Oracle FLEXCUBE Investor Servicing Application Setup

Oracle FLEXCUBE Investor Servicing

Release 12.0.1.1.3

[May] [2013]

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1. Setting up Application in Centralized Mode

1.1 Introduction

In centralized mode of installation, Oracle FLEXCUBE Investor Servicing Host and Branch components are bundled together to generate a single Enterprise Application (EAR).This single EAR file is then deployed to an Enterprise Application Server.

This manual gives systematic instructions for setting up Oracle FCIS Application in centralized mode.

1.2 Prerequisites

Ensure that you have created the property file before building the application.

1.3 Preparing Source Folders

In order to create Oracle FCIS Application with Reports, Scheduler, and DMS as plug-ins, you need to copy the following folders to the Source Directory.

Folder	Destination Folder	Action
FCUBS	Source_Dir/FCUBS	Copy the FCUBS folder from Shipment media to the Source Directory.
FRONTEND	Source_Dir/FRONTEND	Copy the entire FRONTEND folder from Shipment media into the Source Directory. This is optional. The purpose of copying entire FCUBS folder into source directory is that, Installer can copy all JS and UIXML files at the time of EAR creation itself. Otherwise, after building the EAR and deploying it in the Application Server, all the JS and UIXML units can be copied manually to Application folder.

1.4 Building Application for Setup

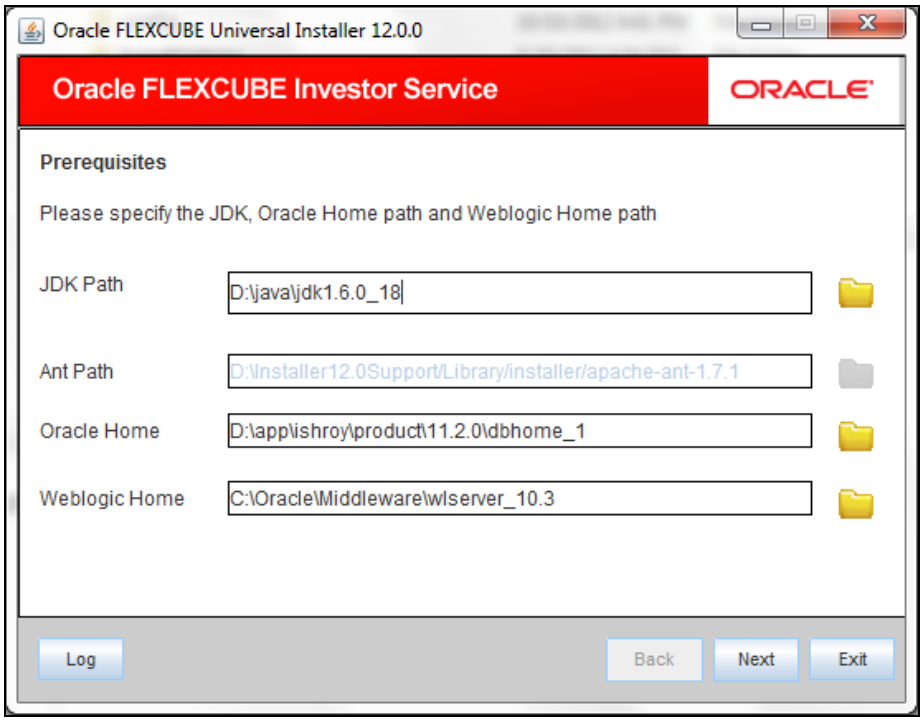
The process of building EAR files includes the following steps:

- Load property file
- Copy sources
- Compile sources

- Build sources

To build the application for setup using the installer, follow the steps given below.

1. Launch Oracle FLEXCUBE Investor Servicing Installer. The following screen is displayed.



2. Specify the following details:

JDK Path

Specify the location of the JDK. You can use the directory button to browse to the JDK location.

Ant Path

The Installer displays the ANT location. This is displayed only for information purpose.

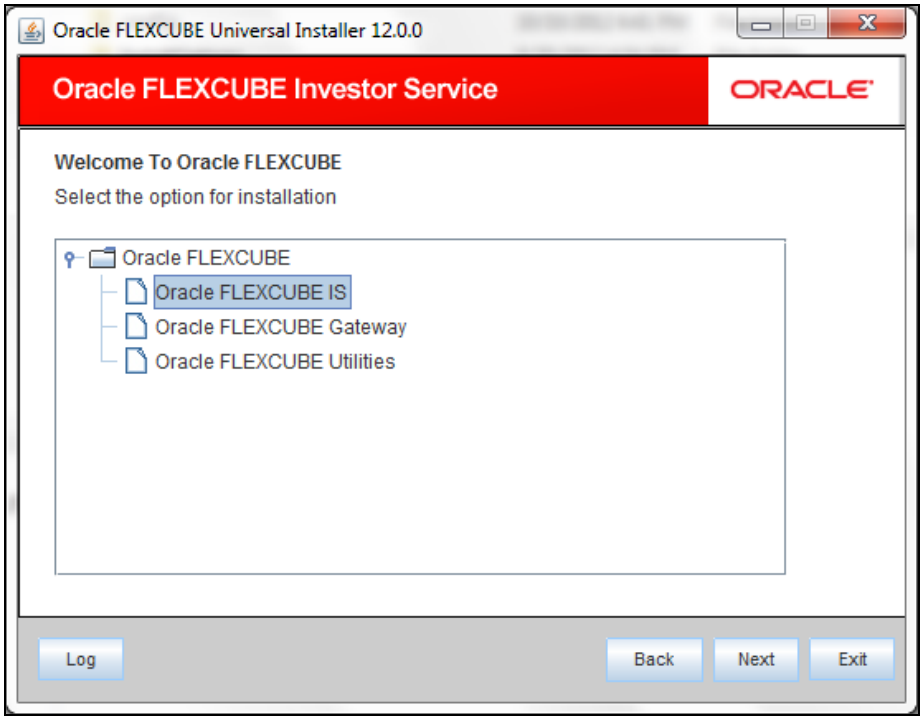
Oracle Home

Specify the location of the Oracle Home installation. You can use the directory button to browse to the location.

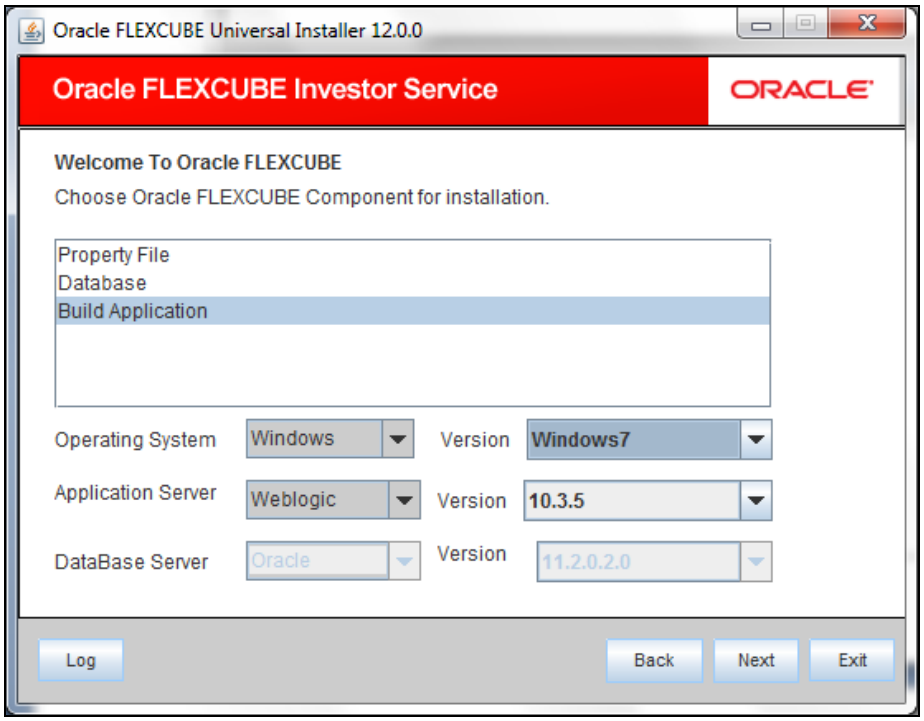
Weblogic Home

Specify the location of the Weblogic Home installation. You can use the directory button to browse to the location

3. Click ‘Next’ to proceed. The following screen is displayed.



4. Choose ‘Universal Banking Solution’ and click ‘Next’. The following screen is displayed.



5. Choose the option ‘Build Application’. You also need to specify the following details:

Operating System and Version

Specify the operating system in which you are building the Application. Choose the appropriate one from the drop-down list. You also need to specify the version of the selected operating system.

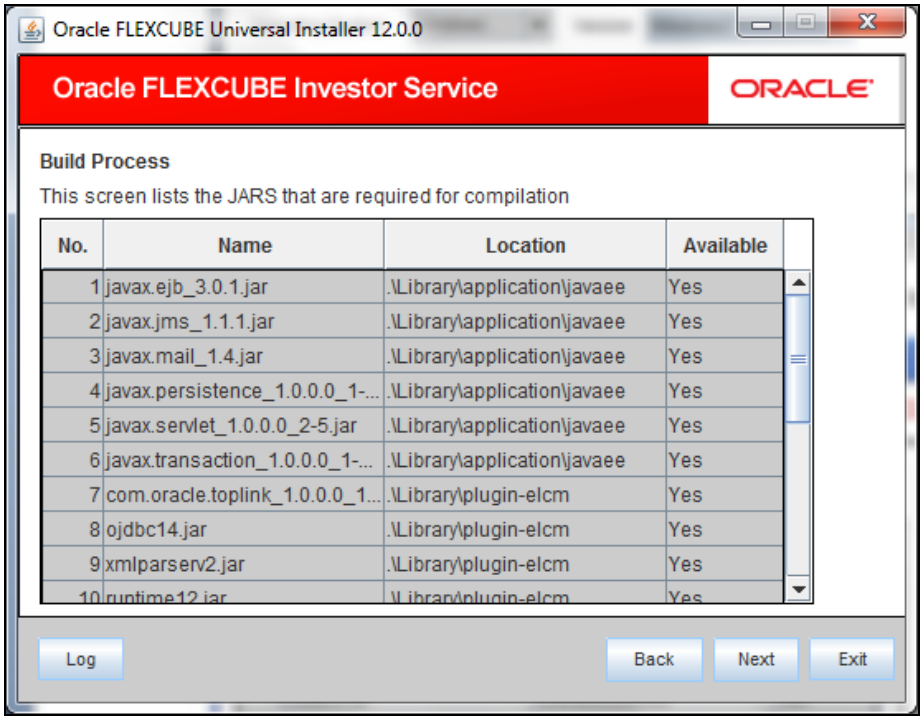
Application Server and Version

Specify the application server in which you are building the Application. Choose the appropriate one from the drop-down list. You also need to specify the version of the selected application server.

Database Server and Version

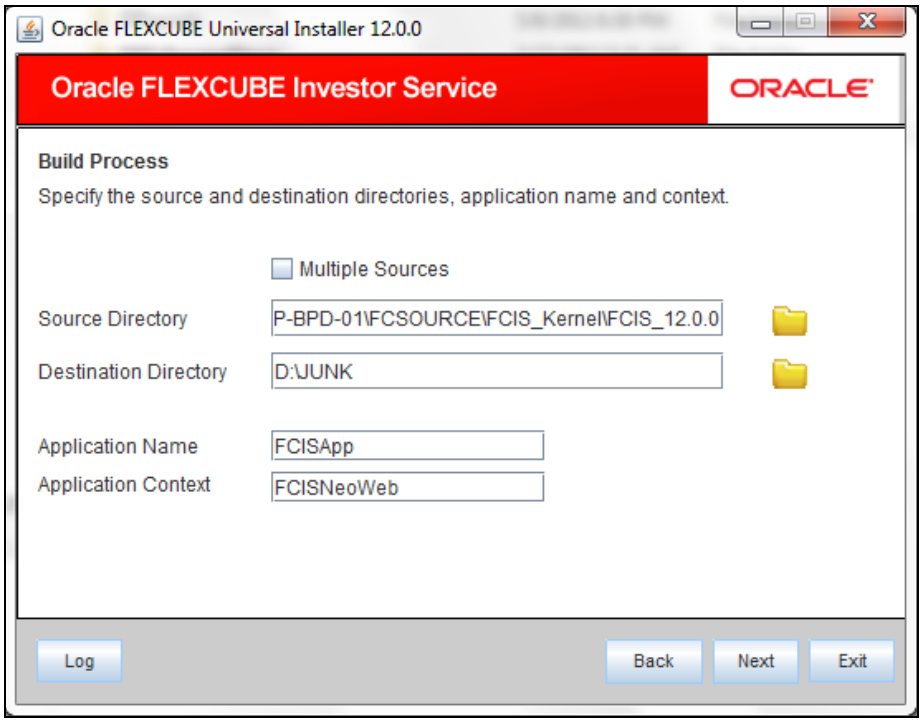
Specify the database server in which you are building the Application. Choose the appropriate one from the drop-down list. You also need to specify the version of the selected database server.

6. Click 'Next' to continue. The Installer displays the list of JAR files that are required for the compilation in the following screen.



Note: This screen is not available in EXEC mode.

7. Verify the details and click 'Next'. You will be prompted to specify the application details in the following screen.



8. Specify the Application Details as given below:

Source Directory

Specify the location of the application source directory. The source directory will have the following folders:

- FCUBS (Copied from Shipment media)
- FRONTEND (Copied from Shipment media) (optional)

Use the directory icon to browse and select the source directory.

Check the box ‘Multiple Sources’ to use multiple source directories.

Destination Directory

Specify the directory where the application should be setup. The installer will copy the source files from the Source Directory to the Destination Directory.

Use the directory icon to browse and select the destination directory.

Application Name

Specify a name for the Application to be deployed.

You cannot use space or special characters such as ‘.’ (dot), ‘,’ (comma), ‘$’ etc. However, you may use ‘_’ (underscore).

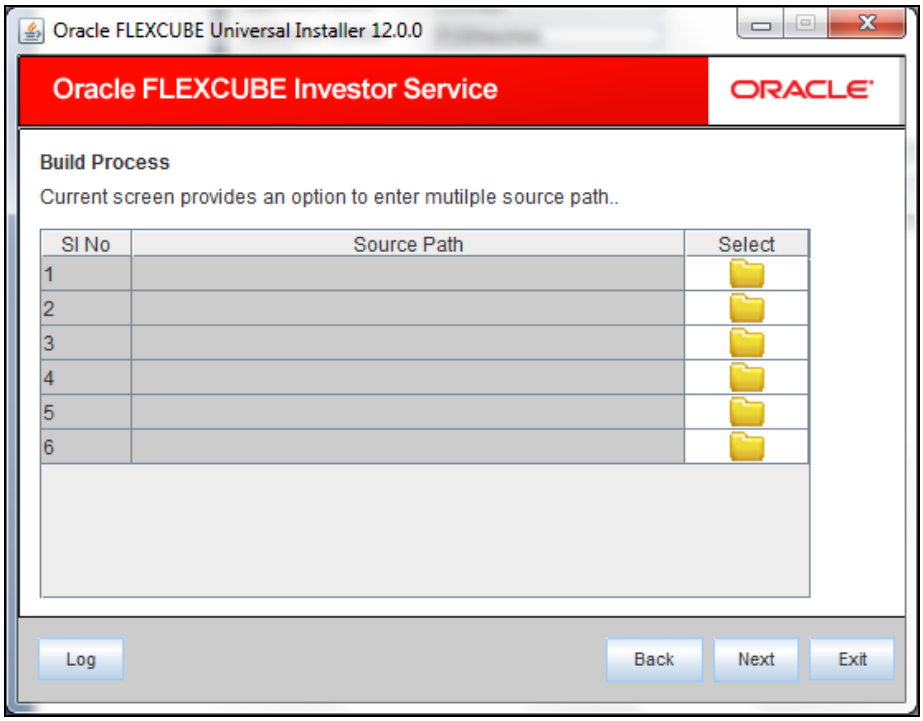
Application Context

Based on the Application type selected, the Installer displays the application context. However, you may modify the default value.

This information will be updated in ‘application.xml’. In case of a WebLogic server, this will be updated in ‘weblogic.xml’.

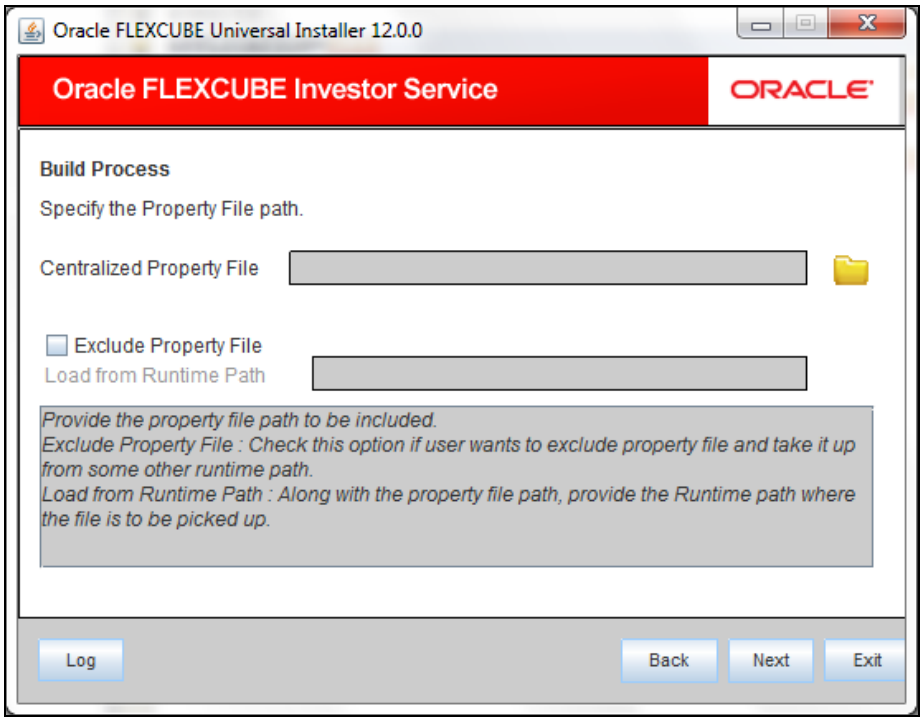
Multiple Sources

In case of Cluster/Patch releases, you can get the files from multiple source directories. If you check this box, the installer will not allow you to specify the source directory in this screen. On clicking ‘Next’, the following screen is displayed.



You can select all the source directories in this screen. The Installer will copy the sources from the multiple locations into the destination directory. You can have consolidated sources in the destination directory.

9. Once you have specified the details, click ‘Next’ to continue. The screen for building property file is displayed.



10. Specify the following details:

Centralized Property File

Specify the location of the centralized property file. You can use the directory button to browse and select the directory.

The property file is required for EAR building.

Exclude Property File

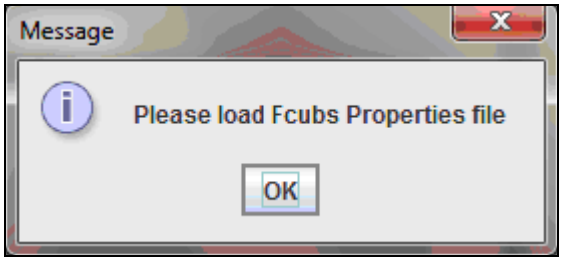
Check this box to exclude the property file. By checking this box, you can include a property file from the runtime path.

If you check this box, you need to specify the location of the property file in the field ‘Load from Runtime Path’.

Load from Runtime Path

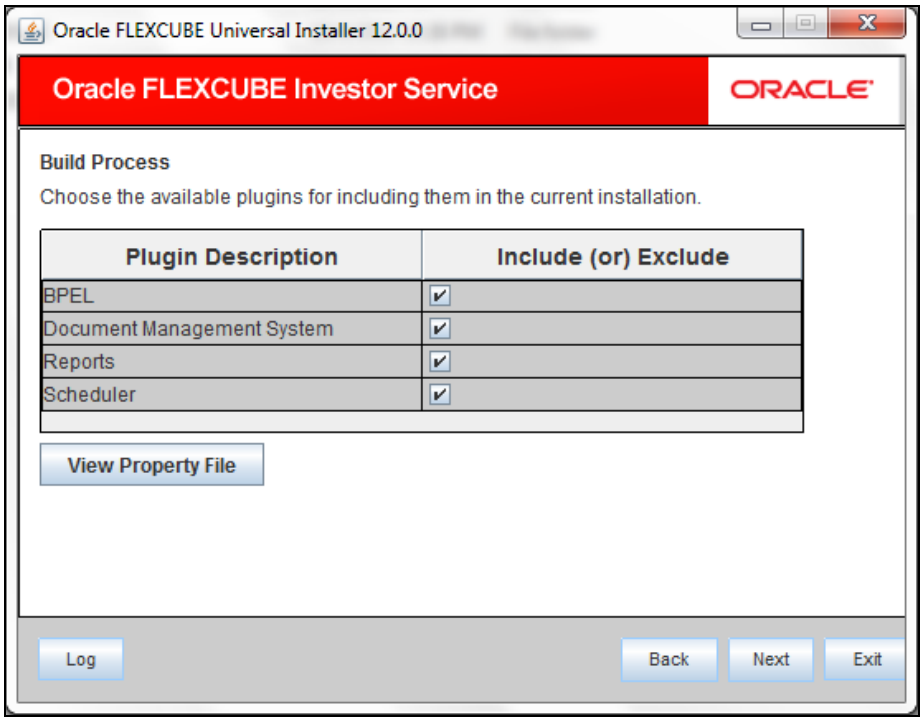
If you have checked the box ‘Exclude Property File’, you need to specify the runtime path from where the Installer will pick up the property file.

It is mandatory to load the property file. If you do not load a property file, the installer will display the following error message:



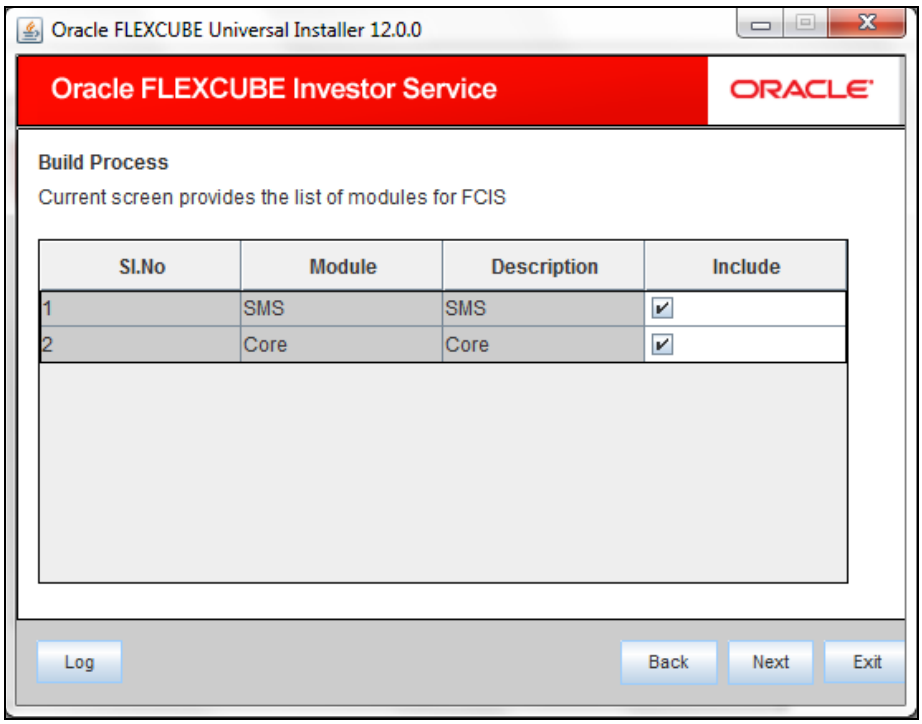
You need to load the property file to continue. Once the property file is loaded, Plugin screen is displayed.

11. Once you have specified the details, click ‘Next’ button.



12. You need to select the plug-ins to be included in the installation. Check the box against the required plug-ins.

13. Click ‘Next’ to continue. The following screen is displayed.

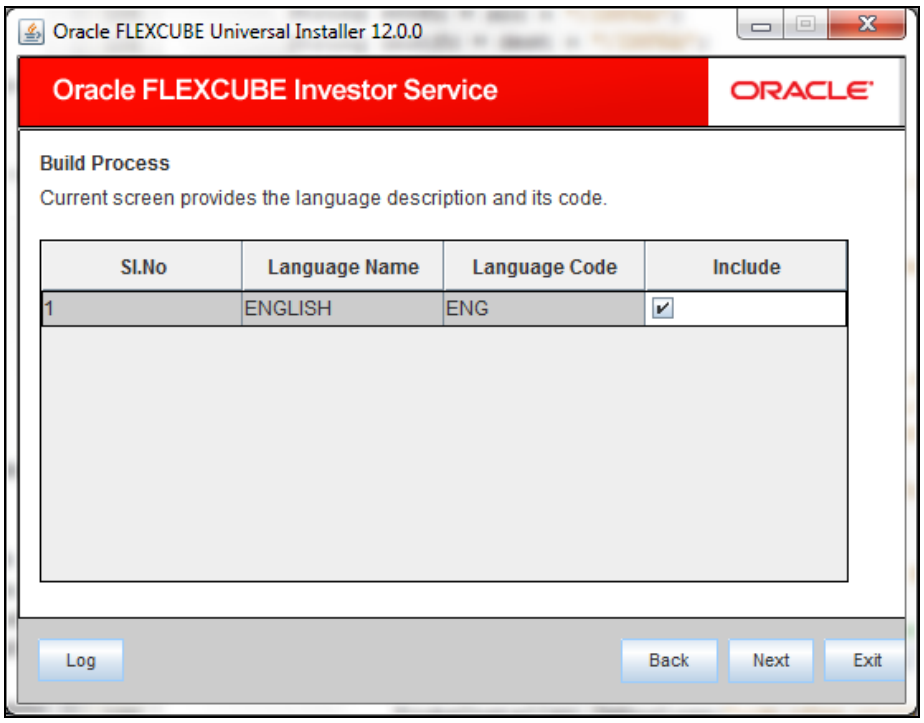


14. Select the modules to be included.
    On including the modules, the Installer copies the following files from source folder to the destination folder if the module is available in the FRONTEND folder of the Source Directory.

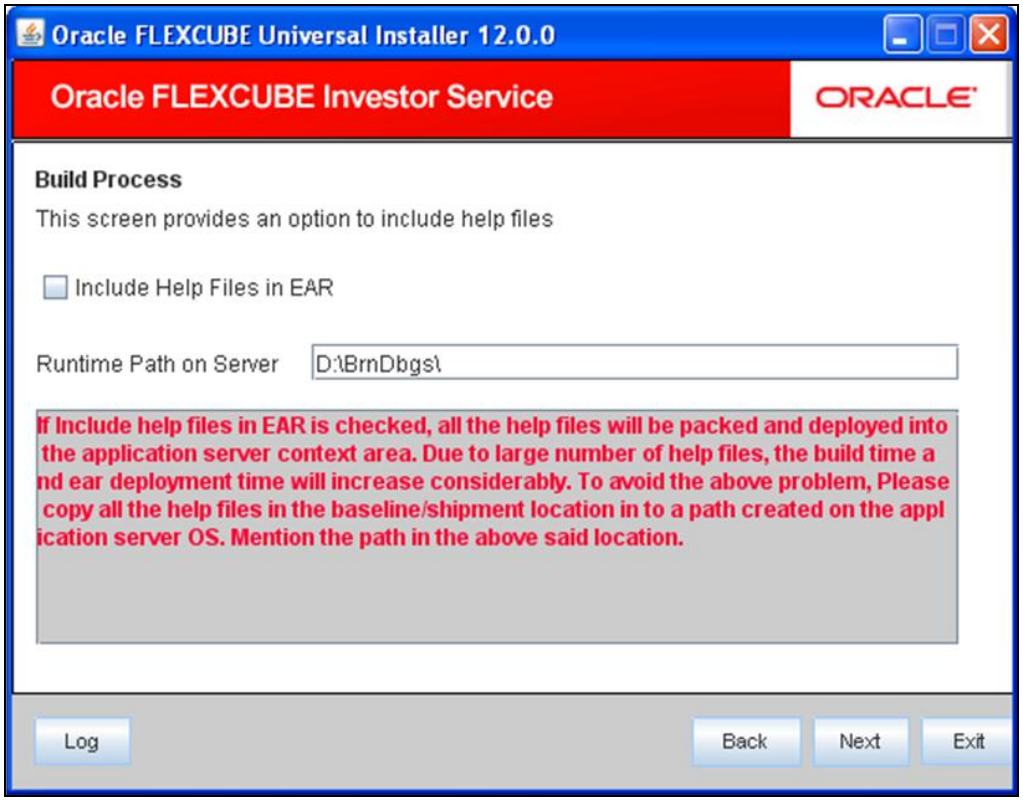
    - All the JS files from FRONTEND/SCRIPT/JS to the folder FCJNeoWeb/WebContent/Script/JS in the destination directory
    - All the XML files from FRONTEND/UIXML/ENG/ to the folder FCJNeoWeb/WebContent/UIXML/ENG in the destination directory

    If the FRONTEND folder is not copied to the Source Directory, then, after deployment of EAR file, you need to manually copy these files into the deployed location.

15. Click ‘Next’. The following screen is displayed.

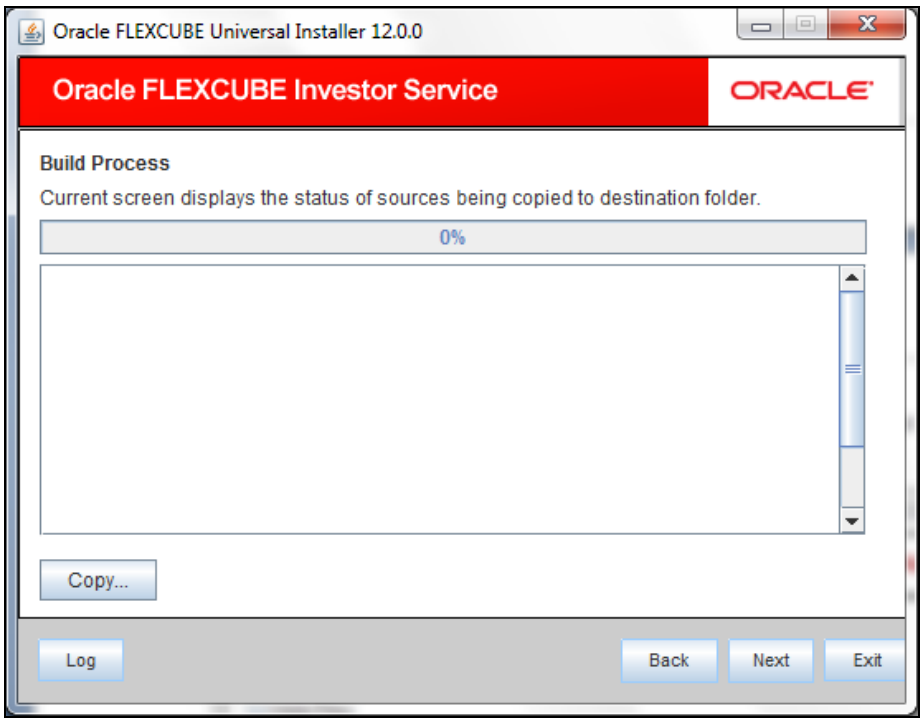


16. Select the languages to be included and click ‘Next’. The following screen is displayed.

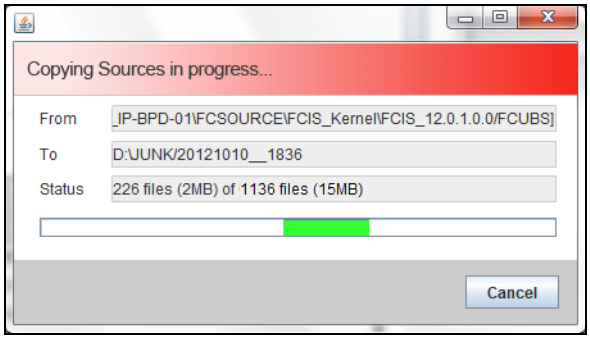


17. Check the box ‘Help Files’ to include the help files in the installation. If you do not require the help files, leave the box unchecked.
18. Create a HELP folder inside Runtime Path say for Example D:\BrnDbgs\ and unzip the HTML and copy.

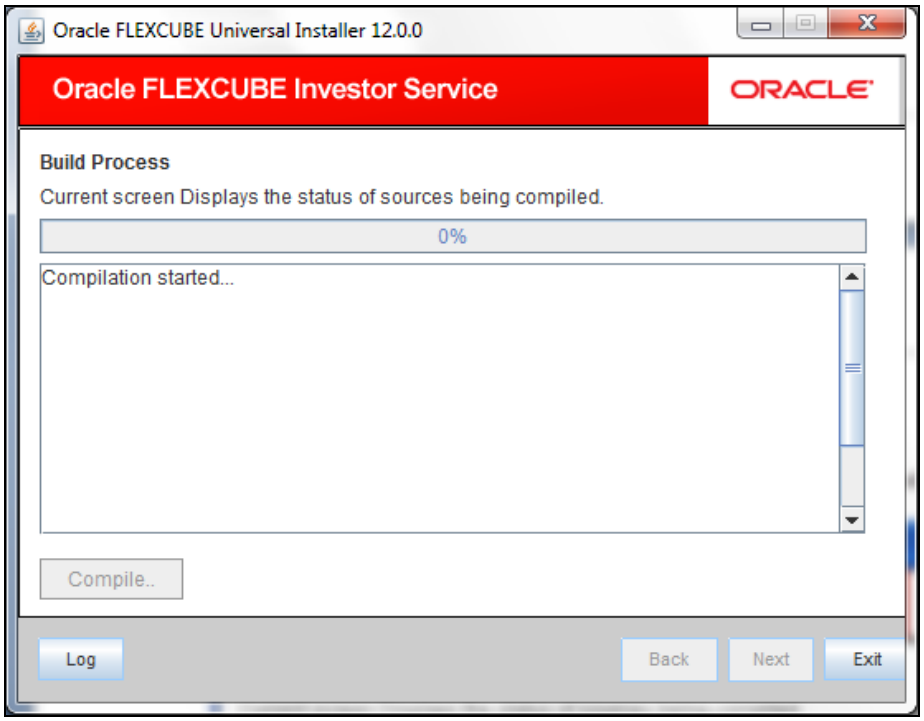
    The final folder structure should be similar to {Runtime Path}\HELP\{help}.htm. For example, D:\BrnDbgs\HELP\123.htm
19. Click ‘Next’. The Oracle FLEXCUBE Investor Servicing Installer copies the files to the destination folder.



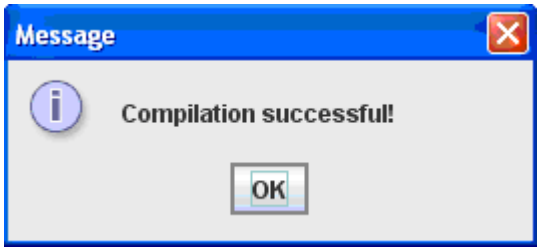
20. You can view the status of the copy process in the following screen.



21. Once the files are copied, the installer starts compiling the sources. You can view the status of the compilation process in the following screen.



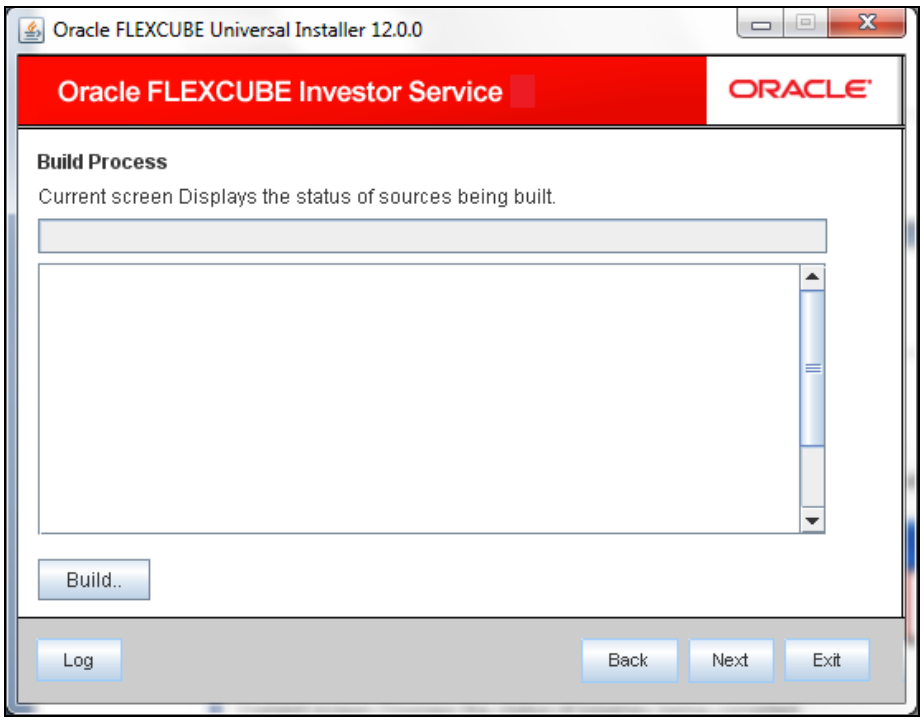
22. The following message is displayed after successful compilation.



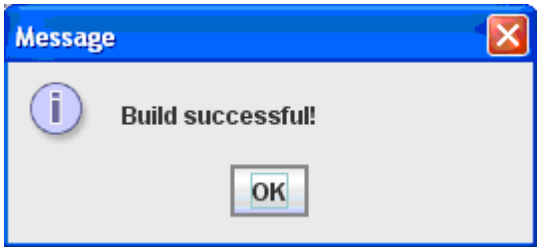
23. The Installer starts building the EAR/WAR files after compilation.

Note: The Compilation screen is not available in EXEC Installation.

24. While copying the sources, the Installer copies all the plug-ins whether you have selected them or not. At this stage, the installer deletes the plug-ins that are not selected.



25. The Installer creates the EAR/WAR files in the destination directory. After successful build process, the following message is displayed.



The EAR file will be available in selected EAR file location. If you have opted for BPEL, then FCBPELCIS.jar file will also be available in the EAR file location.

2. Pre-Deployment Tasks

2.1 Introduction

You need to carry out certain tasks manually before Oracle FLEXCUBE Investor Servicing deployment. This chapter details out the pre-deployment tasks based on the on the selected plug-ins.

2.2 Integrating Oracle FLEXCUBE Investor Servicing and BPEL

If you have created the EAR file with BPEL as a plug-in, then along with the Oracle FLEXCUBE Investor Servicing EAR file, the Installer creates 'FCBPELCIS.jar' file. You need to complete the following tasks before deploying Oracle FLEXCUBE Investor Servicing EAR file.

2.2.1 Configuring JPS

For configuring JPS, you need to follow the steps given below:

1. Go to the location – '<ORACLE_HOME>\Middleware\user_projects\domains\<Domain_created>\config\fmwconfig'

   Open 'jps-config.xml' file. Search for '<serviceProviders>' tag and add the following code between '<serviceProviders>' and '</serviceProviders>' tags.

   ```
   <serviceProvider
   class="com.ofss.fcc.bpel.security.jps.service.FCIdentityServiceProvider"
   name="idstore.db.provider" type="IDENTITY_STORE">

   <description>DB IdentityStore Provider</description>

   </serviceProvider>
   ```

   Similarly, Search for '<serviceInstances>' tag and add the following code between '<serviceInstances>' and '</serviceInstances>' tags.

   ```
   <serviceInstance provider="idstore.db.provider" name="idstore.db">

       <property value="flexcube" name="subscriber.name"/>

       <property value="jdbc/fcjdevDS" name="datasource"/>

   </serviceInstance>
   ```

   Note: Make sure that the JNDI (jdbc/fcjdevDS) matches the value given during property file creation.

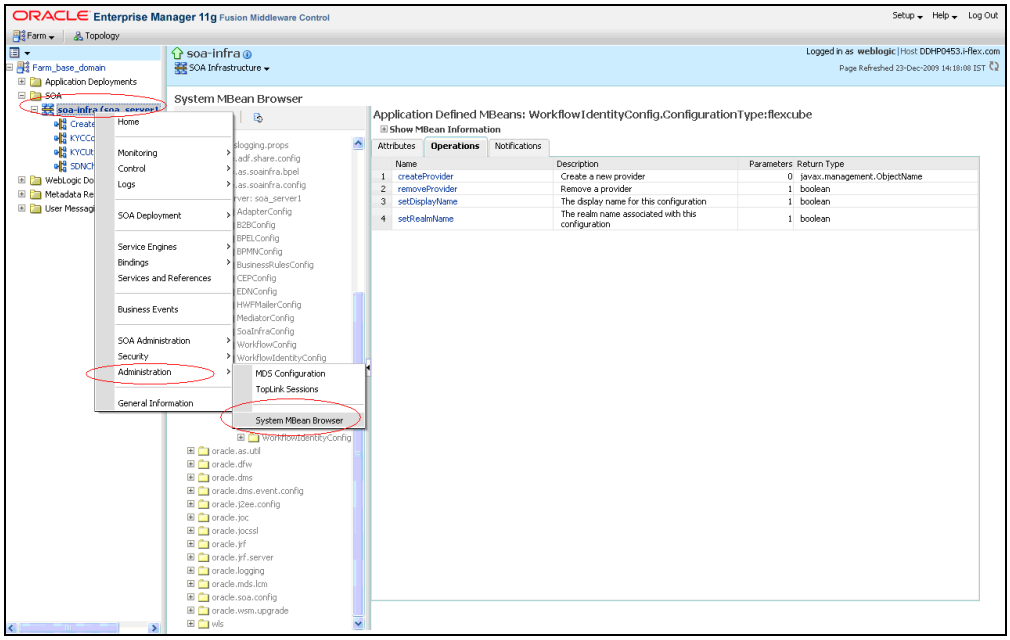
Search for ‘<jpsContexts default="default">’ tag and add the following code between ‘<jpsContexts default="default">’ and ‘</jpsContexts>’, preferably after the default ‘jpsContext’.

```
<jpsContext name="flex">

            <serviceInstanceRef ref="credstore"/>

    <serviceInstanceRef ref="keystore"/>

    <serviceInstanceRef ref="policystore.xml"/>

    <serviceInstanceRef ref="audit"/>

    <serviceInstanceRef ref="idstore.db"/>

</jpsContext>
```

2.2.2 Configuring Work Flow Identity

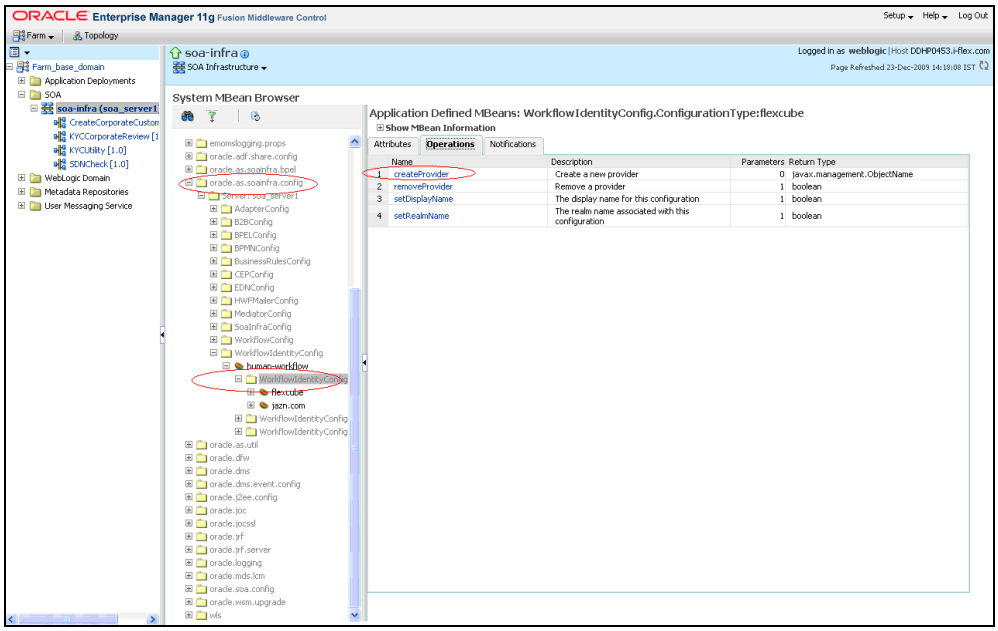
You need to configure the workflow identity details from Enterprise Manager Console of the SOA. To configure workflow identity details, follow the steps given below.

1. Login to EM Console. Expand the SOA.

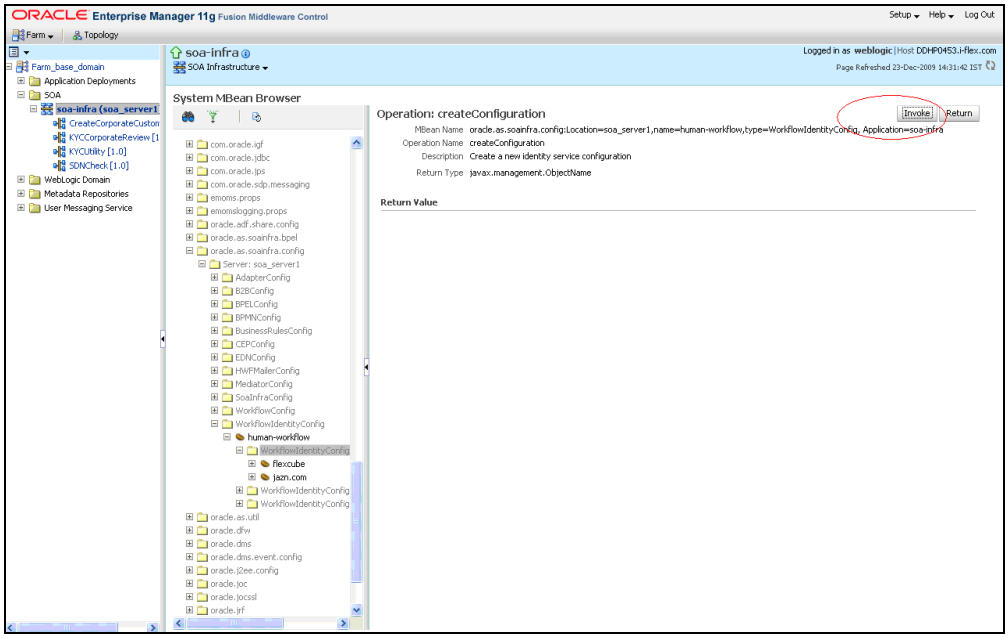


Right click ‘soa-infra(soa-server1)’, choose ‘Administration’ and click ‘System MBean Browser’ under it.

2. Further, under System MBean Browser, go to ‘oracle.as.soainfra.config > Server: soa_server1 > WorkflowIdentityConfig > human-workflow’.



3. Under the ‘Operations’ tab, choose ‘createProvider’ option. The following screen is displayed.

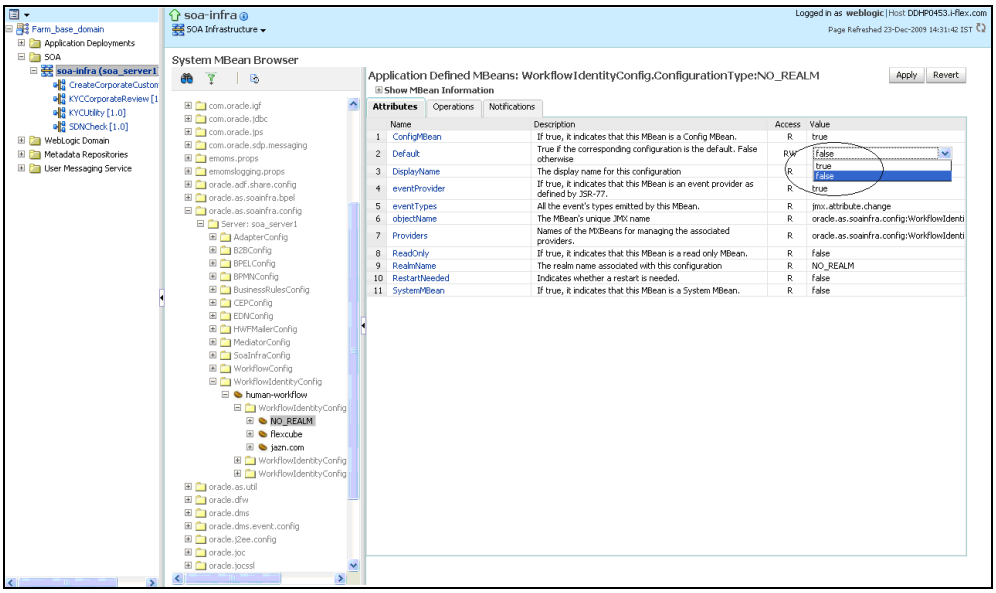


4. Click ‘Invoke’ button. The SOA displays the following confirmation message.

Confirmation

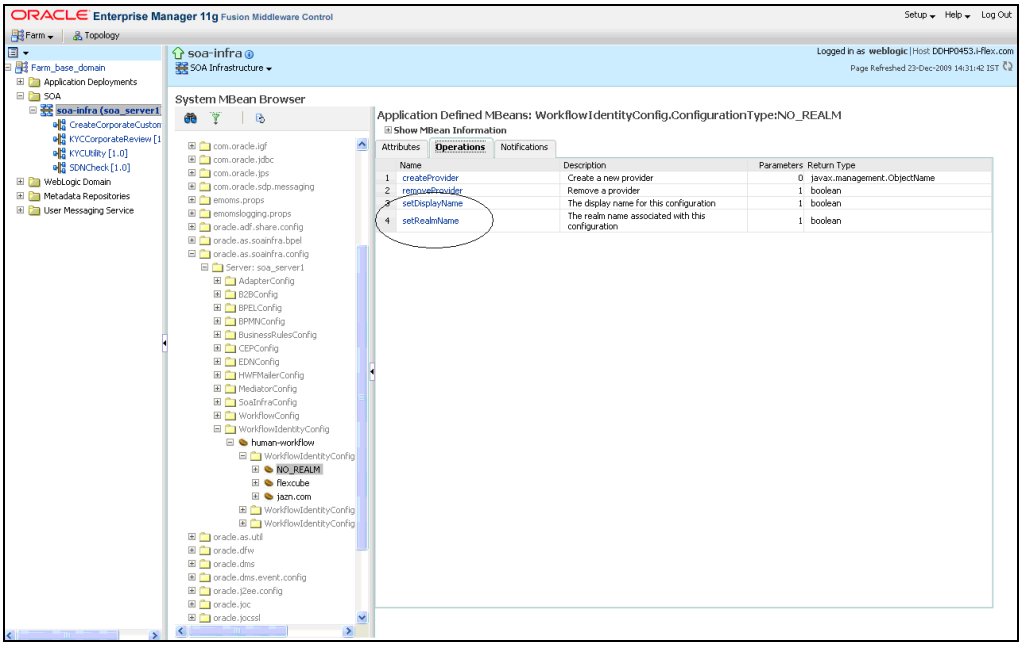
Operation executed successfully.

5. Refresh ‘MBean’ browser. Go to ‘WorkflowIdentityConfig.ConfigurationType’ under ‘human-workflow’.

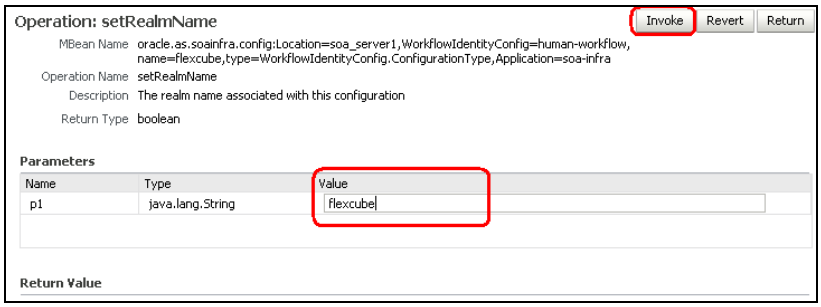


6. Click ‘NO_REALM’. On the right side, select ‘Attributes’ tab and change the value of ‘Default’ from NO_REALM to ‘true’.

7. Further, under the ‘Operations’ tab, click ‘setRealmName’.



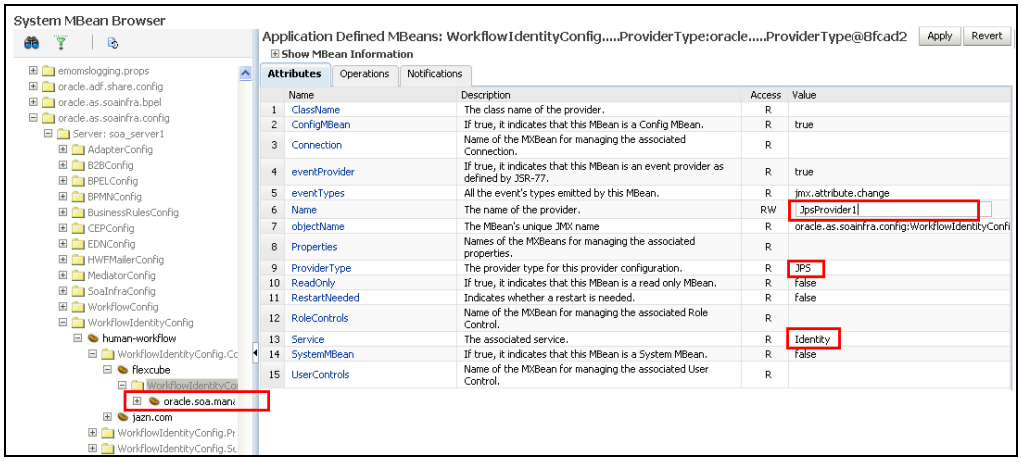
8. The following screen is displayed:



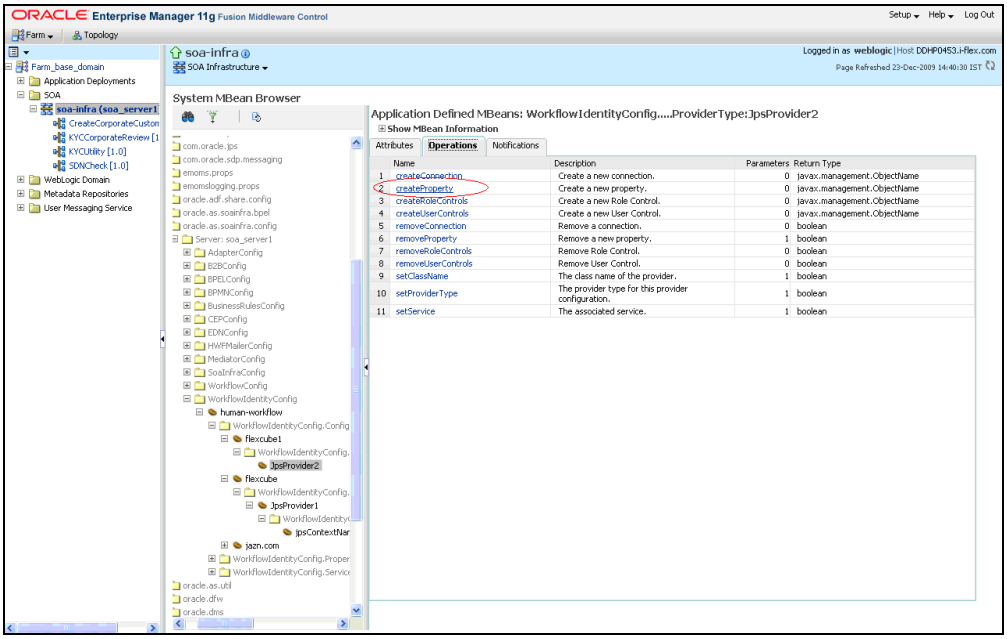
9. Specify the value of the parameter as ‘flexcube’ and click ‘Invoke’ button.

10. Refresh the ‘MBean’ browser. Go to flexcube > WorkflowIdentityConfig.ConfigurationType.ProviderType > oracle.soa.management.config.identity.ProviderType@.... Under the ‘Attributes’ tab, you need to make sure that the values of the following attributes are as per the table below:

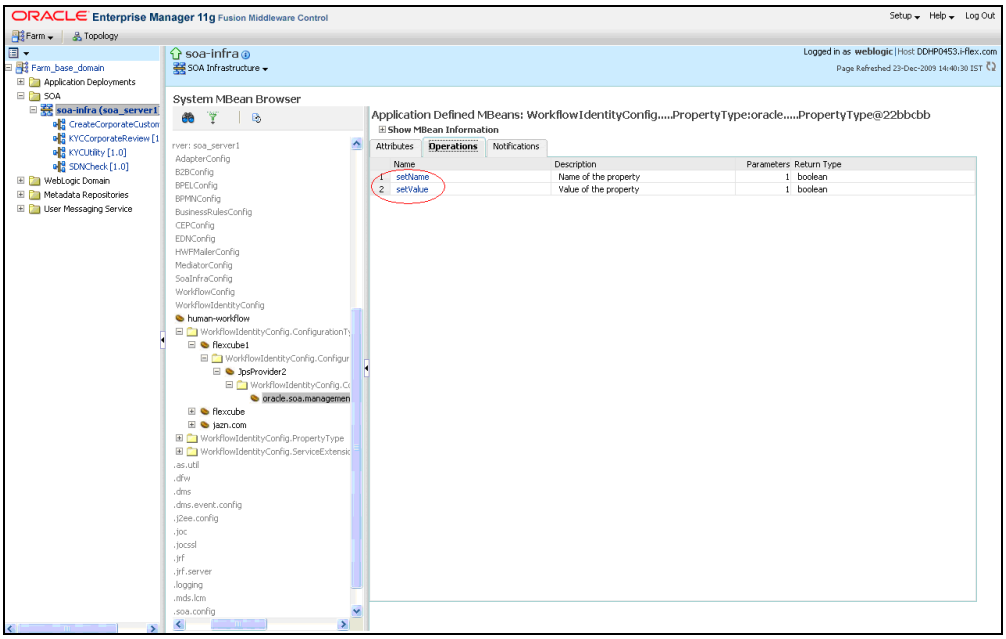
Attribute	**Value**
Name	JpsProvider1
PropertyType	JPS
Service	Identity



11. Under ‘Operations’ tab, select the operation ‘CreateProperty’ and click ‘Invoke’ button. A new Property is created under ‘JpsProvider1’.



12. Select the new property and change its Name and Value.

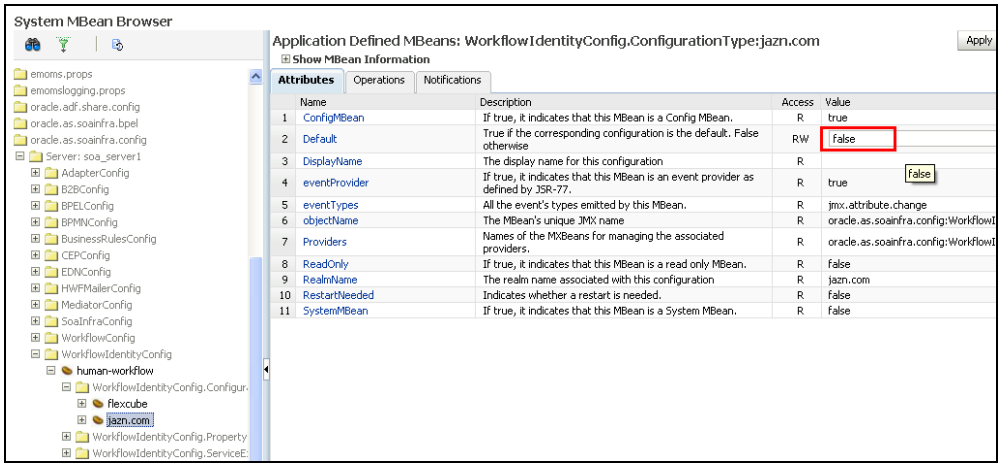


You can use the options ‘setName’ and ‘setValue’ to update the name and value. Change the name and value as per the following table.

Name	**Value**
jpsContextName	flex

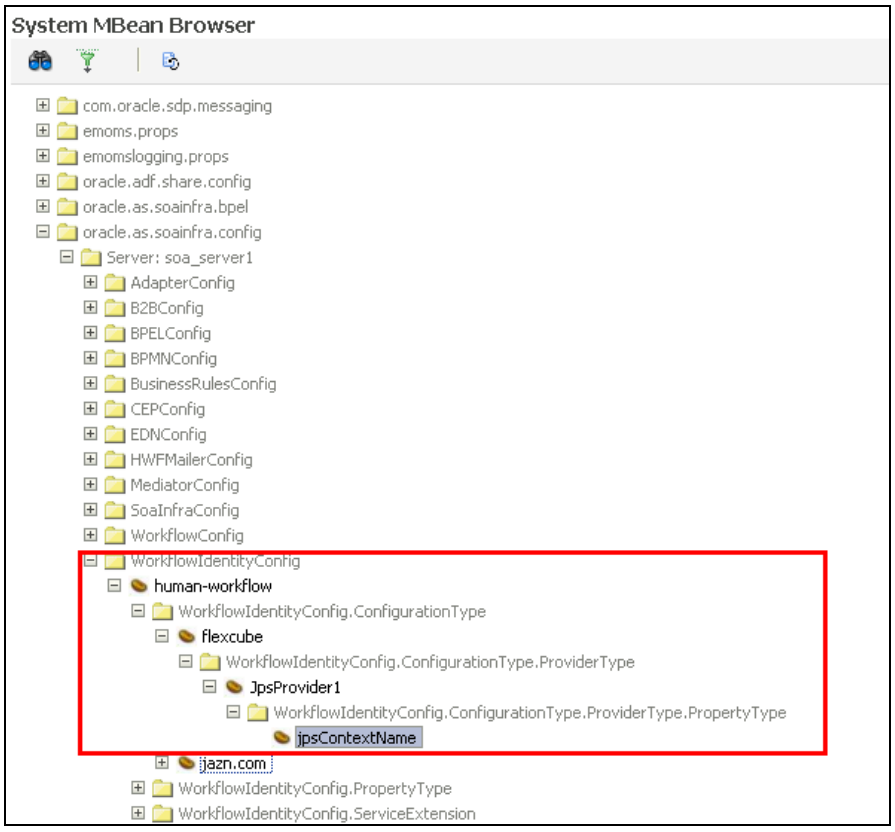
Note: the value ‘flex’ should match the value given for ‘jpsContext’ during JPS configuration.

13. From the ‘System MBean Browser’ select ‘jazn.com’.

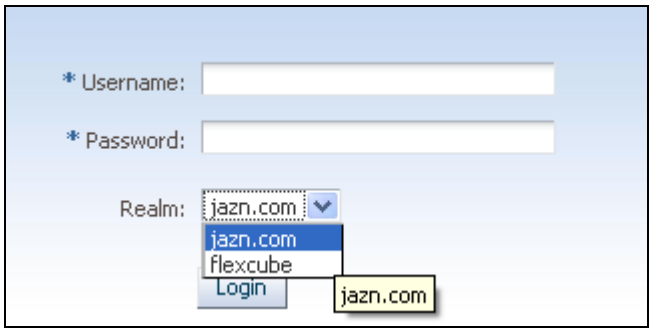


14. Under ‘Attributes’ tab, change the value of the attribute ‘Default’ to ‘false’.

15. Now, restart the Weblogic and SOA servers. After restarting the servers, make sure the structure is as follows.



16. Launch the ‘SOA Worklist App’ using the following URL:
http://(IP_Address):(soa_server-port_no)/integration/worklistapp
You will get the login page.



17. Under Realm, the drop-down list should show the options ‘flexcube’ and ‘jazn.com’. Verify the details.

2.2.3 Configuring CIS

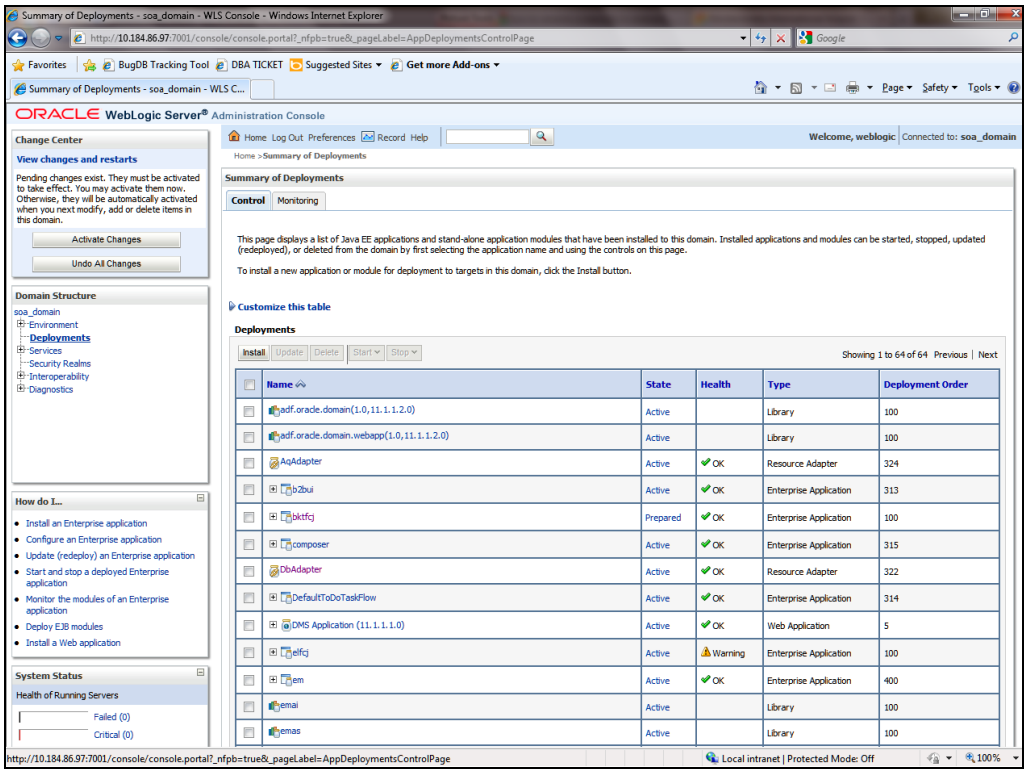
You need to configure the CIS details. Follow the steps given below:

1. Along with the Oracle FLEXCUBE Investor Servicing EAR file, the Installer creates ‘FCBPELCIS.jar’ file.
2. Create a folder by name ‘classes’ at the location ‘<MIDDLEWARE_HOME>Oracle_SOA1\soa\modules\oracle.soa.ext_11.1.x’.
3. Extract the file ‘FCBPELCIS.jar’ and copy the content of the folder ‘com’ to: ‘<MIDDLEWARE_HOME>Oracle_SOA1\soa\modules\oracle.soa.ext_11.1.x\classes’.
4. Now, navigate to the location ‘<MIDDLEWARE_HOME>Oracle_SOA1\soa\modules\oracle.soa.ext_11.1.x\classes\com\ofss\fcc\bpel\’ and delete the folders ‘dao’ and ‘security’.
5. Navigate to the location ‘<MIDDLEWARE_HOME>Oracle_SOA1\soa\modules\oracle.soa.ext_11.1.x\classes\com\ofss\fcc\bpel\cac’. Edit the properties file ‘CISProperties.properties’ and update ‘JNDI.name’ with the JNDI name defined in the properties file ‘fcubs.properties’.
6. Copy ‘FCBPELCIS.jar’ to ‘<MIDDLEWARE_HOME>/user_projects/domains/<domain_name>/lib
7. Once the above steps are completed, restart the server.

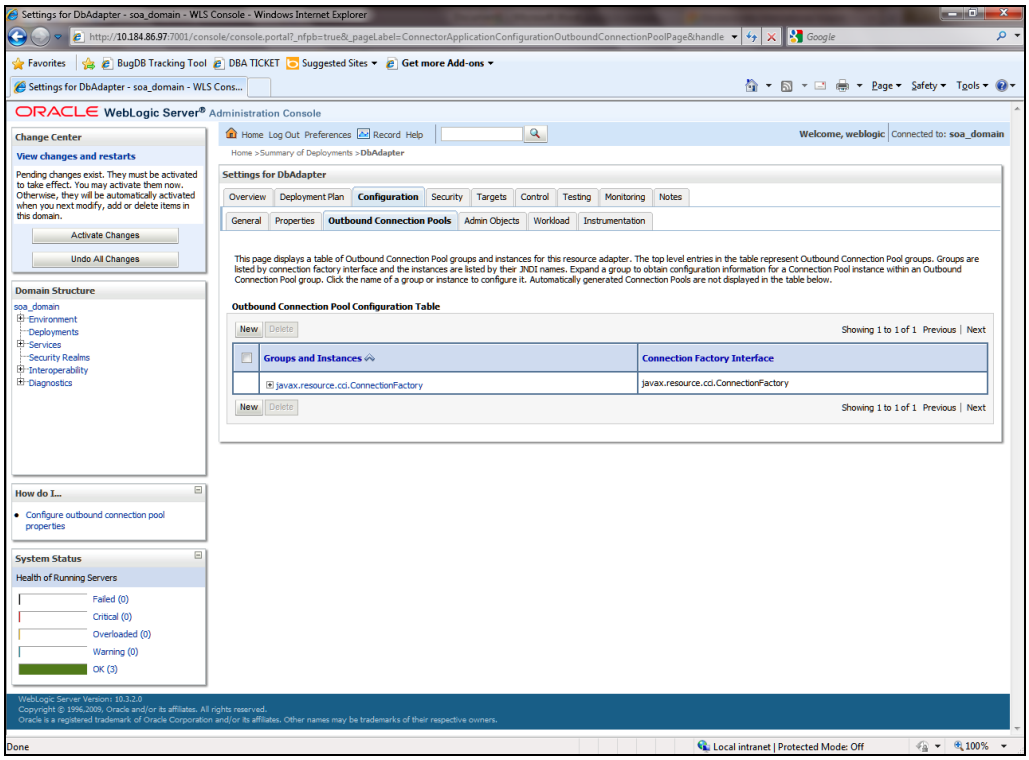
2.2.4 Configuring DBAdapter

In order to configure DBAdapter, follow the steps given below.

1. Log in to 'Weblogic Console' and click 'Deployment' -> 'Domain Structure'.



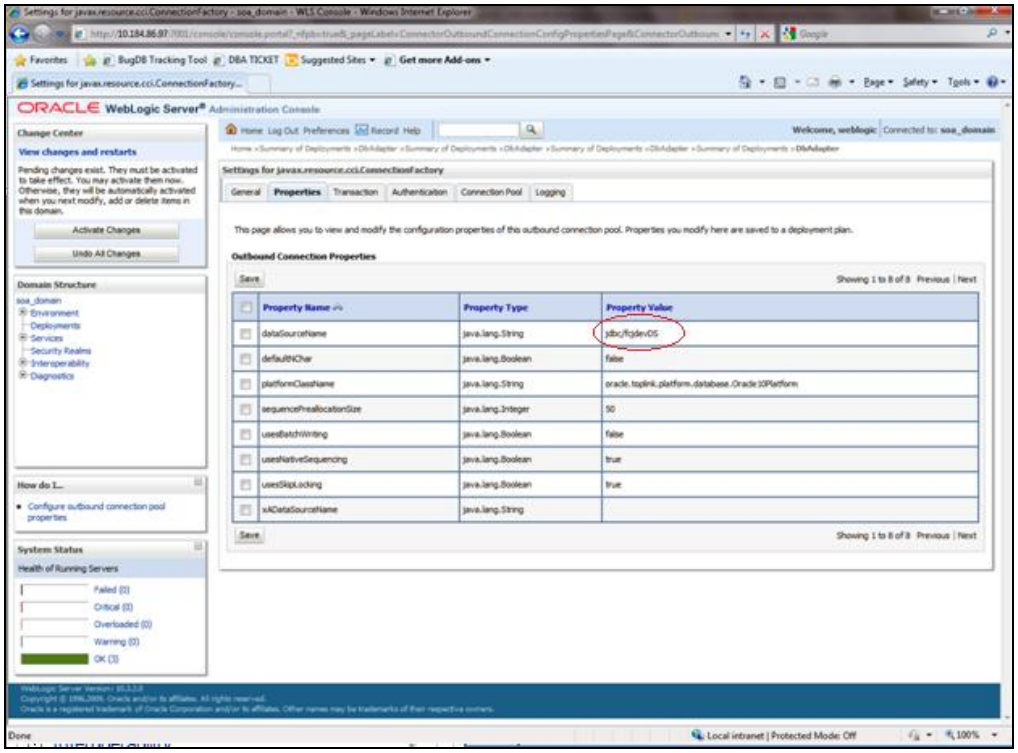
2. In the Deployments table, click 'DbAdapter'. You will be navigated to 'Settings for DbAdapter'.



3. Click ‘Configuration’ -> ‘Outbound Connection Pools’.
4. Under ‘Groups and Instances’, click and expand ‘javax.resource.cci.ConnectionFactory’.
5. Click ‘New’ and select ‘javax.resource.cci.ConnectionFactory' in Outbound Connection Group.
6. Define ‘JNDI Name’ as ‘eis/DB/FCCDEV’ and click ‘Finish’.

Note: The ‘jndi name’ should be the same as the one in ‘Dbutility sub-process’.

7. Click ‘DbAdapter’ again. The new JNDI name is listed.
8. Click on the hyperlink ‘eis/DB/FCCDEV’.



9. Click the ‘Property Value’ field for the ‘DataSourceName’ and update the application JNDI reference (given in ‘fcubs.properties’ file) and then press ‘Enter’ key.

8. Save and restart the Adminserver.

2.3 Integrating Oracle FLEXCUBE Investor Servicing and Scheduler

Before deploying the Oracle FLEXCUBE Investor Servicing EAR file, you need to carry out the following tasks.

2.3.1 Running Backend Scripts

You need to compile certain tables pertaining to Scheduler in the schema to which the Application points. The version of Quartz to be used depends on the Managed Server. If the Application is being deployed on a Managed Server which is SOA, then you need to use Quartz 1.6.0. In other cases, you may compile Quartz 1.4.4 scripts.

Follow the steps given below:

1. Download Quartz1.6.6.zip file from the following URL:
   http://www.quartz-scheduler.org/download/download-catalog.html

2. Extract the zip file.

3. Open the folder ‘Quartz-1.6.6\docs\dbTables’ folder and run ‘tables_oracle.sql’ (this is specific to Oracle Database) in the schema.

2.4 Integrating Oracle FLEXCUBE Investor Servicing and BIP Reports

You can integrate Oracle FLEXCUBE Investor Servicing and BIP reports. The details are available in the chapter ‘BIP Web Service Reports’.

2.4.1 Deploying Application Through Application Server’s Admin Console

Deployment from WebLogic Administration Console

You can find the details pertaining to the deployment of Application using WebLogic Administration Console in the chapter ‘Deploying Oracle FLEXCUBE Application on WebLogic’.

2.5 Integrating Oracle FLEXCUBE Investor Servicing and BIP Reports

In order to integrate Oracle FLEXCUBE Investor Servicing and MBean, you need to follow the below steps before deploying the Oracle FLEXCUBE Investor Servicing EAR file created with MBean as a Plugin.

2.5.1 Startup Script Modification

By default, the TopLink used in MBean uses Oracle xml parser internally. However, WebLogic Server has to use JAXPlatform.

To change the system property, follow the steps given below:

1. Go to the WebLogic domain home folder.
2. Based on the operating system used, open ‘startWebLogic.cmd’ or ‘startWebLogic.sh’ from the folder ‘bin’.
3. Search for ‘WLS_REDIRECT_LOG’. After ‘%JAVA_OPTIONS%’ add the following code under ‘if’ and ‘else’ conditions.

   “-Dtoplink.xml.platform=oracle.toplink.platform.xml.jaxp.JAXPPlatform”

   Now, the details will look like this:

```
if "%WLS_REDIRECT_LOG%"=="" (

   echo Starting WLS with line:

   echo %JAVA_HOME%\bin\java %JAVA_VM% %MEM_ARGS% -
Dweblogic.Name=%SERVER_NAME% -
Djava.security.policy=%WL_HOME%\server\lib\weblogic.policy
%JAVA_OPTIONS% %PROXY_SETTINGS% %SERVER_CLASS%
```

```
   %JAVA_HOME%\bin\java %JAVA_VM% %MEM_ARGS% -
Dweblogic.Name=%SERVER_NAME% -
Djava.security.policy=%WL_HOME%\server\lib\weblogic.policy
%JAVA_OPTIONS% -
Dtoplink.xml.platform=oracle.toplink.platform.xml.jaxp.JAXPPla
tform %PROXY_SETTINGS% %SERVER_CLASS%

) else (

   echo Redirecting output from WLS window to
%WLS_REDIRECT_LOG%

   %JAVA_HOME%\bin\java %JAVA_VM% %MEM_ARGS% -
Dweblogic.Name=%SERVER_NAME% -
Djava.security.policy=%WL_HOME%\server\lib\weblogic.policy
%JAVA_OPTIONS% -
Dtoplink.xml.platform=oracle.toplink.platform.xml.jaxp.JAXPPla
tform %PROXY_SETTINGS% %SERVER_CLASS%  >"%WLS_REDIRECT_LOG%"
2>&1

)
```

10. Restart the WebLogic server.

Oracle FLEXCUBE Investor Servicing Application Setup
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