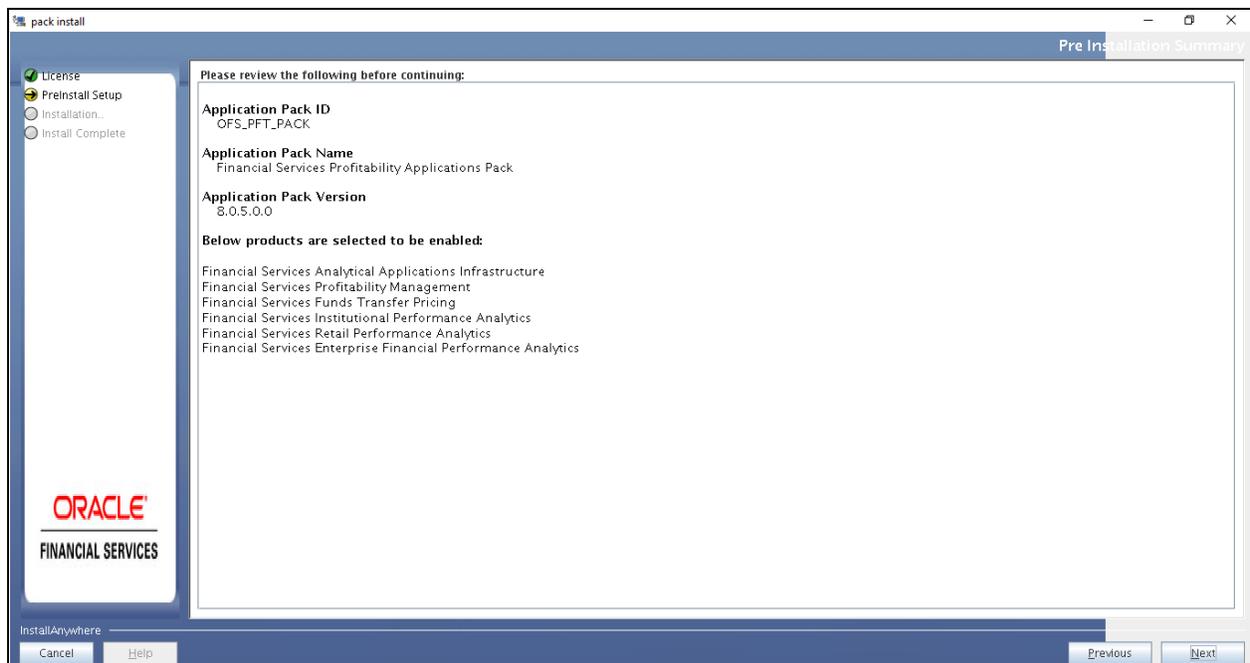


12. Select the product to enable for which you have already obtained license.
13. Click **Next** to display the License Agreement page.

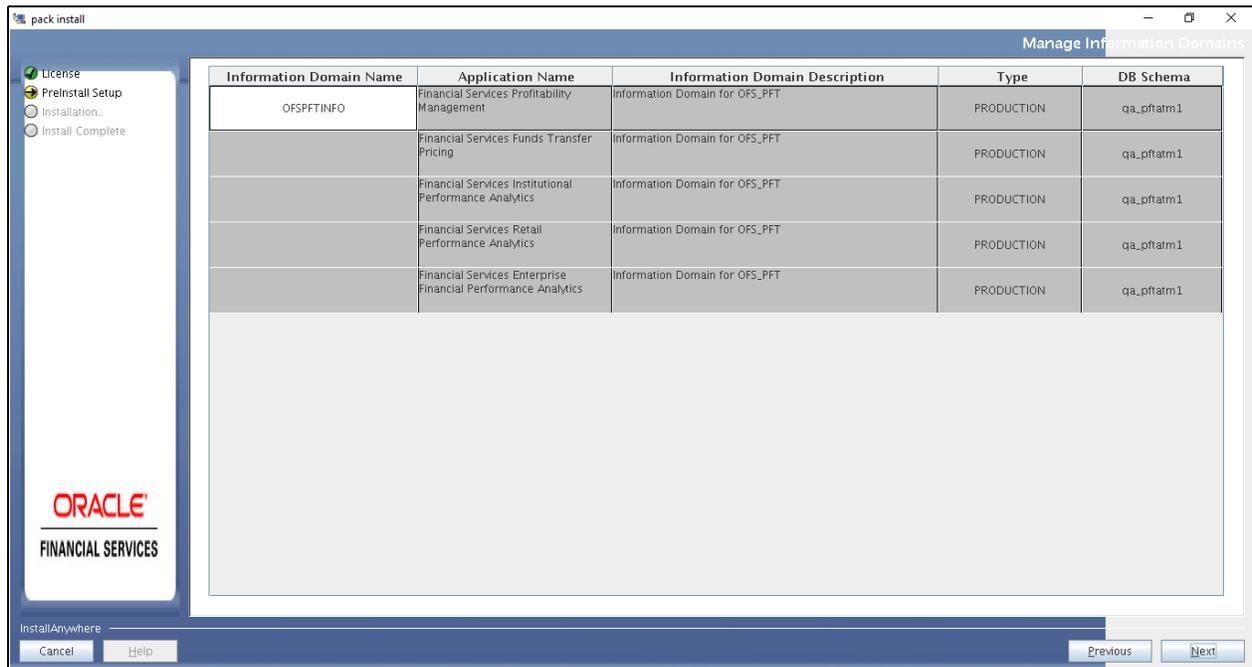


14. Select **I accept the terms if the License Agreement** option.

15. Click **Next**.



16. Click **Next** to display the Manage Information Domain page.

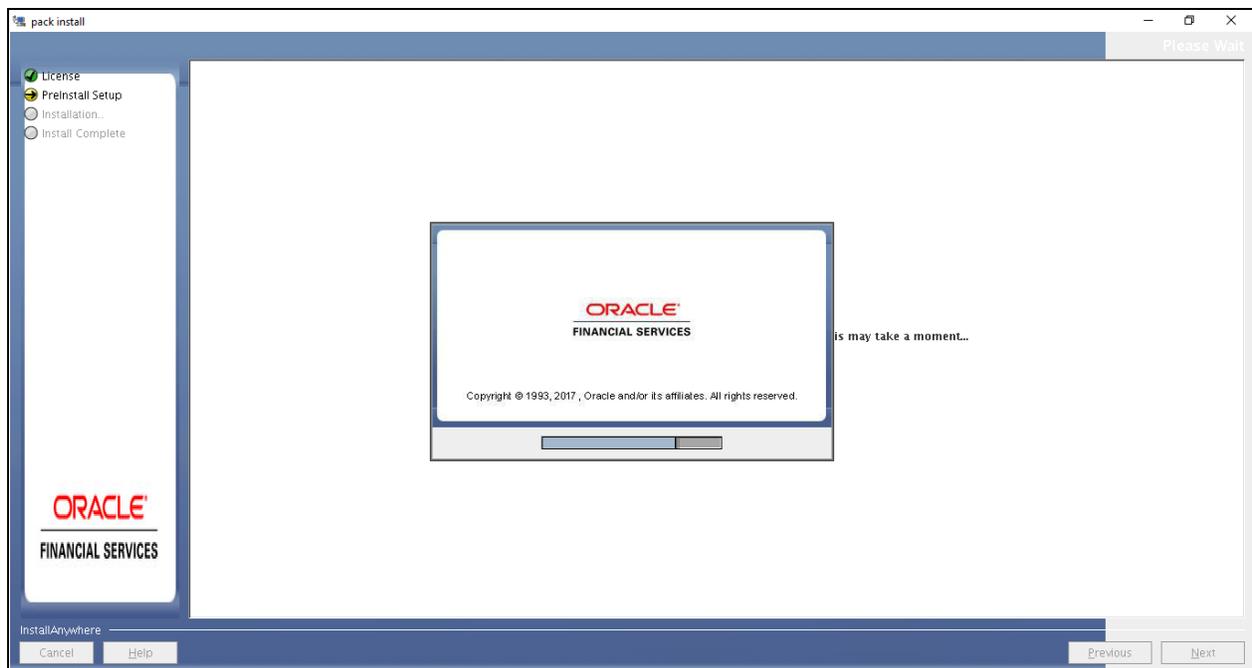


17. Edit the Information Domain Name if it is a new Information domain and you wish to change the name of the information domain name.

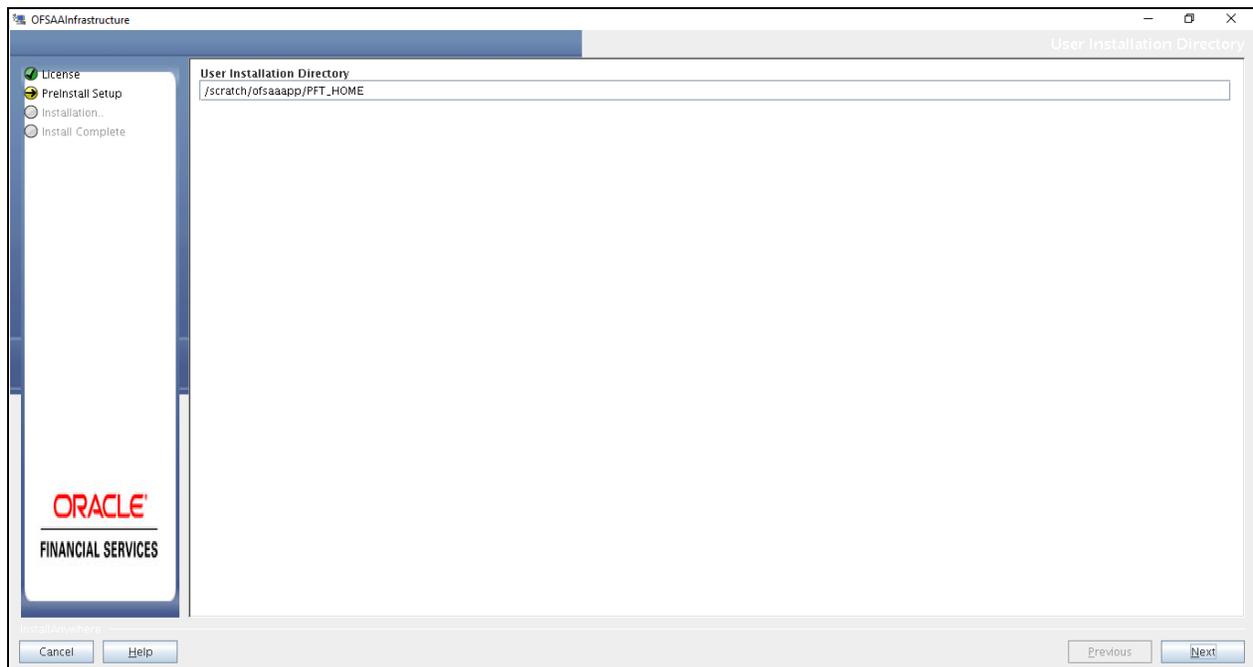
The Information Domain Name is not editable in case of subsequent Application Pack installation on the same Information Domain.

Permissible length is 10 characters and only alphanumeric characters allowed. No special characters allowed.

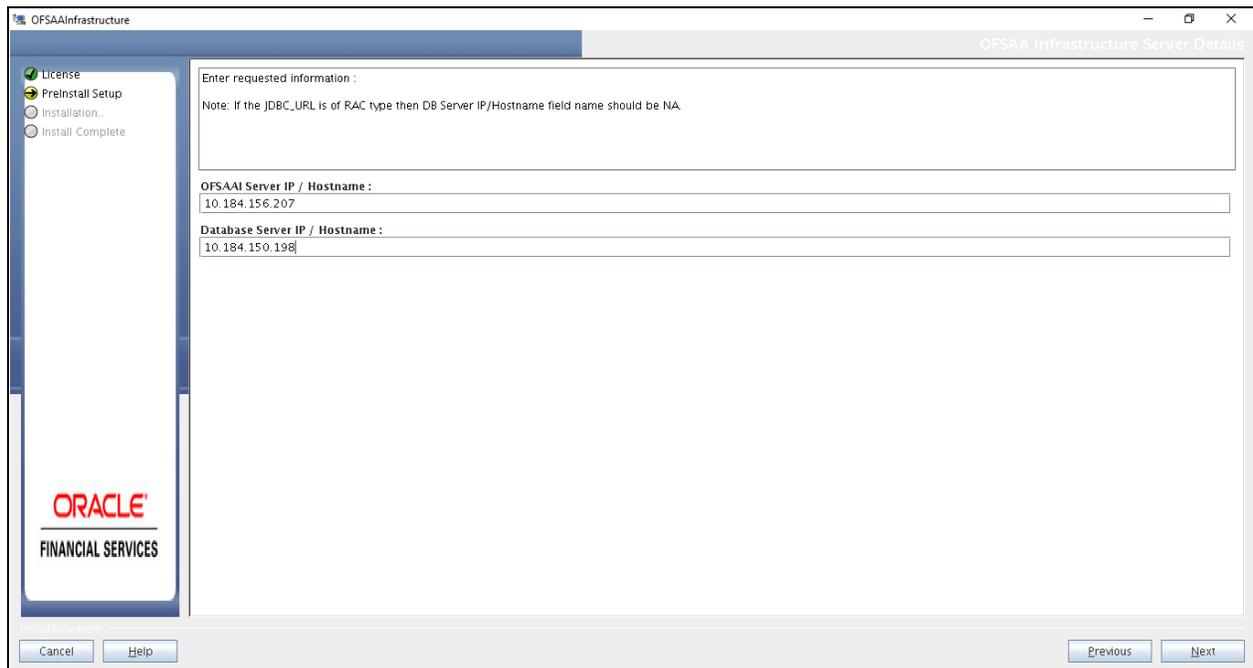
18. Click **Next** to display the following window.



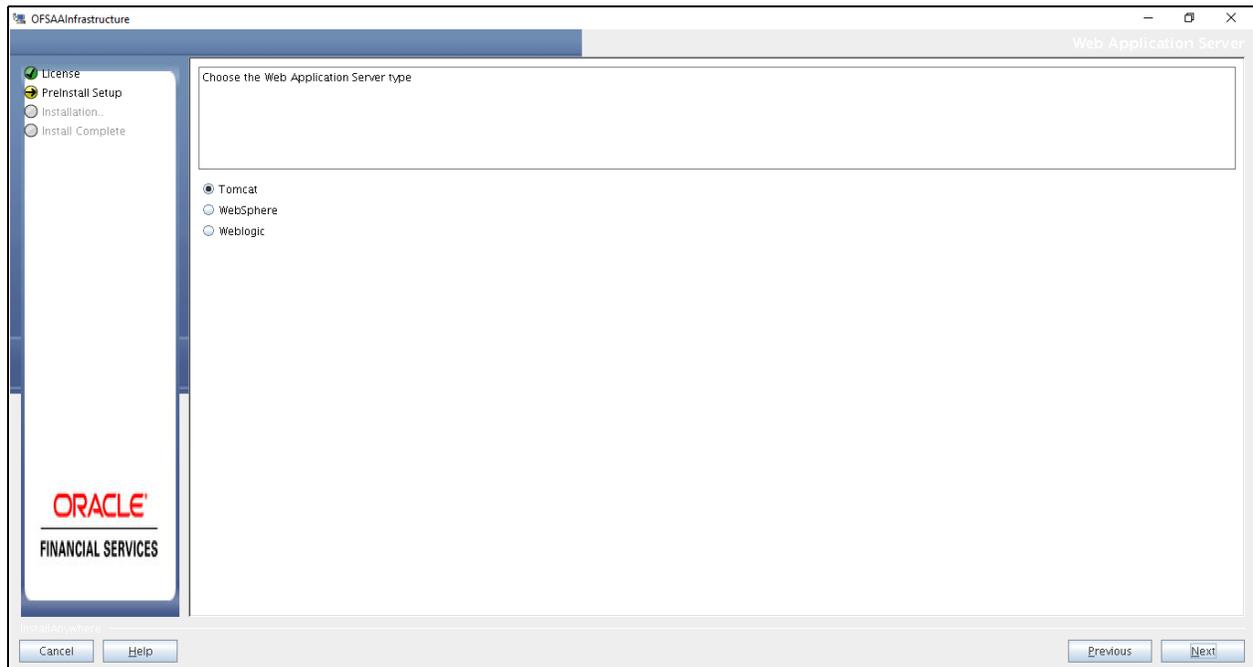
19. Click **Next** to display the **User Installation Directory** window.



20. Enter the installation directory path. This is the directory you have set in the user .profile file in step 2.
21. Click **Next** to display the **OFSAA Infrastructure Server Details** window.

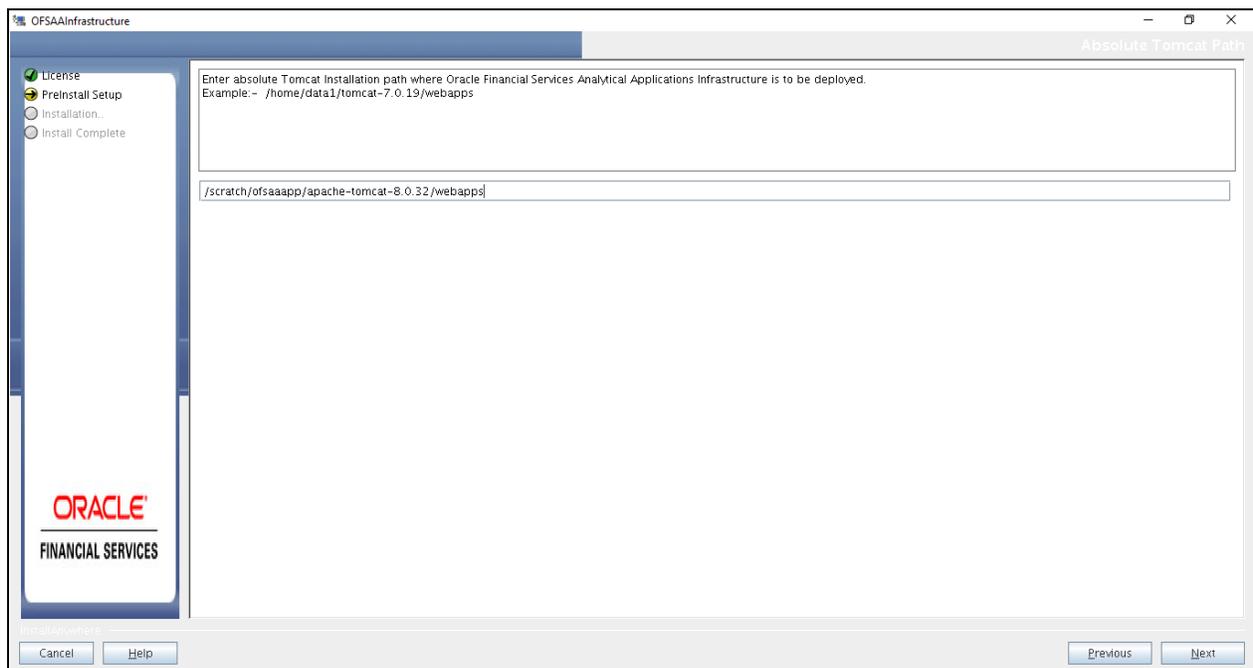


22. Enter the IP address or hostname of the OFSAAI server and Database server.
23. Click **Next** to display the **Web Application Server** window.



24. Select the appropriate Web Application server type. The options are Tomcat, WebSphere, and WebLogic.
25. Click **Next**. Based on the selection, corresponding screens are displayed.

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



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

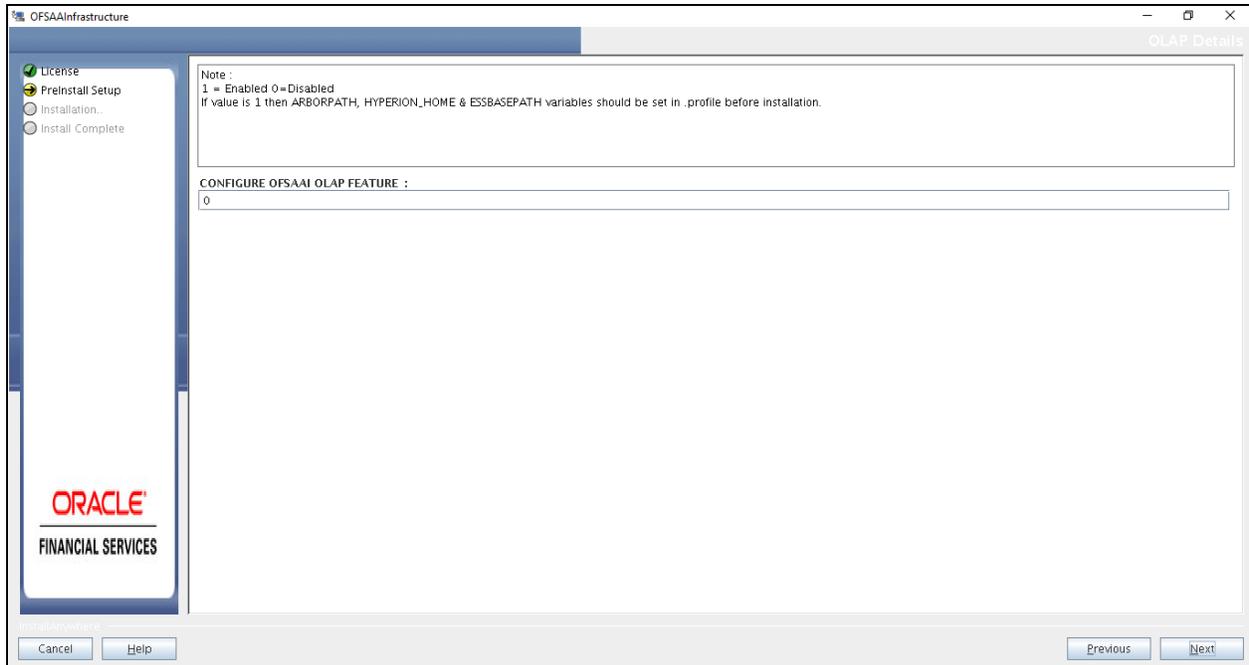
**For WebSphere:** The **WebSphere Setup Details** window is displayed.

- 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.

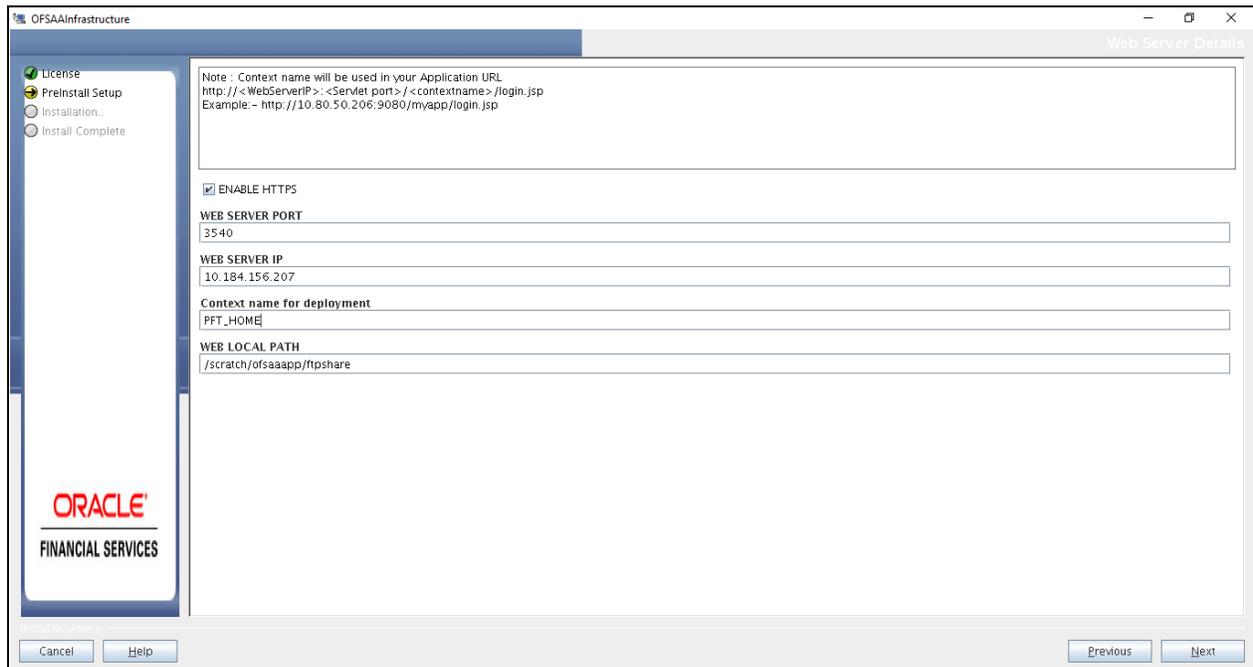
- Enter the WebLogic home directory path.
- Enter the path of the Weblogic domain home directory.

26. Click **Next** to display the **OLAP Details** window.



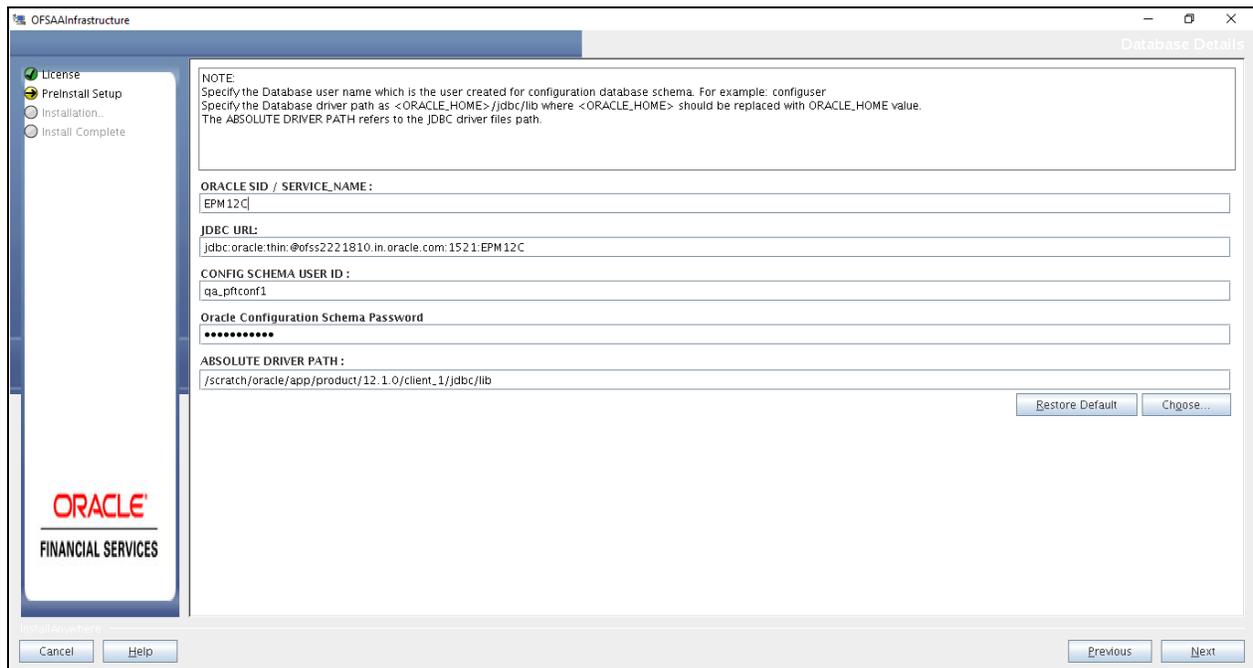
Enter 1 if you want to configure OFSAAI OLAP feature. By default, value 0 is displayed.

27. Click **Next** to display the **Web Server Details** window.



- Select the **Enable HTTPS** check box to configure HTTPS.
- 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).

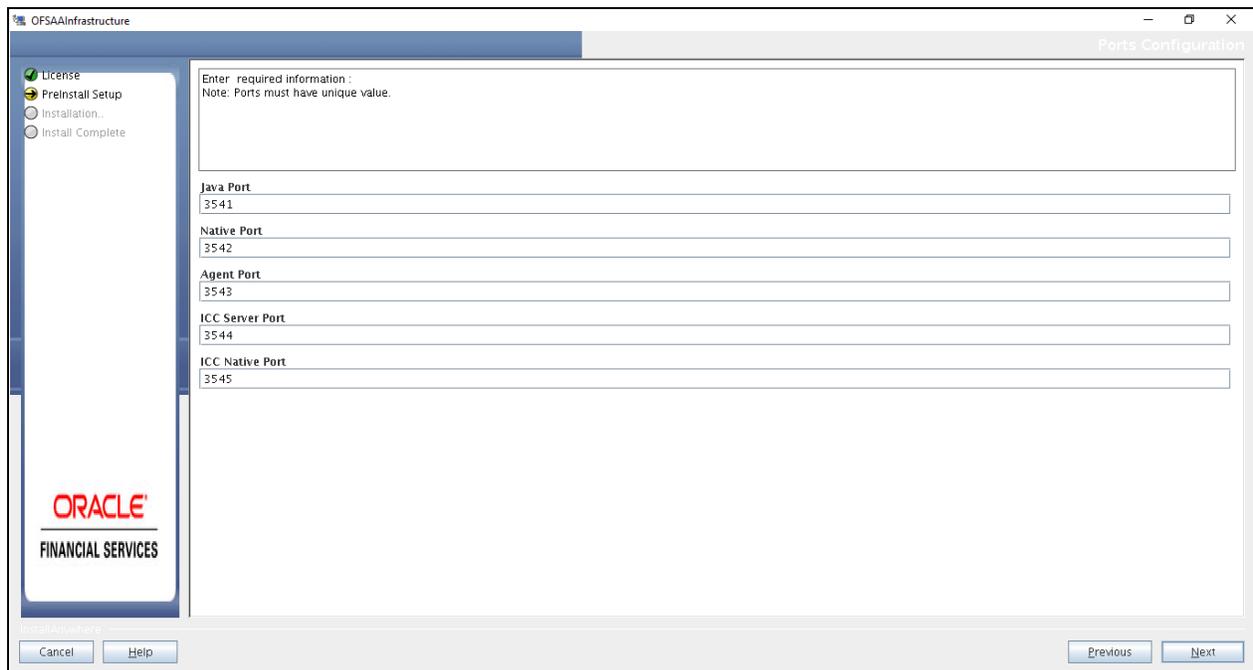
28. Click **Next** to display the **Database Details** window.



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

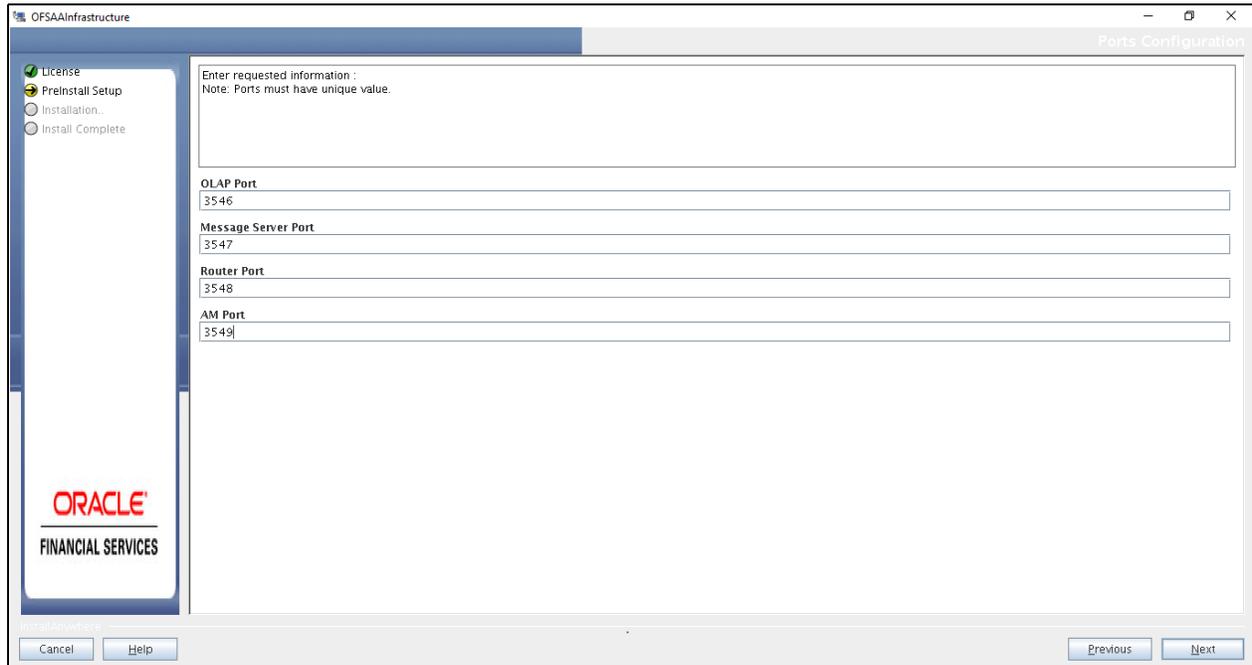
**Note:** Absolute Driver Path can be the path where Oracle DB client is installed or JDBC driver is installed. For example, /scratch/oracle/app/oracle/product/11.2.0/client\_1/jdbc/lib

30. Click **Next** to display the **Ports Configuration** window.



Enter Java Port, Native Port, Agent Port, ICC Server Port, and ICC Native Port. You can proceed with the default port values configured.

31. Click **Next** to display the **Ports Configuration** window.



Enter OLAP Port, Message Server Port, Router Port, and AM Port.

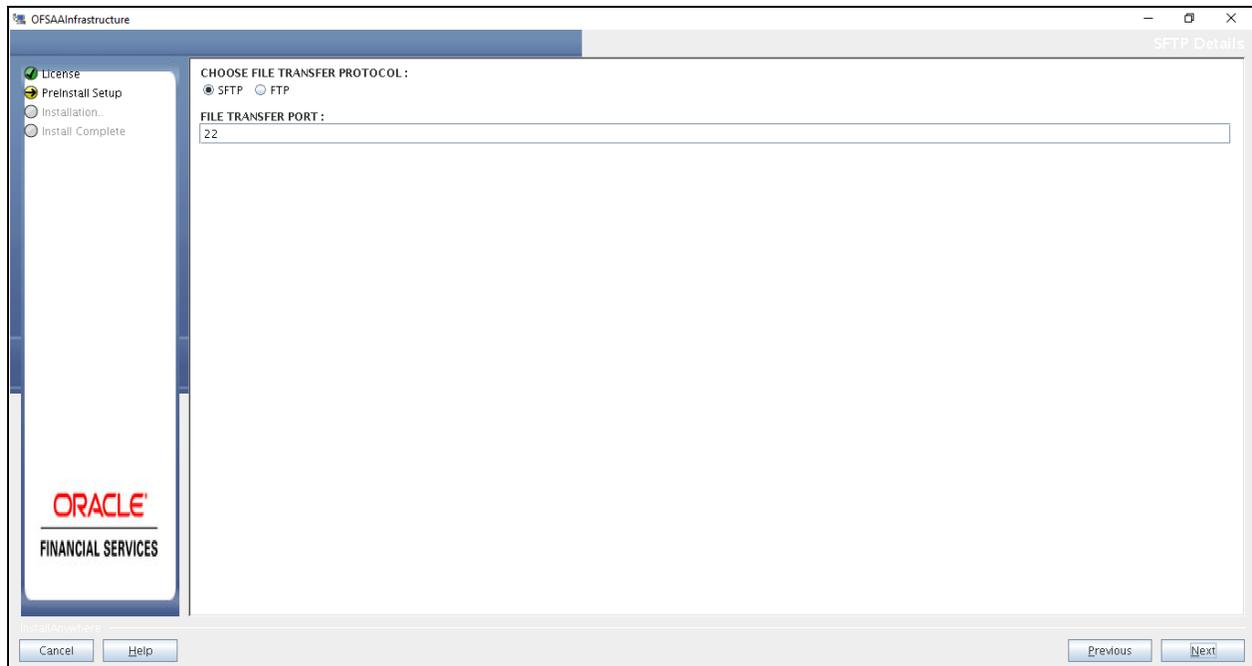
32. Click **Next** and then select the File Transfer protocol.

---

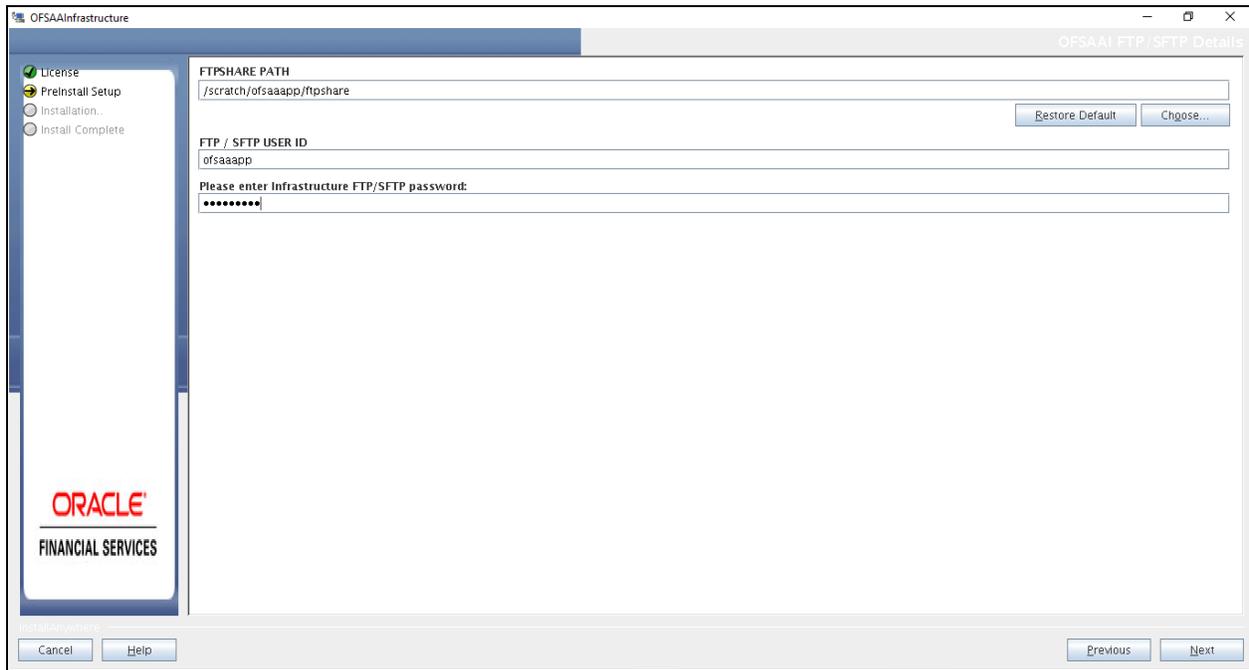
**Note:** Ensure the system on which the OFSAA Infrastructure is being installed, has either FTP/ SFTP enabled.

---

Enter the port to be used for file transfer.



33. Click **Next** to display the **OFSAAI FTP/SFTP Details** window.



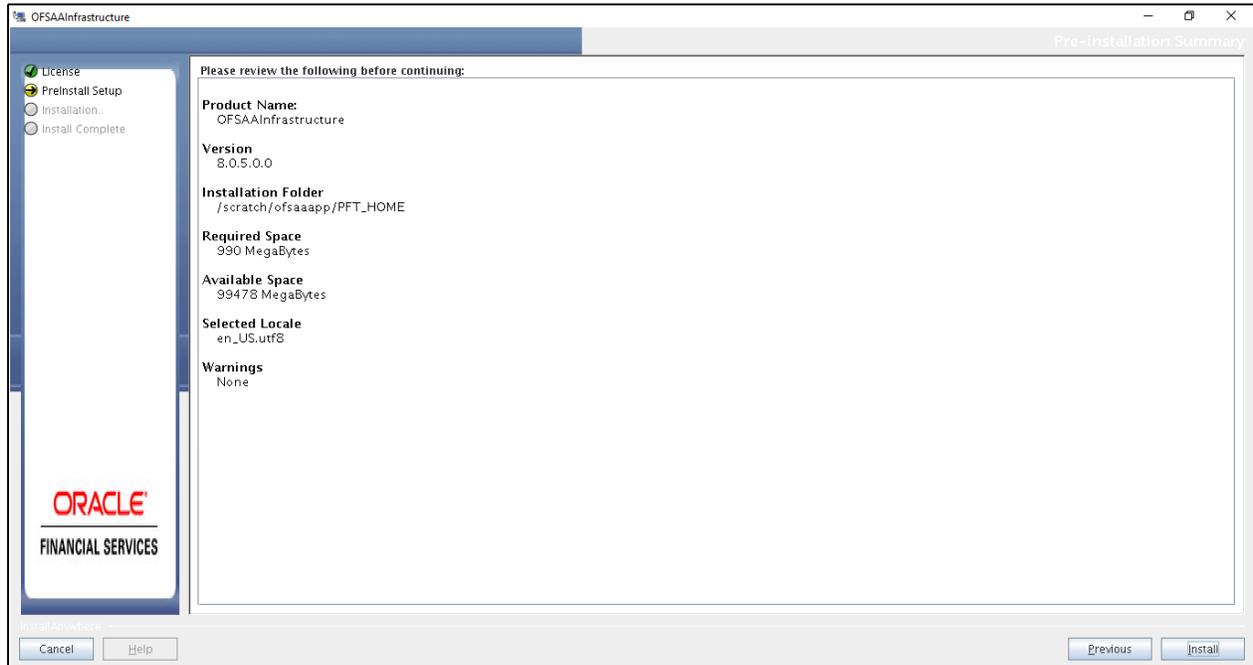
34. Enter the path of the ftpshare directory and the User Id and password for OFSAAI Server.

---

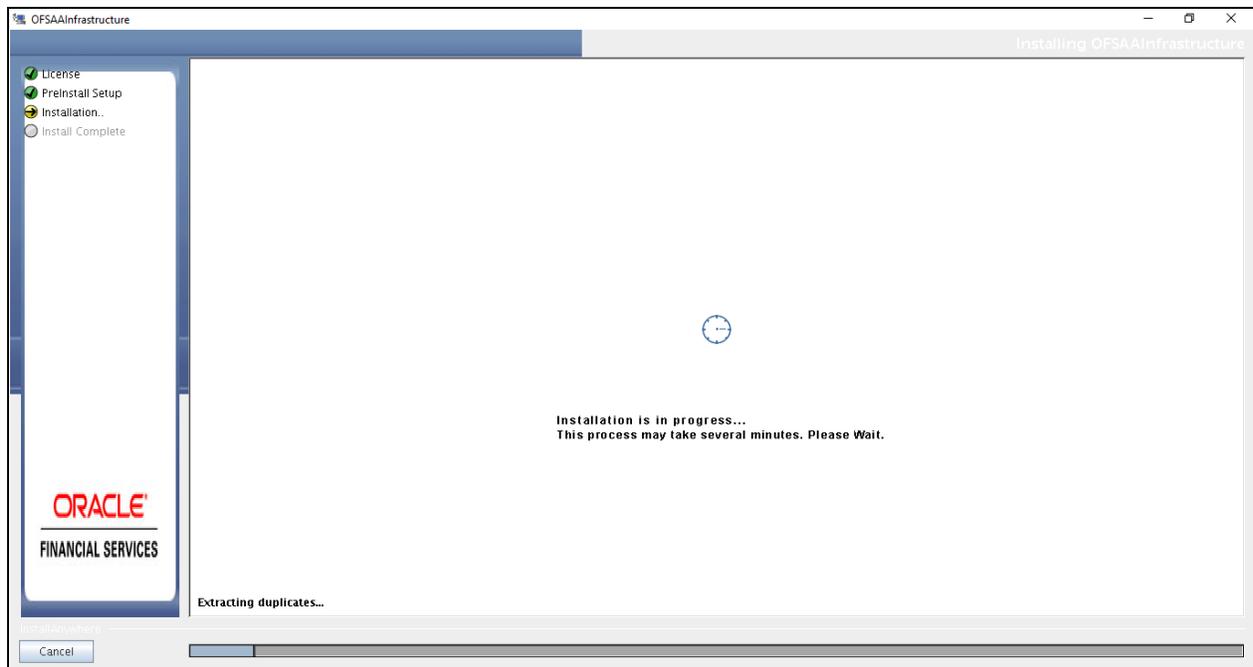
**Note:** The transfer of data (files) between the OFSAAI Server and the Web Application Server happens over FTP/ SFTP. Ensure the necessary host configurations are made for a successful handshake.

---

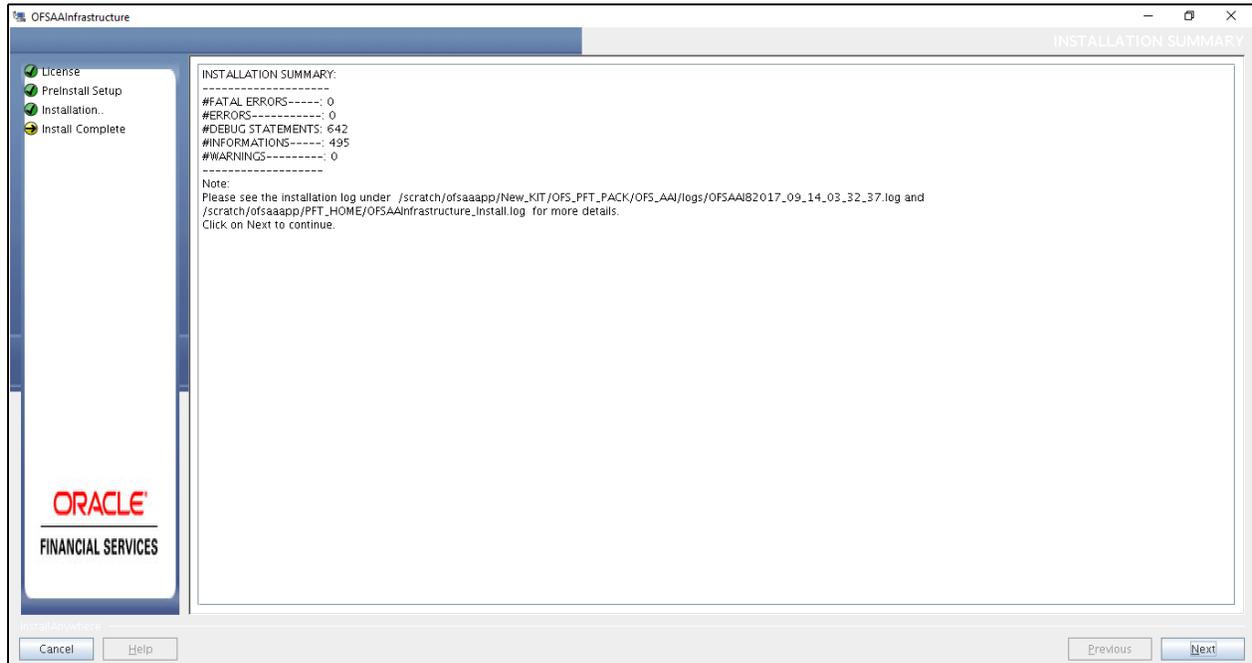
35. Click **Next** to display the **Pre-Installation Summary** window.



- 36. Click **Next** to display the **Pre Installation Summary** window.
- 37. Click **Install** to display the **Installing OFSAA Infrastructure** window.

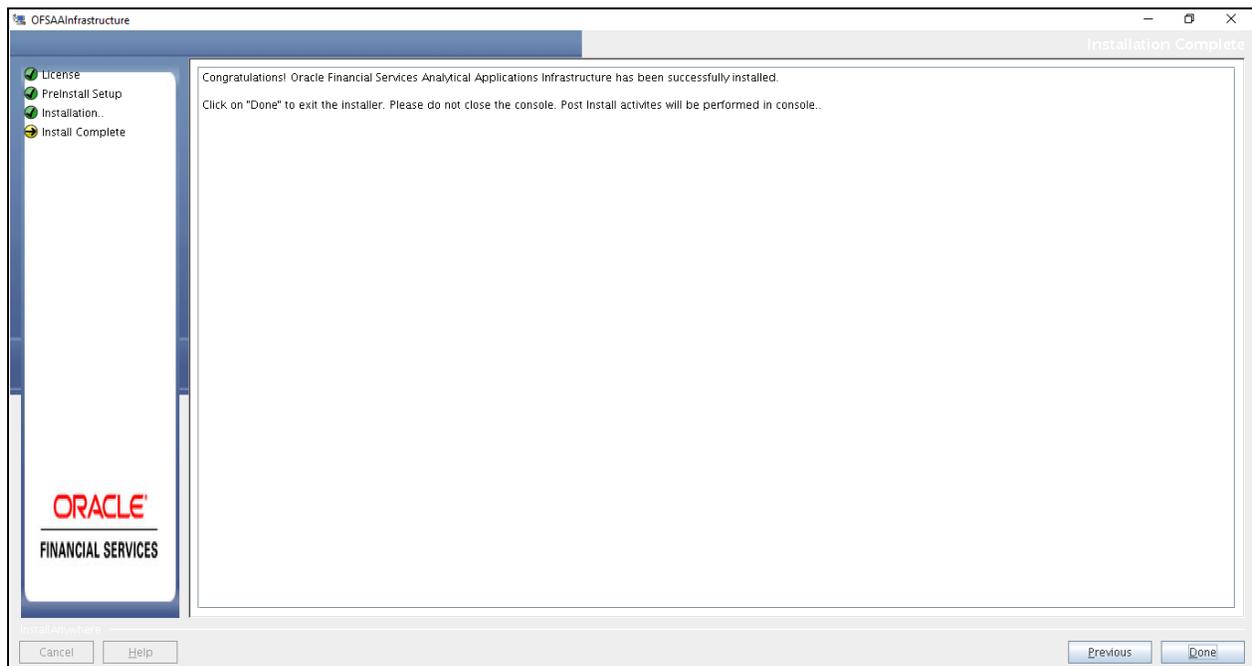


Anytime during the installation you can click **Cancel** to stop the installation. Once completed, the **Installation Summary** screen is displayed.



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

38. Click **Next** to display the **Installation Complete** window.

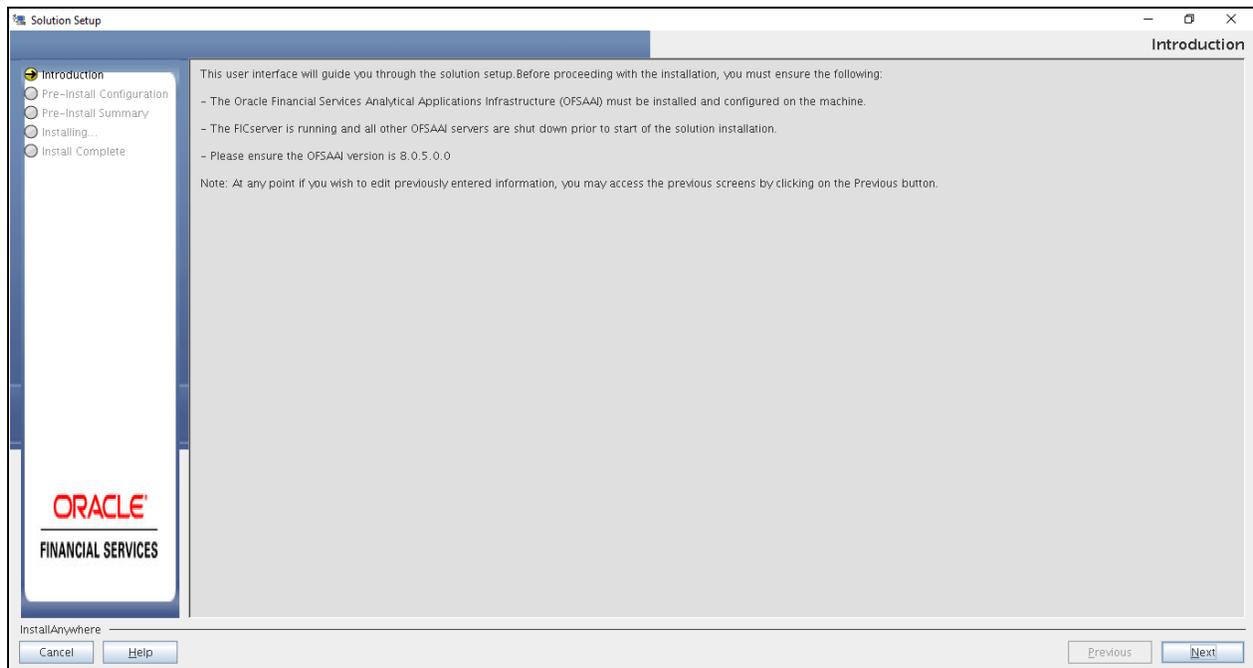


**Note:** If the installation is successful with some warnings, you can navigate to the installation log for more details and address them.

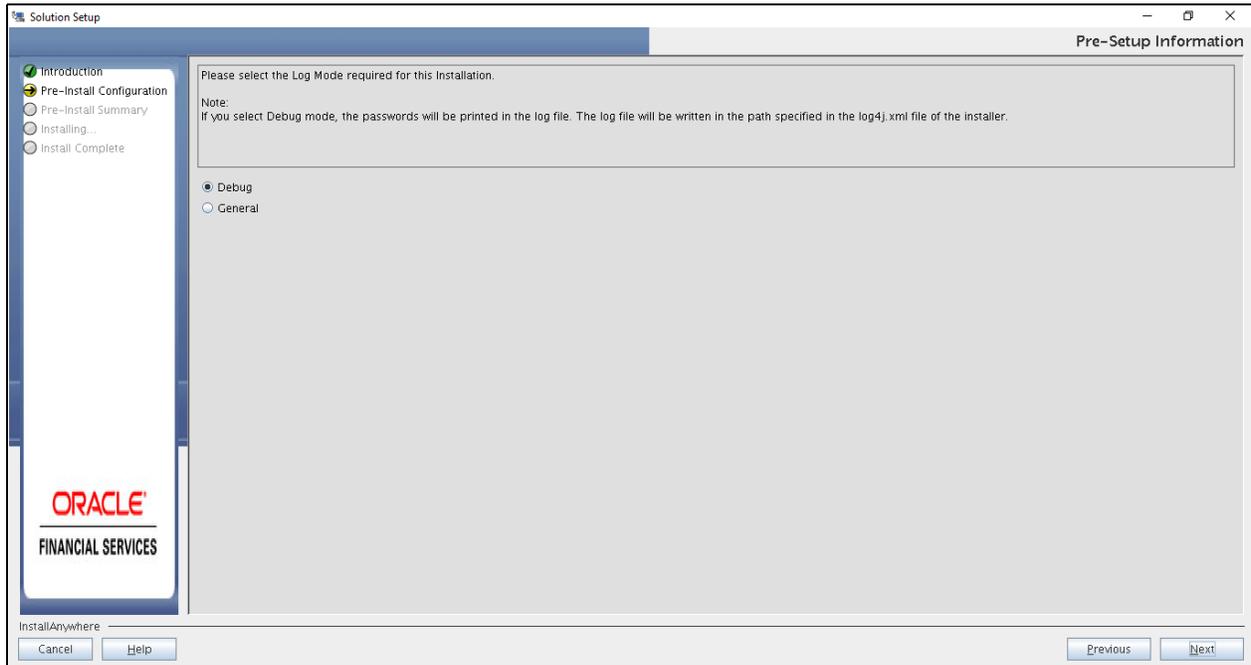
39. Click **Done**. The following message is displayed:

Please wait, pack\_install is being configured for your system. This may take a moment.

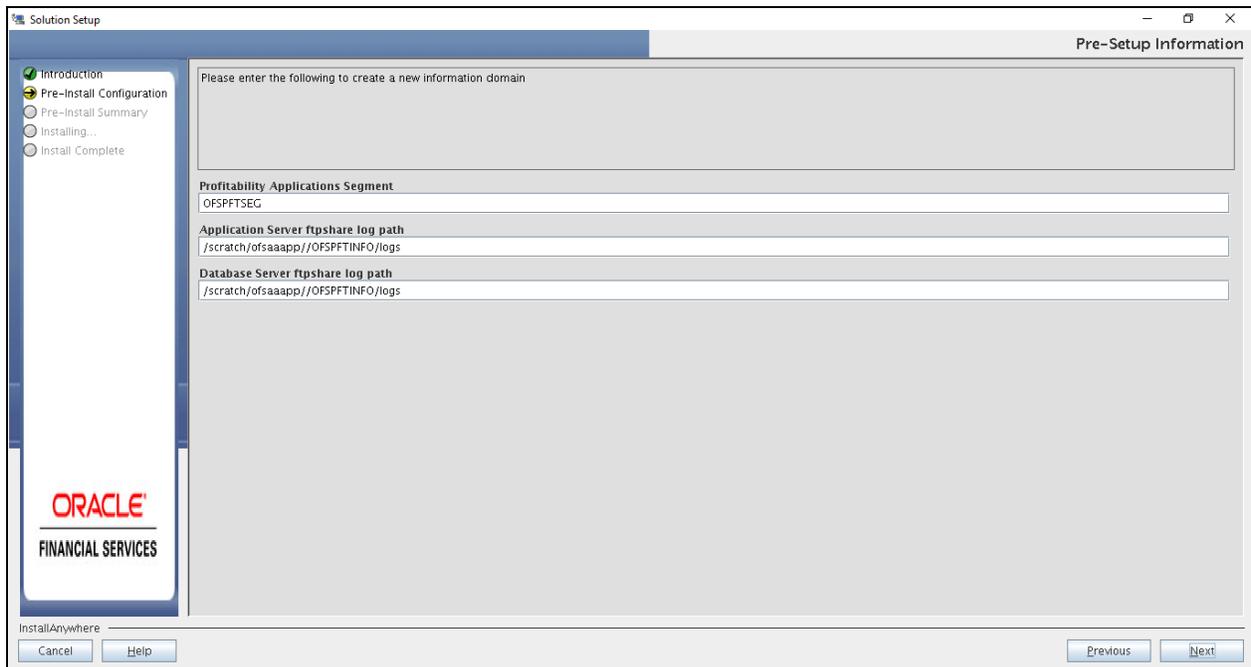
40. After the pack installation is complete, the **Solution Setup - Introduction** window will be displayed.



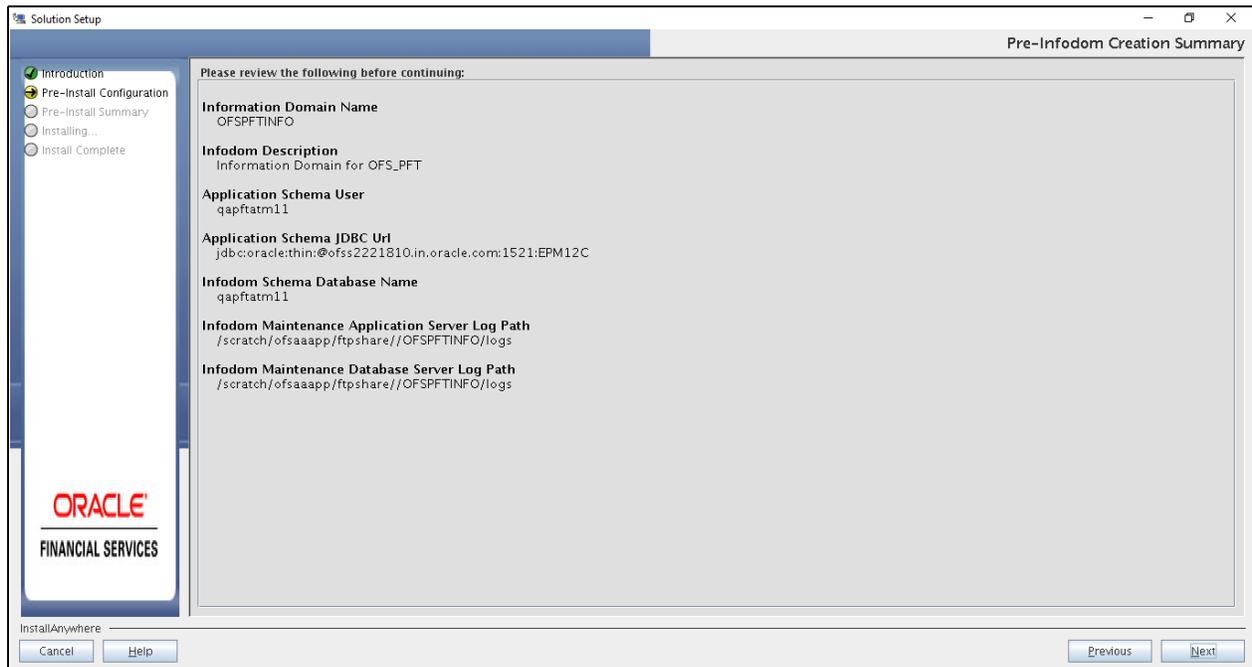
41. Click **Next** to display the **Log mode** window. Select the **Log Mode**.



42. Click **Next** to display the **Segment creation** window. Enter the log paths.



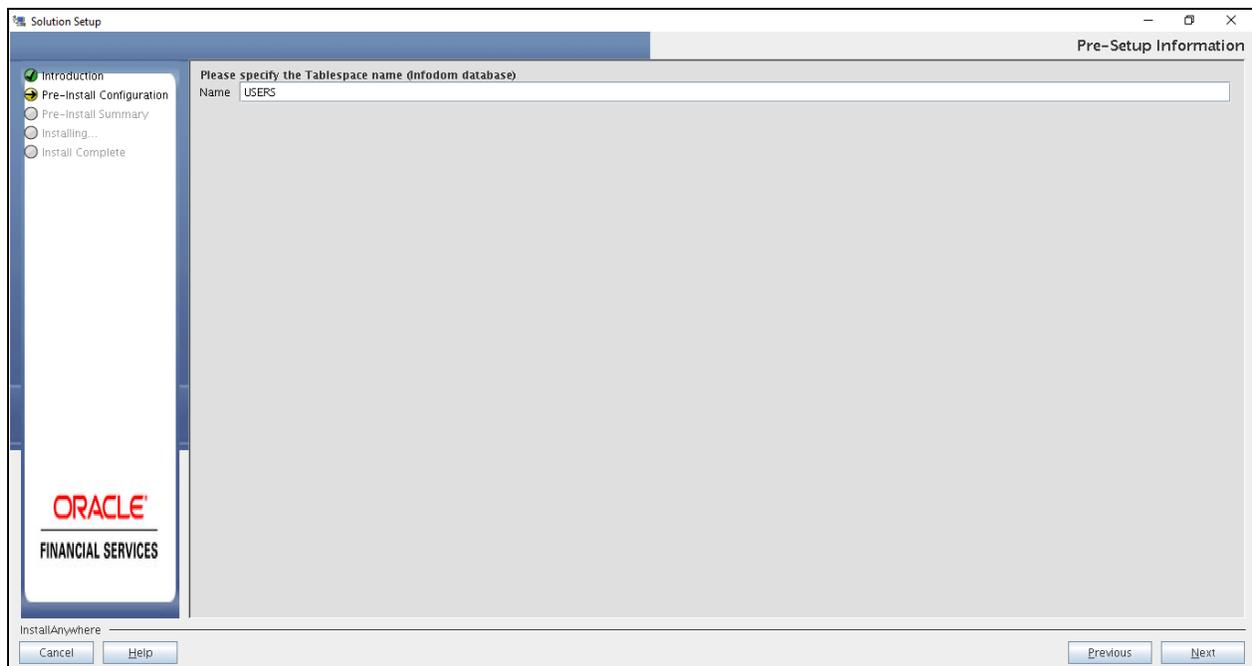
43. Click on **Next** to display the **Pre-Infodom Creation Summary** window.



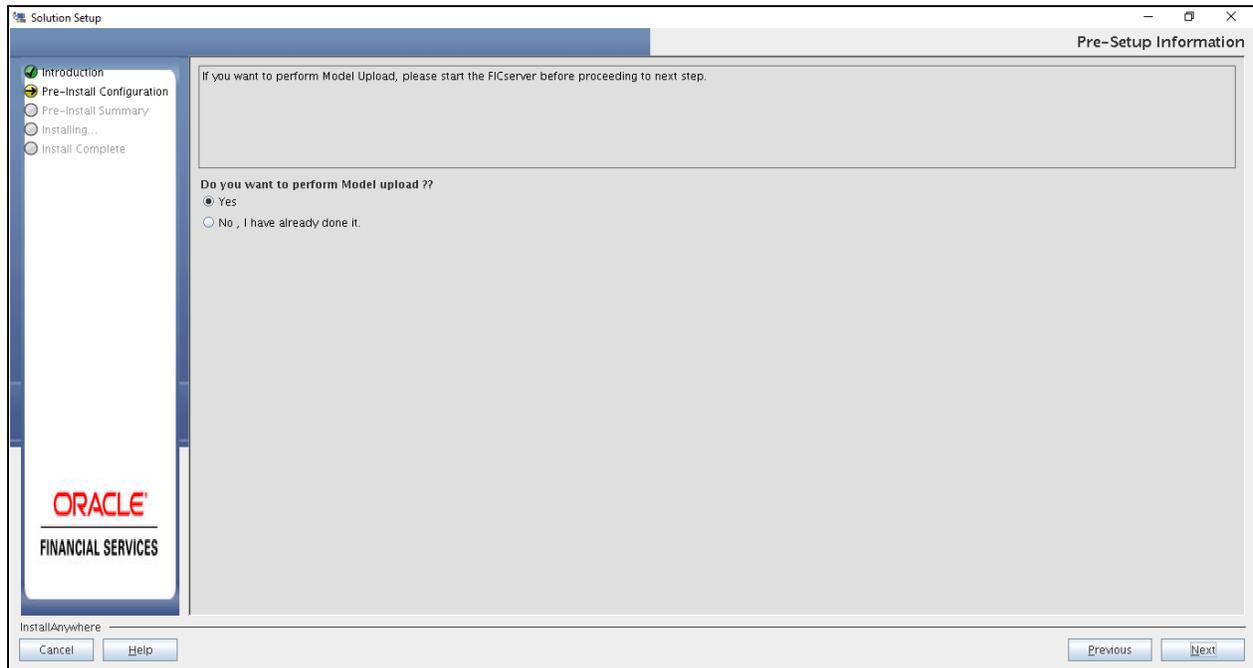
44. Click **Next** to display the **Infodomain creation** window.

**Note:** Permissible length for information domain is maximum 10 characters and only alphanumeric characters allowed. No special characters allowed.

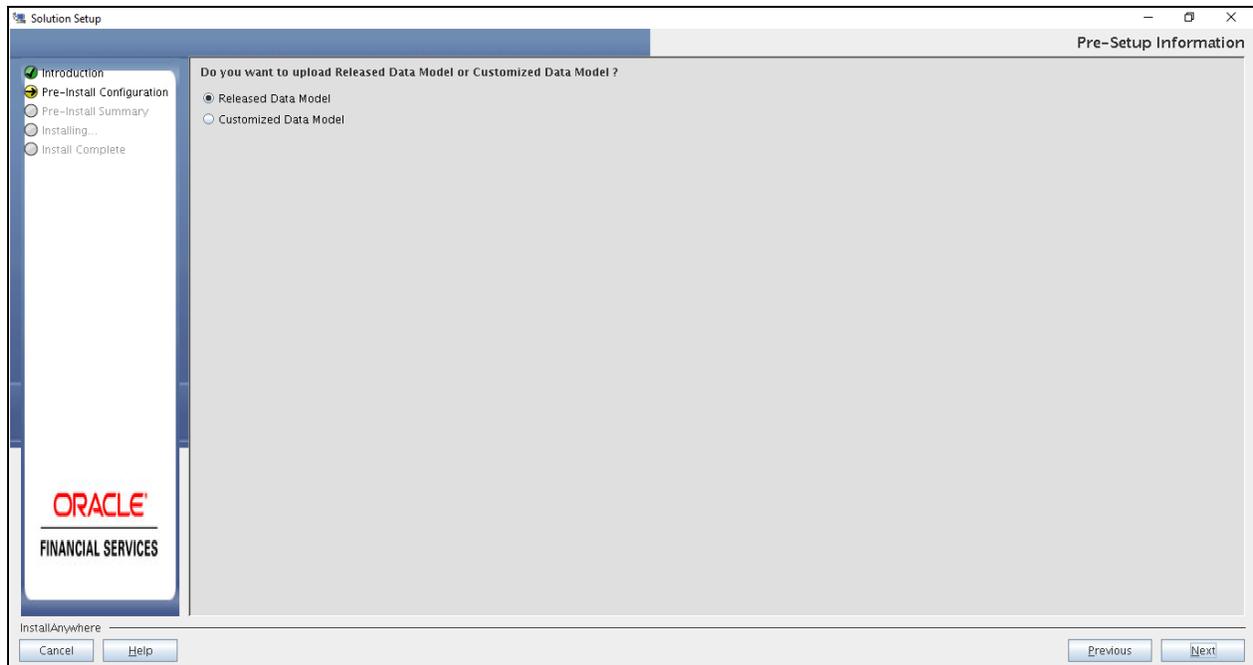
45. After creation of infodomain, the **Tablespace specification** window will be displayed.



46. Click **Next** to display the **Model Upload** window.

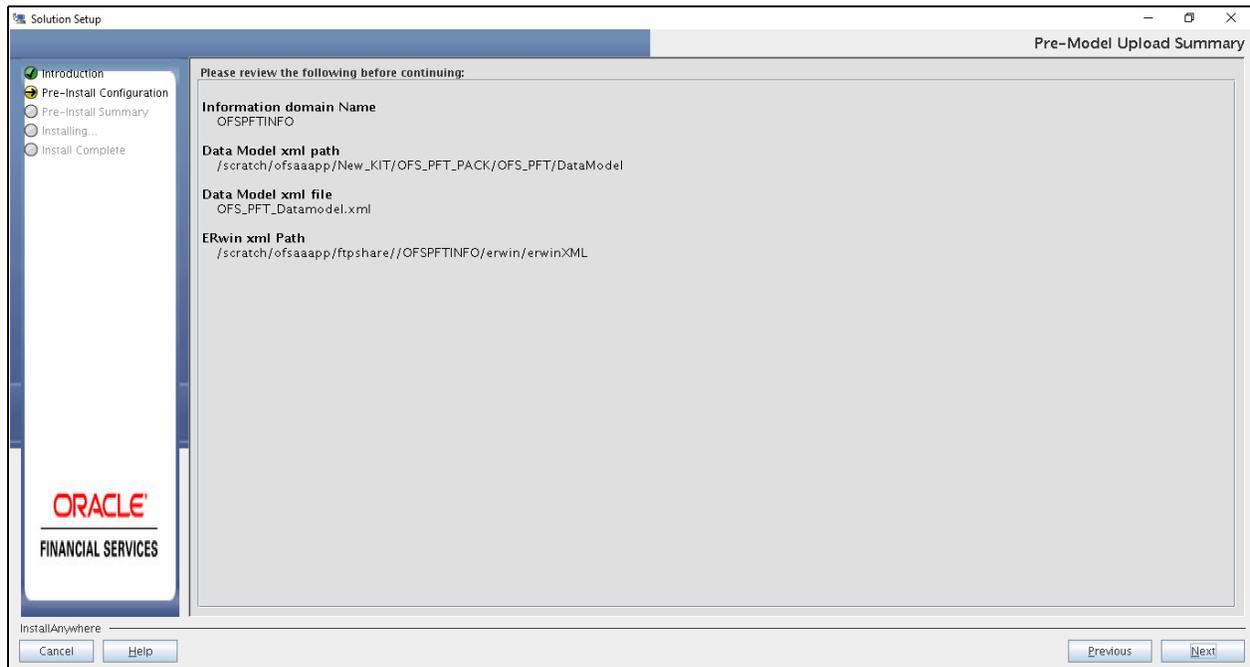


47. Select **Yes** and click **Next** to display the **Model Type** window.



48. Select **Released Data Model** and click **Next**. Model will get copied into ftpshare.

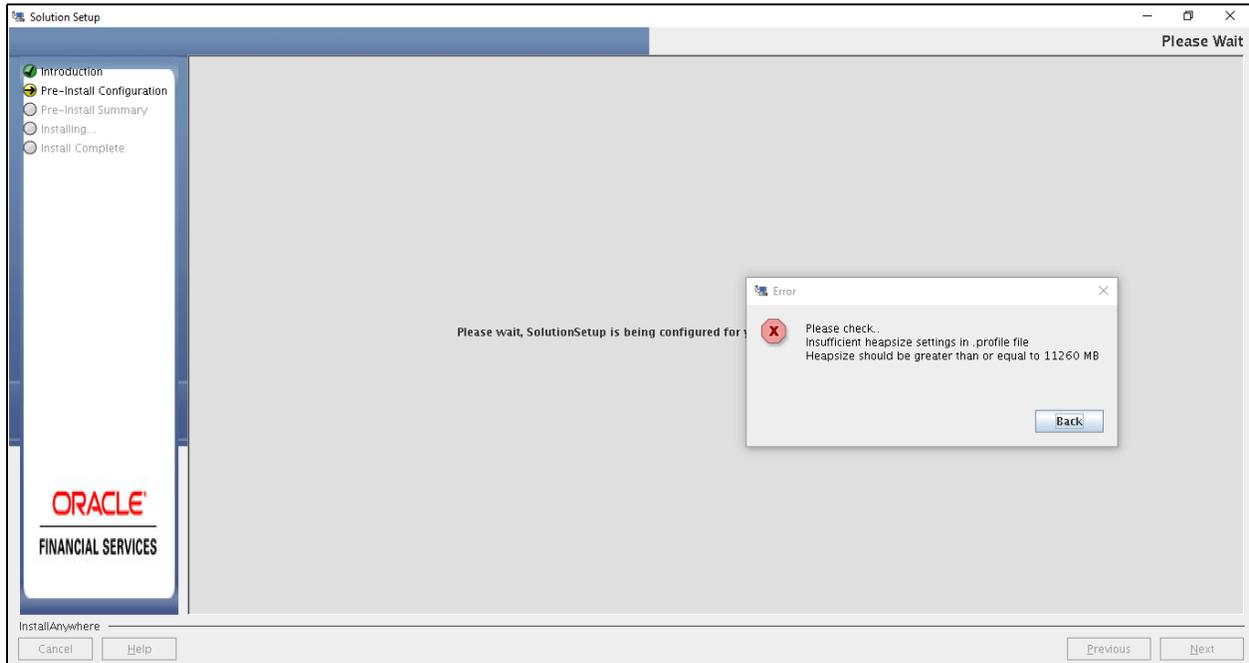
49. After Model is copied to ftpshare, the **Model Review** Window will be displayed.



**Note:** If Heap Memory Warning is displayed, then click on **Back**, and 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/ reveleusshutdown.sh`.
- Update the `X_ARGS_APP` entry in `.profile` following example.  
Example:  

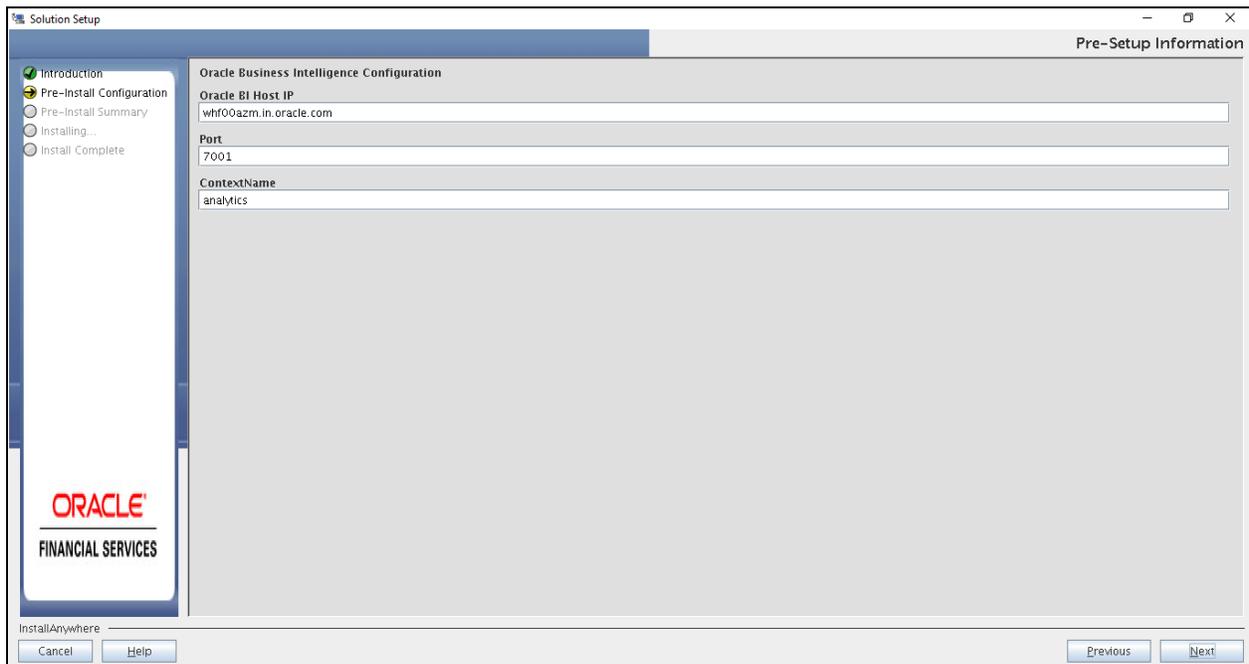
```
X_ARGS_APP="-Xms2g -Xmx18g -XX:+UseAdaptiveSizePolicy -XX:MaxPermSize=1024M  
-XX:+UseParallelOldGC -XX:+DisableExplicitGC"
```
- Run `.profile`.
- Start Reveleus using `$FIC_HOME/ficapp/common/FICServer/bin/ reveleusstartup.sh`.
- Proceed for model Upload by clicking on **Next**.



Pack-on-pack installation for Profitability pack, execute `$FIC_HOME/scripts/atomic/create/indexes.sql` as a post data model upload step.

The data model is getting uploaded.

50. Click **Next** to display **Oracle Business Intelligence Configuration** screen.

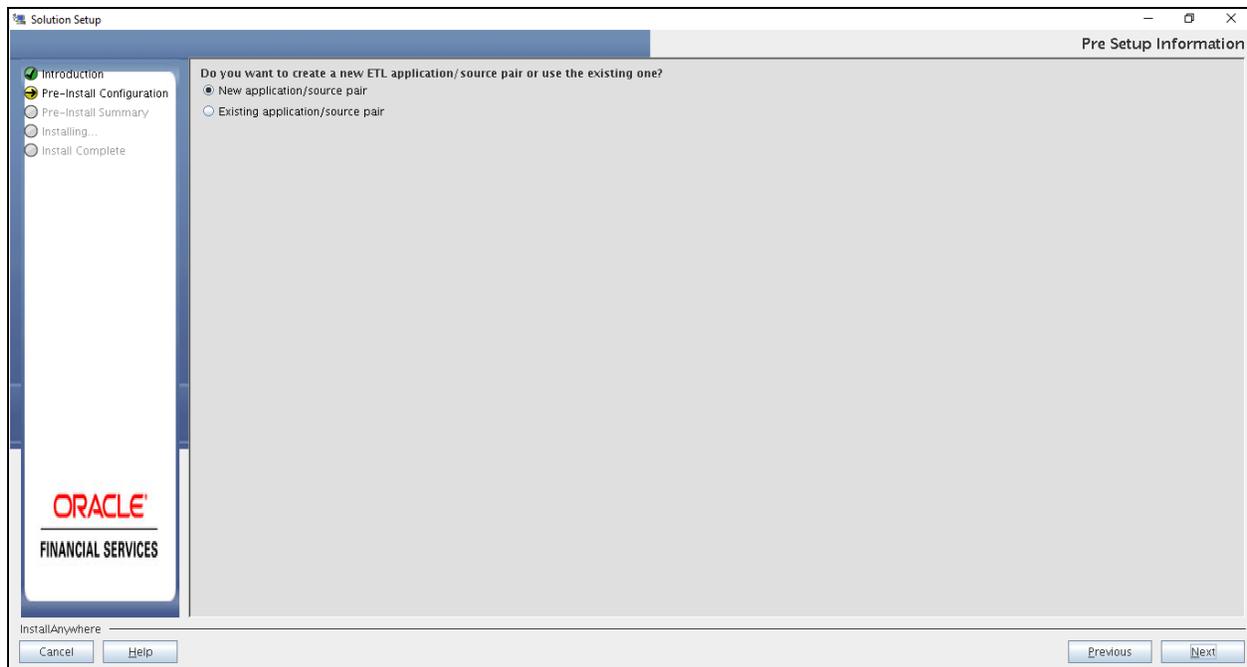


The Pre-Setup Information screen requests for setup information.

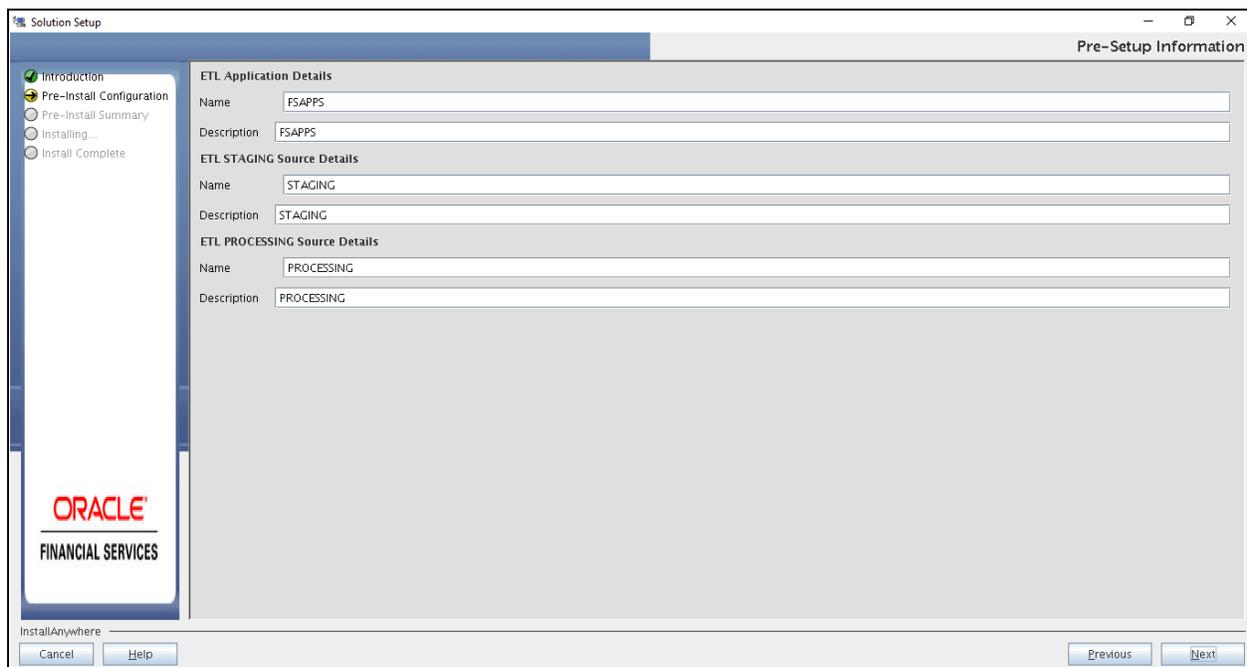
The following panel seeks input from the user on whether to create new ETL application/source pair or use an existing one.

Choose a desired option.

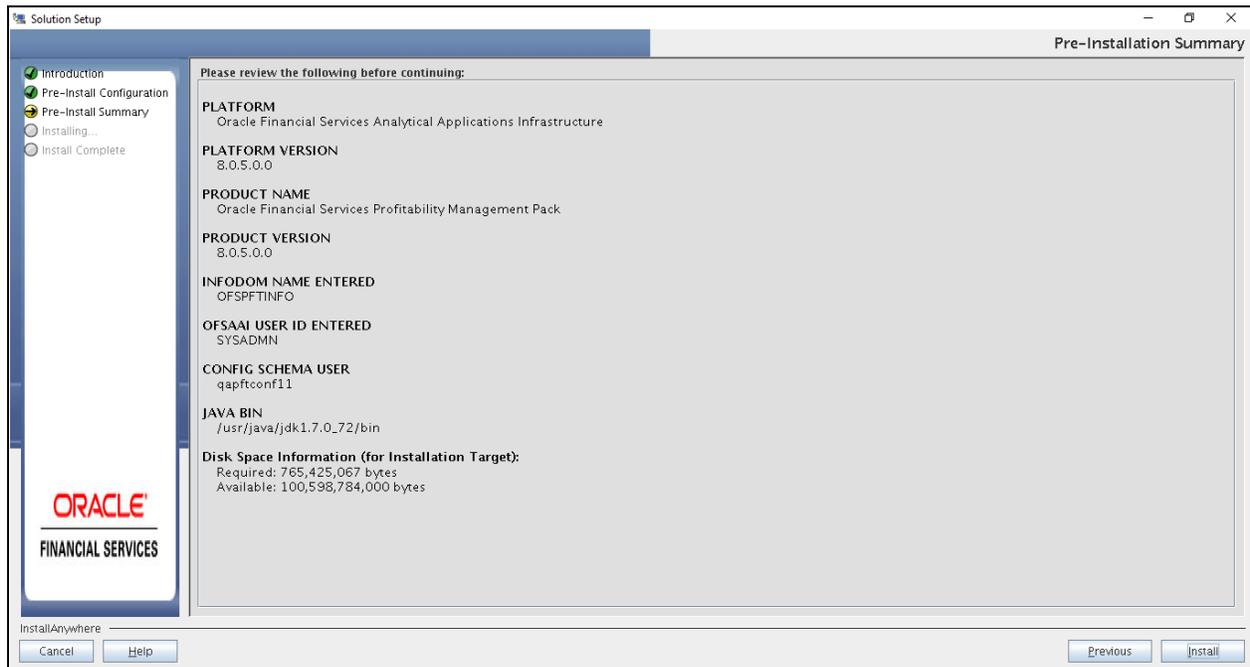
51. Click **Next** to continue.



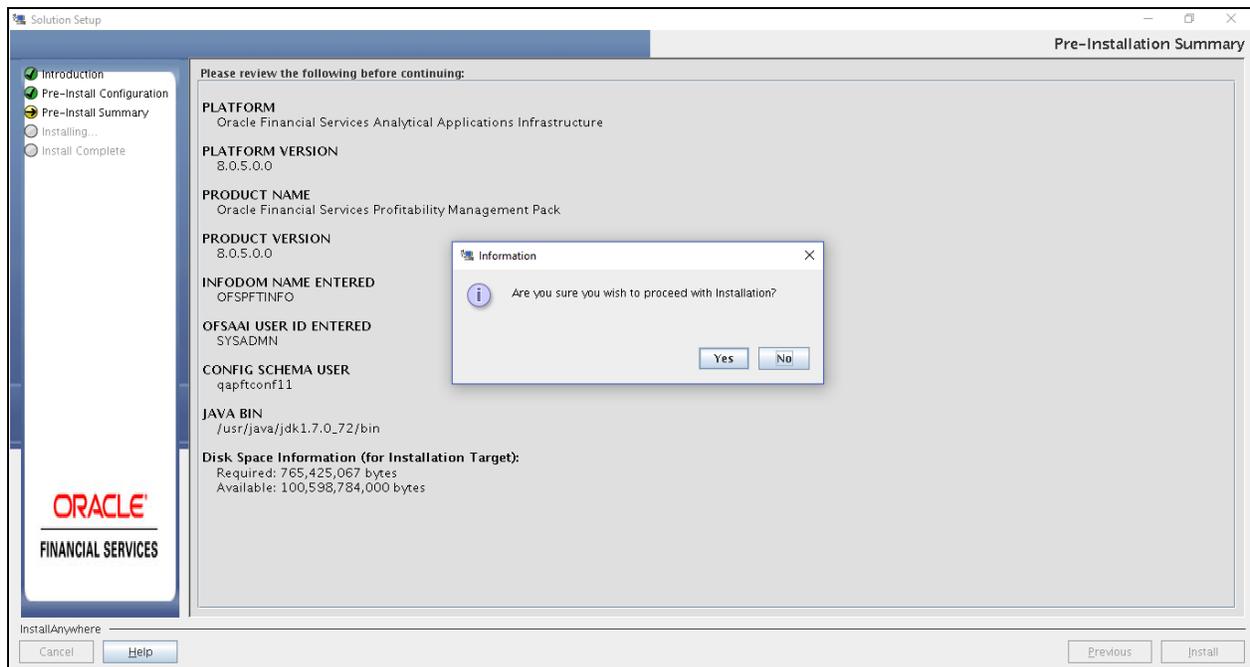
52. Select **New Application** source and click **Next**. Staging details will be displayed:



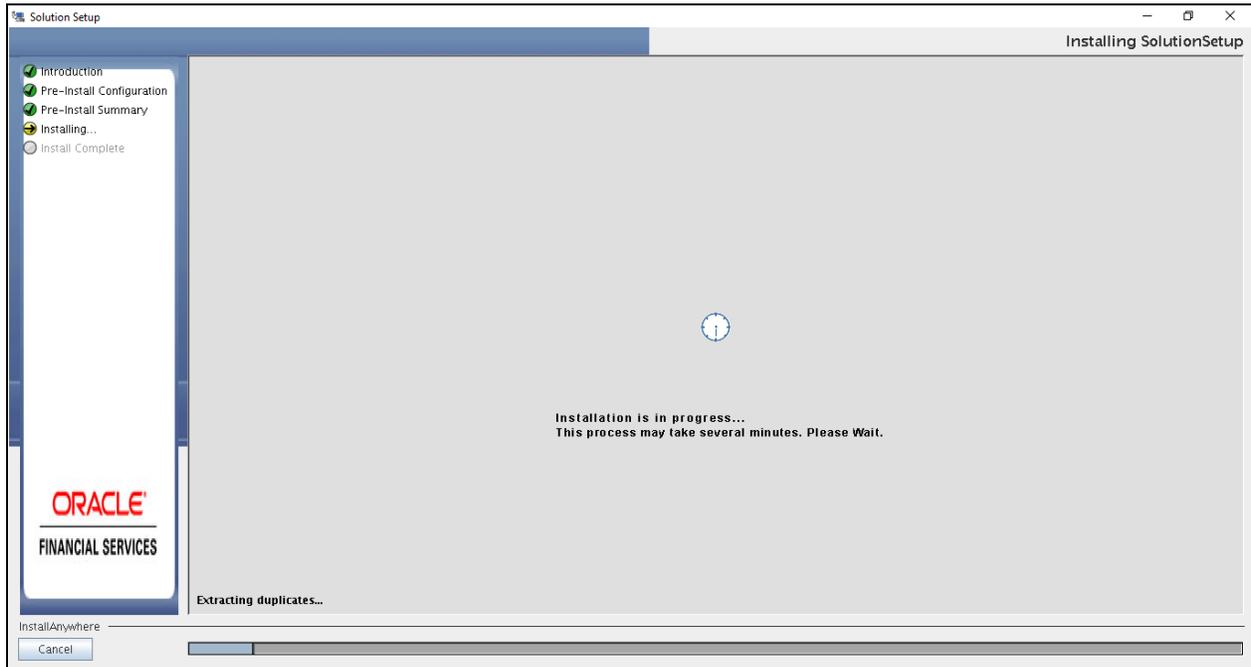
53. After Creation, click **Next** to display the **Installation Details Review** window.



54. Click **Install**. A Pop window will ask for the confirmation.

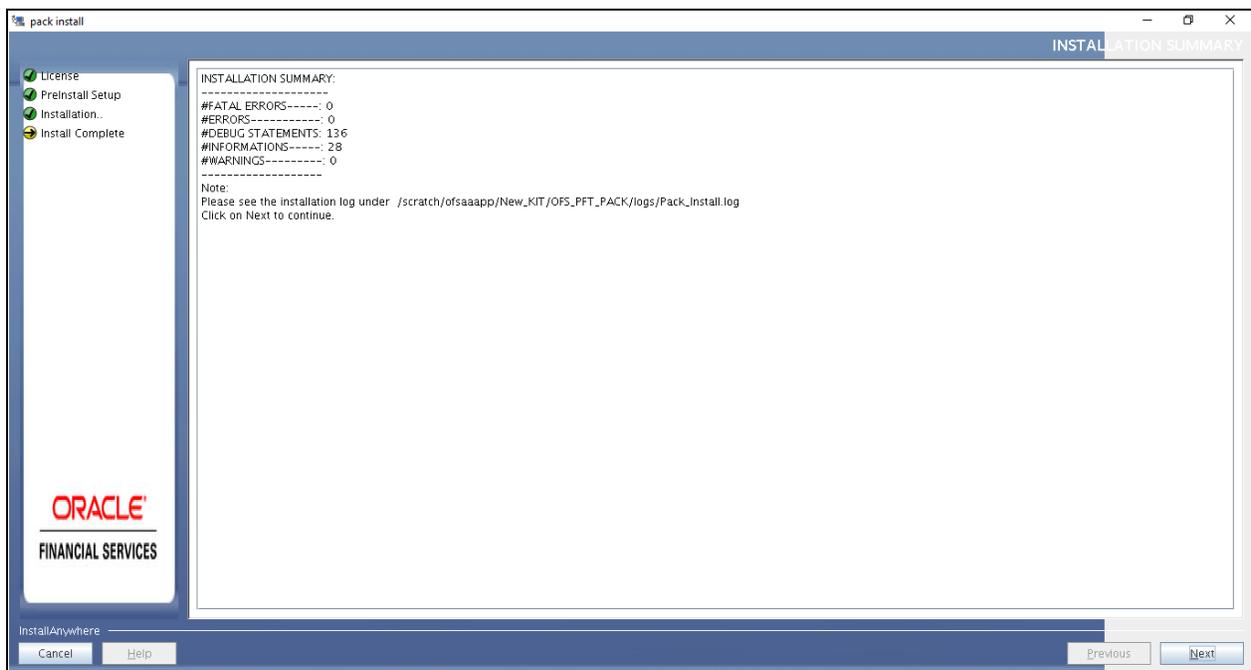


55. Click **Yes** to begin the installation. The installation progress will be in the **Installation Progress** window.

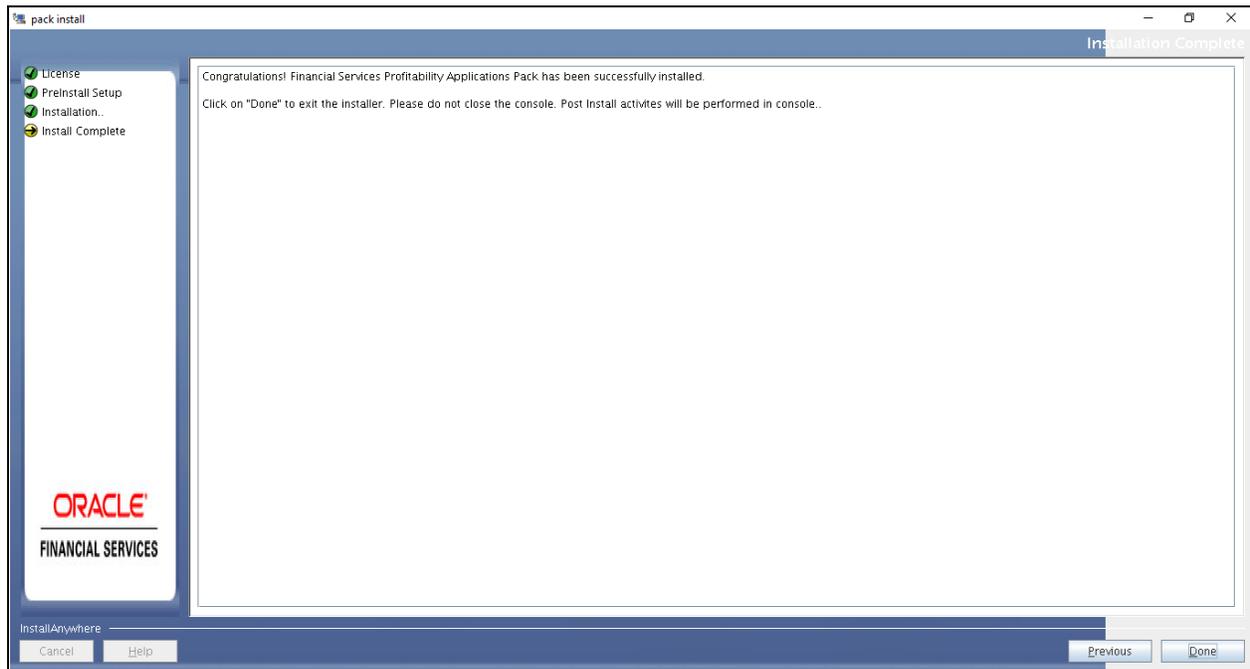


56. After Installation completion, **Installation Completion** window will be displayed.

57. Click **Done**. The Panel will go back to **Main App Pack Installation** window and the **Installation Summary** window will be displayed.



58. Click **Next** to display the **Installation Complete** window.



59. Click **Done**.

---

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

---

Post Install Health checks are displayed:

```
xterm
CTRL characters removal started ...
CTRL characters removal over ...
Windows executable files removal started ...
Windows executable files removal over ...
-----sairam-----
We are now in /scratch/ofsaapp ...
*****
.profile executed
.profile executed
executing "ant"
Buildfile: /scratch/ofsaapp/PFT_HOME/ficweb/build.xml
Trying to override old definition of datatype resources

existtest:
[echo] Checking for file /scratch/ofsaapp/PFT_HOME/ficweb/PFT_HOME.war existense

createwar:
[echo] Creating /scratch/ofsaapp/PFT_HOME/ficweb/PFT_HOME.war freshly..
[war] Building war: /scratch/ofsaapp/PFT_HOME/ficweb/PFT_HOME.war

BUILD SUCCESSFUL
Total time: 1 minute 54 seconds
OFSRAI App Layer Services start-up check started...
Starting startofsaal.sh service...
OFSRAI Service - OK
Starting icc service...
ICC service = OK
Shutting down icc service...
Shutting down OFSRAI service...
OFSRAI App Layer Services check Status: SUCCESSFUL.
OFSRAI DB Layer Services check started...
Calling agentshutdown.sh to check and kill, if any of the server is running...
OLAP Data Server service is not running.
Stop MESSAGE Server service with Procs ID : 9087
Stop AM service with Procs ID : 3049
Stop ROUTER service with Procs ID : 9047
Starting ROUTER Service
ROUTER service started in background mode.
Starting AM Service
AM service started in background mode.
Starting MESSAGE SERVER Service
MESSAGE SERVER service started in background mode.
Starting OLAP DATA SERVER Service
OLAP DATA SERVER service started in background mode.
OLAP Data Server service is not running.
Stop MESSAGE Server service with Procs ID : 27816
Stop AM service with Procs ID : 27801
Stop ROUTER service with Procs ID : 27793
OFSRAI DB Layer File Services check Status: SUCCESSFUL.
*****
Installation completed...
/scratch/ofsaapp/New_KIT/OFS_PFT_PACK/bin
```

60. Install the following mandatory one-off patches for the applications mentioned:

- PFT application: 28146189
- FTP application: 28091067.

After you apply the above patch for FTP application, apply the following patches:

- ◆ 28403034
- ◆ 28617711
- ◆ 28721483
- ◆ 28859373

Refer to the Readme files available with the patches for further the installation instructions.

---

**Note:** Verify and apply any recent fixes for respective applications.

---

61. Perform steps mentioned in the [Post Installation Configuration](#) section.

## SILENT Mode Installation

**Note:** For Schema Creator Utility steps, see [Executing the Schema Creator Utility](#).

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 below:

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

3. Execute the user `.profile`.
4. Pre-Installation XML/ File Populations:

Before Proceeding to SILENT Installer, we need to populate following files with pre-defined values.

- `OFSAAI_InstallConfig.xml` (Location: `OFS_PFT_PACK/OFS_AAI/conf`). For more information, see [Configuring OFSAAI\\_InstallConfig.xml File](#).

**Note:** If value for `HTTPS_ENABLE` is set to 1, ensure you have a valid certificate available from a trusted CA and the same is configured on your web application server.

- `SILENT.props` File. (Location: `OFS_PFT_PACK/OFS_PFT/conf`)

**Note:** The file name will be `SILENT.template` in the installer and it has to be renamed as `SILENT.props`.

**Important:** Do not install the new applications in the same segment if the pre-installed applications use run management.

Property Name	Description of Property	Permissible Values	Comments
UPLOAD_MODEL	whether you want to perform Model Upload	0 = No 1 = yes	Mandatory
MODEL_TYPE	Released data model or Customized data model	0 = released 1 = customized	# Mandatory only in the case of uploading the data model
DATAMODEL	the path for the customized data model	Not Applicable	# Mandatory only in the case of uploading the customized data model  # Option selected for MODEL_TYPE=1
DM_DIRECTORY	the file name for the customized data model	Not Applicable	# Mandatory only in the case of uploading the customized data model  # Option selected for MODEL_TYPE=1

## Configuring Application Pack XML Files

### *OFS\_PFT\_PACK.xml*

The OFS\_PFT\_PACK.xml file holds details on the various products that are packaged together in Profitability Application Pack.

This section details the various tags/ parameters available in the file and the values that need to be updated. Prior to installing the Profitability Application Pack in SILENT mode, it is mandatory to update this file.

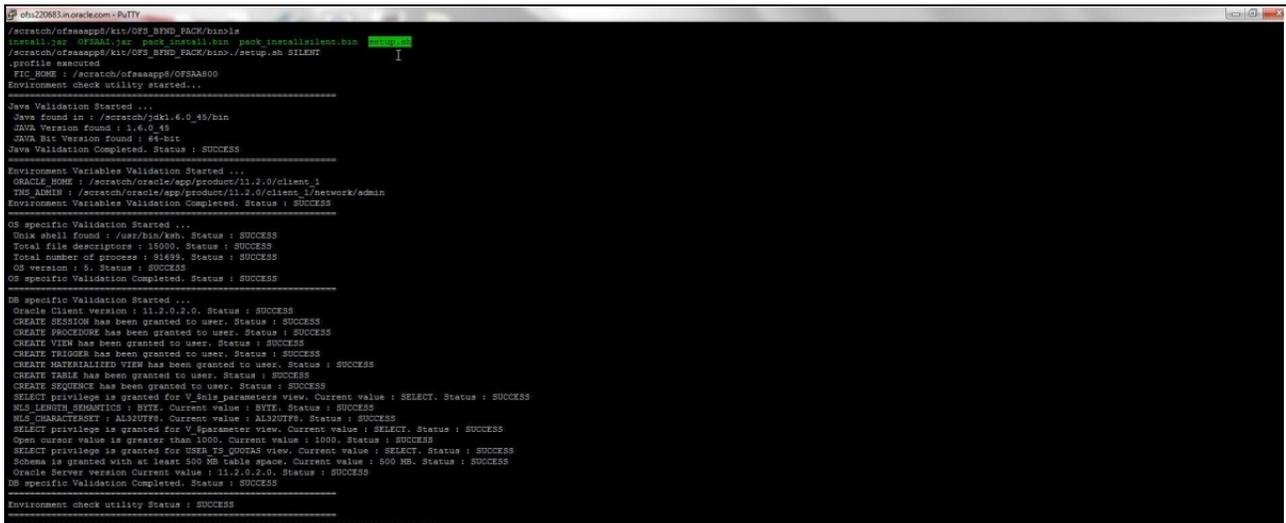
**Note:** If you are installing in the GUI mode, then this file need not be updated.

## Installation

1. Navigate to the following folder path: OFS\_PFT\_Pack/bin/.

**Note:** For Java 8: Edit the VerInfo.txt file in the path /OFS\_PFT\_PACK/OFS\_AAI/bin/ to modify the value for property JAVA\_VERSION to 1.8, and save the changes.

2. Execute the setup.sh file using the following command:  
./setup.sh SILENT
3. The installer will proceed with Pre-Installation Checks.



```
ohs220681@oracle.com ~$ cd /scratch/ofsapp8/kit/OFS_PFT_PACK/bin/
ohs220681@oracle.com ~$ ./setup.sh SILENT
.profile executed
FTP_HOME : /scratch/ofsapp8/OFSAPP800
Environment check utility started...
-----
Java Validation Started ...
Java found in / /scratch/jdk1.6.0_45/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/oracle/app/product/11.2.0/client_1
TNS_ADMIN : /scratch/oracle/app/product/11.2.0/client_1/network/admin
Environment Variables Validation Completed. Status : SUCCESS
-----
OS specific Validation Started ...
Unix shell found : /usr/bin/ksh. Status : SUCCESS
Total file descriptors : 16384. Status : SUCCESS
Total number of process : 51699. Status : SUCCESS
OS version : 5. Status : SUCCESS
OS specific Validation Completed. Status : SUCCESS
-----
DB specific Validation Started ...
Oracle Client version : 11.2.0.2.0. 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_sql_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_sparameter view. Current value : SELECT. Status : SUCCESS
Open cursor value is greater than 1000. Current value : 1000. Status : SUCCESS
SELECT privilege is granted for USER_T9_QUOTES view. Current value : SELECT. Status : SUCCESS
Schema is granted with at least 500 MB Table space. Current value : 500 MB. Status : SUCCESS
Oracle Server version Current value : 11.2.0.2.0. Status : SUCCESS
DB specific Validation Completed. Status : SUCCESS
-----
Environment check utility Status : SUCCESS
```

4. On Successful completion of Pre-Installation checks it will prompt for the Password of FTP/SFTP. Please enter Infrastructure FTP/SFTP Password:





7. After AAI is installed, the PFT Pack installation begins.

**Note:** Data Model Upload may take several hours to get complete. You can check the Logs in /OFS\_PFT\_PACK/OFS\_PFT/logs.

```
ofo20081@oracle.com-PuTTY [root@orac1 ~]
ks that require these advanced analytical features of the product. Oracle Financial Services Enterprise Modeling (OFS AAE) or Oracle Financial Services Inline Processing Engine (OFS IPE) product gets pre-selected automatically on select
ing any of the OFSA products within a specific Application Pack that require these products to be enabled and configured.*
* Multiple products being grouped together under a Application Pack, mandate installation and configuration of these products by default. However, during the Application Pack installation, based on the products that are being selected, s
ome would get enabled and should be licensed for. It is important to note that products once selected (enabled) cannot be disabled at a later stage. However, products can only be enabled at any later stage using the OFSA Infrastructure 'M
anage Application Pack license' feature.*
* Enabling a product within a Application Pack automatically implies you agree with this license agreement and the respective terms and conditions.*
*****
Are you accepting the terms and conditions mentioned above? [Y/N]:
Y

Please enter password for default Infrastructure administrator user SYSADMIN:
Please re-enter password for default Infrastructure administrator user SYSADMIN:
Please enter password for default Infrastructure authorizer user SYSAUTH:
Please re-enter password for default Infrastructure authorizer user SYSAUTH:
Starting installation...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...
Launching installer...

Preparing SILENT Mode Installation...
-----
OFSAAInfrastructure (created with InstallAnywhere)
-----

Installing...
-----
-----
Installation Complete.
.profile executed
.profile executed
*****
Welcome to OFS BPND PACK Installation
*****
Starting OFSA Service...
shopt: appending output to 'ndup.out'
OFSAA Service - OF
Preparing to install...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...
Launching installer...

Preparing SILENT Mode Installation...
-----
pack_installsilent (created with InstallAnywhere)
-----
-----
-----
```

8. Do not close the console until the installation is complete.

```
=====
Installing...
|-----|

[=====|=====|=====|=====]
[-----|-----|-----|-----]

Installation Complete.
.profile executed
*****
CTRL characters removal started ...
CTRL characters removal over ...
Windows executable files removal started ...
Windows executable files removal over ...
We are now in /scratch/ofsaapp8 ...
*****
.profile executed
.profile executed
executing "ant"
Buildfile: /scratch/ofsaapp8/OFSAA800/ficweb/build.xml
Trying to override old definition of datatype resources

existstest:
  [echo] Checking for file /scratch/ofsaapp8/OFSAA800/ficweb/OFSAAI800.war existence

createwar:
  [echo] Creating /scratch/ofsaapp8/OFSAA800/ficweb/OFSAAI800.war freshly..
  [war] Building war: /scratch/ofsaapp8/OFSAA800/ficweb/OFSAAI800.war

BUILD SUCCESSFUL
Total time: 1 minute 13 seconds
OFSAA App Layer Services start-up check started...
Starting startofsaai.sh service...
nohup: appending output to `nohup.out'
OFSAA Service - OK
Starting icc service...
nohup: appending output to `nohup.out'
ICC service - OK
Shutting down icc service...
nohup: appending output to `nohup.out'
Shutting down OFSAA service...
nohup: appending output to `nohup.out'
OFSAAI App Layer Services check Status: SUCCESSFUL.
```

```
We are now in /scratch/ofsaapp8 ...
*****
.profile executed
.profile executed
executing "ant"
Buildfile: /scratch/ofsaapp8/OFSAA800/ficweb/build.xml
Trying to override old definition of datatype resources

existstest:
  [echo] Checking for file /scratch/ofsaapp8/OFSAA800/ficweb/OFSAAI800.war existence

createwar:
  [echo] Creating /scratch/ofsaapp8/OFSAA800/ficweb/OFSAAI800.war freshly..
  [war] Building war: /scratch/ofsaapp8/OFSAA800/ficweb/OFSAAI800.war

BUILD SUCCESSFUL
Total time: 1 minute 13 seconds
OFSAA App Layer Services start-up check started...
Starting startofsaai.sh service...
nohup: appending output to `nohup.out'
OFSAA Service - OK
Starting icc service...
nohup: appending output to `nohup.out'
ICC service - OK
Shutting down icc service...
nohup: appending output to `nohup.out'
Shutting down OFSAA service...
nohup: appending output to `nohup.out'
OFSAAI App Layer Services check Status: SUCCESSFUL.
OFSAAI DB Layer Services check started...
checking Router service...
Router Service - OK
checking AM service...
AM Service - OK
Checking MessageServer service...
DEBUG: main started.
DEBUG: TraceFileName = /scratch/ofsaapp8/OFSAA800/ficdb/log/msg_trace_file.log
DEBUG: OpenFiles done.
MessageServer Service - OK
OFSAAI DB Layer File Services check Status: SUCCESSFUL.
*****
Installation completed..
*****
/scratch/ofsaapp8/kit/OFS_BFND_PACK/bin>
```

9. Install the following mandatory one-off patches for the applications mentioned:

- PFT application: 28146189
- FTP application: 28091067.

After you apply the above patch for FTP application, apply the following patches:

- ◆ 28403034
- ◆ 28617711
- ◆ 28721483
- ◆ 28859373

Refer to the Readme files available with the patches for further the installation instructions.

---

**Note:** Verify and apply any recent fixes for respective applications.

---

10. Perform the steps mentioned in [Post Installation Configuration](#) section.

## Verifying the Log File

See the following logs files for more information:

- ⑩ See the `OFS_PFT_installation.log` and `Pack_Install.log` located at `OFS_PFT_PACK/logs/` folder for OFS Profitability Application Pack installation log file.
- ⑩ See the log file(s) located at `OFS_PFT_PACK/OFS_AAI/logs/` folder for Infrastructure installation log.
- ⑩ See the `OFSAAInfrastructure_Install.log` located at `$FIC_HOME` folder for Infrastructure installation log.



---

CHAPTER 5

# Upgrading the OFS PFT Application Pack

This chapter provides necessary information to upgrade the Profitability Application Pack.

This chapter includes the following topics:

- [Upgrading the OFS PFT Application Pack](#)

## Upgrading the OFS PFT Application Pack

Refer to the following instructions to download, extract, install, and configure this release.

1. Download the OFS PFT Application Pack v8.0.5.0.0 archive file and copy it to your OFSAA server in Binary mode.

---

**Note:** The archive files are different for every operating system like AIX, Solaris, and RHEL/Oracle Linux.

---

2. Log in to the OFSAA Server.
3. Shut down all the OFSAAI Services. For more information, see the Start/Stop Infrastructure Services section in [Start/Stop OFSAA Infrastructure Services](#).
4. Execute the following command:  

```
chmod -R 750 $FIC_HOME
```
5. If you have Unzip utility, skip to the next step. Download the Unzip utility (OS specific) and copy it in Binary mode to the directory that is included in your PATH variable, typically \$HOME path or directory in which you have copied the 8.0.5.0.0 installer.

- Uncompress the unzip installer file using the command:

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

---

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

---

- Give EXECUTE permission to the file using the command:

```
chmod 751 OFS_PFT_80500_<OperatingSystem>.zip
```

6. Extract the contents of the OFS PFT Application Pack 8.0.5.0.0 in Download Directory installer archive file using the following command:

```
unzip <os> <name of the file to be unzipped>
```

7. Give EXECUTE permission to the archive file. Navigate to the path OFS\_PFT\_80500\_<OperatingSystem>.zip and execute the command:

```
chmod -R 750 OFS_PFT_80500_<OperatingSystem>
```

8. Rename the `SILENT.template` file in the installer as `SILENT.props`. Configure `Silent.Props` file for following parameters:

Property Name	Description of Property	Permissible values	Comments
UPLOAD_MODEL	whether you want to perform Model Upload	0: No 1: Yes	Mandatory Select "1" to perform the Model Upload. Select "0" to skip Model Upload.
MODEL_TYPE	Released data model or Customized data model	0 = released 1 = customized	# Mandatory only in the case of uploading the data model If UPLOAD_MODEL option is selected as "1", then you can choose to upload Released Model (0) or customized Model (1).
DATAMODEL	the path for the customized data model	Not Applicable	# Mandatory only in the case of uploading the customized data model # Option selected for MODEL_TYPE=1
DM_DIRECTORY	the file name for the customized data model	Not Applicable	# Mandatory only in the case of uploading the customized data model # Option selected for MODEL_TYPE=1

9. Execute `setup.sh` file using the following command from the `OFS_PFT/bin` directory:

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

Verify if the release is applied successfully by checking the log file generated in the installation folder. You can ignore ORA-00001, ORA-00955, ORA-02260, and ORA-01430 errors in the log file. Also, you can ignore any unique constraint errors. If there are any other errors, contact Oracle Support.

10. Install the following mandatory one-off patches for the applications mentioned:

- PFT application: 28146189
- FTP application: 28091067.

After you apply the above patch for FTP application, apply the following patches:

- ◆ 28403034
- ◆ 28617711
- ◆ 28721483
- ◆ 28859373

Refer to the Readme files available with the patches for further the installation instructions.

---

**Note:** Verify and apply any recent fixes for respective applications.

---

11. For more information on securing your OFSAA Infrastructure, See to the Security Guide in [OHC Library](#).
12. Add umask 0027 in the .profile of the UNIX account which manages the WEB server to ensure restricted access permissions.
13. Restart all the OFSAAI services. For more information, see the Start/Stop Infrastructure Services section in [Start/Stop OFSAA Infrastructure Services](#).
14. 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 [Creating and Deploying EAR/WAR File](#).



---

**CHAPTER 6**

# *Post Installation Configuration*

After successfully installing the Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack, follow the post installation steps mentioned below.

This chapter includes the following topics:

- ⑩ [Configure excludeURLList.cfg file](#)
- ⑩ [Configure Resource Reference](#)
- ⑩ [Start/Stop OFSAA Infrastructure Services](#)
- ⑩ [Add TNS entries in TNSNAMES.ORA file](#)
- ⑩ [Configuring Web Server](#)
- ⑩ [Configuring Work Manager in Web Application Servers](#)
- ⑩ [Creating and Deploying EAR/WAR File](#)
- ⑩ [Access the OFSAA Application](#)
- ⑩ [OFSAA Landing Page](#)
- ⑩ [User Group Mapping](#)
- ⑩ [Create and Deploy the Application Pack Web Archive](#)
- ⑩ [Patching Your OFS Profitability Pack Installation](#)

---

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

---

## Configure excludeURLList.cfg file

To configure the `excludeURLList.cfg` file, follow the below steps:

1. Locate the web server 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 web server.
4. Re-save the definition.

## Configure Resource Reference

Configure the resource reference in the Web Application Server configured for OFSAA Applications. See [Configuring Resource Reference Web Application Servers](#) for details on configuring the resource reference in WebSphere, WebLogic, and Tomcat Application Servers.

## Start/Stop OFSAA Infrastructure Services

Start the OFSAA Infrastructure Services prior to deployment or accessing the OFSAA Applications.

This chapter details on how to start and stop OFSAA Infrastructure services. This chapter includes the following sections:

- 🕒 [Starting Infrastructure Services](#)
- 🕒 [Starting Web Application Servers](#)

### 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 after changing user password in the Configuration database schema.

---

2. Start ICC server:

- On the machine in which Infrastructure default Application components have been installed, navigate to `$FIC_HOME/ficapp/icc/bin`
- Execute the command:  
`./iccservice.sh`

---

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

---

### 3. Stopping Infrastructure Services:

- 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.

---

## Starting Web Application Servers

Start the Web Application Server depending on the type from the following table.

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

## Stopping Infrastructure Services

To stop Infrastructure services:

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
```

## Add TNS entries in TNSNAMES.ORA file

Add TNS entries in the `tnsnames.ora` file, for every schema created for the Application Pack:

To find the tnsname for the entries, follow these steps:

1. Login to the application using System Administrator privileges.
2. Navigate to System Configuration & Identity Management tab.
3. Click Administration and Configuration >> System Configuration >> Database Details.
4. Expand the drop-down list for Name to get the list of TNS entry names.

Alternatively, you can connect to the CONFIG schema and execute the below query:

```
select dbname from db_master where dbname != 'CONFIG'
```

## Configuring Web Server

This section includes the following topics:

- ⑩ [Configuring Web Server](#)
- ⑩ [Configuring Web Application Server](#)

### Configuring Web Server

This step assumes an installation of a Web Server exists as per the prerequisites.

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

---

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

See [Oracle Financial Services Analytical Applications Infrastructure Security Guide](#) for additional information on securely configuring your Web Server.

Ensure to enable sticky session/ affinity session configuration on the web server. See 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 Server

This step assumes an installation of a web application server exists as per the prerequisites. To configure the Web Application Server for OFSAA Deployment refer the sections below.

This section includes the following topics:

- ⑩ [Configuring WebSphere Application Server for Application Deployment](#)
- ⑩ [Configuring WebLogic for Application Deployment](#)
- ⑩ [Configuring Apache Tomcat Server for Application Deployment](#)

---

**Note:** Make a note of the IP Address/ Host-name and Port of the web application server. This information is required during the installation process (required if Web Server is not configured).

Add umask 0027 in the .profile of the UNIX account which manages the WEB server to ensure restricted access permissions.

See the [Oracle Financial Services Analytical Applications Infrastructure Security Guide](#) for additional information on securely configuring your Web Server.

---

## Configuring WebSphere Application Server for Application Deployment

You can deploy multiple OFSAA applications on different profiles of a 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 includes the following topics:

- ⑩ [Creating a New Profile in WebSphere](#)
- ⑩ [Managing IBM WebSphere SDK Java Technology Edition Versions](#)
- ⑩ [Managing Applications in WebSphere](#)
- ⑩ [Configuring WebSphere Application Server to Use a Load Balancer or Proxy Server](#)
- ⑩ [Deleting WebSphere Profiles](#)
- ⑩ [WebSphere HTTPS Configuration](#)
- ⑩ [WebSphere Memory Settings](#)

## **Creating a 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` folder.

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, see WebSphere `manageprofiles` command.

---

## **Managing IBM WebSphere SDK Java Technology Edition Versions**

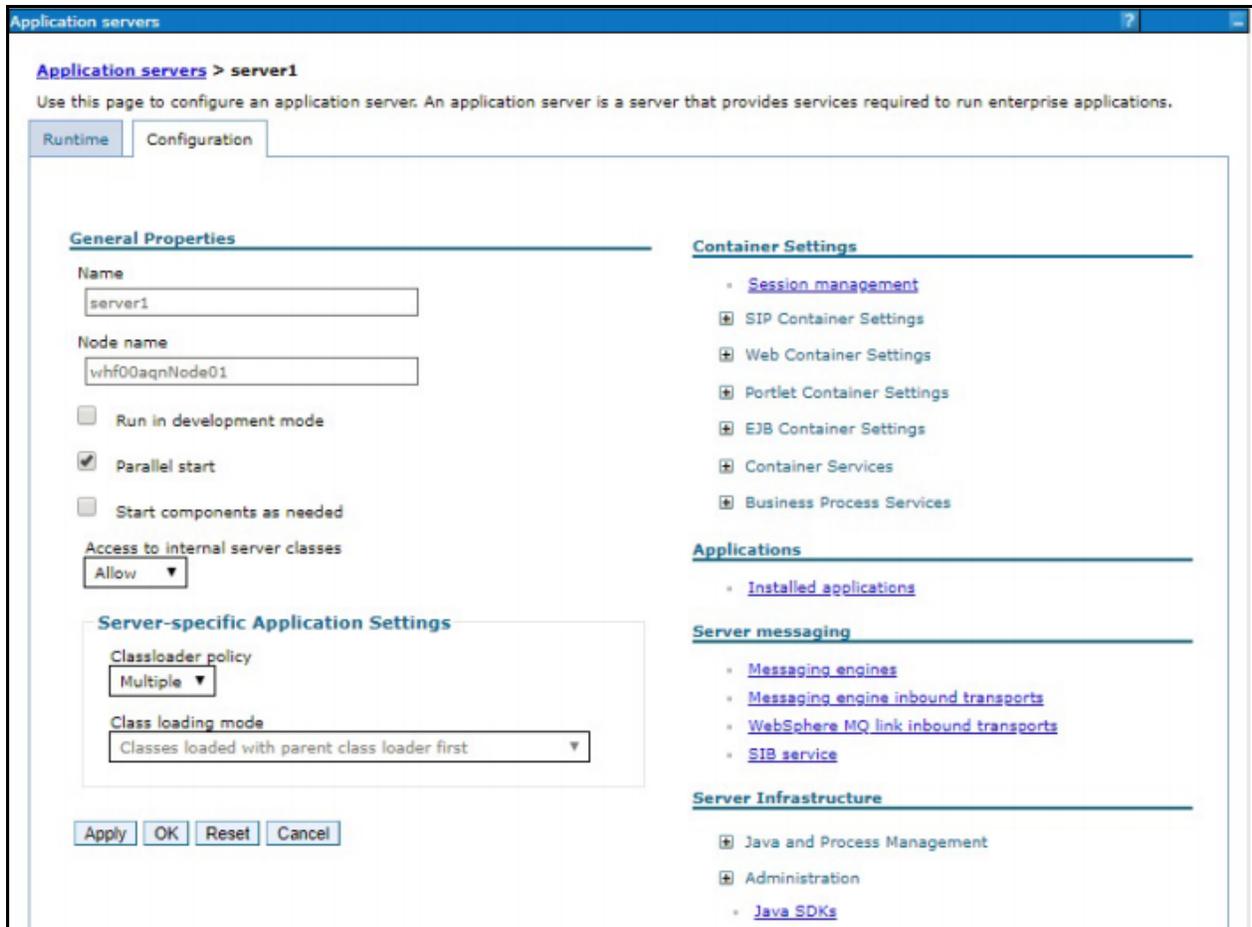
By default, WebSphere Application Server V8.5.5.X uses the Java 6.0 SDK. You must upgrade to Java 7.X SDK or JAVA 8.X SDK.

**Prerequisites:** Install the IBM WebSphere SDK Java Technology Edition Versions 1.7.X\_64 or 1.8.X\_64.

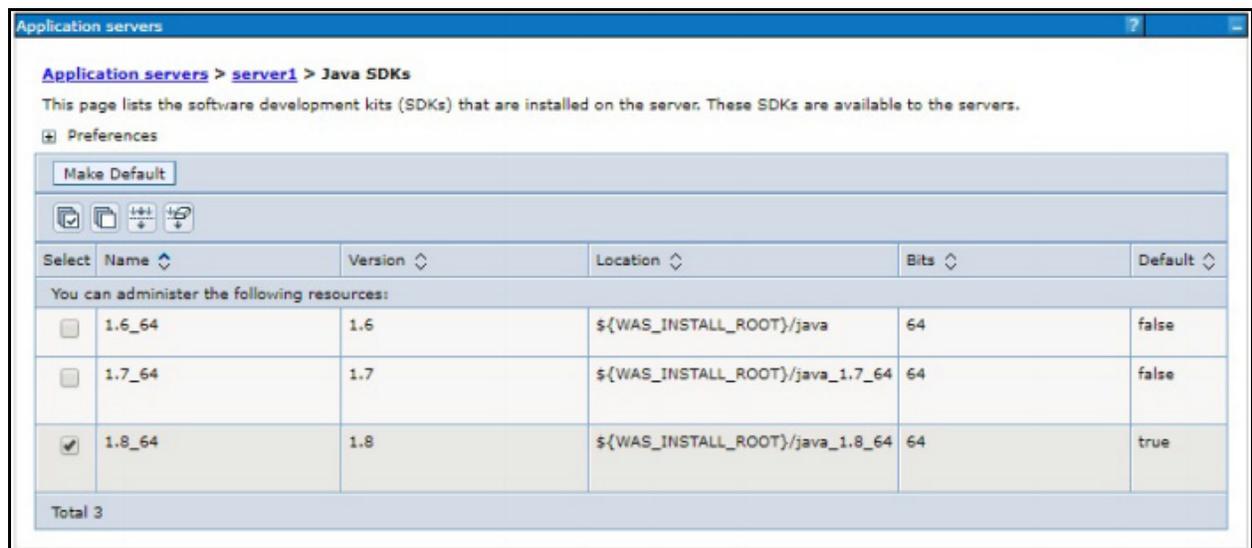
Perform the following steps to upgrade to Java 7.X SDK or JAVA 8.X SDK:

1. Enter the WebSphere URL in the format `http://HOST_NAME:PORT_NUMBER/ibm/console` (use `https` if SSL is enabled.). For example, `http://192.168.1.0:9000/ibm/console`.
2. Login with your administrator user ID and password.
3. From the LHS menu, click **Servers** to expand and view the menu.
4. Click **Server Types** to expand the menu further and then click **WebSphere Enterprise Application Servers** to view the Application servers window.

- On Application servers window, click the required Application Server link. For example, server1 in the following illustration:



- Click **Java SDKs** link from Server Infrastructure to view the list of Java SDKs.



7. Select either **1.7\_64** or **1.8\_64** based on the JVM version with which you plan to install OFSAA or have installed with.
8. Click Make Default button and save to master repository.
9. Restart the WebSphere Application Server to apply the changes to the IBM application profile.

### **Managing 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.

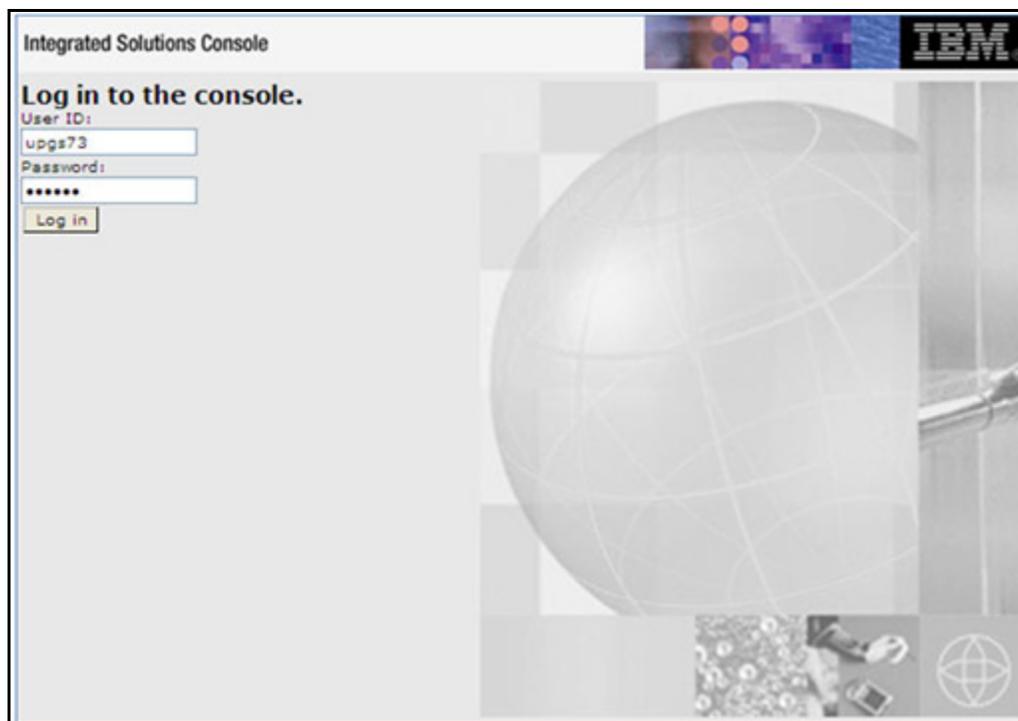


Figure 2: Integrated Solutions Console Login

2. Log on with the **User ID** provided with the admin rights.
3. From the LHS menu, expand the **Applications > Application Type > WebSphere Enterprise Applications**.  
The Enterprise Applications screen is displayed.

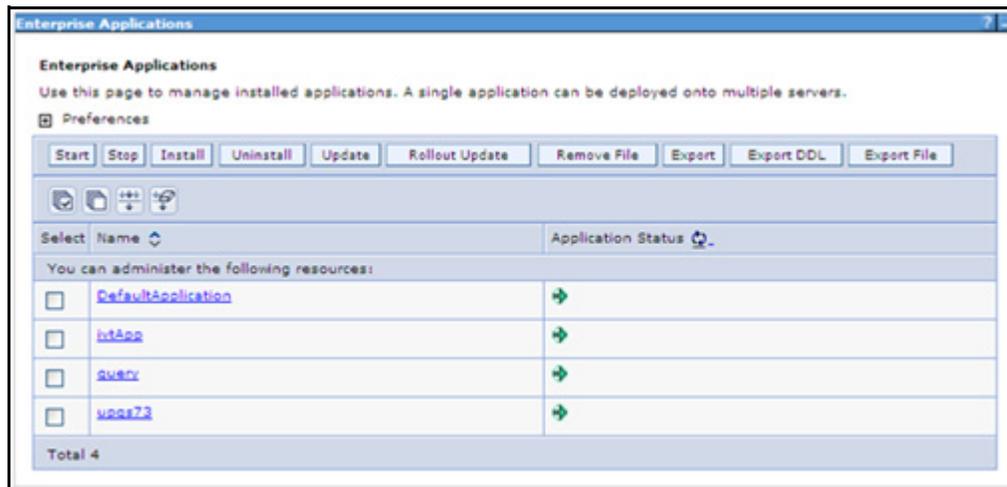


Figure 3: Enterprise Applications

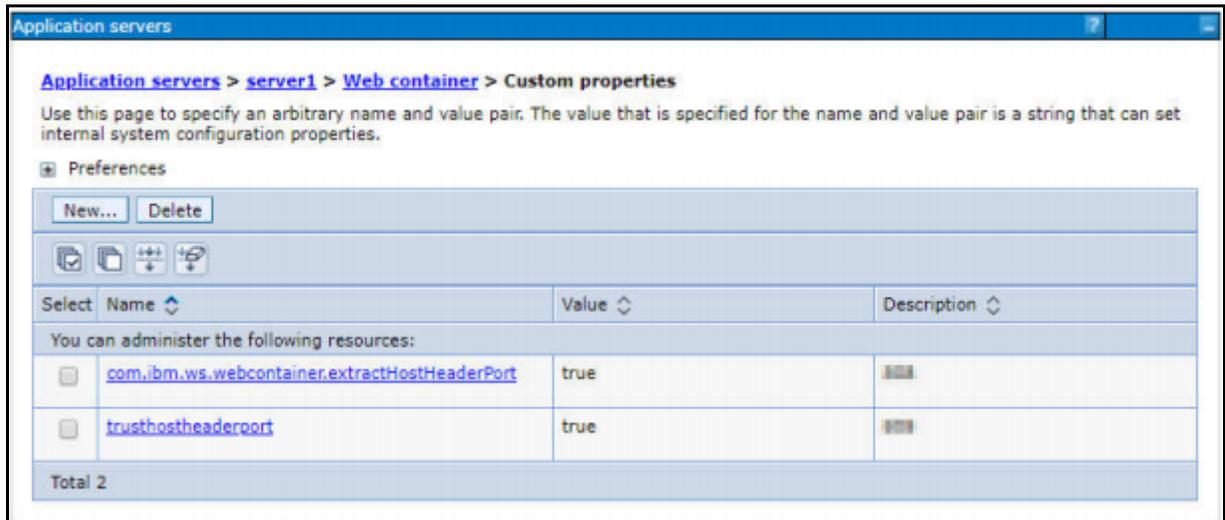
4. This Enterprise Applications screen helps you to:
  - Install new application
  - Un-install existing applications
  - Start or Stop the installed applications

### ***Configuring WebSphere Application Server to Use a Load Balancer or Proxy Server***

The configuration prevents the process server from redirecting to an internal port when using a load balancer or proxy server.

The following steps describe the configuration:

1. Enter the WebSphere URL in the format  
`http://HOST_NAME:PORT_NUMBER/ibm/console` (use https if SSL is enabled.).  
For example, `http://192.168.1.0:9000/ibm/console`.
2. Login with your administrator user ID and password.
3. From the LHS menu, click Servers to expand and view the menu.
4. Click Server Types to expand the menu further and then click WebSphere Enterprise Application Servers to view the Application servers window.
5. On Application servers window, click the required Application Server link. For example, server1 in the following illustration:



6. Click **Web Container Settings > Custom Properties**.
7. Add the following properties:
  - Name: trusthostheaderport  
Value: true
  - Name: com.ibm.ws.webcontainer.extractHostHeaderPort  
Value: true
8. Restart the WebSphere Application Server to apply the changes.

### Deleting WebSphere Profiles

To delete a WebSphere profile, do the following:

1. Select the check box adjacent to the required application and click Stop.
2. Stop the WebSphere profile to be deleted.
3. Navigate to WebSphere directory:  
`<WebSphere_Installation_Directory>/AppServer/bin/`
4. Execute the command:  
`manageprofiles.sh -delete -profileName <profile_name>`
5. Delete profile folder.  
Example: `<WebSphere_Installation_Directory>/AppServer/profiles/<profile_name>`
6. 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.

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

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 12.1.3+ (64 bit) with Java 8, download and install patch 18729264.

---

This section includes the following topics:

- ⑩ Creating Domain in WebLogic Server
- ⑩ Delete Domain in WebLogic
- ⑩ 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 <WLS\_HOME>/wlserver/common/bin and execute the command:

```
./config.sh
```

The Welcome window of the Configuration Wizard is displayed.

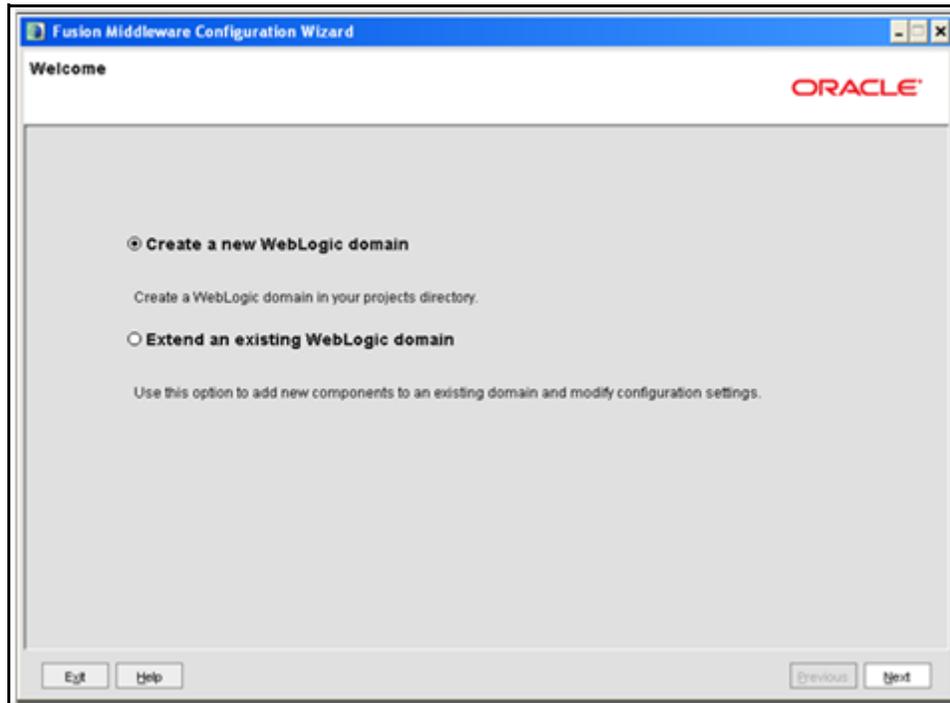


Figure 4: Welcome

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

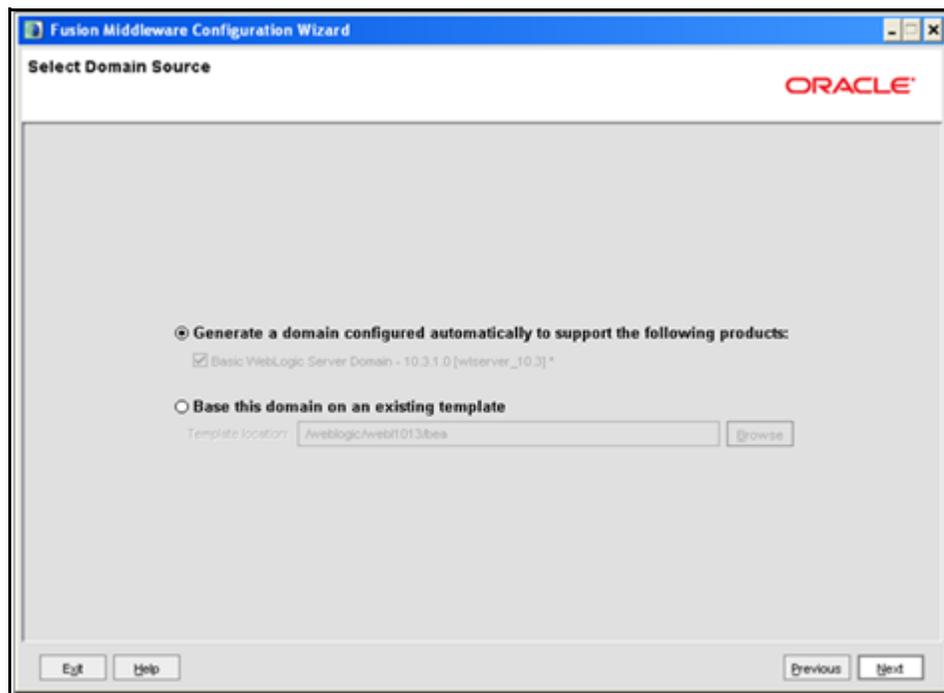


Figure 5: Select Domain Source

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.

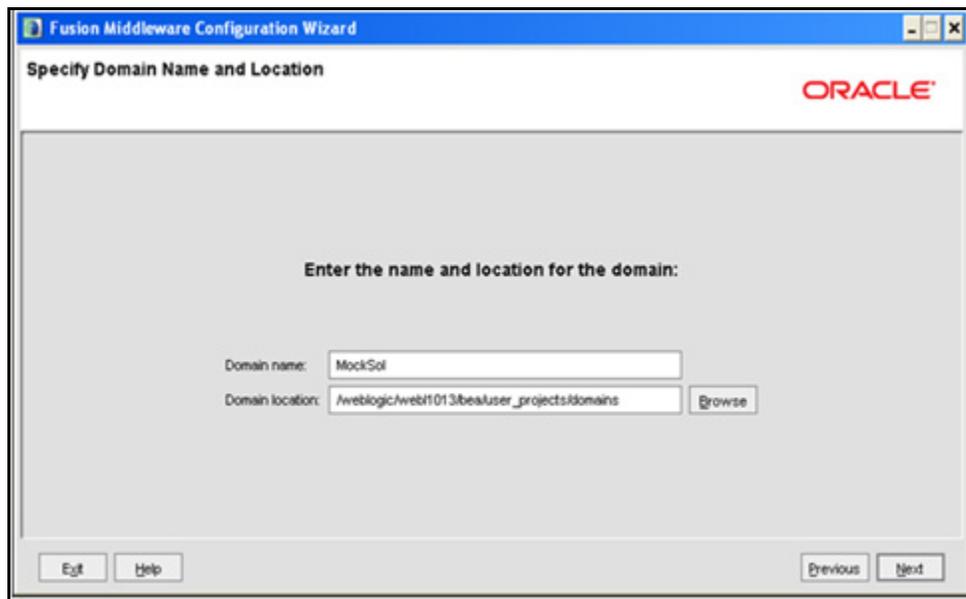


Figure 6: Specify Domain Name and Location

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

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



Figure 7: Configure Administrator Username and Password

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.

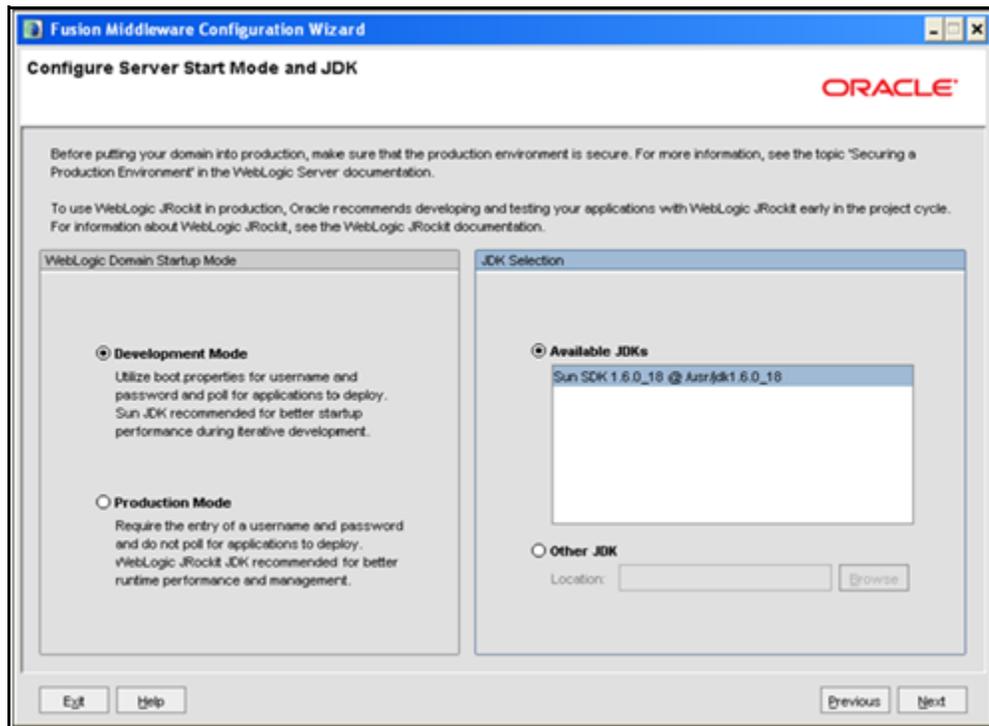


Figure 8: Configure Server Start Mode and JDK

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.

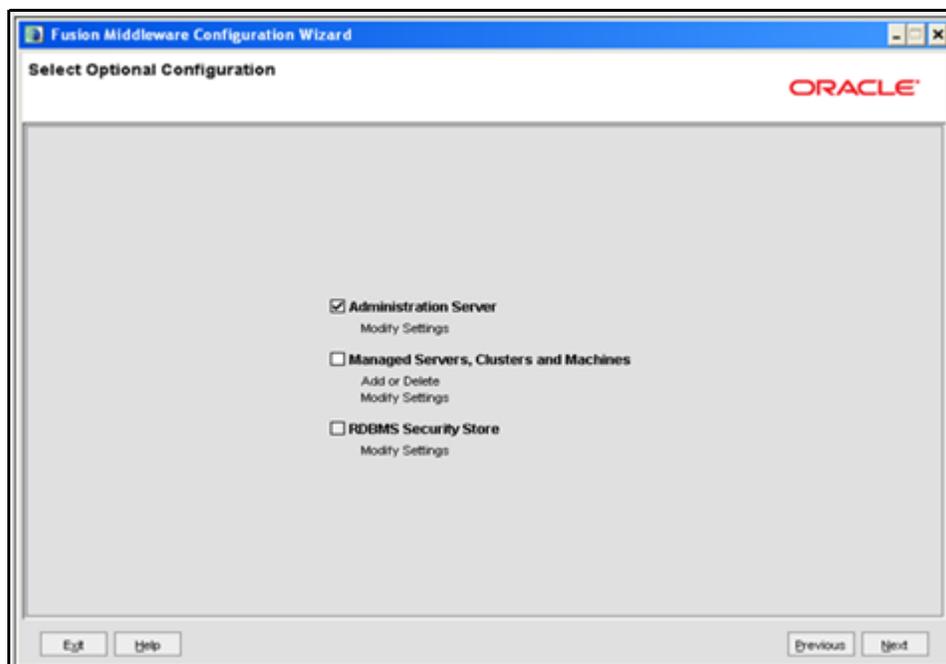


Figure 9: Select Optional Configuration

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.

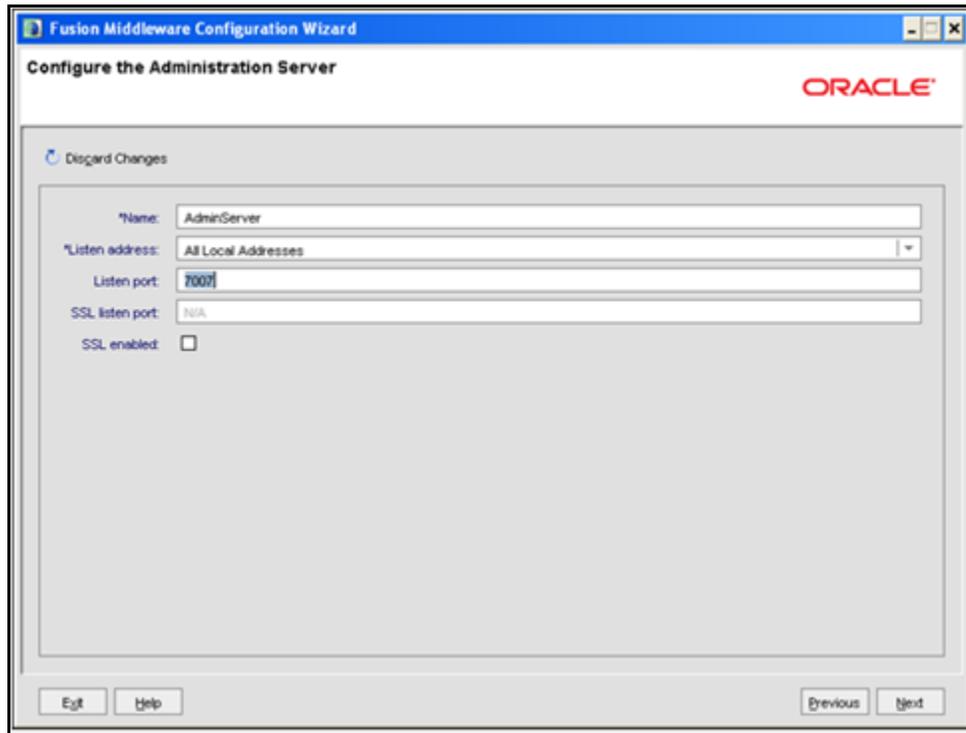


Figure 10 Configure the Administration Server

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.

---

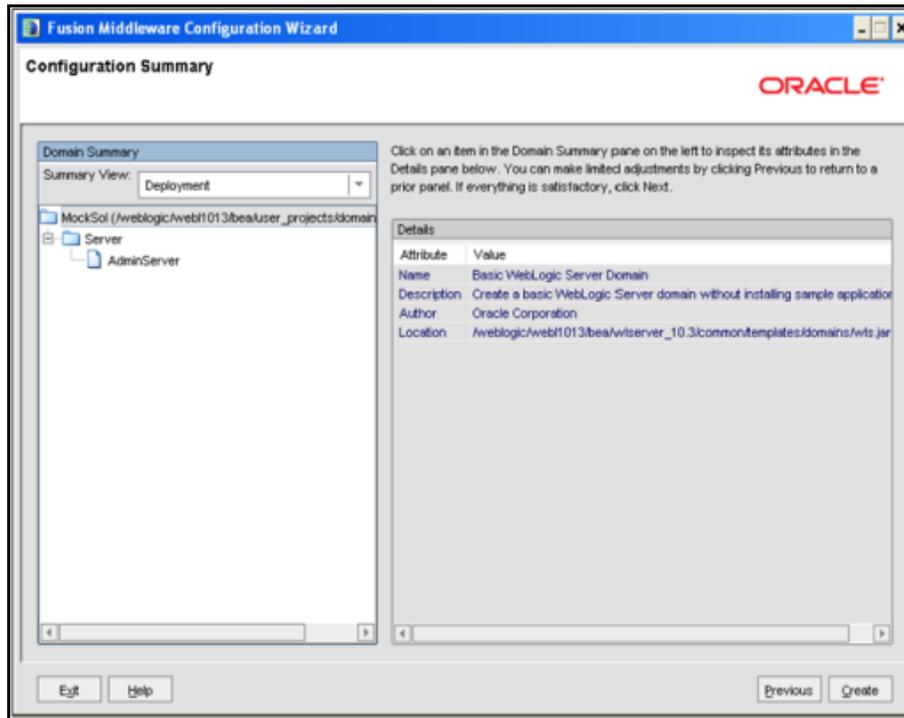


Figure 11: Configure Server Start Mode and JDK

10. Verify the configuration details of the WebLogic domain and click **Create**.
11. The **Creating Domain** window is displayed with the status indication of the domain creation process.

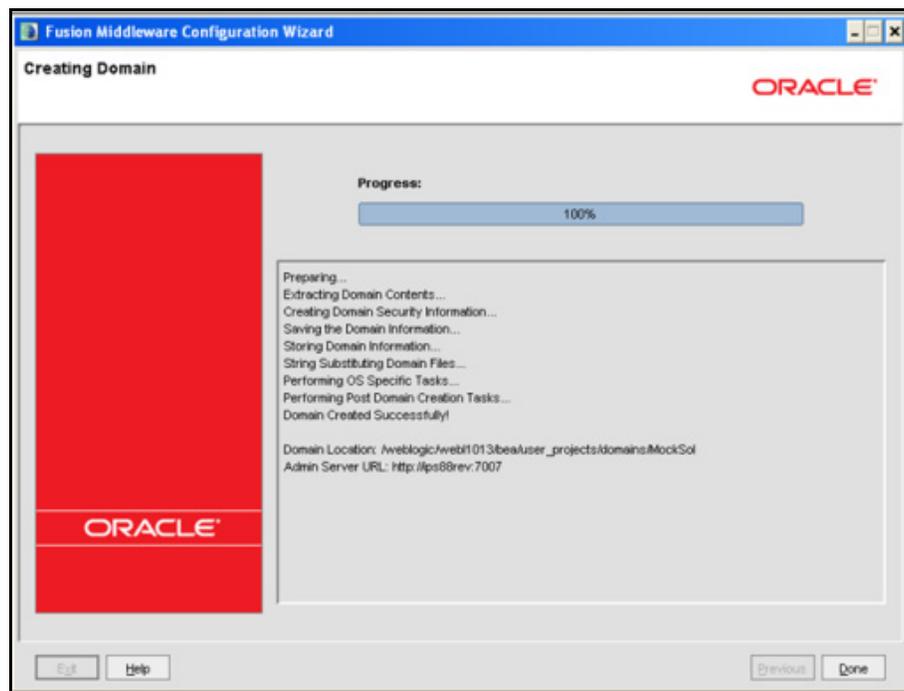


Figure 12: Configure Server Start Mode and JDK

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

---

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

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

---

13. Add a Java option entry `-DUseSunHttpHandler=true` in `WLS_HOME/bin/ "setDomainEnv.sh"` file (Required only if self signed certificate is used).

### **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"
```

## **Updating Atomic Schema Data Source in Web Logic**

To Disable the Wrap Data Types for the Atomic schema data source in Weblogic 12.2, execute the following steps:

1. In the Change Center of the Administration Console, click Lock & Edit.
2. In the Domain Structure tree, expand Services, then select Data Sources.
3. On the Summary of Data Sources page, click the data source name.
4. Select the Configuration: Connection Pool tab.
5. Scroll down and click Advanced to show the advanced connection pool options.
6. In Wrap Data Types, deselect the checkbox to disable wrapping.
7. Click Save.
8. To activate these changes, in the Change Center of the Administration Console, click Activate Changes.
9. Redeploy the Data Source and restart all the services.

## Configuring Apache Tomcat Server for Application Deployment

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

This section includes the following topics:

- ⑩ [Tomcat User Administration](#)
- ⑩ [Configure Tomcat to use JAVA 64 bit Executables](#)
- ⑩ [Configure Servlet Port](#)
- ⑩ [SSL Port Configuration](#)
- ⑩ [Apache Tomcat Memory Settings](#)
- ⑩ [Uninstalling WAR Files in Tomcat](#)
- ⑩ [Configuration for Axis API](#)
- ⑩ [Additional Configurations for Tomcat](#)

### **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 tag <user> for each individual user, which will display the user name 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 user name/ password combination as shown in the example above.
2. Use the same user-name/ 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. Replace the following block of text:

```
# Set standard commands for invoking Java.
_RUNJAVA="$JRE_HOME"/bin/java
if [ "$os400" != "true" ]; then
_RUNJDB="$JAVA_HOME"/bin/jdb
```

With:

```
# Set standard commands for invoking Java.
_RUNJAVA="$JAVA_BIN"/java
if [ "$os400" != "true" ]; then
_RUNJDB="$JAVA_BIN"/jdb
```

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

---

**Note:** In case tomcat is installed under different Unix profile, set JAVA\_BIN environment variable in .profile to include the Java Runtime Environment absolute path.

For example:

```
export JAVA_BIN /usr/java6_64/jre/bin
export JAVA_BIN = /usr/java6_64/jre/bin//sparcv9 for Solaris Sparc.
```

---

### **Configure Servlet Port**

The default servlet port configured for the Tomcat installation is 8080. Ignore this section if you need to use the default port.

If you need to use 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 will be used during the installation process.
3. Save your changes in "server.xml".

---

**Note:** Make a note of the servlet port configured. This information is required during the installation of OFSAA Application Pack.

---

### **SSL Port Configuration**

If you need to configure and access your OFSAA setup for HTTPS access, 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:** Make a note of the servlet port configured. This information would be required during the installation of OFSAA Application Pack. To enable https configuration on Infrastructure, assign value 1 to "HTTPS\_ENABLE" in OFSAAI\_InstallConfig.xml for SILENT mode OFSAAI installation.

---

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

## Apache Tomcat Memory Settings

To configure the Apache Tomcat Memory Settings:

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`.

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

To uninstall WAR files in tomcat, see [Uninstalling WAR Files in Tomcat](#).

## 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.

## Additional Configurations for Tomcat

To stop generating static content with one print statement per input line, you need to configure the `web.xml` file.

To configure `web.xml` file, perform the following steps:

1. Navigate to `tomcat/conf` folder.
2. Edit `web.xml` file as explained below:

Set the mapped file parameter to `False` in the servlet tag mentioned with

```
<servlet-name>jsp</servlet-name>.
<init-param>
<param-name>mappedfile</param-name>
<param-value>>false</param-value>
</init-param>
```

## Configuring Work Manager in Web Application Servers

Process Modelling framework requires creation of Work Manager and mapping it to OFSAA instance. This configuration is required for WebSphere and WebLogic Web Application Server types.

This section covers the following topics:

- ⑩ [Configuring Work Manager in WebSphere Application Server](#)
- ⑩ [Configuring Work Manager in WebLogic Application Server](#)

### Configuring Work Manager in WebSphere Application Server

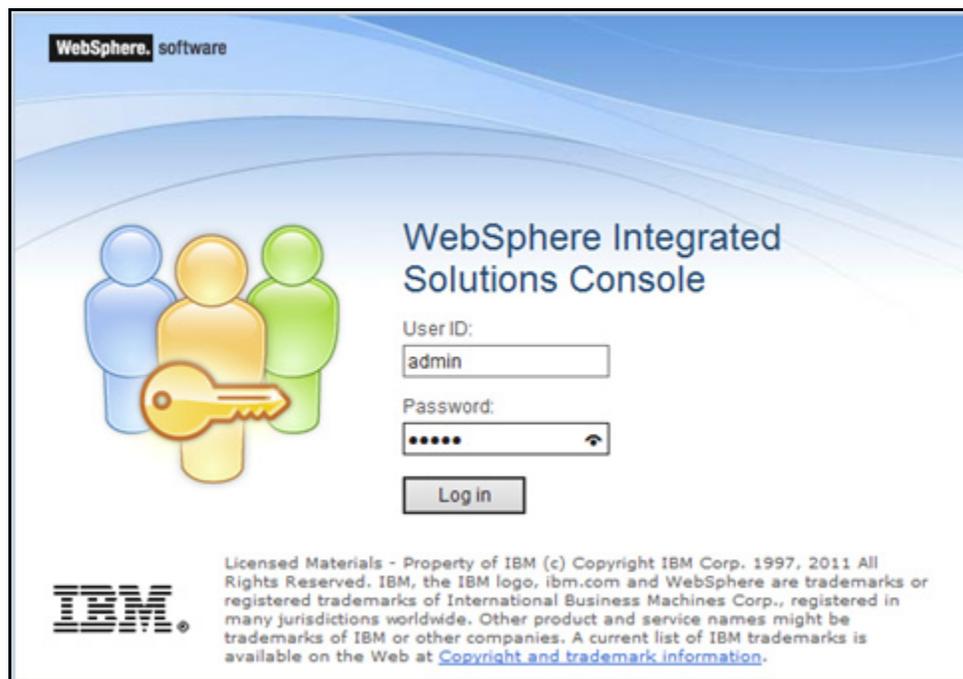
This section is applicable only when the Web Application Server type is WebSphere.

This section covers the following topics:

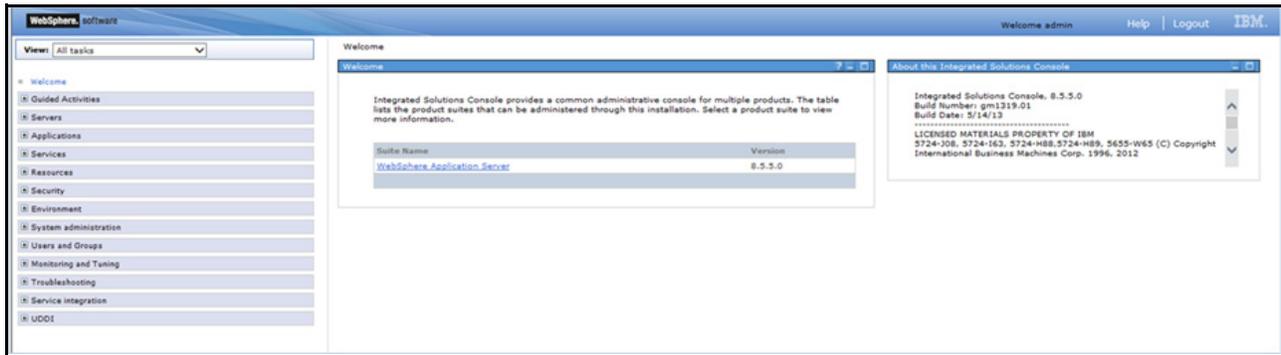
- ⑩ [Creating Work Manager](#)
- ⑩ [Mapping Work Manager to OFSAA WebSphere Instance](#)

#### Creating Work Manager

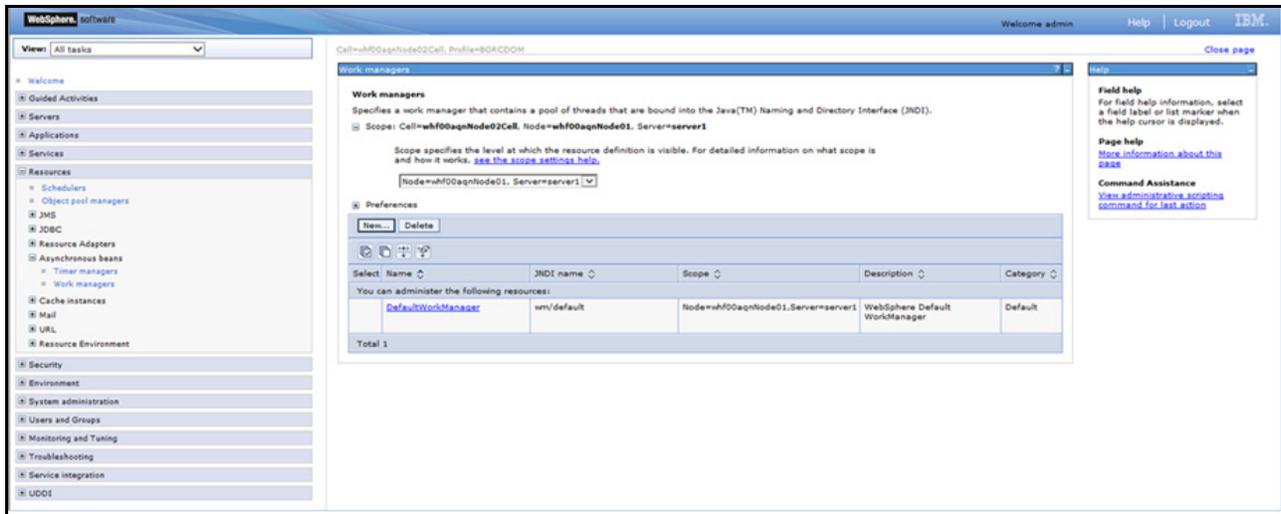
1. Open the WebSphere admin console in the browser window: `http://<ipaddress>:<administrative console port>/ibm/console`. (https if SSL is enabled). The Login window is displayed.



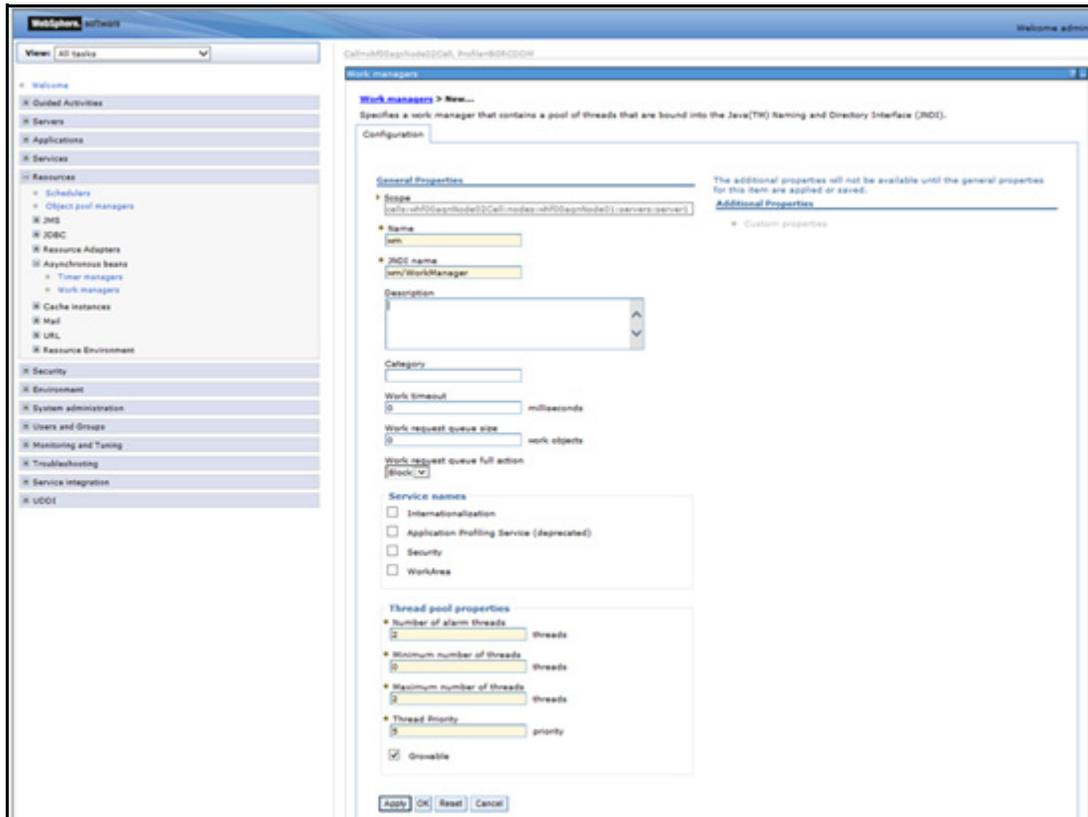
2. Login with the user id that has admin rights.



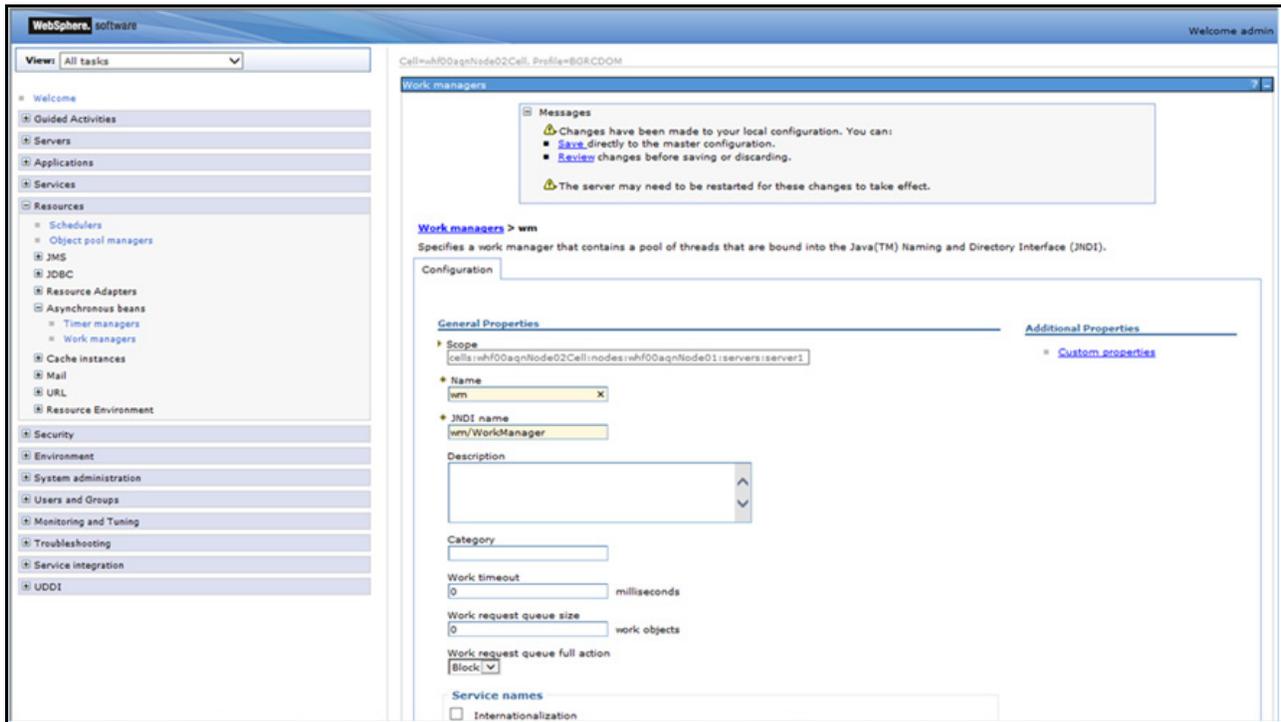
3. From the LHS menu, expand **Resources > Asynchronous beans** and select **Work Managers**.



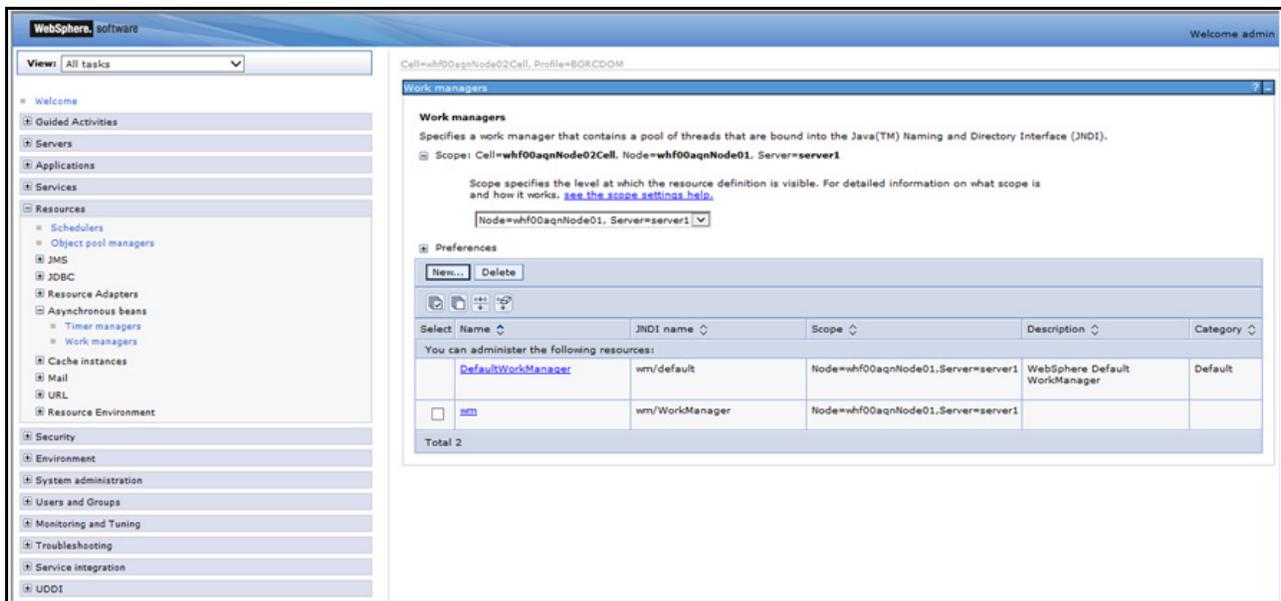
4. Select the required **Scope** from the drop-down list.  
For example, Node=whf00aqnNode01, Server=server1.
5. Click **New** in the Preferences section.



6. Enter the **Name** as 'wm' and **JNDI** name as 'wm/WorkManager ' in the respective fields.
7. Enter the Thread pool properties.
8. Click **Apply**.



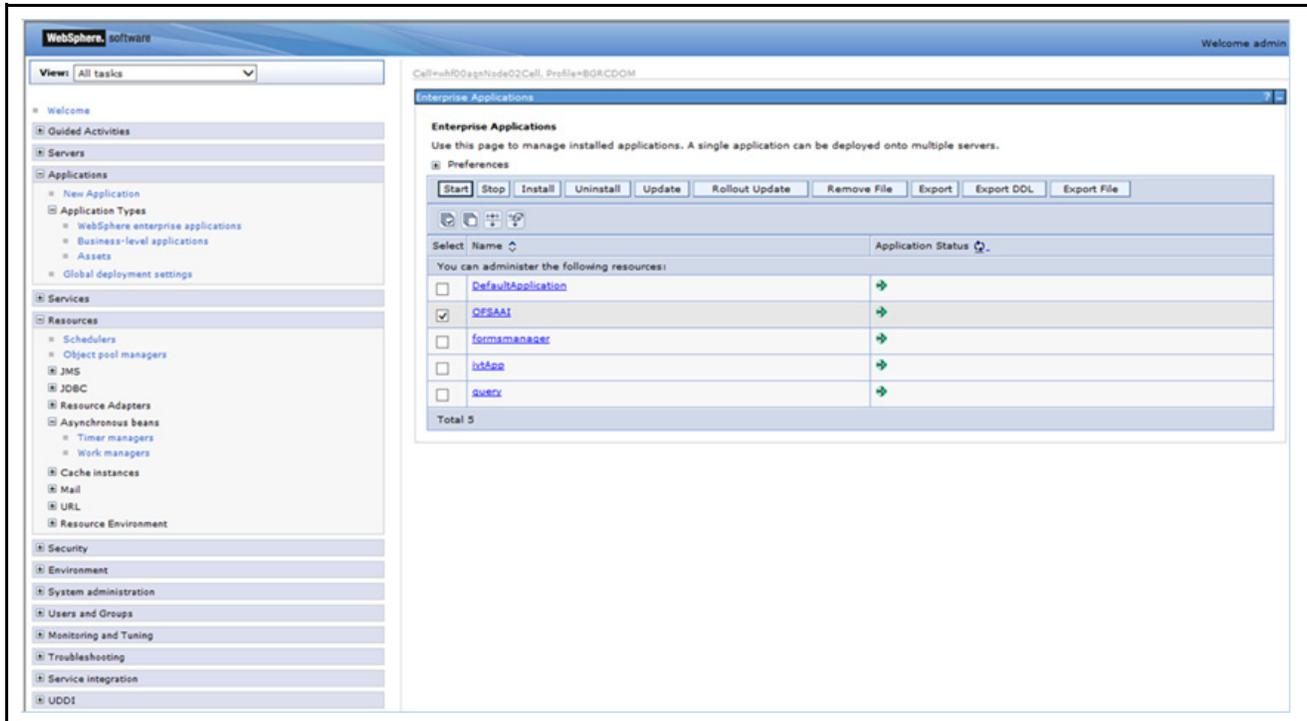
9. Click **Save**.



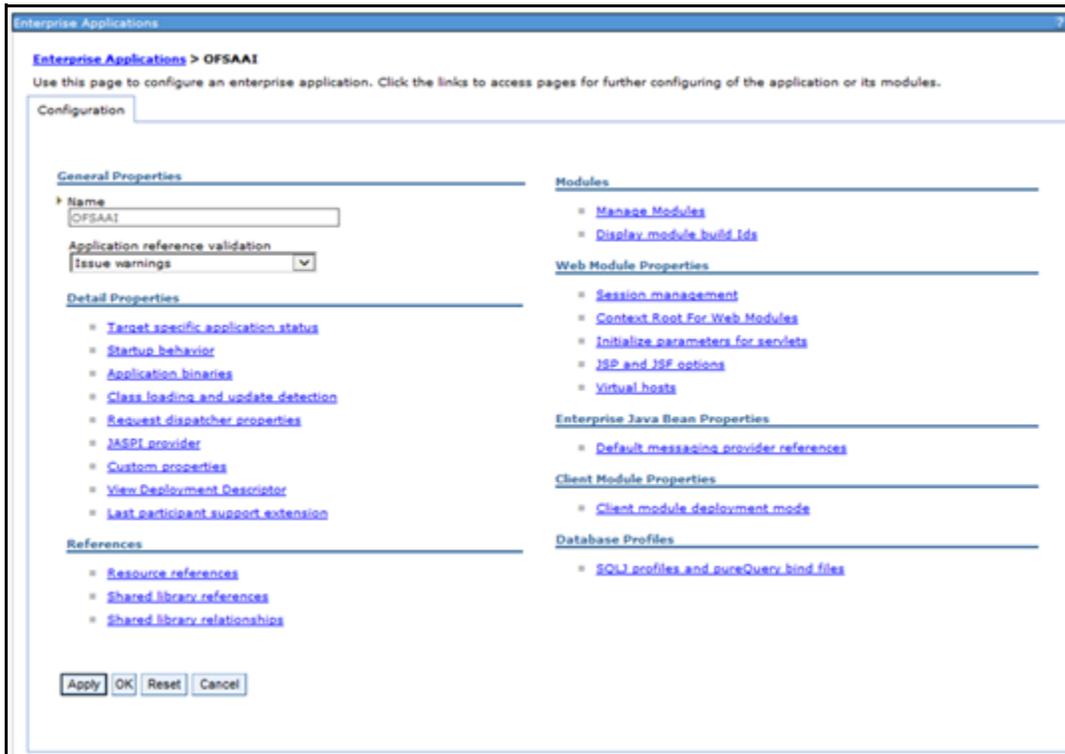
After creating work manager successfully, you have to map it to OFSAA instance.

## Mapping Work Manager to OFSAA WebSphere Instance

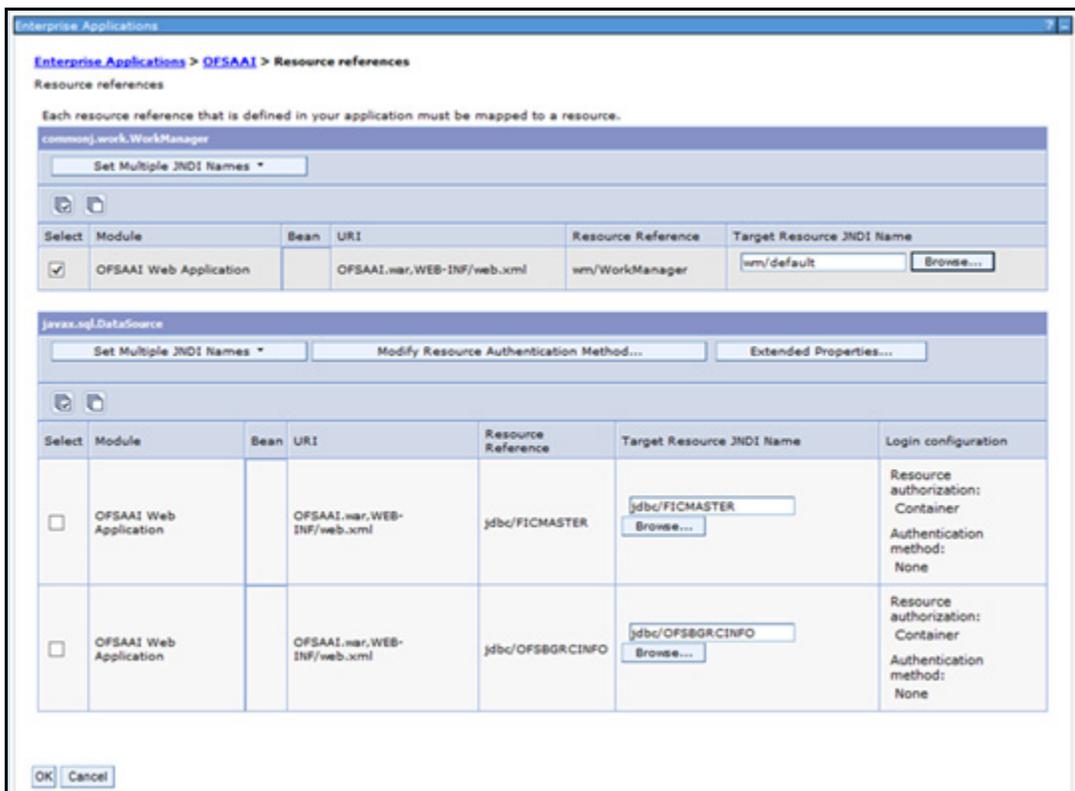
1. From the LHS menu, expand **Applications > Application Types** and select **WebSphere enterprise applications**.



2. Click OFSAAI instance hyperlink.



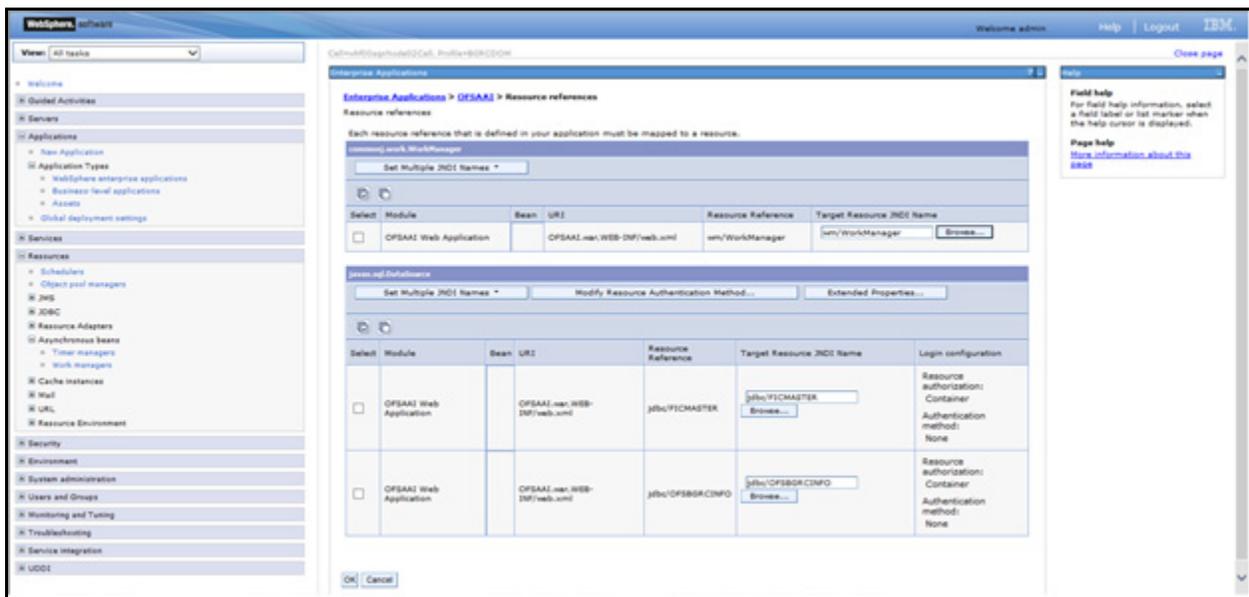
3. Click **Resource references** link under References section.



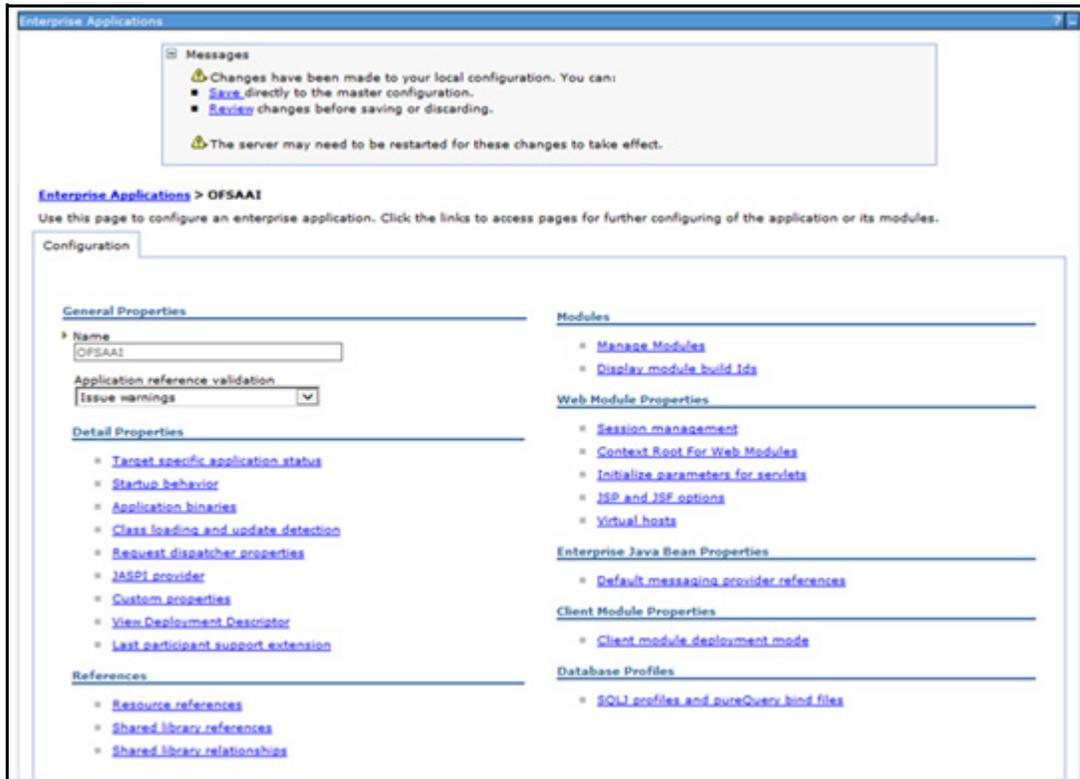
- Click **Browse** corresponding to the Work Manager Resource Reference. The available resources are displayed.



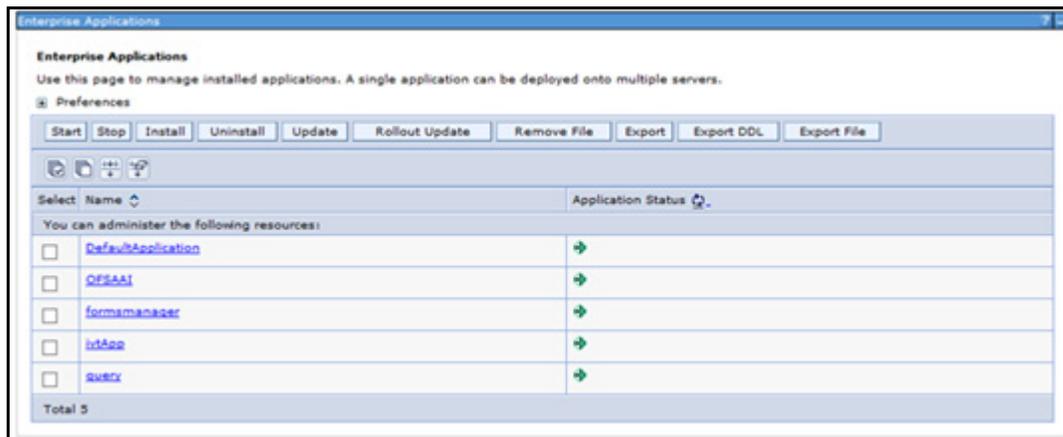
- Select the newly created Work Manager ('wm') and click **Apply**.



- Select the Work Manager ('wm/WorkManager') and click **OK**.



7. Click **Save**.



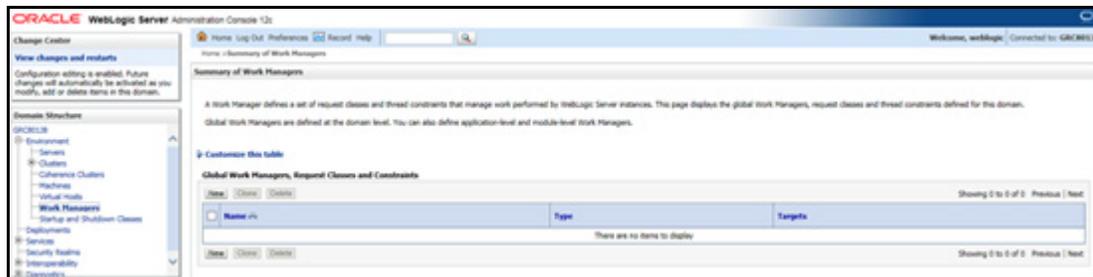
## Configuring Work Manager in WebLogic Application Server

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

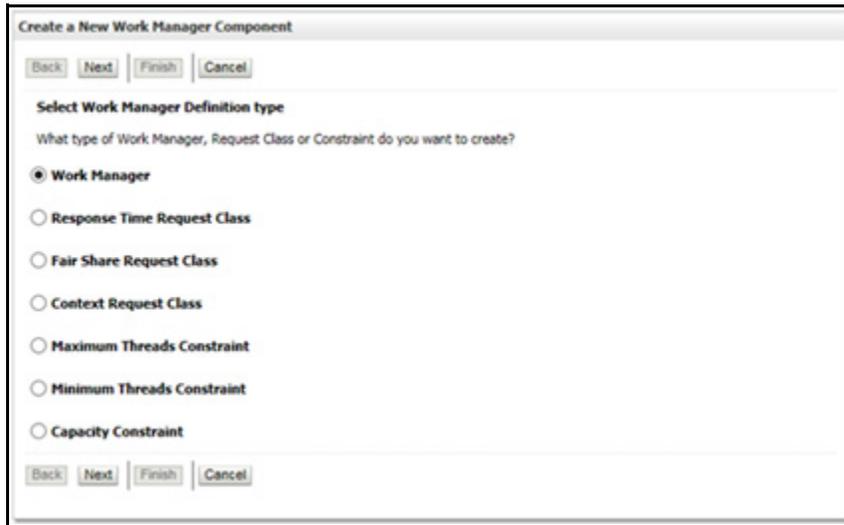
1. Open the WebLogic admin console in the browser window: `http://<ipaddress>:<administrative console port>/console`. (https if SSL is enabled). The Welcome window is displayed.



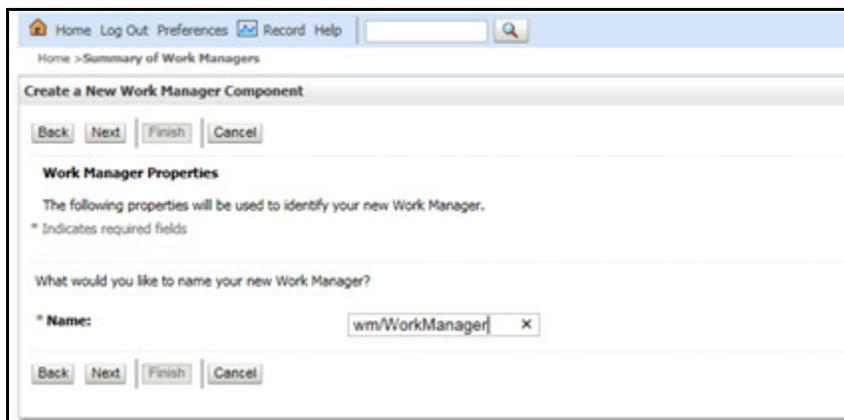
2. Login with the user id that has admin rights.
3. From the Domain Structure menu in the LHS, expand **Environment** and select **Work Managers**. The Summary of Work Managers window is displayed.



4. Click **New** to create a new work manager component.

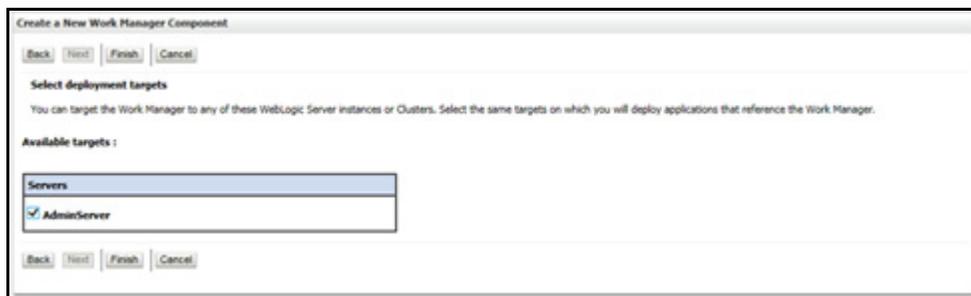


5. Select **Work Manager** and click **Next**.

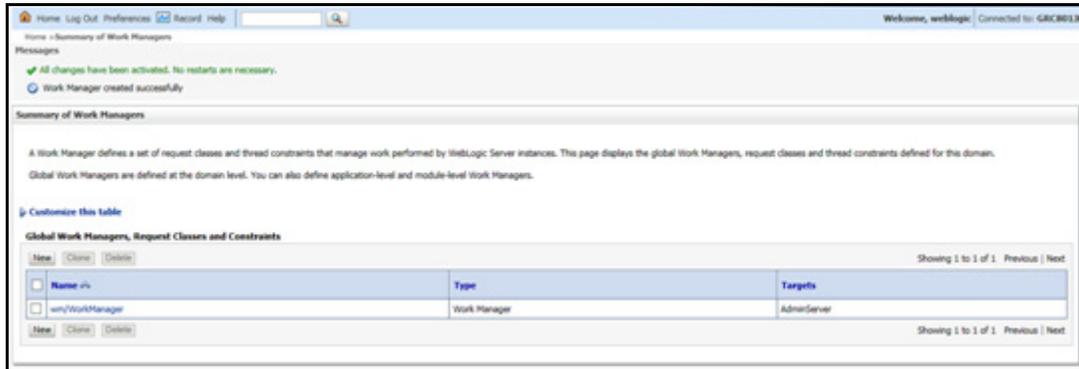


6. Enter the **Name** as 'wm/WorkManager'.

7. Click **Next**.



8. Select the required deployment target and click **Finish**.



## Creating and Deploying EAR/WAR File

This section includes the following topics:

- ⑩ [Creating EAR/WAR File](#)
- ⑩ [Deploying EAR/WAR File](#)

### Creating EAR/WAR File

To create EAR/WAR File, follow these steps:

1. Navigate to the `$FIC_WEB_HOME` directory on the OFSAA Installed server.
2. Execute `./ant.sh` to trigger the creation of EAR/ WAR file.
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.

```
/scratch/ofsaaweb>cd /scratch/ofsaaweb/OFSAA80/ficweb
/scratch/ofsaaweb/OFSAA80/ficweb>
/scratch/ofsaaweb/OFSAA80/ficweb>ls
ant.sh                ficwebChecksum.sh
apache-ant-1.7.1     ficweb_InstalledChecksum.txt
application.xml      lib
build.xml            MANIFEST.MF
conf                 mycertificates
ficweb_Build_CheckSum.txt  OFSALMINFO_FusionMenu.xml
ficwebCheckSum.log  unix
ficwebChecksum.properties webroot
/scratch/ofsaaweb/OFSAA80/ficweb>./ant.sh
executing "ant"
Buildfile: build.xml

createwar:
  [war] Building war: /scratch/ofsaaweb/OFSAA80/ficweb/AAI80.war

createear:
  [ear] Building ear: /scratch/ofsaaweb/OFSAA80/ficweb/AAI80.ear

BUILD SUCCESSFUL
Total time: 2 minutes 8 seconds
/scratch/ofsaaweb/OFSAA80/ficweb>
```

4. The EAR/ WAR file - `<contextname>.ear/ .war` - is created.

---

**Note:** The `<contextname>` is the name given during installation.  
This process overwrites any existing version of EAR file that exists in the path.  
In case of OFSAA configured on Tomcat installation, `<contextname>.war` will be created.

---

## Deploying EAR/WAR File

This section includes the following topics:

- ⑩ [Deploying EAR/WAR Files for WebSphere](#)
- ⑩ [Deploying EAR / WAR File for WebLogic](#)
- ⑩ [Deploying WAR Files on Tomcat](#)

---

**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, see [Clearing Application Cache](#) section.

---

## Deploying EAR/WAR Files for WebSphere

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

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
```

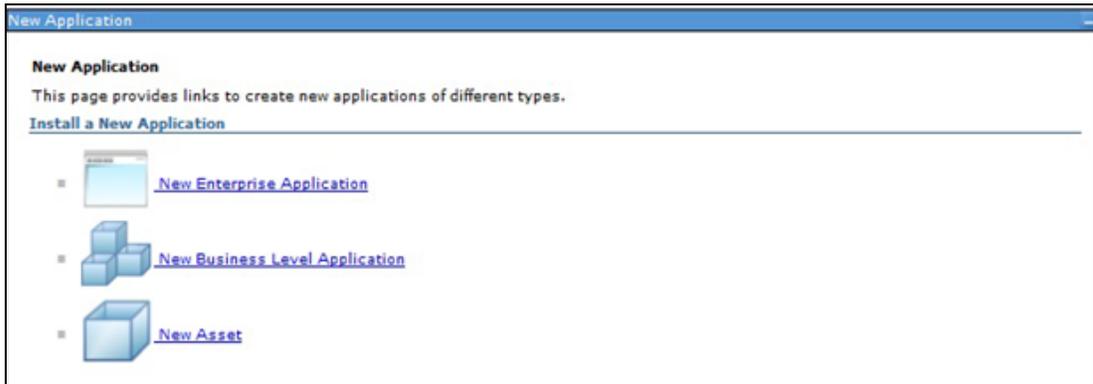
2. Open the WebSphere admin console in the browser window:

`http://<ipaddress>:<administrative console port>/ibm/console.` (https if SSL is enabled). The Login window is displayed.



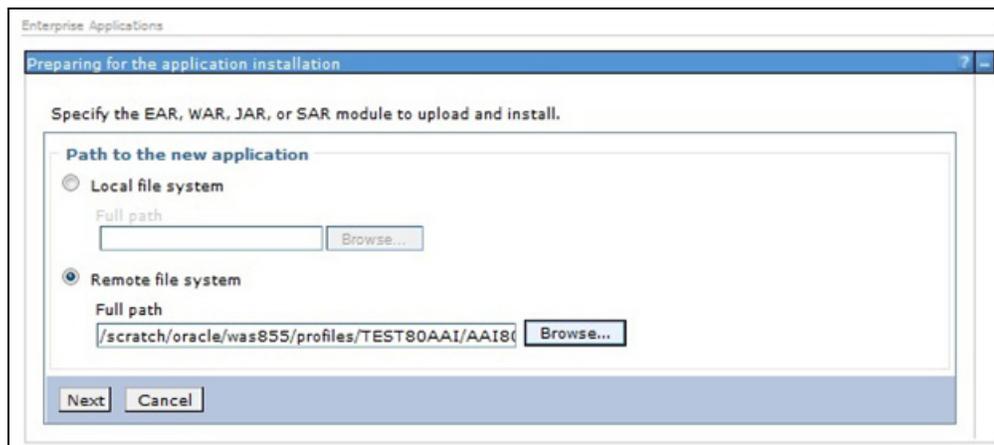
**Figure 1: Login Window**

3. Enter the user credentials with admin privileges and click **Log In**.
4. From the LHS menu, select **Applications** and click **New Application** to display the **New Application** window.



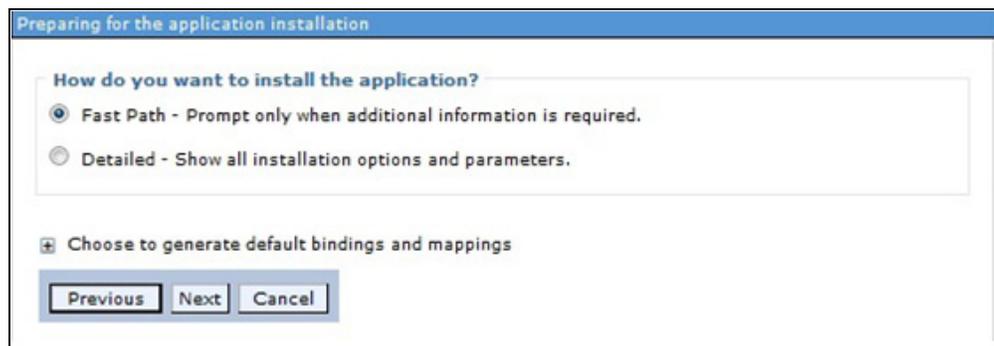
**Figure 2: New Application**

5. Click **New Enterprise Application** to display the **Preparing for the application installation** window.



**Figure 3: Preparing for the application installation**

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



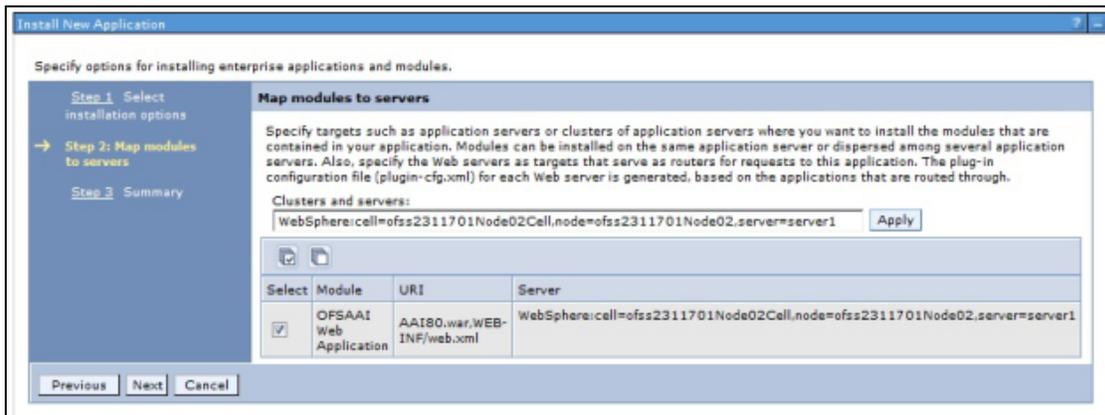
**Figure 4: Installation Options**

7. Select the **Fast Path** option and click **Next** to display the **Install New Application** window.



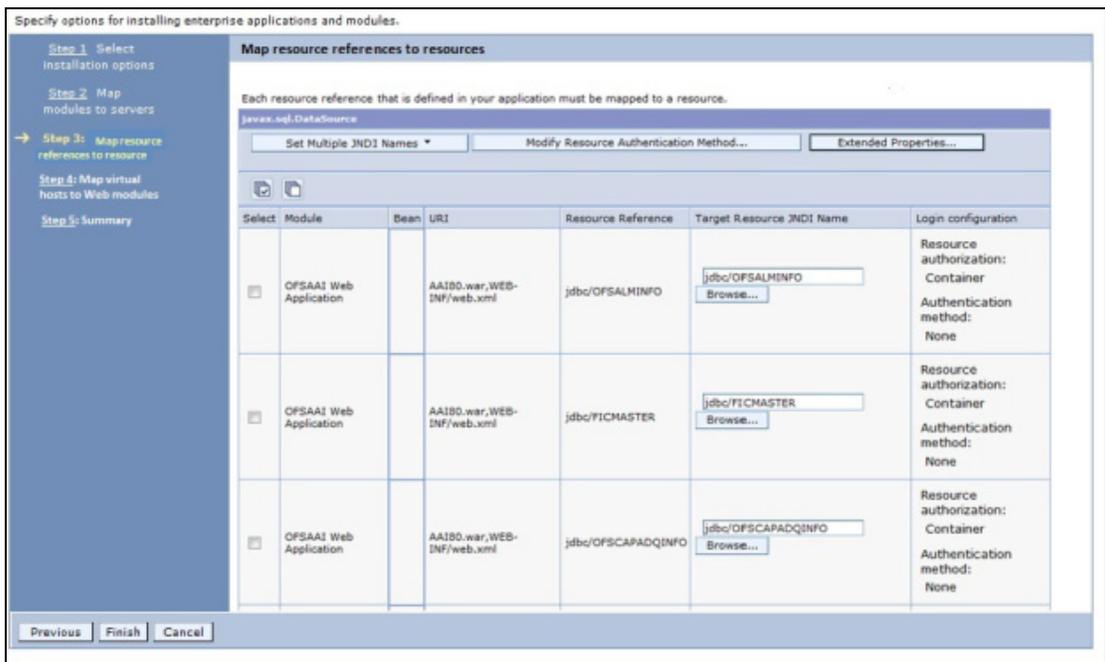
Figure 5: Install New Application

8. Enter the required information and click **Next** to display the **Map Modules to Servers** window.



**Figure 6: Map Modules to Servers**

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



**Figure 7: 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** to display the **Map Virtual hosts for Web Modules** window.

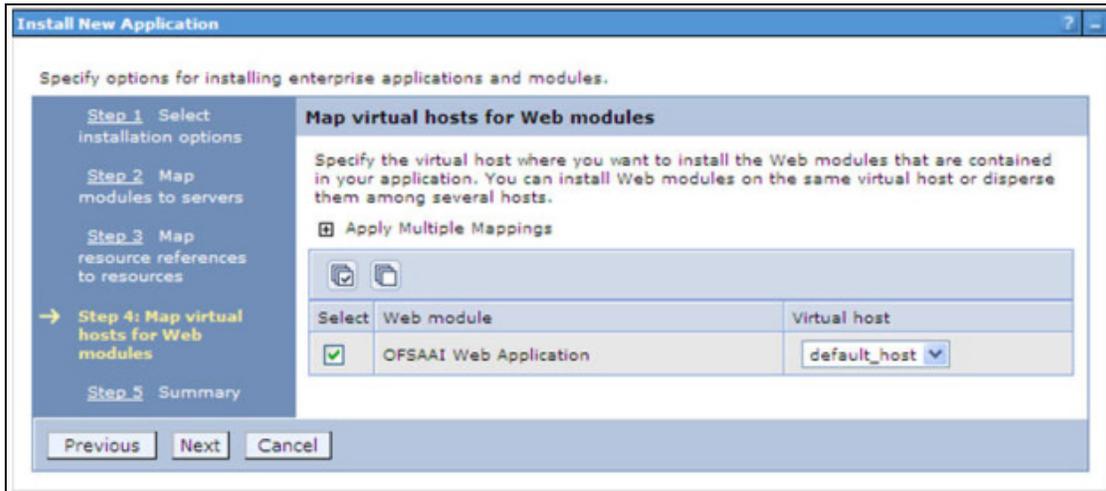


Figure 8: Map Virtual host for Web Modules

13. Select the **Web Application** check box and click **Next** to display the **Summary** page.

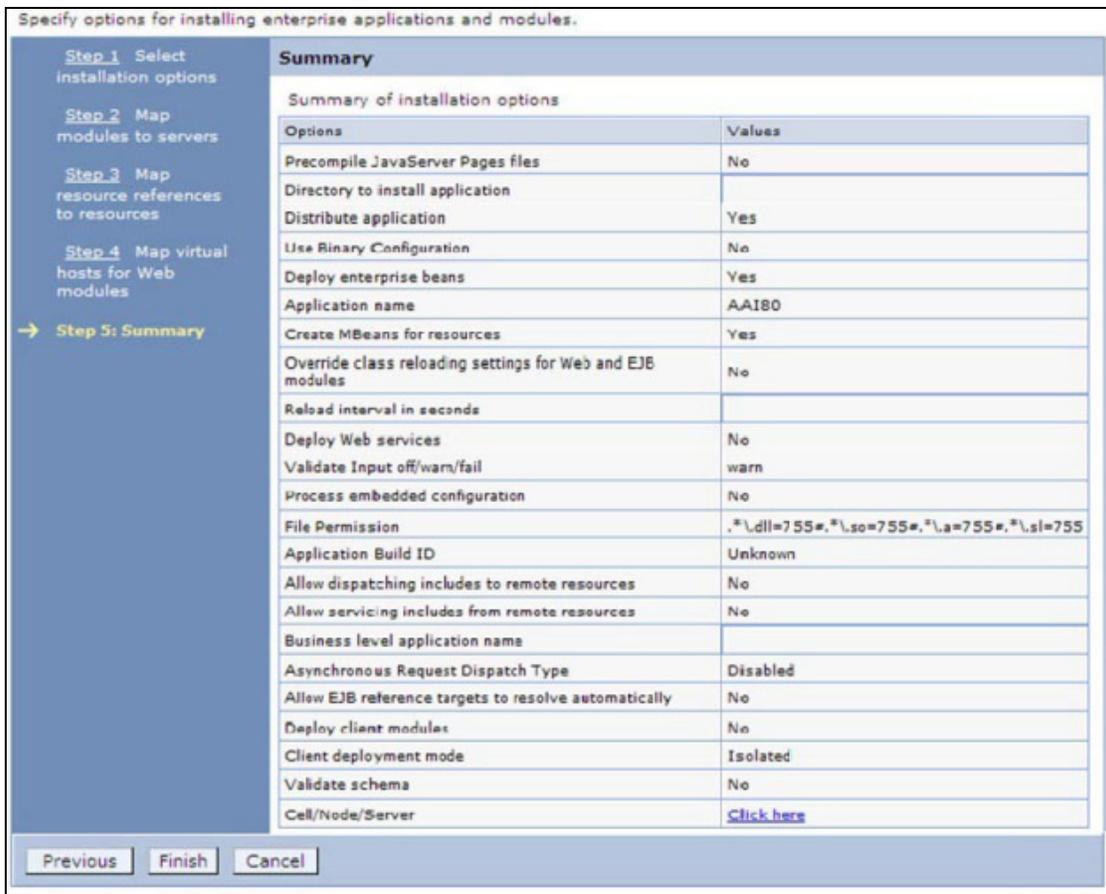


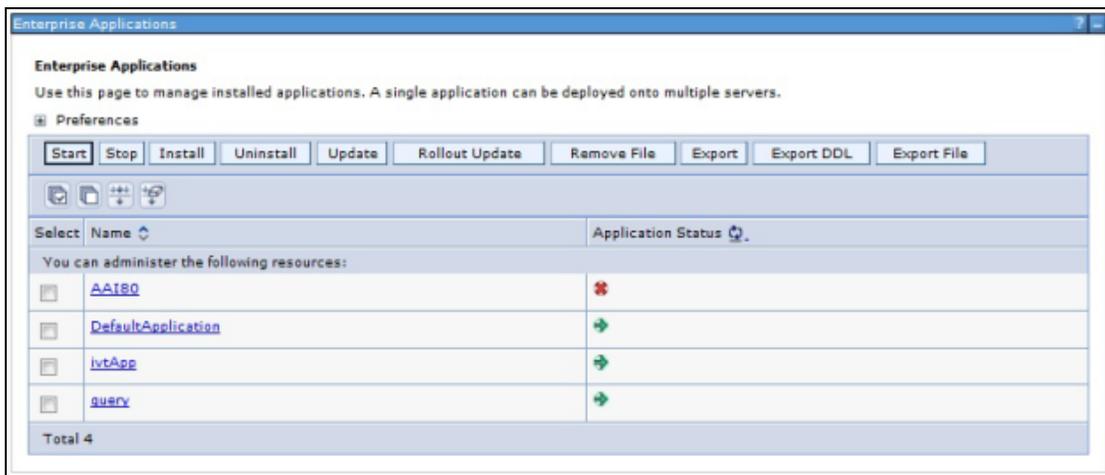
Figure 9: Summary

14. Click **Finish** and deploy the Infrastructure Application on WebSphere.

- 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:**

- Expand **Applications > Application Type > WebSphere enterprise applications** to display the **Enterprise Applications** window.



**Figure 10: Enterprise Applications**

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

**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:

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

```
./startWebLogic.sh -d64 file
```
- 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 `./reveleusstartup.sh` as mentioned in Start Infrastructure section.

- 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** to display the **Summary of Deployments** window.

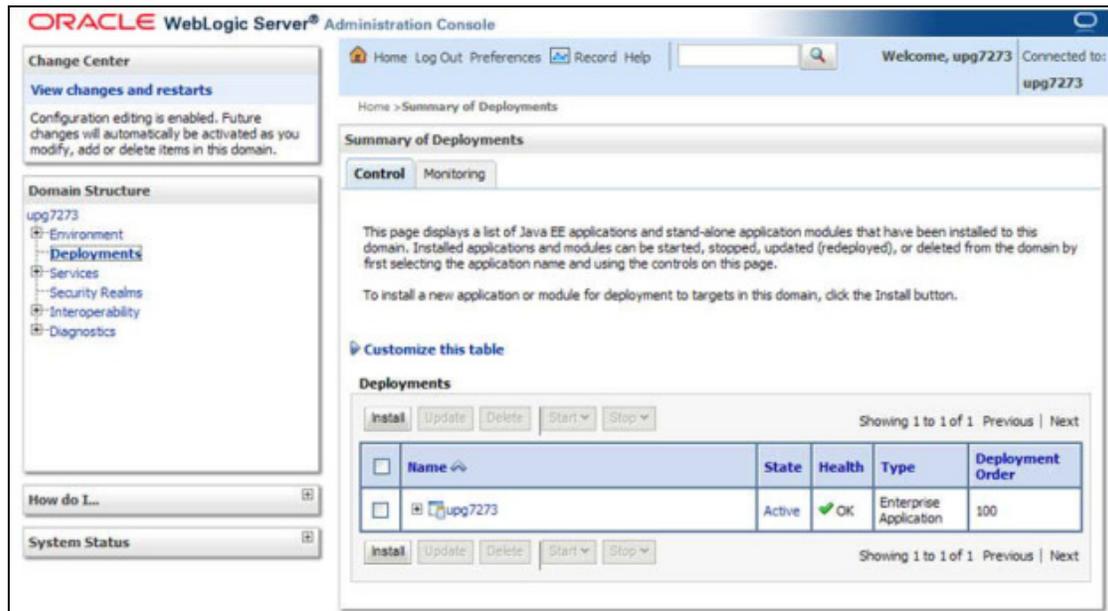


Figure 11: Summary of Deployments

6. Click **Install** to display the **Install Application Assistant** window.
7. Select the Exploded EAR directory after browsing to the directory where it is saved and click **Next**.

#### Explode EAR File

To explode EAR, follow the below steps:

1. Create the "applications" folder under domain name. For example:  
`/Bea/user_projects/domains/<Domain_name>/applications.`
2. Create `<context_name>.ear` folder under "applications" folder.
3. Copy the `<$FIC_WEB_HOME/<context_name>.ear` file to  
`<WEBLOGIC_INSTALL_DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/<context_name>.ear`
4. Explode the `<context_name>.ear` file by executing the command:  

```
jar -xvf <context_name>.ear
```
5. Delete the `<context>.ear` and `<context>.war` files (recently created)  
`<WEBLOGIC_INSTALL_DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/<context_name>.ear`
6. Create a directory `<context_name>.war` under  
`<WEBLOGIC_INSTALL_DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/<context_name>.ear`
7. Copy `<$FIC_WEB_HOME/<context_name>.war` file to  
`<WEBLOGIC_INSTALL_DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/<context_name>.ear/<context_name>.war`
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 the Application:

1. Open the Install Application Assistant.

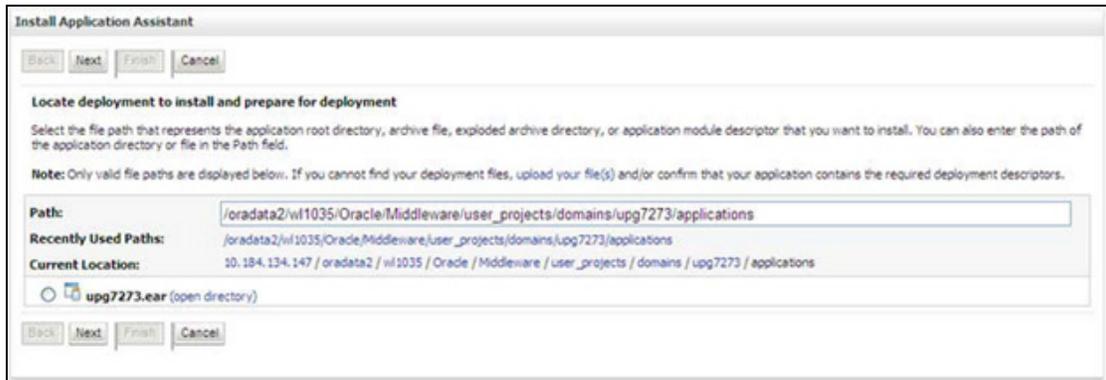


Figure 12: Install Application Assistant

2. Click **Next**.

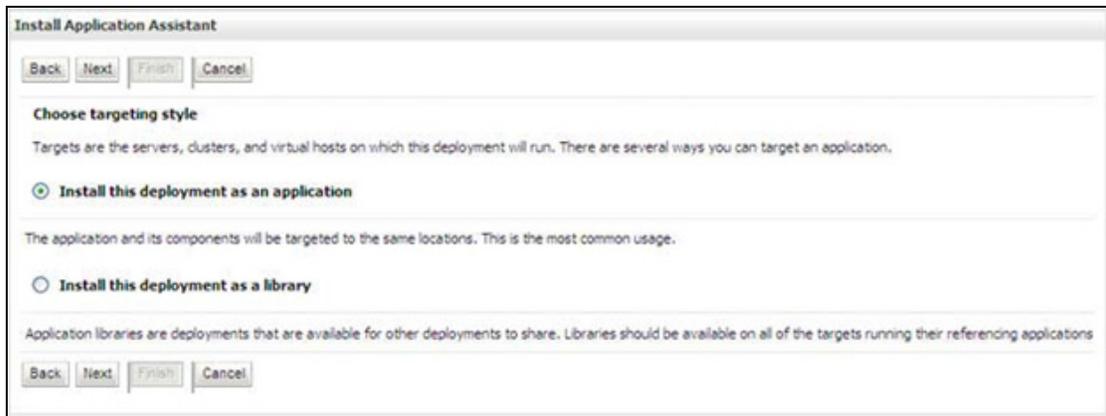


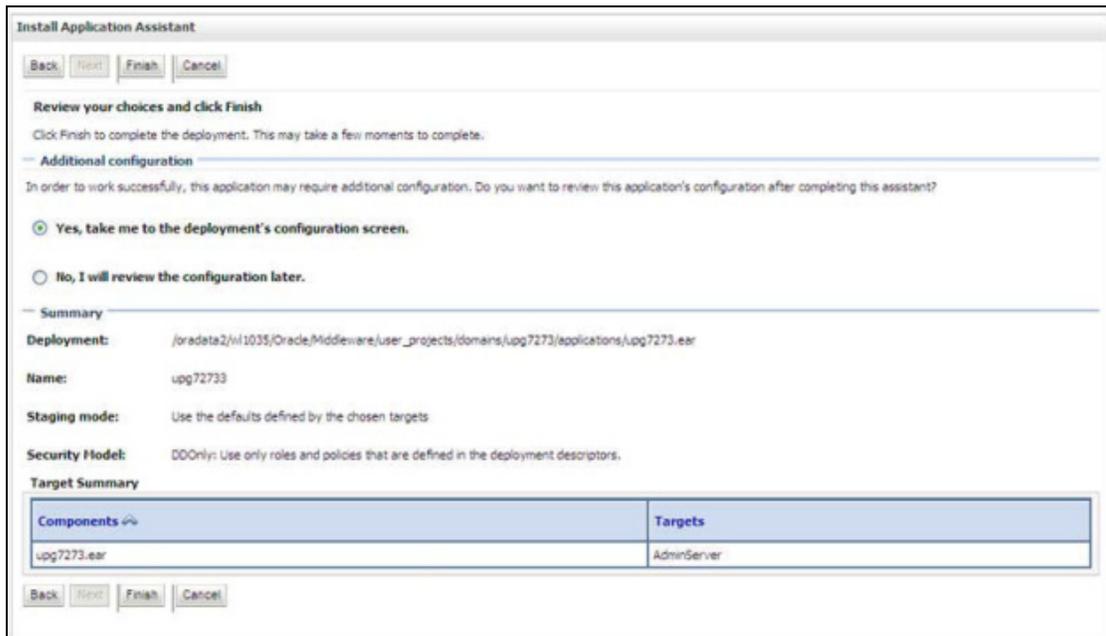
Figure 13: Install Application Assistant

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

The screenshot shows the 'Install Application Assistant' window with the 'Optional Settings' section expanded. At the top, there are 'Back', 'Next', 'Finish', and 'Cancel' buttons. Below the title bar, the text reads 'Optional Settings' and 'You can modify these settings or accept the defaults'. The 'General' section asks 'What do you want to name this deployment?' with a text box containing 'upg7273'. The 'Security' section asks 'What security model do you want to use with this application?' and has four radio button options: 'DD Only: Use only roles and policies that are defined in the deployment descriptors.' (selected), '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.', and 'Advanced: Use a custom model that you have configured on the realm's configuration page.'. The 'Source accessibility' section asks 'How should the source files be made accessible?' and has two radio button options: 'Use the defaults defined by the deployment's targets' (selected) and 'Copy this application onto every target for me'. Below this, it says 'Recommended selection.' and 'During deployment, the files will be copied automatically to the managed servers to which the application is targeted.' The second option is 'I will make the deployment accessible from the following location', with a text box containing '/oradata2/wl1035/Oracle/Middleware/user\_projects/domain'. A note below says '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.' At the bottom, there are 'Back', 'Next', 'Finish', and 'Cancel' buttons.

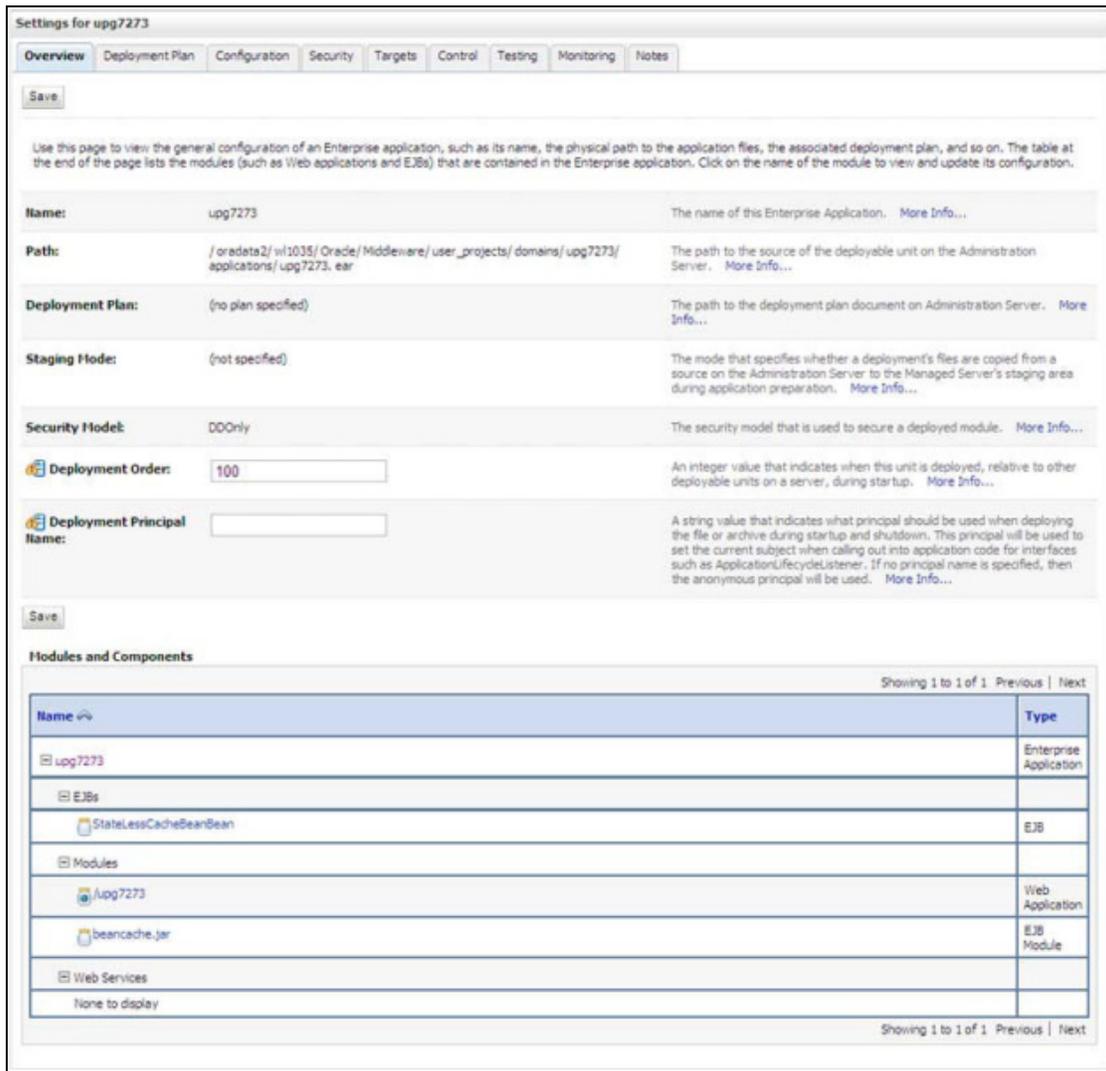
Figure 14: Optional Settings

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 and display the **Deployment Summary** window.



**Figure 15: Deployment Summary**

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



**Figure 16: Settings for <Deployment Name>**

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.
11. From the LHS menu, click **Deployments** to display the **Summary of Deployments** window.



Figure 17: Summary of Deployments

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

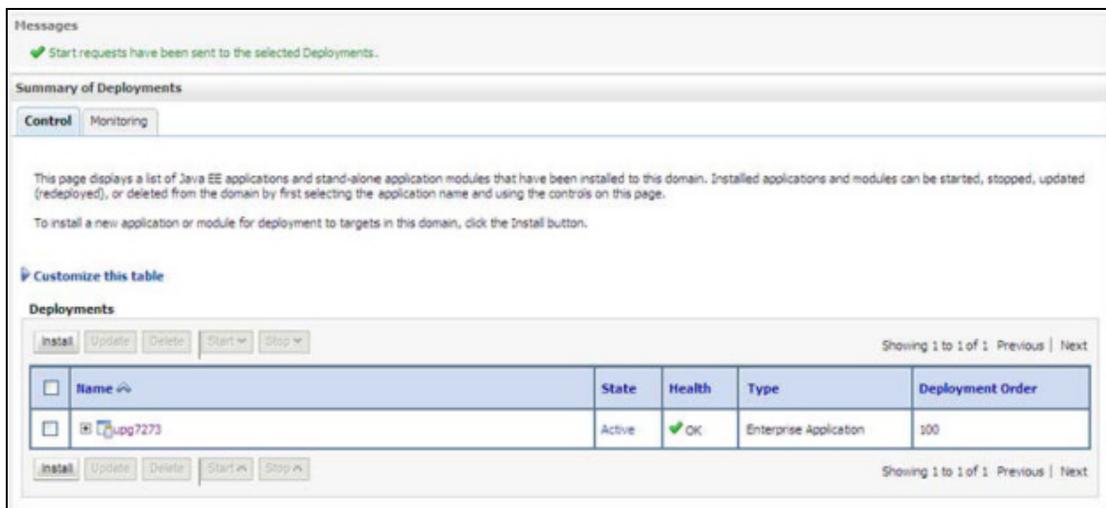


Figure 18: Summary of Deployments

13. The **State** of the deployed application is displayed as **Active** if started successfully.

## Deploying WAR Files on Tomcat

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 below steps outlined to deploy Infrastructure application:

1. Copy the `<context-name>.war` from `$FIC_WEB_HOME/<context-name>.war` to `<Tomcat Installation Directory>/webapps/` directory.

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.

Name	Status	Path	Actions
docs	None specified	Tomcat Documentation	Start Stop Reload Undeploy
examples	None specified	Servlet and JSP Examples	Start Stop Reload Undeploy
host-manager	None specified	Tomcat Host Manager Application	Start Stop Reload Undeploy
manager	None specified	Tomcat Manager Application	Start Stop Reload Undeploy

Tomcat Version	JVM Version	JVM Vendor	OS Name	OS Version	OS Architecture	Hostname	IP Address
Apache Tomcat/7.0.57	1.6.0_45-b05	Sun Microsystems Inc.	Linux	2.6.39-400.211.1.el6.x86_64	amd64	ofc22054.oracle.com	10.104.130.210

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**.
6. On successful application deployment, a confirmation message is displayed. Start the Tomcat server. For more information, see *Starting Infrastructure Services*.

This appendix gives details about the steps to be performed to access OFSAA Application.

## Access the OFSAA Application

1. From a your desktop, open the browser and enter the URL in below format:

`<scheme>://<IP address/ hostname>:<port>/<context-name>/login.jsp`

For example: `https://111.222.333.444:5555/ofsaal/login.jsp`

The OFSAA login window is displayed as below:



**Figure: OFSAA Login Window**

2. With installation of every OFSAA Application Pack, there are two seeded user profiles configured in the system:
  - SYSADMN - System Administrator
  - SYSAUTH - System Authorizer

---

**Note:** For SYSADMN and SYSAUTH, the default password is password0.

---

3. Login to the application using the "SYSADMIN" User ID. (Note that, there is no "I" in the SYSADMIN login USER ID). Enter the password that was provided during installation. On the first login, you will be prompted to change the password.

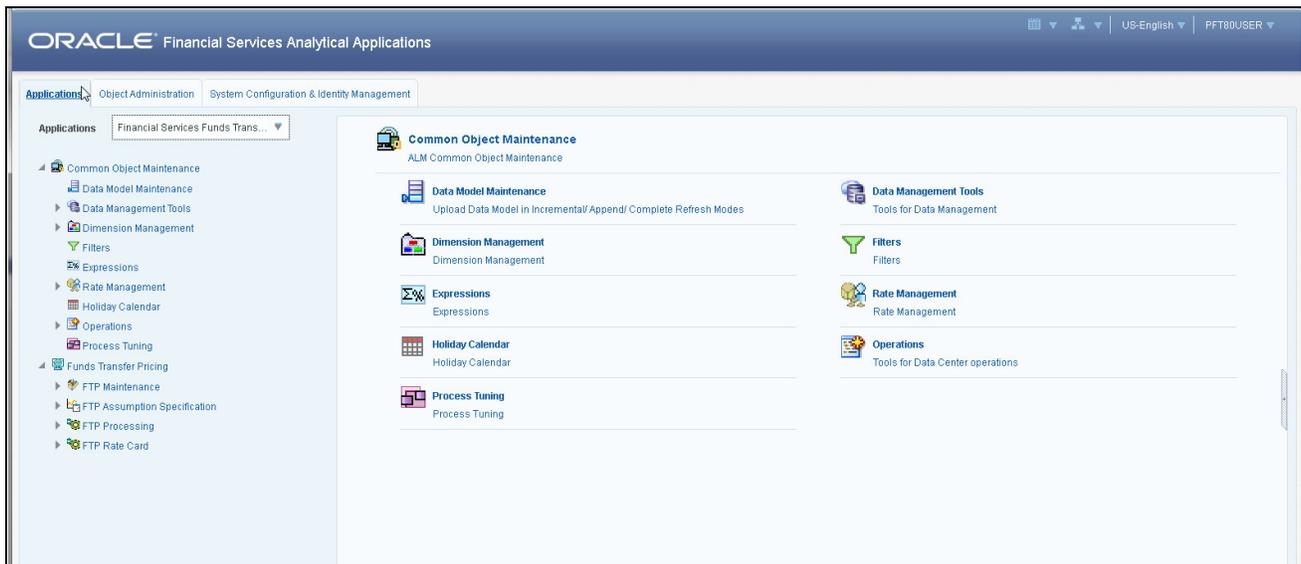
## OFSAA Landing Page

This section includes the following topics:

- ⑩ [OFSAA Landing Page for Profitability Administrator](#)
- ⑩ [Enabling a Product within an Application Pack](#)

## OFSAA Landing Page for Profitability Administrator

On successful authentication, the OFSAA Landing Page is displayed. This is a common landing page for all users until a preferred application landing page is set by the user in his preferences.



The landing page includes multiple tabs and each tab has specific links to OFSAA Infrastructure and/or Application modules. The tabs and links are displayed based on the OFSAA Application accessed and the access roles mapped to the logged in user.

Each tab contains LHS Menu and RHS Menu. The LHS Menu holds link(s) to modules in a tree structure. The RHS Menu holds link(s) to modules in a navigational panel format.

The following tabs are available in the Landing Page:

- ⑩ Applications tab
- ⑩ Object Administration tab
- ⑩ System Configuration and Identity Management tab

### Applications tab

This tab lists the various OFSAA Applications that are installed in the OFSAA setup. The Select Application drop-down list displays the OFSAA Applications, based on the logged in user and mapped OFSAA Application User Group(s). Links to related modules within Applications and Infrastructure are grouped appropriately to maintain a unified experience.

## Object Administration tab

This tab lists the various OFSAA Information Domains created in the OFSAA setup. The Select Information Domain drop-down list displays the OFSAA Information Domains based on the logged in user and mapped OFSAA Application User Group(s). Links to modules that enable object traceability and migration of objects are grouped in this tab.

## System Configuration & Identity Management tab

This tab lists the OFSAA Infrastructure System Configuration and Identity Management modules. These modules work across Applications/ Information Domains and hence there are no Application and Information Domain drop-down lists in this tab. Links to modules that allow the maintenance of setup installation and identity management tasks are grouped together in this tab.

**Note:** The navigation path differs from Application to Application. That is, based on the selected Application, the navigation varies.

For more details on how to operate on each tab, see OFSAAI User Guide available in [OHC](#).

## Enabling a Product within an Application Pack

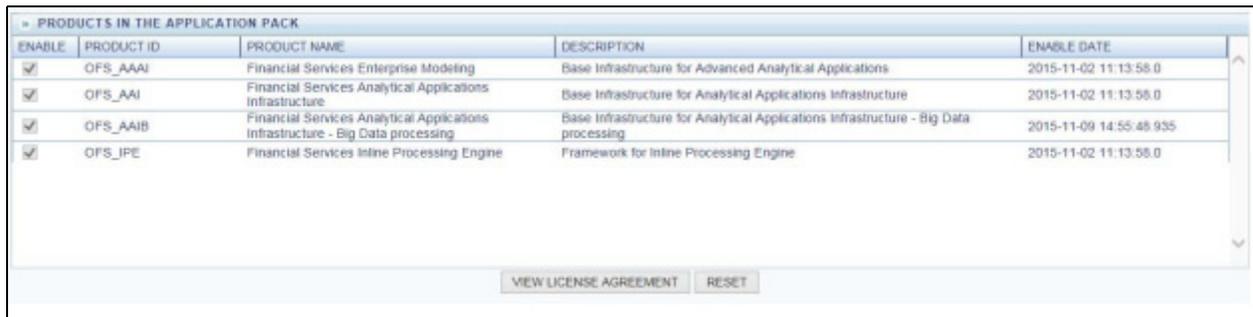
You can also enable a product/ application within an application pack post installation at any point of time.

To enable a product through the application UI, follow these steps:

1. Login to the application as SYSADMN user or any user with System Administrator privileges.
2. Navigate to **System Configurations & Identity Management** tab, expand **Administration and Configuration** and select **System Configuration**.
3. Click **Manage OFSAA Product License(s)** to display the **Manage OFSAA Product License(s)** window is displayed.

APPLICATION PACK ID	APPLICATION PACK NAME	DESCRIPTION	INSTALL DATE	VERSION
<input type="radio"/> OFS_AAAI_PACK	Financial Services Advanced Analytics Infrastructure Pack	Applications for Advanced Analytics using Oracle R, Modeling & Stress Testing Framework and Inline Processing Engine	2015-11-02 11:13:58.0	8.0.2.0.0
<input type="radio"/> OFS_BGRC_PACK	OFS_BGRC_PACK	Financial Services Governance, Risk and Compliance Applications Pack	2015-11-04 01:35:15.0	8.0.1.0.0
<input type="radio"/> OFS_CAP_ADQ_PACK	Financial Services Capital Adequacy Applications Pack	Applications for Basel Basic, IRB & Analytic, Operational Risk Economic Capital & Analytic and Retail Portfolio Risk Models and Pooling in Banking and Financial Services Domain	2015-11-02 16:19:44.0	8.0.1.0.0
<input type="radio"/> OFS_PFT_PACK	Financial Services Profitability Applications Pack	Applications for Profitability in the Banking and Financial Services Domain	2015-11-02 13:24:19.0	8.0.1.0.0
<input type="radio"/> OFS_HIVE1_PACK	OFS_HIVE1_PACK	OFS_HIVE1_PACK	2015-11-09 15:34:23.715	8.0.2.0.0

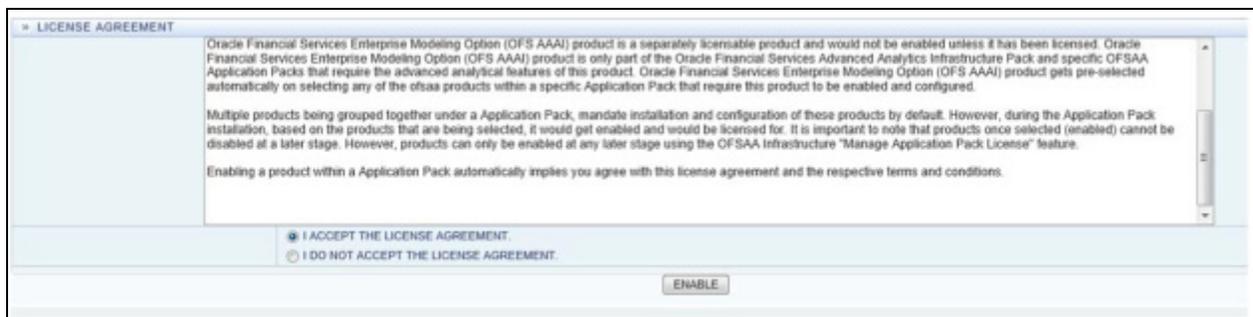
4. Select an Application pack to view the products in it. The products are displayed in the Products in the Application Pack grid.



ENABLE	PRODUCT ID	PRODUCT NAME	DESCRIPTION	ENABLE DATE
<input checked="" type="checkbox"/>	OFS_AAAI	Financial Services Enterprise Modeling	Base Infrastructure for Advanced Analytical Applications	2015-11-02 11:13:58.0
<input checked="" type="checkbox"/>	OFS_AAI	Financial Services Analytical Applications Infrastructure	Base Infrastructure for Analytical Applications Infrastructure	2015-11-02 11:13:58.0
<input checked="" type="checkbox"/>	OFS_AAIB	Financial Services Analytical Applications Infrastructure - Big Data processing	Base Infrastructure for Analytical Applications Infrastructure - Big Data processing	2015-11-09 14:55:48.935
<input checked="" type="checkbox"/>	OFS_IPE	Financial Services Inline Processing Engine	Framework for Inline Processing Engine	2015-11-02 11:13:58.0

VIEW LICENSE AGREEMENT    RESET

5. Select the check box to enable a product within the Application Pack which is not enabled during installation.
6. Click **VIEW LICENSE AGREEMENT** to view the license information. The License Agreement section is displayed.



**LICENSE AGREEMENT**

Oracle Financial Services Enterprise Modeling Option (OFS AAAI) product is a separately licensable product and would not be enabled unless it has been licensed. Oracle Financial Services Enterprise Modeling Option (OFS AAAI) product is only part of the Oracle Financial Services Advanced Analytics Infrastructure Pack and specific OFSAA Application Packs that require the advanced analytical features of this product. Oracle Financial Services Enterprise Modeling Option (OFS AAAI) product gets pre-selected automatically on selecting any of the ofsaa products within a specific Application Pack that require this product to be enabled and configured.

Multiple products being grouped together under a Application Pack, mandate installation and configuration of these products by default. However, during the Application Pack installation, based on the products that are being selected, it would get enabled and would be licensed for. It is important to note that products once selected (enabled) cannot be disabled at a later stage. However, products can only be enabled at any later stage using the OFSAA Infrastructure "Manage Application Pack License" feature.

Enabling a product within a Application Pack automatically implies you agree with this license agreement and the respective terms and conditions.

I ACCEPT THE LICENSE AGREEMENT.  
 I DO NOT ACCEPT THE LICENSE AGREEMENT.

ENABLE

7. Select the option **I ACCEPT THE LICENSE AGREEMENT** and click **ENABLE**. A pop-up message confirmation is displayed showing that the product is enabled for the pack.

---

**Note:** To use the newly enabled product, you need to map your application users to the appropriate product specific User\_Group(s) and subsequently, authorize the actions by logging in as System Authorizer.

For more information, see *Mapping/Unmapping Users* section in the [Oracle Financial Services Analytical Applications Infrastructure User Guide 8.0](#). To identify the newly enabled product specific UserGroups/ Application Pack specific User\_Groups, see the respective Application Pack specific Installation and Configuration Guide/ User Manual.

---

## ***User Group Mapping***

### **Application specific User Group mappings:**

- ⑩ **PFT:**
  - Profitability Application Administrator
  - Profitability Application Analyst
  - Profitability Application Auditor
- ⑩ **FTP:**
  - Fund Transfer Pricing Application Administrator
  - Fund Transfer Pricing Application Analyst
  - Fund Transfer Pricing Application Auditor
- ⑩ **IPA:**
  - IPA Administrator
  - IPA BI Analyst
  - IPA Data Analyst
- ⑩ **RPA:**
  - RPA Administrator
  - RPA BI Analyst
  - RPA Data Analyst
- ⑩ **EFPA:**
  - EFPA Administrator
  - EFPA BI Analyst
  - EFPA Data Analyst

## ***Create and Deploy the Application Pack Web Archive***

On successful installation of the OFSAA Application Pack, the web archive file is automatically generated. However, you need to deploy the generated web archive file on the Web Application Server.

For identifying the location of the generated web archive file and for generating and deploying the web archive file at any time later, see [Creating and Deploying EAR/WAR File](#).

---

**Note:** See the [Oracle Financial Services Forms Manager User Guide](#) for instructions on Creating and Deploying the Forms Manager Web Archive.

---

## ***Patching Your OFS Profitability Pack Installation***

Oracle strongly recommends installing the latest available patch set so as to be up to date with the various releases of the OFSAA Infrastructure product.

See <http://support.oracle.com> for more information on latest releases.

**CHAPTER 7**

# *RPD/ Catalog Deployment, D3 and Map View Configuration for OBIEE 11g*

This appendix covers the following sections:

- ⑩ [Deploying Profitability Pack Dashboards and Analytics](#)
- ⑩ [Deploying D3 on OBIEE 11g Server](#)
- ⑩ [Mapview Configuration](#)
- ⑩ [HTML5 Compliance of OBIEE Reports in IE11](#)

## Deploying Profitability Pack Dashboards and Analytics

This section covers the following topics:

- ⑩ [Installing OBIEE Server](#)
- ⑩ [Installing OBIEE Windows Administration Client](#)
- ⑩ [Deploying Profitability Pack Report Analytics](#)
- ⑩ [Deploying EFPA/ IPA/ RPA Application Report Analytics](#)

### Installing OBIEE Server

To install Oracle Business Intelligence Enterprise Edition (OBIEE) server, see the Oracle Fusion Middle ware Installation Guide for Oracle Business Intelligence11g Release 1 (11.1.1.9.5). After installing Oracle Business Intelligence Enterprise Edition (OBIEE) server, get the Enterprise Manager URL, username, password, and OBIEE installed directory from the System Administrator.

---

**Note:** From the OFS PFT Release 8.0.3.0.0 onwards, the OBIEE version 11.1.1.7.1 will not have support and enhancements. All the existing reports work same as the previous versions, but the new developments will not function in 11.1.1.7.1 version of OBIEE.

---

### Installing OBIEE Windows Administration Client

To install OBIEE repository administration client for Windows machine, see the Oracle® Fusion Middle ware Installation Guide for Oracle Business Intelligence11g Release 1 (11.1.1.9.0).

### Deploying Profitability Pack Report Analytics

To deploy Analytic Reports, follow these steps:

1. Stop Oracle Process Manager and Notification Server (OPMN) services by executing the following command:  

```
<OBIEE Installed Directory>/instances/instance1/bin./opmnctl stopall
```
2. Copy `OFS_PFT_PACK.rpd` from `$FIC_HOME/OFSPFTPACKBI/OBIEE/11.1.1.9.5/` of Web layer to the Windows machine.

---

**Note:** It is recommended to merge the rpd files by keeping `OFS_PFT_PACK.rpd` as the base, in order to avoid merge errors.

In case of upgrade, the `$FIC_HOME/OFSPFTPACKBI` folder will have two folders namely, `$FIC_HOME/OFSPFTPACKBI/OBIEE` and `$FIC_HOME/OFSPFTPACKBI/OBIEE11G`. You can ignore the `$FIC_HOME/OFSPFTPACKBI/OBIEE11G` folder.

---

3. To configure connection pool of repository, follow these steps:
  - a. Open the repository using OBIEE Windows administration client.

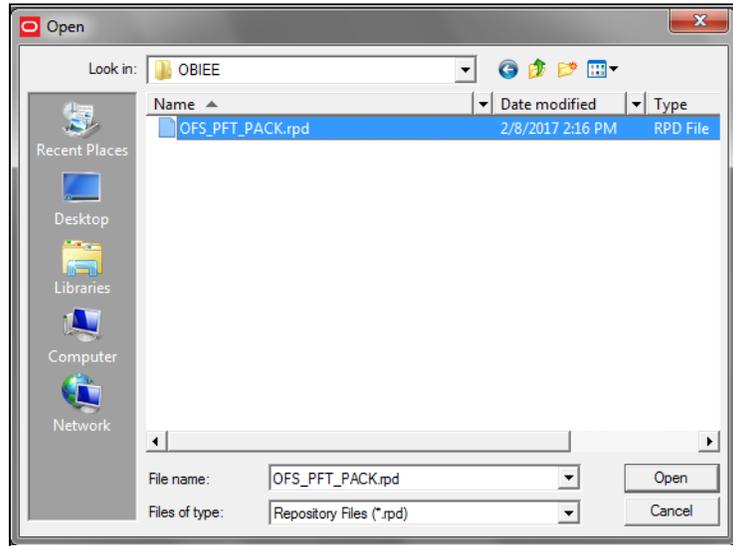


Figure 1: OBIEE Windows Administration Client to Open Repository

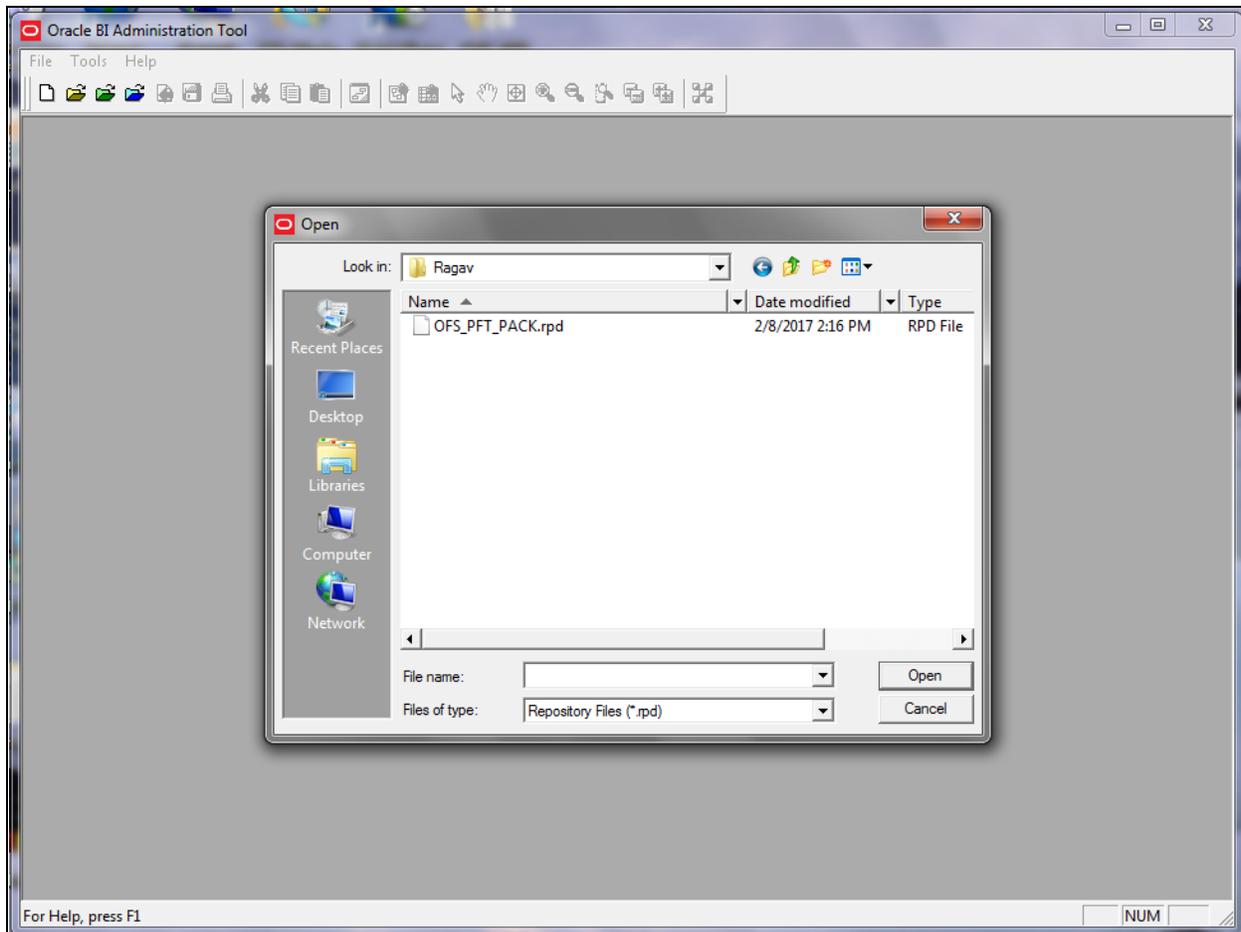


Figure 2: OBIEE Windows Administration Client to Select Repository from Windows Machine

- b. Enter default repository password as Admin123.
- c. In the physical section, expand 'Customer Insight Database' folder.

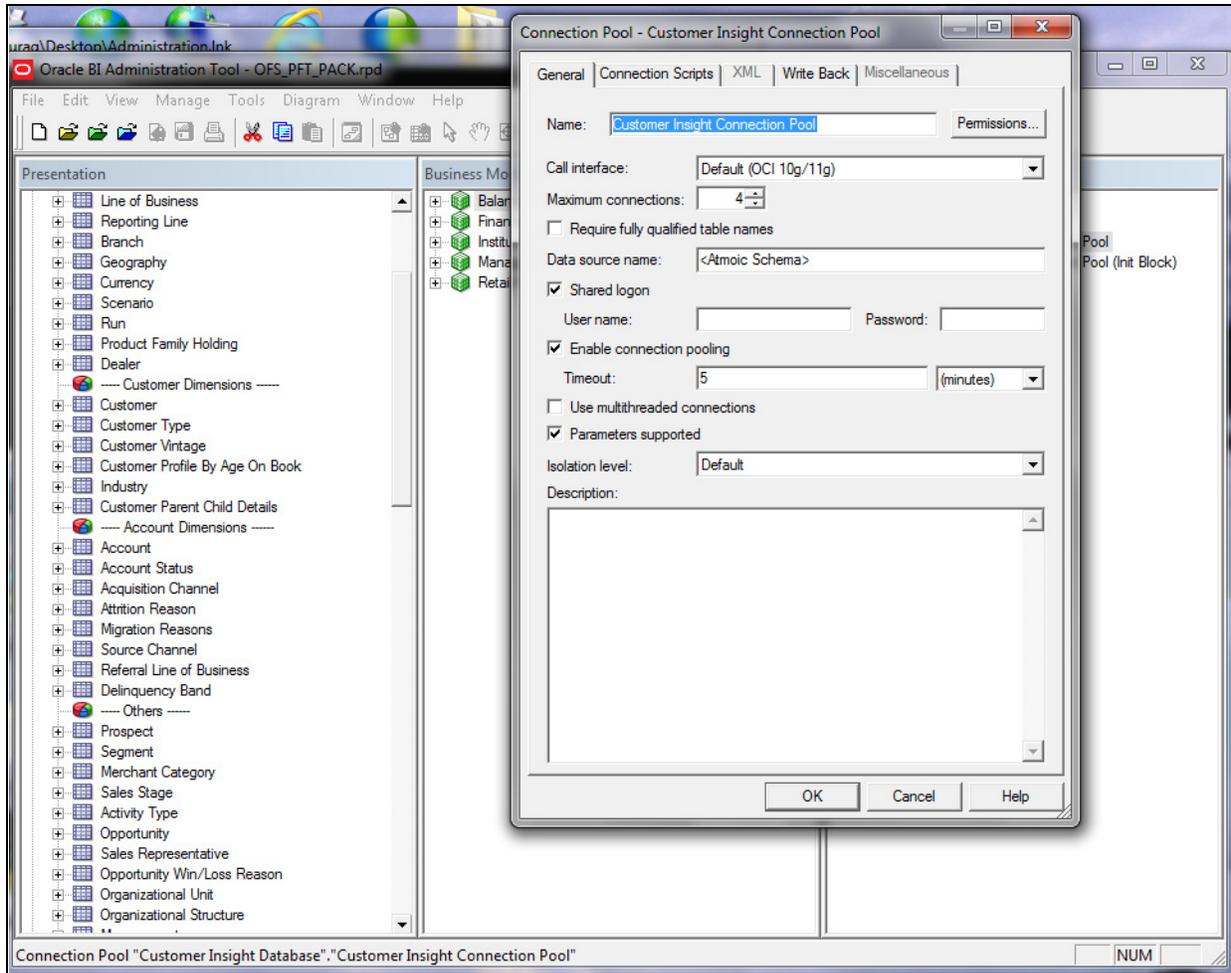


Figure 5: OBIEE Windows Administration Client to Open Connection Pool Window

- d. Double-click **Customer Insight Connection Pool** to open the Connection Pool Properties window.
- e. Enter the following in *Data Source Name* text box of Connection Pool Properties window after modifying <Database Server Host Name> and <Database Name>
 

```
(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<Database Server HostName>)(PORT=1521))(CONNECT_DATA=(SERVER=DEDICATED)(SERVICE_NAME=<Database Name>)))
```
- f. Enter atomic schema user in **User name** text box.
- g. Enter atomic schema user password in **Password** text box.
- h. Click **OK**.

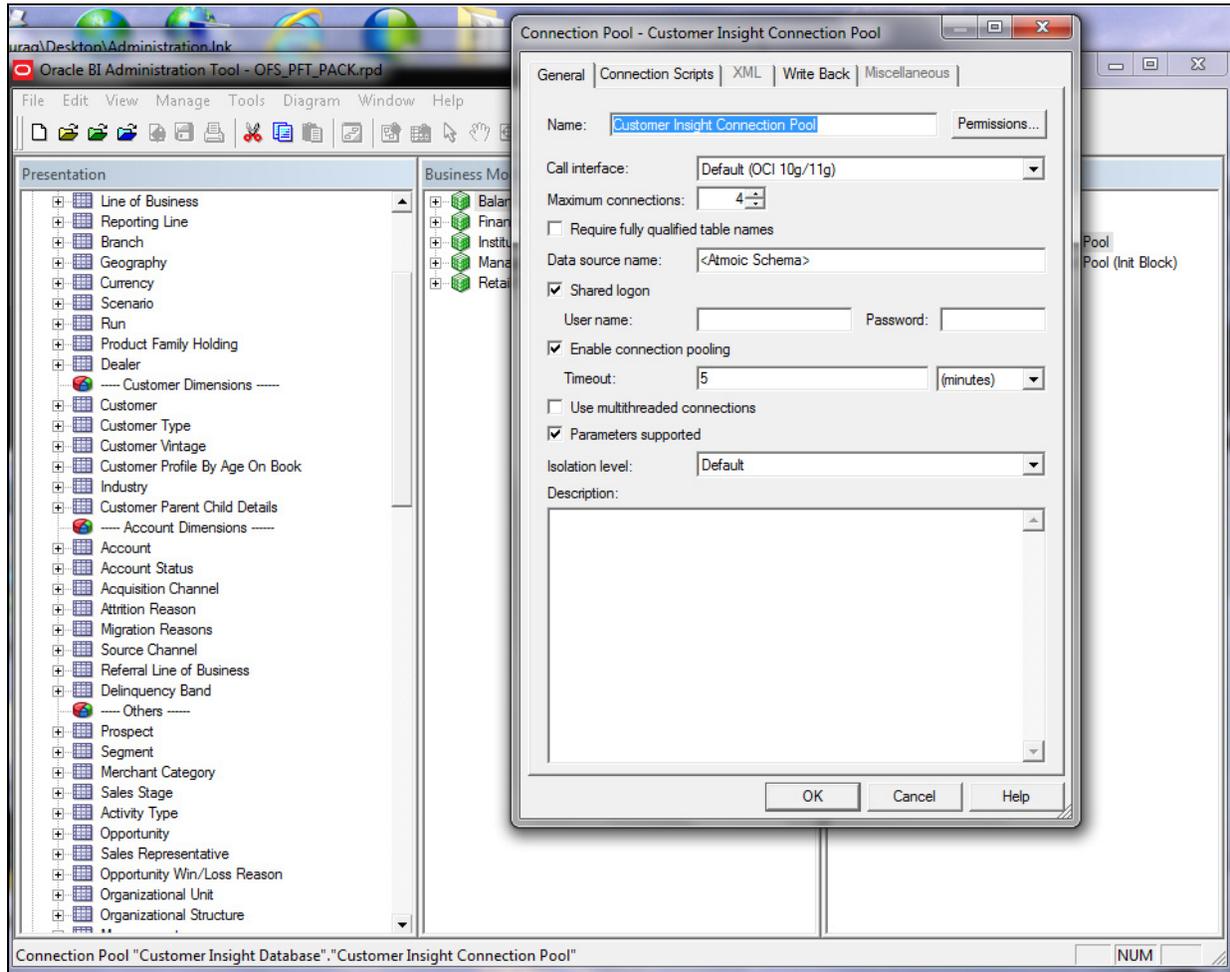


Figure 6: OBIEE Windows Administration Client to modify Connection Pool variables

- i. Double-click 'Customer Insight Connection Pool (Init Block)' to open the Connection Pool window.
  - j. Enter the following in *Data Source Name* text box of Connection Pool Properties window after modifying <Database Server Host Name> and <Database Name>
 

```
(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<Database Server HostName>)(PORT=1521))(CONNECT_DATA=(SERVER=DEDICATED)(SERVICE_NAME=<Database Name>)))
```
  - k. Enter atomic schema user in **User name** text box.
  - l. Enter atomic schema password in **Password** text box.
  - m. Click **OK**.
4. To configure connection pool for EFPA, modify 'OFSEFPA Connection Pool' and 'OFSEFPA Init Block' connection pool and set the property which is inside of 'EFPA' folder in the physical section.
  5. Click **File** menu and then click **Save**.
  6. Click **Yes** on the pop-up message Do you want to check global consistency?
  7. Click **OK**, on the pop-up message Consistency check didn't find any errors, warning or best practices violations.

---

**Note:** Warnings on consistency check can be ignored.

---

**List of Warning Messages:**

Business Model Financial Reporting:

[39090] Logical column "Financial Reporting"."Dim - Reporting Period"."Month" has invalid Sort Order column 'Month Sort'.

Business Model Management Reporting:

[39090] Logical column "Management Reporting"."Dim - Reporting Period"."Year" has invalid Sort Order column 'Year Calendar'.

GLOBAL:

[39092] Presentation level "Retail Performance".. "Branch"."Branch Hierarchy"."Region" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Retail Performance".. "Time"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Retail Performance".. "Product"."Product Hierarchy"."Leve20" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Income Statement".. "Reporting Period"."Time\_Hierarchy\_Month"."Month" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Income Statement".. "Reporting Period"."Time Hierarchy Year\_Month"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Financial Ratios".. "Reporting Period"."Time\_Hierarchy\_Month"."Month" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Financial Reporting".. "Reporting Period"."Time Hierarchy Month"."Month" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Financial Reporting".. "Reporting Period"."Time Hierarchy Year\_Month"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet".. "Reporting Period"."Time\_Hierarchy\_Month"."Month" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Financial Reporting".. "Reporting Period"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Institutional Performance".. "Time"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Financial Ratios".. "Reporting Period"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Income Statement".. "Reporting Period"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet".. "Reporting Period"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Account"."Account"."Gen2,Account" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Period". "Period". "Gen2,Period" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Years". "Years". "Gen2,Years" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Scenario". "Scenario". "Gen2,Scenario" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Entity". "Entity". "Gen2,Entity" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Version". "Version". "Gen2,Version" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Strategy". "Strategy". "Gen2,Strategy" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Chart of Account". "Chart of Account". "Gen2,Chart of Account" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "AttributeValue". "AttributeValue". "Gen2,AttributeValue" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Currency". "Currency". "Gen2,Currency" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Intercompany Entity Flag". "Intercompany Entity Flag". "Gen2,Intercompany Entity Flag" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "AssetClass". "AssetClass". "Gen2,AssetClass" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "COA type". "COA type". "Gen2,COA type" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet

Planning".. "DelinquenciesExp". "DelinquenciesExp". "Gen2,DelinquenciesExp" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Fee Classification". "Fee Classification". "Gen2,Fee Classification" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Intercompany COA Flag". "Intercompany COA Flag". "Gen2,Intercompany COA Flag" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "Sample COA". "Sample COA". "Gen2,Sample COA" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

[39092] Presentation level "Balance Sheet Planning".. "curr\_attrib". "curr\_attrib". "Gen2,curr\_attrib" is first under presentation hierarchy, but logical level it is associated with is not grand total level

[39092] Presentation level "Institutional Performance".. "Segment". "Segment Hierarchy". "Type" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

## Deploying EFPA/ IPA/ RPA Application Report Analytics

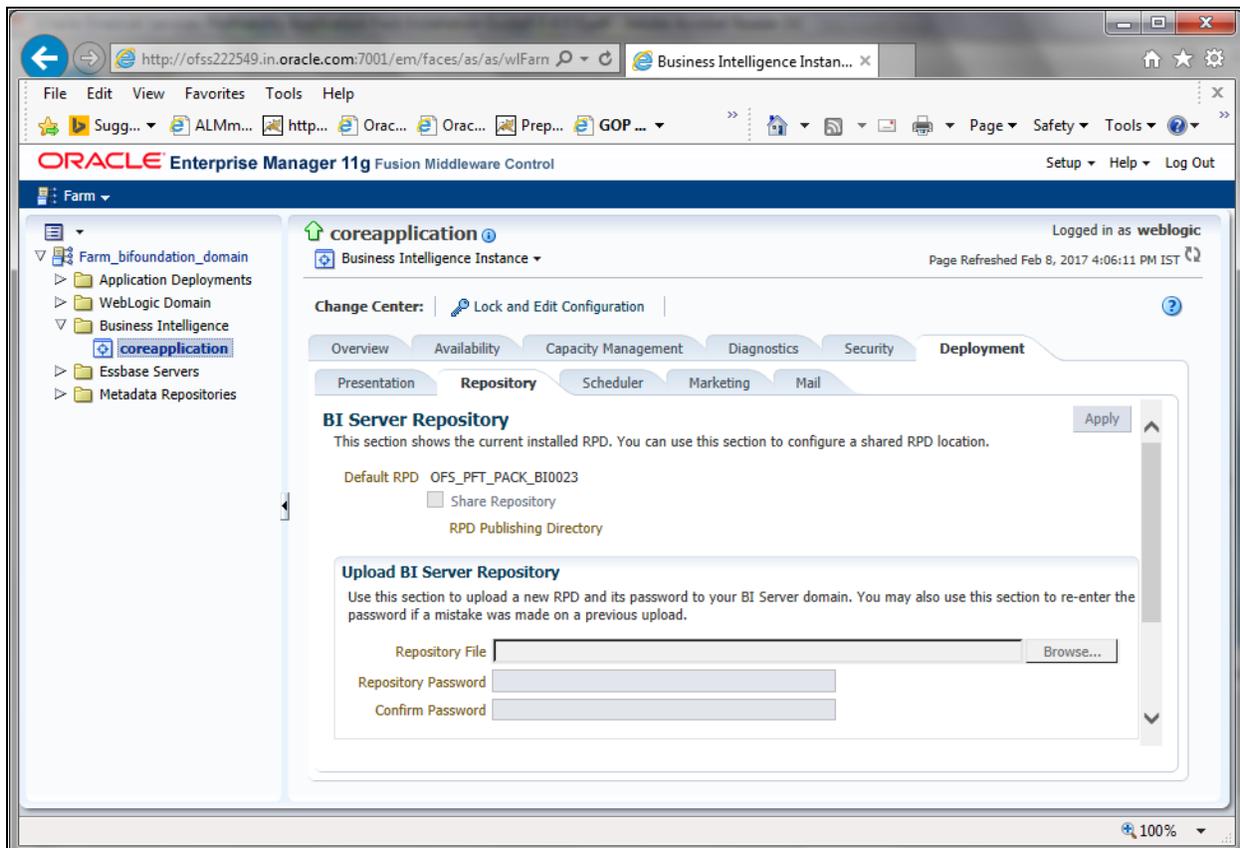
Use the following procedure to deploy the EFPA/ IPA/ RPA applications report analytics:

**Note:** Ensure that Oracle Business Intelligence 11.1.1.9.5 is available.

1. Deploy RPD and webcat file(s).
  - a. Login to OBIEE - Enterprise Manager URL (<http://<ip address>:<port>/em>).
    - ◆ Click on hyperlink 'coreapplication' from 'Business Intelligence' tab on left hand side.
    - ◆ Under 'coreapplication', select the tab 'Deployment' and in that select sub-tab 'Repository'.



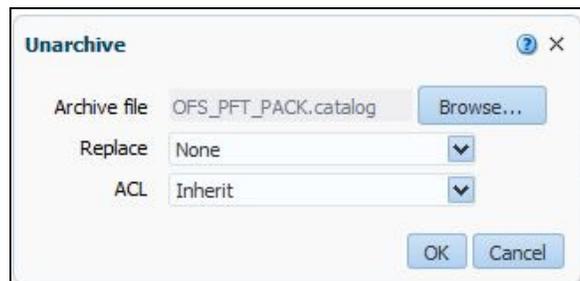
- ◆ Click 'Lock and Edit Configuration' button located below title 'coreapplication'. Following screen is displayed.



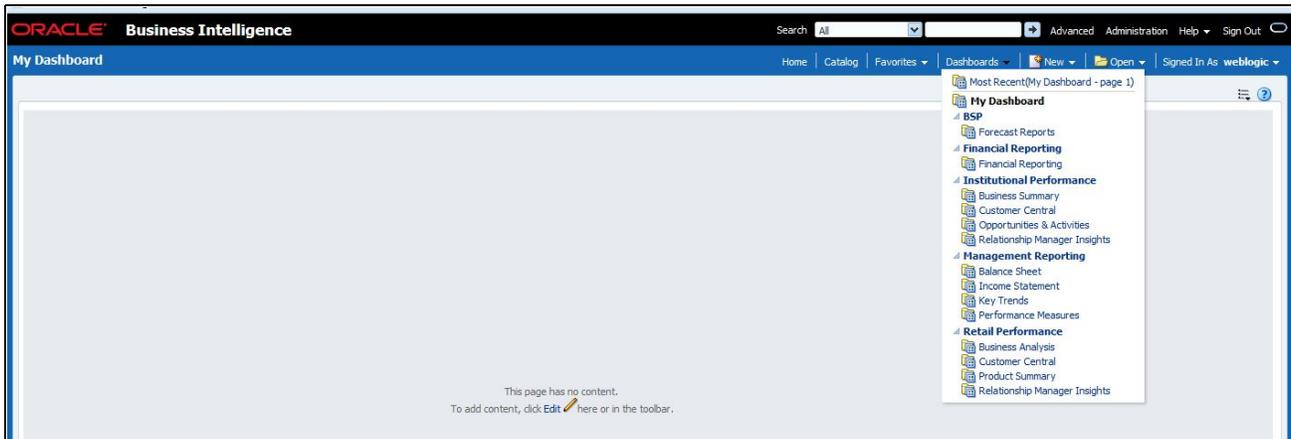
- b. RPD Deployment: Select 'Browse' button available under 'Upload BI Server Repository' section and select OFS\_PFT\_PACK.rpd file from the local folder. Enter default Repository password Admin123.
- c. Web catalog Deployment: Open the analytics OBIEE URL-(http://<ipaddress>:<port>/analytics) and login with the credentials.
- d. Click "Catalog" link available on the top right corner.
- e. Click "Shared Folders" and then "Un-Archive".



- f. Browse the path where "OFS\_PFT\_PACK.catalog" is copied in the local folder. Select the file and click "Open". Then click "OK".



- g. Click "Dashboard" and click on any of the reports to ensure that all the reports are available.



2. Restart all services in OBIEE "Enterprise Manager".
3. If you are doing any changes online, then configure ODBC data source to connect to Oracle BI Server as follows:
  - a. Go To Control Panel > Administrative Tools > Data Sources (ODBC).
  - b. Select the 'System DSN' tab and click 'Add' Button.
  - c. Select a driver specific to (Oracle BI Server 11g) and click 'Finish' Button.
  - d. Enter 'Name' and 'Server' details (Specify the Host Name or IP Address of the BI Server and click 'Next').
  - e. Enter Oracle BI Server login id and password (Enter User Name and Password created at the time of OBIEE installation). Click 'Next'.
  - f. Click 'Finish'.
4. If RPD deployment is done on Essbase, then modify ESSBASE connection pool and set the properties.

## Deploying D3 on OBIEE 11g Server

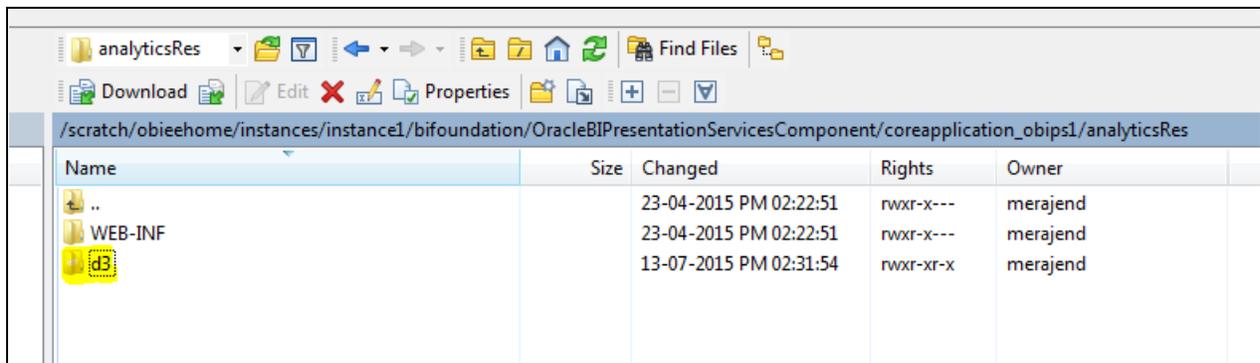
This section provides detailed steps to install and configure D3, a visualization framework, which is used in few reports of IPA and RPA.

To deploy the D3 on OBIEE 11g server, do the following:

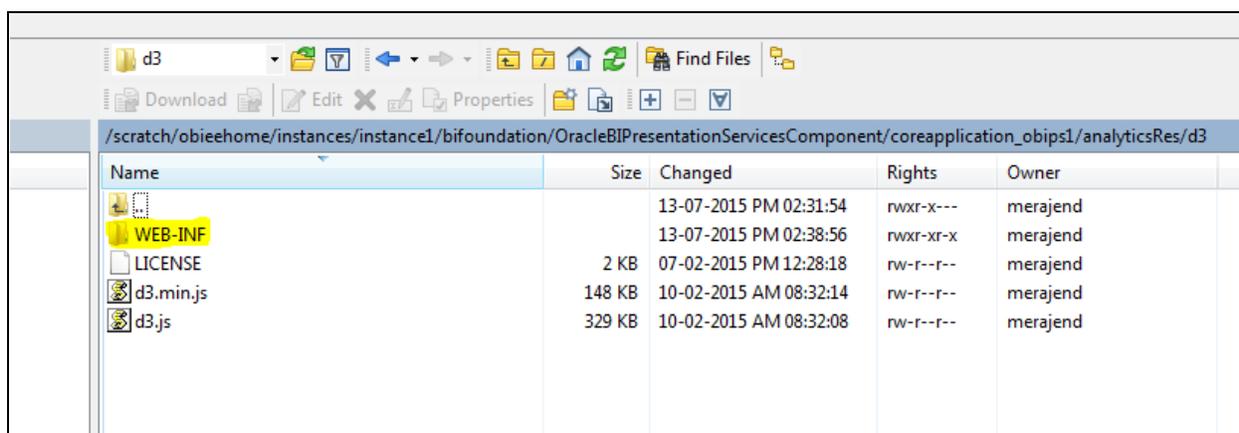
1. Download `d3.zip` of version 3.5.16 and place it in your local folder.
2. Unzip the `d3` folder and move this to **analyticsRes** in your entitlement server.

**Note:** To view the Customer Group Structure report, copy the `hashMap.js` file from `$FIC_HOME/OFSPFTPACKBI/OBIEE/` and place it in to the `d3` folder under **analyticsRes** and restart the application from the folder.

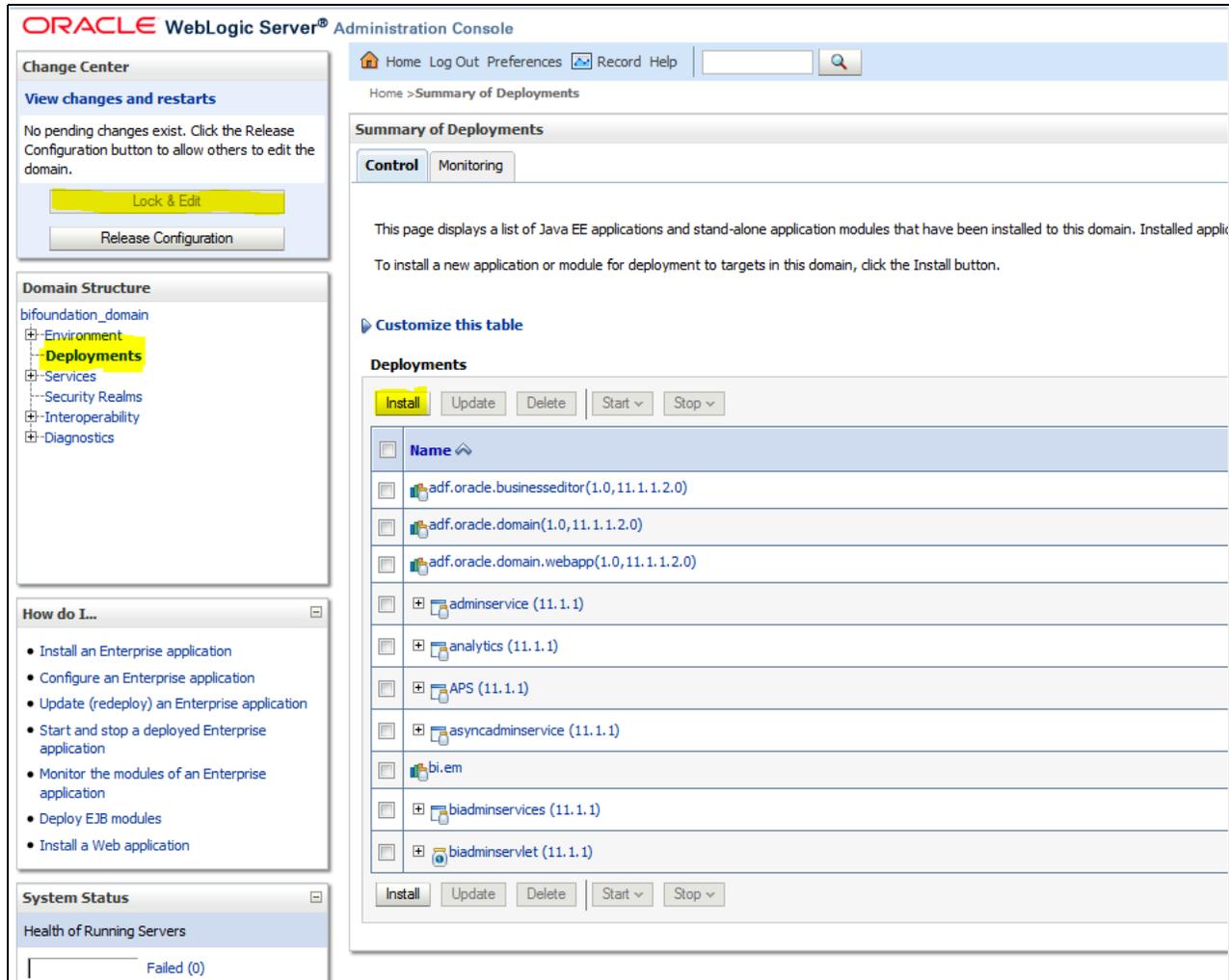
In case of upgrade, the `$FIC_HOME/OFSPFTPACKBI` folder will have two folders namely, `$FIC_HOME/OFSPFTPACKBI/OBIEE` and `$FIC_HOME/OFSPFTPACKBI/OBIEE11G`. You can ignore the `$FIC_HOME/OFSPFTPACKBI/OBIEE11G` folder.



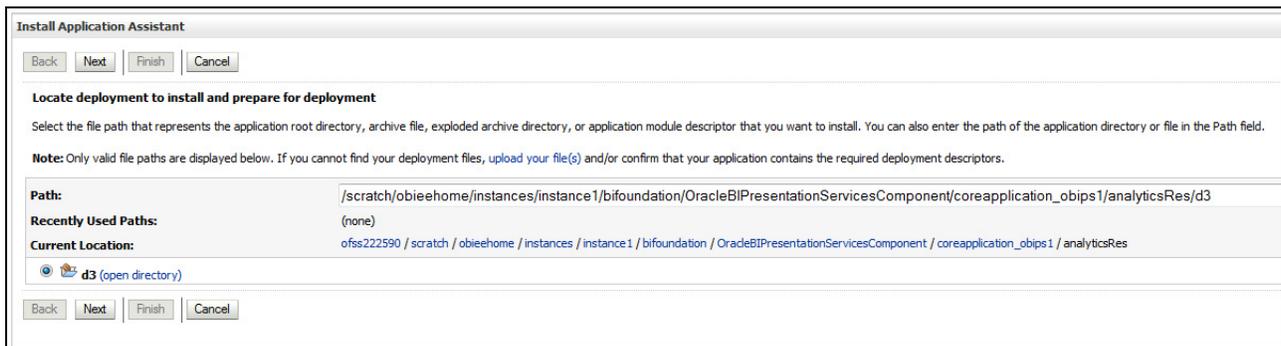
3. Copy the **WEB\_INF** directory from **analyticsRes** into `d3` folder.



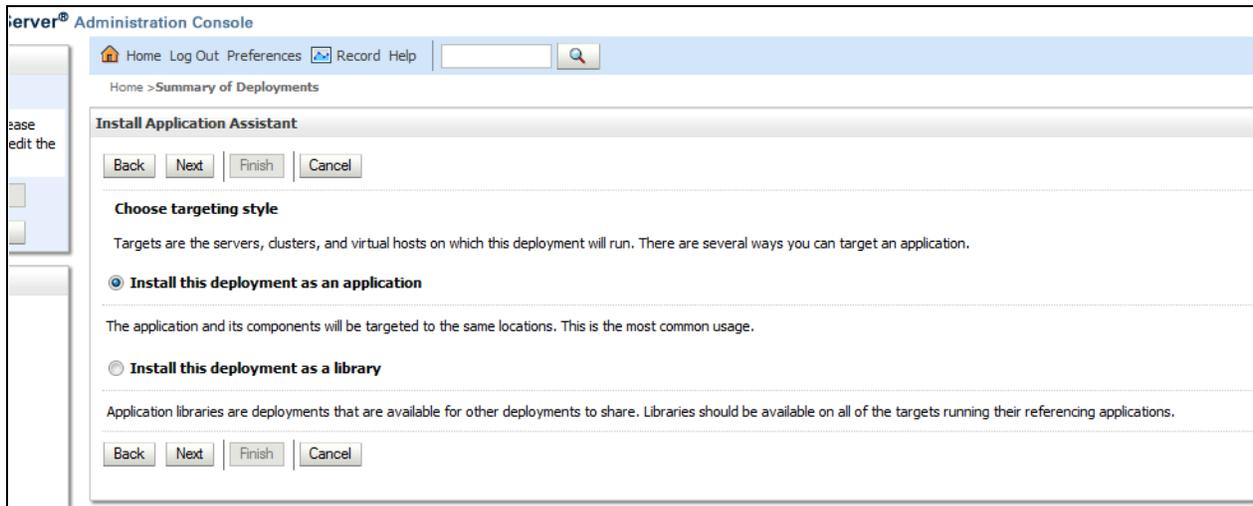
4. Login to web logic server, go to **Deployments** in your domain structure, click the **Lock & Edit** button, and then select **Install**.



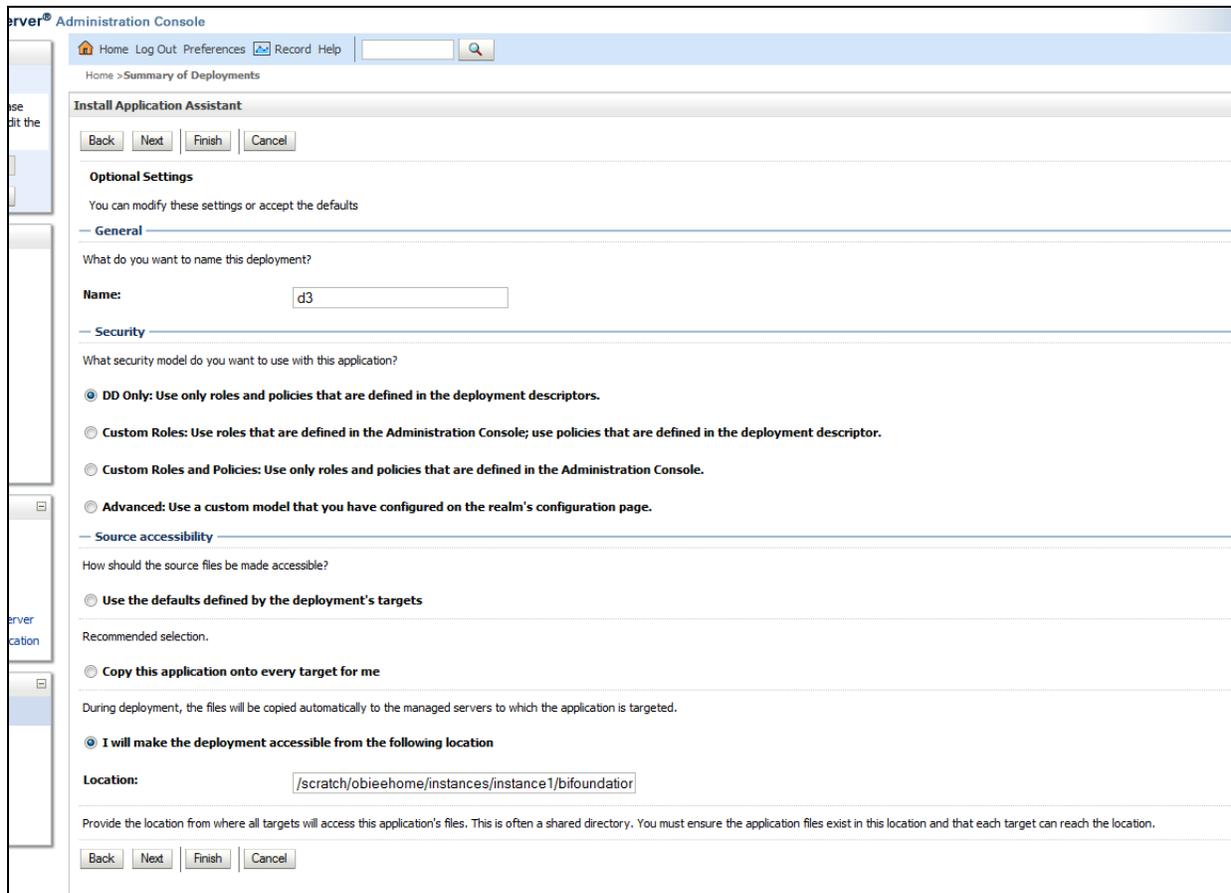
5. Once you click on **Install** button, it will take you to the screen shot below where you will paste the full path to the **d3** directory, check the check box next to **d3** (open directory) and click **Next**.



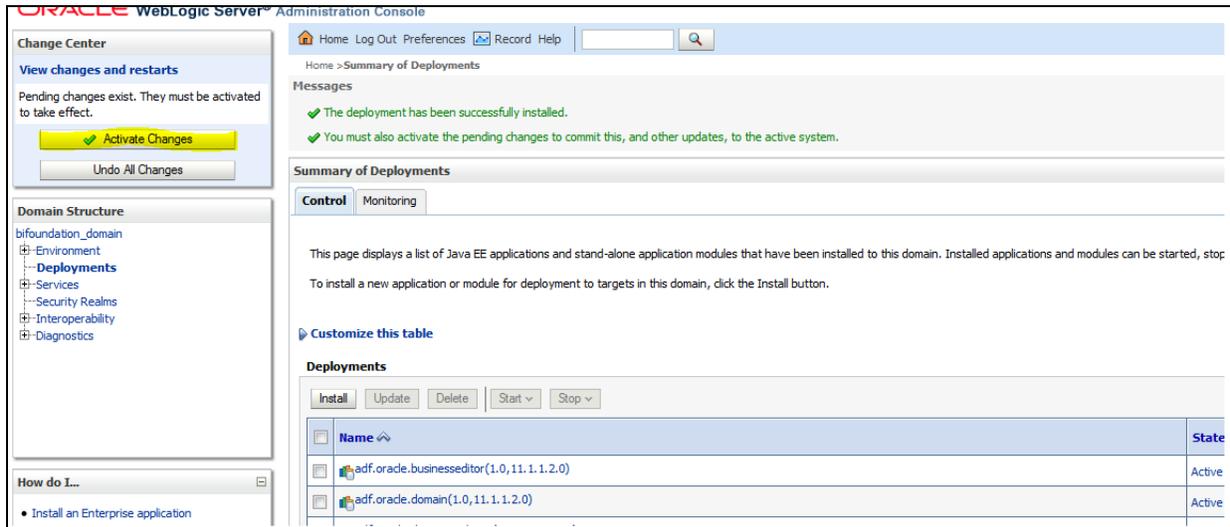
- On the next screen, you'll choose Install this deployment as an application and click **Next**.



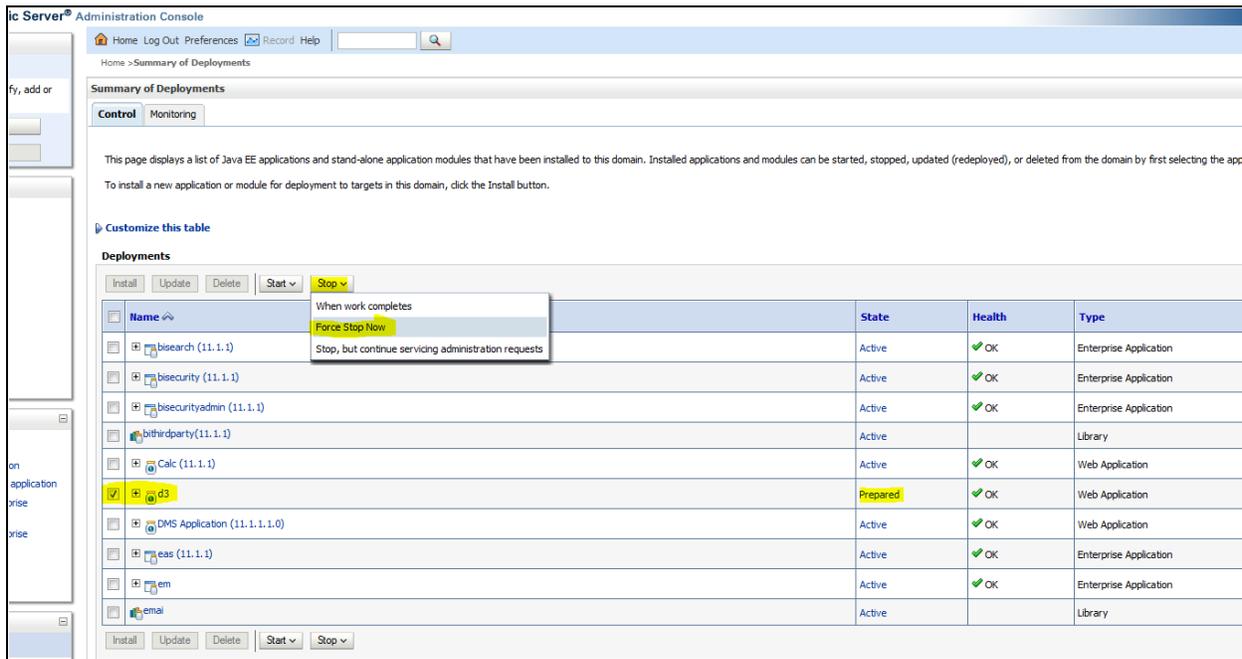
- On the next screen, select "I will make the deployment accessible from the following location" and click **Finish**.



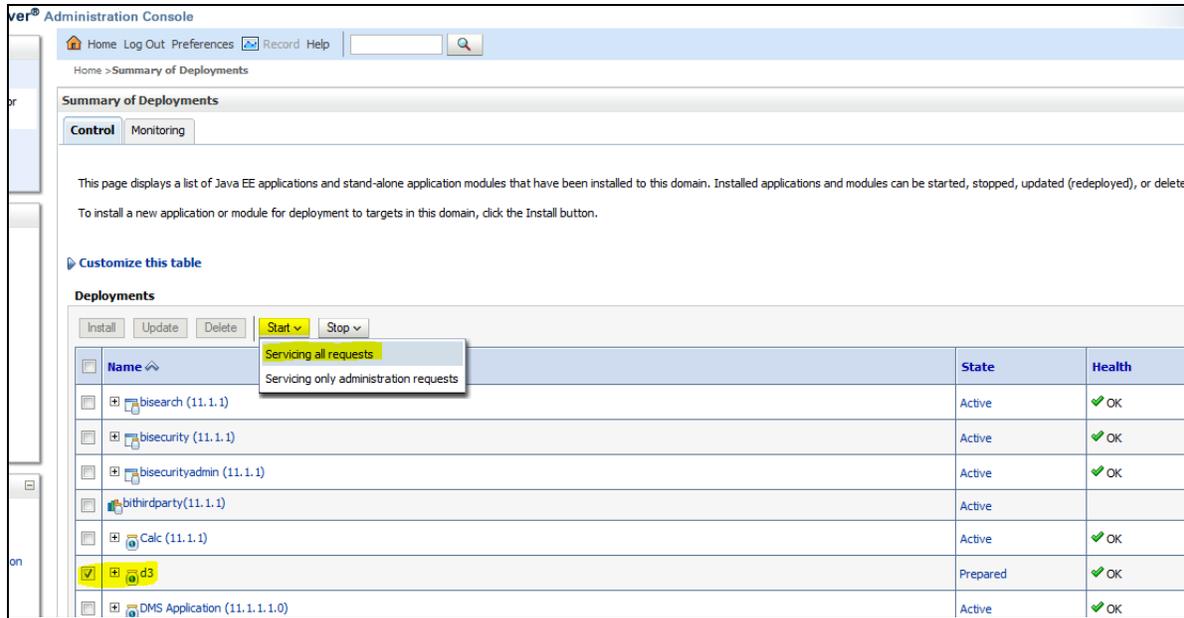
- On this screen, you will have to click on **Activate Changes**.



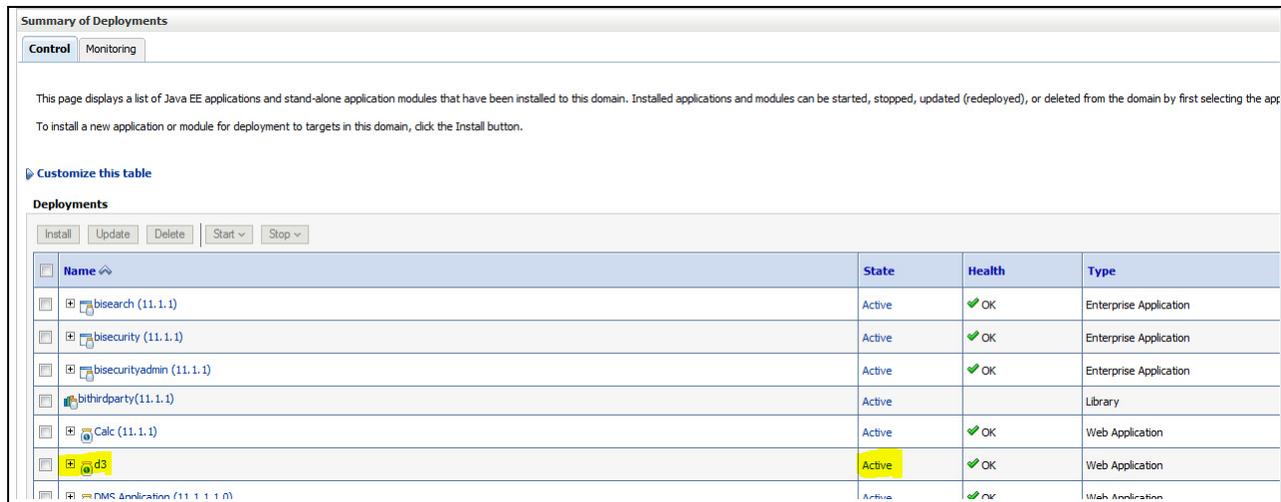
- After activating the changes, the application will now be in a **Prepared** state, as in the screen shot below. You will have to stop the application by checking the check box next to it and selecting **Force Stop Now** from the **Stop** menu.



10. You can start the application by checking the check box next to it and selecting **Servicing all requests** from the **Start** menu.



11. The application will now change to an **Active** state and ready to use.



## Mapview Configuration

This section provides information on prerequisites, creating the mapviewer NAVTEQ data source, configuration edits and server starting which is required for viewing map based reports of IPA and RPA.

---

**Note:** This is just a sample configuration working on sample data provided by NAVTEQ.

---

This section covers the following topics:

- ⑩ [Prerequisites](#)
- ⑩ [Creating the Mapviewer NAVTEQ Data source](#)
- ⑩ [Loading FSI\\_LOCATION\\_MAP\\_COORD for viewing NAVTEQ Maps](#)

### Prerequisites

NAVTEQ database dump can be imported only into an Oracle 11g database. If you have no other option than using a 10g version, contact OBIEE/Mapviewer Product Management.

### Creating the Mapviewer NAVTEQ Data source

Ensure that you have a connection to 11g Oracle database from the machine where your OBIEE platform is installed.

Create a NAVTEQ schema within that database for holding the NAVTEQ spatial data.

To create NAVTEQ schema, perform the steps as explained in the following section.

### Downloading the Mapviewer NAVTEQ Database Dump

To download the Mapviewer NAVTEQ Database Dump, follow these steps:

1. Access the NAVTEQ Data Bundle for OBIEE from the 'OBIEE 11.1.1.3 - Sample Application':  
<http://www.oracle.com/technetwork/middleware/bi-foundation/obieesamplesarchive-2026956.html>
2. Download and unzip the `SampleApp_Navteq_dmp.zip` file that contains an Oracle Database export file named:  
`obiee_navteq.dmp`

### Creating NAVTEQ User

To create a NAVTEQ user, follow these steps:

1. Start a SQL\*Plus session to the Oracle Database as a user with system or DBA privileges.
2. Run the following script:

```
create user obiee_navteq identified by obiee_navteq default tablespace users quota
unlimited on users;
grant "connect" to obiee_navteq;
grant "resource" to obiee_navteq;
```

3. Once the script is executed, verify whether you can connect to the newly created user.

---

**Note:** The OBIEE\_NAVTEQ user creation script defaults with the password obiee\_navteq (same as user name) within the script. It is recommended that you keep this value unchanged to simplify configuration.

---

### Importing the database dmp file

4. Import the Oracle Database export file - obiee\_navteq.dmp into the obiee\_navteq schema using the following import command, from the command line (Command Prompt in Windows):

```
c:\> imp obiee_navteq/obiee_navteq@connectString file=obiee_navteq.dmp FULL=Y
```

5. connectString is the connection string to your Oracle Database 11g where the user obiee\_navteq was created in the step mentioned earlier. Wait for the import process to complete, once successfully completed, login on your DB as obiee\_navteq/obiee\_navteq and validate that you can view the schema tables and some data.

### Inserting Extra Spatial Metadata

6. Start a SQL\*Plus session to the Oracle Database and connect as user obiee\_navteq.

For example: c:\>sqlplus obiee\_navteq/obiee\_navteq@connectString

7. Run the following script:

```
INSERT INTO user_sdo_maps SELECT * FROM my_maps;
INSERT INTO user_sdo_themes SELECT * FROM my_themes;
INSERT INTO user_sdo_styles SELECT * FROM my_styles;
INSERT INTO user_sdo_cached_maps SELECT * FROM my_tile_cache;
Commit;
```

### MapViewConfig.xml Edits

1. Open the Mapviewer console using the following URL:  
`http://<ip address>:<port>/mapviewer`
2. Click **Admin**.
3. Login with the username/password that you provided while installing the product.
4. Click **Configuration**. This opens the mapViewConfig.xml on your setup.
5. Make the following updates to the xml file.

<security\_config> (Optional)

In the <security\_config> property of this file, make the following changes:

- a. Change the <proxy\_enabled\_hosts> property to the following: Substitute the hostname, IP address and port to the correct values on your setup.

```
<proxy_enabled_hosts>
```

```
http://<ip address>:<port>/mapviewer
```

```
http://<ip address>:<port>/, http://<ip address>:<port>/
```

```
http://<ip address>:<port>/mapviewer
```

```
</proxy_enabled_hosts>
```

- b. Substitute any entries with these tags with the following property entries:

```
<disable_direct_info_request> true </disable_direct_info_request>
```

```
<disable_info_request> true </disable_info_request>
```

```
<disable_csf>true</disable_csf>
<enforce_security_role> true </enforce_security_role>
```

## Predefined Data Sources

1. At the end of the file, in the section named Predefined Data Source, add the following data source entry.
2. Replace the IP address, SID, and port to the correct values of the database where the obiee\_navteq schema has been created in the above steps.

```
<map_data_source name="OBIEE_NAVTEQ_SAMPLE"
jdbc_host="10.229.147.238" (use your db ip)
jdbc_sid="orcl" (use your db sid)
jdbc_port="1521" (use your db port)
jdbc_user="obiee_navteq"
jdbc_password="!obiee_navteq" (use your selected password if different from OOB)
jdbc_mode="thin"
number_of_mappers="3"
allow_jdbc_theme_based_foi="false" />
```

---

**Note:** Ensure that all tags have been closed correctly and also the above data source is not within the comments section (ensure that it is outside the comments section which is represented by <!-- .. -->).

---

3. Click **Save** and **Restart** button at the bottom of the file.
4. Once `configuration.xml` file is restarted, click Data Sources.
5. Verify whether you can view OBIEE\_NAVTEQ\_SAMPLE as an entry in data sources.
6. Select the radio button OBIEE\_NAVTEQ\_SAMPLE.
7. Login to **Analytic screen > Administration**.
8. Click **Manage map Data**.
9. Click **Import Layer** and then choose OBIEE\_COUNTRY.
10. Choose **Preview MAP** as OBIEE\_WORLD\_MAP\_FAST.
11. Same for OBIEE STATE.
12. Select **Background Maps**.
13. Use import Background maps and chosen OBIEE\_WORLD\_MAP\_FAST.
14. Edit the same, add layer OBIEE\_COUNTRY and then OBIEE STATE. While choosing, chose the location OBIEE\_WORLD\_MAP for higher Zoom value.
15. Select the zoom level for country 0 and for country 2...15.
16. Navigate back to Layers tab.
17. Edit OBIEE\_COUNTRY and OBIEE STATE by adding BI Key Columns:  
**For Country:**
  - a. Choose Institutional Performance>Geography>Country Description.
  - b. Choose Institutional Performance>Branch>Branch Country Description.
  - c. Choose Retail Performance>Geography>Country Description.

**For State:**

- a. Choose Institutional Performance>Geography>State Description.
- b. Choose Institutional Performance>Branch>Branch State Description.
- c. Choose Retail Performance>Geography>State Description.

## Loading FSI\_LOCATION\_MAP\_COORD for viewing NAVTEQ Maps

For NAVTEQ Maps to work, it requires the location data in our atomic schema to be in sync with the map Metadata in NAVTEQ schema. This is achieved through a new table `FSI_LOCATION_MAP_COORD`, the load process of which is described as follows.

Populate `FSI_LOCATION_MAP_COORD` based on `DIM_LOCATION` data itself, but description and codes should come from tables `OBIEE_COUNTRY`, `OBIEE_STATE`, `OBIEE_CITY` (from the DB schema configured for Maps, 'OBIEE\_NAVTEQ', for example in this case) respectively for Country, State and City, and `n_location_skey` should be the corresponding `n_location_skey` from `DIM_LOCATION`.

For Instance, let us consider the following data from `DIM_LOCATION`.

N_LOCATION_SKEY	1
V_LOCATION_CODE	HAW
V_COUNTRY_CODE	USA
V_COUNTRY_DESC	United States
V_STATE_CODE	HI
V_STATE_DESC	Hawaii
V_CITY_CODE	CIT1
V_CITY_DESC	Honolulu
V_ZIP_CODE	96813

Now, to populate the following columns in `FSI_LOCATION_MAP_COORD`:

n_location_skey =	1
v_country_code = OBIEE_COUNTRY.ISO_COUNTRY_CODE	USA
v_country_code_map = OBIEE_COUNTRY.ISO_COUNTRY_CODE	USA
v_country_desc = OBIEE_COUNTRY.NAME	United States
v_state_code = OBIEE_STATE.ISO_CTRY_CD_STATE_ABBRV	USA_HI
v_state_code_map = OBIEE_STATE.ISO_CTRY_CD_STATE_ABBRV	USA_HI
v_state_desc = OBIEE_STATE.STATE_NAME	HAWAII
v_city_code = OBIEE_CITY.CTRY_CD3_STATE_ABBRV_CITY	USA_HI_Honolulu
v_city_code_map = OBIEE_CITY.CTRY_CD3_STATE_ABBRV_CITY	USA_HI_Honolulu
v_city_desc = OBIEE_CITY.CITY_NAME	HONOLULU
v_zip_code =	96813

## HTML5 Compliance of OBIEE Reports in IE11

Perform the following steps in order to verify the HTML5 compliance of OBIEE reports in IE11:

1. Remove the compatibility settings for analytics.

2. Change the instanceconfig.xml file to make all the chart views to be shown in HTML5 by default.

You can find the instanceconfig.xml file in the following location:

*OBIEE\_HOME/instances/instance1/config/OracleBIPresentationServicesComponent/coreapplication\_obips1*

```
<Charts>  
    <DefaultWebImageType>html5</DefaultWebImageType>  
</Charts>
```

3. Enable Mapviewer and D3 reports (to ensure that these reports show up as is).
4. Verify all the BI reports by removing the default chart view setting (to ensure that these reports show up as usual irrespective of HTML5 or flash web Image formats).

### **Details on OBIEE11.1.9.5**

In a browser that does not support the html5 format, the image renders in the flash format instead (which is also interactive).

**CHAPTER 8**

# *RPD/ Catalog Deployment, D3 and Map Configuration for OBIEE12c*

This chapter covers the following sections:

- ⑩ [Deploying Profitability Pack Dashboards and Analytics](#)
- ⑩ [Deploying D3 on OBIEE 12c Server](#)
- ⑩ [Mapview Configuration for OBIEE 12C](#)

## Deploying Profitability Pack Dashboards and Analytics

This chapter covers the following sections:

- ⑩ [Installing OBIEE Server](#)
- ⑩ [Installing OBIEE Windows Administration Client](#)
- ⑩ [Deploying Profitability Pack Report Analytics](#)
- ⑩ [Deploying EFPA/ IPA/ RPA Application Report Analytics](#)

### Installing OBIEE Server

To install Oracle Business Intelligence Enterprise Edition (OBIEE) server, see the Oracle Fusion Middle ware Installation Guide for Oracle Business Intelligence Release 12.2.1.2.0. After installing Oracle Business Intelligence Enterprise Edition (OBIEE) server, get the Enterprise Manager URL, username, password, and OBIEE installed directory from the System Administrator.

---

**Note:** Once the OBIEE server is installed, it should be upgraded to the version as mentioned in the Environment section.

---

### Installing OBIEE Windows Administration Client

To install OBIEE repository administration client for Windows machine, see the Oracle® Fusion Middle ware Installation Guide for Oracle Business Intelligence Release 12.2.1.2.0.

### Deploying Profitability Pack Report Analytics

To deploy Analytic Reports, follow these steps:

1. Copy `OFS_PFT_PACK.rpd` from `$FIC_HOME/OFSPFTPACKBI/OBIEE/12.2.1.2.0/` of Web layer to the Windows machine.

---

**Note:** It is recommended to merge the rpd files by keeping `OFS_PFT_PACK.rpd` as the base, in order to avoid merge errors.

In case of upgrade, the `$FIC_HOME/OFSPFTPACKBI` folder will have two folders namely, `$FIC_HOME/OFSPFTPACKBI/OBIEE` and `$FIC_HOME/OFSPFTPACKBI/OBIEE12C`. You can ignore the `$FIC_HOME/OFSPFTPACKBI/OBIEE12C` folder.

---

2. To configure connection pool of repository, follow these steps:
  - a. Open the repository using OBIEE Windows administration client.

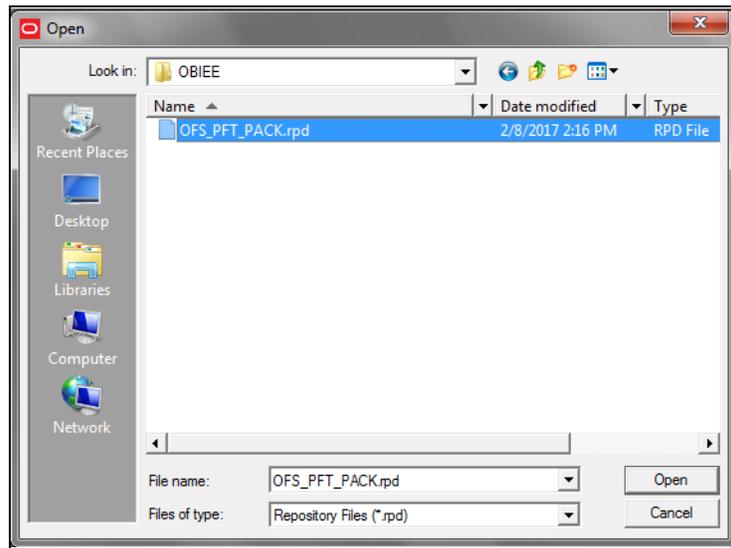


Figure 1: OBIEE Windows Administration Client to Open Repository

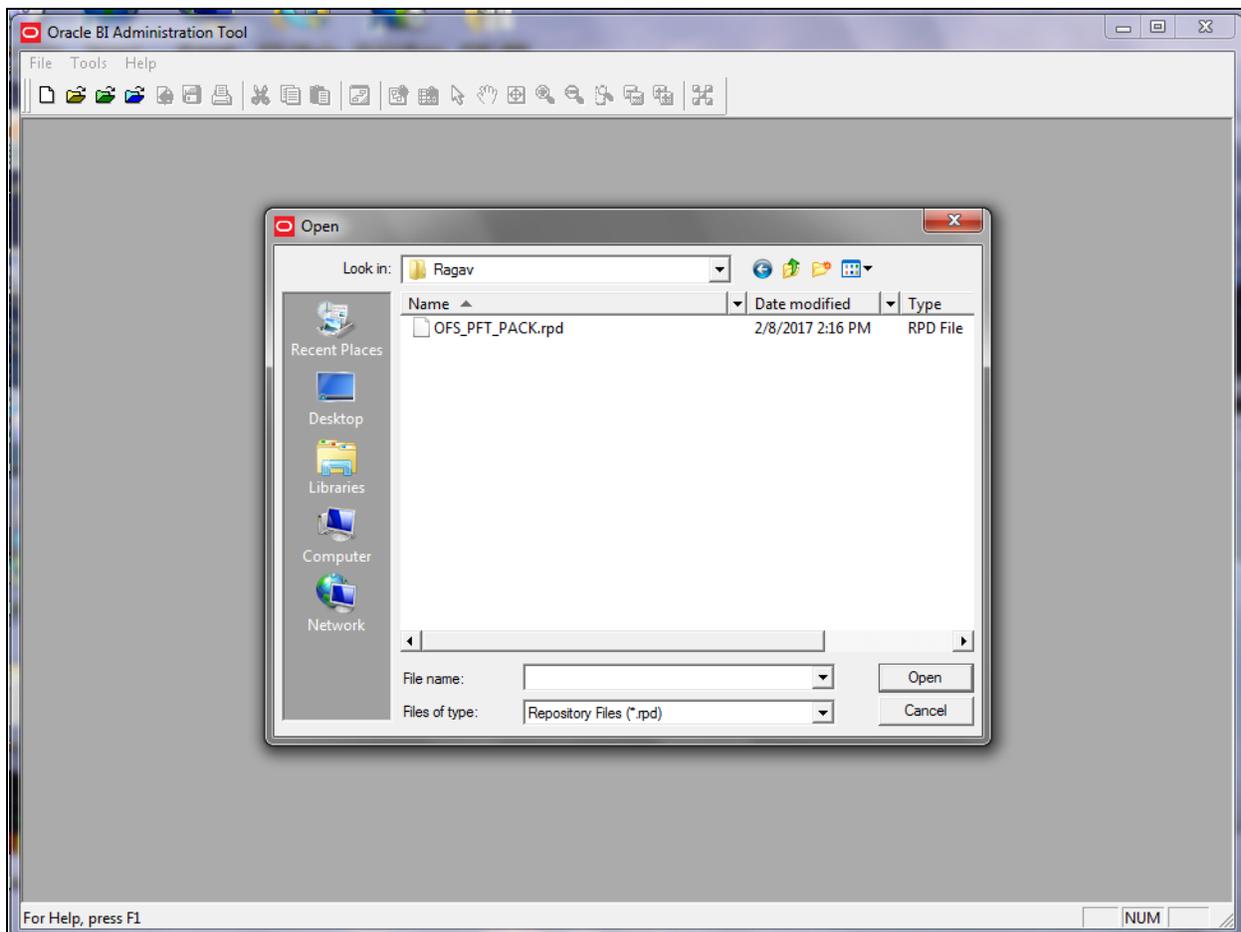


Figure 2: OBIEE Windows Administration Client to Select Repository from Windows Machine

- b. Enter default repository password as Admin123.

- c. In the physical section, expand 'Customer Insight Database' folder.

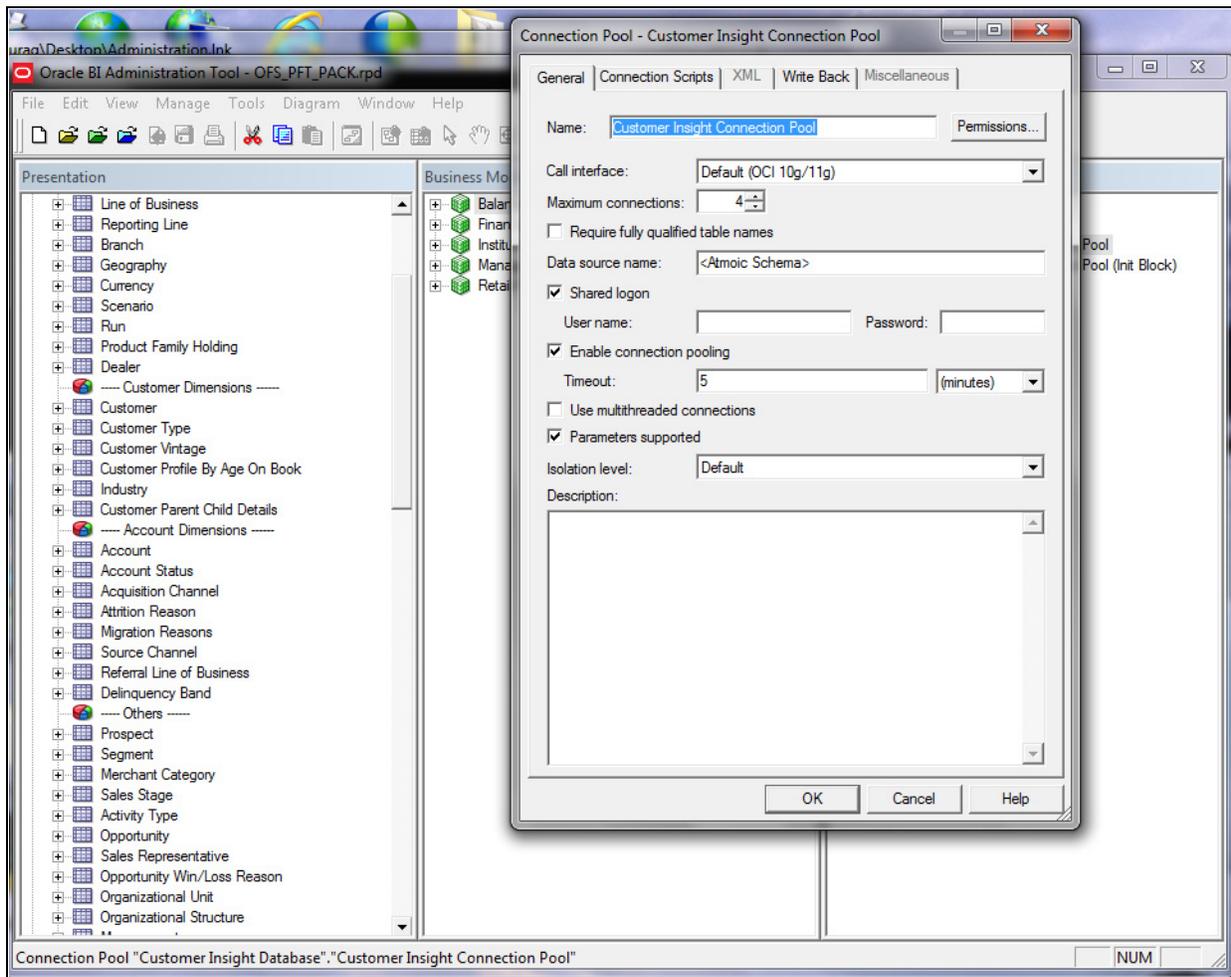


Figure 5: OBIEE Windows Administration Client to Open Connection Pool Window

- d. Double-click *Customer Insight Connection Pool* to open the Connection Pool Properties window.
- e. Enter the following in *Data Source Name* text box of Connection Pool Properties window after modifying <Database Server Host Name> and <Database Name>
 

```
(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<Database Server Host Name>)(PORT=1521))(CONNECT_DATA=(SERVER=DEDICATED)(SERVICE_NAME=<Database Name>)))
```
- f. Enter atomic schema user in **User name** text box.
- g. Enter atomic schema user password in **Password** text box.
- h. Click **OK**.

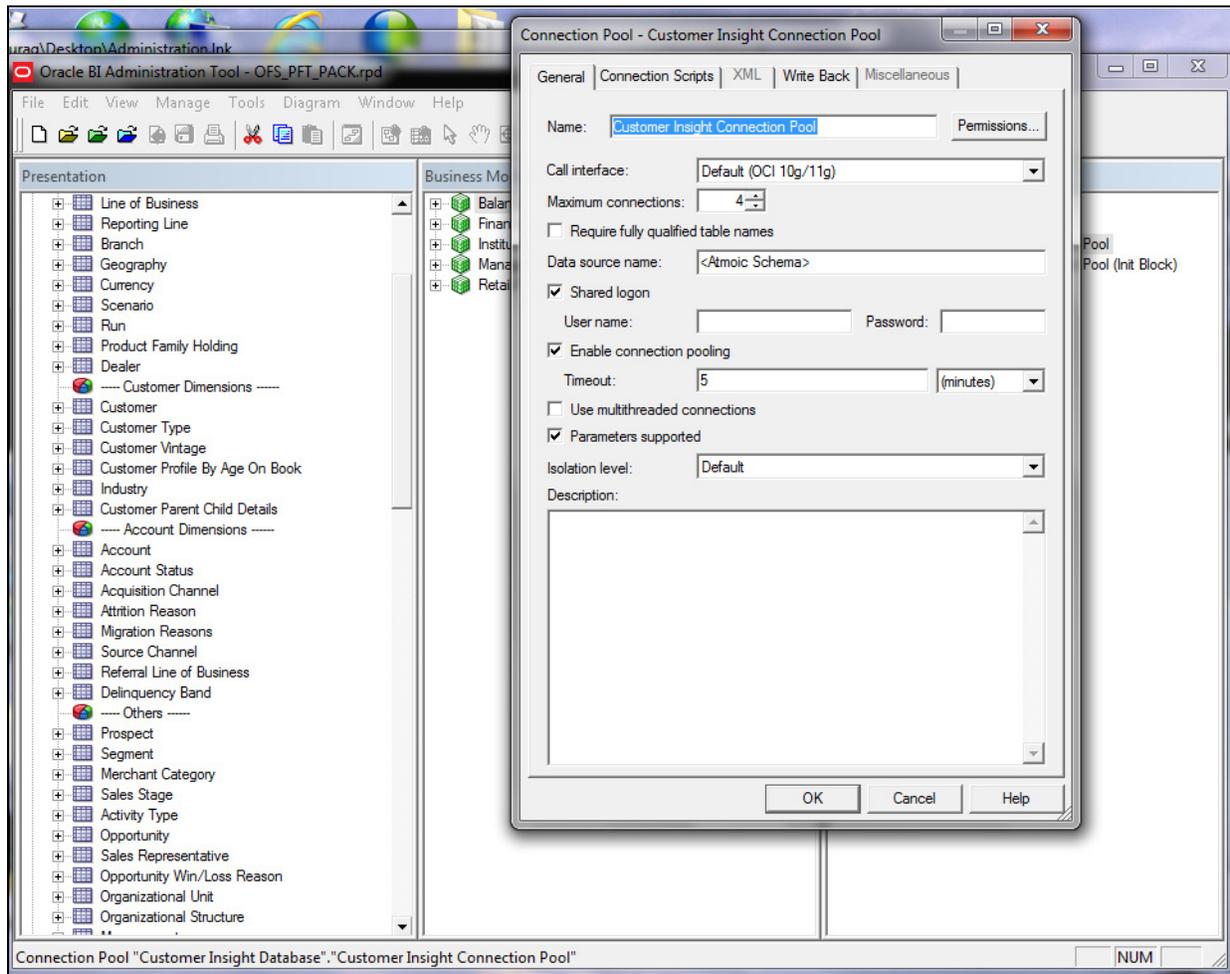


Figure 6: OBIEE Windows Administration Client to modify Connection Pool variables

- i. Double-click 'Customer Insight Connection Pool (Init Block)' to open the Connection Pool window.
  - j. Enter the following in *Data Source Name* text box of Connection Pool Properties window after modifying <Database Server Host Name> and <Database Name>
 

```
DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<Database Server Host Name>)(PORT=1521))(CONNECT_DATA=(SERVER=DEDICATED)(SERVICE_NAME=<Database Name>))
```
  - k. Enter atomic schema user in **User name** text box.
  - l. Enter atomic schema password in **Password** text box.
  - m. Click **OK**.
  - n. To configure connection pool for EFPA, modify 'OFSEFPA Connection Pool' and 'OFSEFPA Init Block' connection pool and set the property which is inside of 'EFPA' folder in the physical section.
3. Click **File** menu and then click **Save**.
  4. Click **Yes** on the pop-up message Do you want to check global consistency?
  5. Click **OK**, on the pop-up message Consistency check didn't find any errors, warning or best practices violations.

---

**Note:** Warnings on consistency check can be ignored.

---

**List of Warning Messages:**

GLOBAL:

- [39092] Presentation level "Retail Performance".."Branch"."Branch Hierarchy"."Region" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Retail Performance".."Time"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Retail Performance".."Product"."Product Hierarchy"."Leve20" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Income Statement".."Reporting Period"."Time\_Hierarchy\_Month"."Month" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Income Statement".."Reporting Period"."Time Hierarchy Year\_Month"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Financial Ratios".."Reporting Period"."Time\_Hierarchy\_Month"."Month" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Financial Reporting".."Reporting Period"."Time Hierarchy Month"."Month" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Financial Reporting".."Reporting Period"."Time Hierarchy Year\_Month"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet".."Reporting Period"."Time\_Hierarchy\_Month"."Month" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Financial Reporting".."Reporting Period"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Institutional Performance".."Time"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Financial Ratios".."Reporting Period"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Income Statement".."Reporting Period"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet".."Reporting Period"."Time Hierarchy"."Year" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".."Account"."Account"."Gen2,Account" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".."Period"."Period"."Gen2,Period" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".."Years"."Years"."Gen2,Years" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".."Scenario"."Scenario"."Gen2,Scenario" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".."Entity"."Entity"."Gen2,Entity" is first under presentation hierarchy, but logical level it is associated with is not grand total level.

- [39092] Presentation level "Balance Sheet Planning".. "Version". "Version". "Gen2,Version" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "Strategy". "Strategy". "Gen2,Strategy" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "Chart of Account". "Chart of Account". "Gen2,Chart of Account" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "AttributeValue". "AttributeValue". "Gen2,AttributeValue" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "Currency". "Currency". "Gen2,Currency" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "Intercompany Entity Flag". "Intercompany Entity Flag". "Gen2,Intercompany Entity Flag" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "AssetClass". "AssetClass". "Gen2,AssetClass" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "COA type". "COA type". "Gen2,COA type" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "DelinquenciesExp". "DelinquenciesExp". "Gen2,DelinquenciesExp" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "Fee Classification". "Fee Classification". "Gen2,Fee Classification" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "Intercompany COA Flag". "Intercompany COA Flag". "Gen2,Intercompany COA Flag" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "Sample COA". "Sample COA". "Gen2,Sample COA" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Balance Sheet Planning".. "curr\_attrib". "curr\_attrib". "Gen2,curr\_attrib" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39092] Presentation level "Institutional Performance".. "Segment". "Segment Hierarchy". "Type" is first under presentation hierarchy, but logical level it is associated with is not grand total level.
- [39051] Application Role "BIAdministrator" is not defined in the Enterprise Manager.
- [39051] Application Role "BIAuthor" is not defined in the Enterprise Manager.
- [39051] Application Role "Relationship Manager" is not defined in the Enterprise Manager.
- [39051] Application Role "Sales Representative" is not defined in the Enterprise Manager.
- [39051] Application Role "Business Analyst" is not defined in the Enterprise Manager.

## Deploying EFPA/ IPA/ RPA Application Report Analytics

Use the following procedure to deploy the EFPA/ IPA/ RPA applications report analytics:

---

**Note:** Ensure that Oracle Business Intelligence 12.2.1.2.0 is available.

---

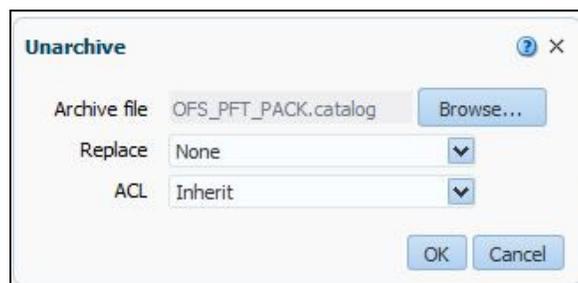
1. Deploy RPD and webcat file(s).
  - a. Go to Oracle home and create a folder under below mentioned path and move the OFS\_PFT\_PACK.rpd (with the Connection Pool details) from local to this newly created folder (for example: PFT\_RPD)  
*\$ORACLE\_HOME/user\_projects/domains/bi*
  - b. Go to the location of `datamodel.sh`, that is *\$ORACLE\_HOME/user\_projects/domains/bi/bitools/bin/*
  - c. Execute the following command:  

```
./datamodel.sh uploadrpd -I rpdLocationPath -SI ssi -U username -P password
```

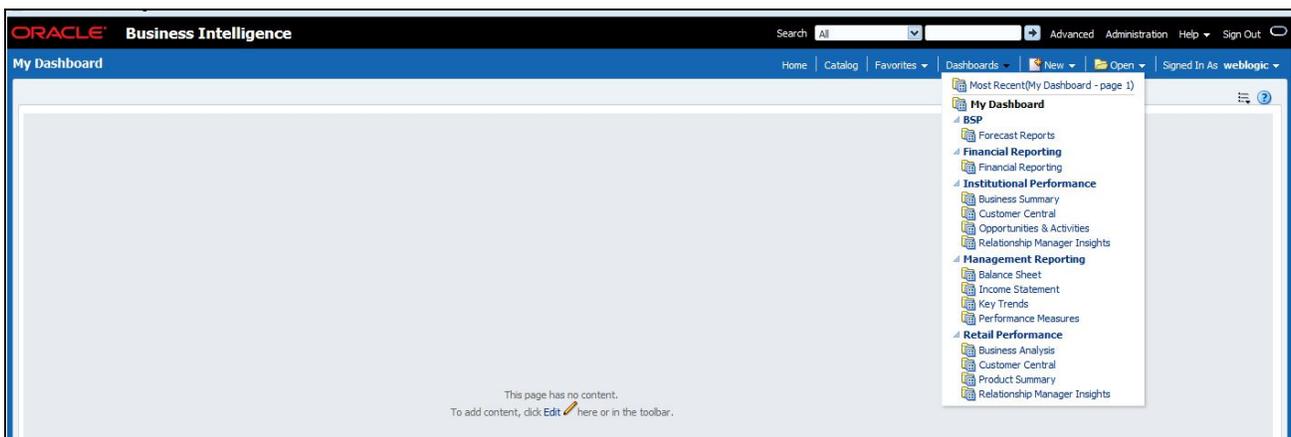
Replace `rpdLocationPath` with where you placed the rpd (for example: *\$ORACLE\_HOME/user\_projects/domains/bi/PFT\_RPD/OFS\_PFT\_PACK.rpd*), `username/ password` with the analytics username and password.
  - d. Web catalog Deployment:
    - ◆ Copy `OFS_PFT_PACK.catalog` from *\$FIC\_HOME/OFSPFTPACKBI/OBIEE/12.2.1.2/* and paste in a local folder.  
Open the analytics OBIEE URL-(`http://<ipaddress>:<port>/analytics`) and login with the credentials.
  - e. Click "Catalog" link available on the top right corner.
  - f. Click "Shared Folders" and then "Un-Archive".



- g. Browse the path where "OFS\_PFT\_PACK.catalog" is copied in the local folder. Select the file and click "Open". Then click "OK".



- h. Click "Dashboard" and click on any of the reports to ensure that all the reports are available.



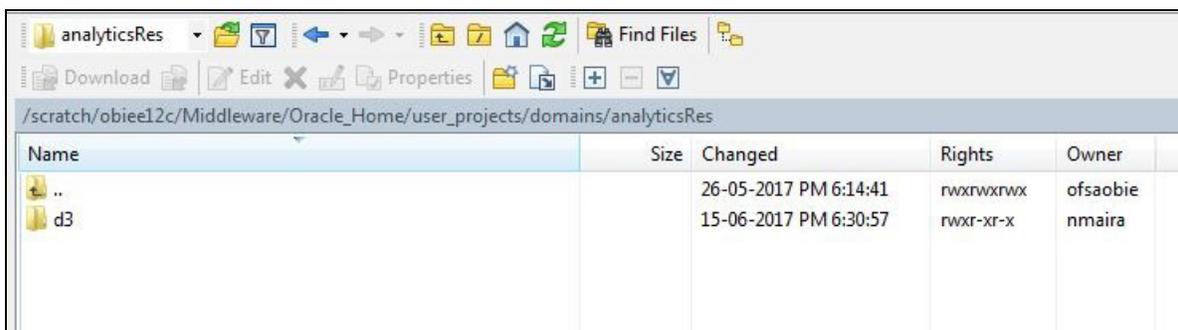
2. Restart all services in OBIEE "Enterprise Manager" This is optional.
3. If you are doing any changes online, then configure ODBC data source to connect to Oracle BI Server as follows:
  - a. Go To Control Panel > Administrative Tools > Data Sources (ODBC).
  - b. Select the 'System DSN' tab and click 'Add' Button.
  - c. Select a driver specific to (Oracle BI Server 12c) and click 'Finish' Button.
  - d. Enter 'Name' and 'Server' details (Specify the Host Name or IP Address of the BI Server and click 'Next').
  - e. Enter Oracle BI Server login id and password (Enter User Name and Password created at the time of OBIEE installation). Click 'Next'.
  - f. Click 'Finish'.
4. If RPD deployment is done on Essbase, then modify ESSBASE connection pool and set the properties.

## Deploying D3 on OBIEE 12c Server

This section provides detailed steps to install and configure D3, a visualization framework, which is used in few reports of IPA and RPA.

To deploy the D3 OBIEE 12c server, do the following:

1. Download `d3.zip` of version 3.5.16 and place it in your local folder.
2. Create **analyticsRes** folder under below mentioned path:  
`$ORACLE_HOME /user_projects/domains/`
3. Unzip the d3 folder and move this to **analyticsRes** in your entitlement server.



**Note:** To view the Customer Group Structure report, copy the `hashMap.js` file from `$FIC_HOME/OFSPFTPACKBI/OBIEE/` and place it in to the `d3` folder under **analyticsRes** and restart the application from the folder.

In case of upgrade, the `$FIC_HOME/OFSPFTPACKBI` folder will have two folders namely, `$FIC_HOME/OFSPFTPACKBI/OBIEE` and `$FIC_HOME/OFSPFTPACKBI/OBIEE12C`. You can ignore the `$FIC_HOME/OFSPFTPACKBI/OBIEE12C` folder.

4. Create **WEB-INF** folder inside `d3` folder and place a `web.xml` file with the content as given below:

```
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns="http://java.sun.com/xml/ns/javaee"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd"
  version="2.5">
  <mime-mapping>
    <extension>xsd</extension>
    <mime-type>text/xml</mime-type>
  </mime-mapping>
  <mime-mapping>
    <extension>xml</extension>
    <mime-type>text/xml</mime-type>
  </mime-mapping>
</web-app>
```

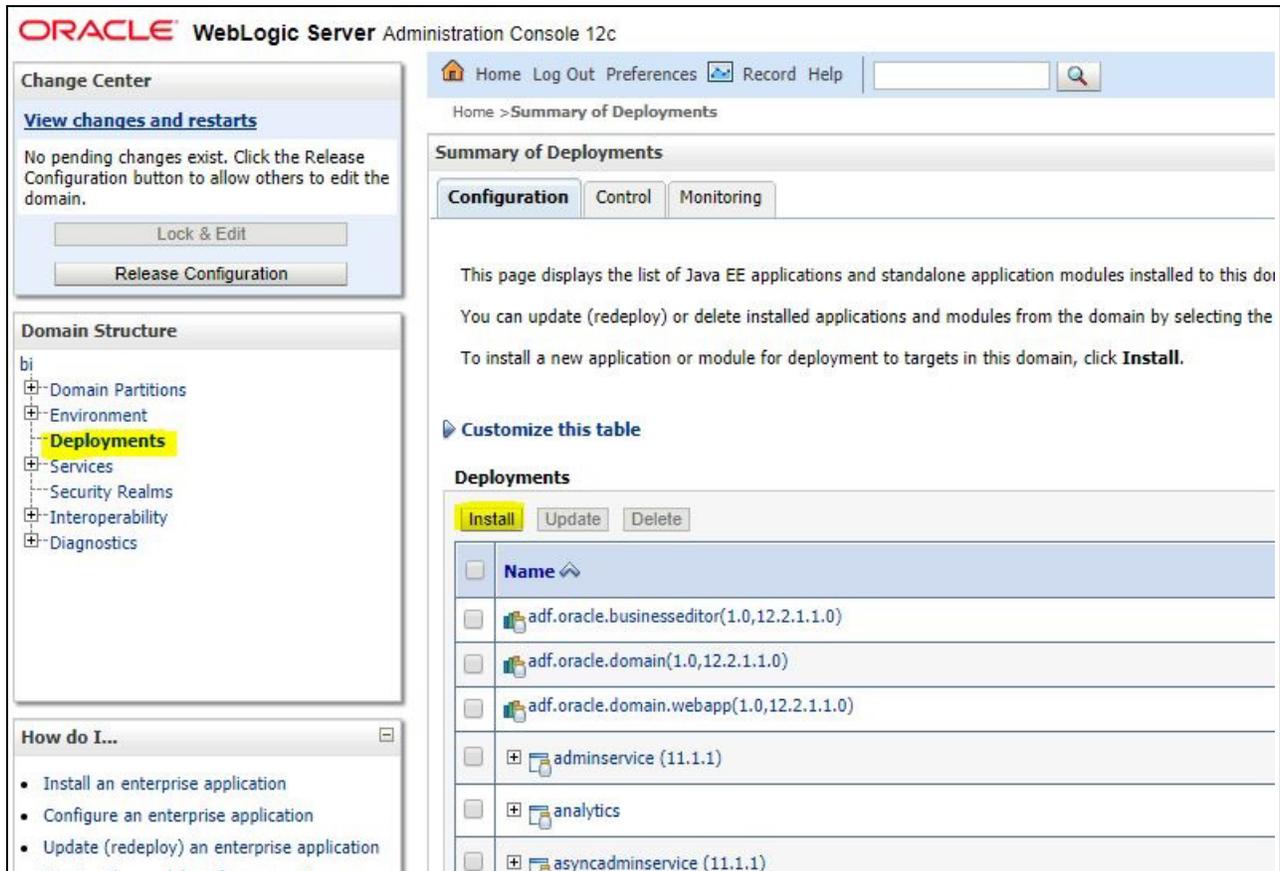
```

        <extension>js</extension>
        <mime-type>text/javascript</mime-type>
    </mime-mapping>
    <mime-mapping>
        <extension>css</extension>
        <mime-type>text/css</mime-type>
    </mime-mapping>
    <mime-mapping>
        <extension>png</extension>
        <mime-type>image/png</mime-type>
    </mime-mapping>
    <mime-mapping>
        <extension>swf</extension>
        <mime-type>application/x-shockwave-flash</mime-type>
    </mime-mapping>
</web-app>
    
```

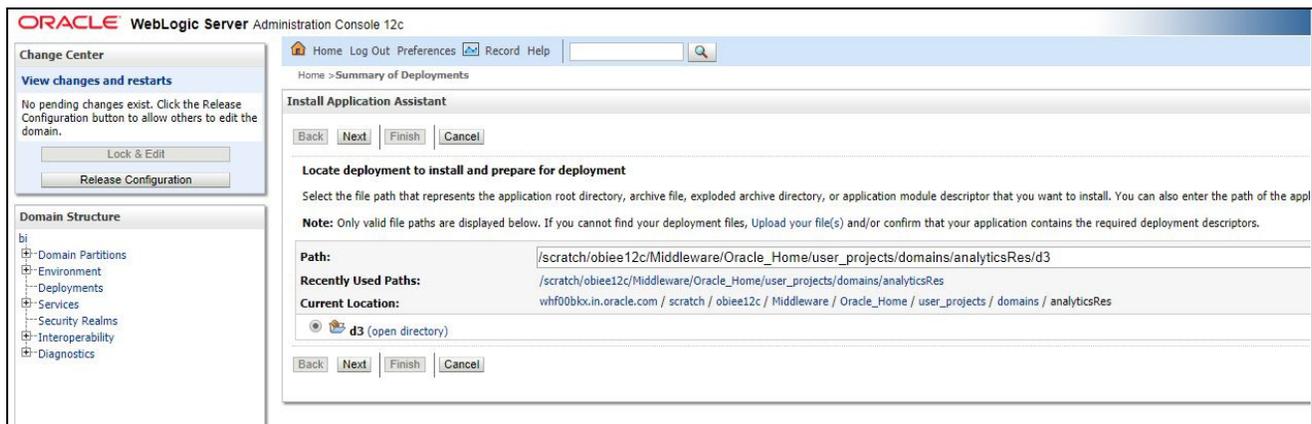
Name	Size	Changed	Rights	Owner
..		20-07-2017 PM 2:41:42	rxwxrwxrwx	ofsaobie
WEB-INF		15-05-2017 PM 4:48:41	rxwxr-xr-x	nmaira
LICENSE	2 KB	17-02-2016 PM 4:33:26	rw-r--r--	nmaira
hashMap.js	4 KB	07-09-2015 PM 3:56:57	rw-r--r--	nmaira
d3.min.js	149 KB	17-02-2016 PM 5:39:24	rw-r--r--	nmaira
d3.js	331 KB	17-02-2016 PM 5:39:22	rw-r--r--	nmaira

Name	Size	Changed	Rights	Owner
..		15-06-2017 PM 6:30:57	rxwxr-xr-x	nmaira
web.xml	1 KB	25-02-2016 PM 6:48:42	rw-r--r--	nmaira

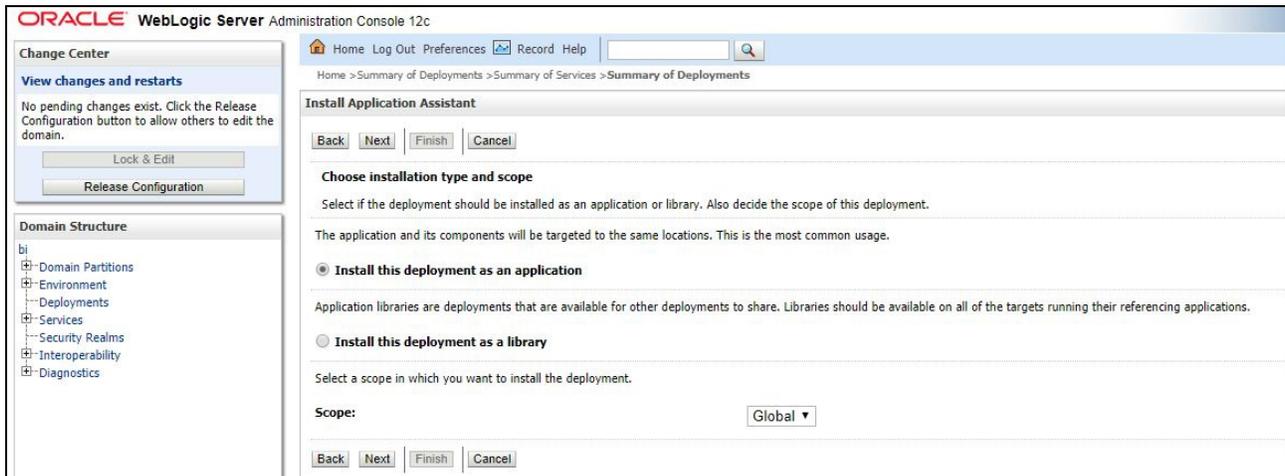
5. Login to web logic server, go to **Deployments** in your domain structure, and then select **Install**.



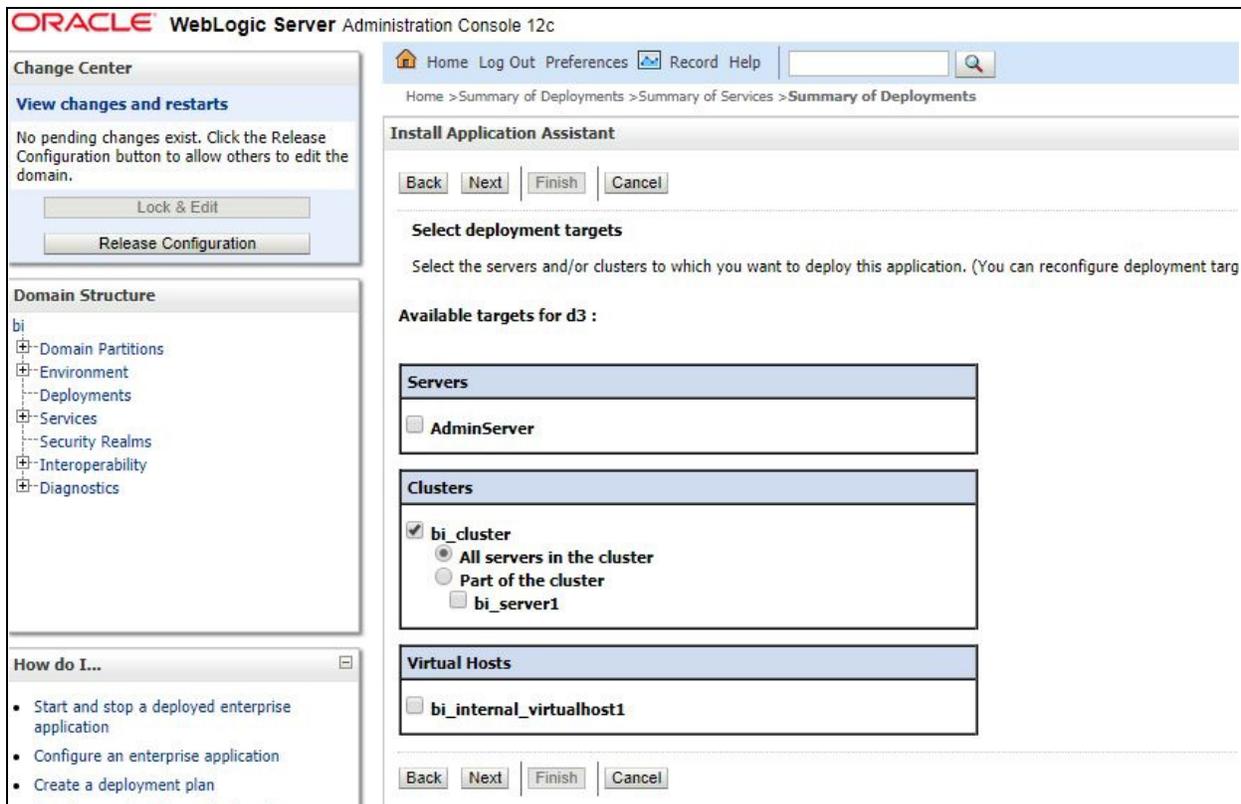
6. Once you click on **Install** button, it will take you to the screen shot below where you will paste the full path to the **d3** directory, check the check box next to d3 (open directory) and click **Next**.



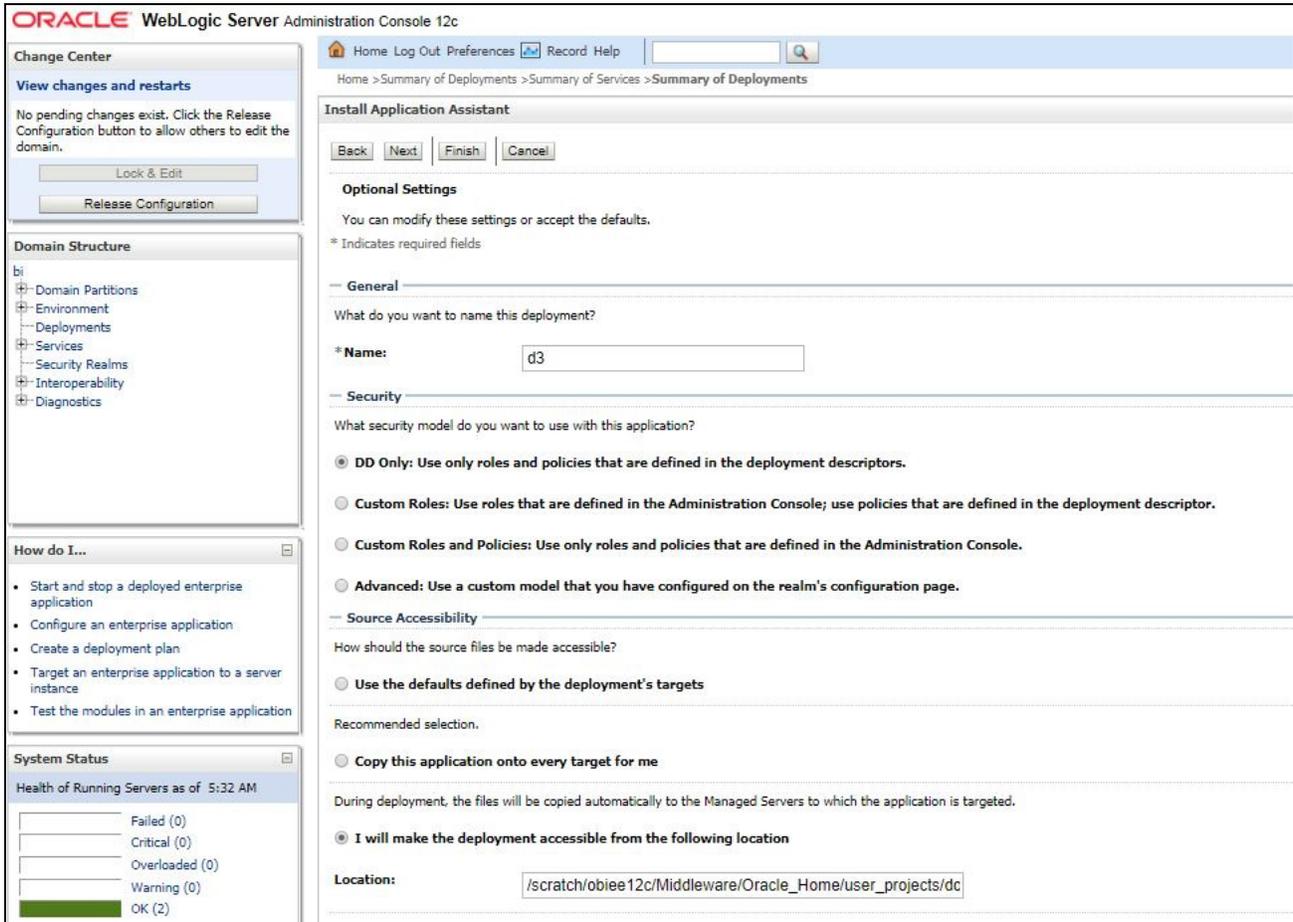
7. On the next screen, you'll choose Install this deployment as an application and click **Next**.



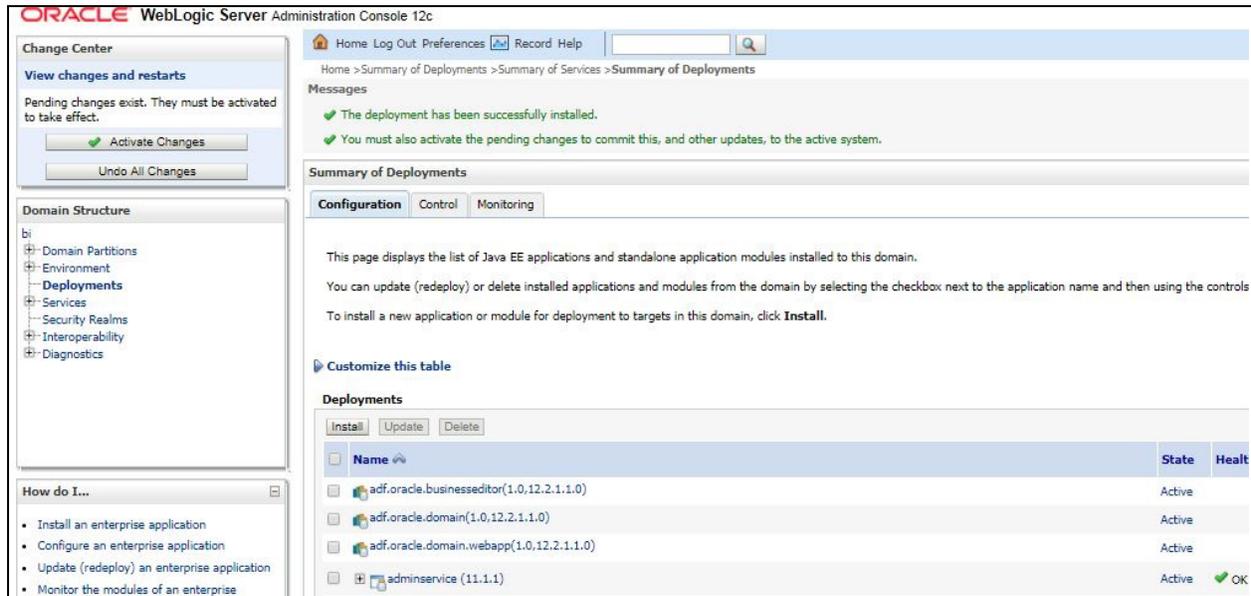
8. On the next screen, click `bi_cluster`, and then select 'All servers in the cluster' radio button.



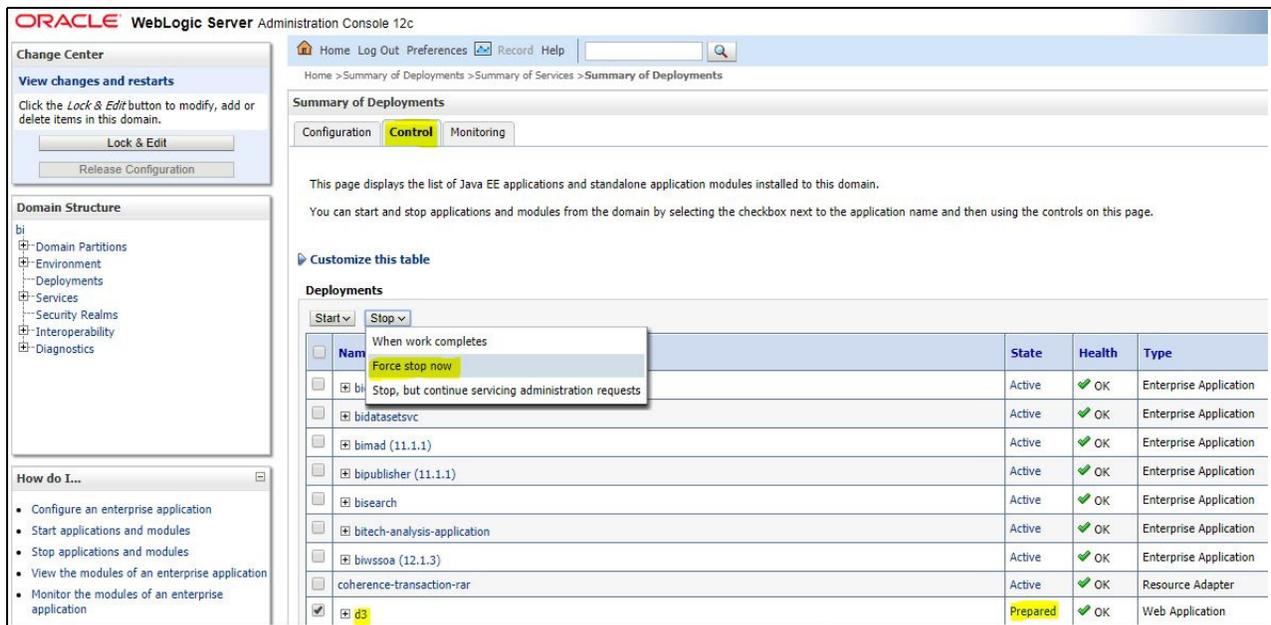
9. On the next screen, select "I will make the deployment accessible from the following location" and click **Finish**.



10. On this screen, you will have to click on **Activate Changes**.



11. After activating the changes, the application will now be in a **Prepared** state, as in the screen shot below. Click on **Control** tab. The screen displays all the installed applications. You will have to stop the application by checking the check box next to it and selecting **Force Stop Now** from the **Stop** menu.



12. You can start the application by checking the check box next to it and selecting **Servicing all requests** from the **Start** menu.

**ORACLE WebLogic Server Administration Console 12c**

Home > Summary of Deployments > Summary of Services > Summary of Deployments

**Summary of Deployments**

Configuration **Control** Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain.

You can start and stop applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page.

**Customize this table**

**Deployments**

Start Stop

Servicing all requests  
 Servicing only administration requests

Name	State	Health
<input type="checkbox"/> bicontentserver (11.1.1)	Active	OK
<input type="checkbox"/> bidatasesvc	Active	OK
<input type="checkbox"/> bimad (11.1.1)	Active	OK
<input type="checkbox"/> bipublisher (11.1.1)	Active	OK
<input type="checkbox"/> bisearch	Active	OK
<input type="checkbox"/> bitech-analysis-application	Active	OK
<input type="checkbox"/> biwssoa (12.1.3)	Active	OK
<input type="checkbox"/> coherence-transaction-rar	Active	OK
<input checked="" type="checkbox"/> d3	Prepared	OK

13. The application will now change to an **Active** state and ready to use.

**ORACLE WebLogic Server Administration Console 12c**

Home > Summary of Deployments > Summary of Services > Summary of Deployments

**Summary of Deployments**

Configuration **Control** Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain.

You can start and stop applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page.

**Customize this table**

**Deployments**

Start Stop

Name	State	Health
<input type="checkbox"/> bicontentserver (11.1.1)	Active	OK
<input type="checkbox"/> bidatasesvc	Active	OK
<input type="checkbox"/> bimad (11.1.1)	Active	OK
<input type="checkbox"/> bipublisher (11.1.1)	Active	OK
<input type="checkbox"/> bisearch	Active	OK
<input type="checkbox"/> bitech-analysis-application	Active	OK
<input type="checkbox"/> biwssoa (12.1.3)	Active	OK
<input type="checkbox"/> coherence-transaction-rar	Active	OK
<input type="checkbox"/> d3	Active	OK

## Mapview Configuration for OBIEE 12C

This section provides information on prerequisites, creating the mapviewer mvdemo2 data source, configuration edits and server starting.

---

**Note:** This is just a sample configuration working on sample data provided by mvdemo2.

---

This section covers the following topics:

- ⑩ [Prerequisites](#)
- ⑩ [Creating the Mapviewer mvdemo2 Data source](#)
- ⑩ [Loading FSI\\_LOCATION\\_MAP\\_COORD for viewing mvdemo2 Maps](#)

### Prerequisites

The mvdemo2 database dump can be imported only into an Oracle 12c database. If you have no other option than using a 11g version, contact OBIEE/Mapviewer Product Management.

### Creating the Mapviewer mvdemo2 Data source

Ensure that you have a connection to 12c Oracle database from the machine where your OBIEE platform is installed.

Create a mvdemo2 schema within that database for holding the mvdemo2 spatial data.

To create mvdemo2 schema, perform the steps as explained in the following section.

### Downloading the Mapviewer mvdemo Database Dump

To download the Mapviewer mvdemo2 Database Dump, follow these steps:

1. Download MVDEMO Sample Data Set from the following location:  
<http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index.html>
2. Download and unzip the `mvdemo_natureearth.zip` file that contains an Oracle Database export file named:  
`mvdemo_natureearth.dmp`

### Creating mvdemo2 User

To create a mvdemo2 user, follow these steps:

1. Start a SQL\*Plus session to the Oracle Database as a user with system or DBA privileges.
2. Run the following script:

```
create user mvdemo2 identified by mvdemo2 default tablespace users quota unlimited on
users;
grant "connect" to mvdemo2;
grant "resource" to mvdemo2;
```

3. Once the script is executed, verify whether you can connect to the newly created user.

---

**Note:** The mvdemo2 user creation script defaults with the password mvdemo2 (same as user name) within the script. It is recommended that you keep this value unchanged to simplify configuration.

---

### Importing the database dmp file

4. Import the Oracle Database export file - mvdemo\_natureearth.dmp into the mvdemo2 schema using the following import command, from the command line (Command Prompt in Windows):

```
c:\> imp mvdemo2/mvdemo2@connectString file=mvdemo_natureearth.dmp FULL=Y
```

5. connectString is the connection string to your Oracle Database 12c where the user mvdemo2 was created in the step mentioned earlier. Wait for the import process to complete, once successfully completed, login on your DB as mvdemo2/mvdemo2 and validate that you can view the schema tables and some data.

### Inserting Extra Spatial Metadata

6. Start a SQL\*Plus session to the Oracle Database and connect as user mvdemo2.

For example: c:\>sqlplus mvdemo2/mvdemo2@connectString

7. Run the following script:

```
insert into user_sdo_styles select * from styles;
insert into user_sdo_themes select * from themes;
insert into user_sdo_maps select * from basemaps;
insert into user_sdo_cached_maps select * from tilelayers;
commit;
```

### MapViewConfig.xml Edits

1. Open the Mapviewer console using the following URL:  
`http://<ip address>:<port>/mapviewer`
2. Click **Admin**.
3. Login with the username/password that you provided while installing the product.
4. Click **Configuration**. This opens the mapViewerConfig.xml on your setup.
5. In the section named **Predefined Data Source**, add the following data source entry:

Replace the IP address, SID, and port to the correct values of the database where the mvdemo2 schema has been created in the above steps.

```
<map_data_source name="mvdemo2"
jdbc_host="10.229.147.238" (use your db ip)
jdbc_sid="orcl" (use your db sid)
jdbc_port="1521" (use your db port)
jdbc_user="mvdemo2"
jdbc_password="!mvdemo2" (use your selected password if different from OOB)
jdbc_mode="thin"
number_of_mappers="3"
allow_jdbc_theme_based_foi="false"
editable="false"
/>
```

---

**Note:** Ensure that all tags have been closed correctly and also the above data source is not within the comments section (ensure that it is outside the comments section which is represented by <!-- .. -->).

---

6. Below the **Predefined Data Source**, under the catalog data source section, replace OracleMaps with mvdemo2 as shown below:

```
<map_data_source name="mvdemo2"
  catalog_dir=" ../catalogs/oraclemaps_pub"
  number_of_mappers="8"
  allow_jdbc_theme_based_foi="false"
  editable="false"
/>
```

7. In the section named **Map Data Server configs**, replace OracleMaps with mvdemo2 as follows:

```
<mds_config>
<data_source name="mvdemo2">
  <allow_predefined_themes>true</allow_predefined_themes>
  <allow_dynamic_themes>true</allow_dynamic_themes>
</data_source>
<!--
  <data_source name="mvdemo">
    <allow_predefined_themes>true</allow_predefined_themes>
    <allow_dynamic_themes>true</allow_dynamic_themes>
<allow>
  <theme>THEME_DEMO_ST*</theme>
  <theme>theme_demo_cities</theme>
</allow>
<deny>
  <theme>M_ADMIN_AREA1_S01</theme>
</deny>
</data_source>
-->
</mds_config>
```

8. Click **Save** and **Restart** button at the bottom of the file.
9. Once `configuration.xml` file is restarted, click Data Sources.
10. Verify whether you can view mvdemo2 as an entry in data sources.
11. Login to **Analytic screen > Administration**.
12. Click **Manage map Data**.
13. Click **Import Layer** and then choose **World\_Countries**.
14. Choose **Preview MAP** as **ORACLE\_MAPS**.
15. Same for **World\_States\_Provinces**.
16. Choose **Preview MAP** as **ORACLE\_MAPS**.

17. Select **Background Maps**.
18. Use import Background maps and chosen **ORACLE\_MAPS**.
19. Edit the same, add layer **World\_Countries** and then **World\_States\_Provinces**. While choosing, chose the location **ORACLE\_MAPS** for higher Zoom value.
20. Select the zoom level for country 0 and for country 2...15.
21. Navigate back to Layers tab.
22. Edit **World\_Countries** (select Name as the Layer Key) and **World\_States\_Provinces** (select State Province Name as the Layer Key) by adding BI Key Columns :

**For Country:**

- a. Choose Institutional Performance > Geography > Country Description.
- b. Choose Institutional Performance > Branch > Branch Country Description.
- c. Choose Retail Performance > Geography > Country Description.

**For State:**

- a. Choose Institutional Performance > Geography > State Description.
- b. Choose Institutional Performance > Branch > Branch State Description.
- c. Choose Retail Performance > Geography > State Description.

## Loading FSI\_LOCATION\_MAP\_COORD for viewing mvdemo2 Maps

For mvdemo2 Maps to work, it requires the location data in our atomic schema to be in sync with the map Metadata in mvdemo2 schema. This is achieved through a new table `FSI_LOCATION_MAP_COORD`, the load process of which is described as follows.

Populate `FSI_LOCATION_MAP_COORD` based on `DIM_LOCATION` data itself, but description and codes should come from tables `OBIEE_COUNTRY`, `OBIEE_STATE`, `OBIEE_CITY` (from the DB schema configured for Maps, 'mvdemo2', for example in this case) respectively for Country, State and City, and `n_location_skey` should be the corresponding `n_location_skey` from `DIM_LOCATION`.

For Instance, let us consider the following data from `DIM_LOCATION`.

N_LOCATION_SKEY	1
V_LOCATION_CODE	HAW
V_COUNTRY_CODE	USA
V_COUNTRY_DESC	United States
V_STATE_CODE	HI
V_STATE_DESC	Hawaii
V_CITY_CODE	CITI1
V_CITY_DESC	Honolulu
V_ZIP_CODE	96813

Now, to populate the following columns in `FSI_LOCATION_MAP_COORD`:

n_location_skey =	1
v_country_code = OBIEE_COUNTRY.ISO_COUNTRY_CODE	USA
v_country_code_map = OBIEE_COUNTRY.ISO_COUNTRY_CODE	USA
v_country_desc = OBIEE_COUNTRY.NAME	United States

v_state_code = OBIEE_STATE.ISO_CTRY_CD_STATE_ABBRV	USA_HI
v_state_code_map = OBIEE_STATE.ISO_CTRY_CD_STATE_ABBRV	USA_HI
v_state_desc = OBIEE_STATE.STATE_NAME	HAWAII
v_city_code = OBIEE_CITY.CTRY_CD3_STATE_ABBRV_CITY	USA_HI_Honolulu
v_city_code_map = OBIEE_CITY.CTRY_CD3_STATE_ABBRV_CITY	USA_HI_Honolulu
v_city_desc = OBIEE_CITY.CITY_NAME	HONOLULU
v_zip_code =	96813

## *FAQs and Error Dictionary*

This section of the document consists of resolution to the frequently asked questions and error codes noticed during OFSAAI installation.

- ⑩ [Frequently Asked Questions](#)
- ⑩ [Forms Framework FAQs](#)
- ⑩ [Error Dictionary](#)

OFSAAI installer performs all the prerequisite validation check during installation. Any errors encountered in the process is displayed with an appropriate Error Code. You can see 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.

This section includes the following topics:

- ⑩ [OFSAAI FAQs](#)
- ⑩ [Application Pack 8.0.5.0.0 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".

*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 to Hardware and Software Requirements, Java Runtime Environment 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, web servers and other software versions that OFSAA supports?*

Refer to OFSAA Technology Stack Matrices.

*What are the different files required to install OFSAAI?*

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).

*What should I do if I get the following error message during installation, "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.

*What should I do if I get the following error message during installation, "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 OFSAAI Installation and Configuration Guide Release 8.0.5.0.0.

*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 available on [OHC](#).

*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.

*What should I do if I get the following error message on the UNIX System terminal while executing `./setup.sh`, "Insert New Media. Please insert Disk1 or type its location"?*

1.Login as root user on the Unix machine where OFSAAI is getting installed.

23.Navigate to the path `/etc/security/`.

24.Edit the file `limits.conf` to add/edit a row for the UNIX user installing OFSAA:

```
<Unix User> soft nofile 9216
```

25.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 does one 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 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).

26.Execute the command:

```
./piverify.sh
```

*What should one 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 one do if there are any exceptions or errors in installation and how to proceed?*

1. Please backup the installation logs.
27. Share the backup logs with Oracle support.

*What should I do if I get the following error message during OFSAAI installation on Solaris 11 system?*

**"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 should I do if the installation process is abruptly terminated or aborted?*

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.
28. Open the .profile file 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.
29. Delete the OFSAA install directory created by the OFSAAI installer.
30. Perform the OFSAAI installation again.

*Does 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.SQLRecoverableException: 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.

*What should I do when I get syntax errors/file not found error messages while invoking setup.sh file from my install archive?*

This could mostly happen:

- When installer was not unzipped correctly 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.

31. Unzip the installer using the command:

```
unzip <OFSAAI_Installer>.zip
```

32. 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:

- ◆ Login to the server where the installer is copied.
- ◆ Navigate to the directory OFSAAI\_80000.
- ◆ Open the setup.sh file in the vi editor using the command: vi setup.sh.
- ◆ 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.

---

- ◆ 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 one do?*

Ensure OFSAAI servers have been started and are running successfully. On the server start up parameters options, see the [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 we 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 we need Ftpshare? Why is it needed on all the layers? Can we 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 (multi-tier 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, see [Configure Infrastructure Ports](#) 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 prerequisite 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.

*What should I do if I get the following message while creating Information Domain, "Please create a database and then create the information domain"?*

Information Domain is mapped to only one Database; and thus before the creation of Information Domain, at least one database details would need to exist.

*What should I do if I get the following message during startup of back-end engine message server, "ConnectToDatabase: FatalError, could not connect to the DB server"?*

- 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.

*What should I do if I get the following message during the startup of back-end engine message server, "Fatal Error, failed to get user ID from LibSmsConnect"?*

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?*

The references to Data Modeler ERwin versions 70, 71, 72, 90, 92 and 96 are provided for the AAI framework to support these for backward compatibility. However, the data model-slices shipped with OFS AAI 8.0.5.0.0 application packs are compatible with Erwin versions 9.5, 9.6, and 9.7.

*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`.

See the section Run Model Upload Utility of the Oracle Financial Services Analytical Applications Infrastructure User Guide on [OHC](#) for details.

*How do I apply incremental change to the existing model when the Business Data model undergoes a change?*

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:

- Login to OFSAA.
- Navigate to System Configuration > Database Details window. Select the appropriate connection, provide the modified password and save.
- Navigate to Unified Metadata Manager > Technical Metadata> Data Integrator > Define Sources window. Update the appropriate Source details.

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).
- 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).

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).

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 than other screens?*

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 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.

- 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
```

- The above query returns a list of codes with their respective Metadata count. You can see "metadata\_type\_master" table to identify the Metadata name.
- 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).

- 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 [Creating EAR/WAR File](#) and [Deploying EAR/WAR File](#) sections.

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.

See the Support Note for the workaround.

*How do you 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.

- In the `DynamicServices.xml` file, identify the section for `<Service code="20">`.
- Modify the value of parameter `CACHE_ON_STARTUP` to 0 (default is 1).
- 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](#).
- Restart the OFSAAI Services (APP and WEB). For more information, see [Start/Stop OFSAA 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.

*What should I do if I get the following exception while trying to view the model outputs in Model Outputs screen, "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.

*What should I do if I get the following exception during OFSAA services startup, "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.

Upload Options	Size of Data Model XML File	X_ARGS_APP ENV Variable in OFSAAI APP Layer
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"-Xms2048m -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 available on OHC.

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 you turn off unused Information Domains (Infodoms) from caching?

Follow these steps to turn off unused infodoms from caching:

- Navigate to \$FIC\_HOME/conf in the APP layer of your OFSAAI installation.
- In the DynamicServices.xml file, identify the section for <Service code="20">.
- Modify the value of parameter CACHE\_ON\_STARTUP to 0 (default is 1).
- 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 [Creating EAR/WAR File](#) and [Deploying EAR/WAR File](#) sections.
- Restart the OFSAAI Services (APP and WEB). For more information, see the [Start/Stop OFSAA 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 infodoms?*

No, it is not possible to install the same application in two different infodoms.

*How can I configure the OFSAA application for High Availability?*

OFSAA can have active-passive high availability. For more details, see the [Configuration for High Availability- Best Practices Guide](#).

*I want to configure OFSAA for High Availability that is WebLogic cluster on which OFSAA.ear is deployed and cluster OFSAAI processes (such as Reveleus etc) are running. Is this a supported configuration?*

High Availability is available for WebLogic cluster and DB level as active-active, but is not available on the application side. OFSAA can have active-passive high availability. For more details, see [Configuring OFSAA in Clustered Environment 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?*

If 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 8.0.5.0.0 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:

- Delete the `$FIC_HOME/conf/Reveleus.SEC` file.
- Shutdown the OFSAAI App service: `cd $FIC_APP_HOME/common/FICServer/bin ./stopofsaai.sh`
- Shutdown the OFSAAI App service: `cd $FIC_APP_HOME/common/FICServer/bin ./stopofsaai.sh`
- Start the Infrastructure Server in foreground directly on the server or through XWindows software using the command: `./startofsaai.sh`

- Enter System Password.
- 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.
- 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:

- Navigate to `$FIC_HOME/conf` where OFSAA is installed.
- 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="REVERSEVERAPPENDER" 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:

- Navigate to `<EAR/WAR Deploy area>/conf` folder.
- 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:

- Create SSL related certificates and import to respective servers.
- Enable SSL on a desired Port (example 9443) on your existing and already deployed web application servers.
- 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
```

- 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:"
```

- 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';
```

- 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/ Host-name, Ports, Deployed Paths of the OFSAA Instance section in the OFSAAI Admin Guide available on [OHC](#).

*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?*

The workaround is:

- Locate the web server deployed area `webroot/conf/excludeURLList.cfg` file.
- Modify the following entries:  
`[SQLIA]./dataIntegrator/` to `[ALL]./dataIntegrator/`  
`[SQLIA]./ETLExtractionServlet` to `[ALL]./ETLExtractionServlet`
- Save the changes and restart the web server.
- Re-save the definition.

## Application Pack 8.0.5.0.0 FAQs

*What is an Application pack?*

An Application Pack is suite of products. For more information, see About Oracle Financial Services Advanced Analytical Applications (OFSAA) Application Packs.

*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 an 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?*

See the 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.

*Does OFSAA 8.0 Application Pack is support all Operating systems?*

LINUX, AIX, SOLARIS 10, 11. See the Technology Matrix for the technology matrix that OFSAA suite products are/ will be qualified on.

*How can I install OFSAA 8.0 Application Pack?*

See the Oracle Financial Services Advanced Analytical Infrastructure Installation and Configuration Guide published in [OHC](#) for the application pack installers.

*Does this installation require any Third party Software?*

Oracle Financial Services Advanced Analytical Infrastructure Installation And Configuration Guide published in [OHC](#) 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 see the OFSAAI FAQs section.

*Does this Application Pack validate all Prerequisites required for this installation i.e., Memory, Disk Space etc.?*

Yes. The prerequisite checks are done by the respective application pack installer.

*What happens if it aborts during installation of any application with in Application pack?*

You must restore the system and re-trigger 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 file system files are installed but there is an option to enable the licensed products.

*How can I re-install any of the Application Pack?*

You can re-trigger if there is a 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 an Application pack and can I install any of new applications within the Application pack later point of time?*

No, installation of additional applications is not required. If you wish to add an application later, you can enable the application at that time.

*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. However, the Behavioral Detection Application Pack and Compliance Regulatory Reporting Application 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 Behavioral Detection Application Pack and Compliance Regulatory Reporting Application 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?*

You can install only one infodom during installation. But after installation, you can create multiple infodoms.

*Does 'Data Model' bundled is Application pack Specific or Specific to 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 in later point of time?*

OFS Enterprise Modeling is a separate product and can be enabled as an option later from any application pack that bundles Enterprise Modeling.

*Does 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? (For example, I want to upgrade LRM in the Treasury Application pack, but not MR.)*

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.

*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 infodomain or different infodomain)?*

Yes, you can install an Application Pack over another Application Pack in the same information domain or different information domain. But Behavior 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. See 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.

*What should I do if I get the following error message while running the schema creator utility, "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 ALM Application Pack version 8.0.5.0.0?*

OFS ALM Application Pack supports 1.7.x and 1.8.x.

*Is this release of the OFS ALM Application Pack version 8.0.5.0.0 supported on Java 8?*

Yes. To install this release of the OFS ALM Application Pack version 8.0.5.0.0 on Java 8. For more information, refer to specific notes mentioned in the sections Installer and Installation Prerequisites

Configurations supported for Java 8. Configuring the Schema Creator Utility, GUI Mode Installation, SILENT 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.

*'Expand All/ Collapse All' button is not visible in the Hierarchy Browser window. What should I do?*

Expand All/ Collapse All button is enabled only if the number of hierarchy nodes is less than 50. If it is more than that, it is considered as large hierarchy and the data will be fetched dynamically when you expand each node.

## 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.

This section includes the following topics:

- ⑩ [Accessing Error Dictionary](#)
- ⑩ [Error Code Dictionary](#)

### 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.
33. The Find dialog is displayed as indicated.
34. Enter the error code that is displayed on screen during Infrastructure installation.
35. Press Enter. The search results are displayed and highlighted as indicated below.

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 along with log files and appropriate screen shots.

## Error Code Dictionary

Error Code	Cause	Resolution
OFSAAI-1001	Unix shell is not "korn" shell.	Change the shell type to "korn". Use chsh UNIX command to change SHELL type.  Shell type can also be changed by specifying shell path for the Unix user in /etc/passwd file.  <b>Note:</b> chsh command is not available in Solaris OS.
OFSAAI-1002	No proper arguments are available.	Provide proper arguments. Invoke Setup.sh using either SILENT or GUI mode.  Example: ./Setup.sh SILENT or ./Setup.sh GUI
OFSAAI-1004	File .profile is not present in \$HOME.	Create .profile in \$HOME, i.e. in the home directory of user.
OFSAAI-1005	File OFSAAIInfrastructure.bin is not present in current folder.	Copy OFSAAIInfrastructure.bin into installation kit directory.
OFSAAI-1006	File CustReg.DAT is not present in current folder.	Copy CustReg.DAT into installation kit directory.
OFSAAI-1007	File OFSAAI_InstallConfig.xml is not present in current folder.	Copy OFSAAI_InstallConfig.xml into installation kit directory.
OFSAAI-1008	File validateXMLInputs.jar is not present in current folder.	Copy validateXMLInputs.jar into installation kit directory.
OFSAAI-1009	File log4j.xml is not present in current folder.	Copy log4j.xml into installation kit directory.
OFSAAI-1010	Unknown error occurred.	Make sure to provide proper argument (SILENT or GUI) to the Setup.sh file.
OFSAAI-1011	XML validation failed.	Check InfrastructurePreValidations.Log for more details.
OFSAAI-1012	Property file with locale name does not exist.	Copy MyResources_en_US.properties to the setup kit directory and keep en_US in LOCALE tag of OFSAAI_InstallConfig.xml.
OFSAAI-1013	File OFSAAI_InstallConfig.xml/OFSAAI_PostInstallConfig.xml not found.	Copy OFSAAI_InstallConfig.xml/OFSAAI_PostInstallConfig.xml to the setup kit directory.
OFSAAI-1014	XML node value is blank.	Make sure all node values except SMTPSERVER, PROXYHOST, PROXYPORT, PROXYUSERNAME, PROXYPASSWORD, NONPROXYHOST, or RAC_URL are not blank.
OFSAAI-1015	XML is not well formed.	Execute the command dos2unix OFSAAI_InstallConfig.xml to convert plain text file from DOS/MAC format to UNIX format.  OR  Make sure that OFSAAI_InstallConfig.xml 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 OFSAAI_InstallConfig.xml using the XML_Utility.jar.

<b>Error Code</b>	<b>Cause</b>	<b>Resolution</b>
OFSAAI-1016	User installation directory contain blank spaces.	Provide an installation path that does not contain spaces. Check the tag USER_INSTALL_DIR in OFSAAI_InstallConfig.xml file. This path should not contain any spaces.
OFSAAI-1017	User installation directory is invalid.	Provide a valid installation path. Check if you are able to create the directory mentioned in USER_INSTALL_DIR tag value of OFSAAI_InstallConfig.xml file.



## APPENDIX A

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

This is an optional step and required only if you intend to use Term Structure Parameter Estimation functionality under Rate Management - Interest Rates, for computing term structure parameters. Both Funds Transfer Pricing and Asset Liability Management applications require term structure parameters for all Monte Carlo engine based calculations (OAS, VaR and EaR).

Following are the prerequisites:

- ⑩ Install R and Oracle R Enterprise Server on the Oracle Database server. See [https://docs.oracle.com/cd/E57012\\_01/doc.141/e57007.pdf](https://docs.oracle.com/cd/E57012_01/doc.141/e57007.pdf)
- ⑩ ORE version supported - Oracle R Enterprise (Server) version 1.4.1

## ***Dependencies***

R code of the application requires dependent packages to be installed before the Reporting Line Forecast batch is executed. Usage of the predictive model requires installation of packages - tseries, lattice, and R Oracle. Verify that lattice and R Oracle are compatible with each other.

Package installation instructions can be found at:

<http://cran.r-project.org/doc/manuals/r-release/R-admin.html#Installing-packages>

## ***Configuration for Oracle R Enterprise***

Grant the RQADMIN role to atomic schema.

You can grant the rqadmin role in SQL\*Plus by logging in to the database with DBA privileges and provide the following privilege to Atomic Schema:

RQADMIN by executing the command:

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

## ***Configuration for Oracle R distribution and Oracle R Enterprise (ORE)***

This is an optional step. Skip and proceed with the next steps if OFS Enterprise Modeling Application with R scripting is not enabled during installation.

1. Install OFSAAIRunner Package. For more information, see Installing OFS AAI Runner Package. If you have already installed OFSAAIRunner package (as part of a previous installation), uninstall it (For more information, see Uninstalling OFS AAI Runner Package section), and reinstall the latest available OFSAAIRunner package.
2. Log in to the database with dba privileges and provide the following privilege to Configuration Schema:
  - RQADMIN by executing the command:

```
GRANT RQADMIN TO <config_schema>;
```
3. Log in to the database with dba privileges and provide the following privileges to Atomic Schema:

- CREATE UNLIMITED TABLESPACE privilege by executing the command:  
`GRANT CREATE UNLIMITED TABLESPACE TO <atomic_schema>;`
- CREATE MINING MODEL privilege (to execute the Data Mining models) by executing the command:  
`GRANT CREATE MINING MODEL TO <atomic_schema>;`

## Installing OFS AAI Runner Package

OFSAAIRunner is an R package built by the OFS Enterprise Modeling Application. It is a prerequisite for executing models developed using R scripts. This package helps in:

- ⑩ Initializing inputs
- ⑩ Mapping framework variables to R objects
- ⑩ Configuring possible outputs of the script
- ⑩ Storing results back to the Database

OFSAAIRunner package (`OFSAAIRunner_1.0.0.tar.gz`) is available under `$FIC_DB_HOME/lib`.

### Prerequisite

Oracle R & ORE should be installed on the Oracle Database server before installing OFSAAIRunner package.

Refer to the following instructions to install OFSAAIRunner package:

1. Log in to the OFSAA Server. Navigate to the folder `$FIC_DB_HOME/lib`.
2. Copy the file `OFSAAIRunner_1.0.0.tar.gz` in Binary mode to the Oracle Database Server.
3. Log in to the Oracle Database Server with the user using which Oracle Database Server installation is done.
4. Navigate to the directory where the file `OFSAAIRunner_1.0.0.tar.gz` is copied.
5. Install the package by executing the command:

```
ORE CMD INSTALL OFSAAIRunner_1.0.0.tar.gz
Successful installation is indicated in the installation log as:
* DONE (OFSAAIRunner)
Making packages.html ... done
```

---

**Note:** The OFSAAIRunner package is installed in `/usr/lib64/R/library`.

---

6. Navigate to the directory `$ORACLE_HOME/R/library` and check whether OFSAAIRunner package is listed there by executing the command:

```
ls -l
```

## Uninstalling OFSAAIRunner Package

Refer to the following instructions to uninstall the OFSAAIRunner package:

1. Log in to the Oracle Database Server with the same username, using which Oracle Database Server installation is done.
2. Enter ORE in command prompt and execute the command:

#ORE

3. Enter the following command to save workspace image:

```
>remove.packages ("OFSAAIRunner")
```

4. Enter y when prompted to save the workspace image.

```
q()
```

5. Navigate to the directory `$ORACLE_HOME/R/library` and verify the package is not listed there by executing the command:

6. Save workspace image? [y/n/c]: y

```
ls -l
```

## ***Configurations for ORE Execution***

Follow this step:

1. Add a TNS entry in `tnsnames.ora` file with tns name same as that of value set for `ORACLE_SID` in database server.

---

**Note:** For RAC database, follow the aforementioned configuration in all machines.

---



**APPENDIX B**

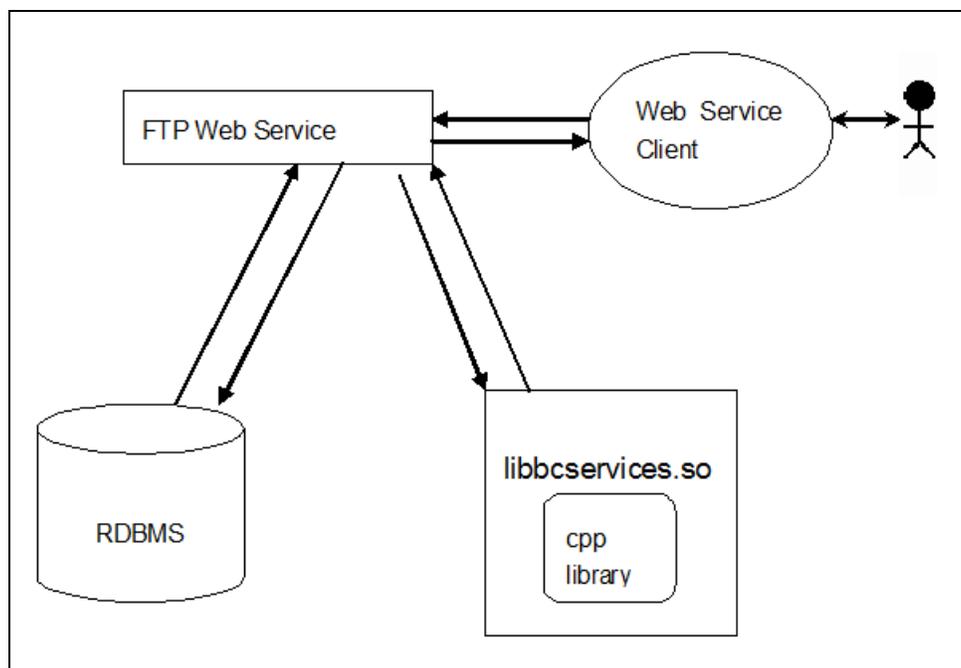
# FTP Web Service Configuration

The following installation activity describes how to setup FTP web services to support the Breakage Charge Economic Loss calculation. The calculation logic is the same as the FTP Adjustment Rule Breakage Charge calculation. This FTP Economic Loss Web Service is now independent of EXEWebService. Note, other FTP web services are installed automatically and require no further setup.

## Approach

The FTP Web services are designed as a wrapper which will call the FTP Engine for the calculation of Economic Loss. The FTP Web Service is available in its own context and has a specific WSDL for that context.

## Architecture



## Prerequisites

- ⑩ For WebLogic and WebSphere, Data source should be present with JNDI name as jdbc/FTPWS.
- ⑩ For Tomcat a separate context entry should be present in server.xml file.

## Log4j configuration

log4j.properties file is already present inside WEB-INF/classes folder of the war file. Logs will be generated inside \$root\_directory\_of\_war/logs/webservice.log file.

## Setup Environment variable - ofsaaws.properties

ofsaaws.properties file is available in *WEB-INF/classes* folder. Specify the `cpp_component` name. Place the component `libbcservices.so` under */ficdb/lib/libFSGBU*. Add the library location to `LD_LIBRARY_PATH`.

---

**Note:** If Web-services are deployed in an environment other than where OFSAA is deployed, then copy */ficdb/lib/libFSGBU* to web-services environment and set in `LIBRARY` path.

---

- `cpp_component=libbcservices.so(libbcservices.o)` - for AIX
- `cpp_component=bcservices` - for Solaris
- `cpp_component=bcservices` - for Linux

## Creating FTPWebServiceAXIS.war

1. Go to the server path in which the application is running.  
For Example: `$FIC_HOME/FTPWebService`
2. Run "ant.sh" in this folder. `FTPWebServiceAXIS.war` will be created in the same folder.

## Deploying FTPWebServiceAXIS.war

### For Tomcat:

1. Copy the above WAR file to the `webapps` folder of apache tomcat directory.
2. Go to `conf` folder of apache tomcat and add a separate context entry in `server.xml` file with resource name as `jdbc/FTPWS`.

Example:

```
<Context path="/FTPWebServiceAXIS" docBase="/<Tomcat_webapps> /FTPWebServiceAXIS"
debug="0" reloadable="false" crossContext="true">
  <Resource auth="Container"
name="jdbc/FTPWS"
type="javax.sql.DataSource
driverClassName="oracle.jdbc.driver.OracleDriver
username="username"
password="password" url="jdbc:oracle:thin:@db-ip:dp-port:dbname"
maxActive="100"
maxIdle="30"
maxWait="10000"
removeAbandoned="true"
removeAbandonedTimeout="60"
logAbandoned="true"/>
</Context>
```

3. Restart the server.

### For Weblogic and WebSphere:

1. Deploy `FTPWebServiceAXIS.war` from admin console.
2. Create data source for database connection with JNDI name as `jdbc/FTPWS`.
3. WSDL is present at following URL.  
`http://ipaddress:port/FTPWebServiceAXIS/services/OFSAAFTPService?wsdl`

### Additional Steps for Configuring the FTP Ad hoc Pricing Web Services

Ad hoc pricing web-services (`getpricing`) are deployed along with OFSAA FTP. Configuring these web services require some minor configuration after installation, steps are mentioned below:

1. Goto `$FIC_HOME/ficweb/webroot/WEB-INF/classes`.
2. Open `ofsaaws.properties`, replace `<infodomain>` and `<userid>`(with admin access) and save it.
3. Open `ofsaawsClient.properties`, give OFSAA URL.
4. Rebuild the war and deploy.

URL pattern for ad hoc web-services are:

`http://<ip>:<port>/<context>/services/DailyQueriesService?wsdl`

`http://<ip>:<port>/<context>/services/ PricingService?wsdl`

---

**Note:** See the *Oracle Financial Services Funds Transfer Pricing User Guide* for usage of the FTP Ad hoc Pricing Web Services.

---



---

**APPENDIX C**

# *Additional Configuration*

The following topics provide detailed module specific post installation configurations.

This section includes the following topics:

- ⑩ [FTP/SFTP Configuration for File Transfer](#)
- ⑩ [Configuration for Dimension and Hierarchy Management](#)
- ⑩ [Configure Infrastructure Server Memory](#)
- ⑩ [Internet Explorer Settings](#)
- ⑩ [Retrieving Patch Information](#)
- ⑩ [OLAP Data Server Configuration](#)
- ⑩ [Changing IP/ Host name, Ports, Deployed Paths of the OFSAA Instance](#)
- ⑩ [OFSAAI Setup Information Fetching Tool](#)
- ⑩ [Encryption Changer](#)
- ⑩ [Infrastructure LDAP Configuration](#)
- ⑩ [Configure OFSAAI Web Services](#)
- ⑩ [Deploy OFSAAI Web Services](#)
- ⑩ [Configuration to Enable Parallel Execution of DML Statements](#)
- ⑩ [Configure Message Details in Forms Designer](#)
- ⑩ [Clearing Application Cache](#)
- ⑩ [Configuring Password Changes](#)
- ⑩ [Configuring Java Virtual Machine](#)
- ⑩ [Configure Internal Service \(Document Upload/ Download\)](#)

## FTP/SFTP Configuration for File Transfer

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.
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 AMHMCConfig.properties file present in the `$FIC_WEB_HOME/webroot/conf` directory to set the properties for the following:

This section includes the following topics:

- ⑩ [Configure Member Deletion](#)
- ⑩ [Configure Attribute Default Date Format](#)
- ⑩ [Configure Members Reverse Population](#)
- ⑩ [Configure Hierarchy Reverse Population](#)
- ⑩ [Configure Maximum Levels allowed in Hierarchies](#)
- ⑩ [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:

- ⑩ `$INFODOM$=<Name of the Information Domain>`
- ⑩ `$DIMENSION_ID$=<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.

Value	Code	Example
# Member Deletion Configuration - VALUE- Y/N	MEMBER_DEL-\$INFODOM\$-\$DIMENSION_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.

Value	Code	Example
# Attribute Default Date Format - DB_DATE_FORMAT:DD-MON-YYYY	ATTR_DEF_DATE_FORMAT-\$INFODOM\$=\$DB_DATE_FORMAT\$	ATTR_DEF_DATE_FORMAT-ORAFUSION=DD/MON/YYYY

## Configure Members Reverse Population

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

Value	Code	Example
# Members Reverse population - VALUE-Y/N	MEMBER_REVERSE_POP-\$INFODOM\$-\$DIMENSION_ID\$=\$VALUE\$	MEMBER_REVERSE_POP-ORAFUSION-1=Y

## Configure Hierarchy Reverse Population

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

Value	Code	Example
#Hierarchy Reverse population - VALUE-Y/N	HIERARCHY_REVERSE_POP-\$INFODOM\$-\$DIMENSION_ID\$=\$VALUE\$	HIERARCHY_REVERSE_POP-ORAFUSION-1=Y

## Configure Maximum Levels allowed in Hierarchies

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

Value	Code	Example
#Hierarchy Maximum level allowed for the hierarchy in particular Information Domain - VALUE - Integer number	MAX_DEPTH-\$INFODOM\$=\$VALUE\$	MAX_DEPTH-FUSION=15

Hierarchies greater than 15 levels are not supported within OFSAA EPM applications (ALM, FTP, PFT, and HM). If the hierarchy data contains more than 15 levels, OFSA\_IDT\_ROLLUP will not be populated. The number of hierarchy levels allowed for OFSAA EPM key dimensions must be less than or equal to 15.

- ⑩ If the Hierarchy Reverse Population setting is set to "Y" and more than 15 levels exist in the data, then the following alert is displayed *"The number of levels exceeds the limit"*.
- ⑩ If the maximum level allowed setting is set greater than 15 and Hierarchy Reverse Population is set to "Y", then following error is displayed *"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.

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:** Modify X\_ARGS\_APP variable in the .profile file to customize Java Memory Settings for Model Upload based on the Data Model size.

For Run and Rule executions, the following value is recommended:

```
X_ARGS_RNEXE="-Xms1g -Xmx1g
```

```
XX:+UseAdaptiveSizePolicy -XX:MaxPermSize=512M -XX:+UseParallelOldGC -XX:+DisableExplicitGC"
```

```
X_ARGS_RLEXE="-Xms1g -Xmx1g -XX:+UseAdaptiveSizePolicy -XX:MaxPermSize=512M
```

```
XX:+UseParallelOldGC -XX:+DisableExplicitGC"
```

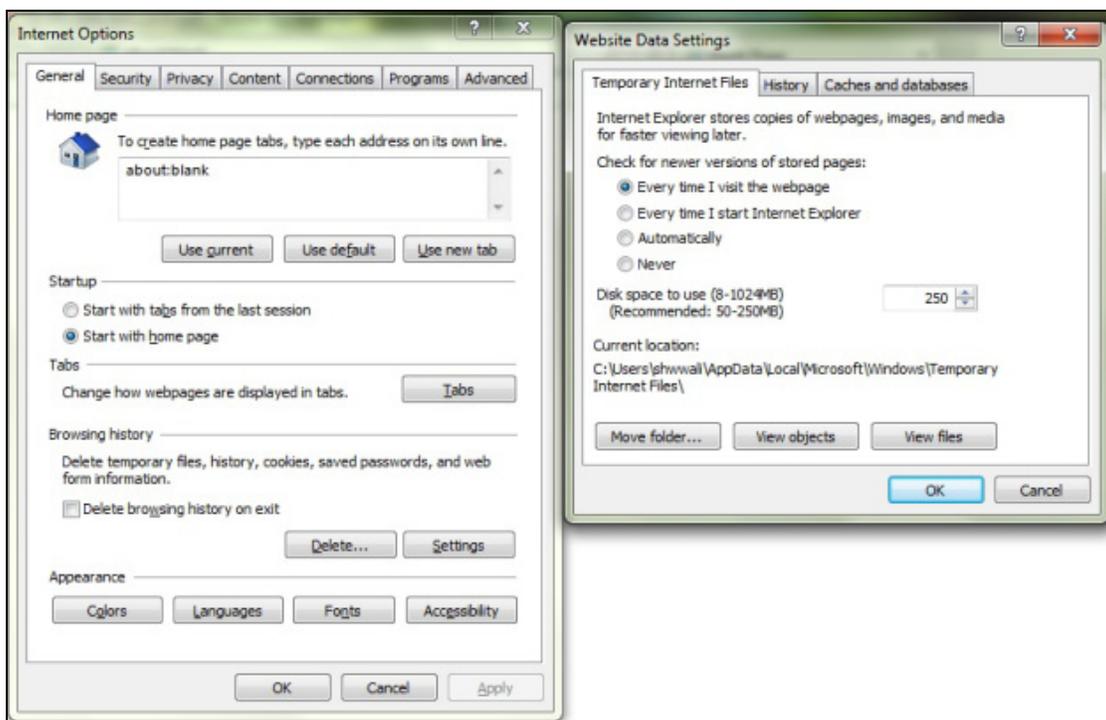
---

## Internet Explorer Settings

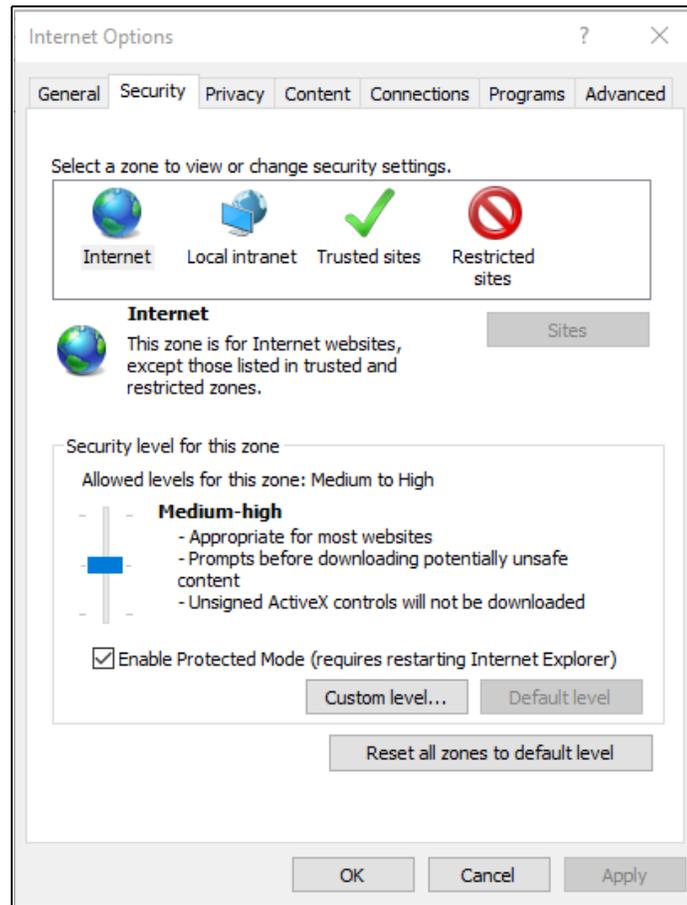
**Note:** OFSAAI supports only default zoom setting in Internet Explorer, that is, 100%. Cookies should be enabled.

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

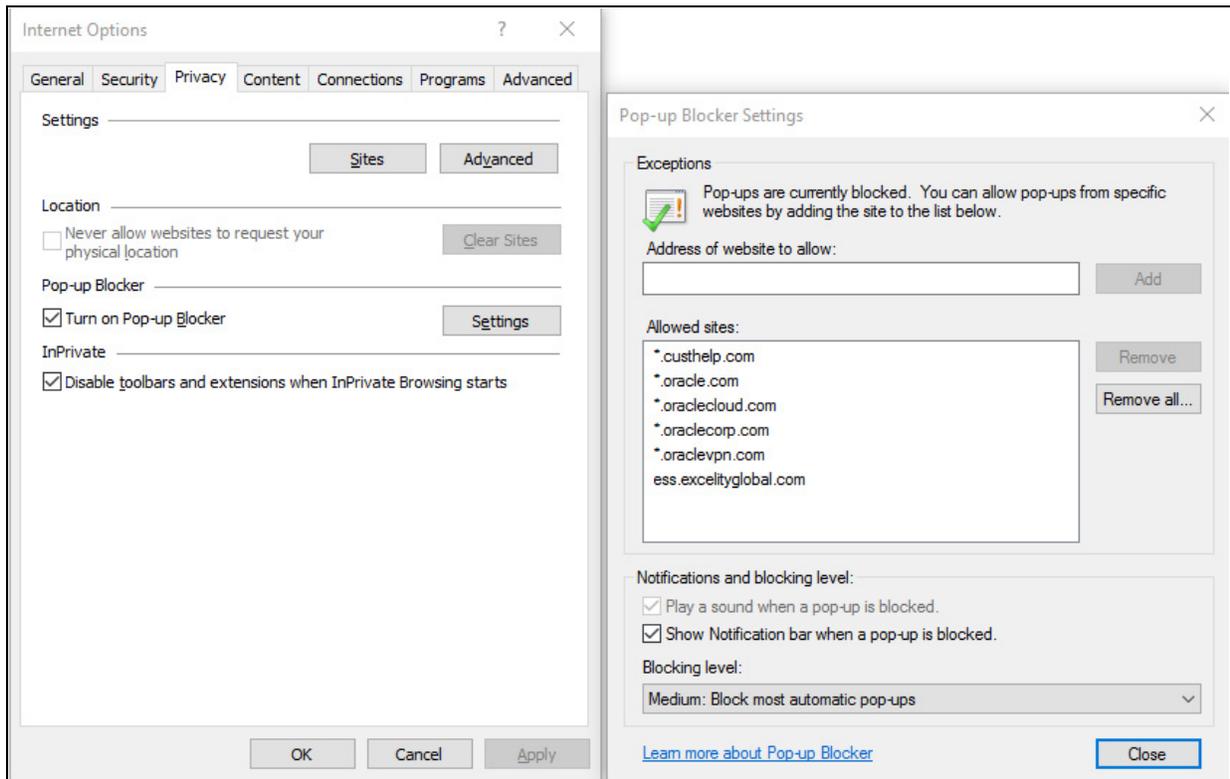
1. Open Internet Explorer. Select Tools > Internet Options. The Internet Options window is displayed.
2. Click the Settings button. The Settings window is displayed.
3. Select the option Every time I Visit the webpage and click OK.



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**.



6. Click OK to save.
7. In the Internet Options window, select the Privacy tab and select the Turn on Pop-up Blocker option under Pop-up Blocker settings.



8. Click Settings. The Pop-up Blocker Settings window is displayed.
9. Enter the URL of the OFSAA Application in the Address of Website to Allow: field.
10. Click Add. The OFSAA URL is displayed in the Allowed Sites section.
11. Click Close.
12. Click OK in the Internet Options window.

## Retrieving 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, expand **Utilities** and click **Patch** Information.
3. The window 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

- ⑩ Sort Buffer settings: This must be set at the Essbase application level appropriate to the anticipated load.
- ⑩ 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/ Host name, Ports, Deployed Paths of the OFSAA Instance***

For information on this section, see the [OFS Analytical Applications Infrastructure Administration User Guide](#).

## ***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 [Creating and Deploying EAR/WAR File](#).

## Infrastructure LDAP Configuration

For more information on LDAP configuration, see the [OFSAAI Analytical Applications Infrastructure Administration User 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" PORTTYPENAME="$PORTTYPENAME"
      SESSION_MAINTAIN_PROPERTY="$SESSION_MAINTAIN_PROPERTY"
      USERNAME="$USERNAME"
      PASSWORD="$PASSWORD" STYLE="$WEBSERVICESTYLE"
      STUBIMPLEMENTATION="$STUBIMPLEMENTATION">
      <OPERATION CODE="$CODE"
        NAME="$NAME"
        SOAPACTION="$SOAPACTION"
        STYLE="$STYLE"
        PACKAGENAME="$PACKAGENAME">
      <INPUT ORDER="$ORDER"
        PARAMNAME="$PARAMNAME"
        ARGTYPE="$ARGTYPE"
```

```

CLASSNAME="$CLASSNAME"/>
<OUTPUT PARAMNAME="$PARAMNAME"
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 web service 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 (web-services) to be accessed. The stub class specified must implement the `"com.iflex.Oracle Reveleus.execution.webservice.EXEWebIF"` interface.

### Attributes for WEBSERVICE tag

Placeholder	Description
\$CODE	Unique number within the xml file and cannot be 999 or 0.
\$ENDPOINT	soap: address location in the wsdl: service name tag of the wsdl file.
\$TARGETNAMESPACE	The attribute value for the targetNamespace of the wsdl: definitions tag.
\$XMLNS_XSD	The attribute value for the xmlns:s of the wsdl:definitions tag
\$ENCODINGSTYLE	The attribute value for the xmlns:soapenc of the wsdl:definitions tag.
\$SERVICENAME	Name of the service found under the wsdl:service name tag of the wsdl file.
\$PORTTYPE	wsdl port type name as mentioned in the wsdl file.
\$SESSION_MAINTAIN_PROPERTY	This could be given as "" also.
\$USERNAME	User name to access the web services. Enter "" if no user name is required.
\$PASSWORD	Password to access the web services. Enter "" if no password is required.
\$WEBSERVICESTYLE	This can take either "rpc" in case of DII mode of invoking web services or "stub" in case of static mode. This is a mandatory parameter.
\$STUBIMPLEMENTATION	Fully qualified class name (package name.classname).

### Attributes for OPERATION tag

Ensure that the "operation tag attributes" are repeated for each of the operation tags.

Placeholder	Description
\$CODE	Should be unique within the Web service tag.
\$NAME	The name of the Function that is to be called by the wsdl file.
\$SOAPACTION	The URL for the Operation to access. This is associated with the Operation tag of the wsdl file.
\$STYLE	This can take "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

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

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

1. This step is optional and required only if the web application server used is Tomcat. In case of any other application server, skip and proceed with next step.

Navigate to `$FIC_HOME/webroot/WEB-INF/` and edit the `web.xml` file. Set parameter value `DOCSERVICEAPP` to `EXEWebServiceAXIS`.

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

---

**Note:** In case of Java 7 when WebLogic is used as web application server replace following line of `<OFSAAI Installation Directory>/EXEWebService/Weblogic/ROOT/WEB-INF/web.xml` file that is

```
<?xml version='1.0' encoding='UTF-8'?>
<web-app id="WebApp_ID" version="3.0"
xmlns="http://java.sun.com/xml/ns/javaee"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_3_0.xsd" metadata-complete="true">
```

with

```
<?xml version='1.0' encoding='UTF-8'?>
<web-app xmlns="http://java.sun.com/xml/ns/j2ee"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

---

## 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

Replace the following `<param-value>` given in bold in the following block of text in `web.xml` file, 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
```
3. This will trigger the EAR/WAR file creation, which is required for the deployment.
4. Deploy the generated `EXEWebService.EAR/EXEWebService.WAR` file into the Web Server.

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 Web Server 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:

Parameter	Description
SMTP_SERVER_IP	Specify the host name 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 (i.e. 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 Web Server configured and clear the cache:

- ⑩ **Tomcat:** `<Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp`
- ⑩ **WebLogic:** `<Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>/qaelce/jsp_servlet`
- ⑩ **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
```

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.

5. 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. Modify the password as explained in the following steps:
  - a. From the Database Master window, select the connection whose password you want to modify and click  button from the tool bar.
    - i. Click  button corresponding to the Alias Name. The Alias Details window is displayed.
    - ii. Modify the password in the Auth String field.
4. 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).
5. 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.
    - 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.

## Configuring 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 on all the machines or virtual machines 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 775 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.

**APPENDIX D**

## *Cloning an 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, see [OFSAA Cloning Reference Guide](#).



# *Migration for Excel Upload*

This appendix provides detailed instructions to migrate for excel upload.

## ***Prerequisites***

The following are the prerequisites for migration:

- ⑩ Data model in ATOMIC schemas should be same on the source and target setups.
- ⑩ OFS AAI (platform) patch level version should be same on the source and target setups.
- ⑩ PL/SQL Developer to connect and query the database.
- ⑩ WinSCP to connect and access server file system.

## ***Migration for Excel Upload***

To migrate, follow these steps:

1. Open PL/SQL Developer and log in to the source setup's configuration (CONFIG) schema by entering the appropriate username and password.
2. In a new SQL window query the data of table EXCEL\_MAPPING\_MASTER.
3. Open a new session in PL/SQL developer and log in to the target setup's configuration (CONFIG) schema by entering the appropriate username and password.
4. Insert the records from Step 1 above in to this table.
5. In V\_INFODOM column of EXCEL\_MAPPING\_MASTER table update the infodom name with the target infodom name.

---

**Note:** If all the mappings can work out of the single target Infodom, update same Infodom value across all rows. If only few mappings will work out of the target infodom, update the infodom value for selective records. Excel upload mappings will work only if the target infodom has same data model entities as used in the mappings defined on source setup.

---

6. Update V\_CREATED\_BY column with the name of any user present in the target setup that has appropriate roles to perform Excel Upload tasks.

---

**Note:** It is mandatory to update values for V\_INFODOM and V\_CREATED\_BY columns.

---

7. Open WinSCP and login a new session by entering the host name, port number, user name and password to access the source setup.
8. Navigate to the folder referred as FTPSHARE.
9. Copy the excel-entity mapping xml file(s) which are located in this folder according to their folder structure on to your desktop. For example: /ftpsahre /STAGE/ExcelUpload/\$SOURCE\_INFODOM\_NAME/\$EXCEL\_FILE\_NAME.xml

---

**Note:** Actual file name of Excel Sheet is mentioned in the V\_EXCEL\_NAME column of EXCEL\_MAPPING\_MASTER table.

---

10. Copy the excel templates (.xls/ .xlsx) file(s) which are located in this folder according to their folder structure on to your desktop. For example: /ftpshare/STAGE/ExcelUpload/TEMPLATE/\* .xls or \* .xlsx

---

**Note:** Ignore this step if files are not present at the location.

---

11. Login a new session in WinSCP by entering the host name, port number, user name and password to access the target setup.
12. Copy the xml file(s) from Step3 to the below location in the target setup. For example:  
/ftpshare/STAGE/ExcelUpload/\$TARGET\_INFODOM\_NAME/\$EXCEL\_FILE\_NAME.xml

---

**Note:** \$TARGET\_INFODOM\_NAME should be target setup infodomain in which you have uploaded the appropriate data model and the name should be same as the V\_INFODOM column value updated in EXCEL\_MAPPING\_MASTER table.

---

13. Copy the xls/ xlsx file(s) from Step 3 to the below location in target setup. For example:  
/ftpshare/STAGE/ExcelUpload/TEMPLATE/\* .xls or \* .xlsx

---

**Note:** Ignore this step if files are not present at the location.

---

**APPENDIX F**

# Visibility

## Data Visibility

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

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

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

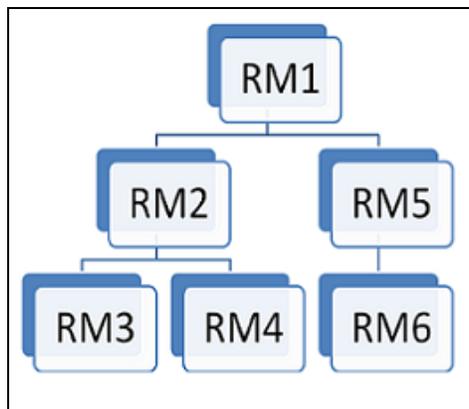
If a user is Relationship Manager (RM), then the particular log in ID and the manager code from `DIM_MANAGEMENT` table have to be populated into `FSI_M_USER_MANAGER_MAP` table. Also, the table `FCT_ACCOUNT_MGR_REL` should have the necessary details for the relationship manager to account mapping.

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

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

Example

The following diagram depicts a hierarchy of Relationship Managers:



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

- ⑩ RM1 user has control over the data associated to that user along with the data associated to the immediate subordinates, that is, RM2, RM5, and their subordinates till the end of the hierarchy.
- ⑩ RM2 user has control over the data associated to that user along with the data associated to the immediate subordinates, that is, RM3, RM4, and their subordinates till the end of the hierarchy.
- ⑩ RM5 user has control over the data associated to that user along with the data associated to the immediate subordinate, that is, RM6 and his subordinates till the end of the hierarchy.

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

## ***Report Visibility***

The Report's visibility are restricted as per below.

<b>Application Role</b>	<b>Dashboards Available</b>
Business Analyst	Summary Customer Summary Cross-Sell Top 10 Opportunities Opportunities Activities Customer Performance Product Performance Line of Business Performance Balance Sheet
Relationship Manager	Opportunities Activities Relationship Manager Performance
Sales Representative	Opportunities Activities
Administrator	All Reports

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

## Metadata Visibility

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

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

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



---

**APPENDIX G**

# Removing OFSAA

This chapter includes the following sections:

- ⑩ [Uninstalling OFSAA Infrastructure](#)
- ⑩ [Uninstalling EAR Files in WebSphere](#)
- ⑩ [Uninstalling EAR Files in WebLogic](#)
- ⑩ [Uninstalling WAR Files in Tomcat](#)

## Uninstalling OFSAA Infrastructure

This section will guide you through the necessary steps to uninstall the OFSAA Infrastructure product.

Before you start the uninstallation process, ensure that no open connections exist to the OFSAA Infrastructure Config and Atomic Schemas and Infrastructure services are brought down.

To uninstall OFSAA Infrastructure:

1. Log in to the system as non-root user.
2. Navigate to the \$FIC\_HOME directory and execute the command:  
`./Uninstall.sh`
3. Enter the password for OFSAAI Configuration Schema when prompted as shown in the following figure.

```
/scratch/ofsaadb/OFSAAI>./Uninstall.sh
Uninstallation Started [time : Tue Jun 10 14:20:27 IST 2014 ]
*****
*** Driver loaded with Driver oracle.jdbc.driver.OracleDriver

Please enter Configuration schema Password :
Connected to Config Schema
Cleaning config schema ....
config schema cleaned ...
Cleaning up Infrastructure Home Dir !
Please wait ..
Uninstallation Completed ! Thank You [time : Tue Jun 10 14:21:59 IST 2014 ]
*****
/scratch/ofsaadb/OFSAAI>
```

**Figure 3. Uninstalling OFSAA Infrastructure**

---

**Note:** Uninstallation does not remove the Infrastructure application from the Web Application Server. This has to be done manually.

The entries in the .profile file will have to be removed manually.

The files/ folders under the file system staging area (ftpshare) have to be deleted manually.

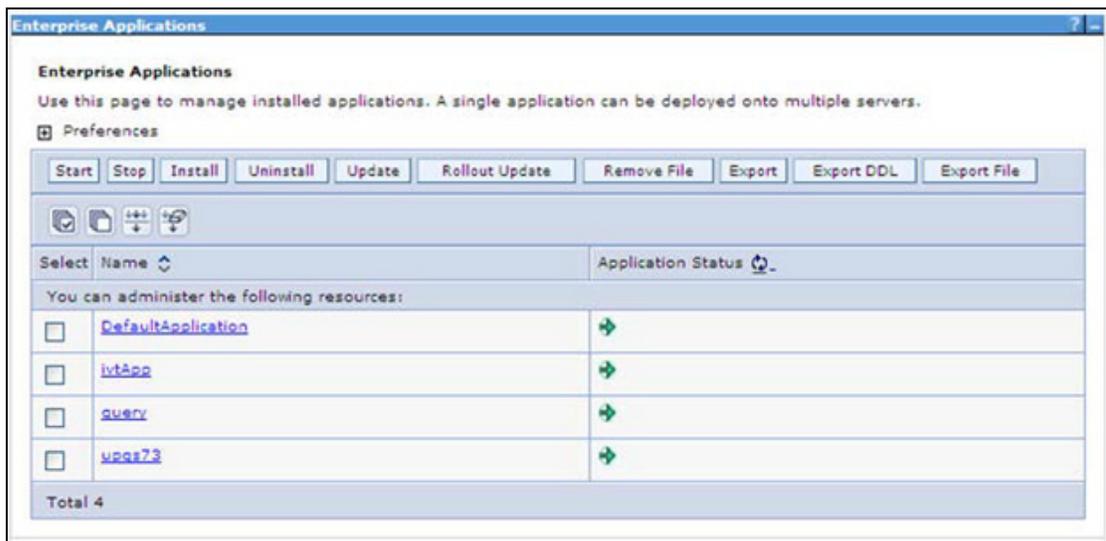
All the Database objects from Atomic Schemas have to be dropped manually.

---

## Uninstalling EAR Files in WebSphere

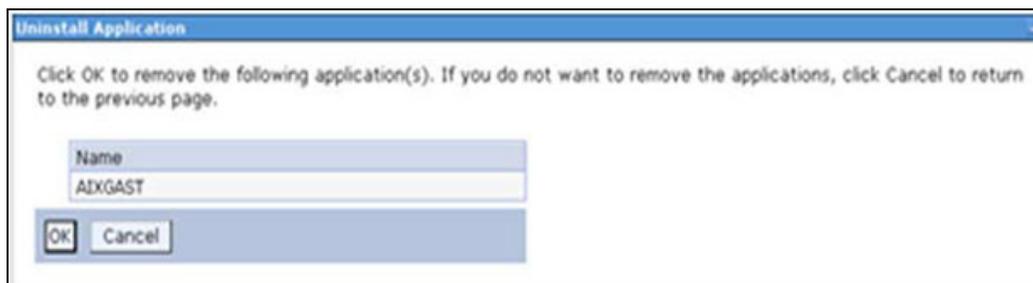
Following are the steps to uninstall any previously deployed application:

1. Open the 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 Applications > Application Types > WebSphere enterprise applications from the LHS. The Enterprise Applications window is displayed with all the deployed applications.



**Figure 4. Enterprise Applications**

4. Select the check box adjacent to the application to be uninstalled and click **Stop**.
5. Click **Uninstall** to display the **Uninstall Application** window.



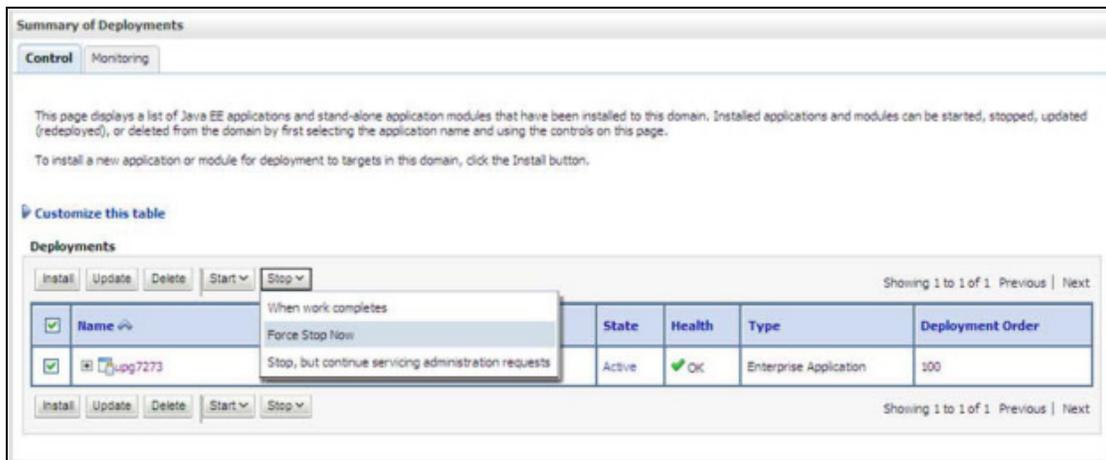
**Figure 5. Uninstall Application**

6. Click **OK** to confirm.
7. Click **Save** to save the master file configuration.

## Uninstalling EAR Files in WebLogic

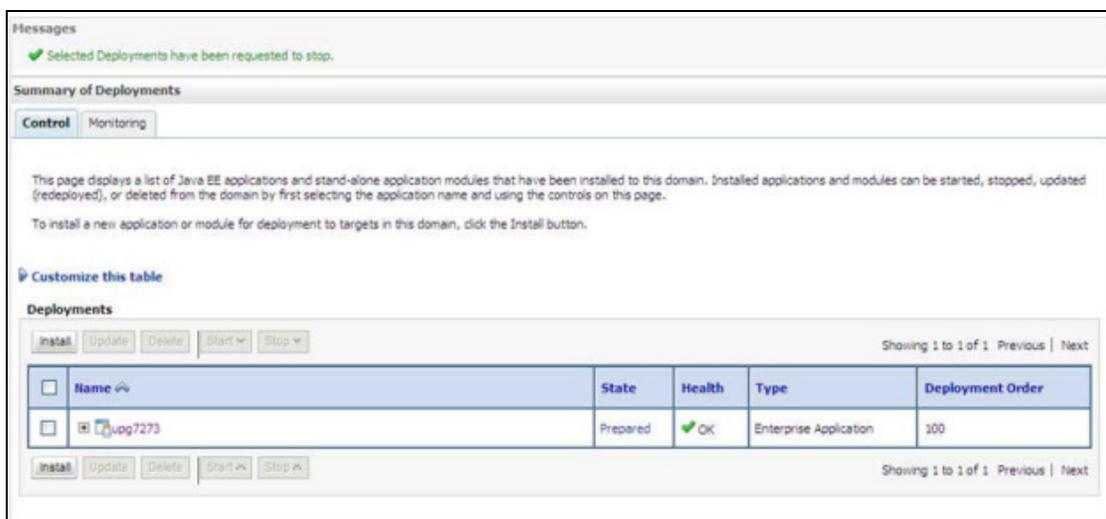
On the machine that hosts WebLogic, perform the following steps to uninstall any previously deployed application:

1. Open the URL in the browser window: `http://<ipaddress>:<admin server port>/console` (https if SSL is enabled). The Login window of the WebLogic Server Administration Console is displayed.
2. Login with the WebLogic user credentials having administrator privileges.
3. From the **Domain Structure** LHS menu, click **Deployments** to display the **Summary of Deployments** screen.



**Figure 6. Summary of Deployments**

4. Select the check box adjacent to the application to be uninstalled and click **Stop > Force Stop Now**.
5. Click **Yes** in the confirmation dialog to stop the selected deployment.



**Figure 7. Summary of Deployments- Messages**

6. Select the check box adjacent to the application and click **Delete** to delete the selected deployment.
7. Click **Yes** in the confirmation dialog to remove the selected deployment from the domain configuration.

## 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:

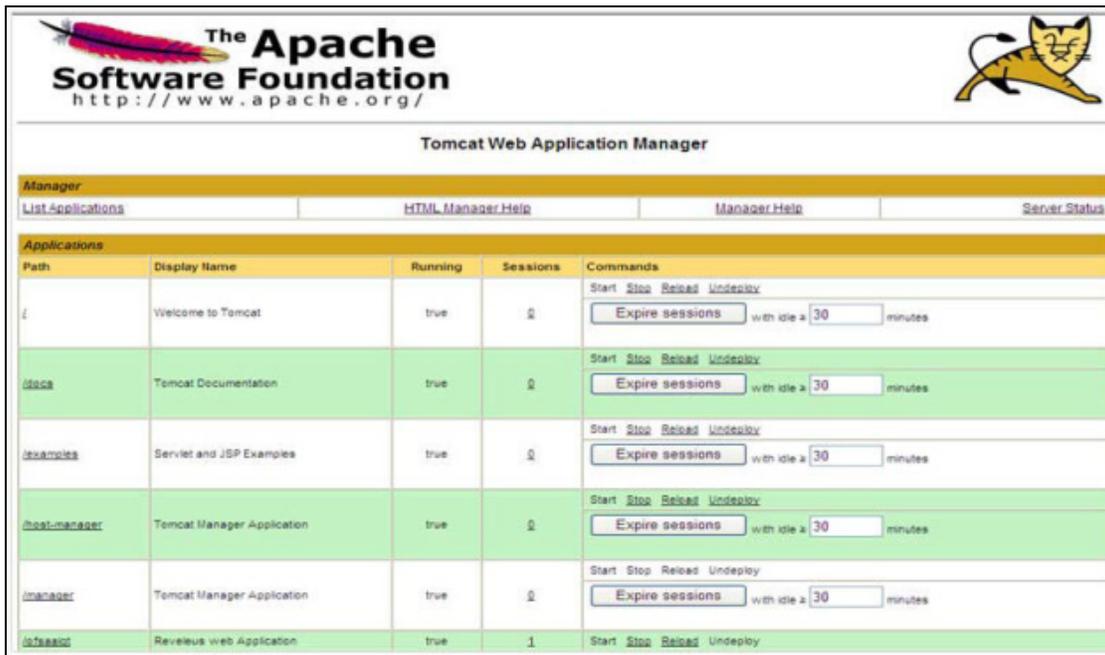
```
<!--  
<Context path ="/pr2test" docBase="/home/perfuser/tomcat-7.0.19/webapps/pr2test"  
debug="0" reloadable="true" crossContext="true">  
<Resource auth="Container"  
name="jdbc/PR2ATM"  
type="javax.sql.DataSource"  
driverClassName="oracle.jdbc.driver.OracleDriver"  
username="pr2atm"  
password="pr2atm"  
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:

- a. Login to the "Unix server" through a terminal emulator.
  - b. Navigate to \$catalina\_home/bin directory.
  - c. Stop the tomcat services using the following command:  

```
./shutdown.sh
```
  - d. Start the tomcat services using the following 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 8. Tomcat Web Application Manager**

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



---

**APPENDIX H**

# *Upgrading an Existing OFSAA 8.0.x Java 7 Instance to Java 8*

This appendix explains the configurations required to upgrade an existing OFSAA 8.0.x Java 7 instance to Java 8. It consists of the following topics:

- ⑩ [Prerequisites](#)
- ⑩ [Steps for upgrading OFSAA 8.0.x Java 7 instance to Java 8](#)
- ⑩ [Web Application Server Configurations](#)
- ⑩ [OFSAA Generic Configurations](#)
- ⑩ [OFSAA Configurations for New Web Application Server Installation](#)

## ***Prerequisites***

The following are the prerequisites for upgrading OFSAA 8.0.x Java 7 instance to Java 8:

- ⑩ Java 8 should be installed on the OFSAA server and Web Application Server.
- ⑩ Oracle WebLogic Server should be 12.1.1.3.0 or above. Download and install patch **18729264** from <http://support.oracle.com/>.

---

**Note:** IBM WebSphere 8.5.x (Full Profile) on Java 8 is not available.

---

## ***Steps for upgrading OFSAA 8.0.x Java 7 instance to Java 8***

To upgrade OFSAA 8.0.x Java 7 instance to Java 8, follow these steps:

1. Configure Web Application Server to Java 8. For more information, see [Web Application Server Configurations](#).
2. Configure the OFSAA instance to Java 8. For more information, see [OFSAA Generic Configurations](#). For a newly installed Web Application Server, see [OFSAA Configurations for New Web Application Server Installation](#).
3. Restart the OFSAA services. For more information, see [Start/Stop OFSAA Infrastructure Services](#) section.
4. 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 [Creating and Deploying EAR/WAR File](#).

## Web Application Server Configurations

This section describes the changes to be made in the Web Application Server. Following are the two options to perform Web Application Server Configurations which are listed as follows:

- ⑩ Upgrade the existing Web Application Server installation to Java 8
- ⑩ Install a new instance of the Web Application Server with Java 8

This section consists of the following topics:

- ⑩ [Oracle WebLogic Server Updates](#)
- ⑩ [Apache Tomcat Server Updates](#)

### Oracle WebLogic Server Updates

Perform the following configurations to upgrade the existing WebLogic server instance to Java 8:

1. Navigate to `<WLS_HOME>/Middleware/Oracle_Home/wlserver`.
2. Edit the `product.properties` file. Set `JAVA_HOME`, `WLS_JAVA_HOME`, `JAVAHOME` properties to the new Java path and `java.vm.version` to the new Java version. For example:

```
JAVA_HOME=/usr/java/jre1.8.0_45
WLS_JAVA_HOME=/usr/java/jre1.8.0_45
JAVAHOME=/usr/java/jre1.8.0_45
java.vm.version=1.8.0_45
```

3. Navigate to `<WLS_HOME>/Middleware/Oracle_Home/user_projects/domains/<domain>/bin`. Update `SUN_JAVA_HOME`, `DEFAULT_JAVA_HOME`, `JAVA_HOME` in the `setDomainEnv.sh` file to point to the new Java path. For example:

```
SUN_JAVA_HOME="/usr/java/jre1.8.0_45"
DEFAULT_SUN_JAVA_HOME="/usr/java/jre1.8.0_45"
JAVA_HOME="/usr/java/jre1.8.0_45"
```

4. Clear the Application cache. Navigate to the following path and delete the files:

```
<Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>/qaelce/jsp_servlet
```

If you want to install a new instance of the Oracle WebLogic Server, follow these steps:

1. Install Oracle WebLogic Server 12.1.3.x on Java 8.
2. Perform the configurations for the newly installed WebLogic server. For more information, see [Configure Resource Reference in WebLogic Application Server](#).

---

**Note:** While creating WebLogic Domain, the Listen Port should be set same as that of the existing Domain. Note down the new Domain path to perform OFSAA Configurations.

---

### Apache Tomcat Server Updates

Perform the following configurations to upgrade the existing Apache Tomcat Server from Java 7 to Java 8:

1. Login to the Apache Tomcat Server as a non-root user.
2. Edit the user `.profile`. Update the value for `JAVA_HOME` from JRE 1.7 to JRE 1.8. For Example:

```
JAVA_HOME=/usr/java/jre1.8.0_45
```

3. Clear the Application cache. Navigate to the following path and delete the files:

```
<Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp
```

If you wish to install a new instance of the Apache Tomcat Server, follow these steps:

1. Install Apache Tomcat Server 8 with Java 8.
2. Perform the configurations for the newly installed Tomcat server. For more information, see [Configure Resource Reference in Tomcat Application Server](#).

---

**Note:** Update the Connector Port in `/apache-tomcat-8.0.21/conf/server.xml` file to that of the existing Tomcat instance. Note down the new deployment path to perform OFSAA Configurations.

---

## OFSAA Generic Configurations

### User `.profile` Settings

Perform the following configurations:

1. Login to the OFSAA Server as a non-root user.
2. Edit the user `.profile`. Update the value for `PATH` variable from JRE 1.7 to JRE 1.8. For Example,

```
PATH=/usr/java/jre1.8.0_45/jre
```

```
JAVA_BIN=/usr/java/jre1.8.0_45/jre/bin
```

```
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/java/jre1.8.0_45/jre/lib/amd64/server
```

## ***OFSAA Configurations for New Web Application Server Installation***

This configuration is required only if you have freshly installed Oracle WebLogic 12.1.3 or Apache Tomcat Server 8.0. Follow these steps:

1. Modify the following parameters in the Configuration table present in the Config Schema with the new Domain Path in case of WebLogic or with the new deployment path in case of Tomcat:
  - DeFiHome
  - REV\_IMG\_PATH
  - EMBEDDED\_JSP\_JS\_PATH
2. Login to the OFSAA Server as a non-root user.
3. Navigate to `$FIC_HOME/ficweb/webroot/WEB_INF` and update the following parameters in the `web.xml` file with the new Domain path in case of WebLogic or with the new deployment path in case of Tomcat:
  - FIC\_PHYSICAL\_HOME\_LOC
  - FIC\_HOME
  - ICC\_SERVLET\_LOG\_FILE
4. Navigate to `$FIC_HOME/ficweb/webroot/conf` and update the Domain path in case of WebLogic or with the new deployment path in case of Tomcat:
  - OFSAALogger.xml
  - MDBLogger.xml
  - RevLog4jConfig.xml
  - RFDLogger.xml
  - ExportLog4jConfig.xml
  - RFDLogger.xml
  - PR2Logger.xml

**APPENDIX I***JDBC Jar Files*

The `ojdbc<version>.jar` file should be copied based on Database and Java version. Refer to the following table for details:

Oracle Database version	JDK/JRE Version supported	JDBC Jar files specific to the release
12.1 or 12cR1	JDK 8, JDK 7 and JDK 8	ojdbc7.jar for JDK 7/JDK 8
11.2 or 11gR2	JDK 7 supported in 11.2.0.3 and 11.2.0.4	ojdbc6.jar for JDK 7



APPENDIX J

# Configuring Application Pack XML Files

## OFS\_PFT\_PACK.xml

The OFS\_PFT\_PACK.xml file holds details on the various products that are packaged together in Profitability Application Pack.

This section details the various tags/ parameters available in the file and the values that need to be updated. Prior to installing the Profitability 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.

```
<APP_PACK_CONFIG>
  <APP_PACK_ID>OFS_PFT_PACK</APP_PACK_ID>
  <APP_PACK_NAME>Financial Services Profitability Applications Pack</APP_PACK_NAME>
  <APP_PACK_DESCRIPTION>Applications for Profitability in the Banking and Financial Services Domain</APP_PACK_DESCRIPTION>
  <VERSION>8.0.0.0</VERSION>
  <APP>
    <APP_ID PREREQ="" DEF_SEL_FLG="YES" ENABLE="YES">OFS_AAI</APP_ID>
    <APP_NAME>Financial Services Analytical Applications Infrastructure</APP_NAME>
    <APP_DESCRIPTION>Base Infrastructure for Analytical Applications</APP_DESCRIPTION>
    <VERSION>8.0.0.0</VERSION>
  </APP>
  <APP>
    <APP_ID PREREQ="OFS_AAI" ENABLE="YES">OFS_PFT</APP_ID>
    <APP_NAME>Financial Services Profitability Management</APP_NAME>
    <APP_DESCRIPTION>Application for Profitability Management</APP_DESCRIPTION>
    <VERSION>8.0.0.0</VERSION>
  </APP>
  <APP>
    <APP_ID PREREQ="OFS_AAI" ENABLE="YES">OFS_FTP</APP_ID>
    <APP_NAME>Financial Services Funds Transfer Pricing</APP_NAME>
    <APP_DESCRIPTION>Application for Funds Transfer Pricing</APP_DESCRIPTION>
    <VERSION>8.0.0.0</VERSION>
  </APP>
  <APP>
    <APP_ID PREREQ="OFS_AAI" ENABLE="YES">OFS_IPA</APP_ID>
    <APP_NAME>Financial Services Institutional Performance Analytics</APP_NAME>
    <APP_DESCRIPTION>Application for Institutional Performance Analytics</APP_DESCRIPTION>
    <VERSION>8.0.0.0</VERSION>
  </APP>
  <APP>
    <APP_ID PREREQ="OFS_AAI" ENABLE="YES">OFS_RPA</APP_ID>
    <APP_NAME>Financial Services Retail Performance Analytics</APP_NAME>
    <APP_DESCRIPTION>Application for Retail Performance Analytics</APP_DESCRIPTION>
    <VERSION>8.0.0.0</VERSION>
  </APP>
  <APP>
    <APP_ID PREREQ="OFS_AAI" ENABLE="YES">OFS_EFPA</APP_ID>
    <APP_NAME>Financial Services Enterprise Financial Performance Analytics</APP_NAME>
    <APP_DESCRIPTION>Application for Enterprise Financial Performance Analytics</APP_DESCRIPTION>
    <VERSION>8.0.0.0</VERSION>
  </APP>
</APP_PACK_CONFIG>
```

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.

Tag Name/ Attribute Name	Description	Mandatory (Y/ N)	Default Value/ Permissible Value	Comments
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.
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. <b>Note:</b> 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.

## Configuring OFS\_PFT\_SCHEMA\_IN.xml

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

**Note:** This file should be configured only if OFS Profitability Application Pack installation for **RDBMS ONLY** target.

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.

Tag Name/ Attribute Name	Description	Mandatory (Y/ N)	Default Value/ Permissible Value	Comments
<APP_PACK_ID>	Seeded unique ID for the OFSSAA Application Pack	Y	Seeded	DO NOT modify this value.
<JDBC_URL>	Enter the JDBC URL.  <b>Note:</b> You can enter RAC/ NON-RAC enabled database connectivity URL.	Y	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=  For example:  jdbc:oracle:thin:@//dbhost.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.

Tag Name/ Attribute Name	Description	Mandatory (Y/ N)	Default Value/ Permissible Value	Comments
<JDBC_DRIVER>	By default this driver name is seeded.  <b>Note:</b> Do not edit this attribute value.	Y	Example:  oracle.jdbc.driver.OracleDriver	Only JDBC Thin Driver is supported.  DO NOT modify this value.
<HOST>	Enter the Host name/ IP Address of the system on which you are installing the OFSAA components.	Y	Host Name/ IP Address	
<SETUPINFO>/PREFIX_SCHEMA_NAME	Identifies if the value specified in <SETUPINFO>/NAME attribute should be prefixed to the schema name.	N	YES or NO  Default value is YES.	
<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_ofsaatm.	Y	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 example, dev_ofsaaconf, uat_ofsaaconf, etc.
<PASSWORD>/DEFAULT*	Enter the password if you want to set a default password for all schemas.  <b>Note:</b> You also need to set APPLYSAMEFORALL attribute as Y to apply the default password for all the schemas.	N	The maximum length allowed is 30 characters. Special characters are not allowed.	

Tag Name/ Attribute Name	Description	Mandatory (Y/ N)	Default Value/ Permissible Value	Comments
<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, 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	<p>Default - N</p> <p>Permissible - Y</p>	<p><b>Note:</b> Setting this attribute value is mandatory, if DEFAULT attribute is set.</p>
<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><b>Note:</b> Do not edit this attribute value.</p>	Y	<p>ATOMIC/CONFIG/SANDBOX/ADDON</p> <p><b>Note:</b> SANDBOX and ADDON schemas are not applicable for OFS PFT Application Pack.</p>	<p>Only One CONFIG schema can exist in the file.</p> <p>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> <p><b>Note:</b> The Profitability Pack supports only one Atomic Schema.</p>

Tag Name/ Attribute Name	Description	Mandatory (Y/ N)	Default Value/ Permissible Value	Comments
<SCHEMA>/NAME	<p>By default, the schema names are seeded based on the Application Pack.</p> <p>You can edit the schema names if required.</p> <p><b>Note:</b> 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 the applications within an Application Pack.</p>	Y	The permissible length is 15 characters and only alphanumeric characters are allowed. No special characters allowed except underscore '_'.	<p>SETUPOINFO/NAME attribute value would be prefixed to the schema name being created.</p> <p>For example, if name is set as 'ofsaatm' and setupinfo as 'uat', then schema being created would be 'uat_ofsaatm'.</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: If this attribute is left blank, then the password specified in the &lt;PASSWORD&gt;/DEFAULT attribute is applied as the Schema Password.</p>	N	The maximum length allowed is 30 characters. Special characters are not allowed.	<b>Note:</b> You need to mandatorily enter the password if you have set the <PASSWORD>/APPLYSAMEFORALL attribute as N.
<SCHEMA>/APP_ID	<p>By default, the Application ID is seeded based on the Application Pack.</p> <p><b>Note:</b> Do not edit this attribute value.</p>	Y	Unique Seeded Value	<p>Identifies the Application/Product for which the schema is being created.</p> <p>DO NOT modify this value.</p>
<SCHEMA>/DEFAULTTABLESPACE	<p>Enter the available default tablespace for DB User.</p> <p><b>Note:</b> If this attribute is left blank, then USERS is set as the default tablespace.</p>	N	<p>Default - USERS</p> <p>Permissible - Any existing valid tablespace name.</p>	Modify this value to associate any valid tablespace with the schema.
<SCHEMA>/TEMPORARYTABLESPACE	<p>Enter the available temporary tablespace for DB User.</p> <p><b>Note:</b> If this attribute is left blank, TEMP is set as the default tablespace.</p>	N	<p>Default - TEMP</p> <p>Permissible - Any existing valid temporary tablespace name.</p>	<p>Default - TEMP</p> <p>Permissible - Any existing valid temporary tablespace name.</p>

Tag Name/ Attribute Name	Description	Mandatory (Y/ N)	Default Value/ Permissible Value	Comments
<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.	N	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.	N	Permissible length is 16 characters and only alphanumeric characters are allowed. No special characters are allowed.	



## APPENDIX K

# Configuring OFSAAI\_InstallConfig.xml File

To configure the OFS\_InstallConfig.xml file:

1. Navigate to *OFS\_PFT\_PACK/OFS\_AAI/conf/* folder.
2. Open the file OFSAAI\_InstallConfig.xml in text editor.

```

<?xml version="1.0" encoding="UTF-8"?>
<UserInteractions>
  <Layer name="GENERAL">
    <InteractionGroup name="webServerType" >
      <InteractionVariable name="WEBAPPSERVERTYPE">1</InteractionVariable>
    </InteractionGroup>
    <InteractionGroup name="OFSAA Infrastructure Server Details">
      <InteractionVariable name="DBSERVER_IP">10.184.149.54</InteractionVariable>
    </InteractionGroup>
    <InteractionGroup name="Database Details" >
      <InteractionVariable name="ORACLE_SID/SERVICE_NAME">FTPDEV</InteractionVariable>
      <InteractionVariable name="ABS_DRIVER_PATH">/scratch/oracle/app/product/11.2.0.3/client_1/jdbc/lib</InteractionVariable>
    </InteractionGroup>
    <InteractionGroup name="OLAP Detail">
      <InteractionVariable name="OLAP_SERVER_IMPLEMENTATION">0</InteractionVariable>
    </InteractionGroup>
    <InteractionGroup name="SFTP Details">
      <InteractionVariable name="SFTP_ENABLE">1</InteractionVariable>
      <InteractionVariable name="FILE_TRANSFER_PORT">22</InteractionVariable>
    </InteractionGroup>
    <InteractionGroup name="Locale Detail">
      <InteractionVariable name="LOCALE">en_US</InteractionVariable>
    </InteractionGroup>
    <InteractionGroup name="OFSAA Infrastructure Communicating ports" >
      <InteractionVariable name="JAVAPORT">9999</InteractionVariable>
      <InteractionVariable name="NATIVEPORT">6666</InteractionVariable>
      <InteractionVariable name="AGENTPORT">6510</InteractionVariable>
      <InteractionVariable name="ICCPORT">6507</InteractionVariable>
      <InteractionVariable name="ICCNATIVEPORT">6509</InteractionVariable>
      <InteractionVariable name="OLAPPORT">10101</InteractionVariable>
      <InteractionVariable name="MSGPORT">6501</InteractionVariable>
      <InteractionVariable name="ROUTERPORT">6500</InteractionVariable>
      <InteractionVariable name="AMPORT">6505</InteractionVariable>
    </InteractionGroup>
    <InteractionGroup name="WEB_DETAILS" >
      <InteractionVariable name="HTTPS_ENABLE">0</InteractionVariable>
      <InteractionVariable name="WEB_SERVER_IP">10.184.149.241</InteractionVariable>
      <InteractionVariable name="WEB_SERVER_PORT">8080</InteractionVariable>
      <InteractionVariable name="CONTEXT_NAME">OFSAAI</InteractionVariable>
      <InteractionVariable name="WEBAPP_CONTEXT_PATH">/scratch/mediapack/apache-tomcat-7.0.19/webapps</InteractionVariable>
      <InteractionVariable name="WEB_LOCAL_PATH">/scratch/mediapack/ftpshare</InteractionVariable>
    </InteractionGroup>
    <InteractionGroup name=" weblogic Setup Details" >
      <InteractionVariable name="WEBLOGIC_DOMAIN_HOME">NA</InteractionVariable>
    </InteractionGroup>
    <InteractionGroup name="OFSAAI FTP Details">
      <InteractionVariable name="OFSAAI_FTPSHARE_PATH">/scratch/mediapack/ftpshare</InteractionVariable>
      <InteractionVariable name="OFSAAI_SFTP_USER_ID">mediapack</InteractionVariable>
    </InteractionGroup>
  </Layer>
</UserInteractions>

```

3. Configure the OFSAAI\_InstallConfig.xml as mentioned in the below table:

## Appendix K—Configuring OFSAI\_InstallConfig.xml File

You need to manually set the `InteractionVariable` parameter values as mentioned in the table. If a value is not applicable, enter **NA** and ensure that the value is not entered as NULL.

InteractionVariable Name	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, <code>&lt;InteractionVariable name="WEBAPPSERVERTYPE"&gt;3&lt;/InteractionVariable&gt;</code>	Yes
DBSERVER_IP	Identifies the host name or IP address of the system on which the Database Engine is hosted.  Note: For RAC Database, the value should be NA.  For example, <code>&lt;InteractionVariable name="DBSERVER_IP"&gt;14.15.16.17&lt;/InteractionVariable&gt;</code> or <code>&lt;InteractionVariable name="DBSERVER_IP"&gt;dbhost.server.com&lt;/InteractionVariable&gt;</code>	Yes
ORACLE_SID/SERVICE_NAME	Identifies the Oracle DB Instance SID or SERVICE_NAME  <b>Note:</b> The Oracle_SID value should be exactly the same as it is mentioned in JDBC_URL.  For example, <code>&lt;InteractionVariable name="ORACLE_SID/SERVICE_NAME"&gt;ofsaser&lt;/InteractionVariable&gt;</code>	Yes
ABS_DRIVER_PATH	Identifies the directory where the JDBC driver (ojdbc<version>.jar) exists. This would typically be the  <code>\$(ORACLE_HOME)/jdbc/lib</code>  For example, <code>&lt;InteractionVariable name="ABS_DRIVER_PATH"&gt;"/oradata6/revwb7/oracle&lt;/InteractionVariable&gt;</code>  Note: See <a href="#">JDBC Jar Files</a> for identifying the correct "ojdbc<version>.jar" version to be copied.	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 below numeric value should be set depending on the choice:  YES - 1  NO - 0	No
<b>Note:</b> If value for OLAP_SERVER_IMPLEMENTATION is set to 1, it checks for following environment variables are set in .profile: ARBORPATH, HYPERION_HOME and ESSBASEPATH.		

InteractionVariable Name	Significance and Expected Value	Mandatory
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:  SFTP - 1  FTP - 0	Yes
<p><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.</p>		
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
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
<p>Note: The below 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.</p>		
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
<p><b>Note:</b> If value for HTTPS_ENABLE is set to 1, ensure you have a valid certificate available from a trusted CA and the same is configured on your web application server. For more details on configuring your setup for HTTPS.</p>		
HTTPS_ENABLE	Identifies if the UI should be accessed using HTTP or HTTPS scheme. The default value set is 0. The below numeric value should be set depending on the choice:  YES - 1  NO - 0  For example, <InteractionVariable name="HTTPS_ENABLE">0</InteractionVariable>	Yes

InteractionVariable Name	Significance and Expected Value	Mandatory
WEB_SERVER_IP	<p>Identifies the HTTP Server IP/ Host name or Web Application Server IP/ Host name, to be used for accessing the UI. This IP would typically be the HTTP Server IP.</p> <p>If no separate HTTP Server is available, the value should be Web Application Server IP/Host name.</p> <p>For example, &lt;InteractionVariable name="WEB_SERVER_IP"&gt;10.11.12.13&lt;/InteractionVariable&gt;</p> <p>or</p> <p>&lt;InteractionVariable name="WEB_SERVER_IP"&gt;myweb.server.com&lt;/InteractionVariable&gt;</p>	No
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
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</p> <p>/oradata6/revwb7/tomcat/webapps/.</p> <p>For WebSphere, enter the WebSphere path as</p> <p>&lt;WebSphere profile directory&gt;/installedApps/</p> <p>&lt;NodeCellName&gt;. For example,</p> <p>/data2/test//WebSphere/AppServer/profiles/</p> <p>&lt;Profile_</p> <p>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>Note: For WebLogic, value specified for this attribute is ignored and value provided against attribute WEBLOGIC_DOMAIN_HOME is considered.</p>	Yes

InteractionVariable Name	Significance and Expected Value	Mandatory
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. User can set this in FTPSHARE location to avoid the confusion.</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/boa/user_projects/domains/mydomain&lt;/InteractionVariable&gt;</p>	Yes. Specify the value only if WEBSERVERTYPE is set as 3 (WebLogic)
OFSAAI_FTPSHARE_PATH	<p>Identifies the absolute path to the directory identified as file system stage area.</p> <p><b>Note:</b> The directory should exist on the same system on which the OFSAA Infrastructure is being installed (can be on a separate mount).</p> <p>The user mentioned in APP_SFTP_USER_ID parameter below should have RWX permission on the directory.</p> <p>For example, &lt;InteractionVariable name="APP_FTPSHARE_PATH"/&gt;"/oradata6/revwb7/ftpsare&lt;/InteractionVariable&gt;</p>	Yes
OFSAAI_SFTP_USER_ID	Identifies the user who has RWX permissions on the directory identified under parameter APP_FTPSHARE_PATH above.	Yes
HIVE_SERVER_PORT		Not applicable
HIVE_SERVER_FTPDRIVE		Not applicable
HIVE_SERVER_FTP_USERID		Not applicable
HIVE_SERVER_FTP_PROTOCOL		Not applicable



## APPENDIX L

# *Configuring Resource Reference Web Application Servers*

This appendix includes the following topics:

- ⑩ [Configure Resource Reference in WebSphere Application Server](#)
- ⑩ [Configure Resource Reference in WebLogic Application Server](#)
- ⑩ [Configure Resource Reference in Tomcat Application Server](#)

## ***Configure Resource Reference in WebSphere Application Server***

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

This section includes the following topics:

- ⑩ [Create JDBC Provider](#)
- ⑩ [Create Data Source](#)
- ⑩ [J2C Authentication Details](#)
- ⑩ [JDBC Connection Pooling](#)

### **Create 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** to display the JDBC Providers window.

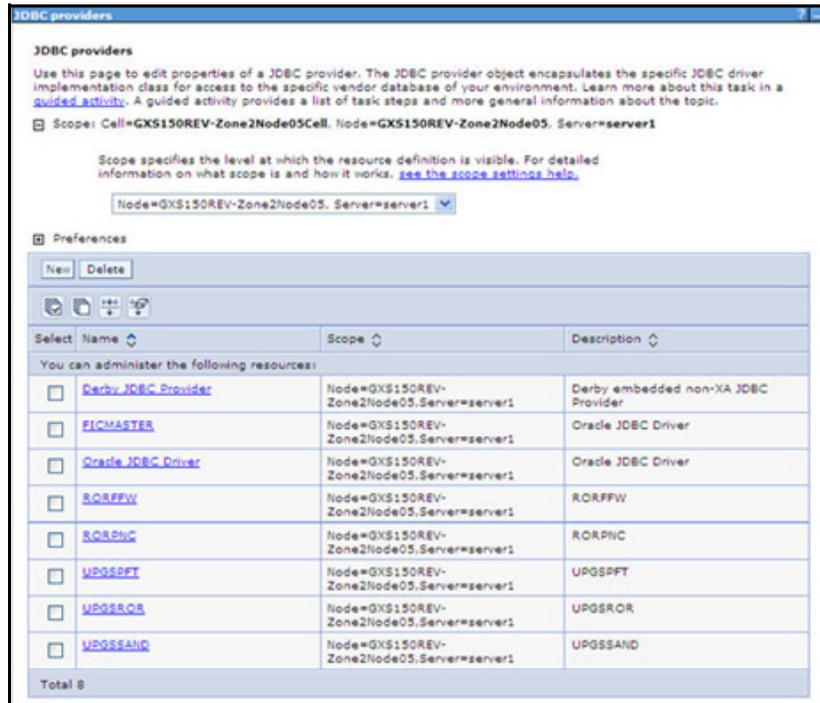


Figure 1: JDBC Providers

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.

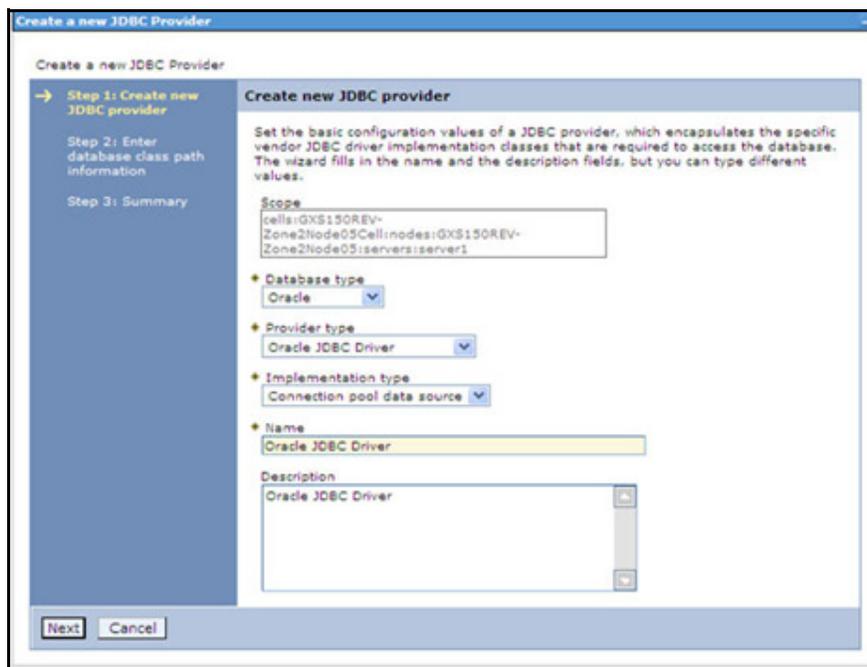
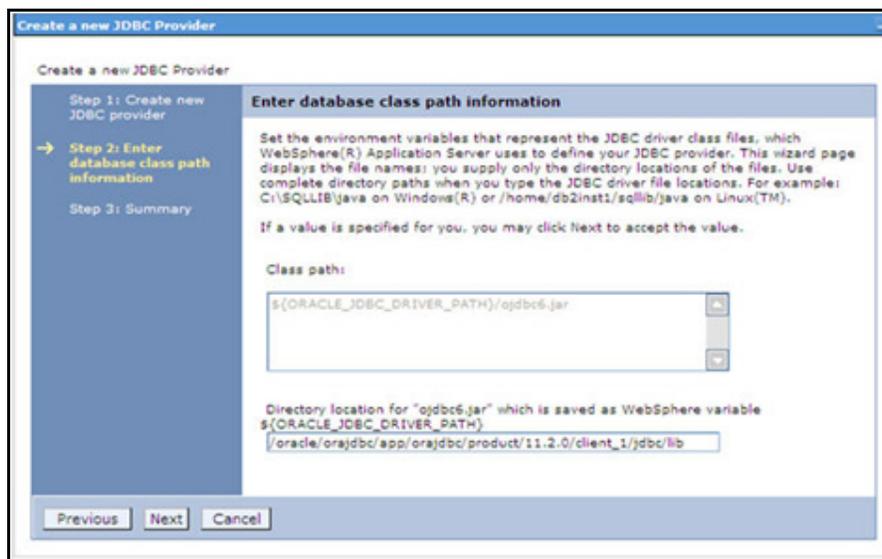


Figure 2: Create a new JDBC Provider

6. Enter the following details:
  - 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 3: 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:** See [JDBC Jar Files](#) for identifying the correct ojdbc<version>.jar version to be copied.

---

Once downloaded, you need to place the file in the required folder in your system. While creating the JDBC Provider, ensure that the path to the jar file in the folder is specified in the **Classpath** field in the previous window.

9. Click **Next** to display the **Summary** window.

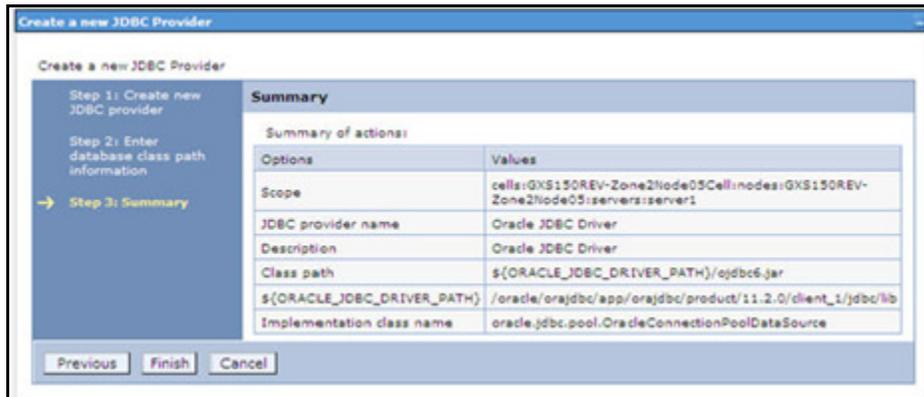


Figure 4: Summary

10. Verify the details and click **Finish** to create the JDBC Provider.
11. The options to **Save** and **Review** are displayed. Click **Save**.

## Create Data Source

The steps given below are applicable for both CONFIG and ATOMIC data source creation.

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 > Data sources** option to display the **Data sources** page.

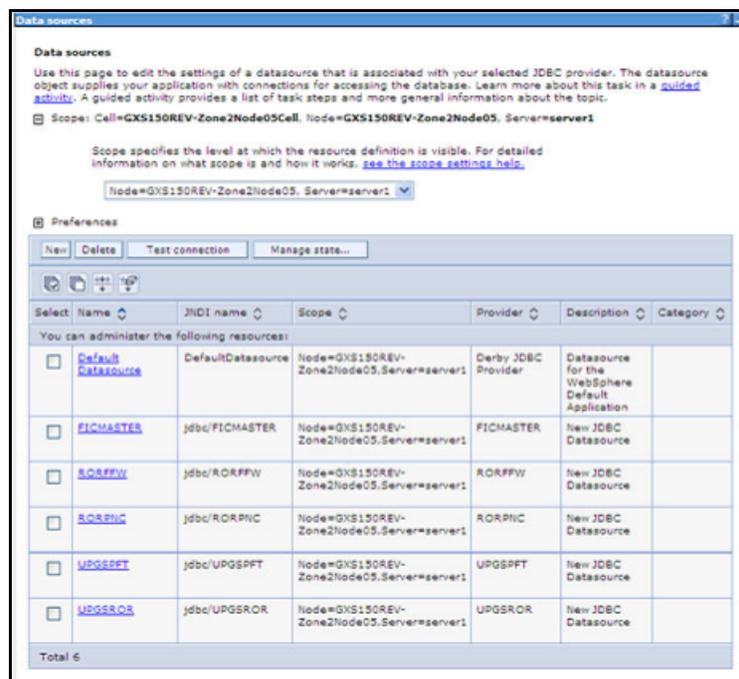


Figure 5: Data Sources

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



Figure 6: Create a data source

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



Figure 7: Select JDBC provider

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

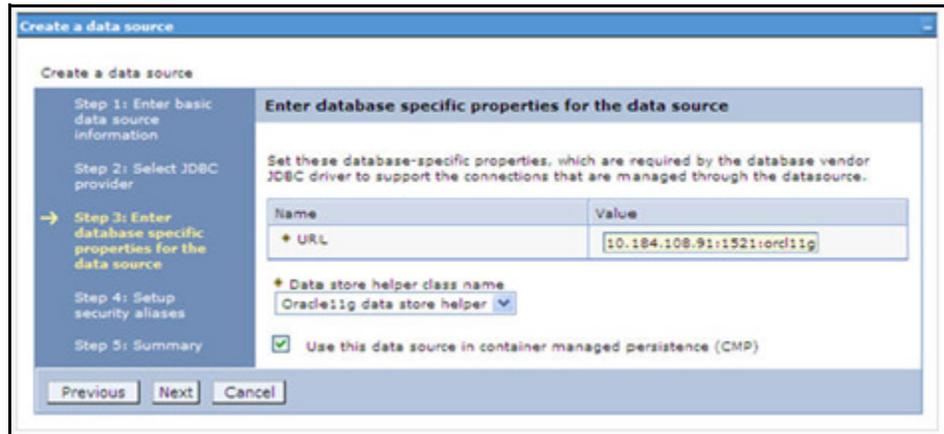


Figure 8: Enter database specific properties

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.

For 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**.

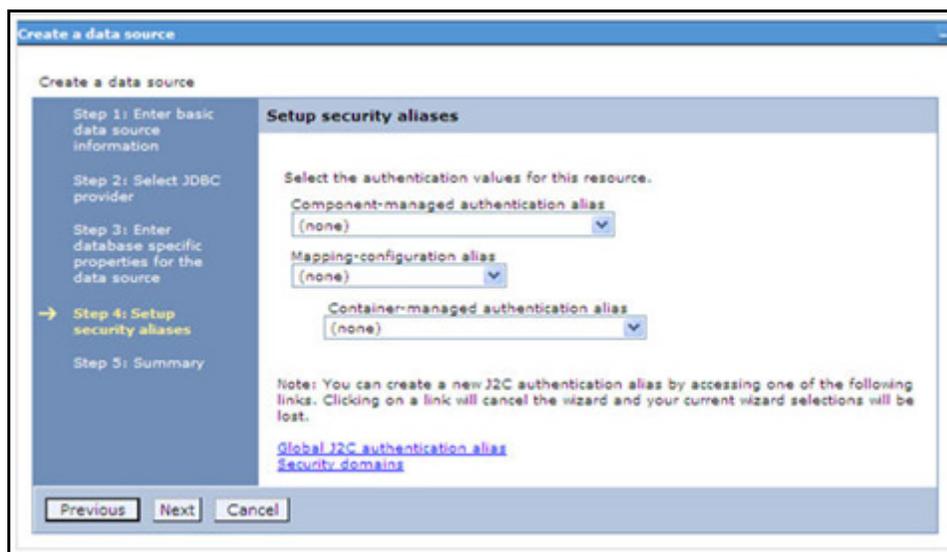
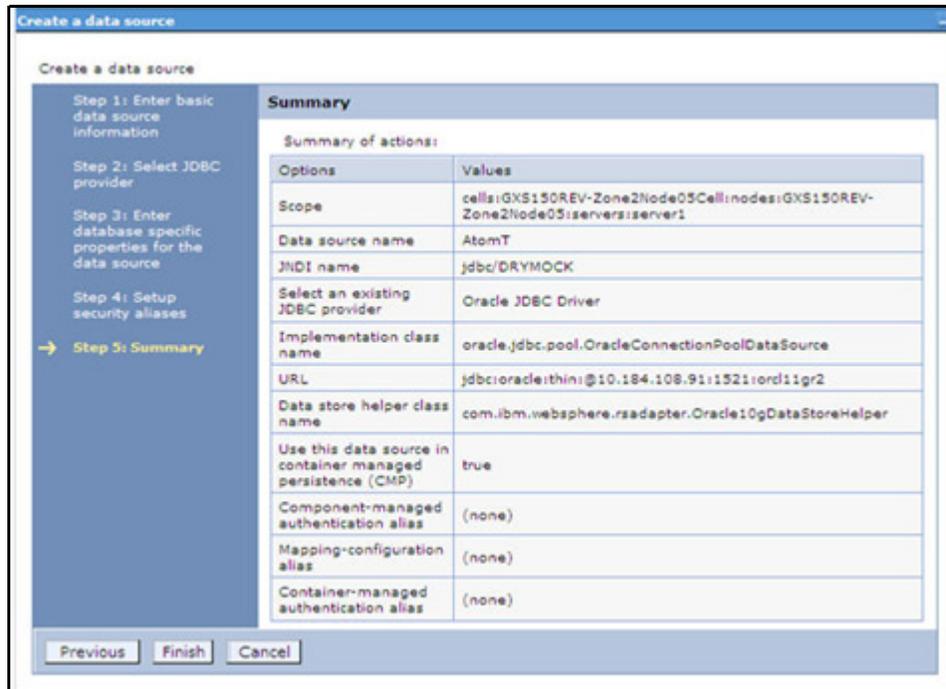


Figure 9: Setup security aliases

- 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 10: Summary**

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

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

## J2C Authentication Details

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

To create J2C Authentication details:

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

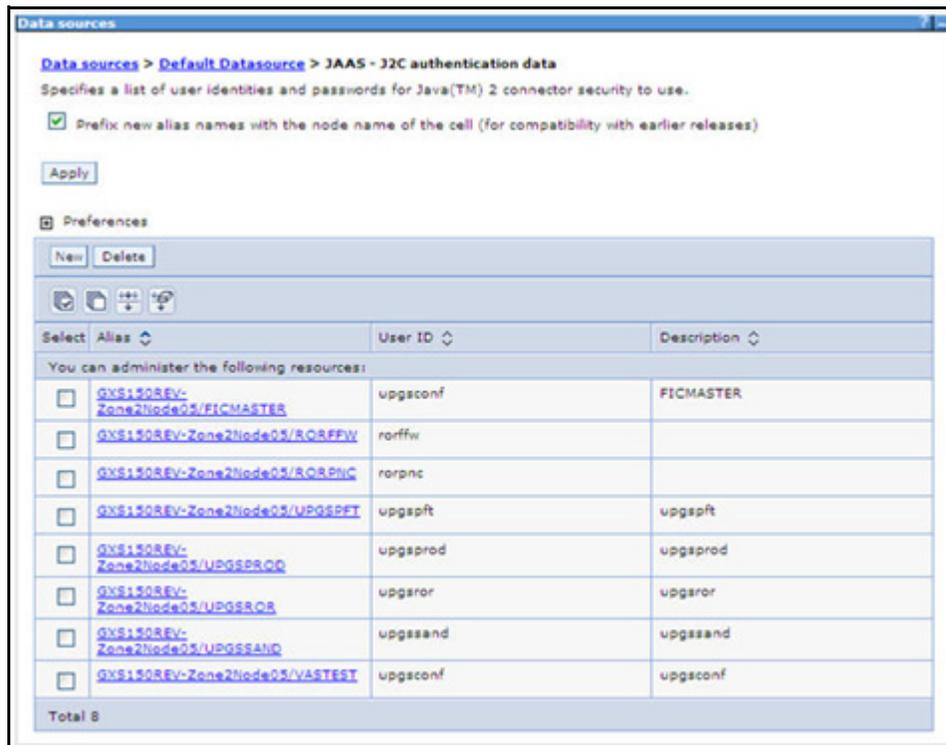


Figure 11: JAAS- J2C authentication data

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



Figure 12: JAAS- J2C authentication data- New

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 to display the **Data sources** page.
2. Click the newly created Data Source `$DATA_SOURCE$` and navigate to the path `Data sources > $DATA_SOURCE$ > Connection pools`.

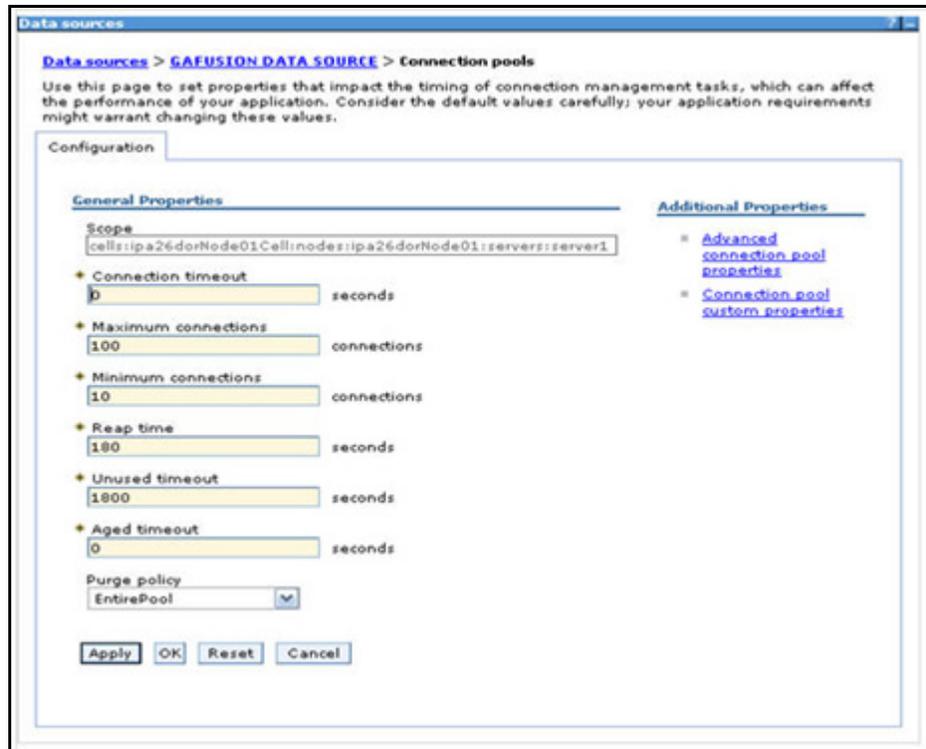


Figure 13: Connection Pools

3. Set the values for the following:
  - **Connection timeout** to 0 seconds
  - **Maximum connections** to 100 connections
  - **Minimum connections** to 10 connections

You can also define **Reap Time**, **Unused Timeout**, and **Aged Timeout** as required.

## Configure Resource Reference in WebLogic Application Server

This section is applicable only when the Web Application Server is WebLogic.

This section includes the following topics:

- ⑩ [Create Data Source](#)
- ⑩ [Create GridLink Data Source](#)
- ⑩ [Configure Multi Data Sources](#)
- ⑩ [Advanced Settings for Data Source](#)
- ⑩ [JDBC Connection Pooling](#)

In WebLogic, you can create "Data Source" in the following ways:

- ⑩ For a Non RAC Database instance, Generic Data Source has to be created. For more information, see [Create Data Source](#).
- ⑩ For a RAC Database instance, Gridlink Data Source has to be created. For more information, see [Create GridLink Data Source](#).
- ⑩ When Load Balancing/Fail over is required, Multi Data Source has to be created. For more information, see [Configure Multi Data Sources](#).

### Create Data Source

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

1. Open the 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 Administrator **Username** and **Password**.



Figure 14: Welcome

- From the LHS menu (Domain Structure), click **Services > Data Sources** to display the **Summary of JDBC Data Sources** window.

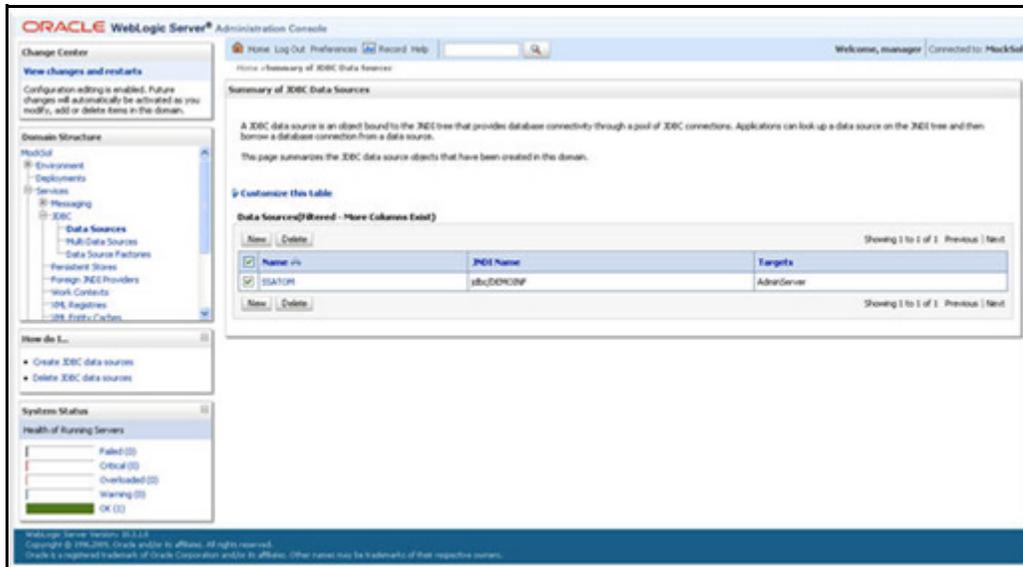


Figure 15: Summary of JDBC Data Sources

- Click **New** and select **Generic Data Source** option to display the **Create a New JDBC Data Source** window. You can also select **GridLink Data Source** or **Multi Data Source** while creating a Data Source. For more information, see [Create GridLink Data Source](#) or [Configure Multi Data Sources](#).

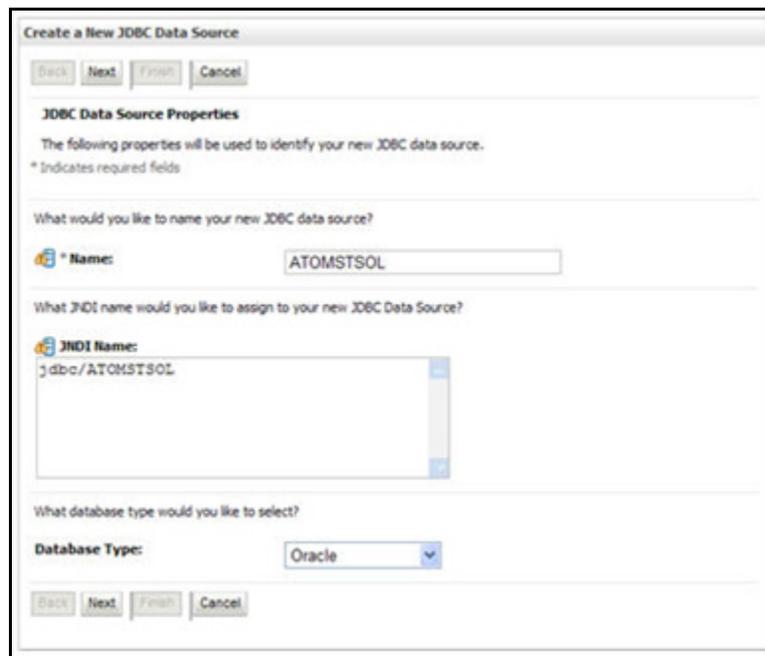


Figure 16: Create a New JDBC Data Source

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

Ensure the following:

- ⑩ The JNDI Name field should be in the format "jdbc/informationdomain"
- ⑩ 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.
- ⑩ JNDI Name is the same as mentioned in web.xml file of OFSAAI Application.
- ⑩ Required "Database Type" and "Database Driver" should be selected.



Figure 17: JDBC Data Source Properties

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**.

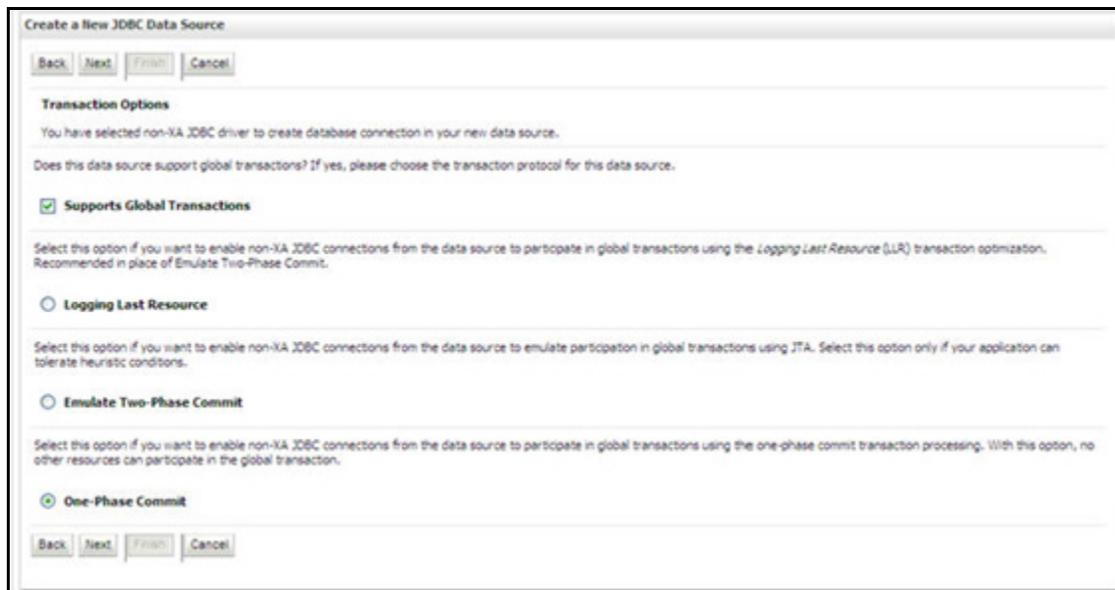


Figure 18: Transaction Options

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

The screenshot shows a web-based wizard titled "Create a New JDBC Data Source". At the top, there are navigation buttons: "Back", "Next", "Finish", and "Cancel". The main section is titled "Connection Properties" and contains the following fields:

- Database Name:** A text box containing the value "fsgbu".
- Host Name:** A text box containing the IP address "10.184.74.80".
- Port:** A text box containing the value "1521".
- Database User Name:** A text box containing the value "ssatom".
- Password:** A password field with six asterisks "\*\*\*\*\*".
- Confirm Password:** A password field with six asterisks "\*\*\*\*\*".

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

**Figure 19: Connection Properties**

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

The screenshot shows the 'Test Database Connection' step of the 'Create a New JDBC Data Source' wizard. The window title is 'Create a New JDBC Data Source'. At the top, there are navigation buttons: 'Test Configuration', 'Back', 'Next', 'Finish', and 'Cancel'. The main section is titled 'Test Database Connection' and contains the following fields and instructions:

- Test Database Connection:** Test the database availability and the connection properties you provided.
- Driver Class Name:** oracle.jdbc.OracleDriver
- URL:** jdbc:oracle:thin:@10.184.1.10:1521:orcl
- Database User Name:** ssatom
- Password:** [Redacted]
- Confirm Password:** [Redacted]
- Properties:** user=ssatom
- System Properties:** [Empty]
- Test Table Name:** SQL SELECT 1 FROM DUAL

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

**Figure 20: Test Database Connection**

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:** "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 CONFIG schema.

---

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



Figure 21: Select Targets

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.

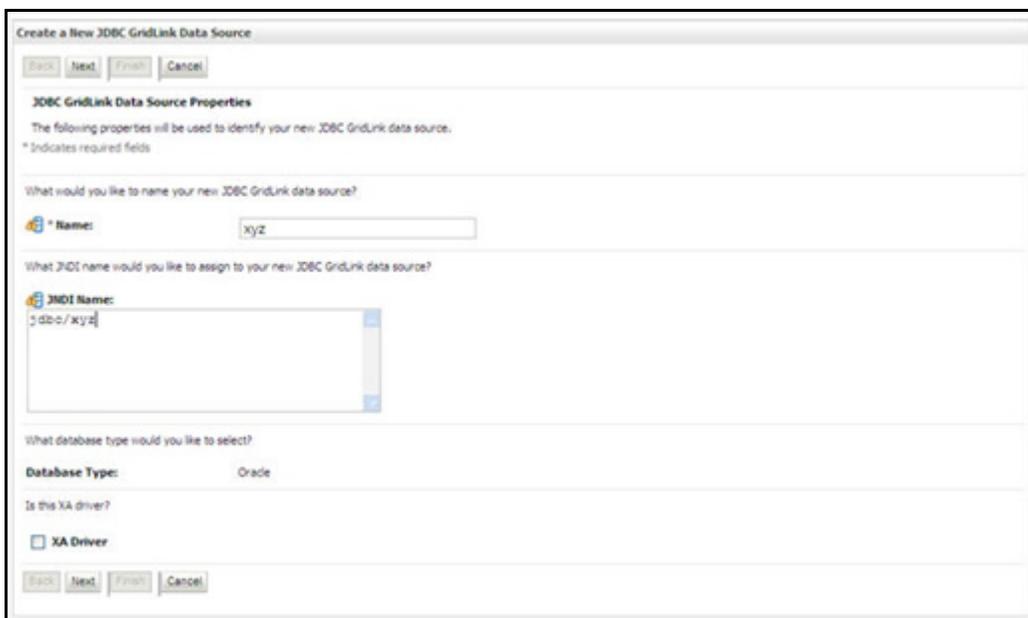


Figure 22: Create a New JDBC GridLinkData Source

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

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

The screenshot shows a dialog box titled "Create a New JDBC GridLink Data Source". At the top, there are four buttons: "Back", "Next", "Finish", and "Cancel". Below this is the "Connection Properties" section, which includes the instruction "Define Connection Properties." and "Enter Complete JDBC URL for GridLink database." There is a large text input field labeled "Complete JDBC URL:". Below this, there are three more input fields: "Database User Name:", "Password:", and "Confirm Password:". At the bottom of the dialog, there are four buttons: "Back", "Next", "Finish", and "Cancel".

Figure 23: JDBC GridLinkData Source- Connection Properties

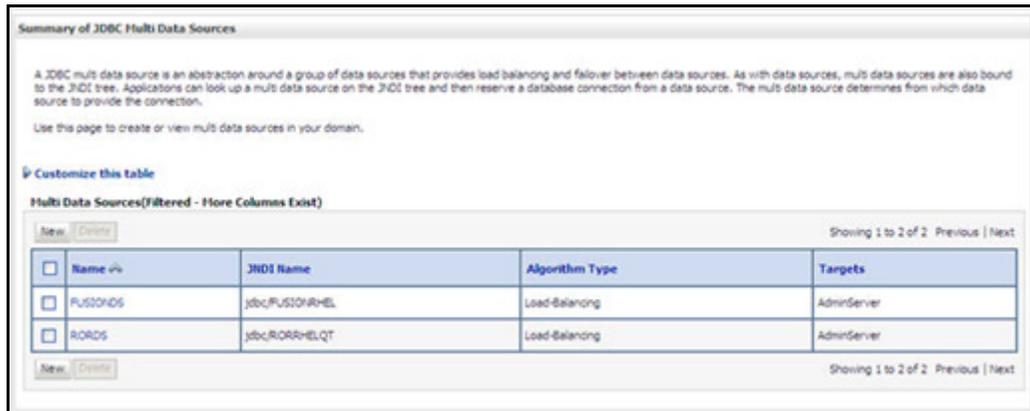
2. Specify **Complete JDBC URL**, **Database User Name**, and **Password**. Click **Finish**. The created "Data Source" is displayed in the list of Data Sources.

## 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 the 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** to display the **Summary of JDBC Multi Data Sources** window.



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

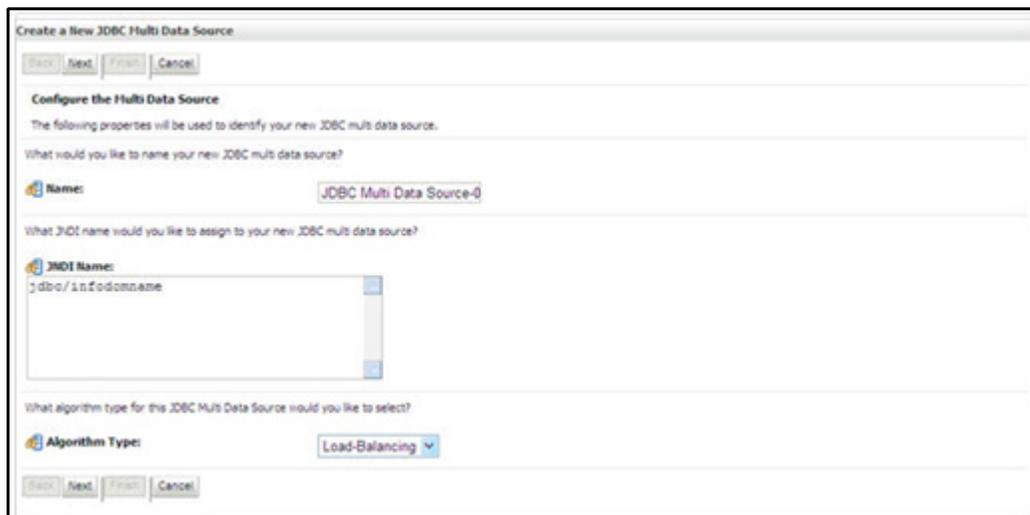
Multi Data Sources (Filtered - More Columns Exist)

<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

Figure 24: Summary of JDBC Multi Data Sources

- Click **New** to display the **New JDBC Multi Data Source** screen.

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



Create a New JDBC Multi Data Source

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/infodomain

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

Algorithm Type: Load-Balancing

Figure 25: Configure the Multi Data Source

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

**Note:** 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.

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 26: Select Targets

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



Figure 27: Select Data Source Type

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



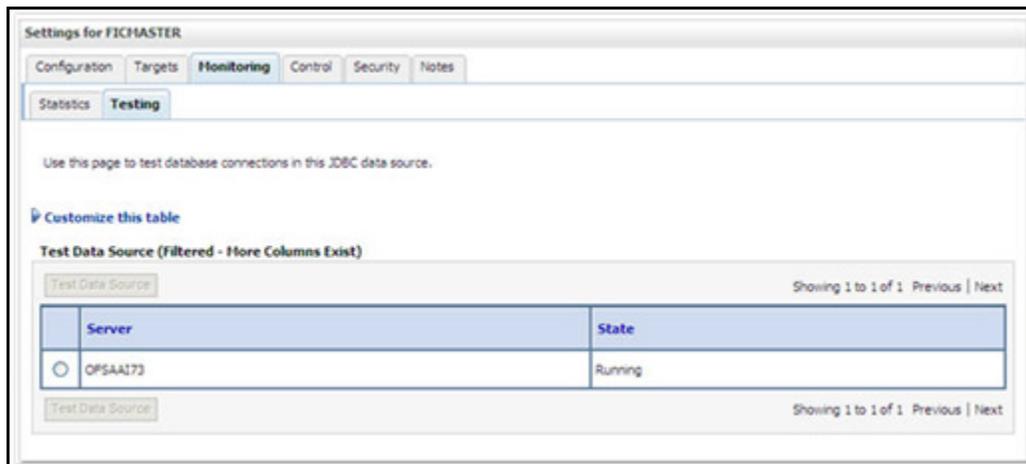
Figure 28: Add Data Sources

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 page, and check the **Test Connection of Reserve** checkbox (Enables Weblogic Server to test a connection before giving it to a client).
4. To verify if the data source is valid, select "Data Source name". For example, FICMASTER.



**Figure 29: Settings for <Data Source Name>**

5. Select the server and click **Test Data Source**.  
A message is displayed indicating that the test was successful.
6. 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 above 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**.

## Configure Resource Reference in Tomcat Application Server

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

This section includes the following topics:

- ⑩ [Create Data Source](#)
- ⑩ [JDBC Connection Pooling](#)
- ⑩ [Class loader configuration for Apache Tomcat](#)

Copy the Oracle JDBC driver file, `ojdbc<version>.jar` from `<Oracle Home>/jdbc/lib` and place it in `<Tomcat Home>/lib`.

---

**Note:** See [Appendix S](#) for identifying the correct `ojdbc<version>.jar` version to be copied.

---

### Create Data Source

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

---

**Note:** The User-IDs for configuration/ atomic schemas have the prefix of `setupinfo` depending on the value set for `PREFIX_SCHEMA_NAME` in `<<APP Pack>>_SCHEMA_IN.XML` file of Schema Creator Utility.

For example: if the value set for `PREFIX_SCHEMA_NAME` is `DEV` and the schema name was mentioned as `ofsaconf`, then the actual schema created in the database would be `DEV_ofsaconf`.

---

```
<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>"
    password="<password for the above user id>"
    url="jdbc:oracle:thin:@<DB engine IP address>:<DB Port>:<SID>"
    maxActive="100"
    maxIdle="30"
    maxWait="10000"/>
<Resource auth="Container"
    name="jdbc/< INFORMATION DOMAIN NAME >"
type="javax.sql.DataSource"
    driverClassName="oracle.jdbc.driver.OracleDriver"
    username="<user id for the atomic schema>"
    password="<password for the above user id>"
```

```
url="jdbc:oracle:thin:@<DB engine IP address>:<DB Port>:<SID>"
maxActive="100"
maxIdle="30"
maxWait="10000"/>
</Context>
```

---

**Note:** The <Resource> tag must be repeated for each Information Domain created. After the above 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 `$ORACLE_HOME/jdbc/lib/ojdbc<version>.jar` to the path `$TOMCAT_DIRECTORY/lib/`.

---

**Note:** Refer [JDBC Jar Files](#) for identifying the correct "ojdbc<version>.jar" version to be copied.

---

2. Edit the `server.xml` present under the path `$TOMCAT_DIRECTORY/conf/` with the below 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:

- ⑩ `$APP_DEPLOYED_PATH$` should be replaced by OFSAAI application deployed path.
- ⑩ `$INFODOM_NAME$` should be replaced by Infodom Name.
- ⑩ `$ATOMICSCHEMA_USERNAME$` should be replaced by Atomic schema database user name.
- ⑩ `$ATOMICSCHEMA_PASSWORD$` should be replaced by Atomic schema database password.
- ⑩ `$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`
- ⑩ The User-IDs for configuration/ atomic schemas have the prefix of `setupinfo` depending on the value set for `PREFIX_SCHEMA_NAME` in `<<APP Pack>>_SCHEMA_IN.XML` file of Schema Creator Utility.  
For example: if the value set for `PREFIX_SCHEMA_NAME` is `DEV` and the schema name was mentioned as `ofsaconf`, then the actual schema created in the database would be `DEV_ofsaconf`.

## Class loader configuration for Apache Tomcat

Edit the `server.xml` available in `$TOMCAT_HOME/conf/` folder.

Add tag `<Loader delegate="true" />` within the `<Context>` tag, above the `<Resource>` tag. This is applicable only when the web application server is Apache Tomcat 8.

---

**Note:** This configuration is required if Apache Tomcat version is 8.

---

# Post Deployment Configuration

This chapter covers the following topics:

- ⑩ [Deploying the Application](#)
- ⑩ [Logging as System Administrator](#)
- ⑩ [Creating Application Users](#)
- ⑩ [Mapping Application User\(s\) to User Group](#)
- ⑩ [Change ICC Batch Ownership](#)
- ⑩ [Mapping ICC Batch Execution Rights to User](#)
- ⑩ [Saving Post- Load Change Transformations](#)

## Deploying the Application

### Deploying FTP Application

The Oracle Financial Services Analytical Applications Infrastructure Application Server is started using `reveleusstartup.sh`. This file can be edited for setting customized memory settings, garbage collector settings depending on the available hardware configuration. Please raise an SR in [support.oracle.com](http://support.oracle.com) if you have any queries related to EPM applications.

Once the installation of Oracle Financial Services Funds Transfer Pricing Management Product is completed, you must perform the following steps:

1. Check the Log file.
2. Add the below mentioned entries in `excludeURLList.cfg` file located in the path `$FIC_WEB_HOME/webroot/conf/`. These entries are required for Asset and Liability Management, Funds Transfer pricing, Profitability Management and Hedge Management/ IFRS:

```
[SQLIA] ./fsapps/common/batchCreate.action  
[SQLIA] ./fsapps/common/batchEdit.action
```

---

**Note:** Copy the above information into notepad, and then copy it from notepad into `cfg` file. Take extra care to avoid copying formatting characters into the `cfg` file.

---

3. For Administrative Reports (Admin BI) configuration follow the steps mentioned in Oracle Financial Services Administrative Reports on OBIEE 11g v8.0.2.0.0 - Configuration Note.docx under `$FIC_HOME/adminbi/`.

---

**Note:** You can also find the Oracle Financial Services Administrative Reports on OBIEE 11g v8.0.2.0.0 - Configuration Note on [OHC](#).

---

4. The `web.xml` under the path `$FIC_WEB_HOME\webroot\WEB-INF\` should have Resource tag, if not present add the tag and replace ORDEMO with the INFODOM name.

```
<resource-ref>
<description>DB ConnectionORDEMO</description>
<res-ref-name>jdbc/ORDEMO</res-ref-name>
<res-type>javax.sql.DataSource</res-type>
<res-auth>Container</res-auth>
</resource-ref>
```

**Note:** Copy the above information into notepad, and then copy it from notepad into cfg file. Take extra care to avoid copying formatting characters into the cfg file.

- Execute below script as a post installation step:

```
$FIC_HOME/scripts/atomic/create/indexes.sql
```

**Note:** This may display some ORA errors, those can be ignored.

- If there are ICC batch processes created having roll\_portfolio and rebalance\_portfolio DTs as the tasks, the parameter list of the DTs are to be updated as:

- If the parameters for roll portfolio are '70001', 'TP', 'TP USER1', change the parameters as : ', ', ', ', '70001', 'TP', 'TP USER1'.
- If the parameters for re-balance portfolio are '70001', '2', 'TP USER1', 'TP' change the parameters as : ', ', ', ', '70001', '2', 'TP USER1', 'TP'.

Property	Value
Datastore Type	EDW
Datastore Name	EPM62DEV
IP Address	10.184.134.17
Rule Name	Roll Portfolio
Parameter List	, ', ', ', ', '70001', 'TP', 'TP USER1'

An example as of Merge Portfolio is given below:

- Run ID: when running via ICC batch and Simplified batch process, this parameter can be passed as ''
- Process ID: when running via ICC batch and Simplified batch process, this parameter can be passed as ''
- Execution ID: when running via ICC batch and Simplified batch process, this parameter can be passed as ''
- Run Surrogate Key: when running via ICC batch and Simplified batch process, this parameter can be passed as ''
- Pattern Code, for example, '70001'
- FTP User, for example, 'TP USER 1'

- Application ID, for example, 'TP' (this is a static value)
- When to merge (roll versus rebalance): when running via ICC batch and Simplified batch process, this parameter should always be 'N'. Maturity date identifying maturing strips to be merged on roll : when running via ICC batch and Simplified batch process, this parameter should always be "

These parameters would appear as follows in the simplified batch parameter input block:

```
","","','70001', 'TP USER 1', 'TP', 'N', "
```

- The parameter pattern to be used when RP batches are scheduling from the Run Rule Framework. When executing from the Run Rule Framework, the user does not have to pass the Run ID, Process ID, Execution ID, and Run Surrogate Key, as the framework itself passes these values along with the Batch ID and MISDATE. The parameters would appear as follows:

```
"70001","TP USER 1","TP","N",""
```

7. Transfer the ownership of batches to the required User.

- a. Login to config user.
- b. Execute the Following anonymous pl/sql block to execute procedure "AAI\_OBJECT\_ADMIN.TRANSFER\_BATCH\_OWNERSHIP".

```
begin
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP('fromUser','toUser','infodom');
end;
OR
begin
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP('fromuser','touser');
end;
```

Parameter details:

- ◆ **fromUser**: indicates the user who currently owns the batch
- ◆ **to User**: indicated the user to which the ownership has to be transferred.
- ◆ **infodom**: optional parameter , if specified the ownership of batches pertaining to that Infodom will be changed.

8. If the web application server is hosted on a machine other than where pack is installed, then perform the following step.

- Generate RSA key for the machine where Web application server is hosted.
- Add the generated RSA key to the authorized keys list of the machine where Pack s installed.

## Deploying PFT Application

The Oracle Financial Services Analytical Applications Infrastructure Application Server is started using `revevusstartup.sh`. This file can be edited for setting customized memory settings, garbage collector settings depending on the available hardware configuration. Please raise an SR in [support.oracle.com](http://support.oracle.com) if you have any queries related to EPM applications.

Once the installation of Oracle Financial Services Profitability Management Product is completed, you must perform the following steps:

1. Check the Log file.
2. Add the below mentioned entries in `excludeURLList.cfg` file located in the path `$FIC_WEB_HOME/webroot/conf/`. These entries are required for Asset and Liability Management, Funds Transfer pricing, Profitability Management and Hedge Management/ IFRS:

```
[SQLIA] ./fsapps/common/batchCreate.action
```

```
[SQLIA] ./fsapps/common/batchEdit.action
```

3. For Administrative Reports (Admin BI) configuration follow the steps mentioned in Oracle Financial Services Administrative Reports on OBIEE 11g - Configuration Note.docx under *\$FIC\_HOME/adminbi*.
4. The *web.xml* under the path *\$FIC\_WB\_HOME \webroot\WEB-INF\* should have Resource tag, if not present add the tag and replace ORDEMO with the INFODOM name.

```
<resource-ref>  
<description>DB ConnectionORDEMO</description>  
<res-ref-name>jdbc/ORDEMO</res-ref-name>  
<res-type>javax.sql.DataSource</res-type>  
<res-auth>Container</res-auth>  
</resource-ref>
```

---

**Note:** Copy the above information into notepad, and then copy it from notepad into cfg file. Take extra care to avoid copying formatting characters into the cfg file.

---

5. Execute below script as a post installation step:

```
$FIC_HOME/scripts/atomic/create/indexes.sql
```

---

**Note:** This may display some ORA errors, those can be ignored.

---

6. Transfer the ownership of batches to the required User.
  - a. Login to config user.
  - b. Execute the Following anonymous pl/sql block to execute procedure "AAI\_OBJECT\_ADMIN.TRANSFER\_BATCH\_OWNERSHIP".

```
begin
```

```
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP('fromUser','toUser','infodom');
```

```
end;
```

```
OR
```

```
begin
```

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

```
end;
```

Parameter details:

- ◆ **fromUser:** indicates the user who currently owns the batch
- ◆ **to User:** indicated the user to which the ownership has to be transferred.
- ◆ **infodom:** optional parameter , if specified the ownership of batches pertaining to that Infodom will be changed.

7. If the web application server is hosted on a machine other than where pack is installed, then perform the following step.
  - Generate RSA key for the machine where Web application server is hosted.
  - Add the generated RSA key to the authorized keys list of the machine where Pack s installed

## Deploying EFPA/ IPA/ RPA Applications

Ensure that the Oracle Business Intelligence version 11.1.1.7.1 is available.

**Note:** After Installation, patch 16556157 is recommended for all the customers who are using Oracle Business Intelligence Enterprise Edition 11.1.1.7.0. This patch can be downloaded from Oracle support site.

1. Set the *<Oracle BI Instance Home> directory* =>.  
For example: `/u01/OBIEE11G/instances/instance1`
2. Start Weblogic AdminServer.
  - a. Set the *< BI Domain Home> directory* => e.g.  
`/u01/OBIEE11G/user_projects/domains/bifoundation_domain.`
  - b. Navigate to *< BI Domain Home >/bin* and run `'nohup ./startWebLogic.sh &'`
  - c. Bringing up this service may take a few minutes depending on your environment. Check the logs using the command `'tail -f nohup.out'`
3. Start Node Manager.
  - a. Set the *< WebLogic Server Home > directory* => e.g.  
`/u01/OBIEE11G/wlserver_10.3.`
  - b. Navigate to *<WebLogic Server Home>/server/bin* and run `'nohup ./startNodeManager.sh &'`.
4. Start Weblogic Managed Server(*bi\_server1*).
  - a. Login onto `http://localhost:7001/console` using your Administrator credentials created during platform install (Replace the hostname based on your setup).
  - b. Under Environment block (mid of page, towards left side), click on Servers link.



- c. The *bi\_server1* line should show as shutdown state at this point.

<input type="checkbox"/>	Server	Machine	State	Status of Last Action
<input type="checkbox"/>	AdminServer(admin)	lalive-lap	RUNNING	None
<input type="checkbox"/>	bi_server1	lalive-lap	SHUTDOWN	TASK COMPLETED

d. Click on control page tab.



e. Select the bi\_server1 line by clicking on the left tick box,

f. Click start button at the top of the list and confirm starting this service



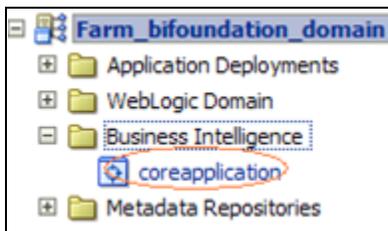
g. State will update to "RUNNING" mode after a few minutes.

5. Start BIEE services and login.

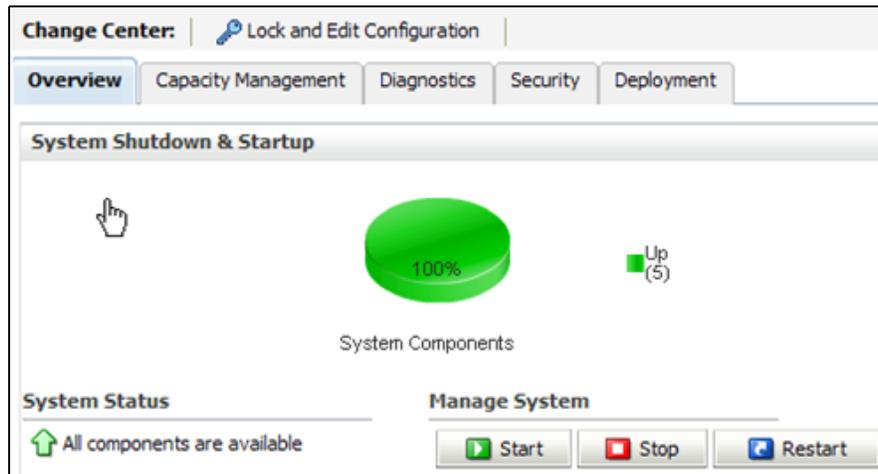
a. Starting services From EM screen.

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

ii. Expand 'Business Intelligence' node on the left and choose Coreapplication.

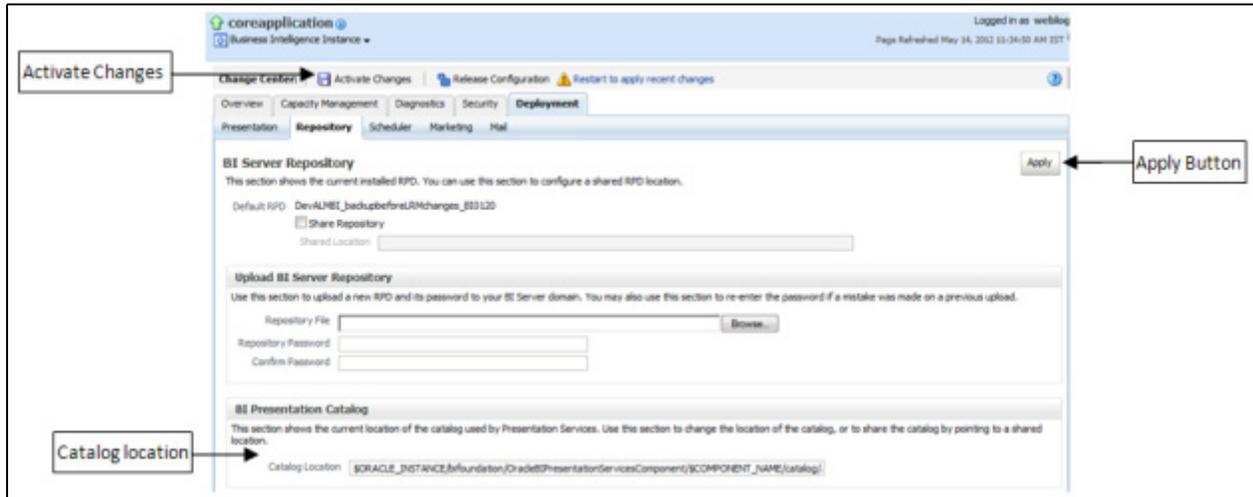


iii. Click on the Overview Tab.

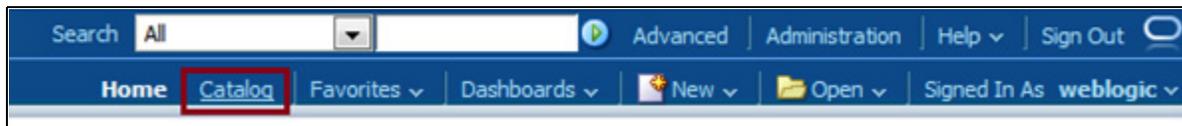


- iv. Click on blue button 'Restart' (or green button 'Start' ) under the Manage System category, middle of screen.
- v. Click yes on dialog box to confirm the move. Wait for message that confirms successful restart.
- b. If starting using EM is not successful and complaining about OPMNCTL not up, Follow starting process with OPMNCTL.
  - i. Open a command prompt, navigate to *<Oracle BI Instance Home>/bin*.
  - ii. run `./opmnctl status`, this will show you status of all the OBIEE core services.
  - iii. run `./opmnctl startall` or `./opmnctl stopall` depending on your need.
6. Deploy RPD and webcat file(s).
  - a. Copy `OFS_PFT_PACK.rpd` from `$FIC_HOME/OFSPFTPACKBI/OBIEE11G` of Web layer to windows machine where the OBIEE windows administration client is installed.

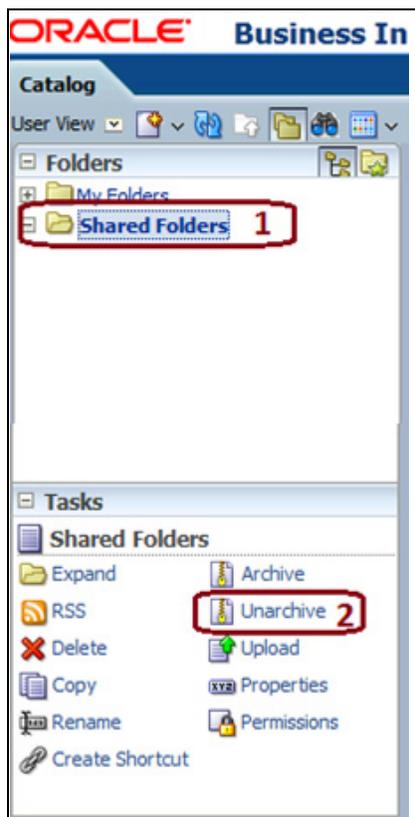
Copy these catalog files to the local folder, where `OFS_PFT_PACK.rpd` has been copied.
  - b. Login to OBIEE - Enterprise Manager URL (`http://<ip address>:<port>/em`).
    - i. Click on hyperlink 'coreapplication' from 'Business Intelligence' tab on left hand side.
    - ii. Under 'coreapplication', select the tab 'Deployment' and in that select sub-tab 'Repository'.
    - iii. Click 'Lock and Edit Configuration' button located below title 'coreapplication'. Following screen is displayed.



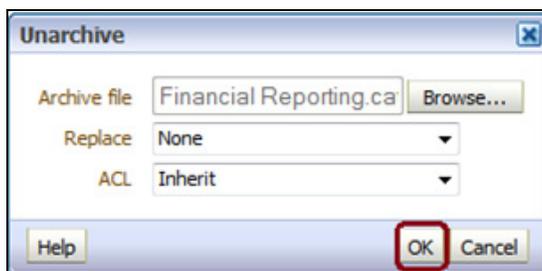
- iv. **RPD Deployment:** Select 'Browse' button available under 'Upload BI Server Repository' section and select `OFS_PFT_PACK.rpd` file from the local folder. Enter Repository password Admin123.
- v. **Web catalog Deployment:**
  - ⑩ Open the analytics OBIEE URL-(`http://<ipaddress>:<port>/analytics`) and login with the credentials.
  - ⑩ Click "Catalog" link available on the top right corner.



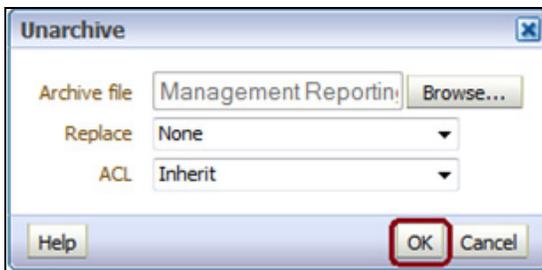
- ⑩ Click "Shared Folders" and then "Un-Archive".



- 10 Browse the path where "OFS\_PFT\_PACK.catalog" is copied in the local folder. Select the file and click "Open". Then click "OK".

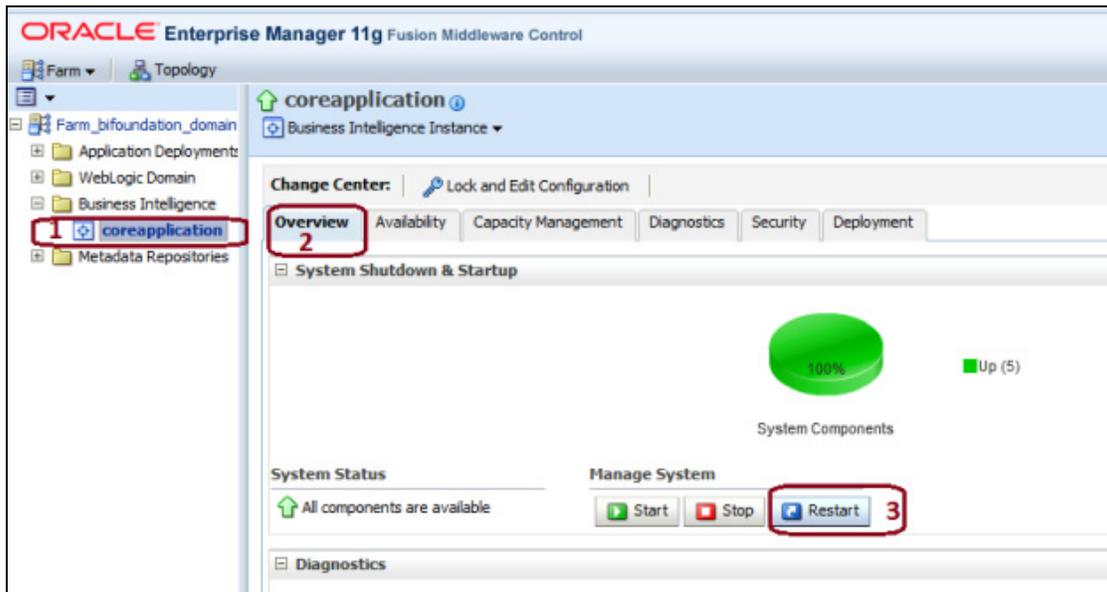


- 10 Click on "Shared Folders" and then on Un-Archive. Browse the path where "OFS\_PFT\_PACK.catalog" is copied in the local folder. Select the file and click "Open". Then click "OK" as shown in below diagram.

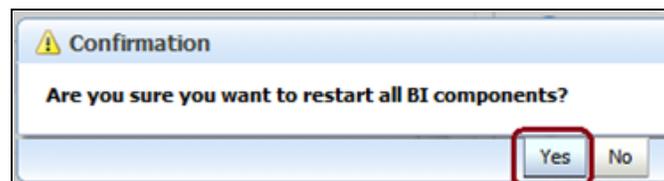


- 10 Two new catalogs are available on the left hand side.

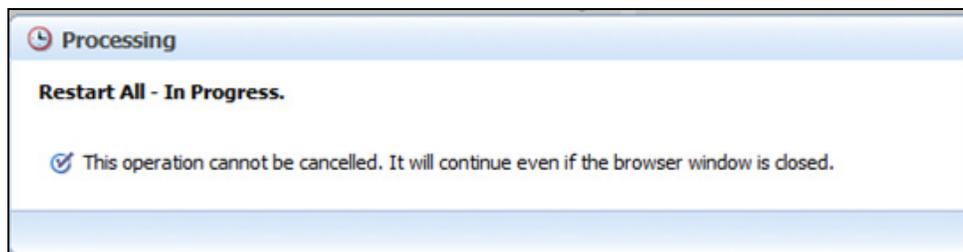




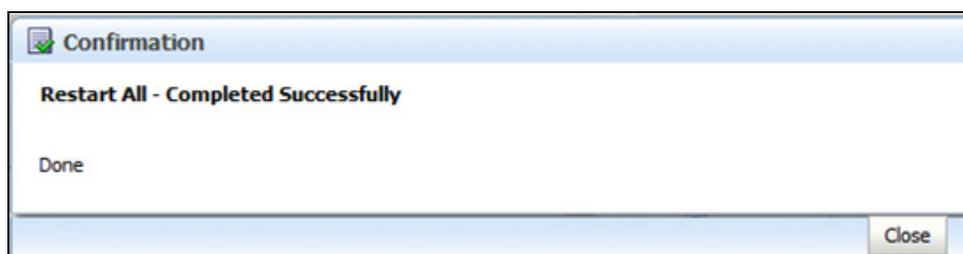
- 10 Click "Yes" to restart all BI components.



A message is displayed as follows:



- 10 Once restart is done, a confirmation message is displayed as follows:



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

- c. Save the `tnsnames.ora` file.
8. Configure ODBC data source to connect to Oracle BI Server.
  - a. Go To Control Panel>Administrative Tools>Data Sources (ODBC).
  - b. Select the 'System DSN' tab and click 'Add' Button.
  - c. Select a driver specific to (Oracle BI Server 11g) and click 'Finish' Button.
  - d. Enter 'Name' and 'Server' details (Specify the Host Name or IP Address of the BI Server and click 'Next').
  - e. Enter Oracle BI Server login id and password (Enter User Name and Password created at the time of OBIEE installation). Click 'Next'.
  - f. Click 'Finish'.
9. Modify RDBMS connection pool and set the properties.
  - a. Open the OBI Administration tool.
  - b. Select Start > Programs > Oracle Business Intelligence > BI Administration.
  - c. Select File > Open > Online and select 'OFS\_PFT\_PACK.rpd' file from the Open dialog box.
  - d. Enter Repository password as 'Admin123'.
  - e. In the "Physical" layer, double-click the "OFSEFPA Connection Pool" to open its properties.
  - f. In the 'General' tab, edit/ check the following entries:
    - i. Call Interface: (OCI 10g/11g).
    - ii. Data source name: <tnsnames.ora entry created in the step 7.b connecting to OFSAA atomic schema>.
    - iii. User name: <enter atomic db user name>.
    - iv. Password: <enter atomic db user password>.
  - g. Confirm password and Click 'OK' to close the window and click 'Save' to save the RPD file.
  - h. Click 'No' for the Global Consistency Message.
  - i. Repeat the steps from 9.f to 9.l to set the connection properties for "OFSEFPA Init Block".
  - j. Close the RPD file (File / Exit).
10. In case RPD deployment is done on Essbase then modify ESSBASE connection pool and set the properties.

---

**Note:** This is applicable only for EFPA.

---

- a. Open the OBI Administration tool.
- b. Select Start > Programs > Oracle Business Intelligence > BI Administration.
- c. Select File > Open > Online and select the cube rpd file created as mentioned in the 3rd step (RPD Deployment On Essbase Cubes) of section Post-Deployment Activities of OFSEFPA 8.0.5.0.0, from the Open dialog box.
- d. Enter Repository password as 'Admin123'.
- e. In the "Physical" layer, double-click the "Connection Pool" under Essbase, to open its properties.
- f. In the 'General' tab, edit / check the following entries:
  - i. Call Interface: (Essbase).
  - ii. Essbase Server: IP Address of Essbase server.
  - iii. User name: <enter Essbase console user name>.

- iv. Password: <enter Essbase console user password>. g. Confirm password and Click 'OK' to close the window and click 'Save' to save the RPD file.
  - g. Click 'No' for the Global Consistency Message.
  - h. Close the RPD file (File > Exit).
11. Login into OFSEFPA Application using the URL: *http://localhost:9704/analytics*. (Replace the port number based on your setup).
12. Once the OBIEE Environment is up and running, the OBIEE url needs to be updated in the table 'AAI\_MENU\_B' for an end user to access the respective Business Intelligence Analytics Application.

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

```
UPDATE AAI_MENU_B
SET V_MENU_URL = '<URL>'
WHERE V_MENU_ID IN ('<List of enabled BI Analytical Links for a particular Media Pack
>')
/
COMMIT
/
```

For PFT Media Pack as an example:

```
UPDATE AAI_MENU_B
SET V_MENU_URL = 'http://ofss222798:7001/analytics/'
WHERE V_MENU_ID IN ('OFS_EFPABI_LINK')
/
UPDATE AAI_MENU_B
SET V_MENU_URL = 'http://ofss222799:7001/analytics/'
WHERE V_MENU_ID IN ('OFS_RPABI_LINK','OFS_IPABI_LINK')
/
COMMIT
/
```

(Replace the IP address and port number based on your setup.)

13. Execute the following in atomic schema to view the T2T mappings in Metadata browser(object view):

```
declare
result number;
begin
result:=fn_mdb_t2t_view;
dbms_output.put_line(result);
exception
when others then
dbms_output.put_line(SQLERRM);
end;
```

## Jersey 2.x Package changes in web.xml File

Weblogic 12.2.x will not support jersey 1.x packages, so it is recommended to consider the following changes to those customers using Weblogic 12.2.x in their environment:

1. Replace the web.xml entries for Jersey 1.x with jersey 2.x

Entry for PA Metrics Servlet should be as below:

```
<<servlet>
  <servlet-name>PAMetricsServlet</servlet-name>
  <servlet-class>org.glassfish.jersey.servlet.ServletContainer</servlet-class>
  <init-param>
    <param-name>jersey.config.server.provider.packages</param-name>
    <param-value>com.oracle.ofsaa.pa.metric.api</param-value>
  </init-param>
  <init-param>
    <param-name>jersey.config.server.provider.classnames</param-name>
    <param-value>com.oracle.ofsaa.pa.metric.api.ProcessJSON</param-value>
  </init-param>
</servlet>
```

2. Replace list of jersey 1.x jars used with jersey 2.x jars and it's dependencies in the following folder:

/../../../../webapps/ofsaa/WEB-INF/lib

## Post-deployment Activities of OFSEFPA v8.0.5.0.0

The following activities have to be done after installing and deploying OFSEFPA v8.0.5.0.0:

OBIEE Configuration:

1. **Evaluate Support Level**

Evaluate function is used in filters of many reports. To support the evaluate function in reports, the value of **EVALUATE\_SUPPORT\_LEVEL** in NQSCONFIG.INI file of the OBIEE server needs to be set as 2.

**Path for 11G**

*\$OBIEEHOME\instances\instance1\config\OracleBIServerComponent\coreapplication\_obis1*

**For 12C**

*\$OBIEEHOME/user\_projects/domains/bi/config/fmwconfig/biconfig/OBIS*

Changes: Set EVALUATE\_SUPPORT\_LEVEL = 2 from EVALUATE\_SUPPORT\_LEVEL = 0;

2. **Session Variable Setting**

'ENTITY' by default picks the lowest of Legal Entities in the alphabetical order.

```
select min(v_entity_name) from dim_org_structure
```

This query fetches the default legal entity that will be displayed in the obiee reports (Legal Entity drop-down) at on load of the report.

Users can also set the default value for Entity, by following these steps:

- a. Open the RPD online.

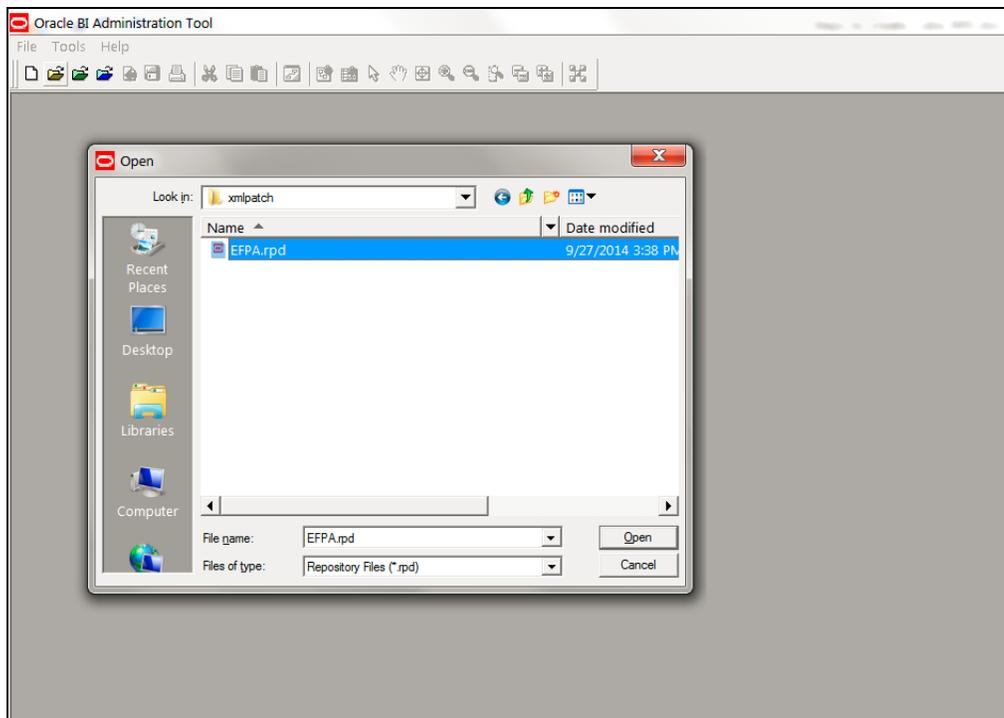
- b. Under Manage Menu go to Variables and select session variable 'ENTITY'.
- c. Set the default value in default initialize section with any one of the available entity name from DIM\_ORG\_STRUCTURE table in single quotes. For example: '<Entity Name>'
- d. Save and check the global consistency of the RPD.

**3. Repository Variable Setting**

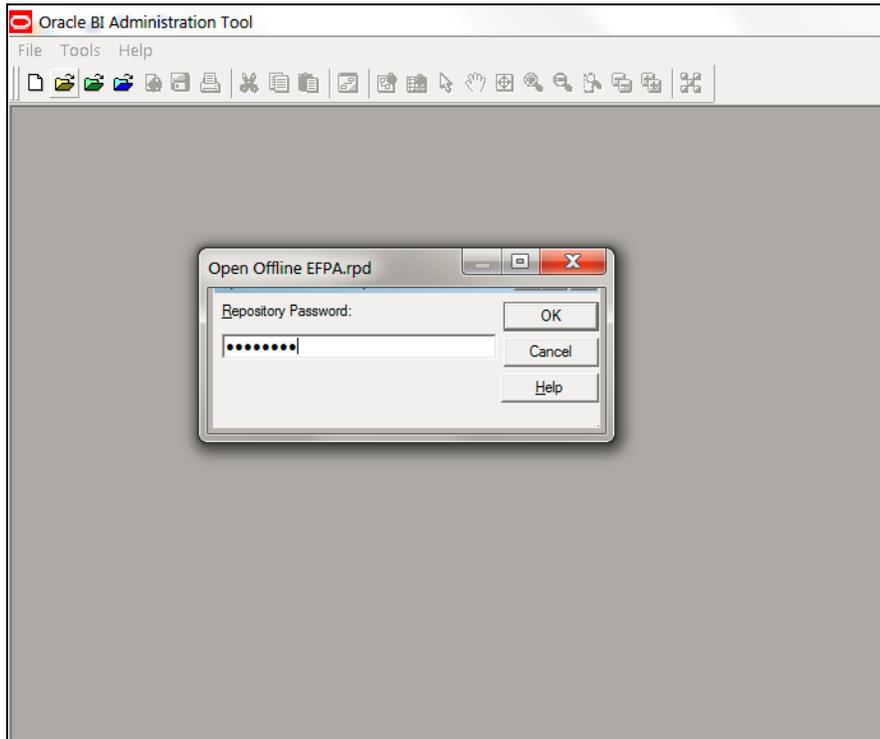
- a. Open the RPD online.
- b. Under Manage Menu go to Variables. Set Static Repository variables 'RV\_Reporting\_Currency' and 'RV\_Base\_Currency'.
- c. Save and check the global consistency of the RPD.

**4. RPD Deployment On Essbase Cubes(Optional)**

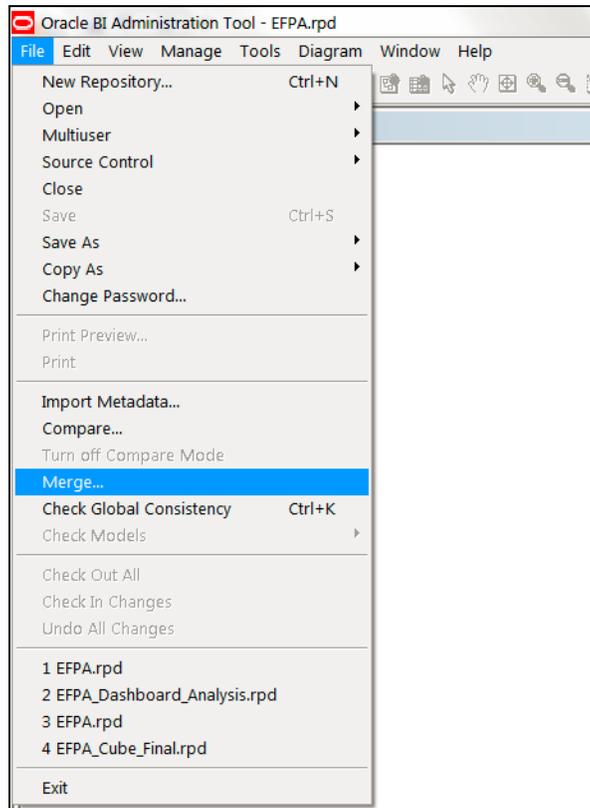
- a. During deployment use "Admin123" as OFS\_PFT\_PACK.rpd repository password.
- b. Deployment of RPD on ESSBASE cubes will be done through an xml patch (EFPA\_Cube\_Patch.xml). The xml has been provided as a part of installation and will be present at \$FIC\_HOME/ EFPA/repository folder.
- c. Provide connection details of RDBMS in 'OFSEFPA Connection Pool' and 'OFSEFPA Init Block'. This is required to show LCY Label in the reports, for the legal entity selected in the prompt.
- d. The steps to be followed for creating cube related RPD is mentioned in the following procedure:
  - i. Create a folder “xmlpatch” in your system and copy the EFPA.rpd (Its RDBMS RPD) & EFPA\_Cube\_Patch.xml files.
  - ii. Open the EFPA Repository (EFPA.rpd) in offline mode.



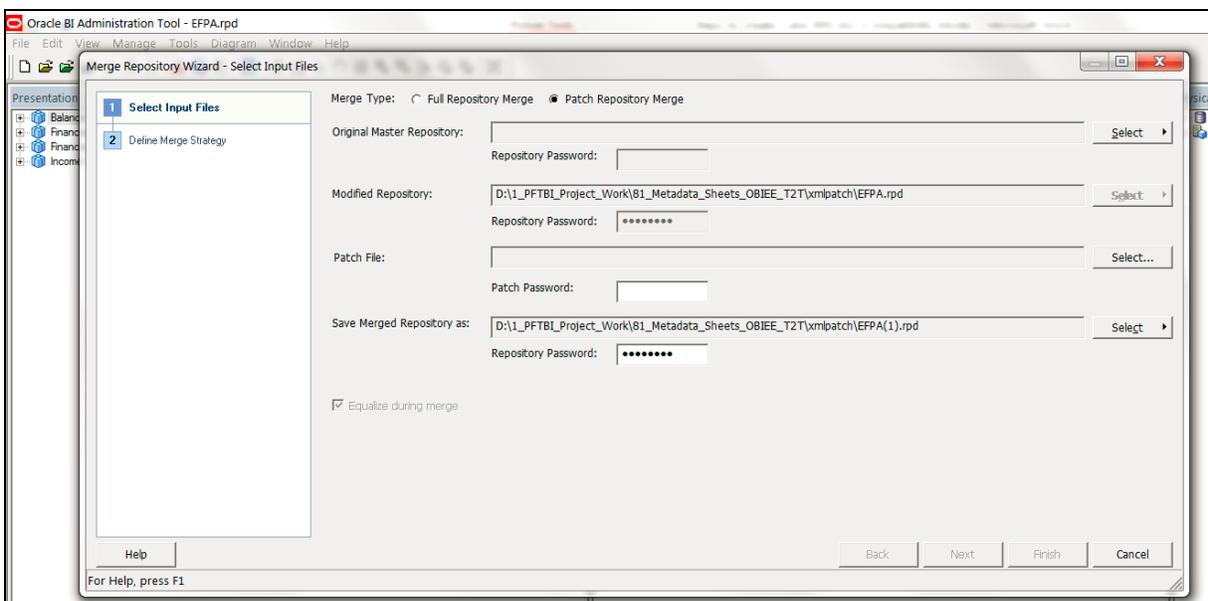
- iii. Give the repository password as “Admin123”.



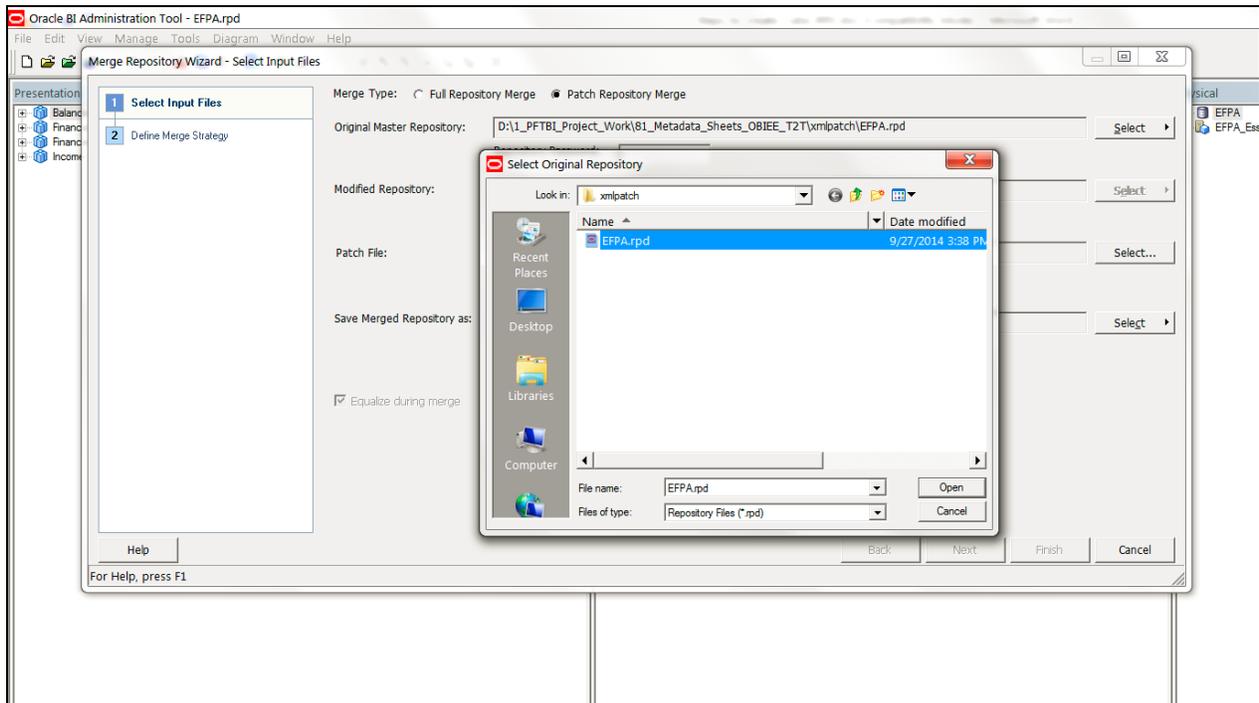
- iv. Choose “Merge” option from File Menu.



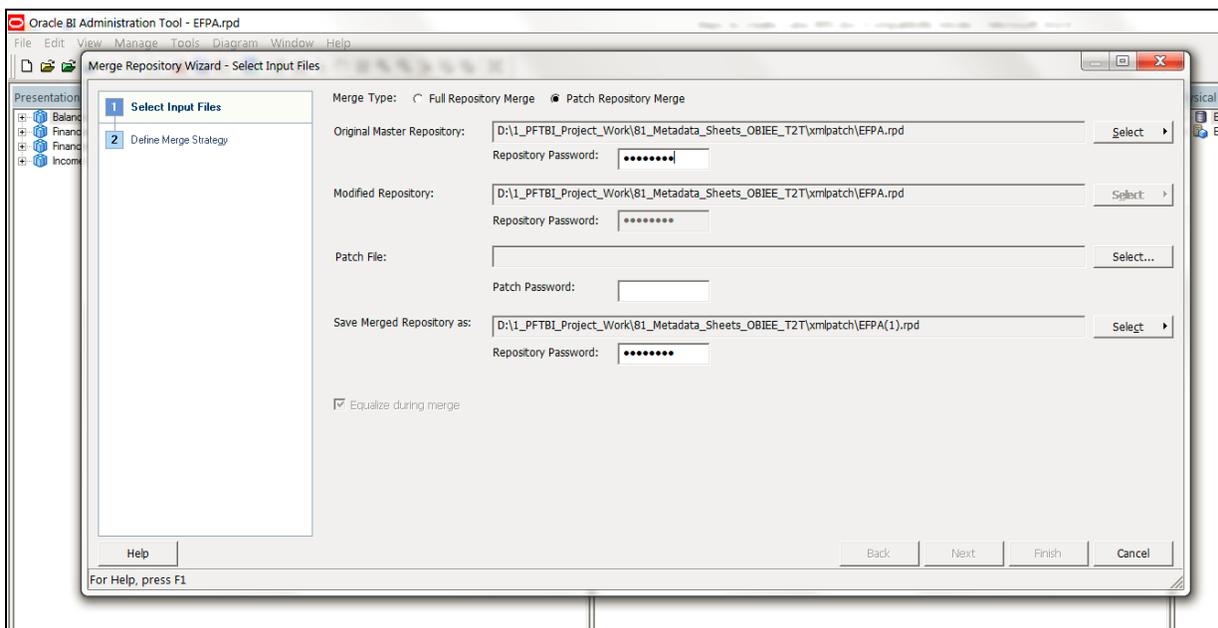
- v. On the Merge Repository Wizard screen, choose option as “Patch Repository Merge”.



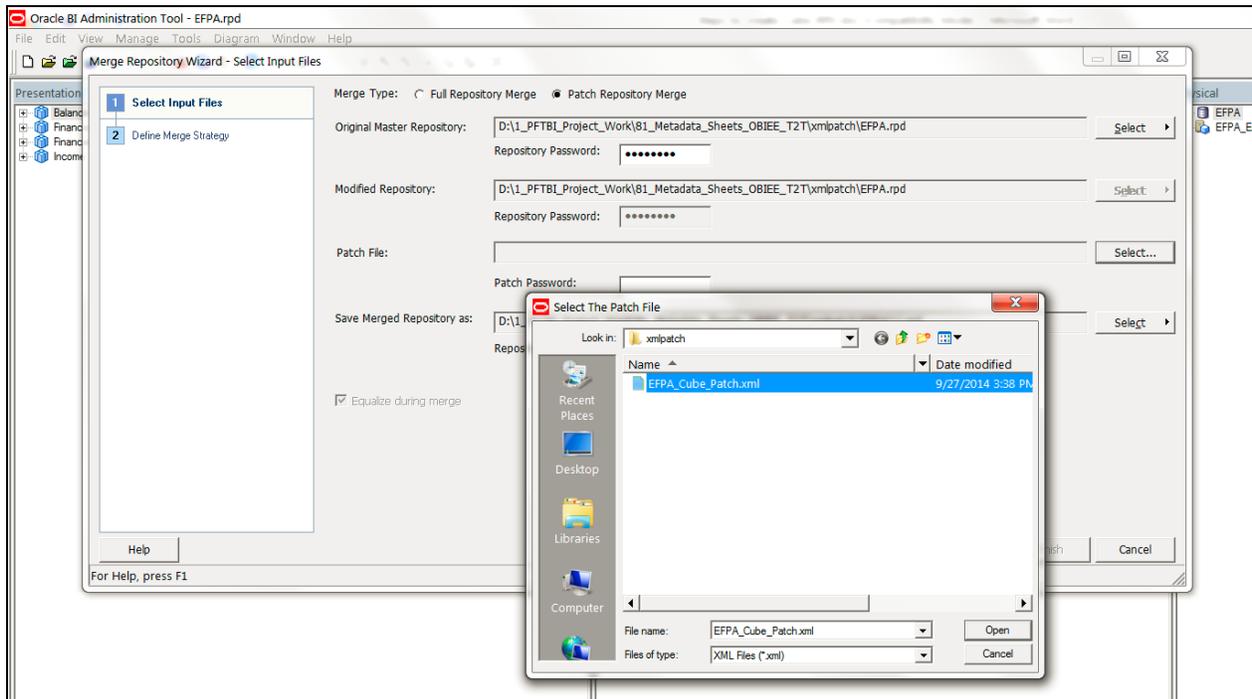
- vi. Select the Original Master Repository as “EFPA.rpd” from xmlpatch folder by clicking select option.



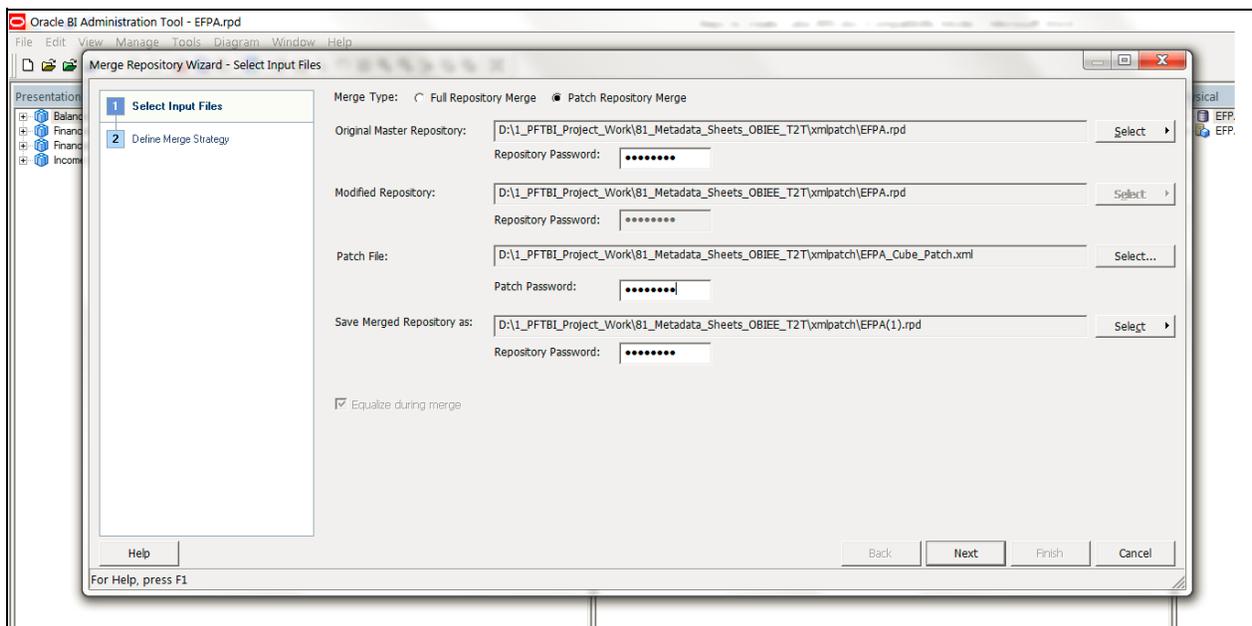
- vii. Give “Admin123” as password for Original repository.



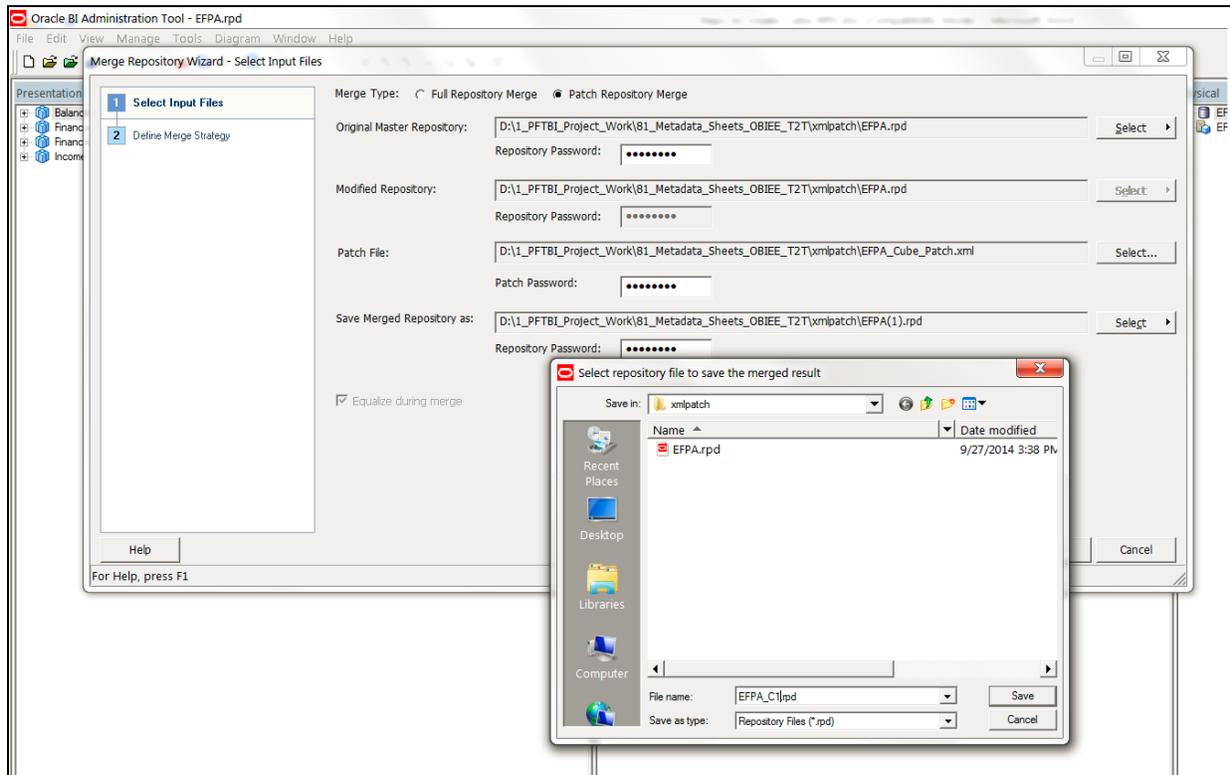
viii. Select the xml patch file from the saved path (xmlpatch folder).



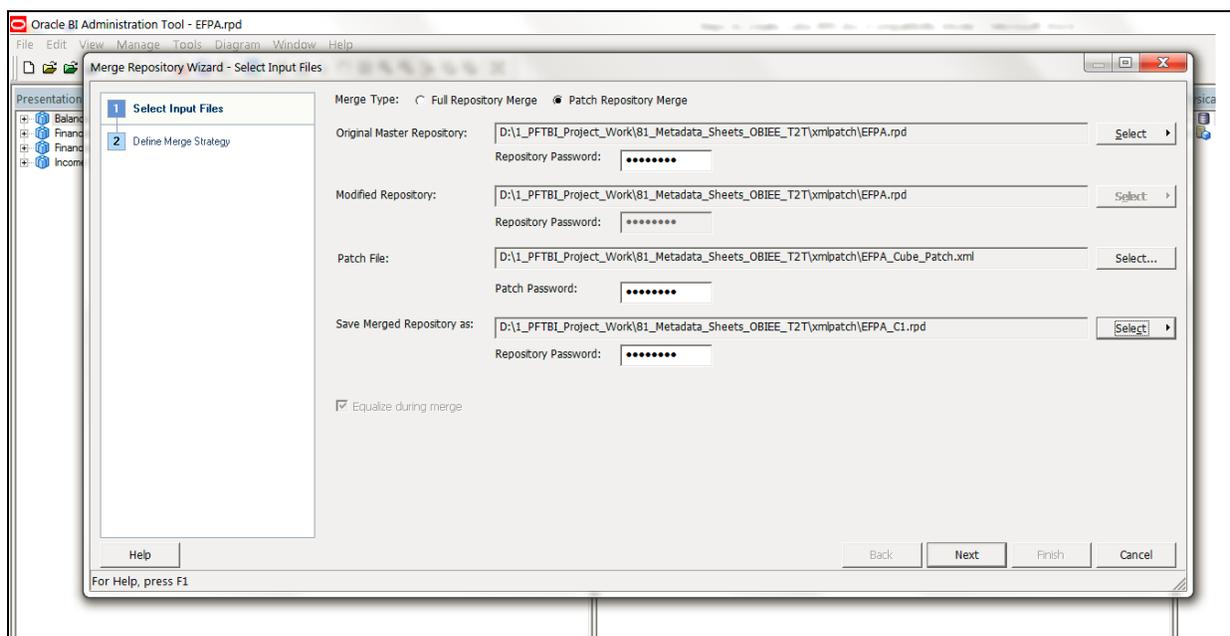
ix. Give "Admin123" as Patch file password.



- x. Change the name of the merged repository to “EFPA\_C1.rpd”.

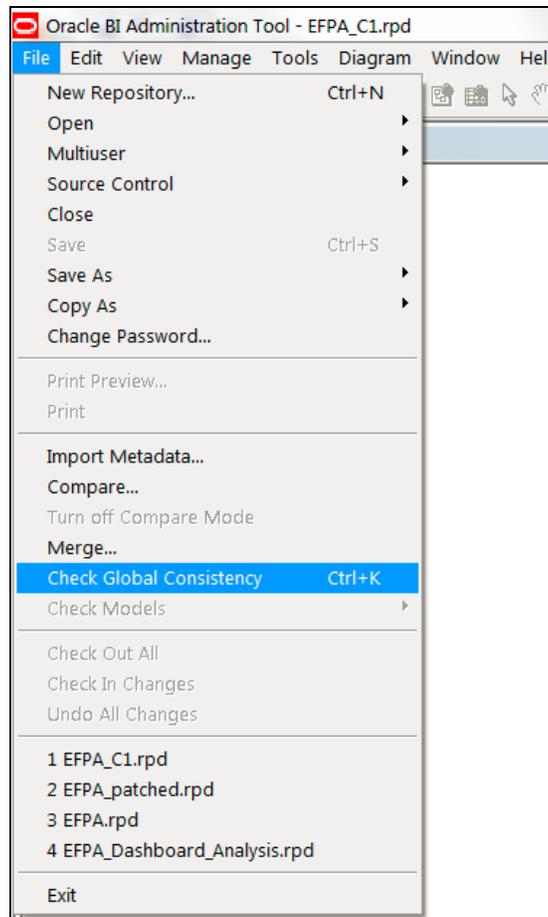


- xi. Click on Next.

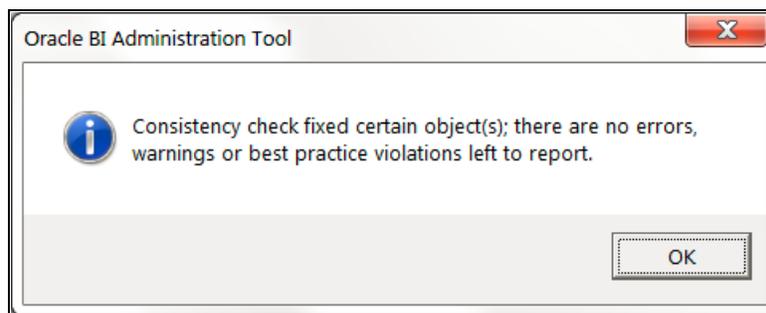


**Note:** If “Merge Repository Wizard – Define Merge Strategy” window opens up then skip the below steps and proceed from “Step: xxiii” onwards. In this case the final Cube Rpd name will be “EFPA\_C1.rpd”. Otherwise proceed ahead with the below steps.

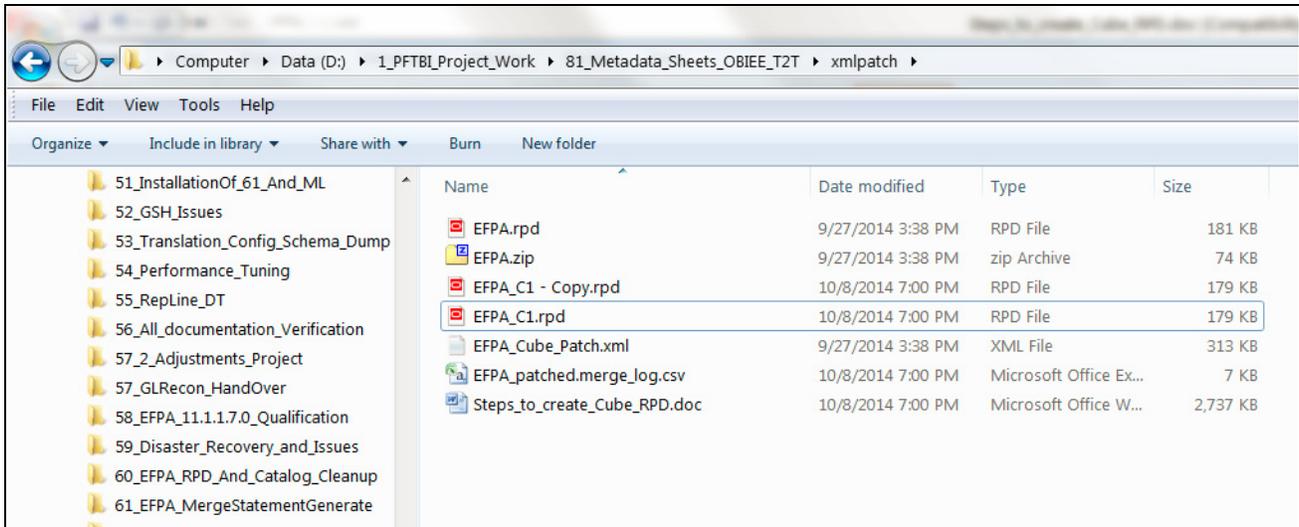
- xii. Check for global consistency by clicking on “Check Global Consistency Ctrl+K” under “File” menu.



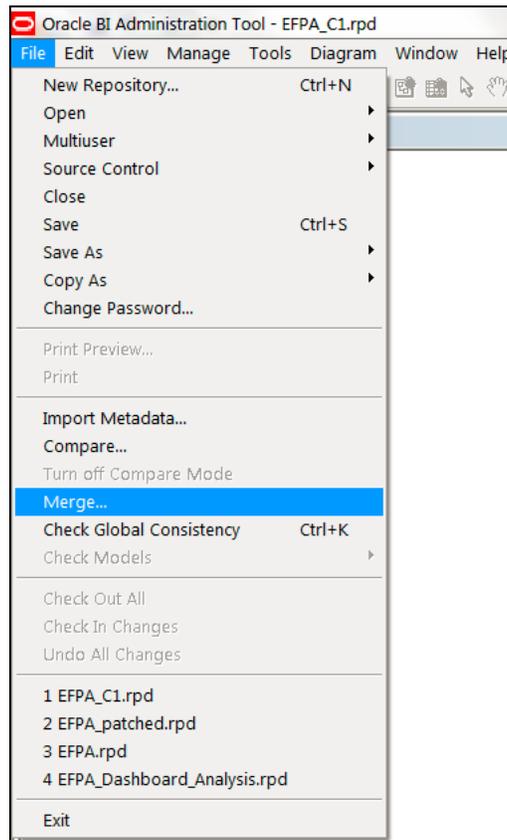
- xiii. It should result in no errors. Click on “OK” button.



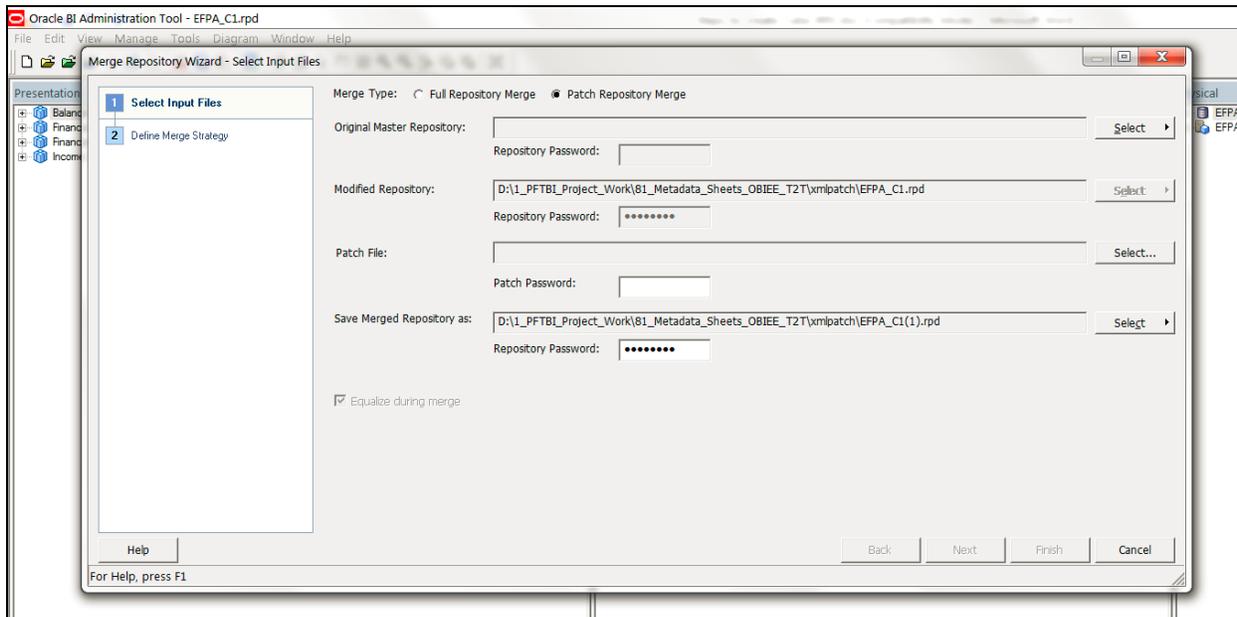
- xiv. In “xmlpatch” folder copy “EFPA\_C1.rpd” and paste so that a new duplicate rpd gets created “EFPA\_C1 - Copy.rpd”.



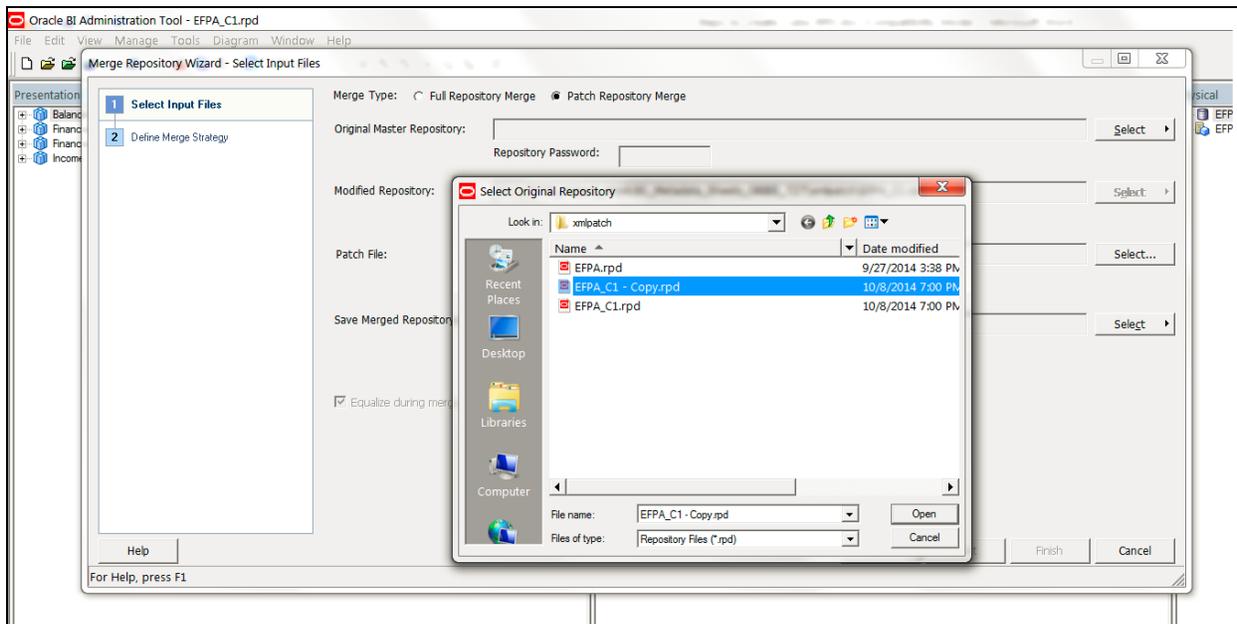
- xv. In the currently opened “EFPA\_C1.rpd” click on “Merge...” under “File” menu.



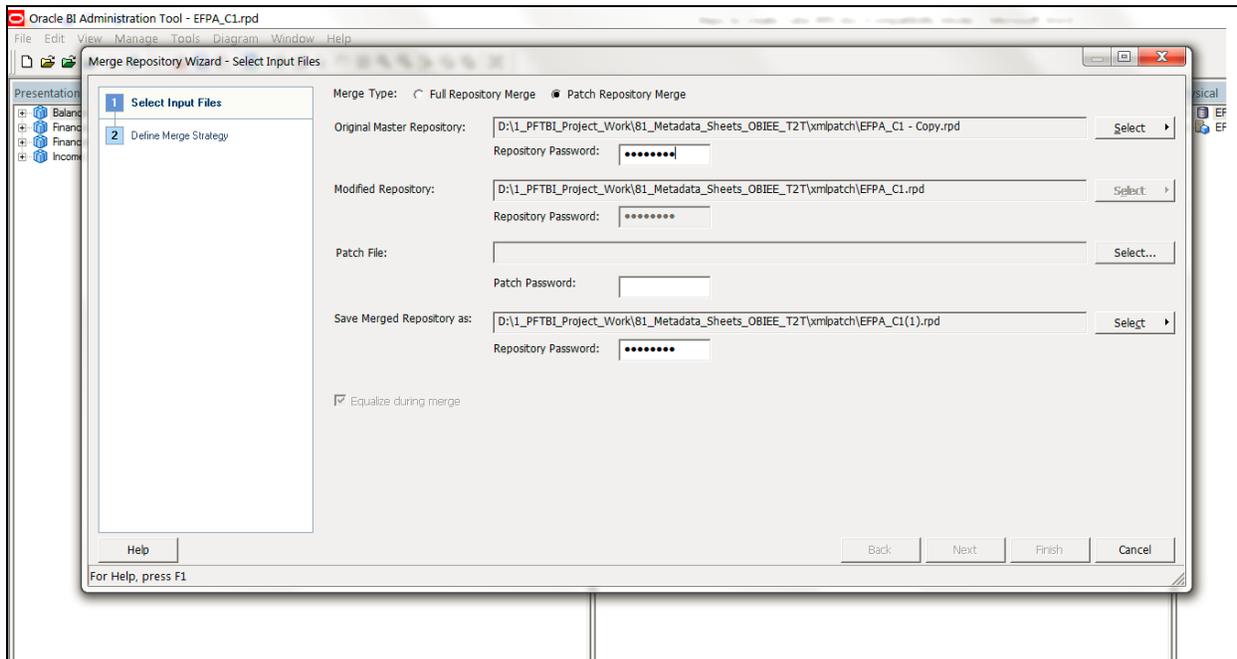
xvi. On the Merge Repository Wizard screen, choose option as “Patch Repository Merge”.



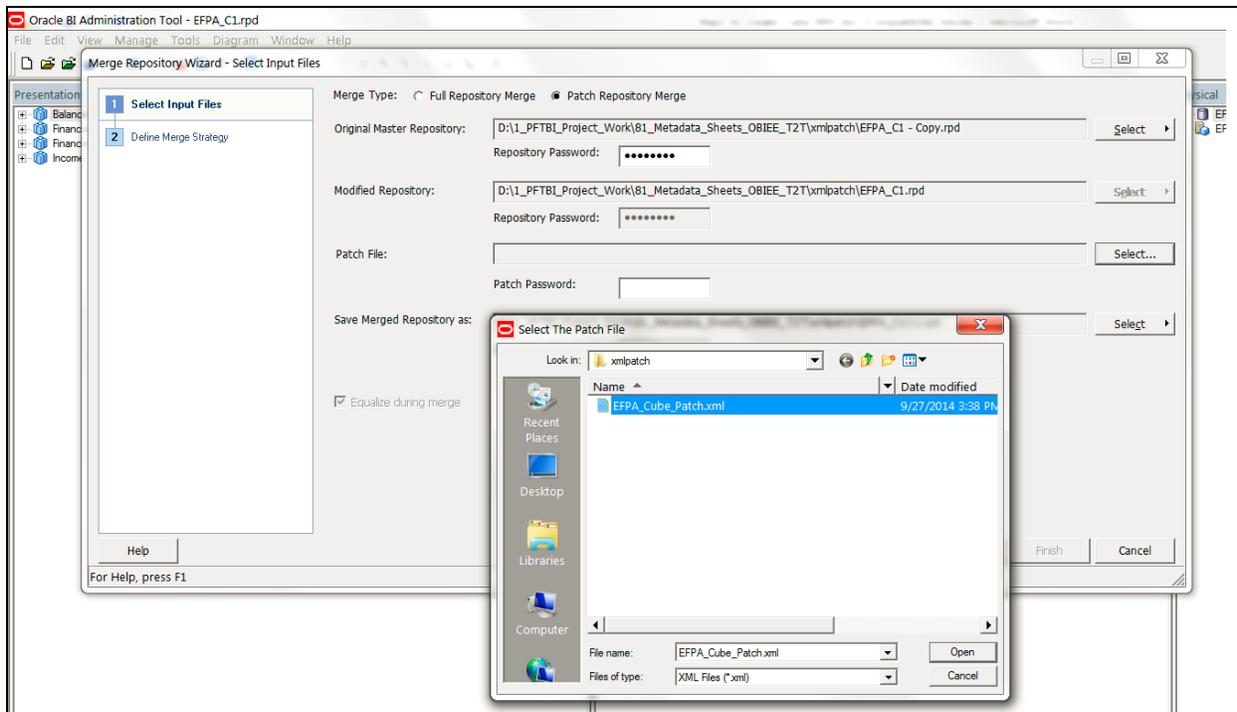
xvii. Select the Original Master Repository as “EFFA\_C1 - Copy.rpd” from xmlpatch folder by clicking select option.



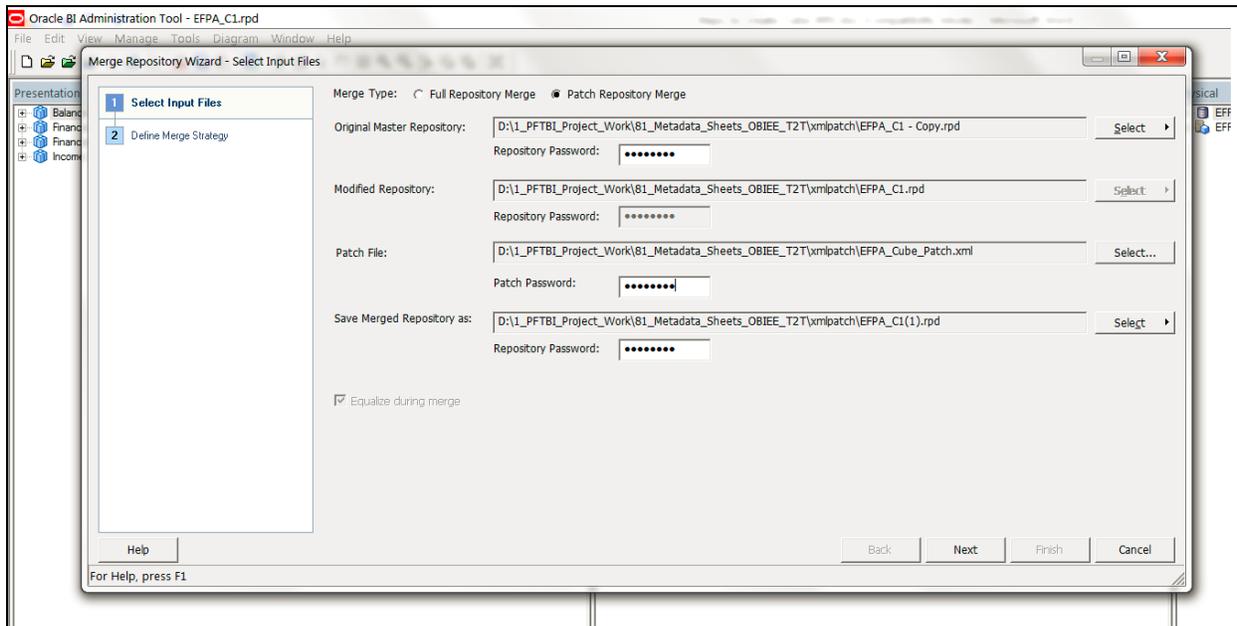
xviii. Give “Admin123” as password for Original repository.



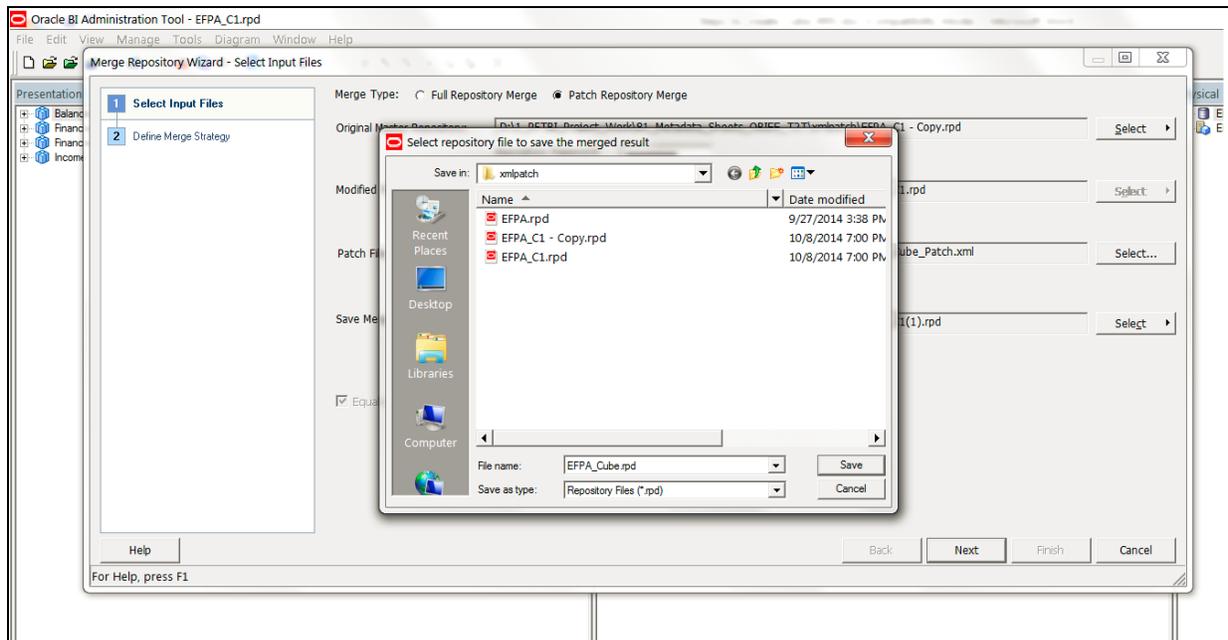
xix. Select the xml patch file from the saved path (xmlpatch folder).



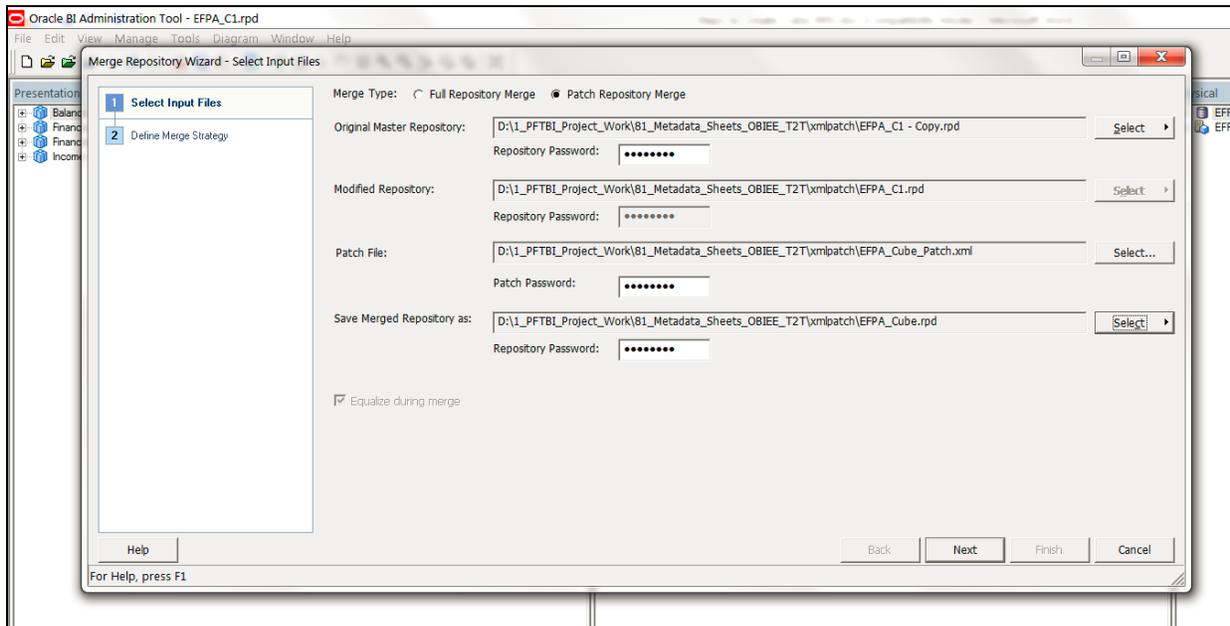
xx. Give “Admin123” as Patch file password.



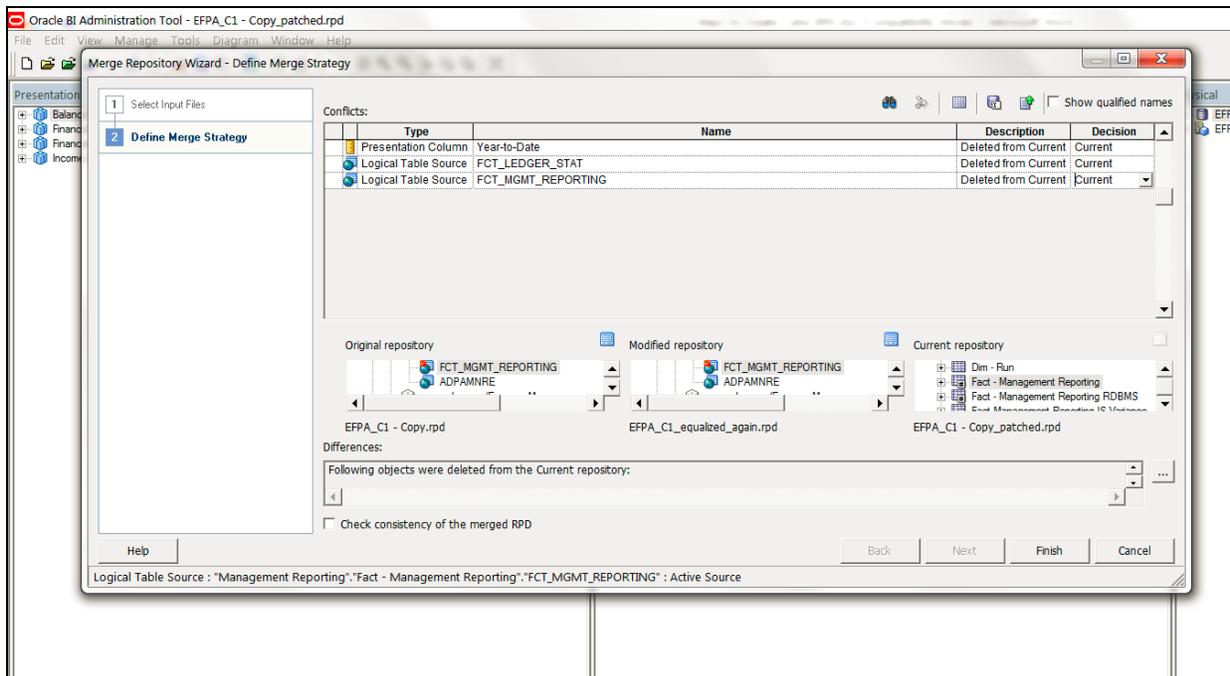
xxi. Change the name of the merged repository to “EFFA\_Cube.rpd”.



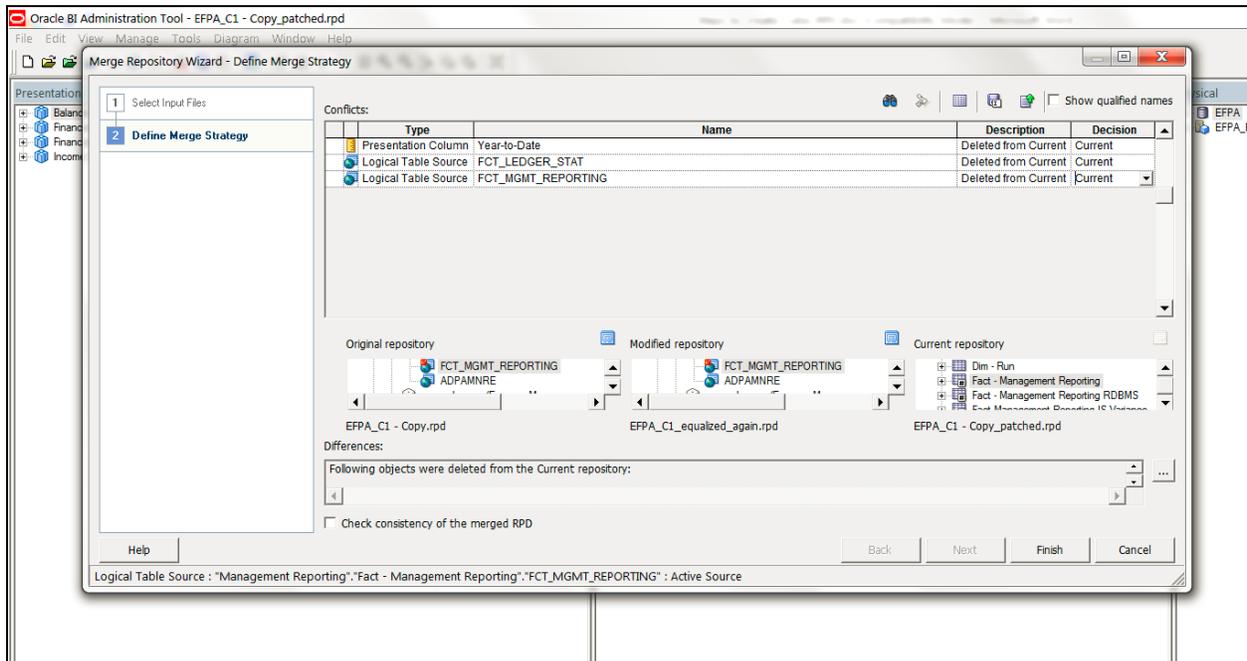
xxii. Click on Next.



xxiii. The wizard asks for the confirmation for deletion. Please select option “Current” under Decision dropdown.



xxiv. Click on Finish.



This creates a merged repository (EFPA\_Cube.rpd) under xmlpatch folder.

Take the “EFPA\_Cube.rpd” file and deploy it using EM console on the environment where Data is to be fetched from ESSBASE Cubes.

**Note:** Provide connection details of RDBMS in ‘OFSEFPA Connection Pool’ and ‘OFSEFPA Init Block’. This is required for LCY Label in the OBIEE reports.

## 5. OFSAAI Startup

OFSAAI servers need to be restarted, in order to see the transformations in the Post Load Transformation screen.

## 6. Security Roles

Security roles are created in OBIEE to allow or disallow certain users to see selective dashboards and data. To accomplish these user roles can be created in OBIEE. This step is optional and the procedure to create user roles is mentioned below (in this procedure LoB stands for Line of Business):

- a. Open Admin Console of OBIEE.
- b. Click on Security Realms under Domain Structure.

- c. Click on myrealm under Realms.

The screenshot shows the Oracle WebLogic Server Administration Console. The left-hand navigation pane has 'Security Realms' circled in green. The main content area displays the 'Summary of Security Realms' page. A table titled 'Realms (Filtered - More Columns Exist)' contains one entry: 'myrealm' with a 'Default Realm' value of 'true'. The 'myrealm' entry in the table is circled in green.

Name	Default Realm
myrealm	true

- d. Click on 'User and Groups' and then on 'Groups'.

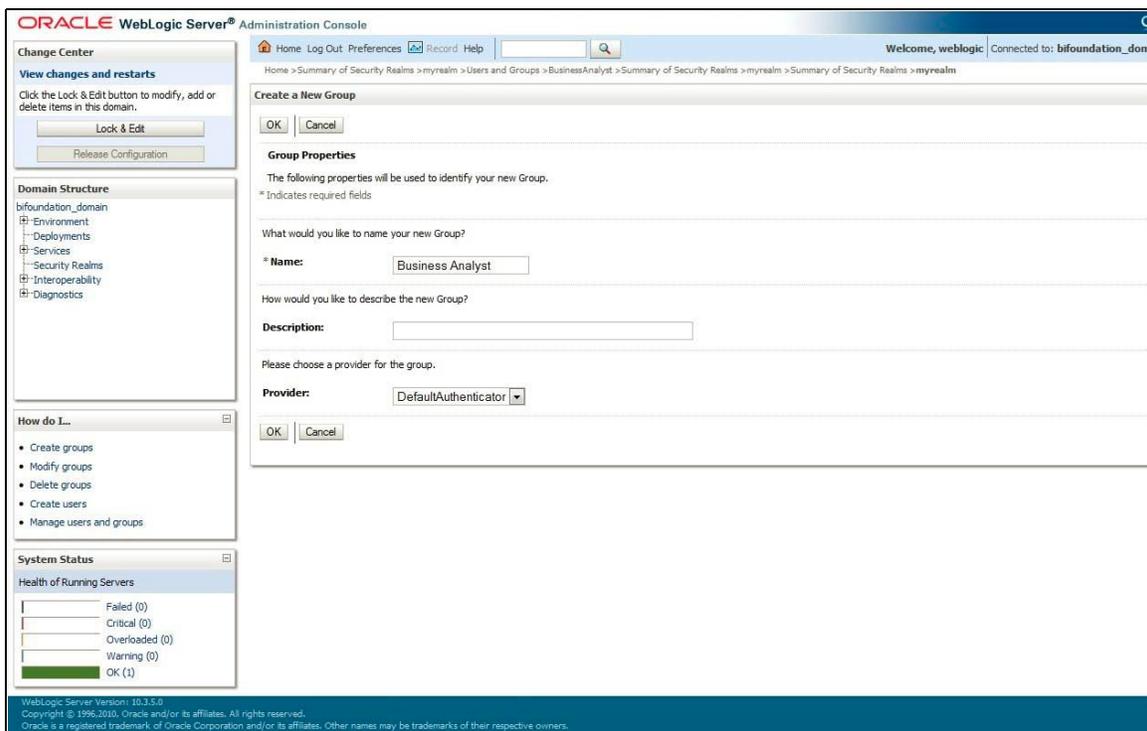
The screenshot shows the 'Settings for myrealm' page in the Oracle WebLogic Server Administration Console. The 'Users and Groups' tab is selected. The 'Groups' sub-tab is active, displaying a table of configured groups. The 'New' button above the table is circled in green.

Name	Description	Provider
AdminChannelUsers	AdminChannelUsers can access the admin channel.	DefaultAuthenticator
Administrators	Administrators can view and modify all resource attributes and start and stop servers.	DefaultAuthenticator
AppTesters	AppTesters group.	DefaultAuthenticator
BankGlobalCFO		DefaultAuthenticator
BIAdministrators	BI Administrators Group	DefaultAuthenticator
BIAuthors	BI Authors Group	DefaultAuthenticator
BIConsumers	BI Consumers Group	DefaultAuthenticator
CrossDomainConnectors	CrossDomainConnectors can make inter-domain calls from foreign domains.	DefaultAuthenticator
Deployers	Deployers can view all resource attributes and deploy applications.	DefaultAuthenticator
LoBManager		DefaultAuthenticator

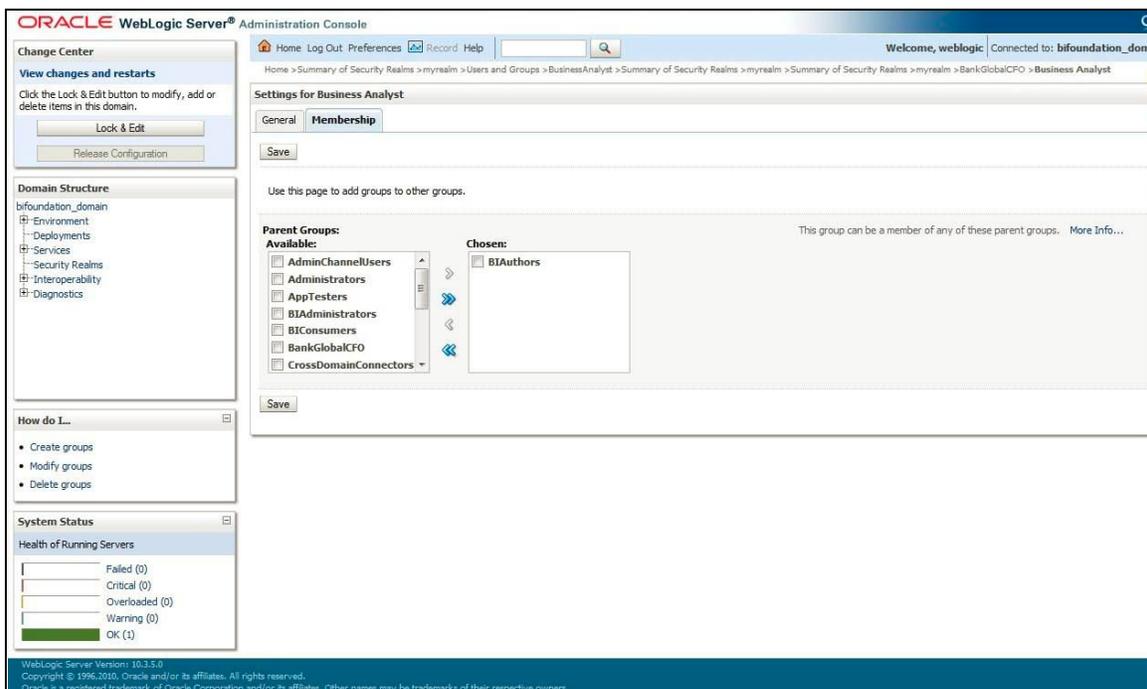
## Deploying the Application

### Appendix M—Post Deployment Configuration

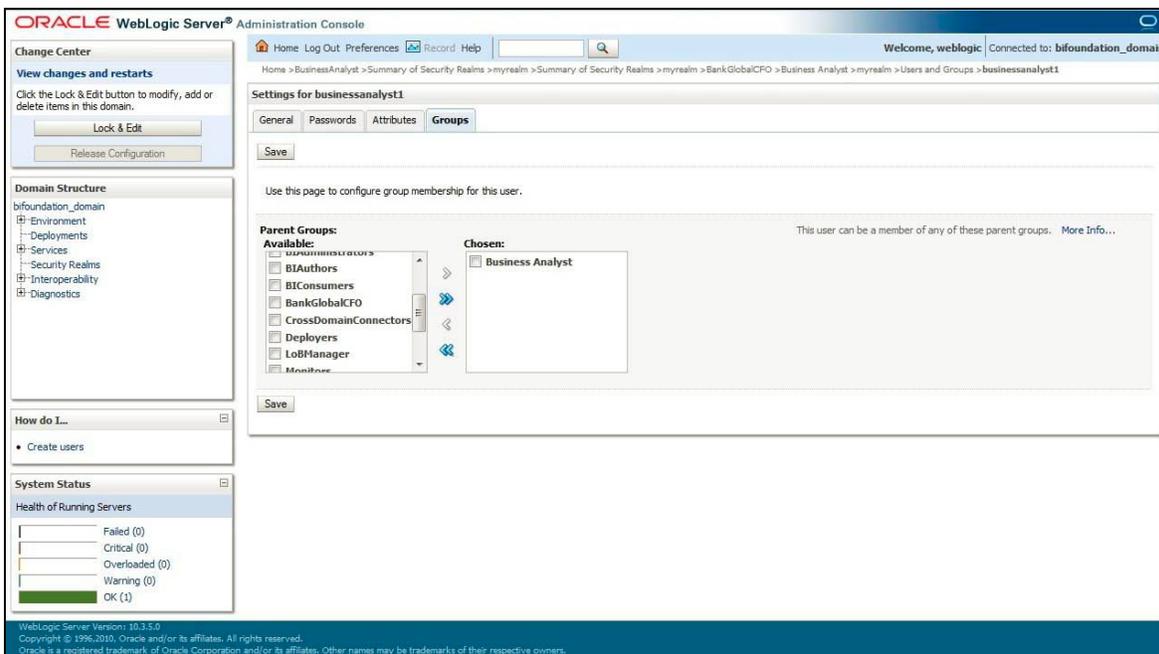
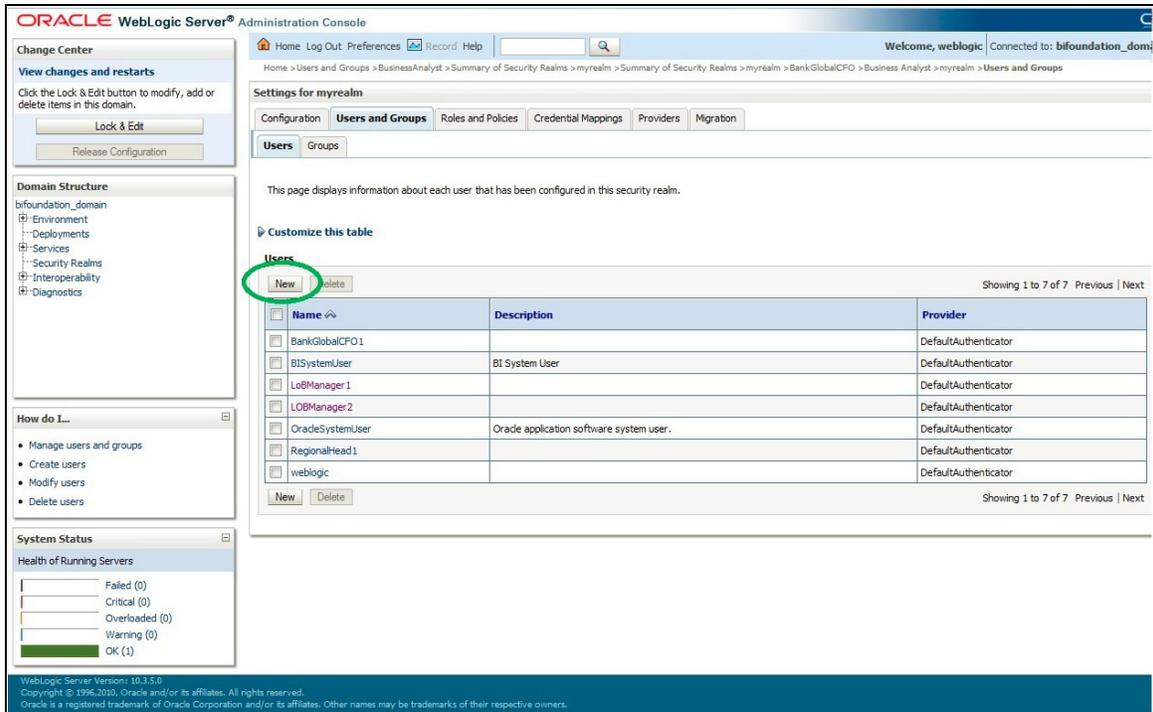
- e. Click on 'New' and create two new groups with the names 'Business Analyst' and 'LoBManager'.



- f. Click on newly created 'Business Analyst' group for assigning parent group.



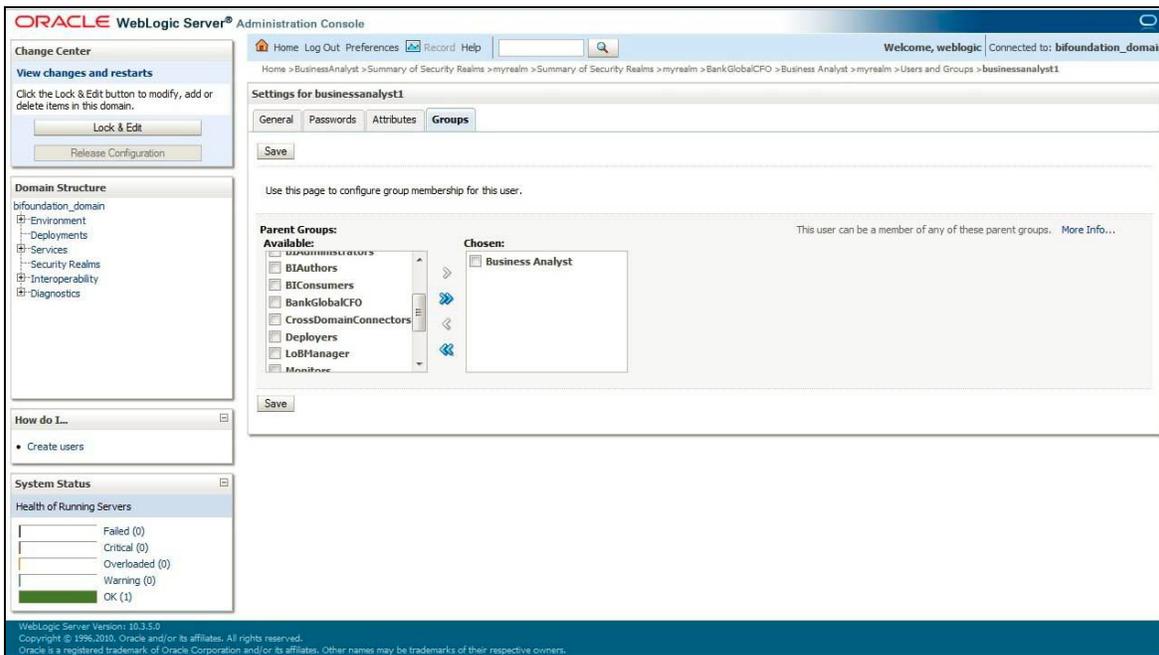
- g. Create two new users under 'Users' tab of 'Users and Groups'. One user for Business Analyst and another for LoB Manager.



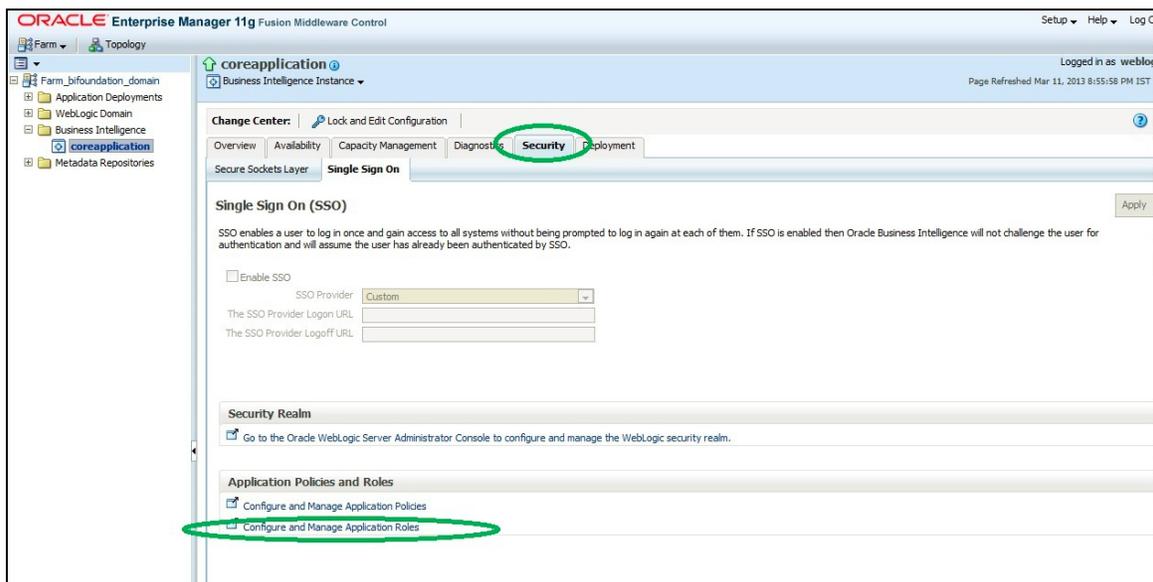
## Deploying the Application

### Appendix M—Post Deployment Configuration

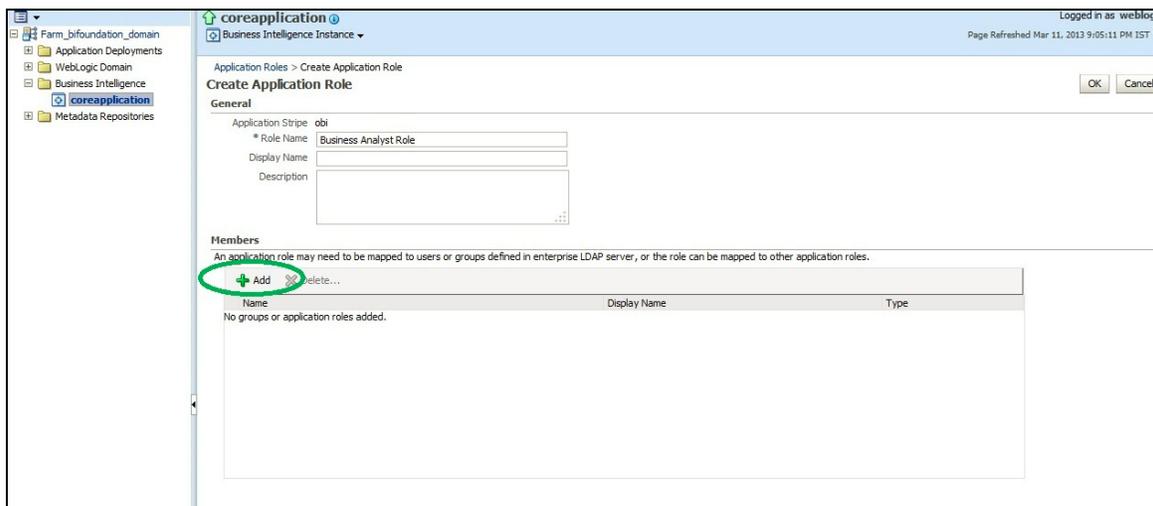
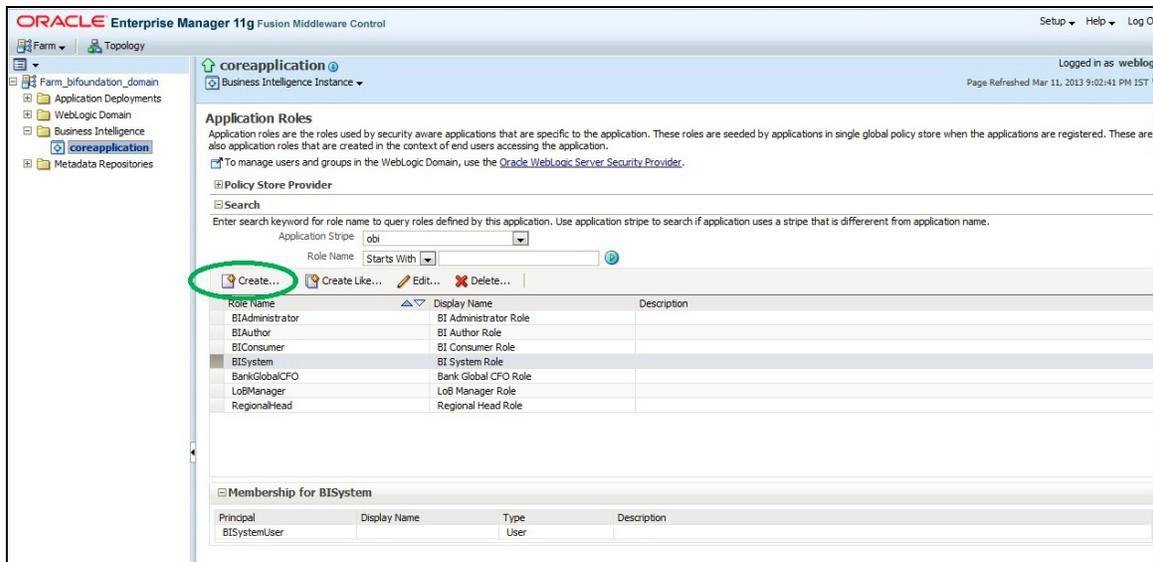
- h. Map the newly created users to respective groups.



- i. Close the Admin Console of OBIEE.
- j. Open Enterprise Manager of OBIEE.
- k. Navigate to CoreApplication > Security > Single Sign On > Configure and Manage Application Roles.



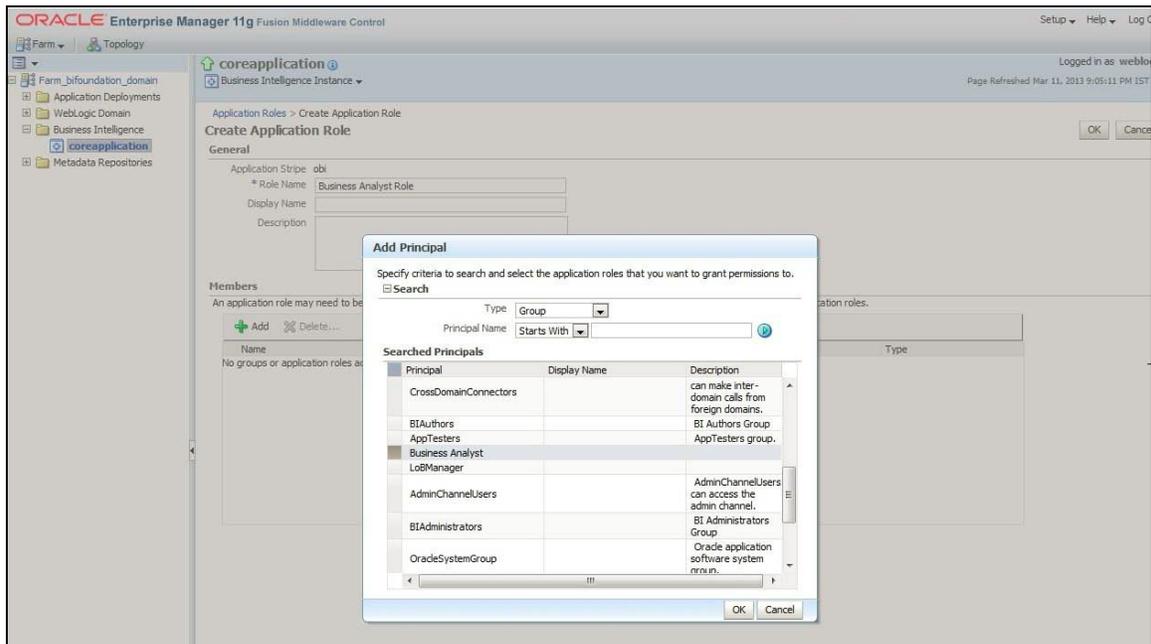
- I. Create a new application roles with the name 'Business Analyst Role' with display name as 'Business Analyst Role' and 'LoBManager' with display name as 'LoB Manager Role'.



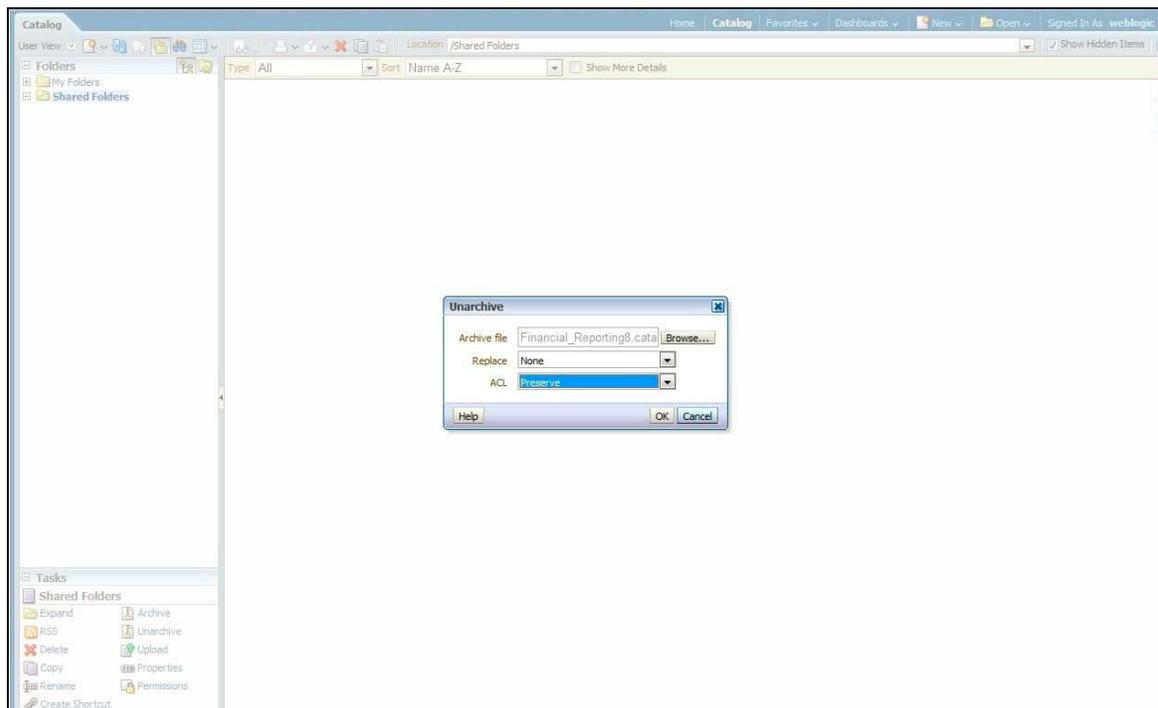
- m. Assign Business Analyst Group to its role and similarly 'LoB Manager' group to its respective role.

## Deploying the Application

### Appendix M—Post Deployment Configuration



- n. Unarchive the catalogs by selecting ACL as 'Preserve'.



- o. After un-archiving the catalogs (Financial Reporting.catalog & Management Reporting.catalog) configure the physical tables in database PFTBI\_USER\_LOB\_MAP to create LoB Manager and LoB mapping.
- p. Step 16: Login with corresponding LoB Manager User Id to verify if the respective LoBs are being selected. To verify all the reports, login with Business Analyst user id.

### Metadata Browser Batches:

UMM Metadata (Hierarchies, Datasets, Measures, Dimensions) can be seen in Metadata Browser by executing the Metadata Browser Batches (MDB batches) from the Batch Execution screen of OFSAAI. The batch names are mentioned below:

1. <INFODOM>\_MDB
2. <INFODOM>\_MDB\_OBJECT\_APPLN\_MAP

### Additional Configuration:

1. After deploying the latest Web catalog and RPD from the server, the default reporting periods have to be set based on users requirements. The default value has to be set at the Reporting Period prompts by editing the dashboard and choosing a specific value for the reporting period prompt. Following are the dashboard pages where the default time period is to be selected:
  - a. Financial Reporting>Income Statement>Time\_Hierarchy Prompt
  - b. Management Reporting>Balance Sheet> Time Hierarchy Prompt
  - c. Management Reporting>FTP Reports> Time Hierarchy FTP Prompt
  - d. Management Reporting>Income Statement> Time Hierarchy Prompt
  - e. Management Reporting>Key Trends>Time Hierarchy Prompt
  - f. Management Reporting>KeyTrends>Balance Trends> Time\_Hierarchy\_Month Prompt
  - g. Management Reporting > Performance Measures> Time Hierarchy Prompt
2. Create an entry in Setup\_Master table to configure the identity codes that are required for Financial Reporting dashboard reports.  

```
V_COMPONENT_DESC as "IDENTITY_CODE_PFTBI_FR_UNALLOCATED_DATA" having Identity Code value in V_COMPONENT_CODE and V_COMPONENT_VALUE columns.
```
3. If OFSEFPA 6.1.1.0.0 is deployed on Oracle ESSBASE Cubes, then the hierarchies would need to be resaved in the Business Hierarchy link of OFSAAI. Subsequently, rebuild the Oracle ESSBASE Cubes.

### Instrument Table Validation

Run the Instrument Table Validation. For more information, see the Doc ID [1457511.1](#) and [Data Model Utility Guide](#).

Check the FSI\_MESSAGE\_LOG file after running Instrument Table Validation to verify that tables are classified correctly.

## Logging as System Administrator

Post installation, the first login into Infrastructure is possible only for a System Administrator through user id "sysadm". This ID is created at the time of installation with the password provided during installation. Enter login id "sysadm" and password that was provided during installation. Click Login.

### System Administrator

System Administration refers to a process of managing, configuring, and maintaining confidential data in a multi-user computing environment. System Administration in Security Management involves creating functions, roles, and mapping functions to specific roles. System Administration also involves maintaining segment information, holiday list, and restricted passwords to ensure security within the Infrastructure system.

You can access System Administrator in LHS menu of Security Management. The options available under System Administrator are:

- ⑩ [Function Maintenance](#)
- ⑩ [Role Maintenance](#)
- ⑩ [Segment Maintenance](#)
- ⑩ [Holiday Maintenance](#)
- ⑩ [Restricted Passwords](#)

### Function Maintenance

A function in the Infrastructure system defines the privileges to access modules or components and to define or modify Metadata information associated. Function Maintenance allows you to create functions for users to ensure only those functions are executed which are specific to the user's role.

You can access Function Maintenance by expanding System Administrator section within the tree structure of LHS menu. The Function Maintenance window displays the function details such as Function Code, Function Name, Description, and the number of Roles Mapped to the function. The Function Maintenance window also facilitates you to view, create, modify, and delete functions within the system.

You can also make use of Search and Pagination options to search for a specific function or view the list of existing functions within the system.

### Role Maintenance

A role in the Infrastructure system is a collection of functions defined for a set of users to execute a specific task. You can create roles based on the group of functions to which users are mapped.

You can access Role Maintenance by expanding **System Administrator** section within the tree structure of LHS menu. The Role Maintenance window displays the role details such as Role Code, Role Name, Role Description, and the number of Users Mapped to the role. The Role Maintenance window also facilitates you to view, create, modify, and delete roles within the system.

You can also make use of Search and Pagination options to search for a specific role or view the list of existing roles within the system.

### Segment Maintenance

Segment is used to control access rights on a defined list of objects. It is mapped to an information domain.

Segment Maintenance in the Infrastructure system facilitates you to create segments and assign access rights. You can have different segments for different Information Domains or same segments for different Information Domains.

User scope is controlled by segment/ folder types with which the object is associated.

- ⑩ Objects contained in a public folder will be displayed irrespective of any user.
- ⑩ Objects contained in a shared folder will be displayed if user belongs to a user group which is mapped to an access type role with the corresponding folder.
- ⑩ Objects contained in a private folder will be displayed only to the associated owner.

You can access Segment Maintenance by expanding System Administrator section within the tree structure of LHS menu. The Segment Maintenance window displays a list of available segments with details such Domain, Segment Code, Segment Name, Segment Description, Segment/Folder Type, Owner Code, and the number of Users Mapped to the segment. You can view, create, modify, and delete segments within the Segment Maintenance window.

You can also make use of Search and Pagination options to search for a specific role or view the list of existing roles within the system.

## Holiday Maintenance

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**Note:** As part of OFSAAI 7.3.3.0.0 release, this feature will not be available if Authentication is configured to SSO Authentication and SMS Authorization.

---

Holiday Maintenance facilitates you to create and maintain a schedule of holidays or non-working days within the Infrastructure system. On a holiday, you can provide access to the required users and restrict all others from accessing the system from the User Maintenance window.

You can access Holiday Maintenance by expanding System Administrator section within the tree structure of LHS menu. The Holiday Maintenance window displays a list of holidays in ascending order. In the Holiday Maintenance window you can create and delete holidays.

## Restricted Passwords

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**Note:** As part of OFSAAI 7.3.3.0.0 release, this feature will not be available if Authentication Type is selected as SSO Authentication and SMS Authorization from System Configuration> Configuration.

---

Restricted Passwords facilitates you to add and store a list of passwords using which users are not permitted to access the Infrastructure system.

You can access Restricted Passwords by expanding System Administrator section within the tree structure of LHS menu. The Restricted Passwords window displays a list of restricted passwords and allows you to add and delete passwords from the list.

You can also make use of Search and Pagination options to search for a specific password or view the list of existing passwords within the system. For more information, refer Pagination and Search & Filter.

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**Note:** While searching for any pre defined restricted password, you have to key in the entire password.

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## Creating Application Users

Create the application users in the OFSAA setup prior to use.

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**Note:** This step may not be required if you have already setup users in the OFSAA setup.

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For more information refer user creation section from the Oracle Financial Services Analytical Applications Infrastructure User Guide.

## Mapping Application User(s) to User Group

Starting the OFSAA 8.0 release, with installation of Profitability Application Pack, pre-configured application user groups are seeded. These user groups are unique to every OFSAA Application Pack and have application roles pre-configured.

Map the application user(s) to the respective Application User Group(s) and subsequently authorize the entitlements by logging in as SYSAUTH (System Authorizer) user.

For more information on seeded User Groups, refer to [User Group Mapping](#).

## Change ICC Batch Ownership

All the seeded Batches in PFT Applications Pack will be automatically assigned to SYSADMN user during Installation. If one user who wants to see the Batches in Batch Maintenance Menu, He needs to execute the following Queries in Config Schema of the Database.

Syntax:

```
begin
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP ('fromUser','toUser','infodom');
end;
OR
begin
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP ('fromuser','touser');
end;
```

Where from User indicates the user who currently owns the batch, to User indicated the user to which the ownership has to be transferred. Infodom is optional parameter, if specified the ownership of batches pertaining to that Infodom will be changed.

Eg.

```
begin
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP ('SYSADMN','PFTOP','OFSPFTINFO');
end;
```

## Mapping ICC Batch Execution Rights to User

Login as SYSADMN and navigate to **Identity Management > System Administrator > Function-Role Map**. Map the User-Batch Execution Mapping Screen function to RLPFTADMIN role.

Now any user who is mapped under PFT Admin User Group will have the access to the **Batch execution rights** Menu under **Operations** list.

The screenshot displays the Oracle Financial Services Analytical Applications interface. The breadcrumb trail indicates the path: **Common Object Maintenance > Operations > Batch Execution Rights**. The main window is titled **User Group - Batch Execution Map**. Below the title, there are dropdown menus for **Information Domain** (set to EPMINFO) and **User Groups** (set to Business Administrator). There are also radio buttons for **Batch Maintenance**, **Enterprise Modeling**, **Run Rules Framework**, and **ALL**.

The main content area contains a table with the following columns: **Batch Name**, **Batch Description**, and **Batch Map**. The table lists various batch jobs, each with a checkbox in the **Batch Map** column.

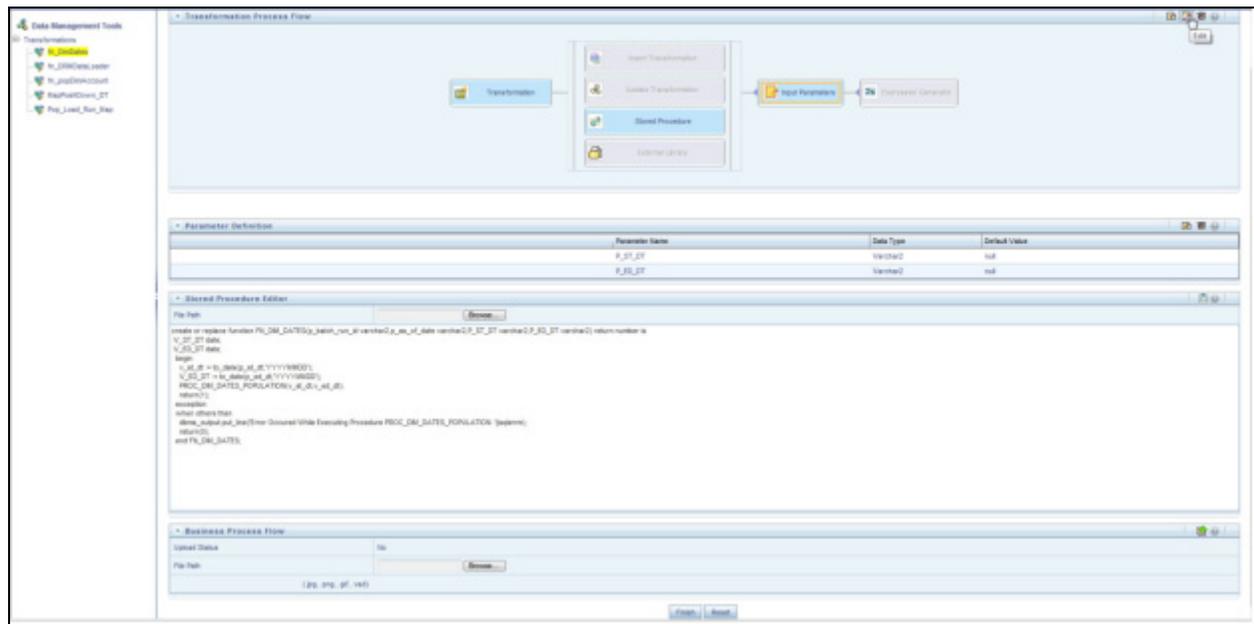
Batch Name	Batch Description	Batch Map
EPMINFO_201067_EXEC	null	<input type="checkbox"/>
EPMINFO_235648_EXEC	null	<input type="checkbox"/>
EPMINFO_235664_EXEC	null	<input type="checkbox"/>
EPMINFO_235693_EXEC	null	<input type="checkbox"/>
EPMINFO_ACCOUNT_INDEX_HIST_POPULATE	This is used to load data from STG_ACCOUNT_INDEX_HIST to FSI_ACCOUNT_INDEX_HIST for given AsOfDate	<input type="checkbox"/>
EPMINFO_ACCOUNT_MANAGER_REL	STG_ACCOUNT_REL_MGR_MAP to FCT_ACCOUNT_REL_MGR_MAP	<input type="checkbox"/>
EPMINFO_ACCOUNT_POSITION	Load FCT_ACCOUNT_POSITION	<input type="checkbox"/>
EPMINFO_ACCOUNT_SUMM_DE_REF	Derived Entity Refresh for Integrated Account Summary	<input type="checkbox"/>
EPMINFO_ACCT_CUST_RELATIONSHIP	STG_CUSTOMER_RELATIONSHIP to FCT_ACCT_CUST_RELATIONSHIP	<input type="checkbox"/>
EPMINFO_ALM	Data Quality batch for ALM tables	<input type="checkbox"/>
EPMINFO_Account_Dimension_SCD	Account Dim Batch	<input type="checkbox"/>
EPMINFO_Account_Value_Forecast_Model	Account Value Forecast Model	<input type="checkbox"/>
EPMINFO_Account_Value_Forecast_RPA	Account Value Forecast Model	<input type="checkbox"/>
EPMINFO_BEHAVIOUR_ASSUMPTIONS	BEHAVIOUR_ASSUMPTIONS	<input type="checkbox"/>
EPMINFO_BROKEN_ACCOUNT_LOANS_FP	T2T For Broken Full and Partial Accounts Loans	<input type="checkbox"/>
EPMINFO_BROKEN_ACCOUNT_LOANS_R	T2T For Broken Restructured Accounts Loans	<input type="checkbox"/>
EPMINFO_BROKEN_ACCOUNT_TD_FP	T2T For Broken Restructured Accounts Term Deposits	<input type="checkbox"/>
EPMINFO_BROKEN_ACCOUNT_TD_R	T2T For Broken Full and Partial Accounts Term Deposits	<input type="checkbox"/>
EPMINFO_CAMPAIN	Data Quality batch for CAMPAIGN tables	<input type="checkbox"/>
EPMINFO_CASH_FLOW_LOADER	Cash Flow Loader	<input type="checkbox"/>
EPMINFO_COLLATERAL	Data Quality batch for Collateral tables	<input type="checkbox"/>
EPMINFO_COLLECTION_AND_RECOVERY	Data Quality batch for Collection and Recovery tables	<input type="checkbox"/>
EPMINFO_CONTROL_ACCESS	Load Visibility Table FSI_USR_CTRL_ACCESS	<input type="checkbox"/>
EPMINFO_CRM	Data Quality batch for CRM tables	<input type="checkbox"/>
EPMINFO_CUSTOMER	Data Quality batch for Customer tables	<input type="checkbox"/>
EPMINFO_Channel_SCD	SCD for DIM_CHANNEL	<input type="checkbox"/>

## Saving Post- Load Change Transformations

After creating users, Login to Infrastructure as any user who is mapped to PFT Admin or PFT Analyst group. Navigate to **Data Management Framework >> Post Load Changes**.



A New window will be displayed. Click on Each Transformation from Transformations List & Click on Stored Procedure in the Right Panel, Click on Edit in the Top Right Menu and Click on Finish Button in Bottom.



**Note:** All the Transformation Stored Procedures are required to be edited and saved (Finish Button) once for getting it is available.