Setting up Plug-Ins Oracle Banking Corporate Lending Release 14.5.5.0.0 [May] [2022]



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1. Setting Up Plug-Ins

1.1 Introduction

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

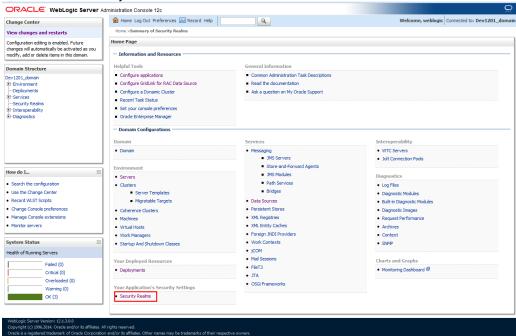
1.2 Integrating Oracle FLEXCUBE UBS and BPEL

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

1.2.1 <u>Custom Provider Configuration</u>

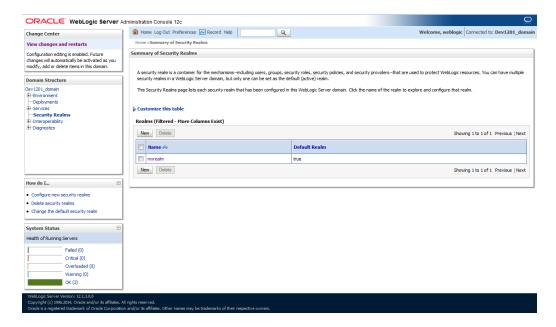
FCUBS Custom Authenticator Provider configuration has to be done from the Weblogic console of SOA or manually update the config.xml of the SOA domain. Below steps needs to be followed to setup Custom Authentication Provider:

- Along with FCUBS Ear file, Installer creates FCUBSAuthenticationProvider.jar file inside the BPELbuild folder.
 - Copy this file to the following path on the application server hostCORACLE_HOME>\wlserver\server\lib\mbeantypes
- 2. Restart the Admin Server.
- 3. Login to the Console.
- Click on Security Realms.

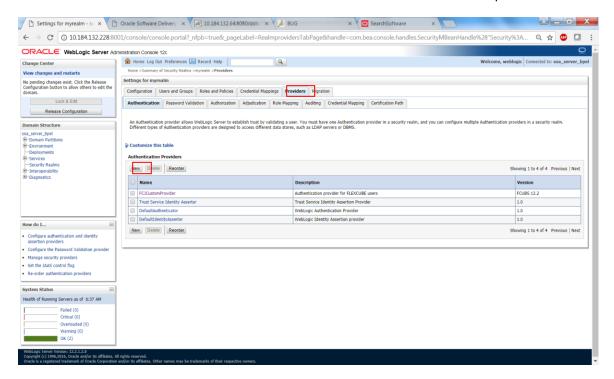


5. Click on myrealm.



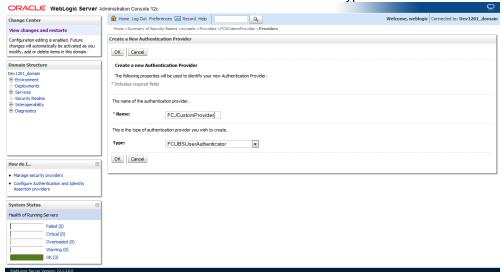


6. Click on Providers tab and click on new button to create new authentication provider.

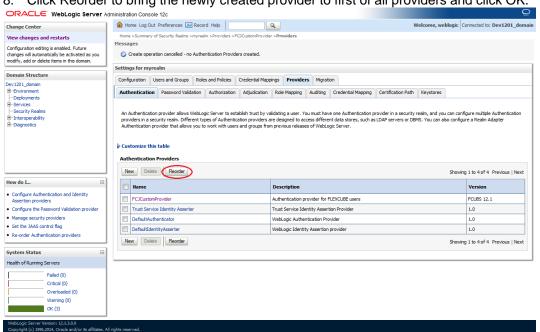




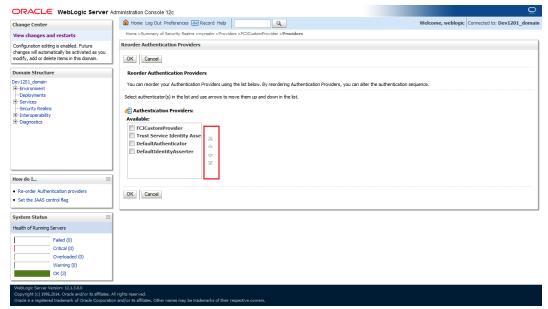
Give Provider name as FCJCustomProvider and type as FCUBSUserAuthenticator.



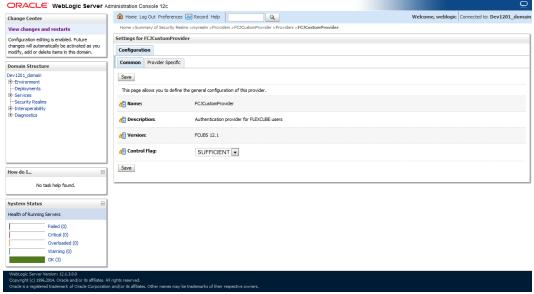
8. Click Reorder to bring the newly created provider to first of all providers and click OK.





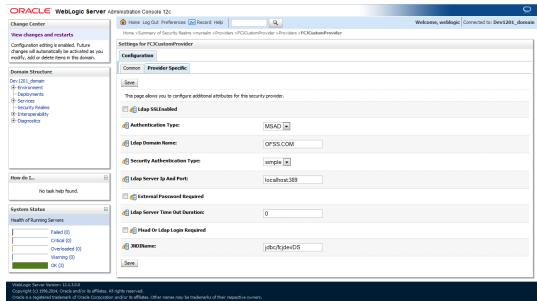


- 9. Click on FCJCustomProvider.
- 10. In Common tab change the control flag to "SUFFICIENT".



- 11. In Provider Specific tab
 - a) Set JNDIName as Flexcube JNDI Name.
 - b) If external authentications are used in FCUBS then Fill the Ldap/MSAD related fields.





- 12. For manually editing the config.xml go to the below path and open the config.xml file <ORACLE_HOME>\Middleware\user_projects\domains\base_domain\config\
 The following codes need to be added at proper locations in the config.xml.
 - a) Search for < realm> tag and add the following code between <realm> and </ realm> tags. This should be the first child of the realm Node.

<sec:authentication-provider xmlns:n1="http://fcubs.ofss.com/security"
xsi:type="n1:fcubs-user-authenticatorType">

<sec:name>FCJCustomProvider</sec:name>

<sec:control-flag>SUFFICIENT</sec:control-flag>

<n1:msad-or-ldap-login-required>true</n1:msad-or-ldap-login-required>

<n1:external-password-required>true</n1:external-password-required>

<n1:authentication-type>MSAD</n1:authentication-type>

<n1:ldap-server-ip-and-port>LDAP://localhost:389</n1:ldap-server-ip-and-port>

<n1:ldap-ssl-enabled>true</n1:ldap-ssl-enabled>

<n1:security-authentication-type>simple</n1:security-authentication-type>

<n1:ldap-domain-name>OFSS.COM</n1:ldap-domain-name>

<n1:ldap-server-time-out-duration>0</n1:ldap-server-time-out-duration></sec:authentication-provider>

b) Make sure tag values matches the value given during Property file creation.

1.2.2 Configuring libovd for single Entity

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

- 1. Along with the Oracle FLEXCUBE UBS EAR file, the Installer creates 'FCJJPSProvider.jar' file inside the BPELbuild folder under SOURCE directory.
- 2. On the application server host, create a folder by name 'classes' at the location '<MIDDLEWARE HOME>soa\soa\modules\oracle.soa.ext 11.1.x'.
- 3. Extract the file 'FCJJPSProvider.jar' and from the extracted content, copy the folder 'com' to: '<MIDDLEWARE HOME>soa\soa\modules\oracle.soa.ext 11.1.x\classes'.



- 4. Navigate to the location
 - '<MIDDLEWARE_HOME>soa\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 same as Entity Name given in Multi Entity Names screen while creating property file 'fcubs.properties', e.g. 'jdbc/fcjdevDS'.
- Copy 'FCJJPSProvider.jar' to '<MIDDLEWARE_HOME>/user_projects/domains/<domain_name>/config/fmwconfig/ovd/plu gins/lib.Create the directory structure if it does not exists.
- Copy the fcubs_adapter.xml from this word doc to '<MIDDLEWARE_HOME>/oracle_common/modules/oracle.ovd/templates/



fcubs_adapter.xml

- 8. Set environment variables in the command prompt, e.g. for linux shell,
 - export ORACLE_HOME=/scratch/app/bpm12212(setting ORACLE_HOME) export WL_HOME=/scratch/app/bpm12212/wlserver(setting WL_HOME) export JAVA_HOME=/scratch/work_area/DBA/jdk1.8.0_144 (setting JAVA_HOME)
- Execute "libovdadapterconfig" script which is present in '<MIDDLEWARE_HOME>/oracle_common/bin' with below parameters. Provide the below arguments with values for admin server host name or ip ,admin server port ,weblogic user id, domain home and fcubs datasource.
 - ./libovdadapterconfig.sh -adapterName fcubsadapter -adapterTemplate fcubs_adapter.xml -host <ADMIN_SERVER_HOST> -port <ADMIN_PORT> -userName <WEBLOGIC_USERID> -domainPath <DOMAIN_HOME> -dataStore DB -root ou=fcubs,dc=oracle,dc=com -contextName default dataSourceJNDIName <FCUBS_DATASOURCE_JNDI>
- Once the above steps are completed, i.e. "Adapter created successfully: fcubsAdapter" message is displayed, restart the server.

1.2.3 Configuring libovd for MultiEntity

- 1. Continue step 1 to step5 from 1.2.2 section.
- 2. In the following steps replace the <EntityId> tag with the proper Entity name.
- Copy the fcubs_adapter_<EntityId>.xml to '<MIDDLEWARE_HOME>/oracle_common/modules/oracle.ovd/templates/



fcubs_adapter_ EntityId.xml



4. Search for <FCUBSDATASOURCE> in fcubs_adapter_< EntityId>.xml and update it with fcubs Datasource with the mapped Datasource for the entity in the property file.

Ex:<param name="DataSource" value="<FCUBSDATASOURCE>"/>

5. Search for UserIdPattern Parameter and Update the value for OU to the entity name in lower case.

EX: <param name="UserIdPattern" value="cn=%USERID%,ou=< EntityId>,dc=oracle,dc=com"/>

6. Search for MultiEntityEnabled element and update the value to true.

EX: <param name="MultiEntityEnabled" value="true"/>

7. Search for Entityld element and update the value with the entity name in lower case which we have created.

EX:<param name="EntityId" value=" < EntityId > "/>

8. Serach for ou=fcubs and update with enity id in lower case.

EX: ou= EntityId

9. Execute "libovdadapterconfig" script which is present in '<MIDDLEWARE_HOME>/oracle_common/bin' with below parameters. Update the admin server host name or ip ,admin server port ,weblogic user id, domain home ,root and fcubs datasource

libovdadapterconfig.sh -adapterName fcubsAdapter -adapterTemplate fcubs_adapter_< EntityId >.xml -host <ADMIN_SERVER_HOST> -port <ADMIN_PORT> -userName <WEBLOGIC_USERID> -domainPath <DOMAIN_HOME> -dataStore DB -root ou=<EntityId>,dc=oracle,dc=com -contextName default -dataSourceJNDIName <FCUBSDATASOURCE name which we mapped in step4>

- 10. Repeat from step2 to step7 for each entity creation
- 11. Once the above steps are completed, restart the server.

Note:- for any misconfiguration in libovd

We can delete the existing fcubsAdapter and re run the ./libovdadapterconfig.sh

For deleting fcubsAdapter use the below command:

Log in to the WSLT console by running the WLST script. For example:

MW HOME/oracle common/common/bin/wlst.sh

(UNIX)MW_HOME\oracle_common\common\bin\wlst.cmd (Windows)

Connect to your Administration Server using the following syntax:

connect ('<WLS admin user name>','<WLS admin password>','t3://<admin server host>:<admin server port>')

For example:connect('weblogic','weblogic','t3://myserver:7001')

Delete the misconfigured adapter using the following syntax: deleteAdapter(adapterName='fcubsAdapter')



Note the following:

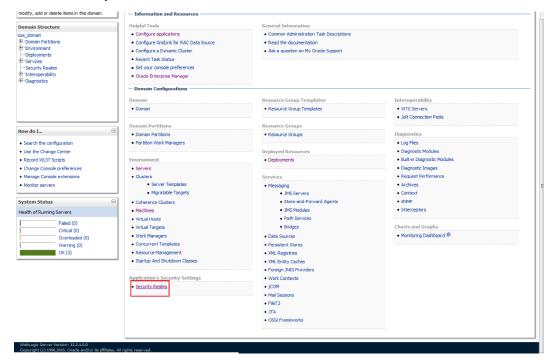
• In case of Multi Entity, all data sources must be created separately for each entity. The JNDI name will be differentiated by suffixing entity name.

Examples: If Data source is 'jdbc/fcjDevDs' then jdbc/fcjDevDs+entity name will be lookup the application. (jdbc/fcjDevDs+entity name) jndi should be presented in application server.

 For multi teant deployment BPMN support will be available only for the logged entity.

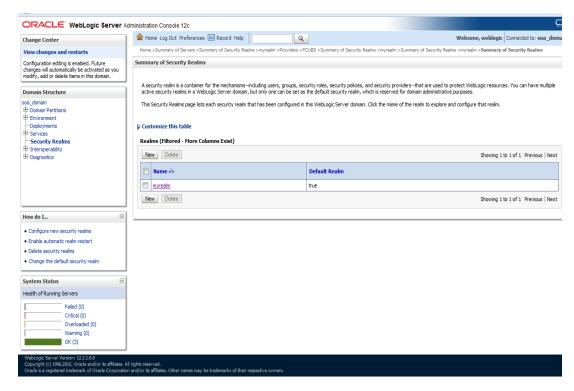
1.2.4 Configuring for Multiple Providers for Multiple Entities

- 1. Login to the Adminserver.
- 2. Click on security Realms.

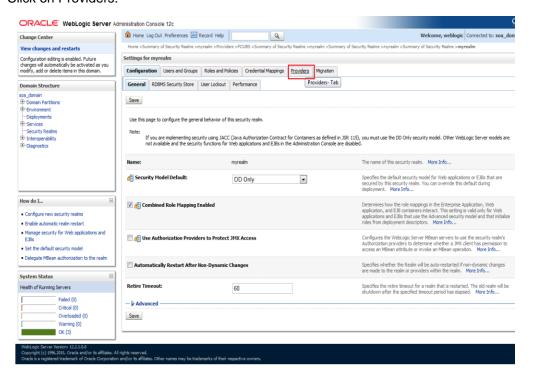


3. Click on myrealms.



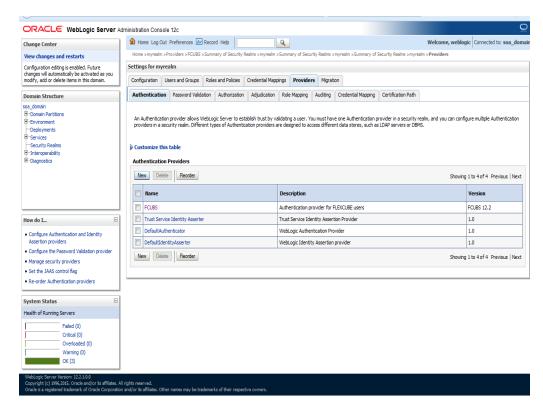


4. Click on Providers.

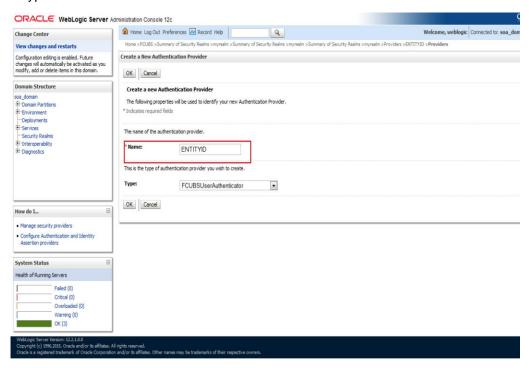


5. Click on New



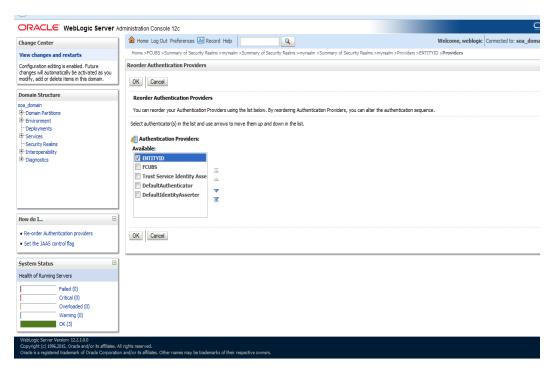


6. Enter the Name with proper Entity Name(entity name we mapped in property file) and select the type as FCUBSUserAuthenticator

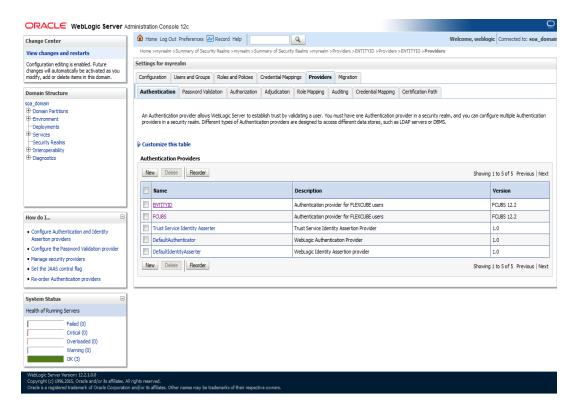


7. Click on Reorder. Bring the Authenticatiorprovider to the first in the order and click ok.



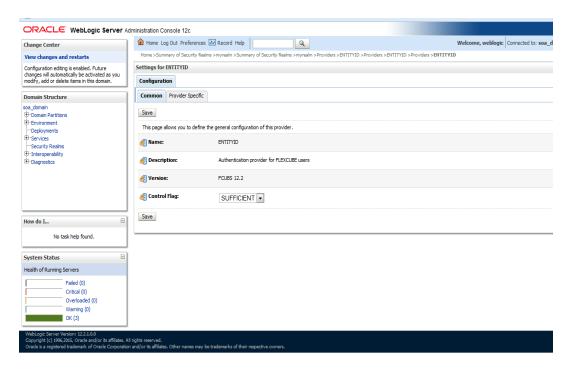


8. Click the Provider that we have created.

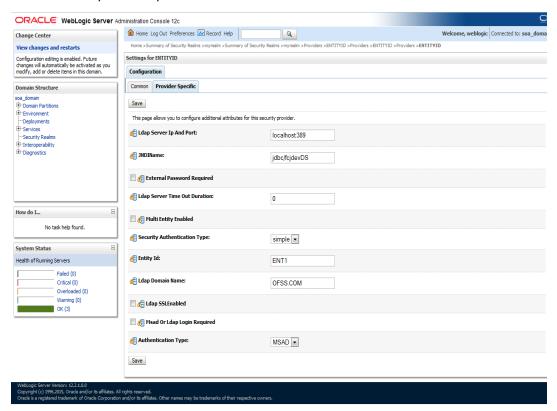


9. In common tab select the control flag as SUFFICENT from the list and click on save.



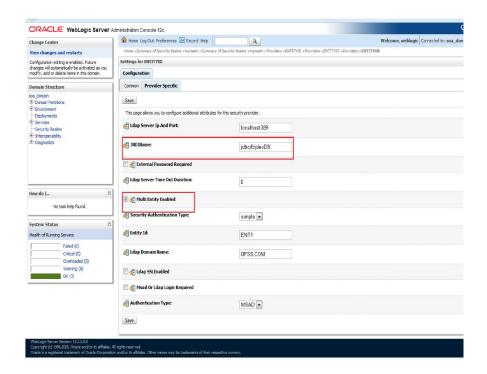


10. Select the provider specific tab.

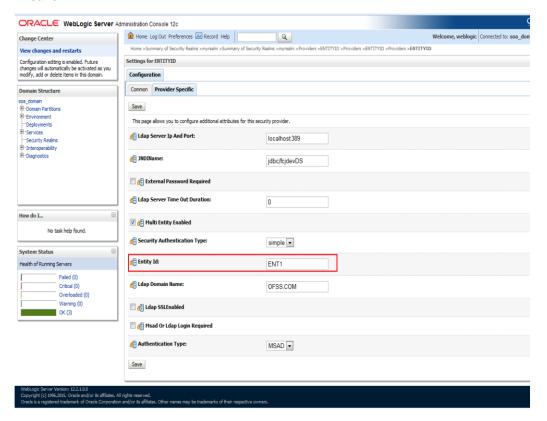


11. Change the JNDI name to the Datasource JNDI name which have mapped to the entity in the property file level and check the multi entity enabled checkbox.





12. Enter the EntityId with the Entity name which we created in the property file level and click on save





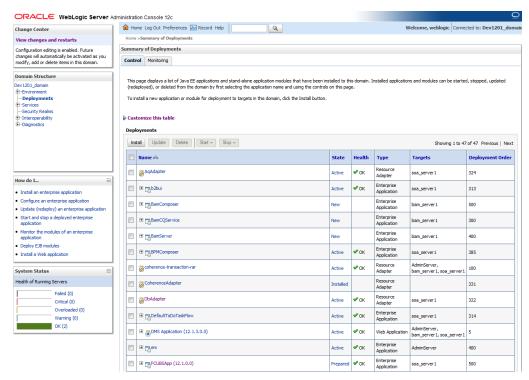
- 13. Create the new datasource for each entity with the JNDI name which we mapped in the property file.
- 14. Restart the Admin server
- 15. Continue the step1 to step15 for each provider creation in multientity scenario.



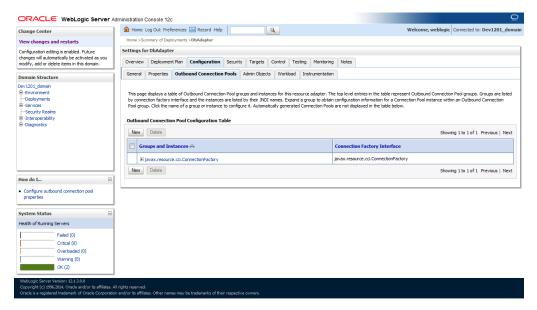
1.2.5 Configuring DBAdapter

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

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



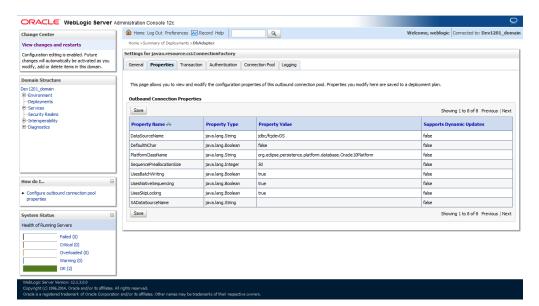
2. In the Deployments table, select 'DbAdapter'. You will be navigated to 'Settings for DbAdapter'.



3. Click 'Configuration' tab and select 'Outbound Connection Pools' under it.



- 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 on 'Finish'.
- The 'jndi name' should be the same as the one in 'Dbutility sub-process'.
- 7. Click 'DbAdapter' again. Click 'Configuration' tab and select 'Outbound Connection Pools'
- 8. Under 'Groups and Instances', click and expand 'javax.resource.cci.ConnectionFactory'.
- 9. The new JNDI name is listed.
- 10. Click on the hyperlink 'eis/DB/FCCDEV'.

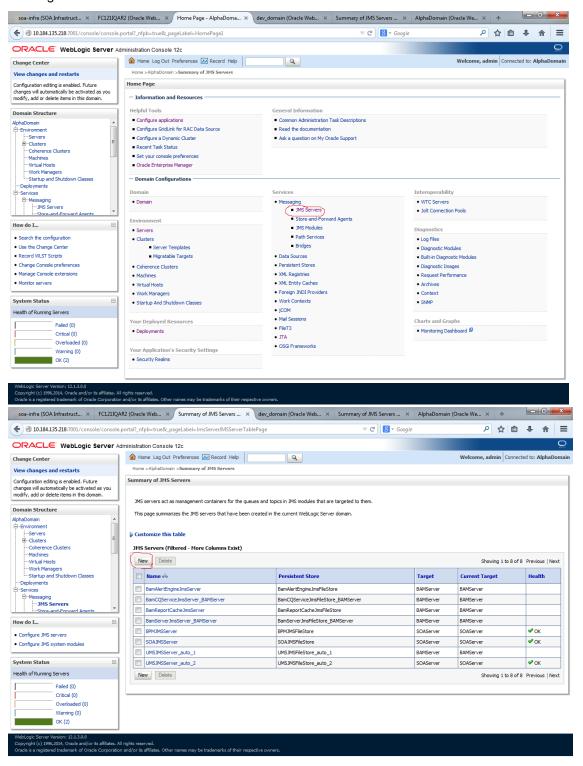


- 11. Click the 'Property Value' field for the 'DataSourceName' and update the application JNDI reference (given in 'fcubs.properties' file) and then press 'Enter' key.
- 12. Save and restart the Admin server.



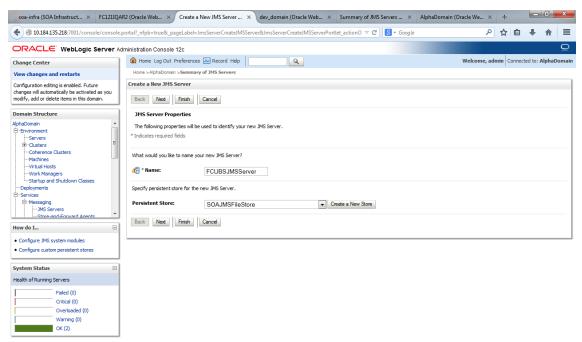
1.2.6 Configuring JMS Adapter

1. Login in to console → Click on JMS Servers→New

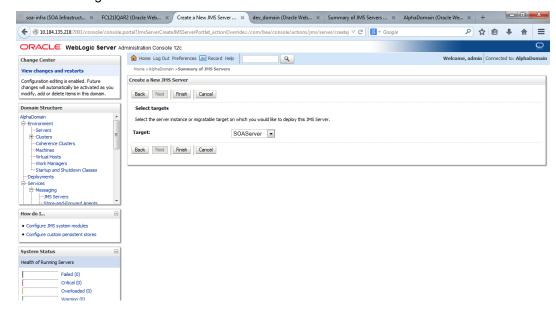




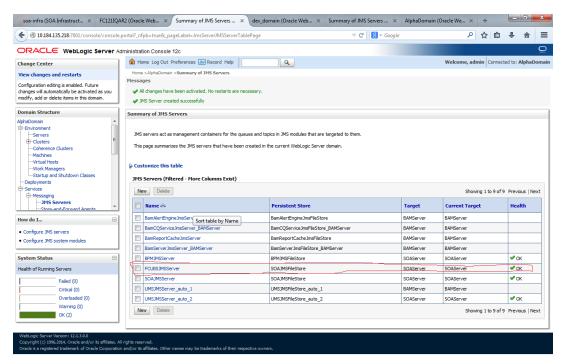
2. Please provide the below Name for JMS Server and select the file persistent store as below→Next



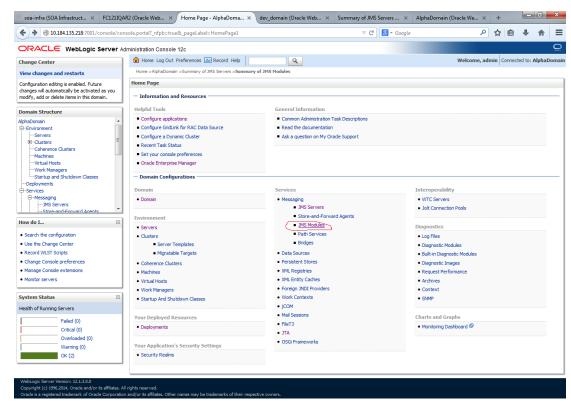
3. Select the target as SOA Server → Finish



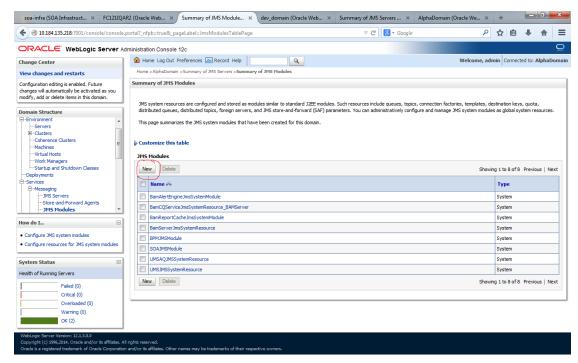




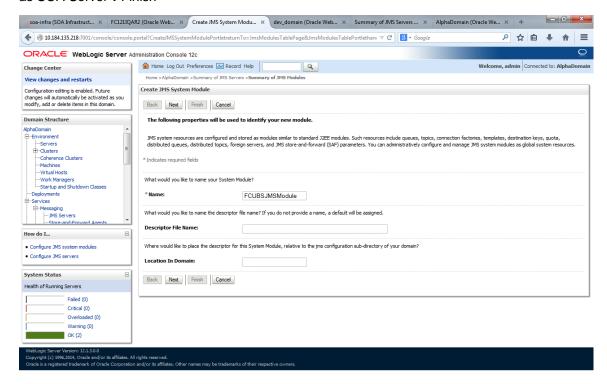
4. Go back to Console →JMS Modules→New



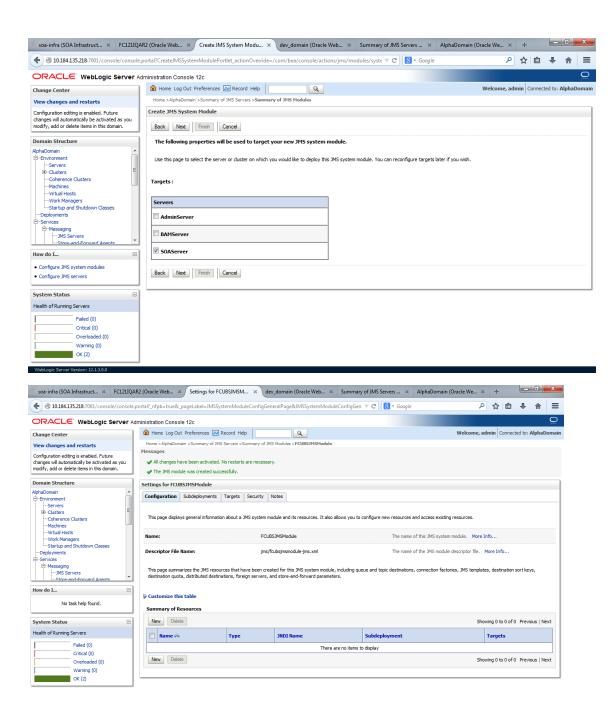




 Create a JMS Module with the Name, FCUBSJMSModule. Click on Next→Select the target as SOA Server→Finish

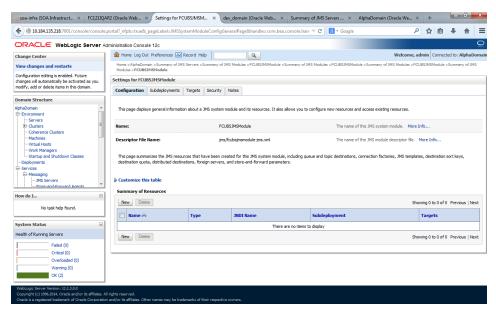




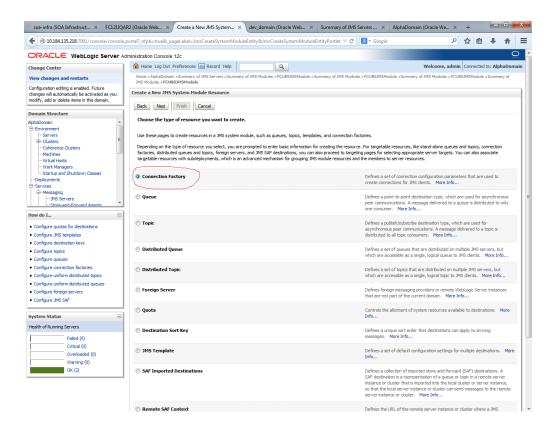




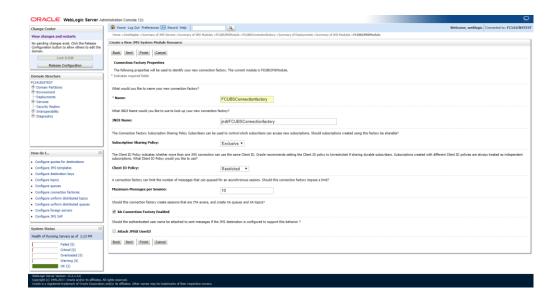
6. Go back to JMS Modules→FCUBSJMSModule→New



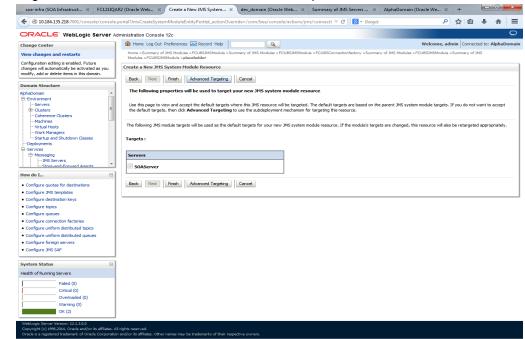
 Click on Connection Factory → next→Create the connection Factory with the below Names→Next



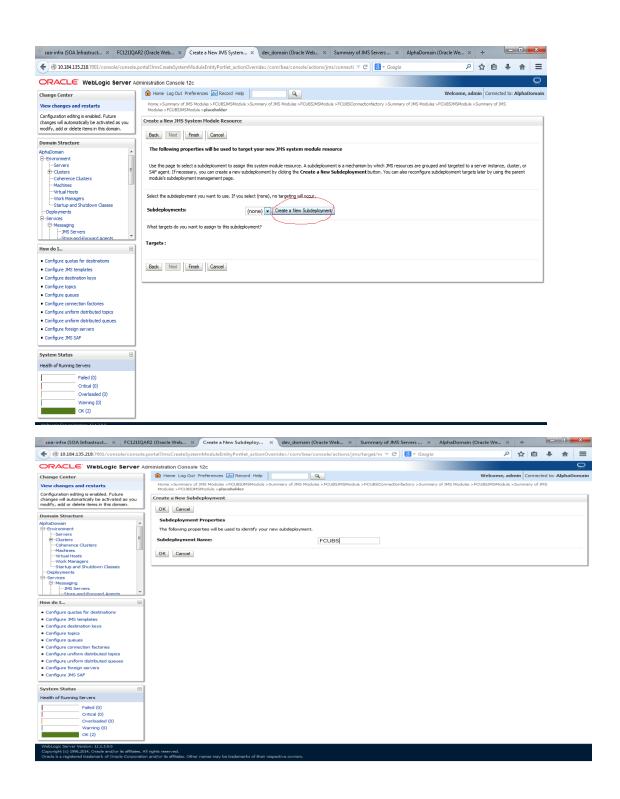




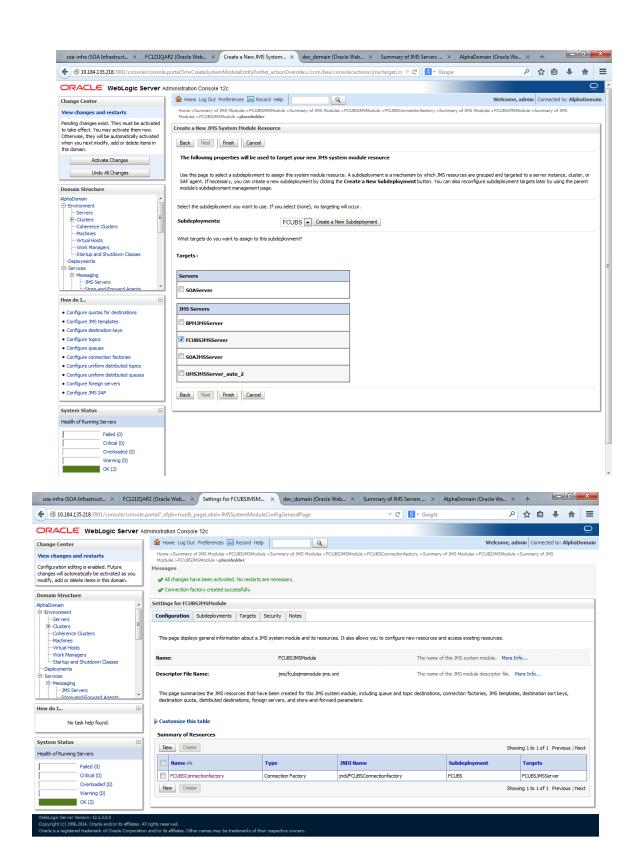
8. Select Advanced targeting→create New Sub Deployment with the below Name→Select the target as JMS server which we have created on top→Finish



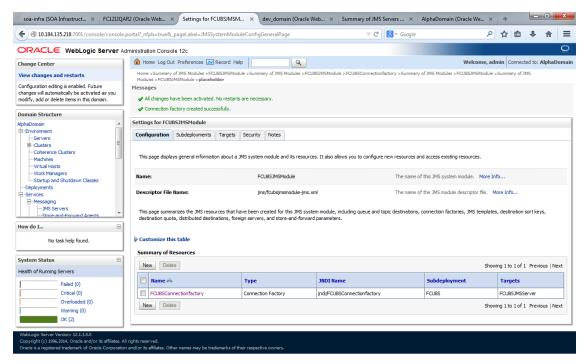




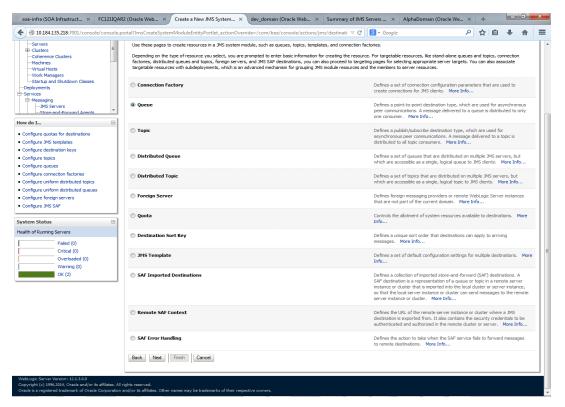






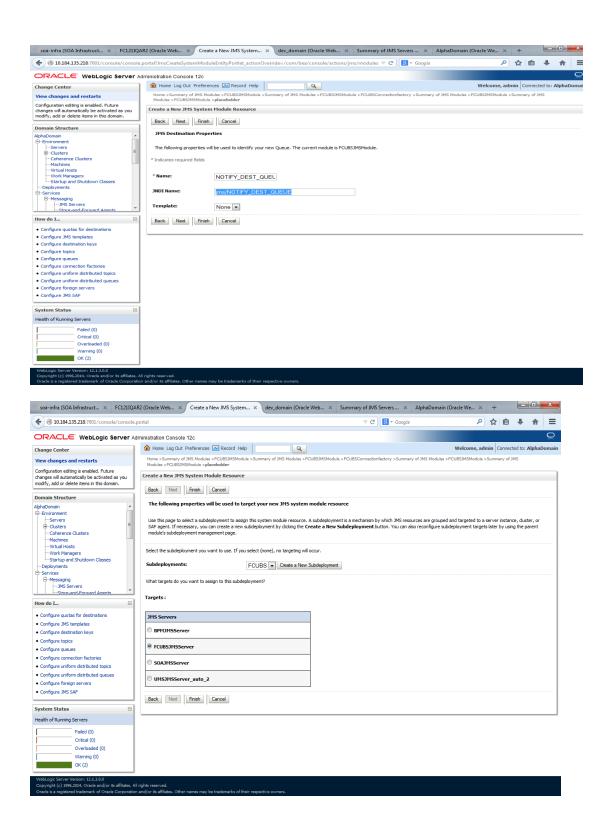


9. Go back to console →Click on JMS Modules →New → check on Queue→next

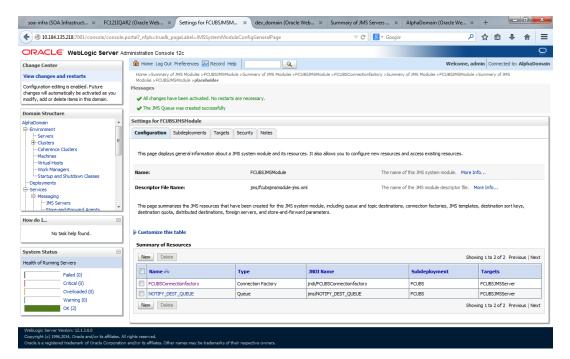


 Create Queue with Name NOTIFY_DEST_QUEUE and JNDI name as jms/NOTIFY_DEST_QUEUE→select the sub deployment which we have created earlier →Next→Finish



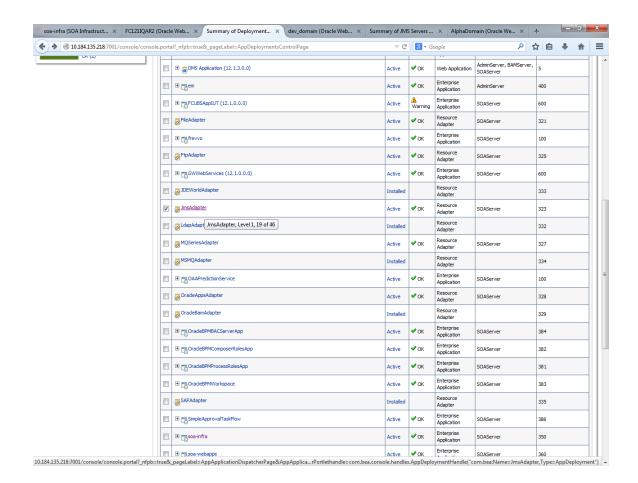




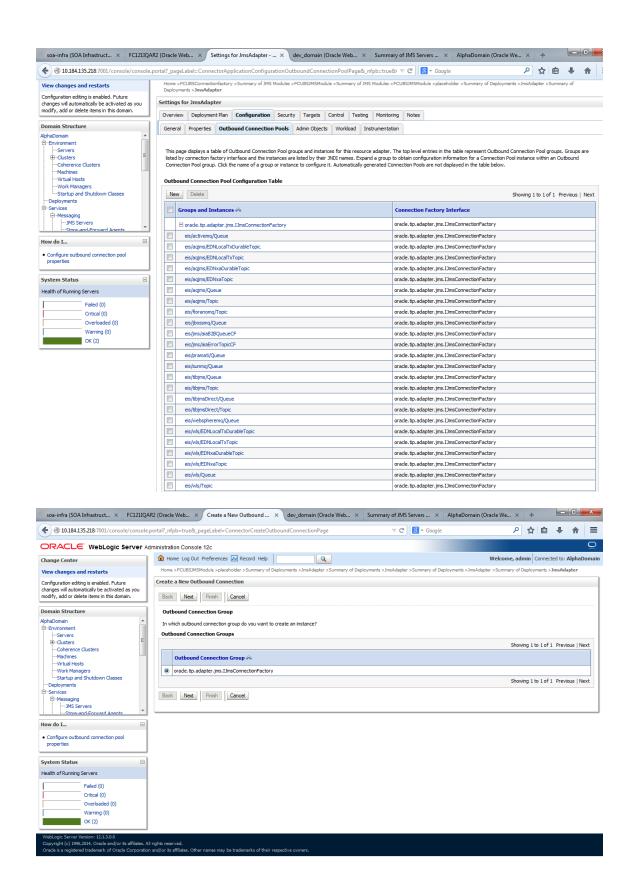


- 11. Please create queue MDB_QUEUE_RESPONSE with JNDI name as jms/MDB_QUEUE_RESPONSE, queue eis/jms/ORGateway with JNDI name as eis/jms/ORGateway, and queue FAULT_QUEUE_RESPONSE with JNDI name as jms/FAULT_QUEUE_RESPONSE as above in console within FCUBSJMSModule.(Follow step 8-9 in 1.2.6)
- 12. Go to Console→Deployment→JmsAdapter→Configuration→Outbound Connection Pool→Expand oracle.tip.adapter.jms.lJmsConnectionFactory→New→Provide JNDI as 'eis/Queue/Notif'→next→Finish

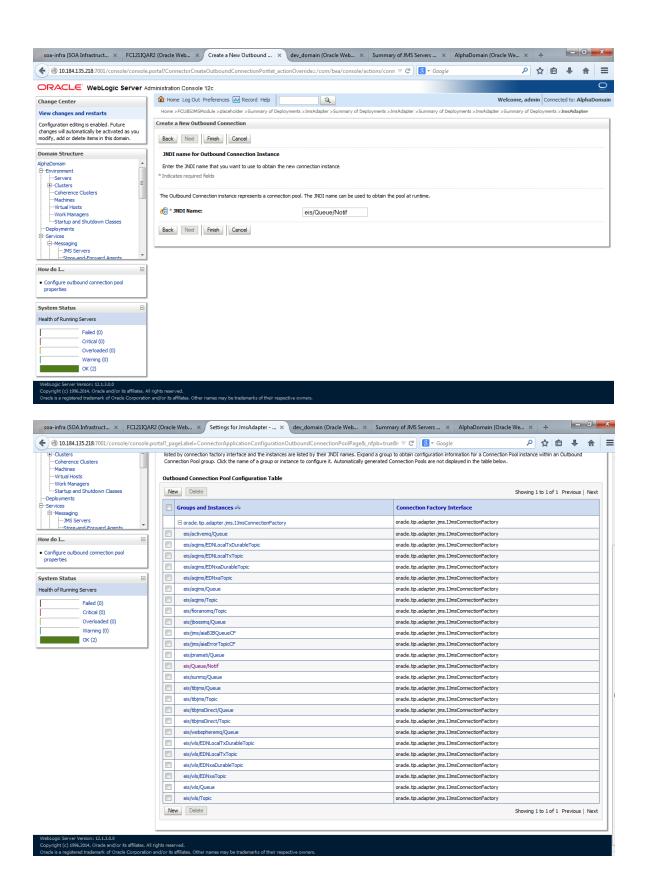






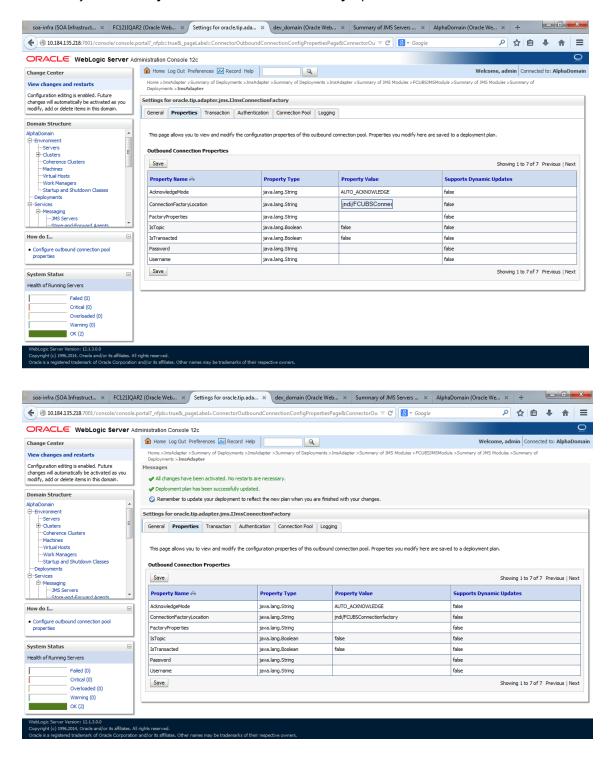






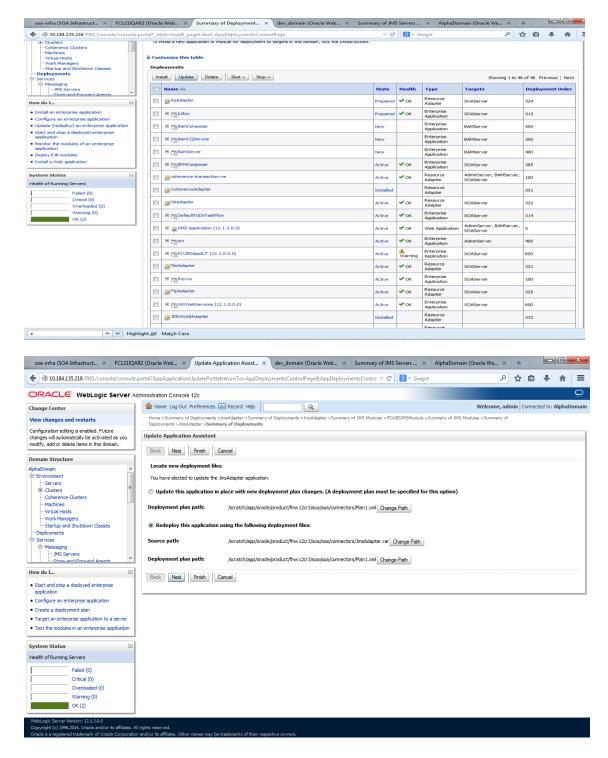


13. Click on the Outbound connection pool with eis/Queue/Notif and enter the connection factory location as jndi/FCUBSConnectionfactory→press Enter and Save

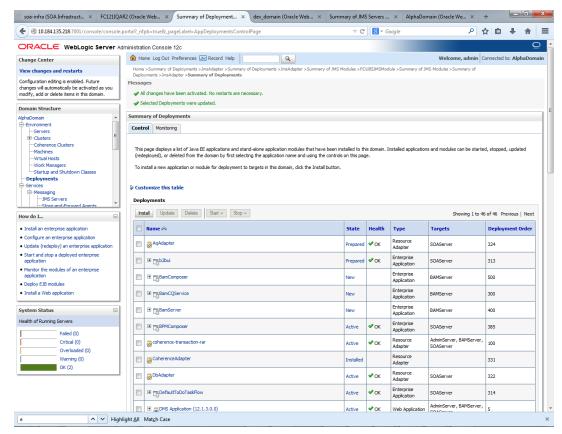




14. Go to console →Deployments→JMS adapter→Update→Next→ Next →finish





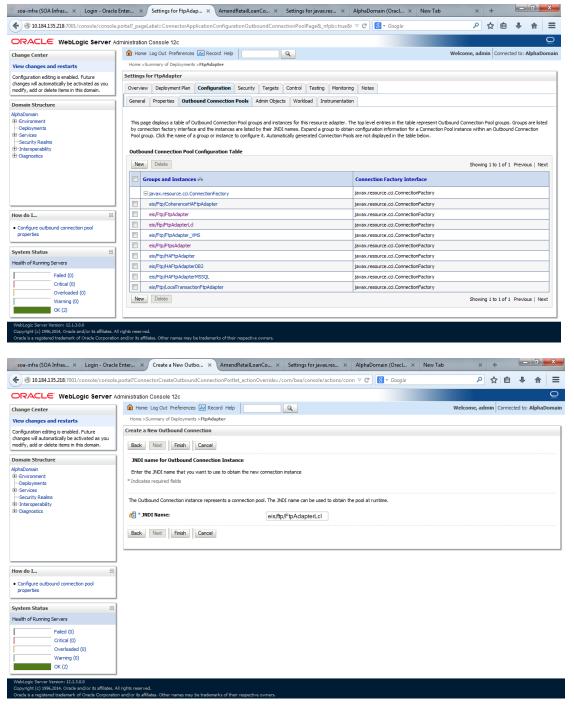


15. Create the out bound connection pool with the **eis/wls/Queue** name in the Deployments using connection factory jndi/FCUBSConnectionfactory.



1.2.7 Configuring FTP Adapter

 Login to console→Deployments→ FTP Adapter→Configuration→Outbound Connection Pool→New



- 2. Add JNDI name as eis/ftp/FtpAdapterLcl
- 3. Click finish and save.

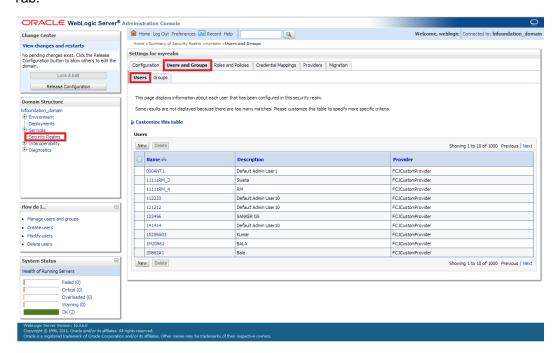


1.2.7.1 BIP Interactive reports configuration

The Following set of instructions can be followed if the BPEL needs to be configured with BIP interactive reports

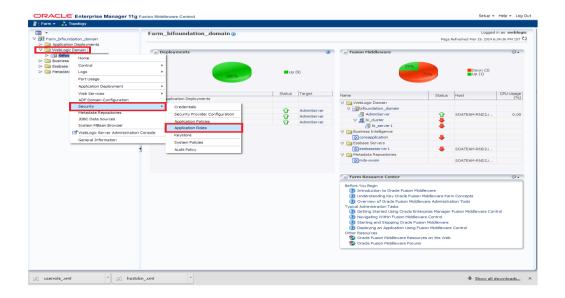
- 1. Login to the BIP domain console, http/s:<hostname>:<port>/console.
- 2. Follow the step 1.2.1 to add the "FCJCustomProvider".

After adding, Navigate to security realms >myrealm > Users and Groups and check if the users from the schema are displayed in Users tab, and Roles from the schema are displayed under the Groups Tab.

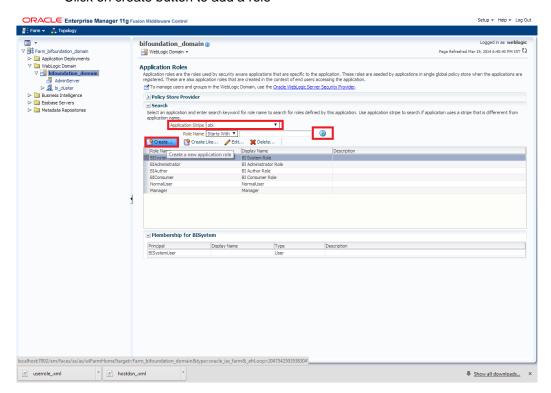


- 3. Login to the Enterprise Manager (em) http/s:<hostname>:<port>/em
 - Right click on the domain(in which BI suite is installed) under the weblogic domain
 - Go to security and then navigate to application roles





- 4. After navigating to next screen as in below screenshot,
 - Select application stripe as obi
 - Click on the search button
 - Click on create button to add a role

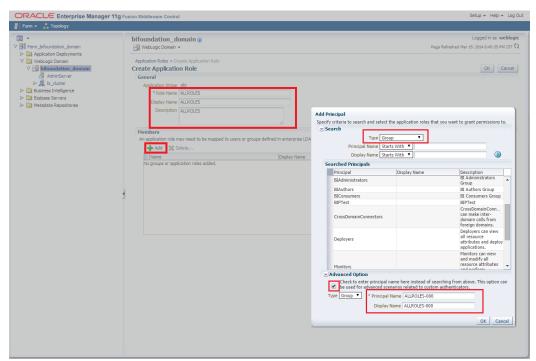




- 5. After navigating to next screen as in below screenshot,
 - Enter the role name(mandatory), display name(optional), description(optional)
 - · Click on the Add button
 - In the Add Principal pop up select type as "Group"
 - In the advanced option check the checkbox and again select the type as "Group" below
 - Click on the Search button, if the roles are listed then select the roles like ALLROLES-000, ADMINROLE-000 from the list.

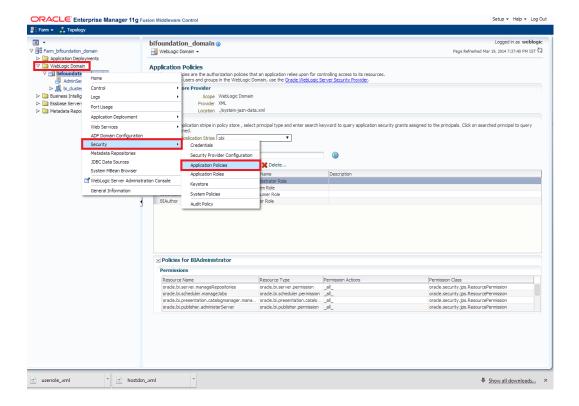
or

- Enter the Principal Name (mandatory), which is actually the role present in the FCUBS (ex: ALLROLES-000, ADMINROLE-000), Display Name (optional).
- After completing click on OK button in pop up window and also in the screen.



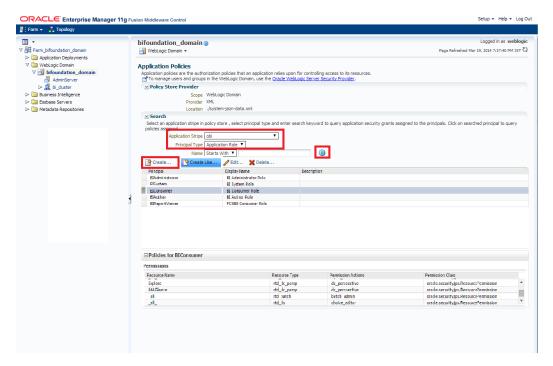
- 6. After getting information message like "A new role added successfully", then again
 - Right click on the domain(in which BI suite is installed) under the weblogic domain
 - Go to security and then navigate to application polices



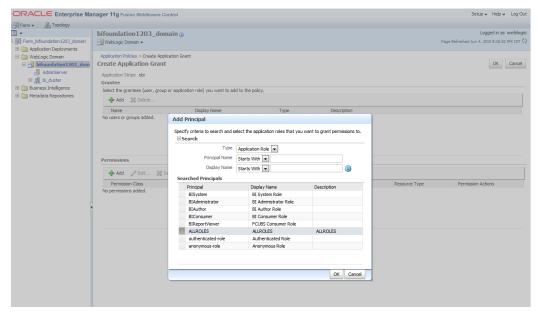


- 7. After navigating to next screen as per screen shot,
 - Select the application stripe as obi, principal type as "Application Role"
 - Click on the search button
 - Select BIConsumer(it should be highlighted) from the list and click on the create like button.





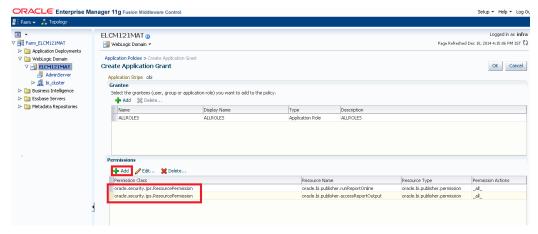
- 8. After navigating to next screen as per the screen shot,
 - Click on Add button, a new window "Add Principal" will be launched.
 - Select Type as "Application Role" and click on the search button
 - From the list select the role that has been created earlier in application role screen and click on OK button in pop up window and screen.



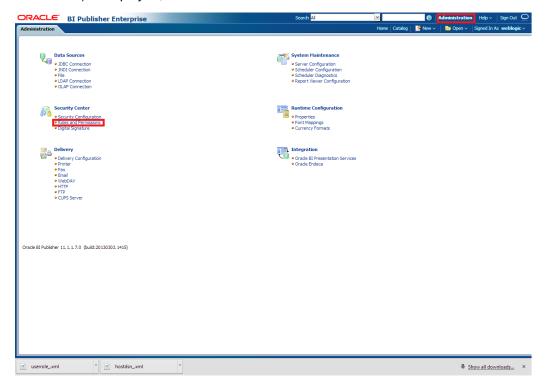
• Click Add button under Permissions and add the two permissions one by one as mentioned below.



- oracle.bi.publisher.runReportOnline
- oracle.bi.publisher.accessReportOutput

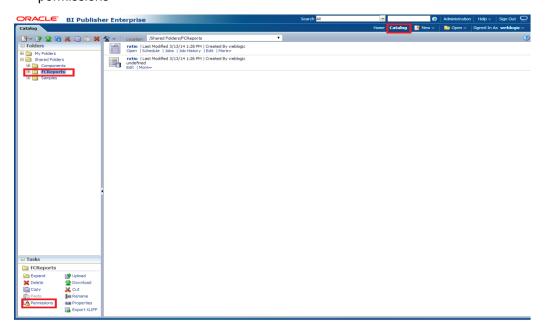


- 9. After getting information message like "A security added successfully",
 - Login into the BIPublisher , http/s:<hostname>:<port>/xmlpserver
 - Click on the Administration .
 - Click on the Roles and Permission under Security center and check if the added role(in em) is displayed, If not restart the servers.



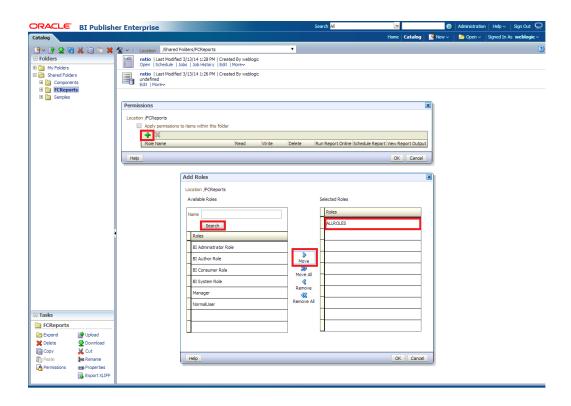


10. Then click on the Catalog , then on the folder that has been created , and then on permissions

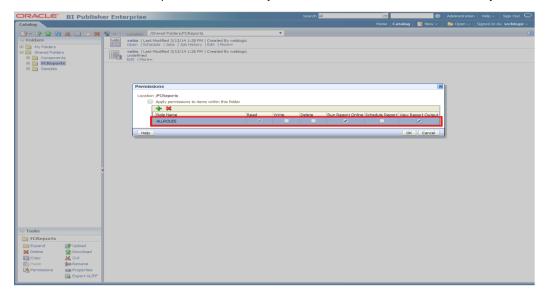


11. After clicking on the permissions, a new window will pop up, delete all the roles if any present on click of permissions, then click on Add button, and then click on search button in "Add Roles" window that is launched newly and select the role that has been created and click on move button and click on OK.





12. Finally, the role will be added and select the options that has to be provided for the particular role and check if the permissions is only to items within the folder if necessary.



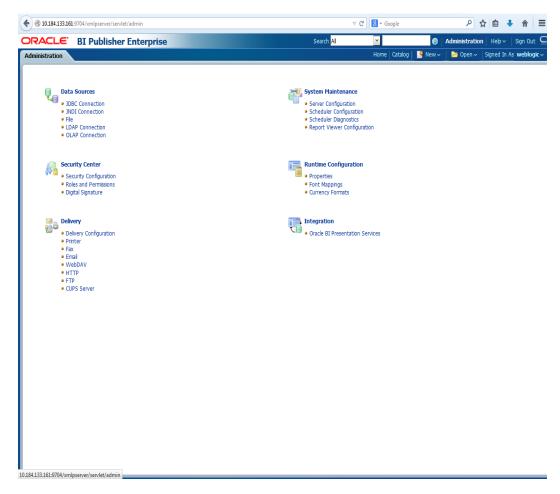
Now the reports in the folder will be accessed accordingly based on the roles.

Note:

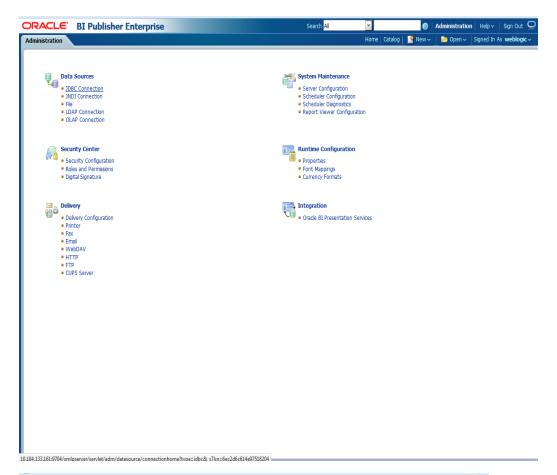
In the similar way we can set the permissions at report level also for particular role.

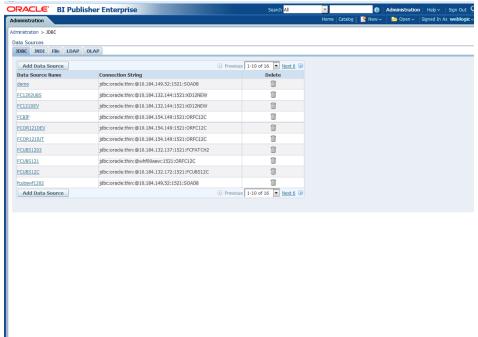


- 13. Please login in to Bi Publisher http://server:port/xmlpserver.
- 14. Click on Adminstration → JDBC connection → Add Data Source



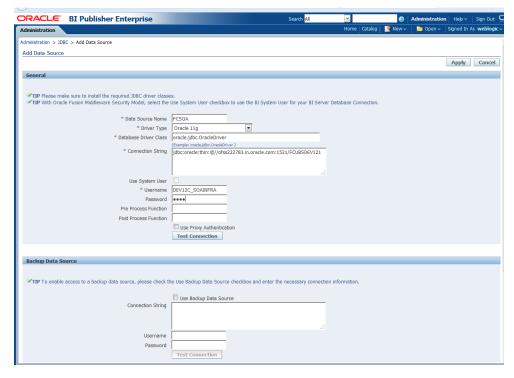




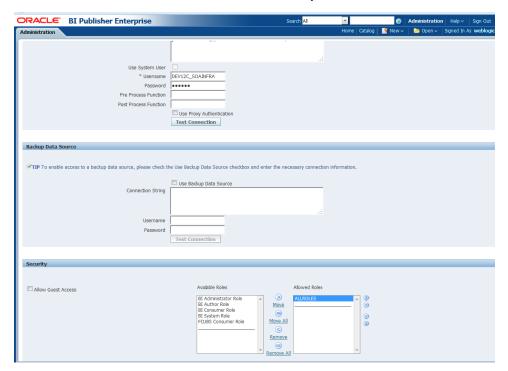




15. Please create the data source with data source name as **FCSOA** and use soa schema details to create the same.



16. Add the fcubs roles to allowed Roles under security



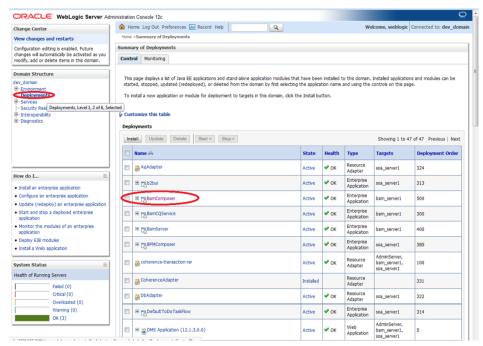
17. Click on test connection .once the connection is established successfuly .Click on Apply.



18. Please follow the steps 15 to 17 to create data source for FCUBS Schema and give the name as FCBIPBPEL

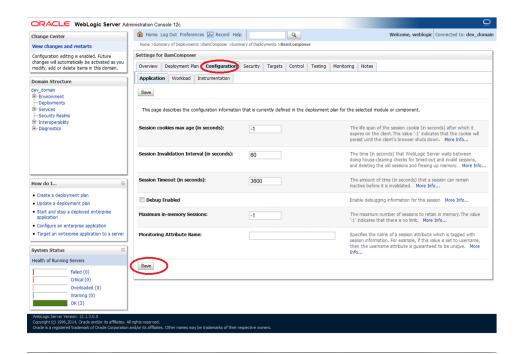
1.2.8 BAM Report Configuration settings

- 1. The Following set of instructions can be followed if the BPEL need to be configured with BAM reportsGenerate a deployment plan for BAM Composer Application.
- 2. Login in to console http://hostname:port/console
- 3. Click on Deployments → click on BAM Composer

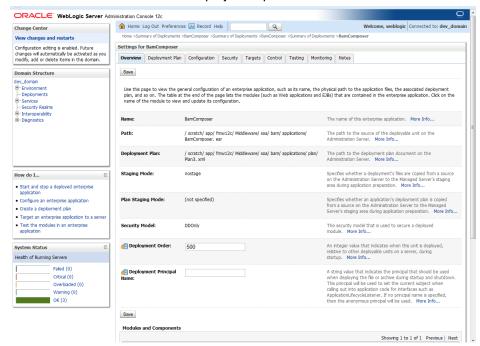


4. click on Configuration Configuration → Save





5. Click on Overview→check the deployment plan location



- Add variable and variable assignment as below to the Plan.xml in <module-name>BamComposerWeb.war</module-name> and for reference please find plan.xml file.
 - <variable>
 <name>oracle.adf.view.rich.security.FRAME_BUSTING</name>
 <value>never</value>

</variable>

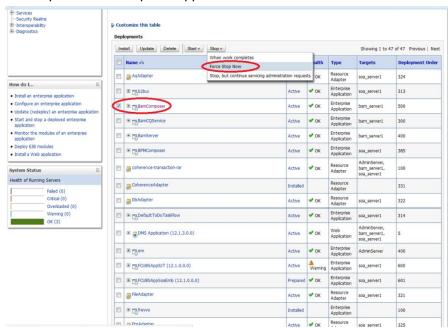


<module-descriptor external="true">
 <root-element>web-app</root-element>
 <uri>WEB-INF/web.xml</uri>
 <variable-assignment>
 <name>oracle.adf.view.rich.security.FRAME_BUSTING</name>
 <xpath>/web-app/context-param/[param-name="oracle.adf.view.rich.security.FRAME_BUSTING"]/param-value</xpath>
 <origin>planbased</origin>
 </wariable-assignment> </module-descriptor>



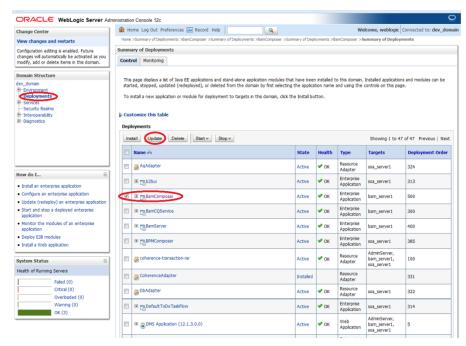
Plan3.xml

7. Stop the BAM composer application in console.

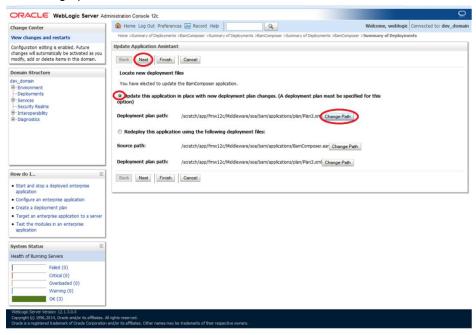


- 8. Update the deployment plan.
- 9. Click on deployments →click on BAM Composer checkbox →Click on update



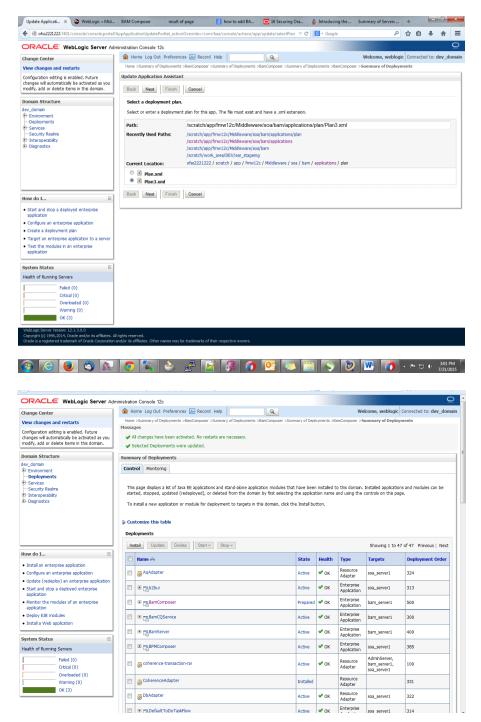


10. Select the Update this application in place with new deployment plan changes and click on change path button.



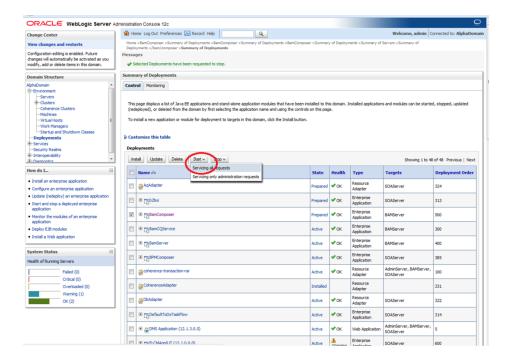
11. Select the latest plan.xml in the in the path→next→next→Finish



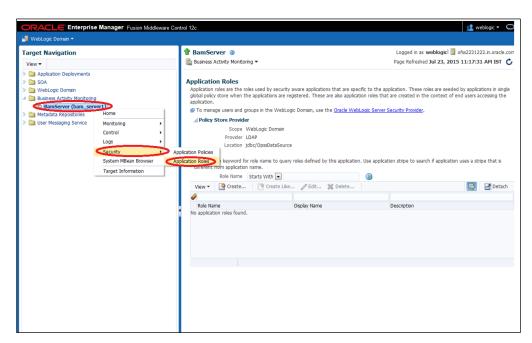


12. Restart the BAM Composer application in the console



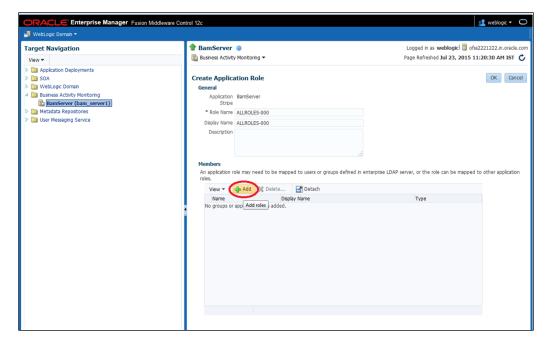


- 13. Login in to em console http://hostname:port/em
- 14. Right Click on BAM Server→Security→Application Roles

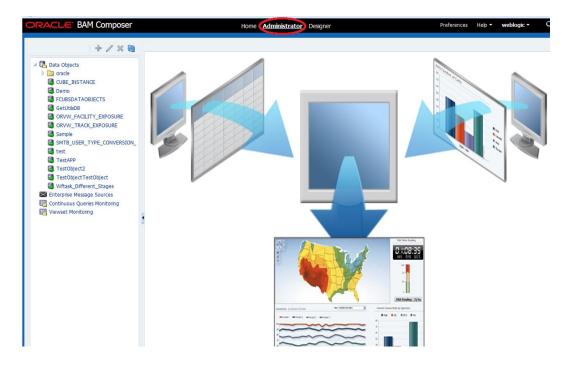


15. Click on Create → create application role with ALL ROLES-000→Click on ADD button in the Members



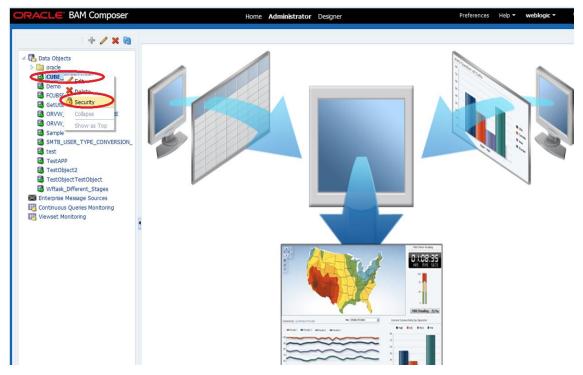


- 16. Select the Type as Group and add principle details be referring the below screen shot.
- 17. Login to BAM Composer → http://hostname:port/bam/composer--> Click on Administrator.

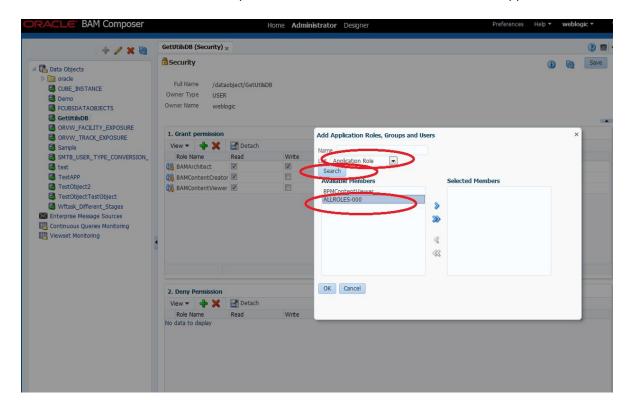




18. Go to Data Object→Right Click on CUBE_INSTANCE→Security

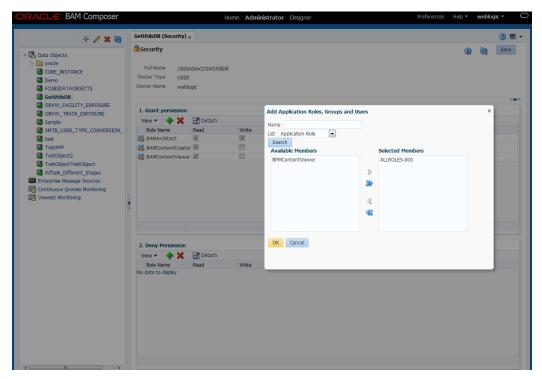


19. Click on Add button under Grant permission and search the list based on the Application Role

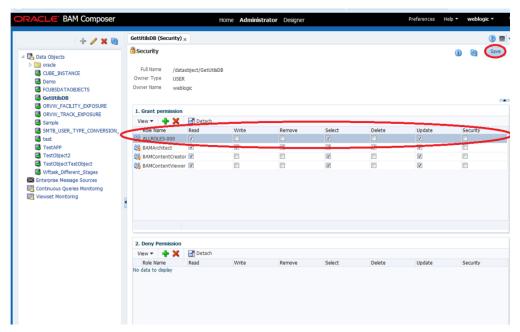




20. Move the ALLROLES-000 to Selected members.



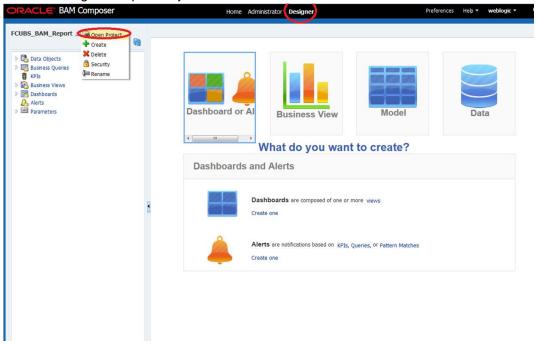
21. Click on read, select and Update check boxes → Click on Save.



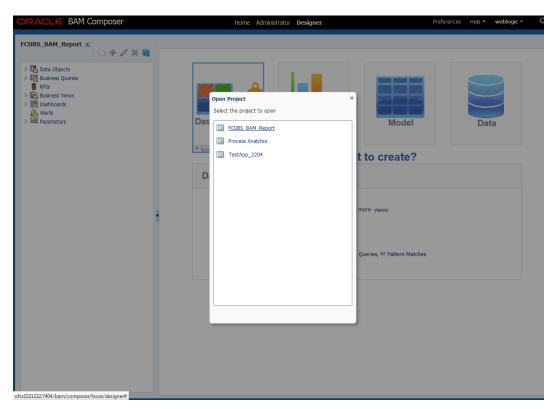
22. Follow the step 17 to 21 for other Data objects also.(cube_instance,wftask_different_stages, ORVW_TRACK_EXPOSURE, ORVW_FACILITY_EXPOSURE, GetUtilsDB, SMTB_USER_TYPE_CONVERSION_VIEW, FCUBSDATAOBJECTS).



23. Click on Designer →open Project

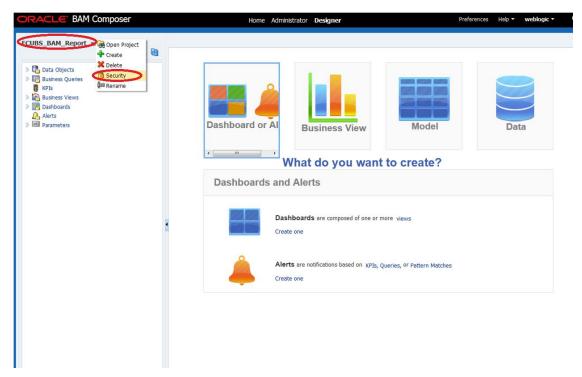


24. Click on FCUBS_BAM_report

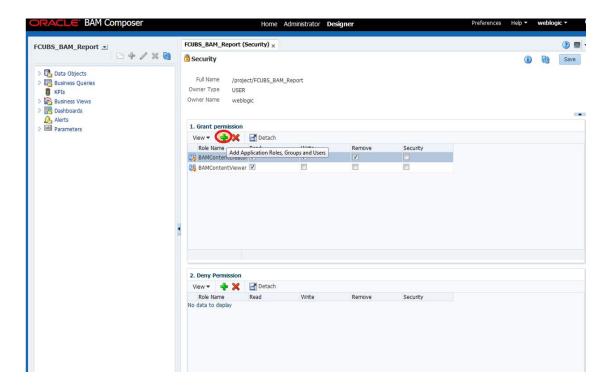


25. click on FCUBS_BAM_Report → Security

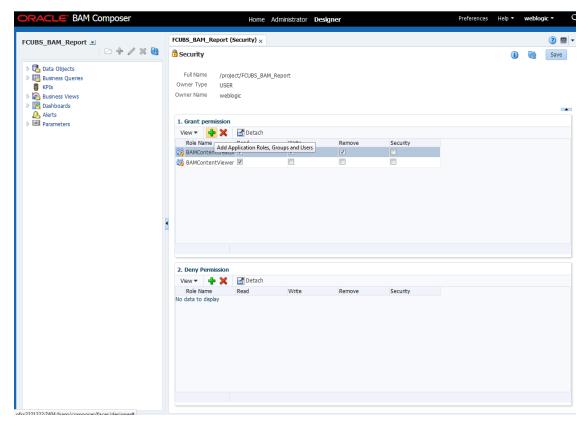




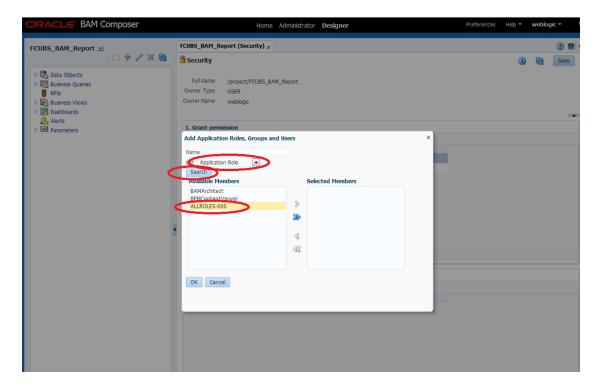
26. Click on ADD button Under Grant Permission.





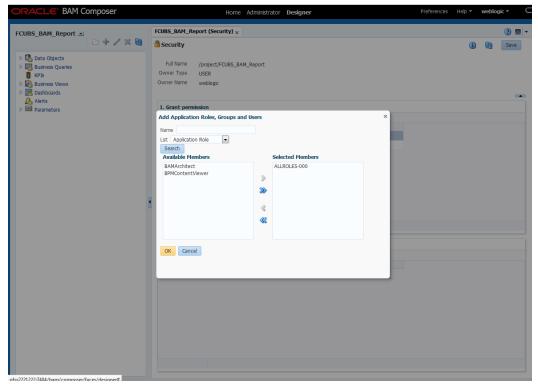


27. Search the List based on the Application Roles and Select the ALLROLES-000

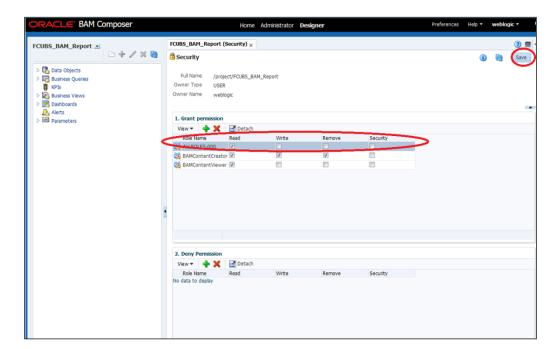




28. Move the ALLROLES-000 to Selected Members and click on ok.



29. Select the Read check box for ALLROLES-000 → Click on Save





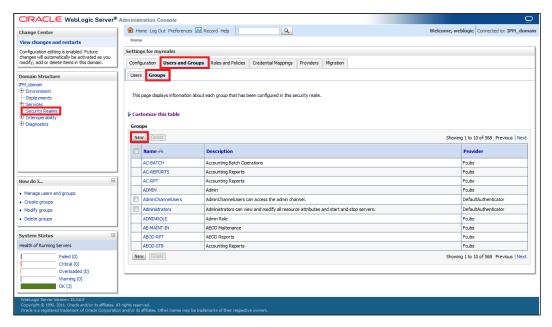
1.2.9 IPM configuration to edit the document

The Following set of instructions can be followed if the BPEL need to be configured with IPM configuration

- 1. Login to the console, http/s:<hostname>:<port>/console with admin user
- 2. Follow the step 1.2.1 to add the "FCJCustomProvider".

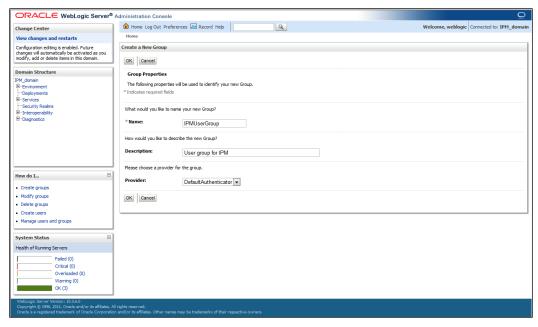
After adding, Navigate to security realms > myrealm > Users and Groups and check if the users from the schema are displayed in Users tab, and Roles from the schema are displayed under the Groups Tab.

- 3. After adding the custom authenticator,
 - Navigate to security realms >my realm > Users and Groups > Groups.
 - · Click on the New button.

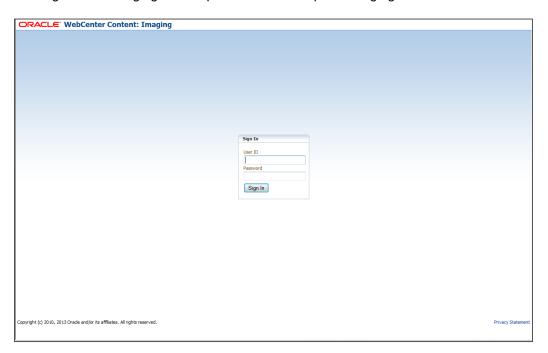


- 4. After Clicking on the new button,
 - Enter the name as "IPMUserGroup"
 - Description for it (optional)
 - And select the authenticator as "DefaultAuthenticator"
 - And then click "Ok"



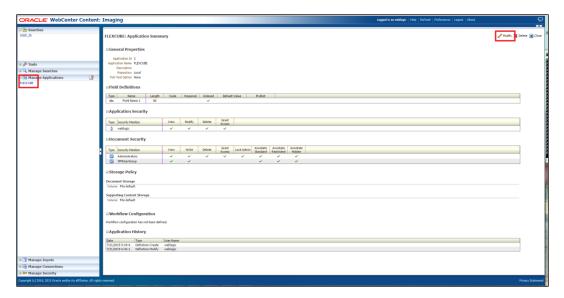


5. Login to the Imaging URL http/s:<hostname>:<port>/imaging with admin user

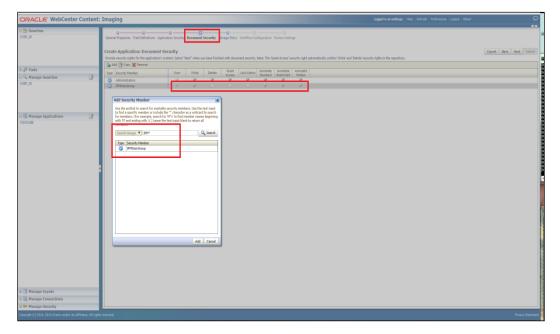


- a. Navigate to Manage Applications
- b. Click on the FLEXCUBE
- c. Then click on the modify on the right pane



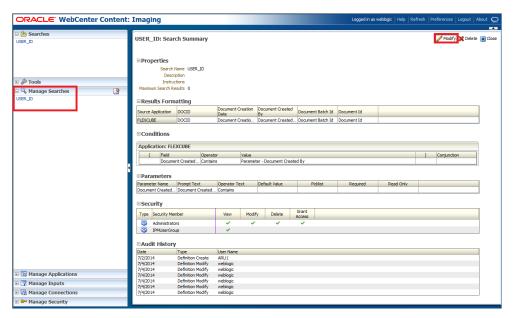


- 6. After clicking on the modify button,
 - a. Navigate to Document Security
 - b. Click on Add button
 - c. Click on Search button in the pop up window
 - d. Select the "IPMUserGroup"
 - e. Click on Add
 - f. IPMUserGroup will be listed in the panel, select view ,write,annotate Standard,Annotate Restricted and Annotate Hidden checkboxes.
 - g. Finally click on the submit button on the right corner



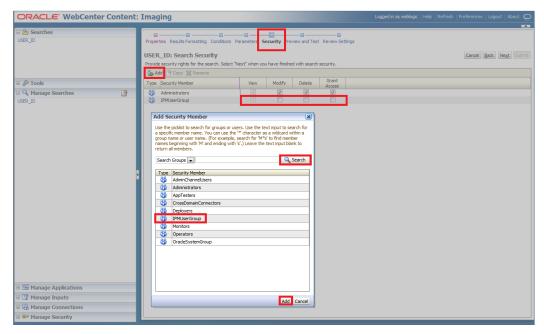


- 7. After clicking on the submit button,
 - a. Navigate to Manage Searches
 - b. Click on the available search (ex: USER_ID in this doc)
 - c. Click on the modify



- 8. After clicking on the modify button,
 - a. Navigate to Document Security
 - b. Click on Add button
 - c. Click on Search button in the pop up window
 - d. Select the "IPMUserGroup"
 - e. Click on Add
 - f. IPMUserGroup will be listed in the panel; don't select any checkbox except the default view checkbox.
 - g. Finally click on the submit button on the right corner





9. Copy the FCJJPSProvider.jar to location

<ORACLE_HOME >\user_projects\domains\<domian name>\lib

- Go to the location '<ORACLE_HOME>\
 user_projects\domains\<Domain_created>\config\fmwconfig'
 - a. Open 'jps-config.xml' file. Search for '<serviceProviders>' tag and add the following code between '<serviceProviders>' and '</serviceProviders>' tags.

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



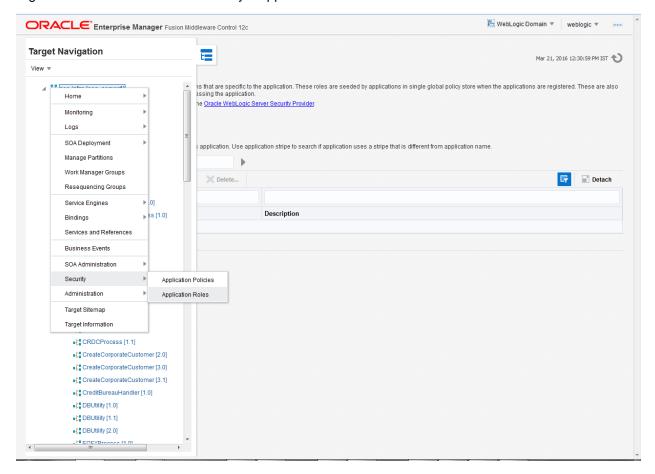
Make sure that the JNDI (jdbc/fcjdevDS) matches the value given during property file creation.

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

```
<jpsContext name="internalstore">
   <serviceInstanceRef ref="credstore"/>
   <serviceInstanceRef ref="keystore"/>
   <serviceInstanceRef ref="policystore.xml"/>
   <serviceInstanceRef ref="audit"/>
   </jpsContext>
```

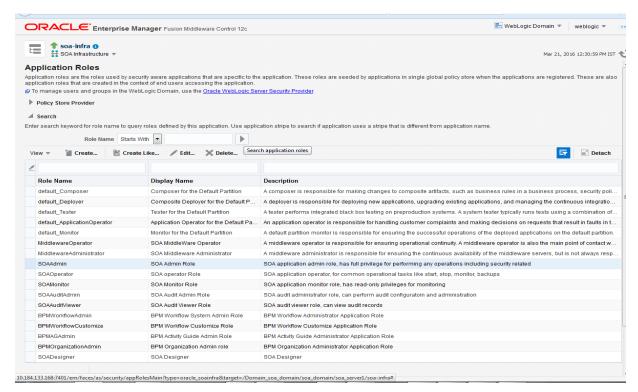
1.2.10 Configuring Superviser Roles in EM

1. Right click on soa-infra. Select security→Application Roles

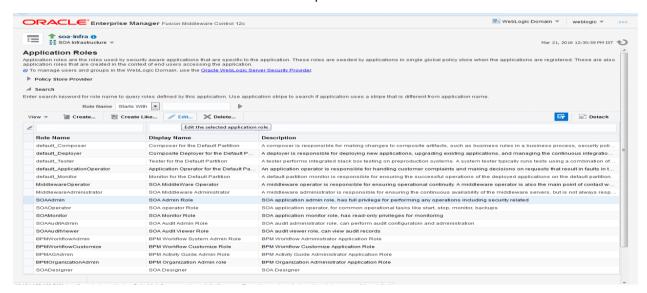




2. Search the Application Roles with "Starts with" option.

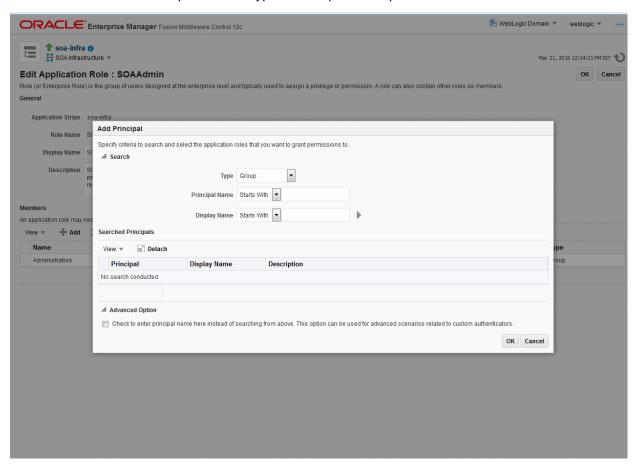


3. Select the SOAAdmin Role and Click on 'Edit option'.

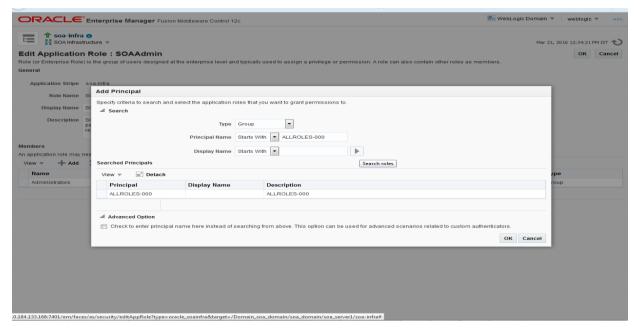




4. Click on the ADD button and provide the Type as Group from drop down.



5. Provide the principal name as (EX:ALLROLES-000) Param_val which is mapped to the OR_ADMINROLE in the cstb_param table and search the role.Click on ok.



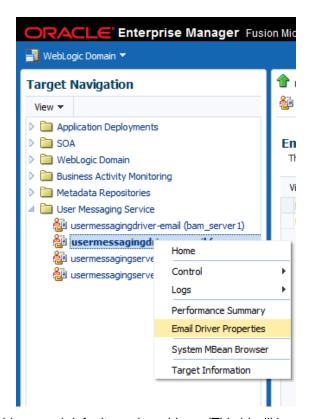


6. Click Ok.

1.2.11 Email Driver Configuration

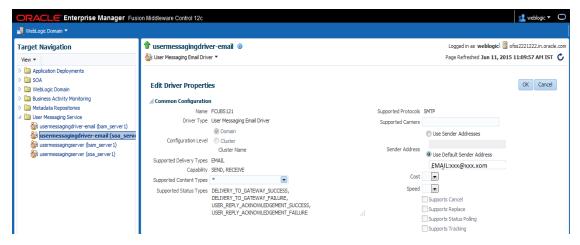
The Following set of instructions can be followed if the BPEL need to be configured with Email Driver configurations

- 1. Login to EM console
- 2. Navigate to User Messaging Service
- 3. Right click usermessagingdriver-email (soa_server1)
- 4. Click on Email Driver Properties

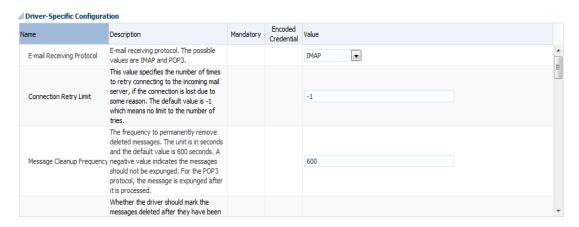


- 5. .Enter the sender Address and default sender address (This id will be used as sender address).
- 6. .Enter the supported protocols (SMTP)



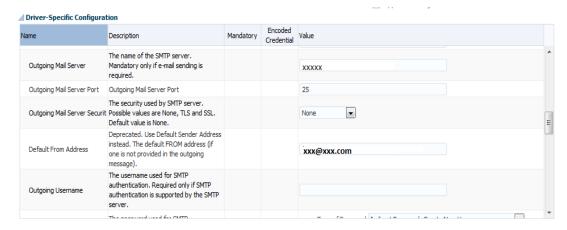


7. Select the mail access protocol (IMAP) as per the mail server specification

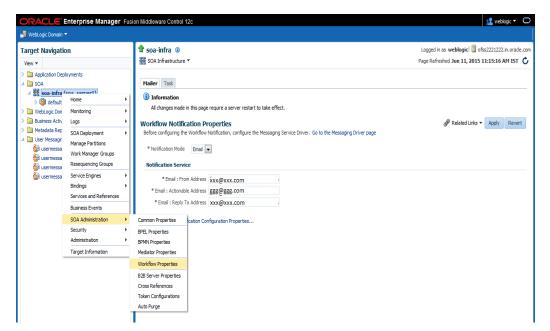


- 8. Enter the Receive folder in the mailbox (INBOX)
- 9. Enter the Outgoing mail server hostname or IP
- 10. .Enter the outgoing mail server port
- 11. .Enter the outgoing default from address
- 12. Enter the Outgoing user name and password if required





13. Navigate to SOA Administration -> Workflow Properties

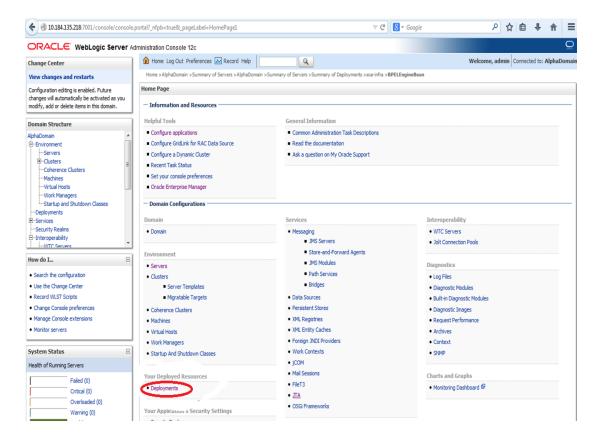


14. Select the notification mode as Email/ALL and enter the from address Actionable address and reply to Address.



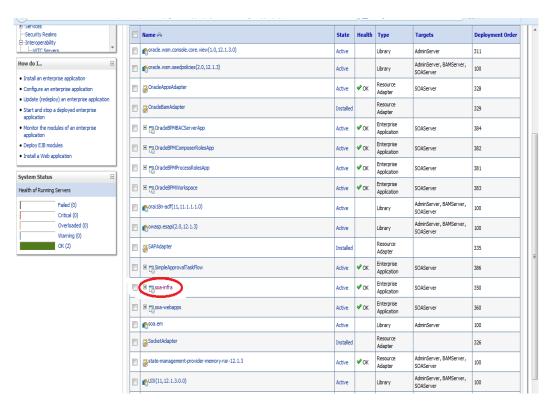
1.2.12 TimeOut Settings for BPEL

- The Following set of instructions has to be configured for BPEL Login in to Console (http://hostname:port/console)
- 2. Click on Deployments

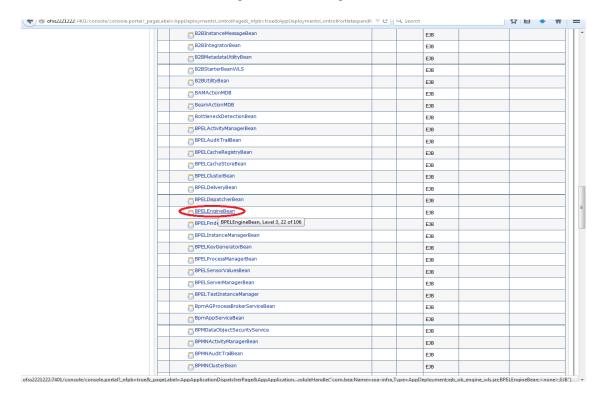




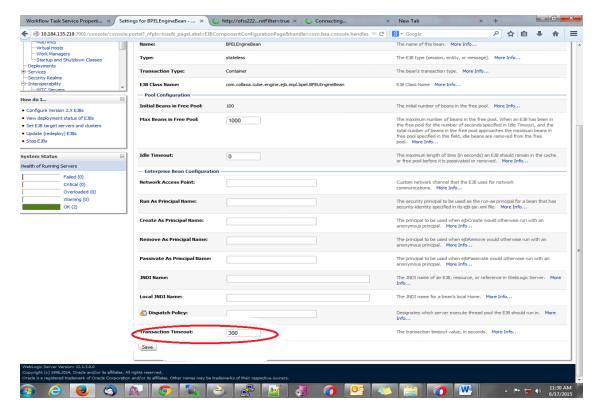
3. Click on "soa-infra" application under deployments.



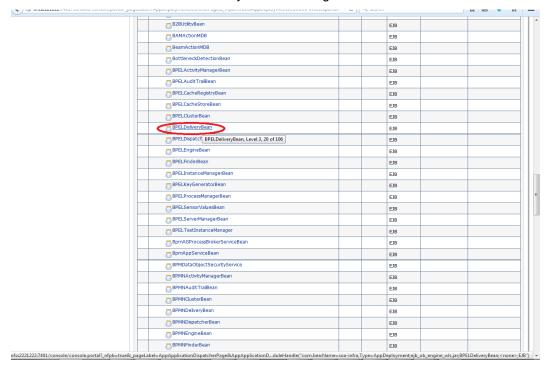
4. Go to EJBs, click on BPELEngineBean→Configuration→set Transaction TimeOut to 300.



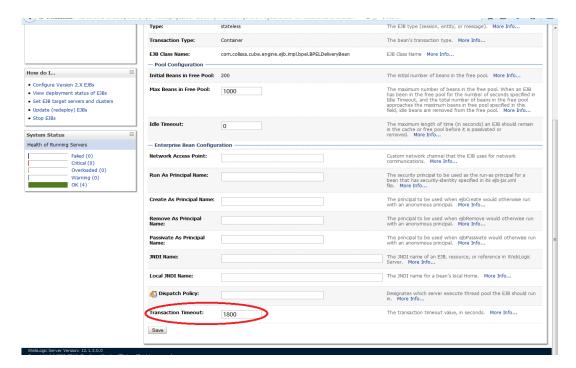




Go to EJBs→BPEL DeliveryBean→ Configuration→set Transaction TimeOut to 300

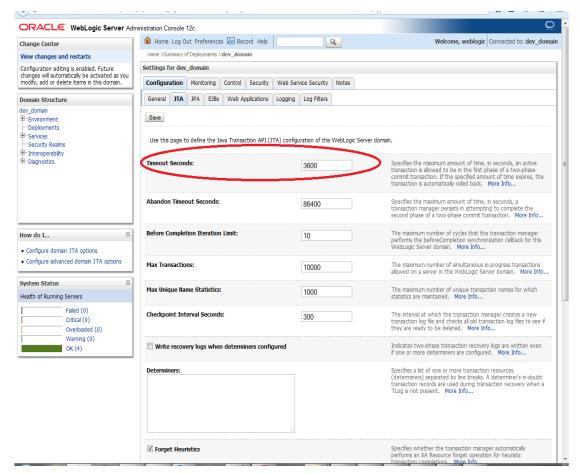






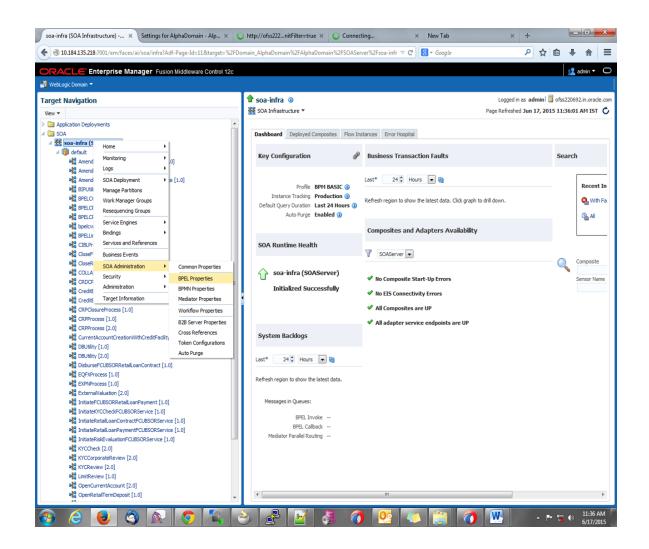
- 6. Login in to Console →JTA
- 7. Set the JTA timeout according to the below condition. Make sure BPELEngineBean + BPELDeliveryBean is <= JTA timeout(e.g. 300+300<=600)



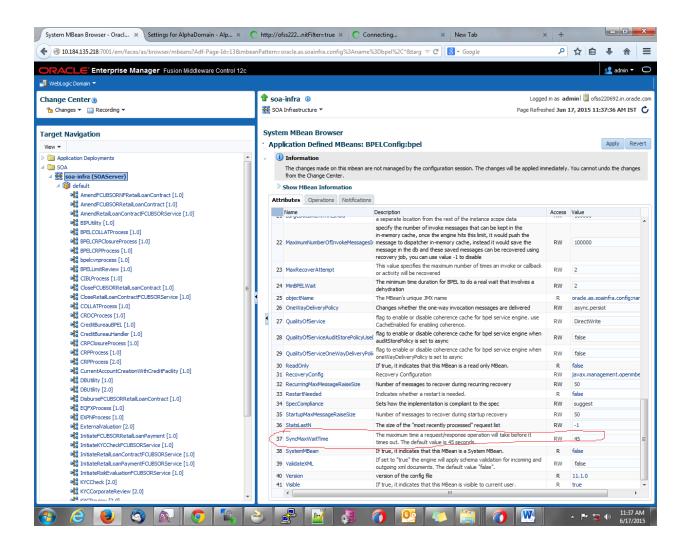


8. Login in to EM console (http://host:port/em)→SOA adminstration→BPEL
Properties→MoreConfigpropeties→ SyncMaxWaitTime.Change the SyncMaxWaitTime to
200 secs











1.3 Integrating Oracle FLEXCUBE UBS and Scheduler

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

1.3.1 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 is Latest Qualified Version.

Follow the steps given below:

- Download Quartz Latest Qualified Version.gz file from the following URL: http://www.quartz-scheduler.org/download/download-catalog.html
- 1. Extract the gz file.
- 2. Open the folder 'Quartz-Latest Qualified Version \docs\dbTables' folder and run 'tables_oracle.sql' (this is specific to Oracle Database) in the schema.

For details on latest version of the software qualified with Oracle FLEXCUBE, refer to the release certificate.

1.4 Integrating Oracle FLEXCUBE UBS and BIP Reports

You can integrate Oracle FLEXCUBE UBS and BIP reports. The details are available in the chapter 'BIP Web Service Reports'.

1.4.1 <u>Deploying Application Through Application Server's Admin Console</u>

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'.

1.5 Integrating Oracle FLEXCUBE UBS and MBean

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

1.5.1 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.
 - c) Based on the operating system used, open 'startWeblogic.cmd' or 'startWeblogic.sh' from the folder 'bin'.



d) 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.JAXPPlatform
%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.JAXPPlatform
%PROXY SETTINGS% %SERVER CLASS% >"%WLS REDIRECT LOG%" 2>&1
)
```

e) Restart the Weblogic server.





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