Setting up Plug-Ins Oracle FLEXCUBE Universal Banking Release 12.2.0.0.0 [May] [2016]



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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.

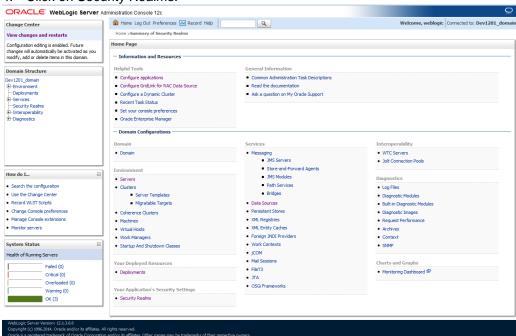
1.2 Integrating Oracle FLEXCUBE UBS and BPEL

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 'FCBPELCIS.jar' file. You need to complete the following tasks before deploying Oracle FLEXCUBE UBS EAR file.

1.2.1 <u>Custom Provider Configuration</u>

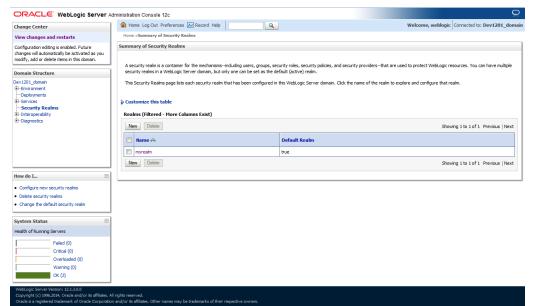
FCUBS Custom Authenticator Provider configuration has to be done from the weblogic console of SOA or manually update the config.xml of the soa domain. Below steps needs to be followed to setup Custom Authentication Provider:

- 1. Along with FCUBS Ear file, Installer creates FCUBSAuthenticationProvider.jar file. Copy this files to <ORACLE_HOME>\wlserver\server\lib\mbeantypes
- 2. Restart the Admin Server
- 3. Login to the Console
- Click on Security Realms.



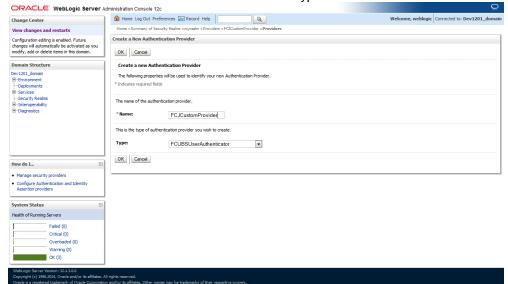
5. Click on myrealm.





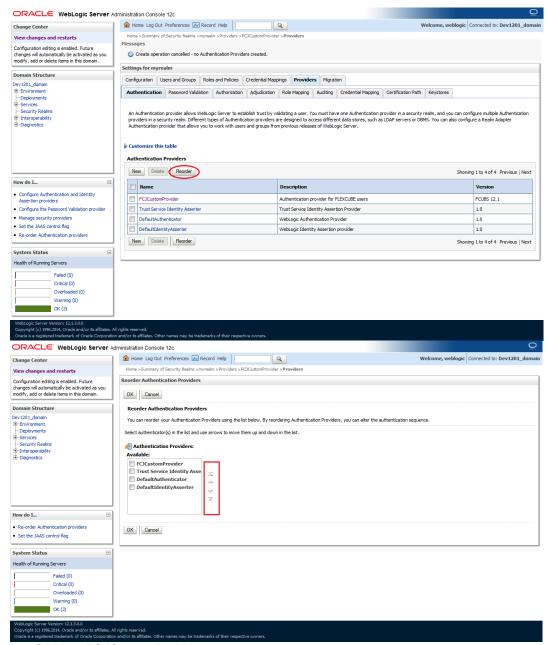
6. Click on Providers tab and click on new button to create new authentication provider.

7. Give Provider name as FCJCustomProvider and type as FCUBSUserAuthenticator.



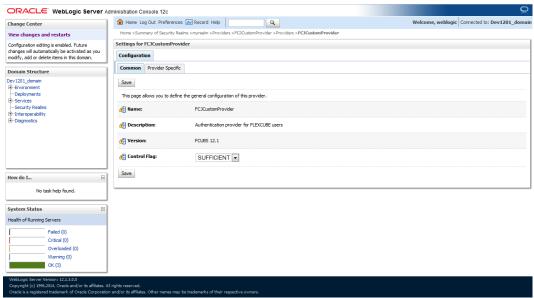
8. Click Reorder to bring provider to first of all providers and click OK.



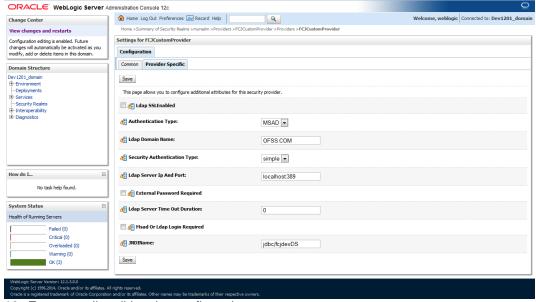


- 9. Click on FCJCustomProvider.
- 10. In Common tab change the control flag to "SUFFICIENT".





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



12. For manually editing the config.xml go to

<ORACLE_HOME>\Middleware\user_projects\domains\base_domain\config\ path. Open config.xml file. 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 'FCBPELCIS.jar' file.
- Create a folder by name 'classes' at the location '<MIDDLEWARE_HOME>soa\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>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 defined in the properties file 'fcubs.properties'.
- Copy 'FCBPELCIS.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 to '<MIDDLEWARE_HOME>/oracle_common/modules/oracle.ovd/templates/



fcubs_adapter.xml

- 7. Search for <FCUBSDATASOURCE> in fcubs_adapter.xml and update it with fcubs Datasource
- 8. 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 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 <FCUBSDATASOURCE>

9. Once the above steps are completed, 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.

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

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

7. Search for EntityId element and update the value with the entity name which we have created.

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

8. 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

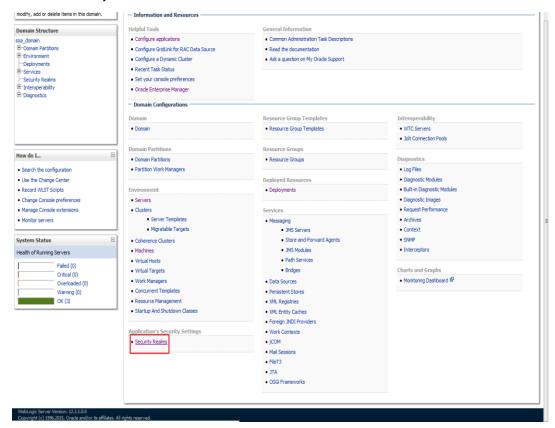
libovdadapterconfig.sh -adapterName fcubsAdapter -adapterTemplate fcubs_adapter_< EntityId.xml -host <ADMIN_SERVER_HOST> -port <ADMIN_PORT> -userName <WEBLOGIC_USERID> -domainPath <DOMAIN_HOME> -dataStore DB -root ou=EntityId,dc=oracle,dc=com -contextName default -dataSourceJNDIName FcubsDataSource name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

- 9. Repeat from step2 to step7for each entity creation
- 10. Once the above steps are completed, restart the server.



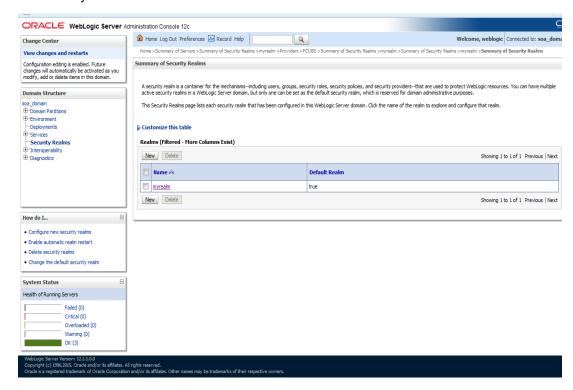
1.2.4 Configuring for Multiple Providers for Multiple Entities

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





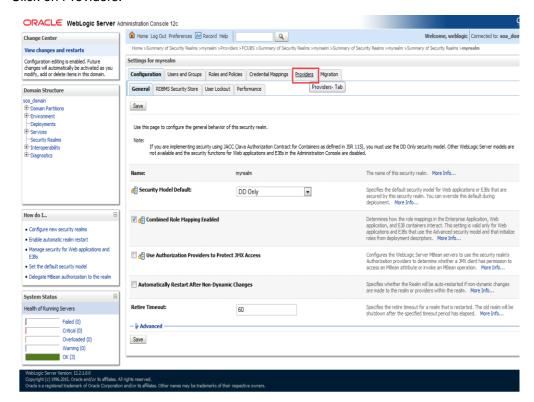
3. Click on myrealms.



 $10.184.133.168:7401/console/console.portal?_nfpb=true\&_pageLabel=RealmgeneralTabPage\&SecurityRealmRealmGe...bea.console.handles.SecurityMBeanHandle('Security:Name=myrealm;weblogic.management.security.RealmMBean')$

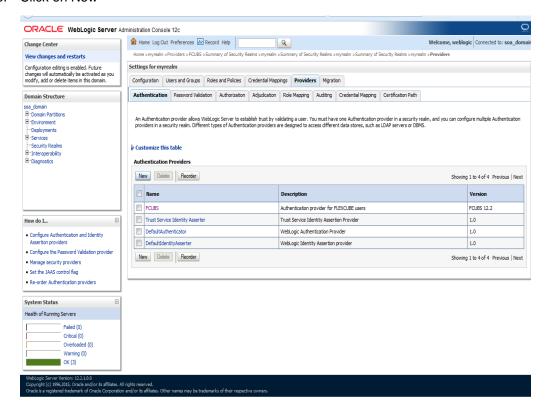


4. Click on Providers.



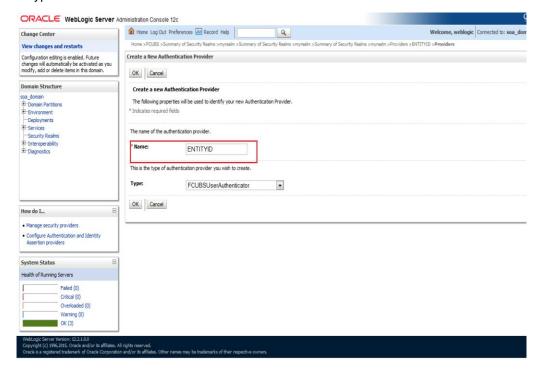


5. Click on New



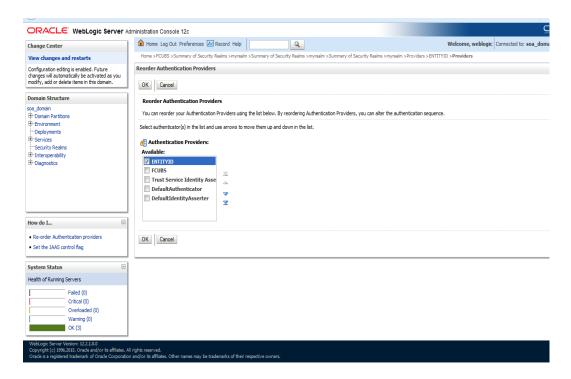


6. Enter the Name with proper Entity Name(entity name we mapped in propertyfile) and select the type as FCUBSUserAuthenticator



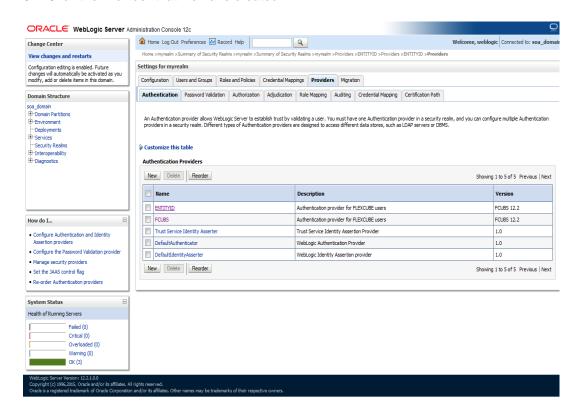


7. click on Reorder.Bring the Authenticatiorprovider the first in the order and click ok.





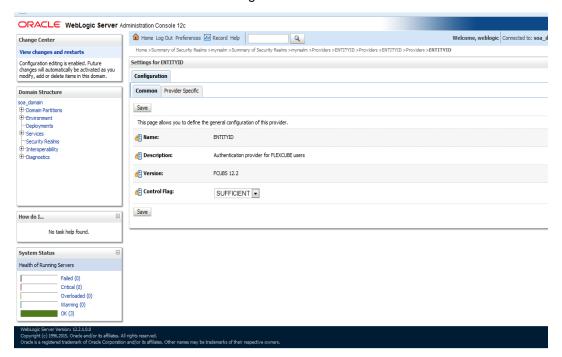
8. Click the Provider that we have created.



10.184.133.168.7401/console/console.portal? Infpb=true&DispatcherPortletperspective=configuration& pageLabel=...widers.authentication.FCUBSUserAuthenticatorMBean%22%28&DispatcherPortletperspective=configuration& pageLabel=...widers.authentication.FCUBSUserAuthenticatorMBean%22%28&DispatcherPortletperspective=configuration& pageLabel=...widers.authentication.FCUBSUserAuthenticatorMBean%22%28&DispatcherPortletperspective=configuration& pageLabel=...widers.authentication.FCUBSUserAuthenticatorMBean%22%28&DispatcherPortletperspective=configuration& pageLabel=...widers.authenticator.FCUBSUserAuthenticatorMBean%22%28&DispatcherPortletperspective=configuration& pageLabel=...widers.authenticator.FCUBSUserAuthenticatorMBean%22%28&DispatcherPortletperspective=configuration& pageLabel=...widers.authenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthenticator.FCUBSUserAuthentic

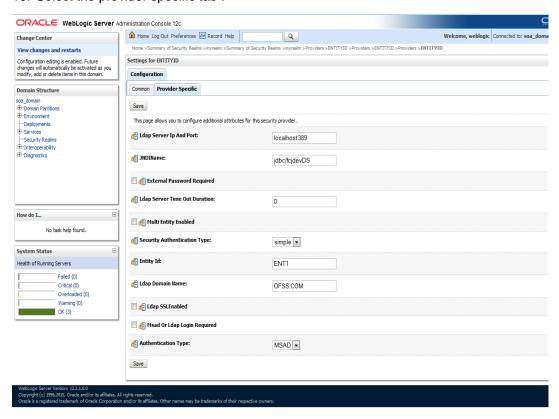


9. In comman tab select the control flag as SUFFICENT from the list and click on save.



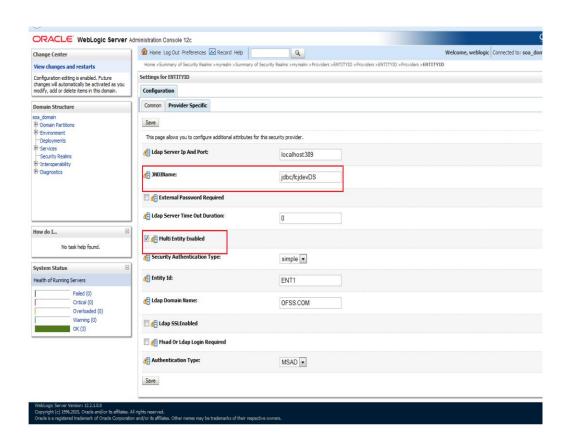


10. Select the provider specific tab.



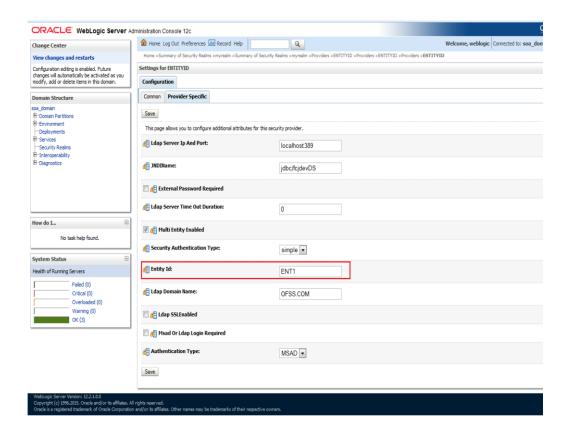
11. Change the JNDI name to the Datasource JNDI name which have mapped to the entity in the property file level and check the multi entity enabled checkbox.





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





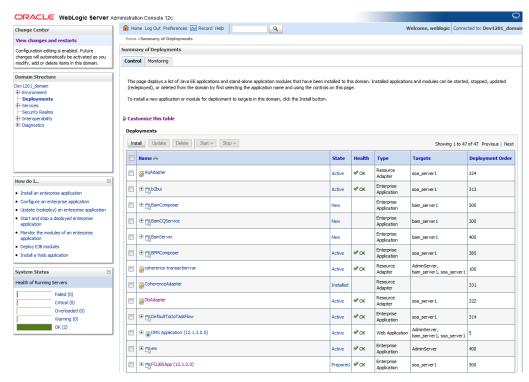
- 13. Create the new datsource for each entity with the JNDI name which we mapped in the property file.
- 14. Restart the Admin server
- 15. Continue the step1 to step15 for each provider creation in mutlientity scenario.



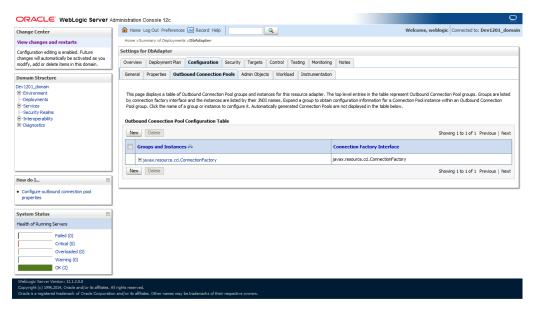
1.2.5 Configuring DBAdapter

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

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



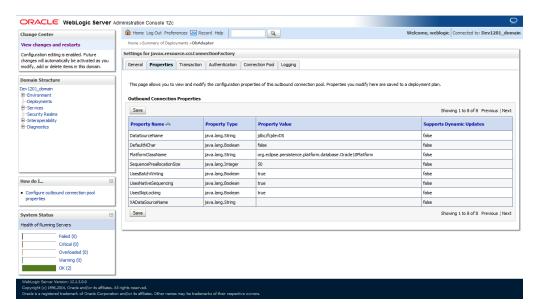
11. In the Deployments table, select 'DbAdapter'. You will be navigated to 'Settings for DbAdapter'.



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



- 13. Under 'Groups and Instances', click and expand 'javax.resource.cci.ConnectionFactory'.
- 14. Click 'New' and select 'javax.resource.cci.ConnectionFactory' in Outbound Connection Group.
- 15. 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'.
- 16. Click 'DbAdapter' again. The new JNDI name is listed.
- 17. Click on the hyperlink 'eis/DB/FCCDEV'.

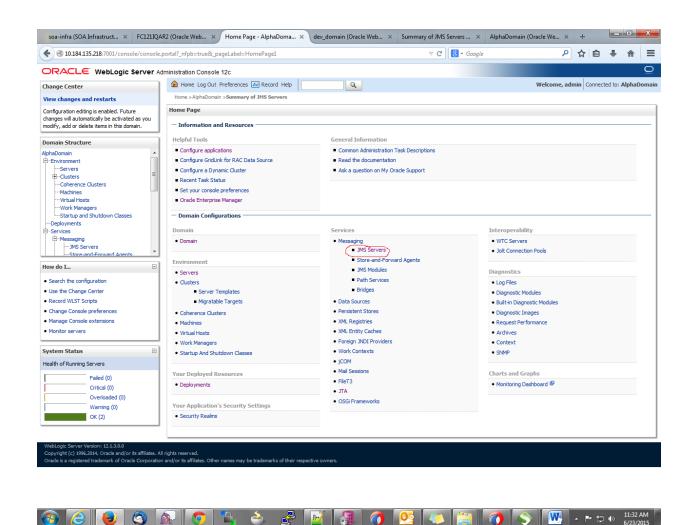


- 18. Click the 'Property Value' field for the 'DataSourceName' and update the application JNDI reference (given in 'fcubs.properties' file) and then press 'Enter' key.
- 19. Save and restart the Adminserver.

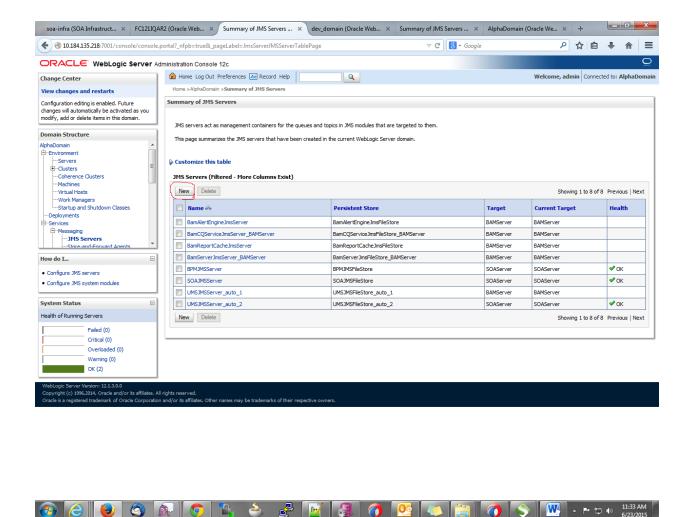
1.2.6 Configuring JMS Adapter

Login in to console → Click on JMS Servers→New



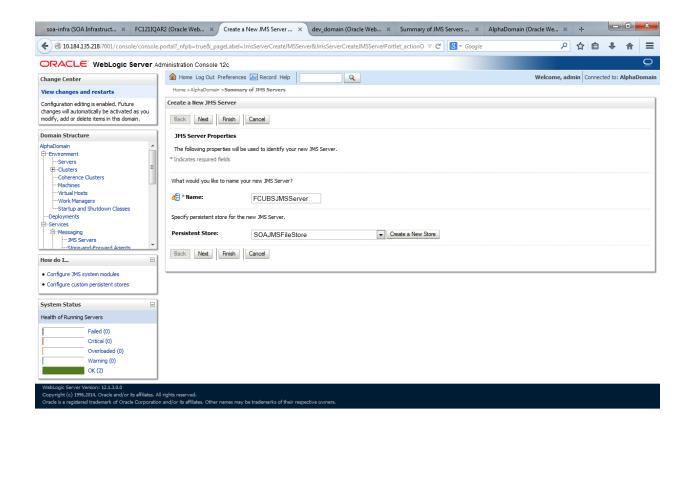






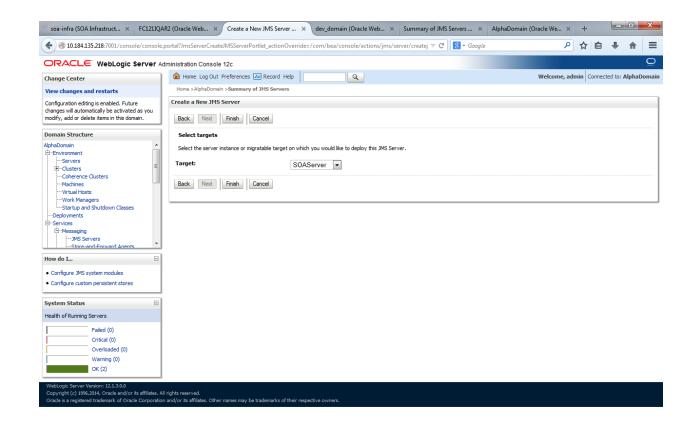
20. Please provide the below Name for JMS Server and select the file persistent store as below→Next





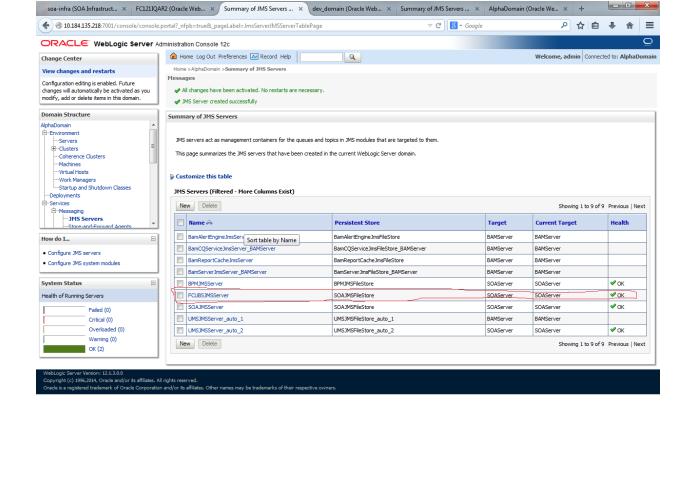
21. Select the target as SOA Server → Finish





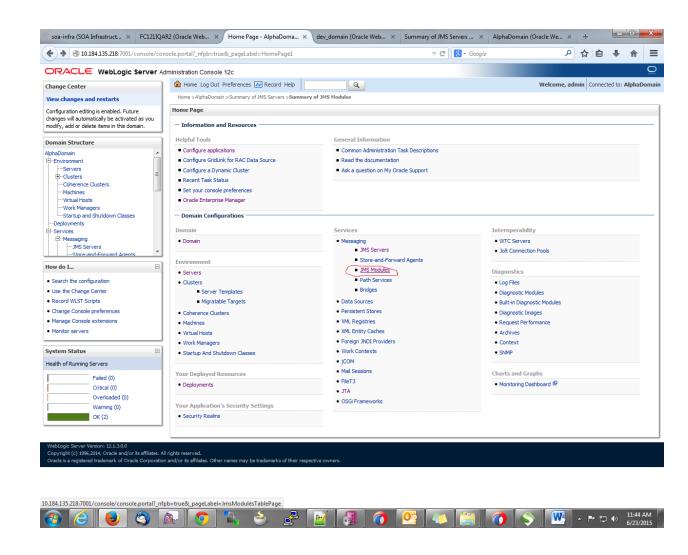




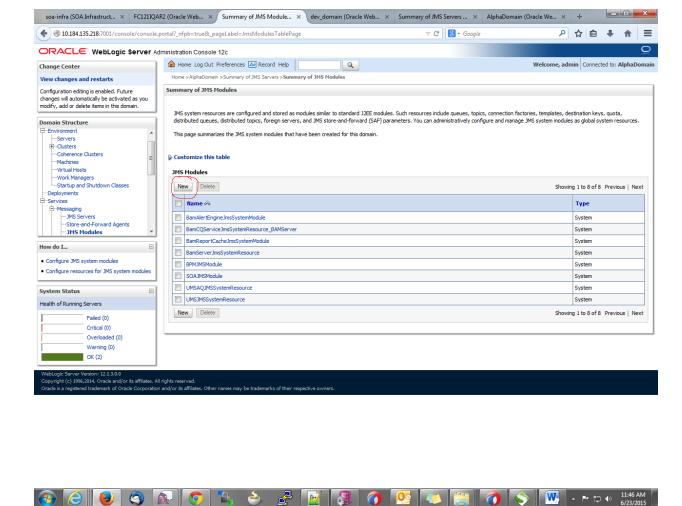


4. Go back to Console →JMS Modules→New



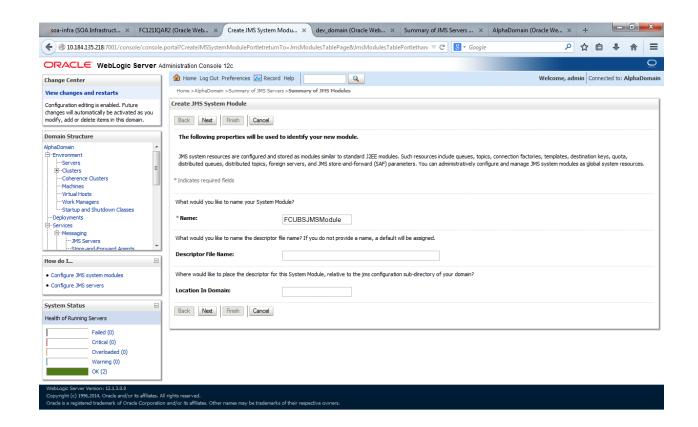






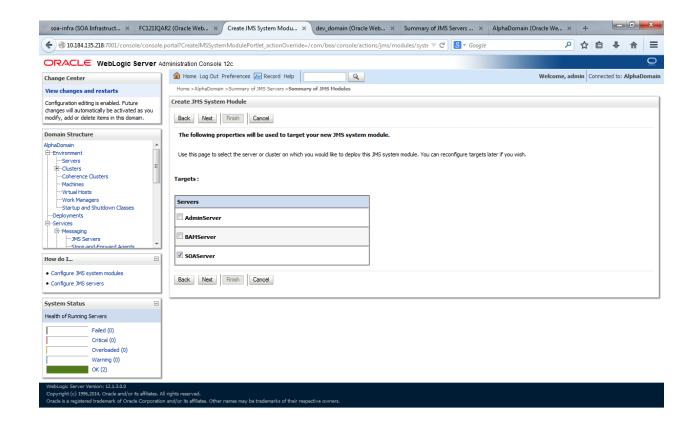
5. Create a JMS Module with the below Name→Next→Select the target as SOA Server→Finish





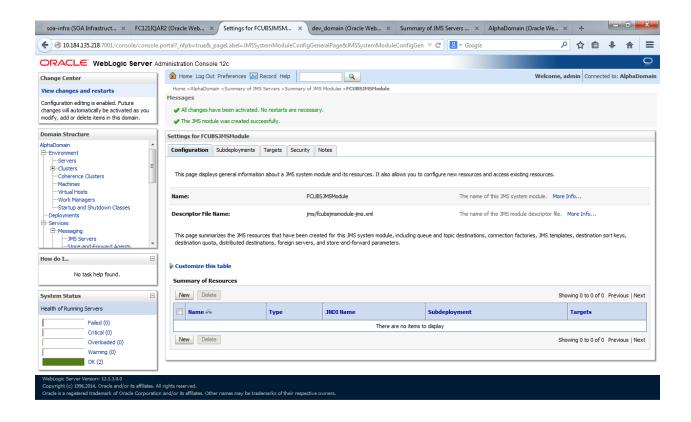








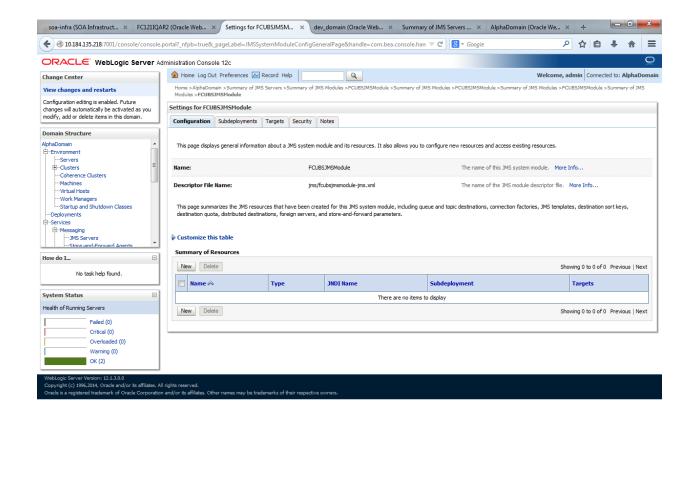






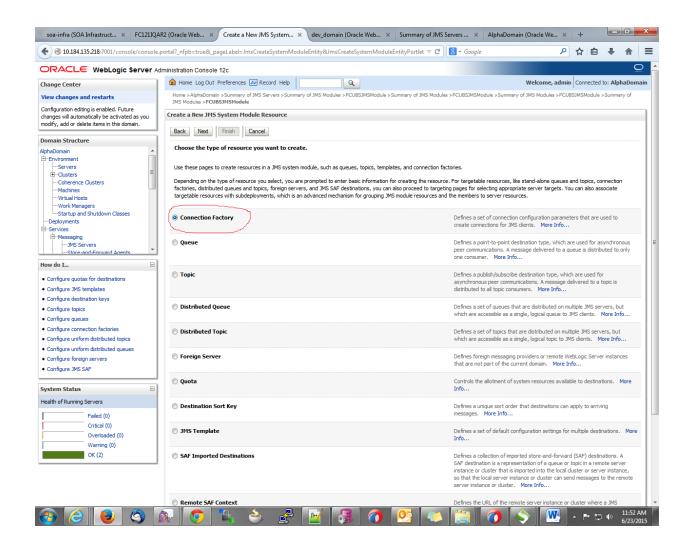
1. Go back to JMS Modules→FCUBSJMSModule→New



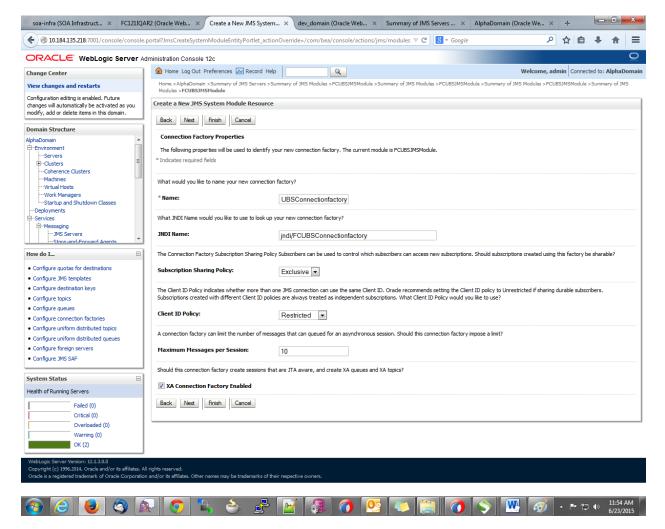


2. Click on Connection Factory → next → Create the connection Factory with the below Names → Next



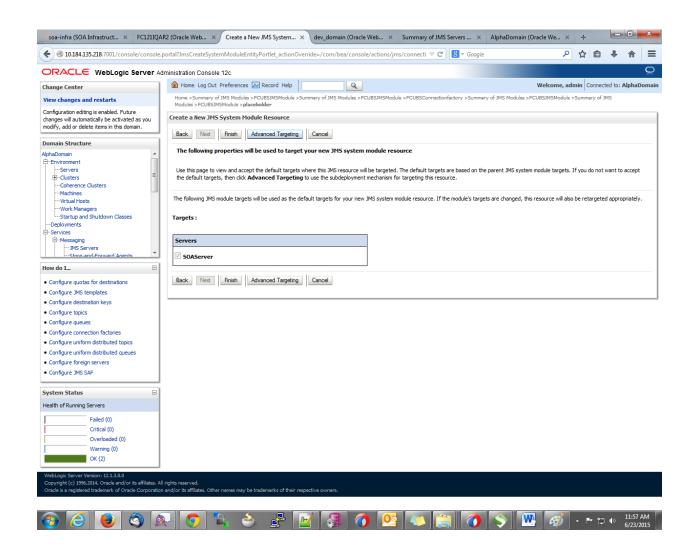




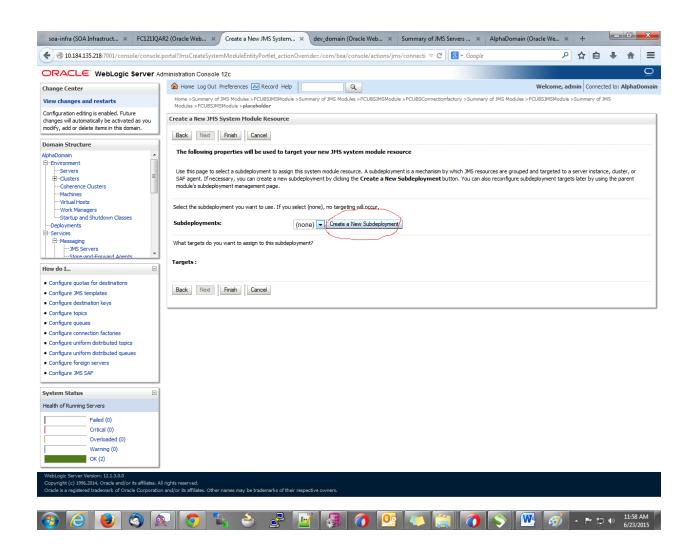


3. Select Advanced targeting→create New Sub Deployment with the below Name→Select the target as JMS server which we have created on top→Finish

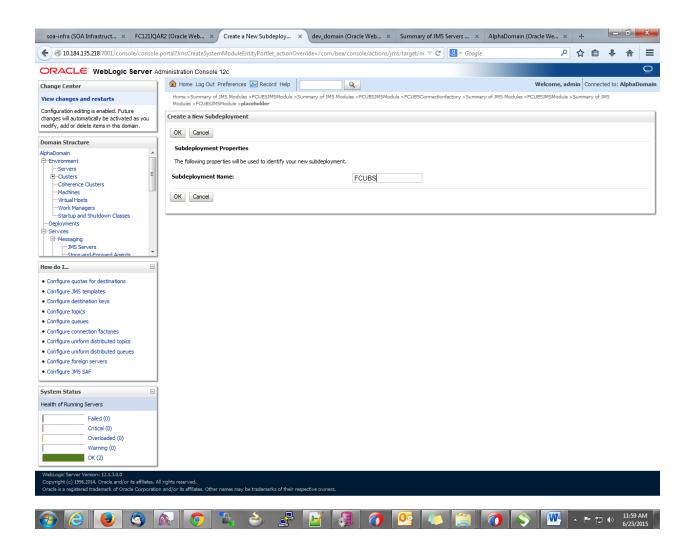




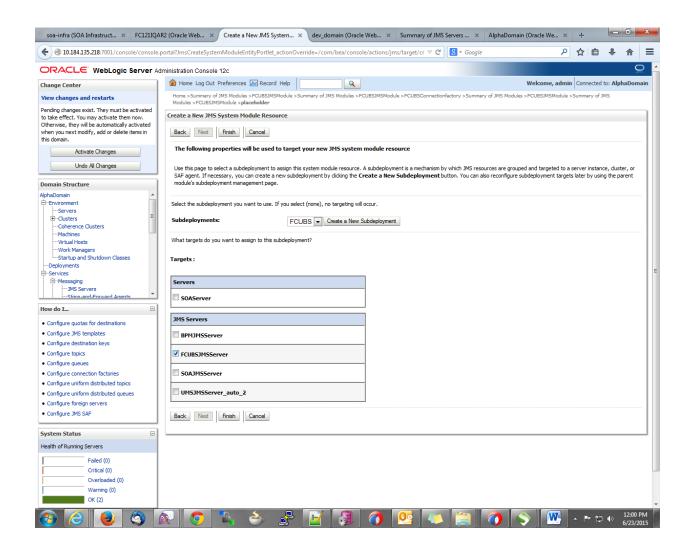




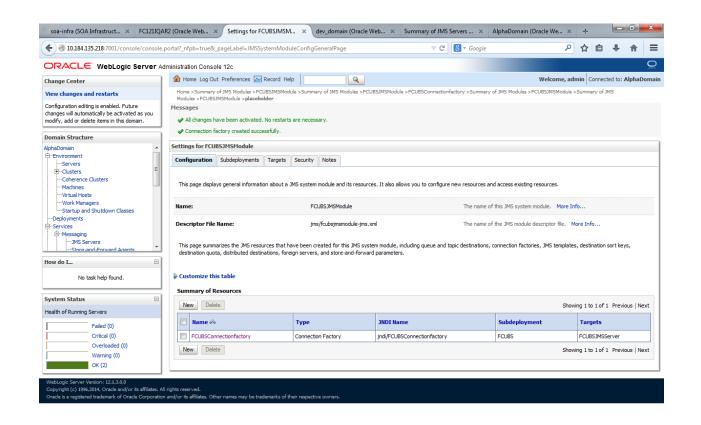






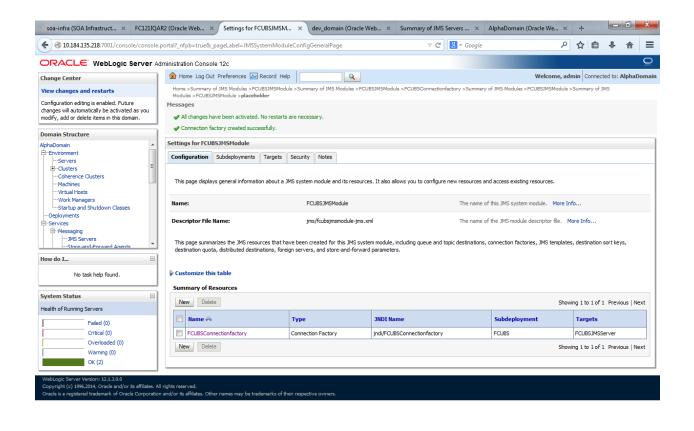








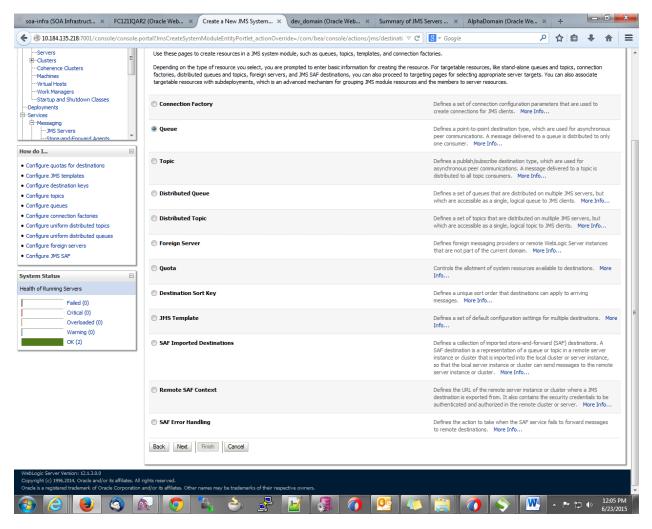






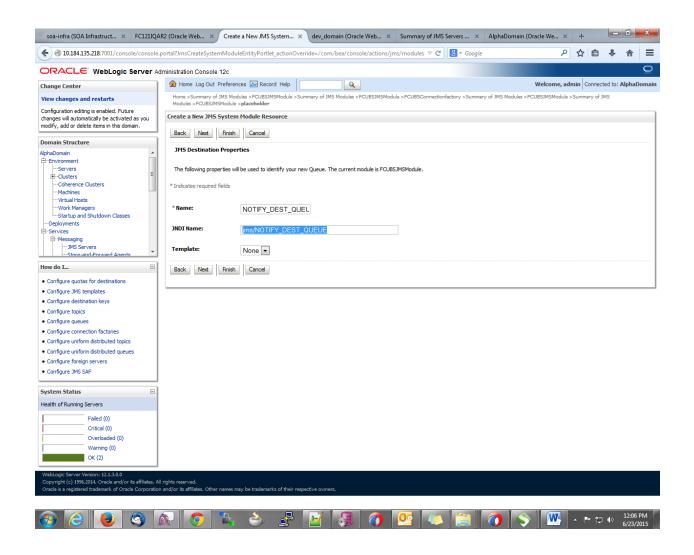
4. Go back to console → Click on JMS Modules → New → check on Queue → next



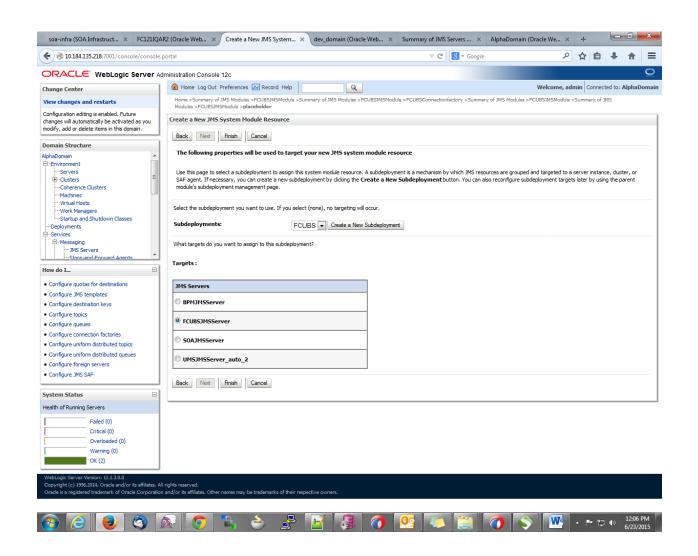


 Create Queue with Name NOTIFY_DEST_QUEUE and JNDI name as jms/NOTIFY_DEST_QUEUE→select the sub deployment which we have created earlier →Next→Finsish

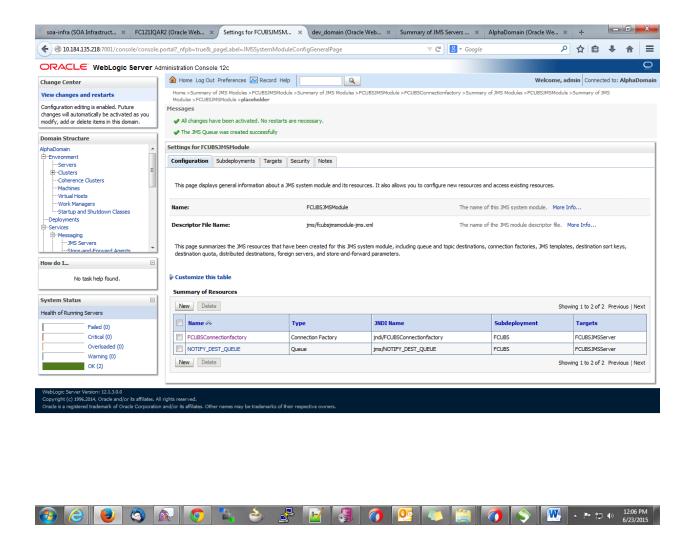






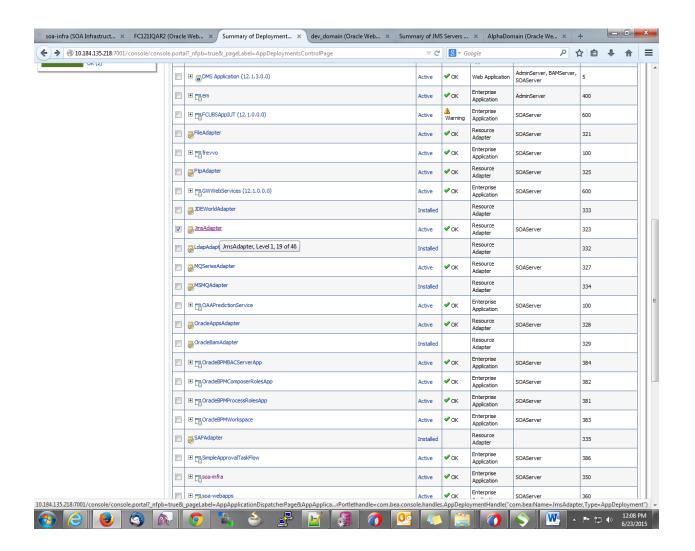




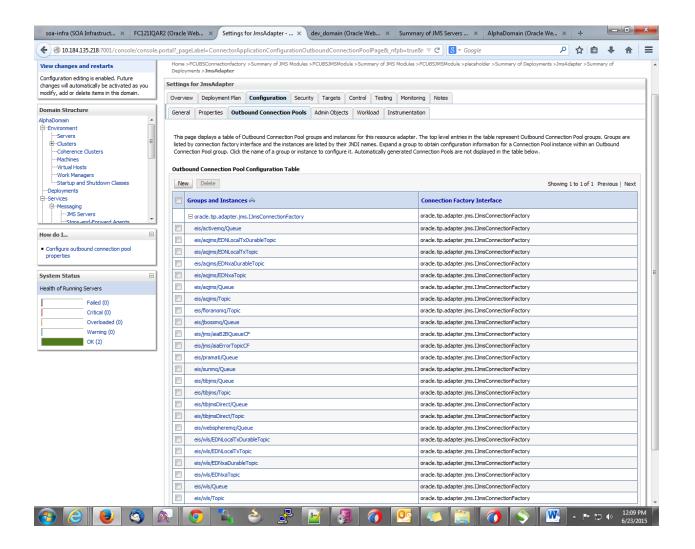


- 11. Please create the MDB_QUEUE_RESPONSE, eis/jms/ORGateway, FAULT_QUEUE_RESPONSE Queues as above in console with in FCUBSJMSModule.(Follow step 9-10 in 1.2.7)
- 12. Go to Console→Deployment→JMS Adapter →Configuration→outbound connection pool→New→next→Finish

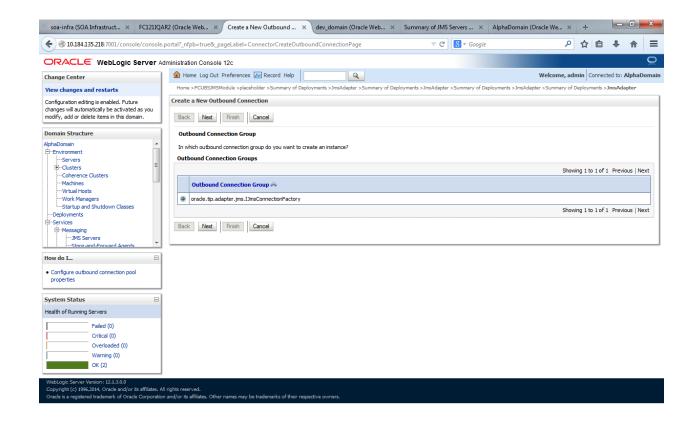


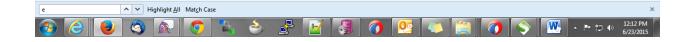




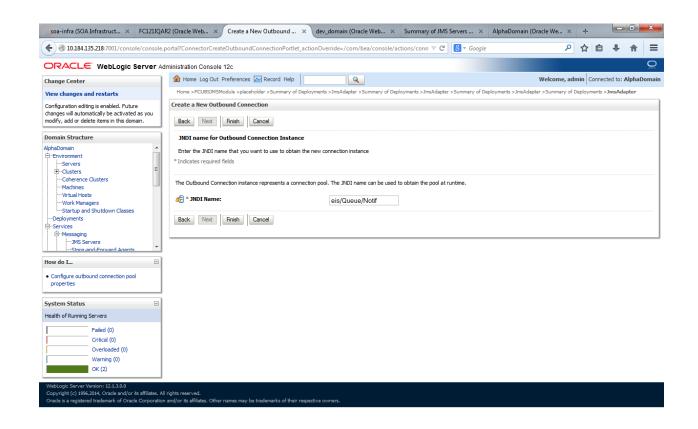


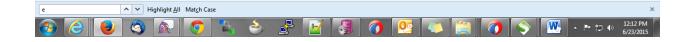




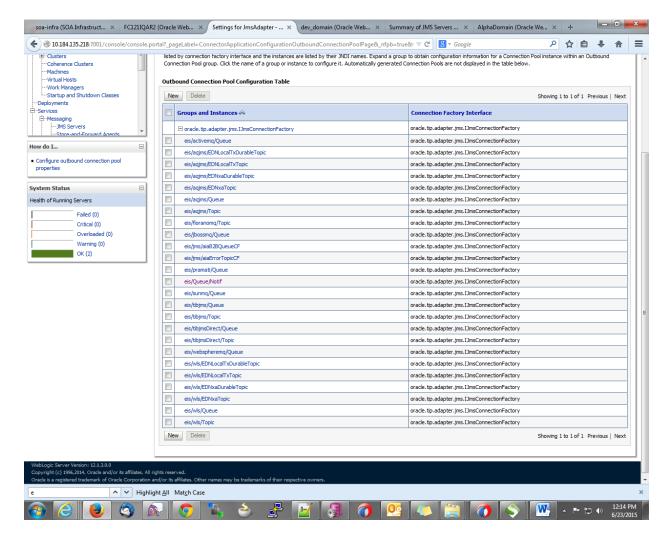






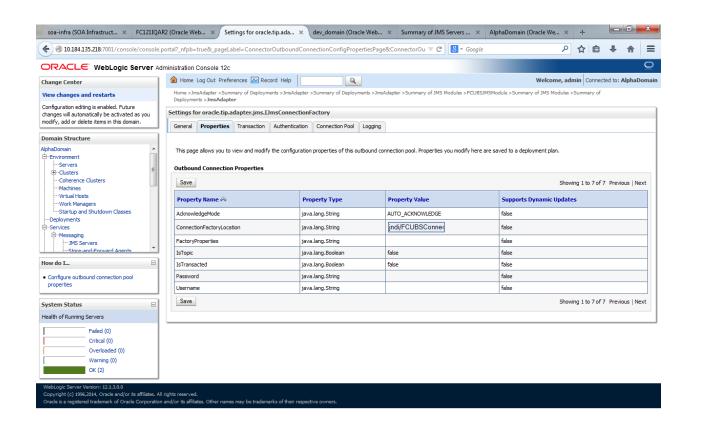


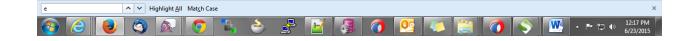




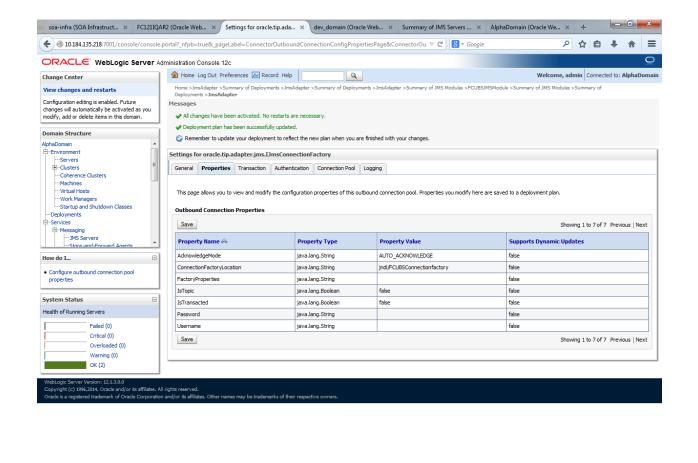
6. Click on the Outbound connection pool with **eis/Queue/Notif** and enter the connection factory location as **jndi/FCUBSConnectionfactory**→press Enter and Save







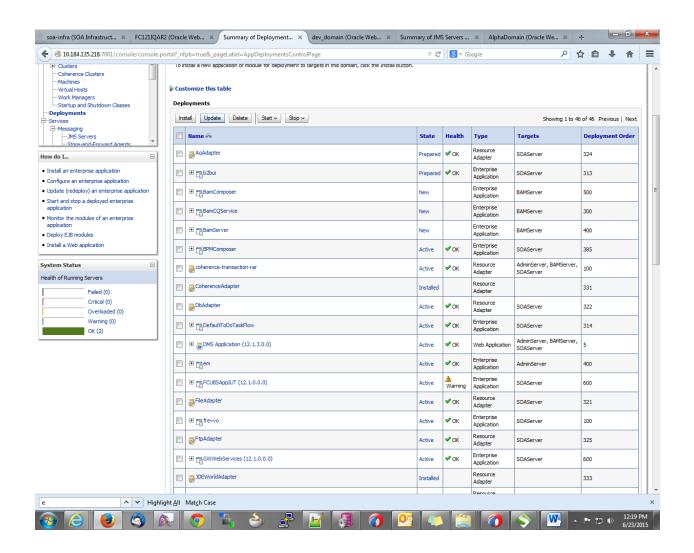




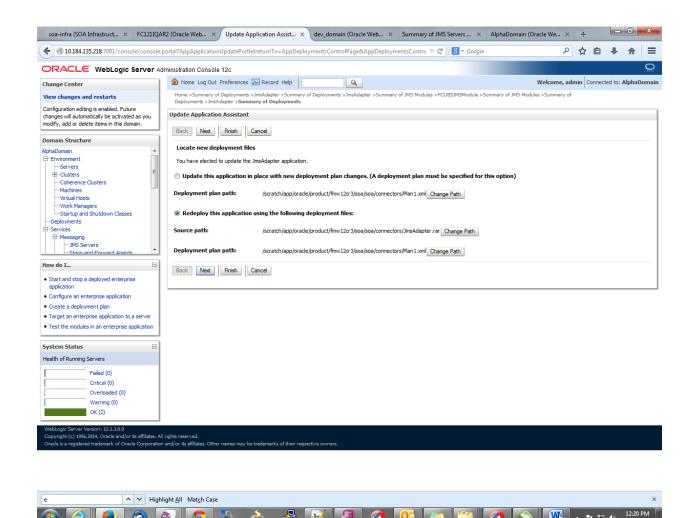


15. Go to console → Deployments → JMS adapter → Update → Next → finish

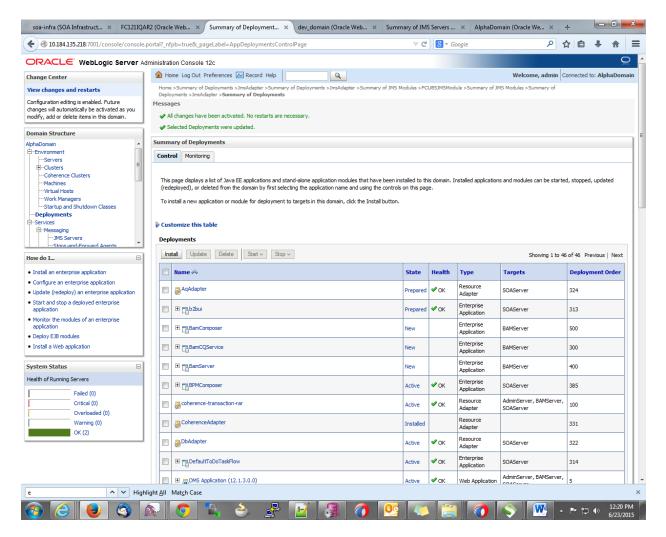










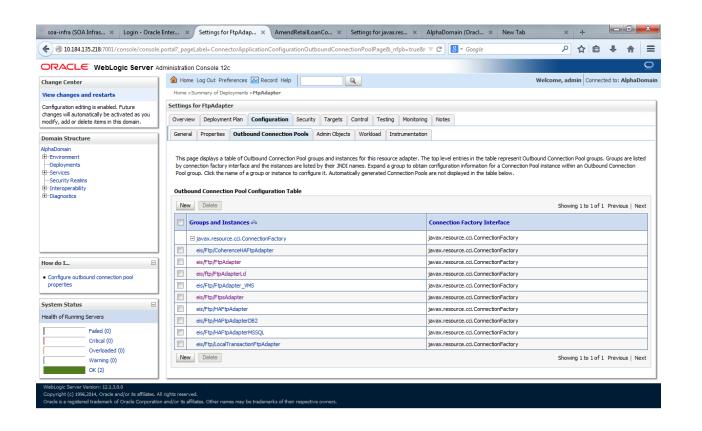


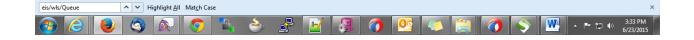
16. Create the out bound connection pool with the **eis/wls/Queue** name in the Deployments using connection factory indi/FCUBSConnectionfactory.

1.2.7 Configuring FTP Adapter

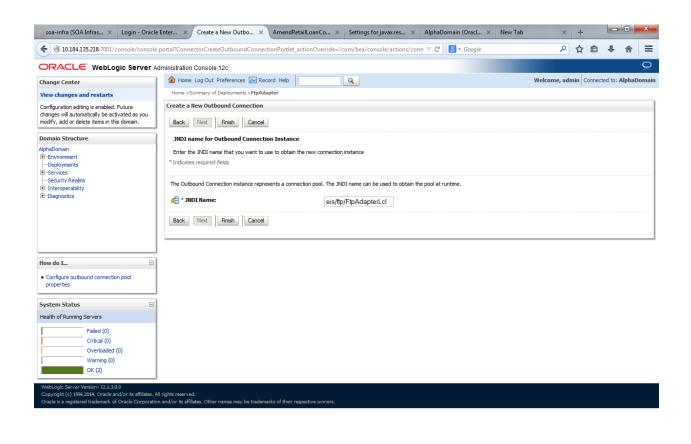
1. Login to console → Deployments → FTP Adapter → Configuration → Outbound Connection Pool → New













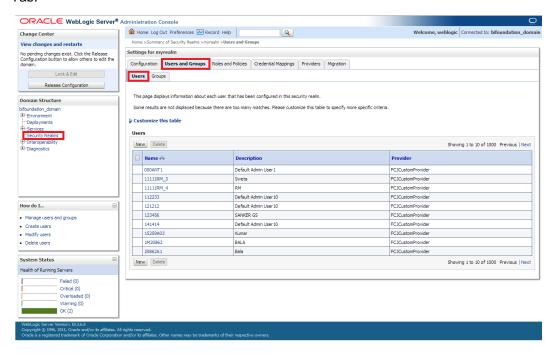
2)Click finish and save.

1.2.8 BIP Interactive reports configuration

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

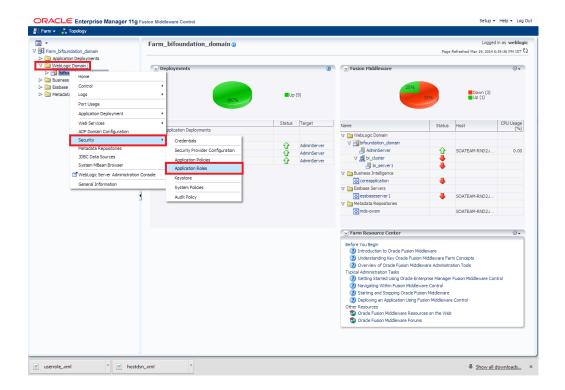


After adding, Navigate to security realms >myrealm > Users and Groups and check if the users from the schema are displayed in Users tab, and Roles from the schema are displayed under the Groups Tab.



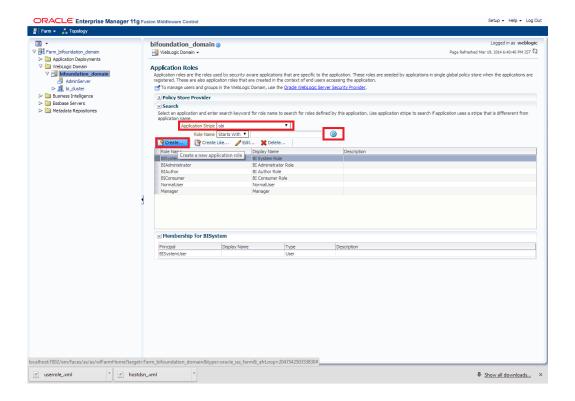
- 3) Login to the Enterprise Manager (em) http/s:<hostname>:<port>/em
 - Right click on the domain(in which BI suite is installed) under the weblogic domain
 - Go to security and then navigate to application roles





- 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



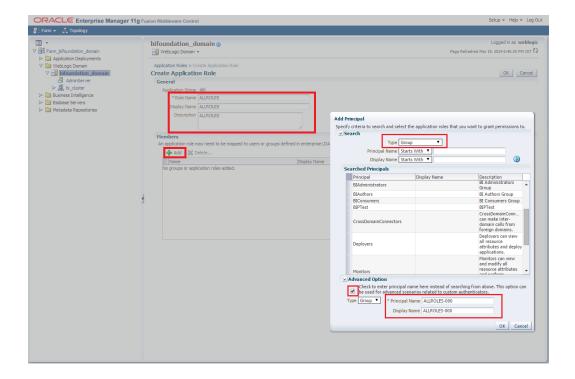


- 5) After navigating to next screen as in below screenshot,
 - Enter the role name(mandatory), display name(optional), description(optional)
 - Click on the Add button
 - In the Add Principal pop up select type as "Group"
 - In the advanced option check the checkbox and again select the type as "Group"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

or

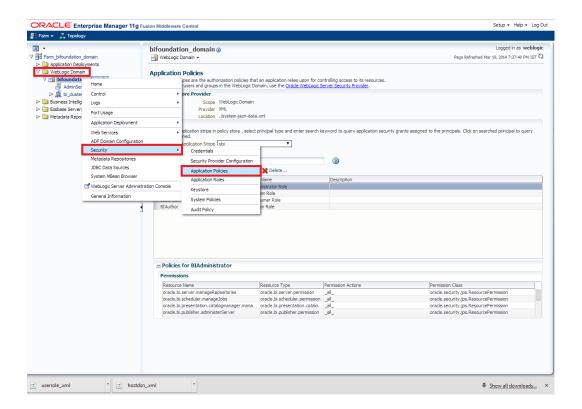
- Enter the Principal Name (mandatory), which is actually the role present in the FCUBS (ex: ALLROLES-000, ADMINROLE-000), Display Name (optional).
- After completing click on OK button in pop up window and also in the screen.





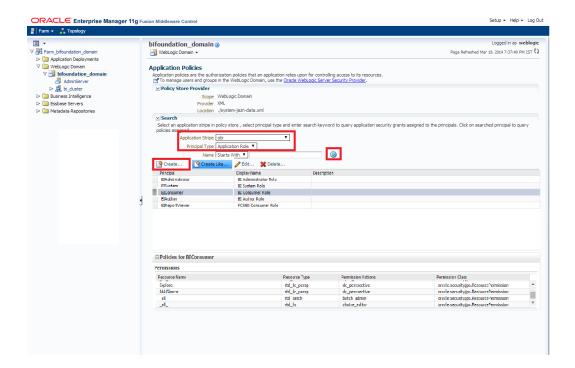
- 6) After getting information message like "A new role added successfully", then again
 - Right click on the domain(in which BI suite is installed) under the weblogic domain
 - Go to security and then navigate to application polices



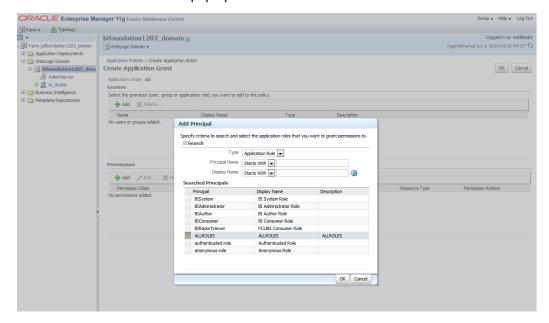


- 7) After navigating to next screen as per screen shot,
 - o Select the application stripe as obi, principal type as "Application Role"
 - Click on the search button
 - Select BIConsumer(it should be highlighted) from the list and click on the create like button.



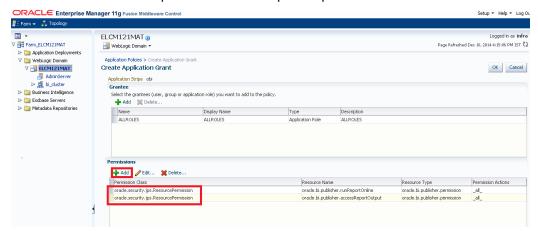


- 8) After navigating to next screen as per the screen shot,
 - Click on Add button, a new window "Add Principal" will be launched.
 - Select Type as "Application Role" and click on the search button
 - From the list select the role that has been created earlier in application role screen and click on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

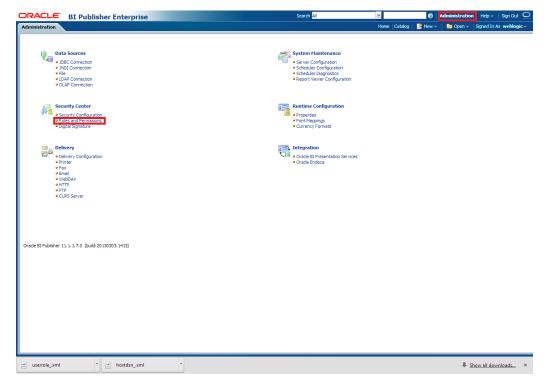




- Click Add button under Permissions and add the two permissions one by one as mentioned below.
 - oracle.bi.publisher.runReportOnline
 - oracle.bi.publisher.accessReportOutput

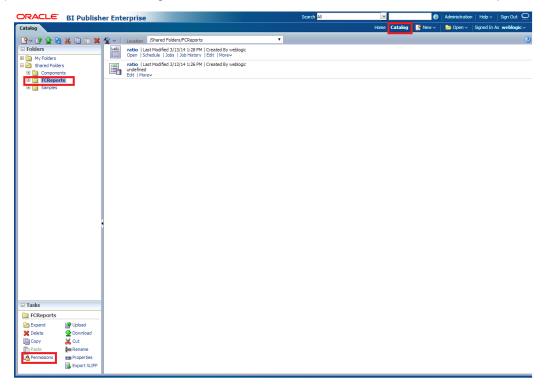


- 9) After getting information message like "A security added successfully",
 - o Login into the BIPublisher , http/s:<hostname>:<port>/xmlpserver
 - Click on the Administration .
 - Click on the Roles and Permission under Security center and check if the added role(in em) is displayed, If not restart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



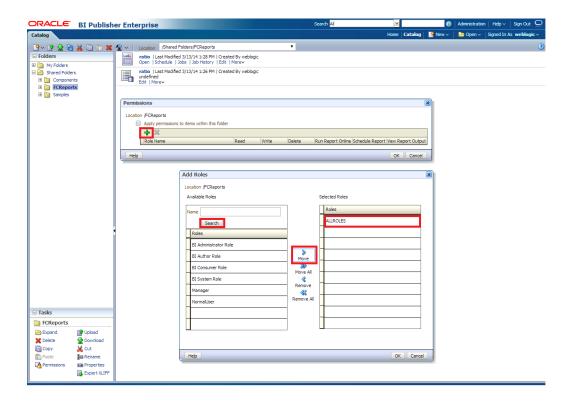




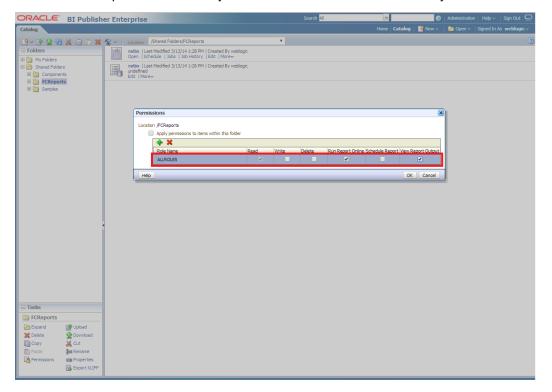


11) After clicking on the permissions, a new window will pop up, delete all the roles if any present on click of permissions, then click on Add button, and then click on search button in "Add Roles" window that is launched newly and select the role that has been created and click on move button and click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



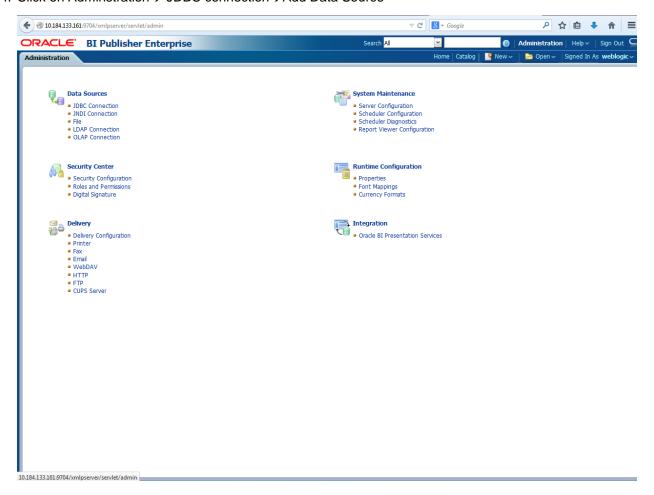


Now the reports in the folder will be accessed accordingly based on the roles.

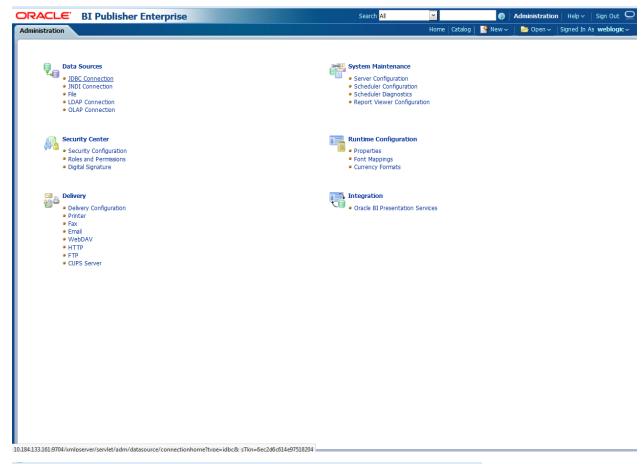
Note:

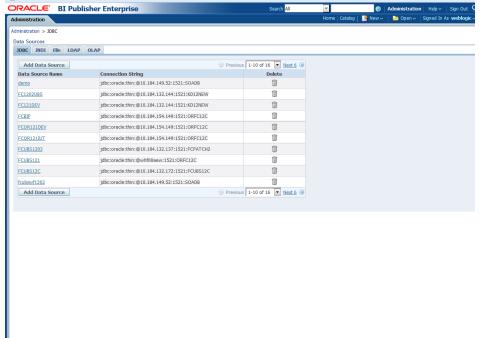
In the similar way we can set the permissions at report level also for particular role.

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



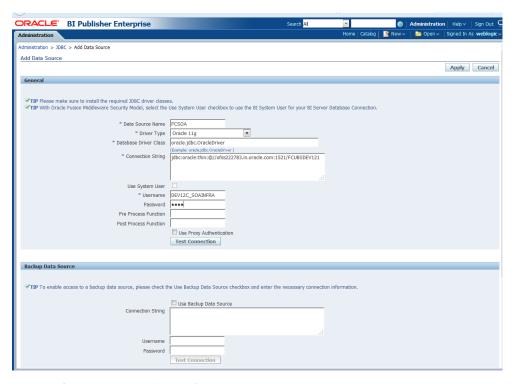




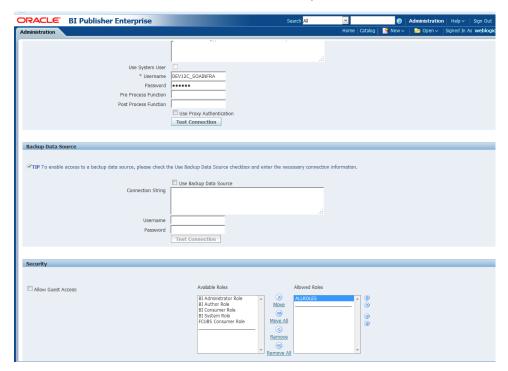




15. Please create the data source with data source name as **FCSOA** and use soa schema details to create the same.



16. Add the fcubs roles to allowed Roles under security



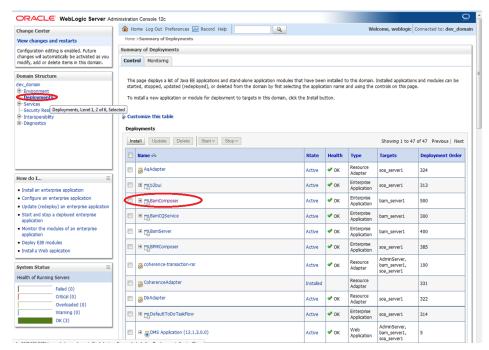
17. Click on test connection .once the connection is established successfuly .Click on Apply.



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

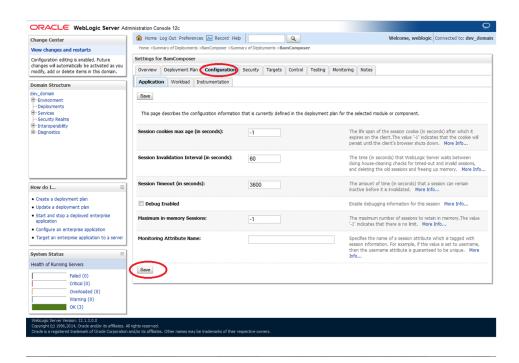
1.2.9 BAM Report Configuration settings

- 1. Generate a deployment plan for BAM Composer Application.
- 2. Login in to console http://hostname:port/console
- 3. Click on Deployments→click on BAM Composer

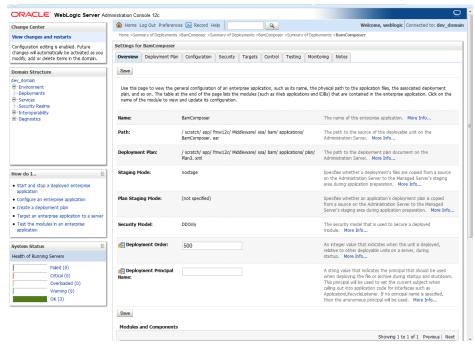


4. click on Configuration Configuration →Save





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>



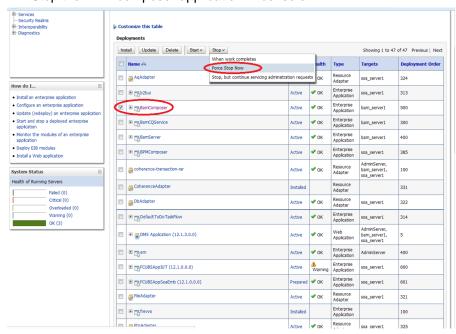
```
<value>never</value>
  </variable>
<module-descriptor external="true">
  <root-element>web-app</root-element>
  <uri>WEB-INF/web.xml</uri>
        <variable-assignment>
        <name>oracle.adf.view.rich.security.FRAME_BUSTING</name>
        <xpath>/web-app/context-param/[param-name="oracle.adf.view.rich.security.FRAME_BUSTING"]/param-value</xpath>
        <origin>planbased</origin>
        </wariable-assignment> </module-descriptor>
```



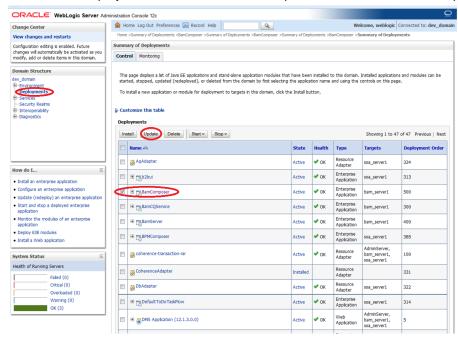
Plan3.xml



7. Stop the BAM composer application in console.

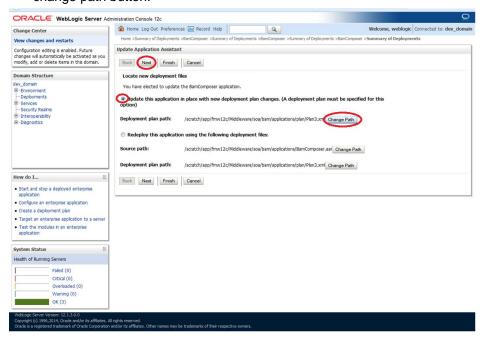


- 8. Update the deployment plan.
- 9. Click on deployments →click on BAM Composer checkbox →Click on update

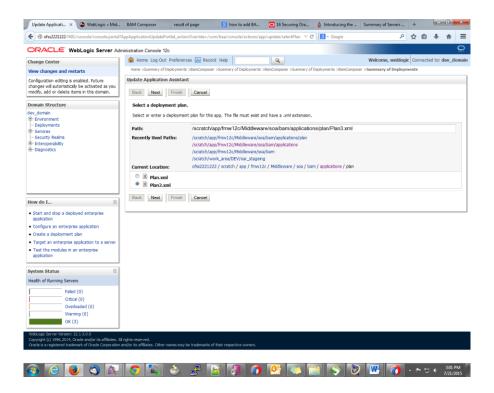




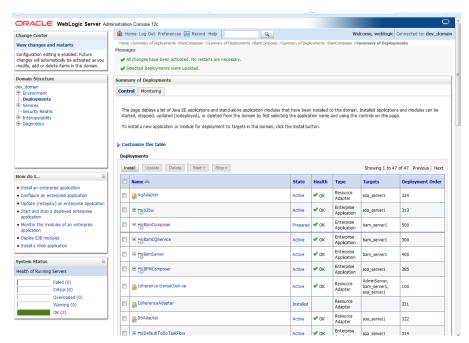
10. select the Update this application in place with new deployment plan changes and click on change path button.



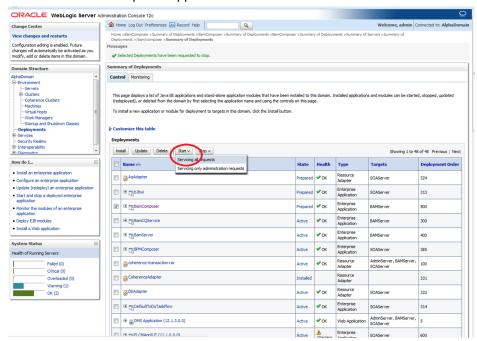
11. Select the latest plan.xml in the in the path→next→next→Finish







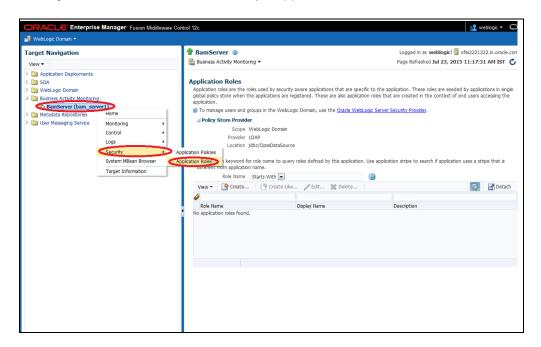
12. Restart the BAM Composer application in the console



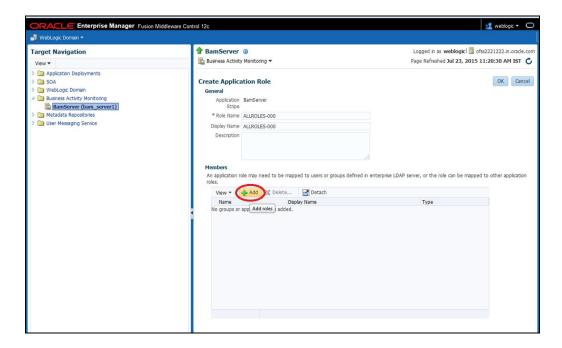
13. Login in to em console http://hostname:port/em



14. Right Click on BAM Server→Security→Application Roles

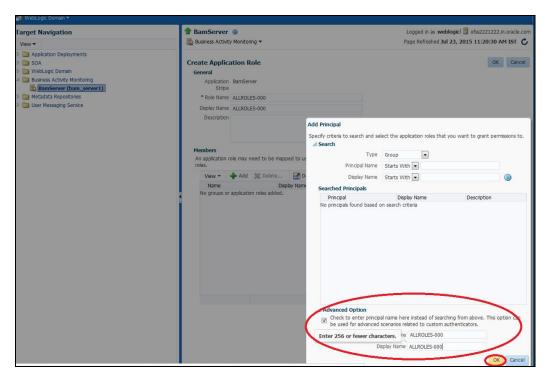


15. Click on Create → create application role with ALL ROLES-000→Click on ADD button in the Members







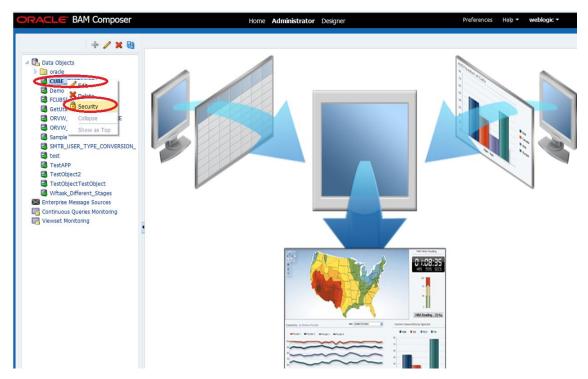


17. Login to BAM Composer → http://hostname:port/bam/composer---> Click on Administrator.

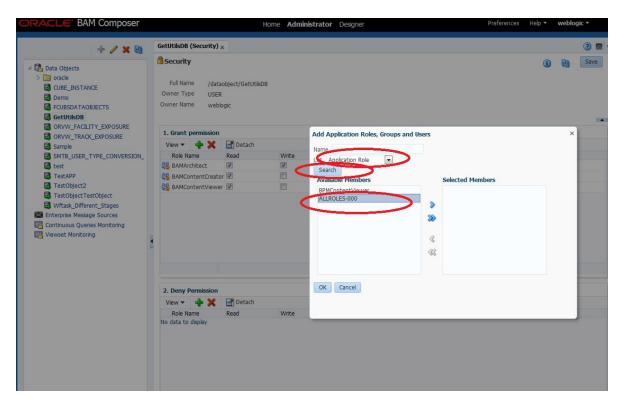




18. Go to Data Object→Right Click on CUBE_INSTANCE→Security

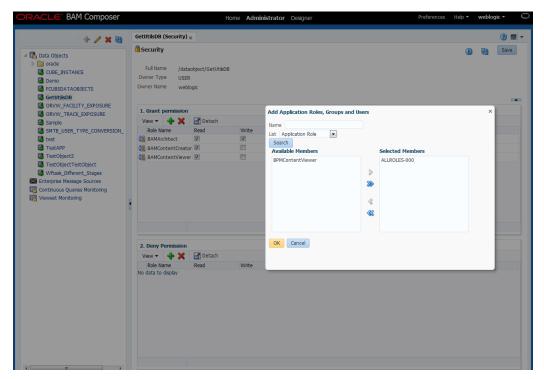


19. Click on Add button under Grant permission and search the list based on the Application Role

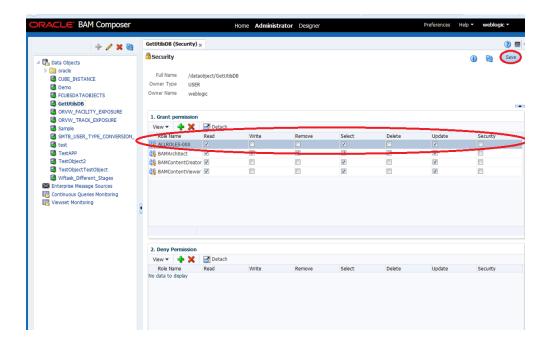




20. Move the ALLROLES-000 to Selected members.

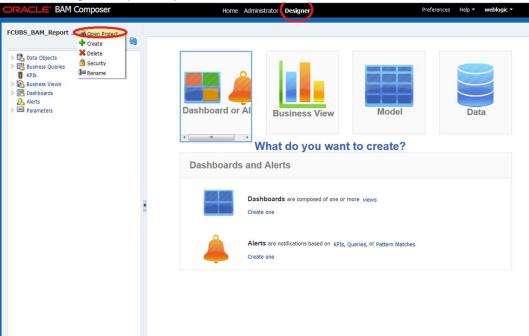


21. Click on read ,select and Update check boxes →Click on Save.

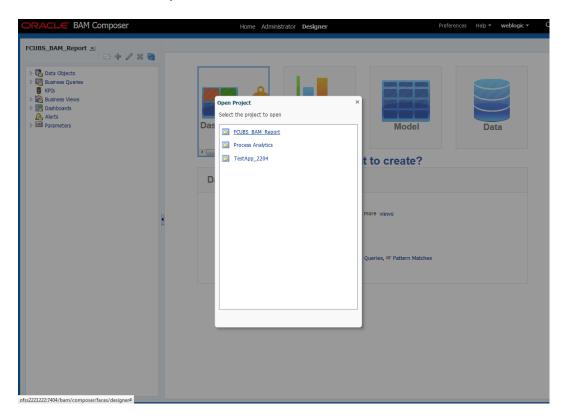




- 22. Follow the step 17 to 21 for other Data objects also.(cube_instance,wftask_different_stages, ORVW_TRACK_EXPOSURE, ORVW_FACILITY_EXPOSURE, GetUtilsDB, SMTB_USER_TYPE_CONVERSION_VIEW, FCUBSDATAOBJECTS).
- 23. Click on Designer →open Project

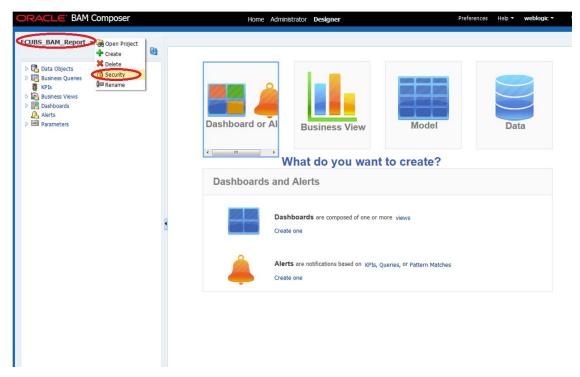


24. Click on FCUBS_BAM_report

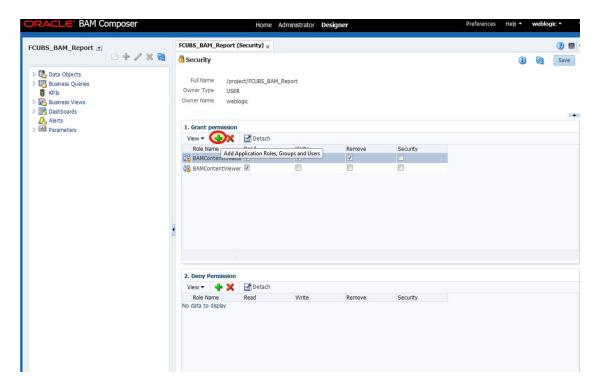




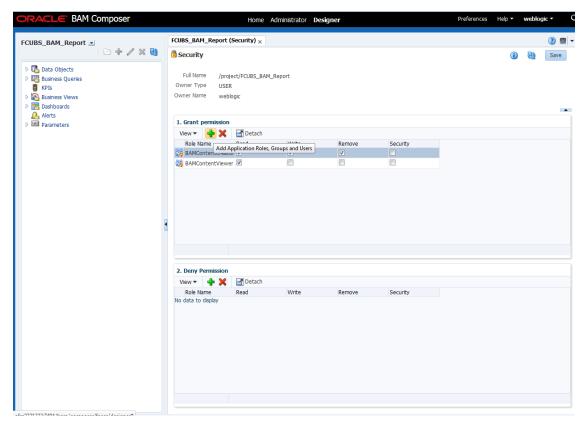
25. click on FCUBS_BAM_Report → Security



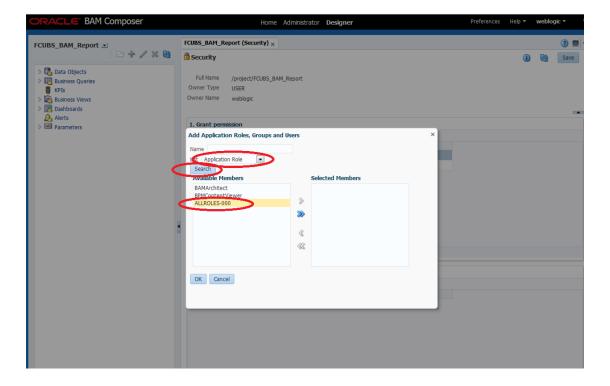
26. Click on ADD button Under Grant Permission.





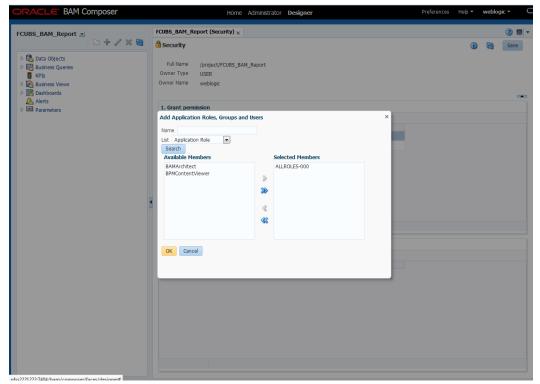


27. Search the List based on the Application Roles and Select the ALLROLES-000

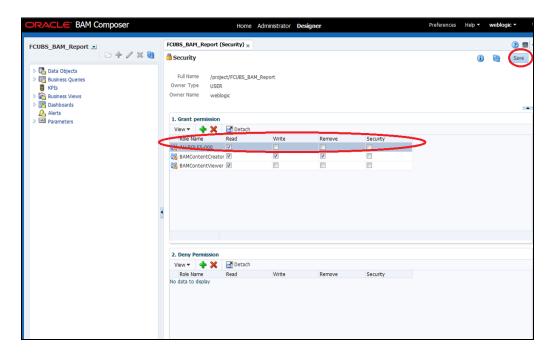




28. Move the ALLROLES-000 to Selected Members and click on ok.



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



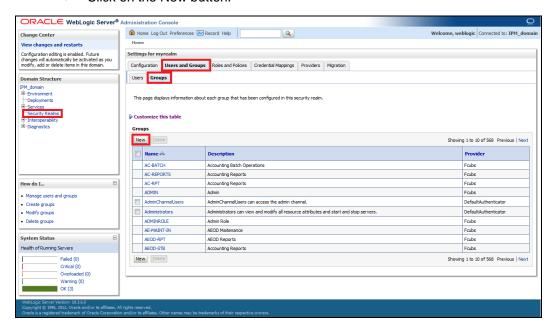


1.2.10 IPM configuration to edit the document

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

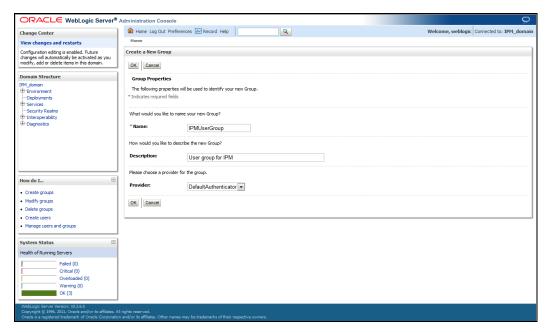
After adding, Navigate to security realms > myrealm > Users and Groups and check if the users from the schema are displayed in Users tab, and Roles from the schema are displayed under the Groups Tab.

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

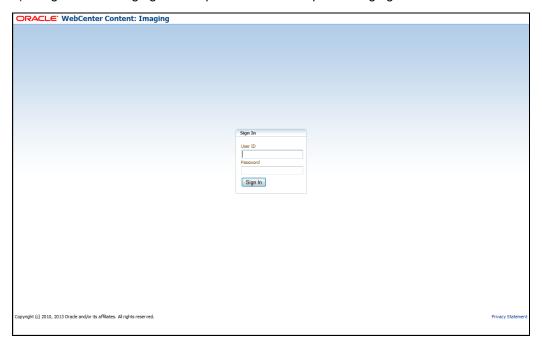


- 4) After Clicking on the new button,
 - Enter the name as "IPMUserGroup"
 - Description for it (optional)
 - And select the authenticator as "DefaultAuthenticator"
 - And then click "Ok"



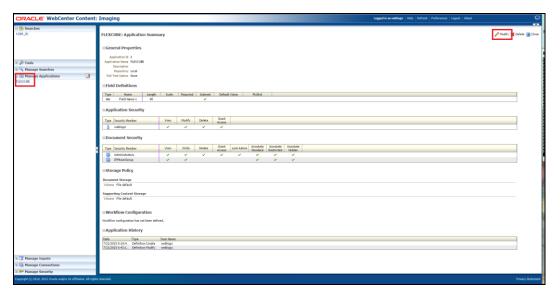


5) Login to the Imaging URL http/s:<hostname>:<port>/imaging with admin user

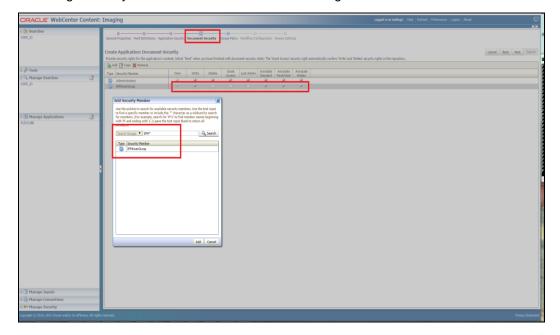


- a. Navigate to Manage Applications
- b. Click on the FLEXCUBE
- c. Then click on the modify on the right pane



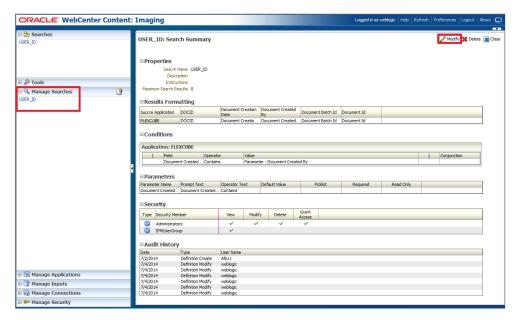


- 6) After clicking on the modify button,
 - a. Navigate to Document Security
 - b. Click on Add button
 - c. Click on Search button in the pop up window
 - d. Select the "IPMUserGroup"
 - e. Click on Add
 - f. IPMUserGroup will be listed in the panel, select view ,write,annotate Standard,Annotate Restricted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



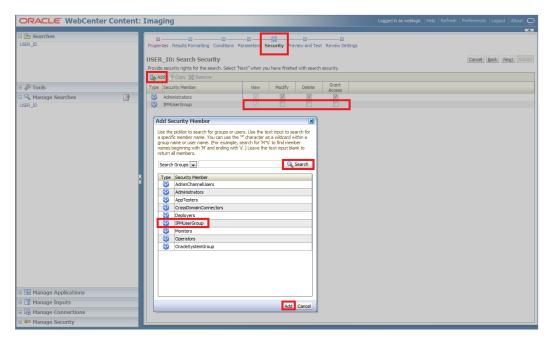


- 7) After clicking on the submit button,
 - a. Navigate to Manage Searches
 - b. Click on the available search (ex: USER_ID in this doc)
 - c. Click on the modify



- 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 FCBPELCIS.jar to location
 - <ORACLE_HOME >\user_projects\domains\<domian name>\lib
- 10) 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.

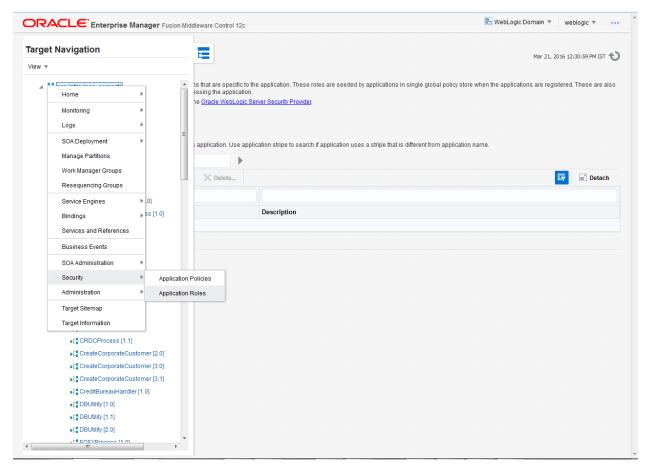


c. Search for '<jpsContexts default="default">' tag and add the following code between '<jpsContexts default="default">' and '</jpsContexts>', preferably after the default 'jpsContext'.

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

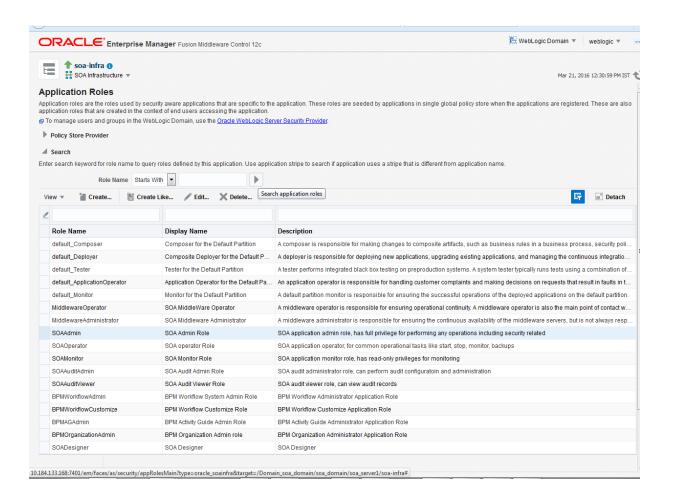
1.2.11 Configuring Superviser Roles in EM

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



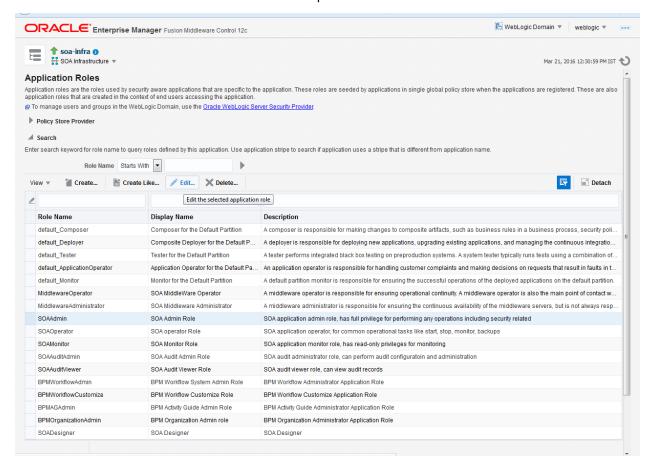
2. Search the Application Roles with "Starts with" option.





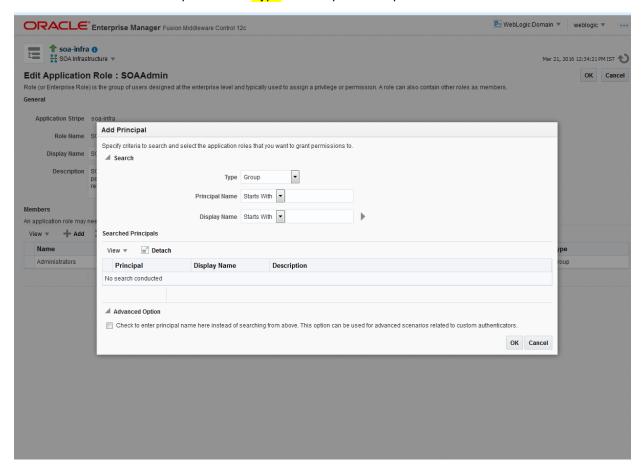


3. Select the SOAAdmin Role and Click on 'Edit option'.



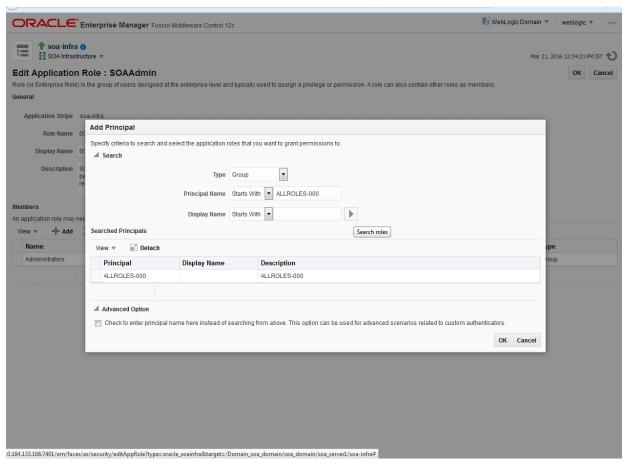


4. Click on the ADD button and provide the Type as Group from drop down.





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.

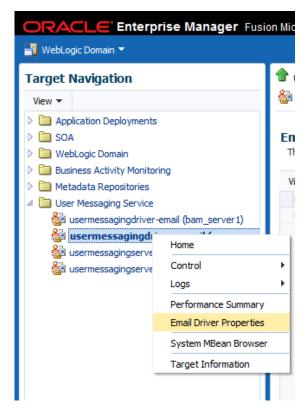


6. Click on Ok .



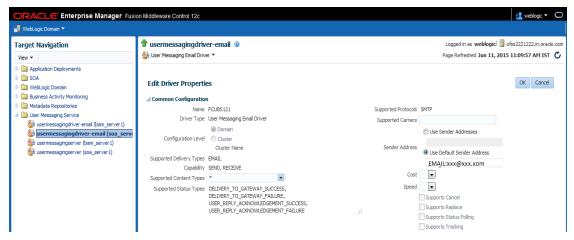
1.2.12 Email Driver Configuration

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

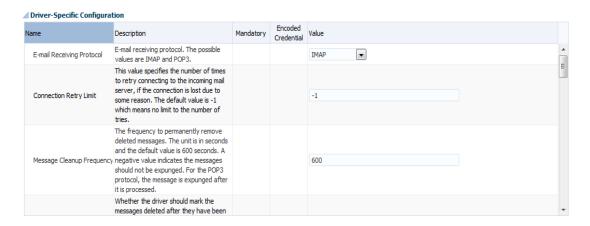


- 5. .Enter the sender Address and default sender address (This id will be used as sender address).
- 6. .Enter the supported protocols (SMTP)



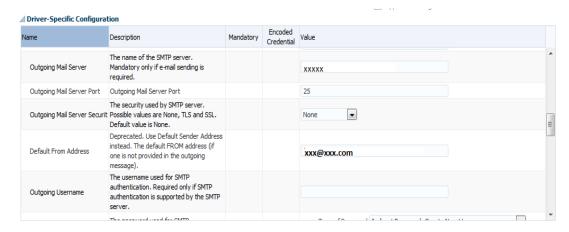


7. Select the mail access protocol (IMAP) as per the mail server specification

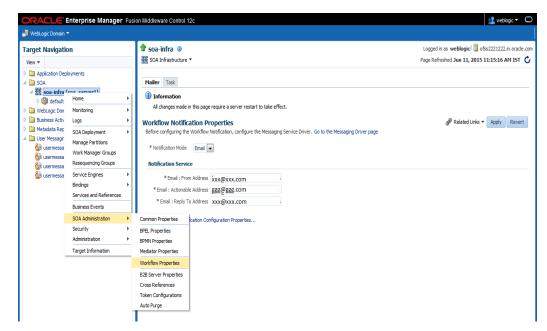


- 8. Enter the Receive folder in the mailbox (INBOX)
- 9. Enter the Outgoing mail server hostname or IP
- 10. .Enter the outgoing mail server port
- 11. .Enter the outgoing default from address
- 12. Enter the Outgoing user name and password if required





13. Navigate to SOA Administration -> Workflow Properties

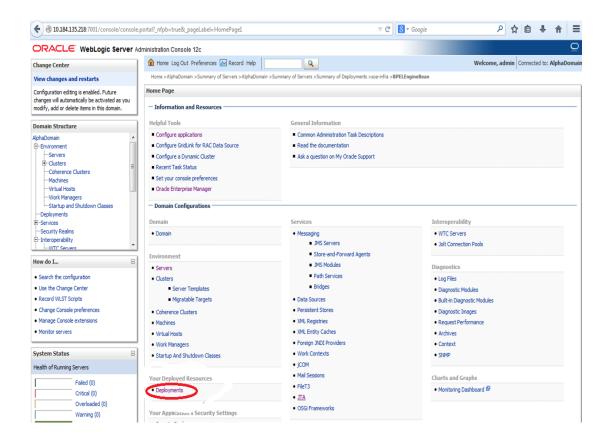


14. Select the notification mode as Email/ALL and enter the from address Actionable address and reply to Address.



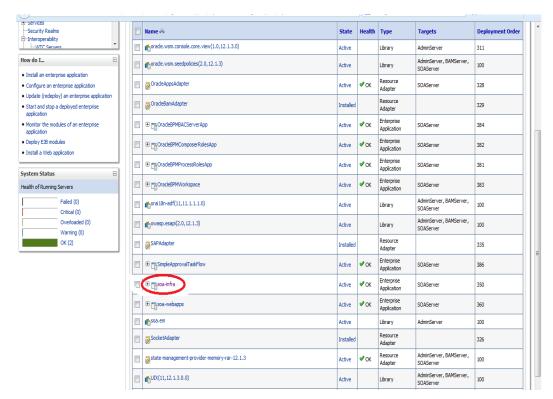
1.2.13 TimeOut Settings for BPEL

- Login in to Console (http://hostname:port/console)
- 2. Click on Deployments

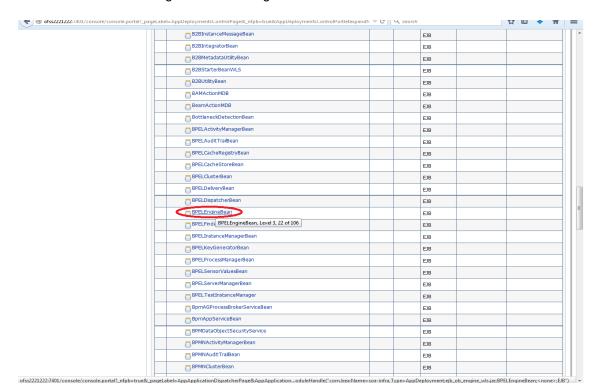


3. Click on SOA_INFRA Application under deployments.

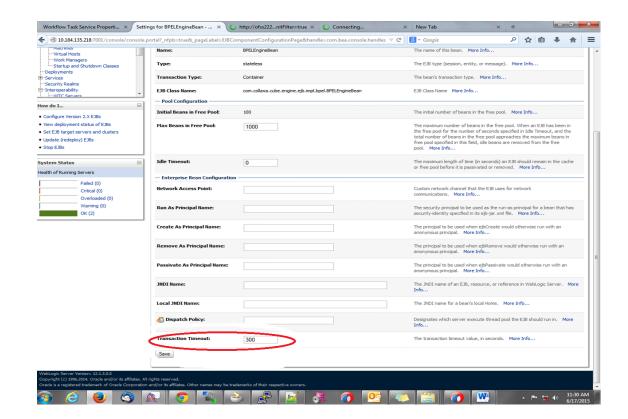




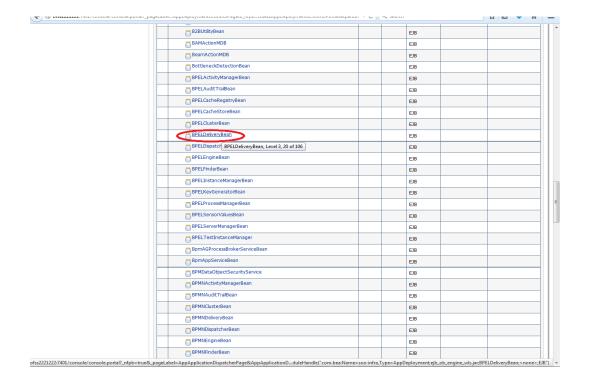
4. Click on BPEL Engine EJB→Configuration→set Transaction Time Out to 300.



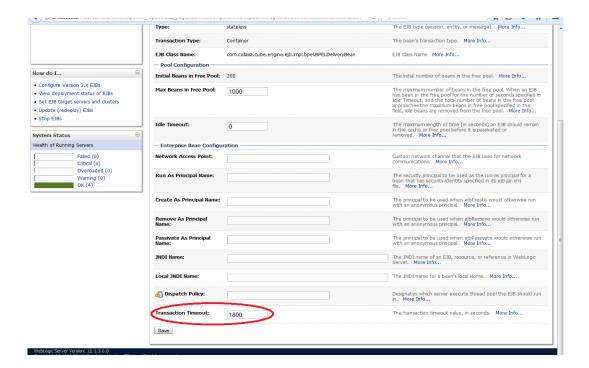




Go to EJBs→BPEL Delivery Bean→ Configuration→set TransactionTimeOut to 300

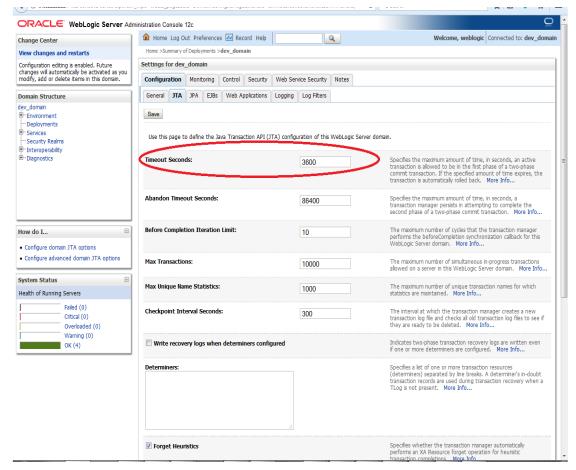






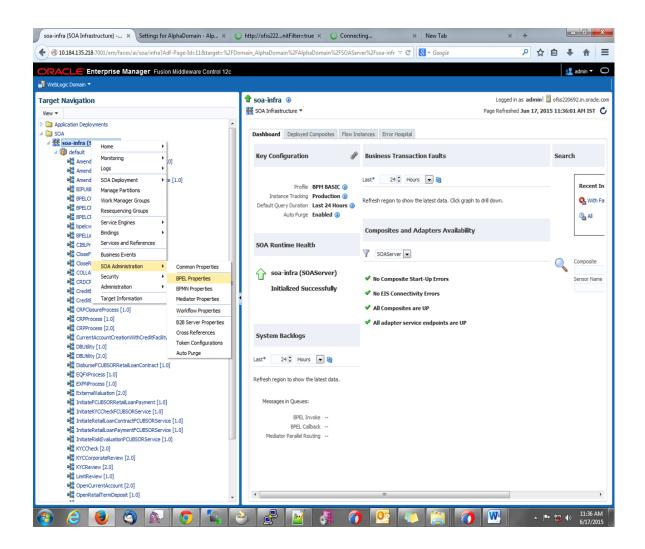
- 6. Login in to Console →JTA
- 7. Set the JTA timeout According to the below condition. Make sure BPELEngineBean + BPELDeliveryBean is <= JTA timeout(300+300<=600)



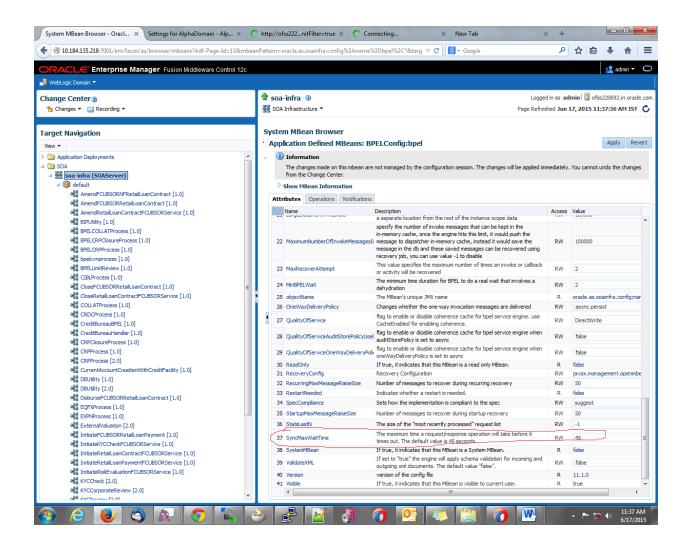


Login in to EM console (http://host:port/em)→SOA dminstration→BPEL
 Properties→MoreConfigpropeties→ Syncmax timeout .Change the SyncmaxtimeOut to 200 secs











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:

- 1. 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 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'.

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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