# Oracle Insurance Data Foundation Application Pack – Java 7 and Java 8

## Installation Guide

Release 8.0.5.0.0

ORACLE®
Financial Services

### Introduction

This document includes the necessary instructions to apply 8.0.5.0.0 Minor Release for Oracle Insurance Data Foundation (OIDF) Application Pack and perform the required post install configurations. You can find the latest copy of this document in OHC Documentation Library.

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# Preface

This Preface provides supporting information for the Oracle Insurance Data Foundation Applications Pack Installation Guide and includes the following topics:

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

## Summary

You can find the latest copy of this document in OHC Document 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 Insurance Data Foundation (OIDF) Application 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.

## Prerequisites for the Audience

These are the expected preparations for administrators before starting the installation:

The document assumes you have experience in installing Enterprise components. Basic knowledge about the Oracle Financial Services Advanced Analytical Applications Infrastructure Applications Pack components, OFSAA Architecture, UNIX commands, Database concepts and Web Server/ Web Application Server is recommended.

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

### Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

## Related Documents

This section identifies additional documents related to OIDF. You can access Oracle documentation online from Documentation Library for OIDF (OHC).

- Oracle Insurance Data Foundation User Guide
- *Oracle Financial Services Analytical Applications Infrastructure User Guide (OHC)*
- Oracle Financial Services Analytical Applications Infrastructure Environment Check Utility Guide (OHC)

## 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 |

| Conventions | Description |
|---|---|
| LDAP | Lightweight Directory Access Protocol |
| LHS | Left Hand Side |
| MOS | My Oracle Support |
| OFSAAI | Oracle Financial Services Analytical Application Infrastructure |
| OHC | Oracle Help Center |
| OLAP | On-Line Analytical Processing |
| OS | Operating System |
| RAM | Random Access Memory |
| RDMS | Relational Database Management System |
| SFTP | Secure File Transfer Protocol |
| SID | System Identifier |
| SSL | Secure Sockets Layer |
| TNS | Transparent Network Substrate |
| URL | Uniform Resource Locator |
| VM | Virtual Machine |
| Web Archive | WAR |
| XML | Extensible Markup Language |

# 1 About OFSAA and OFSAA Application Packs

This chapter includes the following topics:



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

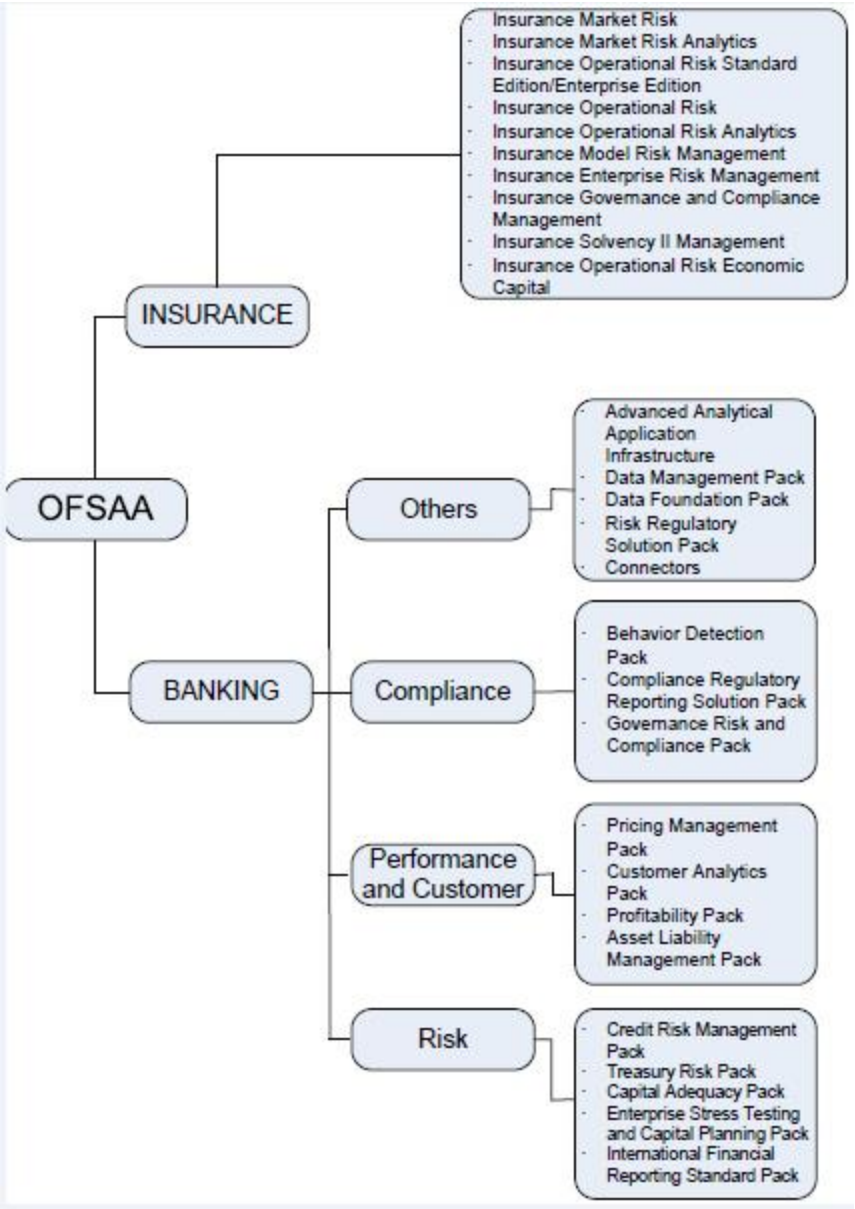
In today's turbulent markets, financial institutions require a better understanding of their risk-return, while strengthening competitive advantage and enhancing long-term customer value. Oracle Financial Services Analytical Applications enable financial institutions to measure and meet risk adjusted 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.

## 1.2 About OFSAA Applications Pack

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




## 1.3 About OIDF Applications Pack

The Oracle Insurance Data Foundation (OIDF) is an analytical data warehouse platform for the Financial Services industry. OIDF combines an industry data model for Financial Services along with a set of management and infrastructure tools that allows Financial Services Institutions to develop, deploy, and operate analytical solutions spanning key functional areas in Financial Services, including:

1. Health Insurance

2. Property Casualty
3. Life Insurance

OIDF is a comprehensive data management platform that helps institutions to manage the analytical data life cycle from sourcing to reporting as a consistent platform and toolset.

The application pack includes a logical data model, physical data model and supporting scripts.

**NOTE:** The schema/ domain for OIDF are referred to as OIDF.

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

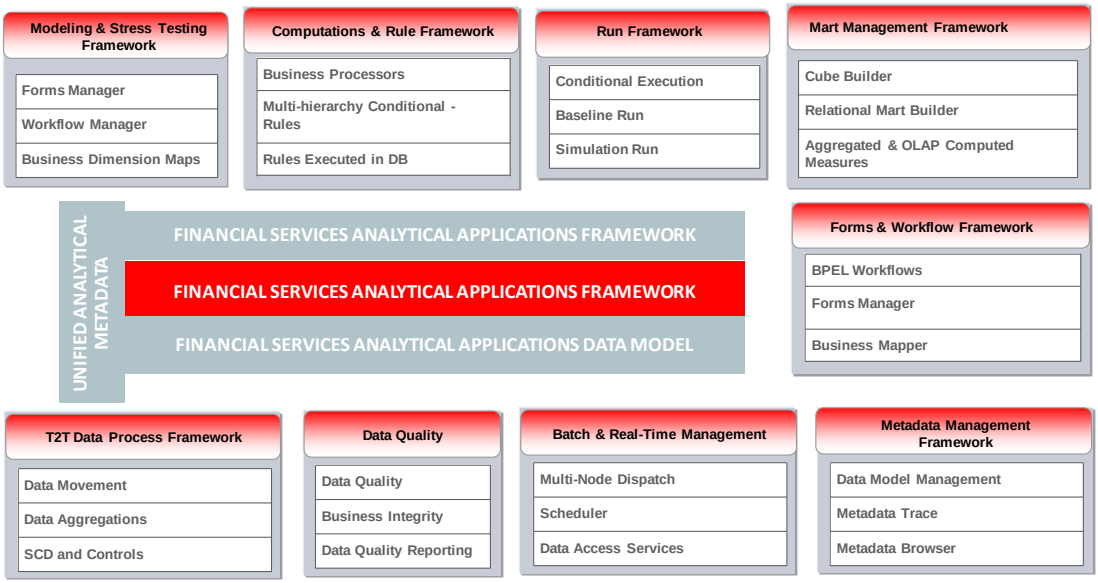
Oracle Financial Services Analytical Applications Infrastructure (OFS AAI) powers the Oracle Financial Services Analytical Applications family of products to perform the processing, categorizing, selection and manipulation of data and information needed to analyze, understand and report on specific performance,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

### 1.4.1 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:




## 1.5 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, refer Configuration for High Availability- Best Practices Guide.

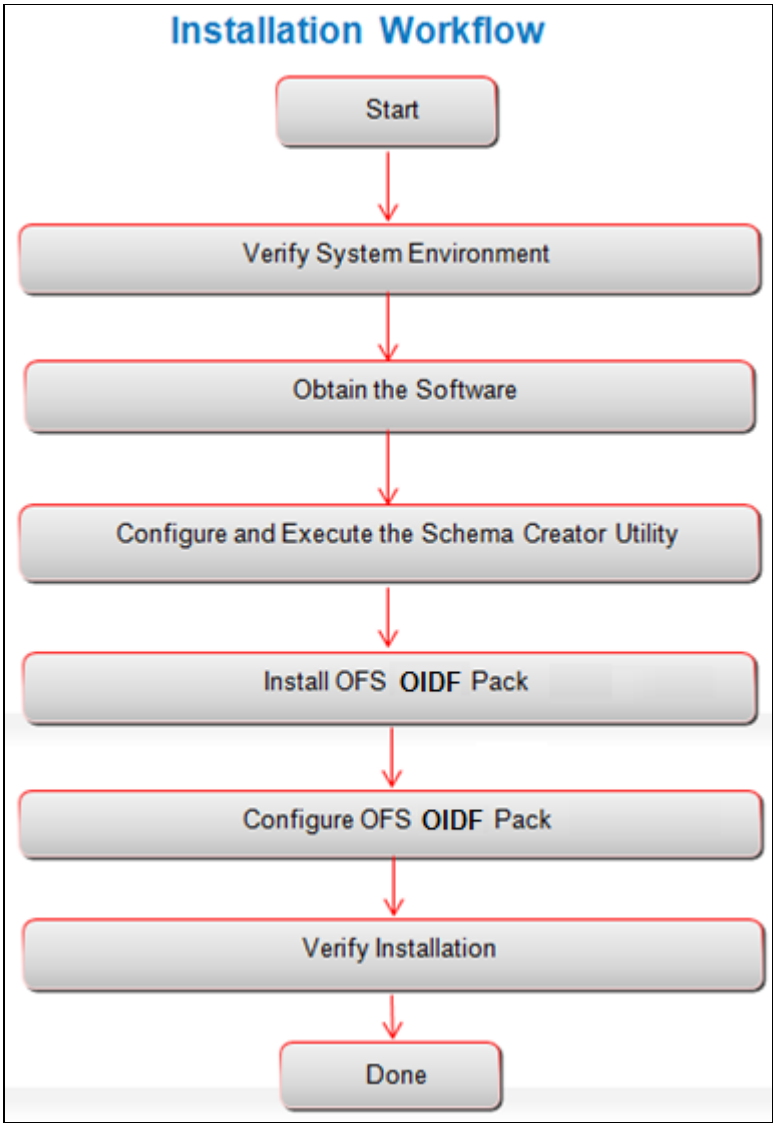
# 2 Understanding OIDF Applications Pack Installation

This chapter includes the following topics:



## 2.1 Installation Overview

This release (8.0.5.0.0) of the OIDF Application Pack bundles the upgrade patch set along with the base installer. Users/Administrators who wish to install a new OIDF Application Pack 8.0.5.0.0 instance or upgrade an existing OIDF Application Pack 8.0.x instance to 8.0.5.0.0 should download this installer. The following figure depicts the order of procedures required to follow to install a new OIDF Pack 8.0.5.0.0 instance. To upgrade an existing OIDF Application Pack 8.0.x.x.x instance to 8.0.5.0.0 release, refer to Upgrading the OIDF Application Pack chapter. The following figure shows the order of procedures to install.



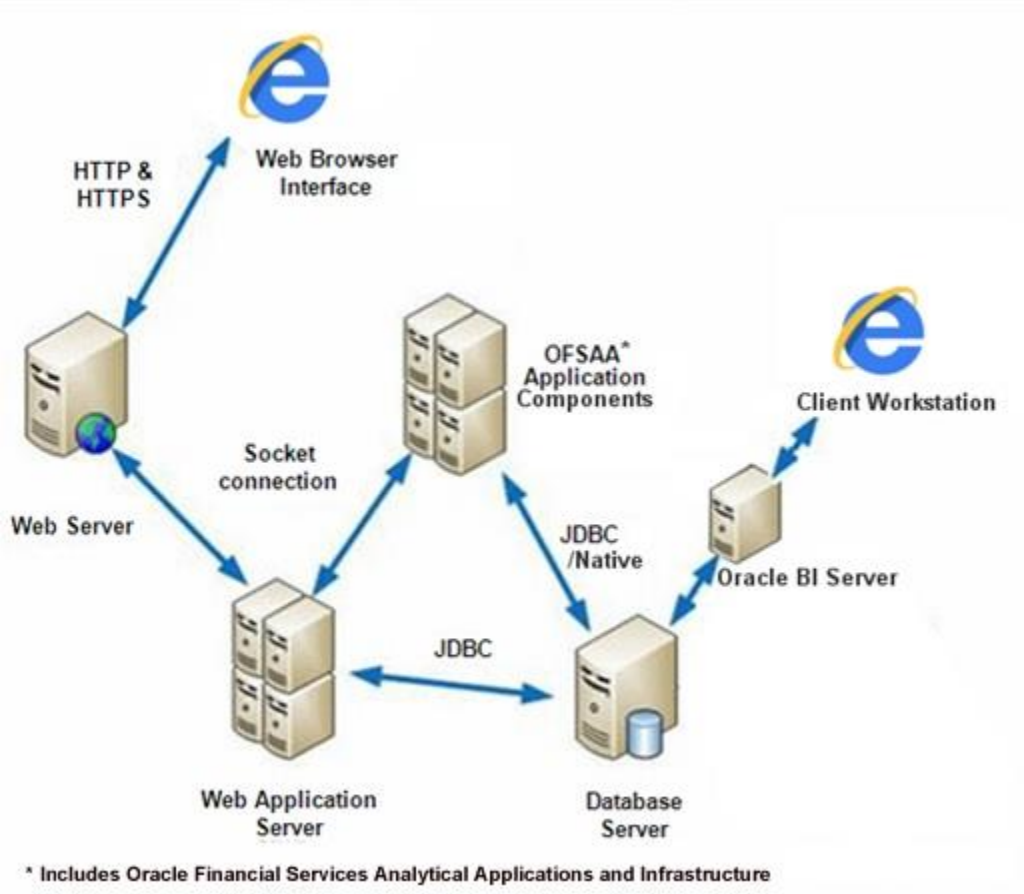

The below table provides additional information and links to specific documentation for each task in the flowchart

| Tasks | Details and Documentation |
|---|---|
| Verify Systems Environment | To verify that your system meets the minimum necessary requirements for installing and hosting the OIDF Applications Pack, see "Hardware and Software Requirements Specifications" and "Verifying the System Environment" |
| Obtain the software | See "Obtaining the software". |

| | |
|---|---|
| Configure and Execute the Schema Creator Utility | See “Configuring and Executing the Schema Creator Utility". |
| Install OIDF Pack | See “Installing the OIDF Pack Installer". |
| Configure OIDF Pack | See “Post Installation Configuration". |
| Verify Installation | See "Verifying the Installation". |
| Upgrade Installation | See “Upgrading the OIDF Application Pack” |

## 2.2 Deployment Topology

The deployment architecture depicts the mapping of a logical architecture to a physical environment. The physical environment includes the computing nodes in an intranet or Internet environment, CPUs, memory, storage devices, and other hardware and network devices.



## 2.3 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 OIDF Pack has been qualified.

**NOTE:** OIDF Applications Pack installation can be performed on both Virtual and Physical servers.

### 2.3.1 Configurations Supported for Java 7

The following table shows the minimum hardware and software requirements for installing Oracle Insurance Data Foundation Application Pack (Java 7) on each machine.

| Requirement | Sub-Category | Value |
|---|---|---|
| Operating System | Oracle Linux / Red Hat Enterprise Linux (x86-64 bit) | • Red Hat Enterprise Linux or Oracle Linux Server release 6 Update 6 and above<br>• Red Hat Enterprise Linux or Oracle Linux Server release 7 Update 1 and above |
| | Oracle Solaris (SPARC) / Solaris x86-64 bit | • Solaris 10 – Install the required OS patches. For more information, see Installing the Required Oracle Solaris 10 Patches. Additionally, install the required runtime libraries. For more information, see Installing Only the Runtime Libraries on Oracle Solaris 10.<br>• Solaris 11 – Upgrade to Oracle Solaris 11.3 with SRU09 or higher. See https://docs.oracle.com/cd/E60778_01/html/E60743/gouaw.html#scrolltoc to upgrade to SRU09 if you have a lower SRU version. Additionally, install the required runtime libraries. For more information, see Installing Only the Runtime Libraries on Oracle Solaris 11. |
| | IBM AIX (PowerPC) | • AIX 6.1 (TL 09 and above) - 64 bit<br>• AIX 7.1 (TL 03 and above) - 64 bit |
| | Shell | KORN Shell (KSH) |
| **Note**:<br>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: | | |

<table>
<tr><th>Requirement</th><th>Sub-Category</th><th>Value</th></tr>
<tr><td colspan="3"><ul><li>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.</li><li>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 refer IBM Support.<br>If the operating system is RHEL, install the package <code>lsb_release</code> using one of the following commands by logging in as <code>root</code> user:<ul><li>yum install redhat-lsb-core</li><li>yum install redhat-lsb</li></ul></li></ul></td></tr>
<tr><td rowspan="2">Java Runtime Environment</td><td>Oracle Linux / Red Hat Enterprise Linux Oracle Solaris</td><td><ul><li>Oracle Java Runtime Environment (JRE) 1.7.x - 64 bit</li><li>Oracle Java Runtime Environment (JRE) 1.8.x - 64 bit</li></ul></td></tr>
<tr><td>IBM AIX</td><td><ul><li>IBM AIX Runtime, Java Technology JRE 1.7.x - 64 bit</li><li>IBM AIX Runtime, Java Technology JRE 1.8.x - 64 bit</li></ul></td></tr>
<tr><td rowspan="2">Oracle Database Server and Client</td><td colspan="2"><ul><li>Oracle Database Server Enterprise Edition 11g Release 2 (11.2.0.3.0 +) - 64 bit RAC/ Non-RAC with/ without partitioning option</li><li>Oracle Database Server Enterprise Edition 12c Release 1 (12.1.0.1.0 +)- 64 bit RAC/ Non-RAC with/ without partitioning option</li><li>Oracle Database Server 12c Release 2 (12.2.0.1+) Enterprise Edition</li><li>Oracle Client 12c Release 1 (12.1.0.1.0+) - 64 bit</li><li>Oracle 11g Release 2 (11.2.0.3+) JDBC driver (Oracle thin driver)</li><li>Oracle 12C Release 1 (12.1.0.1+) JDBC driver (Oracle thin driver)</li><li>Oracle Distribution of R version 3.1.1 (Optional)</li><li>Oracle R Enterprise (Server) version 1.4.1 (Optional)</li><li>Oracle R Enterprise 1.4.1 requires Oracle Database Enterprise Edition 11.2.0.3/1.2.0.4/12.1.0.1</li></ul></td></tr>
<tr><td colspan="2">Note:<br>Ensure that the following patches are applied:<br>Oracle Server 12c, v12.1.0.1 – 17082699<br>Oracle Server 12c, v12.1.0.2 – 20698050<br>Also for latest information, refer http://support.oracle.com/, 12.1.0.2 Bundle Patches for Engineered Systems and DB In-Memory - List of Fixes in each Bundle (Doc ID 1937782.1)</td></tr>
</table>

| Requirement | Sub-Category | Value |
|---|---|---|
| OLAP | Oracle Hyperion Essbase | • V 11.1.2.1+ (Server and Client) with Oracle 11g Database<br>• V 11.1.2.3+ (Server and Client) with Oracle 12c Database |
| | Oracle OLAP | • V 11.2.0.3+ with Oracle 11g Database<br>• V 12.1.0.1+ with Oracle 12c Database |
| | **Note**:<br>Oracle Hyperion Essbase & 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. | |
| Web Server/ Web Application Server | Oracle Linux / Red Hat Enterprise Linux/ IBM AIX<br><br>Oracle Solaris | Oracle HTTP Server 11.1.1.7.1 or 11.1.1.9+ /<br>Apache HTTP Server 2.2.x/ IBM HTTP Server 8.5.5<br>• IBM WebSphere Application Server WebSphere 8.5.5.9+ (64 bit)<br>• Oracle WebLogic Server 12.1.3+ with jersey 1.18 (64 bit) /<br>Oracle WebLogic Server 12.2.x with jersey 2.25 (64 bit)<br>• Apache Tomcat 8.0.25+ (64 bit)<br>**Note**:<br>IBM WebSphere 8.5.x (Full Profile) on Java 8 is not available. |
| | **Note**:<br>OFSAA Infrastructure web component deployment on Oracle WebLogic Server with Oracle JRockit is not supported. | |
| Desktop Requirements | Operating System | MS Windows 7 / Windows 10 |
| | Browser | • MS Internet Explorer 11.x (Compatibility Mode)<br>Oracle Java plug-in 1.7.0+* (64-bit) / Oracle Java plug-in 1.8.0+ (64-bit)<br>Turn off Pop-up blocker settings. For more information, refer Internet Explorer Settings.<br>• Google Chrome 57.x<br>• Mozilla Firefox 52.x<br>For Chrome and Firefox, Turn off Pop-up blocker settings by choosing "Always allow pop-ups for <URL>" |
| | Office Tools | MS Office 2007/ 2010/ 2013/ 2016<br>Adobe Acrobat Reader 10 or above |

| Requirement | Sub-Category | Value |
|---|---|---|
| | 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. |
| | **Note**:<br>• Configuration of Directory services software for OFSAAI installation is optional. For more information on configuration, see Infrastructure LDAP Configuration.<br>• Open LDAP needs to be installed on MS Windows Server machine. | |

* This indicates the latest version available at the time of the release. Any latest updates may be applied.

### 2.3.2 Configurations Supported for Java 8

The following table shows the minimum hardware and software requirements for installing Oracle Insurance Data Foundation Application Pack (Java 8) on each machine.

| Requirement | Sub-Category | Value |
|---|---|---|
| Operating System | Oracle Linux / Red Hat Enterprise Linux (x86-64 bit) | • Red Hat Enterprise Linux or Oracle Linux Server release 6 Update 6 and above<br>• Red Hat Enterprise Linux or Oracle Linux Server release 7 Update 1 and above |
| | Oracle Solaris (SPARC) / Solaris x86-64 bit | • Solaris 10 – Install the required OS patches. For more information, see Installing the Required Oracle Solaris 10 Patches. Additionally, install the required runtime libraries. For more information, see Installing Only the Runtime Libraries on Oracle Solaris 10.<br>• Solaris 11 – Upgrade to Oracle Solaris 11.3 with SRU09 or higher. See https://docs.oracle.com/cd/E60778_01/html/E60743/gouaw.html#scrolltoc to upgrade to SRU09 if you have a lower SRU version. Additionally, install the required runtime libraries. For more information, see Installing Only the Runtime Libraries on Oracle Solaris 11. |

<table>
<tr><th>Requirement</th><th>Sub-Category</th><th>Value</th></tr>
<tr><td rowspan="2"></td><td>IBM AIX (POWERPC)</td><td>• AIX 6.1 (TL 09 and above) - 64 bit<br>• AIX 7.1 (TL 03 and above) - 64 bit</td></tr>
<tr><td>Shell</td><td>KORN Shell (KSH)</td></tr>
<tr><td colspan="3">Note:<br>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:<br>• 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.<br>• 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 refer IBM Support.<br>If the operating system is RHEL, install the package <code>lsb_release</code> using one of the following commands by logging in as <code>root</code> user:<br>o yum install redhat-lsb-core<br>o yum install redhat-lsb</td></tr>
<tr><td rowspan="2">Java Runtime Environment</td><td>Oracle Linux / Red Hat Enterprise Linux Oracle Solaris</td><td>Oracle Java Runtime Environment (JRE) 1.8.x - 64 bit</td></tr>
<tr><td>IBM AIX</td><td>IBM AIX Runtime, Java Technology JRE 1.8.x - 64 bit</td></tr>
<tr><td>Oracle Database Server and Client</td><td colspan="2">• Oracle Database Server Enterprise Edition 11g Release 2 (11.2.0.3.0 +) - 64 bit RAC/ Non-RAC with/ without partitioning option<br>• Oracle Database Server Enterprise Edition 12c Release 1 (12.1.0.1.0 +)- 64 bit RAC/ Non-RAC with/ without partitioning option<br>• Oracle Database Server 12c Release 2 (12.2.0.1+) Enterprise Edition<br>• Oracle Client 12c Release 1 (12.1.0.1.0+) - 64 bit<br>• Oracle 11g Release 2 (11.2.0.3+) JDBC driver (Oracle thin driver)<br>• Oracle 12C Release 1 (12.1.0.1+) JDBC driver (Oracle thin driver)<br>• Oracle Distribution of R version 3.1.1 (Optional)<br>• Oracle R Enterprise (Server) version 1.4.1 (Optional)<br>• Oracle R Enterprise 1.4.1 requires Oracle Database Enterprise Edition 11.2.0.3/1.2.0.4/12.1.0.1</td></tr>
</table>

| Requirement | Sub-Category | Value |
|---|---|---|
| | **Note**:<br>Ensure that the following patches are applied:<br>Oracle Server 12c, v12.1.0.1 – 17082699<br>Oracle Server 12c, v12.1.0.2 – 20698050<br>Also for latest information, refer http://support.oracle.com/, 12.1.0.2 Bundle Patches for Engineered Systems and DB In-Memory - List of Fixes in each Bundle (Doc ID 1937782.1) | |
| OLAP | Oracle Hyperion Essbase | • V 11.1.2.1+ (Server and Client) with Oracle 11g Database<br>• V 11.1.2.3+ (Server and Client) with Oracle 12c Database |
| | Oracle OLAP | • V 11.2.0.3+ with Oracle 11g Database<br>• V 12.1.0.1+ with Oracle 12c Database |
| | **Note**:<br>Oracle Hyperion Essbase & 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. | |
| Web Server/ Web Application Server | Oracle Linux / Red Hat Enterprise Linux/ IBM AIX<br>Oracle Solaris | Oracle HTTP Server 11.1.1.7.1 or 11.1.1.9+ /<br>Apache HTTP Server 2.2.x/ IBM HTTP Server 8.5.5<br>• IBM WebSphere Application Server WebSphere 8.5.5.9+<br>• Oracle Weblogic Server 12.1.3+ with jersey 1.18 (64 bit)/Oracle Weblogic Server 12.2.x with jersey 2.25 (64 bit)<br>• Apache Tomcat 8.0.25+ (64 bit)<br>**Note**:<br>IBM WebSphere 8.5.x (Full Profile) on Java 8 is not available. |
| | **Note**:<br>OFSAA Infrastructure web component deployment on Oracle WebLogic Server with Oracle JRockit is not supported.<br>For deployment on Oracle WebLogic Server 12.1.3+ (64 bit) with Java 8, download and install patch 18729264 from http://support.oracle.com/ | |
| Desktop Requirements | Operating System | MS Windows 7/ Windows 10 |
| | Browser | • MS Internet Explorer 11.x (Compatibility Mode)<br>Oracle Java plug-in 1.7.0+* (64-bit) / Oracle Java plug-in 1.8.0+ (64-bit) |

| Requirement | Sub-Category | Value |
|---|---|---|
| | | Turn off Pop-up blocker settings. For more information, refer Internet Explorer Settings.<br>• Google Chrome 57.x<br>• Mozilla Firefox 52.x<br>For Chrome and Firefox, Turn off Pop-up blocker settings by choosing "Always allow pop-ups for <URL>" |
| | Office Tools | MS Office 2007/ 2010/ 2013/ 2016<br>Adobe Acrobat Reader 10 or 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. |
| | **Note**:<br>• Configuration of Directory services software for OFSAAI installation is optional. For more information on configuration, see Infrastructure LDAP Configuration.<br>• 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 Appendix P.

The following table shows the minimum software requirements for running OIDF Applications Pack on each machine.

**Table 1: Recommended software Combinations**

| Operating System | Database | Web Application Server | Web Server |
|---|---|---|---|
| Oracle Linux 6.6 / 7.1 | Oracle Database | Oracle WebLogic Server / Apache Tomcat Server | Oracle HTTP Server / Apache HTTP Server |
| Oracle Solaris 5.10 / 5.11 | Oracle Database | Oracle WebLogic Server / Apache Tomcat Server | Oracle HTTP Server / Apache HTTP Server |
| IBM AIX 6.1 / 7.1 | Oracle Database | IBM WebSphere Application Server / Apache Tomcat Server | IBM HTTP Server / Apache HTTP Server |

## 2.4 Verifying the System Environment

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

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

**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.

## 2.5 Understanding Installation Modes

You can install OIDF Applications Pack in Graphical User Interface (GUI) Mode. This mode launches the product installation in a GUI mode. Users need to enter the required information on various panels within the UI. For more information on configuration required for GUI mode installation, see Configuration for GUI Mode Installation.

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

# 3 Preparing for Installation

This chapter provides necessary information to review before installing the OIDF Applications Pack v8.0.5.0.0. This chapter includes the following topics:

- Installer and Installation Prerequisites
- Obtaining the Software
- Common Installation Activities

**NOTE:** If you are installing an application pack on an environment, where another application pack is already installed, you may sometimes get a warning message such as "*Object Already Exists*". This message can be ignored.

## 3.1 Installer and Installation Prerequisites

Following table mentions the list of prerequisites required before beginning the installation for OIDF application. The Installer/ Environment Check utility notifies you if any requirements are not met.

**Table 2: Installer and Installation Prerequisites**

| Requirement | Sub-Category | Expected Value |
|---|---|---|
| Environment Settings | Java Settings | PATH variable in `.profile` file must be set to include the Java Runtime Environment absolute path. The path should include java version (Java 7, or Java 8) based on the configuration.<br>**Note**:<br>▪ Ensure that the absolute path to JRE/bin is set at the beginning of PATH variable.<br>For example,<br>`PATH=/usr/java/jre1.7/bin:$ORACLE_HOME/bin:$PATH`<br>▪ JAVA_HOME variable must be set in .profile file, pointing to the appropriate Java Runtime Environment Path.<br>For example, export<br>`JAVA_HOME=/usr/jdk/instances/jdk1.6.0`<br>▪ Ensure that SYMBOLIC links to JAVA installation are not set in the PATH variable.<br>▪ Ensure that you set the Heap Size in .profile file, using following command:<br>`export _JAVA_OPTIONS="-Xms512m -Xmx1024m"`<br>Heap size is a validation to get the memory size for Model Upload. If the Heap size is less than the ten times as of the Model, then it returns an error. |

| Requirement | Sub-Category | Expected Value |
|---|---|---|
| | Oracle Database Settings | ▪ TNS_ADMIN variable must be set in .profile file pointing to appropriate `tnsnames.ora` file.<br>▪ ORACLE_HOME variable must be set in `.profile` file pointing to appropriate Oracle Client installation.<br>▪ PATH variable in .profile file must be set to include appropriate `$ORACLE_HOME/bin path`<br>▪ Ensure that an entry (with SID/ SERVICE NAME) is added in the `tnsnames.ora` file on the OFSAA server. |
| | Oracle Essbase Settings | ARBORPATH, ESSBASEPATH, HYPERION_HOME to be set in the `.profile` file pointing to an appropriate Oracle Essbase Client installation.<br>**Note**: These settings are required only if you want to use Oracle Hyperion Essbase OLAP features. |
| OS/ File System Settings | File Descriptor Settings | Greater than 15000<br>**Note**: The value specified here is the minimum value to be set for the Installation process to go forward. For other modules, this value may depend on the available resources and the number of processes executed in parallel. |
| | Total Number of Process Settings | Greater than 4096<br>**Note**: The value specified here is the minimum value to be set for the Installation process to go forward. For other modules, this value may depend on the available resources and the number of processes executed in parallel. |
| | 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 installation files will be installed.<br>▪ Assign 755 permission on this directory.<br>▪ This directory needs to be set as FIC_HOME. |
| | Staging Area/ Metadata Repository Directory | ▪ A directory to hold the application metadata artifacts and additionally act as staging area for flat files.<br>▪ 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.<br>▪ Assign 775 permission on this directory. |
| | Download Directory | ▪ A directory where the product installer files will be downloaded/ copied.<br>▪ Assign 755 permission on this directory. |

| Requirement | Sub-Category | Expected Value |
|---|---|---|
| | OS Locale | ▪ Linux: en_US.utf8<br>▪ AIX: EN_US.UTF-8<br>▪ Solaris: en_US.UTF-8<br>To check the locale installed, execute the following command:<br>`locale -a \| grep -i 'en_US.utf'` |
| Database Settings | Database Instance Settings | ▪ NLS_CHARACTERSET to be AL32UTF8<br>▪ NLS_LENGTH_SEMANTICS to be BYTE<br>▪ OPEN CURSORS limit to be greater than 1000 |
| Web Application Server | WebSphere/ WebLogic/ Tomcat | ▪ Web Application Server should be installed and profile / domain created.<br>▪ You will be prompted to enter the WebSphere Profile path or WebLogic Domain path or Tomcat Deployment path during OFSAAI installation.<br>**Note**:<br>▪ Refer Appendix A for WebSphere Profile Creation and WebLogic Domain Creation.<br>▪ For deployment on Oracle WebLogic Server 12.1.3+ (64 bit) with Java 8, download and install patch **18729264** from http://support.oracle.com/ |
| Web Server | Apache HTTP Server/ Oracle HTTP Server/ IBM HTTP Server | This is an optional requirement.<br>HTTP Server Installation to be present.<br>You will be required to enter the Web Server IP/ Hostname and Port details during installation.<br>**Note**: See Appendix A for Web Server installation. |
| Others | Oracle R/ Oracle R Enterprise | This is an optional requirement.<br>See section Installing Oracle R distribution and Oracle R Enterprise (ORE) for more details. |
| | OFSAA | Download the one-off patch **22755805** from https://support.oracle.com/ if the setup has OFSAA Application Pack version below 8.0.5.0.0.<br>Download the one-off patch **26589735** from https://support.oracle.com/ if the setup has OFSAA Application Pack version 8.0.5.0.0. |

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

## 3.2 Obtaining the Software

This release of OIDF Applications Pack 8.0.5.0.0 can be downloaded My Oracle Support.

See the following instructions to download this release of OFS OIDF Application Pack. You need to have a valid Oracle account in order to download the software:

- Login to https://support.oracle.com/ and search for **26583733** under the Patches & Updates tab.
- Download the OIDF 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.

## 3.3 Common Installation Tasks

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

This section includes the following topics:



### 3.3.1 Identifying the Installation, Download and Metadata Directories

To install OIDF Application Pack, create the following directories:

- **OIDF Download Directory** (Optional): Create a download directory and copy the OIDF Application Pack Installer File (Archive). This is the directory where the downloaded installer/ patches can be copied.
- **OFSAA Installation Directory** (Mandatory): Create an installation directory. This is the directory where the installer would install/ copy the product files. FIC_HOME variable to be set in the `.profile` pointing to this OFSAA Installation Directory.
- **OFSAA Staging/ Metadata Repository Directory** (Mandatory): Create a Staging/ Metadata Repository Directory. This is the directory where you would be required to copy data loading files, save data extracts etc. Additionally, this folder also maintains the OFSAA metadata artifacts. This is commonly referred as “FTPSHARE”.

**NOTE:** Ensure the user permission is set to 755 on the Installation directory.
Ensure the user permission is set to 775 on the Staging directory.

Ensure the OFSAA Staging directory is not set to the same path as the OFSAA Installation directory and is not a sub-folder inside the OFSAA Installation directory.

### 3.3.2 Configuration for GUI Mode Installation

To install this product in GUI mode, you need to ensure the below software and configurations are available:

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

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

  **Syntax**:

  ```
  export DISPLAY = hostname:n
  ```

  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` or `myhostname:0`

### 3.3.3 Downloading and Copying the Software

To download can copy the OIDF Application Pack Installer, follow these steps:

- To download the OIDF Application Pack, login to https://support.oracle.com/ and search for **26583733** under the Patches & Updates tab.
- Download or copy the installer archive into the Download directory (in Binary mode) in the setup identified for OIDF installation.

### 3.3.4 Extracting the Software

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

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

3. Assign 751 permission to the file using the command:

   `chmod 751 unzip_<os>`

   For example, `chmod 751 unzip_sparc`

4. Extract the contents of the OIDF Application Pack 8.0.5.0.0 to Download Directory with the following command:

   `unzip OFS_OIDF_PACK.zip`

**NOTE:** Do not rename the Application Pack installer folder name on extraction from the archive.

5. Navigate to the Download Directory and Assign 755 permission to the installer folder with the following command:

   `chmod –R 755 OFS_OIDF_PACK`

### 3.3.5 Setting up the Web Application Server

For setting up the environment based on your selected Web Application Server, see Appendix A for more information.

# 4 Installing Oracle Insurance Data Foundation Applications Pack

Follow the instructions in this chapter to install the OIDF Applications Pack depending on the mode of installation.

This chapter includes the following topics:



## 4.1 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 needs to 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:

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

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

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

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

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

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

### 4.1.1 Execution Modes in Schema Creator Utility

The Schema Configuration Utility supports the following modes of execution:

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

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

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

  **NOTE:**

  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 refer, Executing the Schema Creator Utility in Offline Mode
  2. If there are any errors during the script execution, reconfigure the `<PACK>_SCHEMA_IN.XML` file and execute the utility. This regenerates the scripts with corrected information. For more information, refer Configuring OFS_OIDF_SCHEMA_IN.XML file
  3. Do not modify the `<PACK>_SCHEMA_OUT.XML` file generated after the execution of this utility.

### 4.1.2 Execution Options in Schema Creator Utility

Depending on the option selected to run the OIDF Applications Pack Installer, you need to select the schema creator utility execution option. If you try to run the OIDF Applications 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 OIDF Applications Pack Installer in GUI mode.

## 4.2 Configuring and Executing the Schema Creator Utility

Schema Creator Utility is used to create the schema in the database.

This section includes the following topics:

- Prerequisites
- Configuring the Schema Creator Utility
- Executing the Schema Creator Utility
- Verifying the Log File

### 4.2.1 Prerequisites

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

- Oracle User ID/ Password with SYSDBA privileges.
- JDBC Connection URL for RAC/ Non RAC database.
- HOSTNAME/IP of the server on which OFSAA is getting installed.

### 4.2.2 Configuring the Schema Creator Utility

This section explains the steps to configure and run 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_OIDF_PACK/schema_creator/conf`
3. Edit the `OFS_OIDF_SCHEMA_IN.xml` file in a text editor.
4. Configure the elements as described in the table Configuring OFS_OIDF _SCHEMA_IN.XML file in Appendix K.
5. Save the `OFS_OIDF_SCHEMA_IN.xml` file.
6. Navigate to BIN folder, provide execute permissions to file `osc.sh` and run the schema creator utility.

**NOTE:** On successful execution of the utility, the entered passwords in the `OFS_OIDF_SCHEMA_IN.xml` file are nullified.

### 4.2.3 Executing the Schema Creator Utility

This section includes the following topics:

- Executing the Schema Creator Utility in Online Mode
- Executing the Schema Creator Utility in Offline Mode

- Executing the Schema Creator Utility with –s option
- Executing the Schema Creator Utility while Installing Subsequent Application Pack
- Verifying the Log File

**NOTE:** If you intend to use Oracle OLAP feature, execute the below grant on all ATOMIC schema(s) `@ grant olap_user to &database_username`

#### 4.2.3.1 Executing the Schema Creator Utility in Online Mode

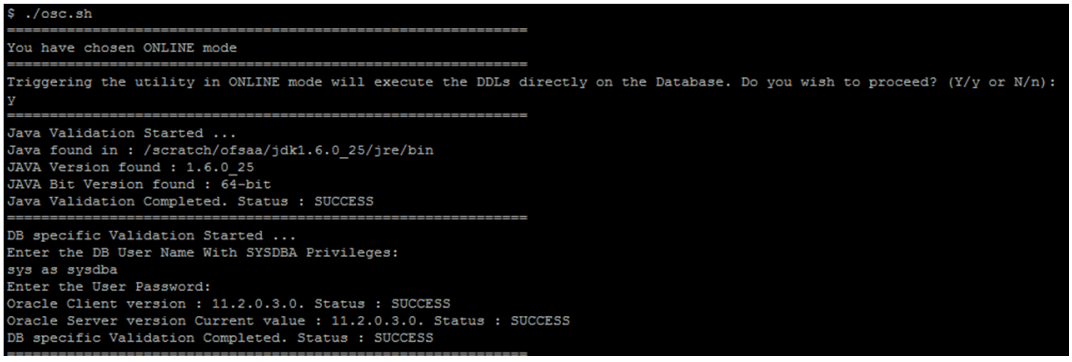
In Online Mode, the Schema Creator Utility will create all the Schemas, Schema Objects, Tablespaces, Grants, and Roles in the database during the execution process.

To execute the schema creator utility in Online Mode, follow these steps:

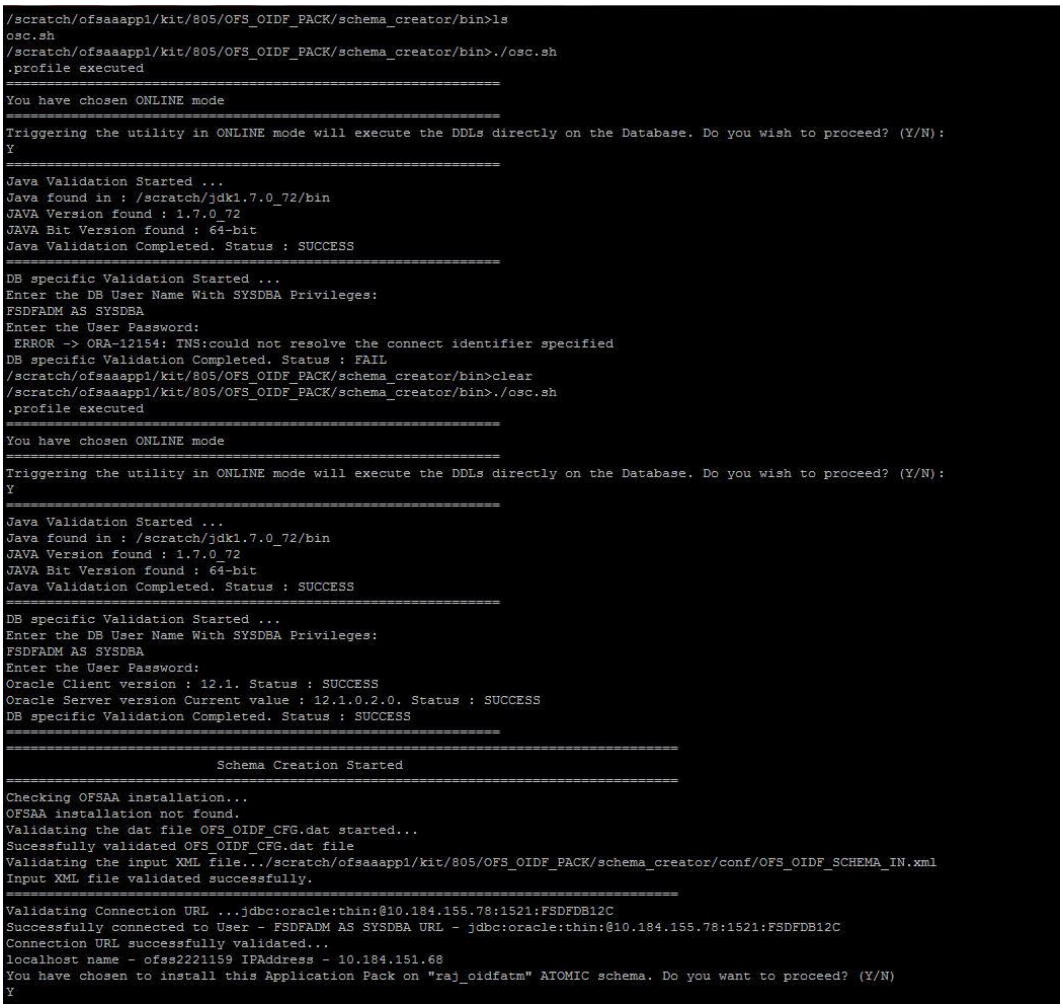
1. Log in to the system as non-root user.
2. Navigate to the following folder path: `OFS_OIDF_PACK/schema_creator/bin/`
3. Execute the following command.

   **./osc.sh**

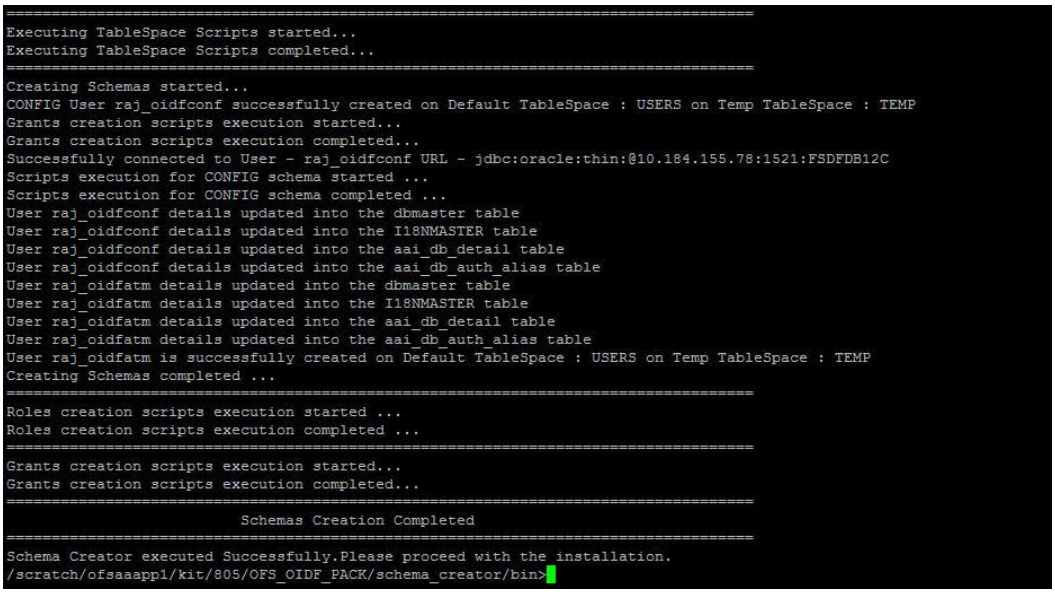
   The following message is displayed: *You have chosen ONLINE mode. Triggering the utility in ONLINE mode will execute the DDLs directly on the Database. Do you wish to proceed? (Y/y or N/n).*
4. Enter Y/y to proceed.
5. Enter the DB User Name with SYSDBA Privileges.
   For example: SYS as SYSDBA.
6. Enter the User Password.



7. 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 Infodom>. Do you want to proceed? (Y/N).




8. Enter Y/y to start the schema creation or enter N/n if you want to quit executing the schema creation.




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

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

**NOTE:** If schema creation is successful, the console displays the following status message: *Schema Creator executed successfully. Please proceed with the installation*. Subsequently, an `OFS_OIDF_SCHEMA_OUTPUT.xml` is generated under `OFS_OIDF_Pack>/schema_creator/`

Refer log file in `OFS_OIDF_PACK/schema_creator/logs` directory for execution status. In case of any errors, contact Oracle Support.

#### 4.2.3.2 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 into the database as any user with SYSDBA privileges. The SQL file will contain the scripts for creation of Schemas, Schema Objects, Tablespaces, Grants, and Roles.

**Prerequisites**

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

**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_OIDF_PACK/schema_creator/bin` directory.
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.

```
$ ls
osc.sh
$ ./osc.sh -o
============================================================
Java Validation Started ...
 Java found in : /scratch/ofsaa/jdk1.6.0_25/bin
 JAVA Version found : 1.6.0_25
 JAVA Bit Version found : 64-bit
 Java Validation Completed. Status : SUCCESS
============================================================
You have chosen OFFLINE mode.
Enter the DB User Name with SELECT privileges on following tables
1. DBA_ROLES
2. DBA_USERS
3. DBA_DIRECTORIES
4. DBA_TABLESPACES
sample
Enter the User Password:
================================================================================
                        Schemas Creation Started
================================================================================
OFSAAI installation status...
OFSAAI is not installed
validating the dat file OFS_AAAI_CFG.dat started...
Sucessfully validated OFS_AAAI_CFG.dat file
Validating the input XML file.../scratch/ofsaaapp/OFS_AAAI_PACK/schema_creator/conf/OFS_AAAI_SCHEMA_IN.xml
XSD validation completed successfully.
================================================================================
Prechecks Execution started on ...OFS_AAAI_SCHEMA_IN.xml
Validating Connection URL ...jdbc:oracle:thin:@ofss220623:1521:MEDIADB
Successfully connected to User - sample URL - jdbc:oracle:thin:@ofss220623:1521:MEDIADB
Connection URL successfully validated...
You have chosen to install this Application Pack on "dev_anurag_atm" ATOMIC schema. Do you want to proceed? (Y/N)
```

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 Infodom>. Do you want to proceed? (Y/N).*

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

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

```
================================================================================
                    Generating Schema Creation Scripts Started
================================================================================
Checking OFSAA installation...
Found OFSAA installation at /scratch/ofsaadb/OFSAAI
Validating the dat file OFS_AAAI_CFG.dat started...
Sucessfully validated OFS_AAAI_CFG.dat file
Parsing /scratch/ofsaadb/OFSAAI/conf/DynamicServices.xml
Successfully connected to User - dev_conf1 URL - jdbc:oracle:thin:@ofss220623:1521:MEDIADB
Validating the input XML file.../scratch/ofsaadb/OFS_AAAI_PACK/schema_creator/conf/OFS_AAAI_SCHEMA_IN.xml
Input XML file validated successfully.
================================================================================
Validating Connection URL ...jdbc:oracle:thin:@ofss220623:1521:MEDIADB
Successfully connected to User - sample URL - jdbc:oracle:thin:@ofss220623:1521:
MEDIADB
Connection URL successfully validated...
You have chosen to install this Application Pack on "uat_atm_anurag" ATOMIC sche
ma. Do you want to proceed? (Y/N)
y
You have chosen to install this Application Pack on INFODOM "ofsaaaiinfo1". Do y
ou want to proceed? (Y/N)
y
================================================================================
```

```
================================================================================
===
Generating TableSpace creation Scripts started...
Generating TableSpace creation Scripts completed...
================================================================================
===
Generating Schema creation scripts started...
CONFIG User uat_conf_anurag creation script generated successfully on Default Ta
bleSpace : USERS on Temp TableSpace : TEMP
Generation of grants creation scripts started...
Generation of grants creation scripts completed...
Scripts Generation for CONFIG schema started ...
Scripts Generation for CONFIG schema completed ...
User uat_conf_anurag details updated into the dbmaster table
User uat_atm_anurag details updated into the dbmaster table
User uat_atm_anurag creation script generated successfully on Default TableSpace
 : USERS on Temp TableSpace : TEMP
User uat_atm_anurag 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/ofsaaapp/OFS_AAAI_P
ACK/schema_creator/sysdba_output_scripts.sql before proceeding with the installa
tion.
```

**NOTE:** On successful execution of schema creator utility, the console displays the following status message:
*Schema Creator executed successfully. Please execute* `OFS_OIDF_Pack/schema_creator/sysdba_output_scripts.sql` file before proceeding with the installation.

10. Navigate to the directory: `OFS_OIDF_Pack/schema_creator`
11. Login to SQLPLUS with a user having SYSDBA Privileges.
12. Execute the `sysdba_output_scripts.sql` file under `OFS_OIDF_Pack/schema_creator` 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.

    The schema creator utility is executed successfully.

**NOTE:** Refer log `sysdba_output_scripts.log` file for execution status. In case of any errors, contact Oracle Support. This log would be empty if there are no errors in the execution.

#### 4.2.3.3 Executing the Schema Creator Utility with –s Option

If you want to run the OIDF Applications 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_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_IN.xml` file 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 not set. 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 OIDF Applications Pack Installer in GUI mode.
To execute the utility in OFFLINE mode with SILENT option, type /`osc.sh -o -s`

4. Make a TNS entry for the new users created. For details, see Adding TNS Entries in the TNSNAMES.ORA File section.

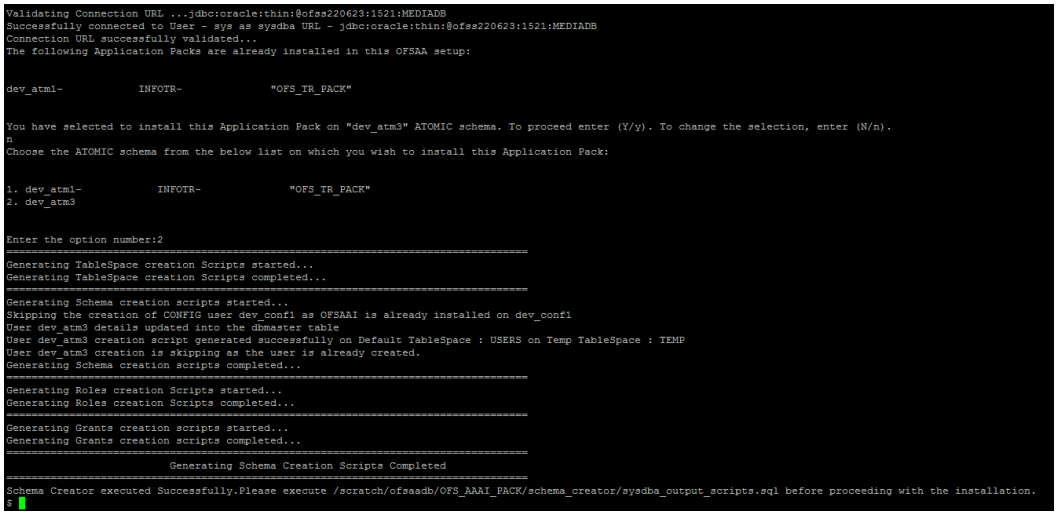
#### 4.2.3.4 Executing the Schema Creator Utility for Subsequent Application Pack

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.

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

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

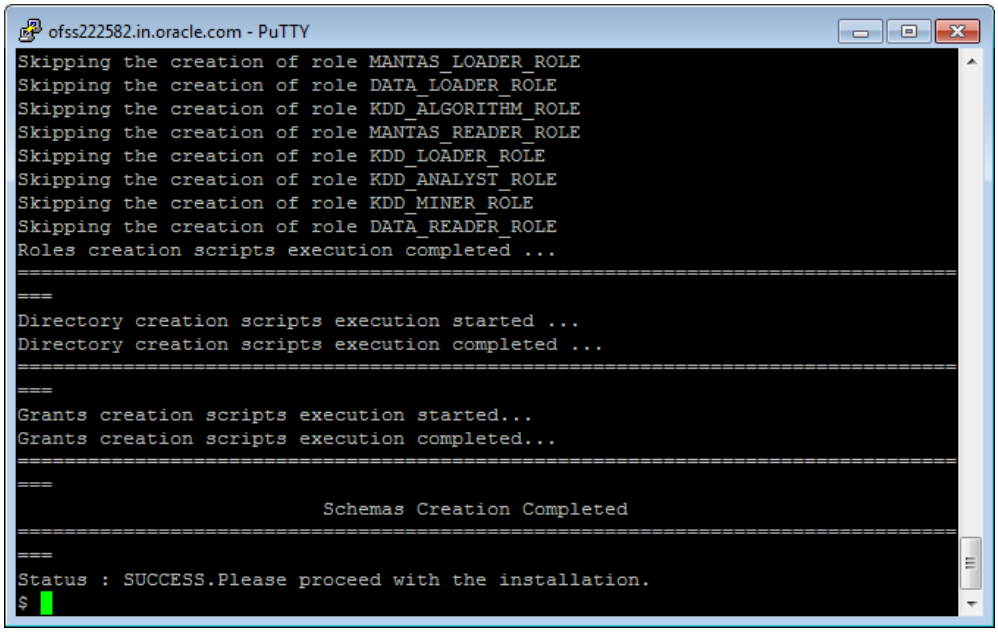
1. Navigate to the following folder path: `OFS_OIDF_Pack>/schema_creator/bin/`
2. Execute the `./osc.sh` file.
3. Enter the DB Username with SYSDBA Privileges.
4. Enter the User Password.
5. The console identifies the Application Packs that are already installed on the current OFSAA setup and then displays the following: You have selected to install this Application Pack on <> ATOMIC schema. To proceed enter (Y/y). To change the selection, enter (N/n). Do you want to proceed? (Y/N)
6. Enter Y/y to start the schema creation.
7. If you enter N/n, the list of Atomic Users is displayed.
8. You can select the Atomic User, on which you want to install the Application Pack.



9. Make a TNS entry for the new users created. For details, see Adding TNS Entries in the TNSNAMES.ORA File section.
10. If schema creation is successful, the console displays the following status message: Success. Please proceed with the installation.

**NOTE:** Refer log file in `OFS_OIDF_PACK/schema_creator/logs` folder for execution status.
Refer 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. In case of any errors, contact Oracle Support.

#### 4.2.3.5 Verifying the Log File




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

`<<OFSOIDF Installer folder>>/<<OFS_OIDF_PACK>>/schema_creator/logs/`

`<<OFS_OIDF>>_OSC_<timestamp>.log` for further details.

You may contact Oracle Support anytime for assistance.

## 4.3 Creating Database Directories for QMR Functionalities

For getting the QMR functionalities in OIDF Media Pack, we need to create two database directories using SYSDBA of Database which is pointing to a physical location inside the server where database is installed. The following are the two steps for creating these directories:

Creating Physical Directories in Server, Creating the directories in Database. The Grants to Access the Directories from Atomic Schema will be provided by Schema Creator Utility.

- Creating Physical Directories Login to the server Database Server where the Database has been installed as Oracle sudo user and create two physical directories namely qmr_extracts and qmr_upload.

  For example:

  qmr_upload Folder: /scratch/oracle/qmr_upload

  qmr_extracts Folder: /scratch/oracle/qmr_extracts

- Creating Directories from SYSDBA

  Login to Database as SYSDBA user and execute the following scripts.

  create or replace directory DIR_QMR_UPLOAD_FILES as'/scratch/oracle/qmr_upload';
  create or replace directory QMR_EXTRACTS as '/scratch/oracle/qmr_extracts';

  The location (for example: '/scratch/oracle/qmr_extracts') should be the physical location which the user has created during Physical Directories creation.

## 4.4 Installing the OIDF Applications Pack

OIDF Applications Pack installation supports two modes of installation:

- Installing in GUI Mode
- Installing in SILENT Mode

### 4.4.1 Installing in GUI Mode

**NOTE:** Ensure you have followed the steps as mentioned in the Configuration for GUI Mode Installation section prior to proceeding with the next steps.

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

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

3. Execute the user `.profile` file.
4. Navigate to `OFS_OIDF_PACK` directory.
5. Edit the `OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_IN.xml` file to set the appropriate attribute values.

**NOTE:** See Configuring OFS_OIDF_SCHEMA_IN.XML File for details on configuring this XML file.

6. Execute the schema creator utility.

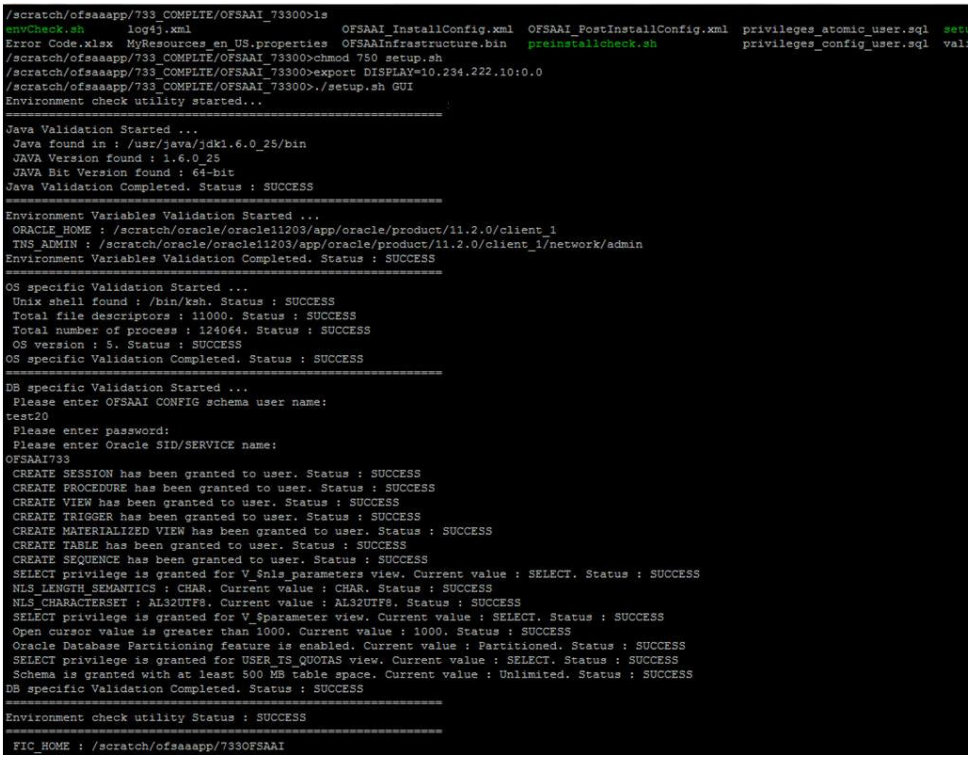
**NOTE:** This step is mandatory and should be executed before every OFSAA Application Pack installation. See Executing the Schema Creator Utility for more details.

7. Navigate to the: `OFS_OIDF_PACK/bin` directory.
8. Execute the following command in the console:

```
./setup.sh GUI
```

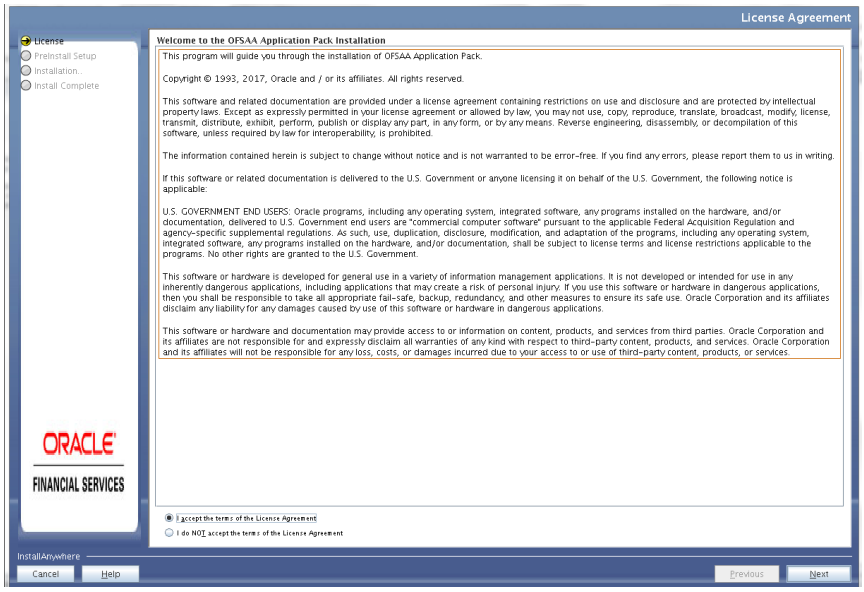
**NOTE:** Refer the console for any errors during Pre-install checks.

*Validating the Installation*



*Initialization Window*

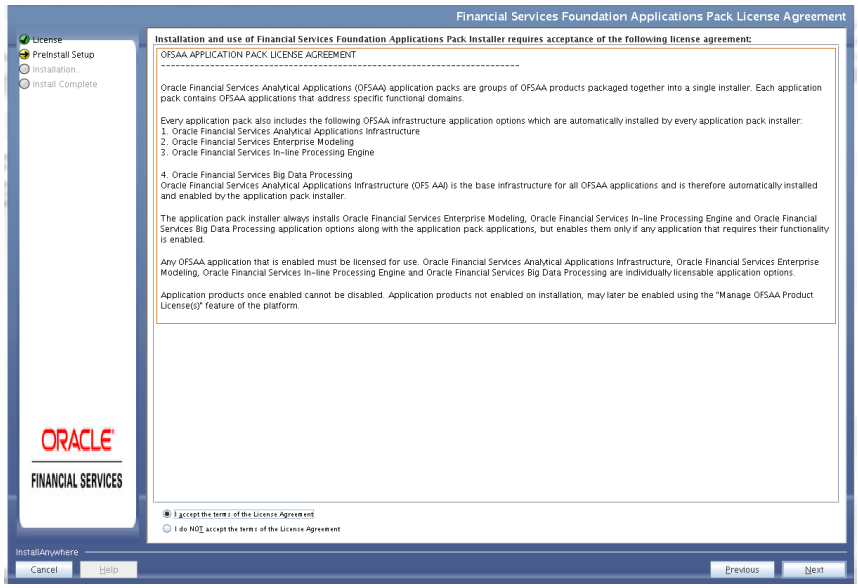

9. The General License Agreement is displayed.



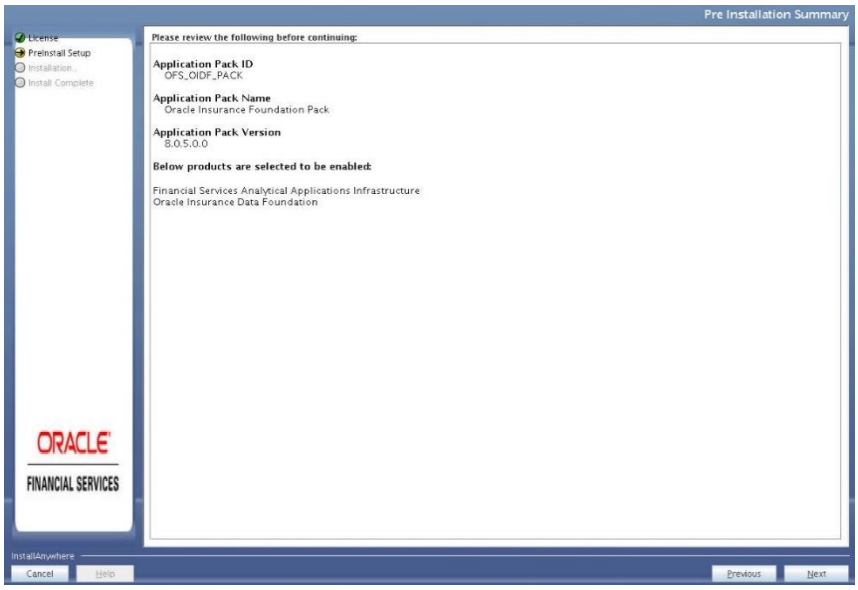

10. Select **I accept the terms if the License Agreement option**.
11. Click **Next**.

The Application Pack details are displayed:


12. Select the product to enable for which you have already obtained license. Refer to Appendix for enabling additional products post the OIDF App pack installation at a later time.
13. Click **Next**. The Application Pack License Agreement is displayed.




14. Select **I accept the terms if the License Agreement option**.
15. Click **Next**, The Pre-Installation Summary is displayed.

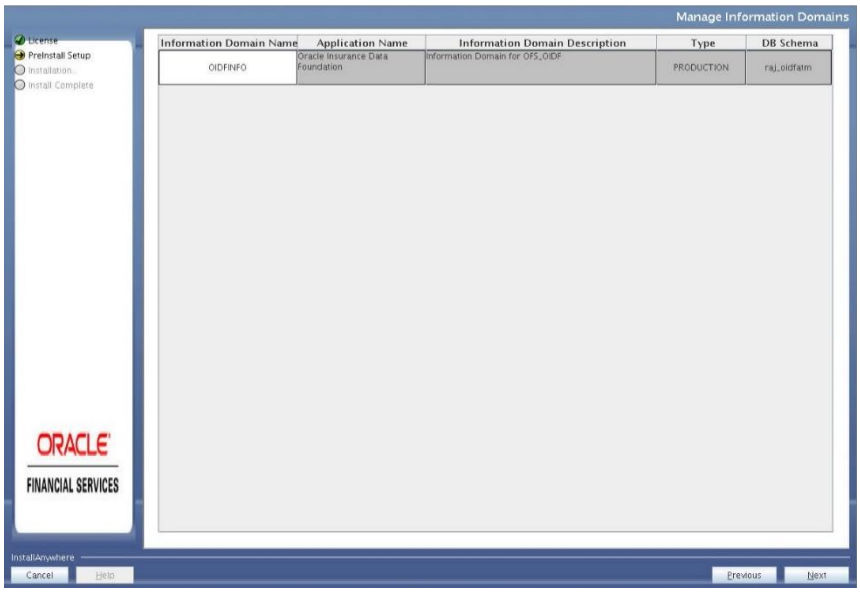



16. Click **Next**. The *Manage Information Domains* window is displayed.

**Note**:

- If you are installing OIDF on top of any existing application pack, and if you want to use the same Information Domain, Click **Next**.
- If you want to install OIDF on a new Information Domain, edit the Information Domain field with new name, and Click **Next**.

*Domain Name*



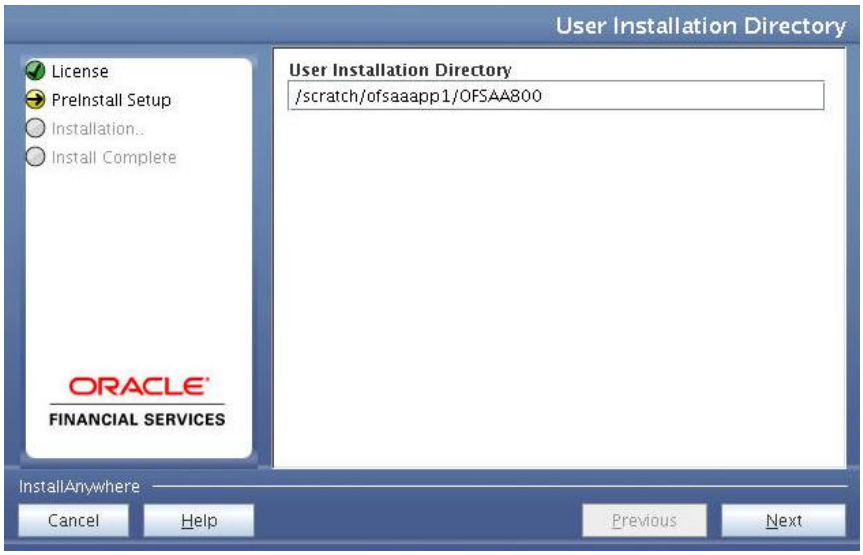
17. The default Information Domain Name for this Application Pack is OFSOIDFINFO. Double-click the Information Domain Name to edit if it is a new Information domain and you wish to change the name of the information domain name.

**NOTE:** For subsequent Application Pack installation on the same Information Domain, the Information Domain Name is not editable.
Permissible length is 16 characters and only alphanumeric characters are allowed. No special characters are allowed.

18. Change the INFODOM name to OIDFINFO and click **Next**.

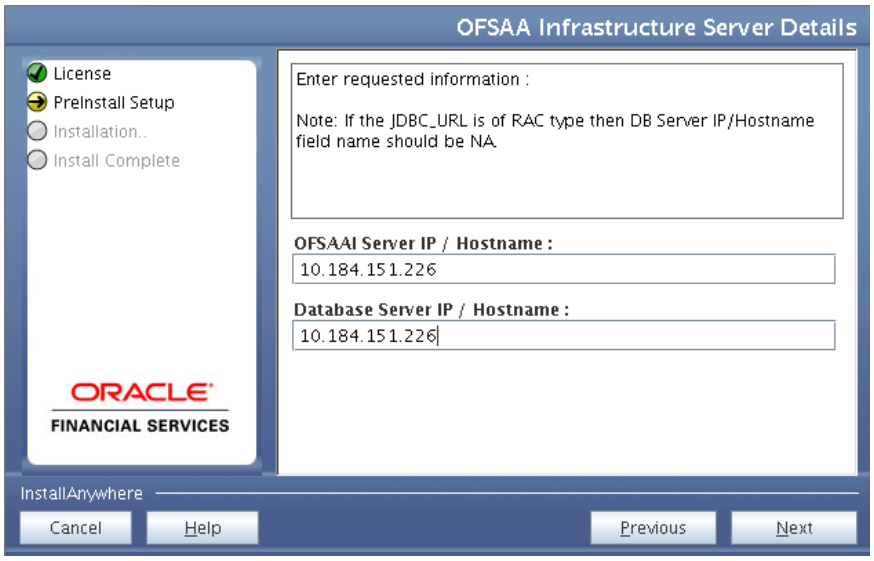
    The *User Installation Directory* window is displayed.

*User Installation Directory*




19. Enter the installation directory path. This is the directory you have set in the user `.profile` file in Step 2.
20. Click **Next**. The *OFSAA Infrastructure Server Details* window is displayed.

*OFSAA Infrastructure Server Details*

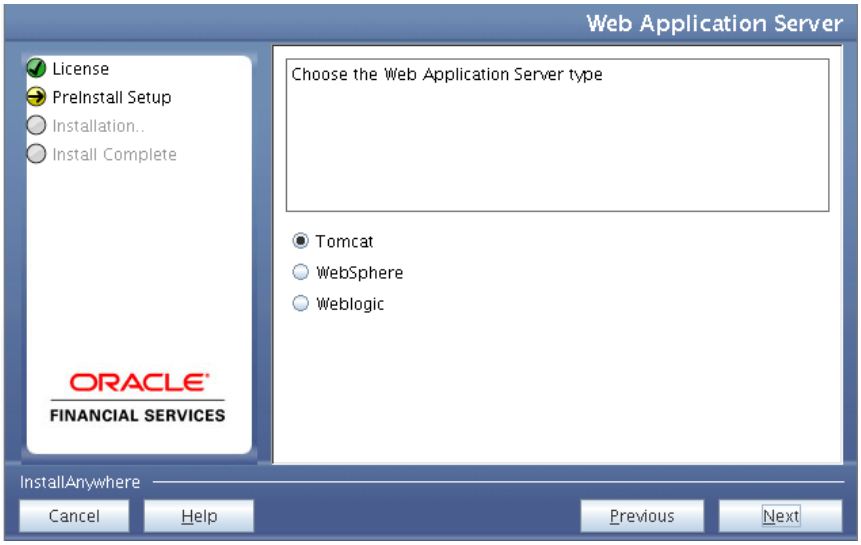



21. Enter the IP address or hostname of the Database Server.

**NOTE:** The OFSAAI Server IP/Hostname is auto-populated by default.

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

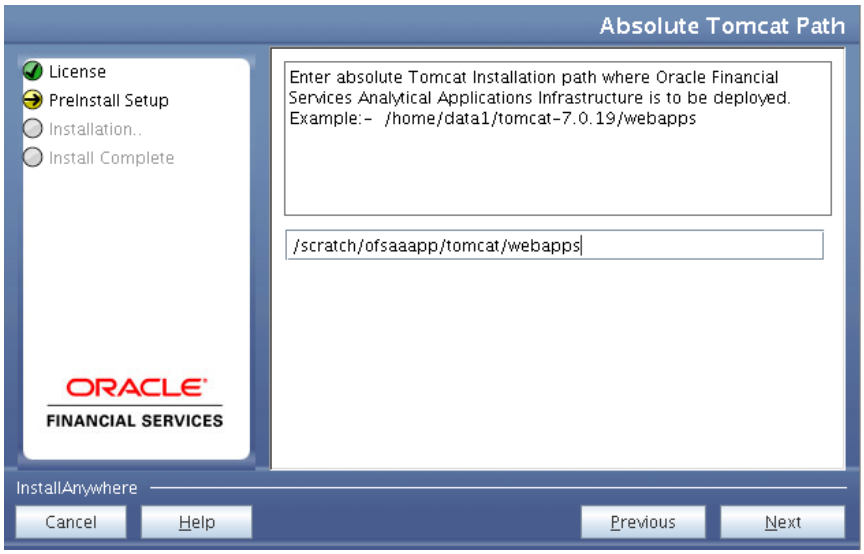
*Web Application Server*




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

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

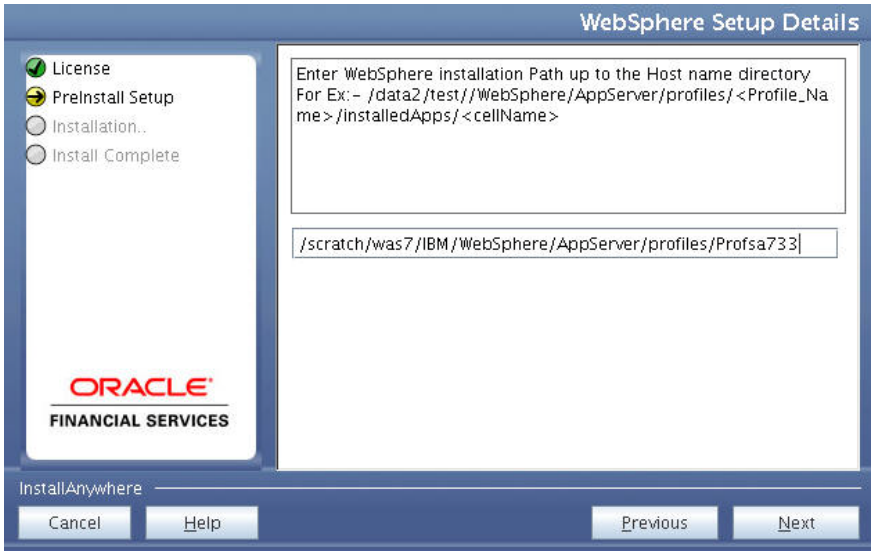
*Absolute Tomcat Path*




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

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

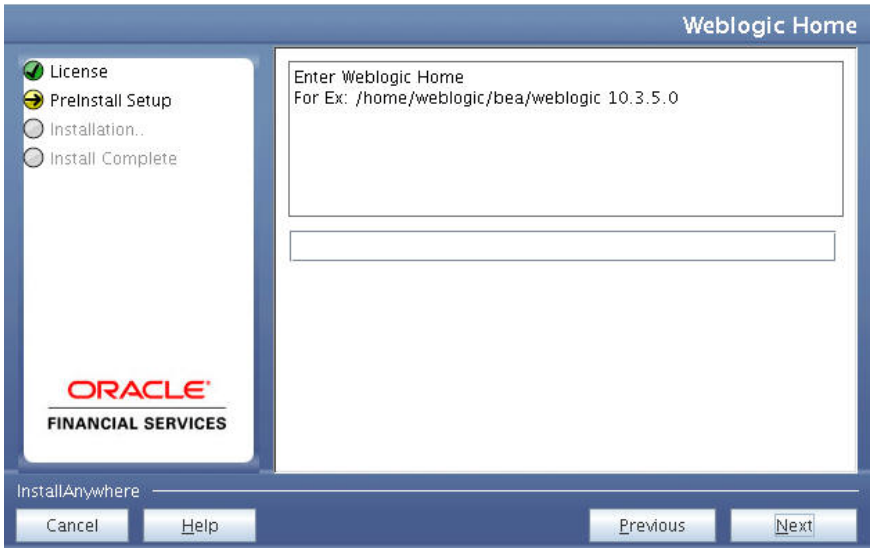
*WebSphere Setup Details*




26. Enter the installation path (up to the Node Cell Name directory) of the WebSphere. The format is WebSphere path <`WebSphere profile directory>/installedApps/<NodeCellName>`.

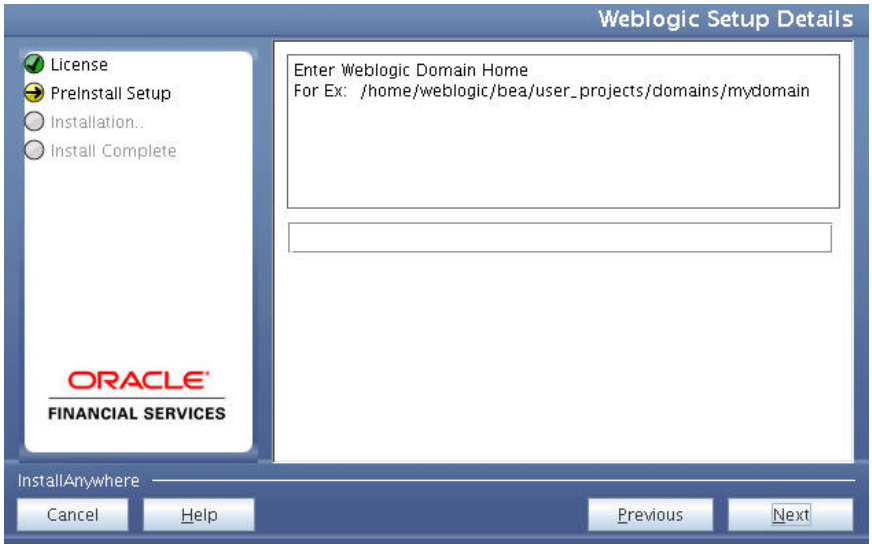
    *For WebLogic*: The *Weblogic Home* window is displayed.

*WebLogic Home*




27. Enter the WebLogic home directory path.

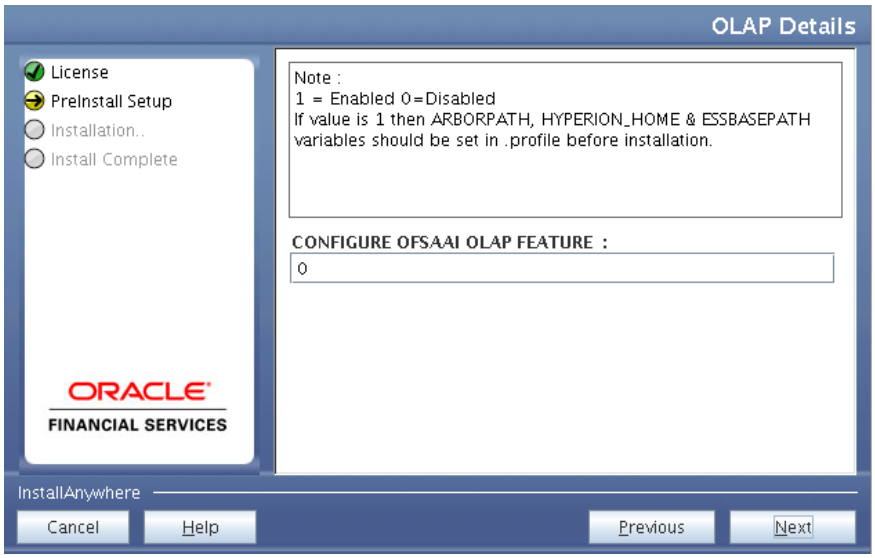
*WebLogic Setup Details*




28. Enter the path of the WebLogic domain home directory and click **Next**.

    The *OLAP Details* window is displayed.

*OLAP Details*

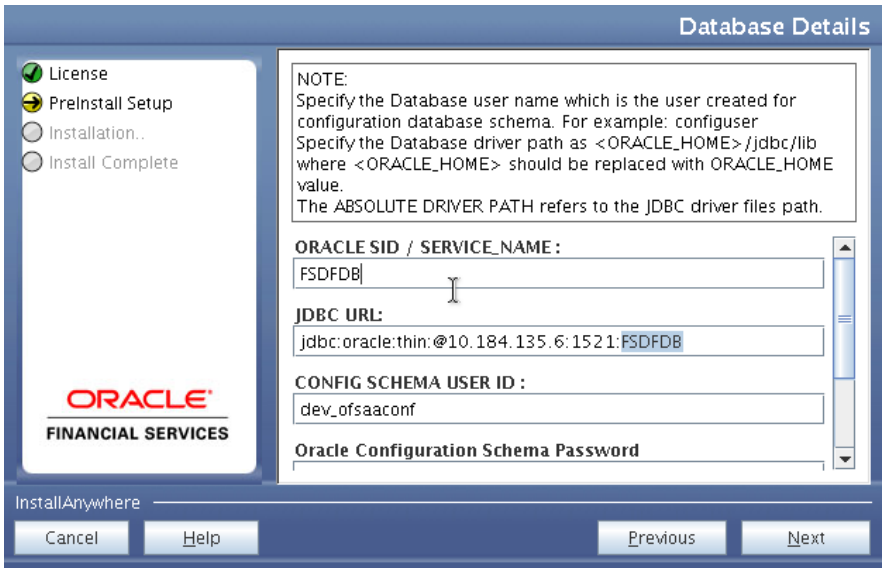



29. Enter 1 if you want to configure OFSAAI OLAP feature. By default, 0 is displayed.
30. Click **Next**. The *Web Server Details* window is displayed.

*Web Server Details*


31. Select the **Enable HTTPS** checkbox to configure HTTPS, if required and enter the WEB SERVER (HTTP Server) PORT, WEB APP SERVER (HTTP Server) IP address, Context name for deployment and the Web Local path to any folder on the Web Application Server (Tomcat/ WebSphere/ WebLogic).
32. Click **Next**. The *Database Details* window is displayed.

*Database Details*

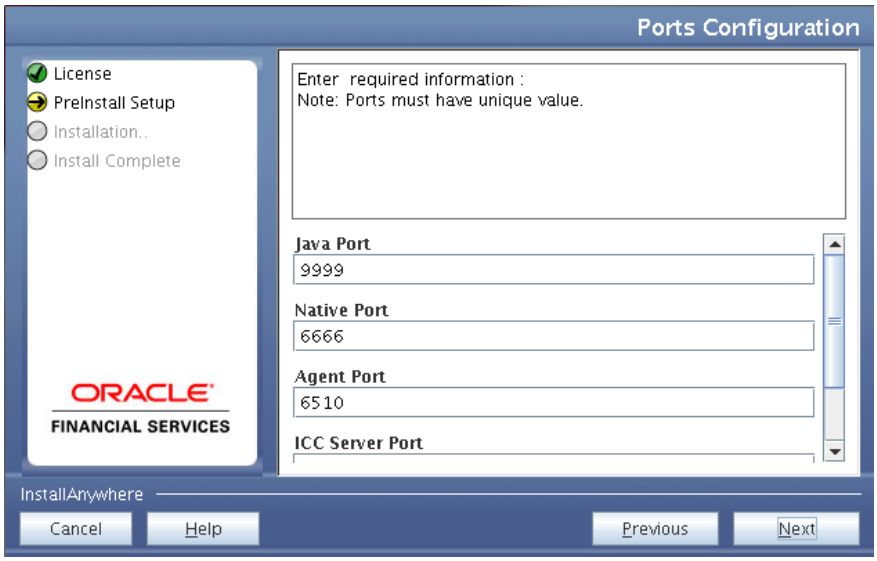



33. Enter Oracle SID/Service Name.

**NOTE:** The JDBC URL, CONFIGURATION SCHEMA USER ID and Oracle Configuration Schema Password, and ABSOLUTE DRIVER PATH fields are auto-populated. 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`

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

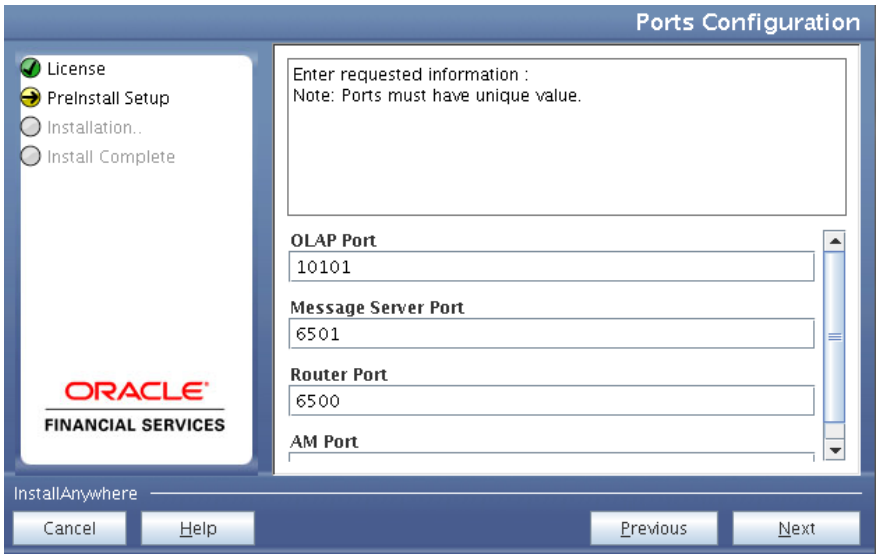
*Ports Configuration*




**NOTE:** The Java Port, Native Port, Agent Port, ICC Server Port, and ICC Native Port fields are auto-populated. You can proceed with the default port values configured or modify.

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

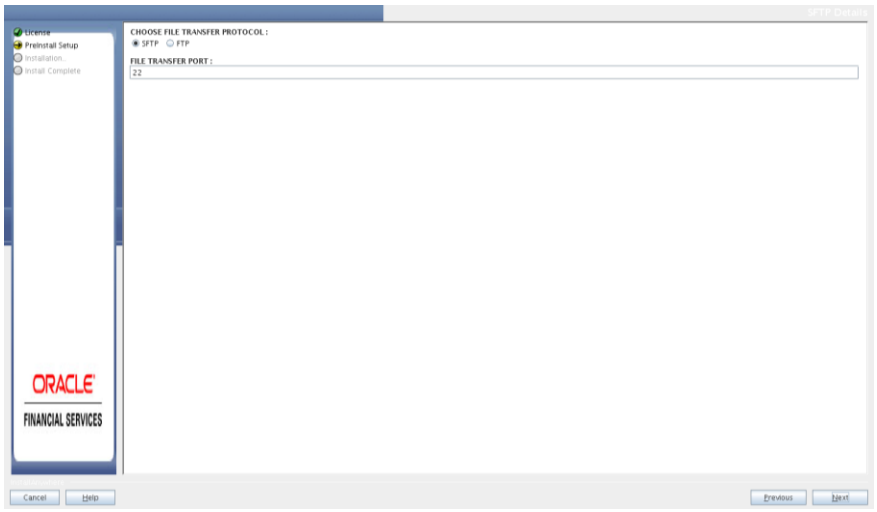
*Ports Configuration*




**NOTE:** The OLAP Port, Message Server Port, Router Port, and AM Port fields are auto-populated. You can also configure the Ports settings.

36. Click **Next**. The *SFTP Details* window is displayed.

*SFTP Details*

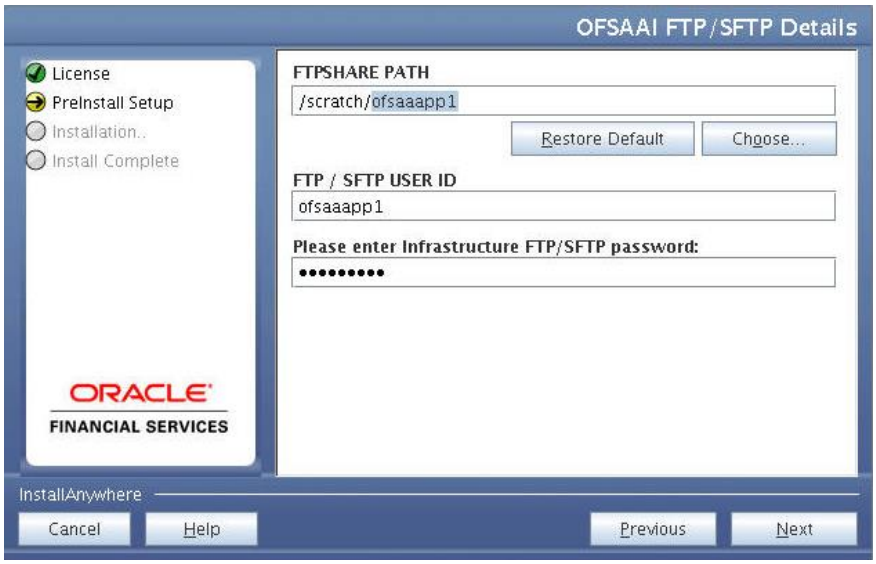



37. Enter **1** to enable SFTP or **0** to enable FTP.

**NOTE:** ENABLE SFTP and FILE TRANSFER PORT fields are auto-populated.
Ensure the system on which the OFSAA Infrastructure is being installed, has either FTP/ SFTP enabled.
You can also modify the SFTP settings.

38. Enter the port to be used for file transfer.
39. Click **Next**. The *OFSAAI FTP / SFTP Details* window is displayed.

*OFSAAI FTP / SFTP Details*




40. Enter the FTPSHARE path. This is same as the OFSAA Staging/ Metadata directory.

41. Enter the FTP/SFTP User ID and Password for FTPSHARE directory access.

**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.
For more details, see FTP/SFTP Configuration for File Transfer.

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

*Pre Installation Summary*


43. Click **Install**. The *Installing OFSAAInfrastructure* window is displayed.

*Installing OFSAA Infrastructure*

**NOTE:** Anytime during the installation, you can click **Cancel** to stop the installation. Once completed, the *INSTALLATION SUMMARY* window is displayed.

*Installation Summary*


The *INSTALLATION SUMMARY* window displays the number of Fatal Errors, Errors, Debug Statements, Information, and Warnings along with the location of log files.

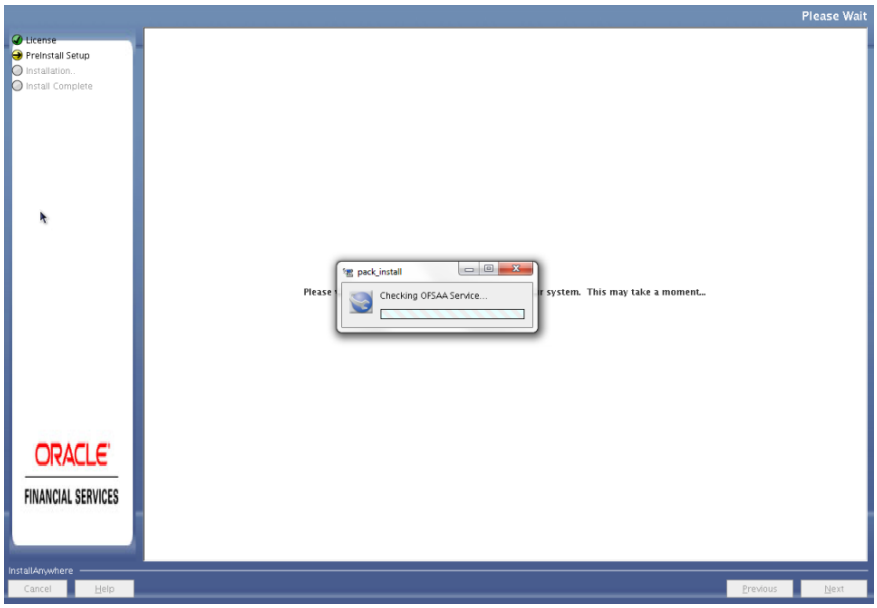
44. Click **Next**. The *Installation Complete* window is displayed.

*Installation Complete*


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

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

*Checking OFSAAI Services*

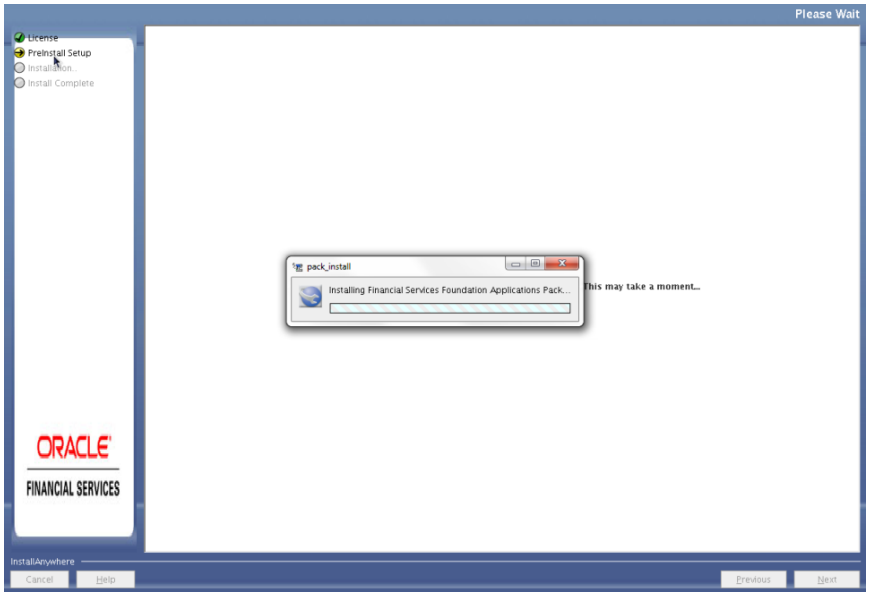



**NOTE:** This step verifies the OFSAA services startup. In case of errors during services check, an appropriate error message is displayed.

After checking the OFSAA services, installation proceeds with the OFS OIDF Application Pack Installation.

46. The Installer will prepare to install *Oracle Insurance Data Foundation Applications Pack.*

*Installing Oracle Insurance Data Foundation Applications Pack*



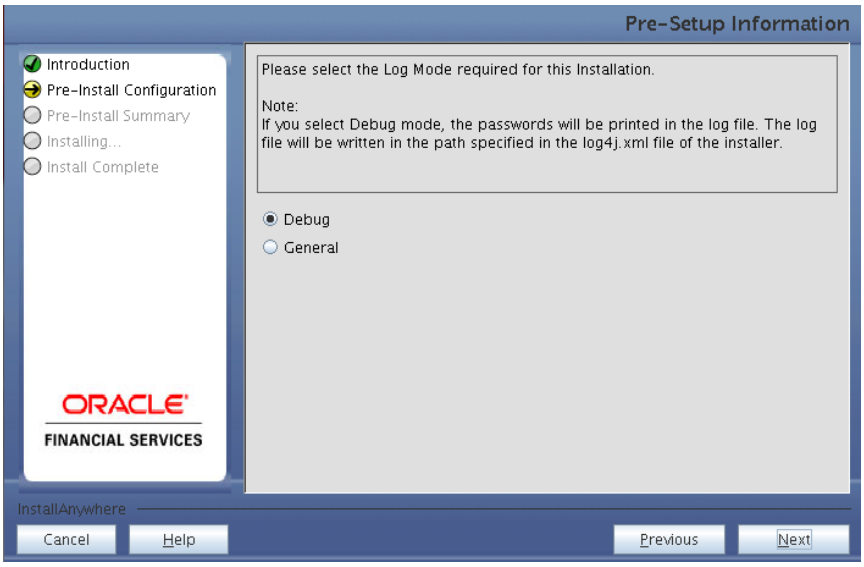

47. The *Solution Setup – Introduction* window is displayed.

*Solution Setup Introduction*


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

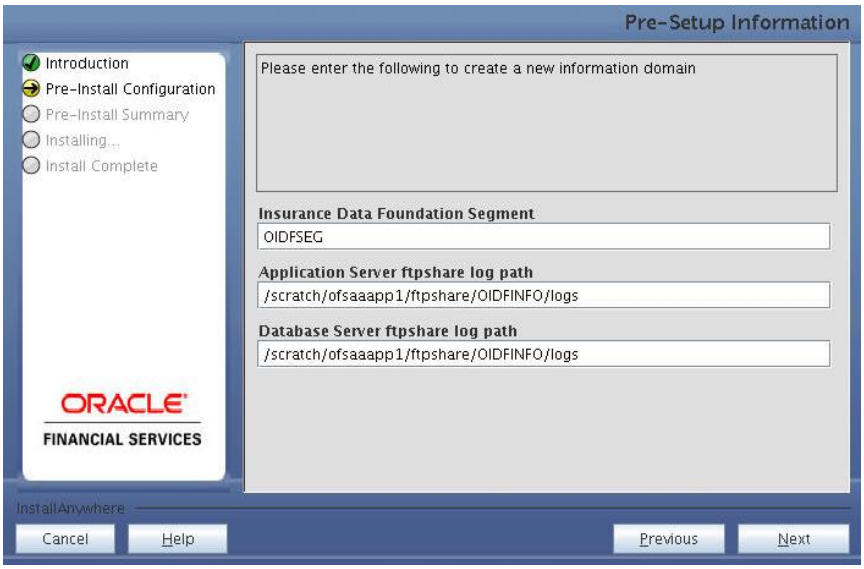
**NOTE:** If **Debug** is selected, the Passwords will get printed in the log file.
If **General** is selected then the general information will get printed in the log file.

*Log Mode*



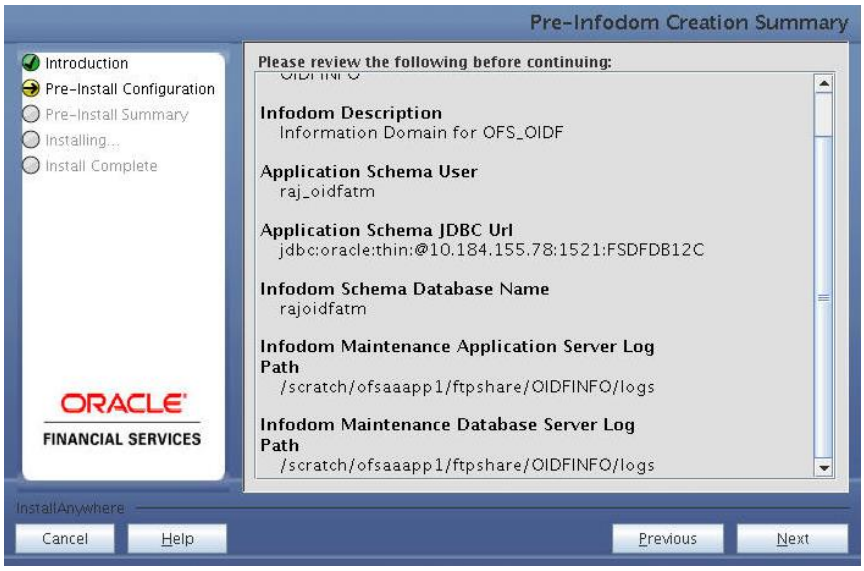

49. Click on **Next**. Segment creation window is displayed. Enter the Data Management Segment, Application Server ftpshare log path, and Database server ftpshare log path in the *Information Domain* window, and click **Next**.

*Segment Creation*



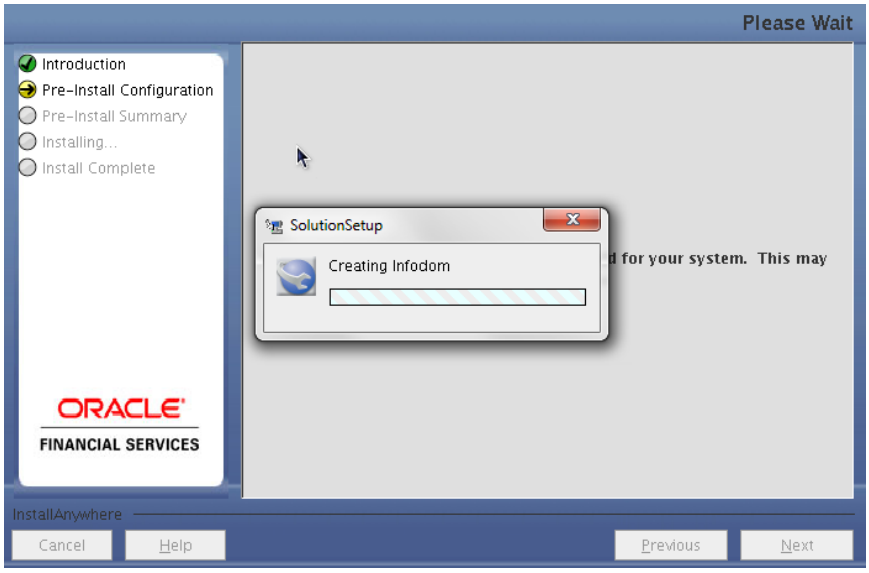

50. Click **Next**. The *Pre-Information Creation Summary* window is displayed.

*Pre-Information Domain Creation Summary*



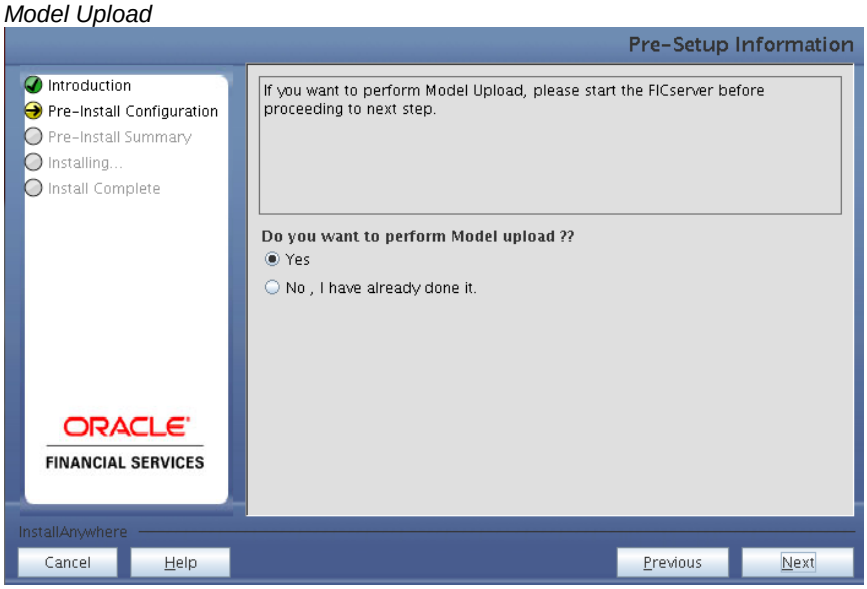

51. Click **Next**. The *Information Domain Creation* window is displayed.

*Information Domain Creation*



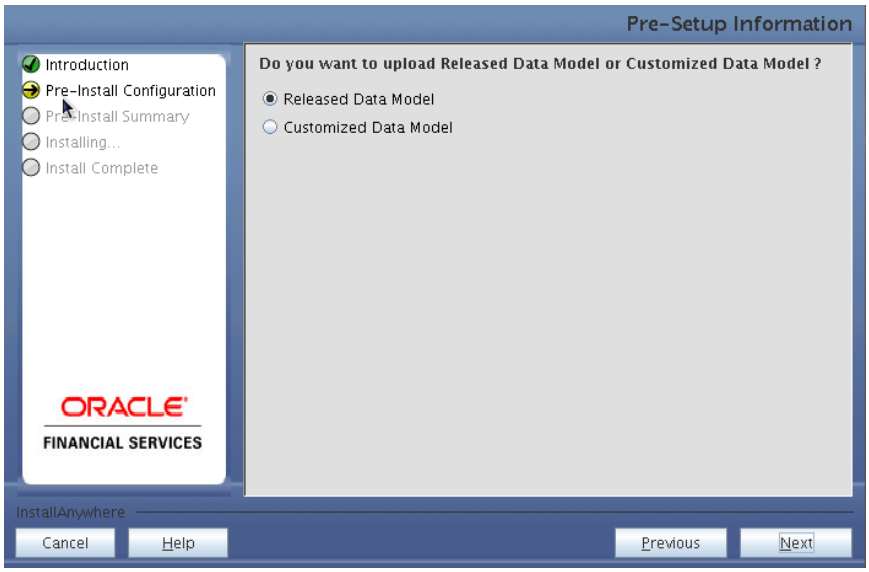

52. Click **Next**. The *Model Upload* window is displayed.

*Model Upload*



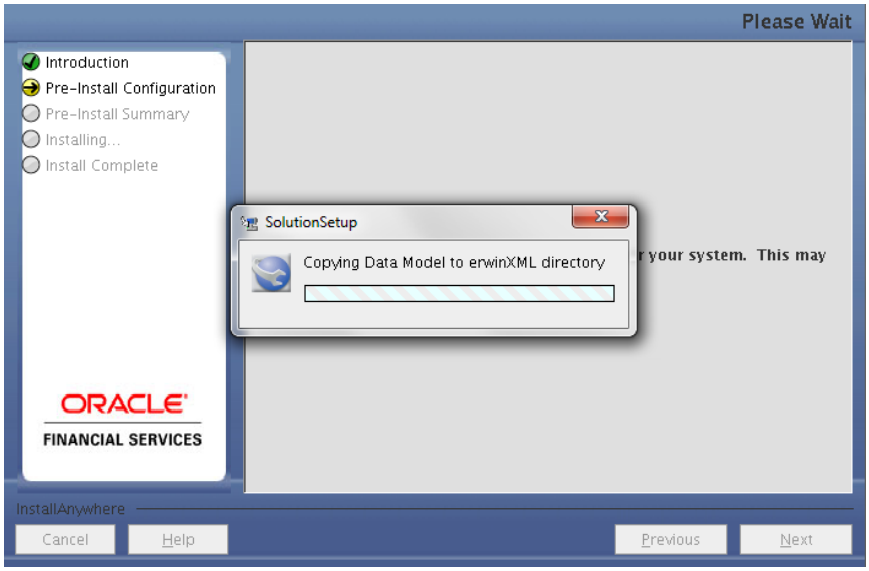

53. Select **Yes** and click **Next**. The *Model Type* window is displayed.

*Model Type*



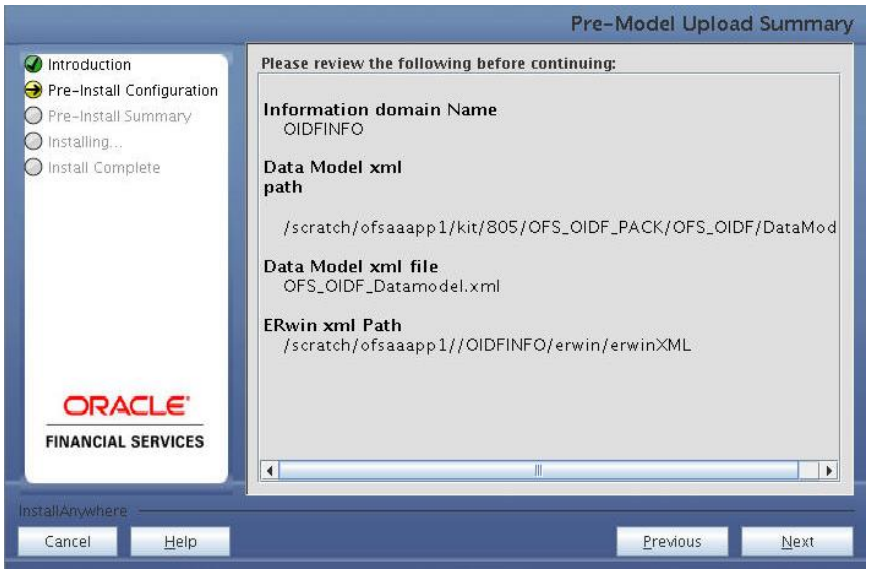
54. Select **Released Data Model** and click **Next**. The Model will get copied to **ftpshare**.

*Model Copy*



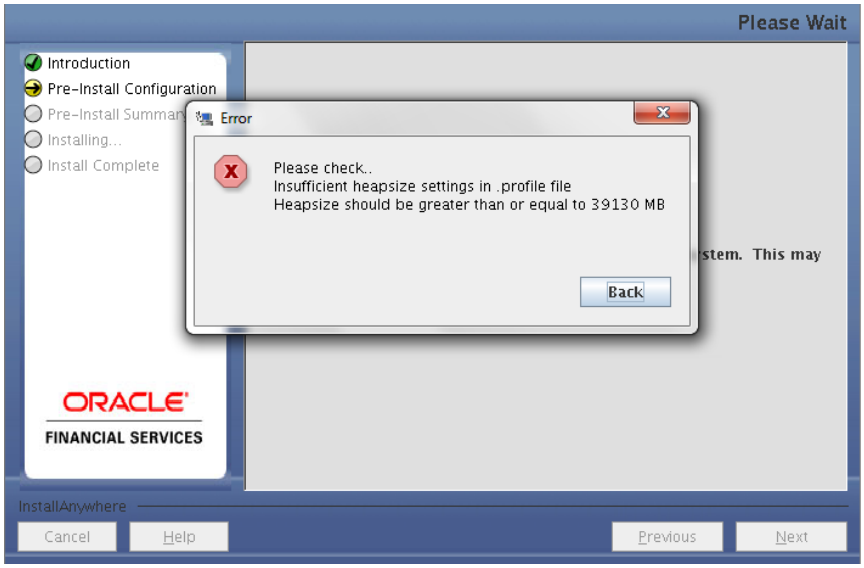

55. The *Pre-Model Upload Summary* window is displayed.

*Model Review*




56. Click **Next**, It will check for the Heap Memory Warning.

*Model Heap Memory Warning*




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

    a. Open a new session in Putty

    b. Shutdown OFSAAI server using `$FIC_HOME/ficapp/common/FICServer/bin/ stopofsaai.sh`

    c. Update the `X_ARGS_APP` entry in .profile following example:

```
X_ARGS_APP="-Xms2g -Xmx18g -XX:+UseAdaptiveSizePolicy -
XX:MaxPermSize=1024M -XX:+UseParallelOldGC  -
XX:+DisableExplicitGC"
```

**NOTE:** Ensure that, in an integrated environment for pack on pack installation the memory size is 10 times the value of all the data model sizes taken together.

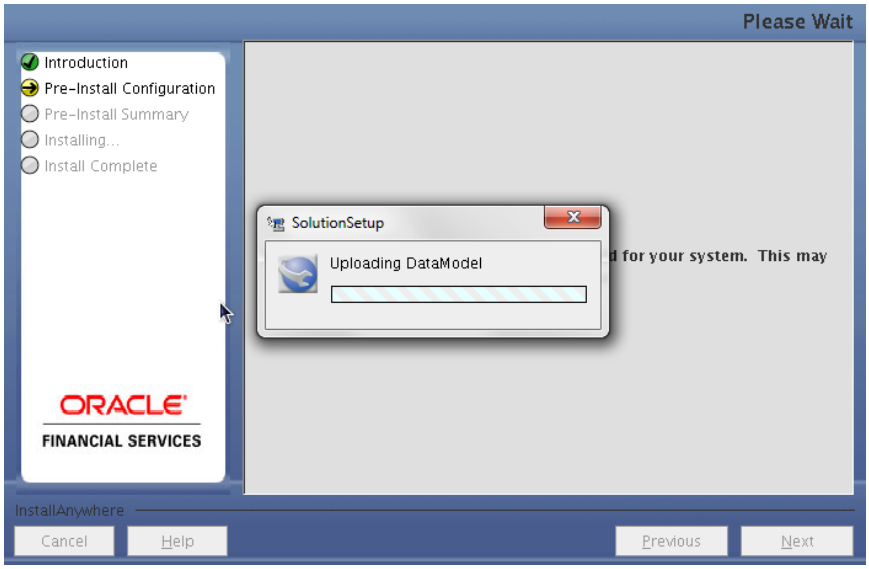
    d. Run .profile file.

    e. Start OFSAA services using $FIC_HOME/ficapp/common/FICServer/bin/ startofsaai.sh

    f. Proceed for Model Upload.

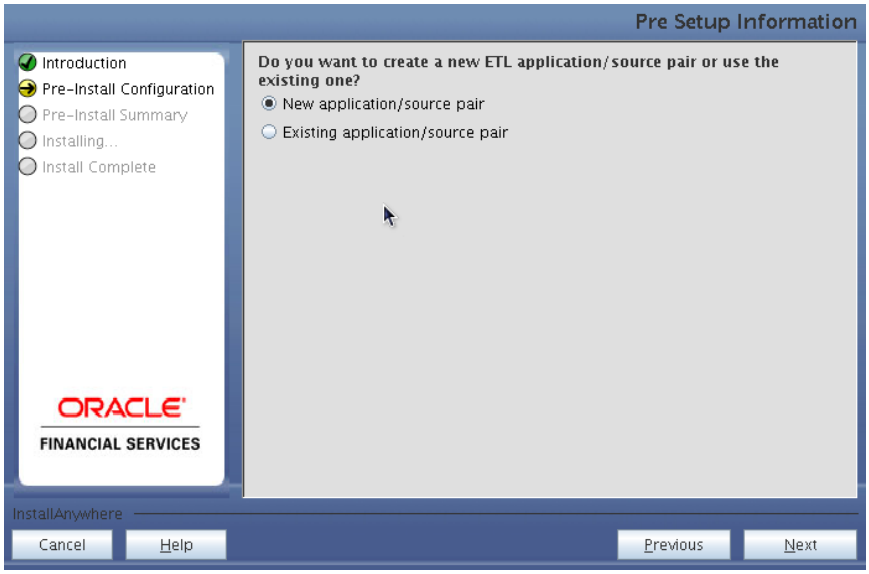
58. Click **Next** again. The Data Model Upload will get start. This will take 3 Hours approx.

*Model Upload*




59. After Data Model Upload completion, the *Pre-Setup Information* window is displayed.

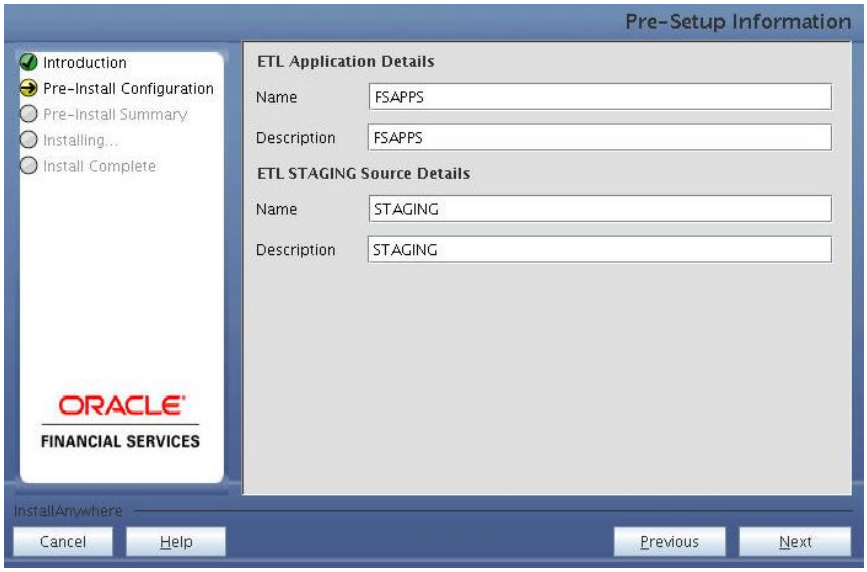
*ETL Application/ Source Pair*




60. Select **New Application/Source pair** and click **Next**.

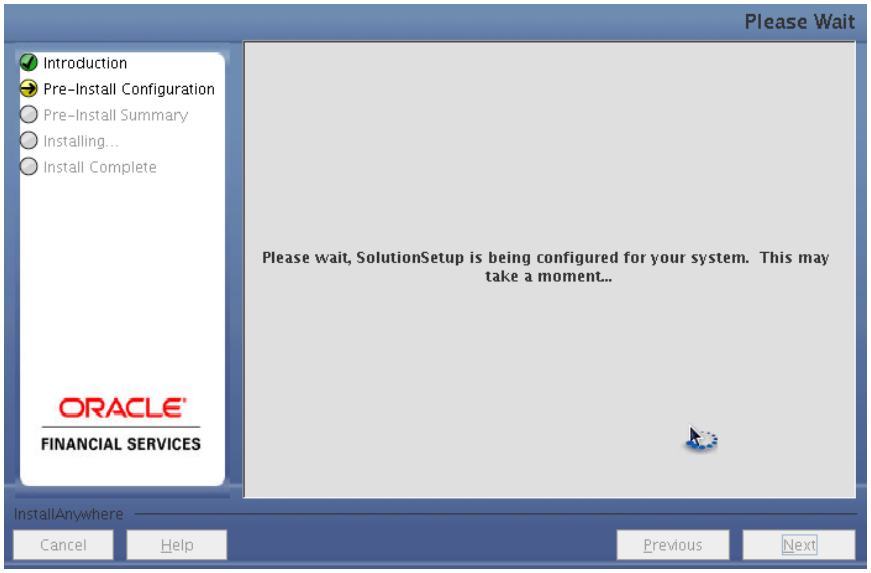
**NOTE:** If the option **New application/source pair** is chosen, then the *Staging Details* window is displayed seeking the application and source name for creation of the same.

*Staging Details*




61. Click **Next**. This creates application and source within OFSAAI. This also generates source model. This process takes some time depending on the number of entities / attributes in the atomic schema. This process cannot be rolled back.

*Staging Creation*



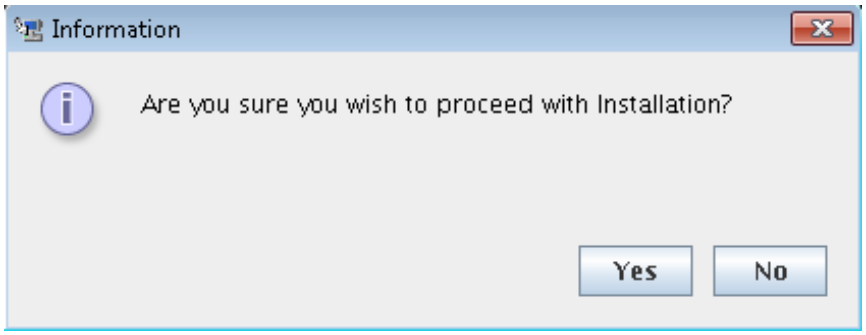

62. After Creation, Click **Next.** The *Pre-Installation Summary* window is displayed.

*Installation Details Review*


**NOTE:** This window displays the pre-installation summary. Verify all details and proceed.

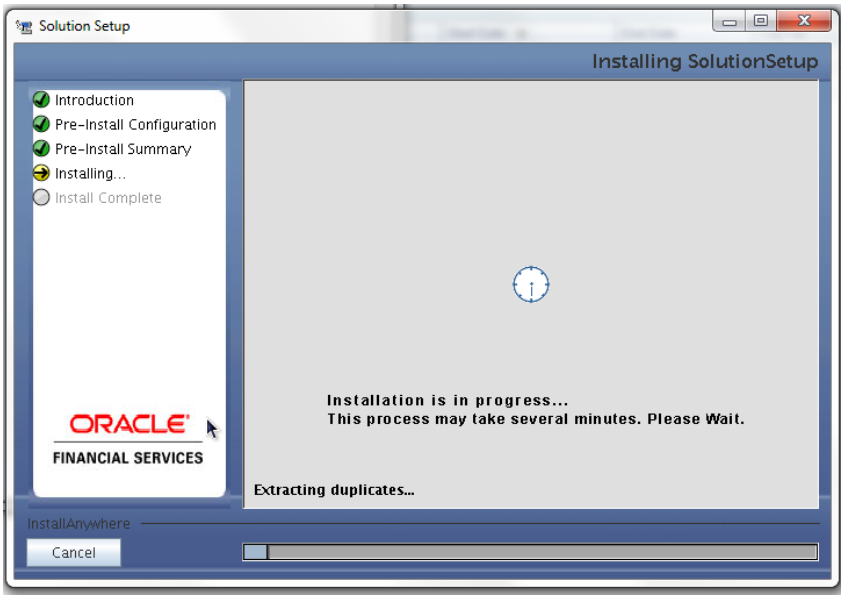
63. Click **Install**. A pop-up window asks for the confirmation.

*Confirmation*




64. Click **Yes**. The Installation is initiated and progress is displayed in the *Installing SolutionSetup* window.

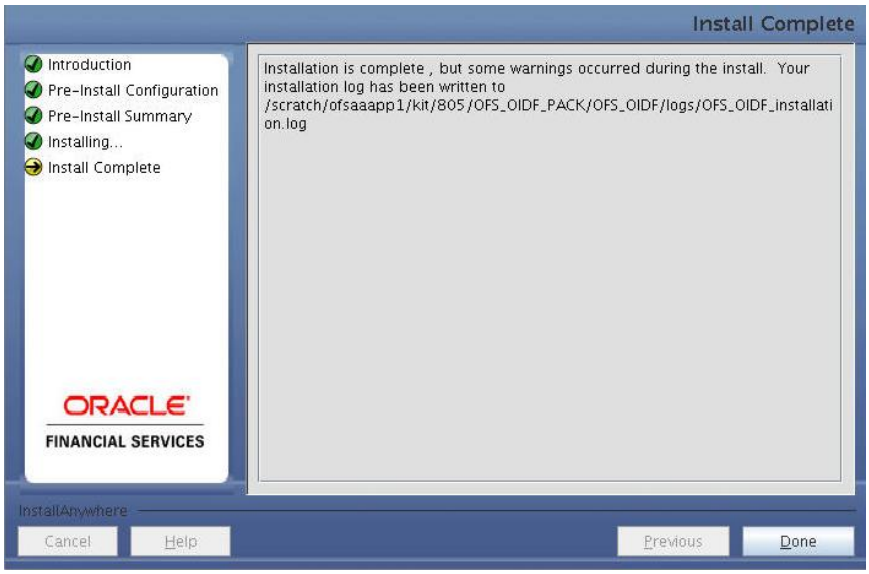
*Installing SolutionSetup*




**NOTE:** Anytime during the installation you can click **Cancel** to stop the installation.

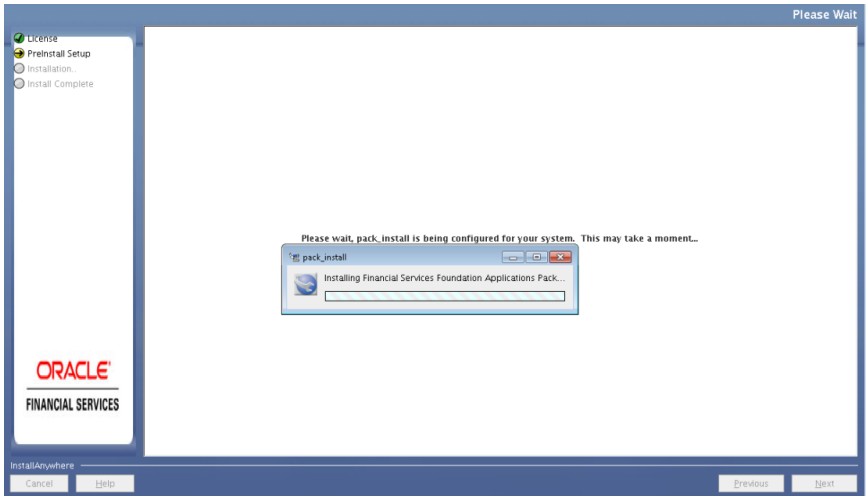
65. After the installation is complete, the *Install Complete* window is displayed.

*Install Complete*



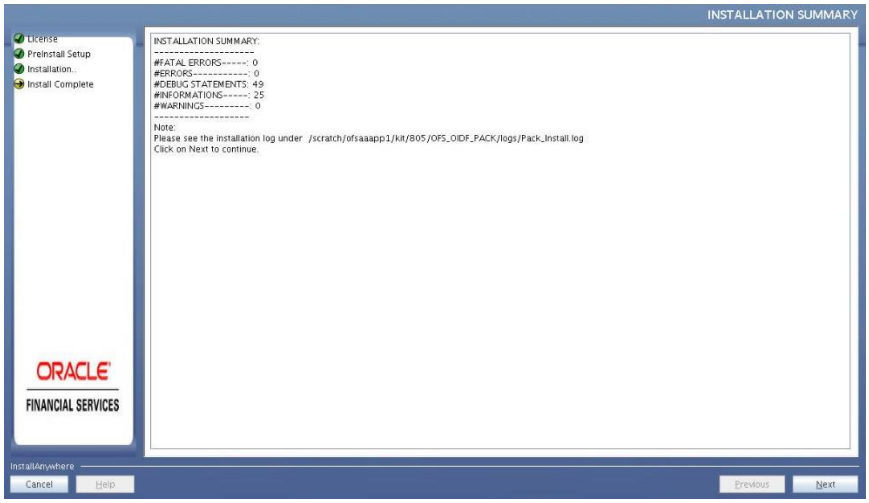

66. Click **Done**. The panel will go back to *App Pack Installation* Window.

*App Pack Installation*



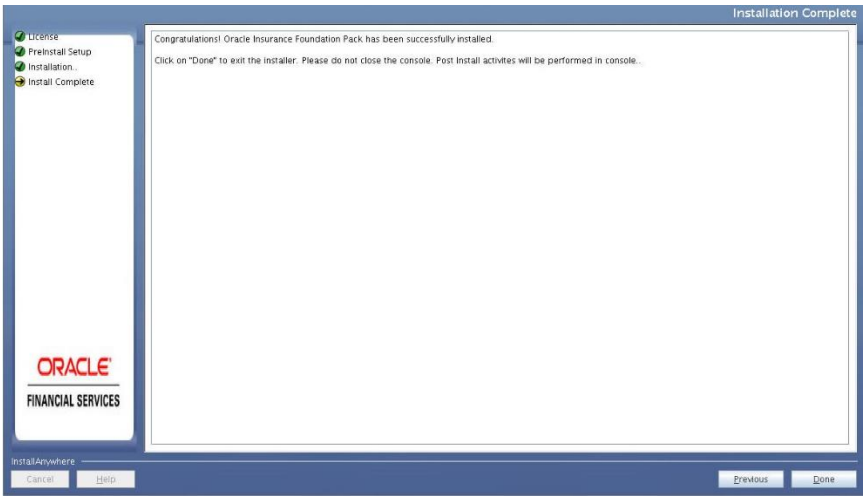

67. After processing the *Installation Summary* window is displayed.

*Installation Summary*




68. Click **Done**. The *Installation Complete* window is displayed.

*Installation Complete*




69. Click **Done**.

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

The Post Install Health checks are displayed with message: You have successfully installed the OFS OIDF Application Pack.

*Installation Complete on Console*


70. Perform the steps mentioned in Post Installation Configuration section.

### 4.4.2 Installing in SILENT Mode

In the SILENT Mode Installation, you must configure the product XML files and follow instructions in the command prompt.

To install OFS OIDF Pack in SILENT mode, follow these steps:

**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` file.
4. Navigate to `OFS_OIDF_PACK` directory.
5. Edit the `OFS_OIDF_PACK/conf/OFS_OIDF_PACK.xml` file to enable the product licenses.

   **NOTE:** Ensure to enter **Yes** in ENABLE tag for `OFS_AAI/APP_ID` to install OFS OIDF applications.
   See Configuring OFS_OIDF_PACK.XML File for details on configuring this XML file.

6. Edit the `OFS_OIDF_PACK/schema_creator/conf/OFS_OIDF_SCHEMA_IN.xml` file to set the appropriate attribute values.

   Include `INFODOM = "<Infodom Name>"` in `OFS_OIDF_SCHEMA_IN.xml` file

   **NOTE:** See Configuring OFS_OIDF_SCHEMA_IN.XML File for details on configuring this XML file.
   Ensure to make a TNS entry for the new users created. For details, see Adding TNS Entries in TNSNAMES.ORA File section.

7. Edit the `OFS_OIDF_PACK/OFS_AAI/conf/OFSAAI_InstallConfig.xml` file to set the appropriate infrastructure installation attribute values.

   **NOTE:** See Configuring OFSAAI_InstallConfig.xml File for details on configuring this XML file.

8. Execute the schema creator utility.

   **NOTE:** This step is mandatory and should be executed before every OFSAA Application Pack installation.
   Ensure to execute with `-s` option in Online/ Offline Mode.
   For more information, see Executing the Schema Creator Utility.

9. Create a copy of the `Silent.template` file present in the installer folder `OFS_OIDF_PACK/OFS_OIDF/conf` and rename it as `Silent.props`.
10. Edit the file `Silent.props` and specify the parameters as per the requirements.

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

**Elements in Silent.props file**

| Property Name | Description of Property | Permissible values | Comments |
|---|---|---|---|
| LOG_MODE | Mode for logging | 0 = Debug<br>1= General | # Optional;<br>Default: 0 |
| SEGMENT_CODE | Segment Code | Example: OIDFSEG | # Mandatory<br>Segment Code should not exceed 10 characters and there should not be special characters or extra spaces |
| APPFTP_LOG_PATH | Information Domain Maintenance log path(to be created) for the new Information Domain for App Layer | Not Applicable | # Mandatory if this an App Layer Installation and want to create a new Information Domain |
| DBFTP_LOG_PATH | Information Domain Maintenance log path(to be created) for the new Information Domain for DB Layer | Not Applicable | # Mandatory if this an App Layer Installation and want to create a new Information Domain |
| UPLOAD_MODEL | Whether you want to perform Model Upload | 0 = No<br>1 = yes | # Mandatory |
| MODEL_TYPE | Released data model or Customized data model | 0 = released<br>1 = customized | # Mandatory only in the case of uploading the data model |
| DATAMODEL | The file name for the customized data model | Not Applicable | # Mandatory only in the case of uploading the customized data model<br># Option selected for MODEL_TYPE=1 |

| | | | |
|---|---|---|---|
| DM_DIRECTORY | The path for the customized data model | Not Applicable | # Mandatory only in the case of uploading the customized data model<br># Option selected for MODEL_TYPE=1 |
| ETL_APPSRC_TYPE | The ETL application name | 0=New Pair<br>1=Existing | # Mandatory |
| ETL_APP_1_DESC | Give description for the ETL FSAPPS Application | Not Applicable<br>Example: OIDFAPPDESC | # Mandatory if you want to create new ETL app/src pair<br># Option selected for ETL_APPSRC_TYPE=0 |
| ETL_SRC_1_1_DESC | Give description for the ETL OIDF Staging Source | Not Applicable<br>Example: OIDFSRCDESC | # Mandatory if you want to create new ETL app/src pair<br># Option selected for ETL_APPSRC_TYPE=0 |
| ETL_APP_1_NAME | Give name for the ETL FSAPPS Application | Not Applicable<br>Example: OIDFAPPS | # Mandatory if you want to create new ETL app/src pair<br># Option selected for ETL_APPSRC_TYPE=0 |
| ETL_SRC_1_1_NAME | Give name for the ETL OIDF Staging Source | Not Applicable<br>Example: OIDFSRC | # Mandatory if you want to create new ETL app/src pair<br># Option selected for ETL_APPSRC_TYPE=0 |

**Installation:**

11. Give a path for installation log file in `log4j.xml` in `OFS_OIDF_PACK/OFS_OIDF/conf` directory.
12. Navigate to the following directory:

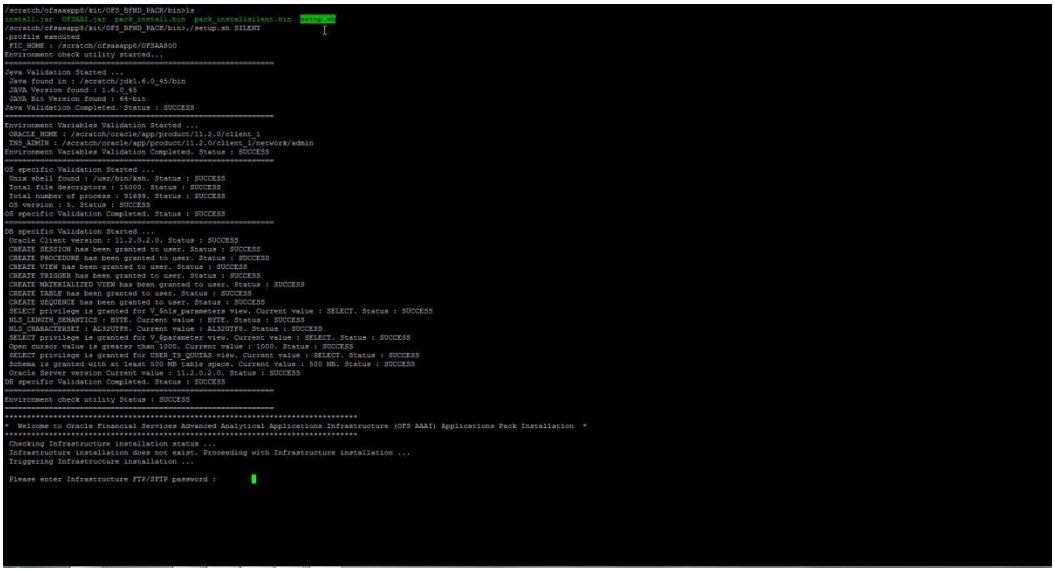
    `OFS_OIDF_Pack/bin/`
13. Execute the following command in the console to execute the application pack installer with Silent option:

    `./setup.sh SILENT`

The installer proceeds with Pre-Installation Checks.

14. On successful completion of Pre-Installation checks, when prompted enter the Infrastructure FTP/SFTP password.

| Console Prompts | User Inputs |
|---|---|
| Enter Infrastructure FTP/SFTP password | Enter the password to access Product Staging/Metadata repository directory in the application server.<br>**Note**: In case the prompt reads as below, enter the user name/ password for accessing the product Staging/ Metadata Repository FTPSHARE<br>▪ Kerberos username [user]<br>▪ Kerberos password for user: |



15. Enter **Always** when prompted to add host key fingerprint.

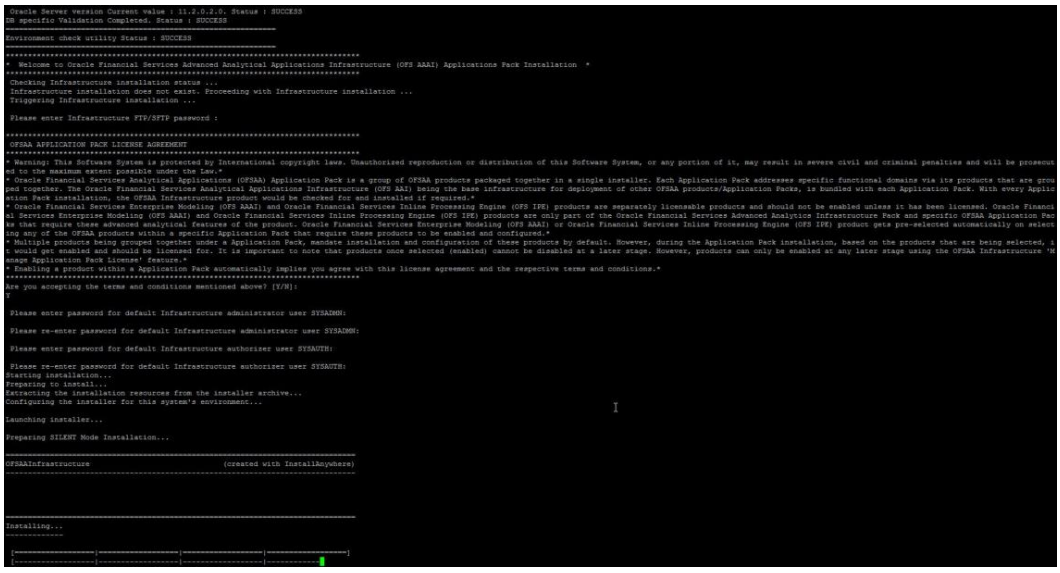
The OFSAAI License Agreement is displayed.


16. Enter **Y/y** to accept the License Agreement and proceed.

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

17. The OFS AAI platform is installed.

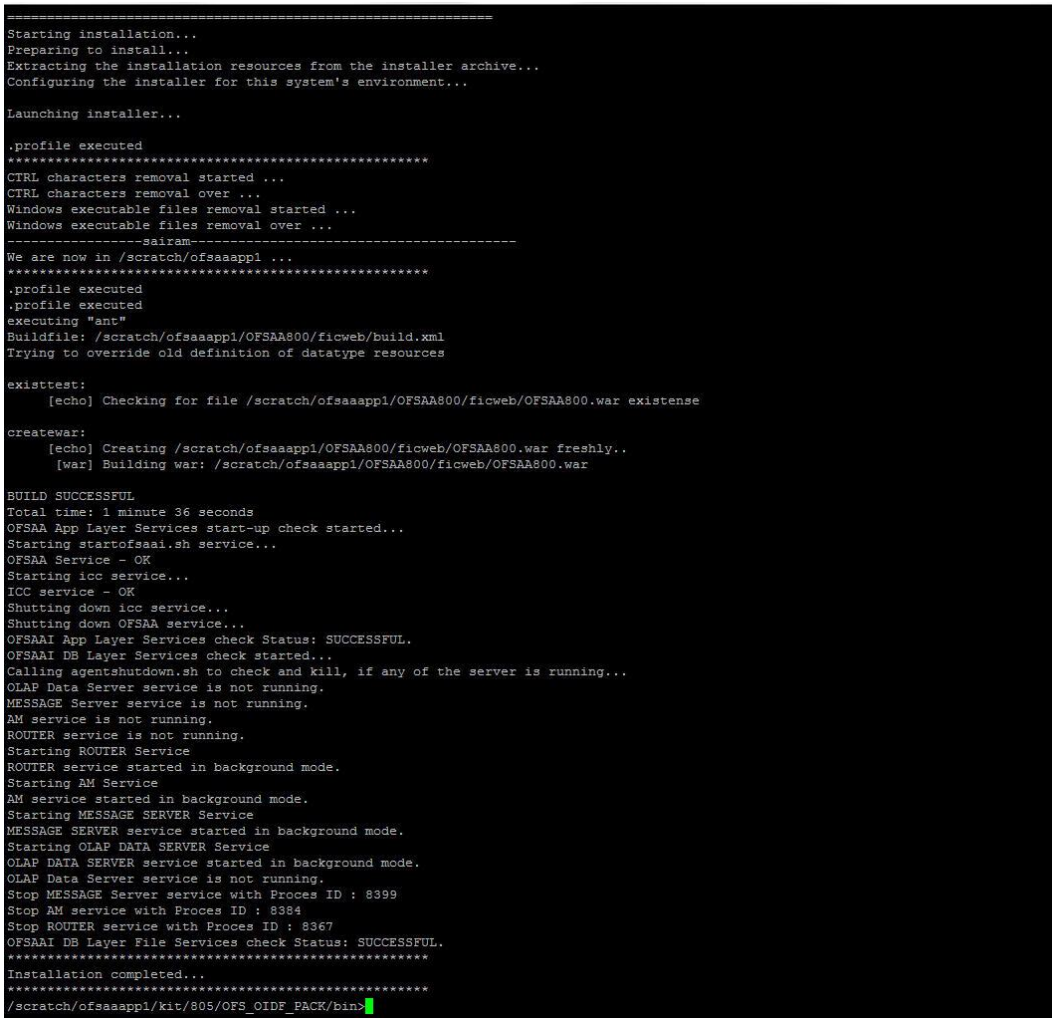
**NOTE:** After the platform is installed, it proceeds for the OFS OIDF PACK installation. After successful OFS OIDF Pack installation, WAR file is generated and all the servers are verified.




18. The OFS OIDF Pack installation starts.

**NOTE:** Data Model Upload may take several hours to get complete. You can check the Logs in `/OFS_OIDF_PACK/OFS_OIDF/logs`.


**NOTE:** Do not close the console until the installation is complete.




19. The following message is displayed in the console:

    *Installation completed…*

20. Perform the steps mentioned in Post Installation Configuration section.

### 4.4.3 Verifying the Log File

The log files `OFS_OIDF_installation.log` can be found in the installation path `<OFSOIDF Installer Folder>OFS_OIDF_PACK/OFS_OIDF/logs` and `OFSAAInfrastructure_Install.log` can be found in the installation path `$FIC_HOME`. The log files contain detailed summary of installation processes. It also shows the number of Fatal Errors, Errors, Debug Statements, Information, and Warnings.

**NOTE:** Applications Pack installer performs all the pre-requisite validation checks during installation. Any errors encountered during the process are displayed in InfrastructurePreValidations.log generated in `<OFS_OIDF_PACK Installer Folder>/bin` directory.

Three log files:

- Application Pack specific log file (overall status of the app pack installation) can be found in:

  `<OFSOIDF Installer Folder>/OFS_OIDF_PACK/logs/Pack_install.log.`

- AAI Installation log file can be found in:
  `<OFSOIDF Installer folder>/OFS_OIDF_PACK/OFS_AAI/logs/OFSAAI<timestamp>.log`

- Application installation log file. The following log file can be found in:
  `<OFSOIDF Installer Folder> /OFS_OIDF_PACK/OFS_OIDF/logs` :
  - `OFS_OIDF_Installation_debug.log`
  - `OFS_OIDF_installation.log`

## 4.5 Verifying the Installation

This section explains the steps to verify the installation of OIDF Application Pack.

To verify that you have successfully installed the OIDF pack, follow the below steps:

1. Login in to the Atomic Schema. Verify that all the database objects like view, procedure, and functions are compiled without any compilation error.
2. Verify the application log (must not have any error).
3. Deploy the EAR/WAR files and check whether the application screen is up. For deployment of the application, see Appendix C.

# 5 Upgrading the OIDF Application Pack

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

1. To download and copy the OIDF Application Pack v8.0.5.0.0 archive file, see Downloading and Copying the OIDF Applications Pack Installer section.

   **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, refer to the *Start/Stop Infrastructure Services* section in Appendix D.
4. Execute the following command:

   ```
   chmod -R 755 $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:** In case you notice an error message uncompress: not found [No such file or directory]" when the package is not installed, contact your UNIX administrator.

   - Give EXECUTE permission to the file using the command:

     ```
     chmod 755 OFS_OIDF_80500_<OperatingSystem>.zip
     ```

6. Extract the contents of the Oracle Insurance Data Foundation Application Pack 8.0.5.0.0 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_OIDF_80500_<OperatingSystem>.zip* and execute the command:

   ```
   chmod -R 755 OFS_OIDF_80500
   ```

8. Create a copy of the `Silent.template` file present in the installer folder `OFS_OIDF_PACK/OFS_OIDF/conf` and rename it as `Silent.props`.
9. Edit the file `Silent.props` and specify the parameters as per the requirements.
   SILENT installation is achieved via a properties file (`Silent.props`) that must be updated with proper values. See the Silent.props elements required.
10. Execute setup.sh file using the following command:

    ```
    ./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. In case of any other errors, contact Oracle Support.

**NOTE:** `OFS_OIDF_80500` upgrade does not support GUI mode installation.

11. For more information on securing your OFSAA Infrastructure, refer to the Security Guide in OHC Documentation Library.
12. After successful installation, follow these steps:

    Clear the application cache. Navigate to the following path depending on the configured web application server and delete the files.

    **Tomcat**

    ```
    <Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp
    ```

    **WebLogic**

    ```
    <Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>/<auto generated folder>/jsp_servlet
    ```

    **WebSphere**

    ```
    <Websphere installation folder>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>
    ```

13. Add umask 0027 in the .profile of the UNIX account which manages the WEB server to ensure restricted access permissions.
14. Restart all the OFSAAI services. For more information, refer to the *Start/Stop Infrastructure Services* section in Appendix D.
15. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on *generating and deploying EAR / WAR file*, refer Appendix C section.

## 5.1 Performing Model Upload Outside Installer

**NOTE:** This section is applicable if you are performing Model Upload outside the installer.

The following tables should not have any data before Model Upload is triggered. Based on your current OIDF version, the tables must be selected.

You can take the backup of these tables and reload the data after Model Upload is performed.

**In OIDF 8.0.0.0.0**

- DIM_PRODUCT_FEATURE
- FCT_ACCOUNT_FEATURE_MAP

- STG_MGMT_FORECAST
- FCT_MGMT_FORECAST

**OIDF 8.0.1.0.0**

- STG_TIME_SPECIFIC_OBLIGATIONS
- DIM_TERMINAL
- FCT_REG_CAP_ACCOUNT_SUMMARY

**OIDF 8.0.2.0.0**

- FCT_REG_CAP_ACCOUNT_SUMMARY
- FCT_IFRS_ACCOUNT_SUMMARY
- FCT_IFRS_STAGE_DETERMINATION
- FCT_REG_OR_CAPITAL_SUMMARY
- FCT_REG_LE_CAPITAL_SUMMARY
- FCT_REG_CP_CAPITAL_SUMMARY
- FCT_REG_CAP_POOL_SUMMARY
- FCT_REG_CAP_PLCD_COLL_SUMMARY
- FCT_REG_COUNTERPARTY_CVA
- FCT_REG_RUN_LEGAL_ENTITY_MAP

**OIDF 8.0.3.0.0**

- FCT_REG_AGG_CASH_FLOWS
- FCT_CREDIT_LINE
- FCT_LOAN_ACCOUNT_SUMMARY
- FCT_ACCOUNT_FAIR_VALUE
- DIM_UOM_ATTR
- DIM_UOM_HIER
- FCT_INSTRUMENT_MARKET_PRICES
- STG_ACCOUNT_INCEPTION_RATES

**OIDF 8.0.3.1.0**

- FCT_LOAN_ACCOUNT_SUMMARY
- FCT_ACCOUNT_FAIR_VALUE
- DIM_UOM_ATTR
- DIM_UOM_HIER
- FCT_INSTRUMENT_MARKET_PRICES
- STG_ACCOUNT_INCEPTION_RATES

**In OIDF 8.0.4.0.0**

- FCT_LLFP_ECL_RECONCILIATION
- STG_PROFESSION_RANK_MASTER
- FCT_INSTRUMENT_MARKET_PRICES

**In OIDF 8.0.4.1.0**

- FCT_LLFP_ECL_RECONCILIATION
- STG_PROFESSION_RANK_MASTER
- FCT_INSTRUMENT_MARKET_PRICES

# 6 Post Installation Configuration

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

This chapter includes the following sections:

- Configuring Resource Reference
- Starting OFSAA Infrastructure Services
- Adding TNS Entries in TNSNAMES.ORA File
- Creating and Deploying the Application Pack Web Archive
- Accessing the OFSAA Application
- Performing Post Deployment Configurations

**NOTE:** Ensure to clear the application cache prior to the deployment of Infrastructure or Application Service Packs / One-off patches. This is applicable to all Web Servers (WebSphere, WebLogic, and Tomcat) and OS combinations.

## 6.1 Configuring Resource Reference

Configure the resource reference in the Web Application Server configured for OFSAA Applications. Refer Appendix B for details on configuring the resource reference in WebSphere, WebLogic, and Tomcat Application Servers.

## 6.2 Starting OFSAA Infrastructure Services

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

Refer to the Appendix D for details on Start/ Stop OFSAA Services.

## 6.3 Adding 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 dropdown list for **Name** to get the list of TNS entry names.
5. Alternatively, you can connect to the CONFIG schema and execute the below query:

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

## 6.4 Creating and Deploying 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, refer Appendix C.

**NOTE:** Refer the *Oracle Financial Services Forms Manager User Guide* for instructions on Creating and Deploying the Forms Manager Web Archive.

## 6.5 Accessing the OFSAA Application

Prior to accessing the OFSAA application ensure the Internet Explorer Settings are configured.

Refer to Appendix E for details on accessing the OFSAA Application on successful deployment of the application Web Archive.

## 6.6 OIDF Related Post Installation Activities

### 6.6.1 Verifying Data Model Change

As part of Data Model changes, it was mandatory not to have data in following Actual tables. Installer had taken a backup of Actual tables and deleted the contents of Actual tables as part of pre-scripts. The same data would have been restored automatically to the Actual tables and dropped backup tables as part of Post-scripts.

**NOTE:** Ensure the following listed Backup tables are not present in the upgraded environment. If any _803 table exists, load the data from the Backup table to the respective Actual table.

| Backup Table Name | Actual Table Name |
|---|---|
| FSI_PARTY_STD_PARTY_MAP_803 | FSI_PARTY_STD_PARTY_MAP |
| FCT_IFRS_ACCOUNT_SUMMARY_803 | FCT_IFRS_ACCOUNT_SUMMARY |
| FCT_IFRS_STAGE_DETER_803 | FCT_IFRS_STAGE_DETERMINATION |
| FCT_REG_CAP_ACCT_SUMMARY_803 | FCT_REG_CAP_ACCOUNT_SUMMARY |

| | |
|---|---|
| FCT_REG_CAP_PLCD_COLL_SUM_803 | FCT_REG_CAP_PLCD_COLL_SUMMARY |
| FCT_REG_CAP_POOL_SUMMARY_803 | FCT_REG_CAP_POOL_SUMMARY |
| FCT_REG_COUNTERPARTY_CVA_803 | FCT_REG_COUNTERPARTY_CVA |
| FCT_REG_CP_CAPITAL_SUMMARY_803 | FCT_REG_CP_CAPITAL_SUMMARY |
| FCT_REG_LE_CAPITAL_SUMMARY_803 | FCT_REG_LE_CAPITAL_SUMMARY |
| FCT_REG_OR_CAPITAL_SUMMARY_803 | FCT_REG_OR_CAPITAL_SUMMARY |
| FCT_REG_RUN_LEGAL_ENT_MAP_803 | FCT_REG_RUN_LEGAL_ENTITY_MAP |
| FCT_ LOAN_ACCOUNT_SUMMARY_804 | FCT_LOAN_ACCOUNT_SUMMARY |
| FCT_ INSTR_MARKET_PRICES_804 | FCT_INSTRUMENT_MARKET_PRICES |
| STG_ACCOUNT_INCEPTION_RATE_804 | STG_ACCOUNT_INCEPTION_RATES |
| FCT_ACCOUNT_FAIR_VALUE_804_BKP | |
| DIM_UOM_ATTR_804 | DIM_UOM_ATTR |
| DIM_UOM_HIER_804 | DIM_UOM_HIER |

### 6.6.2 Changing ICC Ownership

All the seeded Batches in OIDF 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.

For example:

*begin*

*AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP ('SYSADMN','OIDFOP','OIDFINFO');*

*end;*

## 6.7 Additional Configurations

### 6.7.1 Configurations for Big Data Processing

You can refer the *Configurations for Big Data Processing* section in the OFS Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide v8.0.2.0.0.

### 6.7.2 Configurations for Enterprise Modeling

You can refer the Oracle Financial Services Analytical Applications Infrastructure Applications Infrastructure Administration User Guide for information on configuration for Enterprise Modeling.

### 6.7.3 Configuration for Tomcat

You can refer the Oracle Financial Services Analytical Applications Infrastructure Applications Infrastructure Administration User Guide for information on configuration for Tomcat.

### 6.7.4 Configurations for Inline Processing Engine (IPE)

You can refer the Oracle Financial Services Analytical Applications Infrastructure Applications Infrastructure Administration User Guide for information on configuration for IPE.

### 6.7.5 Configurations for Process Modeling Framework

You can refer the Oracle Financial Services Analytical Applications Infrastructure Applications Infrastructure Administration User Guide for information on configuration for Process Modeling Framework.

### 6.7.6 Configurations for Forms Manager

You can refer the Oracle Financial Services Analytical Applications Infrastructure Applications Infrastructure Administration User Guide for information on configuration for Forms Manager.

### 6.7.7 Update Constraints Utility

You can refer the *Update Constraints Utility* section in the OFS Advanced Analytical Applications Infrastructure Application Pack Installation and Configuration Guide v8.0.4.0.0.

## 6.8 Performing Post Deployment Configurations

Prior to using the OFSAA Application, perform the Post Deployment Configuration steps detailed in Appendix F.

# 7 Appendix A: Configuring Web Server

This appendix includes the following sections:



## 7.1 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/ Hostname and Port of the web server. This information is required during the installation process.
Refer *Oracle Financial Services Analytical Applications Infrastructure Security Guide* mentioned in the Documentation Library for OFSAAI 8.0.5.0.0 (OHC), for additional information on securely configuring your Web Server.
Ensure to enable sticky session/affinity session configuration on the web server. Refer the respective product specific Configuration Guide for more details. Additionally, you also need to enable the sticky session/affinity session configuration at Load Balancer level if you have configured a Load Balancer in front of the web server(s).

## 7.2 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:



**NOTE:** Make a note of the IP Address/ Hostname and Port of the web application server. This information is required during the installation process (required if Web Server is not configured).
Make a note of the IP Address/ Hostname and Port of the web application server. This information is required during the installation process (required if web server is not configured).
Refer *OFSAA Secure Configuration Guide/ Security Guide* for additional information on securely configuring your Web Server.

### 7.2.1 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:

- Creating New Profile in WebSphere
- Managing Applications in WebSphere
- Deleting WebSphere Profiles
- Configuring WebSphere HTTPS
- Setting WebSphere Memory

#### 7.2.1.1 Creating New Profile in WebSphere

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

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

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

Example:

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

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

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

Example:

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

```
ipa020dor -enableAdminSecurity true -adminUserName ofsaai -
adminPassword ofsaai -samplespassword ofsaai"
```

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

#### 7.2.1.2 Managing Applications in WebSphere

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

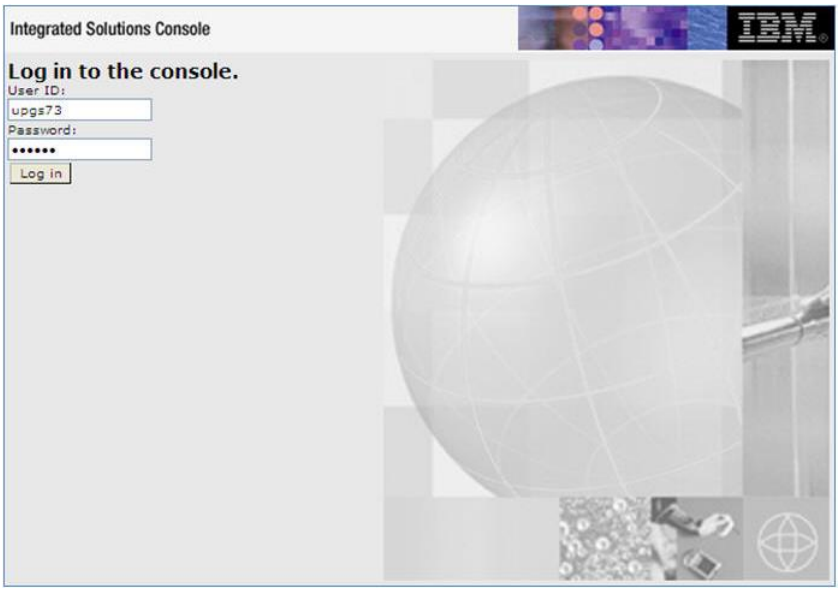
1. Open the administrator console using the following URL:

   `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.

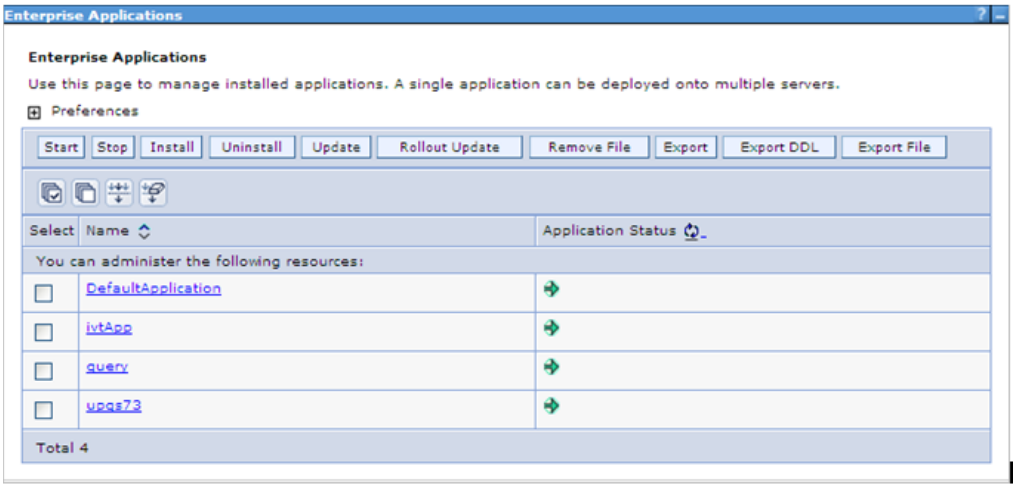
The *Integrated Solutions Console Login* window is displayed.




**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**.

4. The *Enterprise Applications* screen is displayed.




**Enterprise Applications**

5. This Enterprise Applications screen helps you to:

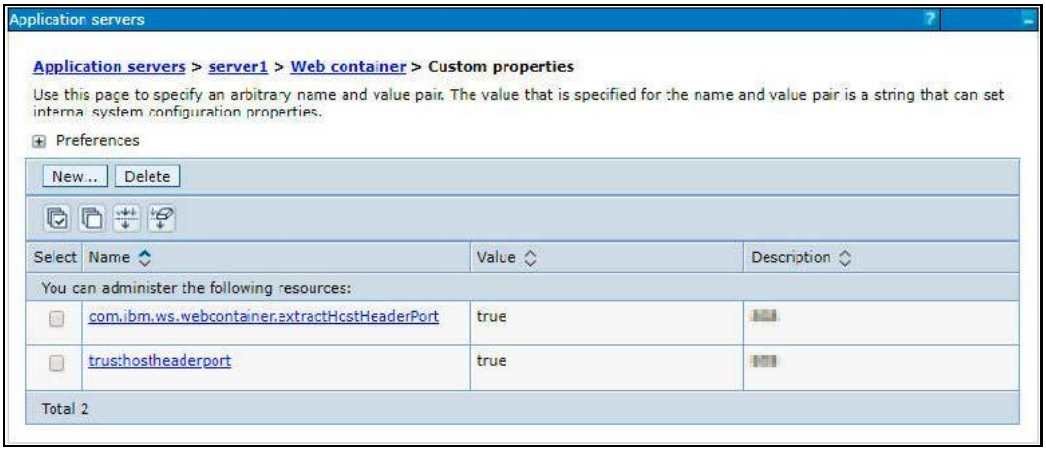
   - Install new application
   - Uninstall existing applications
   - Start or Stop the installed applications

#### 7.2.1.3 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: trusthostheaderportValue: true
   - Name: com.ibm.ws.webcontainer.extractHostHeaderPortValue: true
8. Restart the WebSphere Application Server to apply the changes.

#### 7.2.1.4 Deleting WebSphere Profiles

To delete a WebSphere profile, do the following:

1. Select the checkbox 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.
6. Example:

   ```
   <WebSphere_Installation_Directory>/AppServer/profiles/<profile_name>
   ```
7. Execute the command:

   ```
   manageprofiles.sh -validateAndUpdateRegistry
   ```

#### 7.2.1.5 Configuring WebSphere HTTPS

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

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

   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.

#### 7.2.1.6 Setting WebSphere Memory

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

### 7.2.2 Configuring WebLogic for Application Deployment

Applicable only if the web container is WebLogic.

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

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

This section includes the following topics:

- Creating Domain in WebLogic Server
- Deleting Domain in WebLogic
- Setting WebLogic Memory

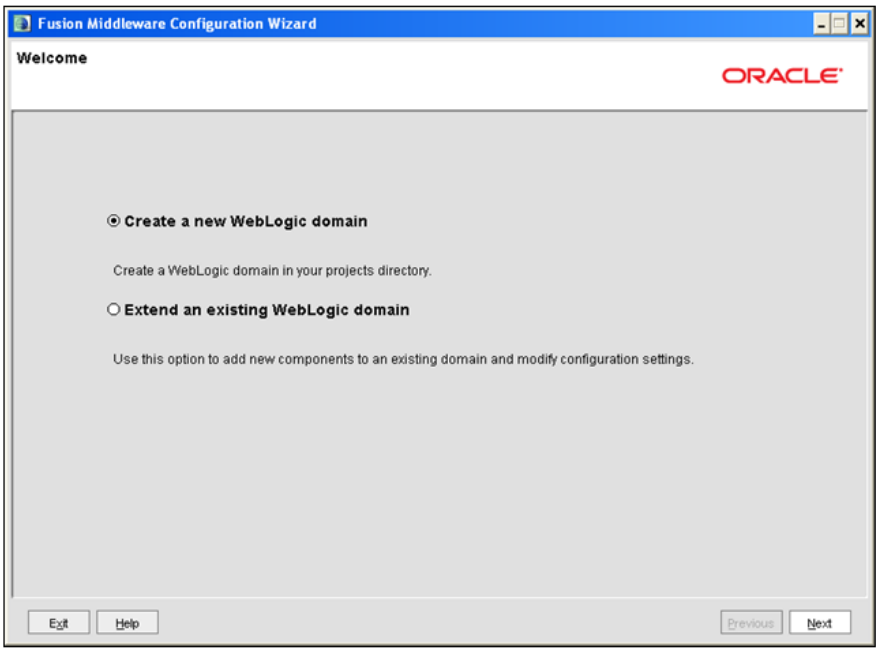
#### 7.2.2.1 Creating Domain in WebLogic Server

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

1. Navigate to <WLS_HOME>/wlserver/common/bin directory and execute the command:

   ./config.sh

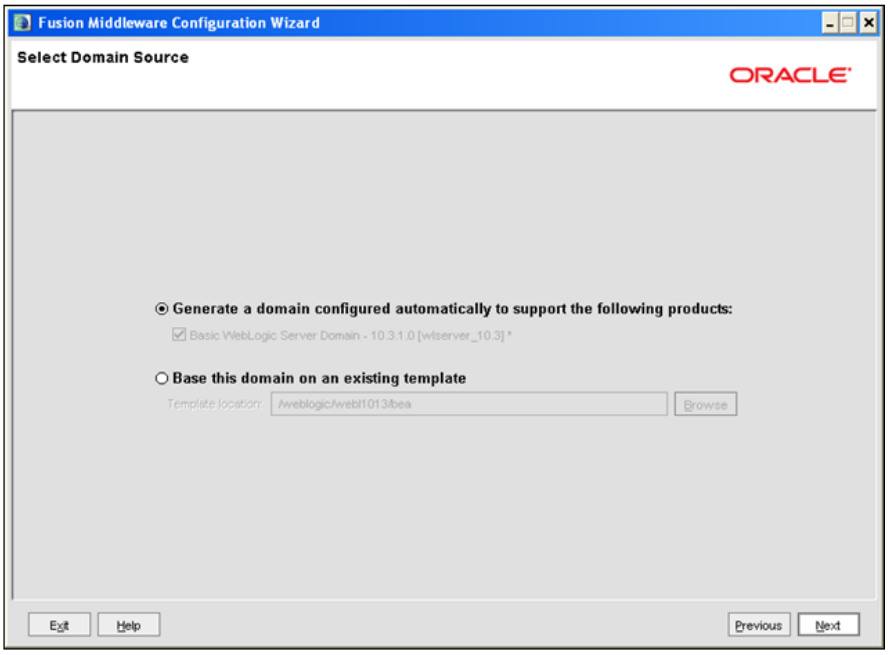
   The *Welcome* window of the *Configuration Wizard* is displayed.




**Welcome**

2. Select **Create a new WebLogic domain** option and click **Next**.

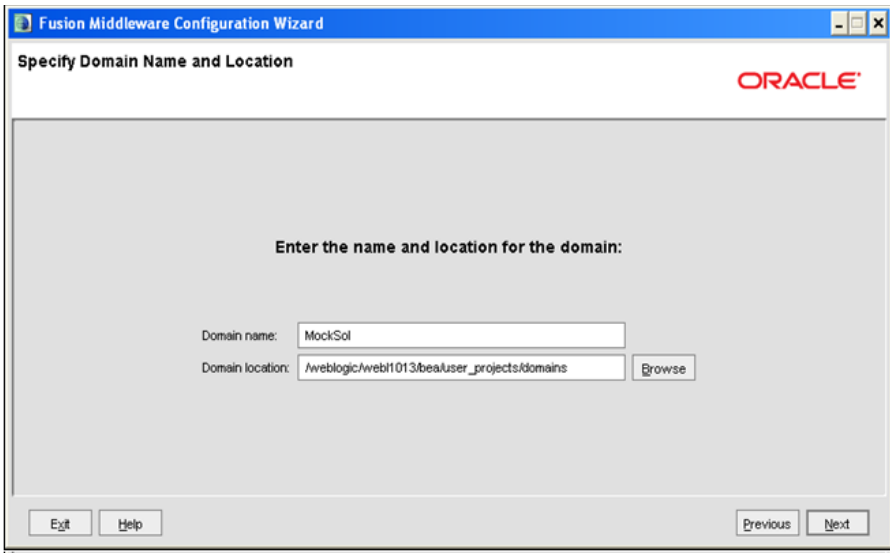
   The *Select Domain Source* window is displayed.




**Select Domain Source**

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

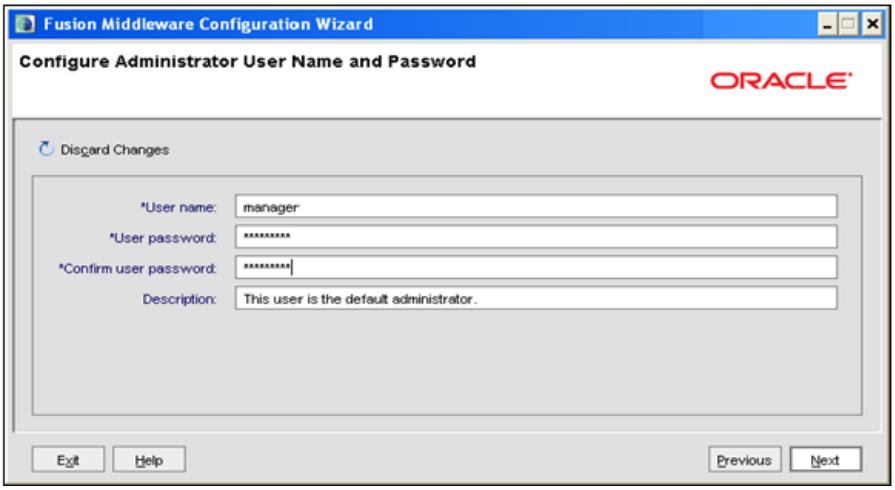
4. The *Specify Domain Name and Location* window is displayed.




**Specify Domain Name and Location**

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

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

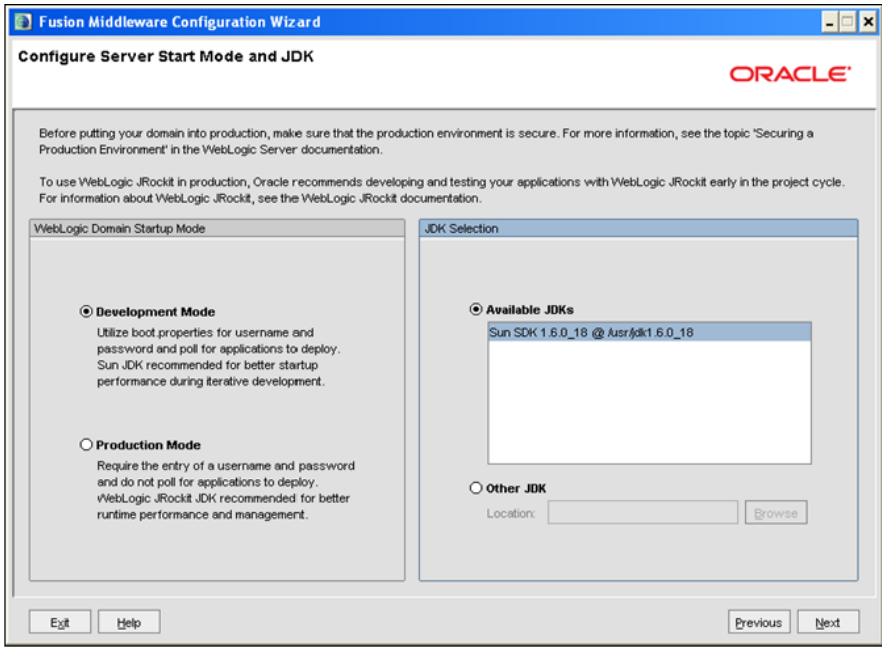



**Configure Administrator Username and Password**

6. Enter the **User name** and **User password** to be assigned to the Administrator. Ensure that the password is of minimum 8 characters in length.

7. Re-enter the password for confirmation and add a brief **Description**. Click **Next**.

   The *Configure Server Start Mode and JDK* window is displayed.



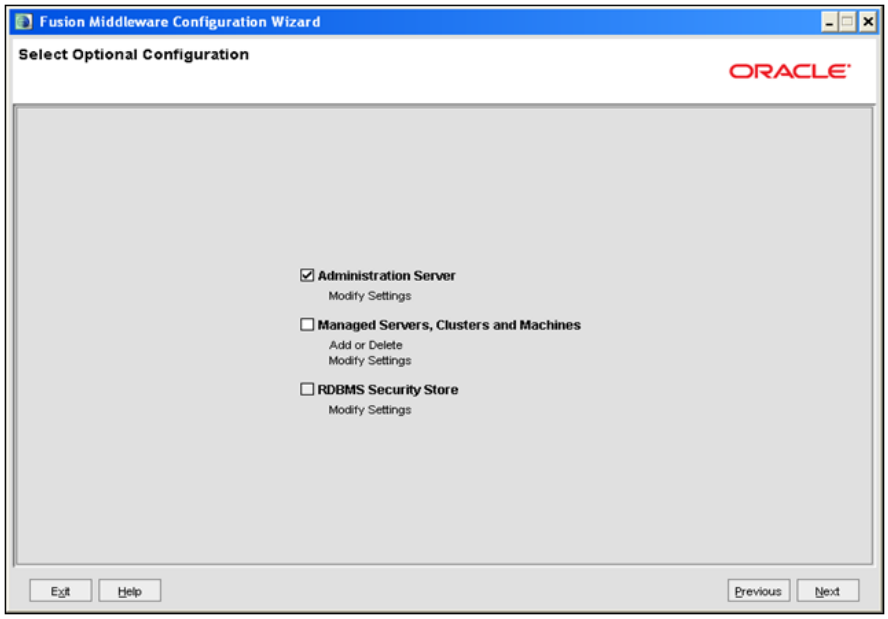

**Configure Server Start Mode and JDK**

8. 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**.

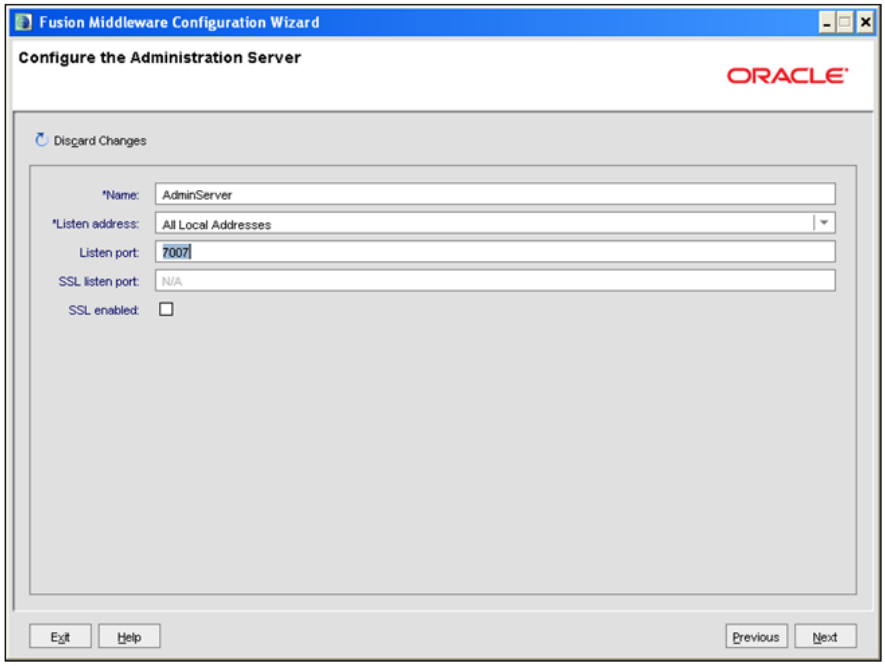
   The *Select Optional Configuration* window is displayed.




**Select Optional Configuration**

9. 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.

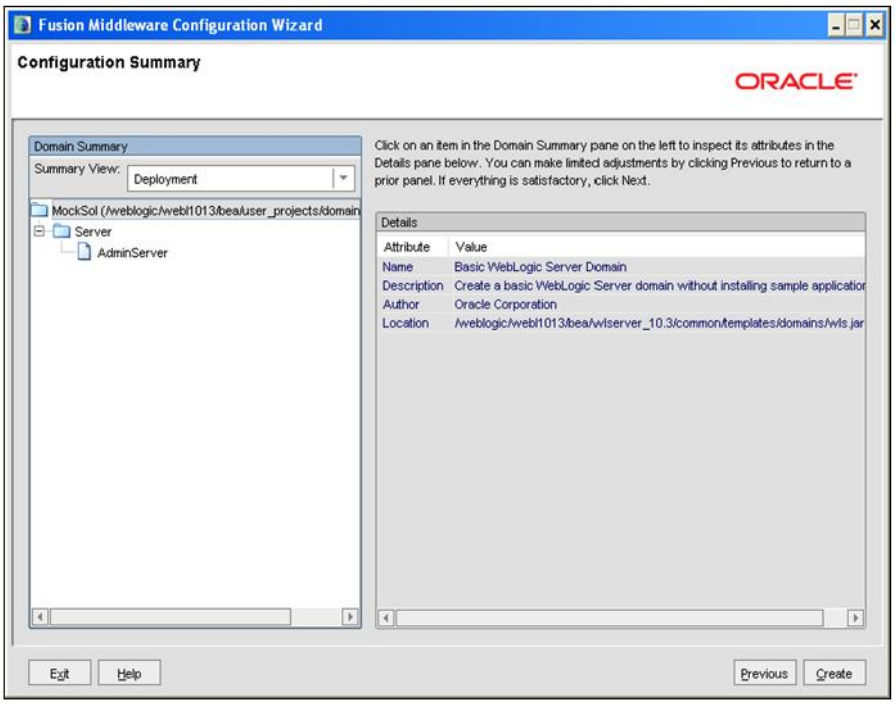



**Configure the Administration Server**

10. 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**.

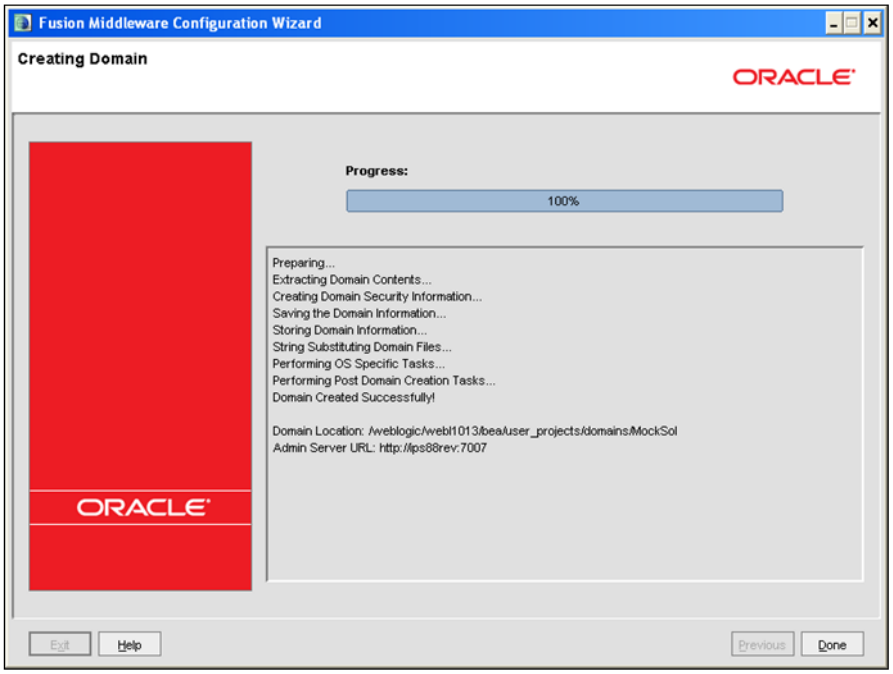
    The *Configuration Summary* window is displayed.

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




**Configure Server Start Mode and JDK**

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




**Configure Server Start Mode and JDK**

13. 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

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

#### 7.2.2.2 Deleting 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.

#### 7.2.2.3 Setting WebLogic Memory

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"
```

### 7.2.3 Configuring Apache Tomcat Server for Application Deployment

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

- Administering Tomcat User
- Configuring Tomcat to use JAVA 64 bit Executables
- Configuring Servlet Port
- Configuring SL Port
- Setting Apache Tomcat Memory
- Uninstalling WAR Files in Tomcat
- Configuring Axis API

#### 7.2.3.1 Administering Tomcat User

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

1. Add the manager role to any one of the existing username/password combination as shown in the example above.
2. Use the same username/password to which the manager-gui 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.

#### 7.2.3.2 Configuring 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/java/jdk1.7.0_65/jre/bin
export JAVA_BIN = /usr/jdk1.7.0_75/bin/sparcv9 for Solaris Sparc
```

#### 7.2.3.3 Configuring 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 file.

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

#### 7.2.3.4 Configuring SSL Port

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, refer to http://tomcat.apache.org/.

#### 7.2.3.5 Setting Apache Tomcat Memory

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.
4. 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
```

#### 7.2.3.6 Uninstalling WAR Files in Tomcat

To uninstall WAR files in Tomcat refer Uninstalling WAR Files in Tomcat.

#### 7.2.3.7 Configuring 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.

# 8 Appendix B: Configuring Resource Reference in Web Application Servers

This appendix includes the following topics:



## 8.1 Configuring Resource Reference in WebSphere Application Server

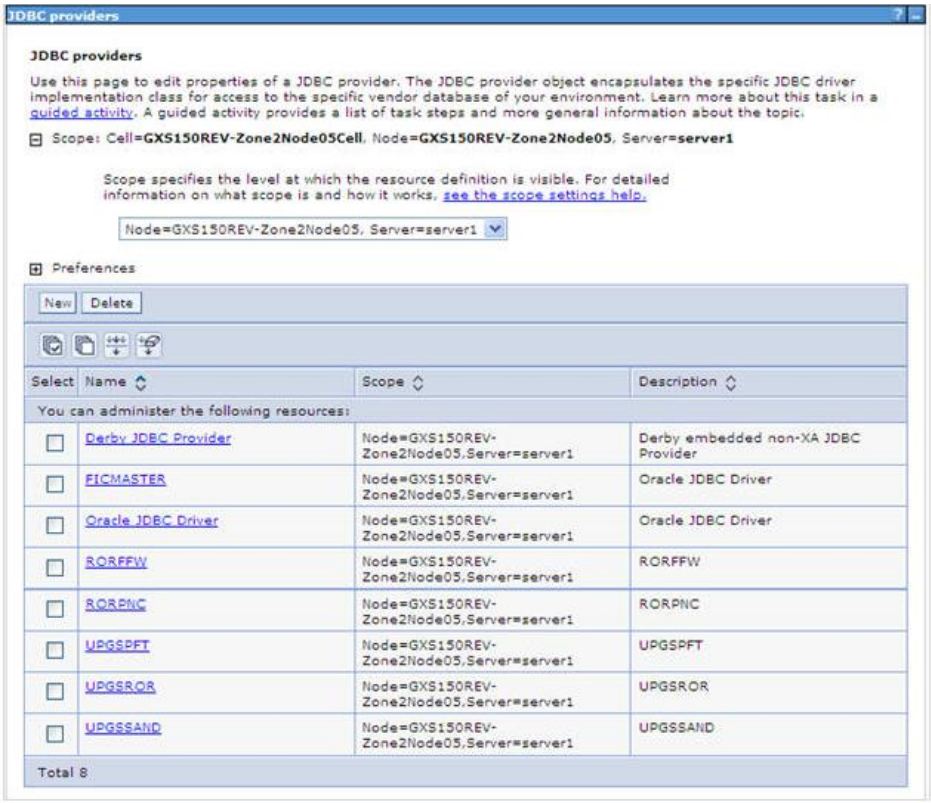
This section is applicable only when the Web Application Server is WebSphere.

This section includes the following topics:



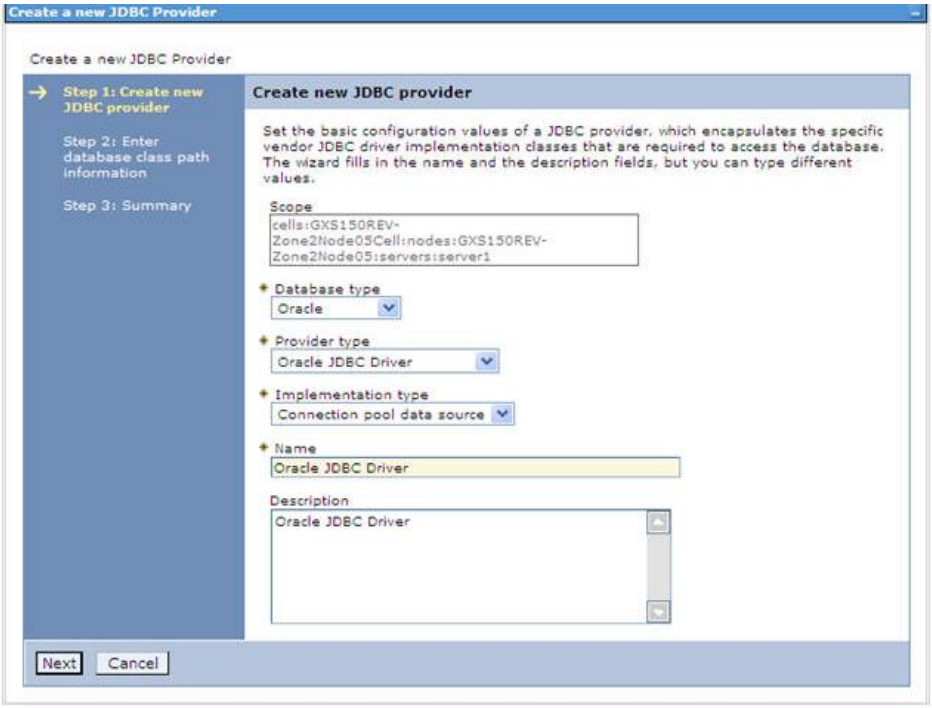
### 8.1.1 Creating JDBC Provider

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



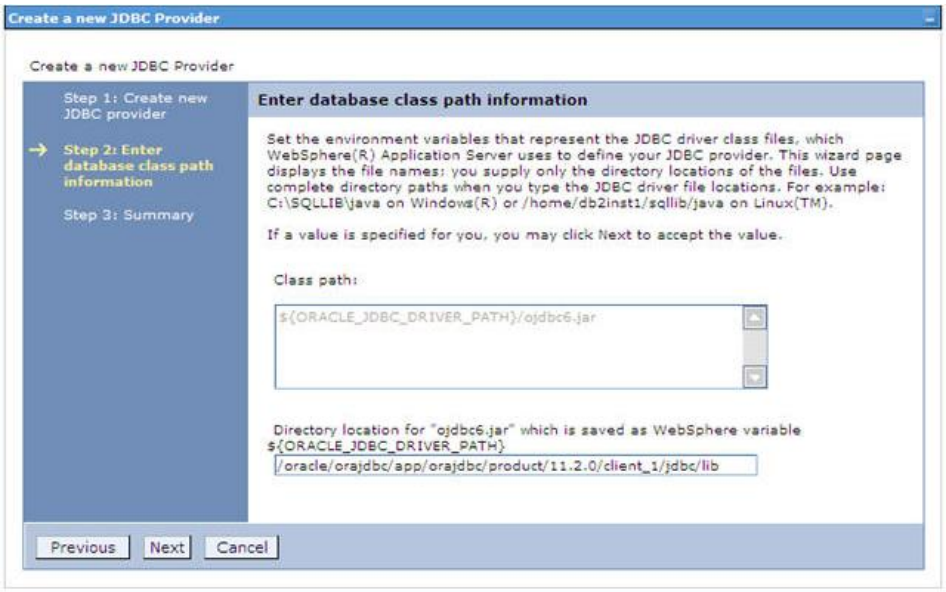

**JDBC Providers**

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.




**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.**




**Enter database class path information**

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

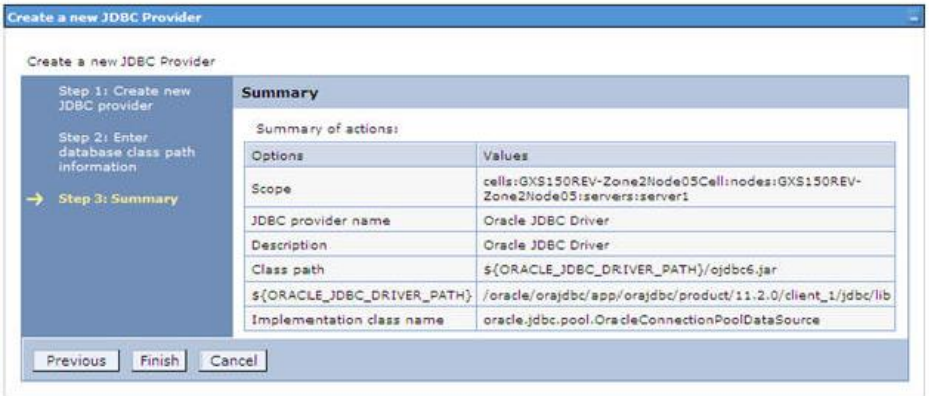
   The Oracle JDBC driver can be downloaded from the following Oracle Download site:

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

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

**NOTE:** Refer Appendix O for identifying the correct `ojdbc<version>.jar` version to be copied.

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




**Summary**

10. Verify the details and click **Finish** to create the JDBC Provider.
11. The options to **Save** and **Review** are displayed. Click **Save**.

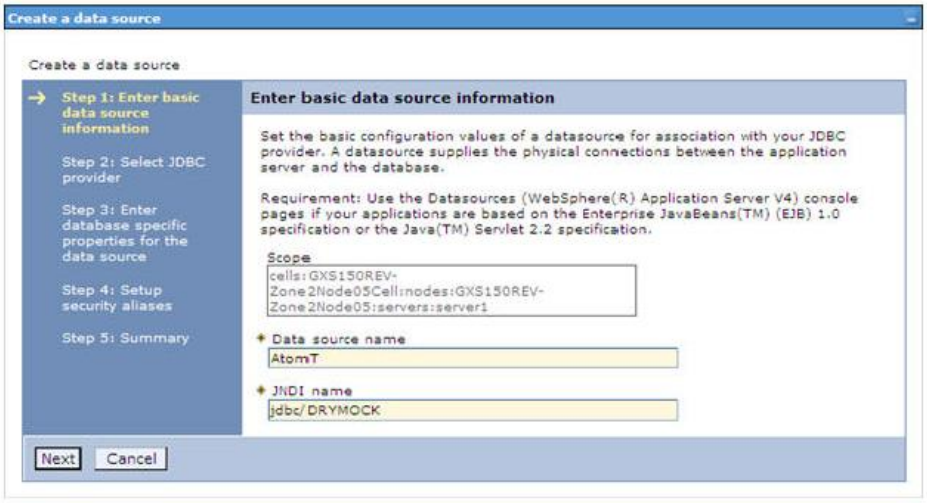
### 8.1.2 Creating Data Source

The steps given below are applicable for both CONFIG and ATOMIC data source creation.

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


**Data Sources**

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




**Create a Data Source**

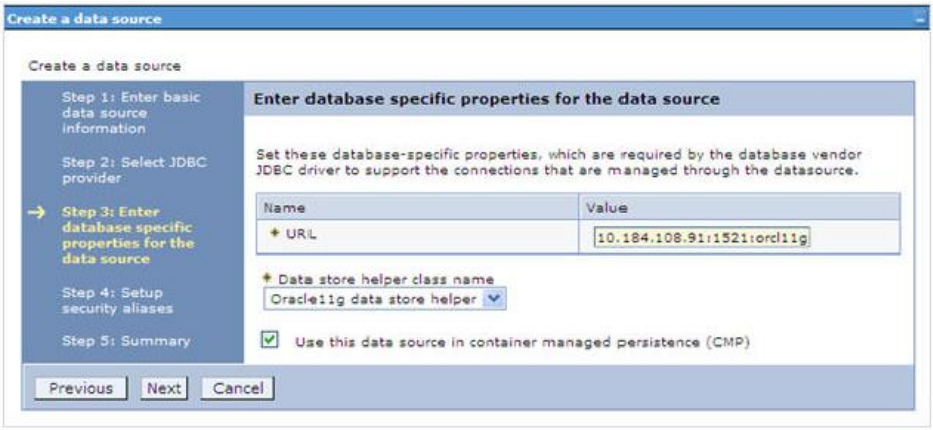
6. Specify **the Data Source name** and **JNDI name** for the new "Data Source".

   The **JNDI** and **Data Source name** are case sensitive. Ensure that JNDI name is same as the "Information Domain" name.

7. Click **Next**. The Select *JDBC provider* window is displayed.


**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**.




**Enter Database Properties**

9. Specify the database connection URL.

   For Example: `jdbc:oracle:thin:@<DB_SEREVER_IP>:<DB_SERVER_PORT>:<SID>`

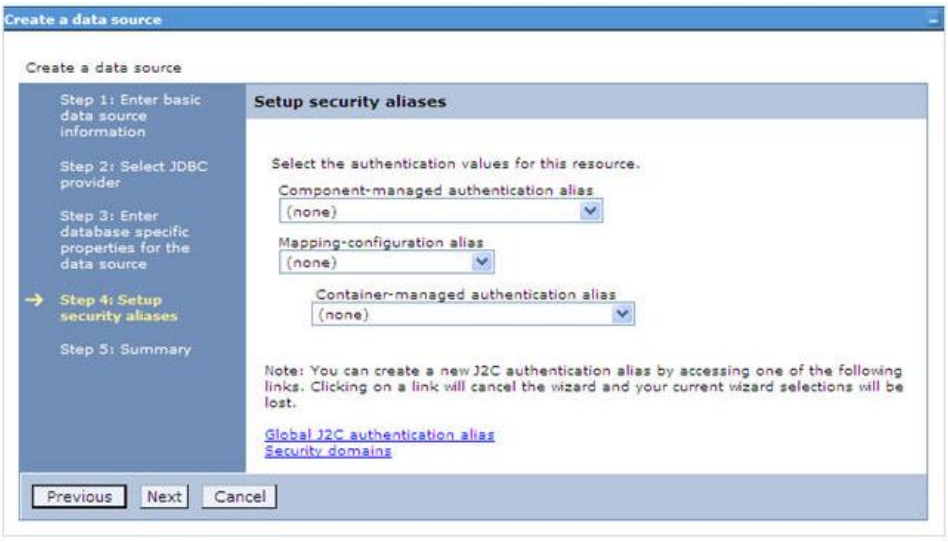
10. Select **Data Store Helper Class Name** from the drop-down list and ensure that the checkbox **Use this data source in container managed persistence (CMP)** is selected.

**NOTE:** For RAC configuration, provide the RAC URL specified during installation.

For Example:

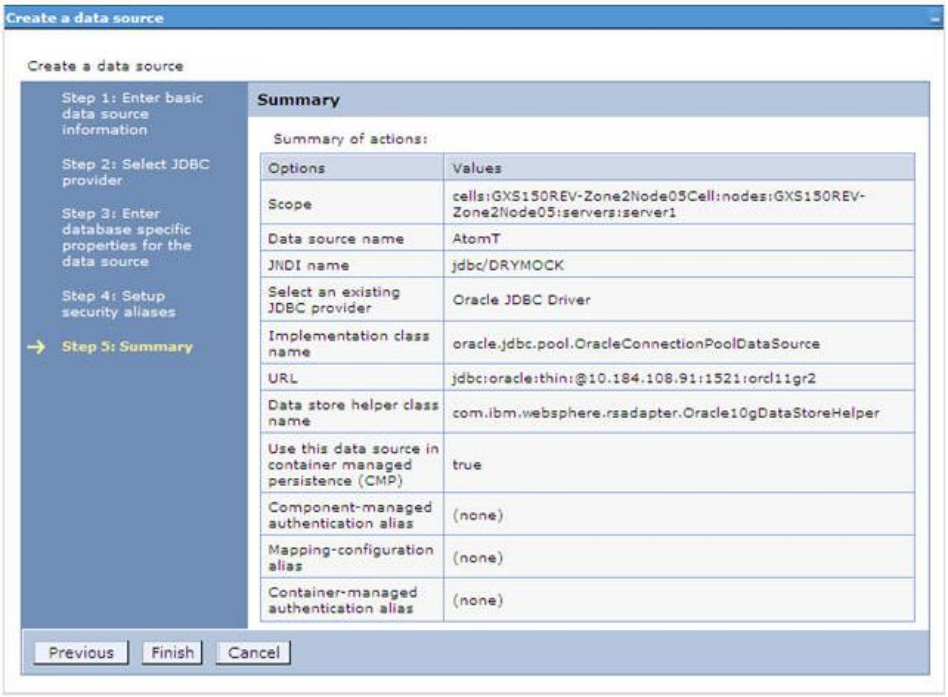
```
jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=1
0.11.12.13)(port=1521))(ADDRESS=(PROTOCOL=TCP)(HOST=10.11.12.14)(PORT=1521)
)(LOAD_BALANCE=no)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=pqadb)))
```

11. Click **Next**.




**Setup Security Aliases**

12. Map the J2C authentication alias, if already created. If not, you can create a new J2C authentication alias by accessing the link given (**Global J2C authentication alias**) or you can continue with the data source creation by clicking **Next** and then **Finish**.




**Summary**

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

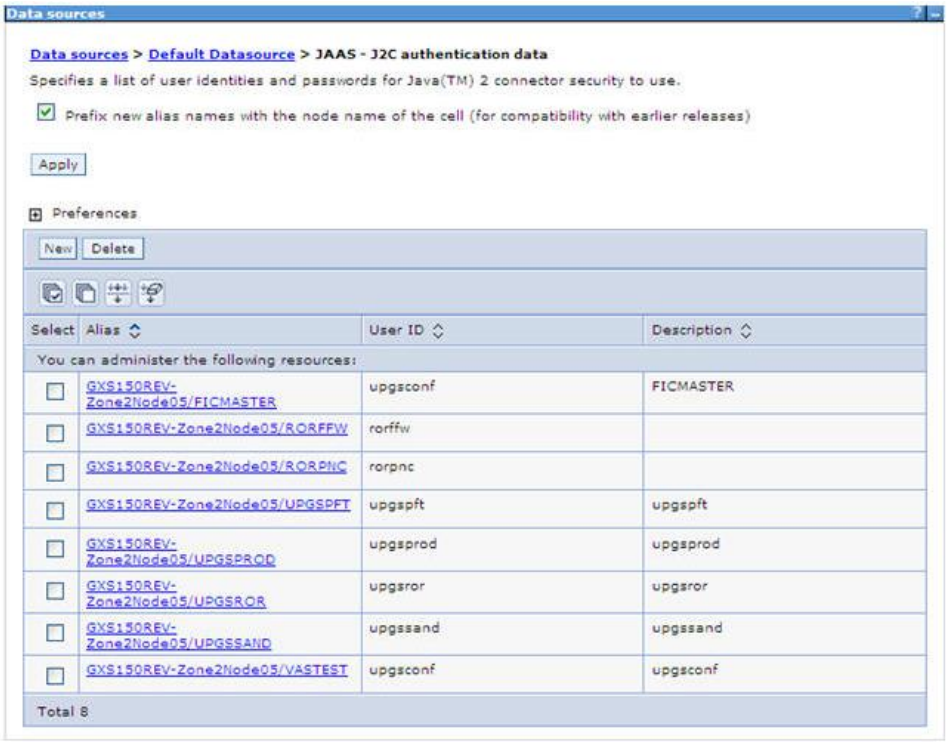
13. You must create another Data source by following the above procedure with jdbc/FICMASTER as JNDI name pointing to the "configuration schema" of Infrastructure.

### 8.1.3 Creating J2C Authentication

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

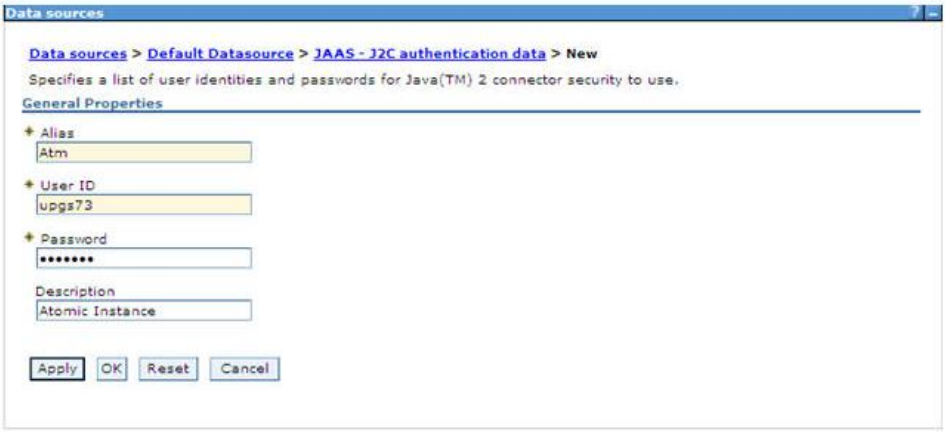
To create J2C Authentication details:

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




**JAAS - J2C Authentication Data**

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



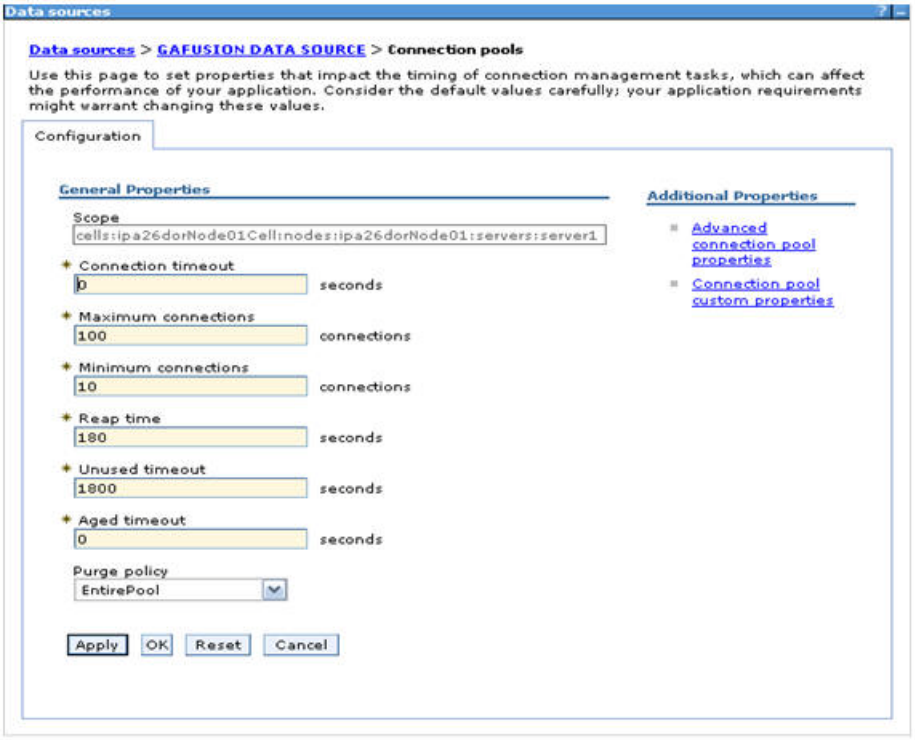

**JAAS - J2C Authentication Data - New**

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.

### 8.1.4 Creating JDBC Connection Pooling

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

1. Expand the **Resources** option in the LHS menu and click **JDBC → Data sources** option. The *Data sources* page is displayed.
2. Click the newly created Data Source `$DATA_SOURCE$` and navigate to the path `Data sources>$DATA_SOURCE$>Connection pools`.




**Connection Pools**

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

## 8.2 Configuring Resource Reference in WebLogic Application Server

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

- Creating Data Source
- Creating GridLink Data Source
- Configuring Multi Data Sources
- Advanced Settings for Data Source
- Creating JDBC Connection Pooling

In WebLogic, you can create "Data Source" in the following ways:

- For a Non RAC Database instance, Generic Data Source has to be created. See Creating Data Source.
- For a RAC Database instance, GridLink Data Source has to be created. See Creating GridLink Data Source.
- When Load Balancing/Fail over is required, Multi Data Source has to be created. See Configuring Multi Data Sources.

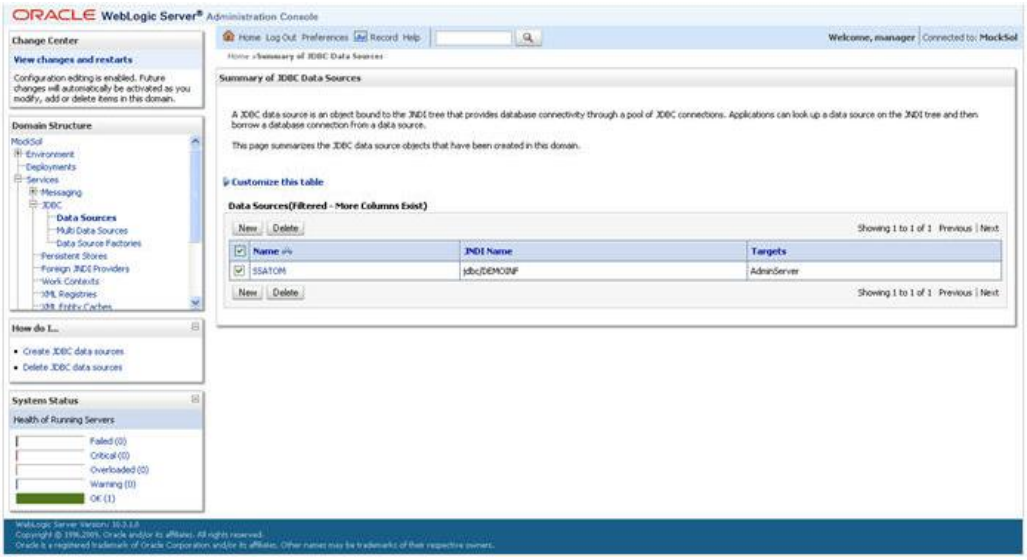
#### 8.2.1.1 Creating Data Source

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

1. Open 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 Administrator **Username** and **Password**.


**Welcome**

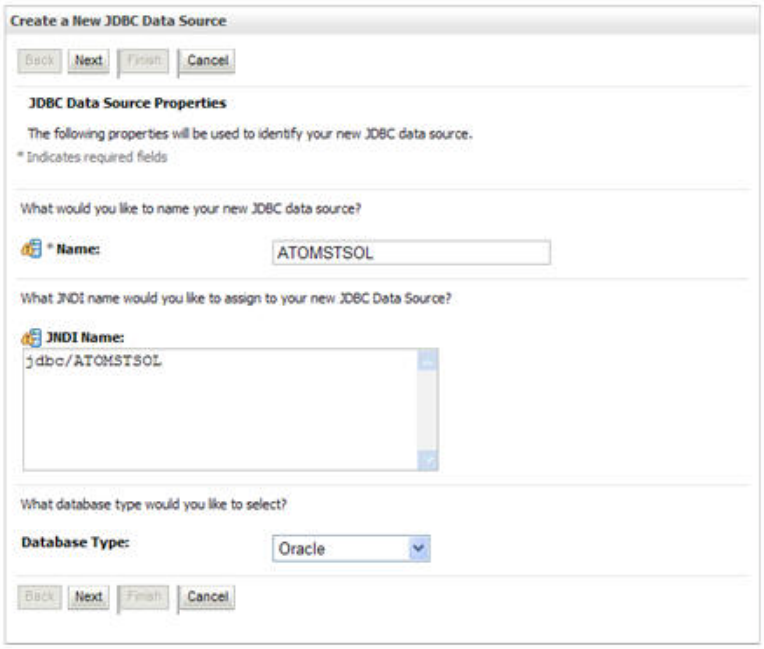
3. From the LHS menu (Domain Structure), click **Services** → **Data Sources**. The *Summary of JDBC Data Sources* window is displayed.




**Summary of JDBC Data Sources**

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

   You can also select **GridLink Data Source** or **Multi Data Source** while creating a Data Source. For more information, see Creating Data Source or Configuring Multi Data Sources.

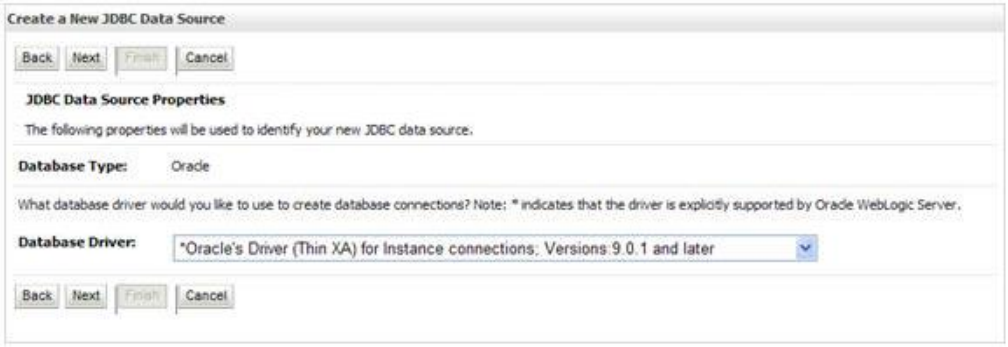



**Create a New JDBC Data Source**

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

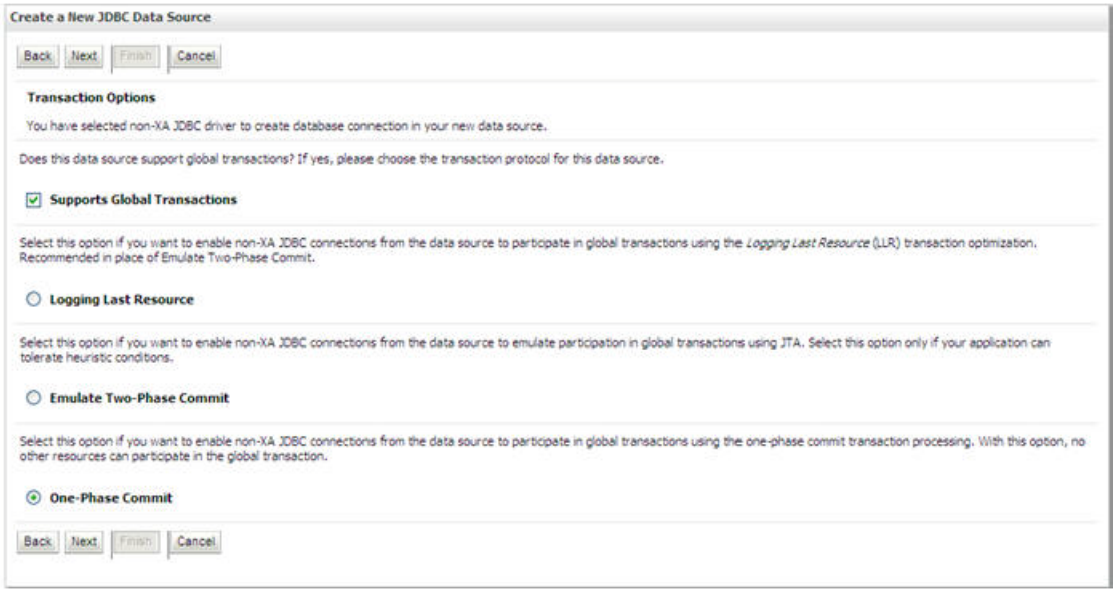
   Ensure the following:

   - The JNDI Name field should be in the format "jdbc/informationdomain"
   - Same steps needs to be followed to create a mandatory data source pointing to the "configuration schema" of infrastructure with `jdbc/FICMASTER` as JNDI name.
   - JNDI Name is the same as mentioned in `web.xml` file of OFSAAI Application.
   - Required "Database Type" and "Database Driver" should be selected.



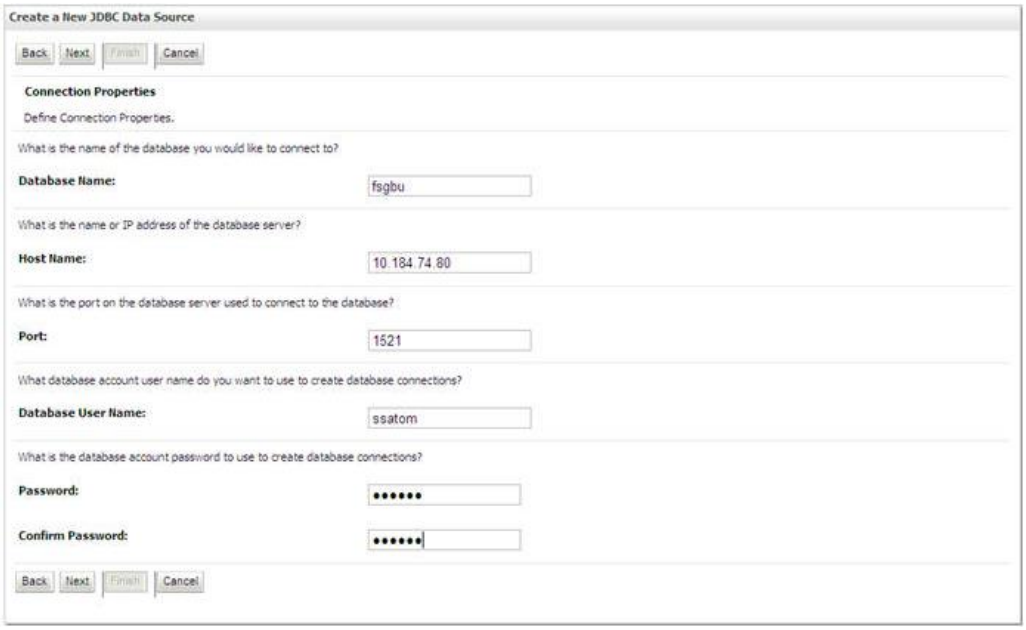

**JDBC Data Source Properties**

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**.




**Transaction Options**

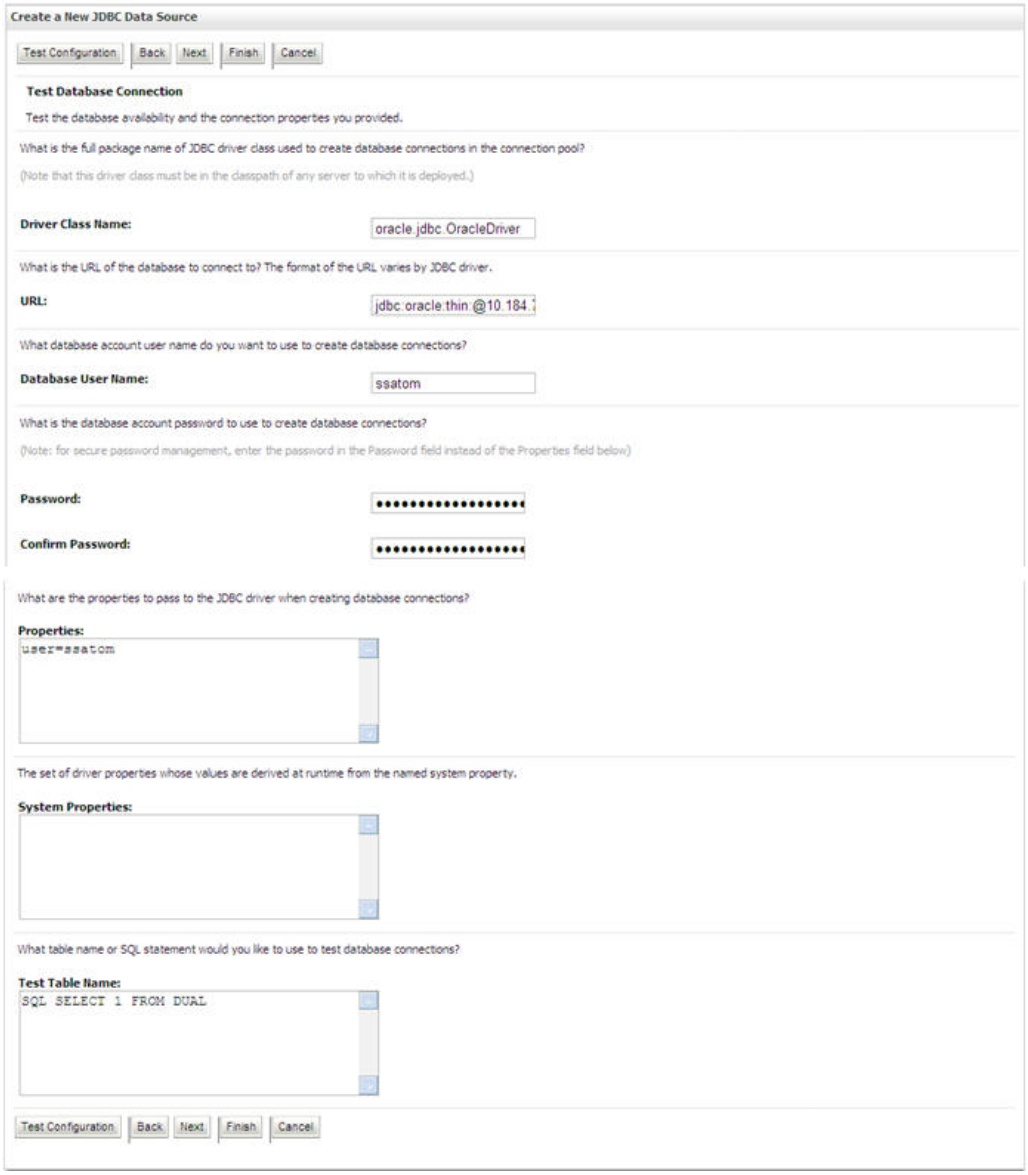
7. Select the Supports Global Transactions checkbox and the One-Phase Commit option.
8. Click **Next**. The *Connection Properties* window is displayed.




**Connection Properties**

9. Enter the required details such as the **Database Name**, **Host Name**, **Port**, **Oracle User Name**, and **Password**.

10. Click **Next**. The *Test Database Connection* window is displayed.




**Test Database Connection**

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

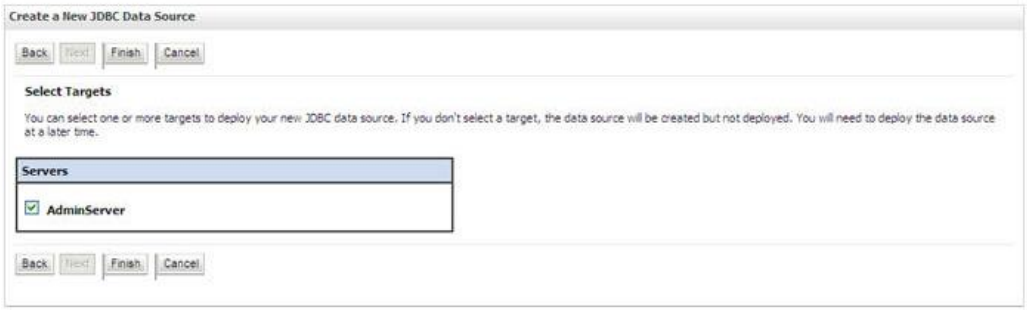
    A confirmation message is displayed stating "Connection test succeeded."

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 CONFIG and ATOMIC schema of 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.

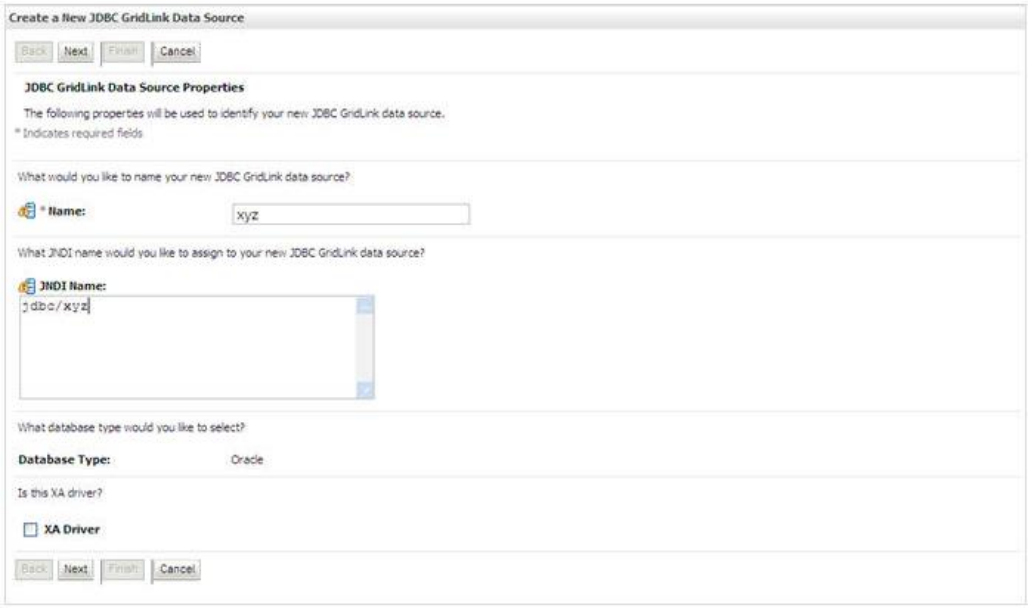



**Select Targets**

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

### 8.2.1.2 Creating GridLink Data Source

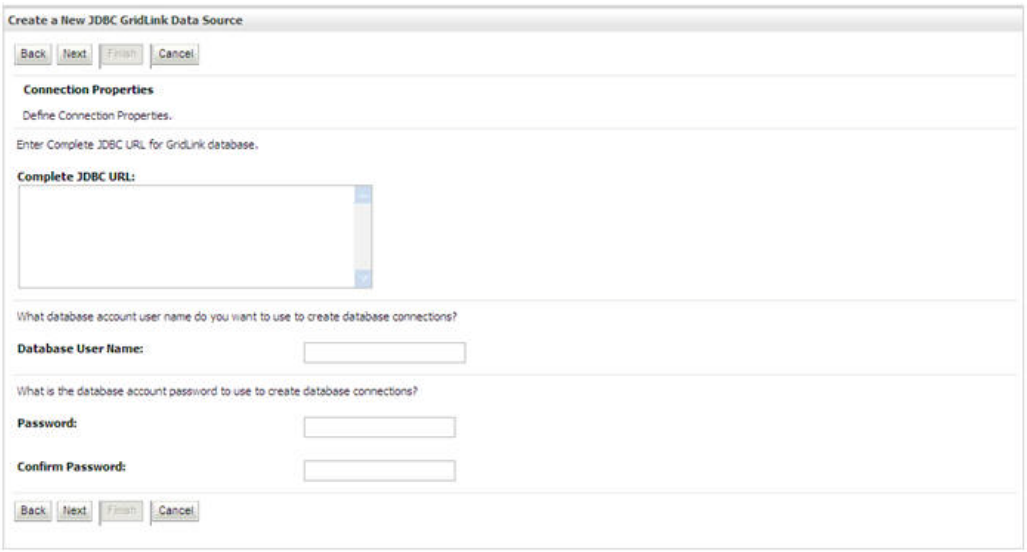
If you have selected the option, **New → GridLink Data Source** while creating the "Data Source", you can directly specify the JDBC URL as indicated.




**Create a New JDBC GridLink Data Source**

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

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




**JDBC GridLinkData Source- Connection Properties**

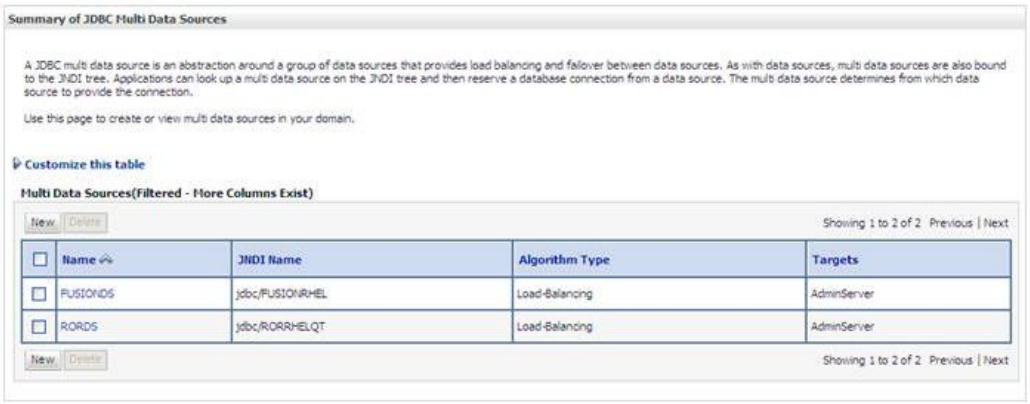
2. Specify **Complete JDBC URL**, **Database User Name**, and **Password**. Click **Finish**. The created "Data Source" is displayed in the list of Data Sources.

#### 8.2.1.3 Configuring Multi Data Sources

A JDBC multi data source is an abstraction around a group of data sources that provides load balancing and failover between data sources. As with data sources, multi data sources are also bound to the JNDI tree. Applications can look up a multi data source on the JNDI tree and then reserve a database connection from a data source. The multi data source determines from which data source to provide the connection.

When the database used is **Oracle RAC (Real Application Clusters)** which allows Oracle Database to run across a set of clustered servers, then group of data sources can be created for instances running on a set of clustered servers and a JDBC multi data source can be created so that applications can look up a multi data source on the JNDI tree to reserve database connection. If a clustered server fails, Oracle continues running on the remaining servers.

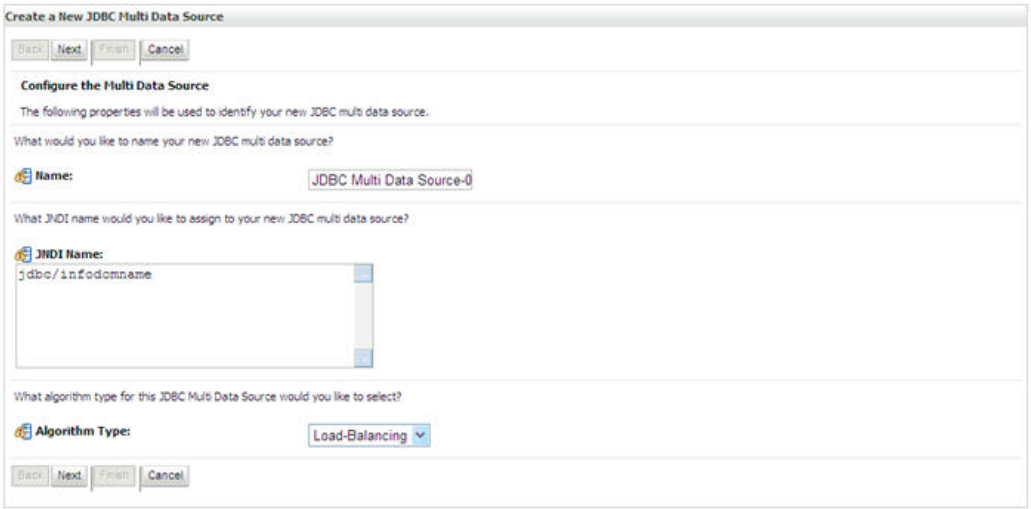
1. Open WebLogic Admin Console in the browser window: `http://<ipaddress>:<administrative console port>/console`. (https, if SSL is enabled). The Login window is displayed.
2. Login with the "User ID" that has admin rights.
3. In the LHS menu (Domain Structure), select **Services** → **JDBC** → **Multi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




**Summary of JDBC Multi Data Sources**

4. Click **New**. The *New JDBC Multi Data Source* screen is displayed.

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




**Configure the Multi Data Source**

5. 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/infodomname.
JNDI Name of the Data Sources that will be added to new JDBC Multi data source should be different from the JNDI name specified during Multi Data Source.

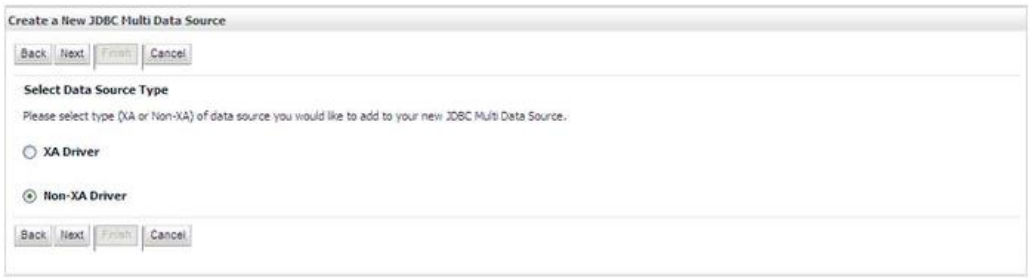
Same steps needs to be followed to create a mandatory data source pointing to the "configuration schema" of infrastructure with jdbc/FICMASTER as JNDI name for Data Source.

JNDI Name provided in multi data source should be the same name that will be mentioned in the web.xml file of OFSAAI Application.

You can select the Algorithm Type as Load-Balancing.

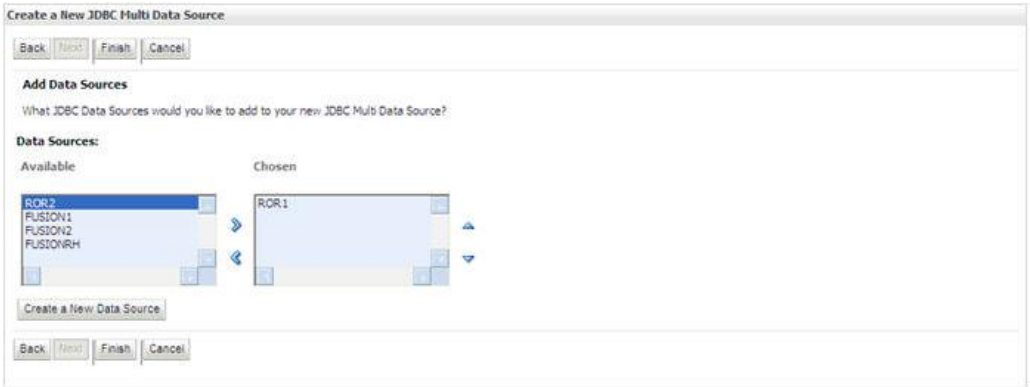

**Select Targets**

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




**Select Data Source Type**

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



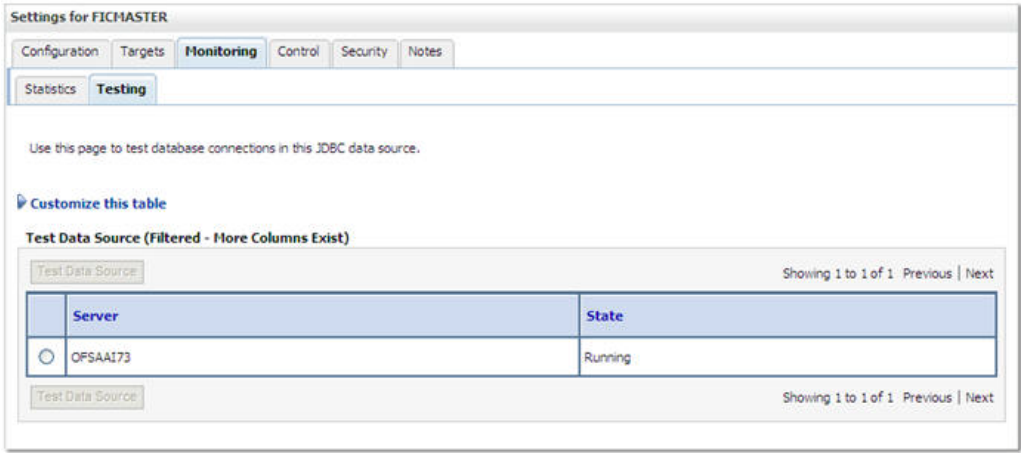

**Add Data Sources**

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.

#### 8.2.1.4 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.




**Settings for <Data Source Name>**

5. Select the server and click **Test Data Source**.
6. A message is displayed indicating that the test was successful.
7. 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.

#### 8.2.1.5 Creating 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 `Oracle 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**.

## 8.3 Configuring Resource Reference in Tomcat Application Server

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

This section includes the following topics:

- Creating Data Source
- Creating JDBC Connection Pooling
- Configuring Class Loader 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:** Refer Appendix O for identifying the correct `ojdbc<version>.jar` version to be copied.

### 8.3.1 Creating 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 `ofsaaconf`, then the actual schema created in the database would be `DEV_ofsaaconf`.

```
<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.

### 8.3.2 Creating 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 Appendix O 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:

$APP_DEPLOYED_PATH$ should be replaced by OFSAAI application deployed path.$INFODOM_NAME$ should be replaced by Information Domain Name.

$ATOMICSCHEMA_USERNAME$ should be replaced by Atomic schema database user name.

$ATOMICSCHEMA_PASSWORD$ should be replaced by Atomic schema database password.

$JDBC_CONNECTION_URL should be replaced by JDBC connection string jdbc:Oracle:thin:<IP>:<PORT>:<SID>.
For example: jdbc:oracle:thin 10.80.50.53:1521:soluint

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 ofsaaconf, then the actual schema created in the database would be DEV_ofsaaconf.

### 8.3.3 Configuring Class Loader for Apache Tomcat

1. Edit the server.xml available in $TOMCAT_HOME/conf/ folder.
2. 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.

# 9 Appendix C: Creating and Deploying EAR/ WAR File

This appendix includes the following topics:



## 9.1 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` command 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/OFSA80/ficweb
/scratch/ofsaaweb/OFSA80/ficweb>
/scratch/ofsaaweb/OFSA80/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/OFSA80/ficweb>./ant.sh
executing "ant"
Buildfile: build.xml

createwar:
      [war] Building war: /scratch/ofsaaweb/OFSA80/ficweb/AAI80.war

createear:
      [ear] Building ear: /scratch/ofsaaweb/OFSA80/ficweb/AAI80.ear

BUILD SUCCESSFUL
Total time: 2 minutes 8 seconds
/scratch/ofsaaweb/OFSA80/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.

## 9.2 Deploying EAR/WAR File

This section includes the following topics:

- Deploying WebSphere EAR/WAR Files
- Deploying WebLogic EAR/WAR Files
- Deploying Tomcat WAR Files

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

### 9.2.1 Deploying EAR/WAR Files on WebSphere

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

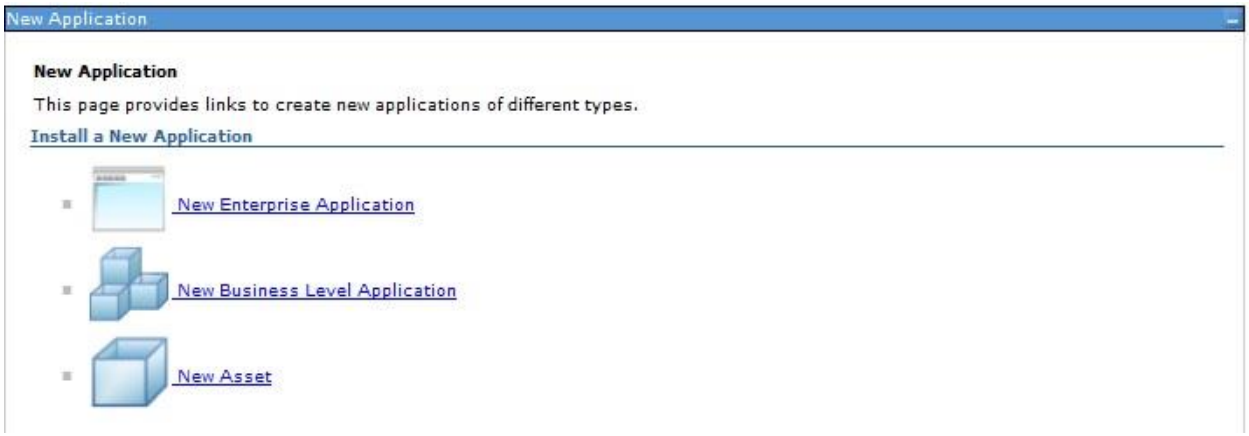
1. Start WebSphere Profile by navigating to the path `/<Websphere_Installation_Directory>/IBM/WebSphere/AppServer/profiles/<Profile_Name>/bin/` and execute the command:

   `./startServer.sh server1`

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


**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**. The *New Application* window is displayed.

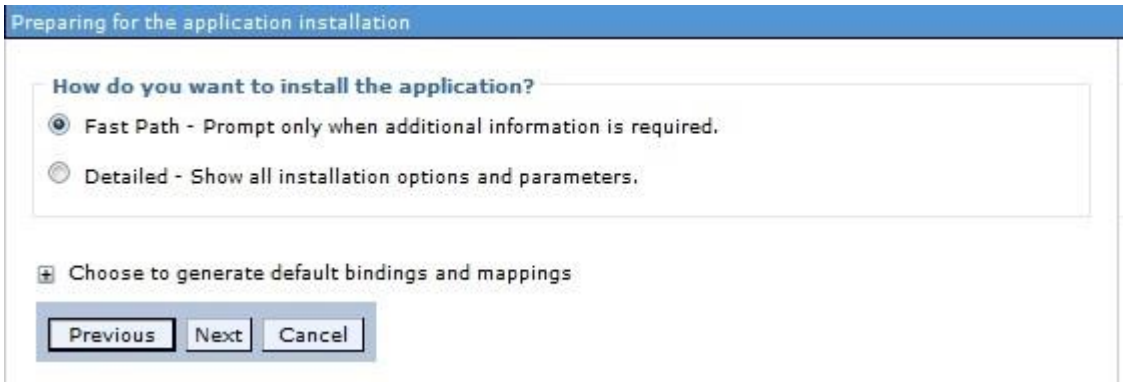



**New Application**

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

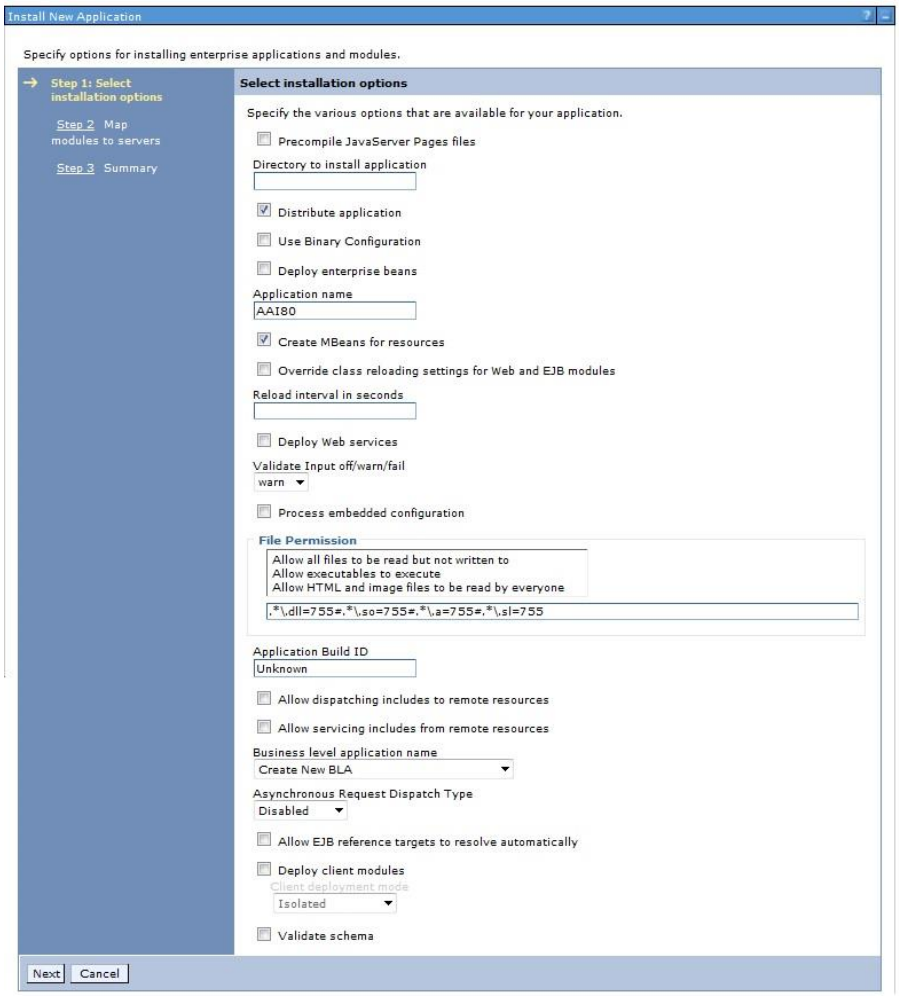

**Preparing for the Application Installation**

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



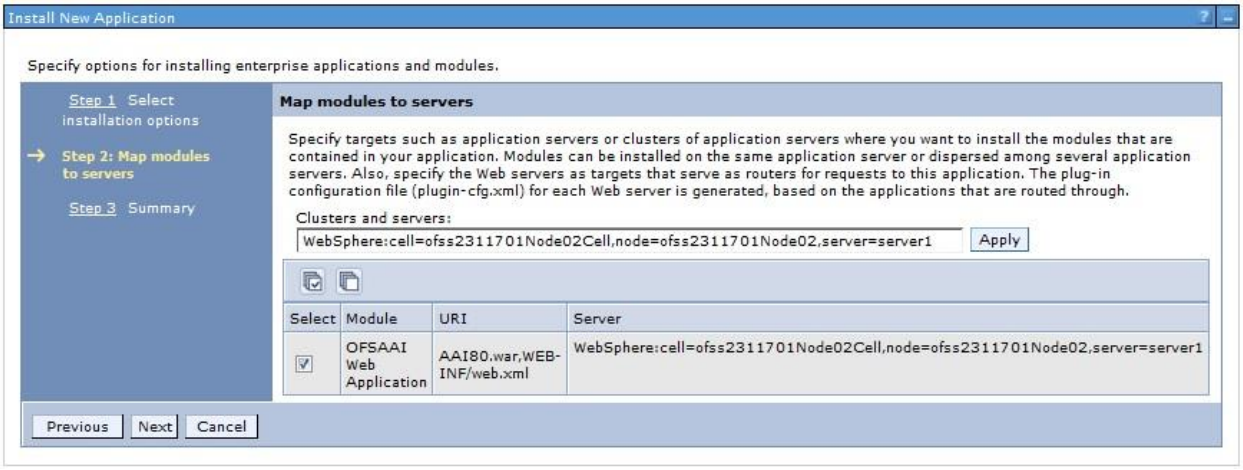

**Installation Options**

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



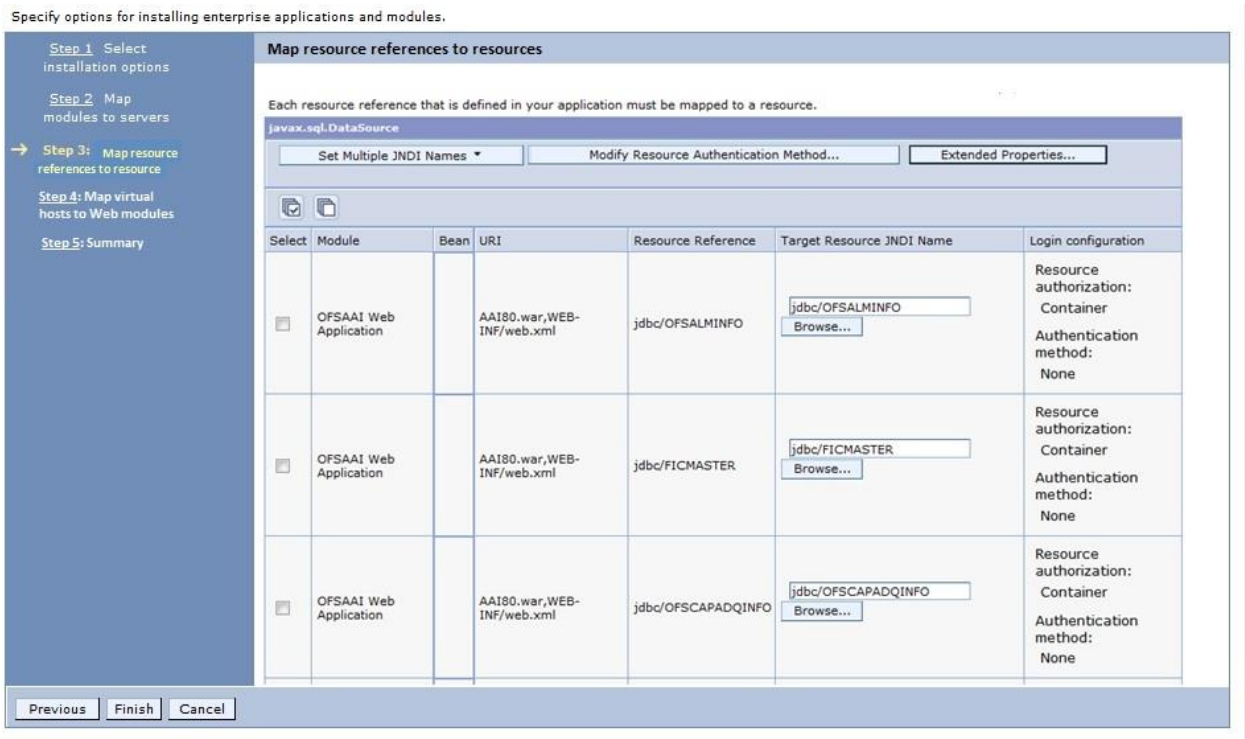

**Install New Application**

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




**Map Modules to Servers**

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



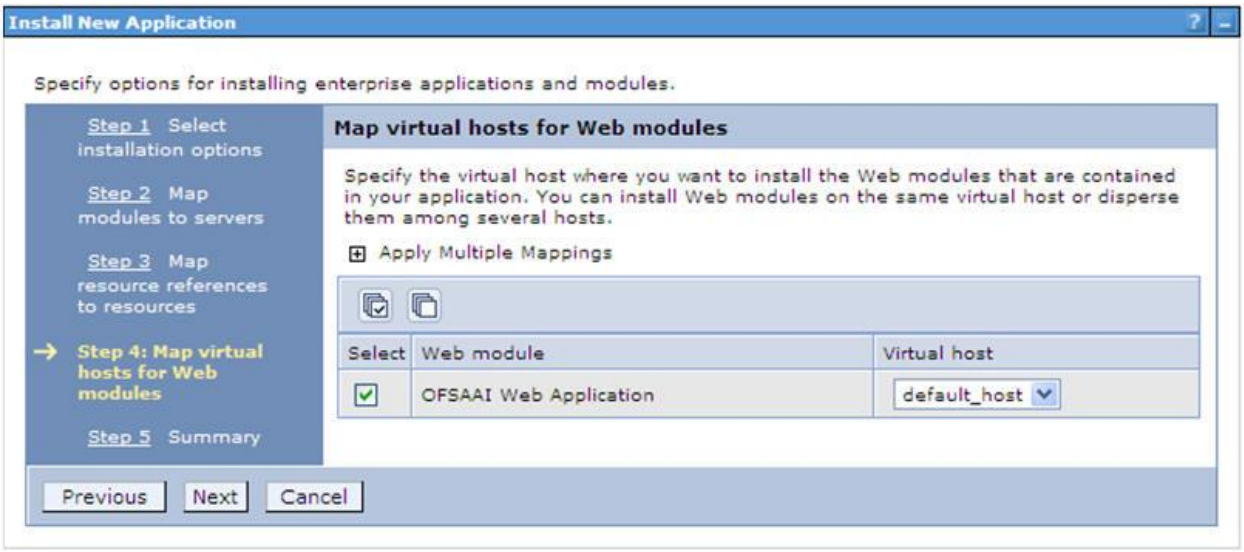

**Map Resource References to Resources**

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

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

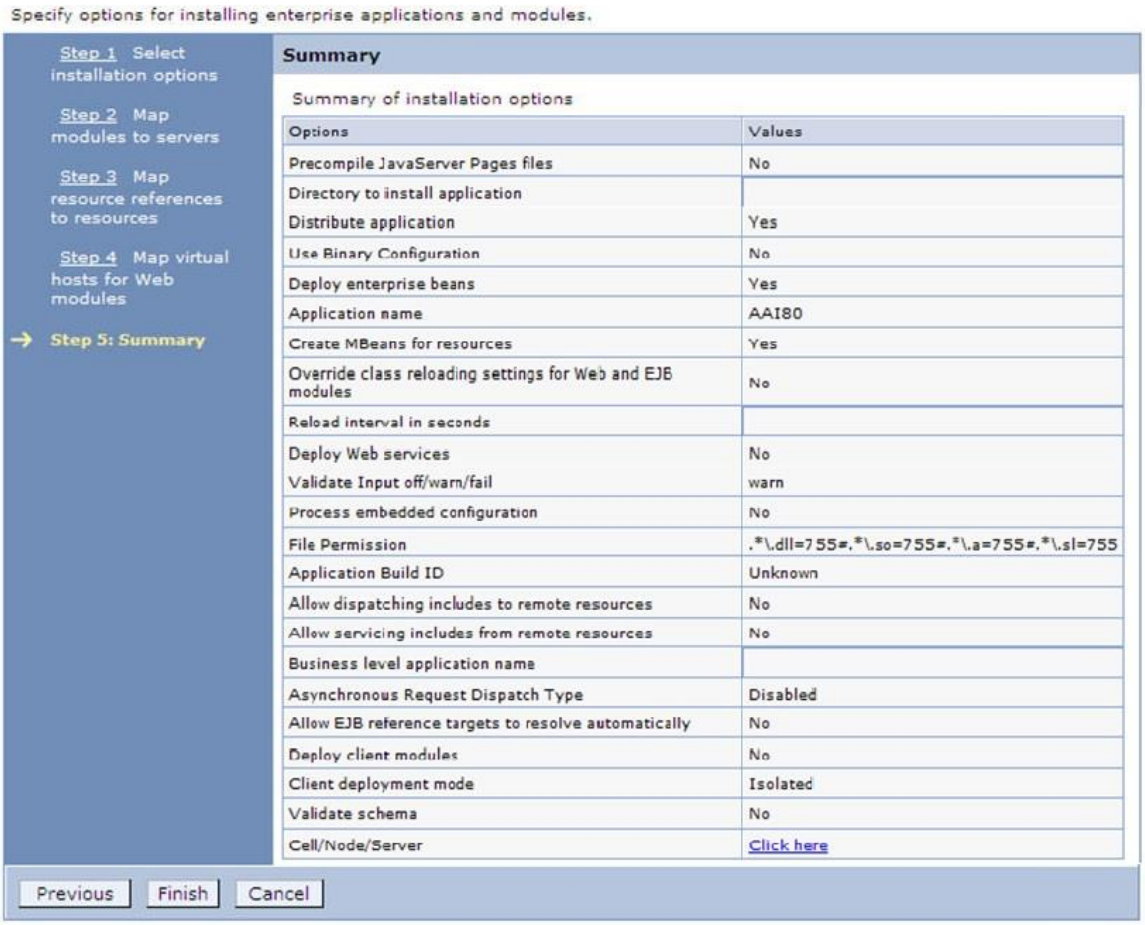
    You can specify "config" for FICMASTER resource or "atomic" for atomic resource as the authentication method.

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




**Map Virtual Host for Web Modules**

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

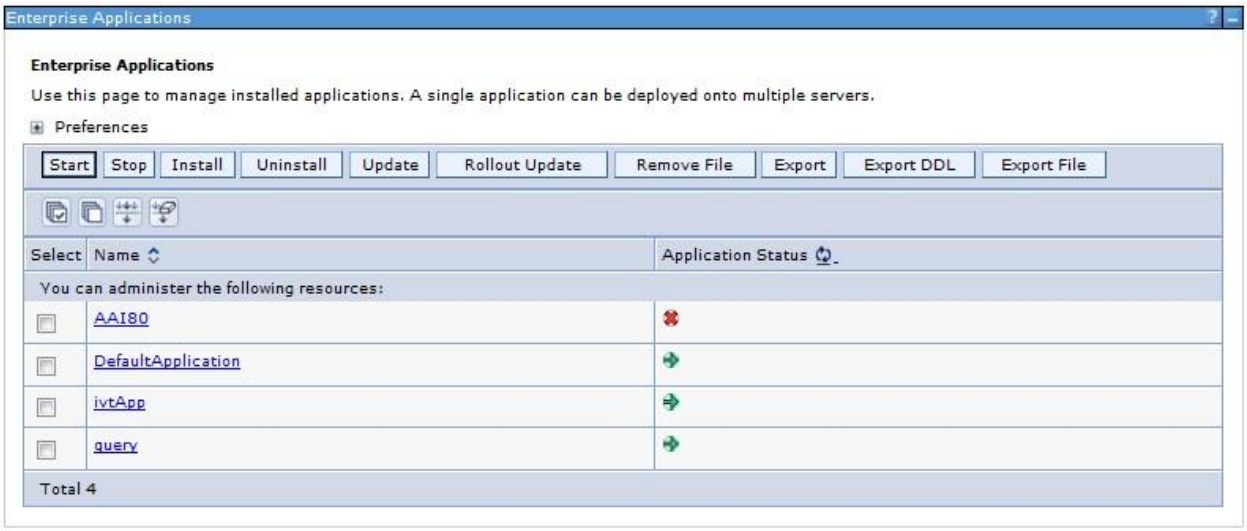



**Summary**

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

**To start the application**

1. Expand **Applications → Application Type → WebSphere Enterprise Applications**. The *Enterprise Applications* window is displayed.




**Enterprise Applications**

2. 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.

### 9.2.2 Deploying EAR / WAR File on WebLogic

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

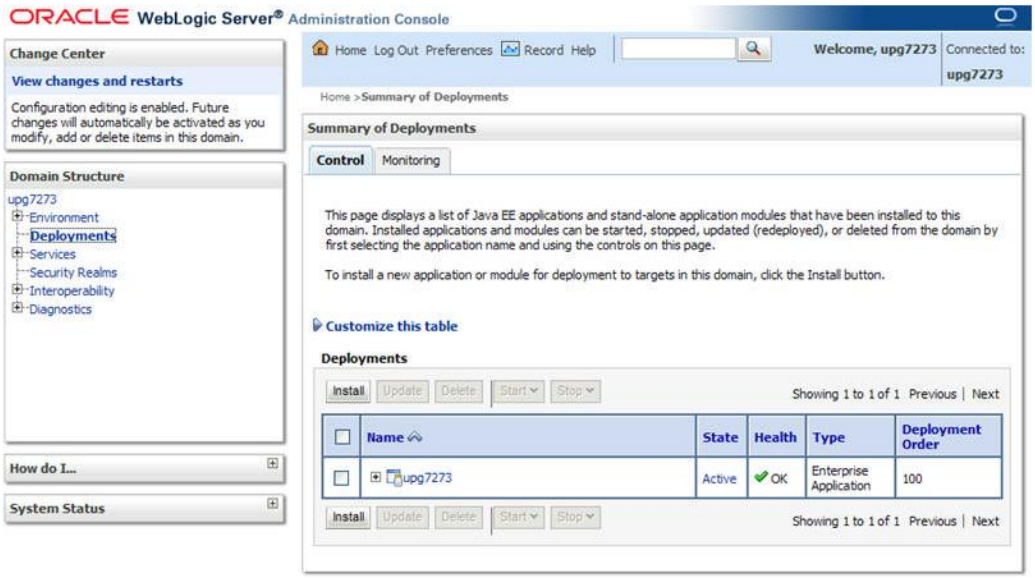
1. Navigate to the path `<WebLogic Installation directory>/user_projects/domains/<domain name>/bin` in the machine in which WebLogic is installed.
2. Start WebLogic by executing the command:

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

**NOTE:** Ensure that you have started Infrastructure Server by executing "`./reveleusstartup.sh`" as mentioned in Start Infrastructure section

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

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




**Summary of Deployments**

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

#### 9.2.2.1 Exploding EAR

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.`

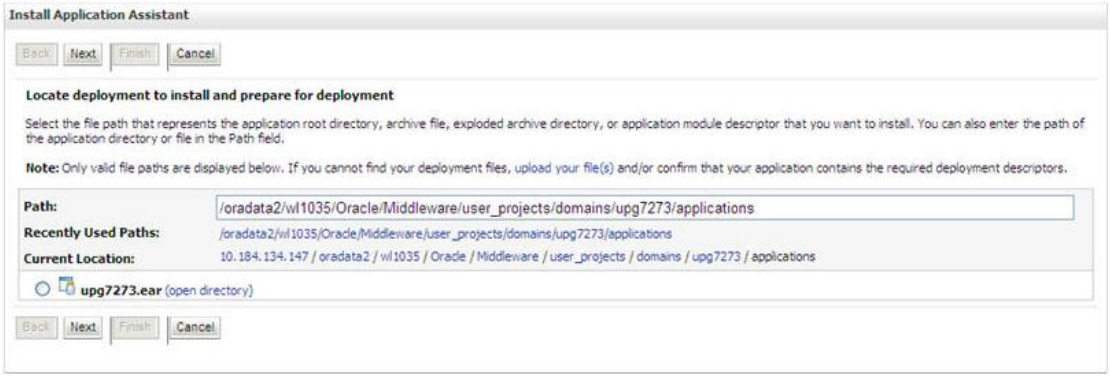
6. Create a directory `<context_name>.war under <WEBLOGIC_INSTALL_DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/<context_ name>.ear`
7. Copy `<$FIC_WEB_HOME/<context_name>.war` file to `<WEBLOGIC_INSTALL_DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/<context_ name>.ear/<context_name>.war.`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

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

#### 9.2.2.2 Installing Application

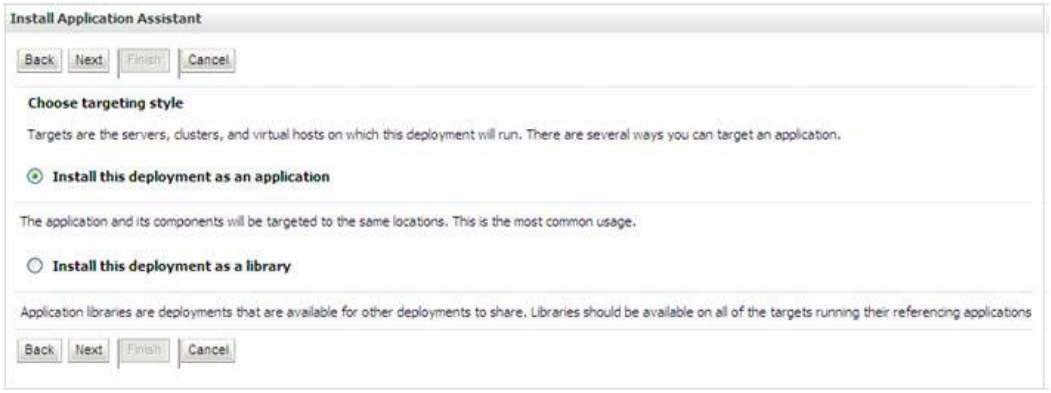
To install Application:

1. Open the Install Application Assistant.



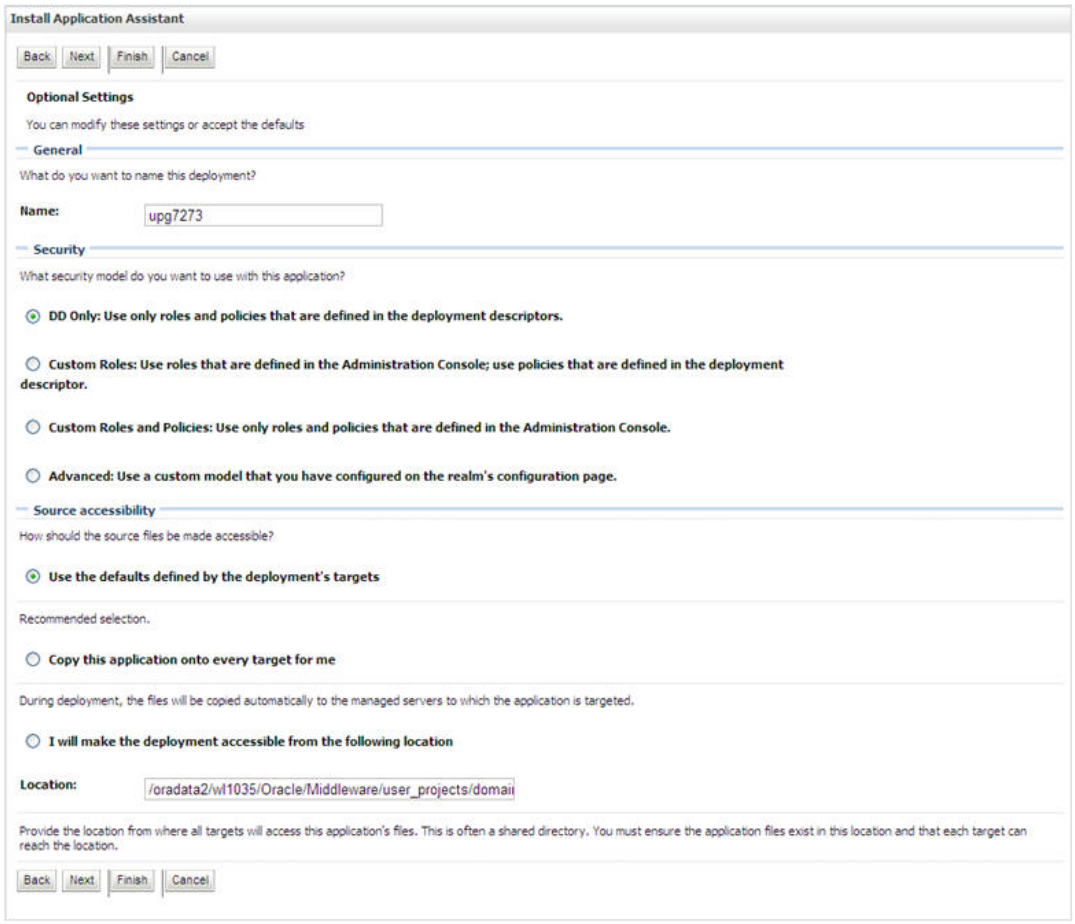

**Install Application Assistant**

2. Click **Next**.




**Install Application Assistant**

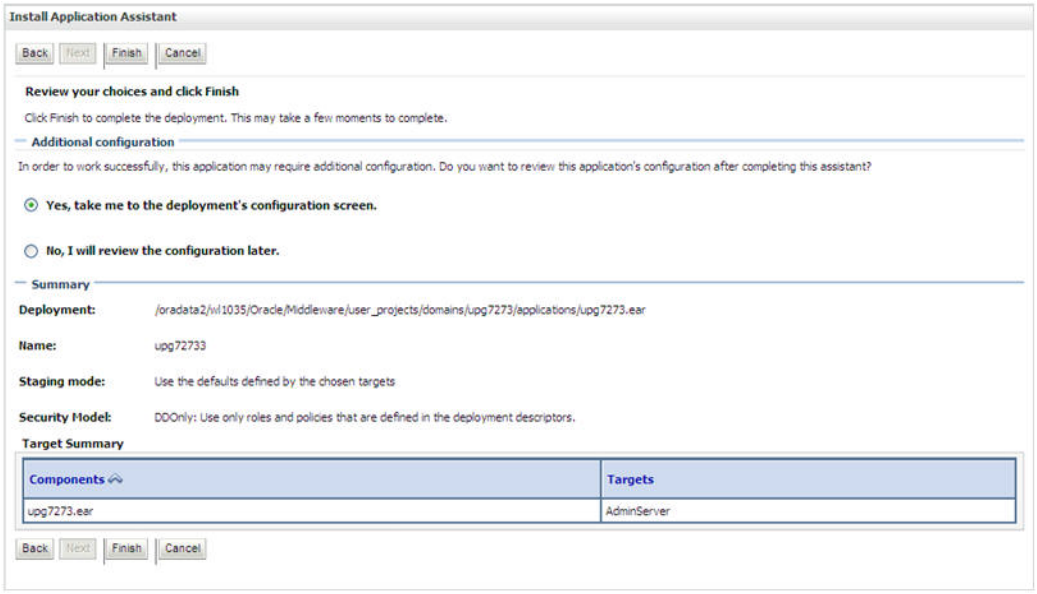
3. From the *Choose targeting style* section, select the **Install this deployment as an application** option and click **Next**. The *Optional Settings* window is displayed.




**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.

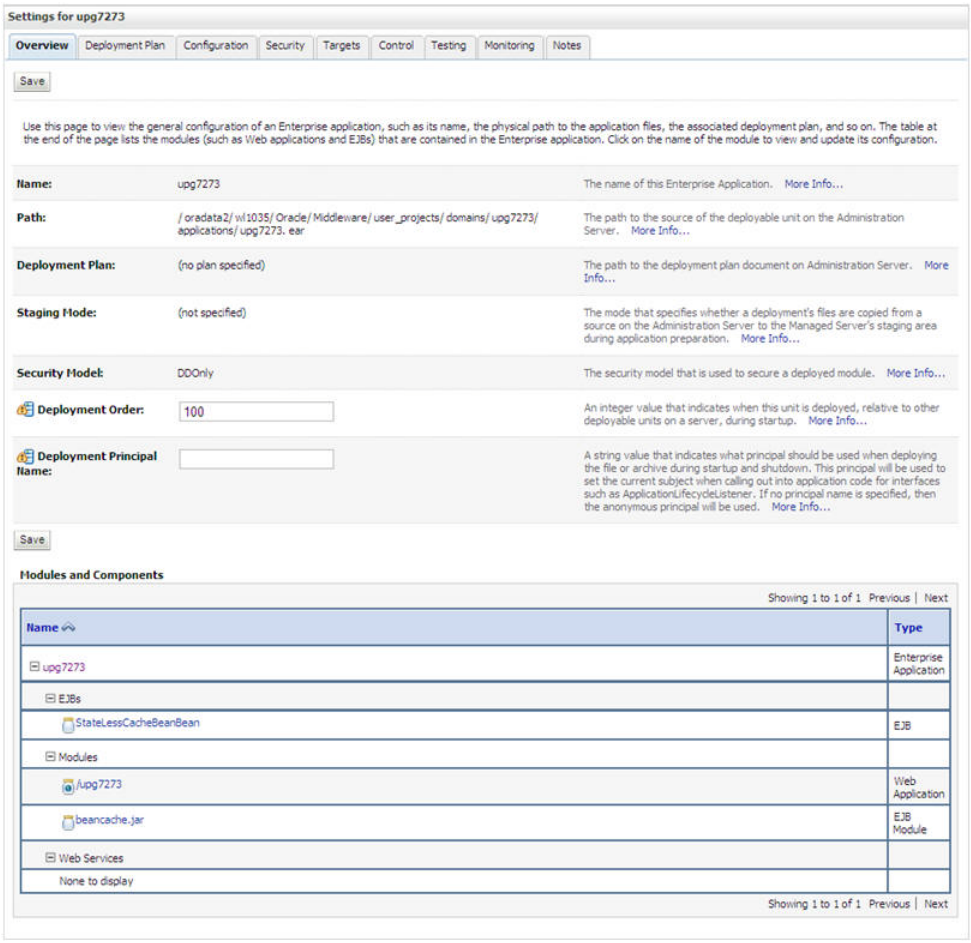
The Deployment Summary window is displayed.




**Deployment Summary**

8. Select the **Yes, take me to the deployment's configuration screen** option and click **Finish**.

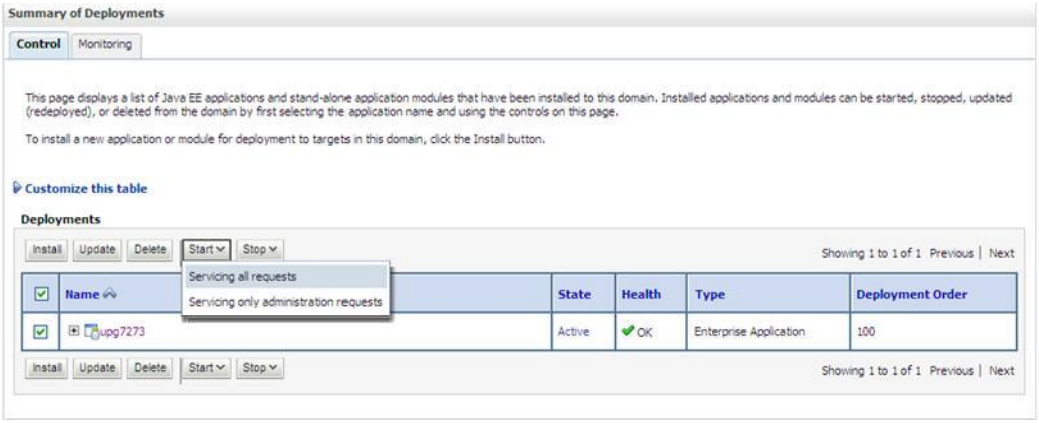
The *Settings for <Deployment Name>* window is displayed.




**Settings for <Deployment Name>**

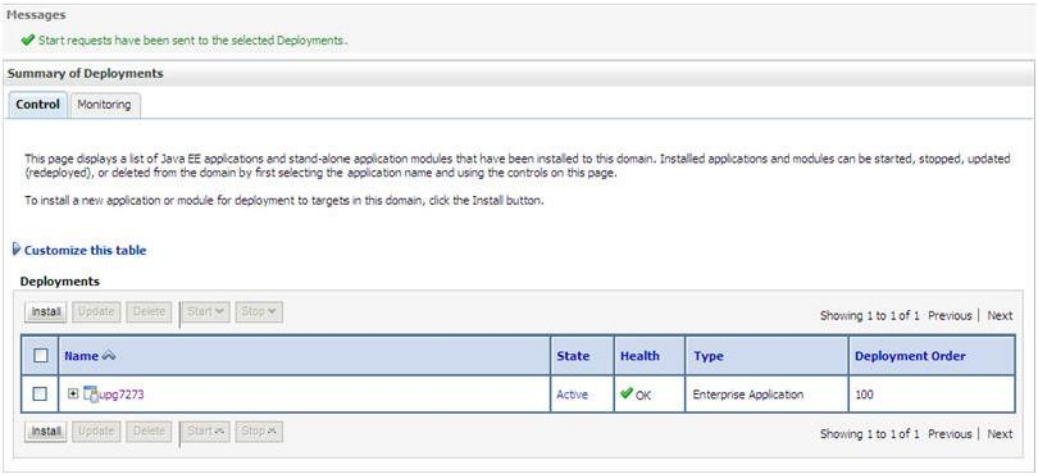
9. Review the general configuration details of the deployment. You can also update the configuration of the deployment in this window. In the *Overview* tab you can view the complete deployment configuration.
10. Click **Save** to update the changes, if any.
11. From the LHS menu, click **Deployments**.

The *Summary of Deployments* window is displayed.




**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.




**Summary of Deployments**

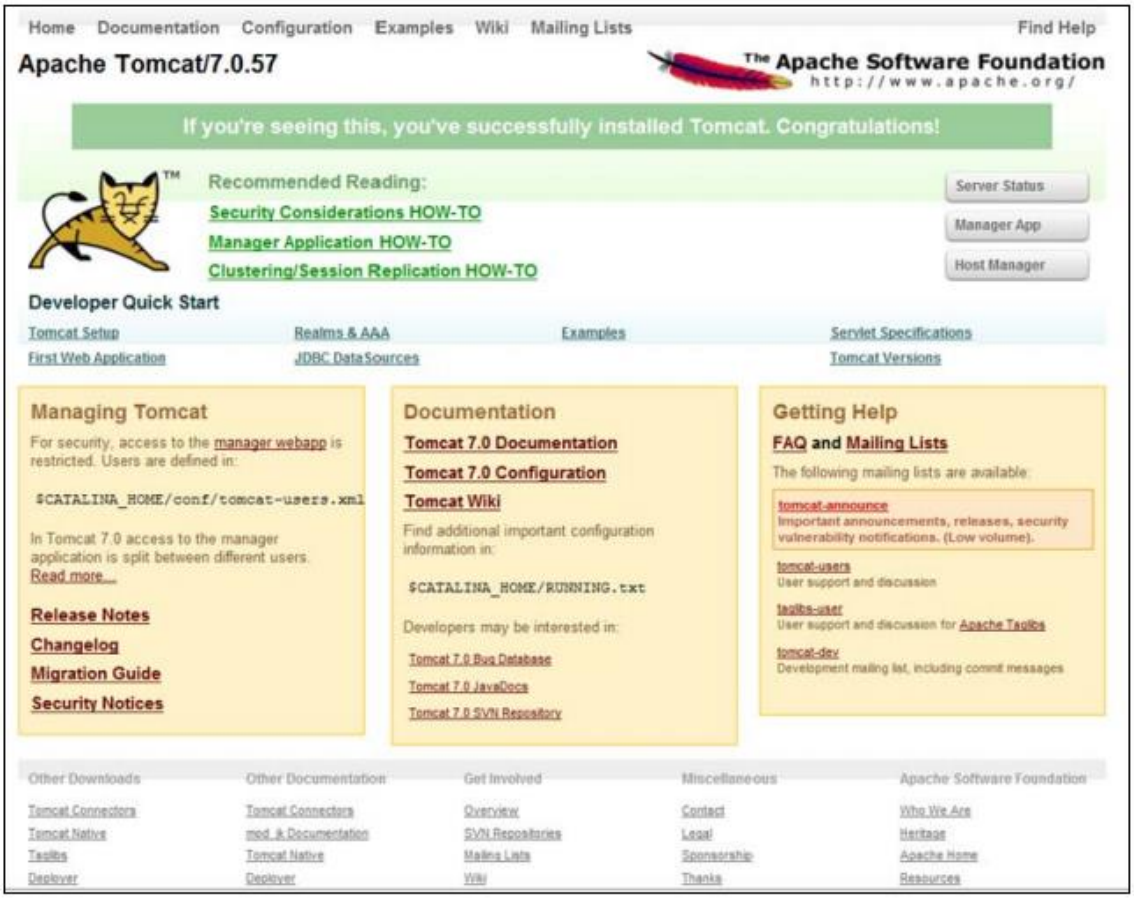
13. The **State** of the deployed application is displayed as **Active** if started successfully.

#### 9.2.2.3 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.

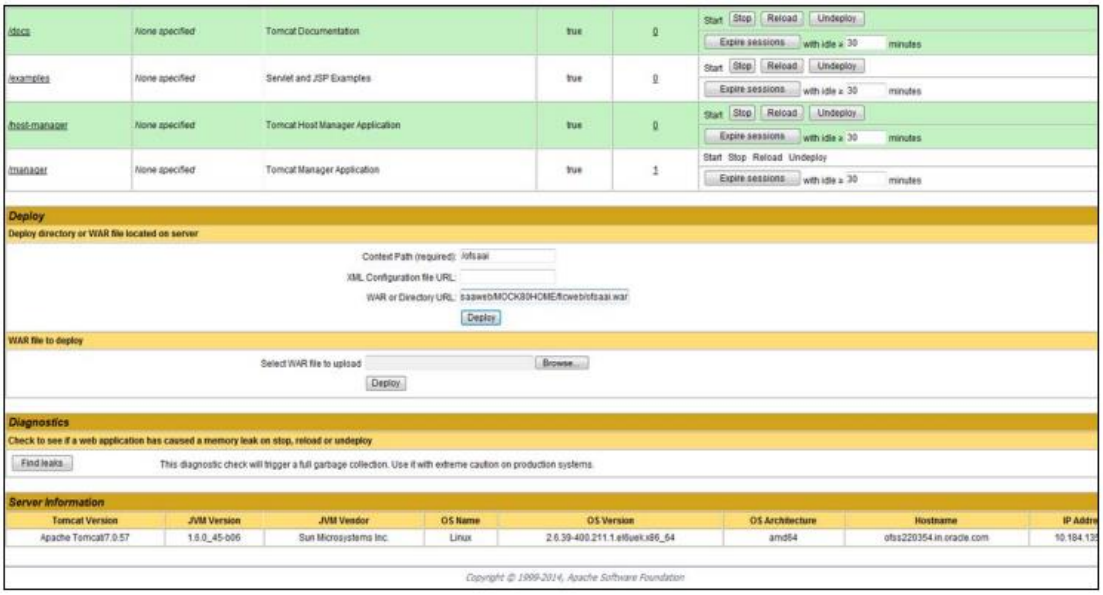
On the machine that hosts Tomcat, follow the below steps outlined to deploy Infrastructure application:

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




**Tomcat Home Page**

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.




**Tomcat Web Application Manager**

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. Refer Starting Web Application Servers for more details.

# 10 Appendix D: Starting / Stopping Services

## 10.1 Start/Stop OFSAA Infrastructure Services

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
- Stopping Infrastructure Services

### 10.1.1 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 the CONFIGURATION schema 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 and execute the command.

     ```
     ./iccserver.sh
     ```

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

3. To start Back-end 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.

### 10.1.2 Starting Web Application Servers

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

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

### 10.1.3 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:

   ```
   ./iccservershutdown.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:

   ```
   ./agentshutdown.sh
   ```

# 11 Appendix E: Accessing OFSAA Application

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

## 11.1 Access the OFSAA Application

Perform the following steps to 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://192.0.2.2:8080/ofsaa/login.jsp`

   The OFSAA login window is displayed as below:


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

   Once you have logged into the Infrastructure system, you need to perform the following additional configurations to setup the OFSAAI environment:

   - Define Server Details for Database, Application and Web servers.
   - Add Database Details.
   - Create an Information Domain.
   - Create a Segment.
   - Create / Add User with access to all permissions.

**NOTE:** Each new file that is created in the ftpshare folder of any installation layer should be granted specific / explicit permission. If you encounter any problems during setup, please contact Infrastructure Support.

## 11.2 OFSAAI Login

While accessing Oracle Financial Services Analytical Applications Infrastructure, the Splash screen is as displayed:


You can select the required language from the **Language** drop-down list. The language options displayed in the drop down are based on the license. Based on the selection of Language, the appropriate language login screen is displayed.

Enter the User ID and Password provided by the System Administrator and click Login. You will be prompted to change your password on your first login. Alternatively, you can also choose to change your password any time.


In the *Change Password* screen, enter a new password, confirm it and click **OK** to view the Splash screen. Refer to the following guidelines for Password Creation:

- Passwords are displayed as asterisks (stars) while you enter. This is to ensure that the password is not revealed to other users.
- Ensure that the entered password is at least six characters long.
- The password must be alphanumeric with a combination of numbers and characters.
- The password should not contain spaces.
- Passwords are case sensitive and ensure that the Caps Lock is not turned ON.
- By default the currently used password is checked for validity if password history is not set.
- New password should be different from previously used passwords based on the password history which can be configured.
- If you encounter any of the following problems, contact the System Administrator:
    - Your user ID and password are not recognized.
    - Your user ID is locked after three consecutive unsuccessful attempts.
    - Your user ID has been disabled.
    - Guest user cannot change the password.

# 12 Appendix F: Post Deployment Configurations

This chapter includes the following sections:



## 12.1 Deploying the Application

This section explains steps to deploy the application. Web Layer deployment is required and for more information, see Appendix A.

## 12.2 Logging as System Administrator

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

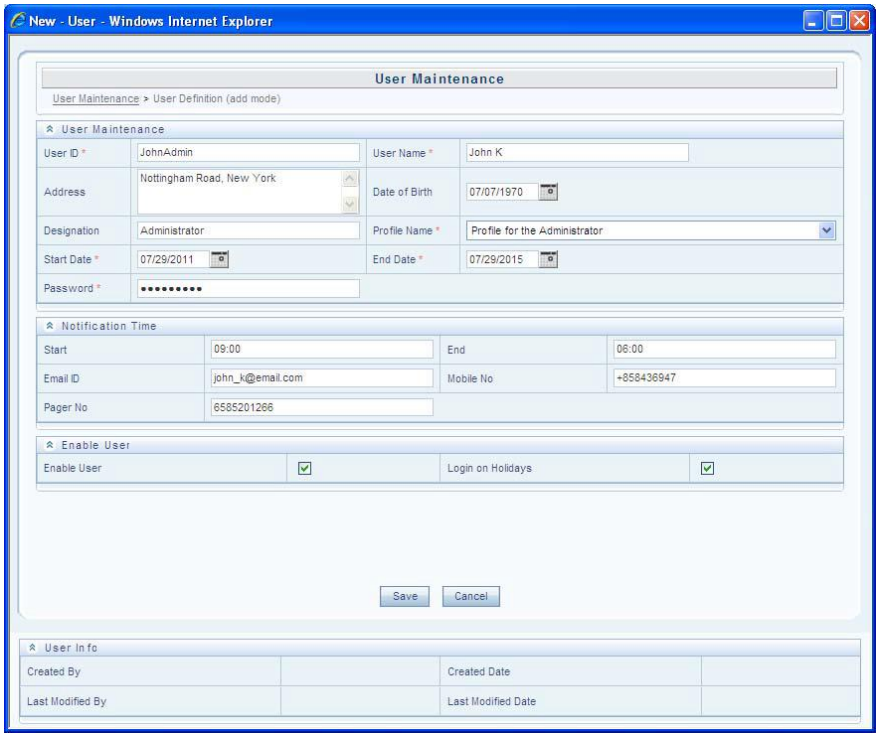
## 12.3 Creating Users

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

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

To add a user in the User Maintenance screen:

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




2. Enter the user details as tabulated.

| Field | Description |
|---|---|
| Fields marked in red asterisk (*) are mandatory. | |
| User ID | Enter a unique user id. Ensure that there are no special characters and extra spaces in the id entered. |
| User Name | Enter the user name. The user name specified here is displayed on the Infrastructure splash screen. Ensure that the User Name does not contain any special characters or spaces except ”–“, “‘”. and “.”. |
| Contact Address | Enter the contact address of the user. It can be the physical location from where the user is accessing the system. Ensure that Contact Address does not contain any special characters except ".", "#", "-", ",". |
| Date Of Birth | Specify the date of birth. You can use the popup calendar to enter the date. |
| Designation | Enter the user designation. Ensure that Designation does not contain any special characters except “_, “:” and "-". |
| Profile Name | Select the profile name by clicking on the drop down list. |
| User Start Date | Specify the user start date based on the day slot the user is enabled to access the system. Ensure that User Start Date is greater than today’s date. You can use the popup calendar to enter the date. |
| User End Date | Specify the user end date based on month and year when the user Id expires. Ensure that user End Date is greater than User Start Date. You can use the popup calendar to enter the date. |

| | |
|---|---|
| Password | Enter the default password for the user for the initial login. User needs to change the default password during the first login.<br>A user is denied access in case the user has forgotten the password or enters the wrong password for the specified number of attempts (as defined in the *Configuration* screen). To enable access, enter a new password here. |
| Notification Time | (Optional) Specify the notification start and end time within which the user can be notified with alerts. |
| E-mail ID | Enter the e-mail address of the user. |
| Mobile No | (Optional) Enter the mobile number of the user. |
| Pager No | (Optional) Enter the pager number of the user. |
| Enable User | Select the checkbox to allow user to access the system.<br>A deselected checkbox denies access to the user. |

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

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

## 12.4 Mapping the Application User(s) to User Group

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

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

Starting the OFSAA 8.0 release, with installation of OIDF Application Pack, preconfigured Application user groups are seeded. These user groups are unique to every OFSAA Application Pack and have application roles pre-configured.

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

**Table 3: Seeded User Groups**

| Name | Description |
|---|---|
| OIDF Admin | User mapped to this group will have access to all the menu items for entire OIDF Application. The exclusive menu's which are available only to this group users are *Application Preference* and *Global Preference* under *Settings* Menu. |

| Name | Description |
|---|---|
| OIDF Data Modeler | User mapped to this group will have access only for *Data Model Management* and *Metadata Browser Menus.* |
| OIDF Analyst | User mapped to this group will have access for *Data Management Framework, Dimension Management* and *Metadata Browser Menus.* |
| OIDF Operator | User mapped to this group will have access for *Rule Run Framework* and *Operations Menus.* |

## 12.5 Changing ICC Batch Ownership

All the seeded Batches in OIDF 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.

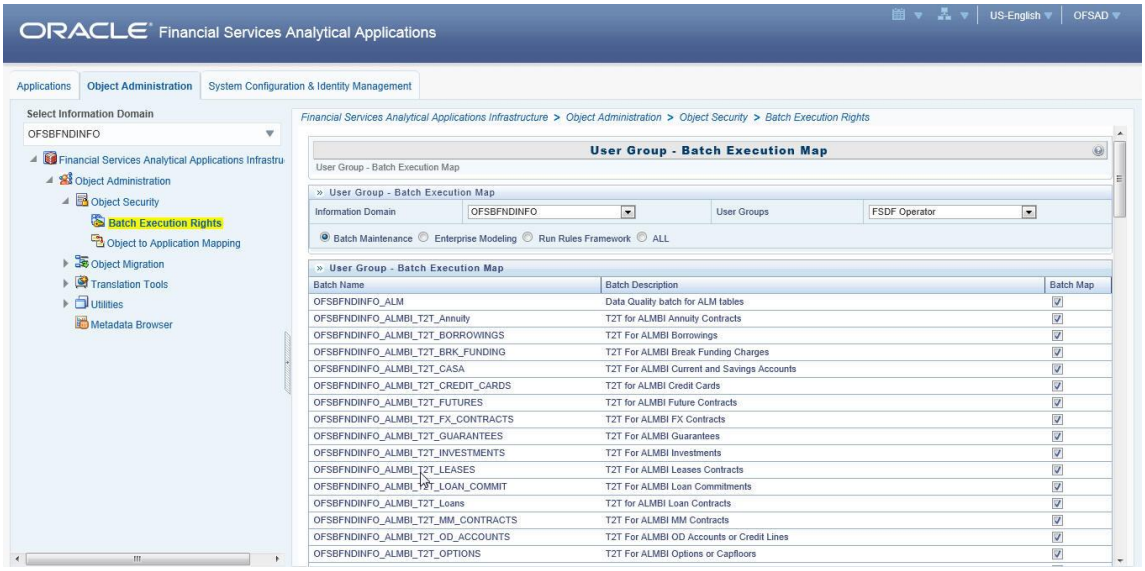
Example:

```
begin
AAI_OBJECT_ADMIN.TRANSFER_BATCH_OWNERSHIP
('SYSADMN','OIDFOP','OFSOIDFINFO');
end;
```

## 12.6 Mapping ICC Batch Execution Rights to Users

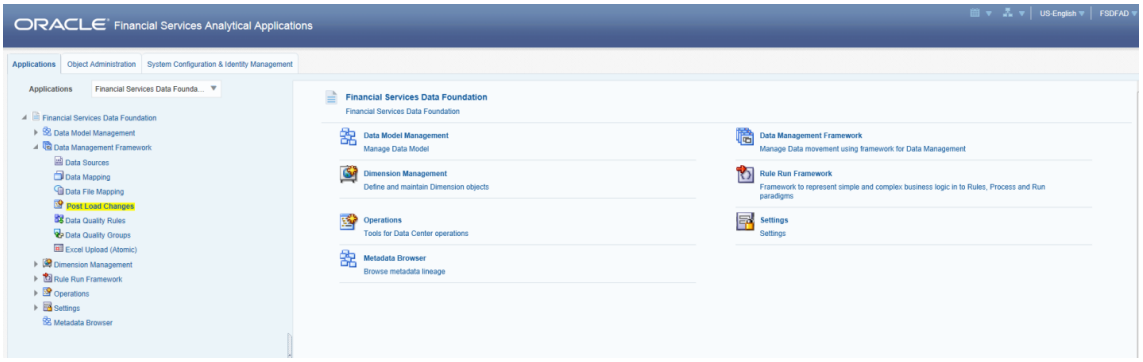
By default all users who are mapped to OIDF Admin and OIDF Operator will have the permission to execute the seeded Batches in OIDF Application Pack. However if any other user-defined batches or any other application pack batches created during the respective installation of application packs, the user need to map the Batch execution rights for each user/batch in the Batch Execution Rights menu under Object Administration >> Object Security.

**NOTE:** Any user who is mapped under OIDF Admin User Group will have the access to map the Batch execution rights menu.

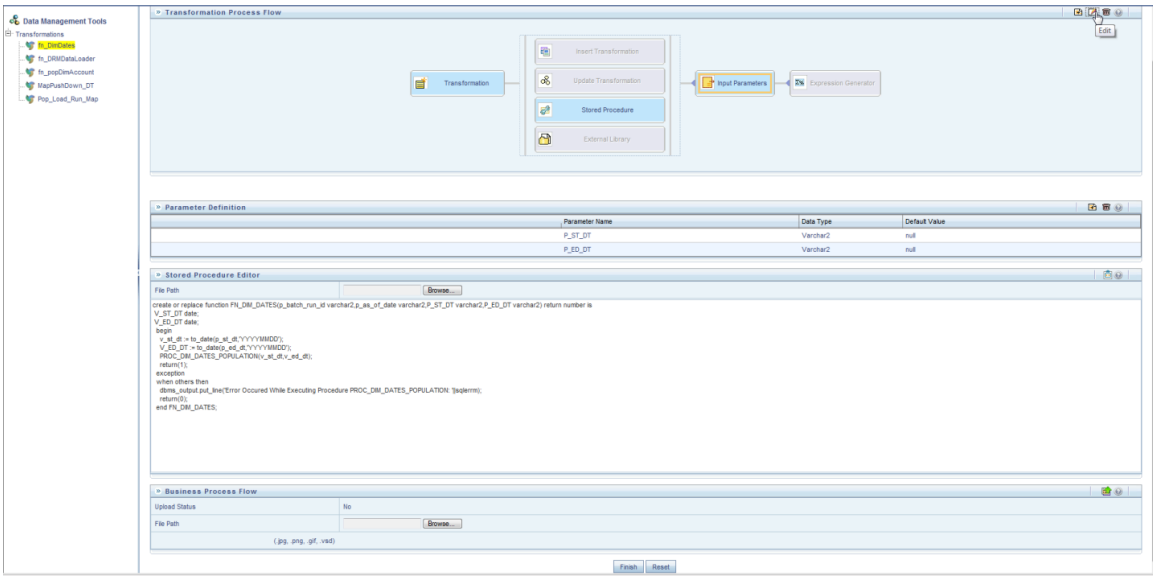



## 12.7 Saving Post-Load Change Transformations

After creating users, Login to Infrastructure as any user who is mapped to OIDF Admin or OIDF Analyst group. Navigate to **Data Management Framework** >> **Post Load Changes.**



A New window is displayed. Click on Each Transformation from **Transformations** List and 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.

# 13 Appendix G: Cloning OFSAA Instance

There is a consistent need for a faster and effective approach of replicating an existing OFSAA instance for further project developments, that is, setting up OFSAA instances that are exact copies of the current OFSAA instance. For more information on cloning, refer OFSAA Cloning Reference Guide

# 14 Appendix H: OFSAA Landing Page

This appendix includes the following topics:



## 14.1 Installation Checklist

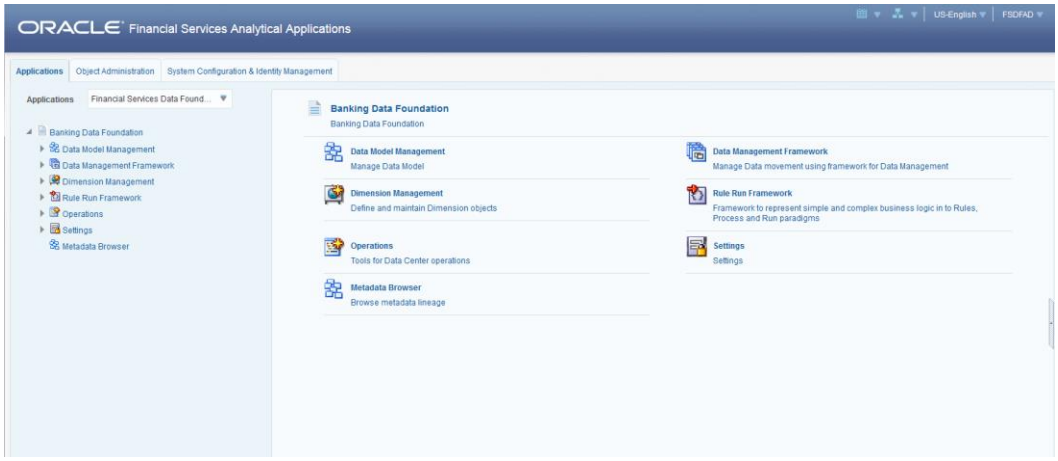
This section provides you a list of topics that you must check while installing the application.

It is recommended to take a print out of the checklist and follow the checklist step by step.

**Table with (General, Pre-Install, Install, and Post Install) Checklist**

| Step No. | Task | Done |
|---|---|---|
| **General** | | |
| 1 | Check the OIDF Release Notes and Read Me document for any additional steps to be performed on OIDF Pack or OFSAAI.<br><br>**Note**: For more details, contact Oracle support. | ☐ |
| **OIDF Pack Pre Installation + During Installation** | | |
| 2 | Prior to installation, ensure that sufficient free temp space (minimum 1 GB free) is available in /tmp directory of Unix server hosting OFSAAI. | ☐ |
| **OIDF Pack Post Installation** | | |
| 3 | Perform post-installation steps. For more information, refer to *Chapter Post Installation.* | ☐ |

## 14.2 OFSAA Landing Page for OIDF Administrator




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:

- Applications Tab
- Object Administration Tab
- System Configuration and Identity Management Tab

### 14.2.1 Applications Tab

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

### 14.2.2 Object Administration Tab

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

### 14.2.3 System Configuration and Identity Management Tab

This tab lists the OIDF 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.

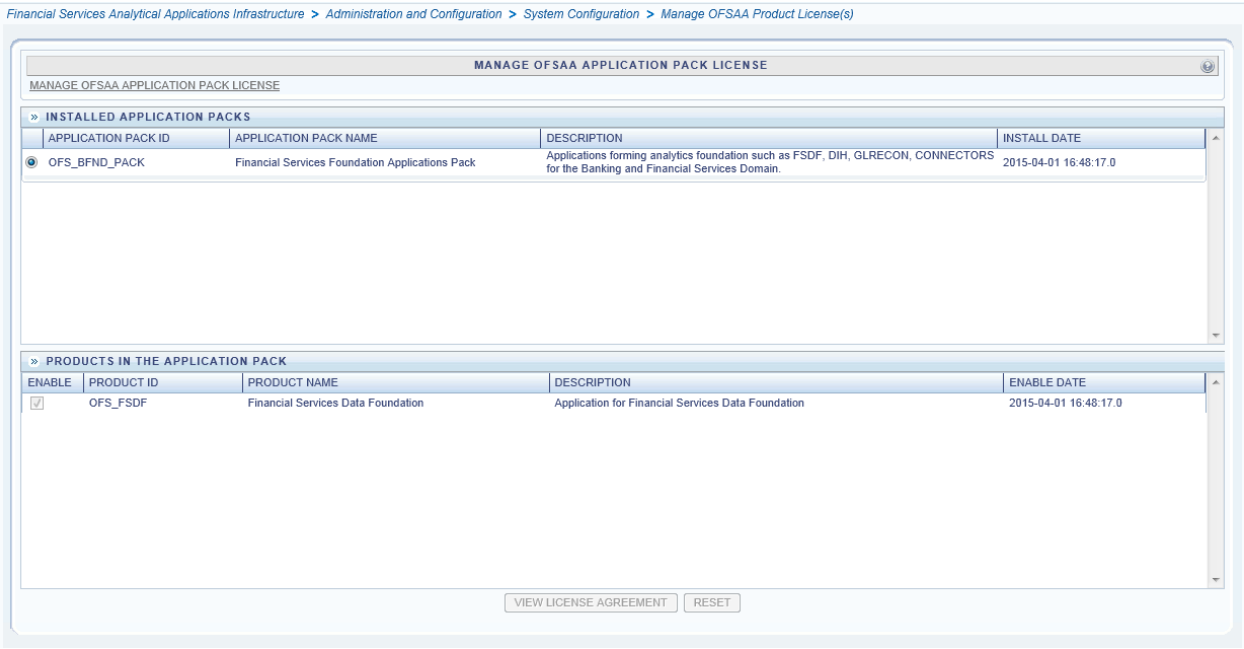
**NOTE:** Refer the User Manual for more details on how to operate on each tab.

## 14.3 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).** The **Manage OFSAA Product License(s)** window is displayed as below.



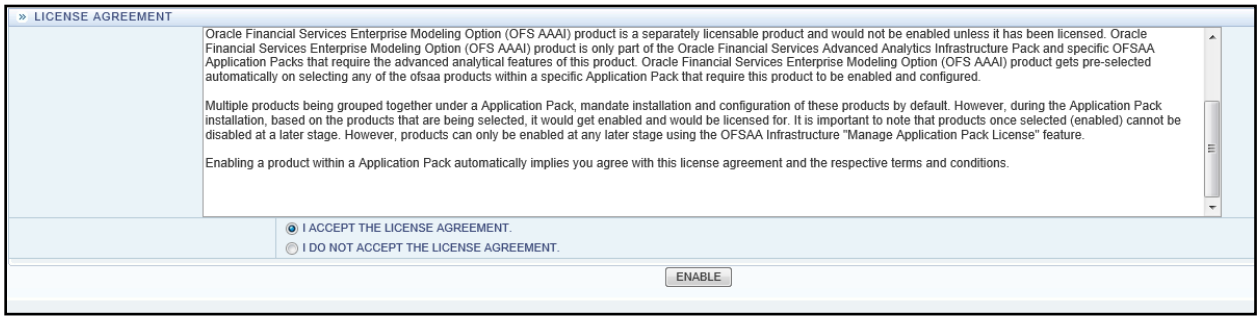

4. Select an Application pack to view the products in it. The products are displayed in the **Products in the Application Pack** section. The following fields are displayed in the INSTALLED APPLICATION PACKS section:

| Field | Description |
|---|---|
| Application Pack ID | Displays a unique Application Pack ID related to the application pack.<br>Select the appropriate Pack id using the radio button. The Products in the application pack is displayed below in the *PRODUCTS IN THE APPLICATION PACKS* section. |
| Application Pack Name | Displays the name of the Application Pack. |
| Description | Displays the description of the Application Pack. |
| Install Date | Displays the date when the Application Pack was installed. |

5. The following fields are displayed in the PRODUCTS IN THE APPLICATION PACK section:

| Field | Description |
|---|---|
| Enable | Select the checkbox to enable a product within an Application Pack. |
| Product ID | Displays a unique product id for the product. |
| Product Name | Displays the name of the Product |
| Description | Displays the description of the product. |
| Enable Date | Displays the date when the product was enabled. |

6. Select the checkbox to enable a product within the selected Application Pack which is not enabled during installation.
7. Click **VIEW LICENSE AGREEMENT** button. The License Agreement section is displayed.




8. Select the option **I ACCEPT THE LICENSE AGREEMENT** and click ENABLE. An appropriate 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.

**NOTE:** For more information refer to *Mapping/Unmapping Users* section in the *Oracle Financial Services Analytical Applications Infrastructure User Guide 8.0 (OHC)*.
To identify the newly enabled product specific UserGroups/ Application Pack specific User_Groups, refer to the respective Application Pack specific Installation and Configuration Guide/ User Manual.

# 15 Appendix I: Additional Information

This section includes the following topics:



## 15.1 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.

## 15.2 Configuring 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 have to be incremented considering the deployment metrics into account. The increments are usually handled in multiples of 128mb for heap and 64mb for stack.

### 15.2.1 Setting Infrastructure Server Memory

You can configure the Infrastructure Application Memory settings as follows:

1. Locate the `.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_APP ="-Xms200m"`

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

**NOTE:** You need to modify `X_ARGS_APP` variable in the `.profile` file to customize Java Memory Settings for Model Upload based on the Data Model size.
For Run and Rule executions, the following value is recommended:

X_ARGS_RNEXE="-Xms1g -Xmx1g -XX:+UseAdaptiveSizePolicy -XX:MaxPermSize=512M -XX:+UseParallelOldGC -XX:+DisableExplicitGC"

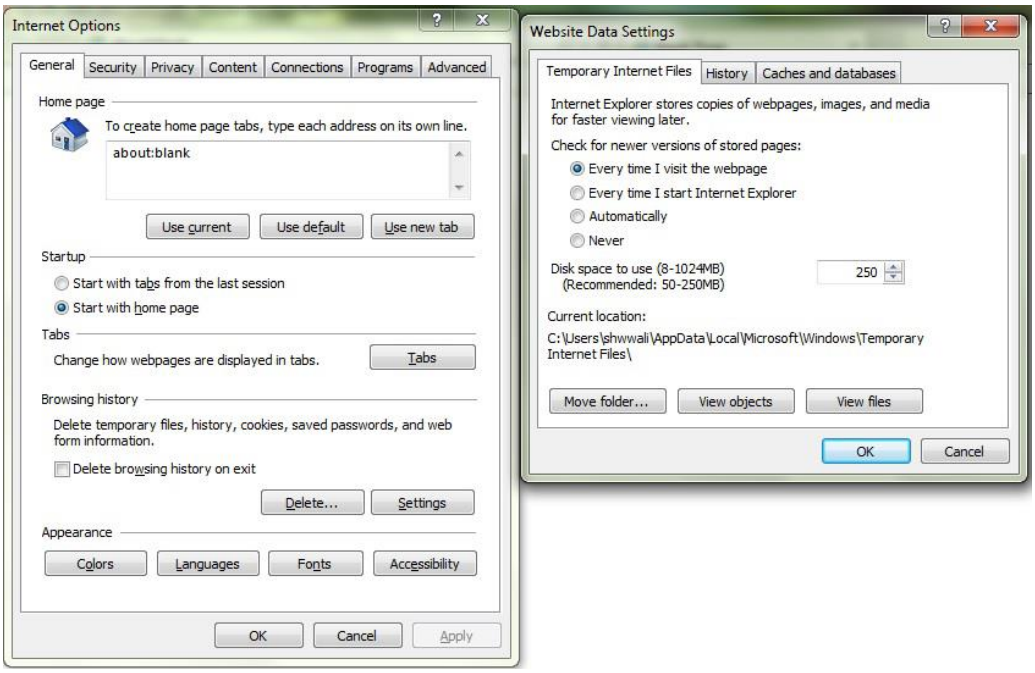
X_ARGS_RLEXE="-Xms1g -Xmx1g -XX:+UseAdaptiveSizePolicy -XX:MaxPermSize=512M -XX:+UseParallelOl3dGC -XX:+DisableExplicitGC"

## 15.3 Setting Internet Explorer

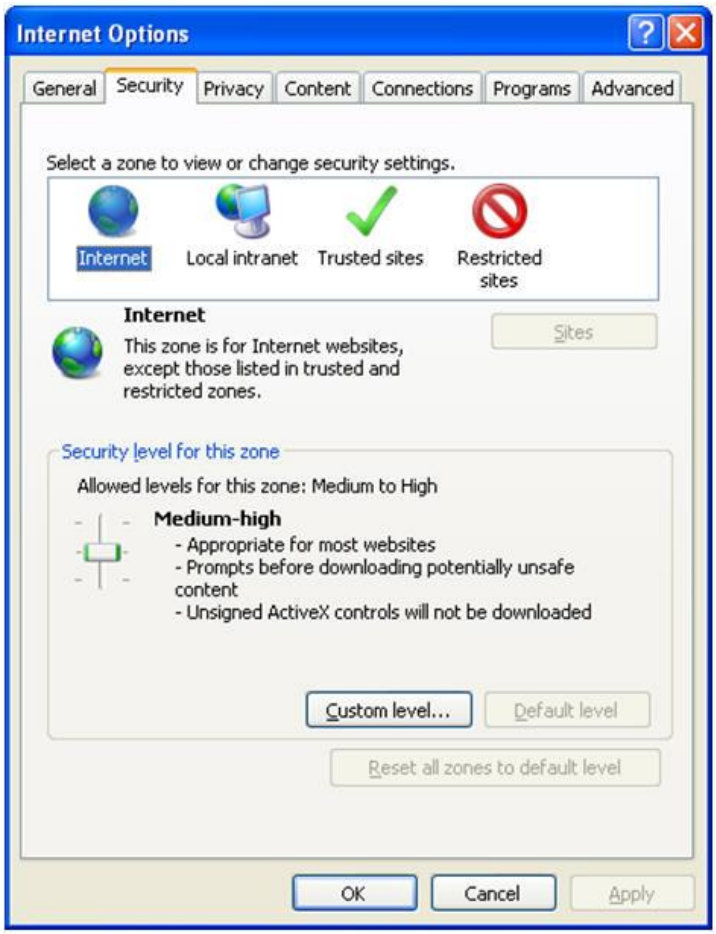
**NOTE:** OFSAAI supports only default zoom setting in Internet Explorer, that is, 100%. Cookies should be enabled.

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

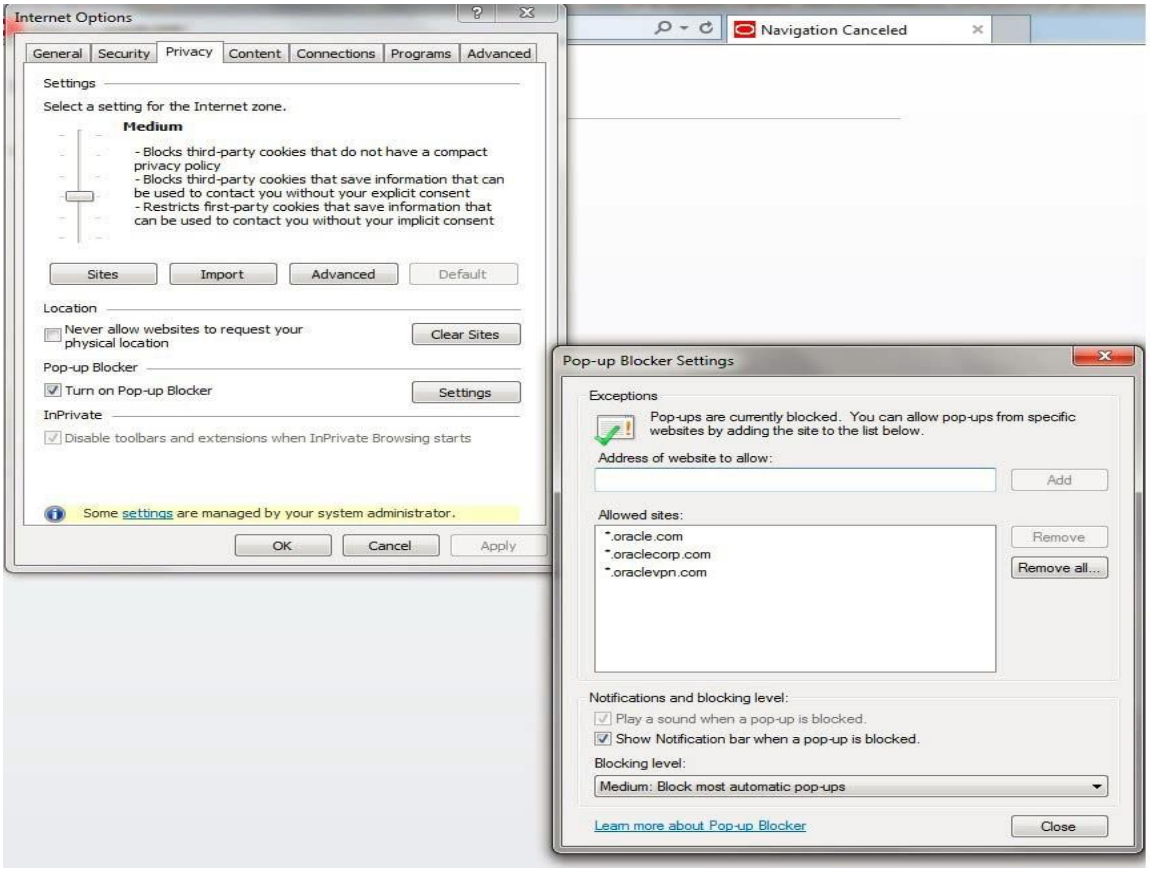
1. Open **Internet Explorer**. Select **Tools** → **Internet Options**. The Internet Options window is displayed.
2. Click the **Settings** button. The Settings window is displayed.
3. Select the option **Every time I visit the webpage** and click **OK**.




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




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

## 15.4 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.
3. Click System Utilities.
4. Click Patch Information.
5. The page displays the list of patches installed on the OFSAA setup across Applications/ Platform.

## 15.5 Configuring OLAP Data Server

This section is applicable if you are using the OLAP feature of OFSAAI.

The following parameters must be set to ensure that the system limitations are not exceeded at any stage. The values for these OS parameters should be specified based on the expected load at each implementation site.

Example:

- Process Memory Limit
- Max Thread Stack Size
- Max Number of Threads per Process

**Sort Buffer settings**: This must be set at the Essbase application level appropriate to the anticipated load.

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

## 15.6 Configuring Infrastructure Ports

The Port Changer utility can be used to change IP/ Hostname, Ports, and Deployed paths of the OFSAA instance.

**Prerequisite**

You should have minimum version as OFSAAI 8.0.

**How to run Port Changer utility**

1. Navigate to $FIC_HOME folder on Target.
2. Execute java -jar PortC.jar DMP.

   A file with the name DefaultPorts.properties will be created under $FIC_HOME directory which contains the ports, IPs and paths currently being used.

   Make the necessary changes to those ports, IPs, and paths in the DefaultPorts.properties file as per the Target environment. Save the changes.
3. Run the PortC.jar utility using the command:

   java -jar PortC.jar UPD

This will change the ports, IPs and paths in .profile (under home directory), all files under `$FIC_HOME` directory, and tables in the database according to the values mentioned in `DefaultPorts.properties` file.

## 15.7 Executing 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.

## 15.8 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 Create and Deploy EAR/ WAR files.

## 15.9 Configuring Infrastructure LDAP

For more information on LDAP configuration, refer OFSAAI Administration Guide.

### 15.9.1 Configuring Infrastructure ‘Configuration Schema’

In the Infrastructure "configuration schema", ensure the following entries in Configuration Table.

**Table 4: Configuration Schema**

| PARAMNAME | Description | PARAM Value Example |
|---|---|---|
| AUTHENTICATIONTYPE | Authentication type | 3 - AUTHENTICATIONTYPE value must be 3 for LDAP |
| ROOTCONTEXT | The Root Context for the LDAP Directory | dc=<OFSAA>, dc=<com> |
| ROOTDN | The Root dn for LDAP directory | cn=<Manager>, dc=<Reveleus>, dc=<com> |

| PARAMNAME | Description | PARAM Value Example |
|---|---|---|
| ROOTPASS | Password for the Root | <secret> |
| LDAPURL | LDAP URL | <ldap://10.11.12.13.1234/> |
| LDAP_SSL_MODE | LDAP in SSL Mode | N for non - SSL and Y for SSL |
| HASHPASS | Should the user password be Hashed | FALSE or TRUE.<br>When HASSPASS is set as FALSE, we need to have the ROOTDN value as "uid=ORCLADMIN, ou =Users, dc=OFSAAI, dc=com". ORCLADMIN is a dummy user, it will be replaced dynamically with the logged in user.<br>When HASSPASS is set as TRUE, we need to have the ROOTDN value as "cn=orcladmin, cn=Users, dc=i-flex, dc=com" and proper oracladmin LDAP password as ROOTPASS. First OFSAAI connects to LDAP directory using orcladmin user and fetches the login user details and verifies the entered password. |
| RETRIEVE_DN | To retrieve Distinguished Name | **TRUE** |

**NOTE:** `ROOTCONTEXT`, `ROOTDN`, and `ROOTPASS` entries should be same as in the `slapd.conf` file.

### 15.9.2 Configuring OpenLDAP Files

1. Copy `the reveleusSchema.schema` from `<Infrastructure Installation Directory> /ficapp/common/FICServer/conf/LDAP_LDIF folder to LDAPServer Schema` folder.
2. Copy the `Domains.ldif` and `Reveleus.ldif` files from `<Infrastructure Installation Directory>/ficapp/common/FICServer/conf/LDAP_LDIF folder to OpenLDAPServer folder.`

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

**NOTE:** Provide the appropriate entries for `ROOTDN`, `ROOTPASS`, and `ROOTCONTEXT` in `slapd.conf` file in the `OpenLDAPServer` folder.

3. Add the text "`include schema/reveleusSchema.schema`" as the first line of the slapd.conf file.

**NOTE:** The above steps of the configuration are for OpenLDAP Server only. If you need to configure Infrastructure for any other LDAP Server, you will have to make the changes appropriately.

4. In the command prompt, navigate to the LDAP installation directory and execute the command "`ldapadd -D"ROOTDN" -w ROOTPASS -f/data/Reveleus.ldif`"
5. This is for creating the entries for Users, User Groups, Functions, Profiles, Segments, Domains, Roles, and HolidayMaster in the Data information Tree of LDAP.
6. Make an entry in the `Domains.ldif` file for each Information Domain that is created through the Infrastructure UI.

To add an entry corresponding to the new Information Domain to the `Domains.ldif` file, add the following block of text with the appropriate values:

**NOTE:** DSNID refers to Information Domain name.

```
dn: DSNID=<DSN ID>,ou=Domains,@LDAP_DIRECTORY_ROOTCONTEXT@
changetype: add
mappedsegments: <Mapped segments/~>
dsnid: <DSN ID>
infodomname: < Information Domain Name>
objectClass: Infodom
objectClass: top
infodomdescription: < Information Domain Description>
```

Example:

```
dn: DSNID=FUSIONMOCK, ou=Domains, dc=FTP1,dc=com
mappedsegments: ~
dsnid: FUSIONMOCK
infodomname: FUSIONMOCK
objectClass: Infodom
objectClass: top
infodomdescription: FUSIONMOCK
```

Then, navigate to LDAP installation directory and execute the command "`D"ROOTDN" -w ROOTPASS -f/data/Domains.ldif`"

**NOTE:** You can add entries for multiple Information Domains at the same time.

### 15.9.3 Migrating Data from CSSMS tables to LDAP server

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

To migrate data from CSSMS tables to LDAP server:

1. Invoke the `LDAP_Migration.sh` file in `$FIC_HOME/MigrationUtilities/Migration_LDAP/ bin` folder. The *Select Source & Destination for Migration* window is displayed with the option to migrate the data from SMS to LDAP or vice versa.


**Select Source & Destination for Migration**

2. Select the **SMS to LDAP** option and click **OK**. The *Select Entities to Migrate* window is displayed.


**Select Entities to Migrate**

You can select the data that you wish to migrate such as Users, User Groups, Functions, Roles, Segment, Profiles, Holiday Master, Function Role Maps, User - User Group Maps, User Group Role Map, and User Group- Domain Map.

3. Select the entities that you wish to migrate and click Migrate. The data is migrated and a confirmation dialog is displayed.
4. You can verify the data migrated to LDAP server through the LDAP Browser.

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

## 15.10 Configuring OFSAAI Web Services

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

### 15.10.1 Configuring DynamicWSConfig.xml File

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

The 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="$PARAMNAME"
RETURNTYPE="$RETURNTYPE"
CLASSNAME="$CLASSNAME"/>
</OPERATION>
</WEBSERVICE>
</WEBSERVICES>
</XML>
```

The DynamicWSConfig.xml has the placeholders as tabulated below. These have to be updated depending on the web service chosen and the mode of accessing it. For each Web service to be accessed, the entire webservice tag in the DynamicWSConfig.xml file must be repeated. The placeholders tabulated below should be set in accordance to the parameters published in the third party wsdl files (webservices) to be accessed. The stub class specified must implement the "`com.iflex.Oracle Reveleus.execution.webservice.EXEWebIF`" interface.

### 15.10.2 Attributes for WEBSERVICE tag

**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. |

| Placeholder | Description |
|---|---|
| $SERVICENAME | Name of the service found under the wsdl:service name tag of the wsdl file. |
| $PORTTYPENAME | wsdl port type name as mentioned in the wsdl file. |
| $SESSION_MAINTAIN_PROPERTY | This could be given as "" also. |
| $USERNAME | User name to access the web services. Enter "" if no user name is required. |
| $PASSWORD | Password to access the web services. Enter "" if no password is required. |
| $WEBSERVICESTYLE | This can take either "rpc" in case of DII mode of invoking web services or "stub" in case of static mode. This is a mandatory parameter. |
| $STUBIMPLEMENTATION | Fully qualified class name (package name.classname). |

### 15.10.3 Attributes for OPERATION tag

Ensure that the ‘operation tag attributes’ are repeated for each of the operation tags.

**OPERATION tag**

| Placeholder | Description |
|---|---|
| $CODE | Should be unique within the Webservice tag. |
| $NAME | The name of the Function that is to be called by the wsdl file. |
| $SOAPACTION | The URL for the Operation to access. This is associated with the Operation tag of the wsdl file. |
| $STYLE | This can take "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. |

### 15.10.4 Attributes for INPUT tag

**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. |

| Placeholder | Description |
|---|---|
| $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. |

### 15.10.5 Attributes for OUTPUT tag

**OUTPUT tag**

| Placeholder | Description |
|---|---|
| $PARAMNAME | Output parameter name to be returned by the web service. |
| $RETURNTYPE | Output parameter Data Type. If the web service response is a complex object, then specify $RETURNTYPE as "object". |
| $CLASSNAME | Represents class name of output object parameter. |

### 15.10.6 web.xml Entries

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.

1. 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">
```

#### 15.10.6.1 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 following 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>
```

#### 15.10.6.2 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>
```

#### 15.10.6.3 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>
```

#### 15.10.6.4 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.

## 15.11 Deploying 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 WebServer.

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

## 15.12 Configuring 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 form 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.

## 15.13 Configuring 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:

**NotificationConfig.cfg File**

| Parameter | Description |
|---|---|
| SMTP_SERVER_IP | Specify the hostname or IP address of SMTP Server. |
| SMTP_DEBUG_MODE | To run SMTP service in Debug mode, set value to 'true', otherwise set value to 'false'. |
| SMTP_AUTHORIZATION | Set to 'true' if SMTP server requires the client to be authenticated, otherwise set to 'false'. |
| SMTP_USERNAME | Username required for logging into SMTP server, if authentication is not required use a dummy value. |
| SMTP_PASSWORD | Password required for logging into SMTP server, if authentication is not required use a dummy value. |
| SMTP_MAILID | If the Messages has to go from a Particular ID that ID need to be added. Exchange server forces you set a valid ID that is there in the exchange server. (Based on Security settings) |

Ensure that the authorized User details are included in ***Administration → Security Management → User Administrator → User Maintenance*** window.

## 15.14 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 WebServer configured and clear the cache:

**Tomcat**: `<Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp`

**WebLogic**: `<Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>/qaelce/jsp_servlet`

**WebSphere**: `<Websphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>`

## 15.15 Configuring Password Changes

This section explains about how to modify the OFSAA Infrastructure Config Schema and Atomic Schema passwords.

### 15.15.1 Changing OFSAA Infrastructure Config Schema Password

To change the Config Schema password, perform the following steps:

1. Change the Config schema User Password in the database.
2. Delete the `$FIC_HOME/conf/Reveleus.SEC` file.
3. Shutdown the OFSAAI App service:

   ```
   cd $FIC_APP_HOME/common/FICServer/bin
   ./ reveleusshutdown.sh
   ```

2. Start the Infrastructure Server in foreground directly on the server or through X-Windows software using the command:

   ```
   ./ reveleusstartup.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.

4. Post successful startup of the service, if required, the Infrastructure server may be shut down and restarted in the background using nohup mode.

### 15.15.2 Changing OFSAA Infrastructure Atomic Schema Password

To change the Atomic Schema password, perform the following steps:

1. Change the Atomic schema User Password in the database.
2. Login to the application from the browser using SYSADMN account or any user id, which has System Administrator role mapped.
3. Navigate to System Configuration → Database Details window. Select the appropriate connection and edit the password.
4. Navigate to Unified Metadata Manager → Technical Metadata → Data Integrator → Define Sources window. Update the appropriate Source details.
5. If you are using Apache Tomcat as Web server, update the `<Context> -> Resource` tag details in `Server.xml` file from the $CATALINA_HOME/conf folder. (In case of Tomcat only Atomic <Resource> will exist).
6. 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:

    d. Login to the WebLogic Administration Console, from the left side menu
    e. 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.
    f. Select the appropriate Data Source and edit the connection details. (In this case, both Config and Atomic data sources need to be modified).
7. Restart the OFSAAI services.

## 15.16 Configuring 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
     ```

3. Create DocStorage folder in the FTPSHARE location of APP tier and provide Read/Write permission.
   - To find the exact location, execute the query in CONFIG schema:

     ```
     select ftpdrive from app_server_info
     ```

   - To create folder with Read/Write permission, execute the command:

     ```
     mkdir -m 777 DocStorage
     ```

By default, the parameter **DOCUMENT_SERVICE_TYPE_EXTERNAL** value is set to **FALSE** in the Configuration table in CONFIG schema and hence the application “ExeWebService” will not be used. It is recommended that the value to be set to **FALSE** and use the Internal service for document upload/ downloads. If you intend to continue using the External ExeWebService, set the value to **TRUE**.

Navigate to `$FIC_HOME/EXEWebService/<WEBSERVER_TYPE>` directory of WEB tier and type ./ant.sh. This triggers the creation of EAR/WAR file EXEWebService.ear/.war. The EAR/WAR file EXEWebService.ear/.war will be created in `$FIC_HOME/EXEWebService/<WEBSERVER_TYPE>` directory of WEB tier. Redeploy the generated EAR/WAR file onto your configured web application server.

# 16 Appendix J: Patching OIDF 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 products.

Refer http://support.oracle.com for more information on latest releases.

# 17 Appendix K: Grants for Atomic/ Config Schema

This appendix includes the following sections:



## 17.1 Grants for Atomic Schema

Atomic Schema creation requires certain grants for object creation. This can be located in `$FIC_HOME/privileges_atomic_user.sql` file

The following are the Grants for Atomic Schema:

```
grant create SESSION to &database_username
/
grant create PROCEDURE to &database_username
/
grant create SEQUENCE to &database_username
/
grant create TABLE to &database_username
/
grant create TRIGGER to &database_username
/
grant create VIEW to &database_username
/
grant create MATERIALIZED VIEW to &database_username
/
grant olap_user to &database_username
/
grant select on SYS.V_$PARAMETER to &database_username
/
grant create SYNONYM to &database_username
/
```

**NOTE:** If you intend to use Oracle OLAP feature, execute the below grant on all ATOMIC schema(s): `grant olap_user to &database_username`

## 17.2 Grants for Config Schema

Config Schema creation requires certain grants for object creation. This can be located in `$FIC_HOME/privileges_config_user.sql` file

The following are the Grants for Config Schema:

```
grant create SESSION to &database_username
/
grant create PROCEDURE to &database_username
/
grant create SEQUENCE to &database_username
/
```

```
grant create TABLE to &database_username
/
grant create TRIGGER to &database_username
/
grant create VIEW to &database_username
/
grant create MATERIALIZED VIEW to &database_username
/
grant olap_user to &database_username
/
grant select on SYS.V_$PARAMETER to &database_username
/
grant create SYNONYM to &database_username

/
```

## 17.3 Grants on Config Schema Entities for Atomic Users

Atomic Schema creation requires certain grants for config schema object access. This can be located in `$FIC_HOME/config_table_privileges_for_atomic_user.sql` file.

The following are the Grants for Config Schema entities for Atomic Users:

```
grant select on CSSMS_USR_PROFILE to &database_username
/
grant select on CSSMS_ROLE_MAST to &database_username
/
grant select on CSSMS_GROUP_MAST to &database_username
/
grant select on CSSMS_FUNCTION_MAST to &database_username
/
grant select on CSSMS_USR_GROUP_MAP to &database_username
/
grant select on CSSMS_USR_GROUP_DSN_SEG_MAP to &database_username
/
grant select on CSSMS_ROLE_FUNCTION_MAP to &database_username
/
grant select on CSSMS_GROUP_ROLE_MAP to &database_username
/
grant select on CSSMS_SEGMENT_MAST to &database_username
/
grant select on BATCH_TASK to &database_username
/
grant select on CSSMS_USR_DSN_SEG_MAP to &database_username
/
grant select on CSSMS_USR_ROLE_MAP to &database_username
/
grant select on CSSMS_METADATA_SEGMENT_MAP to &database_username
/
grant select on BATCH_RUN to &database_username
/
grant select on PR2_FILTERS to &database_username
/
grant select on PR2_TASK_FILTER to &database_username
/
```

```
grant select on PR2_TASK_FILTER_DETAIL to &database_username
/
grant select on ST_STRESS_MASTER to &database_username
/
grant select on ST_SCENARIO_MASTER to &database_username
/
grant select on ST_SHOCK_MASTER to &database_username
/
grant select on BATCH_MASTER to &database_username
/
grant select on ICC_MESSAGELOG to &database_username
/
grant select on PR2_MASTER to &database_username
/
grant select on PR2_RUN_REQUEST to &database_username
/
grant select on MF_MODEL_SCRIPT_MASTER to &database_username
/
grant select on MF_INPUT_VALUES to &database_username
/
grant select on MF_MODEL_OUTPUT_VALUES to &database_username
/
grant select on DB_MASTER to &database_username
/
grant select on DSNMASTER to &database_username
/
grant select on pr2_rule_map to &database_username
/
grant delete on pr2_rule_map_pr to &database_username
/
grant insert on pr2_rule_map_pr to &database_username
/
grant update on pr2_rule_map_pr to &database_username
/
grant select on pr2_rule_map_pr to &database_username
/
grant delete on pr2_rule_map_pr_tmp to &database_username
/
grant insert on pr2_rule_map_pr_tmp to &database_username
/
grant update on pr2_rule_map_pr_tmp to &database_username
/
grant select on pr2_rule_map_pr_tmp to &database_username
/
grant select on pr2_rule_map_exclude to &database_username
/
grant delete on pr2_rule_map_exclude_pr to &database_username
/
grant insert on pr2_rule_map_exclude_pr to &database_username
/
grant update on pr2_rule_map_exclude_pr to &database_username
/
grant select on pr2_rule_map_exclude_pr to &database_username
/
grant delete on pr2_rule_map_exclude_pr_tmp to &database_username
```

```
/
grant insert on pr2_rule_map_exclude_pr_tmp to &database_username
/
grant update on pr2_rule_map_exclude_pr_tmp to &database_username
/
grant select on pr2_rule_map_exclude_pr_tmp to &database_username
/
grant select on pr2_run_object to &database_username
/
grant select on pr2_run_object_member to &database_username
/
grant select on pr2_run_map to &database_username
/
grant select on pr2_run_execution_b to &database_username
/
grant select on pr2_run_execution_filter to &database_username
/
grant select on pr2_firerun_filter to &database_username
/
grant select on pr2_filters to &database_username
/
grant select on configuration to &database_username
/
grant select on batch_parameter to &database_username
/
grant select on component_master to &database_username
/
grant select on MDB_OBJECT_TYPE_ATT_LAYOUT to &database_username
/
grant select on REV_OBJECT_ATTRIBUTE_DTL to &database_username
/
grant select on FORMS_LOCALE_MASTER to &database_username
/
grant select on mdb_object_dependencies to &database_username
/
grant select on mdb_execution_details to &database_username
/
grant select on REV_STAT_DATA to &database_username
/
grant select on REV_OBJECT_REPOSITORY_B to &database_username
/
grant select on REV_OBJECT_REPOSITORY_TL to &database_username
/
grant select on REV_OBJECT_ATTRIBUTE_DTL_MLS to &database_username
/
grant select on REV_OBJECT_APPLICATION_MAP to &database_username
/
grant select on MDB_OBJ_EXPR_DETAILS to &database_username
/
grant select on MDB_EXECUTION_DETAILS to &database_username
/
grant select on REV_OBJECT_TYPES_CD to &database_username
/
grant select on REV_OBJECT_TYPES_MLS to &database_username
/
```

```
grant select on REV_APPLICATIONS_CD to &database_username
/
grant select on REV_APPLICATIONS_MLS to &database_username
/
grant select on METADATA_BROWSER_LOCALE to &database_username
/
grant select on MDB_STAT_DATA to &database_username
/
grant select on MDB_OBJECT_TYPE_LAYOUT to &database_username
/
grant select on ofsa_md_id_ref to &database_username
/
grant select on MDB_ETL_MAPPING to &database_username
/
grant select on setupinfo to &database_username
/
grant select on LOCALEREPOSITORY to &database_username
/
grant select on MF_MODEL_MASTER to &database_username
/
grant select on MF_SANDBOX_MASTER to &database_username
/
grant select on MF_VARIABLE_MASTER to &database_username
/
grant select on MF_TECHNIQUE_MASTER to &database_username
/
grant select on MDB_RULE_SOURCE_HEADER to &database_username
/
grant select on MDB_RULE_TARGET_HEADER to &database_username
/
grant select on MDB_RULE_TARGET_MEMBER_HEADER to &database_username
/
grant select on MDB_RULE_GRID_DATA to &database_username
/
grant select on MDB_MODEL_MAPPING to &database_username
/
grant delete on AAI_MAP_MAPPER to &database_username
/
grant insert on AAI_MAP_MAPPER to &database_username
/
grant update on AAI_MAP_MAPPER to &database_username
/
grant select on AAI_MAP_MAPPER to &database_username
/
grant select on RTI_UI_EXCLUDE_PDM_LIST  to &database_username
/
grant select on RTI_VIR_PHY_TBL_NAME  to &database_username
/
grant select on infodom_patches to &database_username
/
```

# 18 Appendix L: Configuring OIDF Pack XML Files

## 18.1 Configuring OFS_OIDF_PACK.XML file

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

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

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

**OFS_OIDF_PACK.XML Parameters**

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

| Tag Name/ Attribute Name | Description | Mandatory (Y/ N) | Default Value/ Permissible Value | Comments |
|---|---|---|---|---|
| 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<br>Permissible - YES or NO | Set this attribute-value to YES against every APP_ID which is licensed and should be enabled for use.<br><br>**Note**: Application/ Product once enabled cannot be disabled. However, Application/ Product not enabled during installation can be enabled later through the Administration UI. |
| APP_NAME | Unique Application/ Product Name | Y | Unique Seeded Value | DO NOT modify this value. |
| APP_DESCRIPTION | Unique Application/ Product Name | Y | Unique Seeded Value | DO NOT modify this value. |
| VERSION | Unique release version | Y | Unique Seeded Value | DO NOT modify this value. |

## 18.2 Configuring OFS_OIDF_SCHEMA_IN.XML File

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

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

**OFS_OIDF_SCHEMA_IN.XML Parameters**

| Tag Name/ Attribute Name | Description | Mandatory / Optional | Default Value/ Permissible Value | Comments |
|---|---|---|---|---|
| <APP_PACK_ID> | Unique Application Pack Identifier | Y | Unique Seeded Value | DO NOT modify this value. |
| <JDBC_URL> | Enter the JDBC URL.<br>**Note**: You can enter RAC and NON-RAC enabled database connectivity URL. | Y | Example,<br>jdbc:oracle:thin:@<HOST/IP>:<PORT>:<SID><br>or<br>jdbc:oracle:thin:@//[HOST][:PORT]/SERVICE<br>or<br>jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=[HOST])(port=[PORT]))(ADDRESS=(PROTOCOL=TCP)(HOST=[HOST])(PORT=[PORT]))(LOAD_BALANCE=yes)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=[SERVICE])))<br>For example,<br>jdbc:oracle:thin:@//dbhost.server.com:1521/service1<br>or<br>jdbc:oracle:thin:@//dbshost.server.com:1521/scan-1 | |

| Tag Name/ Attribute Name | Description | Mandatory / Optional | Default Value/ Permissible Value | Comments |
|---|---|---|---|---|
| | | | or<br>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))) | |
| <JDBC_DRIVER> | By default this driver name is seeded.<br>**Note**: Do not edit this attribute value. | Y | Example,<br>oracle.jdbc.driver.OracleDriver | Only JDBC Thin Driver is supported. DO NOT modify this value. |
| <HOST> | Enter the Hostname/ IP Address of the system on which you are installing the OFSAA components. | Y | Host Name/ IP Address | |
| <SETUPINFO>/ NAME | Enter the acronym for the type of implementation. This information is displayed in the OFSAA Home Page.<br>**Note**: On executing the schema creator utility, this value will be prefixed with each schema name. For example: dev_ofsaaconf, uat_ofsaaatm. | Y | Accepts strings with a minimum length of two and maximum of four.<br>Example,<br>DEV, SIT, PROD | This name would appear in the OFSAA Landing Page as "Connected To: xxxx"<br>The schemas being created would get this prefix. For E.g. dev_ofsaaconf, uat_ofsaaconf etc. |

| Tag Name/ Attribute Name | Description | Mandatory / Optional | Default Value/ Permissible Value | Comments |
|---|---|---|---|---|
| <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. |
| <PASSWORD>/ APPLYSAMEFORALL | Enter as Y if you want to apply the password specified in DEFAULT attribute for all the schemas.<br>If you enter as N, you need to provide individual passwords for all schemas.<br>**Note**: 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. | Y | Default – N<br>Permissible – Y or N | **Note**: Setting this attribute value is mandatory, If DEFAULT attribute is set. |
| <PASSWORD>/ DEFAULT* | Enter the password if you want to set a default password for all schemas.<br>**Note**: 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 / Optional | Default Value/ Permissible Value | Comments |
|---|---|---|---|---|
| <SCHEMA>/ TYPE | The different types of schemas that are supported in this release are ATOMIC, CONFIG, SANDBOX, and ADDON.<br>By default, the schemas types are seeded based on the Application Pack.<br>**Note**: Do not edit this attribute value. | Y | ATOMIC/CONFIG/SANDBOX/ADDON<br><br>Note:<br>SANDBOX AND ADDON schemas are not applicable for OFS AAAI Application Pack. | Only One CONFIG schema can exist in the file.<br>This schema identifies as the CONFIGURATION schema that holds the OFSAA setup details and other metadata information.<br>Multiple ATOMIC/ SANDBOX/ ADDON schemas can exist in the file.<br>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). |
| <SCHEMA.>/ NAME | By default, the schemas names are seeded based on the Application Pack.<br>You can edit the schema names if required.<br>**Note**:<br>The Schema Name will | Y | The permissible length is 15 characters and only alphanumeric characters allowed. No special characters allowed except underscore '_'. | SETUPINFO/ NAME attribute value would be prefixed to the schema name being created. For E.g. if name is set as 'ofsaaatm' and setupinfo as 'uat' then schema |

| Tag Name/ Attribute Name | Description | Mandatory / Optional | Default Value/ Permissible Value | Comments |
|---|---|---|---|---|
| | have a prefix of the SETUPINFO/ NAME attribute.<br>SCHEMA NAME must be same for all the ATOMIC Schemas of applications within an Application Pack. | | | being created would be 'uat_ofsaaatm'.<br>NAME should be same where APP_GRP=1 for all SCHEMA tags (Not applicable for this Application Pack). |
| <SCHEMA>/ PASSWORD* | Enter the password of the schema to be created.<br>Note:<br>If this attribute is left blank, then the password specified in the <PASSWORD>/DEFAULT attribute is applied as the Schema Password. | N | The maximum length allowed is 30 characters. Special characters are not allowed. | **Note**: You need to mandatorily enter the password if you have set the <PASSWORD>/ APPLYSAMEFORALL attribute as N. |
| <SCHEMA>/ APP_ID | By default, the Application ID is seeded based on the Application Pack.<br>**Note**: Do not edit this attribute value. | Y | Unique Seeded Value | Identifies the Application/ Product for which the schema is being created.<br>DO NOT modify this value. |
| <SCHEMA>/ DEFAULTTABLESPACE | Enter the available default tablespace for DB User.<br>**Note**:<br>If this attribute is left blank, then USERS is set as the default tablespace. | N | Default – USERS<br>Permissible – Any existing valid tablespace name. | Modify this value to associate any valid tablespace with the schema. |

| Tag Name/ Attribute Name | Description | Mandatory / Optional | Default Value/ Permissible Value | Comments |
|---|---|---|---|---|
| <SCHEMA>/ TEMPTABLESPACE | Enter the available temporary tablespace for the DB User.<br>**Note**:<br>If this attribute is left blank, then TEMP is set as the default tablespace. | N | Default – TEMP<br>Permissible – Any existing valid temporary tablespace name. | Modify this value to associate any valid tablespace with the schema. |
| <SCHEMA>/ QUOTA | Enter the quota to be set on DEFAULTTABLESPACE attribute for the schema/ user. By default, the quota size is set to 500M. Minimum: 500M or Unlimited on default Tablespace | N | Example,<br>600M/m<br>20G/g<br>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<br>(Optional for Atomic and mandatory for sandbox) | Permissible length is 16 characters and only alphanumeric characters allowed. No special characters allowed. | Enter this field in UPPERCASE. |

*On successful execution of the utility, the entered passwords in the `OFS_OIDF_SCHEMA_IN.xml` file are nullified.

# 19 Appendix M: Configuring OFSAAI_InstallConfig.xml File

1. Navigate to `OFS_OIDF_PACK/OFS_AAI/conf/` directory.
2. Open the `OFSAAI_InstallConfig.xml` file in text editor.
3. Configure the `OFSAAI_InstallConfig.xml` file as mentioned in the below table:
4. 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.

**InstallConfig.xml Parameters**

| InteractionVariable Name | Significance and Expected Value | Mandatory Y/N |
|---|---|---|
| **<Layer name="GENERAL">** | | |
| WEBAPPSERVERTYPE | Identifies the web application server on which the OFSAA Infrastructure web components would be deployed.<br>The below numeric value should be set depending on the type:<br>Apache Tomcat = 1<br>IBM WebSphere Application Server = 2<br>Oracle WebLogic Server = 3<br>For example, <InteractionVariable name="WEBAPPSERVERTYPE">3</InteractionVariable> | Yes |
| DBSERVER_IP | Identifies the hostname or IP address of the system on which the Database Engine is hosted.<br>Note: For RAC Database, the value should be NA.<br>For example, <InteractionVariable name="DBSERVER_IP">14.15.16.17</InteractionVariable> or<br><InteractionVariable name="DBSERVER_IP">dbhost.server.com</InteractionVariable> | Yes |
| ORACLE_SID/SERVICE_NAME | Identifies the Oracle DB Instance SID or SERVICE_NAME<br>Note: The Oracle_SID value should be exactly the same as it is mentioned in JDBC_URL.<br>For example, <InteractionVariable name="ORACLE_SID/SERVICE_NAME">ofsaser</InteractionVariable> | Yes |
| ABS_DRIVER_PATH | Identifies the directory where the JDBC driver (ojdbc<version>.jar) exists. This would typically be the<br>$ORACLE_HOME/jdbc/lib<br>For example, <InteractionVariable name="ABS_DRIVER_PATH">">/oradata6/revwb7/oracle<br></InteractionVariable><br>**Note**: Refer Appendix O for identifying the correct `ojdbc<version>.jar` version to be copied. | Yes |

| InteractionVariable Name | Significance and Expected Value | Mandatory Y/N |
|---|---|---|
| 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:<br>YES - 1<br>NO - 0 | No |
| **Note**: If value for `OLAP_SERVER_IMPLEMENTATION` is set to 1, it checks for following environment variables are set in `.profile`:<br>`ARBORPATH, HYPERION_HOME and ESSBASEPATH.` | | |
| 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:<br>SFTP - 1<br>FTP - 0 | Yes |
| **Note**: The default value set is 1 as this release of the OFSAA Infrastructure mandates the SFTP service be up and running on the system where OFSAA Infrastructure would be installed.<br>For example, <InteractionVariablename="SFTP_ENABLE">0</InteractionVariable> | | |
| 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.<br>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.<br>For example, <InteractionVariable name="LOCALE">en_US</InteractionVariable> | Yes |
| **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. | | |
| 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 |
| **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. | | |

| InteractionVariable Name | Significance and Expected Value | Mandatory Y/N |
|---|---|---|
| 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:<br>YES - 1<br>NO - 0<br>For example, <InteractionVariable name="HTTPS_ENABLE">0 </InteractionVariable> | Yes |
| WEB_SERVER_IP | Identifies the HTTP Server IP/ Hostname or Web Application Server IP/ Hostname, to be used for accessing the UI. This IP would typically be the HTTP Server IP.<br>If no separate HTTP Server is available, the value should be Web Application Server IP/Hostname.<br>For example, <InteractionVariable name="WEB_SERVER_ IP">10.11.12.13</InteractionVariable><br>or<br><InteractionVariable name="WEB_SERVER_IP"> myweb.server.com</InteractionVariable> | No |
| WEB_SERVER_PORT | 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 Application Server.<br>**Note**: The port value will not be accepted as 80 if HTTPS_ENABLE is 1 and as 443, if HTTPS_ENABLE is 0.<br>For example, <InteractionVariable name="WEB_ SERVER_PORT">80</InteractionVariable> | Yes |
| CONTEXT_NAME | 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:<br>`<scheme>://<host>:<port>/<context-name>/login.jsp`<br>Sample URL:<br>`https://myweb:443/ofsaadev/login.jsp`<br>For example, `<InteractionVariable name="CONTEXT_ NAME">ofsaadev</InteractionVariable>` | Yes |
| WEBAPP_CONTEXT_PATH | Identifies the absolute path of the exploded .ear file on the web application server.<br>For Tomcat, specify the Tomcat directory path till<br>/webapps, such as<br>/oradata6/revwb7/tomcat/webapps/.<br>For WebSphere, enter the WebSphere path as<br><WebSphere profile directory>/installedApps/<br><NodeCellName>. For example,<br>/data2/test/WebSphere/AppServer/profiles/<br><Profile_<br>Name>/installedApps/aix-imfNode01Cell. Where aix-imf is Host name.<br>For WebLogic, provide the WebLogic home directory path as /<WebLogic home directory path>/bea/wlserver_10.3 | Yes |

| InteractionVariable Name | Significance and Expected Value | Mandatory Y/N |
|---|---|---|
| WEB_LOCAL_PATH | 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.<br>**Note**: In case of a clustered deployment, ensure this path and directory is same on all the nodes. | Yes |
| WEBLOGIC_DOMAIN_HOME | Identifies the WebLogic Domain Home.<br>For example, <InteractionVariable name="WEBLOGIC_DOMAIN_<br>HOME">/home/weblogic/bea/user_ projects/domains/mydomain<br></InteractionVariable> | Yes<br>Specify the value only if WEBSERV |
| OFSAAI_FTPSHARE_PATH | Identifies the absolute path to the directory identified as file system stage area.<br>Note:<br>1. The directory should exist on the same system on which the OFSAA Infrastructure is being installed (can be on a separate mount).<br>2. The user mentioned in APP_SFTP_USER_ID parameter below should have RWX permission on the directory.<br>For example, <InteractionVariable name="APP_FTPSHARE_PATH">">/oradata6/revwb7/ftpshare</InteractionVariable> | Yes |
| OFSAAI_SFTP_USER_ID | Identifies the user who has RWX permissions on the directory identified under parameter APP_FTPSHARE_PATH above. | Yes |

# 20 Appendix N: Migration for Excel Upload

This appendix provides detailed instructions to migrate for excel upload.

## 20.1 Prerequisites

The prerequisites for migration are as follows:

- Data model in ATOMIC schemas should be same on the source and target setups.
- OFS AAI (platform) patch level version should be same on the source and target setups.
- PL/SQL Developer to connect and query the database.
- WinSCP to connect and access server file system.

## 20.2 Migration for Excel Upload

To migrate, follow these steps:

1. Open PL/SQL Developer and logon 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 logon 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 Information Domain name with the target Information Domain name.

**NOTE:** If all the mappings can work out of the single target Information Domain, update same Information Domain value across all rows. If only few mappings will work out of the target Information Domain, update the Information Domain value for selective records. Excel upload mappings will work only if the target Information Domain 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: `/ftpshare /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 Step 3 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 Information Domain 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.

# 21 Appendix O: 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 Version Supported | JDBC Jar Files Specific to the Release |
|---|---|---|
| 12.1 or 12cR1 | JDK 7 and JDK 8 | ojdbc7.jar for JDK 7/JDK 8 |
| 11.2 or 11gR2 | JDK 7 and JDK 8 supported in 11.2.0.3 and 11.2.0.4 | ojdbc6.jar for JDK 7 / JDK 8 |

# 22 Appendix P: Upgrading an Existing OFSAA 8.0.x Java 7 Instance to Java 8

This section explains the configurations required to upgrade an existing OFSAA 8.0.x Java 7 instance to Java 8. It consists of the following topics:



## 22.1 Prerequisites

The following are the prerequisites for upgrading OFSAA 8.0.x Java 7 instance to Java 8:

- Java 8 should be installed on the OFSAA server and Web Application Server.
- Oracle WebLogic Server should be 12.1.3.0 or above. Download and install patch 18729264 from http://support.oracle.com/ for the same.

**NOTE:** IBM WebSphere 8.5.x (Full Profile) on Java 8 is not available.

## 22.2 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, refer Web Application Server Configurations.
2. Configure the OFSAA instance to Java 8. For more information, refer OFSAA Generic Configurations. For a newly installed Web Application Server, refer OFSAA Configurations for New Web Application Server Installation
3. Restart the OFSAA services. For more information, refer the Start/Stop Infrastructure Services section in Appendix D
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, refer Appendix C.

## 22.3 Configuring Web Application Server

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:

- Upgrade the existing Web Application Server Installation to Java 8
- Install a new instance of the Web Application Server with Java 8

This section consists of the following topics:

- Oracle WebLogic Server Updates
- Apache Tomcat Server Updates

### 22.3.1 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/jdk1.8.0_45
   WLS_JAVA_HOME=/usr/java/jdk1.8.0_45
   JAVAHOME=/usr/java/jdk1.8.0_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/jdk1.8.0_45"
   DEFAULT_SUN_JAVA_HOME="/usr/java/jdk1.8.0_45"
   JAVA_HOME="/usr/java/jdk1.8.0_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 wish 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 refer Configuring 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.

### 22.3.2 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 refer Configuring 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.

## 22.4 OFSAA Generic Configurations

This section consists of the following topics:

- User .profile Settings
- Configurations for Java 8

### 22.4.1 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/jdk1.8.0_45/jre
   JAVA_BIN=/usr/java/jdk1.8.0_45/jre/bin
   LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/java/jdk1.8.0_45/jre/lib/amd64/server
   ```

### 22.4.2 Configurations for Java 8

Perform the configurations explained in the section Configurations for Java 8.

## 22.5 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`

# 23 Appendix Q: Removing OFSAA

This chapter includes the following sections:



## 23.1 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.

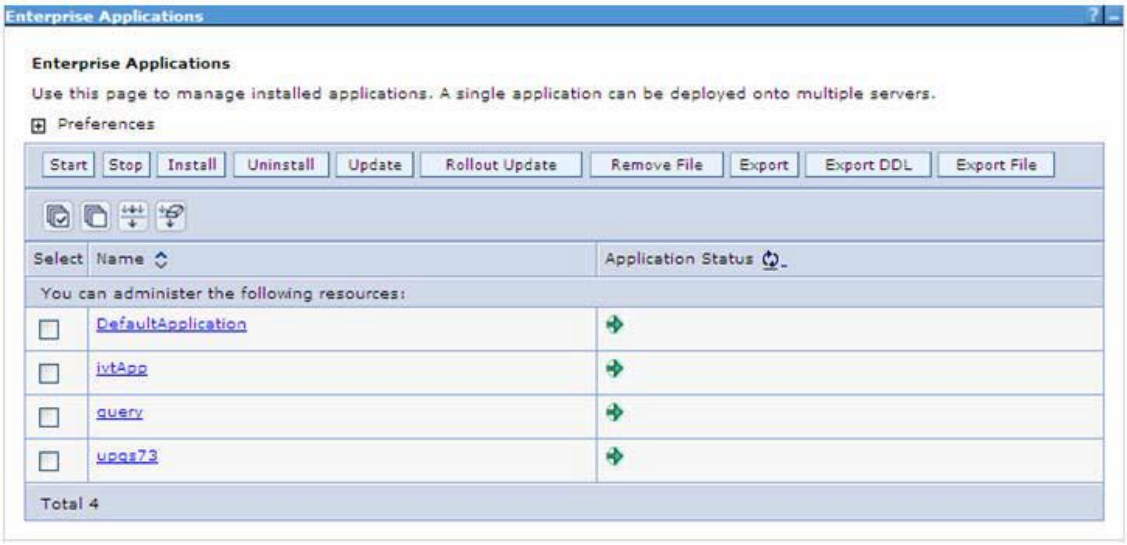
```
/scratch/ofsaadb/OFSAAI>./Uninstall.sh
Uninstallation Started  [time : Tue Jun 10 14:20:27 IST 2014 ]
**********************************************************
*** Driver loaded with Driver oracle.jdbc.driver.OracleDriver

 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>
```

**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.

## 23.2 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.



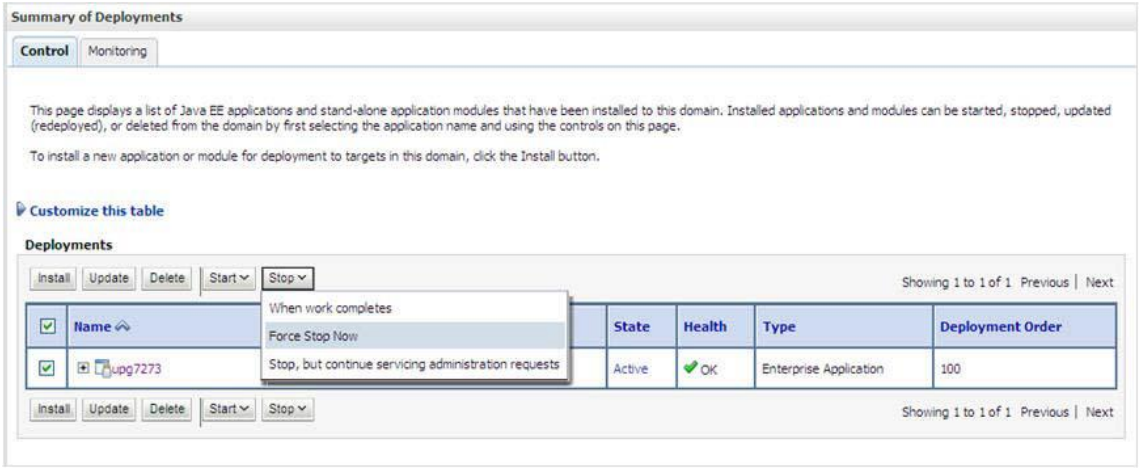

4. Select the checkbox adjacent to the application to be uninstalled and click **Stop**.
5. Click **Uninstall**. The Uninstall Application window is displayed.


6. Click **OK** to confirm.
7. Click **Save** to save the master file configuration.

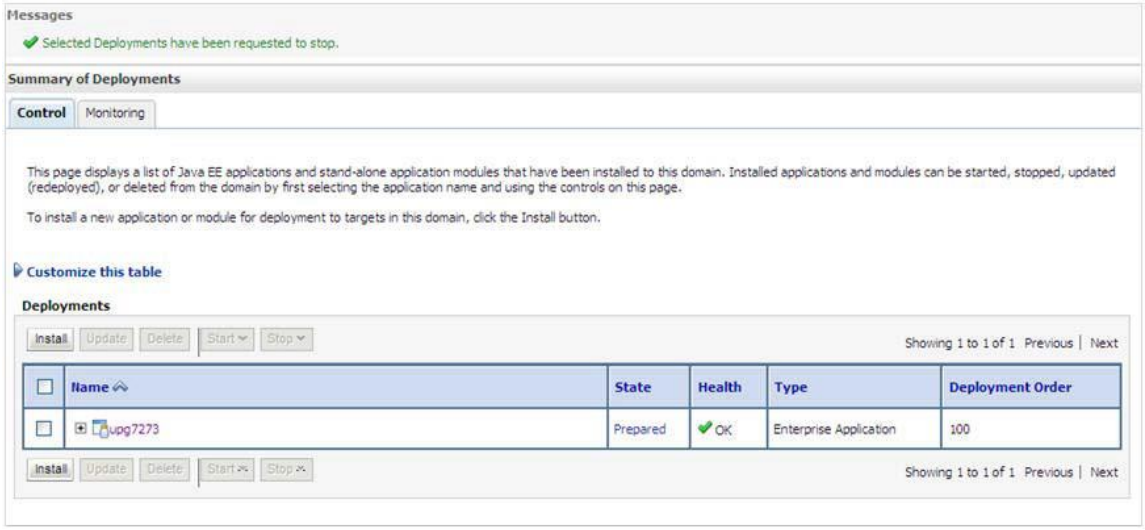
## 23.3 Uninstalling EAR Files in WebLogic

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**. The Summary of Deployments screen is displayed




4. Select the checkbox 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.



6. Select the checkbox 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.

## 23.4 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.

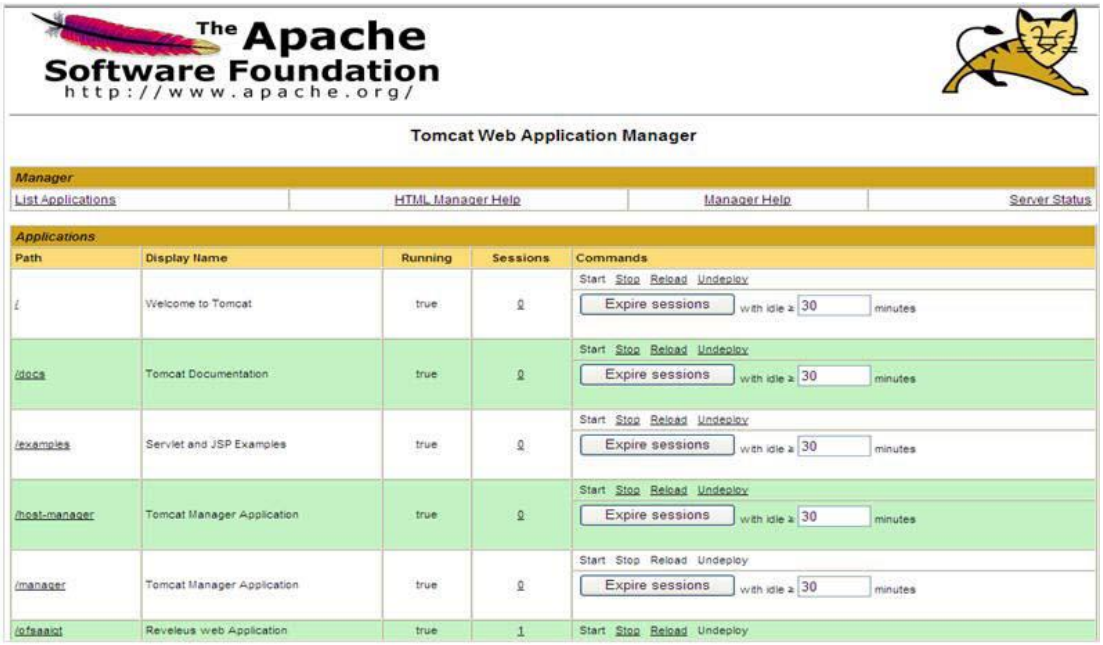
   ```
   Place comment <!-- --> in between the context path section. For example:

   <!--

   <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 command `./shutdown.sh`

d. Start the tomcat services using the command `./startup.sh`

2. Open the URL in a browser window: `http://<IP address>:<Tomcat server port>`. (https, if SSL is enabled). The Tomcat home window is displayed.
3. Click the **Manager App**. The Connect to window is displayed.
4. Login with the user credentials having admin rights. The Tomcat Web Application Manager window is displayed with the list of all applications deployed in Tomcat.




**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.

# 24 Appendix R: FAQs and Error Dictionary

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

- Frequently Asked Questions
- Error Dictionary

OFSAAI installer performs all the pre-requisite validation check during installation. Any errors encountered in the process are displayed with an appropriate Error Code. You can refer to the Error Dictionary to find the exact cause and resolution to rectify the error.

## 24.1 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:

- OFSAAI FAQs
- Application Pack 8.0.5.0.0 FAQs

### 24.1.1 OFSAAI FAQs

***What are the different components that get installed during OFSAAI?***

The different components of OFSAAI are illustrated in Figure 1–1, "OFSAA Infrastructure Framework".

***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.

***What are the different modes of OFSAAI installation?***

OFSAAI can be installed in two modes, Silent Mode, and GUI mode.

***What deployment options does OFSAAI recommend?***

OFSAAI recommends you to install all OFSAAI components namely FICAPP, FICWEB, and FICDB on a single machine (Single Tier).

***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 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, webservers and other software versions that OFSAA supports?***

Refer to OFSAA Technology Stack Matrices.

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

The following files are required:

- setup.sh.
- envCheck.sh
- preinstallcheck.sh
- VerInfo.txt
- OFSAAInfrastructure.bin
- validatedXMLinputs.jar
- MyResources_en_US.properties
- log4j.xml
- OFSAAI_PostInstallConfig.xml
- OFSAAI_InstallConfig.xml
- privileges_config_user.sql
- privileges_atomic_user.sql
- XML_Utility.jar

***During installation, when one gets an error message, "Execute Permission denied", what is to be done?***

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...***" message is displayed.

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…***" message is displayed.

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" in this document.
- Check whether sufficient temporary space is available.
- Ensure that the movement of OFSAAI Installer text files to the target system is done in the Text mode so that setup.sh file does not contain control line feed characters (^M).

***During the installation, what should one do if the error message shows "OracleDriver Files Not Found, Please Choose the Right Path To Continue"?***

Check whether the provided path for Oracle Driver files is correct and whether the user has permissions to access the files.

***During installation, what is to be done if the error always reads "User must have CREATE TABLE, CREATE VIEW, CREATE TRIGGER, CREATE INDEX, CREATE SEQUENCE, CREATE PROCEDURE" even though the oracle schema user created has the mentioned privileges?***

OFSAAI installer validates the database details provided during installation, so ensure:

- Whether the oracle schema user has the required set of privileges for successful installation.
- Whether the oracle schema user has been created with quota privileges on tablespace to create database objects.

See the "Prerequisite Information" section for more information.

***Installation of OFSAAI was completed successfully! What next?***

Post the successful completion of OFSAAI installation, one has to perform the Post Installation steps. See "Post Installation Configuration", for more information.

***What should I do when OFSAAI Installation is unsuccessful?***

OFSAAI installer generates log file OFSAAInfrastructure_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.

***Can OFSAAI config and atomic schemas be on different databases?***

OFSAAI requires both config and atomic schemas to be present on the same database instance.

***How to grant privileges if a new information domain is created?***

If you are creating a new information domain, provide a set of privileges (database permissions) to the new Atomic schema.

- Log into the database as sys and connect as sysdba user.
- Execute the file privileges_config_user.sql available under `$FIC_HOME` directory
- Enter the database schema for which you want to grant privileges.

***When should I run the MLS utility?***

See the Multiple Language Support (MLS) Utility section in OFSAAI Administration Guide in the Documentation Library for OFSAAI 8.0.5.0.0 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.

***On the UNIX System terminal, error message shows "Insert New Media. Please insert Disk1 or type its location" while executing ./setup.sh, what should be done?***

1. Login as root user on the UNIX machine where OFSAAI is getting installed.
2. Navigate to the path /etc/security/.
3. Edit the file limits.conf to add/edit a row for the Unix user installing OFSAA:

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

4. After saving the changes, log in as Unix user with which OFSAAI is getting installed and execute the command:

   ```
   ulimit -n
   ```

   The command should return the value 9216.

***How do I verify if the system environment is ready for OFSAAI installation?***

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

See Verifying the System Environment section for additional information.

***How do I know if the installation is completed successfully?***

The OFSAA Infrastructure installation performs a post install health check automatically on successful installation of the product. To rerun the post install verification at a later time, perform the following steps:

1. Navigate to the path $FIC_HOME (Product Installation Directory).
2. Execute the command:

```
./piverify.sh
```

***What should I do if the installation in GUI mode is not invoked?***

There are set of configuration steps required to be performed during the installation in GUI mode. Verify whether the steps mentioned under Configuration for GUI Mode Installation section are done correctly.

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

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

***On Solaris 11 system, if I get the following error message during OFSAAI installation, what should I do?***

***"Error: OFSAAI-1108***

***ORA-00604: error occurred at recursive SQL level 1***

***ORA-01882: timezone region not found"***

***Or***

***"Time zone cannot be set as null or 'localtime' "***

This happens if the time zone is not set, that is NULL or it is set as 'localtime'. Set the environment variable TZ to a valid time zone region in the .profile file. For example,

```
TZ=Asia/Calcutta
export TZ
```

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

If the installation is abruptly terminated, then the installation process will be incomplete. To recover from this, follow the below steps:

1. Drop the DB objects in the config schema created by OFSAAI installation.
2. Open the `.profile` and remove the entries made by the OFSAAI installation which are made between the comment statements, #Beginning of entries by OFSAA Infrastructure installation and #End of entries by OFSAA Infrastructure installation.
3. Delete the OFSAA install directory created by the OFSAAI installer.
4. Perform the OFSAAI installation again.

***Would OFSAA support any other web server types, other than the ones stated in tech matrix and installation guide?***

No, all the supported software and versions are stated in the OFSAA Technology Stack Matrices.

***What should I do if the database connection from connection pool throws an error "java.sql.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 Maximum Transmission Unit (MTU) settings on the Linux box. For details on MTU settings and updating them, contact your system Administrator.

***When I invoke setup.sh file from my install archive, it throws syntax errors/file not found error messages, what should I do?***

This could mostly happen:

When installer was not unzipped rightly or corrupted during unzip.

`setup.sh` file which resides within the install archive was not transferred in ASCII or text mode, which could have corrupted the file.

To correct this, follow the steps:

1. Copy the installer (in BINARY mode) to the system on which the OFSAA Infrastructure components will be installed.
2. Unzip the installer using the command:

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

3. The corrupted setup.sh file would have introduced certain ^M characters into the file. You can remove ^M characters from setup.sh file by following the below steps:

   a. Login to the server where the installer is copied.
   b. Navigate to the directory OFSAAI_80000.
   c. Open the setup.sh file in the vi editor using the command: vi setup.sh.
   d. Inside vi editor in Esc mode, type: **`%s/^M//g`**

**NOTE:** To enter ^M, hold the CTRL key then press V and M in succession.

   e. Save the setup.sh file by typing: **`wq!`**

***Does OFSAA support Oracle DB 11g Standard edition?***

The OCI client and the JDBC driver does not change depending on whether it is a standard or enterprise edition. So, OFSAAI will work with standard edition too.

We do not recommend standard edition because it will not scale and does not support partition pack, database security vault, or advanced analytics.

***On the UNIX System terminal, Error message shows "./startofsaai.sh: /java: Execute permission denied" while executing ./startofsaai.sh file. What is to be done?***

- Ensure JAVA_BIN environment variable path is set on the "Unix user" terminal from where the reveleusstartup.sh file is invoked.
- Ensure the .profile where the environment/ path settings are made has been executed successfully.

***OFSAAI Login page does not come up, error message "Could not retrieve list of locales" is displayed. What should I do?***

This could be due to 2 reasons:

1. System is unable to resolve the hostname configured.
2. Conflict with the ports configured.

To correct them, follow the below steps:

A. Steps to replace the hostnames with IP address:

1. Stop all the OFSAA services. See Stopping Infrastructure section on how to stop the services.
2. Replace all the hostnames with the IP address in all the places mentioned in the document (Where to find port, IP address, HTTPS Configuration for OFSAAI 7.2 Installation (DOC ID 1500479.1)).
3. Restart all the OFSAAI services. See Starting Infrastructure section.

B. Steps to correct the port number conflicts

1. Stop all the OFSAA services.
2. Refer to the port numbers stated in the document (Where to find port, IP address, HTTPS Configuration for OFSAAI 7.2 Installation (DOC ID 1500479.1)) and check on the discrepancy in the port numbers and correct them.
3. Restart all the OFSAAI services.

***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 SQL Plus.

***Although the OFSAAI installation has completed successfully, when OFSAAI servers are started, and the application URL is accessed, it gives an error message "the page cannot be found or displayed" or "Could not retrieve list of languages from Server. Please contact the system administrator". What should I do?***

Ensure OFSAAI servers have been started and are running successfully. On the server start up parameters options, see Starting Infrastructure 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 777 permissions on ftpshare in case of installations done across different machines or VMs (multitier installation).

In case of single tier installation, 770 permissions can be provided if the UNIX users of OFSAAI and web server belong to the same UNIX group.

And on any new file that is created in the 'ftpshare' folder of any installation layer should be granted specific/explicit permission.

Port Change utility could be used to have the Port number modified, which are currently being used by the Infrastructure application. For more information, refer 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.

1. SYSADMN
2. SYSAUTH
3. GUEST

***Does OFSAAI Application support both FTP and SFTP?***

OFSAAI supports both FTP and SFTP configuration.

***Is it necessary to enable the FTP/SFTP services to use the OFSAAI?***

Yes, enabling of FTP/SFTP services and its ports is a pre-requisite step towards using the OFSAAI.

***OFSAAI Configuration: Unable to save the server details?***

1. Ensure the input User ID, Password, and Share Name are correct.
2. Ensure FTP/SFTP services are enabled.
3. Have a test FTP/SFTP connection made and confirm if they are successful.

***During Information Domain creation, the message "Please create a database and then create the information domain" appears. What should be done?***

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

***The message "ConnectToDatabase: FatalError, could not connect to the DB server" appears during startup of backend engine message server. What do I need to do?***

- Verify whether connection to the "configuration schema" can be established through SQL Plus.
- 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 multitier Installation mode, ensure TNSNAME and SID are the same in both the Application and Database Layers.

***The message "Fatal Error, failed to get user ID from LibSmsConnect" appears during the startup of backend engine message server. What should I do?***

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 Modeler does OFSAAI support?***

OFSAAI now supports ERwin version 9.2 and 9.5 generated .xml files in addition to ERwin 4.1, ERwin 7.1, ERwin 7.3 and ERwin 9.0 formats.

**Note**: OFS AAI supports data model upload for data models generated using ERwin 7.1.x, 7.2.x, 7.3.x, 9.0.x, 9.2.x, and 9.5.x versions

***Does OFSAAI provide the mechanism to upload Business Data model?***

OFSAAI provides two mechanisms for business data model upload:

- Easy to use GUI based Model upload mechanism to upload the Business Data Model through Unified Metadata Manager --> Import Model.
- OFSAAI also provides a model upload utility "upload.sh" for uploading the business data model through the command line parameter by executing this shell script file under the path <FIC_HOME>/ficapp/common/FICServer/bin.

Refer the section *Run the Model Upload Utility* of the Oracle Financial Services Analytical Application Infrastructure User Guide on OHC for details.

***The Business Data model undergoes changes; how does this incremental change get applied to the existing model?***

Modified data model can be uploaded into the system and OFSAAI has the ability to compare the changes within the data model with respect to the one already present in the system and enables propagation of incremental changes in a consistent manner.

***What are the different types of uploading a business data Model?***

OFSAAI supports uploading of business data model from client desktop and also by picking up the data model from the server location.

***Can the OFSAAI "Configuration Schema" password be modified post installation?***

The OFSAAI "configuration schema" password can be modified post installation. OFSAAI application stores the password in the database and few configuration files, thus any changes to the "configuration schema" password would necessitate updating in these. Contact OFSAAI support for more details.

***Can the OFSAAI "Atomic Schema" password be modified?***

The OFSAAI "Atomic Schema" password can be modified. OFSAAI application stores the atomic schema password in the database and few configuration files, thus any change to the atomic schema password would necessitate updating the password.

To change the Atomic Schema password, follow the steps:

1. Login to OFSAA.
2. Navigate to System Configuration → Database Details window. Select the appropriate connection, provide the modified password and save.
3. Navigate to Unified Metadata Manager → Technical Metadata → Data Integrator → Define Sources window. Update the appropriate Source details.
    a. If you are using Apache Tomcat as Web server:
        - Update the <Context> -> Resource tag details in server.xml file from the $CATALINA_HOME/conf folder. (In case of Tomcat only Atomic <Resource> will exist).
    b. If you are using WebSphere as Web server:
        - Login to the WebSphere Administration Console from the left side menu.
        - Navigate to Resources >JDBC >Data Sources. A list of data sources will be populated on the right side.
        - Select the appropriate Data Source and edit the connection details. (In this case, both Config and Atomic data sources need to be modified).
    c. If you are using WebLogic as Web server:
        - Login to the WebLogic Administration Console from the left side menu.
        - Under Domain Structure list box, expand the appropriate Domain and navigate to Services → JDBC >Data Sources. A list of data sources will be populated on the right side.
        - Select the appropriate Data Source and edit the connection details. (In this case, both Config and Atomic data sources need to be modified).
4. Restart the OFSAAI services.

**NOTE:** If the modified passwords are not updated, OFSAAI logs displays the message ORA-28000: the account is locked.

***Does the upload of Business Data model depend on Java Memory?***

Business data model upload through OFSAAI depends on the Java memory settings on the client and server machines. Java memory setting varies with the data model size and the available RAM. Contact OFSAAI support for more details.

***Why do the Business Metadata Management screens (Business Processors screen) in User Interface, takes longer time to load?***

The Log file in DynamicServices.xml which resides in $FIC_HOME/conf is continuously being updated/refreshed to cache metadata. This can be observed when you are starting reveleusstartup.sh and if any of the log file (Ex: SMSService.log) in DynamicServices.xml is being continuously refreshed for longer time.

By default, the Metadata Log file cache size is set to 1000. If in case the log is being updated beyond this limit, retrospectively the preceding entries are overwritten. For example, the 1001th entry is overwritten by deleting the first entry. This results in the application screen taking a longer time to load.

Increase the cache size limit in Dynamicservices.xml located at <FIC_HOME>/conf, depending on the currently logged count for the specific metadata.

1. Generate the Log report by executing the below query in config schema.

   ```
   select count(1), t.metadata_name, m.dsn_id

   from metadata_master m, metadata_type_master t

   where m.metadata_type = t.metadata_type

   group by t.metadata_name, m.dsn_id
   ```

2. The above query returns a list of codes with their respective metadata count. You can refer to "metadata_type_master" table to identify the metadata name.
3. View the log report to identify the metadata which is being updated/refreshed beyond the specified cache size limit. Accordingly increase the cache size limit in Dynamicservices.xml depending on the currently logged count for the specific metadata.

   For example, if the "MEASURE_CACHE_SIZE" is set to 1000 and total measure reported in log is 1022, increase the limit to 2000 (approximately).
4. Restart Reveleus/OFSAAI servers (Web and APP) and check the issue.

***What should I do if I get OutOfMemoryError while deploying EAR file in WebSphere application server?***

The Java memory needs to be increased in ejbdeploy.sh file which is present under `<WebSphere Install directory>/AppServer/deploytool/itp`. For example,

```
$JAVA_CMD \

-Xbootclasspath/a:$ejbd_bootpath \

Xms256m -Xmx1024m \
```

***What configurations should I ensure if my data model size is greater than 2GB?***

In order to upload data model of size greater than 2GB in OFSAAI Unified Metadata Manager-Import Model, you need to configure the required model size in struts.xml file available in the path `$FIC_WEB_HOME/webroot/WEB-INF/classes`.

**NOTE:** The size requirements have to be always specified in bytes.

For example, if you need to configure for model size of 2.5GB, then you can approximately set the max size to 3GB (3221225472 bytes) as indicated below, in order to avoid size constraints during model upload.

```
<constant name="struts.multipart.maxSize" value="3221225472"/>
```

After configuring struts.xml file, generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, see Appendix C.

***What should I do if my Hierarchy filter is not reflecting correctly after I make changes to the underlying Hierarchy?***

In some cases, the Hierarchy Filters do not save the edits correctly if the underlying Hierarchy has been changed. This can occur in hierarchy maintenance, where you have moved a member to another hierarchy branch, and that member was explicitly selected in the Filter and is now a child of a node which is already selected in the Filter.

Please refer to Support Note for the workaround.

***How do I turn off unused information domains (infodoms) from cache?***

Follow the below steps to turn off unused Information Domains from cache:

Navigate to `$FIC_HOME/conf` in the APP layer of your OFSAAI installation.

1. In the DynamicServices.xml file, identify the section for <Service code="20">.
2. Modify the value of parameter CACHE_ON_STARTUP to 0 (default is 1).
3. Repeat the same in the WEB layer too. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, see Appendix C.
4. Restart the OFSAAI Services (APP and WEB). For more information, see Start / Stop Infrastructure Services chapter.

**NOTE:** This setting will cache the Information Domain metadata only for the Information Domains that get accessed upon user login. Information Domains which do not get accessed, will not be cached.

Sample code is pasted below:

```
<SERVICE CODE="20"
CLASS="com.iflex.fic.metadata.services.MetadataServiceProvider"
NAME="BMD"
SERVERID="DEFAULT" PATH=" " LOGGERNAME="UMMLOGGER" LOGGERLEVEL="10">
<PARAMETERS>
<PARAMETER NAME="CACHE_ON_STARTUP" VALUE="0" />
<PARAMETER NAME="BACKUP_XML" VALUE="1" />
<PARAMETER NAME="MAX_BACKUP_XML" VALUE="2" />
<PARAMETER NAME="PC_NONBI_BI_SWITCH" VALUE="2048" />
<PARAMETER NAME="HIERARCHY_NODE_LIMIT" VALUE="2000" />
<PARAMETER NAME="ALIAS_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="DATASET_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="MEASURE_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="HIERARCHY_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DIMENSION_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="HIERARCHYATTRIBUTE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="CUBE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="RDM_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="BUSINESSPROCESSOR_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DERIVEDENTITY_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="LOG_GET_METADATA" VALUE="false" />
<PARAMETER NAME="METADATA_PARALLEL_CACHING" VALUE="0" />
</PARAMETERS>
</SERVICE>
```

***Can I install an Application Pack on an existing Atomic schema/ Information Domain created manually?***

No, you cannot install an Application Pack on existing Atomic schema/Information Domain created manually. Application Packs can be installed only on Atomic Schemas/Information Domain created using schema creator utility and/ or the Application Pack installer.

***When trying to view the model outputs in Model Outputs screen, I get "Exception ->Local Path/STAGE/Output file name (No such file or directory)".***

Ensure you have created a folder "STAGE" under the path mentioned as "Local Path" in the web server details screen. This folder needs to be created under the local path on every node for web application server clustering.

***During OFSAA services startup, I get Exception in thread "main" java.lang.UnsatisfiedLinkError: net (Not a directory)?***

Ensure the JRE referred in .profile is not a symbolic link. Correct the path reference to point to a physical JRE installed.

***What is the optimized memory settings required for "New" model upload?***

The following table lists the optimized memory settings required for "New" model upload.

**Table 5: optimized memory settings required for "New" model upload**

| Model 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 |
| | 336 MB | -Xms2048m -Xmx2048m |
| | 815 MB | -Xms4096m -Xmx4096m |
| | 1243 MB | -Xms6144m -Xmx6144m |
| Save New Erwin File In Server | 106 MB | -Xms1024m -Xmx1024m |
| | 336 MB | -Xms2048m -Xmx2048m |
| | 815 MB | -Xms4096m -Xmx4096m |
| | 1243 MB | -Xms6144m -Xmx6144m |

***What is the resolution if I get the error - ORA 01792 maximum number of columns in a table or view is 1000 during T2T execution?***

You should apply the below patch set from Oracle. Applicable only for 12c.
https://support.oracle.com/epmos/faces/DocumentDisplay?id=1937782.1

***I did not enable OFS Inline Processing Engine Application license during the installation. However, I have enabled it post installation, using the Manage OFSAA Product License(s) in the Admin UI. Are there any other additional configurations that I need to do?***

Yes. Follow the instructions explained in the OFS Inline Processing Engine Configuration Guide.

***I get an error "" when I try to build an Oracle OLAP cube. What should I do?***

Execute the below grant on the appropriate ATOMIC schema

```
@ grant olap_user to &database_username
```

***How do I turn off unused Information Domains (Infodoms) from caching?***

Follow these steps to turn off unused Information Domains from caching:

1. Navigate to $FIC_HOME/conf in the APP layer of your OFSAAI installation.
2. In the DynamicServices.xml file, identify the section for <Service code="20">.
3. Modify the value of parameter CACHE_ON_STARTUP to 0 (default is 1).
4. Repeat the same in the WEB layer too. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the Post Installation Configuration section.
5. Restart the OFSAAI Services (APP and WEB). For more information, refer to the Start OFSAA Infrastructure Services section.

**NOTE:** This setting will cache the Information Domain metadata only for the Information Domains that get accessed upon user login. Information Domains 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+

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

OFSAA can have active-passive high availability. For more details, refer Configuration for High Availability- Best Practices Guide.

**What should I do if I get the following error message, "Error while fetching open cursor value Status: FAIL"?**

This error occurs while executing envCheck.sh because the user does not have access to `V$parameter`. This error does not occur due to sysdba or non sysdba privileges provided they have access/grants to `V$parameter`.

**What should I do when an entity containing many attributes (>100 columns) is selected as Source entity and the Data Mapping (T2T definition) save operation takes longer than expected with the hourglass in the UI continuously rotating?**

In such cases, the user might falsely assume that T2T definition save has failed. The reason for this occurrence is that the FilerServlet has taken considerable amount of time to validate the xml data that was passed. If we skip validation in `excludeURLList.cfg`, there will be no latency in Data Mapping save operation. To rectify this, follow these steps:

1. Locate the webserver deployed area `webroot/conf/excludeURLList.cfg` file.
2. Modify the following entries:

   `[SQLIA]./dataIntegrator/ to [ALL]./dataIntegrator/`

   `[SQLIA]./ETLExtractionServlet` to `[ALL]./ETLExtractionServlet`

3. Save the changes and restart the webserver.
4. Resave the definition.

### 24.1.2 Application Pack 8.0.5.0.0 FAQs

***What is an Application pack?***

An Application Pack is suite of products. For more information, refer 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 a new environment and subsequently migration path / migration kit needs to be run to migrate from 7.x to 8.0. Please note we will have migration path only from the previously released version of OFSAA products.

***Where can I download OFSAA 8.0 Application Pack?***

You can download the OFSAAI 8.0 Application Pack from Oracle Software Delivery

Cloud (OSDC).

***What are the minimum system and software requirements for OFSAA 8.0 Application Pack?***

Refer installation guide section Hardware and Software Requirements section.

***Is my environment compatible with OFSAA 8.0 Application Pack?***

Environment Check utility performs the task. It is part of install and can also be run separately.

***Has OFSAA 8.0 Application Pack is supports all Operating systems?***

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

***How can I install OFSAA 8.0 Application Pack?***

Refer to *Oracle Financial Services Advanced Analytical Infrastructure Installation And Configuration Guide* published in OHC Documentation Library for the application pack installers.

***Does this installation require any Third party Software's?***

*Oracle Financial Services Advanced Analytical Infrastructure Installation And Configuration Guide* published in OHC Documentation Library 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? [Silent, GUI]***

OFSAA Application Packs supports both, GUI and Silent Mode.

***Does OFSAA 8.0 Application Pack support Multi-tier Installations?***

OFSAA 8.0 does single tier installation. For more information refer to OFSAAI FAQ section.

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

Yes. The pre-requisite checks are done by the respective application pack installer.

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

Customer needs to restore the system and retrigger the installation

***Does this Application pack 'Rolls Back' if any of application installation fails due to errors?***

Rollback of installation is not supported.

***Does the Application pack installs all applications bundled?***

All application pack system files are installed but there is an option to enable the licensed products.

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

You can retrigger in case of failure.

***Does Application pack allow enabling / disabling any of the applications installed?***

Yes. You cannot disable once the product is enabled in an environment.

***I have installed one application in an Application pack and can I install any of new applications within the Application pack later point of time?***

No, installation is not required. Enabling the application is an option to use it later.

***How many OFSAA Infrastructures can be installed in a single server?***

There is no issue in installing separate OFSAAI installations, each with their own PFT/FTP installations and separate associated database instances and separate Web Server installations on the same server as long as adequate memory is allocated for each instance and as long as each OFSAAI installation is installed using a separate UNIX user and profile. Care should be taken if running multiple OFSAAI installations on a single server.

Adequate memory will be required for each installation as several OFSAAI processes (model upload, DEFQ services, and so on) 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, 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.

***Is there any option in Application pack for the user to select Infodom during installations?***

Yes. You can select or change the required Information Domain.

***Can I install all Application Packs in a 'Single Infodom'?***

Yes. But Behavioral Detection Application Pack, 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.

***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 8.0.5.0.0?***

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

***Is the 'Data Model' bundled?***

***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.

***Will Application pack creates sandbox automatically for the required applications?***

Yes, Sandbox creation is part of application install process.

***Are Upgrade Kits available for individual applications or the complete Application Pack?***

Maintenance Level (ML) Release / Minor Release upgrades are available across all applications.

***Can I upgrade AAI only?***

Yes, you can upgrade AAI alone.

***Can I upgrade one application within the Application Pack? i.e., LRM will be upgraded in Treasury Application pack, but MR won't be upgraded.***

No. Not possible Upgrade is applied across packs.

***Is it possible to uninstall any Application from the Application pack?***

No, it is not possible to uninstall any Application from the Application Pack.

***Can I uninstall entire Application Pack?***

No, you cannot uninstall the Application Pack.

***Is it possible to uninstall only application and retain AAI in the installed environment?***

No, you cannot uninstall only the application and retain AAI in the installed environment.

***Does Application Pack contain all Language Packs supported?***

Language Packs need to be installed on 8.0 application packs.

***Can I install an Application Pack over another Application Pack (that is same infodom or different infodom?)***

Yes, you can install an Application Pack over another Application Pack in the same information domain or different information domain. But Behavioral Detection Application Pack and Compliance Regulatory Reporting Application Pack, Asset Liability Management Application Pack and Profitability Application Pack are the exceptions. They need to be installed in a different INFODOM.

***Can I use an existing manually created schema as information domain for application pack installation?***

No. Schemas required by OFSAA applications have to be created using Schema Creator Utility.

***Does OFSAA 8.0 support on WebLogic 10.3.6 with Oracle 12c?***

Yes, OFSAA 8.0 will support on WebLogic 10.3.6 with Oracle 12c. WebLogic 10.3.6 supports oracle 12c with some additional configurations. Refer the link http://docs.oracle.com/cd/E28280_01/web.1111/e13737/ds_12cdriver.htm#JDBCA655 for additional configurations.

***While running the schema creator utility, I get an error "HostName in input xml is not matching with the local hostname"?***

One possible reason could be the machine is configured for zonal partitioning. Ensure all the known IP Addresses of the machine are present in the /etc/hosts file.

***What are the Java versions supported in OFS AAAI Application Pack version 8.0.5.0.0?***

OFS AAAI Application Pack supports Java 1.7.x and 1.8.x.

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

Yes. To install this release of the OFS AAAI 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.

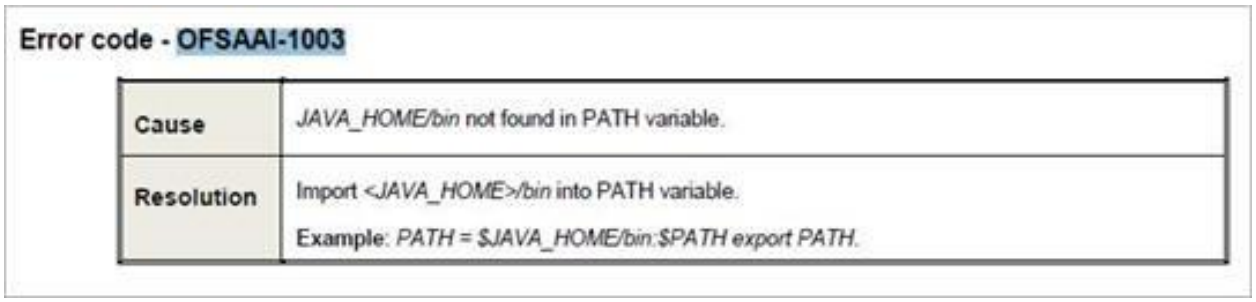
## 24.2 Error Dictionary

The content 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.

### 24.2.1 Accessing Error Dictionary

Instead of scrolling through the document to find the error code, you can use the pdf search functionality. In the "Find" dialog available in any of the Adobe Acrobat version that you are using to view the pdf document, follow the below instructions to quickly find the error resolution.

1. With the Installation pdf open, press **Ctrl+F** or select Edit → Find.
2. The Find dialog is displayed as indicated.
3. Enter the error code that is displayed on screen during Infrastructure installation.
4. Press Enter. The search results are displayed and highlighted as indicated below.




**Error Dictionary**

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.

## 24.2.2 Error Code Dictionary

### 24.2.2.1 Error code - OFSAAI-1001

| | |
|---|---|
| **Cause** | Unix shell is not "korn" shell. |
| **Resolution** | Change the shell type to "korn". Use chsh Unix command to change SHELL type.<br>Shell type can also be changed by specifying shell path for the Unix user in `/etc/passwd` file.<br>**Note**: `chsh` command is not available in Solaris OS. |

### 24.2.2.2 Error code - OFSAAI-1002

| | |
|---|---|
| **Cause** | No proper arguments are available. |
| **Resolution** | Provide proper arguments. Invoke Setup.sh using either SILENT or GUI mode.<br>Example: `./Setup.sh SILENT or ./Setup.sh GUI` |

### 24.2.2.3 Error code - OFSAAI-1004

| | |
|---|---|
| **Cause** | File .profile is not present in `$HOME`. |
| **Resolution** | Create `.profile` in `$HOME`, i.e. in the home directory of user. |

### 24.2.2.4 Error code - OFSAAI-1005

| | |
|---|---|
| **Cause** | File `OFSAAInfrastructure.bin` is not present in current folder. |
| **Resolution** | Copy `OFSAAInfrastructure.bin` into installation kit directory. |

### 24.2.2.5 Error code - OFSAAI-1006

| | |
|---|---|
| **Cause** | File `CustReg.DAT` is not present in current folder. |
| **Resolution** | Copy `CustReg.DAT` into installation kit directory. |

#### 24.2.2.6 Error code - OFSAAI-1007

| | |
|---|---|
| **Cause** | File `OFSAAI_InstallConfig.xml` is not present in current folder. |
| **Resolution** | Copy `OFSAAI_InstallConfig.xml` into installation kit directory. |

#### 24.2.2.7 Error code - OFSAAI-1008

| | |
|---|---|
| **Cause** | File `validateXMLInputs.jar` is not present in current folder. |
| **Resolution** | Copy `validateXMLInputs.jar` into installation kit directory. |

#### 24.2.2.8 Error code - OFSAAI-1009

| | |
|---|---|
| **Cause** | File `log4j.xml` is not present in current folder. |
| **Resolution** | Copy `log4j.xml` into installation kit directory. |

#### 24.2.2.9 Error code - OFSAAI-1010

| | |
|---|---|
| **Cause** | Unknown error occurred. |
| **Resolution** | Make sure to provide proper argument (SILENT or GUI) to the `Setup.sh` file. |

#### 24.2.2.10 Error code - OFSAAI-1011

| | |
|---|---|
| **Cause** | XML validation failed. |
| **Resolution** | Check InfrastructurePreValidations.Log for more details. |

#### 24.2.2.11 Error code - OFSAAI-1012

| | |
|---|---|
| **Cause** | Property file with locale name does not exist. |
| **Resolution** | Copy `MyResources_en_US.properties` to the setup kit directory and keep `en_US` in `LOCALE` tag of `OFSAAI_InstallConfig.xml` |

#### 24.2.2.12 Error code - OFSAAI-1013

| | |
|---|---|
| **Cause** | File `OFSAAI_InstallConfig.xml/OFSAAI_PostInstallConfig.xml` not found. |
| **Resolution** | Copy `OFSAAI_InstallConfig.xml/OFSAAI_PostInstallConfig.xml` to the setup kit directory. |

#### 24.2.2.13 Error code - OFSAAI-1014

| | |
|---|---|
| **Cause** | XML node value is blank. |
| **Resolution** | Make sure all node values except SMTPSERVER, PROXYHOST, PROXYPORT, PROXYUSERNAME, PROXYPASSWORD, NONPROXYHOST, or RAC_URL are not blank. |

#### 24.2.2.14 Error code - OFSAAI-1015

| | |
|---|---|
| **Cause** | XML is not well formed. |
| **Resolution** | Execute the command dos2unix `OFSAAI_InstallConfig.xml` to convert plain text file from DOS/MAC format to UNIX format.<br>OR<br>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`. |

#### 24.2.2.15 Error code - OFSAAI-1016

| | |
|---|---|
| **Cause** | User installation directory contain blank spaces. |
| **Resolution** | 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. |

#### 24.2.2.16 Error code - OFSAAI-1017

| | |
|---|---|
| **Cause** | User installation directory is invalid. |
| **Resolution** | 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. |

Oracle Insurance Data Foundation Applications Pack

8.0.5.0.0 Installation Guide

Oracle Corporation

World Headquarters

500 Oracle Parkway

Redwood Shores, CA 94065

U.S.A.

Worldwide Inquiries:

Phone: +1.650.506.7000

Fax: +1.650.506.7200

www.oracle.com/us/industries/financial-services/