Oracle® Financial Services Behavior Detection Applications Pack Installation Guide Release 8.0.0.0.0 E66513-01

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Preface

This Preface provides supporting information for the Oracle Financial Services Behavior Detection Applications Pack (OFS BD) Installation Guide and includes the following topics:

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

Summary

You can find the latest copy of this document in 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 Behavior Detection Pack Installation Guide is intended for administrators, and implementation consultants who are responsible for installing and maintaining the Applications Pack components.

Prerequisites for the Audience

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

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

- Oracle Financial Services Behavior Detection pack components
- OFSAA Architecture
- UNIX Commands
- Database Concepts
- Web Server/Web Application Server

Documentation Accessibility

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Oracle customers have access to electronic support through My Oracle Support. For information, 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 BD. You can access Oracle documentation online from Documentation Library for Oracle Financial Services Behavior Detection (OTN).

OFSAA Related Documents

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

OFS BD Application Related Documents

- Oracle Financial Services Behavior Detection Administration Guide
- Oracle Financial Services Scenario Manager User Guide
- Oracle Financial Services Behavior Detection Configuration Guide
- Oracle Financial Services Know Your Customer Administration Guide
- Oracle Financial Services Foreign Account Tax Compliance Act Administration and Configuration Guide
- Oracle Financial Services Currency Transaction Reporting Administration Guide
- Oracle Financial Services Scenario Wizard Configuration Guide
- Oracle Financial Services Know Your Customer Risk Assessment Guide
- Oracle Financial Services Administration Tools User Guide
- Oracle Financial Services FATCA Administration and Configuration Guide
- Oracle Financial Services FATCA Assessment Guide
- Oracle Financial Services FATCA RR User Guide
- Oracle Financial Services FATCA RR Administration and Configuration Guide
- Oracle Financial Services Alert Management User Guide
- Oracle Financial Services Enterprise Case Management User Guid
- Oracle Financial Services Behavior Detection Release Notes

The following documents are available in My Oracle Support (MOS). You should have SSO credentials to access MOS.

- Oracle Financial Services Analytical Applications Infrastructure Security Guide
- Oracle Financial Services Know Your Customer Data Model Reference Guide
- Financial Services Data Model Reference Guide Volume 1: Business Data
- Financial Services Data Model Reference Guide Volume 2: Oracle Financial Services Data
- Financial Services Data Model Reference Guide Volume 3: Case Management Data
- Data Interface Specification
- Oracle Financial Services Anti-Money Laundering Technical Scenario Description
- Oracle Financial Services Broker Compliance Technical Scenario Description
- Oracle Financial Services Energy and Commodity Trading Compliance Technical Scenario Description
- Oracle Financial Services Fraud Technical Scenario Description
- Oracle Financial Services Trading Compliance Technical Scenario Description

Conventions

The following text conventions are used in this document:

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

Table 0–1 Conventions used in this guide

Abbreviations

The following table lists the abbreviations used in this document:

Table 0–2 Abbreviations and their meaning

Abbreviation	Meaning
BD	Behavior Detection
GUI	Graphical User Interface
HTTPS	Hypertext Transfer Protocol Secure
J2C	J2EE Connector
J2EE	Java 2 Enterprise Edition
JDBC	Java Database Connectivity
LDAP	Lightweight Directory Access Protocol
LHS	Left Hand Side
MOS	My Oracle Support
OFSAA	Oracle Financial Services Analytical Application

Table 0–2 Abbreviations and their meaning

Abbreviation	Meaning
OFSAAI	Oracle Financial Services Analytical Application Infrastructure
OLAP	On-Line Analytical Processing
OS	Operating System
SFTP	Secure File Transfer Protocol
URL	Uniform Resource Locator
Web Archive	WAR
XML	Extensible Markup Language

1

About OFS BD Applications Pack

This chapter provides complete details about Behavior Detection (BD) Applications Pack.

This chapter includes the following topics:

- About OFSAA
- Introduction to OFS BD Application
- About OFSAA Infrastructure

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.

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

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

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

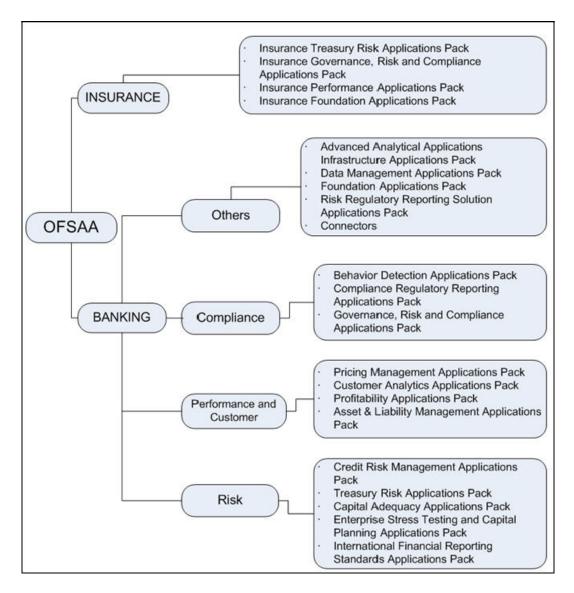


Figure 1–1 OFSAA Applications Packs

Introduction to OFS BD Application

OFS BD Application Pack includes the following applications:

- Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) powers the Oracle Financial Services Analytical Applications family of products to perform the processing, categorizing, selection and manipulation of data and information needed to analyze, understand and report on specific performance, risk, compliance and customer insight issues by providing a strong foundation for the entire family of Oracle Financial Services Analytical Applications across the domains of Risk, Performance, Compliance and Customer Insight.
- **Oracle Financial Services Inline Processing Engine (OFS IPE)** provides real-time monitoring, detection and interdiction of single and complex fraud events across multiple channels and lines of business.
- Oracle Financial Services Anti-Money Laundering (OFS AML) monitors transactions to identify possible money-laundering activities. These scenarios consider whether the geographical location or entities involved warrant enhanced

scrutiny; monitor activity between accounts, customers, correspondents, and other entities to reveal relationships that could indicate efforts to launder funds; address sudden, significant changes in transaction activity that could indicate money laundering or fraud; and detect other types of activities that are considered potentially suspicious or indicative of money laundering.

For example, the Journals Between Unrelated Accounts scenario detects accounts that conduct journal transactions, within a specified period, to one or more accounts that do not share tax identifiers, do not share a customer, are not in the same household, and are not known to have a formal relationship. This behavior might indicate that money launderers have established a number of accounts using aliases or slightly different identifying information, and then moving money between accounts as part of a layering strategy, often consolidating the funds in a single account before removing them from the institution.

• Oracle Financial Services Fraud Enterprise Edition (OFS FEE) detects behaviors and patterns that evolve over time and are indicative of sophisticated, complex fraud activity. These scenarios monitor check and deposit / withdrawal activity, electronic payments, such as funds transfer and payments completed through clearing house (ACH) mechanisms, and ATM and Bank Card to identify patterns of activities that could be indicate fraud, counterfeiting or kiting schemes, identity theft or account takeover schemes. Fraud scenarios also monitor employee transactions to identify situations in which employees, acting as insiders, take advantage of access to proprietary customer and account information to defraud the financial institution's customers.

For example, the Excessive Withdrawals at Multiple Locations scenario monitors a sudden increase in a customer's withdrawals at ATMs that may indicate money laundering, terrorist financing, or an account takeover.

Oracle Financial Services Trading Compliance (OFS TC) examines prices and timing of orders and executions by comparing them to market conditions and detect behaviors or situations that violate exchange, market center, and individual broker or dealer policies and procedures, including behaviors that violate the Chinese Wall policies and procedures established by the Firm or those with confidential information held by the Firm about a security.

For example, the Trading Ahead of Material Events scenario detects possible insider trading by analyzing trades which occur prior to "events", which can be defined by the Oracle client. The type and volume of trades which occur prior to an event may indicate that an employee, customer, trader, or trading desk was in possession of material non-public information. As there may also be non-fraudulent reasons for this trading activity, this scenario minimizes false alerts by excluding accepted hedging or trading strategies.

- Oracle Financial Services Trade Blotter (OFS TB) allows trades to be viewed and reviewed, primarily for suitability issues within the wealth management sector, by compliance analysts and business supervisors after a trade has been executed. The Trade Blotter is a list of trades returned after a search based on specified criteria. Users can view trade details, view related trade documents, enter a comment on a specific trade, and then mark the trade as reviewed or requiring follow-up.
- Oracle Financial Services Personal Trading Approval (OFS PTA) monitors employee investment accounts and trades. Employees of the financial institution submit trade requests to be made from their approved investment accounts. Compliance officers can then review, approve, or reject the trade requests to ensure that their employees are acting in compliance with regulations. Financial institutions can also use this solution to maintain employee attestations.

• Oracle Financial Services Broker Compliance (OFS BC) identifies activities or situations in customer accounts that involve either a significant amount of risk-and therefore may be unsuitable for the customer-or may violate trading rules set by the exchanges or regulators; trades in mutual fund securities that may violate regulatory trading guidelines, Commission policies, or are unsuitable for a particular customer; and activities performed by employees that may violate regulatory conduct rules or may be prohibited by firm policies. These scenarios also detect instances in which an investment advisor may be managing client accounts in a manner that is unsuitable for their customers, giving preferential treatment to particular customers, or manipulating transactions between accounts; and instances in which a portfolio manager may be placing orders on material, non-public information, misrepresenting portfolio performance, or unfairly allocating orders to accounts that they manage.

For example, the Reps Concentrating Solicitations in Too Few Securities scenario verifies that Registered Representatives are not exposing their clients to undue risk by recommending a significant percentage of buy solicitations in a single security, which can result in an unbalanced and volatile portfolio.

• Oracle Financial Services Energy and Commodity Trading Compliance (OFS ECTC) monitors trading activities that involve the financial institution as the buyer or seller on energy and commodity related trades, including commodities, options, futures, and swaps.

For example, the Energy Trading Limits scenario monitors trading of energy instruments to detect excessive hourly amounts of energy traded, based on internal limits which consider physical and financial power as well as Financial Transmission Rights (FTR). The scenario generates alerts when the amount of energy approaches or exceeds these internal limits. This behavior may indicate an attempt to manipulate the market by knowingly creating congestion with the purpose of benefiting from the creation of that congestion.

- Oracle Financial Services Enterprise Case Management (OFS ECM) manages and tracks the investigation and resolution of cases related to one or more business entities involved in potentially suspicious behavior. Cases can be manually created within Enterprise Case Management or your firm may integrate other Oracle Financial Services solutions, such as Alert Management, Know Your Customer, and FATCA Management, which can be used to create cases.
- Oracle Financial Services Know Your Customer (OFS KYC) assesses the risk associated with a customer by considering different attributes of the customer and enables financial institutions to perform Due Diligence, Enhanced Due Diligence, and continuous monitoring of customers. Cases generated in Know Your Customer can be managed within Enterprise Case Management to track investigations until they have been resolved or reported to the appropriate regulatory authorities.
- Oracle Financial Services Currency Transaction Reporting (OFS CTR) analyzes transaction data from the organization and identifies any suspicious activities within the institution that may lead to fraud or money laundering and must be reported to the regulatory authorities. Currency Transaction Reports (CTRs) are created either at the branches or through the end of day files, where the CTR application aggregates multiple transactions performed at the branch, ATMs and Vaults. Oracle Financial Services Currency Transaction Reporting then helps the organization file the CTR online with the U.S. Financial Crimes Enforcement Network (FinCEN) using a discreet form or uploaded in a batch form in a specific text file format.

Unlike alerts for other Oracle Financial Services products such as Anti-Money Laundering, Fraud, Trading Compliance, Broker Compliance, or Energy and Commodity Trading Compliance which appear in an Alert Management user interface, CTR alerts are automatically processed and converted into CTR reports or Monetary Instrument Log reports which can be worked through the CTR user interface.

For example, the Bank Secrecy Act Currency Transaction Report scenario detects activity meeting the requirements for filing a Bank Secrecy Act Currency Transaction Report (CTR) and reconciles alerts generated by this scenario which are considered batch CTRs with Branch CTRs. The resulting CTRs are prepared for electronic filing in accordance with FinCEN's BSA Electronic Filing Requirements for Bank Secrecy Act Currency Transaction Report (BSA CTR).

Oracle Financial Services Foreign Account Tax Compliance Act (OFS FATCA) Management allows financial institutions to comply with FATCA regulations from the Internal Revenue Service and the US Treasury Department which prevent US taxpayers who hold financial assets in non-US financial institutions and other offshore vehicles from avoiding their US tax obligations. The FATCA Management solution integrates with Enterprise Case Management to track investigations until they have been resolved or reported to the appropriate regulatory authorities.

About OFSAA Infrastructure

Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) powers the Oracle Financial Services Analytical Applications family of products to perform the processing, categorizing, selection and manipulation of data and information needed to analyze, understand and report on specific performance, risk, compliance and customer insight issues by providing a strong foundation for the entire family of Oracle Financial Services Analytical Applications across the domains of Risk, Performance, Compliance, and Customer Insight.

Components of OFSAAI

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

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

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

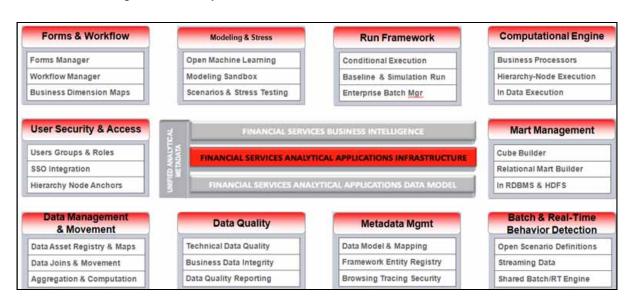


Figure 1–2 Components of OFSAAI

OFSAA Infrastructure High Availability

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

Understanding OFS BD Pack Installation

This chapter includes the following topics:

- Installation Overview
- Deployment Topology
- Hardware and Software Requirements
- Verifying the System Environment
- Understanding the Installation Mode

Installation Overview

This section gives an overview of the OFS BD Pack Installation. Figure 2–1 shows the order of procedures you will need to follow:

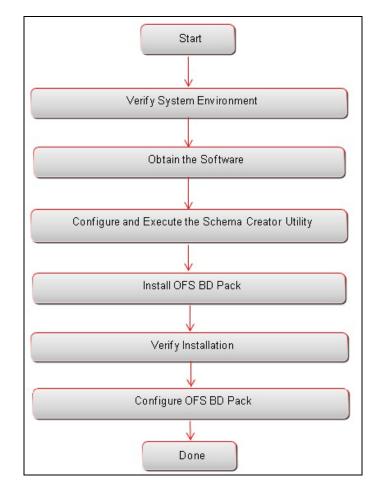


Figure 2–1 Installation Overview

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

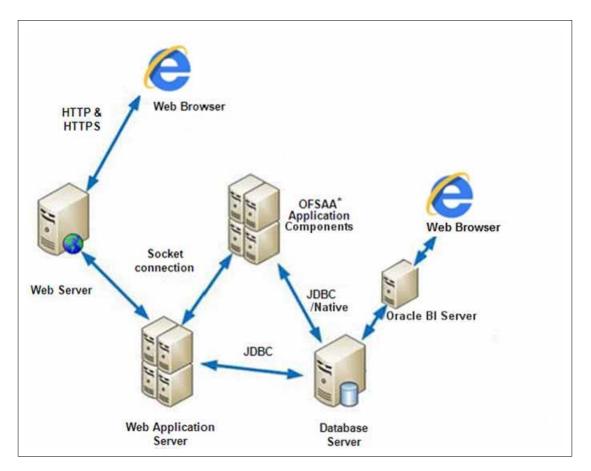
- Verify System Environment: This section provides details to verify that your system meets the minimum necessary requirements for installing and hosting the OFS BD Applications Pack. For more information, see Hardware and Software Requirements" and "Verifying the System Environment.
- **Obtain the Software:** This section provides details about obtaining the software. For more information, see Obtaining the Software.
- **Configure and Execute the Schema Creator Utility:** This section provides details about configuring and executing the schema creator utility. For more information, see Configuring and Executing the Schema Creator Utility.
- Install OFS BD Pack: This section provides details about installing the OFS BD Pack Installer. For more information, see Installing the OFS BD Applications Pack.
- Verify Installation: This section provides details about verifying the installation. For more information, see Verifying the Installation.
- **Configure OFS BD Pack:** This section provides details about post installation configuration. For more information, see Post Installation Configuration.

Deployment Topology

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

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





Hardware and Software Requirements

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

Note:

OFS BD Applications Pack installation can be performed on both Virtual and Physical servers.

The following table shows the minimum hardware and software requirements for running OFS BD Applications Pack:

Configurations for Java 7

Operating System		
Oracle Linux / Red Hat	 Oracle Linux Server release 5.3 up to 5.10 - 64 bit 	
Enterprise Linux	 Oracle Linux Server release 6.0 and above - 64 bit 	
	Note : Same versions of RHEL are supported. 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 	
Oracle Solaris	 Oracle Solaris v5.10 Update 11 and above - 64 bit 	
	 Oracle Solaris v5.11 update 1 and above - 64 bit 	
IBM AIX	AIX 6.1 (TL 09 and above) - 64 bit Note: If the OS is IBM AIX 6.1, configure the size parameter setting for "Large File Support".	
	Refer to http://www-01.ibm.com/support/docview.wss?uid=isg3T100 0290 for more details.	
Shell	KORN Shell (KSH)	
Java Runtime Environme	nt	
Oracle Linux / Red Hat Enterprise Linux	Oracle Java Runtime Environment (JRE) 1.7.0_76 - 64 bit	
Oracle Solaris		
IBM AIX	IBM AIX Runtime, Java Technology JRE 1.7.x - 64 bit	
Oracle Database Server a	and Client	
 Oracle Database Serve Non-RAC with partiti 	or Enterprise Edition 11g Release 2 (11.2.0.3.0+) - 64 bit RAC/ oning option	
 Oracle Database Serve partitioning option 	r Enterprise Edition 12 c (12.1.0.1.0+) - 64 bit RAC/Non-RAC with	
 Oracle Client 11g R2 (1) 	11.2.0.3.0+) * - 64 bit	
• Oracle Client 12 c (12.	1.0.1.0+) * - 64 bit	
• Oracle 11g R2 (11.2.0.3	+) JDBC driver (Oracle thin driver)	
• Oracle 12C Release 1 (12.1.0.1+) JDBC driver (Oracle thin driver)	
Note: JDBC driver (Oracle connectivity.	thin driver) installation is enough for establishing web server	
Note: Ensure that the follo	wing patches are applied:	
Oracle Server 12c, v12.1.0.1	- 17082699	
Oracle Server 12c, v12.1.0.2	2 - 19392604, 19649591	
For latest information, refe Engineered Systems and D	r to http://support.oracle.com/, 12.1.0.2 Bundle Patches for B In-Memory - List of Fixes in each Bundle (Doc ID 1937782.1)	
	ation Server	

 Table 2–1
 Configurations Supported fro Java 7

Oracle Linux/Red Hat Enterprise Linux	Oracle HTTP Server 11.1.1.1/ Apache HTTP Server 2.2.x/ IBM HTTP Server	
Oracle Solaris	 Oracle WebLogic Server 12.1.3+ (64 bit) 	
	 IBM WebSphere Application Server 8.5+ with bundled IBM Java Runtime (64 bit) 	
	Apache Tomcat 8.0.x (64 bit)	
	re web component deployment on Oracle WebLogic Server with 1.6.0_45) - 64 bit is not supported.	

Table 2–1 (Cont.) Configurations Supported fro Java 7

Desktop Requirements	5		
Operating System	MS Windows XP SP3/ 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+* 		
	Note:		
	Enable caching of static content (static files, images, CSS, and so on).		
Office Tools	MS Office 2003/2007/2010/2013		
	Adobe Acrobat Reader 8 or above		
Screen Resolution	1024*768 or 1280*1024		
Other Software	· ·		
Directory Services	OFSAAI is qualified on both OPEN LDAP 2.2.29+ and Oracle Internet Directory v 11.1.1.3.0. However, it can be integrated with other directory services software like MS Active Directory.		
Note:	· · ·		
information on con	irectory services software for OFSAAI installation is optional. For more figuration, see Infrastructure LDAP Configuration. Open LDAP needs IS Windows Server machine only.		

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

Configurations for Java 8

Table 2–2	Configurations	Supported	for Java 8
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Operating System		
Oracle Linux /Red Hat Enterprise Linux	 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 are supported. 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 	
Oracle Solaris	 Oracle Solaris v5.10 Update 11 and above - 64 bit 	
	Oracle Solaris v5.11 update 1 and above - 64 bit	

IBM AIX	AIX 6.1 (TL 09 and above) - 64 bit Note: If the OS is IBM AIX 6.1, configure the size parameter setting for "Large File Support".
	Refer to
	http://www-01.ibm.com/support/docview.wss?uid=isg3T100 0290 for more details.
Shell	KORN Shell (KSH)
Java Runtime Environme	nt
Oracle Linux / Red Hat Enterprise Linux	Oracle Java Runtime Environment (JRE) 1.8.x - 64 bit
Oracle Solaris	
IBM AIX	IBM AIX Runtime, Java Technology JRE 1.8.x - 64 bit
Oracle Database Server a	nd Client
 Oracle Database Serve Non-RAC with partition 	r Enterprise Edition 11g Release 2 (11.2.0.3.0+) - 64 bit RAC/ oning option
 Oracle Database Serve partitioning option 	r Enterprise Edition 12 c (12.1.0.1.0+) - 64 bit RAC/Non-RAC with
 Oracle Client 11g R2 (1 	1.2.0.3.0+) * - 64 bit
• Oracle Client 12 c (12.	1.0.1.0+) * - 64 bit
• Oracle 11g R2 (11.2.0.3	+) JDBC driver (Oracle thin driver)
Oracle 12C Release 1 (2)	12.1.0.1+) JDBC driver (Oracle thin driver)
Note: JDBC driver (Oracle connectivity.	thin driver) installation is sufficient for establishing web server
Note: Ensure that the follow	ving patches are applied:
Oracle Server 12c, v12.1.0.1	- 17082699
Oracle Server 12c, v12.1.0.2	- 19392604, 19649591
	r to http://support.oracle.com/,12.1.0.2 Bundle Patches for B In-Memory - List of Fixes in each Bundle (Doc ID 1937782.1)
Web Server/ Web Applica	tion Server
Oracle Linux/Red Hat Enterprise Linux	Oracle HTTP Server 11.1.1.1/ Apache HTTP Server 2.2.x/ IBM HTTP Server
Oracle Solaris	 Oracle WebLogic Server 12.1.3+ (64 bit)
	 Apache Tomcat 8.0.x (64 bit) Note:
	IBM JAVA8 SDK does not support WebSphere full profile.
Note:	
	web component deployment on Oracle WebLogic Server with 2.7 (1.6.0_45) - 64 bit is not supported.
	acle WebLogic Server 12.1.3+ (64 bit) with Java 8, download and from http://support.oracle.com/.
Desktop Requirements	
Operating System MS Windows XP SP3/ Windows 7/ Windows 8/ Window	

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

Browser	 MS Internet Explorer 9 10(Compatibility Mode) and 11 (Compatibility Mode) 		
	 Oracle Java plug-in 1.7.0+* 		
	racle Java plug-in 1.7.0+* (64- bit)		
	Turn off Pop-up blocker settings. For more information, refer Internet Explorer Settings		
	Note:		
	Enable caching of static content (static files, images, CSS, and so on).		
Office Tools	MS Office 2003/2007/2010/2013		
	 Adobe Acrobat Reader 8 or above 		
Screen Resolution	1024*768 or 1280*1024		
Other Software			
Directory Services	OFSAAI is qualified on both OPEN LDAP 2.2.29+ and Oracle Internet Directory v 11.1.1.3.0. However, it can be integrated with other directory services software like MS Active Directory.		
Note:			
information on con	rectory services software for OFSAAI installation is optional. For more figuration, see Infrastructure LDAP Configuration. Open LDAP needs S Windows Server machine only.		

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

OFS BD Applications Pack recommends the following software combinations for deployment:

Operating System	Database	Web Application Server	Web Server
Oracle Linux 5.x and 6.x	Oracle Database 11g R2 (11.2.0.3.0) and 12c	Oracle WebLogic Server 10.3.6.0 and 12c (12.1.2) and IBM WebSphere Application Server 7.0.0.25 and 8.5	Oracle HTTP Server/ Apache HTTP Server
Oracle Solaris 5.10/ 5.11	Oracle Database 11g R2 (11.2.0.3.0) and 12c	Oracle WebLogic Server 10.3.6.0 and 12c (12.1.2) and IBM WebSphere Application Server 7.0.0.25 and 8.5	Oracle HTTP Server/ Apache HTTP Server
IBM AIX 6.1	Oracle Database	IBM WebSphere Application Server/Apache Tomcat Server	IBM HTTP Server/Apache HTTP Server

Table 2–3 Recommended Software Combinations

Verifying the System Environment

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

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

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

Understanding the Installation Mode

The following modes of installation are available for the OFS BD Applications Pack.

- GUI Mode
- Silent Mode

GUI Mode

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

Silent Mode

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

Preparing for Installation

This chapter provides necessary information to review before installing the Oracle Financial Services Behavior Detection (OFS BD) Applications Pack v8.0.0.0.

This chapter includes the following topics:

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

Installer and Installation Prerequisites

Table 3–1 mentions the list of prerequisites required before beginning the installation for OFS BD application. The Environment Check utility notifies you if any requirements are not met.

Category	Sub-Category	Expected Value
Environment Settings	User Permission	User to have 755 permission on the directory identified for installation (FIC_HOME).
		Note: User to have 755 permission on the .profile file
		Provide BDF_HOME in .profile pointing to Installation Directory (FIC_HOME)
	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
		The path in .profile should be set to JAVA_HOME.
		For example: JAVA_HOME=/usr/java/jre1.7
	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 <pre>\$ORACLE_HOME/bin path</pre>

Table 3–1 Prerequisite Information

Category	Sub-Category	Expected Value
OS/File System Settings	OS Level Settings	You must set your locale to UTF-8 locale (LANG, NLS_LANG to be set in.profile). Specifying a locale depends on your data and the operating system installed on your system.
		For example,
		 For Solaris OS: export LANG=en_US.UTF-8 PATH in .profile to be set to include time zone For example: export TZ=Asia/Calcutta
		 For Linux OS: export LANG=en_US.utf8
		 For AIX: export LANG=EN_US.UTF-8
		You can determine the locale on your system using the locale -a command
		export NLS_LANG=AMERICAN_ AMERICA.AL32UTF8
	File Descriptor Settings	Greater than 15000
	Total Number of Process Settings	Greater than 4096
	tmp space	Prior to installation, ensure that sufficient free temp space (minimum 1 GB free) is available in /tmp directory of unix server hosting OFSBD.
	Port Settings	Default port numbers to be enabled on the system are 6500, 6501, 6505, 6507, 6509, 6510, 6666, 9999, and 10101.
	Staging Area/ Metadata Repository	A directory to hold the application metadata artifacts and additionally act as staging area. The directory should exist on the same system as the OFSAA Infrastructure (can be configured on different mount).
		Set 775 permission on this folder.
	Installation Directory	A directory where the installation files will be installed.
		User permission is set to 755 on the installation directory.
	Download Directory	A directory where the product installer file will be downloaded/ copied.
		Ensure user permission is set to 755 on the Download directory.

 Table 3–1 (Cont.) Prerequisite Information

Table 3–1 (Cont.) Prerequisite Information		
Category	Sub-Category	Expected Value
Category Database Settings	Sub-Category Database Instance Settings	 NLS_CHARACTERSET to be AL32UTF8 NLS_LENGTH_SEMANTICS to be BYTE AVAILABLE OPEN CURSORS limit to be greater than 1000 For an Oracle Database installation, set your Oracle NLS_LANG environment variable to an appropriate UTF-8 character set. For example, setenv NLS_LANG AMERICAN_AMERICA.AL32UTF8 Note: For other database tunable parameters required for OFS BD, refer to Tunable Database Parameters.
Web Application Server	WebSphere/ WebLogic/ Tomcat	 Ensure that the OLAP_USER role is available in the database. Web Application Server should be installed and profile/domain created. You will be prompted to enter the WebSphere Profile path or WebLogic Domain path or Tomcat Deployment path during OFSAAI installation. Note: Refer Appendix A for WebSphere Profile Creation and WebLogic Domain Creation. For deployment on Oracle WebLogic Server 12.1.3+ (64 bit) with Java 8, download and install patch 18729264 from http://support.oracle.com/.
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	OFSAA	 For installation on Java 8, login to https://support.oracle.com/ and search for 21160684 under the Patches & Updates tab. For installation of this release on an existing OFSAA instance where the underlying OFSAA Infrastructure (OFS AAI) version is upgraded to version 8.0.1.0.0, login to https://support.oracle.com/ and search for 21133780 under the Patches & Updates tab. For installation of this release on an existing OFSAA instance version 8.0.2.0.0, login to https://support.oracle.com/ and search for 21657319 under the Patches and Updates tab.

 Table 3–1 (Cont.) Prerequisite Information

Obtaining the Software

This release of OFS BD Applications Pack v8.0.0.0 can be downloaded from the Oracle Software Delivery Cloud (https://edelivery.oracle.com). You need to have a valid Oracle account in order to download the software.

Common Installation Tasks

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

This section includes the following topics:

- Identifying the Installation Directory
- Configuration for GUI Mode Installation
- Copying and Extracting the Software
- Setting Up the Web Application Server

Identifying the Installation Directory

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

- **OFS BD Download Directory** (Optional) Create a download directory and copy the OFS BD Applications Pack Installer File (Archive). This is the directory where the downloaded installer/patches can be copied.
- OFS BD Installation Directory (Mandatory) This is the directory where the installer would install/ copy the product files. FIC_HOME variable to be set in the .profile pointing to this OFS BD Installation Directory.
- OFS BD Staging/Metadata Directory (Mandatory) Create a Staging/Metadata Directory. This is the directory where you would be required to copy data loading files, save data extracts etc. Additionally, this folder also maintains the OFSAA metadata artifacts. This is also 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 775 on the Staging Directory.

Download and copy the OFS BD Applications Pack Installer

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

- To download the OFS BD 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 BD installation.

Configuration for GUI Mode Installation

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

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

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

Syntax:

export DISPLAY=hostname:n.n1 where hostname is the IP Address/Host Name of the user desktop system and n is the sequence number (usually 0).

For example, 10.11.12.13:0.0 or myhostname:0.0

Copying and Extracting the Software

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

Note:

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

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

uncompress unzip_<os>.Z

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 Oracle Financial Services Behavior Detection Application Pack 8.0.0.0 in Download Directory installer archive file using the following command:

unzip OFS_BD_PACK.zip

Note

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

1. Navigate to the directory where the installer kit is extracted.

```
chmod -R 755 OFS_BD_PACK
```

Setting Up the Web Application Server

For setting up the environment based on your selected Web Application Server, refer to Configuring Web Application Servers.

Installing OFS BD Pack

This chapter describes the steps to be followed to install the OFS BD pack depending on the offline and online modes of installation.

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

This chapter includes the following sections:

- Schema creator utility
- Configuring and Executing the Schema Creator Utility
- Installing the OFS BD Applications Pack
- Verifying the Installation

Schema creator utility

Creating database users/schemas is one of the primary steps in the complete OFS BD installation. This release of OFSAA provides a utility to quickly get started with the OFSAA 8.0.0.0 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 entities in these schemas.

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

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

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

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

Note: There can be multiple ATOMIC schemas per OFSAA Instance and an Information Domain can have only one ATOMIC schema. ADDON - This schema denotes any additional schema used by the OFSAA Applications.

Schema creator utility supports two modes of execution:

• Online Mode: In this mode, the utility connects to the database and executes the DDLs for User, Entities, and Grants.

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

 Offline Mode: In this mode, the utility generates a SQL script with all the required DDLs for User, Entities and Grants. This script needs to be executed by the DBA on the appropriate database identified for OFSAA usage.

Note: For running the sql script generated in offline mode, the script should reside in the same directory where the 'SQLScripts' directory is available.

Note:

- 1. To execute the utility in Offline mode, you need to connect as any user with the following 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. Do not modify the OFS_BD_SCHEMA_OUT.XML file generated after the execution of this utility
- 3. If there are any errors during the script execution, reconfigure the OFS_ BD_SCHEMA_IN.xml file and execute the utility. This regenerates the scripts with corrected information.
- 4. Do not keep any backup files of xml's in the download directory.

Configuring and Executing the Schema Creator Utility

This section includes the following topics:

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

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

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.
- The HOSTNAME/IP of the server on which OFSAA is getting installed.
- TNSNames.ora should have entry for the database planning to install the Database objects.

Configuring the Schema Creator Utility

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

To configure the Schema Creator Utility, follow these steps:

- 1. Log in to the system as non-root user.
- 2. Navigate to the following path: OFS_BD_PACK/schema_creator/conf folder.
- 3. Edit the OFS_BD_SCHEMA_IN.xml file in a text editor.
- 4. Configure the following elements as described in the table:

Table 4–1 OFS_BD_SCHEMA_IN.xml Paraemters

Element Name	Description	Mandatory/Optional change
APP_PACK_ID	Applications Pack ID as per Product Management	Mandatory This value should not be edited.

Element Name	Description	Permissible Value	Mandatory/Optional change
<jdbc_url></jdbc_url>	Enter the JDBC	Example,	Mandatory
	URL.	jdbc:oracle:thin:@ <ho ST/IP>:<port>:<sid< td=""><td></td></sid<></port></ho 	
	Note: You can	> or	
	enter RAC and NON-RAC enabled database connectivity URL.	jdbc:oracle:thin:@//[HOST][:PORT]/SERVI CE	
	The TNS Entry	or	
	should be made in the Application Server where the installation is happening and Web Application Server.	jdbc:oracle:thin:@(DES CRIPTION=(ADDRES S_ LIST=(ADDRESS=(PR OTOCOL=TCP)(HOS T=[HOST])(port=[PO RT]))(ADDRESS=(PR OTOCOL=TCP)(HOS T=[HOST])(PORT=[P ORT]))(LOAD_ BALANCE=yes)(FAIL OVER=yes))(CONNE CT_ DATA=(SERVICE_ NAME=[SERVICE])))	
		For example, jdbc:oracle:thin:@//d bhost.server.com:1521 /service1	
		or	
		jdbc:oracle:thin:@//d bshostserver.com:1521 /scan-1	
		or	
		jdbc:oracle:thin:@(DES CRIPTION=(ADDRES	
		S_ LIST=(ADDRESS=(PR OTOCOL=TCP)(HOS T=dbhost1.server.com)(port=1521))(ADDRE SS=(PROTOCOL=TCP)(HOST=dbhost2.serv er.com)(PORT=1521))(LOAD_ BALANCE=yes)(FAIL OVER=yes))(CONNE CT_ DATA=(SERVICE_ NAME=service1)))	
<jdbc_driver></jdbc_driver>	By default this driver is seeded. Note: Do not edit this attribute value.	Example, oracle.jdbc.driver.Orac leDriver	Mandatory

Table 4–1 (Cont.) OFS_BD_SCHEMA_IN.xml Paraemters

Element Name	Description	Permissible Value	Mandatory/Optional change
<host></host>	Enter the Hostname or the IP Address of the system on which you are installing the OFSAA components.	Host Name/IP Address	Mandatory
<setupinfo>/ NAME</setupinfo>	Enter the acronym for the type of implementation. This information will be displayed in the OFSAA Home Page.	Accepts strings with a minimum length of two and maximum of four. Example, DEV, SIT, PROD	Mandatory
	Note: On executing the schema creator utility, this value will be prefixed with each schema name. For example: dev_ ofsaaconf, uat_ ofsaaatm.		
<setupinfo>/ PREFIX_ SCHEMA_NAME</setupinfo>	Identifies if the value specified in <setupinfo>/ NAME attribute should be prefixed to the schema name. Sample: <setupinfo NAME="DEV" PREFIX_ SCHEMA_ NAME="N" /></setupinfo </setupinfo>	Y or N Default value is N. If Y, the schema names generated would carry the prefix. For example: dev_ofsaaconf, uat_ ofsaatm1	Optional

Table 4–1 (Cont.) OFS_BD_SCHEMA_IN.xml Paraemters

Element Name	Description	Permissible Value	Mandatory/Optional change
<password>/A PPLYSAMEFORA LL</password>	Enter as Y if you want to apply the password specified in DEFAULT attribute for all the schemas.	Y/N	Mandatory Note: Setting this attribute value is mandatory, If DEFAULT attribute is set.
	If you enter as N, then you need to provide individual passwords for all schemas.		
	Note: If you have entered Y in APPLYSAMEFOR ALL attribute and also have specified individual passwords for all the schemas, then the specified individual passwords will take precedence.		
<password>/ DEFAULT*</password>	Enter the password if you want to set a default for all schemas. The maximum length allowed is 30 characters. Special characters are not allowed.	-	Optional
	Note: You also need to set APPLYSAMEFO RALL attribute as Y to apply the default password for all the schemas.		

Table 4–1 (Cont.) OFS_BD_SCHEMA_IN.xml Paraemters

Element Name	Description	Permissible Value	Mandatory/Optional change
<schema>TYPE</schema>	The different types of schemas that are supported in this release are ATOMIC and CONFIG.	ATOMIC/CONFIG/A DDON	Mandatory
	By default, the schemas types are seeded based on the Applications Pack.		
	Note: Do not edit this attribute value.		
<schema> NAME</schema>	By default, the schemas names are seeded based on the Applications Pack.	The permissible length is 15 characters and only alphanumeric characters allowed. No special characters	To identify which schema is associated to this Application. Cannot be blank
	You can edit the schema names if required.	allowed except underscore '_'.	
	Note:		
	The Schema Name will have a prefix of the SETUPINFO/NA ME attribute.		
	The schema name should be same for all APP_IDs:		
	Note: By default, the schema name of saapurgeutil user is more than the allowable limit of the number of characters. Please edit this value to an appropriate value.		

Table 4–1 (Cont.) OFS_BD_SCHEMA_IN.xml Paraemters

Element Name	Description	Permissible Value	Mandatory/Optional change
<schema>/ PASSWORD*</schema>	 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.</password> The maximum length allowed is 30 characters. Special characters are not allowed. 	-	Optional Note: You need to mandatorily enter the password if you have set the <password>/ APPLYSAMEFORALL attribute as N.</password>
<schema>/ APP_ID</schema>	By default, the Application ID is seeded based on the Applications Pack. Note: Do not edit this attribute value.	-	Mandatory
<schema>/ DEFAULTTABLES PACE</schema>	Enter the available default tablespace for DB User. Note: If this attribute is left blank, then USERS is set as the default tablespace. Do not edit these values.	-	Mandatory
<schema>/ TEMPTABLESPAC E</schema>	Enter the available temporary tablespace for the DB User. Note: If this attribute is left blank, then TEMP is set as the default tablespace.	-	Optional

Table 4–1 (Cont.) OFS_BD_SCHEMA_IN.xml Paraemters

Element Name	Description	Permissible Value	Mandatory/Optional change
<schema>TYPE</schema>	The different types of schemas that are supported in this release are ATOMIC, CONFIG	ATOMIC/CONFIG/A DDON	Mandatory
	By default, the schemas types are seeded based on the Application Pack.		
	Note : Do not edit this attribute value.		
<schema>/QU OTA</schema>	Enter the quota to be set on DEFAULTTABLES PACE attribute for the schema/user. By default, the quota size is set to 10G.	Minimum: 500M or Unlimited on default Tablespace. For example, 600M/m 20G/g UNLIMITED/unlimit ed	Optional
<schema>/ INFODOM</schema>	Enter the name of the Information Domain to associate this schema.	Minimum string length should be 6 characters and up to 11 characters.	Optional
	The schema creator utility automatically derives an Information Domain Name based on the Applications Pack if no value is specified for this attribute.		
	Note: Entering information domain is required only for SILENT mode of installation.		
	The infodom name should be same for all the APP_ID.		
<tablespace> VALUE attribute</tablespace>	As per naming conventions, User can modify the default values provided under the VALUE attribute	Example: DATA_AM_ TBSP and so on.	Mandatory

Table 4–1 (Cont.) OFS_BD_SCHEMA_IN.xml Paraemters

Element Name	Description	Permissible Value	Mandatory/Optional change
<tablespace> DATAFILE attribute</tablespace>	Update <change_me> place holder with the actual DATAFILE creation path.</change_me>	Example:/scratch/ora cle/app/oracle/orada ta/	Mandatory
	For example: DATAFILE="+DA TA/ORA12CQA/ alert_data_ 052.dbf"		
	Note: For ASM enabled database, the datafile path should start with +data/.		
<roles> VALUE attribute</roles>	As per naming conventions, User can modify the default values provided under the VALUE tag.	Example: OFS_ FCCM_LOADER_ ROLE	Mandatory
<directories> VALUE attribute</directories>	Mention the VALUE attribute as @FIC_ HOME@/bdf/inb ox, where @FIC_ HOME @ needs to be replaced with OFSBD application pack installed path.	Example: /scratch/ofsaaweb/O FSAAI80/bdf/inbox	Mandatory for AML/FR/TC/BC/EC TC
	Note: As such this path can be edited/changed by Users.		
	This directory path can be any directory that both the database server and application server have access to and Oracle user (user with which Oracle Database is installed) must		
	have read/write access to this named directory.		

Table 4–1 (Cont.) OFS_BD_SCHEMA_IN.xml Paraemters

* Once the Schema Creator Utility is successfully executed, the entered passwords will be nullified.

Note: While editing the OFS_BD_SCHEMA_IN.xml, ensure only the values/tag attributes mentioned in must be modified and none of other tags should be modified.

Refer to the following List of attributes that should not be modified:

- APP_PACK_ID
- ROLE.NAME
- DIRECTORY. ID
- DIRECTORY.NAME
- SCHEMA. APP_ID
- SCHEMA. DEFAULTTABLESPACE
- SCHEMA. APP_GRP
- SCHEMA.TYPE
- TABLESPACE.NAME

Executing the Schema Creator Utility

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

- Executing the Schema Creator Utility in Online Mode
- Executing the Schema Creator Utility in Offline Mode
- Executing the Schema Creator Utility in Silent Mode
- Executing the Schema Creator Utility while Installing Subsequent Applications Pack

Executing the Schema Creator Utility in Online Mode

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

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

- 1. Log in to the system as non-root user.
- 2. Navigate to the following folder path: OFS_BD_PACK/schema_creator/bin/
- **3.** Execute the osc.sh file using the following command:

./osc.sh

- 4. The following message is displayed: You have chosen ONLINE mode.
- 5. Enter the DB Username with SYSDBA Privileges. For example: SYS as SYSDBA.
- 6. Enter the User Password.

Figure 4–1 Schema Creation - Online Mode

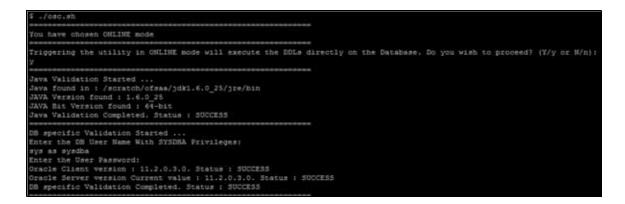


Figure 4–2 Schema Creation - Online Mode

All the prechecks execution completed successfully.
Executing TableSpace Scripts started Executing TableSpace Scripts completed
Creating Schemas started CONFIG User dev_conf14 successfully created on Default TableSpace : USERS on Temp TableSpace : T Grants creation scripts execution started Grants creation scripts execution completed Successfully connected to User - dev_conf14 URL - jdbc:oracle:thin:@ofss220623:1521:MEDIADB Scripts execution for CONFIG schema started Scripts execution for CONFIG schema completed User dev_conf14 details updated into the dbmaster table User dev_atm14 details updated into the dbmaster table User dev_atm14 is successfully created on Default TableSpace : USERS on Temp TableSpace : TEMP User dev_atm14 already exists in dbmaster table. Creating Schemas completed
Roles creation scripts execution started Roles creation scripts execution completed
Grants creation scripts execution started Grants creation scripts execution completed
Schemas Creation Completed
Schema Creator executed Successfully.Please proceed with the installation.

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

Schema Creator executed successfully. Please proceed with the installation.

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

Executing the Schema Creator Utility in Offline Mode

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

Prerequisites:

Database user with the following privileges:

- DBA_ROLES
- DBA_USERS
- DBA_DIRECTORIES
- DBA_TABLESPACES
- CREATE SESSION

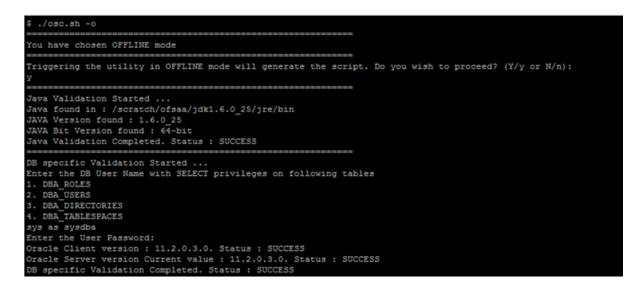
To execute the schema creator utility in the offline mode, follow these steps:

- 1. Navigate to the following folder path: OFS_BD_PACK/schema_creator/bin
- **2.** Execute the osc.sh file using the following command:

./osc.sh -o

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

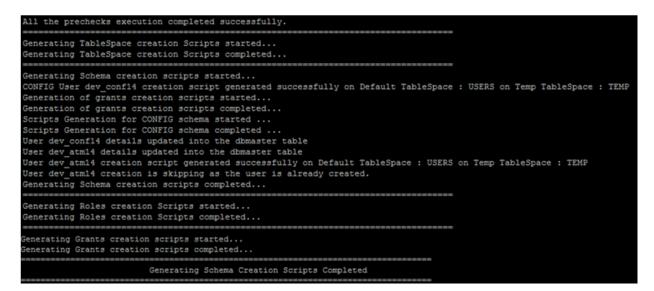
Figure 4–3 Schema Creation - Offline Mode



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

Success. Please execute OFS_BD_PACK/schema_creator/sysdba_output_ scripts.sql before proceeding with the installation.

Figure 4–4 Schema Creation - Offline Mode



6. Navigate to the directory:

OFS_BD_PACK/schema_creator

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

Figure 4–5 Schema Creator - Offline Mode

```
/scratch/ofsaaweb/OFS_AAAI_PACK/schema_creator/bin
$ cd ..
$ sqlplus sys/oracle@MEDIADB as sysdba
SQL*Plus: Release 11.2.0.3.0 Production on Fri Dec 5 15:10:52 2014
Copyright (c) 1982, 2011, Oracle. All rights reserved.
Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
SQL> @/scratch/ofsaaweb/OFS_AAAI_PACK/schema_creator/sysdba_output_scripts.sql
Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
$
```

8. 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.

SQL Scripts folder and SQl file should reside in the same folder.

Executing the Schema Creator Utility in Silent Mode

If you want to run the OFS BD 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_BD_PACK/schema_creator/conf/OFS_BD_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>.

Note: The infodom name and schema name should be same for all the below APP_ID:

- OFS_FATCA
- OFS_FRAUD
- OFS_AML
- OFS_TC
- OFS_ECTC
- OFS_PTA
- OFS_TB
- OFS_BC
- OFS_IPE
- OFS_FRAUD_EE
- **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.

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

Executing the Schema Creator Utility while Installing Subsequent Applications Pack

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

Note: OFS BD Pack need to be installed on a separate information domain.

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

1. Perform the steps 1 to 5 from the Executing the Schema Creator Utility section.

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

Success. Please proceed with the installation.

Refer log file in <code>OFS_BD_PACK/schema_creator/logs</code> folder for execution status, if scripts are executed in online mode.

Refer log sysdba_output_scripts.log file for execution status, if executed in offline mode.

In case of any errors, contact Oracle Support.

Verifying the Log File

You can verify the log files for any errors faced during the schema creation process in the following location: OFS_BD_PACK/schema_creator/logs.

Installing the OFS BD Applications Pack

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

- Silent Mode Installation
- GUI Mode Installation

Silent Mode Installation

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

Configuring OFSAAI_InstallConfig.xml

Follow these instructions to configure OFSAA_InstallConfig.xml file:

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

FIC_HOME=< OFSAA Installation Directory >

export FIC_HOME

- 3. Execute the user .profile.
- 4. Navigate to the file: OFS_BD_PACK/OFS_AAI/conf/OFSAAI_InstallConfig.xml
- 5. Configure the OFSAAI_InstallConfig.xml as mentioned in the following table:
- **6.** 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.

InteractionVariableNa me	Significance and Expected Value	Mandatory			
Layer name="GENERAL">					
WEBAPPSERVERTYPE	Identifies the web application server on which the OFSAA Infrastructure web components would be deployed.	Yes			
	The below numeric value should be set depending on the type:				
	Apache Tomcat = 1				
	IBM WebSphere Application Server = 2				
	Oracle WebLogic Server = 3				
	For example, <interactionvariable name="WEBAPPSERVERTYPE">3< /InteractionVari able></interactionvariable 				
DBSERVER_IP	Identifies the hostname or IP address of the system on which the Database Engine is hosted.	Yes			
	Note: For RAC Database , the value should be NA.				
	For example, <interactionvariable name="DBSERVER_ IP">14.15.16.17e> or</interactionvariable 				
	<interactionvariable name="DBSERVER_ IP">dbhost.server.comnVariable</interactionvariable 				
	>				
ORACLE_ SID/SERVICE_NAME	Identifies the Oracle DB Instance SID or SERVICE_NAME	Yes			
	Note: The Oracle_SID value should be exactly the same as it is mentioned in JDBC_URL.				
	For example, <interactionvariable name="ORACLE_SID/SERVICE_</interactionvariable 				
	NAME">ofsaserble>				
ABS_DRIVER_PATH	Identifies the directory where the JDBC driver (ojdbc <version>.jar) exists. This would typically be the</version>	Yes			
	\$ORACLE_HOME/jdbc/lib NOTE: Refer to Appendix J for identifying the correct "ojdbc <version>.jar" version to be copied.</version>				
	For example, <interactionvariable name="ABS_DRIVER_ PATH">">/oradata6/revwb7/oracl e</interactionvariable 				

Table 4–2Prerequisite Information

InteractionVariableNa me	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 value should be set to 0/.	Yes		
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:	Yes		
	■ SFTP - 1			
	■ FTP - 0			
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. For example, <interactionvariable name="SFTP_ENABLE">0</interactionvariable>				
FILE_TRANSFER_	Identifies the port used for the file	Yes		

Table 4–2 (Cont.) Prerequisite Information

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.	Yes
	For example, <interactionvariable name="FILE_TRANSFER_ PORT">21</interactionvariable 	
LOCALE	Identifies the locale information to be used during the installation. This release of the OFSAA Infrastructure supports only US English.	Yes
	For example, <interactionvariable name="LOCALE">en_ US</interactionvariable 	

Note: The following ports are used internally by the various OFSAA Infrastructure services. The default values mentioned below are set in the installation. If you intend to specify a different value, update the parameter value accordingly and ensure this port value is in the range of 1025 to 65535 and the respective port is enabled.

0		
JAVAPORT	9999	Yes
NATIVEPORT	6666	Yes
AGENTPORT	6510	Yes
ICCPORT	6507	Yes
ICCNATIVEPORT	6509	Yes
OLAPPORT	10101	Yes
MSGPORT	6501	Yes
ROUTERPORT	6500	Yes
AMPORT	6505	Yes
<layer name="OFSAAI_WEB_LAYER"></layer>		

InteractionVariableNa me	Significance and Expected Value	Mandatory
HTTPS_ENABLE	Identifies if the UI should be accessed using HTTP or HTTPS scheme. The default value set is 0. The following numeric value should be set depending on the choice:	Yes
	 Yes - 1 No - 0 	
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.	Yes
	If no separate HTTP Server is available, the value should be Web Application Server IP/Hostname.	
	For example, <interactionvariable name="WEB_SERVER_ IP">10.11.12.13e></interactionvariable 	
	or <interactionvariable name="WEB_
SERVER_
IP">myweb.server.comnVariable></interactionvariable>	
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.	Yes
	Note: The port value will not be accepted as 80 if HTTPS_ENABLE is 1 and as 443, if HTTPS_ENABLE is 0.	
	For example, <interactionvariable name="WEB_SERVER_ PORT">80</interactionvariable 	
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:	Yes
	<scheme>://<host>:<port>/<cont ext-name>/lo gin.jsp</cont </port></host></scheme>	
	Sample URL:	
	https://myweb:443/ofsaadev/ login.jsp	
	For example, <interactionvariable name="CONTEXT_ NAME">ofsaadevable></interactionvariable 	

 Table 4–2 (Cont.) Prerequisite Information

InteractionVariableNa me	Significance and Expected Value	Mandatory
WEBAPP_CONTEXT_ PATH	Identifies the absolute path of the exploded .ear file on the web application server.	Yes
	For Tomcat, specify the Tomcat directory path till	
	/webapps, such as	
	/oradata6/revwb7/tomcat/webap ps/.	
	For WebSphere, enter the WebSphere path as	
	<websphere profile<br="">directory>/installedApps/</websphere>	
	<nodecellname>. For example,</nodecellname>	
	/data2/test//WebSphere/AppServ er/profiles/	
	<profile_< td=""><td></td></profile_<>	
	Name>/installedApps/aix-imfNod e01Cell. Where aix-imf is Host name.	
	For WebLogic, provide the WebLogic home directory path as / <weblogic directory<br="" home="">path>/bea/wlserver_10.3</weblogic>	
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.	Yes
	Note: In case of a clustered deployment, ensure this path and directory is same on all the nodes.	
WEBLOGIC_ DOMAIN_HOME	Identifies the WebLogic Domain Home. Specify the value only if WEBSERVERTYPE is set as 3 (WebLogic).	Yes if the if WEBAPPSERVERTYPE atrribute is set to 3
	For example, <interactionvariable name="WEBLOGIC_DOMAIN_</interactionvariable 	
	HOME">/home/weblogic/bea/us er_projects/domains/mydomain	

 Table 4–2 (Cont.) Prerequisite Information

InteractionVariableNa me	Significance and Expected Value	Mandatory
OFSAAI_FTPSHARE_ PATH	Identifies the absolute path to the directory identified as file system stage area.	Yes
	Note:	
	1.The directory should exist on the same system on which the OFSAA Infrastructure is being installed (can be on a separate mount).	
	2.The user mentioned in APP_ SFTP_USER_ID parameter below should have RWX permission on the directory.	
	For example, <interactionvariable name="APP_FTPSHARE_ PATH">">/oradata6/revwb7/ftpsh are</interactionvariable 	
OFSAAI_SFTP_USER_ ID	Identifies the user who has RWX permissions on the directory identified under parameter APP_ FTPSHARE_PATH above.	Yes

 Table 4–2 (Cont.) Prerequisite Information

7. Navigate to the file: OFS_BD_PACK/conf/OFS_BD_PACK.xml and select the applications to be enabled.

Note: Enter YES in ENABLE tag to enable application.

Configuring InstallConfig.xml

To configure the InstallConfig.xml file, follow these steps:

- 1. Navigate to the file: OFS_BD_PACK/OFS_BD/conf/InstallConfig.xml
- **2.** Enter the details mentioned in the tags (<!-- Start: User input required for silent installer. --> and <!-- End: User input required for silent installer. -->) as mentioned in the following table.

Table 4–3 InstallConfig.xml Parameters

Placeholder Name	Significance and Expected Value	Mandatory
##OFS_AML_BASE_ COUNTRY##	ISO country code to use during data ingestion to record institution-derived geography risk on parties on transactions that are internal to the OFSBD client. For example: base_country=US base_country=US	Yes
##OFS_AML_ DEFAULT_ JURISDICTION##	Jurisdiction to assign the derived entities and derived addresses. For example: default_jurisdiction=AMEA	Yes

Placeholder Name	Significance and Expected Value	Mandatory
##OFS_AML_SMTP_ HOST##	Hostname of the e-mail gateway to be used by the application for e-mail notifications.	Yes
	For example:	
	smtp_ host=mailhost.domain.com	
	smtp_ host=mailhost.domain.com	
##OFS_AML_ADMIN_ TOOLS_CONTXT##	Admin Tools Web application Context.	Yes
	For Example: admin_tools	
	Note : During deployment the ear file needs to be deployed with same name	
##OFS_AML_ PARTITION_DATE_ FORMAT##	Format of the date used in specifying partition dates.	Yes
FORMAI##	Allowed values are DD-MON-YYYY/DD-MM-YYYY	
##OFS_AML_WEEK_ END_HOLIDAY_ PATTERN##	 Flag used to derive partition dates based on Week end holiday pattern. 	Yes
	 Allowed values are: Saturday,Sunday/Friday 	
##OFS_AML_ DataDumpDt_minus_ 0##	Enter the date of the business day for which the data to be loaded.	Yes
	It should be in dd/mm/yyyy format.	
	For Example: 10/12/2009	
##OFS_AML_ EndThisWeek_minus_ 00##	Enter the date of the Saturday of the next business week with respect to the date for which the data is loaded.	Yes
	It should be in dd/mm/yyyy format.	
	For Example: 19/12/2009	
##OFS_AML_ StartNxtMnth_minus_ 00##	Enter the first business day of the next month with respect to the data load date.	Yes
	It should be in dd/mm/yyyy format.	
	For Example:01/01/2010	
##OFS_AML_ ANALYST_DATA_ SOURCE##	Name of the Analyst Data source used for Admin Tools Configurations	Yes
##OFS_AML_MINER_ DATA_SOURCE##	Name of the Miner Data source used for Admin Tools Configurations	Yes
##OFS_AML_WEB_ SERVICE_USER##	Web service user for Post Alert Services.	Yes

Table 4–3 (Cont.) InstallConfig.xml Parameters

Placeholder Name	Significance and Expected Value	Mandatory
##OFS_AML_WEB_ SERVICE_ PASSWORD##	Web service password for Post Alert Services.	Yes
##OFS_AML_NLS_ LENGTH_ SEMANTICS##	##OFS_AML_NLS_LENGTH_ SEMANTICS##NLS_LENGTH_ SEMANTICS database variable for executing the DDL scripts.	Yes
	Applicable values are CHAR/BYTE.	
	Note : Recommendation to go with CHAR.	
##OFS_AML_ CONFIGURE_OBIEE##	Mention flag as '1" to configure OBIEE URL.	Yes
	Otherwise mention as '0'	
##OFS_AML_OBIEE_ URL##	In case ##OFS_AML_CONFIGURE_ OBIEE_URL## mentioned as '1'provide the URL in the pattern	Yes

Table 4–3 (Cont.) InstallConfig.xml Parameters

Running the installer in Silent Mode

To install the OFSAA Infrastructure in Silent mode for java 7 and java 8, follow these steps:

For Java 7:

- 1. Navigate to the OFS_BD_PACK/bin folder.
- 2. Execute the command in the console:

./setup.sh SILENT

For Java 8:

1. Edit the VerInfo.txt file to modify the value for property JAVA_VERSION to 1.8 under the following paths:

OFS_BD_PACK/OFS_AAI/bin and OFS_BD_PACK/OFS_BD/bin

- 2. Navigate to the OFS_BD_PACK/bin folder.
- **3.** Execute the command in the console:

./setup.sh SILENT

Completing the installation in Silent Mode

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

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

ofss220101.in.oracle.com - PuTTY oles creation scripts execution started ... oles creation scripts execution completed ... ants creation scripts execution started... ants creation scripts execution completed... Schemas Creation Completed chema Creator executed Successfully.Please proceed with the installation. clear cd /scratch/ofsaaweb/BDRR80/OFS BD PACK/bin ./setup.sh SILENT IC HOME : /scratch/ofsaaweb/BDRR80/BDRRB4 nvironment check utility started ... ava Validation Started ... ava found in : /scratch/oracle/jre1.6up37/jre1.6.0_37/bin JAVA Version found : 1.6.0 37 JAVA Bit Version found : 64-bit wa Validation Completed. Status : SUCCESS nvironment Variables Validation Started ... ORACLE_HOME : /scratch/oracle/app/oracle/product/11.2.0/client_1 TNS_ADMIN : /scratch/oracle/app/oracle/product/11.2.0/client_1/network/admin wironment Variables Validation Completed. Status : SUCCESS s specific Validation Started ... Unix shell found : /bin/ksh. Status : SUCCESS Total file descriptors : 15000. Status : SUCCESS otal number of process : 4096. Status : SUCCESS 5 specific Validation Completed. Status : SUCCESS B specific Validation Started ... racle Client version : 11.2.0.2.0. Status : SUCCESS REATE SESSION has been granted to user. Status : SUCCESS REATE 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 REATE 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 : 4096. 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 Dracle Server version Current value : 11.2.0.3.0. Status : SUCCESS specific Validation Completed. Status : SUCCESS wironment check utility Status : SUCCESS ______ Welcome to Oracle Financial Services Advanced Analytical Applications Infrastructure (OFS AAAI) Applications Pac 0

Note:

- Enter the Infrastructure FTP/SFTP password value, when prompted at the command prompt.
- Enter Always, when prompted to add host key fingerprint.

Table 4–4Webserver start up options

Console Prompts	User Inputs
	Enter the password to access Product Staging/Metadata repository directory in the application server.

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

Figure 4–6 OFSAAI License Agreement Page

B ofss220101.in.oracle.com - PuTTY
 Veloume to Oracle Financial Services Advanced Analytical Applications Infrastructure (OFS AAAI) Applications Pack Insta Checking Infrastructure installation status
Infrastructure installation does not exist. Proceeding with Infrastructure installation Triggering Infrastructure installation
Please enter Infrastructure Application/Database component FTF/SFTP password :
Start of Environment Checks
/scratch/ofsaaveb/BD9R00/OFS_BD_PACK/OFS_ HD/conf
File log4j.xml not found. Using default logging settings
Validating JAVA Version
Current JAVA Version is: 1.6.0.37
Required JAVA Version is: 1.6 JAVA Version validation status: SUCCESS
Checking OS
OS Type: LINV
OS Supported: TRUE Current OS Vermion:5.8
Supported OS Version; 5.5
OS Version Validation Status: SUCCESS
Available Disk Space is :14316
Available bisk Space is 14010 Required Disk Space is 1500 MB
Validation for category DISK SPACE. STATUS : SUCCESS
Institution and a store we store the store of the store o
Available Temp Space is 25959 MB Required Temp Space is 500 MB
Validation for category TEMP SPACE. STATUS : SUCCESS
the state of the s
Available RAN in NE 9745 Required RAN in NE 500 NE
Validation for category RAM. STATUS : SUCCESS
End of Environment Checks

OFSAA APPLICATION PACK LICENSE AGREEMENT
* Varning: This Software System is protected by International copyright laws. Unauthorized reproduction or distribution of ed to the maximum extent possible under the Law.*
* Oracle Financial Services Analytical Applications (OFS&A) Application Pack is a group of OFS&A products packaged togethe ped together. The Oracle Financial Services Analytical Applications Infrastructure (OFS &AI) being the base infrastructure ation Pack installation, the OFS&A Infrastructure product would be checked for and installed if required."
* Oracle Financial Services Enterprise Modeling (OFS AAAI) and Oracle Financial Services Inline Processing Engine (OFS IPE al Services Enterprise Modeling (OFS AAAI) and Oracle Financial Services Inline Processing Engine (OFS IPE) products are o
is that require these advanced analytical features of the product. Oracle Financial Services Enterprise Modeling (OFS AAAI
ing any of the OFSAA products within a specific Application Pack that require these products to be enabled and configured. * Multiple products being grouped together under a Application Fack, mandate installation and configuration of these products to vould get enabled and should be licensed for. It is important to note that products once selected (enabled) cannot be di
anage Application Pack License' feature." * Enabling a product within a Application Pack automatically implies you agree with this license agreement and the respect
Are you accepting the terms and conditions mentioned above? [Y/N]:

2. 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.
Enter password for default Infrastructure administrator user SYSADMN	Enter the password for the System Administrator.
Re-enter password for default Infrastructure administrator user SYSADMN	Enter the same password again to confirm its validity.
Enter password for default Infrastructure authorizer user SYSAUTH	Enter the password for the System Authorizer.
Enter password for default Infrastructure authorizer user SYSAUTH	Enter the same password again to confirm its validity.

Table 4–5Webserver start up options

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

9 #1223.xxxxxxxxx.4271
Devilation Temp Spaces is 2007 ED Devilation Temp Spaces is 2007 ED Devilation Temp Spaces is 2007 ED Distribution Sime Conservation Texture is annument
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Finan miss parent for default lifestructure estimates and TTUTTE
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* Number primary primary more physical counter such a supplication fund, mandate sum-electron and condigenation if there as a works per sumbles and physical by junctured ben. If to constraint to posts four priority a primary policited research to sense that and priority to be a supplication of the supp	proving by default. Denset, many the systemic fee consists and in the reaction of a province that he being privated, i a conduct a later prage. Remove, product the total be consist at any later reactioning the 1916 laters provid th
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Note: The installation process continues on the console. Do not close the console until the installation process is complete.

 $\label{eq:profile} \ensuremath{\mathsf{Execute}}\xspace \ensuremath{\mathsf{.profile}}\xspace \ensuremath{\mathsf{from}}\xspace \ensuremath{\mathsf{user}}\xspace \ensuremath{\mathsf{home}}\xspace \ensuremath{\mathsf{ater}}\xspace \e$

Download and install patch for Bug 21160684 if installing this

release of the OFS BD Application Pack version 8.0.0.0 on Java 8.

For more information, refer Configurations for Java 8. This patch is not required if an OFSAA instance already exists and is configured for Java 8.

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.

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

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

- **3.** Execute the user .profile.
- 4. To install OFS BD Application Pack for Java 7 and Java 8:

Java 7:

- Navigate to the OFS_BD_PACK/bin folder.
- Execute ./setup.sh GUI in the console.

Java 8:

 Edit the VerInfo.txt file to modify the value for property JAVA_VERSION to 1.8 under the following paths:

OFS_BD_PACK/OFS_AAI/bin and OFS_BD_PACK/OFS_BD/bin

- Navigate to the OFS_BD_PACK/bin folder
- Execute ./setup.sh GUI in the console.

Note: If the Precheck is successful, the installation begins. Else the installation aborts.



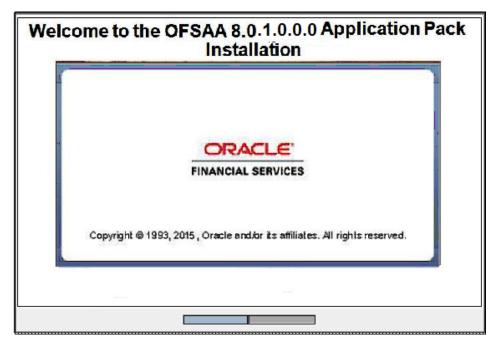


Figure 4–8 License Agreement

	License Agreement
@ License	Welcome to the OFSAA Application Pack Installation
O Preinstall Setup	This program will guide you through the installation of OFSAA Application Pack.
 Installation Install Complete 	Copyright © 1993, 2015, Oracle and / or its affiliates. All rights reserved.
	This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.
	The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.
	If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:
	U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.
	This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.
	This software or hardware and documentation may provide access to or information en content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.
ORACLE'	
FINANCIAL SERVICES	
	C Tapcoupt the terms of the Ucense Agreement
	I do H0T accept the terms of the License Agreement
InstallAnywhere	
Cancel Help	Previous Next

- 5. Select I accept the terms if the License Agreement option.
- 6. Click Next.

The Financial Services Behavior Detection Applications Pack details are displayed.

		Financial Services Behavior Det	ection Applications Pack
@ License			
Prenstal Setup	Application Pack ID :	OFS_BD_PACK	RACLE
Installation Install Complete	Application Pack Name :	Financial Services Behavior Detection Applications Pack FINANC	CIAL SERVICES
a mistar comprete	Application Pack Version :	R0.10.0 ANALYTIC	CAL APPLICATIONS
۲ I	The following products are a	available in this application pack:	
		Financial Services Analytical Applications Infrastructure	
		∠ Financial Services Inline Processing Engine	
		☑ Financial Services Anti Money Laundering	
		☑ Financial Services Fraud Enterprise Edition	
		Financial Services Trader Compliance	
		Financial Services Personal Trading Approval	
		Financial Services Broker Compliance	
		Financial Services Energy and Commodity Trading Compliance	
		☑ Financial Services Enterprise Case Management	
		✓ Financial Services Know Your Customer	
		Financial Services Currency Transaction Reporting	
		✓ Financial Services Foreign Account Tax Compliance Act Management	
ORACLE"			
URALLE			
	Notes: 1. Select the nonductificate have	e licensed and cilick: "Next" to proceed.	
		e intenses and other meet to be selected explicitly. This product is the base infrastructure and gets installed automatically	
		Option would get enabled / installed automatically if other product(s) has dependent license.	
	and a second second second	ale construction for a construction and a construction of a construction party and have a set of a set of a construction	
InstallAnywhere			
Cancel Help			Previous Next

- 7. Select the product to enable for which you have already obtained license.
- 8. Click Next. The License Agreement page is displayed.

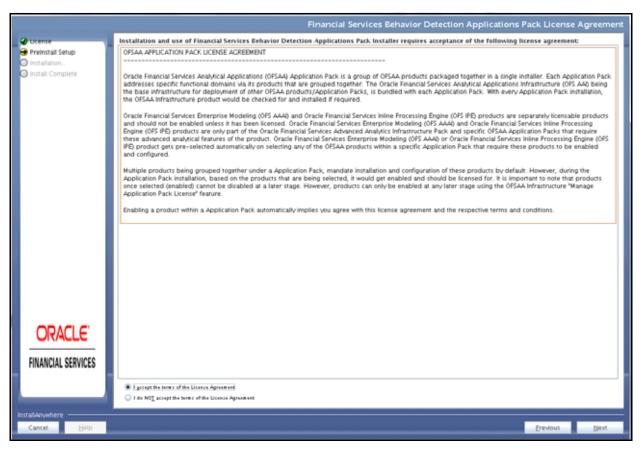


Figure 4–10 License Agreement page

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

The Manage Information Domain page is displayed.

nse	Information Domain Na	Application Name	Information Domain Description	Type	DB Schema
nstall Setup allation	OFSEDINFO	Financial Services Know Your Customer	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
j instali Complete		Financial Services Currency Transaction Reporting	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
		Financial Services Enterprise Case Management	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
		OFS_FSDF	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
		Financial Services Foreign Account Tax Compliance Act Management	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
		Financial Services Fraud	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
		Financial Services Anti Money Laundering	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
		Financial Services Trader Compliance	Information Domain for OF5_BD	PRODUCTION	bd_fccm801
		Financial Services Energy and Commodity Trading Compliance	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
		Financial Services Personal Trading Approval	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
		Financial Services Trade Blotter	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
DRACLE"		Financial Services Broker Compliance	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
INANCIAL SERVICES		Financial Services Inline Processing Engine	Information Domain for OFS_BD	PRODUCTION	bd_fccm801
		Financial Services Fraud Enterprise Edition	Information Domain for OF5_BD	PRODUCTION	bd fccm801

Figure 4–11 Manage Information Domain page

Note: Refer to Table 4-3 and provide appropriate values in the screen. All fields are mandatory.

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

Note: In case of subsequent Applications Pack installation on the same Information Domain, you cannot edit the name Permissible length is 16 characters and only alphanumeric characters allowed. No special characters allowed.

		Pre-Pack Panel Template
Ucense Preinstall Setup	Enter Base Country	us
 Installation Install Complete 	Enter Default jurisidiction	AMEA
G instal complete	Enter SMTP Host	7596
	Enter Admin Tools Context	atools
	Select Partition Date Format	DD-MON-YYYY
	Configure OBIEE server URLGelect 1 for Yes/0 for No)	0
	Enter OBIEE Server Uni(Ex: <protocol>://<ipaddress>: <port>)</port></ipaddress></protocol>	
	Select NLS_LENGTH_SEMANTICS	BYTE
	Select Week End Holiday Pattern	Saturday, Sunday
	Enter Current Business Day OR Initial Business Day For Data To Load(in dd/mm/yyyy format,Ex.10/12/2009)	10/12/2009
	Enter Date Of Saturday After Friday Of Current Business Week. OR Initial Business Week For Data To Be Loaded(in dd/mm/yyyy format, Ex. 19/12/2009)	19/12/2009
	Enter Date of Next Business Month (in dd/mm/ywy/format,Ex.01/01/2010)	01/01/2010
	Enter the Analyst Data source name	anaalyst
	Enter the Miner Data source name	minner
	Enter the User Id for Services	test
ORACLE"	Enter the Password for Services	
FINANCIAL SERVICES		
InstallAnywhere		
Cancel Help		Previous Next

Figure 4–12 Pre-Panel Template



Figure 4–13 License Agreement Window

License	Welcome to the OFSAAI Installation
Preinstall Setup Installation.	This program will guide you through the installation of OFSAA Infrastructure.
🕽 Install Complete	Copyright © 1993, 2015 , Oracle and / or its affiliates. All rights reserved.
ORACLE	This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute,
FINANCIAL SERVICES	I accept the terms of the License Agreement I do NOT accept the terms of the License Agreement

- 13. Select I accept the terms of the License Agreement option.
- 14. Click Next. The License Details page is displayed.



	License Detail:
 Utense Preinstall Setup Installation Install Complete 	Product Name: OFSAAInfrastructure Version 8.0.1.0.0 Operating System Linux
FINANCIAL SERVICES	Relational Database Oracle Licensed Locale en_US
InstallAnywhere	
Cancel Help	Previous

15. Click Next. The User Installation Directory window is displayed.

Figure 4–15 User Installation Directory



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

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

Figure 4–16 OFSAA Infrastructure Server Details

		OFSAA Infrastructure Server Details
 License Preinstall Setup Installation. Install Complete 		Enter requested information : Note: If the JDBC_URL is of RAC type then DB Server IP/Hostname field name should be NA.
		OFSAAI Server IP / Hostname : Database Server IP / Hostname :
installAnywhere —		
Cancel	<u>H</u> elp	Previous Next

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

18. Click Next. The Web Application Server window is displayed.

License Preinstall Setup	Choose the Web Application Server	type	
Installation Install Complete			
	O Tomcat		
	WebSphere Weblogic		
ORACLE			
FINANCIAL SERVICES			_
stallAnywhere <u>H</u> elp		<u>P</u> revious	Next

Figure 4–17 Web Application Server

20. Click Next. Based on the selection, corresponding screens are displayed.For WebSphere: The WebSphere Setup Details window is displayed.

 License Preinstall Setup Installation Install Complete 	Enter WebSphere installation Path up to the Host name directory For Ex:- /data2/test//WebSphere/AppServer/profiles/ <profile_na me>/installedApps/<cellname></cellname></profile_na
	/scratch/was7/IBM/WebSphere/AppServer/profiles/Profsa733
FINANCIAL SERVICES	
istallAnywhere	Previous Next

Figure 4–18 WebSphere Setup Details

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

For Tomcat: The Absolute Tomcat Path window is displayed.

License Preinstall Setup Installation Install Complete	Enter absolute Tomcat Installation path where Oracle Financial Services Analytical Applications Infrastructure is to be deployed. Example:- /home/data1/tomcat-7.0.19/webapps
allAnywhere	Previous Ne

Figure 4–19 Absolute Tomcat Path

22. Enter the Tomcat installation path (till/webapps) where OFSAAI will be deployed.For WebLogic: The Weblogic Home window is displayed.

	Weble	ogic Home
 License Preinstall Setup Installation Install Complete 	Enter Weblogic Home For Ex: /home/weblogic/bea/weblogic 10.3.5.0	
FINANCIAL SERVICES		
InstallAnywhere — Cancel <u>H</u> elp	Previous	Next

Figure 4–20 Weblogic Home

23. Enter the WebLogic home directory path.

License Preinstall Setup Installation. Install Complete	Enter Weblogic Domain Home For Ex: /home/weblogic/bea/user_projects/domains/mydomain
ORACLE'	
FINANCIAL SERVICES	

Figure 4–21 Weblogic Setup Details

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

Figure 4–22 OLAP Details

_	OLAP Details
 License Preinstall Setup Installation Install Complete 	Note : 1 = Enabled 0=Disabled If value is 1 then ARBORPATH, HYPERION_HOME & ESSBASEPATH variables should be set in .profile before installation.
	CONFIGURE OFSAAI OLAP FEATURE : 0
FINANCIAL SERVICES	
InstallAnywhere	Previous Next

- **25.** OFSAAI OLAP feature should be set to 0.
- 26. Click Next. The Web Server Details window is displayed.

 License PreInstall Setup Installation. 	Note : Context name will be used in your Application URL http:// <webserverip>:<servlet port="">/<contextname>/login.jsp Example:- http://10.80.50.206:9080/myapp/login.jsp</contextname></servlet></webserverip>
Install Complete	ENABLE HTTPS
	9061
	WEB APP SERVER IP
	11.12.13.14
	Context name for deployment
ALL AND A	Profsa733
ORACLE'	WEB LOCAL PATH
FINANCIAL SERVICES	/scratch/websphere/ftpshare
stallAnywhere ————	
Cancel Help	Previous

Figure 4–23 Web Server Details

- **27.** Select **Enable HTTPS** checkbox to configure HTTPS, if required, and enter the Web Server (HTTP Server) Port, Context name for deployment, and Local path to any folder on the Web Application Server (Tomcat/Websphere/Weblogic).
- 28. Click Next. The Database Details window is displayed.

Database Details License NOTE: 🔿 Preinstall Setup Specify the Database user name which is the user created for configuration database schema. For example: configuser Installation... Specify the Database driver path as <ORACLE_HOME>/jdbc/lib 🔘 Install Complete where <ORACLE_HOME> should be replaced with ORACLE_HOME value. The ABSOLUTE DRIVER PATH refers to the JDBC driver files path. ORACLE SID / SERVICE_NAME : . OFSQADB **IDBC URL**: jdbc:oracle:thin:@11.12.13.14.1516:OFSQADB CONFIG SCHEMA USER ID : DOC733CONF Oracle Configuration Schema Password ORACLE' FINANCIAL SERVICES ABSOLUTE DRIVER PATH : /scratch/oracle/app/oracle/product/11.2.0/client_1/jdbc/lib InstallAnywhere Restore Default Choose.. Cancel Help

Figure 4–24 Database Details

29. Enter Oracle SID/Service Name.

Note:

The JDBC URL, Configuration Schema User ID, Oracle Configuration Schema Password, and Absolute Driver Path are auto-populated.

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

30. Click Next. The Ports Configuration window is displayed.

Figure 4–25 Ports Configuration

	Ports Configuration
 License Preinstall Setup Installation 	Enter required information : Note: Ports must have unique value.
O Install Complete	Java Port
	9999
	Native Port
	6666
	Agent Port
	6510
	ICC Server Port
ORACLE'	6507
FINANCIAL SERVICES	ICC Native Port
	6509
InstallAnywhere	
Cancel Help	Previous
Telb	L'consta

Note: The Port, Native Port, Agent Port, ICC Server Port, and ICC Native Ports are auto-populated. You can also configure the Ports settings.

31. Click Next. The Ports Configuration window is displayed.

_	Ports Config	uratio
 License Preinstall Setup Installation. 	Enter required information : Note: Ports must have unique value.	
D Install Complete	Java Port	
	9999	
	Native Port	
	6666	
	Agent Port	
	6510	
	ICC Server Port	
ORACLE'	6507	
FINANCIAL SERVICES	ICC Native Port	
· · · · · · · · · · · · · · · · · · ·	6509	2
stallAnywhere		
Cancel <u>H</u> elp	Previous	Next

Figure 4–26 Ports Configuration

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

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

Figure 4–27	Default Infrastructure	Administrator and	Authorizer User Password
-------------	------------------------	-------------------	--------------------------

Enter requested information
Please enter password for default Infrastructure administrator user SYSADMN :
••••••
Please re-enter password for default Infrastructure administrator user SYSADMN :
••••••
Please enter password for default Infrastructure authorizer user SYSAUTH :
••••••
Please re-enter password for default Infrastructure authorizer user SYSAUTH :
••••••

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

Figure 4–28 SFTP Details

	SFTP Details
 License Preinstall Setup Installation. Install Complete 	Note : For enable SFTP : If value is 1 then SFTP will be enabled . If value is 0 then FTP will be enabled
	ENABLE SFTP: 1 FILE TRANSFER PORT: 22
FINANCIAL SERVICES	
InstallAnywhere	
Cancel <u>H</u> elp	Previous <u>Next</u>

Note:

- Enable SFTP and File Transfer Port details are auto-populated.
- Ensure that the system, on which the OFSAA Infrastructure is being installed, has either FTP/SFTP enabled.
- 35. Click Next. The OFSAAI Post Install Details window is displayed.
- **36.** Enter the FTPSHARE Path. This is same as the OFSAA Staging/ Metadata Repository Directory.
- 37. Enter the FTP/SFTP User ID and Password for FTPSHARE Directory access.

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

38. Click Next. The Pre Installation Summary window is displayed.



Figure 4–29 Pre Installation Summary

39. Click Install. The Installing OFSAA Infrastructure window is displayed.

Figure 4–30 Installing OFSAA Infrastructure



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

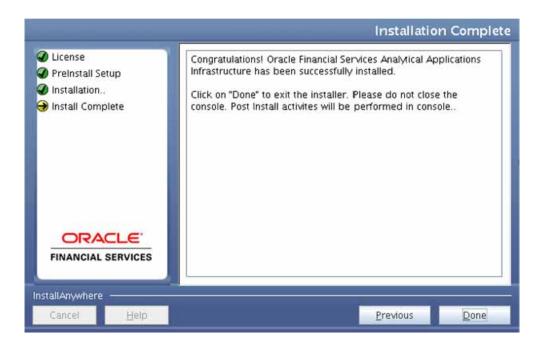
Figure 4–31 Installation Summary



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

40. Click Next. The Installation Complete window is displayed.





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

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

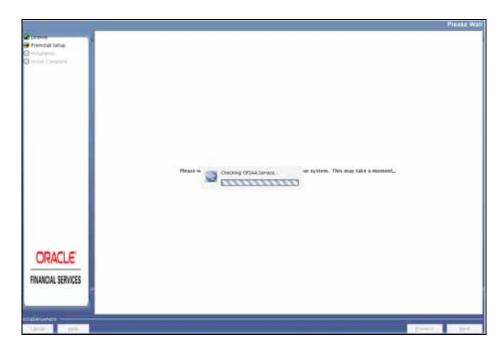


Figure 4–33 Checking OFSAAI Services

Figure 4–34 Installation Complete



42. Click Done.

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

Verifying the Installation

- Verify the Pack_install.log file in the folder: /OFS_BD_PACK/logs
- Verify the OFSAA logs under /OFS_BD_PACK/OFS_AAI/logs
- Verfy the BD_log files located in the folder : /OFS_BD_PACK/OFS_BD/logs for OFS BD Application Pack Installation log file.

Note: If there are any errors, do not proceed with further installation and contact Oracle Support.

Note: Ensure that you apply the following two patches before deploying the application:

- Patch 21865079 has to be applied for for Java 8 + Weblogic 12.1.3 combination.
- Patch 21535620

Post Installation Configuration

On successful installation of the Oracle Financial Services Behavior Detection Applications Pack, refer the following post installation sections:

This chapter includes the following sections:

- Creating and Deploying the Applications Pack Web Archive
- Installing Scenario Manager
- Deploying Analytic Reports and Threshold Analyzer
- Configuring Resource Reference
- Configuring Web Application Server
- Configurations for Java 8
- Installing lower version of OFS BD on a higher version of OFSAA Infrastructure (OFS AAI)

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

Creating and Deploying the Applications Pack Web Archive

OFSBD Application Pack Deployment

To create and deploy the Applications Pack web archive, follow these steps:

- **1.** Navigate to the \$FIC_WEB_HOME directory.
- **2.** Execute the command:

./ant.sh

3. This will trigger the creation of EAR/WAR file - <contextname>.<extn>. Here <contextname> is the context name given during installation.

Note: Creating ear/war files are done by the installer automatically. If the files are not created, user can execute these steps.

- 4. On completion of the EAR/WAR files creation, the "BUILD SUCCESSFUL" and "Time Taken" message is displayed and you are returned to the prompt.
- 5. The EAR/WAR file <contextname>.<extn> is created under "\$FIC_WEB_HOME" directory.

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

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

Admin Tools Deployment

The following deployment steps must be performed if installed applications are AML/FR/TC/BC/ECTC/Fraud-EE/TB.

To deploy Admin Tools, follow these steps:

- 1. Create two data sources, one each for Analyst and Miner. The name of these data sources should match with the ones entered during the installation.
- 2. Go to \$FIC_HOME/ficweb/AM installed directory and run the script file ./ant.sh
- 3. Deploy the <admin_tool_context-name>.war (for example, admin_tools.war) available at \$FIC_HOME/AM directory, as an application on your Web Application Server.

Note:

- While deploying war file, keep same context name as updated against variable ADMIN_CONTEXT_NAME in InstallConfig.xml File located at <download_dir>/ OFS_BD_PACK/OFS_BD/conf.
- Refer to Post Deployment Configuration for more details.

Scenario Wizard Configuration and Deployment

The Scenario Wizard Configuration and Deployment must be performed if the following applications are installed

- AML
- FR
- Trade Compliance
- Broker Compliance
- Fraud-EE
- ECTC
- TB

To configure and deploy Scenario Wizard, follow these steps:

- 1. Navigate to \$FIC_HOME/ficweb/SCENARIO_WIZARD
- 2. Execute ./install.sh. When prompted for password, enter the KDD MNR Schema password.

3. Deploy the <context-name>.war file (for example SMLiteWeb.war) available at \$FIC_HOME/ficweb/SCENARIO_WIZARD as an application on your Web Application Server. While deploying war file, keep context name as SMLiteWeb.

Note Only one instance of Scenario Wizard will run on one Application server at a time. While launching the Scenario Wizard if you find any exception pop-up saying java.rmi.bind exception or java.rmi.unknownhost exception, follow these steps:

- 1. Stop the SMLiteWeb.war
- Navigate to <deployed area>SMLiteWeb\WEB-INF\classes\conf\mantas_cfg\install.cfg
- 3. In install.cfg change the token to some other port which is not occupied.
- 4. Define rmiPort. By default keep it 1099 rmiPort=1099
- 5. Restart the server.
- 4. Log Details.
 - a. Log file name- smlite.log
 - b. Log path Navigate to <deployed area>SMLiteWeb\WEB-INF\classes\logs\smlite.log
- 5. To customize the Log path/log file name, follow the following steps
 - a. Go to <deployed area>\SMLiteWeb\WEB-INF\classes\log4j.properties file
 - **b.** Change the value of the property log4j.appender.file.File="Your log file path"
 - c. Restart the SMLiteWeb.war

To configure and deploy Scenario Wizard on Websphere, follow these steps:

- 1. Ensure that port 1099 is free and available.
- 2. Deploy the SMLiteWeb.war
- 3. Change the class loader.
- 4. Navigate to Applications > Application Types > WebSphere enterprise applications > SMLiteWeb.war > Manage Modules.
- 5. Click on Module Apache-Axis and select Class loaded with local class loader first (parent last) under Class loader order.
- 6. Click Apply and then Save.
- **7.** Start the application. If the application is not accessible, stop and start the application again from the Websphere console.

Note: Refer to Post Deployment Configuration for more details.

- 1. For Front-end access, the following settings must be changed on the client side for the Scenario Wizard to work on Windows XP/Windows 7.
 - a. Navigate to Java Control Panel.
 - **b.** Under the General tab ensure the following two settings:
 - **c.** Navigate to Network Settings and change the Network Proxy Settings to Direct Connection.
 - d. Navigate to Settings under Temporary Internet Files and perform the following steps:
 - **e.** Check the option to keep temporary files on my computer.
 - 1. Click Delete Files to clear the Java cache.

Services Configuration and Deployment

You must configure and deploy Services if the following applications are installed:

- AML
- FR
- Trader Compliance
- Broker Compliance
- ECTC
- Fraud-EE
- TB
- KYC

Note: Either Watchlist Services or Post Alert Services can be run, but not both simultaneously, as these services both use the variable FIC_HOME.

JDK is required for creation of Watchlist WAR and can be removed once services deployment is successful.

Watchlist Deployment Service

To configure and deploy Services, follow these steps:

- 1. Create the WAR file by changing to the FIC_HOME/ingestion_manager/scripts directory and and executing createWatchListWAR.sh. This will create the mantas.war file which contains the watch list service.
- 2. Deploy the mantas.war file to the web application server. Any context path can be used, but the KYC application expects it to be at /mantas. The full path leading to the exploded WAR file will be referred to as <Service Deployed Directory> below.
- 3. Modify the following file: <Service Deployed Directory>/WEB-INF/fuzzy_ match/mantas_cfg/install.cfg and change the path in the fuzzy_

name.B.stopword_file and fuzzy_name.P.stopword_file properties from: <FIC_HOME>/ingestion_manager to: <Service Deployed Directory>/WEB-INF

- 4. Modify the following file: <Service Deployed Directory>/WEB-INF/config/install.cfg and change the Creating and Deploying the Applications Pack Web Archive Post Installation Configuration path in the log.message.library,log.categories.file.path, and log4j.config.file properties as specified in step3.
- **5.** Modify a script to set up environment variables in the web application server. The respective script should be created (or modified if it already exists) as:

#!/bin/sh

FIC_HOME=<Service Deployed Directory>

ORACLE_HOME=<Oracle Home>

export FIC_HOME ORACLE_HOME

KDD_PRODUCT_HOME=\${FIC_HOME}/WEB-INF/fuzzy_match

export KDD_PRODUCT_HOME

JAVA_LIB_HOME=\${KDD_PRODUCT_HOME}/lib/kddcore.jar:\${KDD_PRODUCT_ HOME}/lib/log4

j-1.2.12.jar

export JAVA_LIB_HOME

LD_LIBRARY_PATH=\${KDD_PRODUCT_HOME}/lib:\${ORACLE_HOME}/lib:\${LD_ LIBRARY_PATH}

export LD_LIBRARY_PATH

For Tomcat, this file is <Tomcat Directory>/bin/setenv.sh.

For WebLogic, this file is <WebLogic

Directory>/user_projects/domains/<user_domain>/bin/setDomainEnv.sh.

- 6. Modify the script from step5, replacing <Service Deployed Directory> and <Oracle Home> with their respective values.
- **7.** Restart the web application server.

Create the Post Alert Service .war file by following the steps provided below.

To configure and deploy Services, follow these steps:

1. Create PostAlertService war Trigger the ant.sh under the <INSTALLED_AREA>/services/ to create mantasServ.war.

For Tomcat:

- **2.** Deploy the mantasServ.war.
- Restart the weblogic server and install the mantasServ.war application. Replace the Path for "kdd.xml.catalog" and "log.mantaslog.location" in the install.cfg file located under <Service_Deployed_ Area>/solution/services/mantas_cfg.

- kdd.xml.catalog=<Service Deployed
 Area>/solution/services/share/xml/catalog.xml
- log.mantaslog.location=<Service Deployed Area/solution/services/logs
- 4. Create file setenv.sh under <TOMCAT_INSTALLED_AREA>/bin/ and copy the below contents after replacing the place holders (<Service_Deployed_Area>, <Oracle_Home> and <TNS_Admin_Home>) and save.

```
SERVICES ROOT=<Service Deployed Area>/solution/services
   export TNS_ADMIN=<TNS_Admin_Home>
   export ORACLE_HOME=<Oracle_Home>
   export FIC HOME=<Service Deployed Area>
   MINHEAP=32m
   export LD LIBRARY PATH=$SERVICES ROOT/lib:$ORACLE HOME/lib:$LD LIBRARY
   PATH
   PLATFORM=`uname -i`
   if [ "$PLATFORM" = "x86_64" ]; then
   MAXHEAP=10000m
   else
   MAXHEAP=1800m
   fi
   export MINHEAP MAXHEAP
   export KDD PRODUCT HOME=$SERVICES ROOT
   export KDD HOME=$SERVICES ROOT
5. Restart the tomcat server.
```

For Weblogic:

- 1. Explode the mantasServ.war under the desired weblogic Domain.
- Restart the weblogic server and install the mantasServ.war application. Replace the Path for "kdd.xml.catalog" and "log.mantaslog.location" in the install.cfg file located under <Service_Deployed_ Area>/solution/services/mantas cfg.
 - kdd.xml.catalog=<Service Deployed
 Area>/solution/services/share/xml/catalog.xml
 - log.mantaslog.location=<Service Deployed Area/solution/services/logs
- 3. Copy the below contents into the setDomainEnv.sh located under \$WL_ HOME/user_projects/domains/<user_domain>/bin/setDomainEnv.sh after replacing the place holders (<Service_Deployed_Area>, <Oracle_Home> and <TNS_Admin_Home>).

SERVICES_ROOT=<Service_Deployed_Area>/solution/services

export TNS_ADMIN=<TNS_Admin_Home>

```
export ORACLE_HOME=<Oracle_Home>
export FIC_HOME=<Service_Deployed_Area>
MINHEAP=32m
export LD_LIBRARY_PATH=$SERVICES_ROOT/lib:$ORACLE_HOME/lib:$LD_LIBRARY_
PATH
PLATFORM=`uname -i`
if [ "$PLATFORM" = "x86_64" ]; then
MAXHEAP=10000m
else
MAXHEAP=10000m
fi
export MINHEAP MAXHEAP
export KDD_PRODUCT_HOME=$SERVICES_ROOT
export KDD_HOME=$SERVICES_ROOT
```

4. Restart the weblogic server and install the mantasServ.war application.

For Websphere:

- 1. Deploy mantasServ.war in the websphere server. Do not start the mantasServ application.
- In the IBM console, navigate to Enterprise Applications > mantasServ_war > Manage modules > mantasServ.war. Set the Class Loader Order to "Classes loaded with local class loader first (parent last)"
- Replace the Path for "kdd.xml.catalog" and "log.mantaslog.location" in the install.cfg file located under <Service_Deployed_ Area>/solution/services/mantas_cfg.
- kdd.xml.catalog=<Service Deployed
 Area>/solution/services/share/xml/catalog.xml
- log.mantaslog.location=<Service Deployed Area>/solution/services/logs
- 4. Copy the following contents into the .profile file (create a .profile file if it is not already existing) of the user after replacing the place holders (<Service Deployed Area>, <TNS Admin Home> and <Oracle Home>).

SERVICES_ROOT=<Service Deployed Area>/solution/services

export TNS_ADMIN=<TNS Admin Home>

export ORACLE_HOME=<Oracle Home>

export FIC_HOME=<Service Deployed Area>

MINHEAP=32m

export LD_LIBRARY_PATH=\$SERVICES_ROOT/lib:\$ORACLE_HOME/lib:\$LD_LIBRARY_ PATH

PLATFORM=`uname -i`

MAXHEAP=10000m

export MINHEAP MAXHEAP

export KDD_PRODUCT_HOME=\$SERVICES_ROOT

export KDD_HOME=\$SERVICES_ROOT

- 5. Shutdown the Websphere server and exit the putty.
- 6. Execute the .profile.
- 7. Start the Websphere server.
- 8. Start the mantasServ application (if not started automatically).

To access the Post Alert Service, please use the URL: <protocol>://<Server>:<port>/mantasServ/services/AlertManagementService

Installing Scenario Manager

This section provides the general steps to install the OFS BD Scenario Manager software, along with a reference to the specific section and page where the tasks are explained.

Installing the Scenario Manager involves the following procedures:

- Verifying the Pre-installation Requirements
- Installing the Scenario Manager on the Workstation
- Cancelling the Scenario Manager Installation Program
- Accessing the Scenario Manager

Verifying the Pre-installation Requirements

Before you install the OFSBD Scenario Manager on the Windows workstation, verify the following information:

- Verifying Prerequisite Third-Party Software Installation
- Verifying Values for the Scenario Manager Installation Program

Note: Install and configure OFS BD application completely before you install the Scenario Manager software.

Verifying Prerequisite Third-Party Software Installation

Before installing the OFS BD Scenario Manager, verify that the third-party software defined in Table 5–1 is installed and configured on the workstation.

OFS BD application supports the third-party software identified in following table.

Component	Product	Verison	Vendor
Operating System	Windows XP, Vista		Microsoft
Java	JRE, Standard Edition with HotSpot	1.7	Sun

 Table 5–1
 Prerequisite Third-Party Software Products for the Scenario Manager

 Workstation
 Presented of the Scenario Manager

Verifying Values for the Scenario Manager Installation Program

To prepare for the OFS BD Scenario Manager installation program's requests for information, use the pre-installation checklist in Table 5–2 to verify the database connection information, as well as user and owner names you must provide to the Scenario Manager Installation Program.

Item Description		Example Value	Your Value
OFS BD Installation Directory	Directory on the workstation where you want to install the Scenario Manager.	C:\Oracle Scenario Manager	Microsoft
Oracle Database Connection String*	TNS name for the instance. This is often the same as the database name.	ORA_PROD	Sun
KDD Schema Database Owner	KDD Schema Database owner's name.	Value for kdd_ schema_owner	
Alert Management Schema Database Owner Name	Mantas Schema Database owner's name.	Value for mantas_ schema_owner	
Database server name	Name of the server that the database resides on.	prod_server	
KDD Miner User Name	KDD Miner user's name.	Value for tools_user	
JRE Home	Directory name of your JRE 1.7 server installation	C:\apps\jre1.7	
Maximum Java Virtual Machine Memory	Aachine Java Virtual Machine (JVM)		
Program Group Name Program Group where you want to install the Scenario Manager.		Financial Crime and Compliance Management Scenario Manager	

Table 5–2 Scenario Manager Pre-installation Checklist

Note: Any path that includes spaces should be entered with double quotes, for example, C:\Program Files\JRE 1.7.

Installing the Scenario Manager on the Workstation

The OFS BD Scenario Manager Installation program installs the Scenario Manager using a series of screens that prompt you for the information relevant to local installation and interface with the other subsystems of OFS BD application.

The following procedures group the installation program into high-level categories:

- Starting the Installation
- Completing the Pre-installation Questions
- Completing the Database Information
- Completing the Environment Information
- Completing the Installation

Note: You can cancel the installation from any screen in the installation program. Refer to Cancelling the Scenario Manager Installation Program, for more information.

Starting the Installation

To start the OFS BD Scenario Manager installation, follow these steps:

- **1.** Copy the ScenarioManager.exe file from OFS_BD_PACK/OFS_BD/bin to the windows machine.
- 2. Locate file through Windows Explorer and double-click the ScenarioManager.exe file. The Scenario Manager Installation program opens and displays the Introductory screen.
- 3. Proceed to the Completing the Pre-installation Questions.

Completing the Pre-installation Questions

To complete the pre-installation questions, follow these steps:

1. From the Introductory screen, select the desired language from the Language drop-down list.

Note: The OFS BD Installation Program executes in the selected language. The default language is English.

2. Click OK.

The Introduction screen is displayed.

Note: This screen serves as a reminder that you must have the appropriate version of Windows installed prior to the execution of the Scenario Manager Installation program.

3. Click Next.

The OFS BD Scenario Manager Installation Directory screen displays.

- 4. Do one of the following:
 - a. Click Next to accept the default destination for OFS BD software installation.

The Database Type screen displays. Proceed to the Completing the Database Information.

- **b.** Click Choose to select an installation directory different from the displayed default location, and select the directory to which you want to install the Scenario Manager.
- 5. Click Next.
 - **a.** If you do not have write permission to the chosen installation folder, an installation error message displays.

Click OK. You return to the OFS BD Scenario Manager Installation Directory screen and do one of the following:

- **a.** Give the path of different installation directory which have write permission.
- **b.** Give the write permission to the given installation directory.
- **b.** If you have write permission to the selected directory, the Database Type screen displays.
- 6. Proceed to the Completing the Database Information.

Completing the Database Information

To complete the database information, follow these steps:

- 1. Click Oracle in the Database Type screen.
- 2. Click Next.
- **3.** Enter the Oracle database connection string for OFS BD application in the text box of the Oracle Database Connection String screen.
- 4. Click Next.

The Enter the Name of Server that Oracle Database Resides On screen displays.

5. Type the following in their respective text boxes:

Table 5–3Prerequisite Third-Party Software Products for the Scenario ManagerWorkstation

Component ProductVerison Vendor	<enter (kdd_schema_owner)="" for="" name="" user=""></enter>
The Firm Schema database owner's name.	<enter (mantas_schema_<br="" for="" name="" user="">owner)></enter>
The KDD Miner user's name.	<enter (tools_user)="" for="" name="" user=""></enter>

Note: Refer to the file OFS_BD_SCHEMA_OUTPUT.XML located at <OFS BD Installed Directory>/schema_creator folder for schema names written against the variables provided in brackets of respective schema.

6. Click Next.

The Java Runtime Environment Home screen displays.

Proceed to Completing the Environment Information, procedure.

Completing the Environment Information

To complete the user information, follow these steps:

- 1. From the Java Runtime Environment home screen, type the home directory of your JRE installation in the text box, or click Choose to browse for the home directory.
- 2. Click Next.

The Maximum Java Virtual Machine Memory Usage screen displays.

- **3.** Select the option that represents the maximum JVM memory available for use by the Scenario Manager.
- 4. Click Next.

The Program Group Name screen displays.

- **5.** Type the Program Name: the name of the Windows Program Group where you want to install the Scenario Manager.
- 6. Click Next.

The Pre-installation Summary screen displays.

Proceed to Completing the Installation.

Completing the Installation

To complete the installation, follow these steps:

1. Click Install in the Pre-installation Summary screen.

The Installing screen displays; the Installation Complete screen follows.

2. Click Done to complete the installation of the Scenario Manager.

Cancelling the Scenario Manager Installation Program

You can cancel the installation of Scenario Manager at any time from any screen in the OFSBDP installation program. However, canceling the installation program results in partial installation of the OFSBDP components, depending on when you cancel the installation.

Use these conditions to help you determine when to cancel the OFSBDP Scenario Manager installation:

- If you click Cancel before or on the Installing screen, you do not leave a partial OFSBDP installation. You can execute the installation program again as though you are installing for the first time.
- If you click Cancel during the installation of components, when the software is
 placed on the workstation, a partial installation results. You must manually
 remove all files from the file system in the OFSBDP installation directory chosen
 during installation.

To cancel the OFSBDP Scenario Manager installation, follow these steps:

1. Click Cancel.

The Cancel Installation screen displays.

2. Click Quit.

Accessing the Scenario Manager

After the installation is successfully completed you can access Scenario Manager.

To access Scenario Manager through the Windows Start menu, follow these steps:

- 1. Click Start, point to Programs, and then click the OFSBDP Scenario Manager menu option.
- 2. Click the Scenario Manager option.

The Scenario Manager application launches and the Login dialog box displays.

- 3. Enter your user ID and password into the appropriate fields.
- 4. Click Login.

Deploying Analytic Reports and Threshold Analyzer

This section explains how to deploy Analytics on Oracle Business Intelligence Enterprise Edition (OBIEE) and integrate Analytic Reports and Threshold Analyzer in the OFSECM UI.

This section includes the following topics:

- Installing OBIEE Server
- Installing OBIEE Windows Administration Client
- Disabling the Cache Feature in OBIEE Server
- Change Default Repository Password
- Configuring OBIEE Connection Pool
- Deploying OFS BD Report Analytics
- Post Installation Steps
- Accessing Reports through OFS BD Application

Installing OBIEE Server

To install the Oracle Business Intelligence Enterprise Edition (OBIEE) server, refer to Oracle® Fusion Middleware Installation Guide for Oracle Business Intelligence11g Release 1 (11.1.1.7.1). After installation, get the Enterprise Manager URL, Username, Password, and OBIEE installed directory from the system administrator.

Installing OBIEE Windows Administration Client

To install the OBIEE repository administration client for Windows machine, refer to Oracle® Fusion Middleware Installation Guide for Oracle Business Intelligence11g Release 1 (11.1.1.7.1).

The OBIEE repository administration client can be downloaded from running OBIEE setup from the following URL:

<protocol>://<OBIEE Server Name>:<OBIEE Analytics port>/analytics

From LHS menu, click Get Started and select Download BI Desktop Tools.

Disabling the Cache Feature in OBIEE Server

Login to the Enterprise Manager and perform the following steps:

- 1. Click Business Intelligence folder from the left hand side menu and select coreapplication. For more information, refer Figure 1.
- 2. Click Capacity Management and then select the Performance tab.
- **3.** Click Lock and Edit Configuration tab.
- 4. To disable the Cache, uncheck the Cache Enabled Option.
- 5. Click Apply and Activate Changes.
- 6. Click Restart to apply recent changes.

Change Default Repository Password

Copy OBI_8.0.rpd from \$FIC_HOME/OBIEE/Repository to the Windows machine where the OBIEE Windows administration client is installed.

To change the default password for the repository follow these steps:

- Open the Repository using the OBIEE Windows administration client from Windows machine. From the File menu, select Open and click Offline. Browse to the Repository on Windows machine. The Oracle BI Administration Tool - OBI_ 8.0.rpd windows is displayed.
- 2. Enter default Repository password: Mantas61

To change the default password, follow these steps:

- 1. From File menu, choose Change Password.
- 2. Enter the new password and click OK.

Configuring OBIEE Connection Pool

To configure the Connection Pool of the repository, follow these steps:

- 1. Open the same Repository (as in the previous step) on the Windows machine. The Oracle BI Administration Tool OBI_8.0.rpd windows is displayed.
- 2. Expand the D4010S10 folder in the Physical section.
- 3. Double-click Connection Pool to open the Connection Pool Properties window.
- 4. Enter the following in the Data Source Name text box of the Connection Pool Properties window after modifying <Database Server Host Name> and <Database Name> Data Source Name = (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=<Database Server HostName>)(PORT=1521))(CONNECT_DATA=(SERVER=DEDICATED) (SERVICE_NAME=<Database Name>)))
- 5. Enter the Alert Management schema user in the User name text box.
- 6. Enter the Alert Management schema user password in the Password text box.
- 7. Click OK.
- **8.** Expand the folder and test connection for any one table name by Right Click > view data.
- **9.** Perform similar changes in the Connection Pools for all remaining folders in the Physical Layer by providing the following schema details for all Connection Pools:
 - D4010S10 > Atomic Schema

- D5011S10 > Atomic Schema (refer report_user in <OFSBDP Installed Directory>/database/db_tools/mantas_cfg/db_variables.cfg file. For more details, refer to the Installation Guide - Stage 1).
- Fraud Analytics > Atomic Schema
- KYC1.1DEV-179 > Atomic Schema
- Initial block and connection pool: both should point towards the atomic schema.
- MNTS583 > Atomic Schema
- RD > CaseMng connection pool > Atomic Schema
- RD > Security connection pool->Atomic Schema
- UIC_73 > CaseMng connection pool ->Atomic Schema
- UIC_73 > Security connection pool->Atomic Schema
- TA > Atomic Schema
- CTRBI-> Atomic Schema
- ORCL->Atomic Schema
- **10.** Select **Save** option from the File menu. The following message is displayed: Do you want to check global consistency?,
- **11.** Click Yes. The following message is displayed: Consistency check didn't find any errors, warning or best practices violations.
- 12. Click OK.

Deploying OFS BD Report Analytics

To deploy Analytic Reports, follow these steps:

 Stop Oracle Process Manager and Notification Server (OPMN) services by executing the following command from <OBIEE Installed Directory>/instances/instance1/bin

./opmnctl stopall

 Change the value in Nqsconfig.ini file located at <FMW_ HOME>/instances/instance1/config/OracleBIServerComponent/coreapplication _obis1/ directory

From EVALUATE_SUPPORT_LEVEL = 0;

To EVALUATE_SUPPORT_LEVEL =2;

- Copy ANALYTICS_REPORT folder from \$FIC_HOME/OBIEE and place under <OBIEE Installed Directory>/instances/instance1/bifoundation/OracleBIPresentationServicesCom ponent/coreapplication_obips1/catalog.
- **4.** Login into Enterprise Manager, click the Business Intelligence folder at left hand side and select coreapplication, and then click on Deployment tab.
- **5.** Click the Repository tab.
- 6. Click on Lock and Edit Configuration tab.
- 7. Click Close on the Confirmation pop-up window.

- **8.** In the Upload BI Server Repository Section, browse the repository file from the Windows machine.
- **9.** Enter the new repository password in the Repository Password and Confirm Password text boxes.
- 10. In BI Presentation Catalog section, provide the Catalog Location as <OBIEE Installed Directory>/instances/instance1/bifoundation/OracleBIPresentationServicesCom ponent/coreapplication_obips1/catalog/ANALYTICS_REPORT
- 11. Click Apply.
- **12.** Click Activate Changes and close the activate changes pop-up window.
- **13.** Click Close on the Confirmation pop-up window.
- 14. Modify <OBIEE Installer Directory> /instances/instance1/config/OracleBIPresentationServicesComponent/coreappli cation_obips1/instanceconfig.xml as the following

From

<Security>

<!--This Configuration setting is managed by Oracle Enterprise Manager Fusion Middleware Control-->

<ClientSessionExpireMinutes>210</ClientSessionExpireMinutes>

</Security>

То

<Security>

<!--This Configuration setting is managed by Oracle Enterprise Manager Fusion Middleware Control-->

<ClientSessionExpireMinutes>210</ClientSessionExpireMinutes>

<InIFrameRenderingMode>allow</InIFrameRenderingMode>

</Security>

- **15.** Restart OBIEE server.
- 16. Modify Instanceconfig.xml available at<FMW_ HOME>/instances/instance1/config/OracleBIPresentationServicesComponent/c oreapplication_obips1/instanceconfig.xml location

Add the tag under the Security Section in Instance Config.xml

<InIFrameRenderingMode>allow</InIFrameRenderingMode>

So that it looks like the following after adding above tag:

<Security>

<!--This Configuration setting is managed by Oracle Enterprise Manager Fusion Middleware Control-->

<ClientSessionExpireMinutes>210</ClientSessionExpireMinutes>

<InIFrameRenderingMode>allow</InIFrameRenderingMode>

</Security>

17. Start the Oracle Process Manager and Notification Server (OPMN) services by executing the following command from <OBIEE Installed Directory>/instances/instance1/bin

./opmnctl startall

Post Installation Steps

After installing the OBIEE server, follow these steps:

- 1. Log in as OFS BD Admin User with valid username and password. The OFS BD Home page is displayed.
- **2.** Click FCCM and then click the Administration Menu and select the Manage Parameters and click Manage Common Parameters.
- 3. Choose Parameter Category as UI and Parameter Name as OBIEE.
- 4. Set Attribute 2 Value = <PROTOCOL>://<OBIEE_SERVER_NAME>:<PORT>

Note: <PROTOCOL> is the web page access PROTOCOL (http or https) and <OBIEE_SERVER_NAME> is the FQN (fully qualified name)/host name of the server, where OBIEE is installed.

<PORT> is the PORT number used in OBIEE installation. It may change based on the OBIEE version. Enter the correct PORT number if it is not 9704.

Placeholder variables are mentioned between angle brackets. Update the placeholders with actual value.

5. Verify Attribute 4 Value. It must be the OFS BD application URL. If the same OFS BD application is deployed on different machines, then modify the OFS BD Application URL in Attribute 4 Value appropriately.

Accessing Reports through OFS BD Application

For more information on Accessing Reports, refer to the Alert Management User Guide.

Note: For Bug 13713131: An error displays when a user clicks on the pie chart or tries to access the Threshold Analyzer reports.

This is an issue with Solaris OS. Apply Solaris patch #13055819 to solve this issue

Configuring Resource Reference

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

Configuring Web Application Server

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

Configurations for Java 8

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

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

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

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

Installing lower version of OFS BD on a higher version of OFSAA Infrastructure (OFS AAI)

In case of installation of OFS BD Application Pack 8.0.1.0.0 release on an existing OFSAA instance where the OFSAA infrastructure (OFS AAI) is already upgraded to a higher release, for example, 8.0.2.0.0, perform the below steps:

- 1. Navigate to \$FIC_HOME/Post_AAI_Migration folder.
- 2. Execute ./aaipi.sh

Start And Stop of Services

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

- Starting Infrastructure Services
- Stopping Infrastructure Services

Starting Infrastructure Services

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

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

./startofsaai.sh

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

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

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</profile></profiles>	
Starting WebLogic Domain	On the machine in which WebLogic is installed, navigate to <weblogic directory="" installation="">/user_ projects/domains/<domain name="">/bin and execute the command: startWebLogic.sh -d64</domain></weblogic>	
	Note : If WebLogic is already running, access the <i>WebLogic</i> <i>Admin Console</i> . Stop and start the application <context name>.ear</context 	
Starting Tomcat Application	On the machine in which Tomcat is installed, navigate to <tomcat_install_ directory="">/bin and execute the command: ./catalina.sh run</tomcat_install_>	

Table 6–1 Webserver start up options

- 3. Start ICC server:
 - **a.** On the machine in which Infrastructure default Application components have been installed, navigate to \$FIC_HOME/ficapp/icc/bin and execute the command:

./iccserver.sh

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

- 4. To start Back-end Services:
 - a. On the machine on which Infrastructure Database components have been installed, navigate to \$FIC_DB_HOME/bin and execute the command to start "Agent server":

./agentstartup.sh

Or

Start Back-end services using the command:

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

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

Stopping Infrastructure Services

To stop Infrastructure services, follow these steps:

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

```
./stopofsaai.sh
```

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

./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

Post Deployment Configuration

Accessing the OFSAA Application

1. From a client workstation, open the client browser and provide the URL as http or https://<IP address>:<servlet port>/<context-name>/login.jsp.

For example, http://11.111.111.111.111/ofsaai/login.jsp

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

2. The OFSAAI login screen is displayed.

ORA		inancial Servie	ces Analytical App	plications Infrastr	ucture
Language User ID Password	US-English				
Version 7.3.3.0.0 Copyright © 1993) 3, 2014 Oracle and/or it	ts affiliates. All rights	s reserved.		

Figure 7–1 OFSAAI Login Page

- **3.** There are two in-built system administration users profiles configured in the system:
 - SYSADMN
 - SYSAUTH
- **4.** You can login to the system 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.

Creating Users

This section explains steps to create users. For more information refer user creation section from the Oracle Financial Services Analytical Applications Infrastructure User Guide.

Mapping the User to User Group

This section explains steps to map user to user group. For more information, refer to the mapping user creation section from the *Oracle Financial Services Analytical Applications Infrastructure User Guide*.

Perform Administrative activities for OFS BD

Access the OFS BD UI as BDAP Administrator and perform all the steps given in the following sections of the Administration Guide.

- About Configuring Access Control Metadata
- Mapping Users To Access Control Metadata
- About Scenario Manager Login Accounts
- About Changing Passwords for System Accounts
- About Configuring File Type Extensions
- About Configuring File Size
- About Configuring Status To User Role Table

Note: Once Security Attributes mapping is completed for the BDAP Administrator user, restart OFSAAI and Web Application servers before accessing the Admin Tools application.

Perform Configurations for OFS BD

Access the OFS BD UI as BDAP Administrator and perform all the steps given in the following sections of Configuration Guide.

- Configuring the Base Time Zone
- Configuring the Default Currency Code
- Configuring E-mail
- Configuring XML Export
- Configuring Organization Relationships for Trade Blotter
- Configuring Search Criteria Population Options for Trade Blotter
- Configuring Case Correlation Owner
- Configuring Default Case Owner
- Configuring Default Alert Owner
- Configuring the Alert/Case Auto Assignment Web Service

Perform Administrative activities for KYC

You must perform the Administrative activities if OFSKYC application is installed.

Access the OFSBD UI as a KYC Administrator and perform all the steps given in the KYC Administration Guide.

Note: Appendix H and I should be performed for successful KYC installation.

Setting OFS BD UI as Home Page of OFSAAI for a Particular User

To set OFS BD UI as home page of OFSAAI, follow these steps:

- Log in as an ECM Administrator/Supervisor user.
- Navigate to Home page.
- Click on logged in user name in the right top corner
- Click on Preference and it will open new page
- Select Enterprise Case Management as your default page and click Save

Configuring the Alert or Case Auto Assignment

For configuring the Auto Assignment for Alerts and Cases, refer to section Configuring the Alert/Case Auto Assignment Web Service in Configuration Guide.

Modifying Additional Configuration Files

You can modify the following additional configuration files (although it is not a requirement that you modify them to run the system):

Note: This step is optional.

- DataIngest.properties: The DataIngest.properties file (located in the ingestion_ manager/config subdirectory) contains the variable values you specified in the silent properties file, including information about database configuration values, and schema specifications. For more information on configuring this file, refer to the Oracle Financial Services Behavior Detection Application Pack Administration Guide.
- DataIngest.xml: The DataIngest.xml file (which resides in the /<OFS BD Installed Directory>/ingestion_manager/config sub-directory) contains configuration settings that are required to configure each Ingestion Management runtime component, for example, setting up and configuring the number of threads used by each component. For more information on configuring this file, refer to the Oracle Financial Services Behavior Detection Application Pack Administration Guide.

Configurations if FSDF pack installed after OFSBD application pack

FSDF Staging Schema (BD Pack) needs to be dropped, Apply Patch for SR 3-9830680021(Bug 20066387) contact Oracle support for assistance.

A Appendix

This chapter covers the following topics:

- Configuring Web Server
- Configuring Web Application Servers

Configuring Web Server

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

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

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

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

Configuring Web Application Servers

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

This section includes the following topics:

- Configuring WebSphere for Application Deployment
- Configuring WebLogic for Application Deployment
- Configuring Apache Tomcat Server for Application Deployment

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

Configuring WebSphere for Application Deployment

Applicable only if the web container is WebSphere.

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

This section covers the following topics:

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

Creation of New Profile in WebSphere

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

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

```
manageprofiles.sh -create -profileName <profile> -profilePath <profile_
path> -templatePath <template_path> -nodeName <node_name> -cellName <cell_
name> -hostName <host_name>
```

Example:

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

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

manageprofiles.sh -create -profileName <profile> -profilePath <profile_
path> -templatePath <template_path> -nodeName <node_name> -cellName <cell_
name> -hostName <host_name> -enableAdminSecurity true -adminUserName
<Admin User Name> -adminPassword < Admin User Password> -samplespassword
<sample User Password>

Example:

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

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

Manage Applications in WebSphere

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

1. Open the administrator console using the following URL:

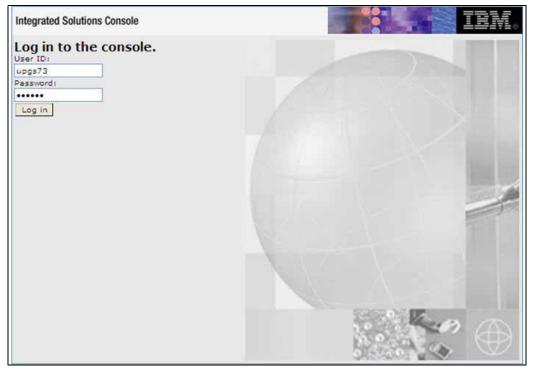
http://<ipaddress>:<Administrative Console Port>/ibm/console

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

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

The Integrated Solutions Console Login window is displayed.

Figure 7–2 Integrated Solutions Console Login



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

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

The Enterprise Applications screen is displayed.

Figure 7–3	Enterprise Applications
------------	-------------------------

nterprise Applications					
Use th	Use this page to manage installed applications. A single application can be deployed onto multiple servers. Preferences				
Start	Stop Install Uninstall Update Rollout Update	Remove File Export DDL Export File			
C	D # \$				
Select	Select Name 🗘 Application Status 💁				
You c	You can administer the following resources:				
	DefaultApplication	•			
	ivtApp	÷			
	query	÷			
	<u>upqs73</u>	÷			
Total 4					

This Enterprise Applications screen helps you to:

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

Delete WebSphere Profiles

To delete a WebSphere profile, do the following:

- 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

WebSphere HTTPS Configuration

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

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

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

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

WebSphere Memory Settings

To configure the WebSphere Memory Settings:

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

Initial heap size = 512

Maximum heap size = 3072

Configuring WebLogic for Application Deployment

Applicable only if the web container is WebLogic.

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

Note: For deployment on Oracle WebLogic Server 12.1.3+ (64 bit) with Java 8, download and install patch 18729264.

This section covers the following topics:

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

Creating Domain in WebLogic Server

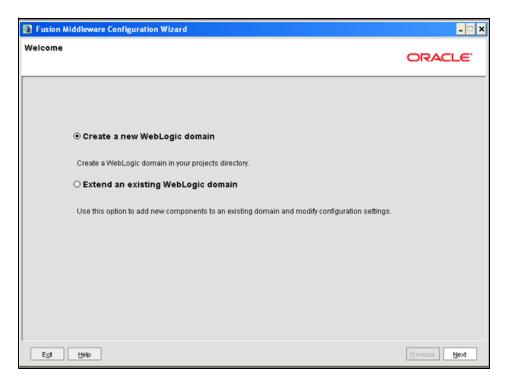
To create a new domain using Configuration Wizard in WebLogic, do the following:

 Navigate to the directory <weblogic_Home Directory>/wlserver_ 10.3/common/bin and execute the command:

.\config.sh

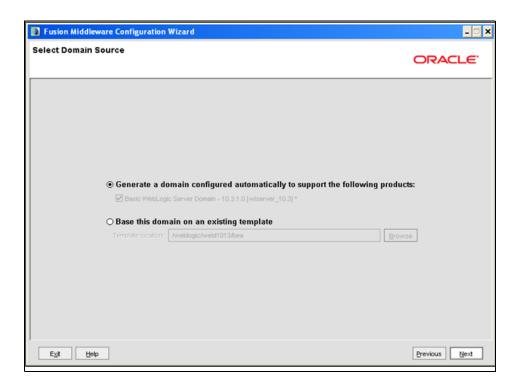
The Welcome window of the Configuration Wizard is displayed.

Figure 7–4 Welcome



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

Figure 7–5 Select Domain Source



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

The Specify Domain Name and Location window is displayed.

Fusion Middleware Configuration Wizard				
Specify Domain Name and Location			ORACLE	
Er Domain name: Domain location:	Iter the name and location for the domain: MockSol /weblogic/webl1013/bea/user_projects/domains	growse		
Exit Help			Previous Next	

Figure 7–6 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.

Figure 7–7 Configure Administrator Username and Password

Fusion Middleware Configuration Wizard		
Configure Administrator User Name and Password		ORACLE
💍 Disgard Changes		
*User name: *User password: *Confirm user password: Description:	manager	
E <u>v</u> t Help		Previous Next

- **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.

Fusion Middleware Configuration Wizard	- 🗆 ×
Configure Server Start Mode and JDK	ORACLE
Production Environment' in the WebLogic Server documentation.	tion environment is secure. For more information, see the topic 'Securing a ng and testing your applications with WebLogic JRockit early in the project cycle. cumentation.
WebLogic Domain Startup Mode	JDK Selection
O Development Mode Utilize boot properties for username and password and poll for applications to deploy, Sun JDK recommended for better startup performance during iterative development. O Production Mode Require the entry of a username and password and do not poll for applications to deploy, WebLogic JRockt JDK recommended for better runtime performance and management.	Available JDKs Sun SDK 1.6.0_18 @ Ausr/dkt .6.0_18 Other JDK Location: Browse
Exit Help	Previous

Figure 7–8 Configure Server Start Mode and JDK

7. Select the following options:

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

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

The Select Optional Configuration window is displayed.

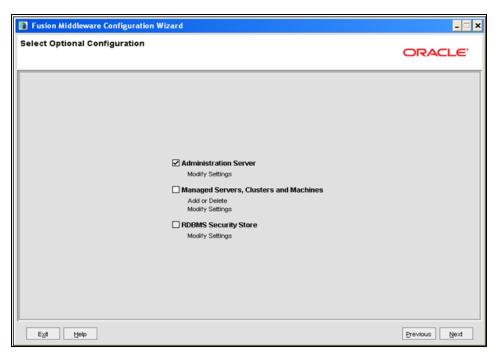


Figure 7–9 Select Optional Configuration

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

The Configure the Administration Server window is displayed.

Fusion Middlewa	Fusion Middleware Configuration Wizard		
Configure the Ad	ministration Server	ORACLE	
C Discard Changes			
*Name:	AdminServer		
*Listen address:	All Local Addresses	Ψ	
Listen port:	7007		
SSL listen port:	N/A		
SSL enabled:			
·	7		
E <u>x</u> it <u>H</u> elp		Previous Next	

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

The Configuration Summary window is displayed.

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

Figure 7–11 Configure Server Start Mode and JDK

Fusion Middleware Configuration Wizard		_ 🗆 🗙
Configuration Summary		ORACLE
Domain Summary Summary View: Deployment MockSol (Aveblogic/web/1013/bea/user_projects/domain	Details pane I prior panel. If	m in the Domain Summary pane on the left to inspect its attributes in the below. You can make limited adjustments by clicking Previous to return to a everything is satisfactory, click Next.
E Server	Details	
AdminServer	Attribute Name Description Author Location	Value Basic WebLogic Server Domain Create a basic WebLogic Server domain without installing sample application Oracle Corporation Aveblogic/webl1013/bea/wlserver_10.3/common/templates/domains/wls.jar
		Þ
Exit Help		Previous Create

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.

Fusion Middleware Configuration Wizard		
Creating Domain	ORACLE'	
Progress:		
Preparing Extracting Domain Contents Creating Domain Security Information Saving the Domain Information String Substituting Domain Files Performing OS Specific Tasks Performing OS Specific Tasks Domain Created Successfully! Domain Location: /weblogic/webl1013/bea/user_projects/domain Admin Server URL: http://lps88rev.7007	ins <i>M</i> iockSol	
	Previous Done	

Figure 7–12 Configure Server Start Mode and JDK

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

Delete Domain in WebLogic

1. Navigate to the following directory:

```
<WebLogic Installation directory>/user_projects/domains/<domain name>/bin
```

- 2. Execute **stopWebLogic.sh** to stop the Weblogic domain.
- 3. Delete the Weblogic domain.

WebLogic Memory Settings

To configure the WebLogic Memory Settings:

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

Example 1:

```
if [ "${JAVA_VENDOR}" = "Sun" ] ; then
WLS_MEM_ARGS_64BIT="-Xms512m -Xmx1024m"
export WLS_MEM_ARGS_64BIT
WLS MEM ARGS 32BIT="-Xms512m -Xmx1024m"
```

export WLS_MEM_ARGS_32BIT

else

```
WLS_MEM_ARGS_64BIT="-Xms512m -Xmx1024m"
```

```
export WLS_MEM_ARGS_64BIT
```

```
WLS_MEM_ARGS_32BIT="-Xms512m -Xmx1024m"
```

```
export WLS_MEM_ARGS_32BIT
```

Example 2:

```
JAVA_VM=
MEM ARGS="-Xms256m -Xmx1024m"
```

Configuring Apache Tomcat Server for Application Deployment

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

This section covers the following topics:

- Tomcat User Administration
- Configure Tomcat to use JAVA 64 bit Executables
- Configure Servlet Port
- Create Tomcat WAR Files
- SSL Port Configuration
- Apache Tomcat Memory Settings
- Configuration for Axis API

Tomcat User Administration

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

This file contains an XML <user> for each individual user, which will display the username and password used by admin to log on to Tomcat, and the role names to which the admin user is associated with. For example, <user name="admin" password="admin" roles="standard,manager" />

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

Configure Tomcat to use JAVA 64 bit Executables

- 1. Navigate to the "\$CATALINA_HOME/bin" folder.
- 2. Edit the setclasspath.sh as explained below:
- **3.** Under 'Set standard commands for invoking Java', change "\$JAVA_HOME"/bin to "\$JAVA_BIN".

Example:

Edit the following block of text:

Set standard commands for invoking Java.

```
_RUNJAVA="$JAVA_HOME"/bin/java
```

```
if [ "$os400" != "true" ]; then
```

```
_RUNJDB="$JAVA_HOME"/bin/jdb
```

Change it to:

Set standard commands for invoking Java.

_RUNJAVA="\$JAVA_BIN"/java

if ["\$os400" != "true"]; then

_RUNJDB="\$JAVA_BIN"/jdb

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

Configure Servlet Port

The Servlet Port specified during the Infrastructure installation process must be configured if your Web Application Server is Tomcat. If you are using the default port (8080), then you are not required to configure the same, since it is already configured.

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

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

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

- **2.** Against this tag, a parameter is specified 'Connector port = "8080" '. Edit this value to the new port number that was used during the Infrastructure installation process.
- 3. Save your changes in "server.xml".

Create Tomcat WAR Files

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

The following steps will guide you through the WAR files creation process:

- 1. On the machine in which Infrastructure Web components have been installed, navigate to the path *\$FIC_WEB_HOME*.
- **2.** Execute the command:

./ant.sh

This will trigger the creation of WAR file - <contextname>.war. The <contextname> is the name given during installation.

- **3.** On completion of the WAR files creation, a confirmation message will be displayed and you will be returned to the prompt.
- 4. The WAR file <contextname>.war- is created on the machine on which Infrastructure Web components are installed under \$FIC_WEB_HOME directory.

Note the following:

- This process will not overwrite any existing version of WAR file that exists in the path. Rename/delete any existing war file.
- Proceed with the Tomcat WAR Files Deployment.
- Log on to the server in which Tomcat is installed.

SSL Port Configuration

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

```
<Connector port="8443" protocol="HTTP/1.1" SSLEnabled="true"
maxThreads="150" scheme="https" secure="true"
clientAuth="false" sslProtocol="TLS"
```

Note: The port mentioned as connector port is the Web Application Server port or servlet port in Infrastructure.

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

Apache Tomcat Memory Settings

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

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

if [-z "\$LOGGING_MANAGER"]; then

JAVA_OPTS="\$JAVA_OPTS -Xms512m -Xmx1024m

-Djava.util.logging.manager=org.apache.juli.ClassLoaderLogManager"

else

JAVA_OPTS="\$JAVA_OPTS -Xms512m -Xmx1024m \$LOGGING_MANAGER" fi

Configuration for Axis API

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

Copy the jaxrpc.jar from the <OFSAA Installation Directory>/axis-1_ 4/webapps/axis/WEB-INF/lib and place it in under <Tomcat Installation Directory>/lib and restart the Tomcat Server.

B Appendix

Configuring Resource Reference in Web Application Server

This section covers the following topics:

- Configuring Resource Reference in WebSphere Application Server
- Configuring Resource Reference in Weblogic Application Server
- Configuring Resource Reference in Tomcat Application Server

Configuring Resource Reference in WebSphere Application Server

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

This section covers the following topics:

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

Creating JDBC Provider

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

Figure 7–13 JDBC Providers

DBC	providers		
mpler	mentation class for access to th <u>d activity</u> . A guided activity prov	JDBC provider. The JDBC provider object en e specific vendor database of your environn ides a list of task steps and more general ode05Cell. Node=CX5150REV-Zone2Node0	ment. Learn more about this task in a information about the topic.
	Scope specifies the level at	t which the resource definition is visible. For is and how it works, <u>see the scope settings</u>	detailed
	Node=GXS150REV-Zone	2Node05, Server=server1 💌	
Pre	ferences		
	Delete		
New	Delete		
	0 # #		
elect	Name 🗘	Scope 🗘	Description 👌
You	can administer the following res	ourcest	
	Derby JDBC Provider	Node=GXS150REV- Zone2Node05.Server=server1	Derby embedded non-XA JDBC Provider
	FICMASTER	Node=GXS150REV+ Zone2Node05,Server=server1	Oracle JDBC Driver
	Oracle JDBC Driver	Node=GXS150REV- Zone2Node05.Server=server1	Oracle JDBC Driver
	RORFFW	Node=GXS150REV+ Zone2Node05,Server=server1	RORFFW
	RORPNC	Node=GXS150REV- Zone2Node05,Server=server1	RORPNC
	UPGSPFT	Node=GXS150REV- Zone2Node05,Server=server1	UPGSPFT
	UPGSROR	Node=GXS150REV- Zone2Node05,Server=server1	UPGSROR
	UPGSSAND	Node=GXS150REV-	UPGSSAND

- **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.

•	Step 1: Create new JDBC provider	Create new JDBC provider
	Step 2: Enter database class path information	Set the basic configuration values of a JDBC provider, which encapsulates the specific vendor JDBC driver implementation classes that are required to access the database. The wizerd fills in the name and the description fields, but you can type different values.
	Step 3: Summary	Scope cells:GX5150REV- Zone2Node05Cell:nodes:GXS150REV- Zone2Node05:servers:server1
		Database type Oracle
		Provider type Oracle JDBC Driver
		Implementation type Connection pool data source
		+ Name Oracle JDBC Driver
		Description
		Oracle JDBC Driver

Figure 7–14 Create a new JDBC Provider

6. Enter the following details:

Table B–1 Fields and their description

Field	Description
Database Type	Oracle
Provider Type	Oracle JDBC Driver
Implementation Type	Connection pool data source
Name	The required display name for the resource
Description	The optional description for the resource

7. Click Next.

	Step 1: Create new JDBC provider	Enter database class path information
	Step 2: Enter database class path information Step 3: Summary	Set the environment variables that represent the JDBC driver class files, which WebSphere(R) Application Server uses to define your JDBC provider. This wizard page displays the file names: you supply only the directory locations of the files. Use complete directory paths when you type the JDBC driver file locations. For example: Cr\SQLLIB\java on Windows(R) or /home/db2inst1/sqllib/java on Linux(TM). If a value is specified for you, you may click Next to accept the value.
		If a value is specified for you, you may tlick next to accept the value.
		Class path:
		\${ORACLE_JDEC_DRIVER_PATH}/ojdbc6.jar
		Directory location for "ojdbc6.jar" which is saved as WebSphere variable \${ORACLE_JDBC_DRIVER_PATH}
		/oracle/orajdbc/app/orajdbc/product/11.2.0/client_1/jdbc/lib

Figure 7–15 Enter database class path information

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

The Oracle JDBC driver (Download ojdbc<version>.jar) file corresponding to the required version of Oracle Client can be downloaded from Oracle Download site.

• **NOTE:** Refer to Appendix J for identifying the correct "ojdbc<version>.jar" version to be copied.

Once downloaded, you need to place the file in the required folder in your system. While creating the JDBC Provider, ensure that the path to the jar file in the folder is specified in the **Class path** field in the previous window.

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

Step 1: Create new JDBC provider	Summary			
Step 2: Enter	Summary of actions:			
database class path information	Options	Values		
Step 3: Summary	Scope	cells:GXS150REV-Zone2Node05Cell:nodes:GXS150REV- Zone2Node05:servers:server1		
	JDBC provider name	Oracle JDBC Driver		
	Description	Oracle JDBC Driver		
	Class path	\${ORACLE_JDBC_DRIVER_PATH}/ojdbc6.jar		
	\${ORACLE_JDBC_DRIVER_PATH}	/oracle/orajdbc/app/orajdbc/product/11.2.0/client_1/jdbc/lib		
	Implementation class name	oracle.jdbc.pool.OracleConnectionPoolDataSource		

Figure 7–16 Summary

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

Creating Data Source

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

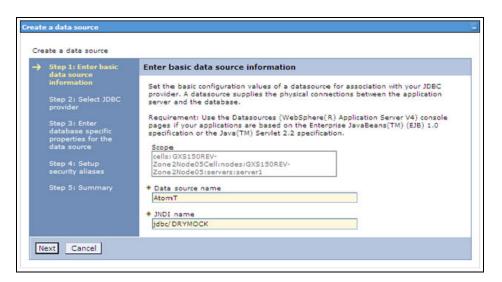
- 1. Open this URL in the browser window: http://<ipaddress>:<administrative console port>/ibm/console. (https if SSL is enabled). The *Login* window is displayed.
- 2. Login with the user id that has admin rights.
- **3.** Expand the **Resources** option in the LHS menu and click **JDBC** > **Data sources**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

Figure 7–17 Data Sources

	ources					
bject	supplies your ap	plication with connection	ource that is associated with you ons for accessing the database. sk steps and more general info	Learn more a	bout this task in	
Sco	pe: Cell=GXS15	0REV-Zone2Node05Ce	II, Node=GXS150REV-Zone2No	de05, Server=s	erver1	
			he resource definition is visible.			
			ow it works, see the scope sett	ings help.		
	Node=GX	S150REV-Zone2Node0	5, Server=server1 💌			
Pre	ferences					
New	Delete Tes	t connection Man	age state			
12	0 # 9					
		WDI	A	Desider C	Desire a	C.1
	Name 🔿	JNDI name 🔿	Scope 🗘	Provider 🗘	Description 🗘	Category 🗘
	an administer th Default Datasource	-	Node=GXS150REV- Zone2Node05,Server=server1	Derby JDBC Provider	Datasource for the WebSphere Default Application	
	FICMASTER	jdbc/FICMASTER	Node=GXS150REV- Zone2Node05,Server=server1	FICMASTER	New JDBC Datasource	
	RORFEW	jdbc/RORFFW	Node=GXS150REV- Zone2Node05,Server=server1	RORFFW	New JDBC Datasource	
	RORPNC	jdbc/RORPNC	Node=GXS150REV- Zone2Node05,Server=server1	RORPNC	New JDBC Datasource	
	UPGSPFT	jdbc/UPGSPFT	Node=GXS150REV- Zone2Node05,Server=server1	UPGSPFT	New JDBC Datasource	
	UPGSROR	jdbc/UPGSROR	Node=GXS150REV- Zone2Node05,Server=server1	UPGSROR	New JDBC Datasource	

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

Figure 7–18 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 and ensure that JNDI name is same as the "Information Domain" name.

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

Figure 7–19 Select JDBC provider

	Step 1: Enter basic data source	Select JDBC provider
•	information Step 2: Select JDBC provider	Specify a JDBC provider to support the datasource. If you choose to create a new JDBC provider, it will be created at the same scope as the datasource. If you are selecting an existing JDBC provider, only those providers at the current scope are available from the list.
	Step 3: Enter database specific properties for the data source Step 4: Setup security aliases Step 5: Summary	 Create new JDBC provider Select an existing JDBC provider Oracle JDBC Driver

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

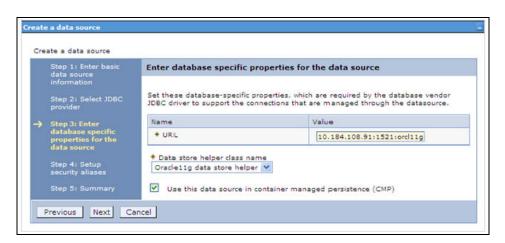


Figure 7–20 Enter database specific properties

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.

```
Example: jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_
LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=10.11.12.13)(port=1521))(ADDRESS=(PRO
TOCOL=TCP)(HOST=10.11.12.14)(PORT=1521))(LOAD_
BALANCE=no)(FAILOVER=yes))(CONNECT_DATA=(SERVICE_NAME=pqadb)))
```

11. Click Next.



e following ons will be

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.

Step 1: Enter basic data source information	Summary		
	Summary of actions:		
Step 2: Select JDBC provider	Options	Values	
Step 3: Enter	Scope	cells:GXS150REV-Zone2Node05Cell:nodes:GXS150REV- Zone2Node05:servers:server1	
database specific properties for the	Data source name	AtomT	
data source	JNDI name	jdbc/DRYMOCK	
Step 4: Setup security aliases	Select an existing JDBC provider	Oracle JDBC Driver	
Step 5: Summary	Implementation class name	oracle.jdbc.pool.OracleConnectionPoolDataSource	
	URL	jdbc:oracle:thin:@10.184.108.91:1521:orcl11gr2	
	Data store helper class name	com.ibm.websphere.rsadapter.Oracle10gDataStoreHelper	
	Use this data source in container managed persistence (CMP)	true	
	Component-managed authentication alias	(none)	
	Mapping-configuration alias	(none)	
	Container-managed authentication alias	(none)	

Figure 7–22 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.

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

100	sources > Default Datasource > JAAS fies a list of user identities and passwor		
Apply		me of the cell (for compa	tibility with earlier releases)
	eferences		
	© # \$		
	t Alias 🗘	User ID 🗘	Description 🗘
You c	can administer the following resources:		
	GXS150REV- Zone2Node05/FICMASTER	upgsconf	FICMASTER
	GXS150REV-Zone2Node05/RORFFW	rorffw	
	GXS150REV-Zone2Node05/RORPNC	rorphc	
	GXS150REV-Zone2Node05/UPGSPFT	upgspft	upgspft
	GXS150REV- Zone2Node05/UPGSPROD	upgsprod	upgsprod
	GXS150REV- Zone2Node05/UPGSROR	upgsror	upgsror
	GXS150REV- Zone2Node05/UPGSSAND	upgssand	upgssand
	GXS150REV-Zone2Node05/VASTEST	upgsconf	upgsconf

2. Click New under the Preferences section.

Figure 7–23 JAAS- J2C authentication data- New

Data sources > Default Datasource > JAAS - J2C authentication data > New	
Specifies a list of user identities and passwords for Java(TM) 2 connector security to use.	
eneral Properties	
Alias	
Atm	
User ID	
upgs73	
Password	
Description	
Atomic Instance	
Apply OK Reset Cancel	
Apply OK Reset Cancer	

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

JDBC Connection Pooling

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

- 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.

Figure B–1 Connection pools

nfiguration		
General Properties		
Scope		Additional Properties
	Cell:nodes:ipa26dorNode01:servers:server1	= Advanced
+ Connection timeout		connection pool properties
p	seconds	= Connection pool
* Maximum connections		custom properties
 Maximum connections 100 	connections	
a an a construction of the second		
* Minimum connections 10	connections	
* Reap time 180	seconds	
	seconds	
+ Unused timeout		
1800	seconds	
* Aged timeout		
0	seconds	
Purge policy		
EntirePool	~	

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.

Configuring Resource Reference in Weblogic Application Server

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

- Create Data Source
- Create GridLink Data Source
- Configure Multi Data Sources
- Advanced Settings for Data Source
- JDBC Connection Pooling
 - For a Non RAC Database instance, Generic Data Source can be created. See Creating Data Source.

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

Create Data Source

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

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

Figure 7–24 Welcome



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

Change Center	Re nome Log Cut Preferences Re	cord Help	Welcome, manager Connected to: Mock5		
View changes and restarts	Home «Needwary of IDBC Data Search	6			
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Summary of JDBC Data Sources				
Domain Structure	A X0C data source is an object bound to the X0C tree that provides database connectivity through a good of X0C connections. Applications can look up a data source on the X0C tree and then borrow a database connection from a data water.				
ModSol ↔ B Environments Copkyments B Services IF Messaging ⇒ X0C	The page summarizes the XBC data source objects that have been orealed in the domain.				
Data Sources Hubi Data Sources	New Delete		Showing 1 to 1 of 1 Previous Next		
Data Source Pactories Persistent Stores	🕑 Name 🖚	JNDI Name	Targets		
Poreign 34DE Providers	SSATOM	jdsc/DEMON/F	Administerver		
Work Contexts - 10% Registries - 10% Fritty Carbon	New Delete		Showing 1 to 1 of 1 Previous (Next		
How do I 8					
Create 2000 data sources Delete 2000 data sources System Status					
Health of Running Servers					
Failed (0) Critical (0) Overloaded (0) Warming (0) Of (1)					

Figure 7–25 Summary of JDBC Data Sources

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

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

Figure 7–26 Create a New JDBC Data Source

	incel	
JDBC Data Source Proper	ties	
The following properties will b Indicates required fields	e used to identify your new JDBC data source.	
What would you like to name y	our new Jueu data source?	
🖑 * Name:	ATOMSTSOL	
🛃 JNDI Name:		
JNDI Name: jdbc/ATOMSTSOL	2	
	23	
	u like to select?	
jdbc/ATOMSTSOL	u like to select?	

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

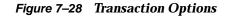
Ensure the following:

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

Figure 7–27 JDBC Data Source Properties

Back Next Frank	Cancel	
JDBC Data Source P	roperties	
The following propertie	s will be used to identify your new JDBC data source.	
Database Type:	Orade	
Vhat database driver w	ould you like to use to create database connections? Note: " indicates that the driver is explicitly sup	ported by Oracle WebLogic Server.
atabase Driver:	*Oracle's Driver (Thin XA) for Instance connections. Versions 9.0.1 and later	*
Back Next Fight	Cancel	

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



Create a liew JDBC Data Source
Back Next Friht Cancel
Transaction Options
You have selected non-XA JDBC driver to create database connection in your new data source.
Does this data source support global transactions? If yes, please choose the transaction protocol for this data source.
✓ Supports Global Transactions
Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the Logging Last Resource (LLR) transaction optimization. Recommended in place of Emulate Two-Phase Commit.
O Logging Last Resource
Select this option if you want to enable non-XA JOBC connections from the data source to enulate participation in global transactions using JTA. Select this option only if your application can tolerate heuristic conditions.
O Emulate Two-Phase Commit
Select this option if you want to enable non-XA JDBC connections from the data source to participate in global transactions using the one-phase commit transaction processing. With this option, no other resources can participate in the global transaction.
One-Phase Commit
Back Next, Cancel

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

Back Next Cancel		
Connection Properties		
Define Connection Properties.		
What is the name of the database you would	ke to connect to?	
Database Name:	fsgbu	
What is the name or IP address of the databa	te server?	
Host Name:	10 184 74 80	
What is the port on the database server used	to connect to the database?	
Port:	1521	
What database account user name do you w	nt to use to create database connections?	
Database User Name:	ssatom	
What is the database account password to us	to create database connections?	
Password:	*****	
Confirm Password:	******	
Back Next Cancel		

Figure 7–29 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.

Freate a New JDBC Data Source	
reate a new JUDC Data Source	
Test Configuration Back Next Finish Car	el
Test Database Connection	
Test the database availability and the connection pro-	rbes you provided.
What is the full package name of 3DBC driver class use	to create database connections in the connection pool?
(Note that this driver class must be in the dasspath of	iy server to which it is deployed.)
Driver Class Name:	oracle.jdbc.OracleDriver
What is the URL of the database to connect to? The fo	nat of the URL varies by 3DBC driver.
URL:	jdbc oracle thin @10.184.
What database account user name do you want to use	o create database connections?
Database User Name:	ssatom
What is the database account password to use to crea	
(Note: for secure password management, enter the pa	svord in the Password field instead of the Properties field below)
Password:	********
Confirm Password:	
What are the properties to pass to the JDBC driver whe	oreating database connections?
Properties:	
user=seatom	
The set of driver properties whose values are derived a	runtime from the named system property.
System Properties:	
What table name or SQL statement would you like to us	to test database connections?
Test Table Name: SQL SELECT 1 FROM DUAL	
Test Configuration Back Next Finish Can	

Figure 7–30 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 the following:

- "User ID" is the Oracle user ID that is created for the respective "Information Domain".
- "User ID" to be specified for data source with "FICMASTER" as "JNDI" name should be the Oracle user ID created for the "configuration schema".
- 13. Select the new Data Source and click the Targets tab.

Figure 7–31 Select Targets

eate a New JDBC Data Source	
Back Field Finish Cancel Select Targets You can select one or more targets to deploy your new JDBC data so	urce. If you don't select a target, the data source will be created but not deployed. You will need to deploy the data source
Servers	
AdminServer	

14. Select the AdminServer option and click Finish.

Create GridLink Data Source

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

Figure 7–32 Create a New JDBC GridLinkData Source

Create a New JDBC GridLink I	Data Source			
Back Next Final Car	ncel			
JDBC GridLink Data Source	2 Properties			
The following properties will be	used to identify your new JDBC Gr	idLink data source.		
* Indicates required fields				
What would you like to name yo	our new 3DBC GridLink data source?			
委 = Itame:	xyz			
What JNDI name would you like	to assign to your new JDBC GridLin	k data source?		
3NDI Name:				
jdbo/xyz				
What database type would you	like to select?			
Database Type:	Oracle			
Is this XA driver?				
XA Driver				
Back Next Frint Car	rcel			

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** check box is not selected. Click **Next**.

F	
Create a New JDBC GridLink Data Source	
Back Next From Cancel	
Connection Properties	
Define Connection Properties.	
Enter Complete JOBC URL for GridLink database.	
Complete JDBC URL:	
What database account user name do you want to use to create database connections? Database User Name: What is the database account password to use to create database connections?	
Password:	
Confirm Password:	
Back Next Cancel	

Figure 7–33 JDBC GridLinkData Source- Connection Properties

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

Configure Multi Data Sources

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

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

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

Figure 7–34 Summary of JDBC Multi Data Sources

o the		can look up a multi data source on the JNDI tree.	provides load balancing and failover between data source and then reserve a database connection from a data sour		
ise th	is page to create or vie	w multi data sources in your domain.			
	omize this table				
Sec. Bar					
		d - Nore Columns Exist)			
luiti C		d - Nore Columns Exist)		Showing 1 to 2 of 2 Previo	us į Nex
luiti C	Data Sources(Filtere	d - Hore Columns Exist) JHD1 Rame	Algorithm Type	Showing 1 to 2 of 2 Previo	us Nex
New	Data Sources(Filtere		Algorithm Type		us Ner

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.

Figure 7–35 Configure the Multi Data Source

Create a New JOBC Multi Data Source Configure the Multi Data Source The following properties will be used to identify your new JOBC multi data source. What would you like to name your new JOBC multi data source? I Name: JDBC Multi Data Source What JDDI name: JDBC Multi Data source? Multi Data Source Uniti data source? Multi Data Source Load-Balancing Multi Data Source Cencel			
Configure the Multi Data Source The following properties will be used to identify your new JDBC multi data source. What would you like to name your new JDBC multi data source? Miname: JDBC Multi Data Source. What JRDI name would you like to assign to your new JDBC multi data source? JMDI Name: JMDI Name: JMDI Name: JMDI Name: JMDI Name: Load-Balancing M	Create a New JDBC Multi Data Sour	æ	
The following properties will be used to identify your new JDBC multi data source. What would you like to name your new JDBC multi data source? IDBC Multi Data Source-0 What JNDI name: JNDI Name: JNDI Name: JNDI Name: Load-Balancing Load-Balancing Load-Balancing	East Next Cancel		
What visual you like to name your new JDBC multi data source? Image: JDBC Multi Data Source.0 What JDDI Name: JDDO/ & n for dominame What algorithm type for this JDBC Multi Data Source vould you like to select? Algorithm Type: Load-Balancing Vision	Configure the Multi Data Source		
Itame: JDBC Multi Data Source-0 What R/DI name: JDBC fulli Data source? JDDO/ in fordomname	The following properties will be used to	identify your new JDBC multi data source.	
What JADI name would you like to assign to your new JDBC multi data source? Image: Jabi / infodomname Jdbo / infodomname What algorithm type for this JDBC Multi Data Source would you like to select? Image: Load-Balancing V	What would you like to name your new	IDBC multi data source?	
SINDI Name: Stabo/infodomname What algorithm type for this JDBC Multi Data Source would you like to select? Algorithm Type:	🖑 Name:	JDBC Multi Data Source-0	
jdbo/infodomname What algorithm type for this JDBC Multi Data Source would you like to select? Call Algorithm Type: Load-Balancing V	What JNDI name would you like to assig	n to your new JDBC multi data source?	
What algorithm type for this JDBC Multi Data Source would you like to select?	🕂 JNDI Name:		
Algorithm Type:	jdbo/infodomname		
waar waaraang 1	What algorithm type for this 3DBC Multi	Data Source would you like to select?	
Truck Next Cancel	Algorithm Type:	Load-Balancing	
	Tank Next Cancel		

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

Note the following:

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

Figure 7–36 Select Targets

Create a New JDBC Hulti Data Source	
Back Next Cancel	
Select Targets	
You can select one or more targets to deploy your new 3DBC Multi Data So	urce.
Servers	
AdminServer	
Back Next Frish Cancel	

6. Select the AdminServer check box and click Next.

Create a New JDBC Multi Data Source	
Back Next Cancel	
Select Data Source Type	
Please select type (XA or Non-XA) of data source you would like to add to your new JDBC Multi Data Source.	
O XA Driver	
Non-XA Driver	
Back Next Finish Cancel	

Figure 7–37 Select Data Source Type

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

Create a New JDBC Multi D	ata Source			
Back These Finals Ca	ancel			
Add Data Sources What JDBC Data Sources w	ould you like to add to your new JDBA	C Multi Data Source?		
Data Sources:				
Available	Chosen			
ROR2 FUSION1 FUSION2 FUSIONRH	ROR 1	4		
Create a New Data Source				
Back Test Ca	incel			

Figure 7–38 Add Data Sources

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

Advanced Settings for Data Source

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

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

Figure 7–39 Settings for <Data Source Name>

		MASTER						
onfigurat	tion	Targets	Monitoring	Control	Security	Notes		
tatistics	Tes	sting						
Jse this ;	page to	o test data	abase connection	ns in this 30	BC data sou	urce.		
	ta Sou		ered - More Co	olumns Exi	st)			Showing 1 to 1 of 1 Previous Nex
est Dat	ta Sou	irce (Filte	ered - More Co	olumns Exi	st)		State	Showing 1 to 1 of 1 Previous Nex
est Dat	ta Sou	irce (Filto	ered - More Co	olumns Exi	st)		State Running	Showing 1 to 1 of 1 Previous Nex

4. Select the server and click Test Data Source.

A message is displayed indicating that the test was successful.

- **5.** Once the "Data Source" is created successfully, the following messages are displayed:
 - All changes have been activated. No restart is necessary.
 - Settings updated successfully.

If not, follow the steps given above to recreate the data source.

JDBC Connection Pooling

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

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

Configuring Resource Reference in Tomcat Application Server

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

Copy the JDBC driver file depending on your Oracle database version. As OFSAAI is certified on Oracle 11gR2, copy the Oracle JDBC driver file, ojdbc<version>.jar from <Oracle Home>/jdbc/lib and place it in <Tomcat Home>/lib. NOTE: Refer to Appendix J for identifying the correct "ojdbc<version>.jar" version to be copied.

This section covers the following topics:

- Create Data Source
- JDBC Connection Pooling

Create Data Source

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

NOTE: The User-IDs for configuration/ atomic schemas have the prefix of setupinfo depending on the value set for PREFIX_SCHEMA_NAME in <<APP Pack>>_SCHEMA_IN.XML file of Schema Creator Utility.

For example: if the value set for PREFIX_SCHEMA_NAME is DEV and the schema name was mentioned as ofsaaconf, then the actual schema created in the database would be DEV_ofsaaconf.

```
<Context path ="/<context name>" docBase="<Tomcat Installation
Directory>/webapps/<context name>" debug="0" reloadable="true"
crossContext="true">
```

<Resource auth="Container"

name="jdbc/FICMASTER"

type="javax.sql.DataSource"

driverClassName="oracle.jdbc.driver.OracleDriver"

username="<user id for the configuration schema>"

password="<password for the above user id>"

url="jdbc:oracle:thin:@<DB engine IP address>:<DB Port>:<SID>"

maxActive="100"

```
maxIdle="30"
```

```
maxWait="10000"/>
```

<Resource auth="Container"

name="jdbc/< INFORMATION DOMAIN NAME >"

type="javax.sql.DataSource"

driverClassName="oracle.jdbc.driver.OracleDriver"

username="<user id for the atomic schema>"

password="<password for the above user id>"

url="jdbc:oracle:thin:@<DB engine IP address>:<DB Port>:<SID>"

maxActive="100"

```
maxIdle="30"
maxWait="10000"/>
```

</Context>

Note the following:

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

JDBC Connection Pooling

To define the JDBC connection pooling, do the following:

- Copy \$ORACLE_HOME/jdbc/lib/ojdbc<version>.jar to the path \$TOMCAT_ DIRECTORY/lib/.
 NOTE: Refer to Appendix J for identifying the correct "ojdbc<version>.jar" version to be copied.
- 2. Edit the server.xml present under the path \$TOMCAT_DIRECTORY/conf/ with the below changes, which is required for connection pooling.

```
<Context path="/ $CONTEXTNAME$" docBase=" $APP_DEPLOYED_PATH$ " debug="0" reloadable="true" crossContext="true">
```

```
<Resource auth="Container"
```

name="jdbc/ \$INFODOM_NAME\$"

type="javax.sql.DataSource"

driverClassName="oracle.jdbc.driver.OracleDriver"

username=" \$ATOMICSCHEMA_USERNAME\$"

password="\$ATOMICSCHEMA_PASSWORD\$"

url="\$JDBC_CONNECTION_URL"

maxActive="100"

maxIdle="30"

```
maxWait="10000"
```

removeAbandoned="true" removeAbandonedTimeout="60"

```
logAbandoned="true"/>
```

</Context>

Note the following:

- \$TOMCAT_DIRECTORY\$ should be replaced by Tomcat application installed path.
- \$CONTEXTNAME\$ should be replaced by OFSAAI context name.
- \$APP_DEPLOYED_PATH\$ should be replaced by OFSAAI application deployed path.
- \$INFODOM_NAME\$ should be replaced by Infodom Name.
- \$ATOMICSCHEMA_USERNAME\$ should be replaced by Atomic schema database user name.

- \$ATOMICSCHEMA_PASSWORD\$ should be replaced by Atomic schema database password.
- \$JDBC_CONNECTION_URL should be replaced by JDBC connection string
 jdbc:Oracle:thin:<IP>:<PORT>:<SID>. For example, jdbc:oracle:thin
 10.80.50.53:1521:soluint
- The User-IDs for configuration/ atomic schemas have the prefix of setupinfo depending on the value set for PREFIX_SCHEMA_NAME in <<APP Pack>>_ SCHEMA_IN.XML file of Schema Creator Utility.
 For example: if the value set for PREFIX_SCHEMA_NAME is DEV and the schema name was mentioned as ofsaaconf, then the actual schema created in the database would be DEV_ofsaaconf.

Class loader configuration for Apache Tomcat

Add tag <Loader delegate="true" /> within the <Context> tag, above the <Resource> tag in server.xml file. NOTE: This configuration is required if Apache Tomcat version is 8.

Deploy EAR/WAR File

This section covers the following topics:

- Deploy WebSphere EAR Files
- Deploy EAR/WAR file for WebLogic
- Deploy Tomcat WAR Files

Deploy WebSphere EAR Files

To deploy Infrastructure application in WebSphere:

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

./startServer.sh server1

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

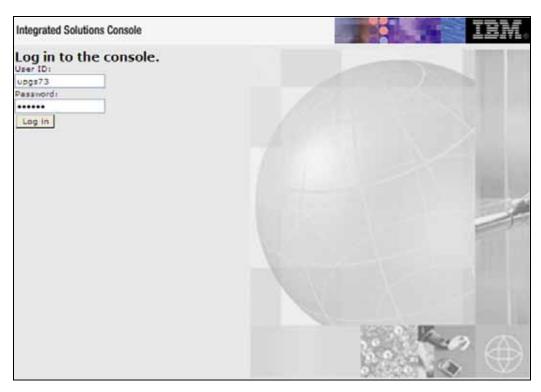


Figure 7–40 Login Window

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

Figure 7–41 New Application



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

Path to the new app					
Local file system	n				
Full path	R	wse			
		(WPS III]			
Remote file sys	tem				
Pull path			Browsen	1	

Figure 7–42 Preparing for the application installation

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

Figure 7–43 Installation Options

Preparing for the application installation	2 -
• Fast Path - Prompt only when additional information is required.	
O Detailed - Show all installation options and parameters.	
Choose to generate default bindings and mappings	
Previous Next Cancel	

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

Step 1: Select installation options	Select installation options			
	Specify the various options that are available to prepare and install your application.			
Step 2 Map modules to servers	Precompile JavaServer Pages files			
<u>Step 3</u> Map resource references to resources	Directory to install application			
Step 4 Map virtual	Distribute application			
hosts for Web modules	Use Binary Configuration			
<u>Step 5</u> Summary	Deploy enterprise beans			
	Application name			
	Create MBeans for resources			
	Override class reloading settings for Web and EJB modules			
	Reload interval in seconds			
	Deploy Web services			
	Validate Input off/warn/fail warn			
	Process embedded configuration			
	File Permission			
	Allow all files to be read but not written to Allow executables to execute Allow HTML and image files to be read by everyone			
	.*\.dll=755#.*\.so=755#.*\.a=755#.*\.sl=755			
	Application Build ID Unknown			
	Allow dispatching includes to remote resources			
	Allow servicing includes from remote resources			
	Business level application name			
	Create New BLA			
	Asynchronous Request Dispatch Type Disabled			
	Allow EJB reference targets to resolve automatically			

Figure 7–44 Install New Application

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

			compared as			
Step 1 Select installation options	Map m	Map modules to servers				
Step 2: Map modules to servers <u>Step 3</u> Map resource references to resources <u>Step 4</u> Map virtual hosts for Web	contain applica plug-in through <u>Cluste</u>	ed in your appl tion servers. All configuration fi n. rs and servers: Sphere:cell=ipa	ication. Modules can b so, specify the Web se ile (plugin-cfg.xml) for	r dusters of application servers where you want to install the modules that are e installed on the same application server or dispersed among several rvers as targets that serve as routers for requests to this application. The each Web server is generated, based on the applications that are routed le=ipa24dorNode05.server=server1 Apply		
modules	Select	Module	URI	Server		
Step 5 Summary		beancache.jar	beancache.jar.META- INF/ejb-jar.xml	WebSphere:cell=ipa024dorNode05Cell.node=ipa24dorNode05.server=server		
		OFSAAI Web Application	alxpr2.war.WEB- INE/web.xml	WebSphere:cell=lpa024dorNode05Cell.node=ipa24dorNode05,server=server		

Figure 7–45 Map Modules to Servers

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

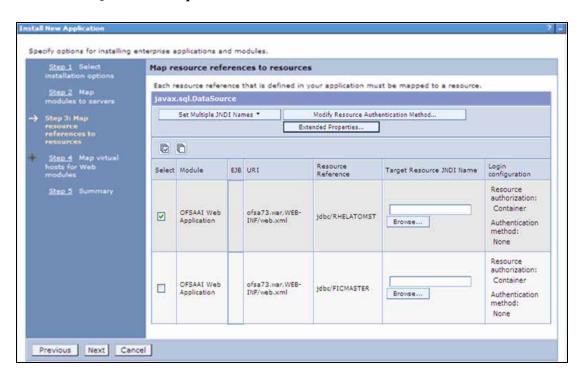


Figure 7–46 Map Resource References to Resources

- **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.

<u>Step 1</u> Select installation options	Map vi	Map virtual hosts for Web modules			
Step 2 Map modules to servers	in you them	Specify the virtual host where you want to install the Web modules that are contained in your application. You can install Web modules on the same virtual host or disperse them among several hosts.			
<u>Step 3</u> Map resource references to resources		ply Multiple Mappings			
Step 4: Map virtual	Select	Web module	Virtual host		
hosts for Web		OFSAAI Web Application	default_host 💙		

Figure 7–47 Map Virtual host for Web Modules

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

Figure 7–48 Summary

Slep 1 Select	Summary	
installation options	Summary of installation options	
Step 2 Map modules to servers	Options	Values
	Precompile JavaServer Pages files	No
Step 3 Map resource references	Directory to install application	
to resources	Distribute application	Yes
Step 4 Map virtual	Use Binary Configuration	No
hosts for Web modules	Deploy enterprise beans	Yes
	Application name	upgs73
Step 5: Summary	Create MBeans for resources	Yes
	Override class reloading settings for Web and EJB modules	No
	Reload interval in seconds	
	Deploy Web services	No
	Validate Input off/warn/fail	warn
	Process embedded configuration	No
	File Permission	.*\.dll=755#.*\.so=755#.*\.a=755#.*\.sl=755
	Application Build ID	Unknown
	Allow dispatching includes to remote resources	No
	Allow servicing includes from remote resources	No
	Business level application name	
	Asynchronous Request Dispatch Type	Disabled
	Allow EJB reference targets to resolve automatically	No
	Cell/hode/Server	Click here

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

15. On successful installation, a message is displayed. Click **Save** and save the master file configuration. The details are displayed in the Master File Configuration window.

To start the application:

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

Figure 7–49 Enterprise Applications

Jse t	prise Applications his page to manage installed applications. A single app iferences	vication can be deployed onto multiple servers.			
Star	T Stop Install Uninstall Update Rollout Updat	e Remove File Export Export DOL Export File			
0	0.7.9				
Selec	t Name O	Application Status 😟			
You	can administer the following resources:				
2	ADXGAST	*			
	DefaultApplication	*			
	ist/ep	*			
	QUECK	+			

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.

WebSphere HTTPS Configuration

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

- 1. Create a profile using the Profile Creation Wizard in WebSphere.
- 2. Note down the https port specified during this process and use the same as servlet port or web server port during OFSAAI installation.
- 3. To enable https configuration on Infrastructure, assign value 1 to "HTTPS_ENABLE" in OFSAAI_InstallConfig.xml for Silent mode OFSAAI installation. See "Configuring OFSAAI_InstallConfig.xml"

Deploy EAR/WAR file for WebLogic

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

- Navigate to the path "<WebLogic Installation directory>/user_ projects/domains/<domain name>/bin" in the machine in which WebLogic is installed.
- **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 Starting Infrastructure Services 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.

Figure 7–50 Summary of Deployments

ORACLE WebLogic Server ⁴	Administrati	ion Console		-		0
Change Center View changes and restarts	1 2005.20	Log Out Preferences 🐼 Record He	6 []	9	Welcome, upg7	273 Connected a upg7273
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	11111	of Deployments				
Domain Structure	Control	Monitoring				
ep7223 Bi Environment Deckovments Enservces Security Assims Outproperability Totagroups ability	domain. first sele To instal	e displays a list of Java EE applications Installed applications and modules can citing the application name and using th I a new application or module for deploy	be started, stopped, update ie controls on this page.	d (redeploy	ed), or deleted from	d to this I the domain by
	P Custon Deployr	nents				
	Deployr	Sector Contractor	1	9	howing 1 to 1 of 1 f	hevious Next
	Deployr	nents	State	1	0	revious Next cployment rder
How do I	Deployer Install	nents Saton Desic (Sec.+) (Dec	1	1	0	eployment rder

- 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/.
- 4. Explode the <context_name>.ear file by executing the command:

jar -xvf <context_name>.ear

- 5. Delete the <context>.ear and < context >.war file (recently created).
- 6. Create a directory <context_name>.war under <WEBLOGIC_INSTALL_ DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications.
- 7. Copy <\$FIC_WEB_HOME/<context_name>.war file to <WEBLOGIC_INSTALL_ DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/<context_ name>.ear/.
- 8. Explode the <context_name>.war file by executing the following command to get the directory structure:

jar -xvf <context_name>.war

Install Application

To install Application:

1. Open the Install Application Assistant.

Figure 7–51 Install Application Assistant

Report Reported International Property	tall and prepare for deployment			
an and the second state of the second	sents the application root directory, archive file, exploded archive directory, or application module descriptor that you want to install. You can also enter the path o			
Note: Only valid file paths are	displayed below. If you cannot find your deployment files, upload your file(s) and/or confirm that your application contains the required deployment descriptors.			
Path:	/oradata2/wl1035/Oracle/Middleware/user_projects/domains/upg7273/applications			
raus				
Recently Used Paths:	/oradata2/w1035/Oracle/Middleware/user_projects/domains/upg7273/applications			
	/oradata2/wi1035/Orade/Middleware/user_projects/domains/upg7273/applications 10.184.134.147 / oradata2 / wi1035 / Orade / Middleware / user_projects / domains / upg7273 / applications			
Recently Used Paths:	10.184.134.147 / oradata2 / wl1035 / Orade / Middleware / user_projects / domains / upg7273 / applications			

2. Click Next.

Figure 7–52 Install Application Assistant

nstall Application Assistant
Back Next Frieh Cancel
Choose targeting style
Targets are the servers, dusters, and virtual hosts on which this deployment will run. There are several ways you can target an application.
Install this deployment as an application
The application and its components will be targeted to the same locations. This is the most common usage.
○ Install this deployment as a library
Application libraries are deployments that are available for other deployments to share. Libraries should be available on all of the targets running their referencing applications
Back Next Frian Cancel

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.

Install Application Ass	istant
Back Next Fnish	Cancel
Optional Settings	
You can modify these s	ettings or accept the defaults
General	
What do you want to na	me this deployment?
Name:	upg7273
Security	
What security model do	you want to use with this application?
DD Only: Use onl	y roles and policies that are defined in the deployment descriptors.
Custom Roles: U descriptor.	se roles that are defined in the Administration Console; use policies that are defined in the deployment
Custom Roles an	ad Policies: Use only roles and policies that are defined in the Administration Console.
O Advanced: Use a	custom model that you have configured on the realm's configuration page.
- Source accessibilit	Y
How should the source f	les be made accessible?
Over the defaults	defined by the deployment's targets
Recommended selection	5
O Copy this application	ation onto every target for me
During deployment, the	files will be copied automatically to the managed servers to which the application is targeted.
○ I will make the c	leployment accessible from the following location
Location:	/oradata2/w1035/Oracle/Middleware/user_projects/domaii
Provide the location from reach the location.	where all targets will access this application's files. This is often a shared directory, You must ensure the application files exist in this location and that each target can
Back Next Finish	Cancel
W1	

Figure 7–53 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.

Figure 7–54 Deployment Summary

Install Application A	esistant			
Back Frei	eh Cancel			
Review your choic	tes and click Finish			
Click Finah ta comple	te the deployment. This may take a few moments to co	olein.		
- Additional config	uration			
In order to work sume	eefuily, the application may require additional configura	ton. Do you want to review this application's configuration after completing this assistant?		
Yes, take me to	to the deployment's configuration screen.			
🔿 No, I will revie	w the configuration later.			
- Summary		10 Connector 10 Control 10		
Deployments	ent: /oredata2/i/1035/Orede/Middenamiliaer_projects/domans.log7273/ace/ications/cog7273.ear			
Name:	Name: cog72733			
Staging mode:	Staging mode: Lise the defaults defined by the chusen targets			
Security Hodek	DDOnly: Use only roles and policies that are define	d in the deployment descriptors.		
Target Summary				
Components 👄		Targets		
upg7272.ear		AdminServer		
Beck Final Free	ah Carcel			

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

verview Deployment Flam	Configuration Security Targets Control Testing Hanturing 1	Turtes	
la.e.	A second constant of a little of the source of the second fails		
	eral configuration of an Entergrave application, such as its name, the physical peth solution (such as Vieb applications and E284) that are contained in the Entergrave a		
Larrer:	40g7273	The name of this finite price Application. Here before	
ath:	/ cradiate2/ vi2535/ Grade/ Moldeware/ user_projects/ domare/ usg7275/ applications/ usg7275, tar	The path to the source of the deployable unit in the Advendrate Servery Mare Sela	E.
eployment Plan	(ropin sected)	The parts to the deployment plan document on Administration Ser- Sela	- H
taging flode:	(not specified)	The mode that specifies whether a deployments field are capled source in the Administration Servier to the Managed Servier's also during application preparation. Mare 246	iuma. Pro eren
ecurity Hodelt	D00HV	The security model that is used to secure a deployed module. M	ore little
Deployment Order:	100	An elegen value that indicates when this unit is deployed, intere- deployable units on a server, during stanka. Have Srfa	th other
Deployment Principal Jame		A string value that reductes sharp propped shadd be used when a the fire or antitest during starting and thirdbork. The present will be not the structure shaped sharp on odding as the application reduction for such as Application/RecentLineous. If no provide rears a specifi- tre energiance propped reflections. If no provide rears a specifi- tre energiance propped reflections.	be used
are.			
Hodules and Components		Shaving 1to 1 of 1 Previo	and I the
Name 🛶			Type
H (pg727)			Erie pro Applicato
(F. 836)			
State concernation	nõean	1	5.3
IR Modules			
1007273			Vieto Acoricado
Dreampera.			EI8 Hodule
El vieb Services			
frame to deplay			

Figure 7–55 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.

Figure 7–56 Summary of Deployments

ha pag edeplu	e displays a list of Java EE applications and stand-alone rved), or deleted from the domain by first selecting the r	r application modules that have been installed to application name and using the controls on this	this domain. 2 page:	stalled applications and moduli	es can be started, stopped, update
a restal	I a new application or module for deployment to targets	an this domain, click the Distal button.			
uston	uze this table				
eploya	ments				
eploya	updets Deets Starty Stopy				Proving 1 to 1 of 1 Previous 14
eploye matei	upsete Deere Start Stop v Service al recesta	State	Realth	1900	Second Second
epiloye Instal	updete Deete Start v Stop v Servicing et recents	ouests	Health V CK	Туре	Rowing 1 to 10 ^f 1 Previous 16 Deployment Order

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

Figure 7–57 Summary of Deployments

mary	of Deployments			
ntrol	Montoring			
edepi	an and a second s			
a nata ustor epioy	il a new application or module for deployment to sargets more this table ments		8	hering 1 to 1 of 1. Previous 1
o nata ustor epioy natat	nize this table ments	Health	Туре	boung 1 to 1 of 1. Previous 1 Deployment Order

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

Deploy Tomcat WAR Files

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

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

1. Open the URL in Browser window: http://<IP address>:<Tomcat server port>. (https if SSL is enabled). The Tomcat home window is displayed.

Home Documenta Apache Tom		Viki Mailing Lists you've success	*		Transfer to the second set of the	Find Hel are Foundation apache.org/ 151	
Developer Quick St Tomcat Setup	Recommended Readin Security Consideration Manager Application H Clustering/Session Re art Realms & AAA	IS HOW-TO IOW-TO plication HOW-TO Servlet Examples					
First Web Application Managing Tomo For security, access to restricted. Users are de sCATALINA_BONE/cen in Tomcat 7.0 access to application is split betwe Read more Release Notes Changelog Migration Guide Security Updates	the <u>manager webapp</u> is fined in f/tomcat-users.xml the manager	Documentatio <u>Tomcat 7.0 Docu</u> <u>Tomcat 7.0 Docu</u> <u>Tomcat Wiki</u> Find additonal impo information in @CATALINA_RCME/I Developers may be <u>Tomcat 7.0 But Datab</u> <u>Tomcat 7.0 But Datab</u> <u>Tomcat 7.0 SyN Reac</u> <u>Tomcat 7.0 Examples</u>	Interested in:	1	Serviet Specifications Torncat Versions Getting Help PAQ Mailing Lists The following mailing lists are available: The following mailing lists are available: Inportant asnooncements, releases, security vulnerability notifications. (Low volume). User support and discussion User support and discussion User support and discussion for <u>Apache Taglibs</u> Gettioncat apache.org Development mailing list, including commit messages		
Other Downloads Tomcat Connectors Tomcat Mateu Taolitas Disclover Opyright ©1999-2011 Apac	Other Documentation <u>Temcat Connectors</u> mad. IK Documentation <u>Temcat Native</u> <u>Destoyer</u> he Software Foundation. All Fug	Qusbérw SVN Reposit Malling Lists With	ories	Miscellaneoux Contact Legal Seonsorphig Thanks	Fo Wh Her Bal	ache Software undation le We Are nfage sche Home sources	

Figure 7–58 Tomcat home

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

terest.	Tana Manager 1	10000			43	Expre sessions	en univ a 10	minutes	
						start [Bhap] [Rainad]	Unlegity		
host-manager	None specified	Torneat Hist	Manager Application	true	E		en utie 2 30	minutes	
		-			100	Start Stop Repart Link			
THE PROPERTY	None specified	Terricat Marc	ager Application	in the second se	1	and the second summer second second	sh utie a 30	mmates	
						Provide Property in		minutes	
infrast214	None specified	OF SAAL WH	Application	204	1.1		Undeploy		
					-	Eque services	en alfre k 30	minutes	
Deploy									
Contraction of the local data and the local data an	or WAR file located o	in server							
		Contex	t Path (required) [app	673					
		XML Card	guration file URL	1					
		WAR	or Directory LIRL 199	data happine appoint form	Notas73 war				
			D	giloy					
WAII lite to depic	oy								
	Sala	est WAR file to uplo	bei		Browner.				
			Depity						
Diagnostics									
the second state of the second state	web application has	caused a memor	y healt ant stop, raine	t or undeploy					
Find leaks	This diagnost	ut theck will hoppe	a ful garbage collect	et. Use it with extreme cau	tion an production	aystems.			
Server Inform	2007								
Torouget V		Al Version	JVM Vendor	OS Name	OS Ver	sian OS Archin	cours 1	ostname	IP Address
	r.m/7.0.19 t	6.0.25-605	Sun Merceystern	ing Linux	2 6 18 194	ation and		LVIEDOR	10 104 134 145

Figure 7–59 Tomcat Web Application Manager

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

On successful application deployment, a confirmation message is displayed.

• For information on starting the Tomcat server, see Starting Infrastructure Services.

C Appendix

This appendix covers the following topics:

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

Creating EAR/WAR File

This section includes the following topics:

- Creating WebSphere EAR/WAR File
- Creating WebLogic EAR/WAR File
- Creating Tomcat EAR/WAR File

Creating WebSphere EAR/WAR File

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

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

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

./ant.sh

- 2. This triggers the creation of EAR file -<contextname>.ear. The <contextname> is the name given during installation.
- **3.** On completion of the EAR files creation, the "BUILD SUCCESSFUL" and "Time taken" message is displayed and you will be returned to the prompt.
- 4. The EAR file <contextname>.ear is created on the machine on which Infrastructure Web components are installed under \$FIC_WEB_HOME directory.

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

Creating WebLogic EAR/WAR File

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

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

- Navigate to the path "<WEBLOGIC_INSTALL_DIR>/Bea/user_ projects/domains/<DOMAIN_NAME>/bin/".
- **2.** Start WebLogic Domain by executing the command:

./startWeblogic.sh -d64

- **3.** Navigate to the "\$FIC_WEB_HOME" directory in the machine in which Infrastructure Web components have been installed.
- 4. Execute the command:

./ant.sh

This will trigger the creation of EAR file - <contextname>.ear. Here <contextname> is the context name given during installation.

- **5.** On completion of the EAR files creation, the "BUILD SUCCESSFUL" and "Time Taken" message is displayed and you will be returned to the prompt.
- 6. The EAR file <contextname>.ear is created on the machine on which Infrastructure Web components are installed under "\$FIC_WEB_HOME" directory.

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

Creating Tomcat EAR/WAR File

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

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

- 1. On the machine in which Infrastructure Web components have been installed, navigate to the path \$FIC_WEB_HOME.
- **2.** Execute the command:

./ant.sh

This will trigger the creation of WAR file - <contextname>.war. The <contextname> is the name given during installation.

- **3.** On completion of the WAR files creation, a confirmation message will be displayed and you will be returned to the prompt.
- 4. The WAR file <contextname>.war- is created on the machine on which Infrastructure Web components are installed under \$FIC_WEB_HOME directory.

Note the following:

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

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

Deploying EAR/WAR File

This section covers the following topics:

- Deploying EAR/WAR Files on WebSphere
- Deploying EAR/WAR files for WebLogic
- Deploying Tomcat WAR Files on Tomcat

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

Deploying EAR/WAR Files on WebSphere

To deploy Infrastructure application in WebSphere:

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

./startServer.sh server1

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



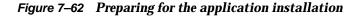
Figure 7–60 Login Window

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

Figure 7–61 New Application

lew Application	-
New Application	
This page provides links to create new applications of different types.	
Install a New Application	
New Enterprise Application	
New Business Level Application	
New Asset	

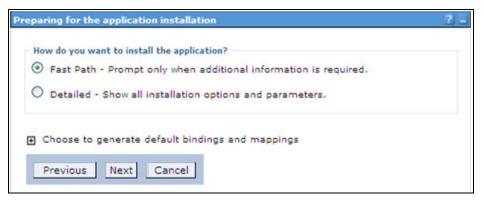
5. Click **New Enterprise Application**. The Preparing for the application installation window is displayed.



Path to the new	application				
Local file s	stem				
Full path		211			
		Browse			
Remote file	system				
Pull path					
			1	Browsen	

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

Figure 7–63 Installation Options



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

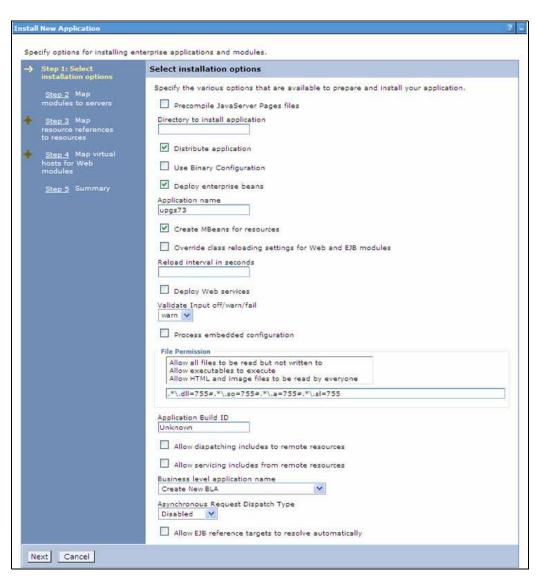


Figure 7–64 Install New Application

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

Step 1 Select installation options → Step 2: Map modules to servers Step 3 Map resource references to resources Step 4 Map virtual hosts for Web	Map modules to servers						
	contain applica plug-in through <u>Cluste</u>	ed in your appl tion servers. All configuration fi rs and servers: Sphere:cell=ipa	ication. Modules can b so, specify the Web se ile (plugin-cfg.xml) fo	r dusters of application servers where you want to install the modules that are e installed on the same application server or dispersed among several rivers as targets that serve as routers for request to this application. The each Web server is generated, based on the applications that are routed e=ipa24dorNode05.server=server1 Apply			
modules	Select	Module	URI	Server			
<u>Step 5</u> Summary		beancache.jar	beancache.jar,META- INF/ejb-jar.xml	WebSphere:cell=ipa024dorNode05Cell,node=ipa24dorNode05,server=server1			
		OFSAAI Web Application	alxpr2.war.WEB-	WebSphere:cell=ipa024dorNode05Cell,node=ipa24dorNode05,server=server			

Figure 7–65 Map Modules to Servers

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

Step 1 Select	Map re	source refe	ren	ces to resource	5		
	Each r	esource refere	ince	that is defined in ;	our application mu	st be mapped to a resource.	
Step 2 Map modules to servers	javax	.sql.DataSour	rce				
-> Step 3: Map		Set Multiple JNDI Names *			Modify Resource Authentication Method		
resource references to				Ext	ended Properties		
resources	B	6					
Step 4 Map virtual hosts for Web modules	· · · · · · · · · · · · · · · · · · ·	Module	EJB	URI	Resource Reference	Target Resource JNDI Name	Login configuration
<u>Step 5</u> Summary	9	OFSAAI Web Application		ofsa73.war,WEB- INF/web.xml	jdbc/RHELATOMST	Bronse	Resource authorization: Container Authentication method: None
		OFSAAI Web Application		ofsa73.war,WEB- INF/web.xml	jdbc/FICMASTER	Browderry	Resource authorization: Container Authentication method: None

Figure 7–66 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.

<u>Step 1</u> Select installation options	Map virtual hosts for Web modules					
<u>Step 2</u> Map modules to servers	in your	Specify the virtual host where you want to install the Web modules that are contained in your application. You can install Web modules on the same virtual host or disperse them among several hosts.				
Step 3 Map	E App	Apply Multiple Mappings				
resource references to resources		0				
Step 4: Map virtual	Select	Web module	Virtual host			
hosts for Web modules		OFSAAI Web Application	default_host 💙			

Figure 7–67 Map Virtual host for Web Modules

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

Figure 7–68	Summary
-------------	---------

	Slep 1 Seject	Summary		
	installation options	Summary of installation options		
	Step 2 Map modules to servers	Options	Values	
	Step 3 Map	Precompile JavaServer Pages files	No	
	resource references	Directory to install application		
	to resources	Distribute application	Yes	
	Step 4 Map virtual	Use Binary Configuration	No	
	hosts for Web modules	Deploy enterprise beans	748	
		Application name	upgs73	
•	Step 5: Summary	Create MBeans for resources	Yes	
		Override class reloading settings for Web and EJB modules	No	
		Reload interval in seconds		
		Deploy Web services	tio	
		Validate Input off/warn/fail	warn	
		Process embedded configuration	No	
		File Permission	.*\.dil=755#.*\.so=755#.*\.a=755#.*\.sl=755	
		Application Build ID	Unknown	
		Allow dispatching includes to remote resources	No	
		Allow servicing includes from remote resources	No	
		Business level application name		
		Asynchronous Request Dispatch Type	Disabled	
		Allow EJB reference targets to resolve automatically	No	
		Cell/flode/Server	Click here	

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

To start the application:

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

Figure 7–69 Enterprise Applications

Use t	rprise Applications his page to manage installed applications. A single appl eferences	ication can be deployed onto multiple servers.
Sta	rt Stop Install Uninstall Update Rollout Update	Remove file Export Export DOL Export File
8	0.7.9	
Selec	t Name 0	Application Status Q
You	can administer the following resources:	
	ADXGAST	*
	DefaultApplication	*
	istep	*
	RVICK	*

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.

Deploying EAR/WAR files for WebLogic

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

- Navigate to the path "<WebLogic Installation directory>/user_ projects/domains/<domain name>/bin" in the machine in which WebLogic is installed.
- 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 Starting Infrastructure Services 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.

Change Center	A Home Log Out Preferences Record Help		8	Welcome, u	pg7273 Connected a wpg7273		
View changes and restarts	Huma - Summary of Deployments				10001213		
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.	Summary of Deployments						
Domain Structure	Control Monitoring						
leg 7223 Bi Environment Deploymenta Bi Services	This page displays a list of Java EE applications an domain. Installed applications and modules can be first selecting the application name and using the c	started, stopped, update					
In-Security Realms (9) Interoperability (9) Deprosibia	To install a new application or module for deploym © Customize this table Deployments	ent to targets in this doma	n, dick the	Install bytton.			
Interoperability	& Customize this table	ent to targets in this doma			1 Previous Next		
8- Unteruperability RF Degrostica	© Customize this table Deployments						
 Interoperability 	© Customize this table Deployments		9	owing 1 to 1 of	1 Previous Next		

Figure 7–70 Summary of Deployments

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

Explode EAR

To explode EAR, follow these 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.
- Copy the <\$FIC_WEB_HOME/<context_name>.ear file to <WEBLOGIC_INSTALL_ DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/.
- 4. Explode the <context_name>.ear file by executing the command:

jar -xvf <context_name>.ear

- 5. Delete the <context>.ear and < context >.war file (recently created).
- Create a directory <context_name>.war under <WEBLOGIC_INSTALL_ DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications.

- 7. Copy <\$FIC_WEB_HOME/<context_name>.war file to <WEBLOGIC_INSTALL_ DIR>/Bea/user_projects/domains/<DOMAIN_NAME>/applications/<context_ name>.ear/.
- 8. Explode the <context_name>.war file by executing the following command to get the directory structure:

jar -xvf <context_name>.war

Install Application

To install Application:

1. Open the Install Application Assistant.

Figure 7–71 Install Application Assistant

Install Application Assistant	
Back Next Finish Ce	ncel
Locate deployment to ins	tall and prepare for deployment
Select the file path that repre- the application directory or file	sents the application root directory, archive file, exploded archive directory, or application module descriptor that you want to install. You can also enter the path of in the Path field.
Note: Only valid file paths are	displayed below. If you cannot find your deployment files, upload your file(s) and/or confirm that your application contains the required deployment descriptors.
Path:	/oradata2/wI1035/Oracle/Middleware/user_projects/domains/upg7273/applications
Recently Used Paths:	/oradata2/w1035/Oracle/Middleware/user_projects/domains/upg7273/applications
Current Location:	10.184.134.147 / oradata2 / wl1035 / Orade / Middleware / user_projects / domains / upg7273 / applications
🔿 📑 upg7273.ear (ope	n directory)
THE REAL PROPERTY IN	
Back Next Finish Ce	incel

2. Click Next.

Figure 7–72 Install Application Assistant

Install Application Assistant
Back, Next, Finish Cancel
Choose targeting style
Targets are the servers, dusters, and virtual hosts on which this deployment will run. There are several ways you can target an application.
Install this deployment as an application
The application and its components will be targeted to the same locations. This is the most common usage.
Install this deployment as a library
Application libraries are deployments that are available for other deployments to share. Libraries should be available on all of the targets running their referencing applications
Back, Next, Finish Cancel

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.

	Research Inc.	
Back Next	Finish	lancel
Optional Set	tings	
You can modif	y these setting	is or accept the defaults
General		
/hat do you w	ant to name th	is deployment?
lame:	upg	273
Security	(7)-94-5	
That security n	nodel do you v	ant to use with this application?
	11 - 11 - 11	
OD Only:	Use only rol	es and policies that are defined in the deployment descriptors.
Custom	Roles: Use n	oles that are defined in the Administration Console; use policies that are defined in the deployment
Custom	Roles and Po	licies: Use only roles and policies that are defined in the Administration Console.
2		licies: Use only roles and policies that are defined in the Administration Console. tom model that you have configured on the realm's configuration page.
2	d: Use a cus	
O Advance	d: Use a cus essibility	
O Advance Source acc	ed: Use a cus essibility source files b	tom model that you have configured on the realm's configuration page.
O Advance Source acc	d: Use a cus essibility source files b defaults defi	tom model that you have configured on the realm's configuration page. e made accessible?
 Advance Source acc should the Use the ecommended 	d: Use a cus essibility source files b defaults defi selection.	tom model that you have configured on the realm's configuration page. e made accessible?
 Advance Source acc low should the Use the use the commended Copy this 	d: Use a cus essibility source files b defaults defi selection. s application	tom model that you have configured on the realm's configuration page. emade accessible? ned by the deployment's targets
Advance Source acc iow should the Use the commended Copy the uring deploym	d: Use a cus essibility source files b defaults defi selection. s application ent, the files v	tom model that you have configured on the realm's configuration page. e made accessible? ned by the deployment's targets
Advance Source acc iow should the Use the commended Copy the uring deploym	d: Use a cus essibility source files b defaults defi selection. s application ent, the files u ke the deplo	tom model that you have configured on the realm's configuration page. e made accessible? ned by the deployment's targets noto every target for me will be copied automatically to the managed servers to which the application is targeted.
Advance Source acc ow should the Use the commended Copy thi uring deploym I will ma ocation:	d: Use a cus essibility source files b defaults defi selection. ent, the files o ke the deplo /orai	tom model that you have configured on the realm's configuration page. e made accessible? ned by the deployment's targets nonto every target for me will be copied automatically to the managed servers to which the application is targeted. syment accessible from the following location

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

Figure 7–74	Deployment Summary
-------------	---------------------------

Bash Friend Friend	A second s		
Review your choices			
	and click Finish		
Clok Finah ta complete th	re deployment. This may take a few moments to complete		
Additional configura	tion /		
In order to work successf.	ily, the application may require additional configuration. I	o you want to review this application's configuration after completin	g the assistant?
Yes, take me to 0	he deployment's configuration screen.		
🔿 No, I will review th	he configuration later.		
Summary		Construction and the second	
Deployments	/oradata2/s/10035/Orade/Middlenare/Laer_projects/ifon	ims/upg7273/epsilations/upg7273.ear	
Nome:	ubq72733		
Staging mode:	Use the defaults defined by the chusen targets		
Security Hodek	DOOnly: Use only roles and policies that are defined in th	e deployment descriptors.	
Target Summary			
Components 👄		Targets	
upg7272.ear		AdminServer	

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

ttings for	upg7273									
werview	Deployment Plan	Configuration	Security	Targeta	Cartral	Testing	Heiterg	fightes		
Care.										
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Figure 7–75 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.

	Monitoring					
		ava EE applications and stand-alone application modules th			tailed applications and module	is can be started, stopped, update
		on the domain by first selecting the application name and us or module for deployment to targets in this domain, click the		pe,		
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Figure 7–76 Summary of Deployments

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

Figure 7–77 Summary of Deployments

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ustor eploy matar	mire this table meets	the donan, did the Instal button.	Health	Туре	heaving 1 to 1 of 1. Previous 11 Deployment Order

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

Deploying Tomcat WAR Files on Tomcat

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

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

1. Open the URL in Browser window: http://<IP address>:<Tomcat server port>. (https if SSL is enabled). The Tomcat home window is displayed.

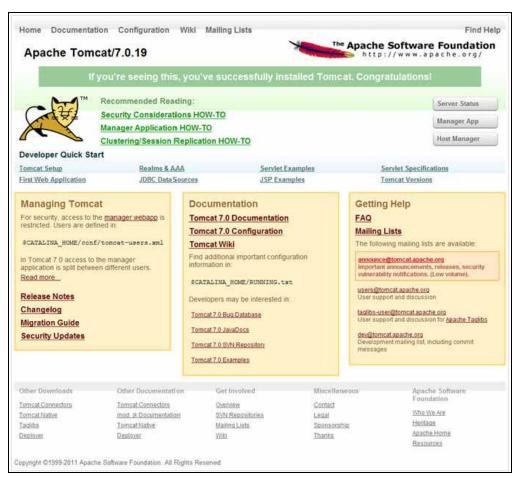


Figure 7–78 Tomcat home

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

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Figure 7–79 Tomcat Web Application Manager

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

On successful application deployment, a confirmation message is displayed.

• For information on starting the Tomcat server, see Starting Infrastructure Services.

D Appendix

This appendix includes the following sections:

- Additional Configurations
- OFSAA Landing Page
- Cleaning up the environment

Additional Configurations

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

This section covers the following topics:

- FTP/SFTP Configuration for Excel/Document Upload
- Configuration for Dimension and Hierarchy Management
- Configure Infrastructure Server Memory
- Internet Explorer Settings
- OLAP Data Server Configuration
- Configure Infrastructure Ports
- Configure OFSAAI Web Services
- Configure OFSAAI Web Services
- Deploy OFSAAI Web Services
- Configuration to Enable Parallel Execution of DML statements
- Configure Message Details in Forms Designer
- Clearing Application Cache
- Changing the CONFIG/ ATOMIC Schema passwords
- Configure Java Virtual Machine

FTP/SFTP Configuration for Excel/Document Upload

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

1. Login to the web application server.

Example: <App Layer path>scp nohup.out <user>@<Web Server
path>:/export/home/<user>

- 2. Type sftp <user>@<OFSAA Server>
- **3.** Specify Yes when prompted for permission. Are you sure you want to continue connecting (Yes/No)?
- 4. This will add an entry into the "known_hosts" file.
- **5.** A confirmation message is displayed: Permanently added <OFSAA Server> RSA) to the list of known hosts..

Configuration for Dimension and Hierarchy Management

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

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

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

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

Configure Member Deletion

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

 Table D–1
 Member Deletion Configuration

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

Configure Attribute Default Date Format

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

Table D–2 Attribute Default Date Format

Value	Code	Example
# Attribute Default Date Format - DB_DATE_ FORMAT:DD-MON-YYYY	FORMAT-\$INFODOM\$=\$	ATTR_DEF_DATE_ FORMAT-ORAFUSION=D D/MON/YYYY

Configure Members Reverse Population

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

 Table D–3
 Members Reverse population

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

Configure Hierarchy Reverse Population

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

Table D–4 Hierarchy Reverse population

Value	Code	Example
#Hierarchy Reverse population - VALUE- Y/N		HIERARCHY_REVERSE_ POP-ORAFUSION-1=Y

Configure Maximum Levels allowed in Hierarchies

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

Table D–5 Hierarchy Maximum level allowed

Value	Code	Example
#Hierarchy Maximum level allowed for the hierarchy in particular Information Domain - VALUE - Integer number	MAX_ DEPTH-SINFODOMS=\$VA LUES	MAX_DEPTH-FUSION=15

The Maximum Levels allowed in the hierarchies is less than or equal to 15. If the Hierarchy Reverse population is set as "**Y**" and more than 15 levels are created. Then an alert is displayed as "*The number of levels exceeding the limit*".

If the maximum level allowed is set as more than 15 and hierarchy reverse population is set as "**Y**" then an error is displayed as "*Error occurred in Reverse populating the hierarchy*".

Configure Node Limit for a Hierarchy Tree

This property is required to display the Hierarchy as a small or a large hierarchy. If the tree node limit exceeds the set limit, the Hierarchies are treated as large Hierarchy.

Table D–6 Hierarchy Tree node limit

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

BlowFish Algorithm Setting for Solaris 5.11

Note: This setting is required and applicable only if the OFSAA 8.0.0.0.0 Java 6 release is used.

OFSAA client call uses blowfish-cbc, 3des-cbc algorithm during SFTP. But BlowFish algorithm is not supported on Solaris 11 operating system. Perform the following steps manually to enable it:

- 1. Login as a root user.
- 2. Append the following line to /etc/ssh/sshd_config

```
Ciphers
aes128-ctr,aes192-ctr,aes256-ctr,arcfour128,arcfour256,arcfour,blowfish
-cbc,3des-cbc
```

3. Restart ssh daemon:

svcadm -v restart ssh

Configure Infrastructure Server Memory

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

Infrastructure Application Server Memory Settings

You can configure the Infrastructure Application Memory settings as follows:

- 1. Locate .profile file.
- **2.** Edit X_ARGS field in this file for customizing memory settings and garbage collector settings depends on the hardware configuration.

This has a default value X_ARGS="-Xms200m"

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

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

Internet Explorer Settings

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

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

1. 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.

Figure D–1 Internet Options



- 2. Click **Default Level** under **Security level for this zone**.
- 3. Click **OK** to save.
- 4. Click Internet Explorer >> Tools >> Compatibility View Settings.
- 5. Enter the OFSAA setup URL in the **Add this website** field.
- 6. Click Add.
- 7. Ensure the URL is listed under Websites you've added to Compatibility View.
- **8.** In the Internet Options window, select the **General** tab and select **Settings** in the Browsing History section.
- 9. Click the Every Time I visit the webpage option. Click OK.

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.

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 the following 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

The OFSAA Infrastructure Port Changer window is displayed.

Configure port r OFSAAInfrastruc		s used by	
OFSAAInfrastr	ucture i	istall direct	ory:
/home/setupct			
Application La		E F	
Database Laye Web Layer		E I	
Infrastructure Java Port	3425	tour	
ICC Server Port	9815		
ICC Native Port	9817		_
Infrastructure Native Por	8721		
Infrastructure Agent Por	representation		
OLAP Data Server Port	10101		
Message Server Port	4376		
Router Port	4379		_
AM Port	6702		
Web Server Port	12123		
Enter Database Details	10		
Select your Database	Oracle	8	-
IP Address	10.184	07.230	
Port Number			
SID			
Config schema usernam	enutille		
Config schema passwor	d •••••	••	

Figure 7–80 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.

OFSAAI Setup Information Fetching Tool

Executing the SetupInfo.jar file available in the FIC_HOME path will help you retrieve the related information about the OFSAAI Set up such as Operating System Name and version, Database Type and Version, OFSAAI architecture, Log file locations and so on.

To execute "SetupInfo.jar" in console:

- **1.** Navigate to the path \$FIC_HOME.
- **2.** Enter the command:

java -jar SetupInfo.jar

After execution, the output file location is displayed in the console.

Encryption Changer

This utility helps you to regenerate the new AESCryptKey.ext file and encrypt all the encrypted values of the OFSAAI setup according to the new key.

To execute EncryptC.jar in console:

- **1.** Navigate to the path \$FIC_HOME.
- **2.** Enter the command:

java -jar EncryptC.jar

A confirmation message is displayed after execution.

Once executed, you need to create and deploy the EAR / WAR file depending on the configured Web Application Server. For more information, see Configuring Web Application Servers.

Infrastructure LDAP Configuration

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.

Configure Infrastructure "Configuration Schema"

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

PARAMNAME	Description	PARAM Value Example
AUTHENTICATIONTYPE	Authentication type	2 - AUTHENTICATIONTYPE value must be 2 for LDAP
ROOTCONTEXT	The Root Context for the LDAP Directory	dc= <reveleus>, dc=<com></com></reveleus>
ROOTDN	The Root dn for LDAP directory	cn= <manager>, dc=<reveleus>, dc=<com></com></reveleus></manager>
ROOTPASS	Password for the Root	<secret></secret>
LDAPURL	LDAP URL	<ldap: 10.80.193.35:389=""></ldap:>
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.

Table D–7Configuration Schema

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

Configure OpenLDAP Files

- Copy the reveleusSchema.schema from <Infrastructure Installation Directory> /ficapp/common/FICServer/conf/LDAP_LDIF folder to LDAPServer Schema folder.
- 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"

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

6. Make an entry in the Domains.ldif file for each Information Domain that is created through the Infrastructure UI.

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

Note: DSNID refers to Information Domain name.

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

Example:

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

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

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

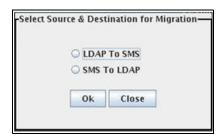
Migrate Data from CSSMS tables to LDAP server

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:

 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.





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

elect Entities To Mi	grace
🖌 User	
🗹 User Group	3
🔲 Function	
🔲 Role	
Segment	
🔲 Profile	
🔲 Holiday	
🔲 Function -	Role Map
🗌 User - Use	r Group Map
🔲 User Group	o - Role Map
🔲 User Group	o - Domain Map
-	
Migrate	Close

Figure 7–82 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.

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.

Configure OFSAAI Web Services

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

Configure DynamicWSConfig.xml File

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

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

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

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

This template is given below:

<XML>

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

Attributes for WEBSERVICE tag

Table D–8 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.

Placeholder	Description
\$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).

 Table D–8 (Cont.) WEBSERVICE tag

Attributes for OPERATION tag

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

Table D–9 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.

Attributes for INPUT tag

Placeholder	Description
\$ORDER	The sequential number of the INPUT tag. Should start from 0. This is in line with the input order of the arguments that the API accepts which is called by this operation.
\$PARAMNAME	Input parameter name to be called by the wsdl file.
\$ARGTYPE	Input Parameter Data Type. If the input argument type is complex object, specify \$ARGTYPE as "xmlstring".
\$CLASSNAME	Represents class name of input object parameter.

Attributes for OUTPUT tag

Table D–11 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.

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"</pre>

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.

Deploy OFSAAI Web Services

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

- 1. Complete the manual configuration of OFSAAI Web Services.
- 2. Navigate to <OFSAAI Installation Directory>/EXEWebService/<WebServer> and execute the command:

./ant.sh

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

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

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

Configuration to Enable Parallel Execution of DML statements

A configuration file, <code>OracleDB.conf</code> 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 <code>OracleDB.conf</code> file which resides in the path <code>\$FIC_DB_HOME/conf</code>.

As of now, the OracleDB.conf file has only one parameter namely CNF_DEGREE_OF_ PARALLELISM. This parameter indicates the degree of parallelism to be used for a DML operation if parallel DML is explicitly enabled in the session with the ENABLE PARALLEL DML clause of the ALTER SESSION statement. The default mode of a session is DISABLE PARALLEL DML. If CNF_DEGREE_OF_PARALLELISM is not set, then the default degree, as decided by Oracle will be used.

Configure Message Details in Forms Designer

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

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

Update the following parameters in the "NotificationConfig.cfg" file:

Parameter	Description
SMTP_SERVER_IP	Specify the 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)

Table D–12 NotificationConfig.cfg File

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

Clearing Application Cache

This is applicable to all Web Servers (that is, WebSphere, WebLogic, and Tomcat).

Prior to the deployment of Infrastructure or Application Service Packs / One-off patches, navigate to the following path depending on the WebServer configured and clear the cache:

- Tomcat: <Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp
- WebLogic: <Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>/qaelce/jsp_ servlet

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

Changing the CONFIG/ ATOMIC Schema passwords

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

OFSAA Infrastructure Config Schema password modification

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

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

cd \$FIC_APP_HOME/common/FICServer/bin

./reveleusshutdown.sh

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

./reveleusstartup.sh

- **5.** At the prompt, enter System Password. Enter the "new Config schema" password. The service will start and initialize itself if it is able to successfully connect to the DB.
- **6.** Post successful startup of the service, if required, the Infrastructure server may be shut down and restarted in the background using nohup mode.

OFSAA Infrastructure Atomic Schema password modification

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

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

If you are using WebSphere as Web server:

- **a**. Login to the WebSphere Administration Console, from the left side menu.
- **b.** Navigate to *Resources >JDBC >Data Sources*. A list of data sources will be populated on the right side.
- **c.** Select the appropriate Data Source and edit the connection details. (In this case, both Config and Atomic data sources will need to be modified).

If you are using WebLogic as Web server:

- a. Login to the WebLogic Administration Console, from the left side menu
- **b.** Under Domain Structure list box, expand the appropriate Domain and navigate to *Services > JDBC >Data Sources*. A list of data sources will be populated on the right side.
- **c.** Select the appropriate Data Source and edit the connection details. (In this case, both Config and Atomic data sources need to be modified).
- 6. Restart the OFSAAI services.

Configure Java Virtual Machine

While running several database intensive tasks in parallel, fetching the database connection from connection pool may face an error. To ensure no such error is encountered, add the line securerandom.source=file:/dev/./urandom in the java.security configuration file available in <code>\$JAVA_HOME/jre/lib/security/</code> path.

This needs to be configured only on the machine where the OFSAAI database components (ficdb layer) are installed.

OFSAA Landing Page

Depending on the user configuration, user can view the country-specific menus.

Cleaning up the environment

To clean up the enviornment, follow these steps:

- **1.** Navigate to \$FIC_HOME
- 2. Execute ./Uninstall.sh.
- 3. When prompted, enter OFSAAI configuration schema password.
- 4. This will delete \$FIC_HOME and drop all the objects from configuration schema
- 5. Navigate to ftpshare folder.
- 6. Delete the infodom folders \$ rm -rf <INFODOM>.
- 7. Drop configuration and atomic schemas from the database

Ε

Appendix

OFS_BD_PACK.xml file

The OFS_BD_PACK.XML file holds details on the various OFSAA products that are packaged together in a particular Application Pack.

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

You can skip updating this file if you are installing in the GUI mode.

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 Application Pack version	Y	Unique Seeded Value	DO NOT modify this value.
АРР	Unique Application Entries	Y	Unique Seeded Value	DO NOT modify this value.
APP_ID	Unique Application Identifier	Y	Unique Seeded Value	DO NOT modify this value.

Table E–1 OFS_BD_PACK.XML Parameters

Table E–1 OFS_BD_PACK.XML Parameters				
Tag Name/Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
APP_ID/ PREREQ	Prerequisite Application/ Product	Y	Unique Seeded Value	For most applications Infrastructure would be the prerequisite set. For certain other applications, an appropriate Application ID would be set. DO NOT modify
				this value.
APP_ID/ DEF_ SEL_FLAG	Default Selected Flag	Y	Default - YES	In all Application Packs, Infrastructure would have this value set to "YES".
				DO NOT modify this value.
APP_ID/ ENABLE	Enable Application/ Product	YES if installing in SILENT mode.	Default - YES for Infrastructure NO for Others Permissible - YES or NO	Set this attribute-value to YES against every APP_ID which is licensed and should be enabled for use.
				Note: Application/ Product once enabled cannot be disabled. However, Application/ Product not enabled during installation can be enabled later through the Administration UI.
APP_NAME	Unique Application/ Product Name	Y	Unique Seeded Value	DO NOT modify this value.
APP_ DESCRIPTION	Unique Application⁄ Product Name	Y	Unique Seeded Value	DO NOT modify this value.
VERSION	Unique release version	Y	Unique Seeded Value	DO NOT modify this value.

Table E–1 OFS_BD_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.
АРР	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.

 Table E-2
 OFS_BD_PACK.XML Parameters

Tag Name/ Attribute Name	Description	Mandatory (Y/ N)	Default Value/ Permissible Value	Comments
APP_ID/ ENABLE	Enable Application/ Product	YES if installing in SILENT mode.	Default - YES for Infrastructure NO for Others Permissible - YES or NO	Set this attribute-value to YES against every APP_ID which is licensed and should be enabled for use.
				Note: Application/ Product once enabled cannot be disabled. However, Application/ Product not enabled during installation can be enabled later through the Administration UI.
APP_NAME	Unique Application⁄ Product Name	Y	Unique Seeded Value	DO NOT modify this value.
APP_ DESCRIPTION	Unique Application/ Product Name	Y	Unique Seeded Value	DO NOT modify this value.
VERSION	Unique release version	Y	Unique Seeded Value	DO NOT modify this value.

Table E–2 OFS_BD_PACK.XML Parameters

F Appendix

OFS_BD_SCHEMA_IN.xml file

This chapter provides detailed information about the OFS_BD_SCHEMA_IN.xml file.

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	JDBC URL to the Database	Y	Any one of the below formats are supported:	
			jdbc:oracle:thin:@< HOST/IP>: <port> :<sid> or</sid></port>	
			jdbc:oracle:thin:@// [HOST][:PORT]/SE RVICE	
			or	
			jdbc:oracle:thin:@(D ESCRIPTION=(AD DRESS_ LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=[HOST])(por t=[PORT]))(ADDRE SS=(PROTOCOL=T CP)(HOST=[HOST]) (PORT=[PORT]))(L OAD_ BALANCE=yes)(FA ILOVER=yes))(CO NNECT_ DATA=(SERVICE_ NAME=[SERVICE])))	
			jdbc:oracle:thin:@// dbhost.server.com:1 521/service1	
			or	
			jdbc:oracle:thin:@// dbshostserver.com:1 521/scan-1	
			or	
			jdbc:oracle:thin:@(D ESCRIPTION=(AD DRESS_ LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=dbhost1.serv er.com)(port=1521))(ADDRESS=(PROTO COL=TCP)(HOST= dbhost2.server.com) (PORT=1521))(LOA D	
			D_ BALANCE=yes)(FA ILOVER=yes))(CO NNECT_ DATA=(SERVICE_ NAME=service1)))	

Table F–1 <<APP PACK>>_PACK_IN.XML Parameters

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
JDBC_DRIVER	JDBC Driver Class Name	Y	Default - oracle.jdbc.driver.Or acleDriver	Only JDBC Thin Driver is supported. DO NOT modify this value.
HOST	HOSTNAME/ IP Address of the server on which OFSAA is being installed.	Y	Permissible - Any valid HOSTNAME/ IP Address	
SETUPINFO/ NAME	Name given to the OFSAA setup being installed. Prefix to the schemas being created.	Y	Default - DEV Permissible - Upto 4 character string. For example, UAT, SIT, PROD, TEST	This name would appear in the OFSAA Landing Page as "Connected To: xxxx" The schemas being created would get this prefix. For example, dev_ ofsaaconf, uat_ ofsaaconf, and so on.
PASSWORD/ APPLYSAMEFORALL	Flag to identify if the password specified in DEFAULT attribute should be applied for all schemas.	Y	Default - N Permissible - Y or N	If set to N, need to specify PASSWORD value for every SCHEMA.
TABLESPACE/ NAME	Attribute used to update the table space place holder.	Y	Unique Seeded Value	DO NOT modify this value.
TABLESPACE/ VALUE	Table Space Name to be created	Y	Default Value provided and User can modify according to the Oracle Db table space naming conventions.	User can modify according to their DB naming Conventions and Oracle standards.
TABLESPACE/ DATAFILE	Table Space DATA FILE Creation Path	Y	User need to replace the place holder <change_ ME>with absolute path of the DATA FILE</change_ 	
ROLE/ NAME	Database Role Name attribute used to update place holders	Y	Unique Seeded Value	DO NOT modify this value.
DIRECTORY/ID	External Directory ID value used to update place holders	Y	Unique Seeded Value	DO NOT modify this value.

Table F–1 <<APP PACK>>_PACK_IN.XML Parameters

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
DIRECTORY/ NAME	External Directory Name created by the utility	Y	Unique Seeded Value	DO NOT modify this value.
DIRECTORY/ VALUE	External Directory Path	Y	User need to provide the absolute Path	This value can be any directory that both the database server and application server have access to and Oracle user with which Oracle Database is installed) must have read/write access to this named directory.
SCHEMA/ TYPE	Various OFSAA schema types supported.	Y	Permissible Values - CONFIG, ATOMIC, SANDBOX, ADDON	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 refers to other miscellaneous schema.

Table F–1 <<APP PACK>>_PACK_IN.XML Parameters

Table F–1 < <app pack="">>_PACK_IN.XML Parameters</app>				
Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
SCHEMA/ NAME	Physical Name given to the schema being created	Y	Permissible - Any permissible value as per Oracle Database standards.	SETUPINFO/ NAME attribute value would be prefixed to the schema name being created.
				For example 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).
				Note:
				For example:
				<variable name="DATABASE NAME">KYCDB.oracl e.com</variable
				A TNS entry must be made in tnsnames.ora with tnsname same as the value provided for KYC Database Name. If sqlnet.ora is configured with a vaue in NAMES.DEFAULT_ DOMAIN then ensure to use the same domain while defining Database Name. It is required for KYC Batch processing. This name should be unique The same above steps to be done for FATCA and CTR. A restart of web and app servers are necessary whenever any changes are done to config schema
SCHEMA/ PASSWORD	Password to be set for the schema	Y	Permissible - Any permissible value as per Oracle Database standards.	Takes precedence over DEFAULT attribute value of <password> tag.</password>

Table F–1 <<APP PACK>>_PACK_IN.XML Parameters

Tag Name/ Attribute Name	Description	Mandatory (Y/N)	Default Value/ Permissible Value	Comments
SCHEMA/ APP_ID	Unique Application Identifier	Y	Unique Seeded Value.	Identifies the Application/ Product for which the schema is being created.
				DO NOT modify this value.
SCHEMA/ DEFAULTTABLESPACE	Default tablespace name to be set.	Y	Default - USERS Permissible - Any existing valid tablespace name.	Modify this value to associate any valid tablespace with the schema.
SCHEMA/	Temporary	Y	Default - TEMP	Modify this value to
TEMPTABLESPACE	tablespace name to be set.		Permissible - Any existing valid temporary tablespace name.	associate any valid tablespace with the schema.
SCHEMA/ QUOTA	Quota size to the database schema	Y	Default - EMPTY Permissible - Any valid quota limit.	Modify this value to grant the specified quota on the
			For example. 500M, 20G, UNLIMITED	mentioned tablespace to the user.
SCHEMA/APP_GRP=1	This flag indicates group of APP_ID and type=Atomic share same atomic schema and Infodom	Y	Unique Seeded Value	DO NOT modify this value.
SCHEMA/ INFODOM	Infodom Name Associated with each Atomic Schema and ADDON	Y	 Enter the name of the Information Domain to associate this schema. The schema creator utility automatically derives an Information Domain Name based on the Applications Pack if no value is specified for this attribute. Note: Entering information domain is required only for SILENT mode of installation. 	Valid string with up to 11 characters. Mandatory for Silent Installation Mode
SETUPINFO/ PREFIX_ SCHEMA_NAME	Identifies if the value specified in <setupinfo>/ NAME attribute should be prefixed to the schema name.</setupinfo>	Y	YES or NO	Default value is YES.

Table F–1 <<APP PACK>>_PACK_IN.XML Parameters

G Appendix

Tunable Database Parameters

This section contains the Tunable Database Parameters.

Note: Review the Oracle recommended guidelines in setting the SGA_TARGET, SGA_MAX_SIZE and PGA_AGGREGATE_TARGET parameters. The values for these memory parameters can vary significantly based on database server specifications and estimated data volume. For values of PGA_AGGREGATE_TARGET parameters Oracle recommends that they be kept at a minimum of 1024 MB.

Tunable Database Parameters		Parameter Values				
Category	Parameter Name	Туре	Default	Oracle Recomme nded	Oracle Recomme nded for Exadata	
Parameters	CHARACTER SET	string	AL32UTF8	AL32UTF8	AL32UTF8	
affecting database	NLS_LENGTH_ SCHEMATICS	string	byte	char	char	
creation (not tunable	NLS_SORT	binary	binary	binary	binary	
through the	MAXDATAFILES	integer	254			
init.ora	MASXINSTANCES	integer	1			
file)	MAXLOGFILES	integer	32			
	MAXLOGHISTORY	integer	24794			
	MAXLOGMEMBER S	integer	2	4	4	
	REDO LOG SIZE	integer	10M	3G	16G	

Table G–1 Database Tunable Parameters

Tunable Database Parameters		Parameter Values				
Category	Parameter Name	Туре	Default	Oracle Recomme nded	Oracle Recomme nded for Exadata	
Parameters	DB_BLOCK_SIZE	integer	2048	8192	8192	
affecting I/O operation	DB_FILE_ MULTIBLOCK_ READ_COUNT	integer	The default value correspon ds to the maximum I/O size that can be efficiently performed and is platform-d ependent.	32	32	
	DB_FILES	integer	200			
	DISK_ASYNCH_IO	boolean	TRUE			
	TAPE_ASYNCH_IO	boolean	TRUE			
	DB_WRITER_ PROCESSES	integer	1	4	4	

Table G–1 Database Tunable Parameters

CategoryParameter NameTypeDefaultOracle Recomme ndedOracle Recomme Recomme ndedOracle Recomme Recomme ndedOracle Recomme Recomme ndedOracle Recomme Recomme AcadataParameters affecting resource consumption and parallel operationsFAST_START PARALLEL_ROLLB ACKstring integerLOWHIGHHIGHIOG_BUFFER INTERVALinteger7M100000001000000LOC CHECKPOINT_INTERVALinteger000IOC CHECKPOINT_ITREVALinteger5040964096PARALLEL EXECUTION MESSAG E_SIZEInteger21481638416384PARALLEL_MAX_ SERVERSinteger10 ° No of CPUsSet if you are configuring DOP manually at site and PARALLEL_MAX_Integer0Set if you are configuring DOP manually at site and PARALLEL_MAX_Do not set or changePARALLEL_MIN_ SERVERSinteger100Set if you are configuring DOP manually at site and PARALLEL_DIN_ SERVERSInteger150600600PROCESSESinteger1506006001010PARALLEL_MIN_ SIZEinteger150600600LARGE_POOL_ SIZEinteger150600600LARGE_POOL_ SIZEinteger150600600PARALLEL_MIN_ SIZEinteger10Set if you are origiting DOP manually at site and PARALLEL DECREE_ <br< th=""><th>Tunable Data</th><th>base Parameters</th><th colspan="5">Parameter Values</th></br<>	Tunable Data	base Parameters	Parameter Values				
affecting resource consumption and parallel operations RARALLEL_ROLLB TM 10000000 LOG_BUFFER integer 7M 10000000 1000000 LOC_CHECKPOINT_ INTERVAL integer 0 0 0 CHECKPOINT_ TIMEOUT integer 50 4096 4096 PARALLEL_MAX_ SERVERS integer 2148 16384 16384 PARALLEL_MAX_ SERVERS integer 10*No of change configuring DOP Set if you are configuring DOP Do not set are configuring DOP PARALLEL_MIN_ SERVERS integer 10*No of change Set if you are configuring DOP Do not set are configuring DOP PARALLEL_MIN_ SERVERS integer 10*No of change Set if you are configuring DOP Do not set are configuring DOP PARALLEL_MIN_ SERVERS integer 10*0 Set if you are configuring DOP Do not set are configuring DOP PARALLEL_MIN_ SERVERS integer 150 600 600 LARGE POOL_ SIZE integer 150 600 600 LARGE POOL_ SIZE integer 150 50 00 not set are configuring DOP PARALLEL_ PERCENT integer 150 500 00 not set are configuring DOP PARALLEL_ PERCENT integer 150 500 600 I	Category	Parameter Name	Туре	Default	Recomme	Recomme nded for	
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THREADS_PER_			integer	0	are configuring DOP manually at site and PARALLEL _DEGREE_ POLICY is set to		
Appendix			integer	2			

 Table G–1
 Database Tunable Parameters

Tunable Database Parameters		Parameter Values				
Category	Parameter Name	Туре	Default	Oracle Recomme nded	Oracle Recomme nded for Exadata	
Additional needed parameters	OPTIMIZER_MODE	string	ALL_ ROWS	ALL_ ROWS	ALL_ ROWS	
	COMPATIBLE	string		11.2.0 (for Oracle 11gR2)	11.2.0 .3.0(if using Oracle 11.2.0.3.0) otherwise 11.2.0.2.0	
	GLOBAL_NAMES	string	FALSE	TRUE	TRUE	
	PRE_PAGE_SGA	string	FALSE	TRUE	TRUE	
	UNDO_ MANAGEMENT	string	AUTO	AUTO	AUTO	
	UNDO_ TABLESPACE	string		Set as Per Site Values	Set as Per Site Values	
	UNDO_ RETENTION	integer	900	10800	18000	
	TIMED_STATISTICS	boolean	TRUE	TRUE	TRUE	
	OPTIMIZER_ INDEX_CACHING	inetger	0			
	OPTIMIZER_ INDEX_COST_ADJ	inetger	100	30		
	QUERY_REWRITE_ ENABLED	string	TRUE	FALSE	FALSE	
	STAR_ TRANSFORMATIO N_ENABLED	string	FALSE	FALSE	FALSE	

 Table G–1
 Database Tunable Parameters

H Appendix

Patching Your OFSAA Infrastructure Installation

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

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

Appendix

This Appendix discusses the following sections:

- Grants for Atomic Schema
- Grants for Config Schema
- Grants for Config Schema Entities for Atomic Users

Grants for Atomic Schema

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

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
/
```

Grants for Config Schema Entities for Atomic Users

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

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

```
grant select on CSSMS_USR_PROFILE to &database_username
/
grant select on CSSMS_ROLE_MAST to &database_username
/
grant select on CSSMS_GROUP_MAST to &database_username
```

/ grant select on CSSMS_FUNCTION_MAST to &database_username / grant select on CSSMS_USR_GROUP_MAP to &database_username / grant select on CSSMS_USR_GROUP_DSN_SEG_MAP to &database_username / grant select on CSSMS_ROLE_FUNCTION_MAP to &database_username / grant select on CSSMS_GROUP_ROLE_MAP to &database_username / grant select on CSSMS_SEGMENT_MAST to &database_username / grant select on 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 1 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 1 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 /

J Appendix

This section of the document describes the ojdbc<version>.jar file.

ojbc<version>.jar

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 & JDK 6	ojdbc7.jar for JDK 7 ojdbc6.jar for JDK 6
11.2 or 11gR2	JDK 6 & JDK 5 JDK 7 supported in 11.2.0.3 and 11.2.0.4	ojdbc6.jar for JDK 7 ojdbc6.jar for JDK 6 ojdbc5.jar for JDK 5

Table J–1

K Appendix

This appendix provides detailed instructions to migrate for excel upload.

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.

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.

Appendix

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

- Frequently Asked Questions
- Error Dictionary

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

Frequently Asked Questions

You can refer to the Frequently Asked Questions which has been developed with the interest to help you resolve some of the OFSAAI Installation and configuration issues. This intends to share the knowledge of problem resolution to a few of the known issues. This is not an official support document and just attempts to share the knowledge of problem resolution to a few of the known issues.

OFSAAI FAQs

What are the different components that get installed during OFSAAI?

The different components of OFSAAI are illustrated in Figure 1–2, "Components of OFSAAI".

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.

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 to install all OFSAAI components on a single machine Single tier architecture, that is, all the Infrastructure components such as the Application, Web, and Database components are installed on a single machine. This option further has two types:

- Type I: Single Tier Installation with database engine on Remote Machine where Infrastructure Application, Database, and Web components are on one machine and the Database Engine is pointed to another machine.
- Type II: Single Tier Installation with Web Server on remote Machine where Infrastructure Application, Database, and Web components are on one machine and Infrastructure Web Application files or EAR/WAR files are deployed on to a the Web server installed on another machine.

What are the other deployment options for OFSAAI?

Multi Tier Installations are possible in OFSAAI, however single tier installation is recommended.

There are four types of Multi Tier Installation option:

Option I: Infrastructure Application, Database, and Web Components are all in different machines.

Option II: Infrastructure Application and Database components in one machine and Web components in another machine.

Option III: Infrastructure Application and Web components in one machine and Database components in another machine.

Option IV: Infrastructure Web and Database components in one machine and Application components in another machine.

Is JDK (Java Development Kit) required during installation of OFSAA? Can it be uninstalled after OFSAA installation?

JDK is not required during installation of OFSAA and only a run time is needed for details. Refer Table 2–1, 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 Table 3–1, " Prerequisite Information" section in this document.

Installation of OFSAAI was completed successfully! What next?

Post the successful completion of OFSAAI installation, one has to perform the Post Installation steps. See Chapter 5, "Post Installation Configuration".

What is to be done when OFSAAI Installation is unsuccessful?

OFSAAI installer generates log file 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 do I completely uninstall OFSAAI?

OFSAAI can be completely uninstalled by performing the steps provided in Chapter 8, "Uninstalling OFSAA Infrastructure" in the OFS AAAI Installation and Configuration Guide Release 8.0.

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 Related Documents section.

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:

<Unix User> soft nofile 9216

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

ulimit -n

The command should return the value 9216.

How 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:

./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:

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 succession.

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

Does OFSAA support Oracle DB 11g Standard edition?

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

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

On the UNIX System terminal, Error message shows "./reveleusstartup.sh: /java: Execute permission denied" while executing./reveleusstartup.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 Services 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 Services 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 Services section.

For more details on the issue, refer on to the Revappserver log in <code>\$FIC_APP_HOME/common/FICServer/logs</code> directory or the Web Server log files.

Is it necessary to provide the specified grants to the Oracle schema user before installation? If yes, can it be revoked after completion of installation?

The "Oracle schema" user requires the necessary grants specified before, during, and after the installation process. Grants provided should never be revoked as the application makes use of these grants all the time.

Can we have distributed OFSAAI Application Server for load balancing?

OFSAAI Application server can be scaled out/distributed across different JVM's (machines) based on the various services and Information Domains, in other words, Load balancing could be achieved with distribution of services.

Why do we need Ftpshare? Why is it needed on all the layers? Can we have ftpshare on another machine other than the machines where OFSAAI is installed?

Ftpshare is a Metadata Repository directory. All the metadata related files used in Infrastructure are stored in the ftpshare directory. The ftpshare contains folders for each Information Domain, with each Information Domain folders holding Erwin, log, and scripts folder. The transfer of data among the Web, Application, and Database servers in Infrastructure takes place through FTP/SFTP.

You need to configure FTP/SFTP and enable communication between the servers by providing App server's FTP/SFTP credentials to the Web server and DB server users.

Yes, we can have ftpshare on another machine other than the machines where OFSAAI is installed.

Is it mandatory to provide the ftp/sftp password?

Yes, OFSAAI needs credentials of the user which has complete permissions on ftpshare directory, and should be able to independently login to the unix server.

What are the permissions required for ftpshare and when should I give them?

It is recommended to provide permissions on ftpshare in case of installations done across different machines or VMs (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.

Does OFSAAI provide the mechanism to upload Business Data model?

OFSAAI provides two mechanisms for business data model upload:

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

See Run the Model Upload Utility section 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.

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

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

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

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

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

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

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

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

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

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

from metadata_master m, metadata_type_master t

where m.metadata_type = t.metadata_type
group by t.metadata_name, m.dsn_id

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

For example, if the "MEASURE_CACHE_SIZE" is set to 1000 and total measure reported in log is 1022, increase the limit to 2000 (approximately).

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

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

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

\$JAVA_CMD \

-Xbootclasspath/a:\$ejbd_bootpath \

Xms256m -Xmx1024m \

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

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

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

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

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

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

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

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

Please refer to Support Note for the workaround.

How do 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 And Stop of 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>
```

Error Dictionary

This contents of this section has been created with the interest to help you resolve the installation issues if any. There is a compilation of all the possible errors that might arise during the installation process with the possible cause and the resolution to quickly fix the issue and proceed further with the installation.

Accessing Error Dictionary

Instead of scrolling through the document to find the error code, you can use the pdf search functionality. In the "Find" dialog available in any of the Adobe Acrobat version that you are using to view the pdf document, follow the below instructions to quickly find the error resolution.

- 1. With the Installation pdf open, press Ctrl+F or select Edit > Find.
- 2. The Find dialog is displayed as indicated.
- 3. Enter the error code that is displayed on screen during Infrastructure installation.
- 4. Press Enter. The search results are displayed and highlighted as indicated below.

Figure 7–83 Error Dictionary

Error code - OFSAAI-1003			
	Cause	JAVA_HOME/bin not found in PATH variable.	
	Resolution	Import /bin into PATH variable. Example: PATH = \$/AVA_HOME/bin:\$PATH export PATH.	

View the details of the issues, its cause, and resolution specific to the error code. Repeat the step to find an answer to any other errors that you notice during installation. If you are not able to resolve the issue even after following the steps provided in resolution, you can contact support.oracle.com along with log files and appropriate screen shots.

Error Code Dictionary

Error code - 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.

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	

Error code - OFSAAI-1004

Cause	File .profile is not present in \$HOME.
Resolution	Create $% \mathcal{A}_{\mathcal{A}}$.profile in \$HOME, i.e. in the home directory of user.

Error code - OFSAAI-1005

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

Error code - OFSAAI-1006

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

Error code - OFSAAI-1007

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

Error code - OFSAAI-1008

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

Error code - OFSAAI-1009

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

Error code - OFSAAI-1010

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

Error code - OFSAAI-1011

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

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.				

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.

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.

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.

Error code - OFSAAI-1016

Cause	User installation directory contain blank spaces.				
Resolution	Provide an installation path that does not contain spaces. Check the tag <code>USER_INSTALL_DIR</code> in <code>OFSAAI_InstallConfig.xml</code> file. This path should not contain any spaces.				

Error code - OFSAAI-1017

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.				

G Appendix

Tunable Database Parameters

This section contains the Tunable Database Parameters.

Note: Review the Oracle recommended guidelines in setting the SGA_TARGET, SGA_MAX_SIZE and PGA_AGGREGATE_TARGET parameters. The values for these memory parameters can vary significantly based on database server specifications and estimated data volume. For values of PGA_AGGREGATE_TARGET parameters Oracle recommends that they be kept at a minimum of 1024 MB.

Tunable Database Parameters		Parameter Values			
Category	Parameter Name	Туре	Default	Oracle Recomme nded	Oracle Recomme nded for Exadata
Parameters	CHARACTER SET	string	AL32UTF8	AL32UTF8	AL32UTF8
affecting database creation (not tunable through the init.ora	NLS_LENGTH_ SCHEMATICS	string	byte	char	char
	NLS_SORT	binary	binary	binary	binary
	MAXDATAFILES	integer	254		
	MASXINSTANCES	integer	1		
file)	MAXLOGFILES	integer	32		
	MAXLOGHISTORY	integer	24794		
	MAXLOGMEMBER S	integer	2	4	4
	REDO LOG SIZE	integer	10M	3G	16G

Table M–1 Database Tunable Parameters

Tunable Database Parameters		Parameter Values			
Category	Parameter Name	Туре	Default	Oracle Recomme nded	Oracle Recomme nded for Exadata
Parameters	DB_BLOCK_SIZE	integer	2048	8192	8192
affecting I/O operation	DB_FILE_ MULTIBLOCK_ READ_COUNT	integer	The default value correspon ds to the maximum I/O size that can be efficiently performed and is platform-d ependent.	32	32
	DB_FILES	integer	200		
	DISK_ASYNCH_IO	boolean	TRUE		
	TAPE_ASYNCH_IO	boolean	TRUE		
	DB_WRITER_ PROCESSES	integer	1	4	4

 Table M–1
 Database Tunable Parameters

Tunable Database Parameters		Parameter Values				
Category	Parameter Name	Туре	Default	Oracle Recomme nded	Oracle Recomme nded for Exadata	
Parameters affecting resource	FAST_START_ PARALLEL_ROLLB ACK	string	LOW	HIGH	HIGH	
consumption and parallel	LOG_BUFFER	integer	7M	1000000	10000000	
operations	LOG_ CHECKPOINT_ INTERVAL	integer	0	10000	10000	
	LOG_ CHECKPOINT_ TIMEOUT	integer	0	0	0	
	OPEN_CURSORS	integer	50	4096	4096	
	PARALLEL_ EXECUTION_ MESSAG E_SIZE	integer	2148	16384	16384	
	PARALLEL_MAX_ SERVERS	integer	10 * No of CPUs	Set if you are configuring DOP manually at site and PARALLEL _DEGREE_ POLICY is set to MANUAL.	Do not set or change	
	PARALLEL_MIN_ SERVERS	integer	0	Set if you are configuring DOP manually at site and PARALLEL _DEGREE_ POLICY is set to MANUAL.	Do not set or change	
	PROCESSES	integer	150	600	600	
	LARGE_POOL_ SIZE	integer	0	512M		
	PARALLEL_MIN_ PERCENT	integer	0	Set if you are configuring DOP manually at site and PARALLEL _DEGREE_ POLICY is set to MANUAL.	Do not set or change	
	PARALLEL_ THREADS_PER_ CPU	integer	2			

 Table M–1
 Database Tunable Parameters

Tunable Database Parameters		Parameter Values				
Category	Parameter Name	Туре	Default	Oracle Recomme nded	Oracle Recomme nded for Exadata	
Additional needed	OPTIMIZER_MODE	string	ALL_ ROWS	ALL_ ROWS	ALL_ ROWS	
parameters	COMPATIBLE	string		11.2.0 (for Oracle 11gR2)	11.2.0 .3.0(if using Oracle 11.2.0.3.0) otherwise 11.2.0.2.0	
	GLOBAL_NAMES	string	FALSE	TRUE	TRUE	
	PRE_PAGE_SGA	string	FALSE	TRUE	TRUE	
	UNDO_ MANAGEMENT	string	AUTO	AUTO	AUTO	
	UNDO_ TABLESPACE	string		Set as Per Site Values	Set as Per Site Values	
	UNDO_ RETENTION	integer	900	10800	18000	
	TIMED_STATISTICS	boolean	TRUE	TRUE	TRUE	
	OPTIMIZER_ INDEX_CACHING	inetger	0			
	OPTIMIZER_ INDEX_COST_ADJ	inetger	100	30		
	QUERY_REWRITE_ ENABLED	string	TRUE	FALSE	FALSE	
	STAR_ TRANSFORMATIO N_ENABLED	string	FALSE	FALSE	FALSE	

Table M–1 Database Tunable Parameters