Oracle Financial Services Data Integration Application Pack

Installation Guide

Release 8.0.1.0.0

Part No. E64823-01

ORACLE
FINANCIAL SERVICES

TABLE OF CONTENTS

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Preface

This Preface provides supporting information for the Oracle Financial Services Data Integration 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 OTN library which includes all the recent additions/revisions (if any) done till date.

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

Audience

Oracle Financial Services Data Integration (OFS DI) Applications Pack Installation Guide is intended for administrators, and implementation consultants who are responsible for installing and maintaining the application pack components.

Prerequisites for the Audience

Following are the expected preparations before starting the actual installation:

The document assumes you have experience in installing Enterprise components. Basic knowledge about the Oracle Financial Services Data Integration 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 OFS DI. You can access Oracle documentation online from Documentation Library for OFS DI Pack (OTN).

OFS DI Pack Related Documents:

- *Oracle Financial Services Data Integration User Guide*
- *Oracle Financial Services Analytical Application-FCUBS Interface User Guide Release 8.0.1*
- *Oracle Financial Services Analytical Application-DRM Interface User Guide Release 8.0*.1
- *Oracle Financial Services Analytical Application-OBP Interface User Guide Release 8.0*.1
- *Oracle Financial Services Analytical Application-FAH Interface User Guide Release 8.0*.1
- *Oracle Financial Services Analytical Applications Infrastructure User Guide (OTN)*
- *Oracle Financial Services Analytical Applications Infrastructure Environment Check Utility Guide (OTN)*

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

Conventions	Description
JNDI	Java Naming and Directory Interface
JRE	Java Runtime Environment
JVM	Java Virtual Machine
DIH	Data Integration Hub
ODI	Oracle Data Integrator
ADI	Application Data Interface
KM	Knowledge Module
SDI	Source Data Interface

1 Introduction to OFS DI Application Pack

This chapter includes the following topics:

1.1 About OFSAA

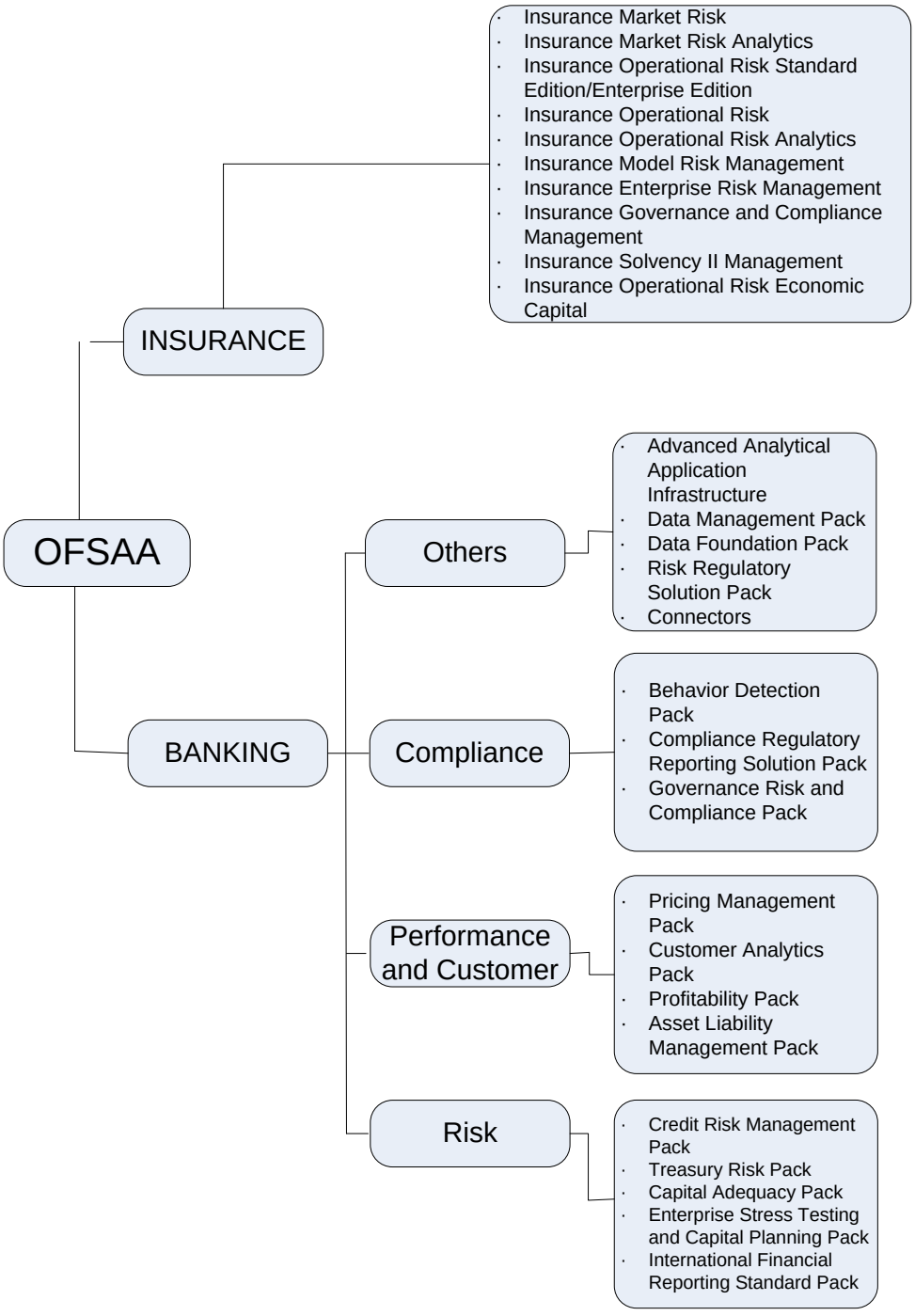
In today's turbulent markets, financial institutions require a better understanding of their risk-return, while strengthening competitive advantage and enhancing long-term customer value. Oracle Financial Services Analytical Applications (OFSAA) enable financial institutions to measure and meet risk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

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

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

1.2 About OFSAA Application Packs

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


OFSAA
INSURANCE
Insurance Market Risk
Insurance Market Risk Analytics
Insurance Operational Risk Standard Edition/Enterprise Edition
Insurance Operational Risk
Insurance Operational Risk Analytics
Insurance Model Risk Management
Insurance Enterprise Risk Management
Insurance Governance and Compliance Management
Insurance Solvency II Management
Insurance Operational Risk Economic Capital
BANKING
Others
Advanced Analytical Application Infrastructure
Data Management Pack
Data Foundation Pack
Risk Regulatory Solution Pack
Connectors
Compliance
Behavior Detection Pack
Compliance Regulatory Reporting Solution Pack
Governance Risk and Compliance Pack
Performance and Customer
Pricing Management Pack
Customer Analytics Pack
Profitability Pack
Asset Liability Management Pack
Risk
Credit Risk Management Pack
Treasury Risk Pack
Capital Adequacy Pack
Enterprise Stress Testing and Capital Planning Pack
International Financial Reporting Standard Pack

1.3 About Oracle Financial Services Data Integration Pack

Oracle Financial Services Data Integration (OFS DI) helps financial services institutions loading data from multiple sources via logical interfaces. OFS DI Application Pack includes the following application:

- **Financial Services Data Integration Hub**: Data Integration Hub (DIH) enables to load the data from the source systems to the OFSAA staging tables, through logical interfaces, known as Application Data Interfaces (ADI). DIH provides a set of User Interfaces (UI), which is used to define and maintain Source Data Interfaces (SDI), Application Data Interfaces, and also map the SDIs and ADIs through Connectors. The mappings can be one to one, one to many, and many-to-many.
- **Financial Services Data Relationship Management (DRM) Interface:** Oracle Data Relationship Management (DRM) helps proactively manage changes in master data across operational, analytical, and enterprise performance management silos. Users may make changes in their departmental perspectives while ensuring conformance to enterprise standards
- **Financial Services Oracle Flexcube Universal Banking (FCUBS) Interface:** Oracle FLEXCUBE Universal Banking (FCUBS) supports the changing landscape of retail, corporate, and investment banking needs with strong transaction banking and Islamic banking capabilities.

  The current FCUBS-OFSAA interfaces, transfers all key data elements across various modules within FCUBS to OFSAA Common Staging Area (CSA).

  The integration between the Oracle FCUBS and the OFSAA enables the financial institutions to:

  - Get insight to customer patterns based on the data captured in core banking
  - Achieve end-to-end improvement in business delivery
  - Achieve effective performance and risk free management using the available customer data

  This integration is achieved by handing off FCUBS core banking data with OFSAA through FLEXCUBE Information Server (FIS) and DIH.

- **Financial Services Oracle Banking Platform (OBP) Interface**

  Oracle Business Platform (OBP) is designed to help banks respond strategically to today's business challenges and progressively transform their business models through industrialized business processes, driving productivity improvements across front and back offices, and reducing operating costs.

  It supports banks' growth agenda through new distribution strategies including multi-brand or white labeling to tap new markets and enterprise product origination supporting multi-product and packages to drive an increased customer-to-product ratio.

- **Financial Services Financial Accounting Hub (FAH) Interface**

  Oracle Fusion Accounting Hub (FAH) is an accounting integration platform that allows customers to integrate and standardize accounting from non-Oracle transactional systems to create accounting entries in any general ledger (for example, Fusion, E-Business Suite, PeopleSoft or other non-Oracle general ledger systems and so on).

1.4 About Oracle Financial Services Analytical Applications Infrastructure (OFSAAI)

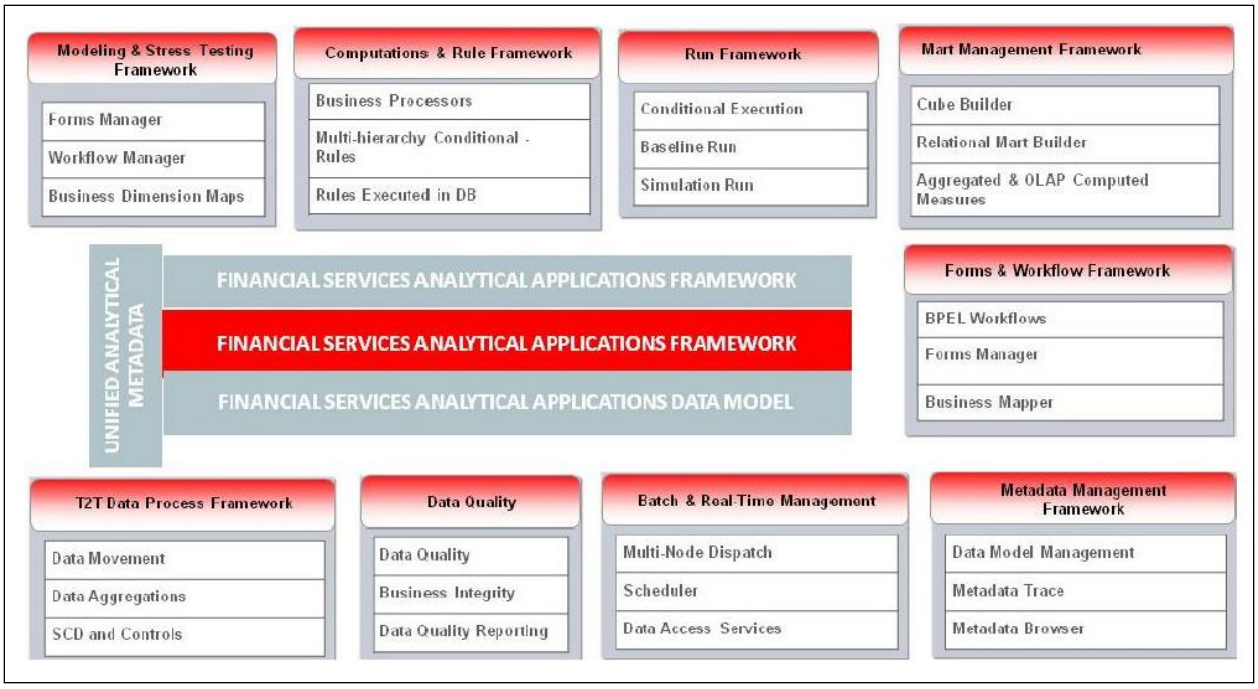
Oracle Financial Services Analytical Applications Infrastructure (OFS AAI) powers the Oracle Financial Services Analytical Applications family of products to perform the processing, categorizing, selection and manipulation of data and information needed to analyze, understand and report on specific performance,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

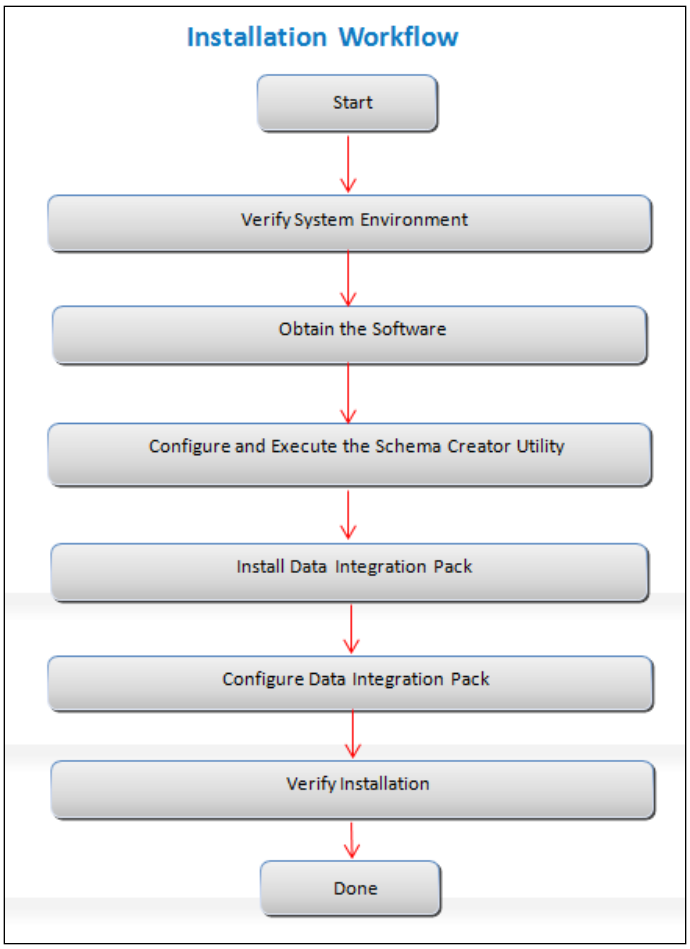

Modeling & Stress Testing Framework
Forms Manager
Workflow Manager
Business Dimension Maps
Computations & Rule Framework
Business Processors
Multi-hierarchy Conditional - Rules
Rules Executed in DB
Run Framework
Conditional Execution
Baseline Run
Simulation Run
Mart Management Framework
Cube Builder
Relational Mart Builder
Aggregated & OLAP Computed Measures
UNIFIED ANALYTICAL METADATA
FINANCIAL SERVICES ANALYTICAL APPLICATIONS FRAMEWORK
FINANCIAL SERVICES ANALYTICAL APPLICATIONS FRAMEWORK
FINANCIAL SERVICES ANALYTICAL APPLICATIONS DATA MODEL
Forms & Workflow Framework
BPEL Workflows
Forms Manager
Business Mapper
T2T Data Process Framework
Data Movement
Data Aggregations
SCD and Controls
Data Quality
Data Quality
Business Integrity
Data Quality Reporting
Batch & Real-Time Management
Multi-Node Dispatch
Scheduler
Data Access Services
Metadata Management Framework
Data Model Management
Metadata Trace
Metadata Browser

2 Understanding OFS DI Pack Installation

This chapter includes the following topics:

2.1 Installation Overview

This section gives an overview of the OFS DI Application Pack Installation. Following figure shows the order of procedures you need to follow:



Installation Overview

Following table provides additional information and links to specific documentation for each task in the flowchart.

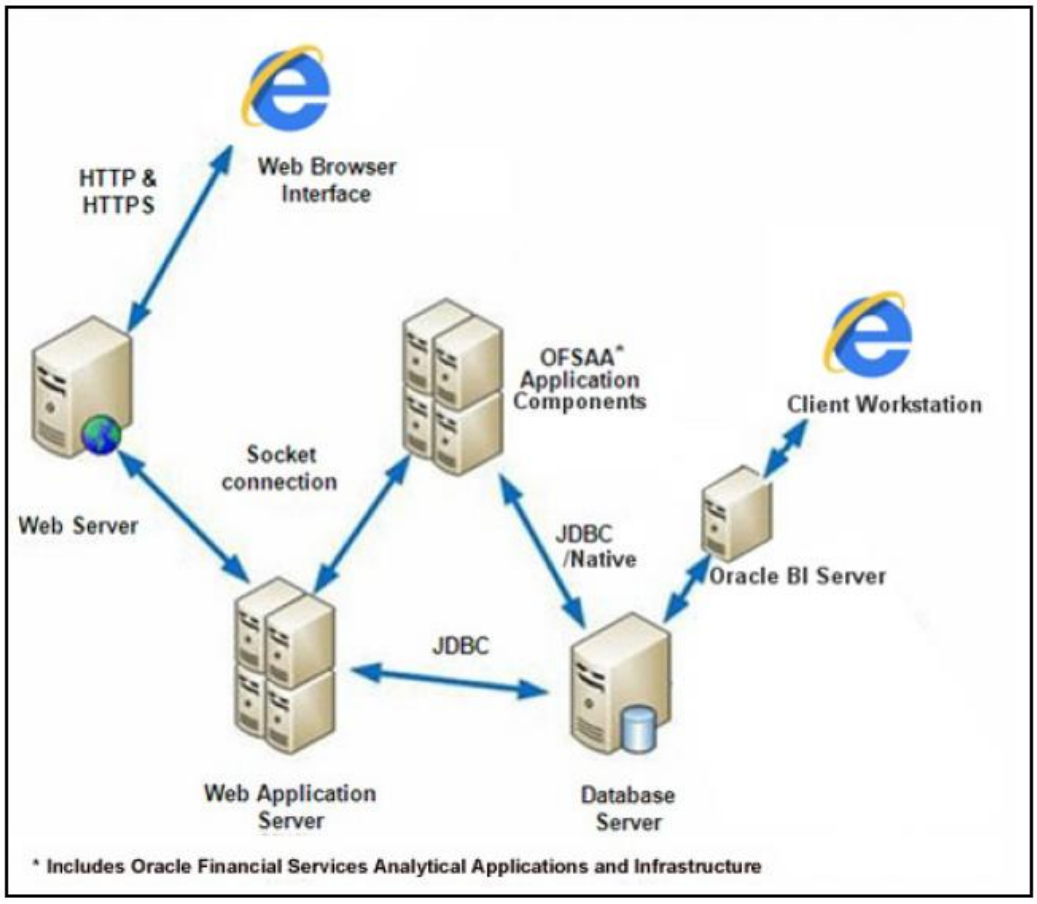
OFSAA Application Pack Installation Tasks and Descriptions

Tasks	Details and Documentation
Verify Systems Environment	To verify that the system meets the minimum necessary requirements for installing and hosting the OFS DI Application 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 OFS DI Pack	See "Installing the OFS DI Pack Installer "
Configure OFS DI Pack	See "Post Installation Configuration "
Verify Installation	See "Verifying the Installation"

2.2 Logical Deployment Architecture

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



Logical Deployment

2.3 Hardware and Software Requirements and Specifications

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

NOTE: OFS DI Application Pack installation can be performed on both Virtual and Physical servers.

NOTE: If you are installing an application pack on an environment, where another application pack is already installed, you may get a warning message such as "Object Already Exists". Ignore this message.

2.3.1 Configurations supported

2.3.1.1 Configurations Supported for Java 7

The following table shows the minimum hardware and software requirements for installing Oracle Financial Services Data Integration Application Pack on each machine.

Configurations supported for Java 7

Requirement	Sub-Category	Value
Operating System	Oracle Linux / Red Hat Enterprise Linux (x86-64)	Oracle Linux Server release 5.3 up to 5.10 - 64 bit Oracle Linux Server release 6.0 and above - 64 bit **Note**: Same versions of RHEL is supported
	Oracle Solaris (SPARC)/Solaris x86	Oracle Solaris v5.10 Update 11 and above - 64 bit Oracle Solaris v5.11 update 1 and above – 64 bit
	IBM AIX (PowerPC)	AIX 6.1 (TL 09 and above) - 64 bit
	Shell	KORN Shell (KSH)
Note: If the OS is IBM AIX 6.1, configure the size parameter setting for “Large File Support”. Refer link http://www-01.ibm.com/support/docview.wss?uid=isg3T1000290 for more details. If the operating system is RHEL, install the package `lsb_release` using one of the following commands by logging in as `root` user:		

Requirement	Sub-Category	Value
▪ yum install redhat-lsb-core ▪ yum install redhat-lsb		
Java Runtime Environment	Oracle Linux / Red Hat Enterprise Linux Oracle Solaris	Oracle Java Runtime Environment (JRE) 1.7.x - 64 bit
	IBM AIX	IBM AIX Runtime, Java Technology JRE 1.7.x - 64 bit
Oracle Database Server and Client		Oracle Database Server Enterprise Edition 11g Release 2 (11.2.0.3.0 +) - 64 bit RAC/ Non-RAC with/ without partitioning option Oracle Database Server Enterprise Edition 12c Release 1 (12.1.0.1.0 +)- 64 bit RAC/ Non-RAC with/ without partitioning option Oracle Client 11g Release 2 (11.2.0.3.0+) - 64 bit Oracle Client 12c Release 1 (12.1.0.1.0+) - 64 bit Oracle 11g Release 2 (11.2.0.3+) JDBC driver (Oracle thin driver) Oracle 12C Release 1 (12.1.0.1+) JDBC driver (Oracle thin driver)
	Note: Ensure that the following patches are applied: ▪ Oracle Server 12c, v12.1.0.1 – 17082699 ▪ Oracle Server 12c, v12.1.0.2 - 19392604, 19649591 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 V 11.1.2.3+ (Server and Client) with Oracle 12c Database

Requirement	Sub-Category	Value
	Oracle OLAP	V 11.2.0.3+ with Oracle 11g Database V 12.1.0.1+ with Oracle 12c Database
	Note: 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 Oracle Solaris	Oracle HTTP Server 11.1.1.1/ Apache HTTP Server 2.2.x/ IBM HTTP Server • Oracle WebLogic Server 12.1.2.0.0 (64 bit) • IBM WebSphere Application Server 8.5+ with bundled IBM Java Runtime (64 bit)
	Note: OFSAA Infrastructure web component deployment on Oracle WebLogic Server with Oracle JRockit is not supported.	
Desktop Requirements	Operating System	MS Windows 7/ Windows 8/ Windows 8.1
	Browser	MS Internet Explorer 9 , 10(Compatibility Mode) and 11 (Compatibility Mode) Oracle Java plug-in 1.7.0+* (64- bit) Turn on Pop-up blocker settings. For more information, refer Internet Explorer Settings
	Office Tools	MS Office 2007/ 2010/2013 Adobe Acrobat Reader 8 or above
	Screen Resolution	1024*768 or 1280*1024
Directory	-	OFSAAI is qualified on both OPEN LDAP 2.2.29+ and

Requirement	Sub-Category	Value
Services		Oracle Internet Directory v 11.1.1.3.0. However, it can be integrated with other directory services software like MS Active Directory.
	Note: Configuration of Directory services software for OFSAAI installation is optional. For more information on configuration, see Infrastructure LDAP Configuration. Open LDAP needs to be installed on MS Windows Server machine only.	
ETL Tool	Oracle Data Integrator	11.1.1.9.0

2.3.1.2 Configurations Supported for Java 8

The following table shows the minimum hardware and software requirements for installing Oracle Financial Services Data Integration Application Pack on each machine.

NOTE: DIH application is not supported on Java 8 and IBM WebSphere 8.5.x combination. Please refer the DIH TechMatrix sheet for DIH certification.

Requirement	Sub-Category	Value
Operating System	Oracle Linux / Red Hat Enterprise Linux (x86-64)	Oracle Linux Server release 5.3 up to 5.10 - 64 bit Oracle Linux Server release 6.0 and above - 64 bit **Note**: Same versions of RHEL is supported
	Oracle Solaris (SPARC)/Solaris x86	Oracle Solaris v5.10 Update 11 and above - 64 bit Oracle Solaris v5.11 update 1 and above – 64 bit
	IBM AIX (POWERPC)	AIX 6.1 (TL 09 and above) - 64 bit
	Shell	KORN Shell (KSH)

Requirement	Sub-Category	Value
Note: If the OS is IBM AIX 6.1, configure the size parameter setting for "Large File Support". Refer link http://www-01.ibm.com/support/docview.wss?uid=isg3T1000290 for more details. If the operating system is RHEL, install the package `lsb_release` using one of the following commands by logging in as `root` user: ▪ yum install redhat-lsb-core ▪ yum install redhat-lsb		
Java Runtime Environment	Oracle Linux / Red Hat Enterprise Linux Oracle Solaris	Oracle Java Runtime Environment (JRE) 1.8.x - 64 bit
	IBM AIX	IBM AIX Runtime, Java Technology JRE 1.8.x - 64 bit
Oracle Database Server and Client	• Oracle Database Server Enterprise Edition 11g Release 2 (11.2.0.3.0 +) - 64 bit RAC/ Non-RAC with/ without partitioning option • Oracle Database Server Enterprise Edition 12c Release 1 (12.1.0.1.0 +)- 64 bit RAC/ Non-RAC with/ without partitioning option • Oracle Client 11g Release 2 (11.2.0.3.0+) - 64 bit • Oracle Client 12c Release 1 (12.1.0.1.0+) - 64 bit • Oracle 11g Release 2 (11.2.0.3+) JDBC driver (Oracle thin driver) • Oracle 12C Release 1 (12.1.0.1+) JDBC driver (Oracle thin driver)	
	Note: Ensure that the following patches are applied: • Oracle Server 12c, v12.1.0.1 – 17082699 • Oracle Server 12c, v12.1.0.2 - 19392604, 19649591 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 V 11.1.2.3+ (Server and Client) with Oracle 12c

Requirement	Sub-Category	Value
		Database
	Oracle OLAP	V 11.2.0.3+ with Oracle 11g Database V 12.1.0.1+ with Oracle 12c Database
	Note: 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 Oracle Solaris IBM AIX	Oracle HTTP Server 11.1.1.1/ Apache HTTP Server 2.2.x/ IBM HTTP Server • Oracle Weblogic Server 12.1.3.0.0 **Note**: • IBM WebSphere 8.5.x (Full Profile) on Java 8 is not available.
	Note: OFSAA Infrastructure web component deployment on Oracle WebLogic Server with Oracle JRockit is not supported.	
Desktop Requirements	Operating System	MS Windows 7/ Windows 8/ Windows 8.1
	Browser	MS Internet Explorer 9 , 10(Compatibility Mode) and 11 (Compatibility Mode) Oracle Java plug-in 1.7.0+* (64- bit) Turn on Pop-up blocker settings. For more information, refer Internet Explorer Settings
	Office Tools	MS Office 2007/ 2010/2013 Adobe Acrobat Reader 8 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: Configuration of Directory services software for OFSAAI installation is optional. For more information on configuration, see Infrastructure LDAP Configuration. Open LDAP needs to be installed on MS Windows Server machine only.	
ETL Tool	Oracle Data Integrator	12.2.1.0.0 – supported for Oracle Weblogic Server 12.2.1.0.0

NOTE: To upgrade an existing OFSAA 8.0.x Java 7 instance to Java 8, refer Appendix O.

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

Recommended Software Combinations

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

2.4 Verifying the System Environment

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.

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

OFS DI Application Pack installation supports the following modes of installation:

- **Silent Mode Installation** - This mode mandates updating the installation configuration files with required details and performs installation in a "Silent" non user interactive format.
- **Graphical User Interface (GUI) Mode Installation** - This mode launches the product installation in a GUI mode. Users need to enter the required information on various panels within the UI in a user interaction format at various stages.

NOTE: For more information on configuration required for GUI Mode installation, refer Configuration for GUI Mode Installation.

3 Preparing for Installation

This chapter provides necessary information to review before installing the Oracle Financial Services Data Integration (OFS DI) Pack v8.0.1.0.0. This chapter includes the following topics:

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

3.1 Installer and Installation Prerequisites

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

Installer and Installation Prerequisites

Requirement	Sub-Category	Expected Value
Environment Settings	Java Settings	PATH in `.profile` to 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. **Note**: Ensure the absolute path to JRE/bin is set at the beginning of PATH variable. For example, `PATH=/usr/java/jre1.7/bin:$ORACLE_HOME/bin:$PATH` Ensure no SYMBOLIC links to JAVA installation is being set in the PATH variable.
	Oracle Database Settings	TNS_ADMIN to be set in `.profile` pointing to appropriate tnsnames.ora file ORACLE_HOME to be set in `.profile` pointing to appropriate Oracle Client installation PATH in `.profile` to be set to include appropriate $ORACLE_HOME/bin path.

Requirement	Sub-Category	Expected Value
	Oracle Essbase Settings	ARBORPATH, ESSBASEPATH, HYPERION_HOME to be set in the `.profile` pointing to an appropriate Oracle Essbase Client installation. **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
	Total Number of Process Settings	Greater than 4096
	Port Settings	Default port numbers to be enabled on the system are 6500, 6501, 6505, 6507, 6509, 6510, 6666, 9999, and 10101.
	`.profile` permissions	User to have 755 permission on the `.profile` file.
	Installation Directory	A directory where the installation files will be installed. Set 755 permission on this directory. This directory needs to be set as FIC_HOME.
	Temporary Directory	Default temporary directory where installation files are stored for a short period of time to support faster installation. • For installation on UNIX OS, your UNIX administrator must give you the required read-write permissions for the /tmp directory and disable the NOEXEC option • Configure adequate space on the /tmp directory. It is recommended that you allocate more than 10 GB of space. **Note**: If NOEXEC is enabled, the extraction of files by the installer into the /tmp directory is prevented and

Requirement	Sub-Category	Expected Value
		the binaries will not execute in the directory, which will fail the installation.
	Staging Area/ Metadata Repository Directory	A directory to hold the application metadata artifacts and additionally act as staging area for flat files. The directory should exist on the same system as the OFSAA Installation. This directory can be configured on different mount or under a different user profile. Set 777 permission on this directory.
	Download Directory	A directory where the product installer files will be downloaded/ copied. Set 755 permission on this directory.
Database Settings	Database Instance Settings	NLS_CHARACTERSET to be AL32UTF8 NLS_LENGTH_SEMANTICS to be BYTE OPEN CURSORS limit to be greater than 1000
Web Application Server	WebSphere/ WebLogic/	Web Application Server should be installed and profile /domain created. You will be prompted to enter the WebSphere Profile path or WebLogic Domain path. **Note**: Refer Appendix A for WebSphere Profile Creation and WebLogic Domain Creation.
Web Server	Apache HTTP Server/ Oracle HTTP Server/ IBM HTTP Server	This is an optional requirement. HTTP Server Installation to be present. You will be required to enter the Web Server IP/ Hostname and Port details during installation. **Note:** Refer Appendix A for Web Server installation.
Others	Oracle R/ Oracle R Enterprise	This is an optional requirement.
	OFSAA	• If you are installing OFS_DI pack as the first pack in a new environment, login to

Requirement	Sub-Category	Expected Value
		https://support.oracle.com and search for **21572510** under the Patches and Updates tab. **Note:** If you are upgrading to DIH 8.0.1.1.0 for Java8 specific ML, kindly ignore this patch. • For installation on Java 8, login to http://support.oracle.com/ and search for **21160684** under the Patches & Updates tab. • For installation of this release on an existing OFSAA instance version 8.0.1.0.0, login to http://support.oracle.com/ and search for **21133780** under the Patches and Updates tab. • For installation of this release on an existing OFSAA instance where the underlying OFSAA Infrastructure (OFS AAI) version is upgraded to version 8.0.2.0.0, login to https://support.oracle.com/ and search for **21657319** under the Patches and Updates tab.
	DIH	• For installation of this release in existing OFS Behavior Detection Applications Pack or OFS Compliance Regulatory Reporting pack Environment, login to https://support.oracle.com and search for **22237696** under the Patches and Updates tab. • DIH 8.0.1.1.0 – Java8 specific ML is available in MOS, login to https://support.oracle.com/ and search for Bug 22320222 under the Patches & Updates tab • To enable enhanced ADI Refresh, login to https://support.oracle.com and search for **21560121** under the Patches and Updates tab. **Note:** If you are upgrading to DIH 8.0.1.1.0 for Java8 specific ML, kindly ignore this patch.

Requirement	Sub-Category	Expected Value
OFSAAI	One-off	Download the consolidated one-off patch **25777667** from https://support.oracle.com/.

Note: Add a TNS entry before the installation.

3.2 Obtaining the Software

This release of OFS DI Application Pack v8.0.1.0.0 can be downloaded from the Oracle Software Delivery Cloud (https://edelivery.oracle.com). You need to have a valid Oracle account in order to download the software.

3.3 Common Installation Activities

The following are the common pre-installation activities that you need to carry out before installing the OFS DI Application Pack.

This section includes the following topics:

- Configuration for GUI Mode Installation
- Identifying the Installation and Download Directory
- Download and copy the OFS AAAI Applications Pack Installer
- Copying and Extracting the Software
- Setting up the Web Application Server

3.3.1 Configuration for GUI Mode Installation

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

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

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

  Syntax:

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

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

  For example, 10.11.12.13:0.0 or myhostname:0.0

3.3.2 Identifying the Installation and Download Directory

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

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

NOTE: Ensure the user permission is set to 755 on the Installation and Download Directory. Ensure the user permission is set to 777 on the Staging Directory.

3.3.3 Download and copy the OFS DI Applications Pack Installer

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

- To download the OFS DI Applications Pack, you need to login to the Oracle Software Delivery Cloud (https://edelivery.oracle.com). You need to have a valid Oracle account in order to download the software.
- Copy the downloaded installer archive to the Download Directory (in Binary Mode) on the setup identified for OFS DI installation.

3.3.4 Copying and Extracting the Software

Once you obtain the installer, copy the installer (in BINARY mode) to the system on which the OFSDI Applications Pack 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. Give EXECUTE permission to the file using the command:

   ```
   chmod 751 unzip_<os>
   ```

   For example, `chmod 751 unzip_sparc`

4. Extract the contents of the OFS DI Application pack 8.0.1.0.0 in the Download Directory installer archive file using the following command:

   ```
   unzip OFSDI_8.0.1.0.0.zip
   ```

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

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

   ```
   chmod -R 755 OFS_DI_PACK
   ```

3.3.5 Setting up the Web Application Server

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

4 Installing Oracle Financial Services Data Integration Application Pack

Follow the instructions in this chapter to install the OFS DI Application pack depending on the mode of installation. This chapter includes the following sections:

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 8.0.1.0.0 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.

This section includes the following topics:

4.1.1 About Schema Creator Utility

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.

- **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.

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

NOTE: This Schema type is applicable for OFS AAAI Application Pack.

4.1.2 Execution Modes in Schema Creator Utility

The Schema Creator Utility supports the following modes of execution:

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

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

- **Offline Mode**: In this mode, the utility generates SQL scripts 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 should execute the script file manually.

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

```
SELECT ON DBA_ROLES
SELECT ON DBA_USERS
SELECT ON DBA_DIRECTORIES
SELECT ON DBA_TABLESPACES
CREATE SESSION
```

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_DI_Schema_In.XML file.

NOTE: Do not modify the `OFS_DI_SCHEMA_OUT.XML` file generated after the execution of this utility.

4.1.3 Execution Options in Schema Creator Utility

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

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

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

4.2.1 Prerequisites

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

- You must have the Oracle User ID/Password with SYSDBA privileges.
- You must have the JDBC Connection URL for RAC/Non RAC database.
- You must have the HOSTNAME/IP of the server on which OFSAA is getting installed.
- You must add a TNS entry before the installation.

NOTE: The TNS Entry for an atomic schema should be without any special character, i.e '_'. If the atomic schema name is like 'DEV_ATOM', the TNS entry should be like 'DEVATOM'.

NOTE: If this release of the OFS DIH Application Pack version 8.0.1.0.0 is being installed on existing OFS Behavior Detection Applications Pack or OFS Compliance Regulatory Reporting pack Environment, download and install the patch (Bug **22237696**) by following the instructions in the Readme.txt packaged in it prior to executing the utility.

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_DI_PACK/schema_creator/conf`
3. Edit the `OFS_DI_SCHEMA_IN.xml` file in a text editor.
4. Configure the following elements as described in the section Configuring OFS_DI_SCHEMA_IN.XML file
5. Save the `OFS_DI_SCHEMA_IN.xml` file.

6. Navigate to BIN folder and run the schema creator utility.

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

4.2.3 Executing the 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 for First Application Pack Schema Creation
- Executing the Schema Creator Utility for Subsequent Application Pack Schema Creation
- 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_DI_Pack/schema_creator/bin/`
3. Execute the `osc.sh` file using the following command

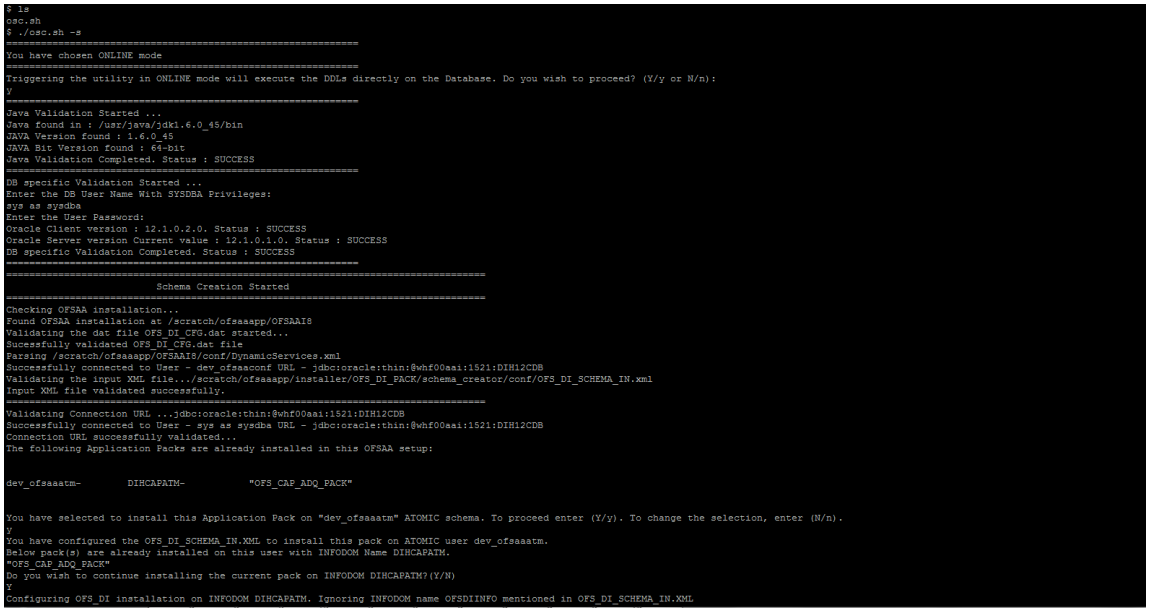
   `./osc.sh`

   Note: For silent mode installation, execute the osc.sh file using the following command: `./osc.sh -s`
4. The following message is displayed: *You have chosen ONLINE mode. Triggering the utility in ONLINE mode will execute the DDLs directly on the Database. Do you wish to proceed? (Y/y or N/n).*
5. Enter Y/y to proceed with the script generation

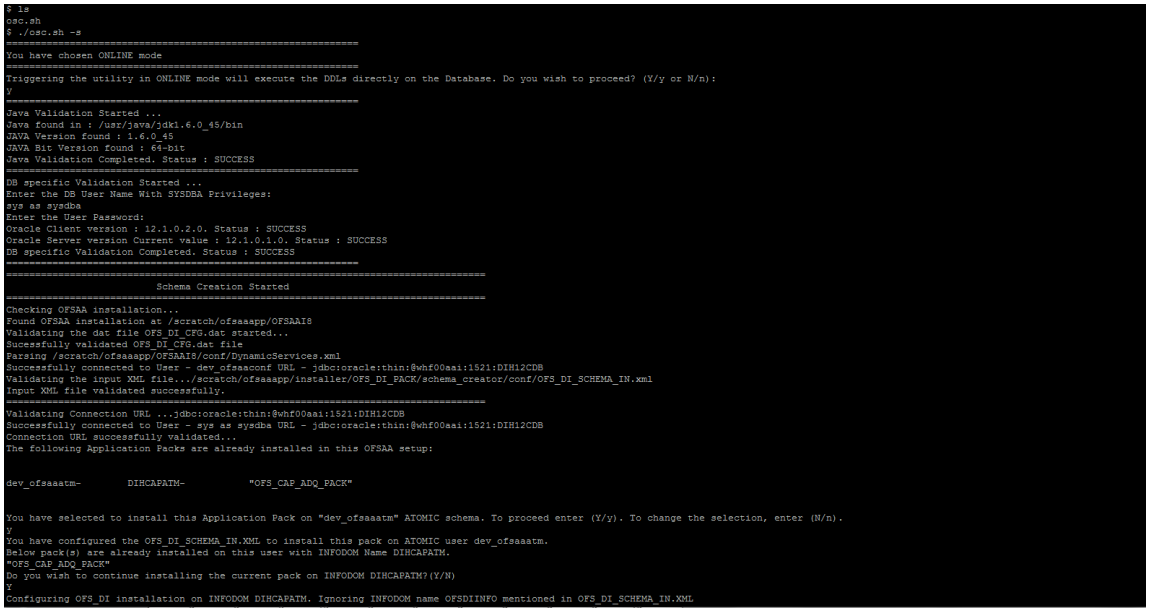
   Or,

   Enter N/n to quit script creation.
6. Enter the DB Username with SYSDBA Privileges. . For example: SYS as SYSDBA.

7. Enter the User Password.



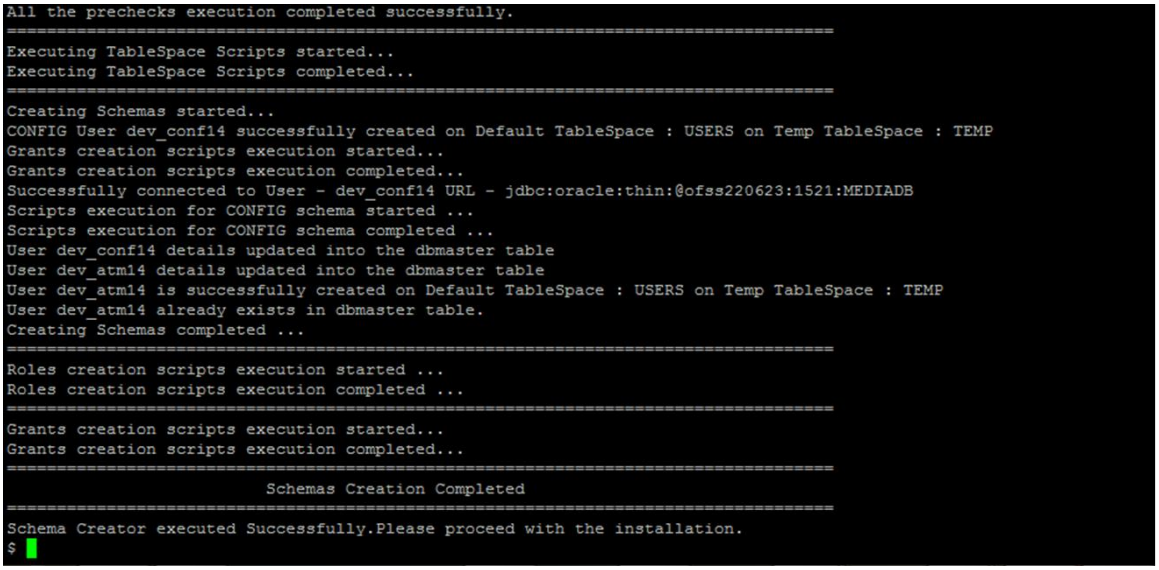
8. The console runs the initial validation checks and then displays the following message: *You have chosen to install this Application Pack on <Name of the Atomic Schema>ATOMIC schema. Do you want to proceed? (Y/N)*



9. Enter Y/y to proceed with the schema creation.

Or

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



The following message is displayed.

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

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

    Or,

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

> **NOTE**: On successful execution of schema creator utility, the console displays the following status message:
> *Schema Creator executed Successfully. Please proceed with the installation.*
> Refer log file in `OFS_DI_PACK/schema_creator/logs` folder 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 creates an output in SQL file format. This script has to be executed manually by logging as database user with SYSDBA privileges. The SQL file contains 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_DI_Pack/schema_creator/bin`
3. Execute the `osc.sh` file using the following command:

   `./osc.sh -o`

   Note: For silent mode installation, execute the osc.sh file using the following command: `./osc.sh -o -s or, ./osc.sh -s -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 generate the script

   Or,

   Enter N/n to quit the schema creation.
6. Enter the DB Username with `SELECT` privileges.
7. Enter the User Password.

```
$ ./osc.sh -o
============================================================
You have chosen OFFLINE mode
============================================================
Triggering the utility in OFFLINE mode will generate the script. Do you wish to proceed? (Y/y or N/n):
y
============================================================
Java Validation Started ...
Java found in : /scratch/ofsaa/jdk1.6.0_25/jre/bin
JAVA Version found : 1.6.0_25
JAVA Bit Version found : 64-bit
Java Validation Completed. Status : SUCCESS
============================================================
DB specific Validation Started ...
Enter the DB User Name with SELECT privileges on following tables
1. DBA_ROLES
2. DBA_USERS
3. DBA_DIRECTORIES
4. DBA_TABLESPACES
sys as sysdba
Enter the User Password:
Oracle Client version : 11.2.0.3.0. Status : SUCCESS
Oracle Server version Current value : 11.2.0.3.0. Status : SUCCESS
DB specific Validation Completed. Status : SUCCESS
```

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

```
================================================================================
                    Generating Schema Creation Scripts Started
================================================================================
Checking OFSAA installation...
OFSAA installed not found.
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 - sys as sysdba URL - jdbc:oracle:thin:@ofss220623:1521:MEDIADB
Connection URL successfully validated...
You have chosen to install this Application Pack on "dev_atm14" ATOMIC schema. Do you want to proceed? (Y/N)
y
```

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

   Or

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

   The following message is displayed.

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

10. Enter Y/y to start the script generation

    Or,

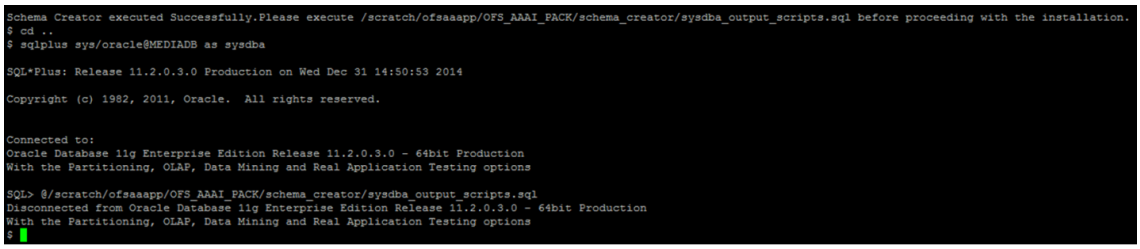
    Enter N/n if you want to quit executing the script generation

```
All the prechecks execution completed successfully.
================================================================================
Generating TableSpace creation Scripts started...
Generating TableSpace creation Scripts completed...
================================================================================
Generating Schema creation scripts started...
CONFIG User dev_conf14 creation script generated successfully on Default TableSpace : USERS on Temp TableSpace : TEMP
Generation of grants creation scripts started...
Generation of grants creation scripts completed...
Scripts Generation for CONFIG schema started ...
Scripts Generation for CONFIG schema completed ...
User dev_conf14 details updated into the dbmaster table
User dev_atm14 details updated into the dbmaster table
User dev_atm14 creation script generated successfully on Default TableSpace : USERS on Temp TableSpace : TEMP
User dev_atm14 creation is skipping as the user is already created.
Generating Schema creation scripts completed...
================================================================================
Generating Roles creation Scripts started...
Generating Roles creation Scripts completed...
================================================================================
Generating Grants creation scripts started...
Generating Grants creation scripts completed...
================================================================================
                    Generating Schema Creation Scripts Completed
================================================================================
```

NOTE: On successful execution of schema creator utility, the console displays the following status message:
Schema Creator Executed Successfully. Please execute

OFS_DI_Pack/schema_creator/sysdba_output_scripts.sql before proceeding with the installation.

11. Navigate to the directory: `OFS_DI_Pack/schema_creator`.
12. Login to SQLPLUS with a user having SYSDBA Privileges.



13. Execute the `sysdba_output_scripts.sql` file using the following command:

    `SQL>@sysdba_output_scripts.sql`

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

NOTE: Refer log `sysdba_output_scripts.log` file for execution status. In case of any errors, contact Oracle Support. If there are no errors in the execution, this log file is empty.

4.2.3.3 Executing the Schema Creator Utility with -s option

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

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

1. Edit the file `OFS_DI_PACK/schema_creator/conf/OFS_DI_SCHEMA_IN.xml` in text editor.
2. Set the value for attribute "INFODOM" of <SCHEMA> tag(s) to specify a specific Information Domain name. By default, the value is empty and the utility will derive the Information Domain name. If the attribute value is set, the utility/ installer will configure the Information Domain against this <SCHEMA>.
3. Execute the utility with -s option.

For Example: `./osc.sh -s`.

NOTE:

If the utility is executed without the -s option, it is mandatory to launch the OFSAA Applications Pack Installer in GUI mode.

To execute the utility in OFFLINE mode with SILENT option, enter the following command: `./osc.sh -o -s`

4.2.3.4 Executing the Schema Creator Utility for First Application Pack Schema Creation

Follow the below steps to execute schema creator utility for first application pack schema creation:

1. Login to the <DOWNLOAD_DIR>on the server where you plan to install the APP Pack.
2. Execute `OFS_DI_PACK/schema_creator/bin/osc.sh` (OFSAA Schema Creator).

   Note: `OSC.sh` must have execution permission.
3. Enter the SYSDBA privileged user name and password prompted by the utility.

```
$ ./osc.sh
Enter the DB User Name With SYSDBA Privileges: sys as sysdba
Enter the User Password:
log4j:WARN File option not set for appender [MyFileAppender].
log4j:WARN Are you using FileAppender instead of ConsoleAppender?
================================================================================
                        Schemas Creation Started
================================================================================
OFSAAI installation status...
OFSAAI is not installed
validating the dat file OFS_DI_CFG.dat started...
Sucessfully validated OFS_DI_CFG.dat file
Validating the input XML file.../scratch/ofsaaapp/dih_mediapack_installer/DIH/UI/dist_GENERIC_DEV/OFS_DI/installer/OFS_DI_PACK/schema_creator/conf/OFS_DI_SCHEMA_IN.xml
XSD validation completed successfully.
================================================================================
Prechecks Execution started on ...OFS_DI_SCHEMA_IN.xml
Validating Connection URL ...jdbc:oracle:thin:@ofss222425:1521:ofsaa
Successfully connected to User - sys as sysdba URL - jdbc:oracle:thin:@ofss222425:1521:ofsaa
Connection URL successfully validated...
You have chosen to install this Application Pack on "dev_atomic" ATOMIC schema. Do you want to proceed? (Y/N)
y
All the prechecks execution completed successfully.
================================================================================
Executing TableSpace Scripts started...
Executing TableSpace Scripts completed...
================================================================================
Creating Schemas started...
CONFIG User dev_config successfully created on Default TableSpace : USERS on Temp TableSpace : TEMP
Grants creation scripts execution started...
Grants creation scripts execution completed...
Successfully connected to User - dev_config URL - jdbc:oracle:thin:@ofss222425:1521:ofsaa
Scripts execution for CONFIG schema started ...
Scripts execution for CONFIG schema completed ...
User dev_config details updated into the dbmaster table
User dev_atomic details updated into the dbmaster table
User dev_atomic is successfully created on Default TableSpace : USERS on Temp TableSpace : TEMP
Creating Schemas completed ...
================================================================================
Roles creation scripts execution started ...
Roles creation scripts execution completed ...
================================================================================
Grants creation scripts execution started...
Grants creation scripts execution completed...
================================================================================
                        Schemas Creation Completed
================================================================================
Status : SUCCESS.Please proceed with the installation.
$
```

Schema Creation

4.2.3.5 Executing the Schema Creator Utility for Subsequent Application Pack Schema Creation

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

1. Navigate to the following folder path: OFS_DI_Pack>/schema_creator/bin/
2. Execute the ./osc.sh file.
3. Enter the SYSDBA user name.

4. Enter the password. The utility validates all the configurations in the xml file and displays Y or N.

5. Enter Y. Once you successfully configured the Schema Creator utility, you can proceed with the application installation.

NOTE:

Refer log file in `OFS_DI_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.

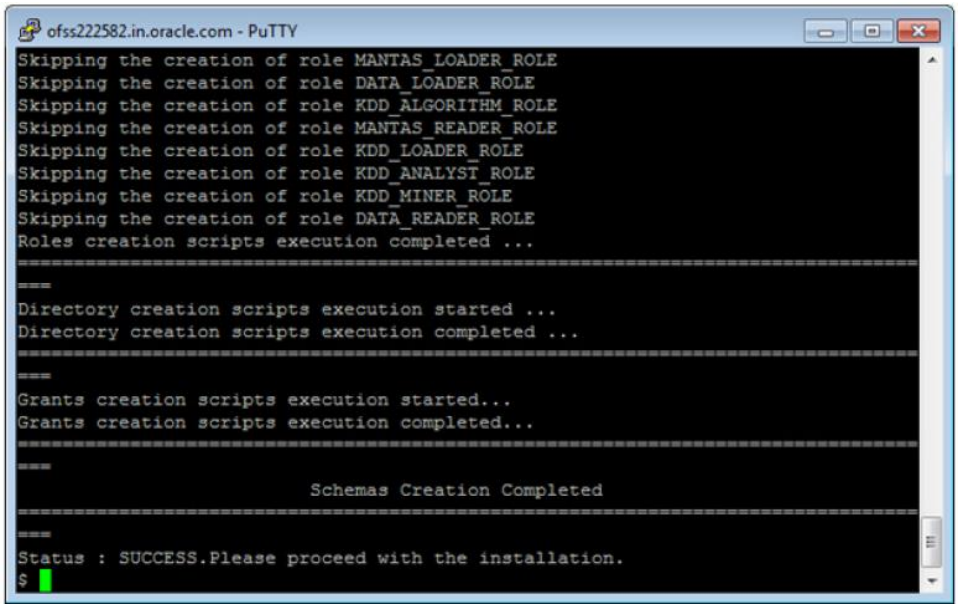
In case of any errors, contact Oracle Support.

4.2.3.6 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.

`OFS_DI_PACK/schema_creator/logs/OFS_DI_osc_<timestamp>.log` for further details.

You may contact Oracle support anytime for assistance.



Putty Screen

4.3 Installing the OFS DI Application Pack

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

This section includes the following topics:

- GUI Mode Installation
- Silent Mode Installation

4.3.1 GUI Mode Installation

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

4.3.1.1 Installing DI Pack 8.0.1 in a Fresh Environment

Follow the below steps to install DI Pack 8.0.1 in GUI mode:

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:

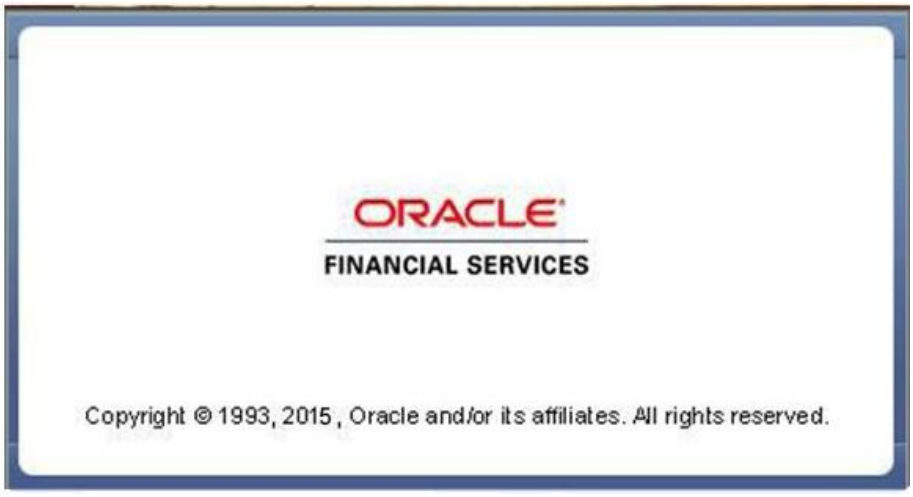
   ```
   FIC_HOME=< OFSAA Installation Directory >
   export FIC_HOME
   ```

3. Execute the user `.profile`.

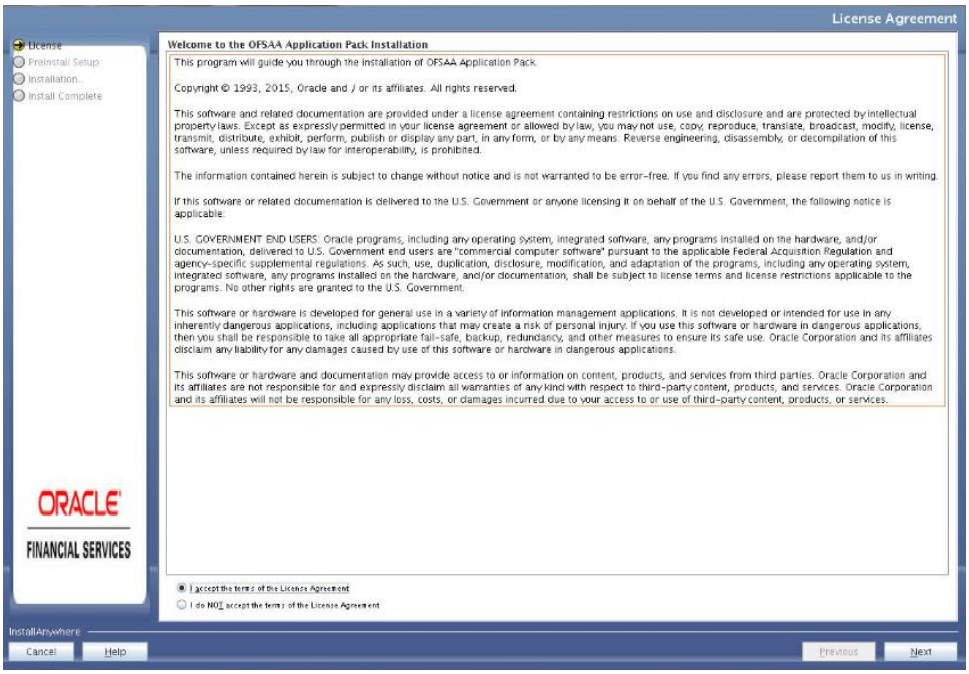
NOTE: For Java 8: Edit the VerInfo.txt file in the path `/OFS_DI_PACK/OFS_AAI/bin` to modify the value for property JAVA_VERSION to 1.8, and save the changes.

4. Run the installer at location OFS_DI_PACK/bin in GUI Mode by executing the command:

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



Initialization Window



License Agreement

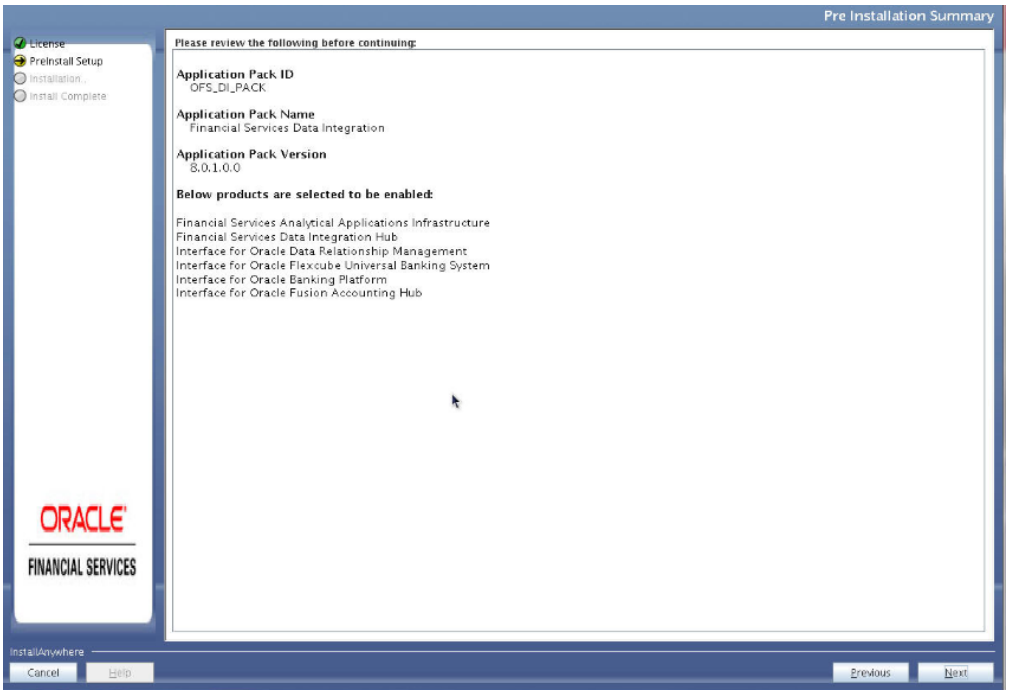
5. Select **I accept the terms of the License Agreement option**.
6. Click **Next**. The Application Pack details are displayed:

Application Pack Details

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

OFSAA Application Pack License Agreement

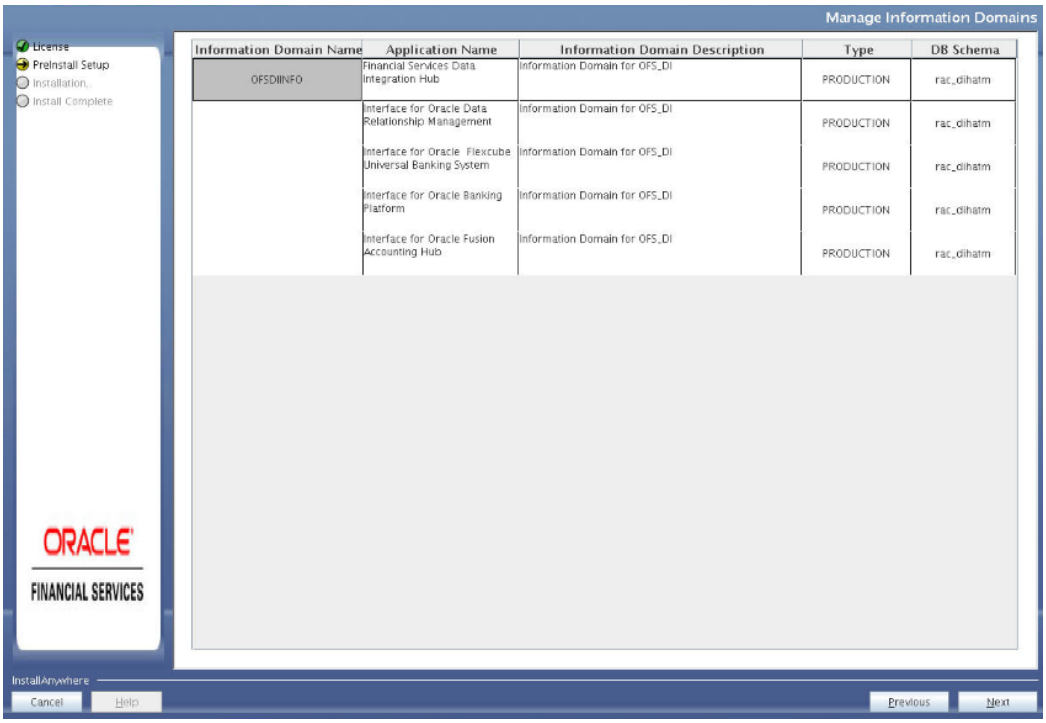
9. Select **I accept the terms of the License Agreement option**.
10. Click **Next**.



Pre Installation Summary Details

11. Click **Next**.

The Manage Information Domain page is displayed.



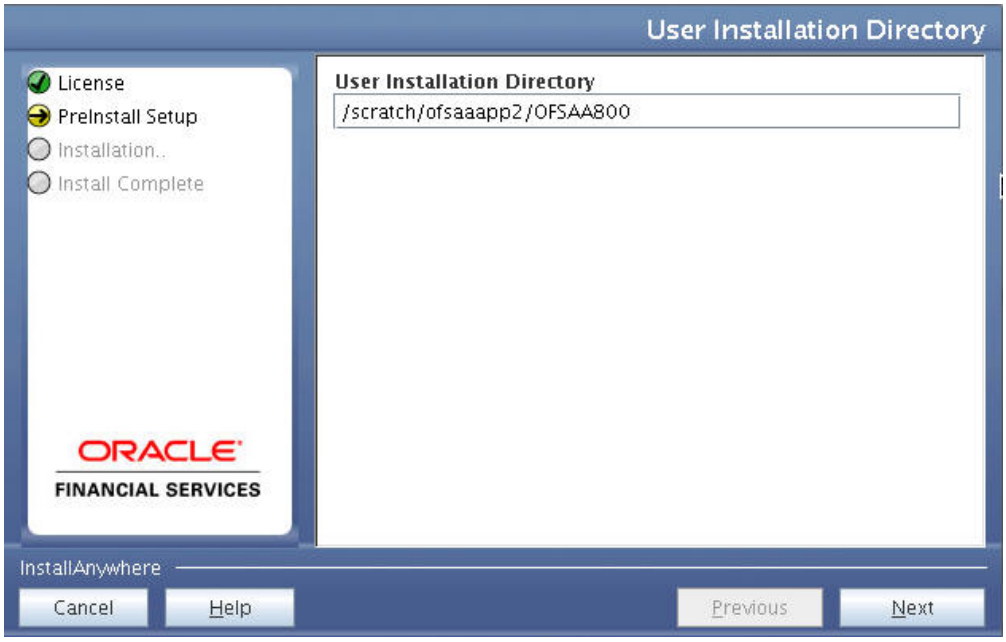
Information Domain

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

13. Click **Next**.

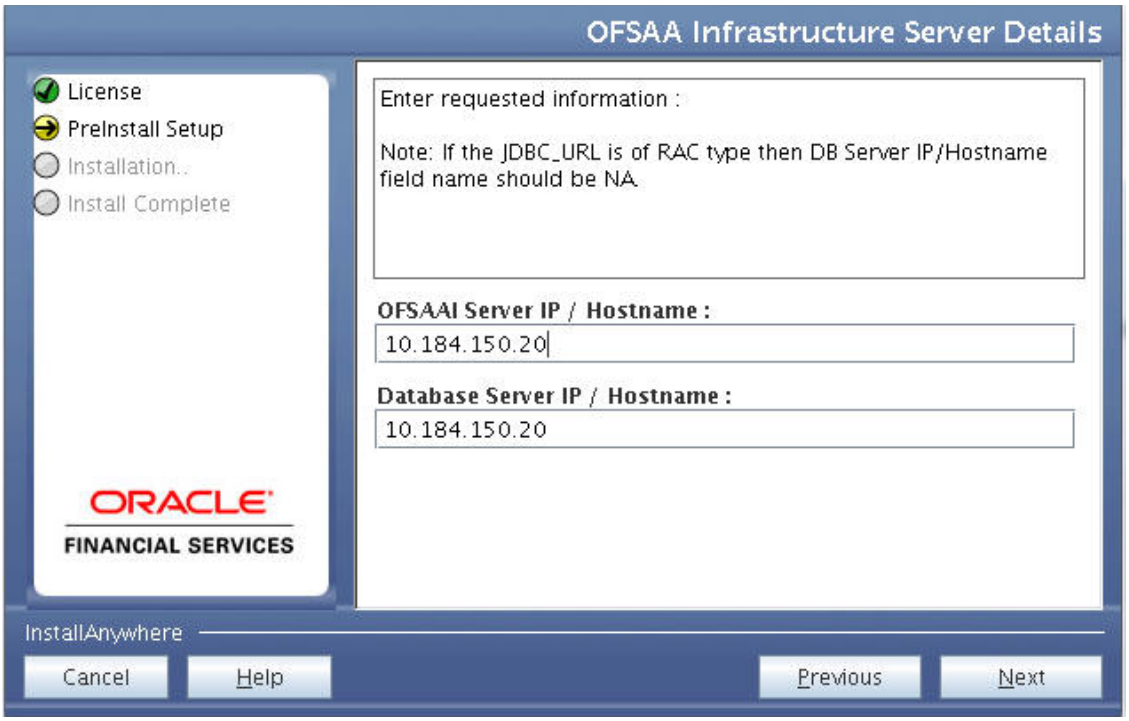
    (**Note:** If already any Media Pack is installed in the same setup, proceed to step no: 37)

14. Click **Next**. Enter the Installation Directory.



OFSAA Installation Directory Details

15. Click **Next**. OFSAA Infrastructure server details are displayed.



OFSAA Infrastructure Server Details

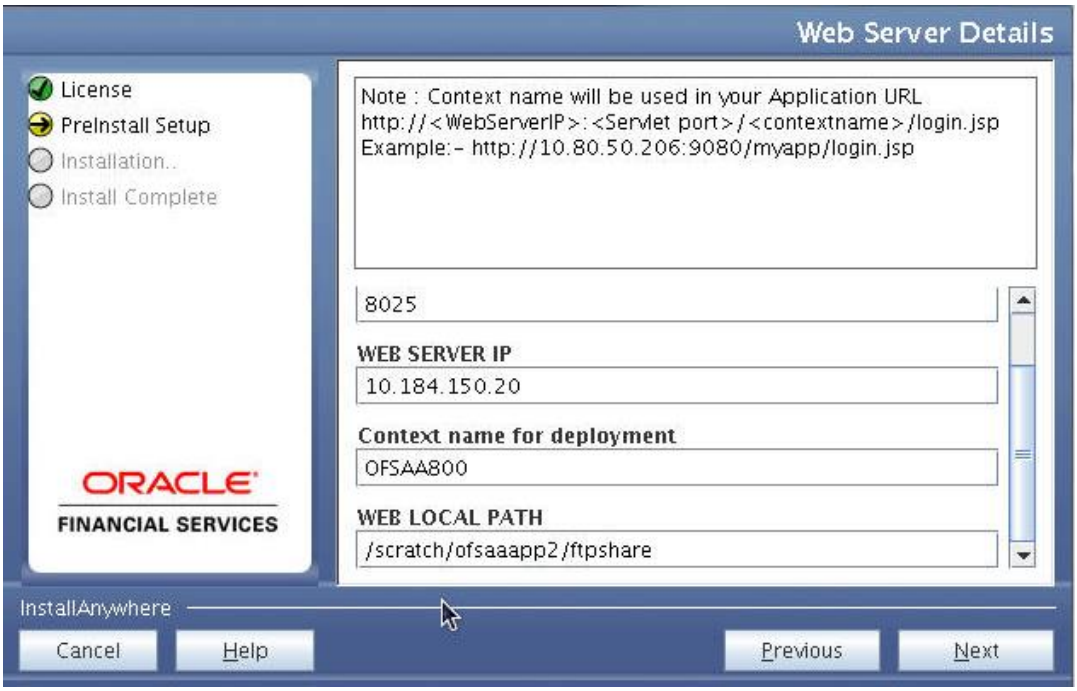
16. Enter IP Address or Hostname of OFSAAI server and Database Server and Click **Next**.

Web Application Server Type

17. Select the web application server type and Click **Next**.

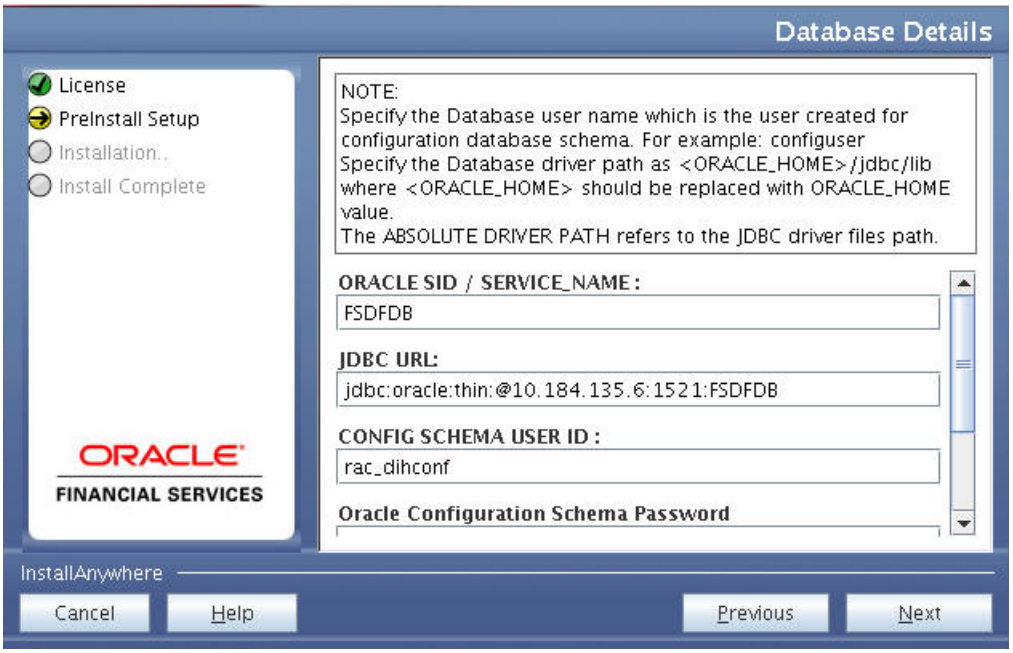
OLAP Details

18. Enter the OLAP details and click **Next**.



Web Server Details

19. Enter the Web server details and click **Next**.



Database Details

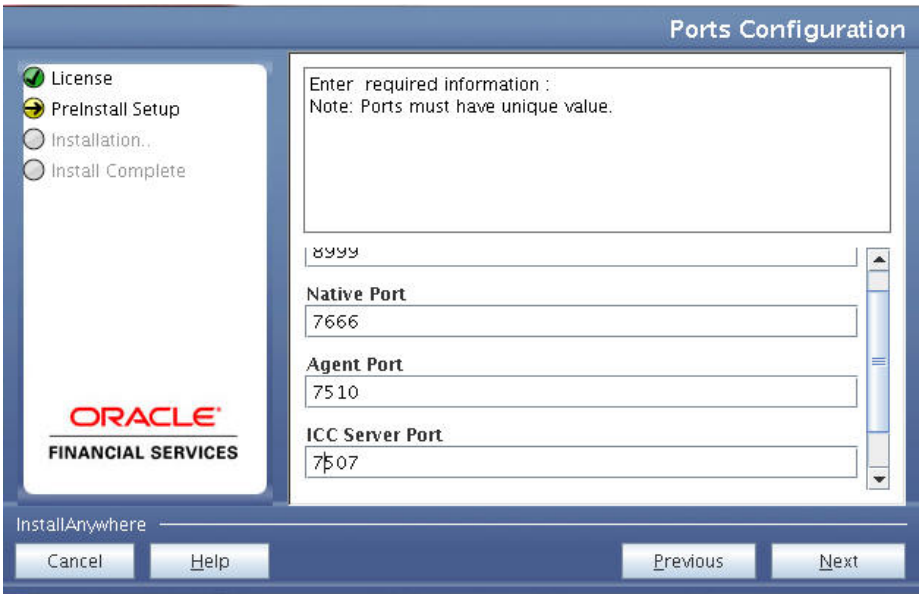
20. Enter Oracle SID/Service Name, JDBC URL, Configuration Schema User ID and Password, and Absolute Driver Path.

Note

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

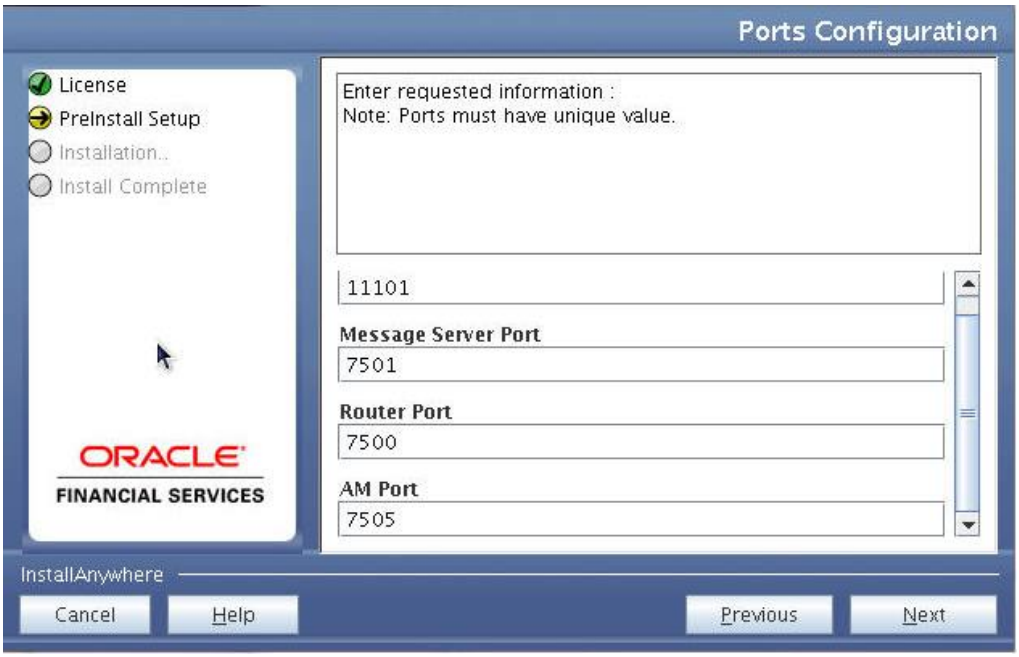
---

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



Ports Configuration

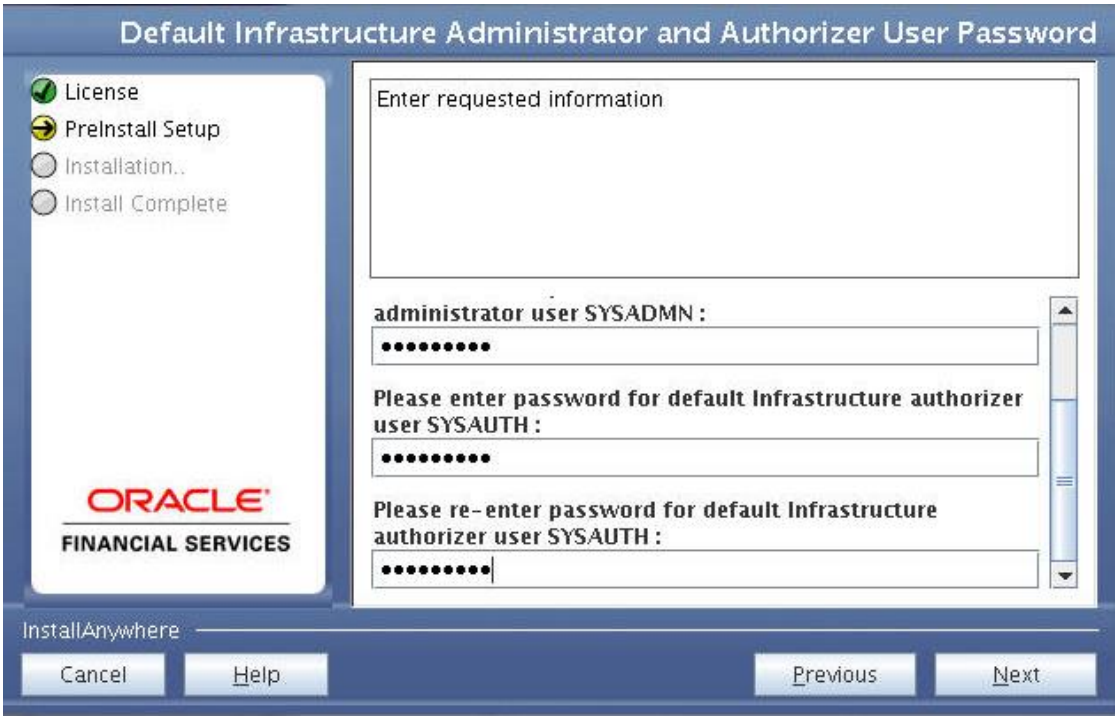
22. Enter Java Port, Native Port, Agent Port, ICC Server Port, and ICC Native Port. You can proceed with the default port values configured.
23. Click **Next**. The *Ports Configuration* window is displayed.



Ports Configuration_1

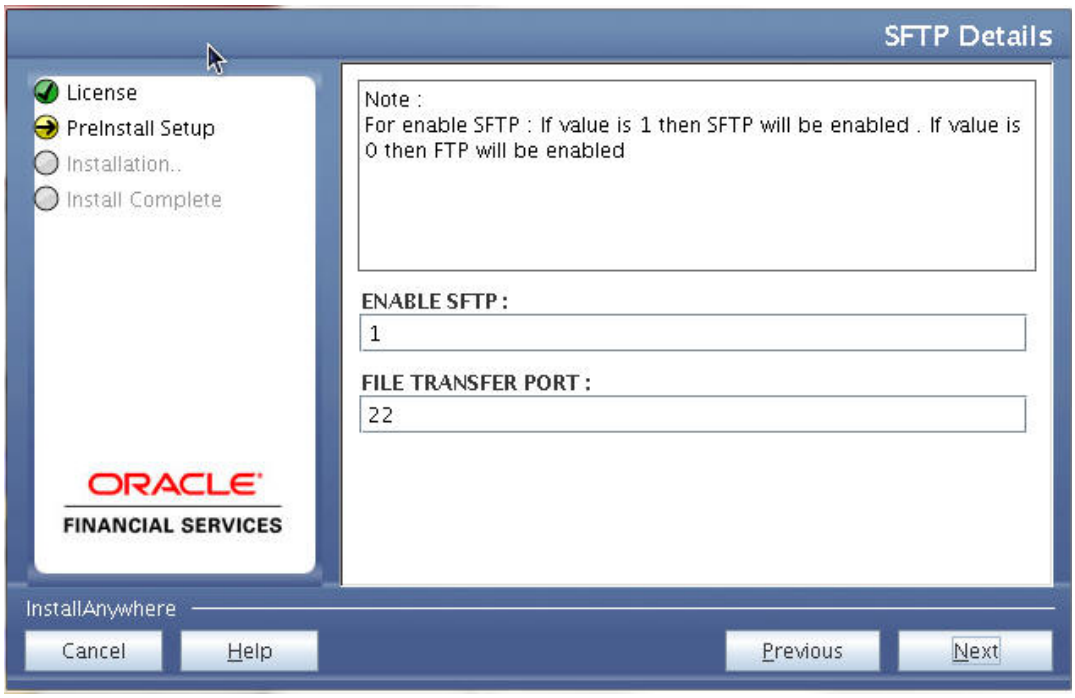
24. Enter OLAP Port, Message Server Port, Router Port, and AM Port.

25. Click **Next**. The *Default Infrastructure Administrator and Authorizer User Password* window is displayed.



Administrator and Authorizer User Password

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



SFTP Details

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

Note

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

29. Enter the port to be used for file transfer.

OFSAAI FTP/SFTP Details

30. Click **Next**. The *OFSAAI Post Install Details* window is displayed.
31. Enter the path of the ftpshare directory and the User Id and password for OFSAAI Server.

Note

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

---

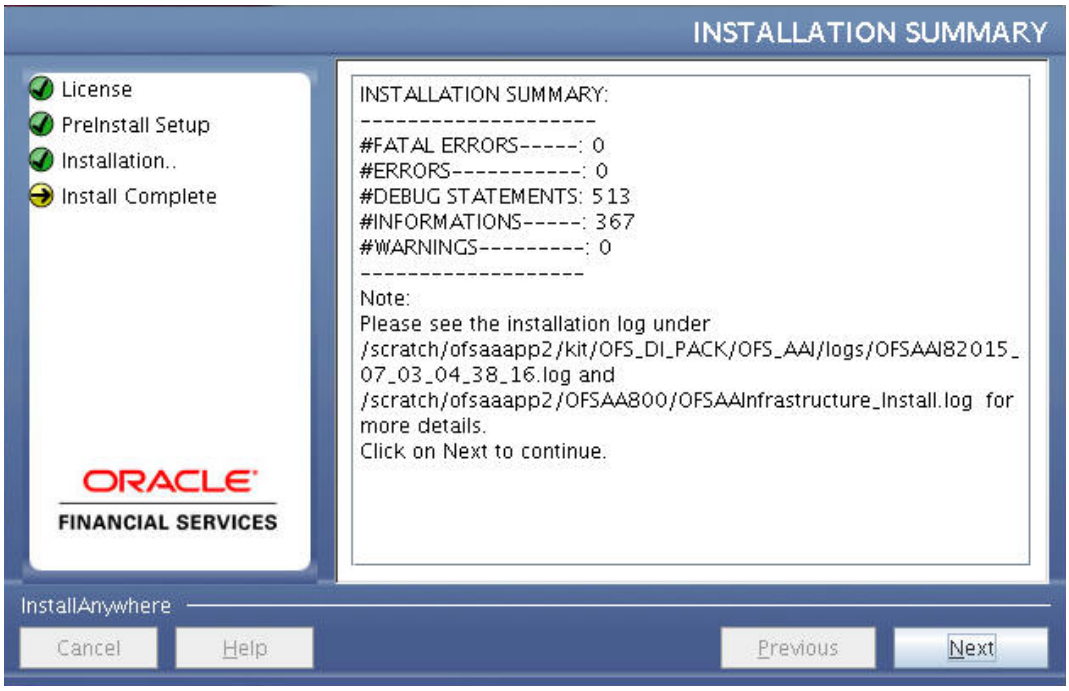
32. Click **Next**. The *Sample Application Installation* window is displayed.

Pre Installation Summary

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

Installing OFSAAI Infrastructure

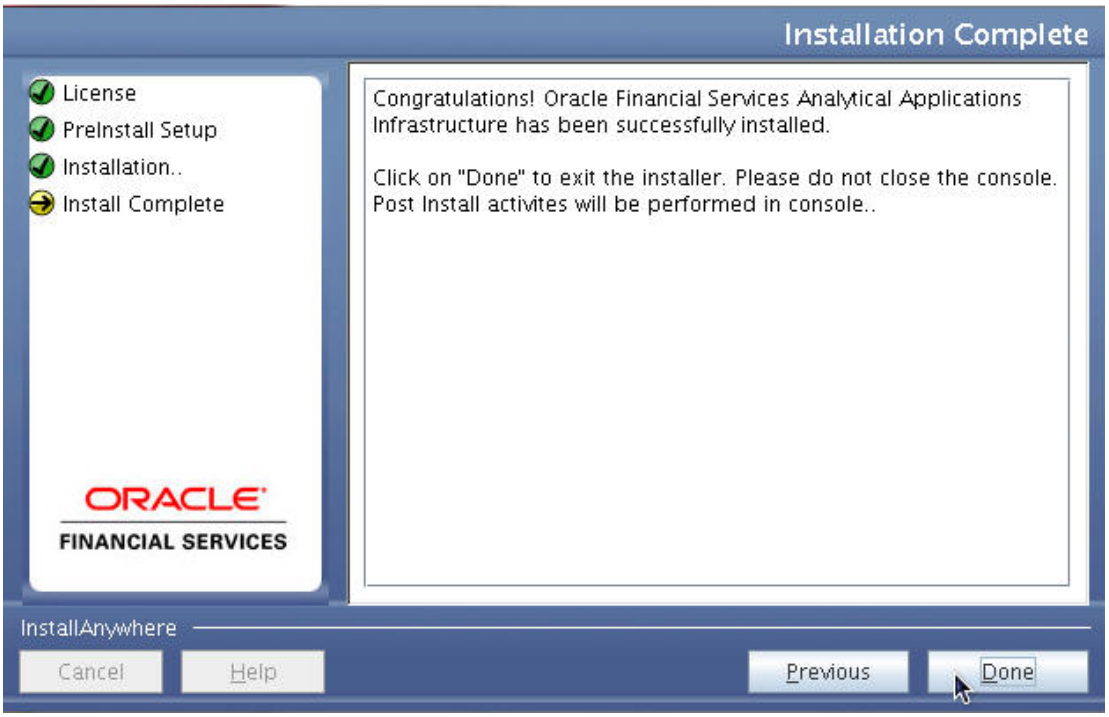
Anytime during the installation you can click **Cancel** to stop the installation. Once completed, the Installation Summary screen is displayed.



Installation Summary

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

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



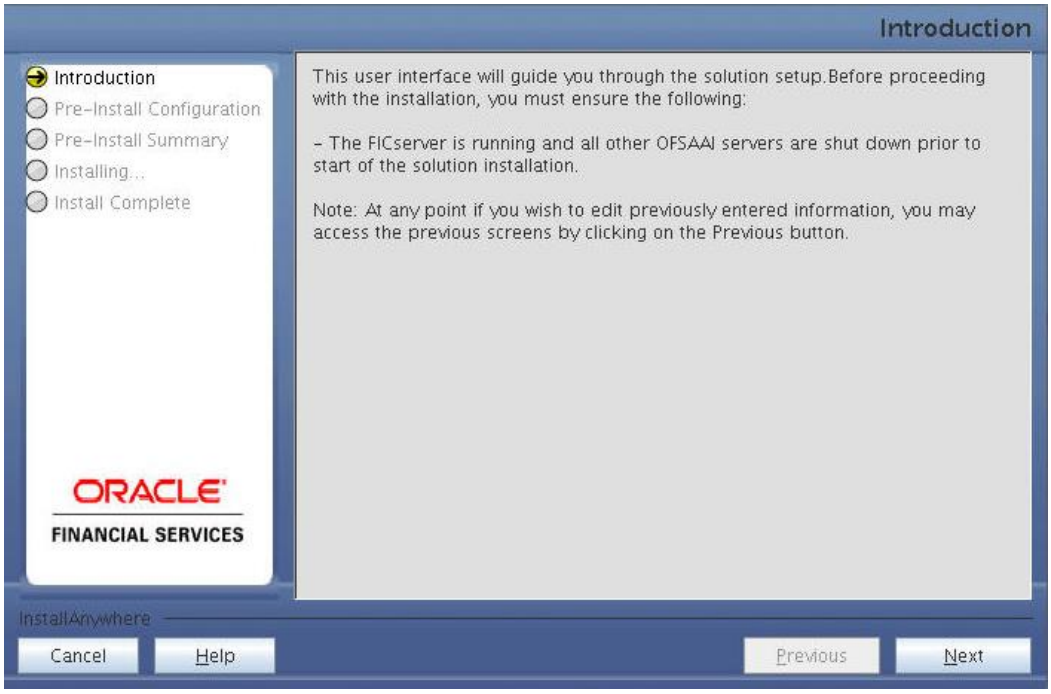
Installation Completed

Note

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

35. Click **Done**.

    Upon invoking the installer, the **Introduction** screen is displayed with the prerequisites for installation. Ensure that all the prerequisites are met before you proceed with the installation.

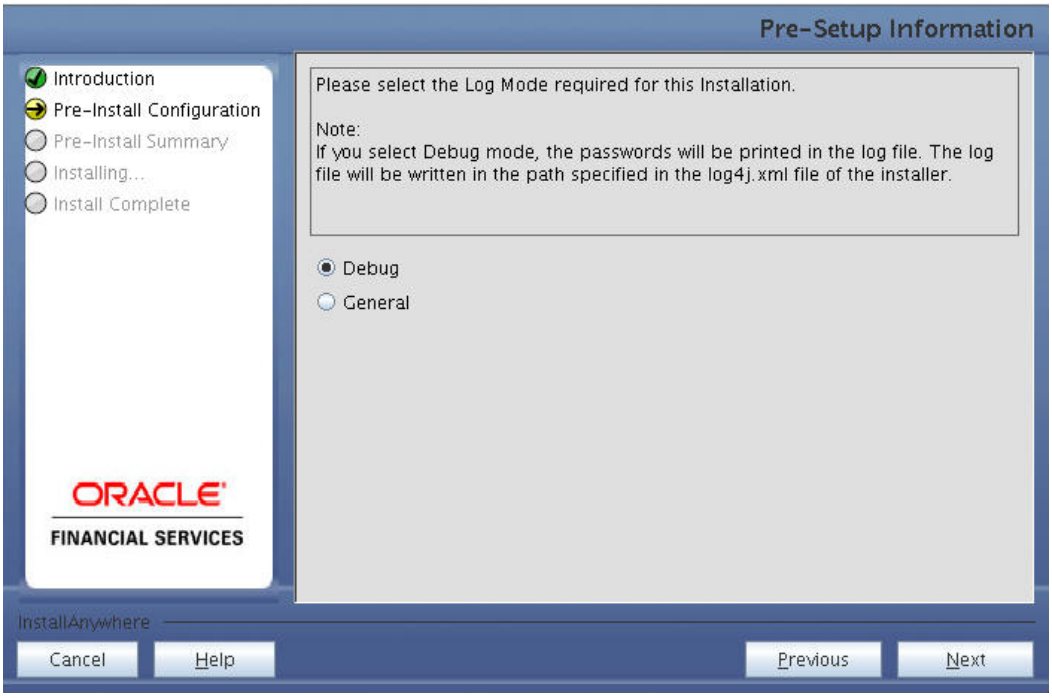


Solution Setup Introduction

36. Click **Next.**

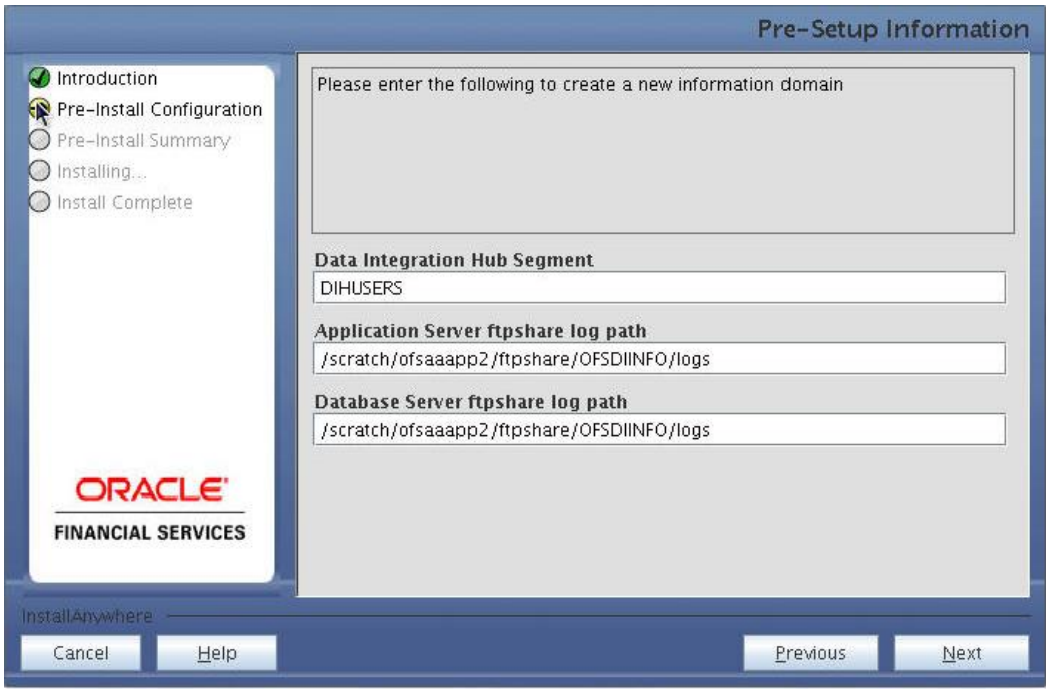
    Choose the log mode for this installer. If **Debug** is selected, the Passwords will be printed in the log file.

37. Click **Next** to proceed.



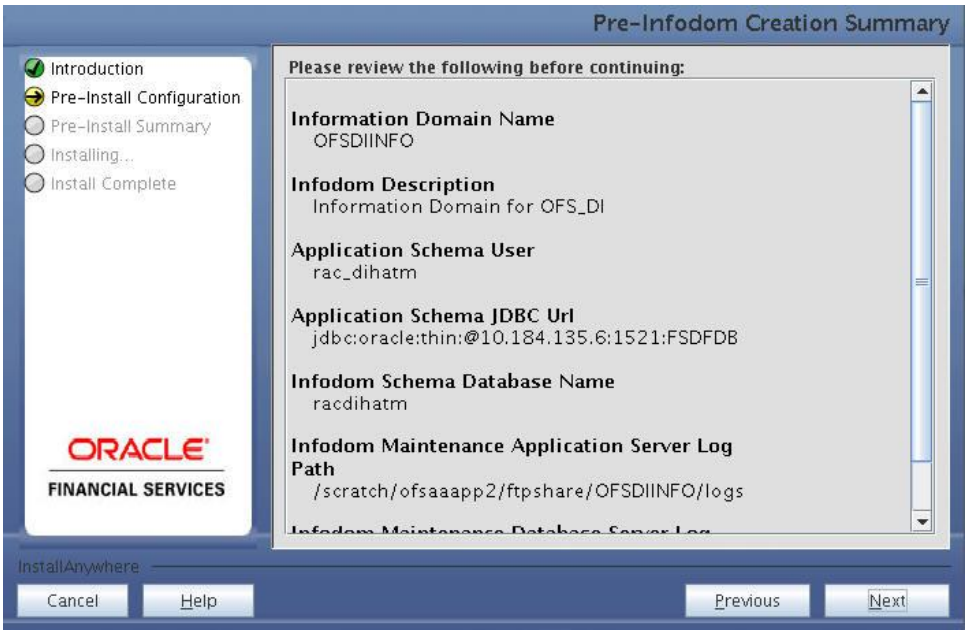
Log Mode

38. Click **Next**.



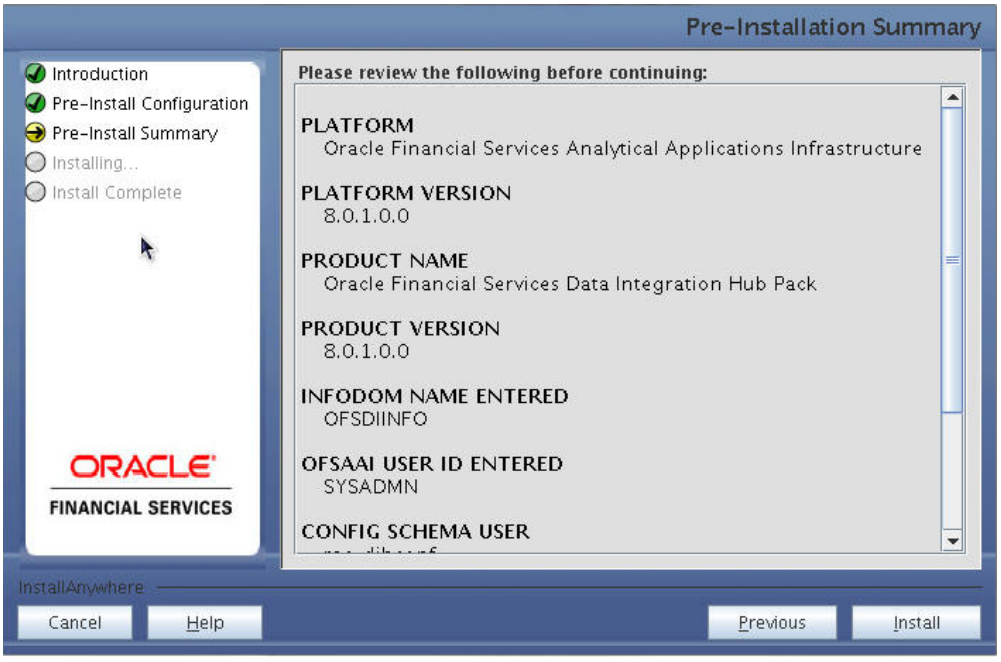
Pre-Setup Information

Create a new information domain by entering the Segment, Application Server ftpshare log path and Database server ftpshare log path.



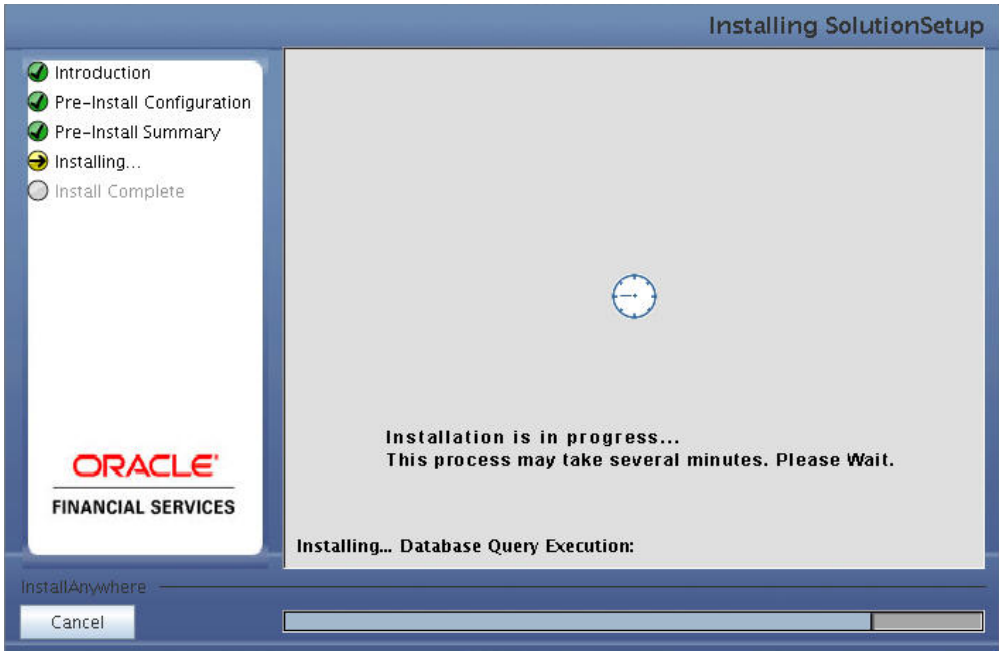
Pre-Infodom Creation Summary

39. Click **Next**
40. Click **Install** to proceed.



Pre-Install Summary

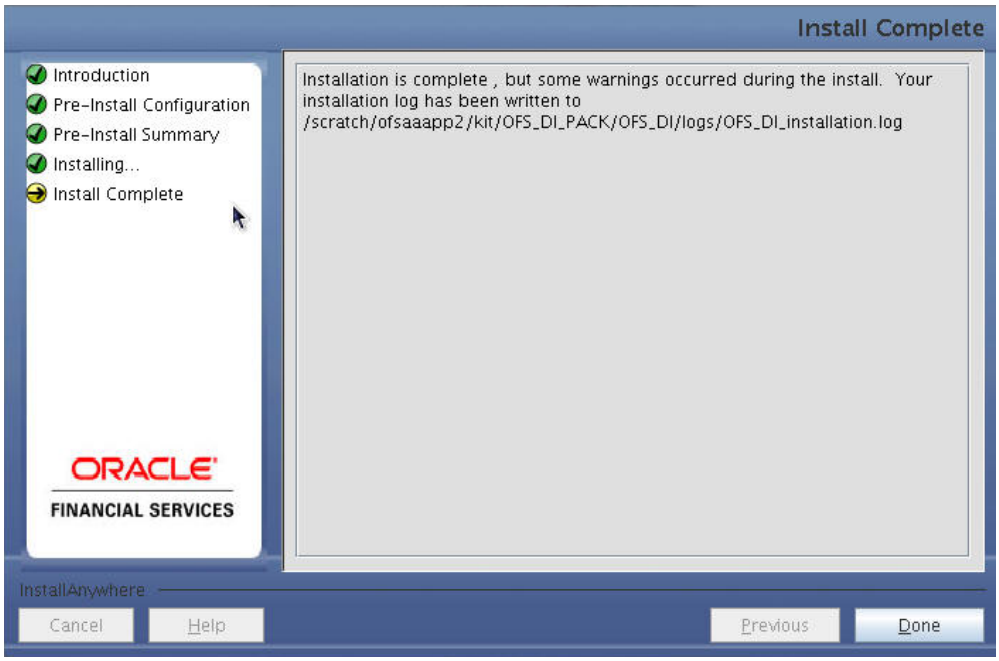
This panel displays the installation process. Wait until it completes.



Installation in Progress

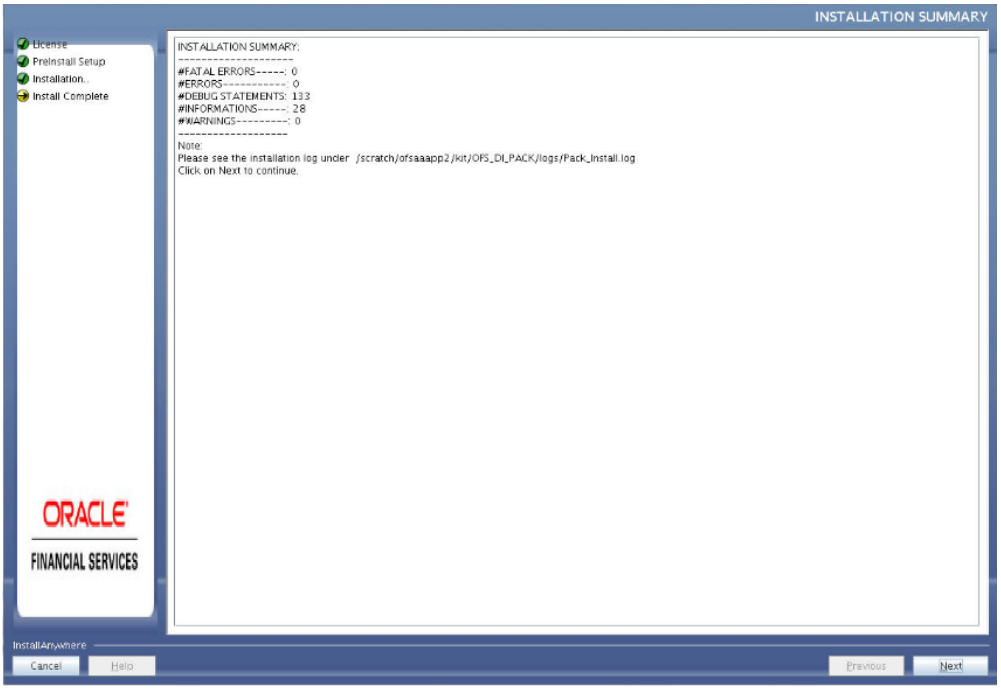
The following screen displays the completion of installation of the Oracle Financial Services Data Integration Hub Product Setup.

41. Click **Done** to exit.

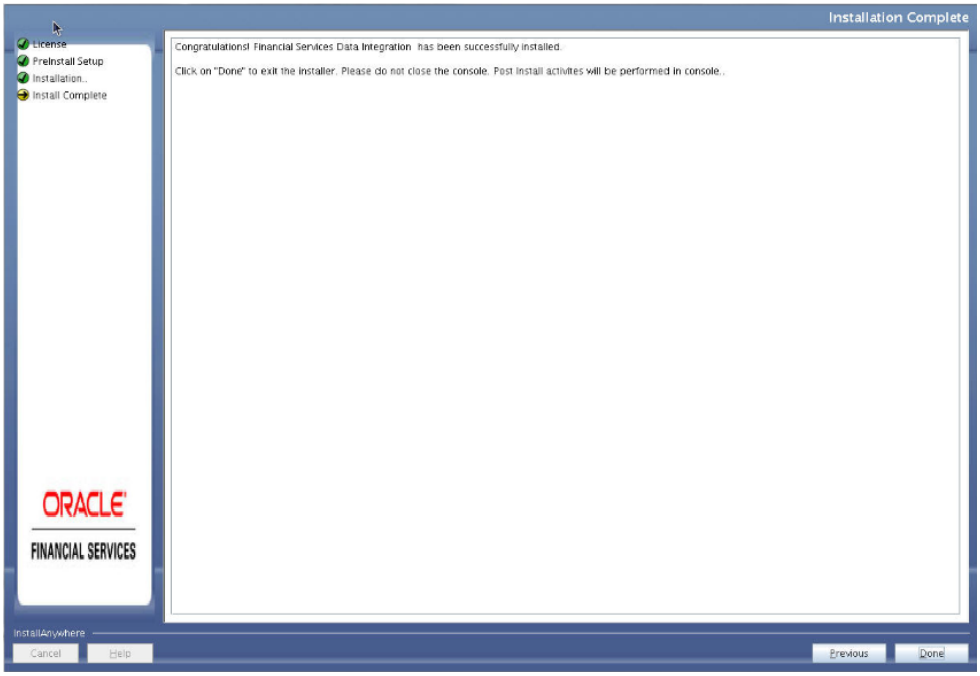


Install Complete

NOTE: Please ignore this warning message and continue, if there are no warnings in the below screen.



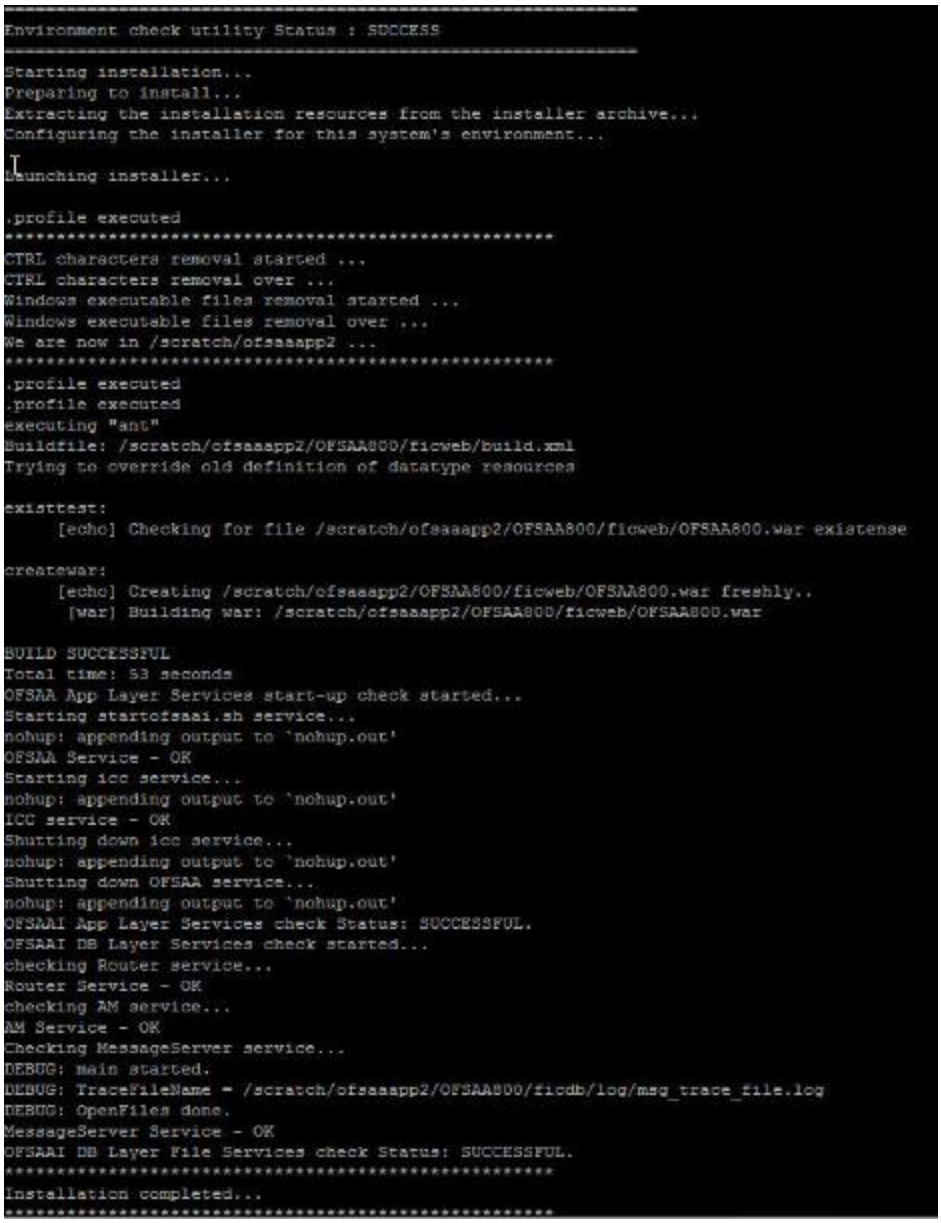
Installation Summary



Installation Complete

Note

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



42. Install the consolidated one-off patch **25777667**. Refer to the Readme available with the patch for further instructions on installing the patch.

4.3.1.2 Installing DI Pack 8.0.1 in an Environment with Application Pack Release 8.0 Installed

Follow the below steps to install DIH Pack 8.0.1 in an environment with any application pack release 8.0 installed:

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:

   ```
   set FIC_HOME=<ofsaa_install_dir>
   export FIC_HOME
   ```

3. Execute the user .profile.
4. Run the installer at location OFS_DI_PACK/bin in GUI Mode:

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

5. The OFSAAI upgrade to 8.0.1.0.0 begins.

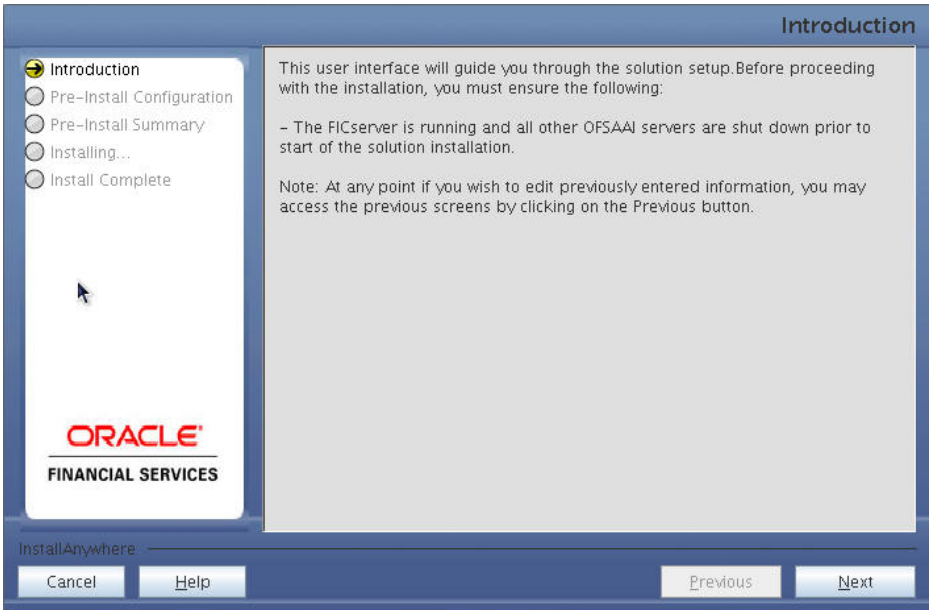
```
                        OFSAAI Upgrade Started
================================================================================
Performing precheck
Current Patch Version : 8.0.0.0.0
Checking Atomic Schemas DB Connections

WARNING
-------
RQADMIN Role not assigned to database user : par_fsdfconf
In absence of this role, the Oracle R (modeling) executions will fail.
You can assign this role to the par_fsdfconf at any time later.
For more information, please refer Installation guide of this release.

CREATE SYNONYM privilege exists on par_fsdfatm atomic schema
Backup file location : /scratch/ofsaaapp1/OFSAA800_BKP
Checking permissions on OFSAAI mount directory : /scratch/ofsaaapp1
----------------------
Checking disk Space...
----------------------
Available free disk space in OFSAAI HOME mount is 118397 MB.
Required disk space is available, proceeding with installation
----------------------------------------------------------------
OFSAAI Home BackUp Started, Please wait...
Time : Fri Jul 03 11:14:48 IST 2015
OFSAAI Home BackUp Successful...
Time : Fri Jul 03 11:16:16 IST 2015
Updating Configuration Files
Configuration Files Updated
Updating Application Layer Files
Application Layer Files Updated
Updating commonscripts Files
commonscripts Files Updated
Updating commonforms Files
commonforms Files Updated
Updating utility Files
utility Files Updated
Updating Web Layer Files
```

6. After the OFSAAI upgrade is complete, the installer is launched.

```
AM Service - OK
Checking MessageServer service...
DEBUG: main started.
DEBUG: TraceFileName = /scratch/ofsaaapp1/OFSAA800/ficdb/log/msg_trace_file.log
DEBUG: OpenFiles done.
MessageServer Service - OK
OFSAAI DB Layer File Services check Status: SUCCESSFUL.
 FIC_HOME : /scratch/ofsaaapp1/OFSAA800
 DISPLAY : localhost:10.0
Environment check utility started...
------------------------------------------------------------
Java Validation Started ...
 Java found in : /scratch/jdk1.7.0_72/bin
 JAVA Version found : 1.7.0_72
 JAVA Bit Version found : 64-bit
Java Validation Completed. Status : SUCCESS
------------------------------------------------------------
Environment Variables Validation Started ...
 ORACLE_HOME : /scratch/oracle/app/product/12.1.0/client_1
 TNS_ADMIN : /scratch/oracle/app/product/12.1.0/client_1/network/admin
Environment Variables Validation Completed. Status : SUCCESS
------------------------------------------------------------
OS specific Validation Started ...
 Unix shell found : /bin/ksh. Status : SUCCESS
 Total file descriptors : 15000. Status : SUCCESS
 Total number of process : 91659. Status : SUCCESS
 OS version : 5. Status : SUCCESS
OS specific Validation Completed. Status : SUCCESS
------------------------------------------------------------
DB specific Validation Started ...
 Oracle Client version : 12.1.0.2.0. Status : SUCCESS
 Successfully connected to schema par_fsdfatm. Status : SUCCESS
 Successfully connected to schema par_fsdfatm. Status : SUCCESS
 Successfully connected to schema par_fsdfatm. Status : SUCCESS
 Successfully connected to schema par_fsdfatm. Status : SUCCESS
 Successfully connected to schema par_fsdfatm. Status : SUCCESS
 CREATE SESSION has been granted to user. Status : SUCCESS
 CREATE PROCEDURE has been granted to user. Status : SUCCESS
 CREATE VIEW has been granted to user. Status : SUCCESS
 CREATE TRIGGER has been granted to user. Status : SUCCESS
 CREATE MATERIALIZED VIEW has been granted to user. Status : SUCCESS
 CREATE TABLE has been granted to user. Status : SUCCESS
 CREATE SEQUENCE has been granted to user. Status : SUCCESS
 SELECT privilege is granted for V_$nls_parameters view. Current value : SELECT. Status : SUCCESS
 NLS_LENGTH_SEMANTICS : BYTE. Current value : BYTE. Status : SUCCESS
 NLS_CHARACTERSET : AL32UTF8. Current value : AL32UTF8. Status : SUCCESS
 SELECT privilege is granted for V_$parameter view. Current value : SELECT. Status : SUCCESS
 Open cursor value is greater than 1000. Current value : 1000. Status : SUCCESS
 SELECT privilege is granted for USER_TS_QUOTAS view. Current value : SELECT. Status : SUCCESS
 Schema is granted with at least 500 MB table space. Current value : 500 MB. Status : SUCCESS
 ORACLE DB Version should be 11.2.0.3.0 or above. Current value : 11.2.0.2.0.
DB specific Validation Completed. Status : SUCCESS
------------------------------------------------------------
Environment check utility Status : SUCCESS
------------------------------------------------------------
```

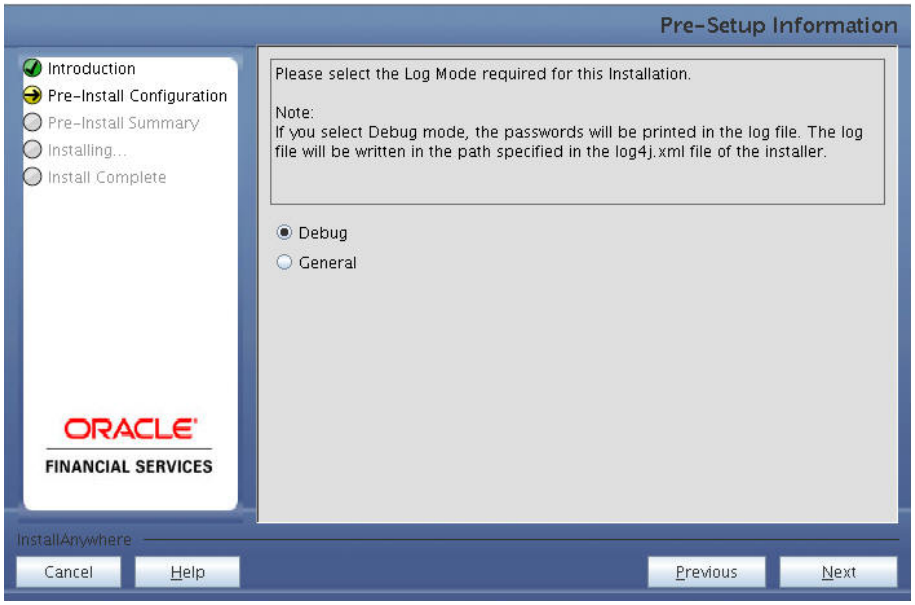
7. Repeat the steps 5 to 12 in section 4.3.1.1 Installing DIH Pack 8.0.1 in a Fresh Environment

8. Upon invoking the installer, the **Introduction** screen is displayed with the prerequisites for installation. Ensure that all the prerequisites are met before you proceed with the installation.



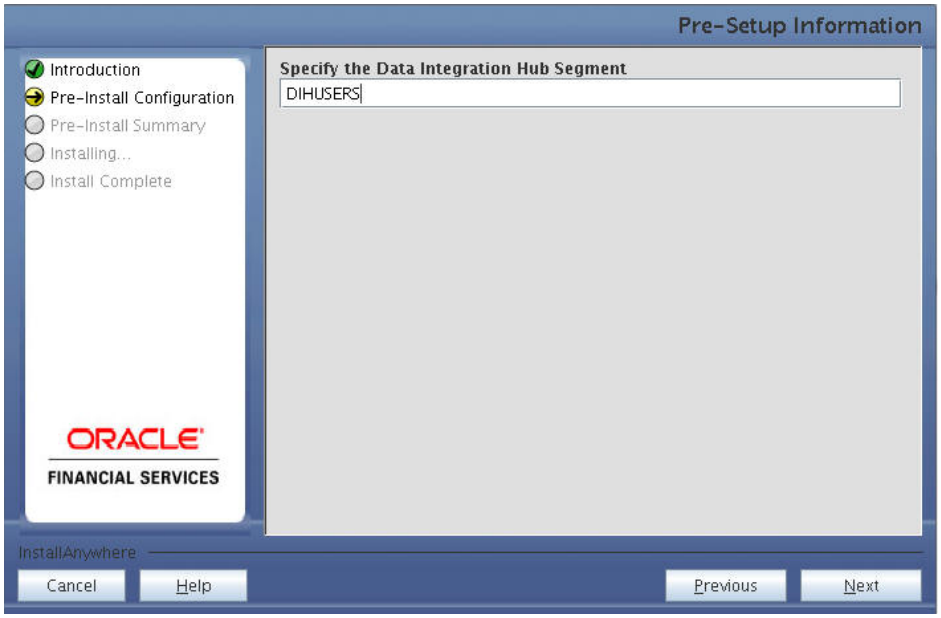
Solution Setup Introduction

9. Click **Next.** Choose the log mode for this installer. If **Debug** is selected, the Passwords will be printed in the log file.



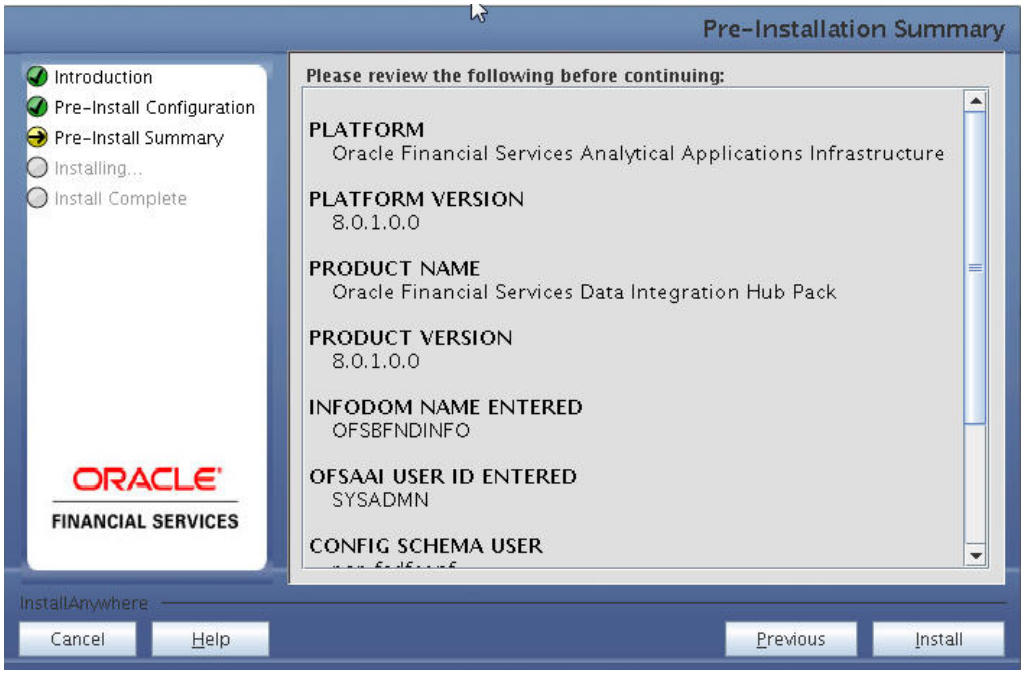
Log Mode

10. Click **Next**. The Pre-Setup Information page is displayed.



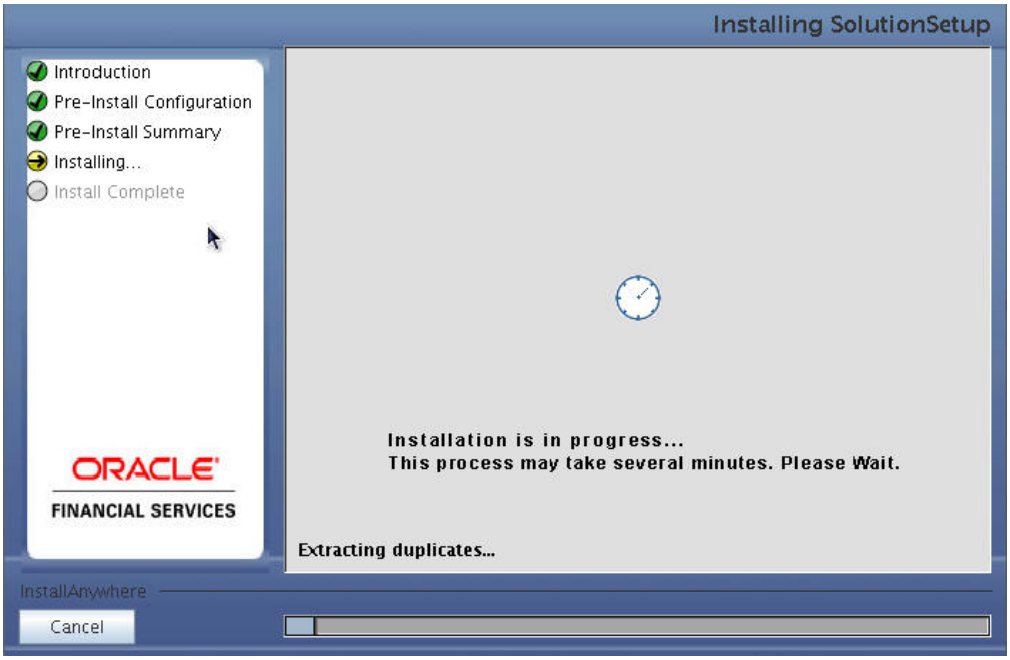
Pre-Setup Information

11. Click **Next. In the Pre-installation Summary screen,** click **Install** to proceed.



Pre-Install Summary

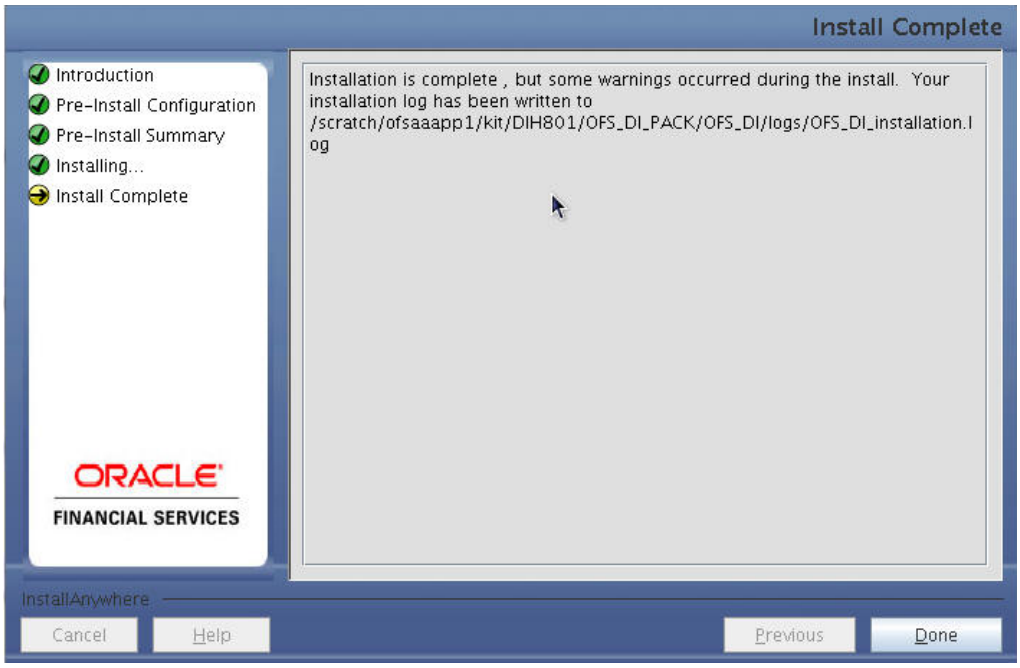
This panel displays the installation process. Wait until it completes.



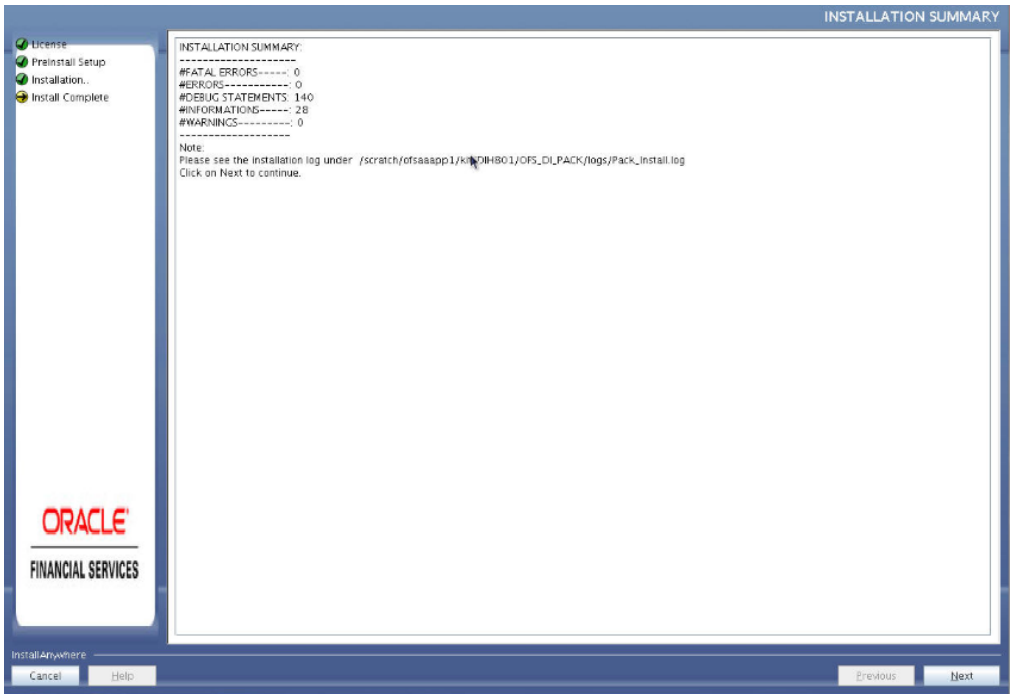
Installation in Progress

The following screen displays the completion of installation of the Oracle Financial Services Data Integration Hub Product Setup.

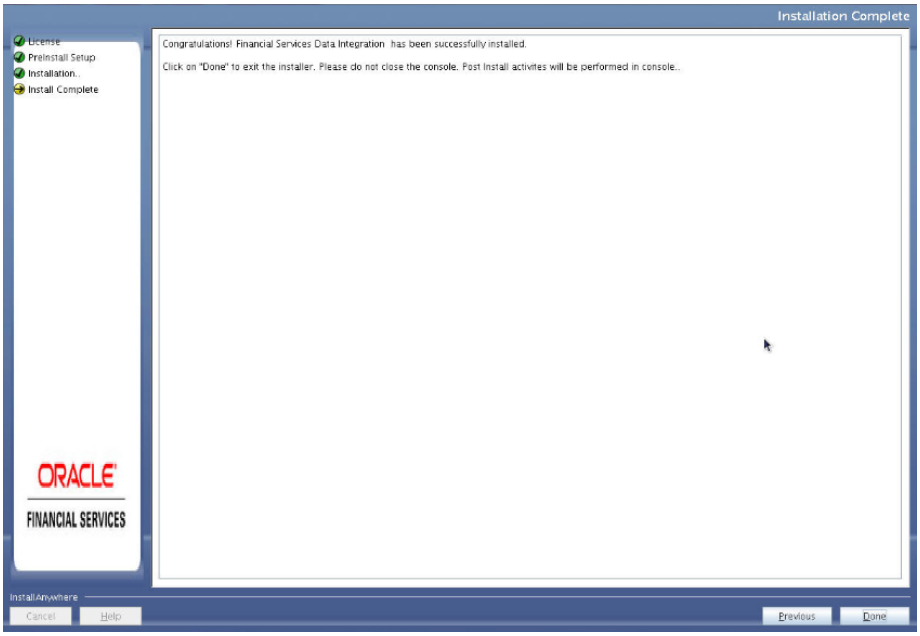
12. Click **Done** to exit.



Install Complete



Installation Summary



Installation Complete

Note

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

```
============================================================
Environment check utility Status : SUCCESS
============================================================
Starting installation...
Preparing to install...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...

Launching installer...

.profile executed
************************************************
CTRL characters removal started ...
CTRL characters removal over ...
Windows executable files removal started ...
Windows executable files removal over ...
We are now in /scratch/ofsaaapp1 ...
************************************************
.profile executed
.profile executed
executing "ant"
Buildfile: /scratch/ofsaaapp1/OFSAA800/ficweb/build.xml
Trying to override old definition of datatype resources

existtest:
     [echo] Checking for file /scratch/ofsaaapp1/OFSAA800/ficweb/OFSAA800.war existense

createwar:
     [echo] Creating /scratch/ofsaaapp1/OFSAA800/ficweb/OFSAA800.war freshly..
      [war] Building war: /scratch/ofsaaapp1/OFSAA800/ficweb/OFSAA800.war
```

4.3.2 Silent Mode Installation

In the Silent Mode Installation you must configure the product xml files and follow the instructions in command prompt. For installation, follow the below steps:

1. Update OFS_DI_SCHEMA_IN.xml file related to Atomic/Config scheme details for AAI configuration. Include INFODOM = "<Infodom Name>" in OFS_DI_SCHEMA_IN.xml file.
2. All the Applications which are selected within DI Pack should be installed on same atomic schema and infodom. So the values for atomic schema name and infodom should be same across all the apps within DI pack.
3. Update OFSAAI_InstallConfig.xml related to AAI configuration. For more information, refer to Configuring OFSAAI_InstallConfig.xml section.
4. Update OFS_DI_PACK.xml file for Licensing the App in the pack. For more information, refer to Appendix K. Update the attribute ENABLE=YES/NO in OFS_DI_pack.xml for licensing the App in the pack
5. Execute `osc.sh -s` for schema creation process in Silent mode.
6. The installer folder contains a template file 'Silent.template'
7. Create a copy of this file and rename the copy as 'Silent.props'
8. Edit the file 'Silent.props' and specify the parameters as per the requirements
9. On the UNIX Command prompt, execute the following command

   ./`setup.sh SILENT`
10. Refer to the console log [or the file preinstall.log] for any error messages

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:

Property Name	Description of Property	Permissible values	Comments
LOG_MODE	Mode for logging	0 = Debug 1= General	Optional; Default : 0
SEGMENT_CODE	Segment Code	Not Applicable	MANDATORY
APFTP P_LOG_PATH=	Infodom Maintenance log path(to be created) for the new Infodom for applayer	Not Applicable	# Mandatory if this an App Layer Installation and if you want to create a new infodom.
DBFTP_LOG_PATH	Infodom Maintenance log path(to be created) for the new Infodom for DBLayer	Not Applicable	# Mandatory if this an DB Layer Installation and if you want to create a new infodom.

4.3.2.1 Running the installer in Silent Mode

To install the OFSAA DI Media pack in Silent mode, execute the below command at location OFS_DI_PACK/bin:

`./setup.sh SILENT` in the console.

NOTE: For Java 8: Edit the VerInfo.txt file in the path `/OFS_DI_PACK/OFS_AAI/bin/` to modify the value for property JAVA_VERSION to 1.8, and save the changes.

4.3.2.2 Completing the installation in Silent Modee

Follow the below steps to complete the installation in Silent mode:

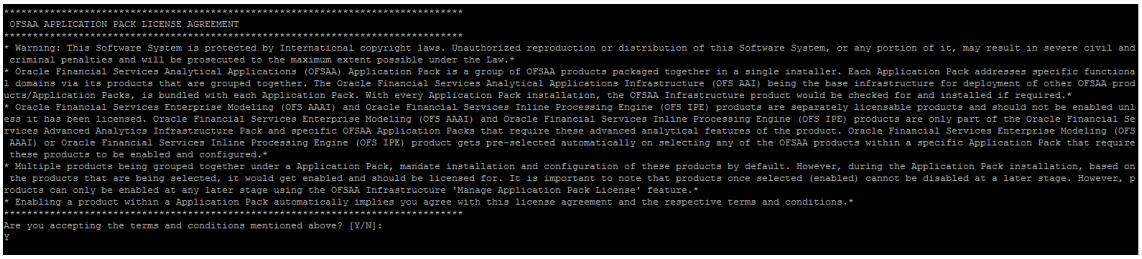
1. On launching the installer in silent mode, the environment check utility is executed as below.

```
$ ./setup.sh SILENT
 FIC_HOME : /scratch/ofsaebas/OFSAAI
Environment check utility started...
============================================================
Java Validation Started ...
 Java found in : /usr/java/jdk1.6.0_45/bin
 JAVA Version found : 1.6.0_45
 JAVA Bit Version found : 64-bit
Java Validation Completed. Status : SUCCESS
============================================================
Environment Variables Validation Started ...
 ORACLE_HOME : /scratch/oracle/app/product/12.1.0/client_1
 TNS_ADMIN : /scratch/ofsaebas/tnsname
Environment Variables Validation Completed. Status : SUCCESS
============================================================
OS specific Validation Started ...
 Unix shell found : /bin/ksh. Status : SUCCESS
 Total file descriptors : 15000. Status : SUCCESS
 Total number of process : 5024. Status : SUCCESS
 OS version : 6. Status : SUCCESS
OS specific Validation Completed. Status : SUCCESS
============================================================
DB specific Validation Started ...
 Oracle Client version : 12.1.0.1.0. Status : SUCCESS
 CREATE SESSION has been granted to user. Status : SUCCESS
 CREATE PROCEDURE has been granted to user. Status : SUCCESS
 CREATE VIEW has been granted to user. Status : SUCCESS
 CREATE TRIGGER has been granted to user. Status : SUCCESS
 CREATE MATERIALIZED VIEW has been granted to user. Status : SUCCESS
 CREATE TABLE has been granted to user. Status : SUCCESS
 CREATE SEQUENCE has been granted to user. Status : SUCCESS
 SELECT privilege is granted for V_$nls_parameters view. Current value : SELECT. Status : SUCCESS
 NLS_LENGTH_SEMANTICS : BYTE. Current value : BYTE. Status : SUCCESS
 NLS_CHARACTERSET : AL32UTF8. Current value : AL32UTF8. Status : SUCCESS
 SELECT privilege is granted for V_$parameter view. Current value : SELECT. Status : SUCCESS
 Open cursor value is greater than 1000. Current value : 1200. Status : SUCCESS
 SELECT privilege is granted for USER_TS_QUOTAS view. Current value : SELECT. Status : SUCCESS
 Schema is granted with at least 500 MB table space. Current value : 10239.6011352539063 MB. Status : SUCCESS
 Oracle Server version Current value : 12.1.0.1.0. Status : SUCCESS
DB specific Validation Completed. Status : SUCCESS
============================================================
Environment check utility Status : SUCCESS
============================================================
```

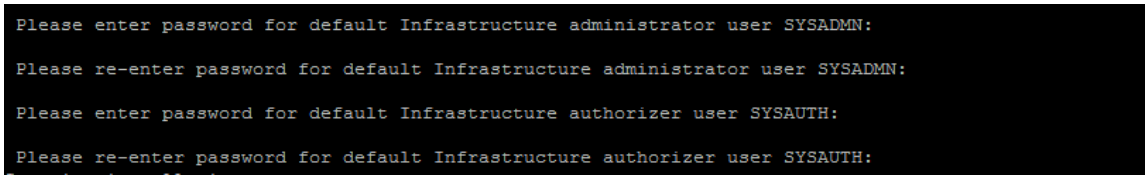
```
*  Welcome to Oracle Financial Services Advanced Analytical Applications Infrastructure (OFS AAAI) Applications Pack Installation  *
*****************************************************************************
 Checking Infrastructure installation status ...
 Infrastructure installation does not exist. Proceeding with Infrastructure installation ...
 Triggering Infrastructure installation ...

 Please enter Infrastructure Application/Database component FTP/SFTP password :
```

Console Prompts	User Inputs
Please enter Infrastructure FTP/SFTP password	Enter the password to access Product Staging/Metadata repository directory in the application server.

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



3. Accept the License Agreement.

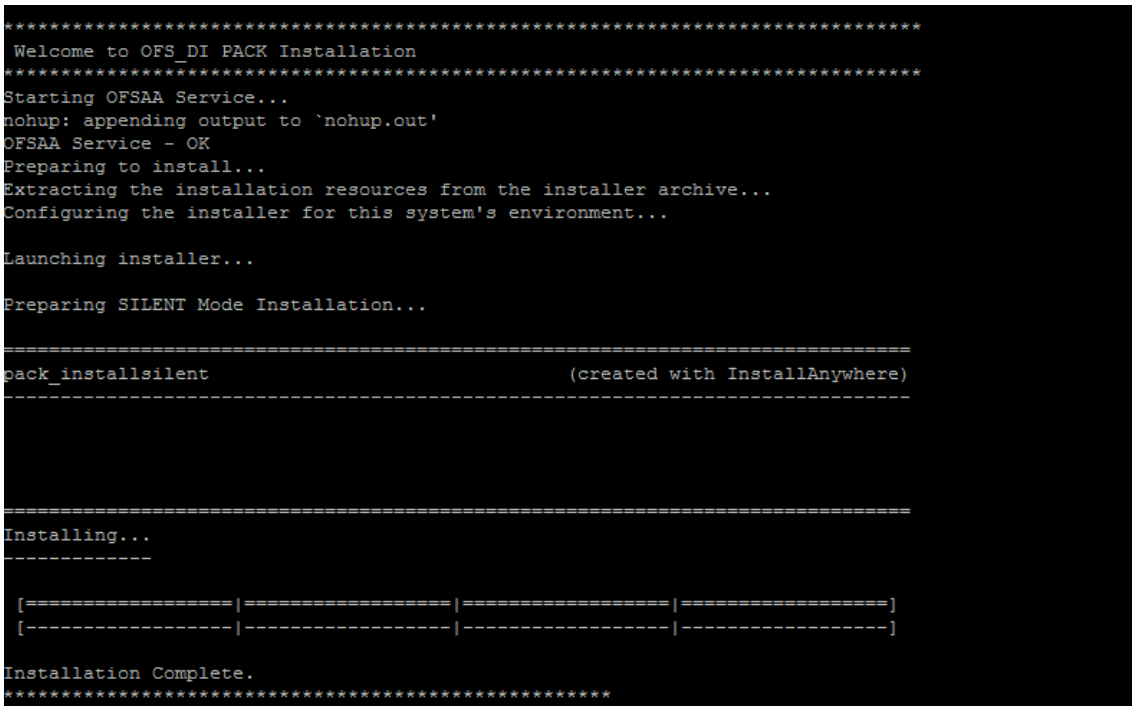


Console Prompts	User Inputs
Are you accepting the terms and conditions mentioned above? [Y/N]	Enter **Y** if you accept the license agreement and want to proceed with installation.
Please enter password for default Infrastructure administrator user SYSADMN	Enter the password for the System Administrator.
Please re-enter password for default Infrastructure administrator user SYSADMN	Enter the same password again to confirm its validity.
Please enter password for default Infrastructure authorizer user SYSAUTH	Enter the password for the System Authorizer.
Please enter password for default Infrastructure authorizer user SYSAUTH	Enter the same password again to confirm its validity.

Note:

Password for SYSADMN and SYSAUTH are asked only when DI is the first media pack installation in the setup

SYSADMN and SYSAUTH are the two OFSAAI administrative users created by default.



4. OFS_DI Pack installation is complete.

```
*****************************************************
CTRL characters removal started ...
CTRL characters removal over ...
Windows executable files removal started ...
Windows executable files removal over ...
We are now in /scratch/ofsaebas ...
*****************************************************
executing "ant"
Buildfile: /scratch/ofsaebas/OFSAAI/ficweb/build.xml
Trying to override old definition of datatype resources

existtest:
     [echo] Checking for file /scratch/ofsaebas/OFSAAI/ficweb/OFSAAI.war existense

createwar:
     [echo] Creating /scratch/ofsaebas/OFSAAI/ficweb/OFSAAI.war freshly..
      [war] Building war: /scratch/ofsaebas/OFSAAI/ficweb/OFSAAI.war

BUILD SUCCESSFUL
Total time: 42 seconds
OFSAA App Layer Services start-up check started...
Starting startofsaai.sh service...
nohup: appending output to `nohup.out'
OFSAA Service - OK
Starting icc service...
nohup: appending output to `nohup.out'
ICC service - OK
Shutting down icc service...
nohup: appending output to `nohup.out'
Shutting down OFSAA service...
nohup: appending output to `nohup.out'
OFSAAI App Layer Services check Status: SUCCESSFUL.
OFSAAI DB Layer Services check started...
checking Router service...
Router Service - OK
checking AM service...
AM Service - OK
Checking MessageServer service...
DEBUG: main started.
DEBUG: TraceFileName = /scratch/ofsaebas/OFSAAI/ficdb/log/msg_trace_file.log
DEBUG: OpenFiles done.
MessageServer Service - OK
OFSAAI DB Layer File Services check Status: SUCCESSFUL.
*****************************************************
Installation completed...
*****************************************************
```

The installation process continues on the console, and ear/war files are created depending on web server type, Please do not close the console until the installation process is complete.

5. Install the consolidated one-off patch **25777667**. Refer to the Readme available with the patch for further instructions on installing the patch.

4.4 Verifying the Log File

The log files OFS_DI_installation.log can be found in the installation path (`/OFS_DI_PACK/OFS_DI/logs`).The log files 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.

Following are the log files:

- Application Pack specific log file in `/OFS_DI_PACK/logs` (overall status of the app pack installation)
- AAI Installation log file in the path: `/OFS_DI_PACK/OFS_AAI/logs`.
- Application installation log file at OFS_DI_PACK/OFS_DI/logs.
    - OFS_DI_Installation_debug.log
    - OFS_DI_installation.log

Note

The warning "Object already exists, Table already has a primary key for creating table FSI_MESSAGES" present in `OFS_DI_installation.log` can be ignored.

4.5 Verifying the Installation

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

To verify that you have successfully installed the OFS DI pack follow the below steps:

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

5 Post Installation Configuration

Once the OFS DI Application 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:

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 and WebLogic) and OS combinations. For more information, refer Clearing Application Cache section.

5.1 Deploying DIH application for Tech stack (Java 8 – Oracle Weblogic Server 12.1.3.0.0 – ODI 12.2.1.0.0)

To deploy DIH application for Tech stack (Java 8 – Oracle Weblogic Server 12.1.3.0.0 – ODI 12.2.1.0.0) follow the below steps:

1. Login to https://support.oracle.com/ and search for **Bug 22320222** under the *Patches & Updates* tab.
2. Download the OFS DI Pack v8.0.1.1.0 ML 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. Login to the server where OFSAAI is installed.
4. Shut down all the OFSAAI Services. For more information, refer to the **Start/Stop Infrastructure Services** section in Oracle Financial Services Data Integration Manual Release 8.0.1 in OTN documentation library.

5. If you have Unzip utility, skip to the next step. Download the Unzip utility (OS specific) **unzip_<os>.Z** and copy it in Binary mode to the directory that is included in your PATH variable, typically **$HOME** path or directory in which you have copied the 8.0.1.1.0 installer.
6. 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.
7. Give EXECUTE permission to the file using the command:

   ```
   chmod 751 OFSDI_80110_<OperatingSystem>.zip
   ```
8. Extract the contents of the 8.0.1.1.0 archive file using the command:

   ```
   unzip_<os> -a <name of the file to be unzipped>
   ```
9. Give EXECUTE permission to the minor release archive file. Navigate to **OFS_DI_PACK** directory and execute the command:

   ```
   chmod 750 OFSAAIUpdate.sh
   ```
10. Execute **OFSAAIUpdate.sh** file using the following command.

    ```
    ./OFSAAIUpdate.sh
    ```
11. Verify if the release is applied successfully by checking the log file generated in the installation folder. Logs can be found in `/OFS_DI_PACK/logs` and `/OFS_DI_PACK/OFS_DI/logs` folder.
12. After successful installation, perform the these steps:
    a. Clear the application cache. Navigate to the following path depending on the configured web application server and delete the files.
       - **Weblogic:**

         <Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>/<auto generated folder>/jsp_servlet
       - **Websphere:**

         <Websphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>
13. Copy following jars from ODI installation directory into `<FIC_HOME>/ficweb/webroot/WEB-INF/lib directory`
    a. Navigate to `<ODI_HOME>/odi/sdk/lib`. Copy all jars from this directory.

b. Navigate to `<ODI_HOME>/oracle_common/modules/oracle.odl`. Copy `ojdl.jar`

c. Navigate to `<ODI_HOME>/oracle_common/modules/oracle.idm`. Copy `identitystore.jar` and `identityutils.jar`

d. Navigate to `<ODI_HOME>/oracle_common/modules/oracle.dms`. Copy `dms.jar`

14. Copy the following jar from $FIC_WEB_HOME/webroot/WEB-INF/lib. to ODI installation (<ODI_HOME>/odi/agent/lib)

    `odikmvarstore.jar`

15. Add the below mentioned entries in excludeURLList.cfg file located in the path $FIC_WEB_HOME/webroot/conf/. These entries are required for Data Integration Hub:

    `[ALL]./fsapps/common/saveConnectorValidateRegister.action`

    `[ALL]./fsapps/common/saveConnectorRegister.action`

    `[ALL]./fsapps/common/saveEditConnectorRegister.action`

16. Navigate to <FIC_HOME>/ficdb/bin, Edit file **DIHConExecution.sh**, add the following line just above the line echo $_CLASSPATH >> $LOG_FILE

    ```
    export _CLASSPATH=$_CLASSPATH:$FIC_WEB_HOME/webroot/WEB-INF/lib/dms.jar:$FIC_WEB_HOME/webroot/WEB-INF/lib/eclipselink.jar
    ```

17. Generate the application EAR/WAR file and redeploy the application on your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the *Post Installation Configuration* in Oracle Financial Services Data Integration Manual Release 8.0.1 in OTN documentation library.

18. Restart all OFSAAI services. For more information on generating and deploying EAR / WAR file, refer to the *Post Installation Configuration* in Oracle Financial Services Data Integration Manual Release 8.0.1 in OTN documentation library.

19. Import the following Knowledge modules and procedure to ODI.

    a. Obtain the following XMLs from $FIC_HOME/KM_Files:

    - KM_IKM_MultiFiles_to_Oracle__SQLLDR__Direct_Target.xml
    - KM_IKM_MultiFiles_to_Oracle__SQLLDR_with_EBCDIC__Direct_Target.xml
    - KM_IKM_Oracle_Insert_Only.xml
    - KM_IKM_Oracle_Insert_Only__Ext_Tab_and_DB_.xml
    - KM_IKM_Oracle_Multi_Table_Insert__SQLLDR__Direct_Target.xml

- KM_IKM_Oracle_Multi_Table_Insert__SQLLDR_with_EBCDIC__Direct_Target.xml
- KM_IKM_Oracle_Multi_Table_Insert_NonDirect.xml
- KM_IKM_Oracle_Multi_Table_Insert_NonDirect__Ext_Tab_and_DB_.xml
- KM_LKM_MultiFiles_to_Oracle__EXTERNAL_TABLE_.xml
- KM_LKM_MultiFiles_to_Oracle__SQLLDR_.xml
- KM_LKM_MultiFiles_to_Oracle__SQLLDR_with_EBCDIC_.xml
- KM_LKM_MultiFiles_to_Oracle_Multi_Insert__EXTERNAL_TABLE_.xml
- KM_LKM_MultiFiles_to_Oracle_Multi_Insert__SQLLDR_.xml
- KM_LKM_MultiFiles_to_Oracle_Multi_Insert__SQLLDR_with_EBCDIC_.xml
- KM_LKM_Oracle_to_Oracle__DBLINK_No_Source_View__.xml
- KM_LKM_Oracle_to_Oracle_Multi_Insert__DBLINK_No_Source_View__.xml
- KM_LKM_XML_to_Oracle.xml
- KM_LKM_XML_to_Oracle_Multi_Table_Insert.xml
- KM_IKM_Oracle_Extract.xml
- KM_LKM_Oracle_to_Oracle_Datapump__DBLINK_.xml

b. **Procedure:** Edit the TRT_Recon.xml and replace the value `DIH_OFSAATOMIC` with `INFODOM` name and import into ODI.

c. Obtain the following XMLs from standard ODI installation directory.

- KM_LKM_File_to_SQL.xml
- KM_IKM SQL to File Append.xml
- KM_LKM SQL to Oracle.xml
- KM_CKM_Oracle.xml

20. Import following additional Knowledge modules if the source is Hadoop.

a. Get the following XMLs from $FIC_HOME/KM_Files.

- KM_LKM_File_Hive_to_Oracle__OLH_.xml
- KM_LKM_File_Hive_to_Oracle_Multi_Insert__OLH_.xml

b. Get the following XMLs from Hadoop connector enabled ODI installation directory.

- KM_IKM_File_Hive_to_Oracle__OLH_OSCH_.xml

21. The hdfs directory `/user/oracle/olh2` must exist and must be writable for the ODI (agent) os user. This is required if Hadoop as source is enabled.

22. Put a TNS Entry named same as `INFODOM` in the ODI Agent machine (if ODI Agent is not running in same machine as OFSAAI). This should point to atomic schema.

```
<INFODOM> = (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL =
TCP)(HOST = <Atomic DB Server>)(PORT = <Port Number>)) ) (CONNECT_DATA
= (SERVER = DEDICATED) (SERVICE_NAME = <Service Name>) ) )
```

23. Enable EZ CONNECT in Oracle Client where ODI Agent is installed and running. DIH uses EZ CONNECT naming method to connect to various Source schemas.

5.2 Deploying DIH Application for ODI 11g (11.1.1.9.0)

To deploy DIH application for ODI 11g (11.1.1.9.0) follow below steps:

1. If you are installing OFS_DI pack as the first pack in a new environment, download and apply the patch # **21572510_GENERIC** available in bug # **21572510**, in OFS_DI installed environment before installing any other application pack.

NOTE: This patch is not required if you are installing OFS_DI in an environment where any application pack (8.0 or 8.0.1) is already installed and configured.

2. To enable enhanced ADI Refresh, download and apply the patch #**21560121_GENERIC** available in the bug #**21560121**, in OFS_DI installed environment.

NOTE: Ensure to apply this patch as post installation step before deploying the application.

3. Copy the below ODI SDK Jars to $FIC_WEB_HOME/webroot/WEB-INF/lib. The version number at end of jars may vary depending on the ODI installation.

NOTE: The below jars are available in ODI installation Directory. You should copy these jars before Ear/war deployment.

bsf.jar

bsh-2.0b2.jar

commons-codec-1.3.jar

commons-collections-3.2.jar

commons-httpclient-3.1.jar

jps-api.jar

odi-core.jar

spring-beans.jar

spring-core.jar

spring-dao.jar

spring-jdbc.jar

hsqldb.jar

4. Copy the following jar from $FIC_WEB_HOME/webroot/WEB-INF/lib. to ODI installation (<ODI_HOME>/oracledi/agent/drivers) odikmvarstore.jar
5. If you are using cloudera distribution, then copy Hive/Hadoop JDBC Jars to $FIC_WEB_HOME/webroot/WEB-INF/lib".

NOTE: These jars are only required if Hadoop/Hive as source is enabled in DIH.

You should copy these jars before ear/war deployment.

- hive-jdbc-0.10.0-cdh4.6.0.jar
- hive-metastore-0.10.0-cdh4.6.0.jar
- libthrift-0.9.0-cdh4-1.jar
- hive-service-0.10.0-cdh4.6.0.jar
- libfb303-0.9.0.jar
- slf4j-api-1.6.4.jar
- hadoop-core-0.20.2.jar
- hive-serde-0.10.0-cdh4.6.0.jar
- hive-exec-0.10.0-cdh4.6.0.ja

6. To enable dependency check, create one segment by name "DIHUSERS" if it does not already exist. Map all the DIH user groups to DIHUSERS segment.
7. Add the below mentioned entries in excludeURLList.cfg file located in the path $FIC_WEB_HOME/webroot/conf/. These entries are required for Data Integration Hub:

[SQLIA]./fsapps/common/saveConnectorValidateRegister.action

[SQLIA]./fsapps/common/saveConnectorRegister.action

[SQLIA]./fsapps/common/saveEditConnectorRegister.action

NOTE: Copy the above information into notepad, and then copy it from notepad into cfg file. Avoid copying formatting characters into the cfg file.

---

8. Import the following Knowledge modules and procedure to ODI.
   a) Obtain the following XMLs from $FIC_HOME/KM_Files.

      KM_IKM_MultiFiles_to_Oracle__SQLLDR__Direct_Target.xml

      KM_IKM_MultiFiles_to_Oracle__SQLLDR_with_EBCDIC__Direct_Target.xml

      KM_IKM_Oracle_Insert_Only.xml

      KM_IKM_Oracle_Insert_Only__Ext_Tab_and_DB_.xml

      KM_IKM_Oracle_Multi_Table_Insert__SQLLDR__Direct_Target.xml

      KM_IKM_Oracle_Multi_Table_Insert__SQLLDR_with_EBCDIC__Direct_Target.xml

      KM_IKM_Oracle_Multi_Table_Insert_NonDirect.xml

      KM_IKM_Oracle_Multi_Table_Insert_NonDirect__Ext_Tab_and_DB_.xml

      KM_LKM_MultiFiles_to_Oracle__EXTERNAL_TABLE_.xml

      KM_LKM_MultiFiles_to_Oracle__SQLLDR_.xml

      KM_LKM_MultiFiles_to_Oracle__SQLLDR_with_EBCDIC_.xml

      KM_LKM_MultiFiles_to_Oracle_Multi_Insert__EXTERNAL_TABLE_.xml

      KM_LKM_MultiFiles_to_Oracle_Multi_Insert__SQLLDR_.xml

      KM_LKM_MultiFiles_to_Oracle_Multi_Insert__SQLLDR_with_EBCDIC_.xml

      KM_LKM_Oracle_to_Oracle__DBLINK_No_Source_View__.xml

      KM_LKM_Oracle_to_Oracle_Multi_Insert__DBLINK_No_Source_View__.xml

      KM_LKM_XML_to_Oracle.xml

      KM_LKM_XML_to_Oracle_Multi_Table_Insert.xml

      KM_IKM_Oracle_Extract.xml

      KM_LKM_Oracle_to_Oracle_Datapump__DBLINK_.xml

   b) Procedure

      Edit the TRT_Recon.xml and replace the value DIH_OFSAATOMIC with INFODOM name and import into ODI.

```
<Field name="ColITxt" type="com.sunopsis.sql.DbInt"><![CDATA[8589100]]></Field>
<Field name="ColLschemaName" type="java.lang.String"><![CDATA[DIH_OFSAATOMIC]]></Field>
<Field name="ColPlanComp" type="java.lang.String">null</Field>
<Field name="ColTechno" type="java.lang.String"><![CDATA[ORACLE]]></Field>
<Field name="DefConnectId" type="java.lang.String">null</Field>
<Field name="DefContextCode" type="java.lang.String">null</Field>
<Field name="DefIndCommit" type="java.lang.String">null</Field>
<Field name="DefIsolLevel" type="java.lang.String">null</Field>
<Field name="DefITxt" type="com.sunopsis.sql.DbInt"><![CDATA[8588100]]></Field>
<Field name="DefLschemaName" type="java.lang.String"><![CDATA[DIH_OFSAATOMIC]]></Field>
```

c) Obtain the following XMLs from standard ODI installation directory.

KM_LKM_File_to_SQL.xml

KM_CKM_Oracle.xml

KM_IKM SQL to File Append.xml

KM_LKM SQL to Oracle.xml

9. Import following additional Knowledge modules if the source is **Hadoop**.
   a) Get the following XMLs from $FIC_HOME/KM_Files.

   KM_LKM_File_Hive_to_Oracle__OLH_.xml

   KM_LKM_File_Hive_to_Oracle_Multi_Insert__OLH_.xml

   b) Get the following XMLs from Hadoop connector enabled ODI installation directory.

   KM_IKM_File_Hive_to_Oracle__OLH_OSCH_.xml

10. The hdfs directory /user/oracle/olh2 must exist and must be writable for the ODI (agent) os user. This is required if Hadoop as source is enabled.
11. Put an TNS Entry named same as INFODOM in the ODI Agent machine (if ODI Agent is not running in same machine as OFSAAI). This should point to atomic schema.
    <INFODOM> = (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = TCP)(HOST = <Atomic DB Server>)(PORT = <Port Number>))) (CONNECT_DATA = (SERVER = DEDICATED) (SERVICE_NAME = <Service Name>)))

5.3 Configure 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 and WebLogic Application Servers.

5.4 Start OFSAA Infrastructure Services

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

Refer to Start/ Stop OFSAA Services for details.

5.5 Add TNS entries in TNSNAMES.ORA file

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

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

1. Login to the application using System Administrator privileges.
2. Navigate to System Configuration & Identity Management tab.
3. Click Administration and Configuration >> System Configuration >> Database Details.
4. Expand **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'
```

5.6 Create and Deploy the Application Pack Web Archive

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

For identifying the location of the generated web archive file and for generating and deploying the web archive file at any time later, refer Appendix C.

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

5.7 Access 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.

5.8 Perform Post Deployment Configurations

Prior to using the OFSAA Application perform the Post Deployment Configuration steps detailed in Post- Deployment Configuration.

6 Appendix A- Configuring Web Server

This appendix includes the following sections:

- Configuring Web Server
- Configuring Web Application Server

6.1 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 8.0.0.0.0 (OTN), for additional information on securely configuring your Web Server.

6.2 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:

- Configuring WebSphere for Application Deployment
- Configuring WebLogic for Application Deployment

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).

Refer OFSAA Secure Configuration Guide/ Security Guide mentioned in the Related Documents section for additional information on securely configuring your Web Server.

6.2.1 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", 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:

- Creation of New Profile in WebSphere
- Manage Applications in WebSphere
- Delete WebSphere Profiles
- WebSphere HTTPS Configuration
- WebSphere Memory Settings

6.2.1.1 Creation of New Profile in WebSphere

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

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

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

Example:

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

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

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

Example:

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

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

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

6.2.1.2 Manage Applications in WebSphere

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

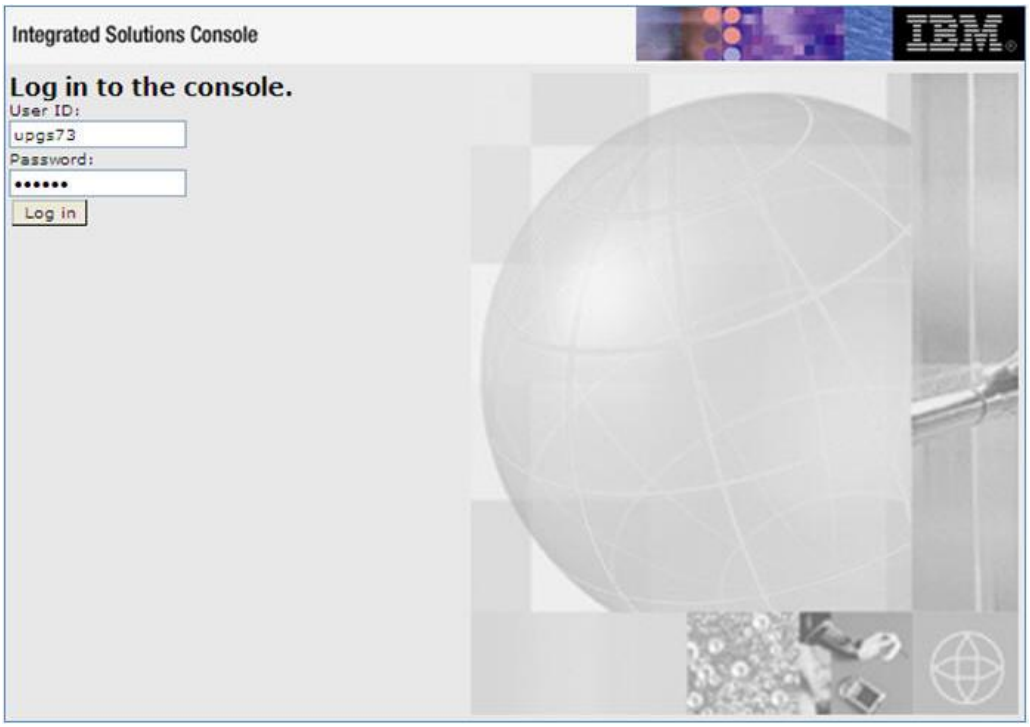
1. Open the administrator console using the following URL:

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

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

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

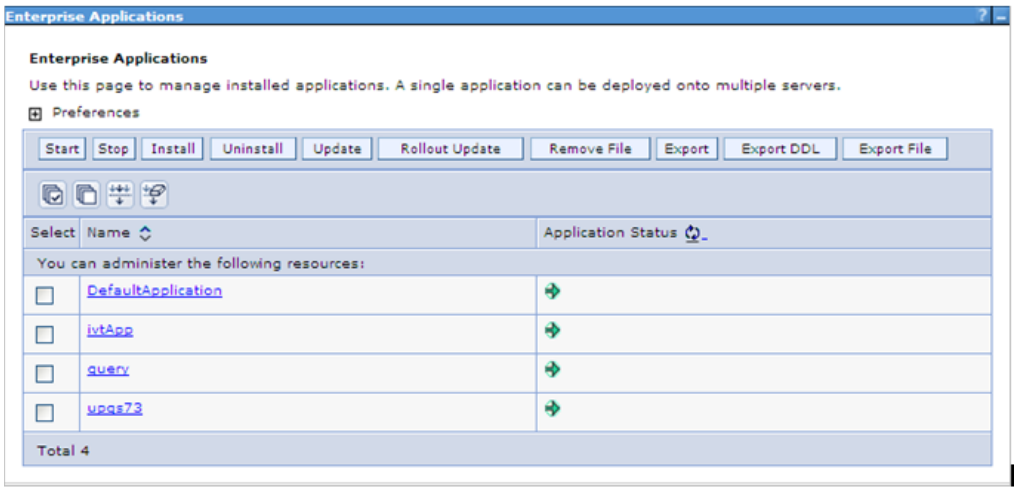
The Integrated Solutions Console Login window is displayed.



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

6.2.1.3 Delete 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.

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

6. Execute the command:

   ```
   manageprofiles.sh -validateAndUpdateRegistry
   ```

6.2.1.4 WebSphere HTTPS Configuration

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

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

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

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

6.2.1.5 WebSphere Memory Settings

To configure the WebSphere Memory Settings:

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

   ```
   Initial heap size = 512
   Maximum heap size = 3072
   ```

6.2.2 Configuring WebLogic for Application Deployment

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.

This section includes the following topics:

- Creating Domain in WebLogic Server
- Delete Domain in WebLogic
- WebLogic Memory Settings

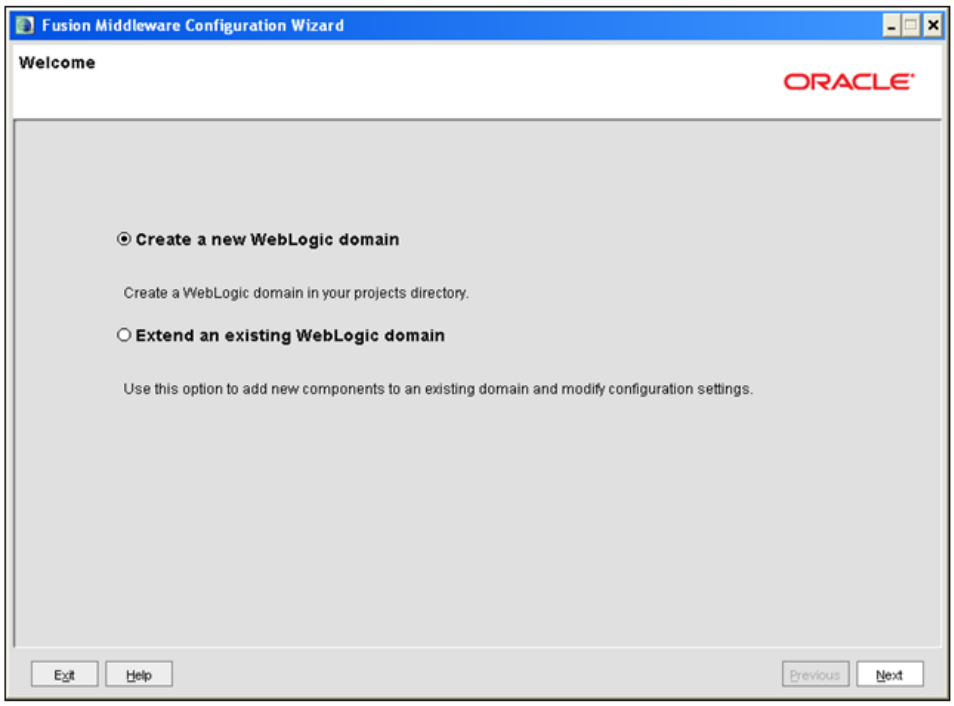
6.2.2.1 Creating Domain in WebLogic Server

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

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

   ```
   .\config.sh
   ```

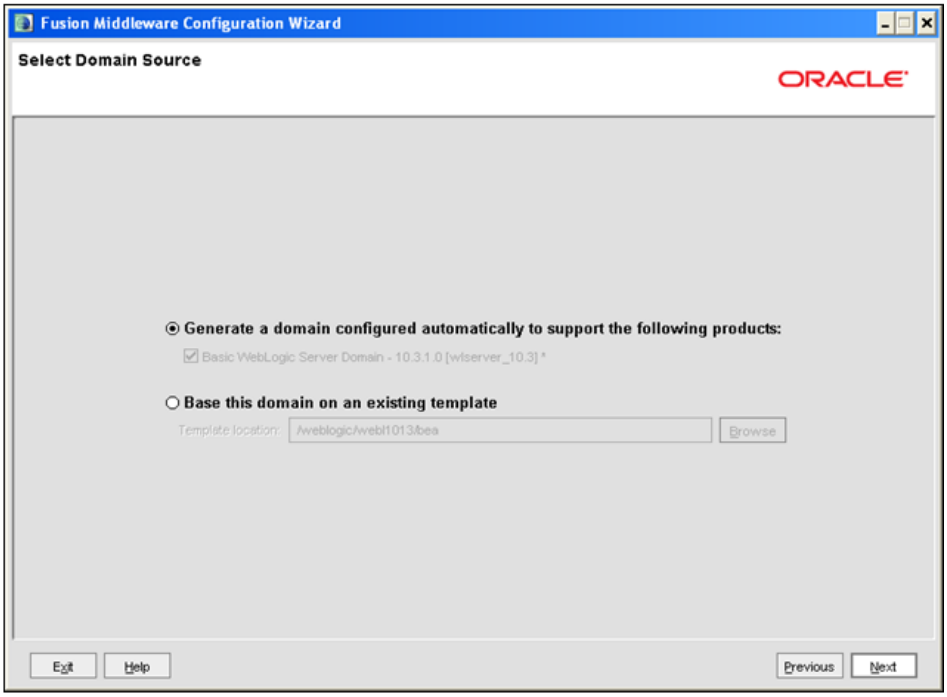
   The *Welcome* window of the *Configuration Wizard* is displayed.



Welcome

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

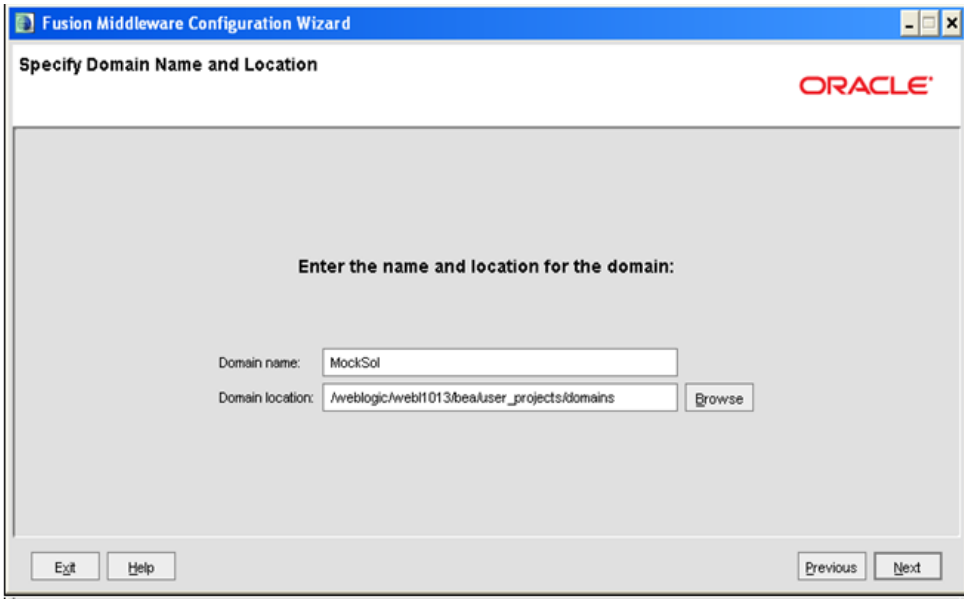
   The *Select Domain Source* window is displayed.



Select Domain Source

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

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



Specify Domain Name and Location

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

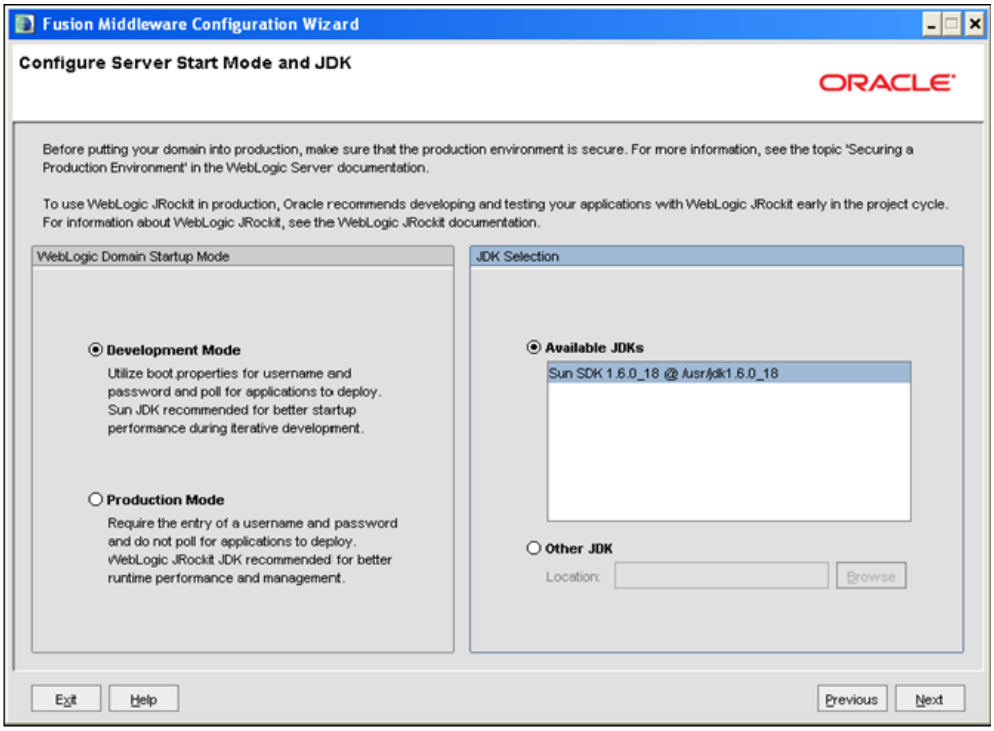
   The *Configure Administrator Username and Password* window is displayed.

Configure Administrator Username and Password

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

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

   The Configure Server Start Mode and JDK window is displayed.



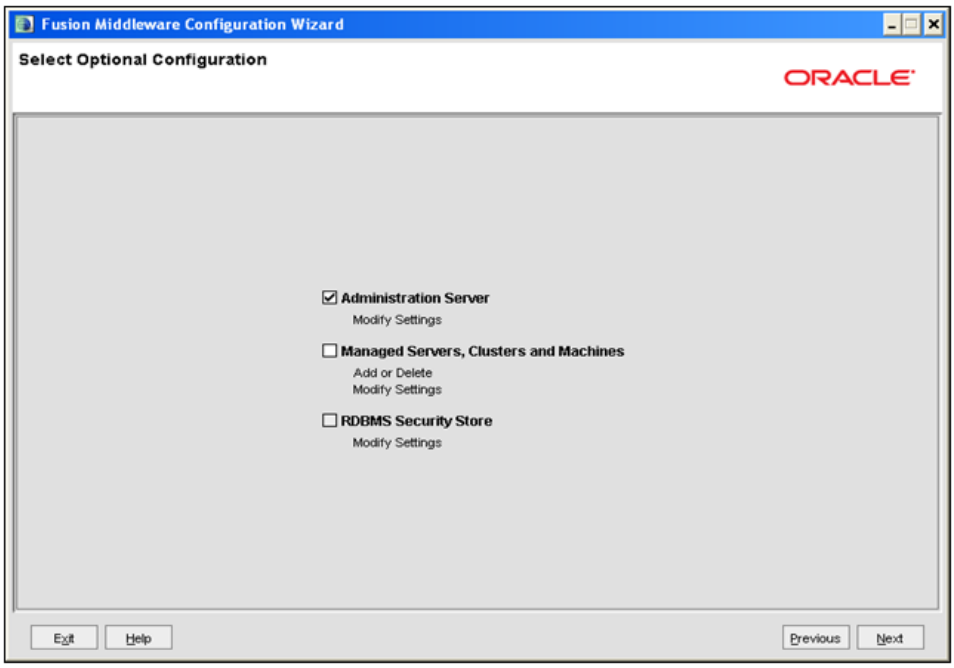
Configure Server Start Mode and JDK

7. Select the following options:

   In the *WebLogic Domain Startup Mode* section, select the required mode (Development Mode or Production Mode).

   In the *JDK Selection* section, select **Other JDK**. Click **Browse** and navigate to the JDK location. Click **Next**.

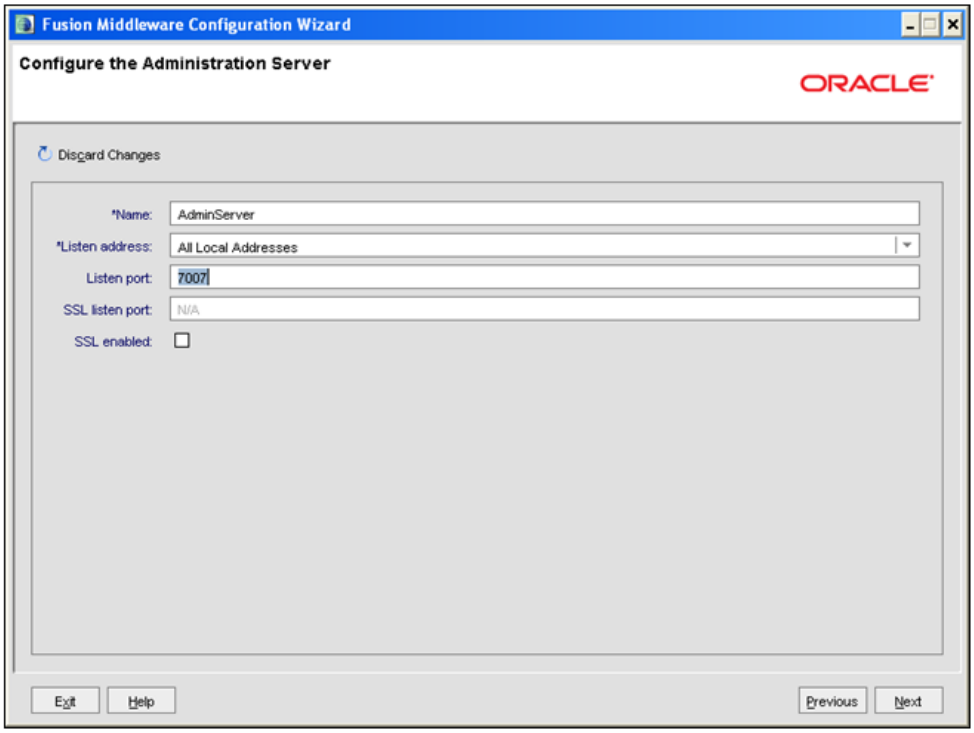
   The *Select Optional Configuration* window is displayed.



Select Optional Configuration

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

   The *Configure the Administration Server* window is displayed.

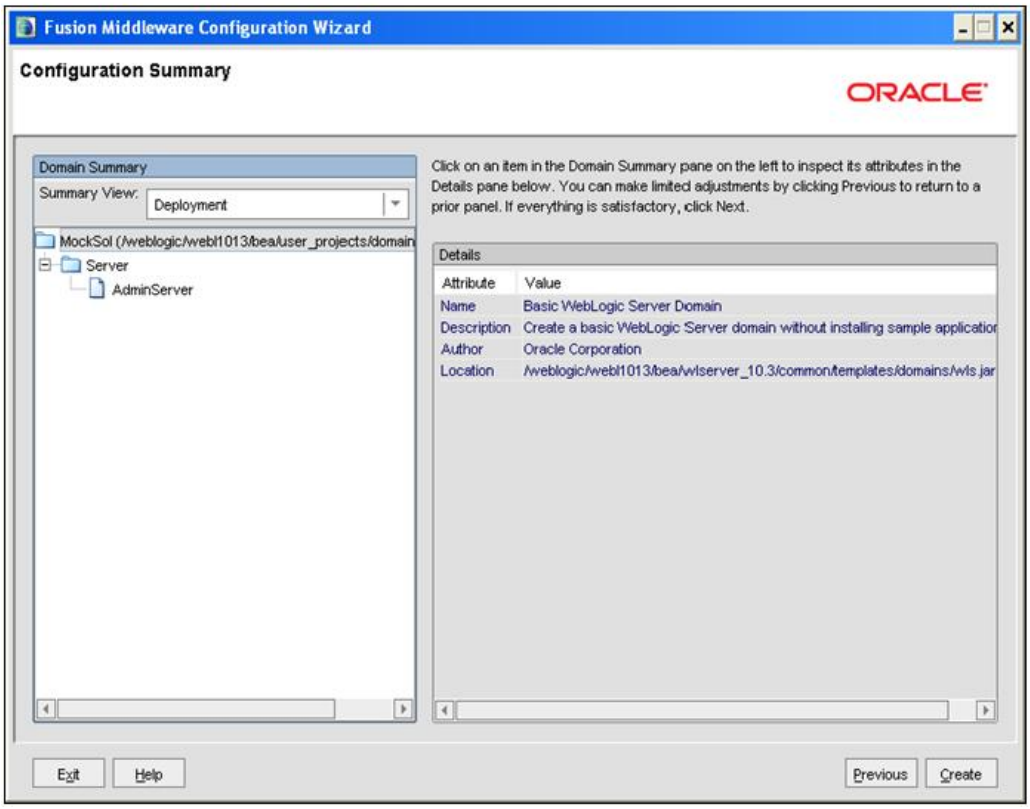


Configure the Administration Server

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

   The *Configuration Summary* window is displayed.

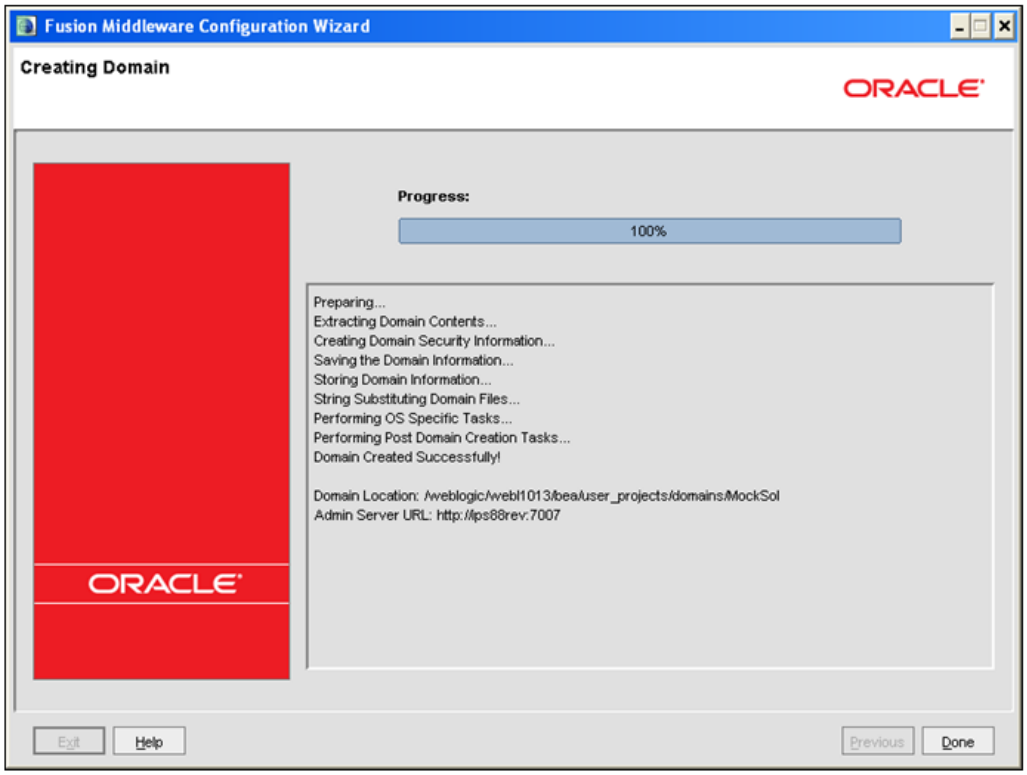
NOTE: Make a note of the Listen Port or SSL Listen Port value (ex: 7007), since the same has to be entered in the Servlet port field during installation.



Configure Server Start Mode and JDK

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

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



Configure Server Start Mode and JDK

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

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

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

6.2.2.2 Delete Domain in WebLogic

To delete a domain in WebLogic, follow these steps:

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.

6.2.2.3 WebLogic Memory Settings

To configure the WebLogic Memory Settings:

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

7.1 Configuring Resource Reference in Web Application Server

This appendix includes the following topics:

- Configure Resource Reference in WebSphere Application Server
- Configure Resource Reference in WebLogic Application Server

7.1.1 Configure Resource Reference in WebSphere Application Server

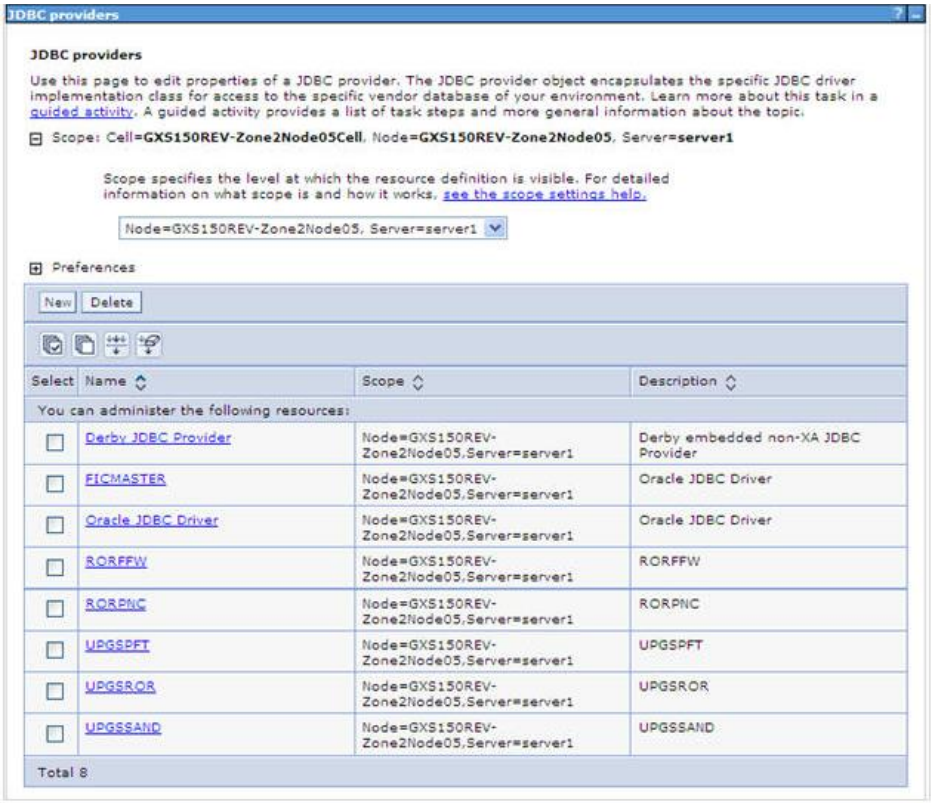
This section is applicable only when the Web Application Server is WebSphere.

This section includes the following topics:

- Create JDBC Provider
- Create Data Source
- J2C Authentication Details
- JDBC Connection Pooling

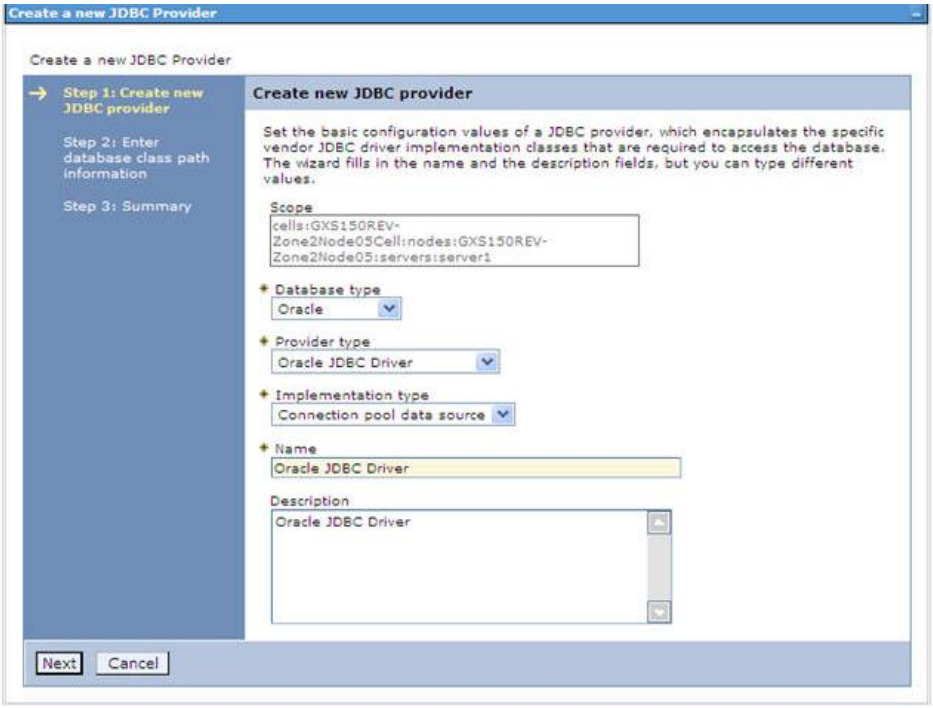
7.1.1.1 Create JDBC Provider

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



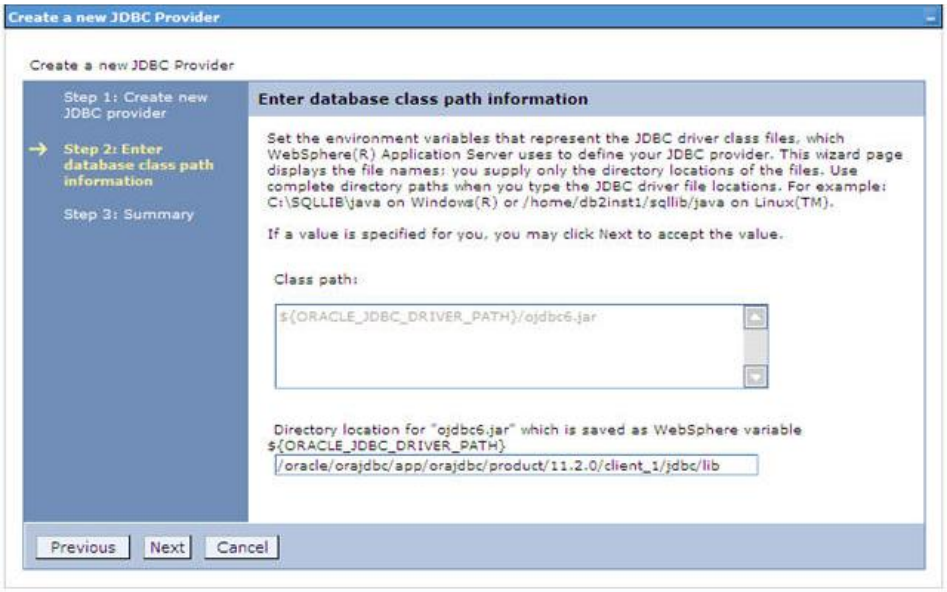
JDBC Providers

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 "`ojdbc6.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:

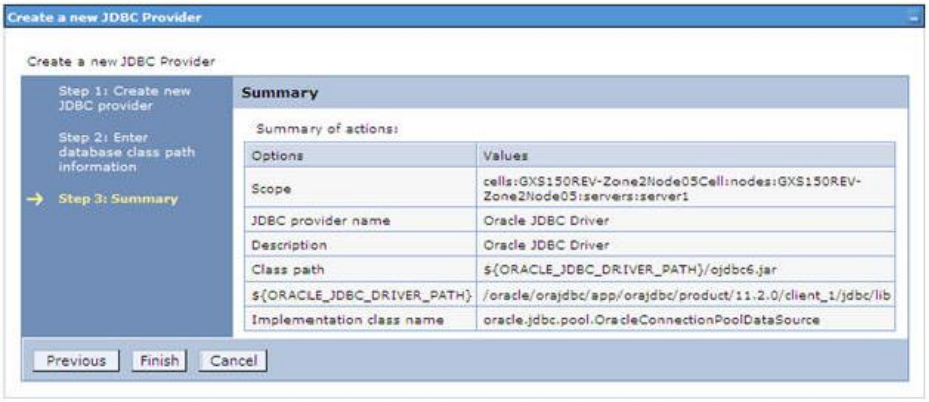
   ■ Oracle Database 11g Release 2 (11.2.0.4) JDBC Drivers

   ■ 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 N 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**.

7.1.1.2 Create Data Source

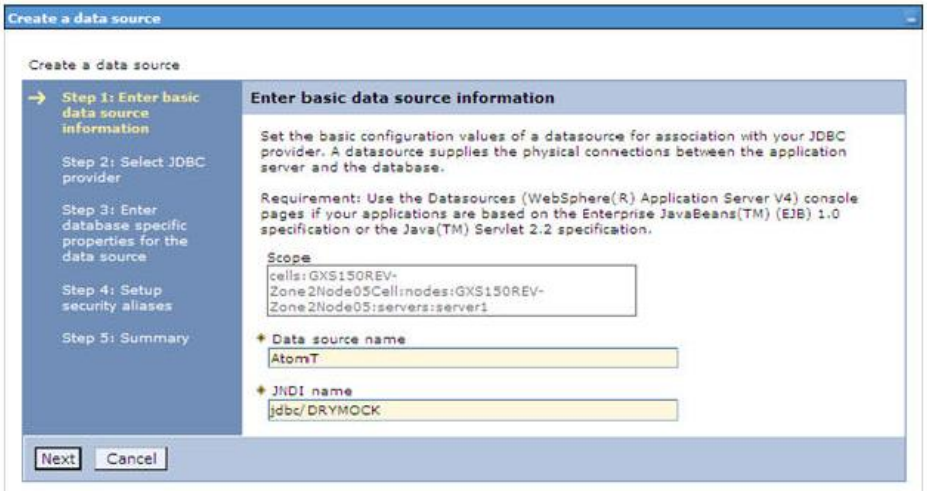
The steps given below are applicable for both CONFIG and ATOMIC data source creation.

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

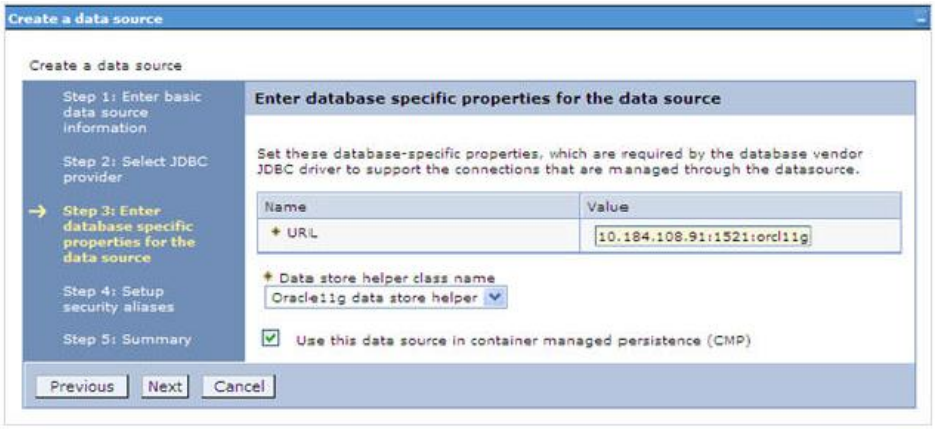
6. Specify **the Data Source name** and **JNDI name** for the new "Data Source".

   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 specific properties

9. Specify the database connection URL.

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

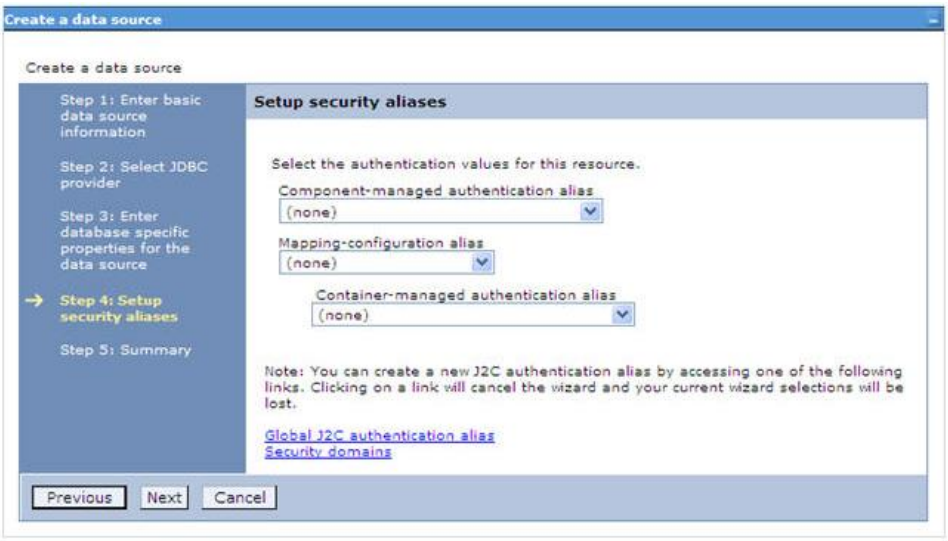
10. Select **Data Store Helper Class Name** from the drop-down list and ensure that the checkbox **Use this data source in container managed persistence (CMP)** is selected.

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

For Example:

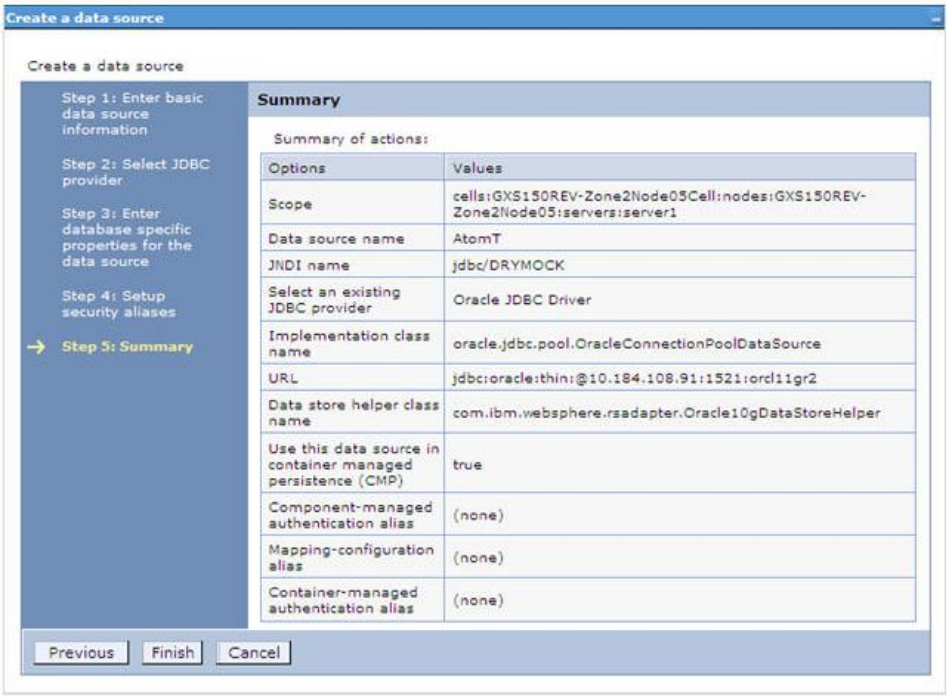
```
jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=1
0.11.12.13)(port=1521))(ADDRESS=(PROTOCOL=TCP)(HOST=10.11.12.14)(PORT=1521)
)(LOAD_BALANCE=no)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=pqadb)))
```

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.

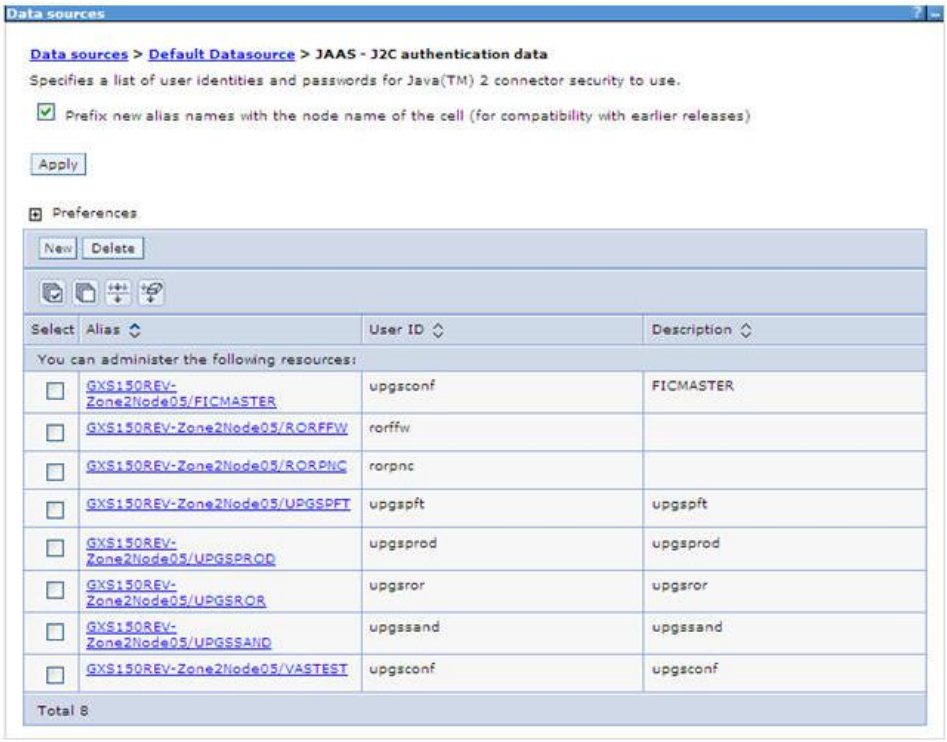
13. You must create another Data source by following the above procedure with jdbc/FICMASTER as JNDI name pointing to the "configuration schema" of Infrastructure.

7.1.1.3 J2C Authentication Details

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

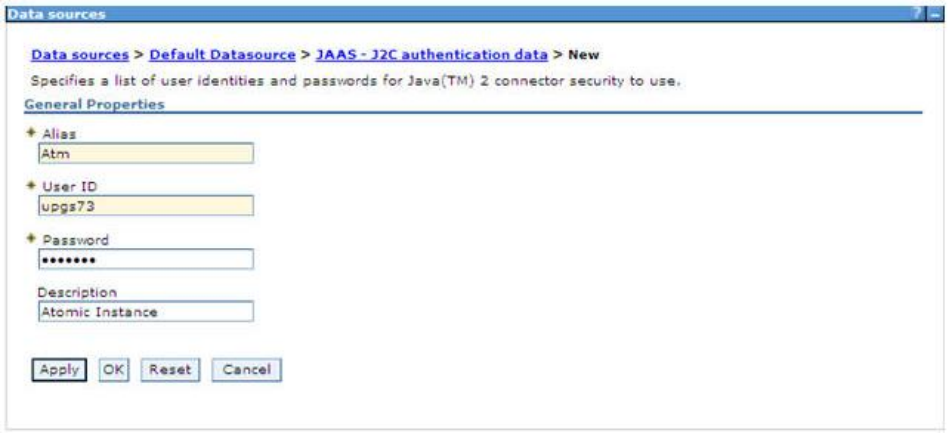
To create J2C Authentication details:

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:

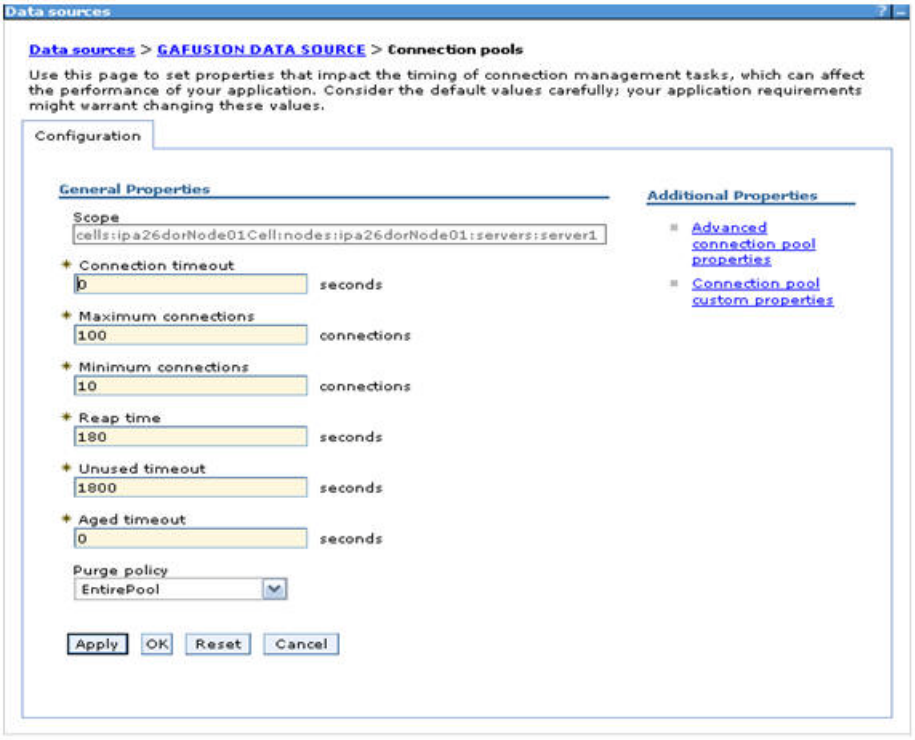
   - User ID is the Oracle user ID created for the respective CONFIG and ATOMIC Schema for the “Information Domain”.
   - Specify the CONFIG database user ID and password information for the jdbc/FICMASTER data source, and specify the ATOMIC database user ID and password information for the ATOMIC schema data source that you created earlier.

4. Click **Apply** and save the details.

7.1.1.4 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.

7.2 Configure Resource Reference in WebLogic Application Server

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

This section includes the following topics:

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 Create Data Source.
- For a RAC Database instance, Gridlink Data Source has to be created. See Create GridLink Data Source.
- When Load Balancing/Fail over is required, Multi Data Source has to be created. See Configure Multi Data Sources.

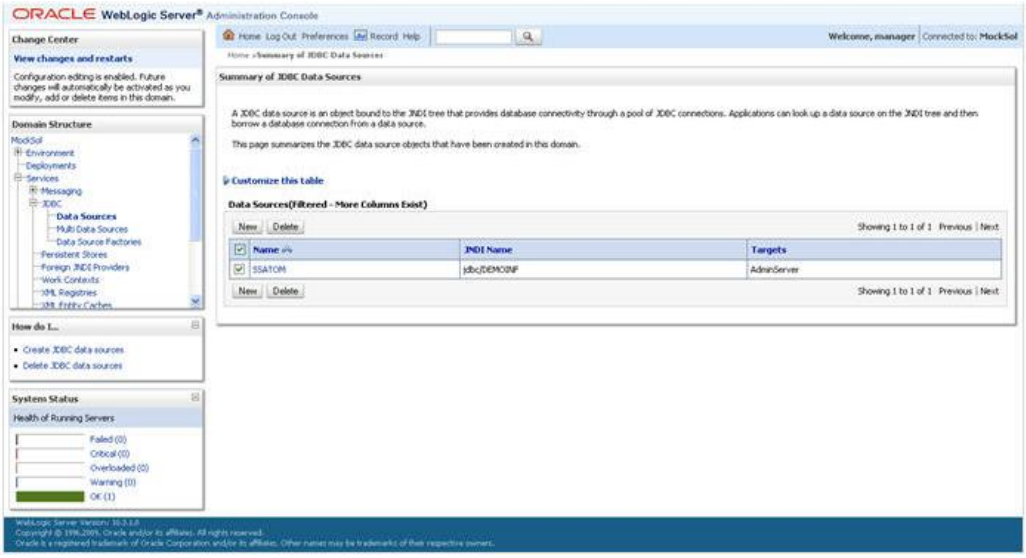
7.2.1.1 Create Data Source

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

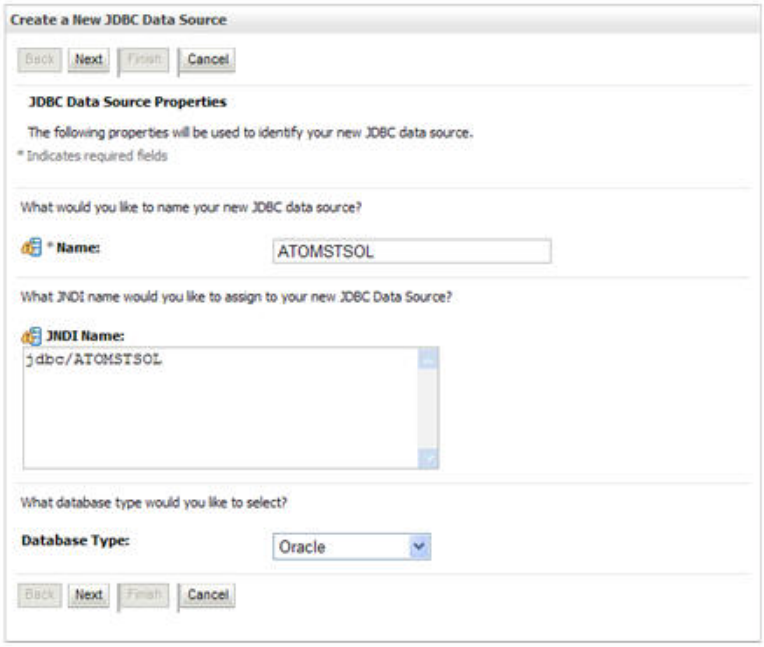
3. From the LHS menu (Domain Structure), click **Services** > **Data Sources**. The *Summary of JDBC Data Sources* window is displayed.



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 **Error! Reference source not found.**or **Error! Reference source not found.**.

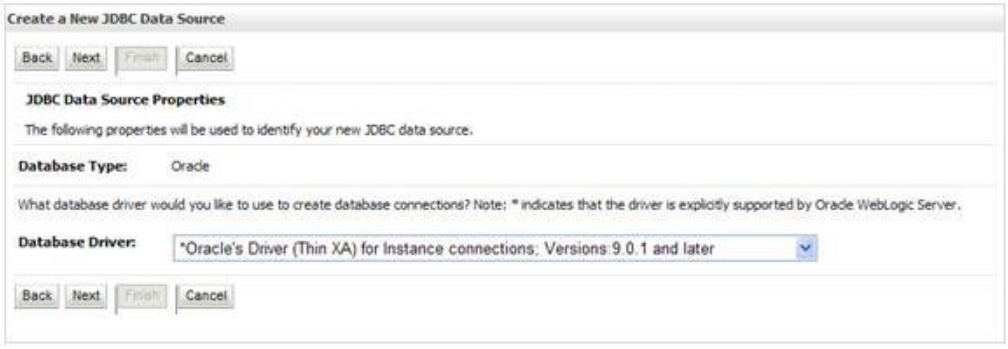


Create a New JDBC Data Source

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

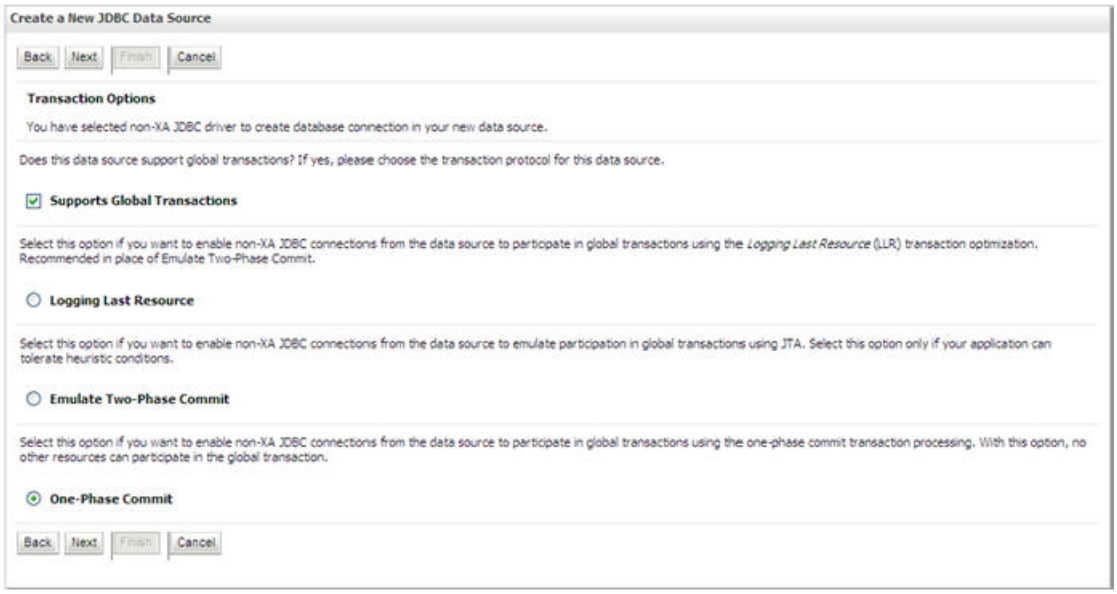
   Ensure the following:

   - 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.



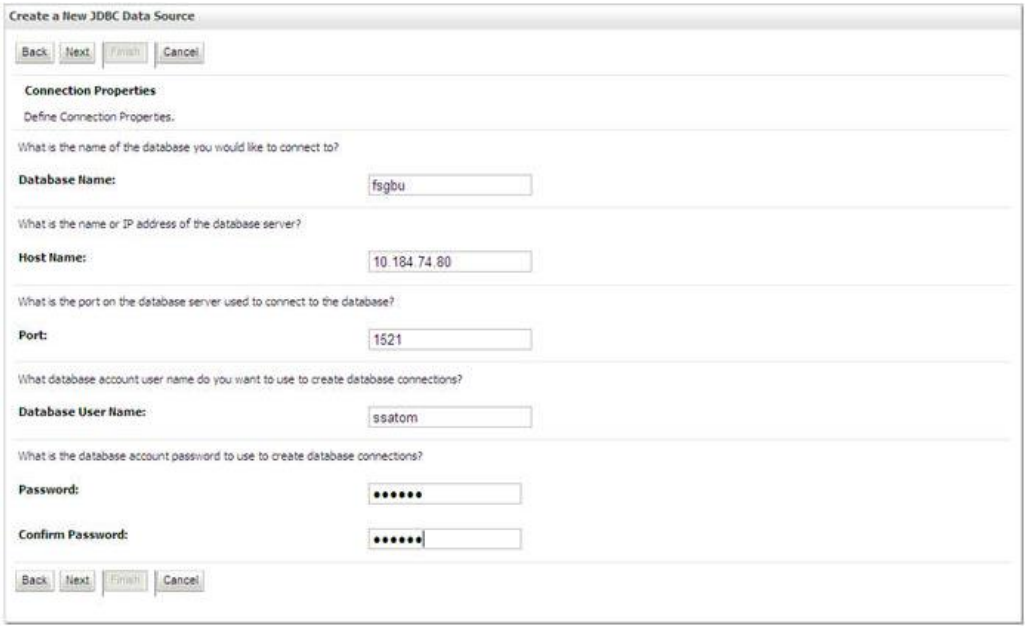
JDBC Data Source Properties

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**.



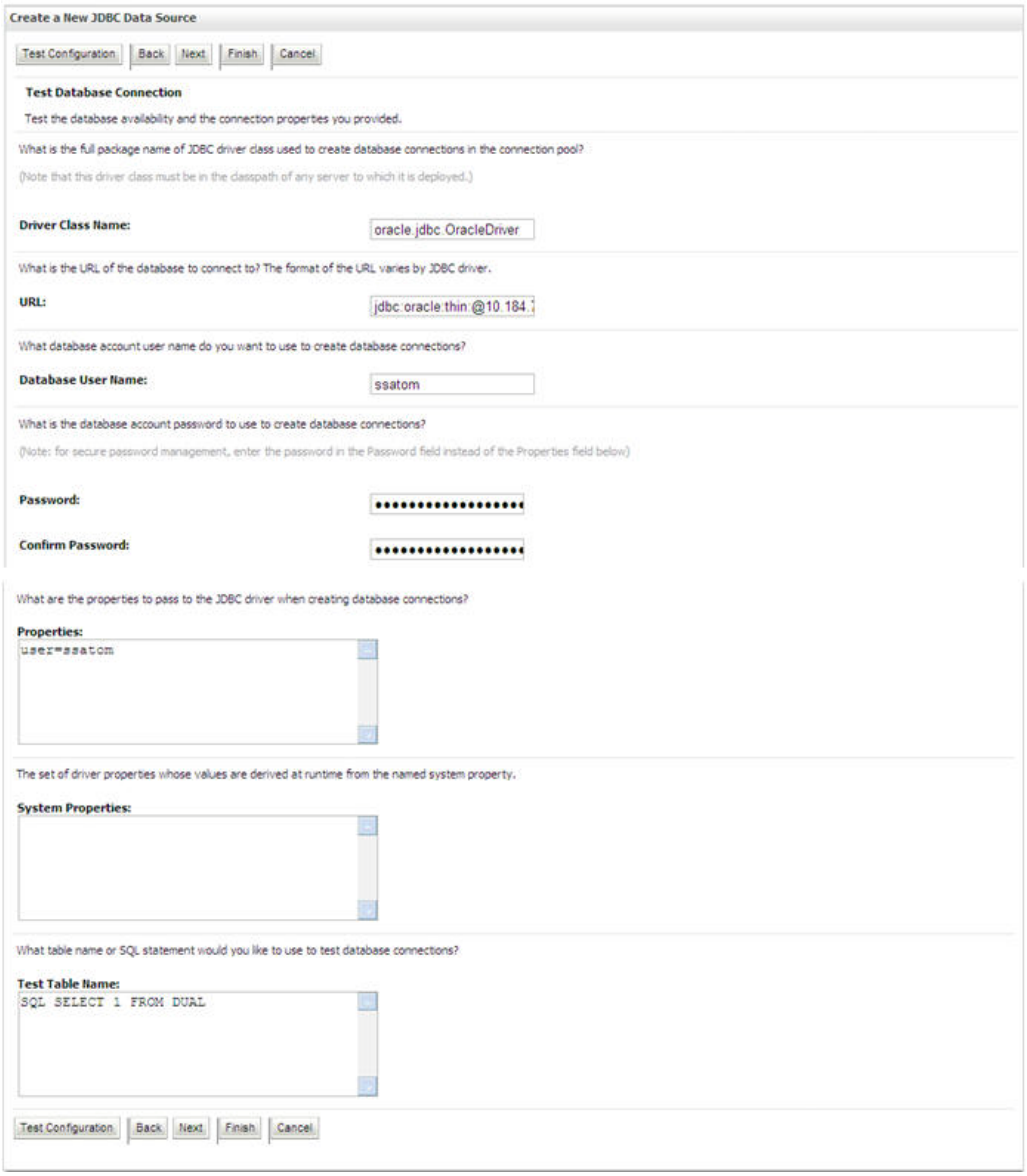
Transaction Options

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.

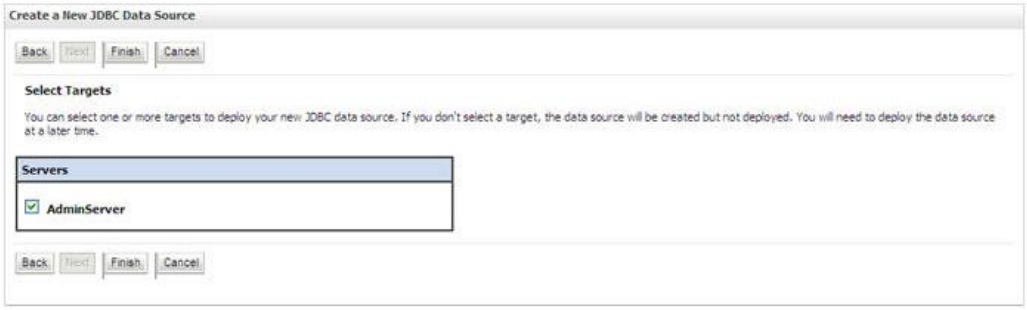
    A confirmation message is displayed stating "Connection test succeeded."

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.

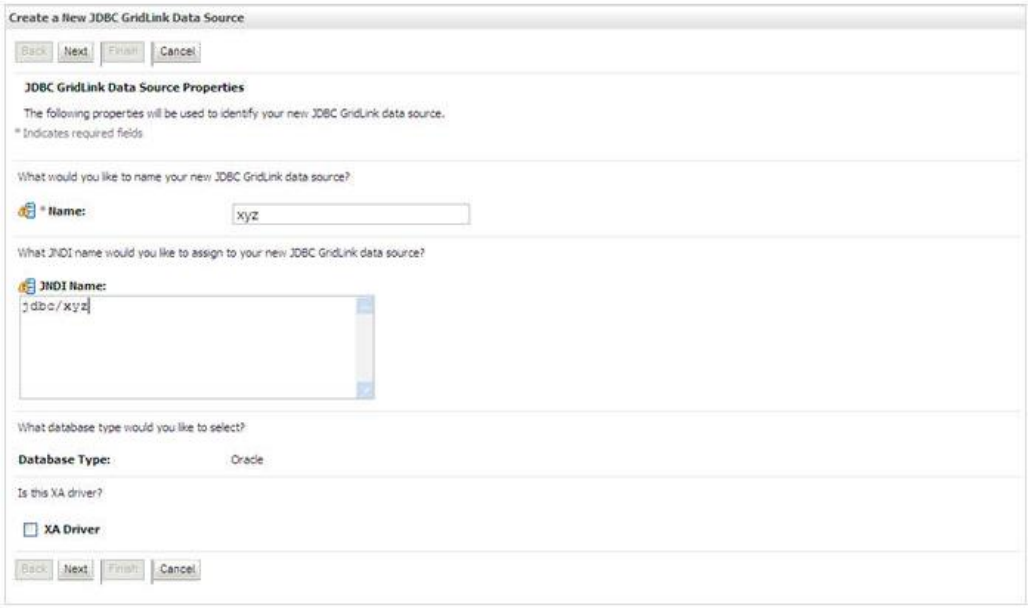


Select Targets

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

7.2.1.2 Create GridLink Data Source

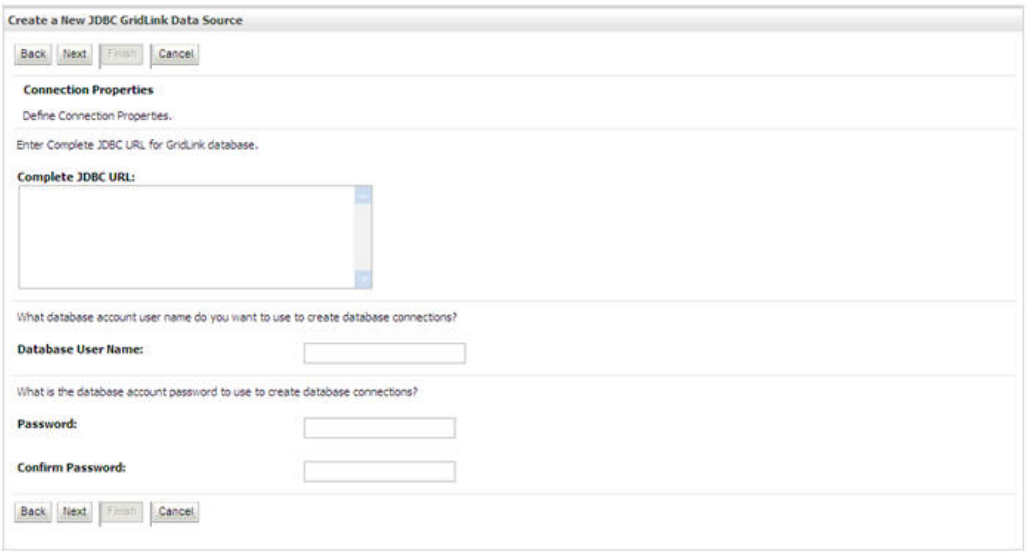
If you have selected the option, **New** > **GridLink Data Source** while creating the "Data Source", you can directly specify the JDBC URL as indicated.



Create a New JDBC GridLinkData Source

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

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



JDBC GridLinkData Source- Connection Properties

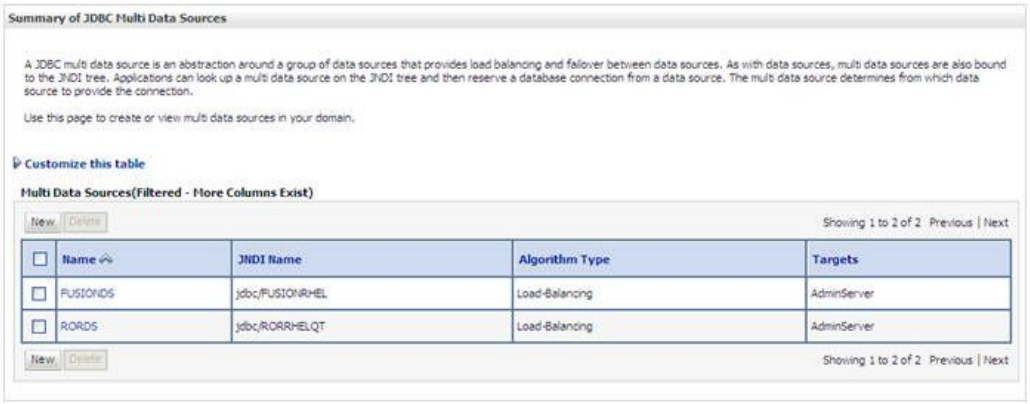
2. Specify **Complete JDBC URL**, **Database User Name**, and **Password**. Click **Finish**. The created "Data Source" is displayed in the list of Data Sources.

7.2.1.3 Configure Multi Data Sources

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

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

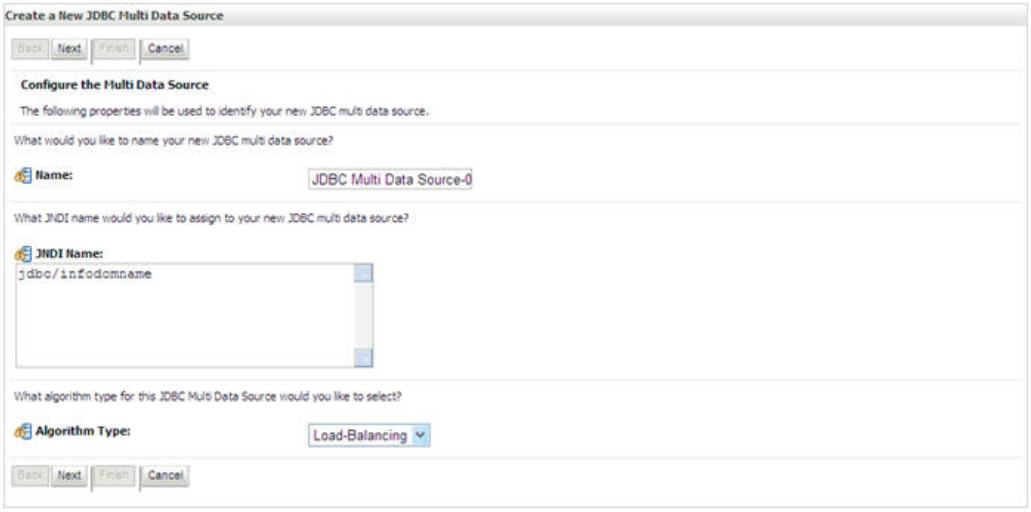
1. Open WebLogic Admin Console in the browser window: `http://<ipaddress>:<administrative console port>/console`. (https if SSL is enabled). The *Login* window is displayed.
2. Login with the "User ID" that has admin rights.
3. In the LHS menu (Domain Structure), select **Services** > **JDBC** > **Multi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



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**.

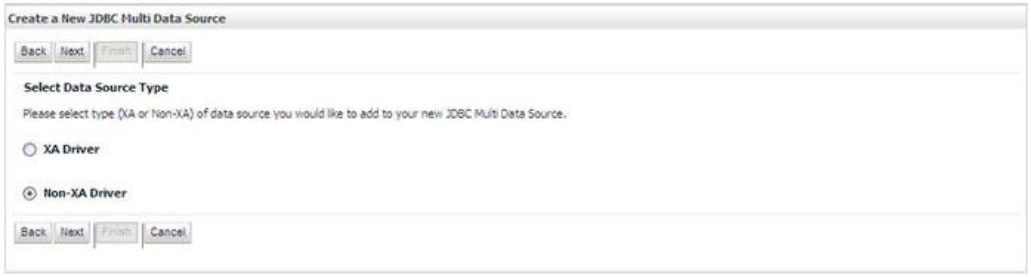
Note:

- 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.

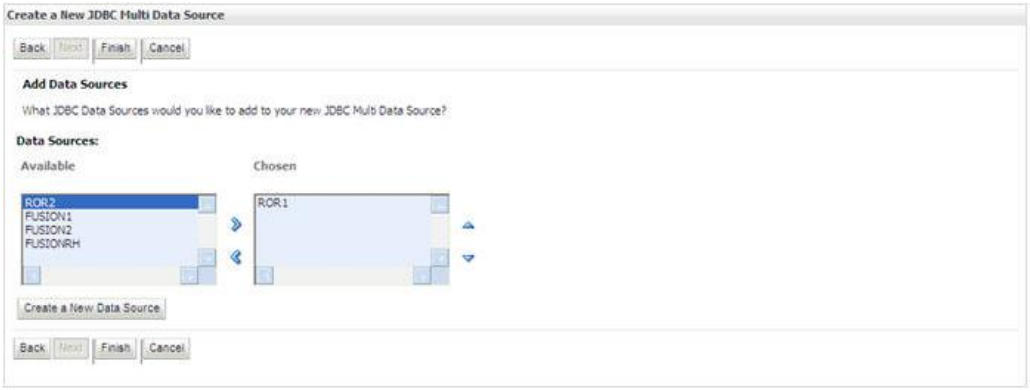
Select Targets

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**.



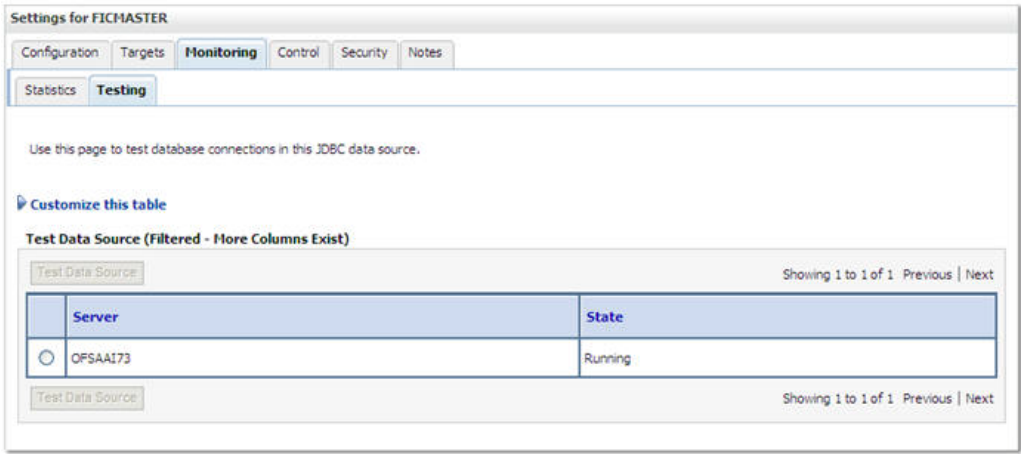
Add Data Sources

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.

7.2.1.4 Advanced Settings for Data Source

1. Click the new Data Source fromt 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.

7.2.1.5 JDBC Connection Pooling

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

1. Click the newly created Data Source $DATA_SOURCE$ and navigate to the path Home >Summary of Services: JDBC >Summary of JDBC Data Sources >JDBC Data Source-<INFODDOM_NAME>

2. Set the values for Initial Capacity to 10, Maximum Capacity to 100, Capacity Increment by 1, Statement Cache Type to LRU, and Statement Cache Size to 10.
3. Click **Save**.

8 Appendix C – Creating and Deploying EAR/WAR File

8.1 Creating and Deploying EAR/WAR File

This appendix includes the following topics:

- Creating EAR/WAR File
- Deploying EAR/WAR File

8.1.1 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` 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.

8.1.2 Deploying EAR/WAR File

The OFSAA Application EAR/ WAR file is generated at `$FIC_WEB_HOME` on the OFSAA Installed server. Locate the `<contextname>.ear/ .war` file for deployment.

This section includes the following topics:

- Deploying WebSphere EAR/WAR Files
- Deploying WebLogic EAR/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 and WebLogic). For more information, refer Clearing Application Cache section.

8.1.2.1 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:

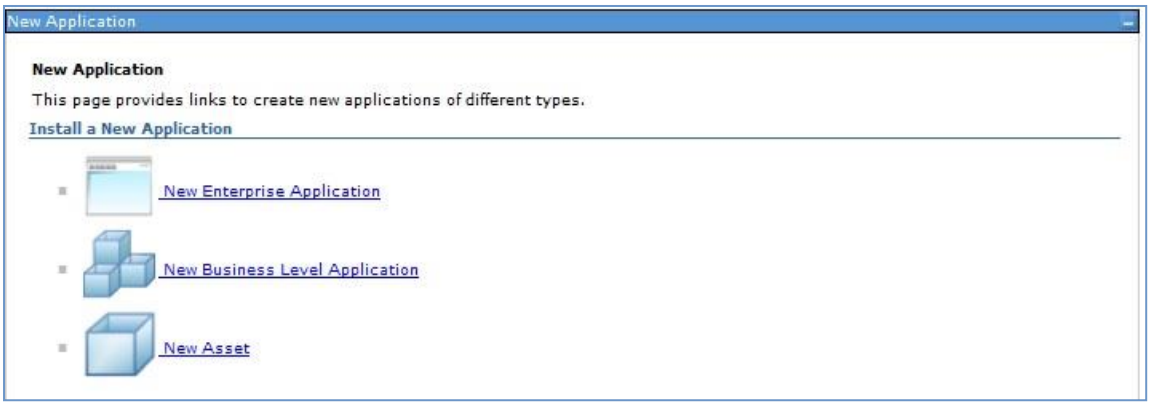
   ```
   ./startServer.sh server1
   ```

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

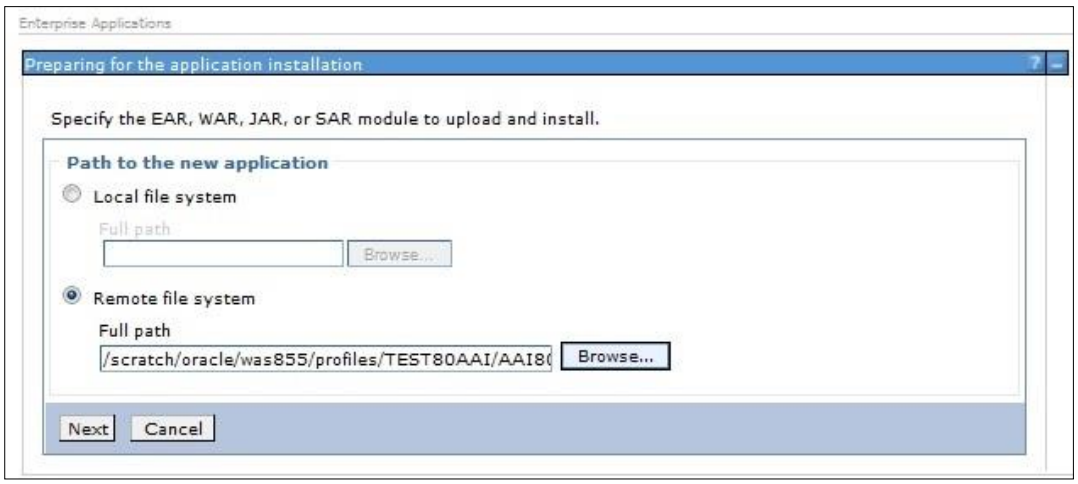
3. Enter the user credentials with admin privileges and click **Log In**.

4. From the LHS menu, select **Applications** and click **New Application**. The *New Application* window is displayed.



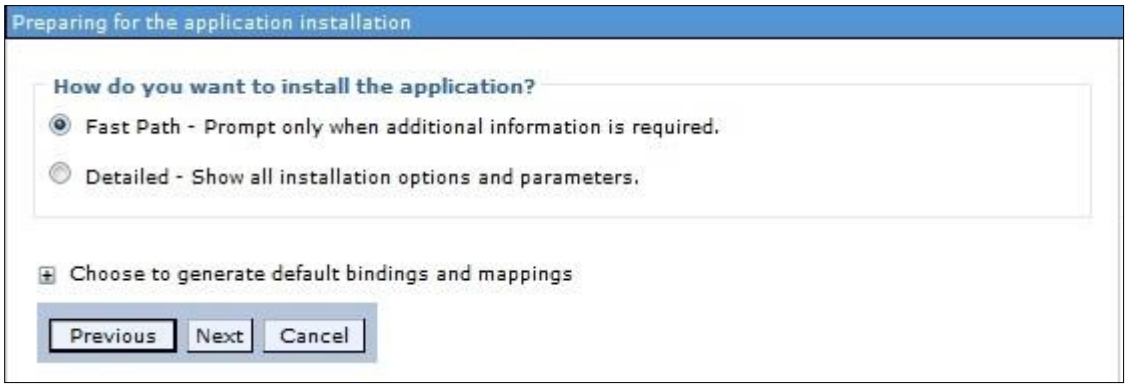
New Application

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



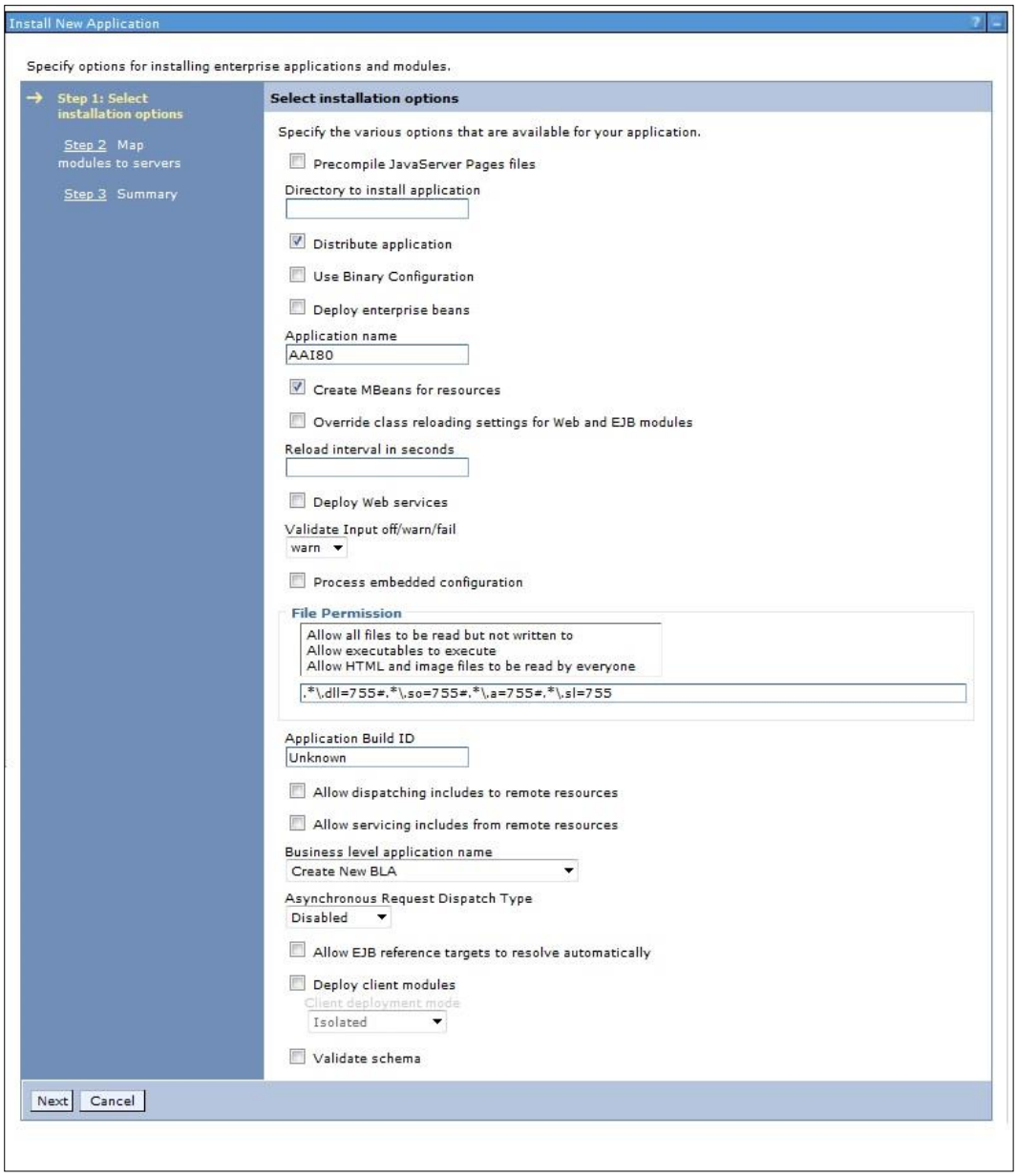
Preparing for the application installation

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.

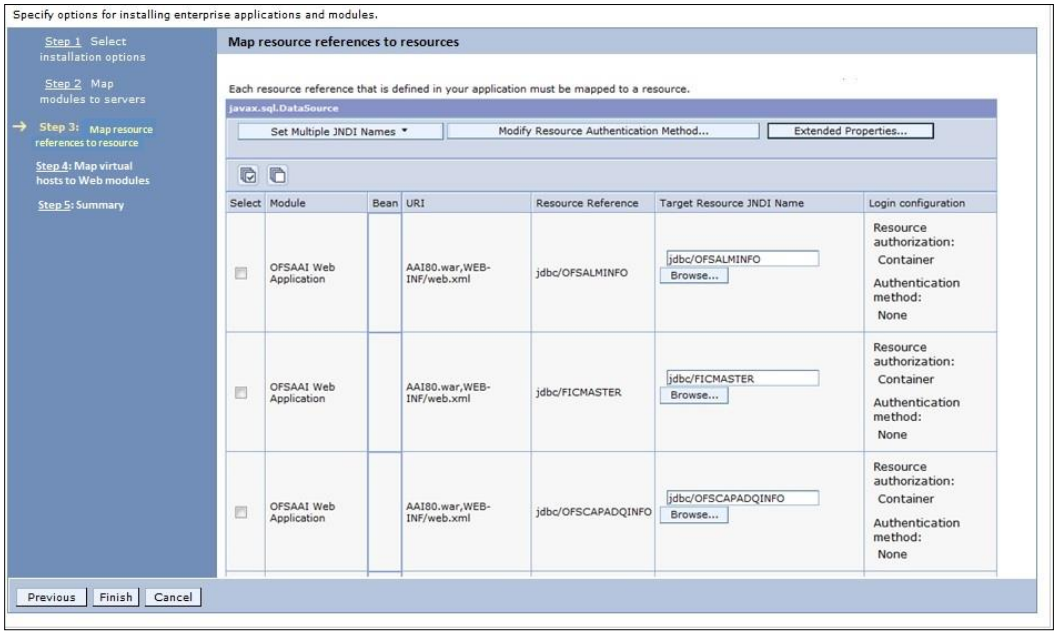


Install New Application

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

Map Modules to Servers

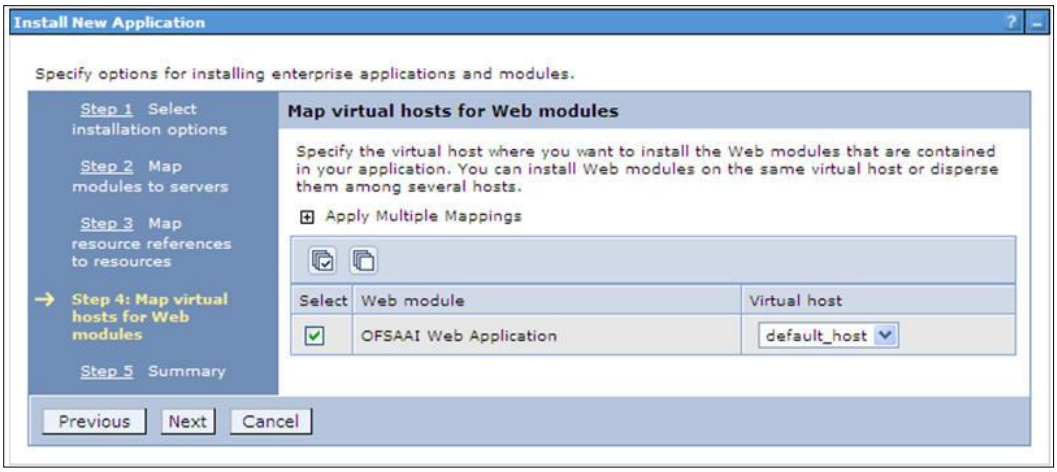
9. Select the **Web Application** and click **Next**. The *Map Resource References to Resources* window is displayed.



Map Resource References to Resources

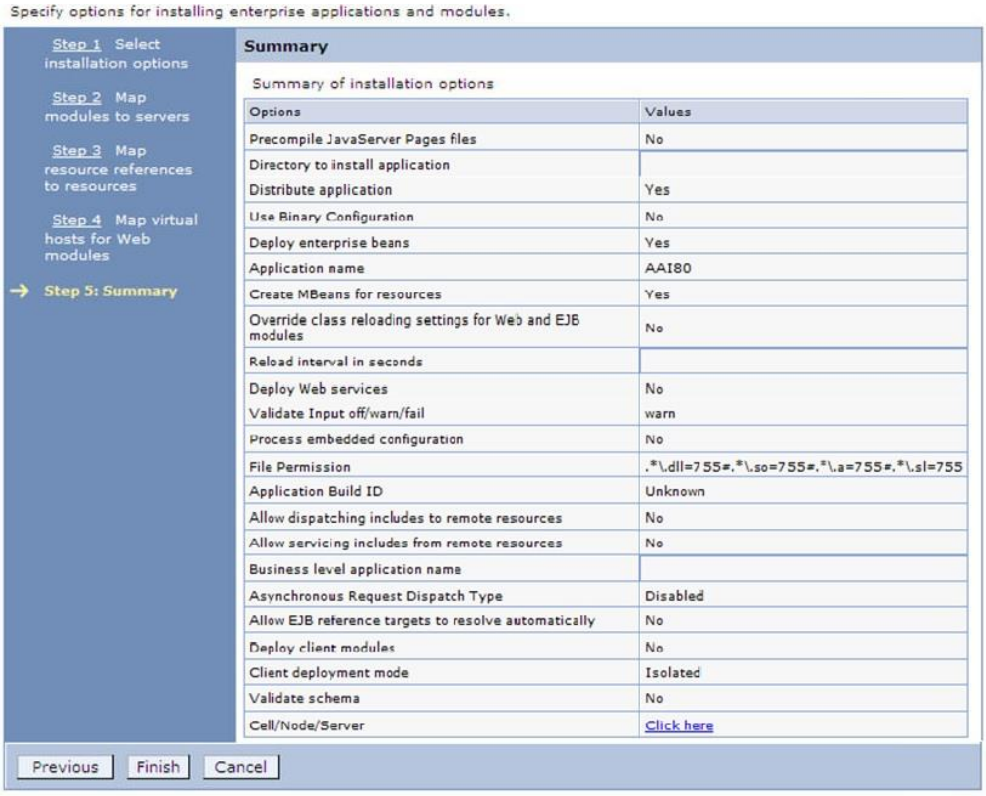
10. Map each resource defined in the application to a resource JNDI name defined earlier.
11. Click **Modify Resource Authentication Method** and specify the authentication method created earlier.

    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.



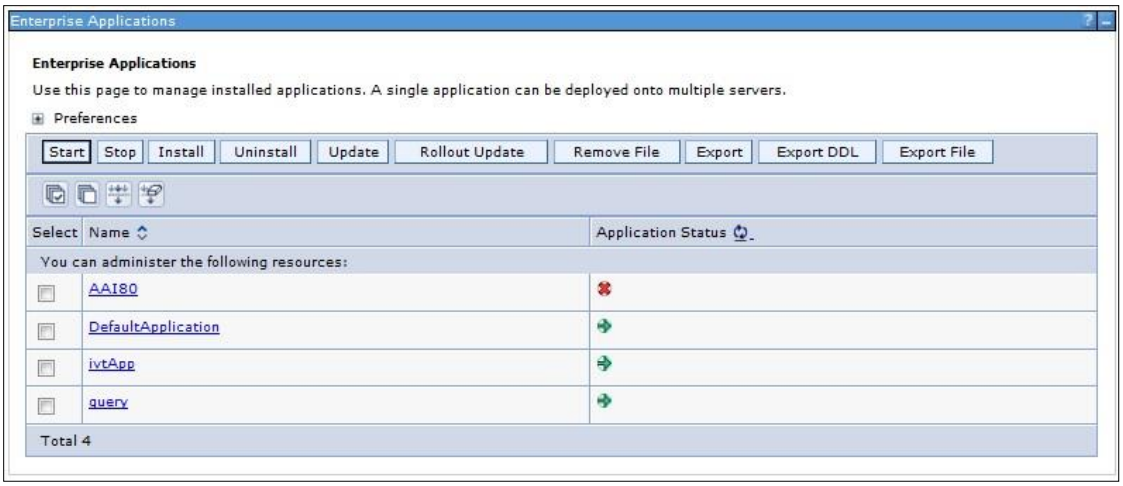
Summary

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.

Start the application

To start the application, follow these steps:

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.

8.1.2.2 Deploying EAR / WAR File on WebLogic

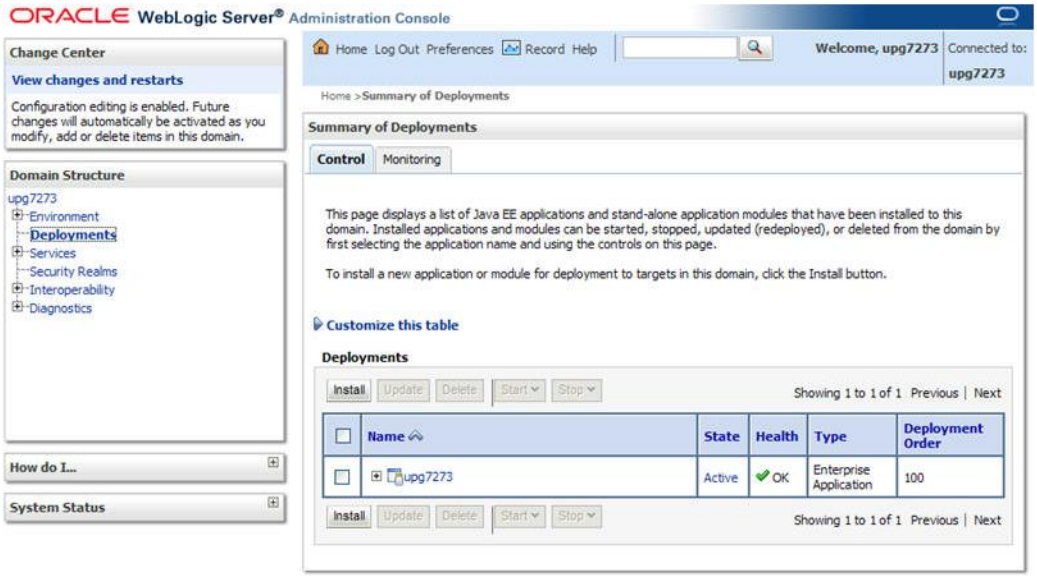
Following are the steps for deploying Infrastructure application that would be created during installation:

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.



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**.

Explode 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/<conte
xt_ name>.ear

7. Copy <$FIC_WEB_HOME/<context_name>.war file to <WEBLOGIC_INSTALL_
DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/<conte
xt_ name>.ear/<context_name>.war.

8. Explode the <context_name>.war file by executing the following command to get the directory structure:

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

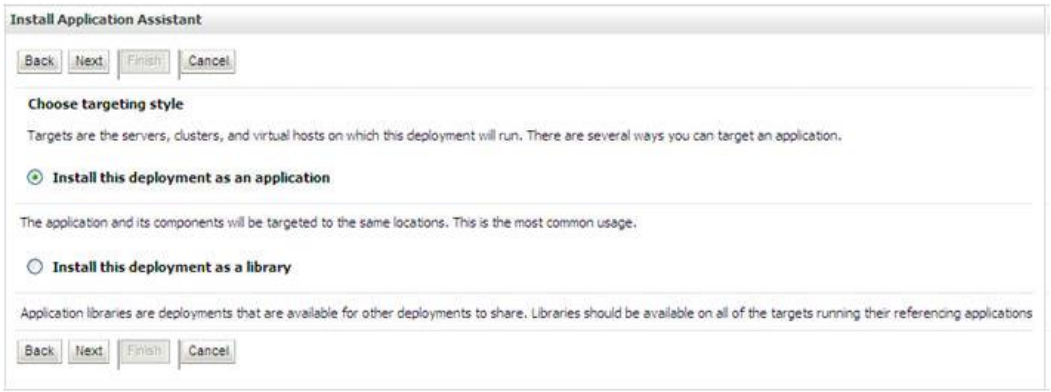
Install Application

To install Application:

1. Open the Install Application Assistant.

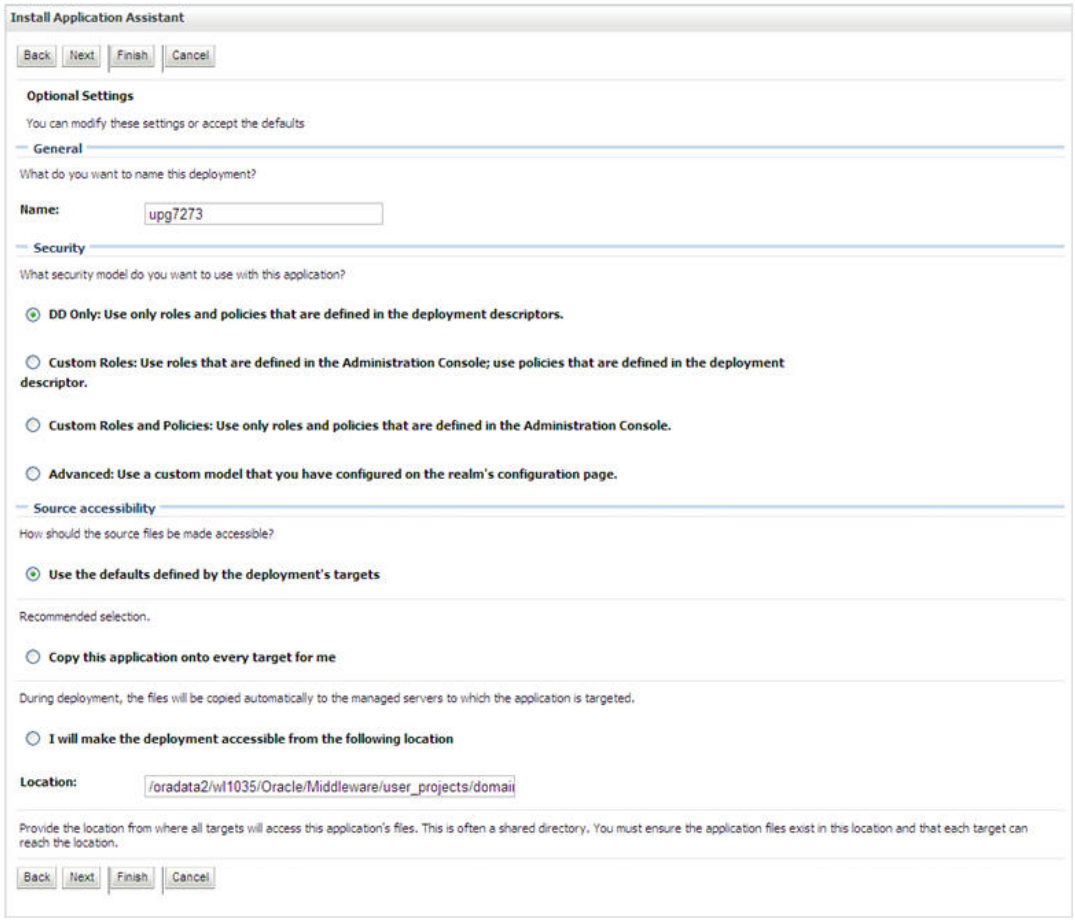
Install Application Assistant

2. Click **Next**.



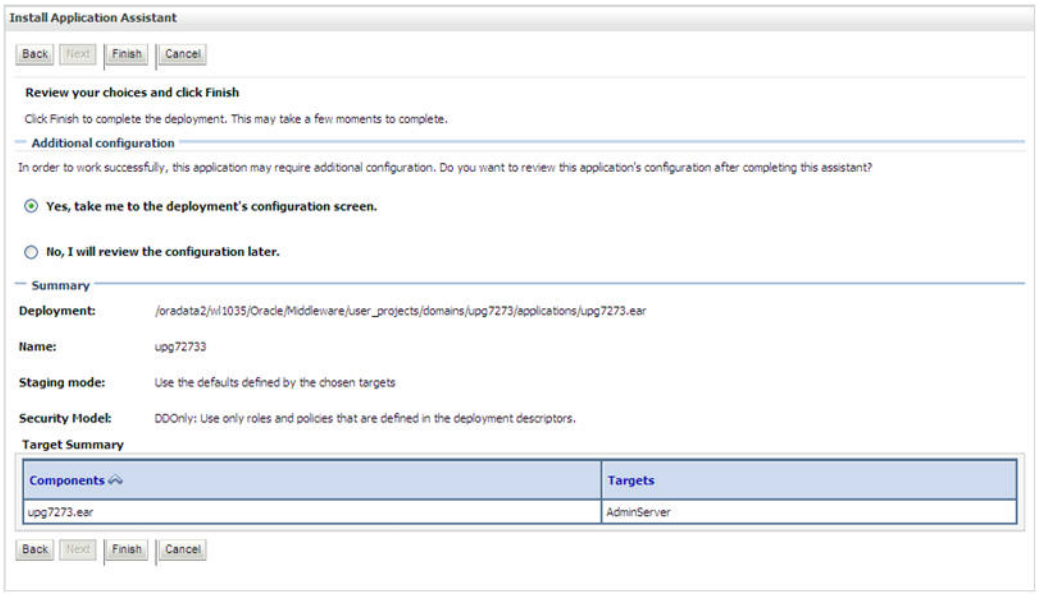
Install Application Assistant

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.



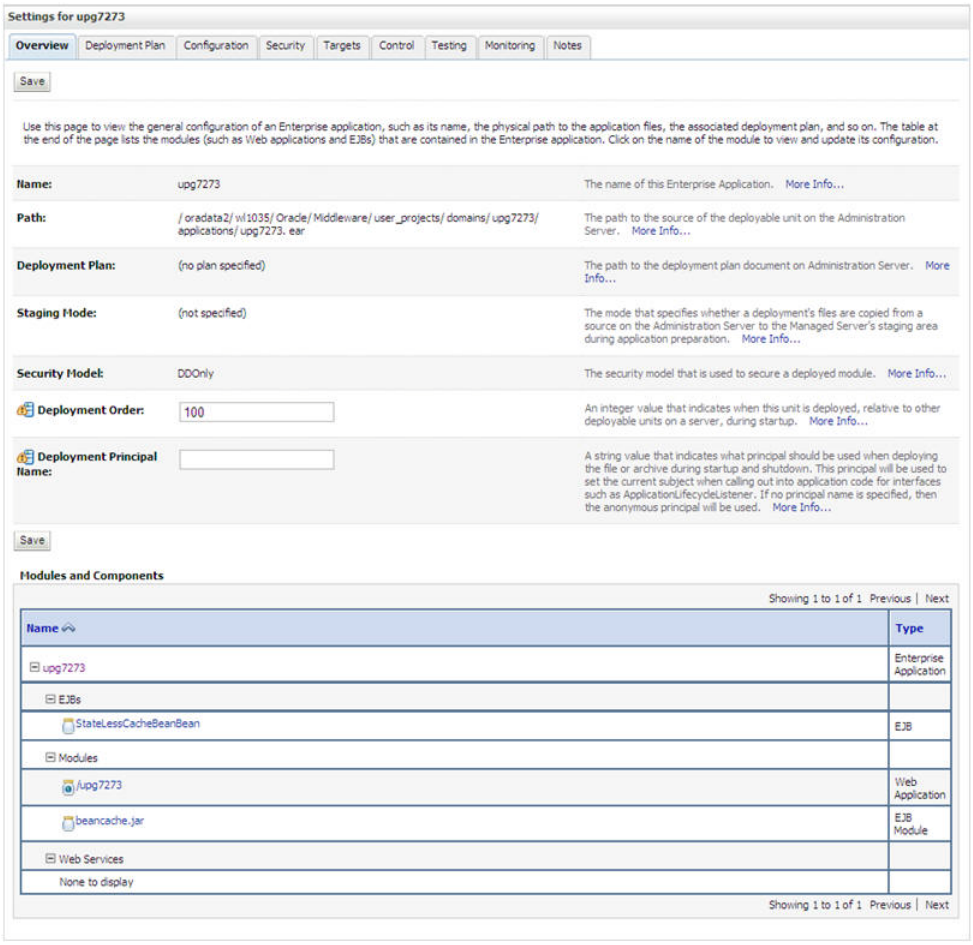
Optional Settings

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.



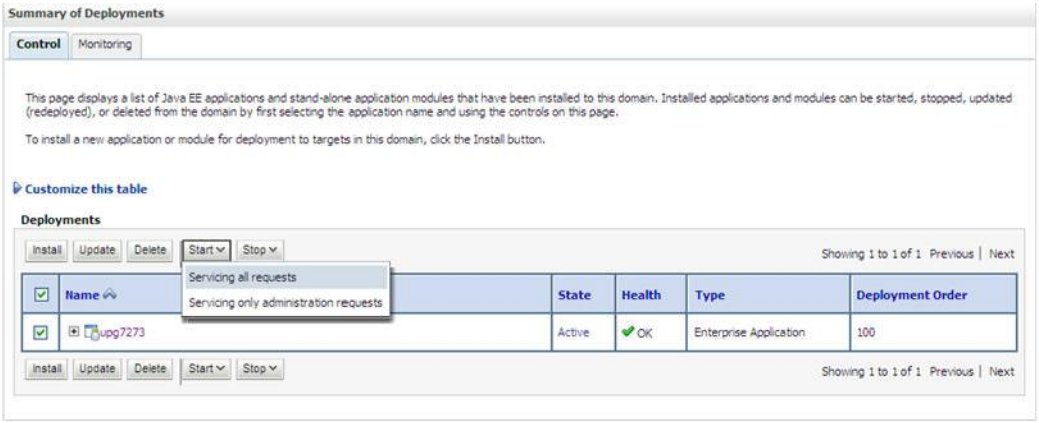
Deployment Summary

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



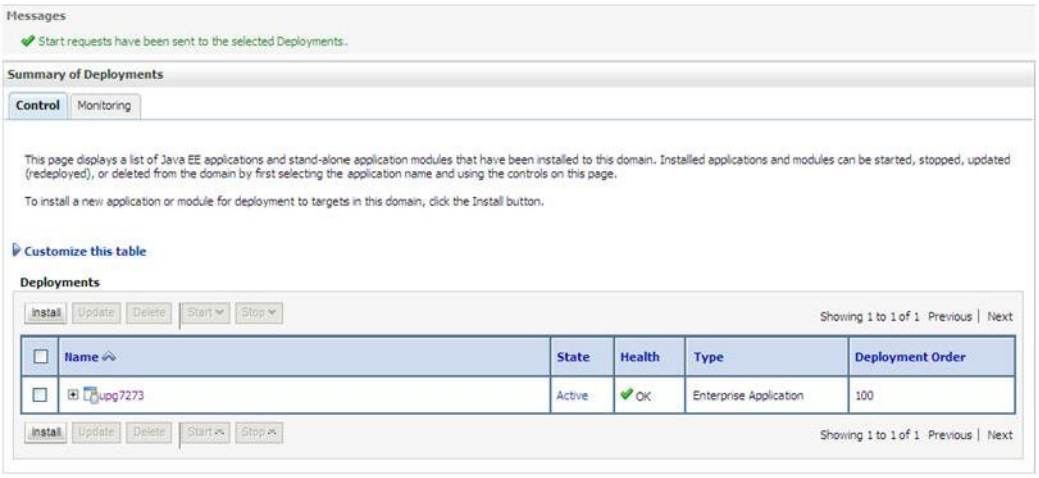
Settings for <Deployment Name>

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 Appendix D - Starting and Stopping Infrastructure Services

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

9.1 Starting Infrastructure

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.

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.

NOTE: If you install OFS DI Pack alone in a setup and start FICSERVER with `nohup` command, ignore the below error in the `nohup` log. It will get resolved after you finish model upload for other applications.

```
java.io.FileNotFoundException:
@
/scratch/ofsaaapp/FTPSHARE/OFSAAAIINFO/erwin/fipxml/OFSAAAIINFO_DATABASE.XML
(No such file or directory
```

9.2 Starting Web Application Servers

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

Start up Option	Description
Starting WebSphere profile	On the machine in which Web sphere is installed, navigate to `[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`.

9.3 Stopping Infrastructure

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
   ```

10 Appendix E – Accessing OFSAA Application

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

10.1 Access the OFSAA Application

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

   <scheme>://<IP address/ hostname>:<port>/<context-name>/login.jsp For example, https://111.222.333.444:5555/ofsaa/login.jsp

   The OFSAA login screen is displayed.

2. With installation of every OFSAA Application Pack, there are two seeded user profiles configured in the system:

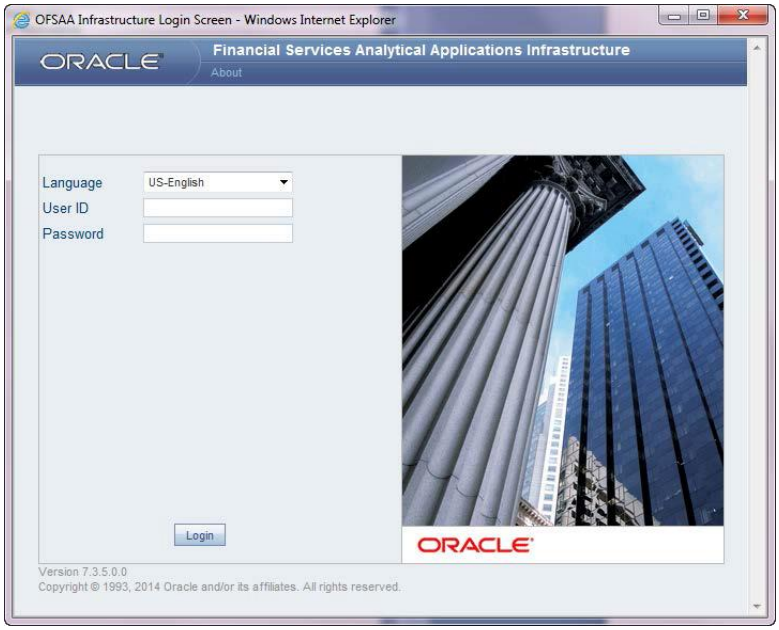
   "SYSADMN - System Administrator

   "SYSAUTH - System Authorizer

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.

10.2 OFSAAI Login

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



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

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

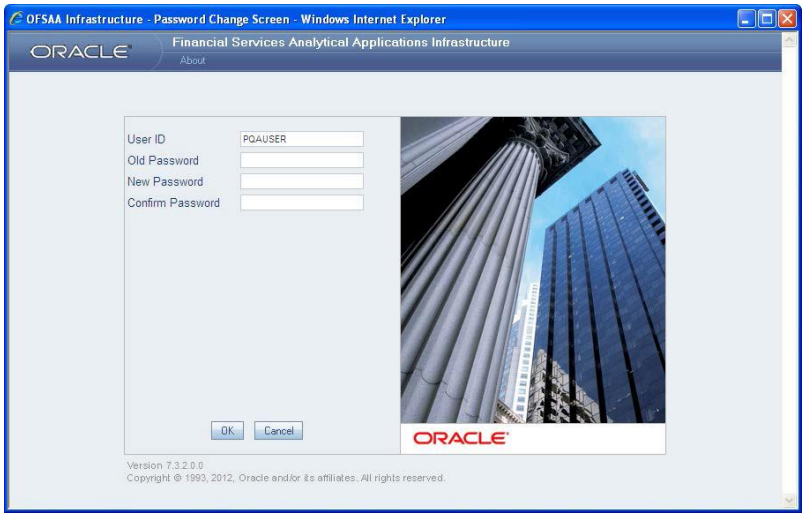


Figure 39 User ID

In the *Change Password* window, enter a new password, confirm it and click **OK** to view the Splash window. 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.

11 Appendix F - Post Deployment Configuration

This chapter includes the following topics:

11.1 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**.

11.2 Creating Users

This section explains steps to create 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.

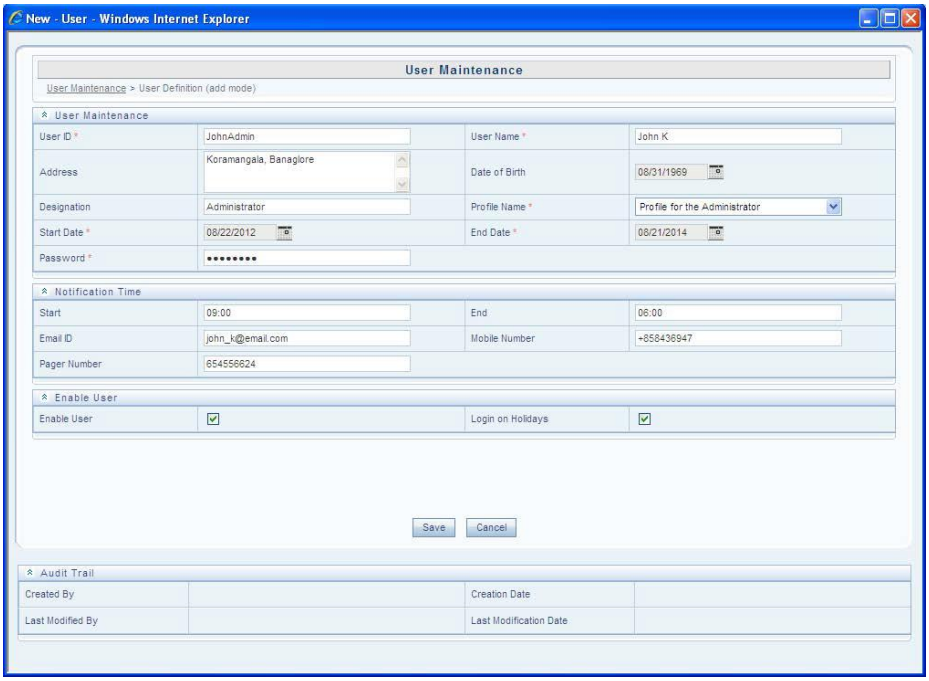
The *User Maintenance* window displays user details such as User ID, Name, Profile Name, Start, and End dates. You can also identify the user status if enabled to access the Infrastructure system.

You can also make use of Search and Pagination options to search for a specific user or view list of existing users within the system.

11.3 Adding User

To add a user definition in the *User Maintenance* window:

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* window is displayed.



New User

1. Enter the user details as tabulated.

Field	Description
Fields marked in red asterisk (*) are mandatory.	
User ID	Enter a unique user id. Ensure that the User ID does not contain any special characters or spaces except “.”, “@”, “-”, and “_”.
User Name	Enter the user name. The user name specified here will be displayed on the Infrastructure splash window. Ensure that the User Name does not contain any special characters 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. 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* window). 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. A deselected checkbox denies access to the user.
Login on Holidays	Select the checkbox to allow users to access the system on holidays. A deselected checkbox denies access to the user

	on holidays.

2. 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.

11.4 Mapping the User to User Group

User Group names seeded as part of the media pack:

1. To access the **DIH** application the above created users can be mapped to the following user groups.
   - DIH Admin – Data Integration Hub Admin Group
   - DIH Data Mapping – Data Integration Hub Data Mapping Group
   - DIH Execution - Data Integration Hub Data execution Group

2. To access the **DRM** application the above created users can be mapped to the following user groups.
   - DRM Admin – Data Relationship Management Interface Admin Group
   - DRM Analyst – Data Relationship Management Interface Data Analyst Group
   - DIH Operator - Data Relationship Management Interface Data Operator Group

3. To access the **FCUBS** application the above created users can be mapped to the following user groups.
   - FCUBS Admin – Flexcube Universal Banking System Admin Group
   - FCUBS Analyst – Flexcube Universal Banking System Analyst Group
   - FCUBS Operator - Flexcube Universal Banking System Operator Group

4. To access the **OBP** application the above created users can be mapped to the following user groups.
   - OBP Admin – Oracle Banking Platform Interface Admin Group
   - OBP Analyst – Oracle Banking Platform Interface Analyst Group
   - OBP Operator - Oracle Banking Platform Interface Operator Group

5. To access the **FAH** application the above created users can be mapped to the following user groups.
   - FAH Admin - Fusion Accounting Hub Interface Admin Group
   - FAH Analyst – Fusion Accounting Hub Interface Analyst Group
   - FAH Operator - Fusion Accounting Hub Interface Operator Group

Note: To get the Connector Deployment Menu of any of the interface connectors the user should be mapped to respective admin groups of each Interface as well as DIH Admin.

11.5 Post Login to DIH

Login to OFSAAI, the settings is changed according to ODI setup. It is self explanatory.

ADI refresh needs to be clicked so that ADI can appear under OFSAA Data Interface page.

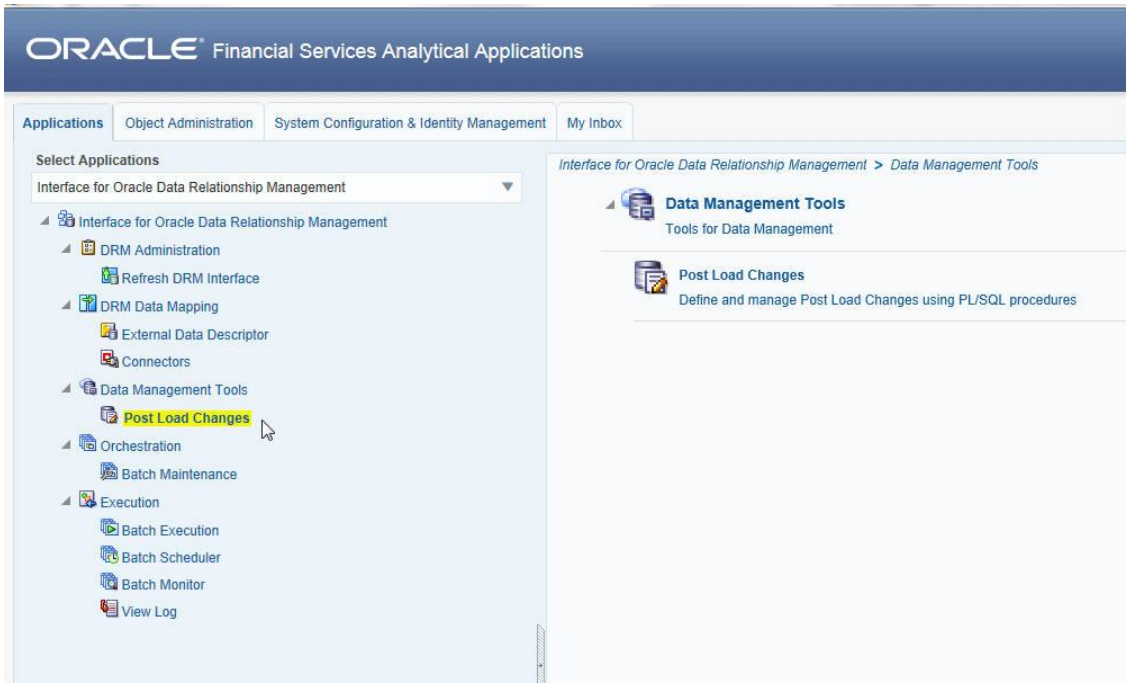
Note: Before clicking on ADI refresh, change the browser settings to increase timeout setting (if required). Sometimes on incremental ADI refresh for big modesl such as FSDF, it might take time. Hence the final popup message does not appear if the ADI refresh takes more than browser timeout setting.

Target Refresh has to be done post ADI refresh.

11.6 Saving Data Transformations in Post Load Changes

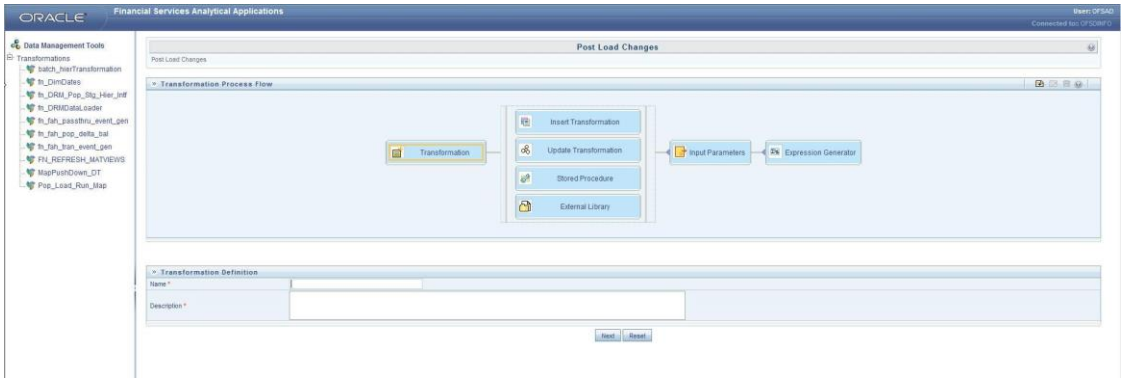
Follow the below steps to save data transformations in post-load changes:

1. Login to AAI user interface.
2. Select the Interface for Data Relationship Management Application or Interface for Fusion Accounting Hub Application (only if you have enabled these packs).
3. Navigate to Data Management Tools, and click **Post Load Changes**

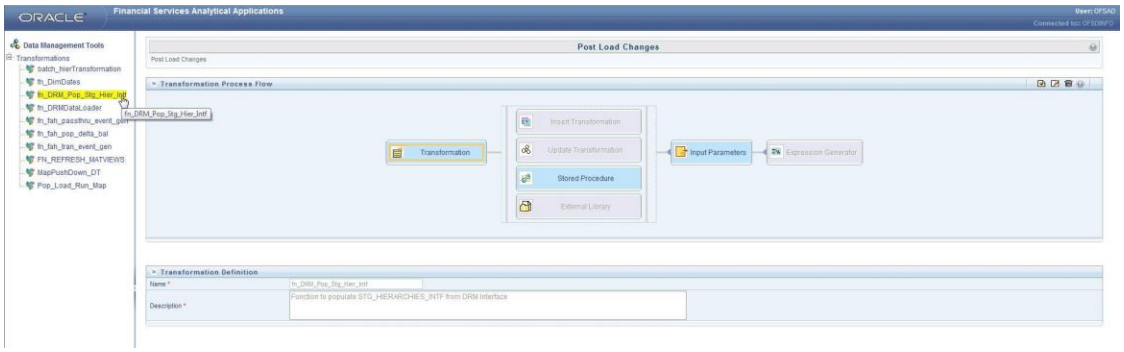


The list of DTs which are supposed to be saved are:

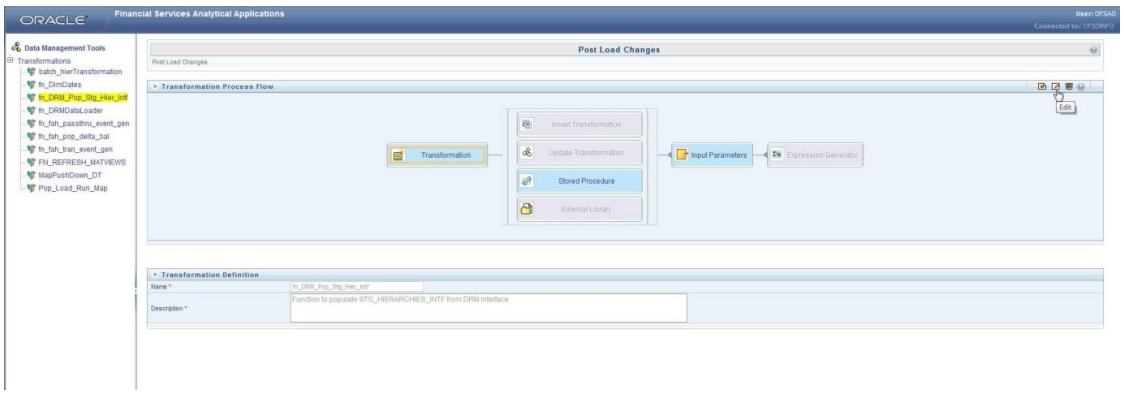
- fn_DRM_Pop_Stg_Hier_Intf
- fn_fah_tran_event_gen
- fn_fah_passthru_event_gen
- fn_fah_pop_delta_bal



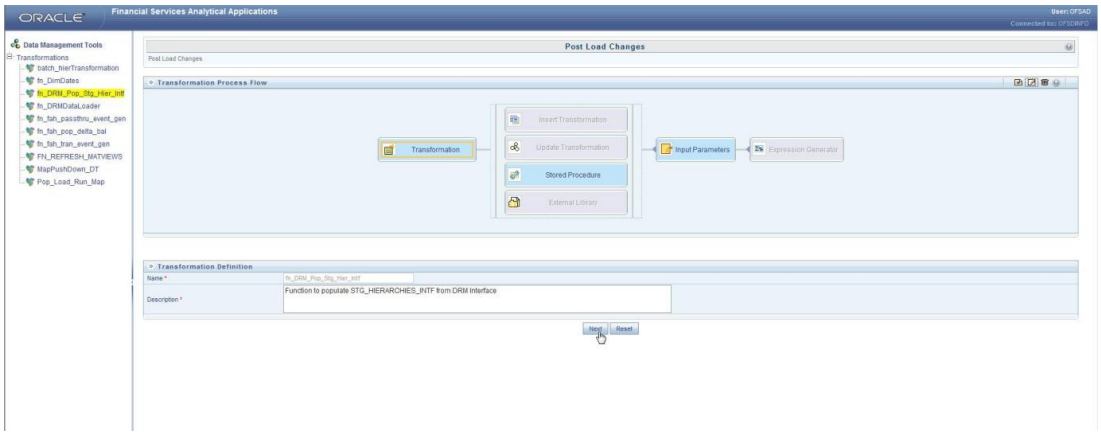
4. Select the **DT Name**



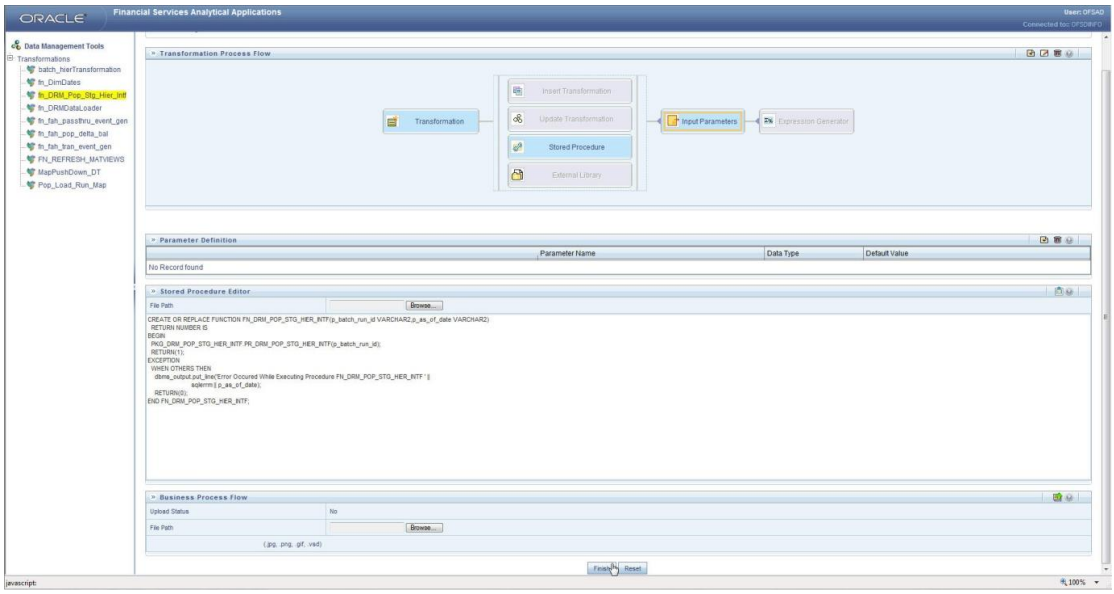
5. Click **Edit**



6. Click **Next**



7. Click **Finish**



8. Save all the four DTs similarly.

11.7 Deploying the Connectors

This section details information regarding deployment of the connectors DRM, FCUBS, OBP and FAH. Refer to the User Manual of the respective connectors for more details.

This section details information regarding deployment of the connectors DRM, FCUBS, OBP and FAH. Refer to the User Manual of the respective connectors for more details.

Follow the below steps to deploy connectors:

1. Complete the prerequisites of the respective application
2. Navigate to the respective application interface of the connector.
3. Click **<Connector Name> Administration**
4. Refresh **<Connector Name> Interface**
5. Select **Source Version** from the drop down menu.
6. Click **Deploy Selected Version**

Below are the available source versions of connectors

- FCUBS: 12.0.3.0
- OBP: 2.3.0.0 and 2.4.0.0
- DRM: 11.1.2.3
- FAH: 9.2.0.0

Refer to the DRM/ FAH/ OBP/ FCUBS User Guide in OTN documentation Library.

for detailed information for the prerequisites and any of the steps mentioned above.

11.8 Undeploying the Connectors

Follow the below steps to undeploy the connectors:

1. Navigate to the respective application interface of the connector.
2. Click **<Connector Name> Administration**
3. Refresh **<Connector Name> Interface**
4. Click Un**Deploy All**

For details refer to the DRM/ FAH/ OBP/ FCUBS User Guide in OTN documentation Library.

12 Appendix G – OFSAA Landing Page

12.1 Installation Checklist

Before starting on the OFSAAI Installation Kit, ensure that the following pre-installation activities checklist is completed successfully. It is recommended to take a print out of the checklist and follow the checklist step by step.

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

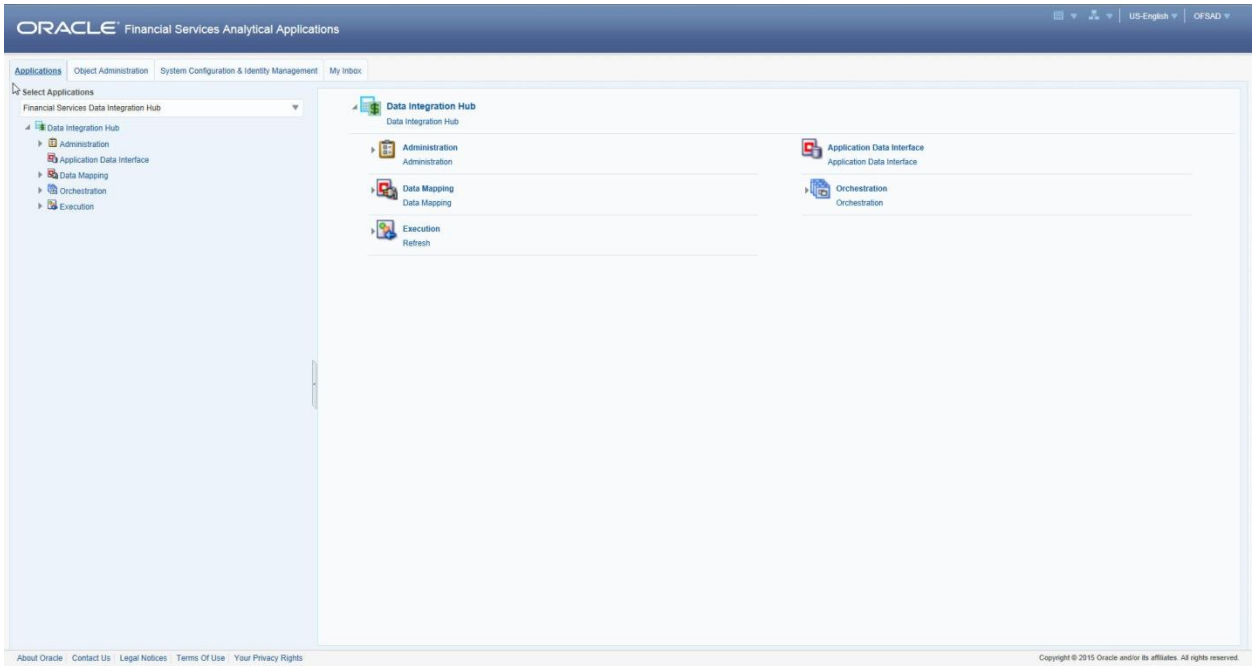
Table 1. Installation Checklist

Step No.	Task	Done
General		
1	Check the OFSDI 8.0.1.0.0 Release Notes document for any additional steps to be performed for installation on an existing OFS Behavior Detection Pack. **Note**: For more details, contact Oracle support.	☐
OFS DI Application 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.	☐
OFS DI Application Pack Post Installation		
3	Perform post-installation steps.	☐

12.2 OFSDIH Landing Page

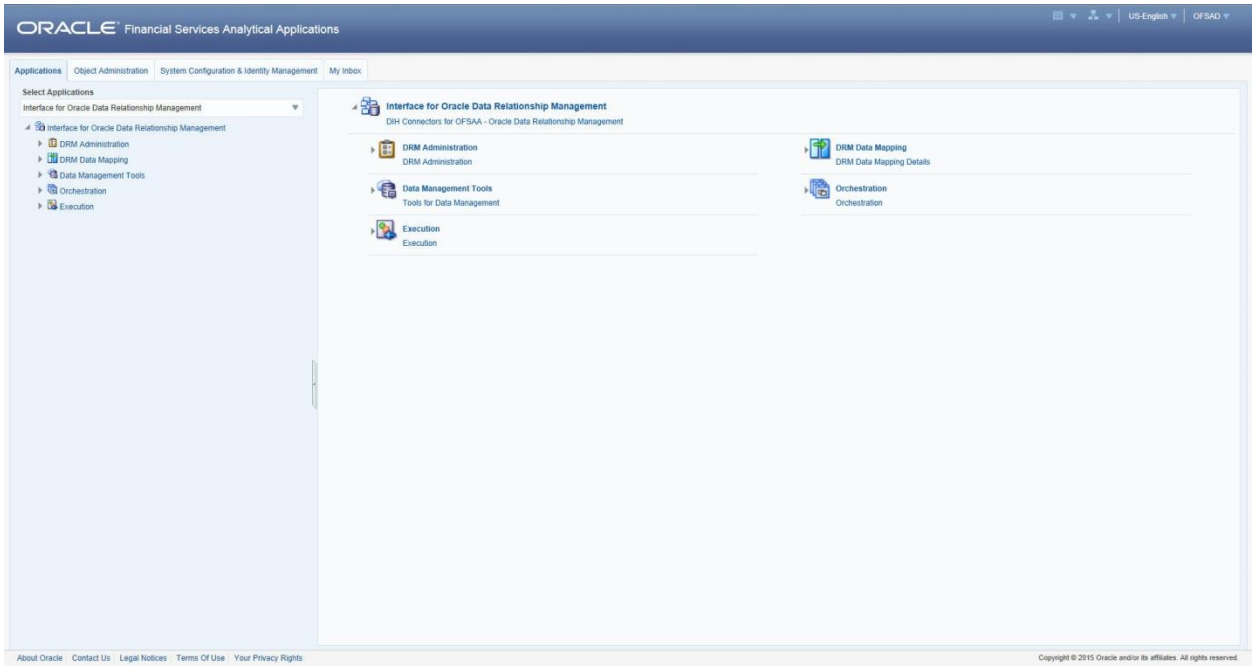
The landing page of Data Integration Pack Applications is as follows:

From the **Applications** drop down select **Data Integration Hub**. The landing page is displayed in the below figure.



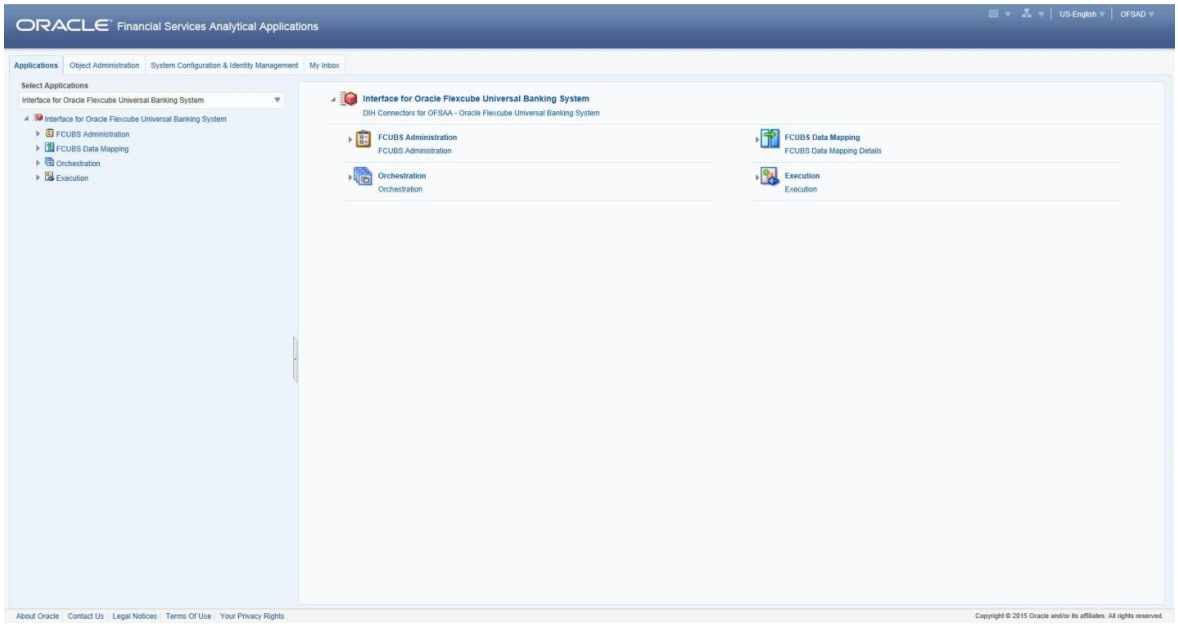
DIH Landing Page

From the **Applications** drop down select **Interface for Oracle Data Relationship Management.** The landing page is displayed in the below figure.



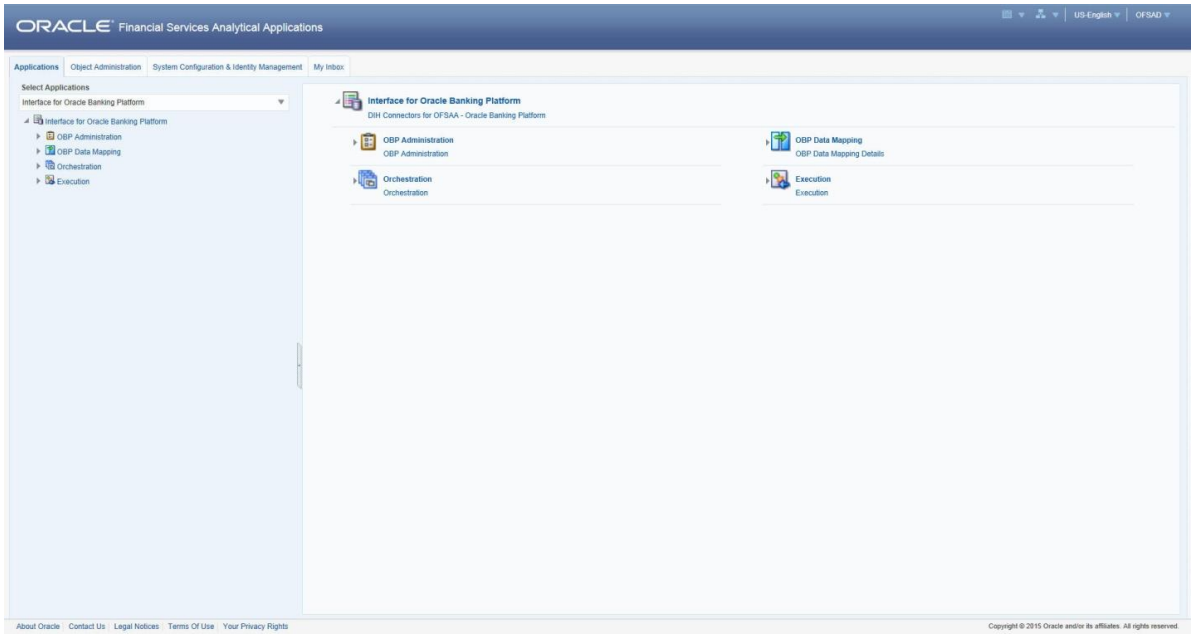
DRM Interface Landing Page

From the **Applications** drop down select **Interface for Oracle Flexcube Universal Banking System**. The landing page is displayed in the below figure.



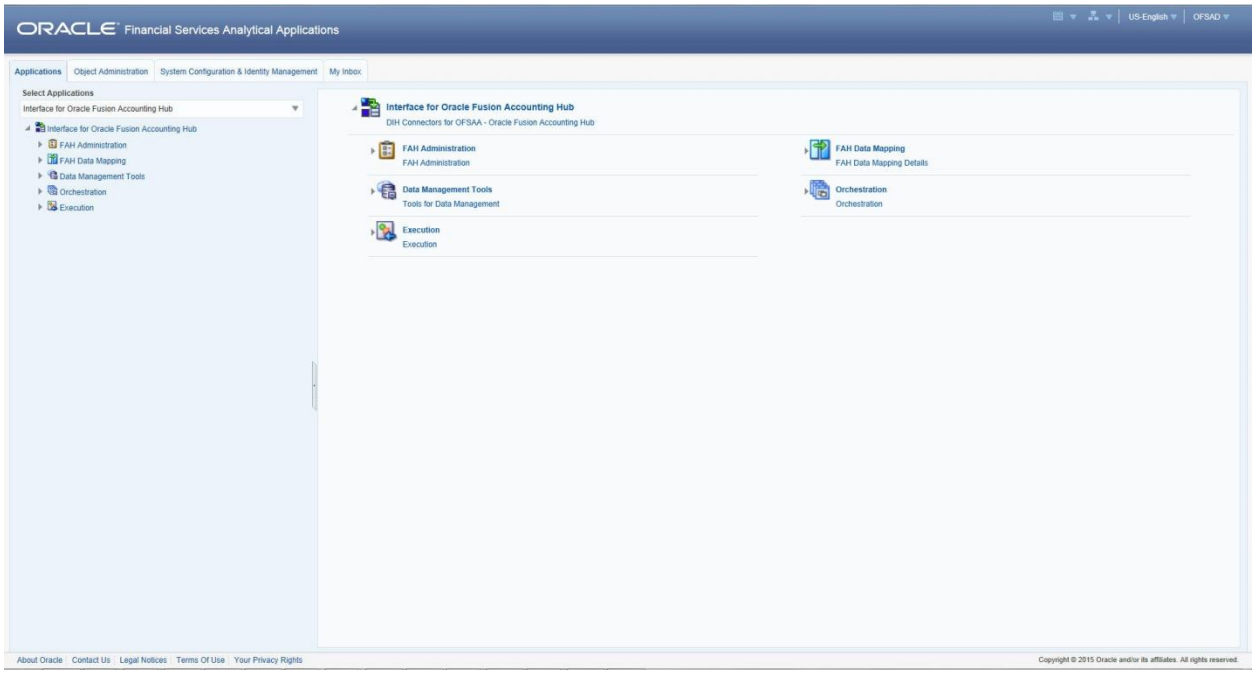
FCUBS Interface Landing Page

From the **Applications** drop down select **Interface for Oracle Banking Platform**. The landing page is displayed in the below figure.



OBP Interface Landing Page

From the **Applications** drop down select **Interface for Oracle Fusion Accounting Hub**. The landing page is displayed in the below figure.



FAH Interface Landing Page

12.3 Enabling a Product within an Application

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 and expand** *Financial Services Analytical Applications Infrastructure >> Administration and Configuration >> System Configuration.*
3. Click **Manage OFSAA Product License(s)**
4. The **Manage OFSAA Product License(s)** page is displayed as below.

This page includes the following sections:

- INSTALLED APPLICATION PACKS
- PRODUCTS IN THE APPLICATION PACK

5. The following fields are displayed in the INSTALLED APPLICATION PACKS section:

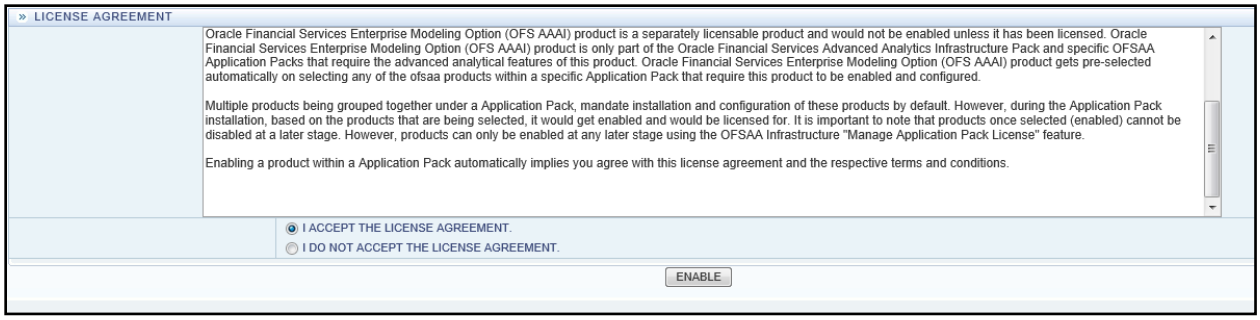
Field	Description
Application Pack ID	Displays a unique Application Pack ID related to the application pack. Select the appropriate Pack id using the radio button. The Products in the application pack will be displayed below in the *PRODUCTS IN THE APPLICATION PACKS* section.
Application Pack Name	Displays 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.

6. 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.

Field	Description
Enable Date	Displays the date when the product was enabled.

7. Select an Application Pack by clicking the radio button next to the Application Pack ID field.
8. Selecting an Application Pack will display below the products within the Application Pack.
9. Products which were enabled at the time of installation will have the checkbox “ENABLE” disabled. You can enable any product within the selected Application Pack by clicking the “ENABLE” checkbox against the respective Product ID.
10. Click on RESET button to cancel the operation and refresh the screen.
11. Click VIEW LICENSE AGREEMENT button.
12. The License Agreement section is displayed.



13. Select the option I ACCEPT THE LICENSE AGREEMENT.
14. Click ENABLE.
15. 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 8.0.1.0.0*.
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.

13 Appendix H – Additional Configuration

This section includes the following topics:

13.1 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.

13.2 Configure Infrastructure Server Memory

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

13.2.1.1 Infrastructure Server Memory Settings

You can configure the Infrastructure Application Memory settings as follows:

1. Locate .profile file.
2. Edit `X_ARGS` field in this file for customizing memory settings and garbage collector settings.

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

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

NOTE: This parameter is modified in 7.3.2 IR and you need to modify `X_ARGS_APP` variable in the `.profile` file to customize Java Memory Settings for Model Upload based on the Data Model size.
For Run and Rule executions, the following value is recommended:

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

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

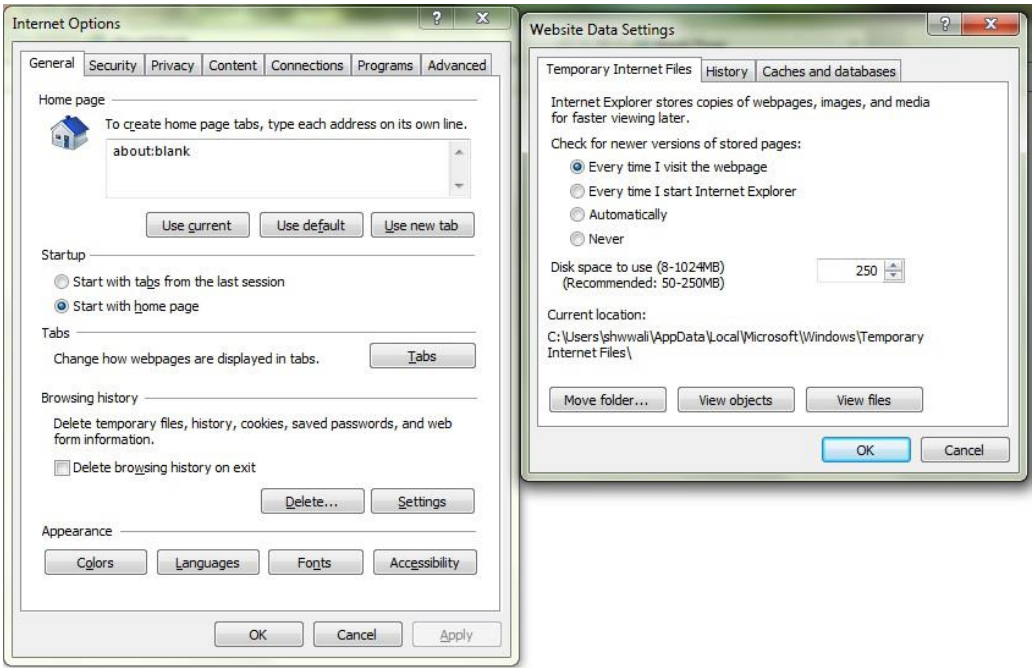
13.3 Internet Explorer Settings

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

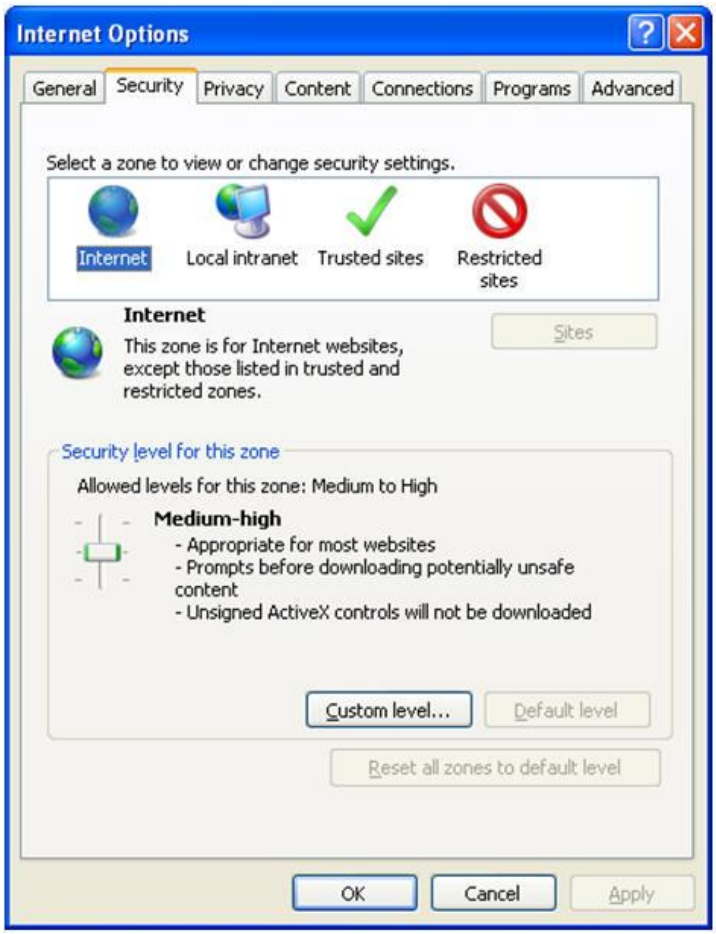
The following browser settings have to be specified at every client machine prior to accessing the Infrastructure application.

1. Open **Internet Explorer**. Select **Tools** > **Internet Options**. The Internet Options window is displayed.

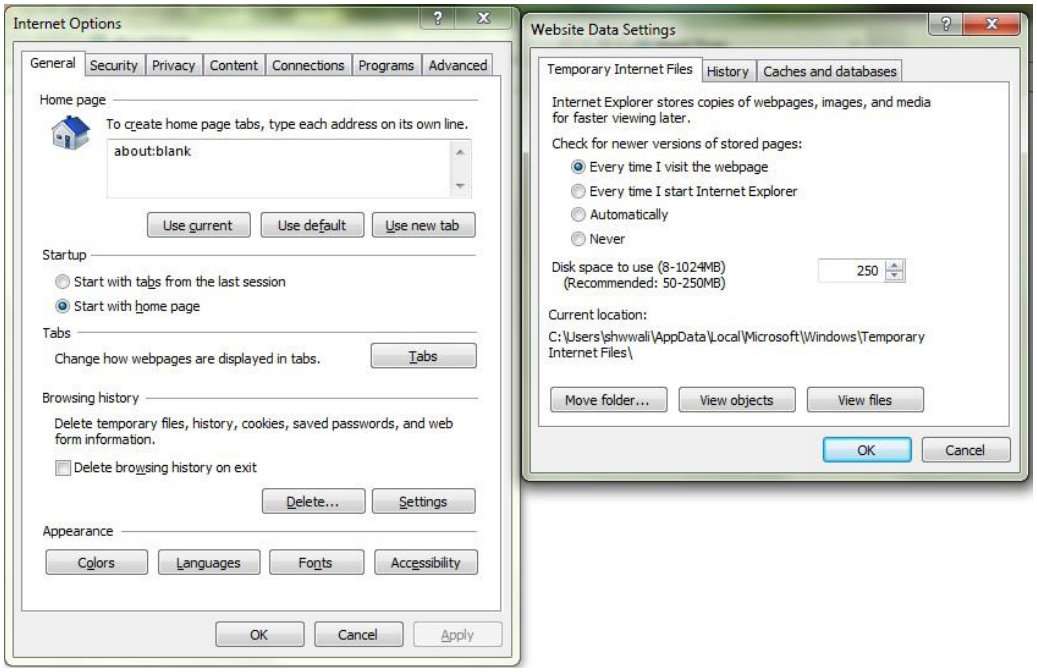
2. Click the **Settings** button. The Settings window is displayed.
3. Select the option **Everytime I Visit the webpage** and click **OK**.



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.

13.4 Retrieve Patch Information

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

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

13.5 OLAP Data Server Configuration

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

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

Example:

Process Memory Limit

Max Thread Stack Size

Max Number of Threads per Process

- **Sort Buffer settings**: This must be set at the Essbase application level appropriate to the anticipated load.
- **Shutdown and Restart:** During shutdown of OFSAAI Server that has an instance of Data Services that is communicating with an OLAP Data Server, it is imperative to ensure that the cleanup of the old instance is completed on the OLAP Data Server before restarting the OFSAAI Server. Pause for a period of time based on the load the system was subjected to, before restarting the Data Services subsystem.

13.6 Configure Infrastructure Ports

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

"PortC.jar" can be executed in two modes.

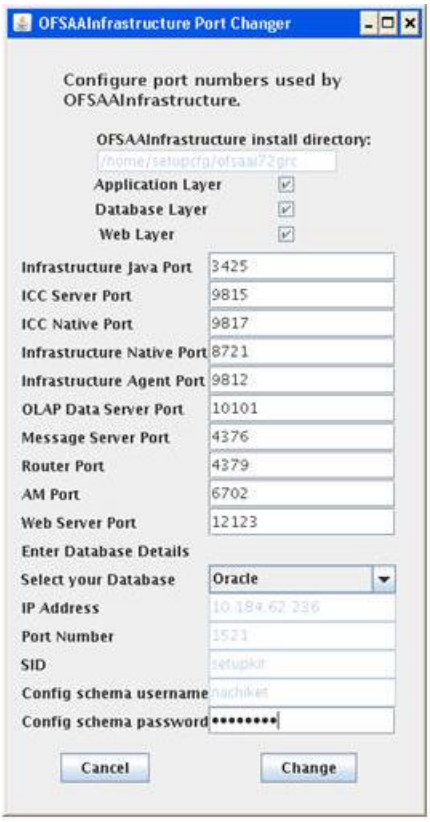
- GUI
- CMD

To execute "PortC.jar" in GUI mode, ensure that the "Hummingbird Exceed" to be running and do the following:

1. Navigate to the path $FIC_HOME in each machine.
2. Enter the command

   ```
   java -jar PortC.jar GUI
   ```

3. The OFSAA Infrastructure Port Changer window is displayed.



OFSAA Infrastructure Port Changer

The OFSAA Infrastructure Port Changer window displays the following:

- The path in which Infrastructure components have been installed.
- The check-boxes corresponding to Application Layer, Database Layer, or Web Layer are enabled based on:
  - In the event you have performed a single-tier installation on the current machine, the check-boxes for all three components will be enabled.

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

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

NOTE: All ports on a machine must be unique. The range of port numbers that are given should preferably be between 1025 and 65535. The Servlet port can have 80 or 443 as port numbers if Default HTTP/HTTPS ports are being used.

  - Select the **Database Type** as **Oracle** from the drop-down list.

- The **IP / Host Address** of the machine on which the corresponding database is installed will be populated.
- The **Port Number** on which the database is listening is displayed.
- The **SID** details are displayed.
- The **Configuration Schema username** is displayed.
- Enter the **Configuration schema password**.
- Click **Change** to initiate the port changes.

  To execute `PortC.jar` in CMD mode:

  1. Navigate to the path `$FIC_HOME`.
  2. Enter the command:

     ```
     java -jar PortC.jar CMD
     ```

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

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

NOTE: Do not execute the "PortC.jar" with CMD option in the "nohup" mode. The port changes are done only on Infrastructure web components where EAR/WAR files are deployed. After the port changes are done, you need to re-create the EAR/WAR files and re-deploy these files.

13.7 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.

13.8 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.

13.9 Infrastructure LDAP Configuration

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

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

However, if you wish to use LDAP for user authentication, then you have to ensure that the LDAP server is installed and configured. Also make sure that OPEN LDAP 2.2.29+ is installed and configured in Windows machine. Before doing the following configuration, it is required to select the "Authentication type" as LDAP in the *Configuration* screen of Infrastructure. This screen can be accessed by selecting *System Configuration* > *Configuration* in the LHS menu of Infrastructure. In the Windows machine in which LDAP Server is installed, go to the OpenLDAP installation directory through the command prompt and execute the command "`slapd -d 1`" to start the LDAP server.

13.9.1 Configure Infrastructure "Configuration Schema"

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

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>

PARAMNAME	Description	PARAM Value Example
ROOTDN	The Root dn for LDAP directory	cn=<Manager>, dc=<OFSAA>, dc=<com>
ROOTPASS	Password for the Root	<secret>
LDAPURL	LDAP URL	<ldap://10.80.193.35:389/>
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. 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. 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.

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

13.9.2 Configure OpenLDAP Files

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

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

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

4. 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.

5. In the command prompt, navigate to the LDAP installation directory and execute the command "ldapadd -D"ROOTDN" -w ROOTPASS -f/data/Reveleus.ldif"
6. This is for creating the entries for Users, User Groups, Functions, Profiles, Segments, Domains, Roles, and HolidayMaster in the Data information Tree of LDAP.
7. 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.

13.9.3 Migrate Data from CSSMS tables to LDAP server

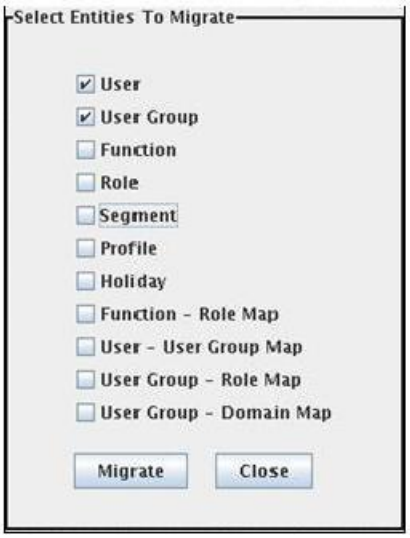
If you are using LDAP authentication, it is required to migrate all the details from the CSSMS table, which contains the information entered using the Infrastructure Administration module under Security Management to the LDAP Server.

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.

13.10 Configure OFSAAI Web Services

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

13.10.1.1 Configure DynamicWSConfig.xml File

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

The variable `<WebServer>` denotes any one of the application server, i.e. WebSphere, or WebLogic.

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.

13.10.1.2 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.
$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).

13.10.1.3 Attributes for OPERATION tag

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

OPERSTION 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.

13.10.1.4 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.
$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.

13.10.1.5 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.

13.10.1.6 web.xml Entries

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

NOTE: In case of Java 7 when WebLogic is used as web application server replace following line of <OFSAAI Installation Directory>/EXEWebService/Weblogic/ROOT/WEB-INF/web.xml file that is

```
<?xml version='1.0' encoding='UTF-8'?>
<web-app id="WebApp_ID" version="3.0"
xmlns="http://java.sun.com/xml/ns/javaee"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_3_0.xsd" metadata-
complete="true">
```

with

```
<?xml version='1.0' encoding='UTF-8'?>
<web-app xmlns="http://java.sun.com/xml/ns/j2ee"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

Entry for WSConfig File

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

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

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

Proxy Settings

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

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

```
<context-param>
<description>http Proxy Host</description>
<param-name>http.proxyHost</param-name>
<param-value>$PROXYHOST$</param-value>
<!-- Specify the IP address or hostname of the http proxy server-->
</context-param>
<context-param>
<description>http Proxy Port</description>
<param-name>http.proxyPort</param-name>
<param-value>$PROXYPORT$</param-value>
<!--Port Number for the Proxy Server-->
</context-param>
<context-param>
<description>http proxy UserName</description>
<param-name>http.proxyUserName</param-name>
<param-value>$PROXYUSERNAME$</param-value>
<!-- User ID To get authenticated by proxy server-->
</context-param>
<context-param>
<description>http proxy Password</description>
<param-name>http.proxyPassword</param-name>
<param-value>$PROXYPASSWORD$</param-value>
<!-- User Password To get authenticated by proxy server-->
</context-param>
<context-param>
<description>http non-ProxyHosts</description>
```

```
<param-name>http.nonProxyHosts</param-name>

<param-value>$NONPROXYHOST$</param-value>

<!--Hosts for which the proxy settings should get by-passed (Note: Separate them by "|" symbol) -->

</context-param>
```

OFSAAI Home Entry

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

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

```
<context-param>

<description>OFSAAI Web Home</description>

<param-name>FIC_HOME</param-name>

<param-value>$FIC_HOME$</param-value>

<!--OFSAAI Installation Folder-->

</context-param>

<context-param>

<description>OFSAAI Web Home</description>

<param-name>FIC_PHYSICAL_HOME</param-name>

<param-value>$FIC_HOME$</param-value>

<!--OFSAAI Installation Folder-->

</context-param>
```

DynamicWSConfig.xml

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

13.11 Deploy OFSAAI Web Services

You can deploy OFSAAI Web Services separately if you had not configured OFSAAI Web Services as part of the installation.

1. Complete the manual configuration of OFSAAI Web Services.

2. Navigate to <OFSAAI Installation Directory>/EXEWebService/<WebServer> and execute the command:

   ./ant.sh

   This will trigger the EAR/WAR file creation, which is required for the deployment.

3. Deploy the generated `EXEWebService.EAR/EXEWebService.WAR` file into the WebServer.

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

13.12 Configuration to Enable Parallel Execution of DML statements

A configuration file, `OracleDB.conf` has been introduced to accommodate any configurable parameter related to operations on oracle database. If you do not want to set a parameter to a specific value, then the respective parameter entry can be removed/commented off 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.

13.13 Configure Message Details in Forms Designer

You can configure the Message Details in Forms Designer under Data Entry Forms and Queries module by updating the details of mail server in the "`NotificationConfig.cfg`" file which resides in the path `$FIC_APP_ HOME/common/FICServer/conf.`

Ensure that the "authorized User details" for whom you need to configure the Message details are included in Administration > Security Management > User Administrator > User Maintenance window.

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.

13.14 Clearing Application Cache

This is applicable to all Web Servers (i.e. WebSphere and WebLogic).

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:

- **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>`

13.15 Configuring Password changes

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

13.15.1 OFSAA Infrastructure Config Schema password modification

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

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

   cd $FIC_APP_HOME/common/FICServer/bin

   ./reveleusshutdown.sh

4. 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.

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

13.15.2 OFSAA Infrastructure Atomic Schema password modification

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

1. Change the Atomic schema User Password in the database.
2. Login to the application from the browser using SYSADMN account or any user id, which has System Administrator role mapped.
3. Navigate to System Configuration > Database Details window. Select the appropriate connection and edit the password.
4. Navigate to Unified Metadata Manager > Technical Metadata> Data Integrator > Define Sources window. Update the appropriate Source details.
5. If you are using WebSphere as Web server:
   a. Login to the WebSphere Administration Console, from the left side menu.
   b. Navigate to Resources >JDBC >Data Sources. A list of data sources will be populated on the right side.
   c. Select the appropriate Data Source and edit the connection details. (In this case, both Config and Atomic data sources will need to be modified).

   If you are using WebLogic as Web server:
   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).
6. Restart the OFSAAI services.

14 Appendix I – Patching OFSAA Infrastructure Installation

14.1 Patching Your OFS DIH Pack Installation

Oracle strongly recommends installing the latest available patchset 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.

15 Appendix J – Grants for Atomic/Config Schema

This appendix includes the following sections:

15.1 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
```

15.2 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

/
```

15.3 Grants on Config Schema Entities for Atomic Users

Atomic Schema creation requires certain grants for config schema object acess. 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
/
```

16 APPENDIX K – Configuring Application Pack XML Files

16.1 OFS_DI_PACK.xml file

The OFS_DI_PACK.xml file holds details on the various products that are packaged together in DI Application Pack.

```
<?xml version="1.0"?>
<APP_PACK_CONFIG>
    <APP_PACK_ID>OFS_DI_PACK</APP_PACK_ID>
    <APP_PACK_NAME>Financial Services Data Integration </APP_PACK_NAME>
    <APP_PACK_DESCRIPTION>Applications for Data Integration</APP_PACK_DESCRIPTION>
    <VERSION>8.0.1.0.0</VERSION>
  - <APP>
        <APP_ID ENABLE="YES" DEF_SEL_FLG="YES" PREREQ="">OFS_AAI</APP_ID>
        <APP_NAME>Financial Services Analytical Applications Infrastructure</APP_NAME>
        <APP_DESCRIPTION>Base Infrastructure for Analytical Applications</APP_DESCRIPTION>
        <VERSION>8.0.1.0.0</VERSION>
    </APP>
  - <APP>
        <APP_ID ENABLE="NO" PREREQ="OFS_AAI">OFS_DIH</APP_ID>
        <APP_NAME>Financial Services Data Integration Hub</APP_NAME>
        <APP_DESCRIPTION>Application for data integration</APP_DESCRIPTION>
        <VERSION>8.0.1.0.0</VERSION>
    </APP>
  - <APP>
        <APP_ID ENABLE="NO" PREREQ="OFS_DIH">OFS_INTF_DRM</APP_ID>
        <APP_NAME>Interface for Oracle Data Relationship Management</APP_NAME>
        <APP_DESCRIPTION>DIH Connector for OFSAA - Oracle Data Relationship Management</APP_DESCRIPTION>
        <VERSION>8.0.1.0.0</VERSION>
    </APP>
  - <APP>
        <APP_ID ENABLE="NO" PREREQ="OFS_DIH">OFS_INTF_FCUBS</APP_ID>
        <APP_NAME>Interface for Oracle Flexcube Universal Banking System</APP_NAME>
        <APP_DESCRIPTION>DIH Connector for OFSAA - Oracle Flexcube Universal Banking System</APP_DESCRIPTION>
        <VERSION>8.0.1.0.0</VERSION>
    </APP>
  - <APP>
        <APP_ID ENABLE="NO" PREREQ="OFS_DIH">OFS_INTF_OBP</APP_ID>
        <APP_NAME>Interface for Oracle Banking Platform</APP_NAME>
        <APP_DESCRIPTION>DIH Connector for OFSAA - Oracle Banking Platform</APP_DESCRIPTION>
        <VERSION>8.0.1.0.0</VERSION>
    </APP>
  - <APP>
        <APP_ID ENABLE="NO" PREREQ="OFS_DIH">OFS_INTF_FAH</APP_ID>
        <APP_NAME>Interface for Oracle Fusion Accounting Hub</APP_NAME>
        <APP_DESCRIPTION>DIH Connector for OFSAA - Oracle Fusion Accounting Hub</APP_DESCRIPTION>
        <VERSION>8.0.1.0.0</VERSION>
    </APP>
</APP_PACK_CONFIG>
```

16.1.1 Configuring OFS_DI_PACK.XML file

The `OFS_DI_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_DI_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.
APP_ID/ DEF_SEL_FLAG	Default Selected Flag	Y	Default - YES	In all Application Packs, Infrastructure would have this value set to “YES”. DO NOT modify this value.
APP_ID/ ENABLE	Enable Application/ Product	YES if installing in SILENT mode.	Default – YES for Infrastructure NO for Others Permissible - YES or NO	Set this attribute-value to YES against every APP_ID which is licensed and should be enabled for use.

Tag Name/ Attribute Name	Description	Mandatory (Y/ N)	Default Value/ Permissible Value	Comments
				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.

16.2 OFS_DI_SCHEMA_IN.xml file

The OFS_DI_SCHEMA_IN.XML file contains details on the various application schemas that should be created prior to the DI Application Pack installation.

```
<?xml version="1.0"?>
<APPPACKSCHEMA>
   <APP_PACK_ID>OFS_DI_PACK</APP_PACK_ID>
   <JDBC_URL>jdbc:oracle:thin:@10.184.135.6:1521:DIHDB</JDBC_URL>
   <JDBC_DRIVER>oracle.jdbc.driver.OracleDriver</JDBC_DRIVER>
   <HOST>10.184.149.130</HOST>
   <SETUPINFO PREFIX_SCHEMA_NAME="Y" NAME="DEV"/>
   <PASSWORD DEFAULT="" APPLYSAMEFORALL="Y"/>
 - <SCHEMAS>
      <SCHEMA NAME="DIHCONF" QUOTA="10G" TEMPTABLESPACE="TEMP" DEFAULTTABLESPACE="USERS" APP_ID="OFS_AAI" PASSWORD="" TYPE="CONFIG"/>
      <SCHEMA NAME="DIHATM" QUOTA="" TEMPTABLESPACE="TEMP" DEFAULTTABLESPACE="USERS" APP_ID="OFS_DIH" PASSWORD="" TYPE="ATOMIC" APP_GRP="1" INFODOM=""/>
      <SCHEMA NAME="DIHATM" QUOTA="" TEMPTABLESPACE="TEMP" DEFAULTTABLESPACE="USERS" APP_ID="OFS_INTF_DRM" PASSWORD="" TYPE="ATOMIC" APP_GRP="1" INFODOM=""/>
      <SCHEMA NAME="DIHATM" QUOTA="" TEMPTABLESPACE="TEMP" DEFAULTTABLESPACE="USERS" APP_ID="OFS_INTF_FCUBS" PASSWORD="" TYPE="ATOMIC" APP_GRP="1" INFODOM=""/>
      <SCHEMA NAME="DIHATM" QUOTA="" TEMPTABLESPACE="TEMP" DEFAULTTABLESPACE="USERS" APP_ID="OFS_INTF_OBP" PASSWORD="" TYPE="ATOMIC" APP_GRP="1" INFODOM=""/>
      <SCHEMA NAME="DIHATM" QUOTA="" TEMPTABLESPACE="TEMP" DEFAULTTABLESPACE="USERS" APP_ID="OFS_INTF_FAH" PASSWORD="" TYPE="ATOMIC" APP_GRP="1" INFODOM=""/>
   </SCHEMAS>
</APPPACKSCHEMA>
```

16.2.1 Configuring OFS_DI_SCHEMA_IN.XML file

Creating database schemas, object with schemas and assigning appropriate grants are the primary steps in the installation process of OFSAA Applications. The OFS_DI_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_DI_SCHEMA_IN.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.
<JDBC_URL>	Enter the JDBC URL. **Note**: You can enter RAC and NON-RAC enabled database connectivity URL.	Y	Example, jdbc:oracle:thin:@<HOST/IP>:<PORT>:<SID> or jdbc:oracle:thin:@//[HOST][:PORT]/SERVICE or	

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
			jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=[HOST])(port=[PORT]))(ADDRESS=(PROTOCOL=TCP)(HOST=[HOST])(PORT=[PORT]))(LOAD_BALANCE=yes)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=[SERVICE]))) For example, jdbc:oracle:thin:@//dbhost.server.com:1521/service1 or jdbc:oracle:thin:@//dbshost.server.com:1521/scan-1 or jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=dbhost1.server.com)(port=1521))(ADDRESS=(PROTOCOL=TCP)(HOST=dbhost2.server.com)(PORT=1521))(LOAD_BALANCE=yes)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=service1)))	
<JDBC_DRIVER>	By default this driver name is seeded. **Note**: Do not edit this attribute value.	Y	Example, oracle.jdbc.driver.OracleDriver	Only JDBC Thin Driver is supported. DO NOT modify this value.
<HOST>	Enter the Hostname/ IP Address of the system on which you are installing the OFSAA components.	Y	Host Name/ IP Address	
<SETUPINFO>/ NAME	Enter the acronym	Y	Accepts strings with a	This name would

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
	for the type of implementation. This information will be displayed in the OFSAA Home Page. **Note**: On executing the schema creator utility, this value will be prefixed with each schema name. For example: dev_ofsaaconf, uat_ofsaaatm.		minimum length of two and maximum of four. Example, DEV, SIT, PROD	appear in the OFSAA Landing Page as "Connected To: xxxx" The schemas being created would get this prefix. For E.g. dev_ofsaaconf, uat_ofsaaconf etc.
<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. If you enter as N, you need to provide individual passwords for all schemas. **Note**: In case you have entered Y in APPLYSAMEFORALL attribute and also have specified individual passwords for all the schemas, then the specified individual	Y	Default – N Permissible – Y or N	**Note**: Setting this attribute value is mandatory, If DEFAULT attribute is set.

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
	passwords will take precedence.			
<PASSWORD>/ DEFAULT*	Enter the password if you want to set a default password for all schemas. **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.	
<SCHEMA>/ TYPE	The different types of schemas that are supported in this release are ATOMIC, CONFIG, SANDBOX, and ADDON. By default, the schemas types are seeded based on the Application Pack. **Note**: Do not edit this attribute value.	Y	ATOMIC/CONFIG/SANDBOX/ADDON Note: SANDBOX AND ADDON schemas are not applicable for OFS AAAI Application Pack.	Only One CONFIG schema can exist in the file. This schema identifies as the CONFIGURATION schema that holds the OFSAA setup details and other metadata information. Multiple ATOMIC/ SANDBOX/ ADDON schemas can exist in the file. ATOMIC schema refers to the Information Domain schema. SANDBOX schema refers to the SANDBOX schema. ADDON schema refers to other miscellaneous schema (not

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
				applicable for this Application Pack).
<SCHEMA.>/ NAME	By default, the schemas names are seeded based on the Application Pack. You can edit the schema names if required. **Note**: The Schema Name will have a prefix of the SETUPINFO/ NAME attribute. SCHEMA NAME must be same for all the ATOMIC Schemas of applications within an Application Pack.	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 being created would be 'uat_ofsaaatm'. 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. Note: 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	Y	Unique Seeded Value	Identifies the Application/ Product

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
	seeded based on the Application Pack. **Note**: Do not edit this attribute value.			for which the schema is being created. DO NOT modify this value.
<SCHEMA>/ DEFAULTTABLESPACE	Enter the available default tablespace for DB User. **Note**: If this attribute is left blank, then USERS is set as the default tablespace.	N	Default – USERS Permissible – Any existing valid tablespace name.	Modify this value to associate any valid tablespace with the schema.
<SCHEMA>/ TEMPTABLESPACE	Enter the available temporary tablespace for the DB User. **Note**: If this attribute is left blank, then TEMP is set as the default tablespace.	N	Default – TEMP Permissible – Any existing valid temporary tablespace name.	Modify this value to associate any valid tablespace with the schema.
<SCHEMA>/ QUOTA	Enter the quota to be set on DEFAULTTABLESPACE attribute for the schema/ user. By default, the quota size is set to 500M. Minimum: 500M or Unlimited on default Tablespace	N	Example, 600M/m 20G/g UNLIMITED/unlimited	Modify this value to grant the specified quota on the mentioned tablespace to the user.
<SCHEMA>/ INFODOM	Enter the name of the Information Domain to associate this schema.	N (Optional for Atomic and	Permissible length is 16 characters and only alphanumeric characters allowed. No special	Enter this field in UPPERCASE. If DI media pack is

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
	The schema creator utility automatically derives an Information Domain Name based on the Application Pack if no value is specified for this attribute.	mandatory for sandbox)	characters allowed.	first media pack installation in the setup, then INFODOM has to be specified mandatorily otherwise it is optional

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

17 Appendix L – Configuring OFSAAI_InstallConfig.xml File

This section gives details about the OFSAAI_InstallConfig.xml file.

17.1 Configuring OFSAAI_InstallConfig.xml file

To configure the OFSAAI_InstallConfig.xml file, follow these steps

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

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

3. Execute the user `.profile`.

   Note: Below steps (Step No. 4 & 5) are required only when DI Application Pack is the first installation in the setup. If some other media pack is already installed in the setup then you can skip these steps.

4. Navigate to the file: `OFS_DI_PACK/OFS_AAI/conf/OFSAAI_InstallConfig.xml`
5. Open the file `OFSAAI_InstallConfig.xml` in text editor.
6. Configure the `OFSAAI_InstallConfig.xml` as mentioned in the below table:
7. 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.
8. Navigate to the file: `OFS_DI_PACK/conf/OFS_DI_Pack.xml`, and select the applications to be enabled.

   Note: Enter “YES” in ENABLE tag to enable application.

InstallConfig.xml Parameters

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

InteractionVariable Name	Significance and Expected Value	Mandatory
OLAP_SERVER_ IMPLEMENTATION	Identifies if the OFSAA Infrastructure OLAP component needs to be configured depending on whether you intend to use the OLAP feature. The below numeric value should be set depending on the choice: YES - 1 NO – 0	No
Note: If value for OLAP_SERVER_IMPLEMENTATION is set to 1, it checks for following environment variables are set in .profile: ARBORPATH, HYPERION_HOME and ESSBASEPATH.		
SFTP_ENABLE	Identifies if the SFTP (Secure File Transfer Protocol) feature is to be enabled. The below numeric value should be set depending on the choice: SFTP - 1 FTP – 0	Yes
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.		
FILE_TRANSFER_PORT	Identifies the port used for the file transfer service. The default value specified is 22 (SFTP). Specify value as 21 or any other PORT value if value for SFTP_ENABLE is 0. For example, <InteractionVariable name="FILE_TRANSFER_ PORT">21</InteractionVariable>	Yes
LOCALE	Identifies the locale information to be used during the installation. This release of the OFSAA Infrastructure supports only US English. For example, <InteractionVariable name="LOCALE">en_US</InteractionVariable>	Yes
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

InteractionVariable Name	Significance and Expected Value	Mandatory
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.		
HTTPS_ENABLE	Identifies if the UI should be accessed using HTTP or HTTPS scheme. The default value set is 0. The below numeric value should be set depending on the choice: YES - 1 NO - 0 For example, <InteractionVariable name="HTTPS_ENABLE">0</InteractionVariable>	Yes
WEB_SERVER_IP	Identifies the HTTP Server IP/ Hostname or Web Application Server IP/ Hostname, to be used for accessing the UI. This IP would typically be the HTTP Server IP. If no separate HTTP Server is available, the value should be Web Application Server IP/Hostname. For example, <InteractionVariable name="WEB_SERVER_IP">10.11.12.13</InteractionVariable> or <InteractionVariable name="WEB_SERVER_IP">myweb.server.com</InteractionVariable>	No
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 Server. Note: The port value will not be accepted as 80 if HTTPS_ENABLEis 1 and as 443, if HTTPS_ENABLEis 0. For example, <InteractionVariable name="WEB_SERVER_PORT">80</InteractionVariable>	No

InteractionVariable Name	Significance and Expected Value	Mandatory

CONTEXT_NAME	Identifies the web application context name which will be used to built the URL to access the OFSAA applications. The context name can be identified from a URL as below:
	`<scheme>://<host>:<port>/<context-name>/lo gin.jsp`
	Sample URL:
	`https://myweb:443/ofsaadev/login.jsp`
	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. For WebSphere, enter the WebSphere path as <WebSphere profile directory>/installedApps/ <NodeCellName>. For example, /data2/test//WebSphere/AppServer/profiles/ <Profile_ Name>/installedApps/aix-imfNode01Cell. Where aix-imf is Host name. For WebLogic, provide the WebLogic home directory path as /<WebLogic home directory path>/bea/wlserver_10.3	Yes
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. 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. Specify the value only if WEBSERVERTYPE is set as 3 (WebLogic). For example, <InteractionVariable name="WEBLOGIC_DOMAIN_ HOME">/home/weblogic/bea/user_ projects/domains/mydomain </InteractionVariable>	No

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

18 Appendix M – Migration for Excel Upload

This appendix provides detailed instructions to migrate for excel upload.

18.1.1 Prerequisites

- 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.

18.1.2 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 infodom name with the target infodom name.

NOTE: If all the mappings can work out of the single target Infodom, update same Infodom value across all rows. If only few mappings will work out of the target infodom, update the infodom value for selective records. Kindly note, excel upload mappings will work only if the target infodom has same data model entities as used in the mappings defined on source setup.

6. Update `V_CREATED_BY` column with the name of any user present in the target setup that has appropriate roles to perform Excel Upload tasks.

NOTE: It is mandatory to update values for `V_INFODOM` and `V_CREATED_BY` columns.

7. Open WinSCP and login a new session by entering the host name, port number, user name and password to access the source setup.
8. Navigate to the folder referred as `FTPSHARE`.
9. Copy the excel-entity mapping xml file(s) which are located in this folder according to their folder structure on to your desktop. For example: `/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 Step3 to the below location in the target setup. For example: /ftpshare/STAGE/ExcelUpload/$TARGET_INFODOM_NAME/$EXCEL_FILE_NAME.xml

NOTE: $TARGET_INFODOM_NAME should be target setup infodom 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.

19 Appendix N – JDBC Jar Files

The `ojdbc<version>.jar` file should be copied based on Database & 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

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20 Appendix O - 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:

20.1 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.

20.2 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.
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.

20.3 Web Application Server Configurations

This section describes the changes to be made in the Web Application Server. Following are the two options to perform Web Application Server Configurations which are listed as follows:

- 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

20.3.1 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.

20.4 OFSAA Generic Configurations

This section consists of the following topics:

- User .profile Settings

20.4.1 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
```

20.5 OFSAA Configurations for New Web Application Server Installation

This configuration is required only if you have freshly installed Oracle WebLogic 12.1.3. 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:

- `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:

- `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:

- `OFSAALogger.xml`
- `MDBLogger.xml`
- `RevLog4jConfig.xml`
- `RFDLogger.xml`
- `ExportLog4jConfig.xml`
- `RFDLogger.xml`
- `PR2Logger.xml`

21 Appendix Q – Removing OFSAA

This chapter includes the following sections:

- Uninstalling OFSAA Infrastructure
- Uninstalling EAR Files in WebSphere
- Uninstalling EAR Files in WebLogic

21.1 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.

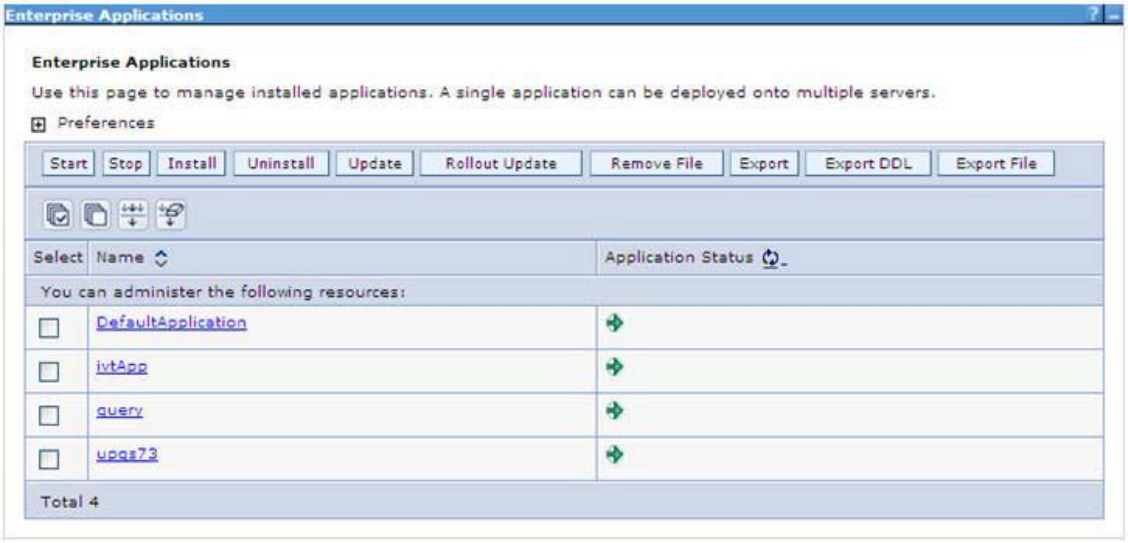
The files/ folders under the file system staging area (ftpshare) have to be deleted manually.

All the Database objects from Atomic Schemas have to be dropped manually.

21.2 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.



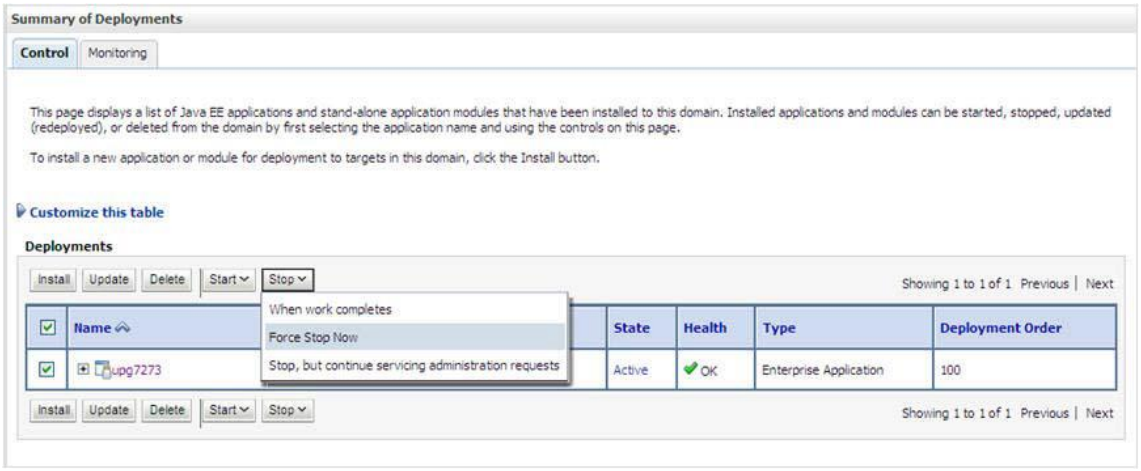
4. Select the checkbox adjacent to the application to be uninstalled and click **Stop**.
5. Click **Uninstall**. The Uninstall Application window is displayed.

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

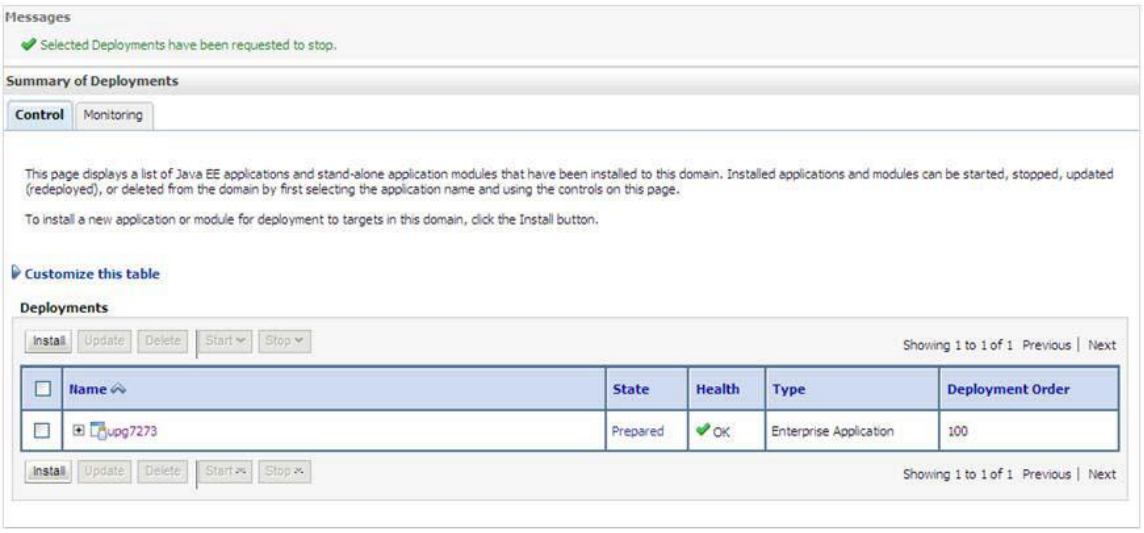
21.3 Uninstalling EAR Files in WebLogic

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.

22 Appendix P – 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.

22.1 FAQs

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 8.0.0.0.0 FAQs

22.1.1 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".

If OFS AAI/ AAAI needs to be installed on different versions of an Operating System, which installer needs to be downloaded?

OFS AAI/AAAI installer downloaded for a specific Operating System can be used to install on all its supported versions.

For Solaris OS, only one installer OFSAAI_73300_Solaris is available and it can be used to install OFSAAI on both versions of Solaris, that is, v5.10 or v5.11. Similarly, the installer OFSAAI_73300_Linux can be used to install OFSAAI on all supported versions of Oracle Linux, that is, v 5.3 up to 5.10 and v6.0 and above. The installer OFSAAI_73300_AIX can be used to install OFSAAI on all supported versions of AIX, that is, v5.3 and v6.1.

Same is applicable for OFSAAAI installers available for specific Operating Systems.

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

Is OFSAAI license specific to Applications?

No, OFSAAI license is not specific to any application.

Where can I reach out for the license key for installations?

OFSAAI 7.3.3.0.0 installer does not need a license code or a license file. With the license agreement acceptance, one could proceed with the installation.

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_73300 and execute the command

```
chmod 755
```

"Graphical installers are not."

If error resembles "Graphical installers are not supported by the VM. The console mode will be used instead..." then check whether any of the X-windows software has been installed.

Example: Hummingbird Exceed is started and configured to Graphical mode installation.

NOTE: Type `'xclock'` from prompt and this should display clock in graphical mode.

"***No Java virtual machine could be…***"

If the error message reads "No Java virtual machine could be found from your PATH environment variable. You must install a VM prior to running this program", then

- Check whether "java path" is set in PATH variable. See the Table 3–1, " Prerequisite Information"section in this document.
- Check whether sufficient temporary space is available.
- Ensure that the movement of OFSAAI Installer text files to the target system is done in the Text mode so that setup.sh file does not contain control line feed characters (^M).

During the installation, what should 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 is to be done 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.

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 8.0.0.0.0 .

Does OFSAAI support Oracle Linux versions other than 5.5?

OFSAAI supports the Oracle Linux versions from 5.5 up to 5.10.

On the UNIX System terminal, error message shows "Insert New Media. Please insert Disk1 or type it's 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:

14. `<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:

15. `ulimit -n`

16. The command should return the value 9216.

How does one verify if the system environment is ready for OFSAAI installation?

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

See Verifying the System Environment section for additional information.

How does one 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:

17. `./piverify.sh`

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

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

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

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

On Solaris 11 system, if one gets the following error message during OFSAAI installation, what should be done:

"Error: OFSAAI-1108

ORA-00604: error occurred at recursive SQL level 1

ORA-01882: timezone region not found"

Or

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

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

```
TZ=Asia/Calcutta

export TZ
```

What happens if the installation process is abruptly terminated or aborted? What should one 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 one do if the database connection from connection pool throws an error "java.sql.SQLRecoverableException: IO Error: Connection reset"?

This happens while running several database intensive tasks in parallel. To correct this error, add the line `securerandom.source=file:/dev/./urandom` in the java.security configuration file available in `$JAVA_HOME/jre/lib/security/ path`.

NOTE: This needs to be configured on all the machines or VMs where the OFSAAI components are installed.

If the issue is not resolved even with the above settings, check the MTU(Maximum Transmission Unit) settings on the linux box. For details on MTU settings and updating them, contact your system Administrator.

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:

18. `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_73300.
   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 succesion.

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

Does OFSAA support Oracle DB 11g Standard edition?

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

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

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 one do?

This could be due to 2 reasons:

- System is unable to resolve the hostname configured.
- 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 sqlplus.

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

Ensure OFSAAI servers have been started and are running successfully. On the server start up parameters options, see Starting Infrastructure 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.

- SYSADMN
- SYSAUTH
- GUEST

Does OFSAAI Application support both FTP and SFTP?

OFSAAI supports both FTP and SFTP configuration.

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

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

OFSAAI Configuration: Unable to save the server details?

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

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

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

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

- Verify whether connection to the "configuration schema" can be established through sqlplus.
- Verify "configuration schema" password is modified post installation.
- Ensure oracle database alias name created for oracle instance and oracle service name are same.
- On a multi tier Installation mode, ensure TNSNAME and SID are the same in both the Application and Database Layers.

The message "Fatal Error, failed to get user ID from LibSmsConnect" appears during the startup of backend engine message server. What has to be done?

Ensure Reveleus.sec file exist under the `$FIC_HOME/conf` directory where the Database components are installed.

Does OFSAAI Application support LDAP authentication?

OFSAAI supports LDAP configuration and authentication.

Does OFSAAI support multiple languages?

Yes, OFSAAI supports multiple languages.

Does OFSAAI provide any data back-up features?

OFSAAI does not have built-in back up facility. External Storage Infrastructure is recommended for back-up.

What kind of security features does the OFSAAI provides?

OFSAAI provides security at:

- Segment Level - Users can access only the segment they are mapped to.
- Application Level - Users can perform an operation only if mapped to appropriate role and functions.

Does OFSAAI have the ability to enforce periodic password change?

OFSAAI provides configurable parameters to define number of days after which the user password would expire and then the user is forced to change the password after expiration period.

What is the password policy followed in OFSAAI?

OFSAAI enforces a minimum password length with a combination of Upper and Lower case characters and alpha-numeric strings.

Which version of Erwin Data Modeller does OFSAAI support?

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

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* 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 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).
    b. 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.
4. 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).
5. Restart Reveleus/OFSAAI servers (Web and APP) and check the issue.

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

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

```
$JAVA_CMD \
-Xbootclasspath/a:$ejbd_bootpath \
Xms256m -Xmx1024m \
```

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

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

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

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

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

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

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

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

Please refer to Support Note for the workaround.

What should I do to change context name for a cloned environment?

Refer to Support Note.

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

Follow the below steps to turn off unused infodoms from cache:

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

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

NOTE: This setting will cache the Infodom metadata only for the infodoms that get accessed upon user login. Infodoms which do not get accessed, will not be cached.

Sample code is pasted below:

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

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

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

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

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

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

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

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

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

Table 1: 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 you turn off unused Information Domains (Infodoms) from caching?

Follow these steps to turn off unused infodoms from caching:

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

Note:

This setting will cache the Infodom metadata only for the infodoms that get accessed upon user login. Infodoms which do not get accessed, will not be cached.

Sample code is pasted below:

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

```
<PARAMETER NAME="HIERARCHYATTRIBUTE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="CUBE_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="RDM_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="BUSINESSPROCESSOR_CACHE_SIZE" VALUE="2000" />
<PARAMETER NAME="DERIVEDENTITY_CACHE_SIZE" VALUE="1000" />
<PARAMETER NAME="LOG_GET_METADATA" VALUE="false" />
<PARAMETER NAME="METADATA_PARALLEL_CACHING" VALUE="0" />
</PARAMETERS>
</SERVICE>
```

"While creating an Excel Mapping, after specifying the excel worksheet, the target table, and mapping each column in the worksheet to a target table, I click SAVE and nothing happens. But when I click CANCEL, a message pops up informing me that all changes will be discarded", what is to be done.

Check if the excel mapping creation is done using I.E 8 with JRE 1.4 plug in enabled on machine. If so, upgrade the JRE plug in to 1.7+

22.1.2 Application Pack 8.0.0.0.0 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 OFSAA 8.0?

No. AAI is part of every application pack and installs automatically.

How does OFSAA 8.0 Application pack relate to OFSAA 7.x series?

8.0 is a new major release consolidating all products from OFSAA product suite.

Can existing OFSAA 7.x customers upgrade to OFSAA 8.0 Application Pack?

There is no upgrade path available. However, we will have migration kit / path for every product to 8.0 application pack. Further details will be available with Oracle Support.

Does OFSAA 8.0 Application pack UPGRADE's automatically existing environments?

No. Refer Point 5. OFSAA 8.0 application pack has to be installed in an new environment and subsequently migration path / migration kit needs to be run to migrate from 7.x to 8.0. Please note we will have migration path only from the previously released version of OFSAA products.

Where can I download OFSAA 8.0 Application Pack?

OSDC

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

Refer installation guide section Hardware and Software Requirements section.

Is my environment compatible with OFSAA 8.0 Application Pack?

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

Has OFSAA 8.0 Application Pack is supports all Operating systems?

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

How can I install OFSAA 8.0 Application Pack?

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

Do we need any License Key to install?

No, you do not need any License Key to install.

Does this installation require any Third party Software's?

Installation Guide lists the third party software that needs to be installed.

What languages are supported during OFSAA 8.0 Application Pack installation?

US English is the language supported.

What mode of installations OFSAA Application Pack supports? [i.e., Silent , GUI]

OFSAA Application Packs supports both, GUI and Silent Mode.

Does OFSAA 8.0 Application Pack support Multi tier Installations?

OFSAA 8.0 does single tier installation. For more information refer to OFSAAI 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 file system files are installed but there is an option to enable the licensed products.

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

You can retrigger in case of failure.

Does Application pack allow enabling / disabling any of the applications installed?

Yes. You cannot disable once the product is enabled in an environment.

I have installed one application in a Application pack and can I install any of new applications within the Application pack later point of time?

No, installation is not required. Enabling the application is an option to use it later.

Is it possible to Install OFSAA 8.0 Application pack on any one of the existing 'Infodom' where another OFSAA 8.0 application is installed?

Yes. But Behavioral Detection Pack and Compliance Regulatory Reporting pack are the exceptions. They need to be installed in a different INFODOM.

Is there any option in Application pack for the user to select Infodom during installations?

Yes. You can select or change the required infodom.

Can I install all Application Packs in a 'Single Infodom'?

Yes. But Behavioural Detection Pack and Compliance Regulatory Reporting Pack are the exceptions. They need to be installed in a different INFODOM.

Is it possible to install applications on different Infodom within the Application pack? (That is if you want to install LRM & MR in two infodoms)

Applications within application pack have to be installed in the same information domain in the same environment.

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 as separate product and can be enabled as on option at later point of time from any application pack that bundles Enterprise Modeling.

Does OFS Enterprise Modeling is required for all applications?

This product is enabled depending on the applications that use the features of OFS Enterprise Modeling.

Will Application pack creates sandbox automatically for the required applications?

Yes, Sandbox creation is part of application install process.

Do we have upgrade Kits for individual applications or it's a Application Pack Upgrade?

ML/ IR releases / upgrades will be across Packs.

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 are installed on top of 8.0 application pack. Releases are planned post the 8.0 availability.

Can I install an Application Pack over another Application Pack (that is same infodom or different information)

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

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.

"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+

What are the Java versions supported in OFS AAAI Application Pack version 8.0.0.0.0?

OFS AAAI Application Pack supports Java 1.7.x and 1.8.x.

Is this release of the OFS AAAI Application Pack version 8.0.0.0.0 supported on Java 8?

Yes. To install this release of the OFS AAAI Application Pack version 8.0.0.0.0 on Java 8. For more information, refer to specific notes mentioned in the sections Installer and Installation Prerequisites, Configuring the Schema Creator Utility, GUI Mode Installation, SILENT Mode Installation.

What should be done if you encounter the following "FATAL" exception in the installation log because of insufficient DB process value?

[FATAL] - =====Exception====

java.sql.SQLRecoverableException: IO Error: Got minus one from a read call

at oracle.jdbc.driver.T4CConnection.logon(T4CConnection.java:419)

at oracle.jdbc.driver.PhysicalConnection.<init>(PhysicalConnection.java:536)

at oracle.jdbc.driver.T4CConnection.<init>(T4CConnection.java:228)

at oracle.jdbc.driver.T4CDriverExtension.getConnection(T4CDriverExtension.java:32)

at oracle.jdbc.driver.OracleDriver.connect(OracleDriver.java:521)

Contact the DBA team to increase the DB process/sessions value accordingly, which depends on the number of database process running at that particular point of time.

Can Oracle Financial Services Data Integration pack alone in a setup will work?

No. It requires at least one OFSAA application. The reason being DIH integrates data (source or extract) for OFSAA applications.

Does Oracle Financial Services Data Integration has separate data model?

No, DIH does not have sa eparate data model to store data. However, it has its own repository table to hold the metadata.

Can DIH work, if I install Oracle Financial Services Data Integration pack in one infodom and other application in different infodom in same setup?

No, DIH will not work. The other Application has to be installed in the same infodom where DIH is installed.

What should I do when I get "[ERROR] - Error : APP Setup bin file failed." Message during OFS_Application_PACK installation?

This is a generic error message that appears during application installation failure. You should check the installation log files for more information about what failed the installation. However, if the message is displayed and the log files are not generated, it could be that it is a temp directory issue. The resolution is that your UNIX administrator has to disable the NOEXEC option. The installers extract the installation files into the /tmp directory, and if NOEXEC is enabled, execution of binaries will not happen in the directory and the installation fails. Re-run the installer after the configuration is changed. For detailed information, see the support note at https://support.oracle.com/epmos/faces/DocumentDisplay?id=2340045.1.

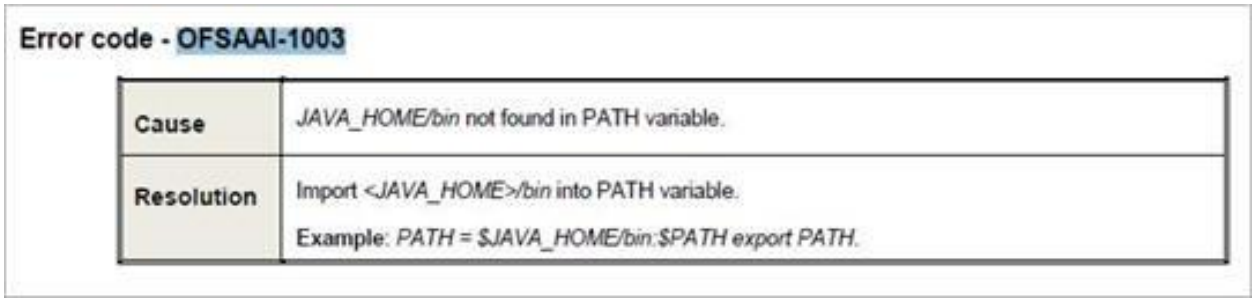
22.2 Error Dictionary

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.

22.2.1 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.

22.2.2 Error Code Dictionary

22.2.2.1 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. Shell type can also be changed by specifying shell path for the Unix user in

	/etc/passwd file. **Note**: chsh command is not available in Solaris OS.Cause

22.2.2.2 Error code - OFSAAI-1002

Cause	No proper arguments are available.
Resolution	Provide proper arguments. Invoke Setup.sh using either SILENT or GUI mode. Example: ./Setup.sh SILENT or ./Setup.sh GUI

22.2.2.3 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.

22.2.2.4 Error code - OFSAAI-1005

Cause	File OFSAAInfrastructure.bin is not present in current folder.
Resolution	Copy OFSAAInfrastructure.bin into installation kit directory.

22.2.2.5 Error code - OFSAAI-1006

Cause	File CustReg.DAT is not present in current folder.
Resolution	Copy CustReg.DAT into installation kit directory.

22.2.2.6 Error code - OFSAAI-1007

Cause	File `OFSAAI_InstallConfig.xml` is not present in current folder.
Resolution	Copy `OFSAAI_InstallConfig.xml` into installation kit directory.

22.2.2.7 Error code - OFSAAI-1008

Cause	File `validateXMLInputs.jar` is not present in current folder.
Resolution	Copy `validateXMLInputs.jar` into installation kit directory.

22.2.2.8 Error code - OFSAAI-1009

Cause	File `log4j.xml` is not present in current folder.
Resolution	Copy `log4j.xml` into installation kit directory.

22.2.2.9 Error code - OFSAAI-1010

Cause	Unknown error occurred.
Resolution	Make sure to provide proper argument (SILENT or GUI) to the `Setup.sh` file.

22.2.2.10 Error code - OFSAAI-1011

Cause	XML validation failed.
Resolution	Check InfrastructurePreValidations.Log for more details.

22.2.2.11 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`

22.2.2.12 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.

22.2.2.13 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.

22.2.2.14 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. OR Make sure that `OFSAAI_InstallConfig.xml` is valid. Try to open the file through Internet Explorer for a quick way to check validity. If it is not getting opened, create new `OFSAAI_InstallConfig.xml` using the

	XML_Utility.jar.

22.2.2.15 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.

22.2.2.16 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.

OFS Data Integration Application Pack 8.0.1.0.0 Installation Guide

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