Oracle® Retail Financial Integration

Installation Guide
Release 13.2.9
E73368-01

March 2016

ORACLE®

Oracle® Retail Financial Integration Installation Guide, Release 13.2.9

Value-Added Reseller (VAR) Language

Oracle Retail VAR Applications

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Contents

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Oracle Retail Financial Integration, Installation Guide, Release 13.2.9.

Oracle welcomes customers' comments and suggestions on the quality and usefulness of this document.

Your feedback is important, and helps us to best meet your needs as a user of our products. For example:

- Are the implementation steps correct and complete?
- Did you understand the context of the procedures?
- Did you find any errors in the information?
- Does the structure of the information help you with your tasks?
- Do you need different information or graphics? If so, where, and in what format?
- Are the examples correct? Do you need more examples?

If you find any errors or have any other suggestions for improvement, then please tell us your name, the name of the company who has licensed our products, the title and part number of the documentation and the chapter, section, and page number (if available).

> **Note:** Before sending us your comments, you might like to check that you have the latest version of the document and if any concerns are already addressed. To do this, access the Online Documentation available on the Oracle Technology Network Web site. It contains the most current Documentation Library plus all documents revised or released recently.

Send your comments to us using the electronic mail address: retail-doc_us@oracle.com

Please give your name, address, electronic mail address, and telephone number (optional).

If you need assistance with Oracle software, then please contact your support representative or Oracle Support Services.

If you require training or instruction in using Oracle software, then please contact your Oracle local office and inquire about our Oracle University offerings. A list of Oracle offices is available on our Web site at www.oracle.com.

Preface

Oracle Retail Installation Guides contain the requirements and procedures that are necessary for the retailer to install Oracle Retail products.

Audience

This Installation Guide is written for the following audiences:

- Database administrators (DBA)
- System analysts and designers
- Integrators and implementation staff

Related Documents

For more information, see the following documents:

- *Oracle Retail Financial Integration Release Notes*
- *Oracle Retail Merchandising System documentation set*
- *Oracle Retail Integration Bus documentation set*
- *Oracle Retail Invoice Matching documentation set*

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:

https://support.oracle.com

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 13.2) or a later patch release (for example, 13.2.9). If you are installing the base release or additional patch releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch releases can contain critical information related to the base release, as well as information about code changes since the base release.

Improved Process for Oracle Retail Documentation Corrections

To more quickly address critical corrections to Oracle Retail documentation content, Oracle Retail documentation may be republished whenever a critical correction is needed. For critical corrections, the republication of an Oracle Retail document may at times **not** be attached to a numbered software release; instead, the Oracle Retail document will simply be replaced on the Oracle Technology Network Web site, or, in the case of Data Models, to the applicable My Oracle Support Documentation container where they reside.

This process will prevent delays in making critical corrections available to customers. For the customer, it means that before you begin installation, you must verify that you have the most recent version of the Oracle Retail documentation set. Oracle Retail documentation is available on the Oracle Technology Network at the following URL:

http://www.oracle.com/technetwork/documentation/oracle-retail-100266.html

An updated version of the applicable Oracle Retail document is indicated by Oracle part number, as well as print date (month and year). An updated version uses the same part number, with a higher-numbered suffix. For example, part number E123456-**02** is an updated version of a document with part number E123456-**01**.

If a more recent version of a document is available, that version supersedes all previous versions.

Oracle Retail Documentation on the Oracle Technology Network

Documentation is packaged with each Oracle Retail product release. Oracle Retail product documentation is also available on the following Web site:

http://www.oracle.com/technetwork/documentation/oracle-retail-100266.html

(Data Model documents are not available through Oracle Technology Network. These documents are packaged with released code, or you can obtain them through My Oracle Support.)

Conventions

Navigate: This is a navigate statement. It tells you how to get to the start of the procedure and ends with a screen shot of the starting point and the statement "the Window Name window opens."

```
This is a code sample
    It is used to display examples of code
```

1

Preinstallation Tasks

This chapter explains the tasks required prior to installation.

Requesting Infrastructure Software

If you are unable to find the necessary version of the required Oracle infrastructure software (database server, application server, WebLogic, etc.) on the Oracle Software Delivery Cloud, you should file a non-technical 'Contact Us' Service Request (SR) and request access to the media. For instructions on filing a non-technical SR, see My Oracle Support Note 1071023.1 – *Requesting Physical Shipment or Download URL for Software Media*.

Check Supported Database Server Requirements

General requirements for a database server running Oracle Retail Financial Integration Pack include:

Supported on:	Versions Supported:
Database Server OS	OS certified with Oracle Database 11gR2 (11gR2) and 12cR1 (12.1.0.2) Enterprise Edition. Options are: ▪ Oracle Enterprise Linux 5, 6 for x86-64 (Actual hardware or Oracle virtual machine). ▪ Red Hat Enterprise Linux 5, 6 for x86-64 (Actual hardware or Oracle virtual machine). ▪ AIX 6.1 (Actual hardware or LPARs) ▪ AIX 7.1 (Actual hardware or LPARs) ▪ Solaris 10, 11 Sparc (Actual hardware or Oracle VM Server for SPARC). ▪ HP-UX 11.31 Integrity (Actual hardware or HPVM)
Database Server 11gR2	Oracle Database Enterprise Edition 11gR2 (11.2.0.4) with the following specifications: **Components:** ▪ Oracle Partitioning ▪ Examples CD (Formerly the companion CD) **Oneoff Patches:** ▪ 18465025: MERGE REQUEST ON TOP OF 11.2.0.4.0 FOR BUGS 18016963 18302329. **Other components:** ▪ Perl compiler 5.0 or later ▪ X-Windows interface

Supported on:	Versions Supported:
Database Server 12cR1	Oracle Database Enterprise Edition 12cR1 (12.1.0.2) with the following specifications: **Components:** ▪ Oracle Partitioning ▪ Examples CD **Oneoffs:** ▪ Patch 19623450: MISSING JAVA CLASSES AFTER UPGRADE TO JDK 7 ▪ 20406840: PROC 12.1.0.2 THROWS ORA-600 [17998] WHEN PRECOMPILING BY 'OTHER' USER ▪ 20925154: ORA-39126: WORKER UNEXPECTED FATAL ERROR IN KUPW$WORKER GATHER_PARSE_ITEMS JAVA ▪ 18760297: DUMP IN QERTRCROWP WHEN TRACING WITH OPERAND LENGTH CHECK ▪ 21614112: ORA-01732 ON DML ON A PARTITIONED TABLE **RAC only:** ▪ 21260431: APPSST 12C : GETTING ORA-4031 AFTER 12C UPGRADE ▪ 21373473: INSTANCE TERMINATED AS LMD0 AND LMD2 HUNG FOR MORE THAN 70 SECS **Other components:** ▪ Perl interpreter 5.0 or later ▪ X-Windows interface ▪ JDK 1.7

> **Note:** By default, JDK is at 1.6. After installing the rdbms binary, apply patch 19623450. Then follow the instructions on Oracle Database Java Developer's Guide 12c Release 1 to change JDK to 1.7. The document is available at:
>
> http://docs.oracle.com/database/121/JJDEV/chone.htm#JJDEV01000

Check Supported ODI Requirements

General requirements for an Oracle Data Integrator running Oracle Retail Financial Integration Pack include:

Supported on	Versions Supported
Data Integrator Server OS	OS supported with Oracle Database 11gR2 Enterprise Edition. Options are: ▪ Oracle Linux 5 for x86-64 (Actual hardware or Oracle virtual machine). ▪ Red Hat Enterprise Linux 5 for x86-64 (Actual hardware or Oracle virtual machine). ▪ Oracle Linux 6 for x86-64 (Actual hardware or Oracle virtual machine). ▪ Red Hat Enterprise Linux 6 for x86-64 (Actual hardware or Oracle virtual machine). ▪ AIX 6.1 (Actual hardware or LPARs) ▪ AIX 7.1 (Actual hardware or LPARs) ▪ Solaris 10 SPARC (Actual hardware or logical domains) ▪ Solaris 11 SPARC (Actual hardware or logical domains) ▪ HP-UX Itanium11.31 Integrity (Actual hardware, HPVM, or vPars)
Data Integrator 11gR1	Oracle Data Integrator Release 11gR1 (11.1.1.7.0) with the following specifications: Oracle Fusion Middleware 11g Release 1 (11.1.1.7) **Components:** ▪ Oracle Data Integrator 11g Release 1 (11.1.1.7)

Check Supported Application Server Requirements

General requirements for an application server capable of running the Oracle Retail Financial Integration application include the following:

> **Note:** Files required for Oracle Configuration Manager (OCM) are removed after OPatch is used to patch the WebLogic server. This will cause the product installers and OCM installation to fail. To work around this issue, back up the content of the $ORACLE_HOME/utils/ccr/lib directory prior to applying a patch using OPatch, and recopy the content back after you apply any patches. ORACLE_HOME is the location where WebLogic Server has been installed.

> **Note:** If using an OPatch on Linux 64-bit platforms see "Installer Fails because of missing .jar in $ORACLE_HOME/utils/ccr/lib" in Appendix: Common Installation Errors.

Supported on	Versions Supported
Application Server OS	OS supported with Oracle Fusion Middleware 11g Release 1 (11.1.1.7). Options are: ▪ Oracle Linux 5 for x86-64 (Actual hardware or Oracle virtual machine). ▪ Red Hat Enterprise Linux 5 for x86-64 (Actual hardware or Oracle virtual machine). ▪ Oracle Linux 6 for x86-64 (Actual hardware or Oracle virtual machine). ▪ Red Hat Enterprise Linux 6 for x86-64 (Actual hardware or Oracle virtual machine). ▪ AIX 6.1 (Actual hardware or LPARs) ▪ AIX 7.1 (Actual hardware or LPARs) ▪ Solaris 10 SPARC (Actual hardware or logical domains) ▪ Solaris 11 SPARC (Actual hardware or logical domains) ▪ HP-UX Itanium11.31 Integrity (Actual hardware, HPVM, or vPars)

Supported on	Versions Supported
Application Server	Oracle Fusion Middleware 11g Release 1 (11.1.1.7) **Components:** ▪ Oracle WebLogic Server 11g Release 1 (10.3.6) ▪ Java: JDK 1.7.0+ 64 bit **IMPORTANT**: If there is an existing WebLogic installation on the server, you must upgrade it to WebLogic 10.3.6. All middleware components associated with WebLogic server should be upgraded to 11.1.1.7. Back up the weblogic.policy file ($WLS_HOME/wlserver_10.3/server/lib) before upgrading your WebLogic server, because this file could be overwritten. Copy over the weblogic.policy backup file after the WebLogic upgrade is finished and the post patching installation steps are completed. **Optional (SSO required**) ▪ Oracle WebTier 11g (11.1.1.7) ▪ Oracle Internet Directory 10gR3 (10.1.4) optionally with Oracle Single Sign-On 10gR3 (10.1.4) or ▪ Oracle Identity Management 11gR1 (11.1.1.7) optionally with Oracle Single Sign-On 10gR3 (10.1.4) or Oracle Identity Management 11gR1 (11.1.1.7) optionally with Oracle Access Manager 11gR1 (11.1.1.5) using OSSO Agent. Must have separate WebLogic 10.3.6 for Oracle Access Manager 11g. **Note:** See Installers fail because of missing .jar file in $ORACLE_HOME/utils/ccr/lib in "Appendix: Common Installation Errors." This issue occurs only when the application is being installed on the same WebLogic server where forms based applications are installed. It is valid only for Linux 64-bit.

Check Supported Client PC and Web Browser Requirements

Requirement	Version
Operating system	Windows 7
Display resolution	1024x768 or higher
Processor	2.6GHz or higher
Memory	1GByte or higher
Networking	intranet with at least 10Mbps data rate
Oracle (Sun) Java Runtime Environment	JDK 1.7.0+ 64 bit
Browser	Microsoft Internet Explorer 9or 11 Mozilla Firefox ESR 31+

Supported Oracle Retail Products

Requirement	Version
Oracle Retail Merchandising System (RMS)	13.2.9
Oracle Retail Sales Audit (ReSA)	13.2.9
Oracle Retail Invoice Matching (ReIM)	13.2.9
Oracle Retail Integration Bus (RIB)	13.2.9

UNIX User Account Privileges to Install the Software

A UNIX user account is needed to install the software. The UNIX user that is used to install the software should have write access to the WebLogic server installation files.

For example, oretail.

> **Note:** Installation steps will fail when trying to modify files under the WebLogic installation, unless the user has write access.

Supported Oracle Applications

Requirement	Version
Oracle E-Business Suite (Accounts Payable)	Oracle E-Business Suite 12.1.3 integration is supported using the Oracle Financial Operations Control Integration Pack for Oracle Retail Merchandising Suite and Oracle E-Business Suite Financials.

2
ORFI Installation

This guide details the steps needed to perform an installation of ORFI. This will cover the EBS Business Event Subscription setup for currency rate and suppliers, the ORFI layer setup and creation of ODI master and work repositories, importing the ODI packages, and scheduling the scenarios. At the end of the installation, you can integrate EBS 12.1.3 and Retail 13.2.9.

The following chapters document the installation process:

- ORFI Database Installation Tasks
- ORFI Application Installation Tasks
- EBS Database Installation Tasks
- EBS Event Subscription Tasks
- ODI Setup Tasks

> **Note:** After you have installed your supporting Oracle Retail applications and confirmed that they are functioning, you can begin the installation of ORFI.

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ORFI Database Installation Tasks

Expand the ORFI Installer Distribution

1. Log in to the UNIX server as a user who has sufficient access to run sqlplus from the Oracle Database installation.

2. Create a new staging directory for the ORFI installer distribution (RetailFinancialIntegrationPak13.2.9ForRfi13.2.9_eng_ga.zip). There should be a minimum of 50 MB disk space available for the application and database schema installation files. This location is referred to as INSTALL_DIR for the remainder of this chapter.

3. Copy RetailFinancialIntegrationPak13.2.9ForRfi13.2.9_eng_ga.zip to <INSTALL_DIR> and extract its contents.

Database Schema Topology

This topology diagram shows how different schemas are integrated with each other.
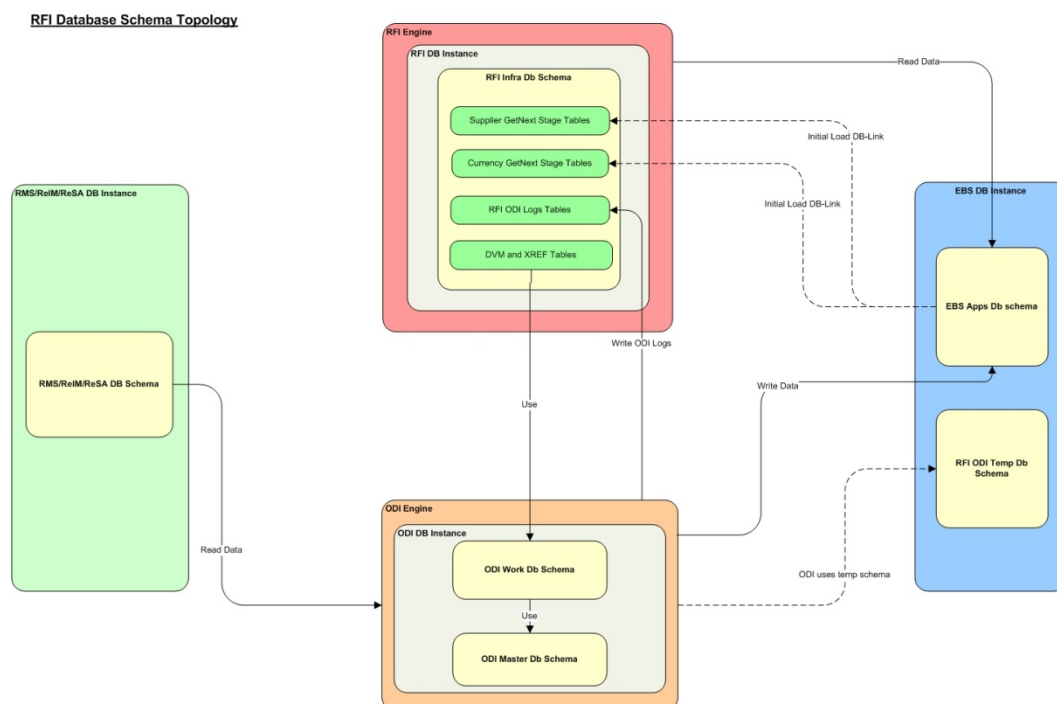
Create Tablespaces

Before you run the ORFI database schema installer, make sure that the RFI_DATA tablespace has been created in the database.

Below is a sample tablespace creation statement for the RFI_DATA tablespace. Oracle Retail recommends the use of locally managed tablespaces with automatic extent and segment space management. These tablespaces are not sized for a production environment.

```
CREATE TABLESPACE RFI_DATA DATAFILE
'<datafile_path>/rfi_data01.dbf' SIZE 500M
AUTOEXTEND ON NEXT 100M MAXSIZE 2000M
EXTENT MANAGEMENT LOCAL
SEGMENT SPACE MANAGEMENT AUTO
;
```

Create the ORFI Database User

The user in the database who will own the ORFI tables must be created prior to running the ORFI database schema installer. A create_user.sql script has been provided that can be used for this:

```
$INSTALL_DIR/retail-financial-integration-solution/service-based-
integration/setup-data/ddl/create_user.sql
```

After installation is completed, a detailed database user creation log file is created:

$INSTALL_DIR/retail-financial-integration-solution/service-based-integration/setup-data/ddl/create_user.log

The script takes three arguments on the command line in sqlplus: username, password and ORFI tablespace name.

Example:	SQL> @create_user.sql <RFI Schema> <RFI Schema Password> <RFI Tablespace Name>

Please review this script and run it as a user with adequate permissions, such as SYSTEM.

Run the ORFI Database Schema Installer

This installer installs the ORFI database schema, compiles ORFI objects, and inserts ORFI data.

1. Set the following environment variables:
   - Set the ORACLE_HOME to point to an installation that contains sqlplus. It is recommended that this be the ORACLE_HOME of the ORFI database.
   - Set the PATH to: $ORACLE_HOME/bin:$PATH
   - Set the ORACLE_SID to the name of your database
   - Set the NLS_LANG for proper locale and character encoding

Example:	NLS_LANG=AMERICAN_AMERICA.UTF8

2. If you are using an X server such as Exceed, set the DISPLAY environment variable so that you can run the installer in GUI mode (recommended). If you are not using an X server, or the GUI is too slow over your network, unset DISPLAY for text mode.

3. Run the load-initial-setup-data-into-integration-schema.sh script available in $INSTALL_DIR/retail-financial-integration-solution/service-based-

integration/bin/. After installation is completed, a detailed installation log file is created: $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/bin/<timestamp>.log.

> **Example:** prompt$ sh load-initial-setup-data-into-integration-schema.sh

The installer will prompt for the following details:

- Enter the ORFI database schema details
  Enter ORFI Userid/Passwd:
- Enter the ORFI database server name
  Enter Database Server Name or IP address:
- Enter the ORFI database server port
  Enter Database Port Number:
- Enter the ORFI database server SID
  Enter Database SID:

Verification

Log in to the ORFI database schema in the database and query `"SELECT * FROM TAB WHERE TNAME LIKE 'RFI%'"`. This query should list the following tables:

- RFI_CURR_RATE_STAGE
- RFI_ODI_LOGS
- RFI_SUPP_CONTACTS_STAGE
- RFI_SUPP_SITES_STAGE
- RFI_SUPP_STAGE
- RFI_XREF_DVM

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ORFI Application Installation Tasks

Prerequisite

Before proceeding you must install Oracle WebLogic Server 11g 10.3.6 and the patches listed in Chapter 1 of this document. Create a WebLogic domain called rfi_domain. This WebLogic domain must be of a base domain type. Create a managed server (for example, rfi-server) inside this rfi_domain. The ORFI application will be installed into the WebLogic managed server (for example, rfi-server). It is assumed that the Oracle database has already been configured and loaded with the appropriate ORFI, RMS, EBS, and ODI (Master, Work, and Staging Area) schema details for your installation. This server is referred to as RFI_SERVER in this document.

You need to execute the Expand the ORFI Installer Distribution steps if the UNIX environments for the ORFI database and WebLogic Server are different.

Expand the ORFI Installer Distribution

1. Log in to the UNIX server where the WebLogic server is installed as a user who has sufficient access to deploy an application from the Oracle WebLogic installation.

2. Create a new staging directory for the ORFI installer distribution (RetailFinancialIntegrationPak13.2.9ForRfi13.2.9_eng_ga.zip). There should be a minimum of 50 MB disk space available for the application and database schema installation files. This location is referred to as INSTALL_DIR for the remainder of this chapter.

3. Copy RetailFinancialIntegrationPak13.2.9ForRfi13.2.9_eng_ga.zip to <INSTALL_DIR> and extract its contents.

Configure the Deployment Info for JSON File

The rfi-deployment-env-info.json file serves multiple purposes. It is used by the installation process and it also acts as a single master configuration file that describes the entire topology of the integration system. The values in this file must be accurate for the system to work properly. All values in the file are not user editable; the installation process needs these fixed names to match what the compiled runtime code already expects. Some examples of these fixed values that must not be changed are constants like "GET_FROM_WALLET"; jndi name like "jdbc/RfiDataSource" and so on.

You need to configure the following list of deployment information to run the ORFI deployment script. This file can be found under $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/conf/. Edit the following line from the file:

```
rfi-deployment-env-info.json
```

> **Note:** Do not change "Alias" Names or any other values other than the details given below.

> **Note:** You should remove the symbols "<" and ">" while entering the actual/valid values for below configurations.

Update the following details from RfiDeploymentEnvInfo → DataSourceDef configuration:

1. In EbsDataSource, enter the EBS database connection details:

   ```
   "jdbcUrl":"jdbc:oracle:thin:@//<Server Name>:<Port>/<SID>"
   ```

2. In RmsDataSource, enter the RMS database connection details:

   ```
   "jdbcUrl":"jdbc:oracle:thin:@//<Server Name>:<Port>/<SID>"
   ```

3. In RfiDataSource, enter the ORFI database connection details:

   ```
   "jdbcUrl":"jdbc:oracle:thin:@//<Server Name>:<Port>/<SID>"
   ```

4. In OdiMasterDataSource, enter the ODI Master repository database connection details:

   ```
   "jdbcUrl":"jdbc:oracle:thin:@//<Server Name>:<Port>/<SID>"
   ```

5. In OdiWorkDataSource, enter the ODI Work repository database connection details:

   ```
   "jdbcUrl":"jdbc:oracle:thin:@//<Server Name>:<Port>/<SID>"
   ```

6. In OdiStagingAreaDataSource, enter the ODI Staging database connection details:

   ```
   "jdbcUrl":"jdbc:oracle:thin:@//<Server Name>:<Port>/<SID>"
   ```

   > **Note:** It is recommended to have the ODI Staging Schema (RFI_ODI_TEMP) in the EBS database.

7. Update the following details from RfiDeploymentEnvInfo → MiddlewareServerDef → RfiAppServer configuration:

   - Enter the WebLogic admin server host name:

     ```
     "weblogicDomainAdminServerHost":"<Server Host Name>"
     ```

   - Enter the WebLogic server port:

     ```
     "weblogicDomainAdminServerPort":"<port>"
     ```

   - Enter the WebLogic Managed Server Name:

     ```
     "weblogicDomainTargetManagedServerName":"<Server Name>"
     ```

   - Enter the ORFI UI url host name and port details:

     ```
     "rfiAdminUiUrl":"http://<host>:<port>/retail-financial-integration-web",
     ```

   - Enter the SMTP server host:

     ```
     "smtpServerHost":"<SMTP Server Host>"
     ```

   - Enter the SMTP server port:

     ```
     "smtpServerPort":"<SMTP Server Port>"
     ```

   - Enter the SMTP server type (for example, SSL or TSL):

     ```
     "smtpServerListenerType":"<SMTP Server Type>"
     ```

   - Enter "true" if authentication required for SMTP server, else "false":

     ```
     "smtpAuthenticationRequired":"<true/false>"
     ```

   - Enter the From Email Address:

     ```
     "smtpMailFromAddress":"<From Address>"
     ```

   - Enter the Comma (,) separated To Address list:

     ```
     "smtpMailToAddressList":"<To Address Email Id's>"
     ```

     For example:

     ```
     "smtpMailToAddressList":"<ToAddr1@oracle.com,ToAddr2@oracle.com>"
     ```

8. Update an Integrated Gateway Services detail for Currency Rate service from RfiDeploymentEnvInfo → MiddlewareServerDef → IgsAppServer configuration.

   Enter the IGS Currency Rate End point URL:

"currencyRateServiceEndPointUrl":"<Currency Rate URL>"

9. Update RfiDeploymentEnvInfo → MiddlewareServerDef → RmsAppServer details for Supplier Service.

Enter the Supplier service End point URL:

"supplierServiceEndPointUrl":"<Supplier URL>"

10. Update RfiDeploymentEnvInfo → MiddlewareServerDef → EbsAppServer details for Supplier Service:

Enter the EBS server $JAVA_TOP folder path

"ebsInstanceJavaTopLocation":"<JAVA_TOP>"

For example:

"ebsInstanceJavaTopLocation":" /u01/applmgr/apps/apps_st/comn/java/classes"

> **Note:** If EBS is installed on Oracle Application Server put the corresponding OAS/oc4j information instead of WebLogic server information.

Generate the EBS Component

You need to generate an EBS component jar file (ebs-financial-common-13.2.9.jar). This should be placed in the EBS application environment to communicate the supplier and currency rate events to the Oracle Retail Merchandise system.

> **Note:** Ensure JAVA_HOME and WL_HOME variables are set in the environment. WL_HOME points to the folder location till <WebLogic Installed folder>/wlserver_10.3

1. Run the rfi-deployer.sh (available in $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/bin/) script to configure and save the AppServer and DB credentials to ORFI wallet.

The script takes two arguments on the command line: -setup-credentials and -prepare-ebs-side-component.

> **Example:** prompt$ sh rfi-deployer.sh -setup-credentials **-**prepare-ebs-side-component

```
sh rfi-deployer.sh -setup-credentials –prepare-ebs-side-component
```

2. The installer prompts for the following details:

- WebLogic login credentials

   Credential required for weblogicDomainAdminServerHost (<HOST_NAME>) weblogicDomainAdminServerPort (<PORT>):

   Enter username for alias (rfiAppServerAdminServerUserAlias):<Enter WebLogic Admin server Login name>

   Enter Password: <Enter WebLogic Admin server Login password>

- ORFI Admin Group login Credentials (ORFI Admin UI)

   Credential required for rfiAdminUiUrl (<Entered value in JSON file>):

   Enter username for alias (rfiAdminUiUserAlias):<Enter the login name for ORFI Admin>

   Enter Password: <Enter ORFI Admin Login password>

- ORFI Database Schema details

  Credential required for jdbcUrl (<Entered value in JSON file>):

  Enter username for alias (rfiDataSourceUserAlias):<Enter the ORFI Schema user name>

  Enter Password: <Enter ORFI Schema password>

- EBS Schema details

  Credential required for jdbcUrl(<Entered value in JSON file>):

  Enter username for alias (ebsDataSourceUserAlias):apps

  Enter Password: <Enter EBS APPS Schema password>

- Email Details – From Email Address and password

  Credential required for email address (<Entered value in JSON file>):

  Verify email by retyping above email address (smtpMailFromAddressAlias): <Enter From Email Address>

  Enter Password: <Enter Password for the above From Email Address>

Verification

The generated components can be verified from the following target folders:

1. A jar file "ebs-financial-common-13.2.9.jar" should be available in folder $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/target/ebs-side/rfi/rfi-ebs-event-handler/.

   > **Note:** The "rfi" folder in $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/target/ebs-side/ should be copied to a staging folder in the EBS server which will be referred as EBS_COMP_DIR in EBS UNIX environment.

2. An ear file "retail-financial-integration-ear-13.2.9.ear" should be available in folder $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/target/rfi-side/.

Deploy the ORFI application

Before proceeding, you must have an ear file (retail-financial-integration-ear-13.2.9.ear) from the location $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/target/rfi-side/.

> **Note:** Ensure JAVA_HOME and WL_HOME variables are set in the environment. WL_HOME points to folder location till <WebLogic Installed folder>/wlserver_10.3

1. Run the rfi-deployer.sh (available in $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/bin/) script to deploy the ORFI application to the WebLogic server. This script considers all the configuration values defined in previous processes (generate the EBS component).

   The script takes two arguments on the command line: -use-existing-credentials and -deploy-rfi-app.

Example: prompt$ sh rfi-deployer.sh -use-existing-credentials -deploy-rfi-app

```
sh rfi-deployer.sh –use-existing-credentials -deploy-rfi-app
```

Verification

Log in to the WebLogic console and verify the deployments. The ORFI Application ear (retail-financial-integration-ear-13.2.6.ear) should be available.

Post Deployment Steps

1. Update $WL_HOME/server/lib/weblogic.policy file with the following:

    Note: If copying the following text from this guide to UNIX, ensure that it is properly formatted in UNIX. Each line entry beginning with "permission" must terminate on the same line with a semicolon.

    Note: <WEBLOGIC_DOMAIN_HOME> in the below example is the full path of the WebLogic Domain, <managed_server> is the managed server created for the App and <context_root> correlates to the value entered for the application deployment name/context root of the application during installation. See the example. There should not be a space after **file:** in the following. File :< WEBLOGIC_DOMAIN_HOME>.

    ```
    grant codeBase "file:
    <WEBLOGIC_DOMAIN_HOME>/servers/<managed_server>/tmp/_WL_user/<context_root
    >/-" {permission java.security.AllPermission;permission
    oracle.security.jps.service.credstore.CredentialAccessPermission
    "credstoressp.credstore", "read,write,update,delete";permission
    oracle.security.jps.service.credstore.CredentialAccessPermission
    "credstoressp.credstore.*", "read,write,update,delete";
    };
    ```

    Example: An example of the full entry that might be entered is:

    ```
    grant codeBase
    "file:/u00/webadmin/product/10.3.x/WLS/user_projects/domains/APPDomain/ser
    vers/reim-server/tmp/_WL_user/reim01/-" {permission
    java.security.AllPermission;permission
    oracle.security.jps.service.credstore.CredentialAccessPermission
    "credstoressp.credstore", "read,write,update,delete";permission
    oracle.security.jps.service.credstore.CredentialAccessPermission
    "credstoressp.credstore.*", "read,write,update,delete";}
    ```

    Note: The path tmp/_WL_user/retail-financial-integration-ear-13.2.9.ear will not be available before the deployment.

2. Edit $WL_HOME/common/nodemanager/nodemanager.properties file to change the StartScriptEnabled property to true and make sure the StartScriptName property is set to startWebLogic.sh. Below is a sample from the file:

    ```
    StartScriptName=startWebLogic.sh
    ```

```
StartScriptEnabled=true
```

> **Note:** The nodemanager.properties file is created after
> NodeManager is started for the first time. It will not be
> available before that point. NodeManager must be restarted
> after making changes to the nodemanager.properties file.

EBS Database Installation Tasks

Prerequisite

It is assumed Oracle database has already been configured and loaded with the appropriate EBS schema details for your installation.

Copy EBS Specific Files

> **Note:** You can skip the next steps and proceed to section "Create Tablespaces" if you can connect to EBS Database from ORFI Server using Sqlplus.

1. Log in to the EBS UNIX server as a user who has sufficient access to run sqlplus from the Oracle Database installation for APPS schema.

2. Create Folder retail-financial-integration-solution/service-based-integration in <INSTALL_DIR> folder

3. From ORFI server, copy <INSTALL_DIR>/retail-financial-integration-solution/service-based-integration/setup-data folder to <INSTALL_DIR>/retail-financial-integration-solution/service-based-integration folder in EBS server

Create Tablespaces

Before you run the ODI Staging database user, make sure that the following tablespace has been created in the database: ODI_STAGE_DATA. Below is a sample tablespace creation statement for this tablespace. Oracle Retail recommends the use of locally managed tablespaces with automatic extent and segment space management.

> **Note:** These tablespaces are not sized for a production environment.

```
CREATE TABLESPACE ODI_STAGE_DATA DATAFILE
'<datafile_path>/odi_stage_data01.dbf' SIZE 500M
AUTOEXTEND ON NEXT 100M MAXSIZE 2000M
EXTENT MANAGEMENT LOCAL
SEGMENT SPACE MANAGEMENT AUTO
;
```

Create the ODI Staging Database User

You must create an ODI Staging schema using a create_user.sql which is included with the installer distribution. This will be used to execute the ODI Interface at run time. The create_user.sql script can be used to create the schema:

$INSTALL_DIR/retail-financial-integration-solution/service-based-integration/setup-data/ddl/create_user.sql

The script takes three arguments on the command line in sqlplus: username, password, and ODI Stage tablespace.

Example:	SQL> @create_user.sql RFI_ODI_TEMP <RFI_ODI_TEMP Schema Password> <ODI Stage Tablespace name>

Please review this script and run it as a user with adequate permissions, such as SYSTEM.

Create Database Link

You need to create a database link to load initial data for currency rate and suppliers from Oracle E-Business Suite to the Oracle Retail Financial Integration application.

1. Log in to the APPS database schema in the EBS database to run create_dblink.sql script.

2. Run the create_dblink.sql script available in $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/setup-data/ddl/from EBS APPS database schema.

   The script takes four arguments on the command line: DB link name, ORFI schema name, ORFI schema password, and ORFI DB URL.

Example:	SQL> @create_dblink.sql <DB Link Name> <RFI Schema> <RFI Schema Password> <RFI DB Host:port/SID>

Note: This database link will be used to load initial data for Currency Rate and Supplier from EBS to ORFI Staging tables.

Run the EBS Initial Database Setup

This installer installs the ORFI related objects to the EBS APPS database schema.

> **Note:** Make sure the sqlplus executable with the correct tns configuration to the EBS database is in your path.

1. Run the load-initial-setup-data-into-ebsfin-schema.sh script available in $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/bin/. After installation is completed, a detailed installation log file is created: $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/bin/<timestamp>.log.

> **Example:**   prompt$ sh load-initial-setup-data-into-ebsfin-schema.sh
>
> ```
> sh load-initial-setup-data-into-ebsfin-schema.sh
> ```

2. The installer prompts for the following details:
   - Enter the EBS database server SID – Enter Database SID.
   - Enter the EBS Schema details –Enter APPS User ID/Password.
   - Enter the EBS database server name – Enter Database Server Name or IP address.
   - Enter the EBS database server port – Enter Database Port Number.

> **Note:** If you get the following error make sure you have the latest ORFI software from the Oracle download site.
>
> ```
> ERROR: ORA-12154: TNS:could not resolve the connect
> identifier specified
> ```

Verification

Log in to the APPS database schema in the EBS database and verify that the RFI_GLACCT package and package body are available in the valid status using query:
"`SELECT * FROM DBA_OBJECTS WHERE OBJECT_TYPE IN ('PACKAGE','PACKAGE BODY') AND OBJECT_NAME='RFI_GLACCT';`".

6

EBS Event Subscription Tasks

EBS Event Subscription Setup

EBS raises the following oracle.apps.ap.supplier.event business event whenever there is a creation/modification of supplier, supplier sites, and supplier contacts.

1. Subscribe to the Supplier business event using Java subscription.

    a. Log in to EBS application using sysadmin.

    b. Navigate to Workflow Administrator Web Applications➔Administrator Workflow➔Business Events.

    c. Search for the oracle.apps.ap.supplier.event event and click **Go**.

    d. Click **Subscription**.

    e. Click **Create Subscription**.

    f. Enter the following details:

        – System – Select the System name using the LOV.

        – Source Type – Local

        – Event Filter - oracle.apps.ap.supplier.event

        – Phase – 71 (Any number less than 99)

        – Status – Enabled

        – Rule Data – Key

        – Action Type – Custom

        – On Error – Skip to Next

        – Click Next

        – Java Rule Function - com.oracle.retail.rfi.ebs.SupplierBES

        – Owner Name - Oracle Payables

        – Owner Tag – SQLAP

g. Click **Apply**.

EBS raises the oracle.apps.gl.CurrencyConversionRates.dailyRate.specify business event whenever there is a creation/modification of Daily Currency Rates.

2. Subscribe to the Currency business event using Java subscription.

    a. Log in to EBS application using sysadmin.

    b. Navigate to Workflow Administrator Web Applications→Administrator Workflow→Business Events.

    c. Search for the oracle.apps.gl.CurrencyConversionRates.dailyRate.specify event and click **Go**.

d. Click **Subscription**.

e. Click **Create Subscription**.

f. Enter the following details:

- System – Select the System name using the LOV.
- Source Type – Local
- Event Filter – oracle.apps.gl.CurrencyConversionRates.dailyRate.specify
- Phase – 70 (Any number less than 99)
- Status – Enabled
- Rule Data – Key
- Action Type – Custom
- On Error – Skip to Next
- Click Next
- Java Rule Function – com.oracle.retail.rfi.ebs.CurrencyRateBES
- Owner Name – Oracle General Ledger
- Owner Tag – SQLGL

g. Click **Apply**.

3. Verify that Status=ENABLED and the Licensed_flag=Y for the event and event subscription.

- SELECT * FROM wf_events where name='<Event_Name>';

- SELECT * from wf_event_subscriptions where event_filter_guid=(SELECT guid FROM wf_events where name='<Event_Name>);

EBS Event Subscription Install

1. Log in to the EBS UNIX server

2. From the ORFI server, copy the <INSTALL_DIR>/retail-financial-integration-solution/service-based-integration/target/ebs-side/rfi folder to a staging folder. This folder is referred to as EBS_COMP_DIR for the remainder of this document.

Install the Business Event Handler.

3. Log in to EBS UNIX server (telnet session), run the env file (. ./apps.env)

> **Note:** If apps.env file is not available, please check the <Instance_name>_<Servername>.env file in folder <APPS INSTALLED FOLDER>/ apps_st/appl for the values of INST_TOP, ADMIN_SCRIPTS_HOME, APPL_CONFIG_HOME. JAVA_TOP folder is <APPS INSTALLED FOLDER>/apps_st/comn/java/classes
>
> **Example:** R12RET_rstnssiovm0050.env file in folder /u01/app/R12RET/apr12ret/applmgr/apps/apps_st/appl

4. Copy the ebs-side "rfi" folder from $EBS_COMP_DIR to $JAVA_TOP

> **Note:** The "rfi" folder is generated in the ORFI server $INSTALL_DIR/retail-financial-integration-solution/service-based-integration/target/ebs-side/

5. Go to the $INST_TOP/appl/admin/ folder

   `cd $INST_TOP/appl/admin/`

6. Edit <INSTANCE_SERVER>.xml (for example, R12RET_rstnssiovm0050.xml) file

   `vi <INSTANCE_SERVER>.xml`

7. Add the ebs-financial-common-1.0-SNAPSHOT.jar and retail-public-security-api.jar to CLASSPATH and AF_CLASSPATH variables.

8. Add the retail-public-security-api.jar as the first entry in AF_CLASSPATH.

> **Note**: File locations used in the example are the absolute path and must be replaced to reflect the actual paths.

For example,

```
        <CLASSPATH oa_var="s_adovar_classpath"
osd="unix">/u01/app/R12RET/apr12ret/applmgr/apps/tech_st/10.1.3/appsutil/jdk/l
ib/dt.jar:/u01/app/R12RET/apr12ret/applmgr/apps/tech_st/10.1.3/appsutil/jdk/li
b/tools.jar:/u01/app/R12RET/apr12ret/applmgr/apps/tech_st/10.1.3/appsutil/jdk/
jre/lib/rt.jar:/u01/app/R12RET/apr12ret/applmgr/apps/apps_st/comn/java/lib/app
sborg.zip:/u01/app/R12RET/apr12ret/applmgr/apps/tech_st/10.1.2/forms/java:/u01
/app/R12RET/apr12ret/applmgr/apps/tech_st/10.1.2/forms/java/frmall.jar:/u01/ap
p/R12RET/apr12ret/applmgr/apps/tech_st/10.1.2/jlib/ewt3.jar:/u01/app/R12RET/ap
r12ret/applmgr/apps/tech_st/10.1.2/j2ee/OC4J_BI_Forms/applications/formsapp/fo
rmsweb/WEB-
INF/lib/frmsrv.jar:/u01/app/R12RET/apr12ret/applmgr/apps/apps_st/comn/java/cla
sses:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-security-
api/lib/commons-cli-
1.2.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/commons-logging-
1.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-api-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-internal-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-common-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-unsupported-api-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jacc-spi-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
securit y-api/lib/jacc-api-
10.1.3.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-ee-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-manifest-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-mbeans-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-upgrade-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-wls-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/identitystore-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/oraclepki-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/osdt_core-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/osdt_cert-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/sjsxp-
1.0.2.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jsr173-
1.0.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/rfi-ebs-event-
handler/ebs-financial-common-
14.0.0.RC1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/retail-public-security-api-14.0.0.jar</CLASSPATH>
```

```
                <AF_CLASSPATH oa_var="s_adovar_afclasspath"
osd="unix/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/commons-cli-
1.2.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/commons-logging-
1.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-api-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-internal-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-common-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-unsupported-api-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jacc-spi-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jacc-api-
10.1.3.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-ee-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-manifest-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-mbeans-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-upgrade-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jps-wls-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/identitystore-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/oraclepki-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/osdt_core-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/osdt_cert-
11.1.1.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/sjsxp-
1.0.2.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/jsr173-
1.0.jar:/u01/applmgr/apps/apps_st/comn/java/classes/rfi/retail-public-
security-api/lib/retail-public-security-api-
14.0.0.jar:/u01/app/R12RET/apr12ret/applmgr/apps/tech_st/10.1.3/appsutil/jdk/l
ib/dt.jar:/u01/app/R12RET/apr12ret/applmgr/apps/tech_st/10.1.3/appsutil/jdk/li
b/tools.jar:/u01/app/R12RET/apr12ret/applmgr/apps/tech_st/10.1.3/appsutil/jdk/
jre/lib/rt.jar:/u01/app/R12RET/apr12ret/applmgr/apps/apps_st/comn/java/lib/app
sborg2.zip:/u01/app/R12RET/apr12ret/applmgr/apps/apps_st/comn/java/classes:/u0
1/app/R12RET/apr12ret/applmgr/apps/apps_st/comn/java/classes/rfi/rfi-ebs-
event-handler/ebs-financial-common-1.0-SNAPSHOT.jar</AF_CLASSPATH>
```

9. Go to $ADMIN_SCRIPTS_HOME and run adautocfg.sh (Auto config).

    ```
    cd $ADMIN_SCRIPTS_HOME
    sh adautocfg.sh
    ```

10. Enter the APPS user password.

11. To verify the values, go to the $APPL_CONFIG_HOME/admin folder and check
    CLASSPATH and AF_CLASSPATH in adovars.env.

    ```
    cd $APPL_CONFIG_HOME/admin
    view adovars.env
    ```

12. Stop and restart Concurrent Manager.

    a. Go to $ADMIN_SCRIPTS_HOME

        ```
        cd $ADMIN_SCRIPTS_HOME
        ```

    b. Run sh adcmctl stop <db_user>/<db_password> (sh adcmctl.sh stop apps/****)

    c. Make sure the Concurrent Manager is in "Not Active" status before running the next command. sh adcmctl status <db_user>/<db_password> (sh adcmctl.sh status apps/****)

    d. Run sh adcmctl start <db_user>/<db_password> ****)

    e. Stop and restart the server

```
sh adstpall.sh apps/****
sh adstrtal.sh apps/****
```

> **Note:** If the Concurrent Manager is Not Active, start Concurrent Manager – sh adcmctl start apps/****

    f. Verify the values.

        a. Close the telnet session, start a new telnet session, and run the env file (. ./apps.env)

        b. echo $CLASSPATH and $AF_CLASSPATH
The added jar file should be there.

13. Stop and restart the web server.

Go to $ADMIN_SCRIPTS_HOME.

```
adapcctl.sh stopall
adapcctl.sh startall
```

7

ODI Setup Tasks

Prerequisite

It is assumed Oracle Data Integrator has already been configured with the appropriate details for your installation. This ODI installation location is referred to as ODI_INSTALL_DIR for the remainder of this chapter.

Copy ODI-Specific Files

1. Log in to the UNIX server as a user who has sufficient access to run sqlplus from the Oracle Database installation.

2. Create the retail-financial-integration-solution in <INSTALL_DIR> folder.

3. From the ORFI server, copy the <INSTALL_DIR>/retail-financial-integration-solution/etl-based-integration folder to <INSTALL_DIR>/retail-financial-integration-solution folder on the ODI server.

Create Tablespaces

Before you run the ODI Master and Work database user, make sure that the following tablespace has been created in the database: ODI_DATA. Below is a sample tablespace creation statement for this tablespace. Oracle Retail recommends the use of locally managed tablespaces with automatic extent and segment space management.

> **Note:** These tablespaces are not sized for a production environment.

```
CREATE TABLESPACE ODI_DATA DATAFILE
'<datafile_path>/odi_data01.dbf' SIZE 500M
AUTOEXTEND ON NEXT 100M MAXSIZE 2000M
EXTENT MANAGEMENT LOCAL
SEGMENT SPACE MANAGEMENT AUTO
;
```

Create the ODI Master Repository Database User

You must create an ODI Master Repository schema using a *creat_user.sql* that comes with installer distribution. This will be used to execute ODI Interface at run time. This create_user.sql script can be used for this:

$INSTALL_DIR/retail-financial-integration-solution/etl-based-integration/retail-to-ebsfin-etl-flows/setup-data/ddl/create_user.sql

The script takes three arguments on the command line in sqlplus: username, password, and ODI Master tablespace.

> **Example:** SQL> @create_user.sql <ODI Master Schema> <ODI Master Schema Password> <ODI Master tablespace name>

Review this script and run it as a user with adequate permissions, such as SYSTEM.

Create the ODI Work Repository Database User

You must create an ODI Work Repository schema using a *creat_user.sql* that is included with the installer distribution. This will be used to execute ODI Interface at run time. This create_user.sql script can be used for this:

$INSTALL_DIR/retail-financial-integration-solution/etl-based-integration/retail-to-ebsfin-etl-flows/setup-data/ddl/create_user.sql

The script takes three arguments on the command line in sqlplus: username, password, and ODI Work tablespace.

> **Example:** SQL> @create_user.sql <ODI Work Schema> <ODI Work Schema Password> <ODI Work tablespace name>

Review this script and run it as a user with adequate permissions, such as SYSTEM.

ODI – Set Up Master Repository and Work Repository

> **Note:** If you have not had a master and work repository created, you need to create it beforehand as described in the Oracle Data Integrator administrator guide or follow the steps given below.

Create Master Repository

Prerequisite:

- Make sure database schemas for Master and Work Repositories are present in the ODI database.

  > **Note:** These schema creation steps are done as part of ODI setup taks in the current chapter 7.

- Make sure the RFI_ODI_TEMP schema exists in the E-Business Suite database.

  > **Note:** These schema creation steps are done as part of "Create the ODI Staging Database User" in chapter 5.

- Make sure the ORFI infrastructure database setup is completed.

  > **Note:** These schema creation steps are done as part of "Create the ORFI Database User" in chapter 3.

- Give database aministrator privileges to the schema in the E-Business Suite database.

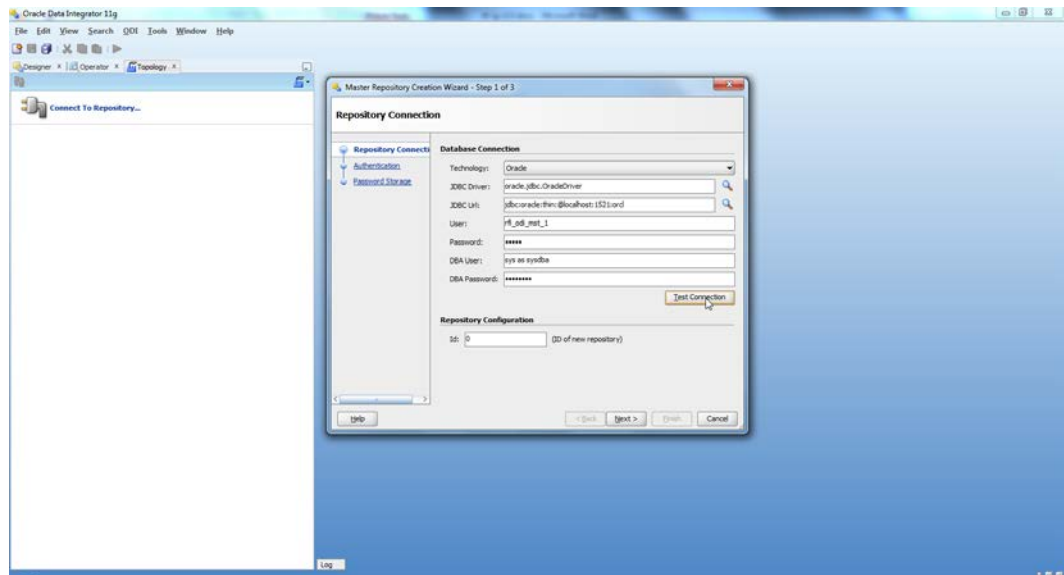Use the following procedure to create the Master Repository:

1. Launch Oracle Data Integrator (ODI) Studio to create a Master Repository:

   Click File→New and select "Master Repository Creation Wizard" and click **OK**.
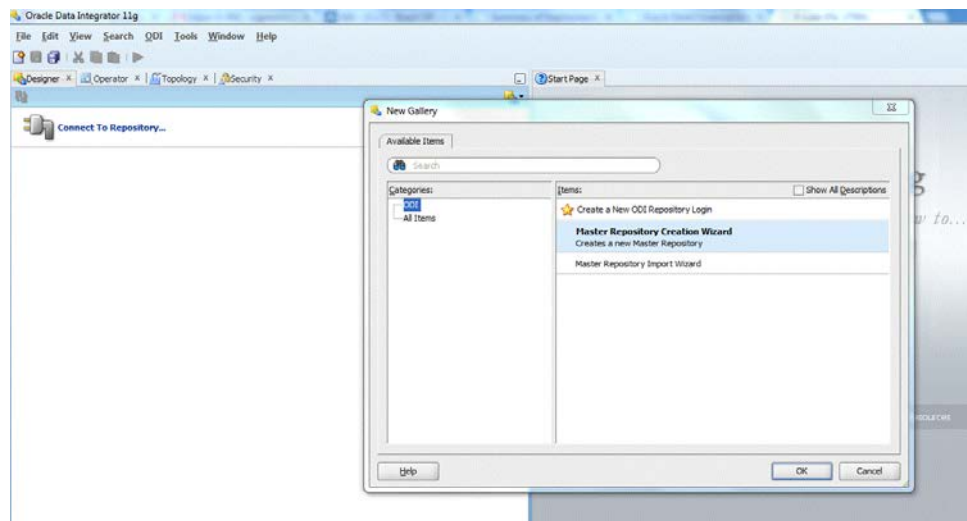
2. Enter the Master Repository Database connection details and click **Next**.

   ▪ Database Connection – Enter valid Master Repository schema details.

   > **Note:** In JDBC url field, use the OdiMasterDataSource/ jdbcUrl entered in `rfi-deployment-env-info.json file`. You have to enter sysdba credentials in DBA User and DBA Password fields.

   ▪ Repository Configuration – Enter any ID other than 804 or 805 in the Id field.
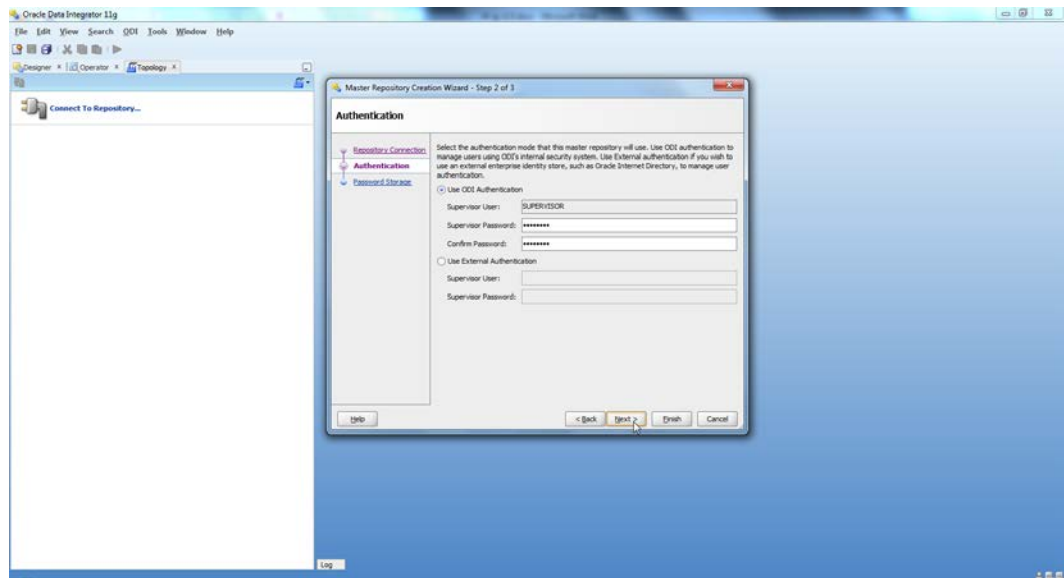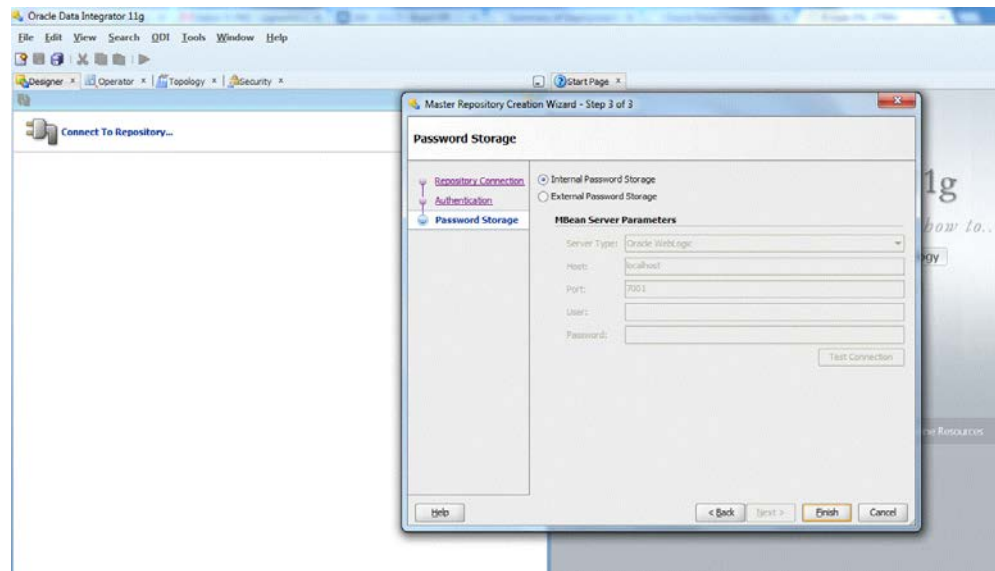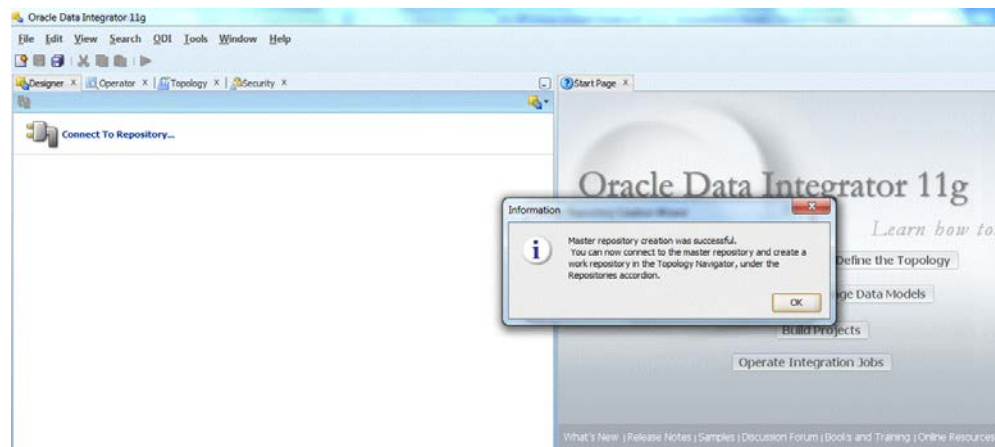
3. Test your credentials information using the **Test Connection** button. If you are successful, click **Next**.
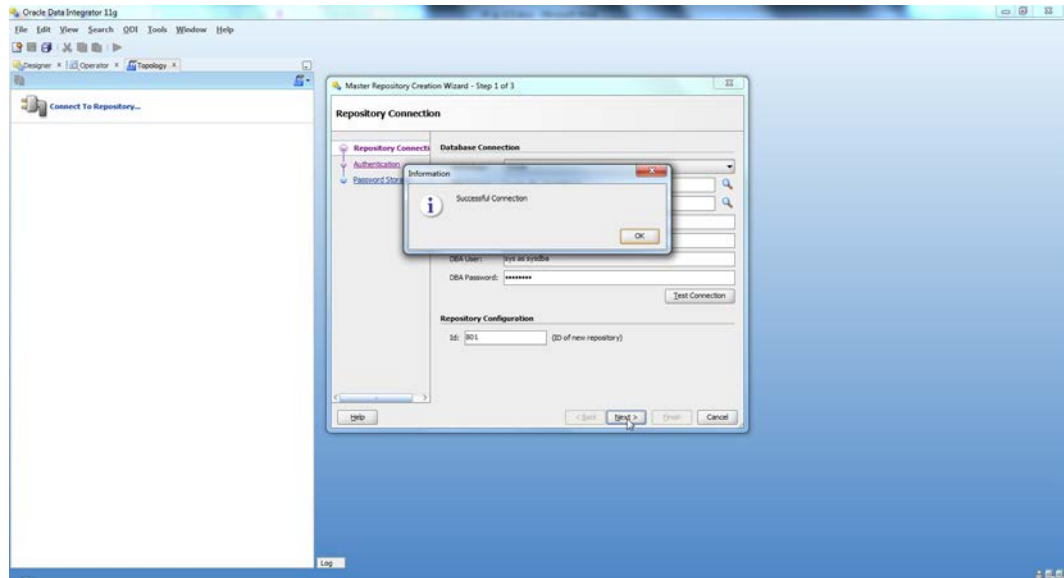
4. Enter SUPERVISOR as the password and click **Next**.

> **Note:** This password will be used in further installation steps, so keep a record of it.

5. Click **Finish**.
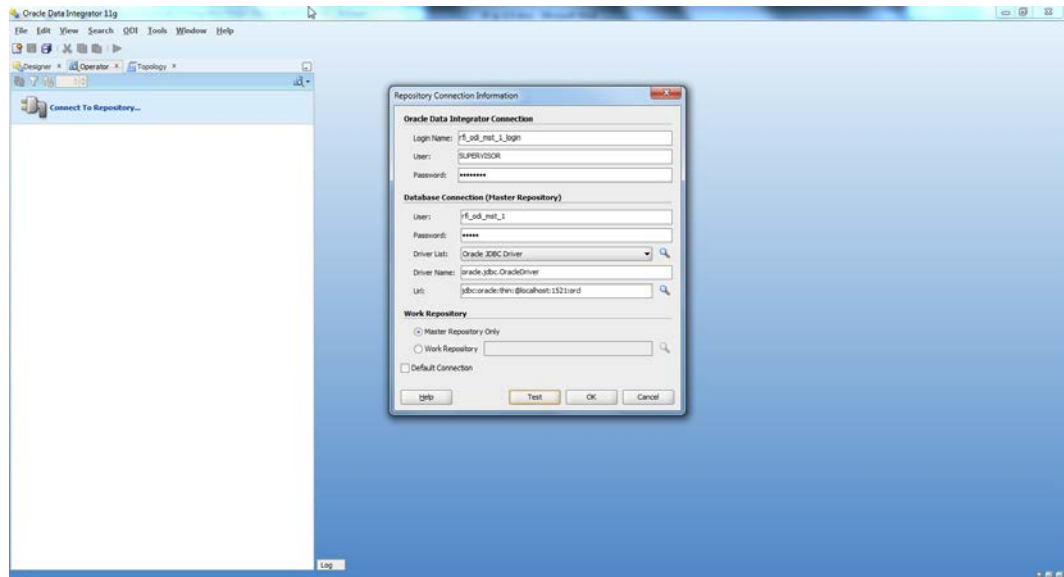

6. Click **OK**.

Create Work Repository

Use the following procedure to create the Work Repository:

1. Select the ODI Menu→Connect option to log in to the Master Repository in Oracle Data Integrator (ODI) Studio to create a Work Repository:

2. Create Master Repository login credetionals by selecting the + button from the Oracle Data Integrator Login dialog.
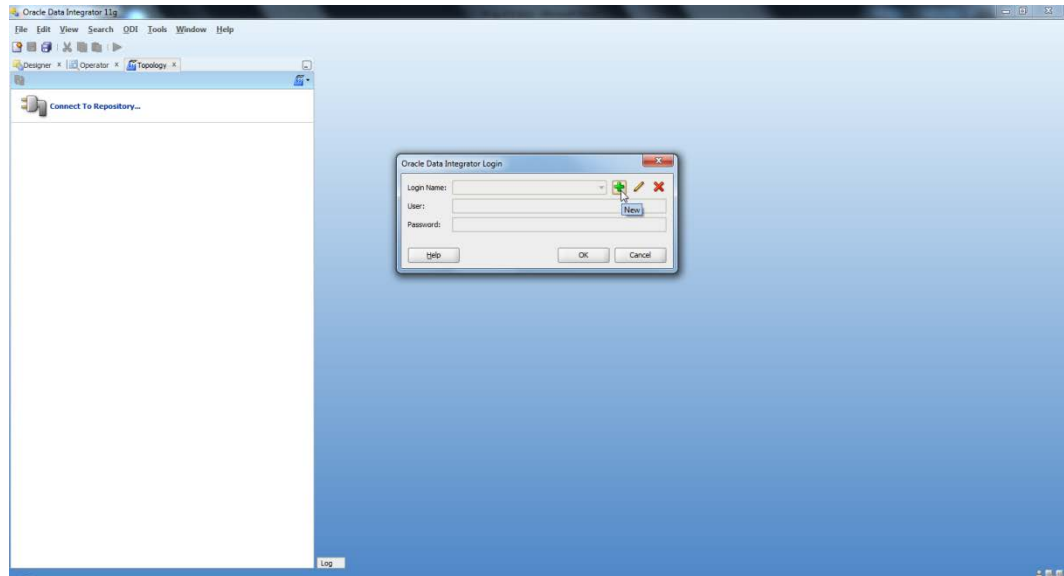

3. Update the Repository Connection Information as below:

   a. Oracle Data Integrator Connection:

      – Login Name: <Login Name>

      – User: <Enter "SUPERVISOR" in this field>

      – Password: <The one you had entered in step 4 from Create Master Repository section.>

   b. Database Connection (Master Repository):

      – Enter Master Repository database credetionals for User and Password fields.

      – Select "Oracle JDBC Driver" from the drop-down list for Driver List field.

      – Enter Url (use the OdiMasterDataSource/ jdbcUrl entered in rfi-deployment-env-info.json file) field asshown below:

        `jdbc:oracle:thin:@<host>:<port>:<sid>`

    c. Work Repository:

      – Select the Master Repository Only option.

4. Test your credentials information using the **Test** button. If you are successful then click **OK**.
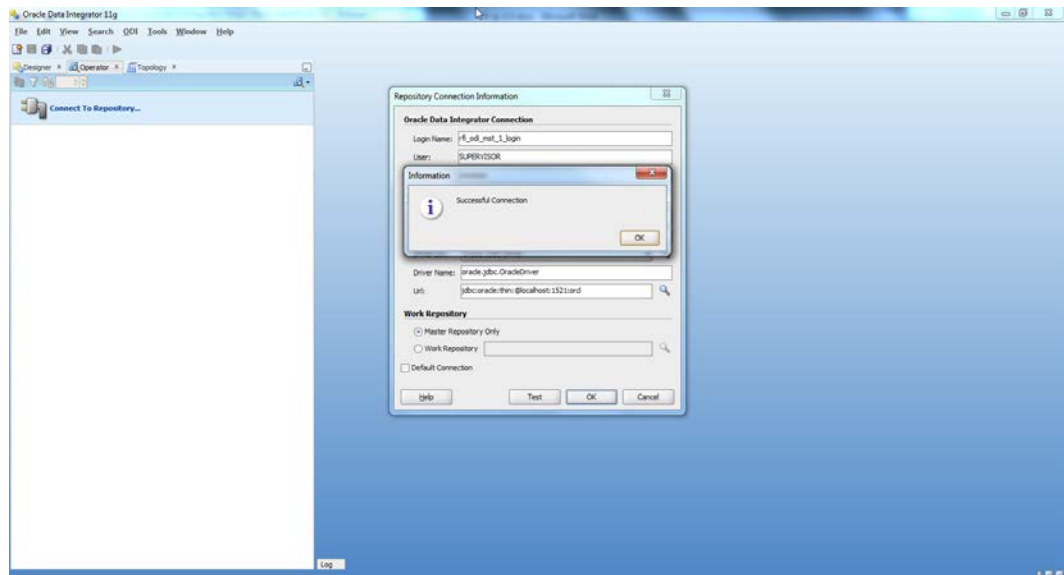
5. Select **OK** from Oracle Data Integrator Login dialog.
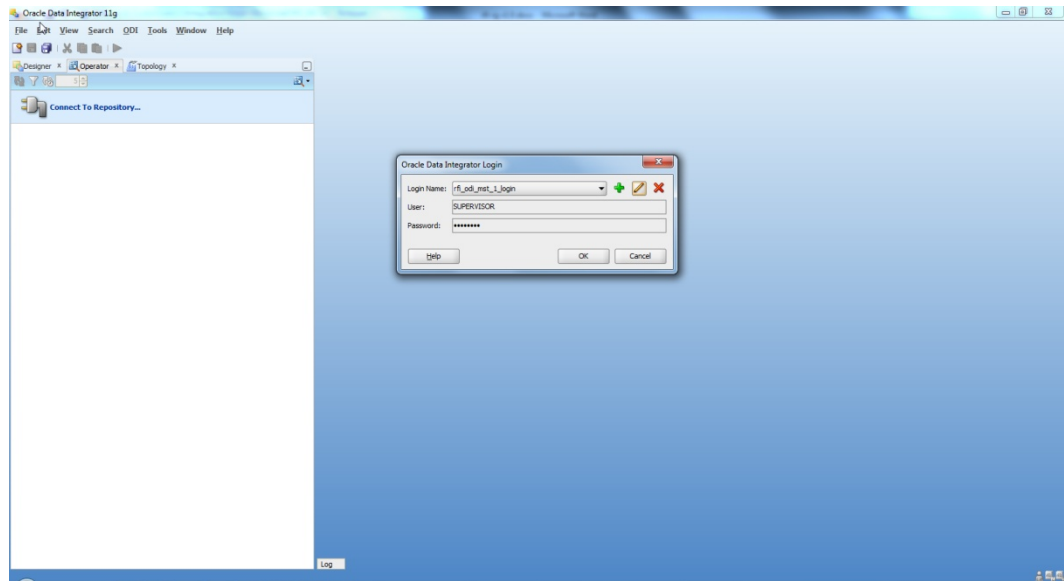
6. From the Topology tab, select Repositories and then right-click on the Work Repositories. Select the New Work Repository option.
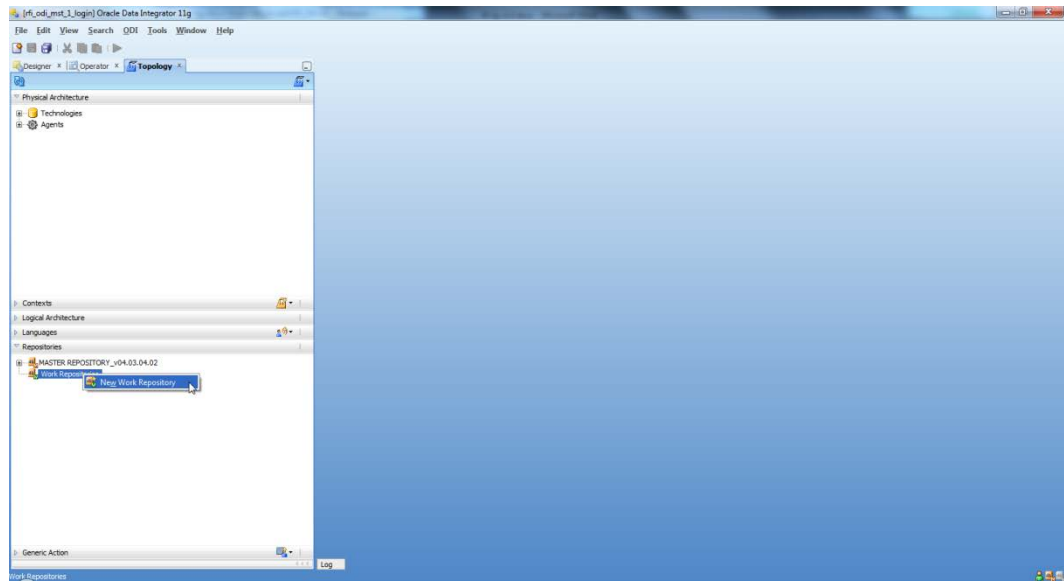

7. Enter the work repository database credentials details.

8. Test your credentials information using the **Test** button. If you are successful then click **Next**.
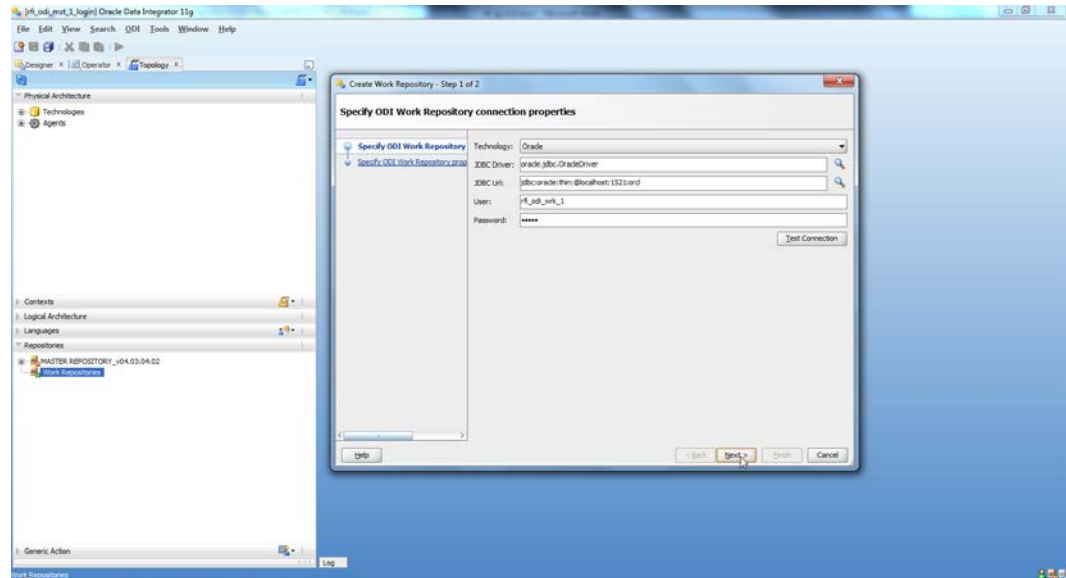
9. Update ODI Work Repository properties:

   a. Enter any ID other than 804 or 805 in the Id field.

   b. Enter Name and Password (should be "SUPERVISOR" password) for work repository and click **Finish**.
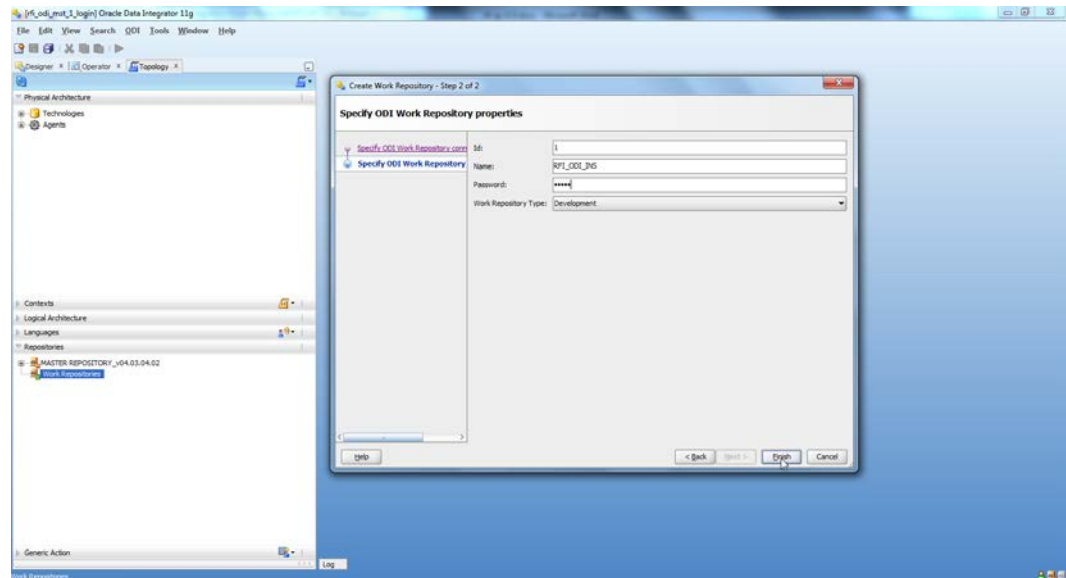
10. Click **Yes** to create an ODI login for the work repository.
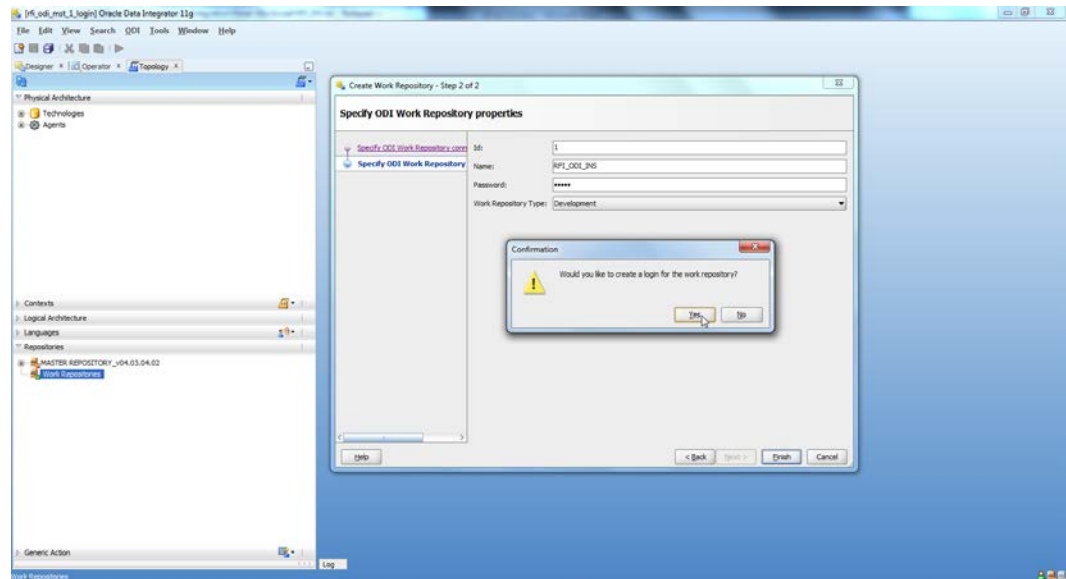
11. Enter the ODI work repository login name in the dialog.
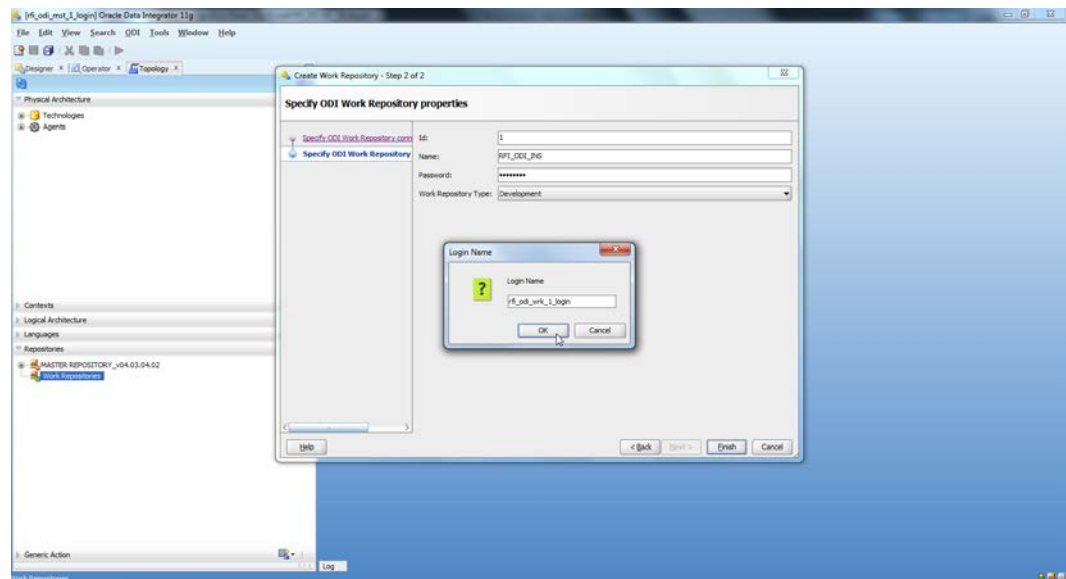
12. Select the ODI Menu→Disconnect option to connect to the Work Repository.
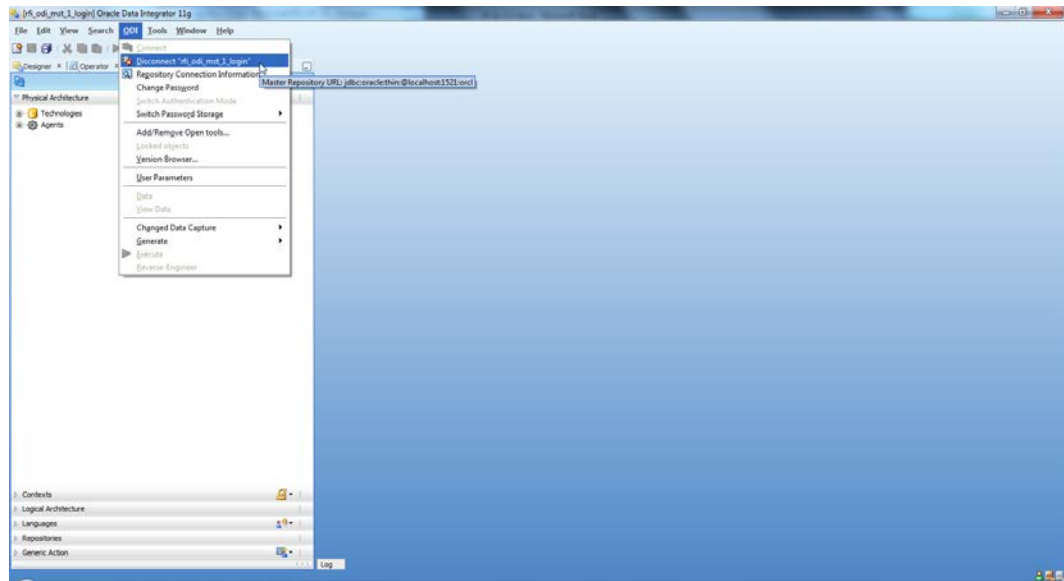
13. Select the ODI Menu→Connect option.

    a. From the ODI Login popup, select Login Name from dropdown list (select the name you created in step7).

    b. Enter user as "SUPERVISOR".

    c. Enter "SUPERVISOR" as the password.

    d. Select the Edit option.
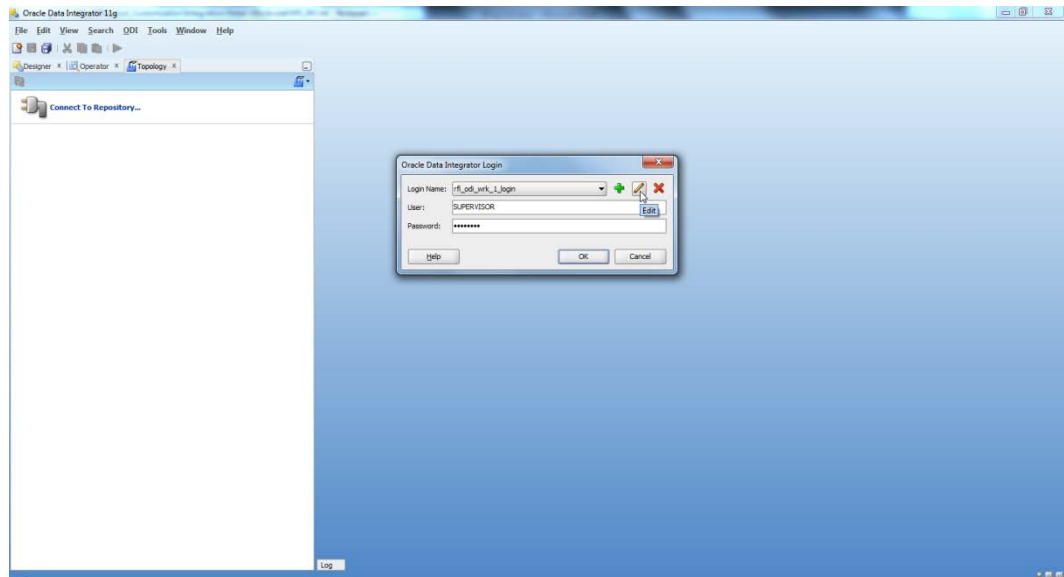
14. Validate the Repository Connection Information:

    a. Oracle Data Integrator Connection

        – Login Name: <work repository login name>

        – User: <"SUPERVISOR">

        – Password: <SUPERVISOR Password>

     b. Database Connection (Master Repository)

       – Validate the Master Repository database details.

     c. Work Repository

       – Select the Work Repository option and select the repository you just created.
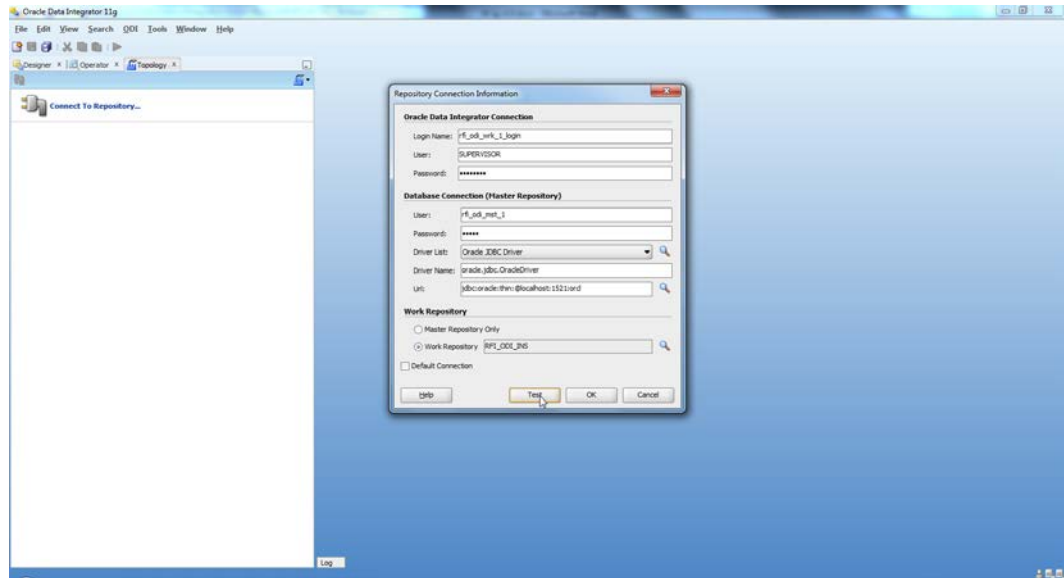
15. Test your credentials information using the**Test** button. If iyou aresuccessful then click **OK**.
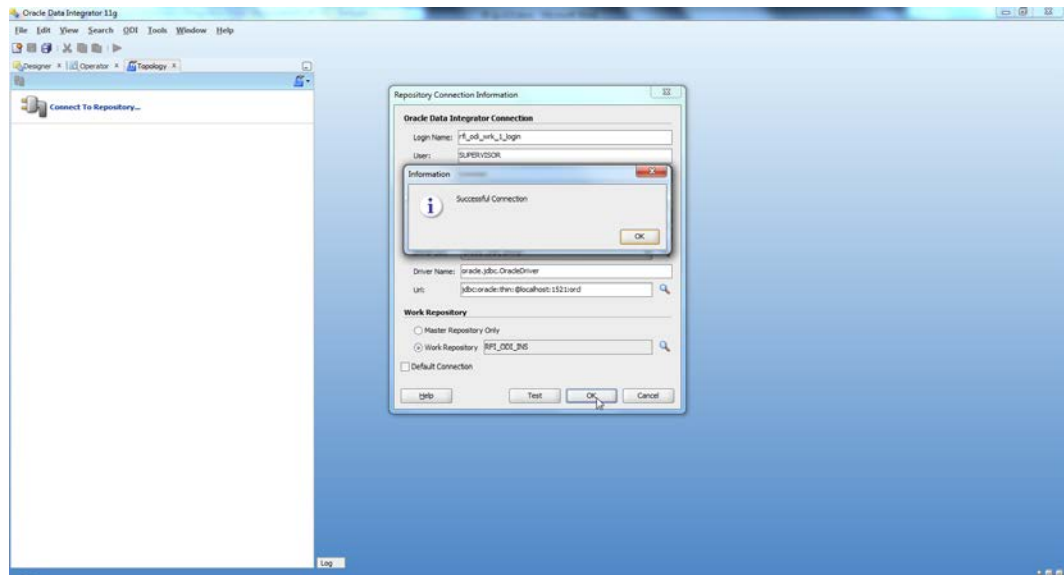
**16.** Select **OK** from Oracle Data Integrator Login dialog.
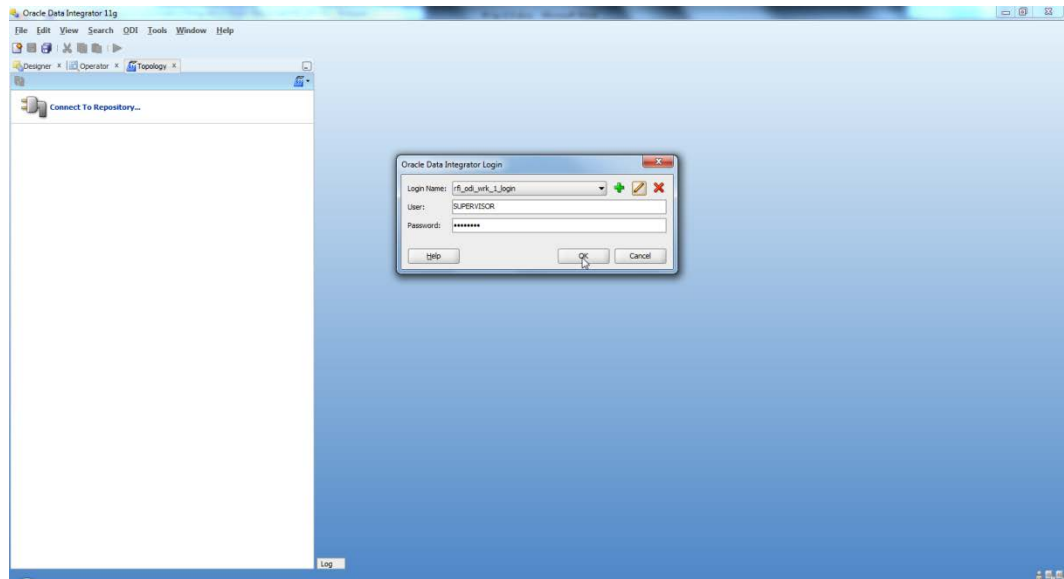
Import ODI Interfaces

Use the following procedure to import ODI interfaces using Smart Import:

1. Log in to the Work Repository in Oracle Data Integrator (ODI) Studio to import all the interfaces:

2. Select the Import option from the Designer tab.
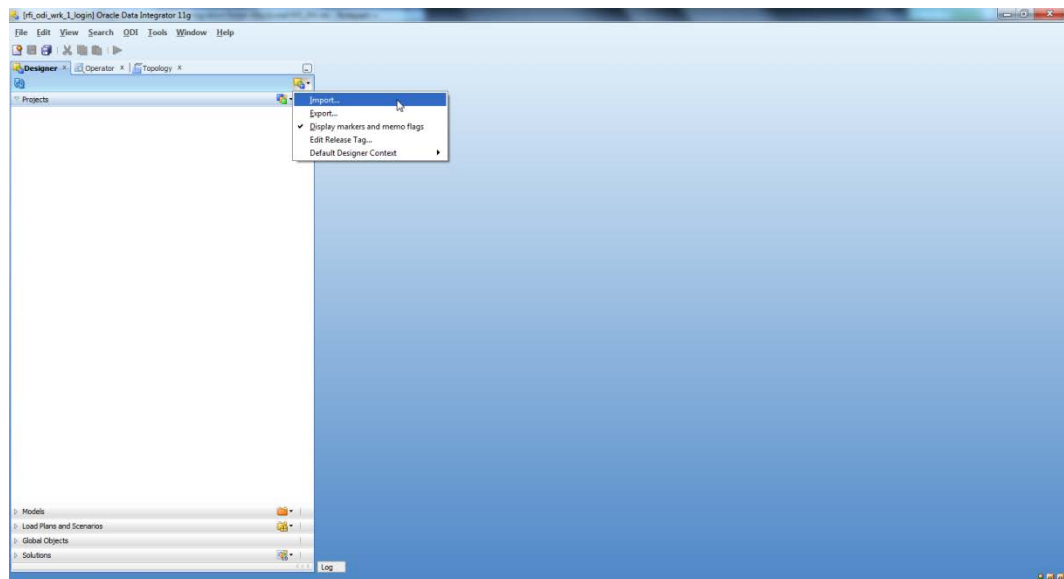
3. Select the Smart Import option on the Import Selection dialog and click **OK**.
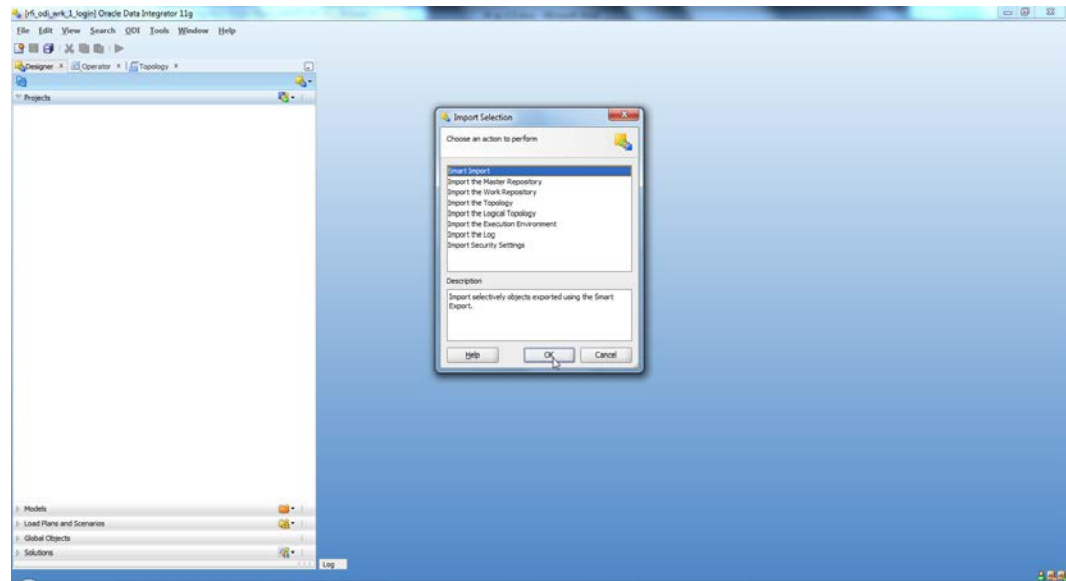
4. Select SmartExport_RMS_EBS_Account_Entry.xml file in the File Selection Field and click **Next**. This file can be found in $INSTALL_DIR/retail-financial-integration-solution/etl-based-integration/retail-to-ebsfin-etl-flows/retail-to-ebsfin-odi-project/WorkRepository/.
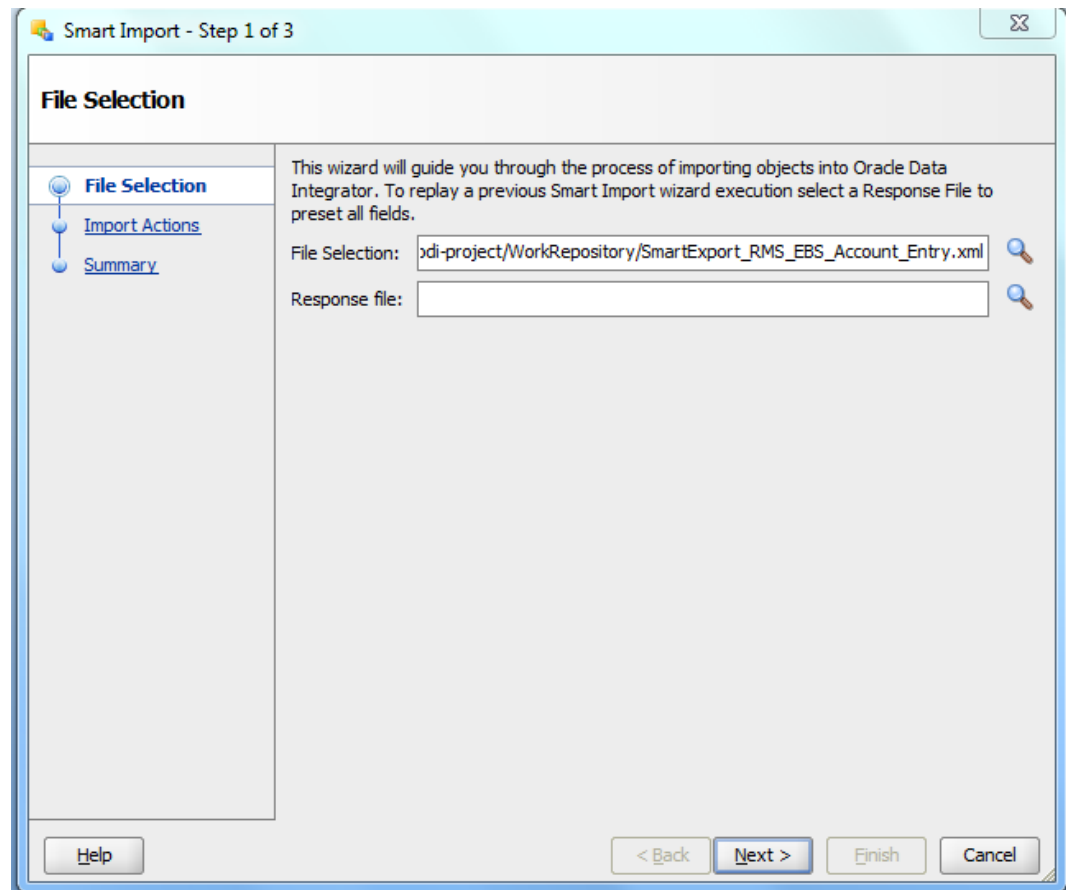
5. Click **Next**.
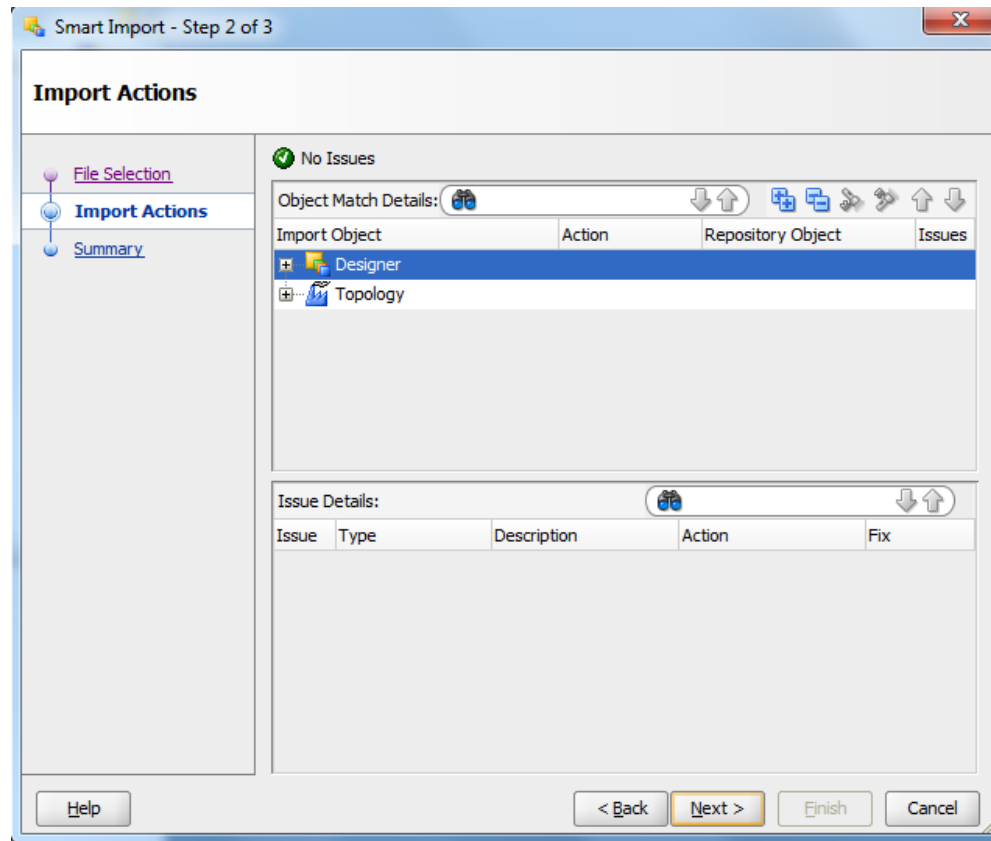
6. Click **Finish**.
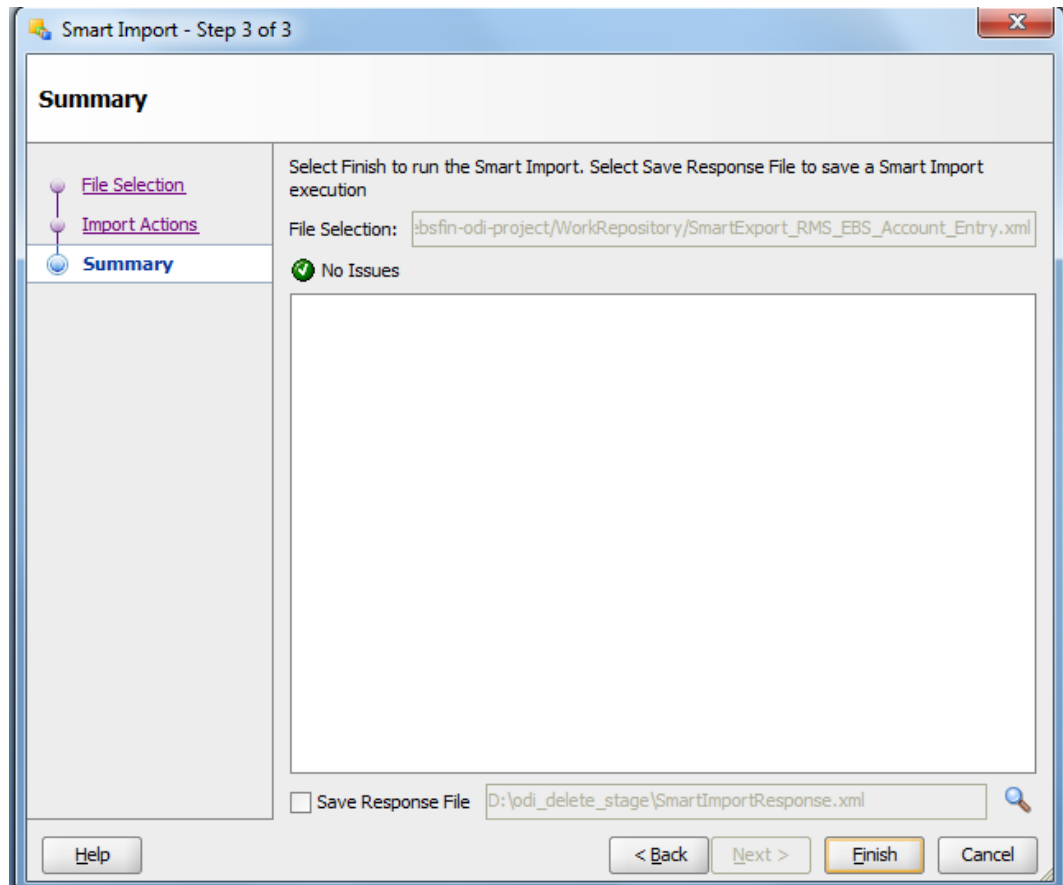
7. Similarly, perform Smart Import for the other ODI Interfaces.
- SmartExport_ReIM_EBS_Account_Entry.xml
- SmartExport_ReIM_EBS_Invoice_Entry.xml

Update Connection Information

In Topology, under Physical Architecture, Technologies → Oracle, update the Database Connection details in thePhysical Server and Physical schema as shown in the table below.
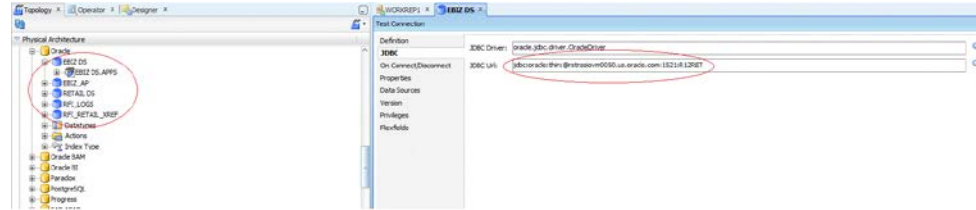
Physical Server (Data Server)			Physical Schema	
Name	Definition > Connection	JDBC	Schema (Schema)	Schema (Work Schema)
EBIZ DS	User: <APPS Schema Name> Password: <APPS Schema Password>	Update EBS JDBCUrl	APPS Schema	RFI_ODI_TEMP Schema
EBIZ_AP	User: <APPS Schema Name> Password: <AP Schema Password>	Update EBS JDBCUrl	AP Schema	RFI_ODI_TEMP Schema
RETAIL DS	User: <RMS User Schema Name> Password: <RMS User Schema Password>	Update RMS JDBCUrl	RMS Schema Owner	RMS Schema Owner
RFI_LOGS	User: <ORFI Schema Name> Password: <ORFI Schema Password>	Update ORFI JDBCUrl	ORFI Schema	ORFI Schema
RFI_RETAIL_X REF	User: <ORFI Schema Name> Password: <ORFI Schema Password>	Update ORFI JDBCUrl	ORFI Schema	ORFI Schema

1. For EBIZ DS, EBIZ_AP, provide the E-Business Suite database connection.
2. For RETAIL DS, provide the Retail database connection.
3. For RFI_LOGS, RFI_RETAIL_XREF provide the ORFI Infrastructure database connection.
4. Click **Test Connection** on the physical server to verify that the connection information is correct.

5. In the physical schema, verify that the context (Global and RETL_TO_EBIZ) is mapped to the logical schemas as shown in the table below. If the mapping is missing, map the logical schemas as shown in the table below.
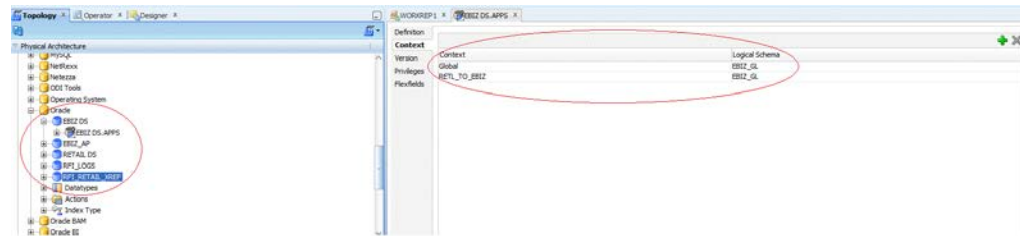
Physical Schema	Logical Schema
EBIZ DS.APPS	EBIZ_GL
EBIZ_AP.AP	EBIZ_AP
RETAIL DS.RMS01APP	Retail
RFI_LOGS.RFI	RFI_LOGS
RFI_RETAIL_XREF.RFI	RFI_RETAIL_XREF

Scenario Test

In this section, you need to do similar things to the three packages in ORFI. In this guide we only use the Migrate RMS to EBIZ Acc Entry Package, for example.

Scenario

In ODI Topology, navigate to Physical Architecture → Agents.
Make sure the RFI_AGENT is available and default to port 20910
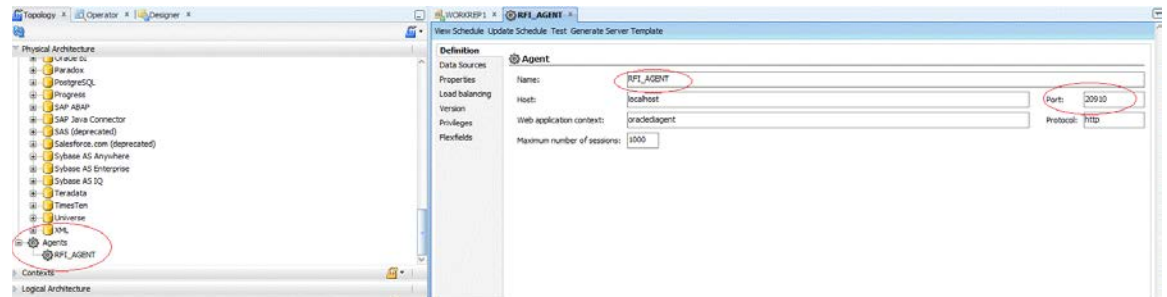
Run Agent Scheduler

The following scripts are located in <ODI_INSTALL_DIR>/oracledi/agent/bin/.

You need to configure odiparams.sh script to schedule an ODI agent. This odiparams.sh script is located in <ODI_INSTALL_DIR>/oracledi/agent/bin/odiparams.sh

1. You need to run encode.sh script to generate your password in the encoded format and this is used in odiparams.sh script.

    The script takes one argument on the command line: password.

Example:	prompt$ encode <password>

    ```
    sh encode.sh <password>
    ```

2. Modify odiparams file. Set the following linesas indicated in order to connect them to the work repository. For example:

    In Windows OS (odiparams.bat),
    ```
    set ODI_MASTER_DRIVER=oracl.jdbc.driver.OracleDriver
    set ODI_MASTER_URL=<JDBC Connection URL to ODI>
    set ODI_MASTER_USER=<ODI Master Schema>
    set ODI_MASTER_ENCODED_PASS=<ODI Master Schema password>
    set ODI_SUPERVISOR=SUPERVISOR
    set ODI_SUPERVISOR_ENCODED_PASS=<ODI SUPERVISOR password>
    set ODI_SECU_WORK_REP=<ODI Work Repository name>
    ```

    In Linux/Unix OS (odiparams.sh),
    ```
    ODI_MASTER_DRIVER=oracle.jdbc.driver.OracleDriver
    ODI_MASTER_URL=<JDBC Connection URL to ODI>
    ODI_MASTER_USER=<ODI Master Schema>
    ODI_MASTER_ENCODED_PASS=<ODI Master Schema password>
    ODI_SUPERVISOR=SUPERVISOR
    ODI_SUPERVISOR_ENCODED_PASS=<ODI SUPERVISOR password>
    ODI_SECU_WORK_REP=<ODI Work Repository name>
    ```

3. Use the agent.sh script to start an agent.

Example:	prompt$ agent "-NAME=<physical agent name>"
	prompt$ agent "-NAME=RFI_AGENT"

    ```
    sh agent.sh "-NAME=<physical agent name>
    ```

You should see a message that the agent is started successfully.

Generate Scheduler

1. In ODI designer, navigate to Load Plans and Scenarios, and select scenario MIGRATE_RMS_TO_EBIZ_ACC_ENTRY_PACKAGE

2. Select Existing Scheduling. Make sure the context is set to RETL_TO_EBIZ and the agent is selected as RFI_AGENT

3. You need to select an Execution option based on the ORFI requirement and then save the changes.
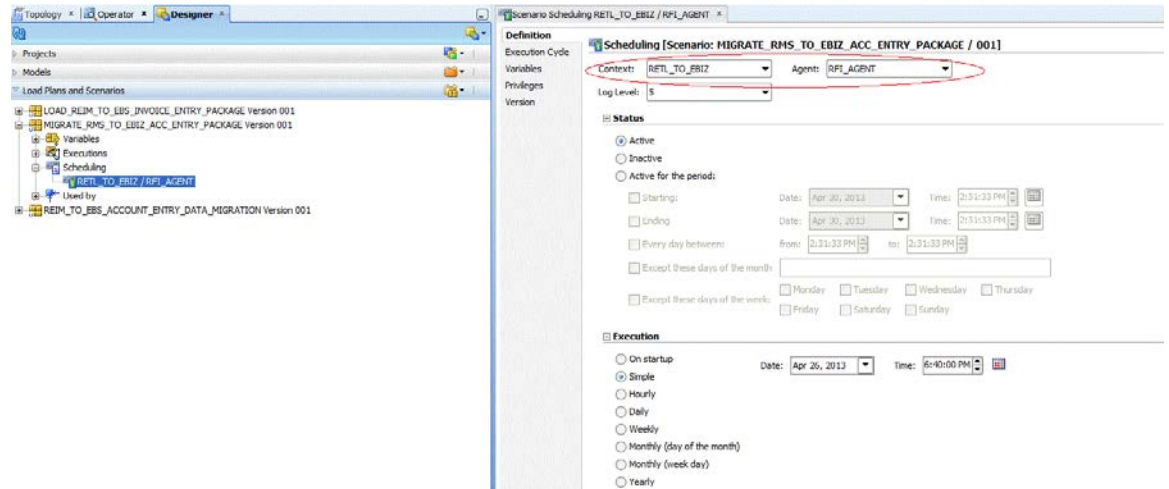
4. Similarly, schedule the scenarios for the other ODI Interfaces
   - LOAD_REIM_TO_EBS_INVOICE_ENTRY_PACKAGE
   - REIM_TO_EBS_ACCOUNT_ENTRY_DATA_MIGRATION

Update Schedule

Go back to Topology and find your physical agent and then right-click and update the schedule.

Check

The agent runs at a predefined execution time as defined in the schedule. When it runs, you can check it in the Operator. You can also check the data in the EBS side interface tables to determine if the execution is successful and the data has been moved to the EBS interface tables.

Appendix: Oracle 11g Database Parameter File

```
###############################################################################
# Oracle 11.2.0.x Parameter file
#
# NOTES: Before using this script:
#       1.  Change <datafile_path>, <admin_path>, <utl_file_path>, <diag_path>
and <hostname>
#           values as appropriate.
#       2.  Replace the word SID with the database name.
#       3.  Size parameters as necessary for development, test, and production
environments.
# ----------------------------------------------------------------------
# MAINTENANCE LOG
#
# Date     By           Parameter            Old/New          Notes
# +------+ +---------+ +----------------+ +-------------+ +-------------+
#
#
###############################################################################
# ------------------------------------------------------------------------------
# The policy is to give 60% for sga and 40% for PGA out of Memory Target at
startup
# ------------------------------------------------------------------------------
memory_target                         = 2000M
# ------------------------------------------------------------------------------
audit_file_dest              = <admin_path>/adump
compatible            = 11.2.0
control_files                         = (<datafile_path>/control01.ctl
                                        ,<datafile_path>/control02.ctl)
db_block_size              = 8192       # Default is 2k; adjust before db creation,
cannot change after db is created
db_file_multiblock_read_count         = 16        # Platform specific (max io
size)/(block size)
db_name               = SID
diagnostic_dest                       = '<diag_path>'
java_pool_size             = 100M
job_queue_processes          = 5          # Oracle Retail required; number of
cpu's + 1
local_listener               =
"(ADDRESS=(PROTOCOL=TCP)(HOST=<hostname>)(PORT=1521))"
nls_calendar                          = GREGORIAN
nls_date_format                = DD-MON-RR # Oracle Retail required; if RDW
database see later entry for proper format
nls_language              = AMERICAN  # Default
nls_numeric_characters       = ".,"        # Should be explicitly set to ensure all
users/batch get the same results
nls_sort              = BINARY     # Should be explicitly set to ensure all
sessions get the same order
nls_territory             = AMERICA    # Default
open_cursors              = 900        # Oracle Retail required (minimum=900);
default is 50
plsql_optimize_level                  = 2           # 10g change; use this setting
to optimize plsql performance
```

```
processes                 = 2000        # Max number of OS  processes that can connect
to the db
query_rewrite_enabled        = TRUE      # Oracle Retail required for function-
based indexes
session_cached_cursors              = 900        # Oracle Retail required;
undo_management           = AUTO
undo_retention            = 1800     # Currently set for 30 minutes; set to avg
length of transactions in sec
undo_tablespace           = undo_ts
user_dump_dest            = <admin_path>/udump
utl_file_dir                        = <utl_file_path>
workarea_size_policy                = auto           # Should be set to auto
when pga_aggregate_target is set
#
# ***  Set these parameters for Oracle Retail Data Warehouse (RDW) database ***
#nls_date_format            = DD-MON-RRRR  # Required by MicroStrategy
#query_rewrite_integrity              = TRUSTED
#star_transformation_enabled          = TRUE
#utl_file_dir                         = <Windows_utl_file_path>,
<UNIX_util_file_path>
#
# ***  Archive Logging, set if needed  ***
#log_archive_dest_1                   = 'location=<admin_path>/arch/'
#log_archive_format            = SIDarch_%r_%s_%t.log
#log_buffer          = 10485760    # Set to (512K or 128K)*CPUs
#log_checkpoint_interval              = 51200     # Default:0 - unlimited
#log_checkpoint_timeout               = 7200      # Default:1800 seconds
```

Appendix: Oracle 12cR1 Database Parameter File

```
##############################################################################
# Copyright (c) 2015 by Oracle Corporation
# Oracle 12.1.0.x Parameter file
# NOTES: Before using this script:
#        1.  Change <datafile_path>, <admin_path>, <utl_file_path>, <diag_path>
and <hostname>
#             values as appropriate.
#        2.  Replace the word SID with the database name.
#        3.  Size parameters as necessary for development, test, and production
environments.
# ---------------------------------------------------------------------
*.audit_file_dest=full_path_of_audit_dir
*.audit_trail='db'
*.compatible='12.1.0.2'
*.control_files='full_path_of_controlfile_1','full_path_of_controlfile_2'
##########################################
# Memory Settings:
# xxxM = Some reasonable starting value for your environmen
##########################################
*.db_block_size=xxxM
*.db_cache_size=xxxM
*.java_pool_size=xxxM
*.memory_target=xxxM
*.pga_aggregate_target=xxxM
*.shared_pool_size=xxxM
*.streams_pool_size=xxxM


##########################################

*.db_block_size=8192
*.db_domain=''
*.db_name='dbName'
*.diagnostic_dest='full_path_of_diag_dir'
*.enable_pluggable_database=true|false
*.fast_start_mttr_target=900
*.nls_calendar='GREGORIAN'
*.nls_date_format='DD-MON-RR'
*.nls_language='AMERICAN'
*.nls_numeric_characters='.,'
*.nls_sort=BINARY
*.open_cursors=900
*.os_authent_prefix=''
*.plsql_optimize_level=2
*.processes=2000
*.query_rewrite_enabled='true'
*.remote_dependencies_mode='SIGNATURE'
*.remote_login_passwordfile='EXCLUSIVE'
*.remote_os_authent=true
*.undo_tablespace='UNDOTBS1'
```

Appendix: Configuring Listener and Tnsnames

> **Note:** This example illustrates the listener configuration for External procedures, container and non-container databases. . It does not include environment specific settings that may be needed. Consult Oracle Net Services guides for additional information

```
###############################################################
#  File:  listener.ora
#  Desc:  Oracle Net8 listener file.
#  Notes: Modify <hostname>
###############################################################

LISTENER =
  (DESCRIPTION_LIST =
    (DESCRIPTION =
      (PROTOCOL_STACK =
        (PRESENTATION = TTC)
        (SESSION = NS))
      (ADDRESS =
        (PROTOCOL = tcp)
        (HOST = <hostname>)
        (PORT = 1521))
      (ADDRESS =
        (PROTOCOL = IPC)
        (KEY = extproc_key))
    )
  )

SID_LIST_LISTENER =
  (SID_LIST =
    (SID_DESC =
      (PROGRAM = extproc)
      (SID_NAME = extproc_agent_1521)
      (ORACLE_HOME = /u00/oracle/product/12.1.0.2)
      (ENVS='EXTPROC_DLLS=ANY')
    )
    (SID_DESC =
      (SID_NAME = prod_sid1)
      (ORACLE_HOME = /u00/oracle/product/12.1.0.2)
      (ENVS='TNS_ADMIN=/dba/network/extproc_1521')
    )
  )
```

> **Note:** This example illustrates the configuration of net services for External procedures, container and non-container databases. It does not include environment specific settings that may be needed. Consult Oracle Net Services guides for additional information

```
###############################################################
# File: tnsnames.ora
# Desc: Net Services configuration file.
# Note: Change these values: <service_name>, <oracle_sid>, <hostname>,
#       <global_name>
###############################################################

EXTPROC_CONNECTION_DATA =
  (DESCRIPTION =
    (ADDRESS_LIST = (ADDRESS = (PROTOCOL = IPC)(Key = extproc_key)))
    (CONNECT_DATA = (SID = extproc_agent)))

EXTPROC_CONNECTION_DATA.world =
  (DESCRIPTION =
    (ADDRESS_LIST = (ADDRESS = (PROTOCOL = IPC)(Key = extproc_key)))
    (CONNECT_DATA = (SID = extproc_agent)))

< Connect_string> =
  (DESCRIPTION =
    (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)(host = <hostname>)(Port = 1521)))
    (CONNECT_DATA = (Service_Name = <Service_Name>) (GLOBAL_NAME =
<global_name>)))

<Connect_String>.world =
  (DESCRIPTION =
    (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)(host = <hostname>)(Port = 1521)))
    (CONNECT_DATA = (Service_Name = <Service_Name> >) (GLOBAL_NAME =
<global_name>)))

< Connect_string>  = (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL =
tcp)(host = server_01)(Port =  1521))) (CONNECT_DATA =  (SERVICE_NAME =
<Service_Name>))))

<Service_Name>.world = (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL =
tcp)(host = server_01)(Port = 1521))) (CONNECT_DATA =  (SERVICE_NAME =
<Service_Name>))))
```

Example:
```
EXTPROC_CONNECTION_DATA =
  (DESCRIPTION =
    (ADDRESS_LIST = (ADDRESS = (PROTOCOL = IPC)(Key = extproc_key)))
    (CONNECT_DATA = (SID = extproc_agent)))

EXTPROC_CONNECTION_DATA.world =
  (DESCRIPTION =
    (ADDRESS_LIST = (ADDRESS = (PROTOCOL = IPC)(Key = extproc_key)))
    (CONNECT_DATA = (SID = extproc_agent)))
```

Database configuration for tnsnames entries (Container and Non-container):
```
prod_sid1 =
  (DESCRIPTION =
    (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)(host = server_01)(Port = 1521)))
    (CONNECT_DATA = (Service_Name = prod_sid1) (GLOBAL_NAME = prod_sid1.world)))
```

```
prod_sid1.world =
  (DESCRIPTION =
    (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)(host = server_01)(Port = 1521)))
    (CONNECT_DATA = (Service_Name = prod_sid1) (GLOBAL_NAME = prod_sid1.world)))
```

Pluggable Database configuration for tnsnames entries:

```
pdb1 = (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)(host =
server_01)(Port =  1521))) (CONNECT_DATA =  (SERVICE_NAME = pdb1)))

pdb1.world = (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)(host =
server_01)(Port = 1521))) (CONNECT_DATA =  (SERVICE_NAME = pdb1)))
```