

Setting up Plug-Ins
Oracle FLEXCUBE Investor Servicing
Release 14.5.1.0.0
[September] [2021]



Table of Contents

1.	SETTING UP PLUG-INS	ERROR! BOOKMARK NOT DEFINED.
1.1	INTRODUCTION	1-2
1.2	INTEGRATING ORACLE FLEXCUBE IS AND BPEL	1-2
1.2.1	<i>Custom Provider Configuration</i>	<i>1-2</i>
1.2.2	<i>Configuring libovd for Single Entity.....</i>	<i>1-6</i>
1.2.3	<i>Configuring libovd for MultiEntity</i>	<i>1-7</i>
1.2.4	<i>Configuring for Multiple Providers for Multiple Entities.....</i>	<i>1-8</i>
1.2.5	<i>Configuring DBAdapter.....</i>	<i>1-14</i>
1.2.6	<i>Configuring JMS Adapter.....</i>	<i>1-16</i>
1.2.7	<i>Configuring FTP Adapter.....</i>	<i>1-35</i>
1.2.8	<i>BIP Interactive reports configuration.....</i>	<i>1-36</i>
1.2.9	<i>BAM Report Configuration settings.....</i>	<i>1-50</i>
1.2.10	<i>IPM configuration to edit the document</i>	<i>1-63</i>
1.2.11	<i>Configuring Supervisor Roles in EM</i>	<i>1-69</i>
1.2.12	<i>Email Driver Configuration.....</i>	<i>1-73</i>
1.2.13	<i>TimeOut Settings for BPEL.....</i>	<i>1-76</i>
1.3	INTEGRATING ORACLE FLEXCUBE IS AND SCHEDULER	1-82
1.3.1	<i>Running Backend Scripts</i>	<i>1-82</i>
1.4	INTEGRATING ORACLE FLEXCUBE IS AND BIP REPORTS.....	1-83
1.4.1	<i>Deploying Application Through Application Server's Admin Console</i>	<i>1-83</i>
1.5	INTEGRATING ORACLE FLEXCUBE IS AND MBEAN	1-83
1.5.1	<i>Startup Script Modification</i>	<i>1-83</i>

1. Setting_up_Plugins

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.

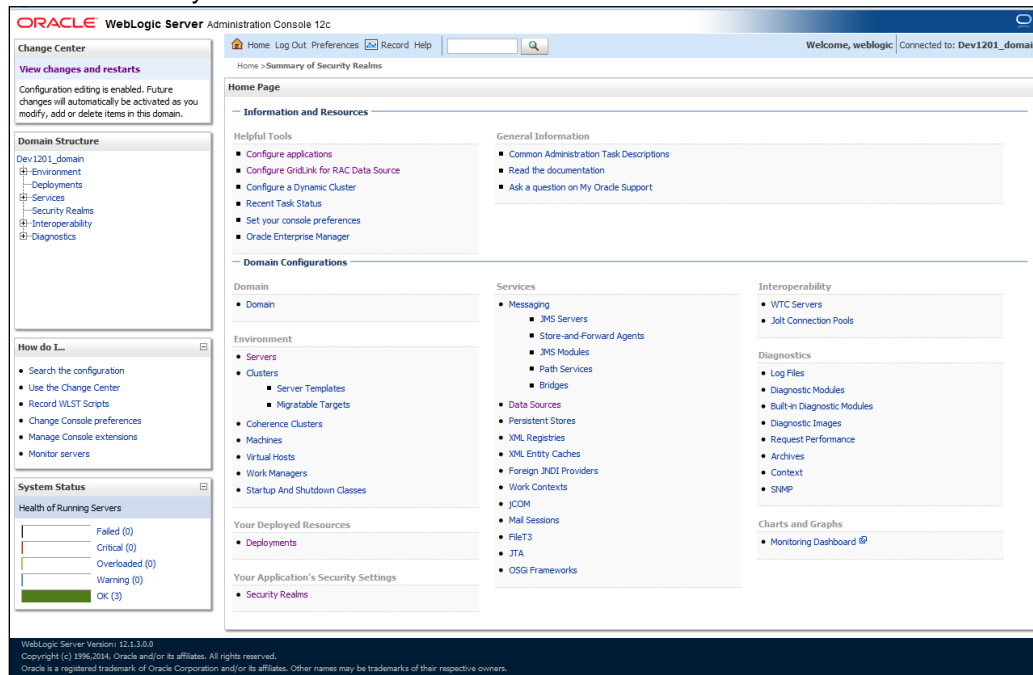
1.2 Integrating Oracle FLEXCUBE IS and BPEL

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

1.2.1 Custom Provider Configuration

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 FCIS 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
4. Click on Security Realms.



5. Click on myrealm.

The screenshot shows the Oracle WebLogic Server Administration Console. The main content area is titled "Summary of Security Realms". It contains a table with the following data:

Name	Default Realm
myrealm	true

Navigation buttons for "New" and "Delete" are present above and below the table. The left sidebar shows the "Domain Structure" with "Security Realms" selected.

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.

The screenshot shows the "Create a New Authentication Provider" dialog box. The "Name" field contains "FCJCustomProvider" and the "Type" dropdown is set to "FCUBSUserAuthenticator".

Fields shown in the dialog:

- Name: FCJCustomProvider
- Type: FCUBSUserAuthenticator

The dialog also includes "OK" and "Cancel" buttons.

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

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled 'Settings for myrealm' and contains a 'Providers' tab. Below this, there is a table of 'Authentication Providers'. The 'Reorder' button is circled in red. The table lists the following providers:

Name	Description	Version
FCJCustomProvider	Authentication provider for FLEXCUBE users	FCJBS 12.1
Trust Service Identity Asserter	Trust Service Identity Assertion Provider	1.0
DefaultAuthenticator	WebLogic Authentication Provider	1.0
DefaultIdentityAsserter	WebLogic Identity Assertion provider	1.0

The screenshot shows the 'Reorder Authentication Providers' dialog box. It contains a list of 'Available' authentication providers with up and down arrows next to them for reordering. The providers listed are:

- FCJCustomProvider
- Trust Service Identity Asserter
- DefaultAuthenticator
- DefaultIdentityAsserter

The 'Trust Service Identity Asserter' provider is highlighted with a red box, indicating it is the provider being repositioned.

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

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area displays the 'Settings for FCJCustomProvider' page, which is currently in the 'Common' configuration tab. The 'Control Flag' is set to 'SUFFICIENT'. The left sidebar contains navigation panels for 'Change Center', 'Domain Structure', 'How do I...', and 'System Status'. The 'System Status' panel shows the health of running servers, with 3 servers in an 'OK' state.

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

The screenshot shows the Oracle WebLogic Server Administration Console interface, now in the 'Provider Specific' configuration tab for 'FCJCustomProvider'. The 'Authentication Type' is set to 'MSAD'. The 'Ldap Domain Name' is 'OFSS.COM', the 'Ldap Server Ip And Port' is 'localhost:389', and the 'JNDIName' is 'jdbc/fejdevDS'. The 'System Status' panel on the left remains the same, showing 3 servers in an 'OK' state.

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 IS EAR file, the Installer creates 'FCBPELCIS.jar' file.
2. 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\bpe\cac'`'. Edit the properties file 'CISProperties.properties' and update 'JNDI.name' with the JNDI name defined in the properties file 'fcubs.properties'.
5. Copy 'FCBPELCIS.jar' to '`<MIDDLEWARE_HOME>/user_projects/domains/<domain_name>/config/fmwconfig/ovd/plugins/lib'`. Create the directory structure if it does not exist.
6. 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 name.

- 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>
```

- Once the above steps are completed, restart the server.

1.2.3 Configuring libovd for MultiEntity

- Continue step 1 to step5 from 1.2.2 section.
- 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`

- 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>"/>`

- Search for UserIdPattern Parameter and Update the value for OU to the entity name.

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

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

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

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

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

- 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>
```

- 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.

The screenshot displays the Oracle WebLogic Server Administration Console interface. On the left, there is a navigation pane with sections for 'Domain Structure', 'How do I...', and 'System Status'. The 'System Status' section shows the 'Health of Running Servers' with a green bar indicating 'OK (3)'. The main content area is titled 'Information and Resources' and contains several panels: 'Helpful Tools', 'General Information', 'Domain Configurations', 'Domain Partitions', 'Environment', 'Resource Group Templates', 'Resource Groups', 'Deployed Resources', 'Services', 'Interoperability', 'Diagnostics', and 'Charts and Graphs'. In the 'Application's Security Settings' section at the bottom, the 'Security Realms' link is highlighted with a red rectangular box. The footer of the console shows 'WebLogic Server Version: 12.2.1.0.0' and 'Copyright (C) 1996-2015, Oracle and/or its affiliates. All rights reserved.'

3. Click on myrealms.

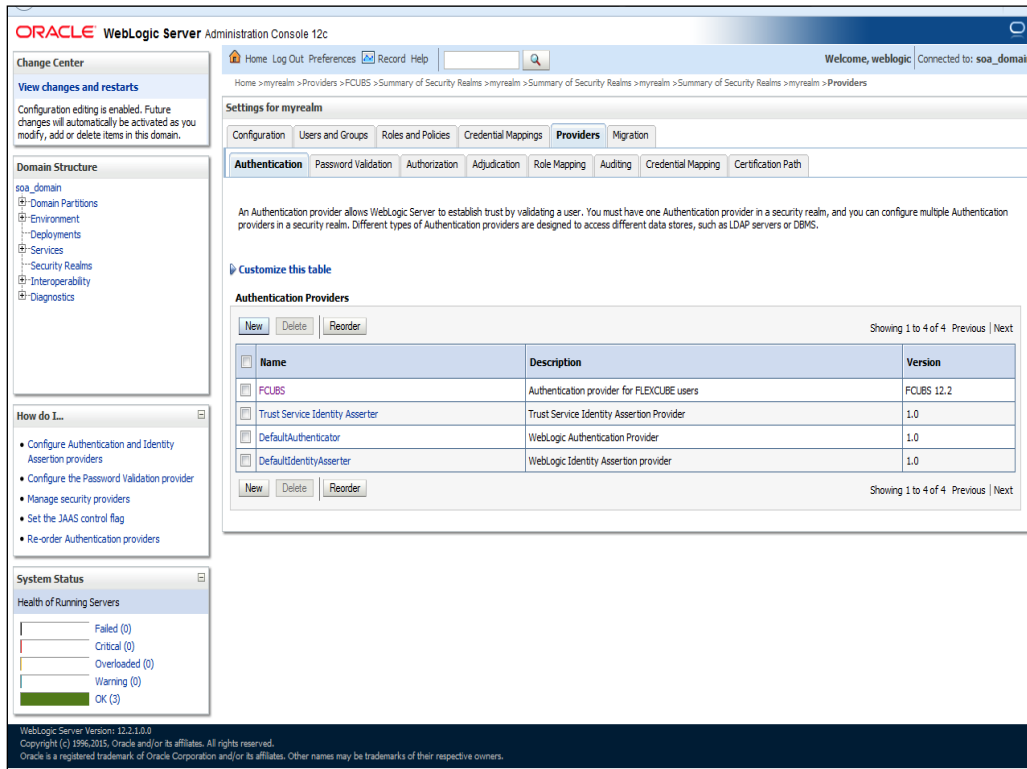
The screenshot shows the Oracle WebLogic Server Administration Console. The left sidebar contains navigation menus for Change Center, Domain Structure, How do I..., and System Status. The main content area is titled "Summary of Security Realms" and includes a table with one entry: "myrealm" with a "Default Realm" value of "true".

Name	Default Realm
myrealm	true

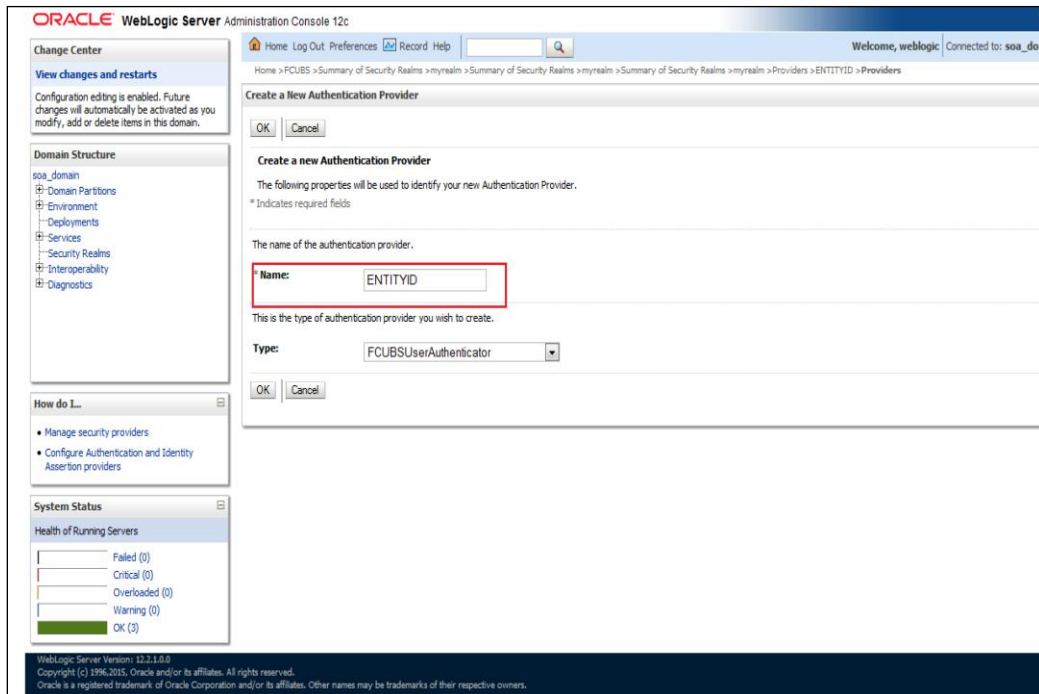
4. Click on Providers.

The screenshot shows the "Providers" configuration page for the "myrealm" security realm. The "Providers" tab is selected, and the "Providers-Tab" sub-tab is active. The page contains various configuration options such as "Security Model Default" (set to DD Only), "Combined Role Mapping Enabled", "Use Authorization Providers to Protect JMX Access", and "Automatically Restart After Non-Dynamic Changes".

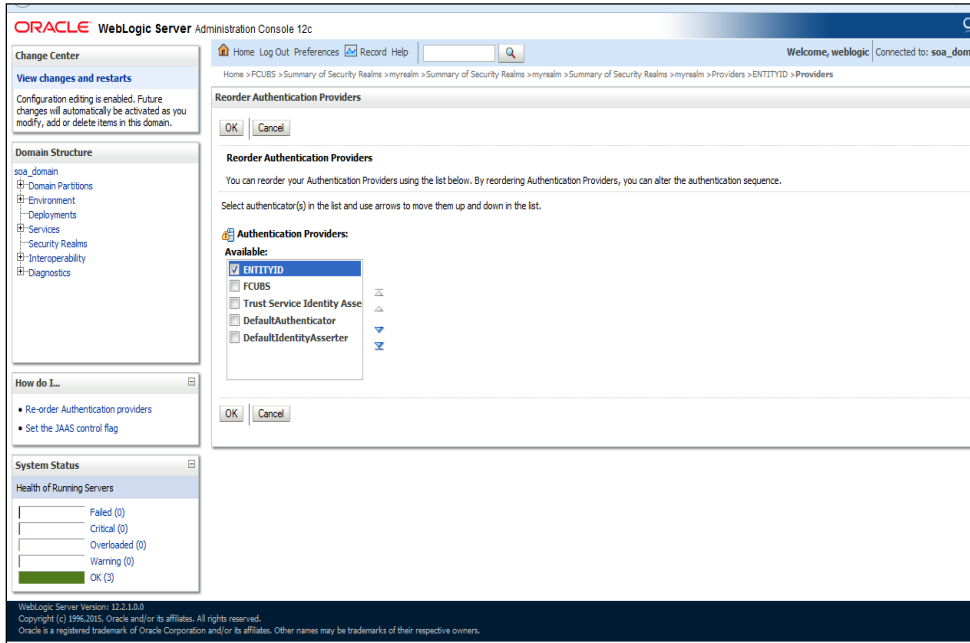
5. Click on New



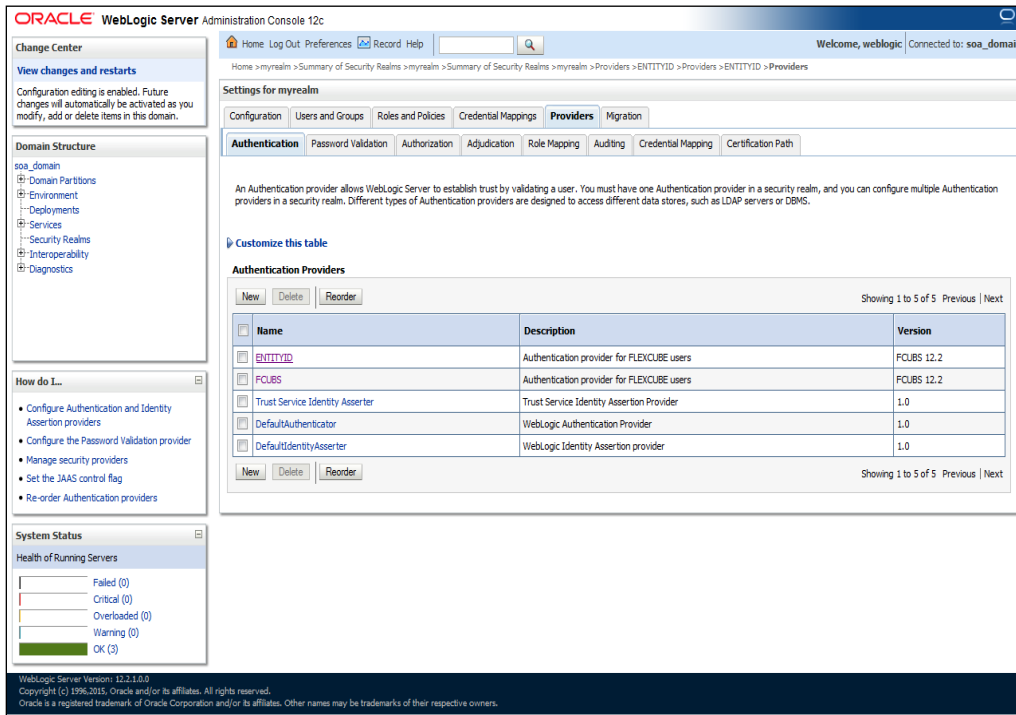
6. Enter the Name with proper Entity Name (entity name we mapped in propertyfile) and select the type as FCUBSUserAuthenticator



- Click 'Reorder. Authentication Providers. Select the required option in 'Available' field and click Ok.



- Click the Provider that we have created.



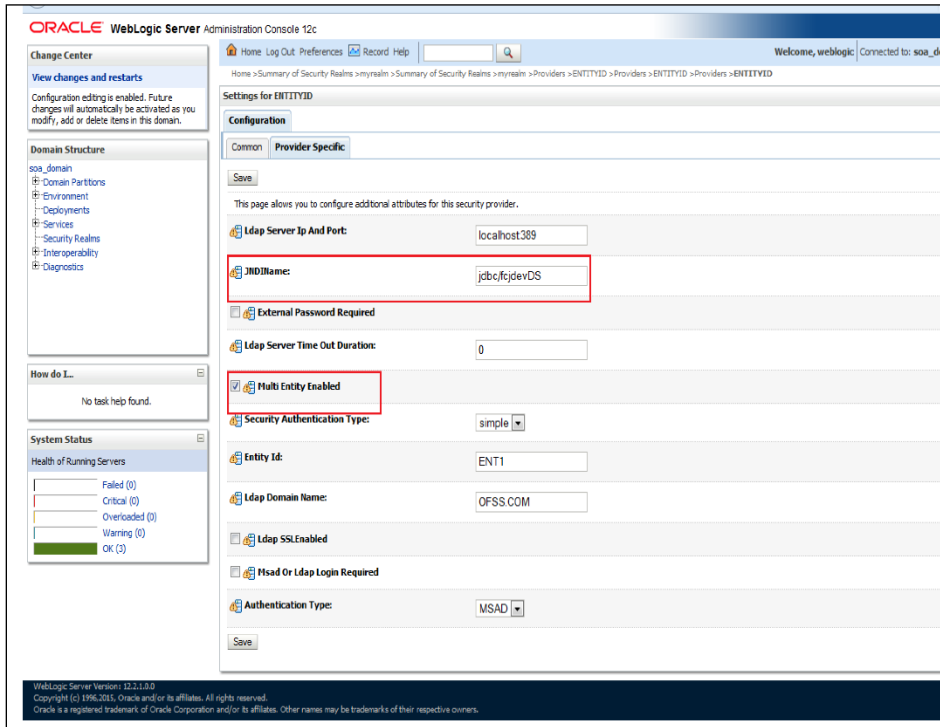
9. In Common tab, select the control flag as SUFFICIENT from the list and click Save.

The screenshot shows the Oracle WebLogic Server Administration Console. The left sidebar contains navigation panels for 'Change Center', 'Domain Structure', 'How do I...', and 'System Status'. The main content area is titled 'Settings for ENTITYID' and has two tabs: 'Common' and 'Provider Specific'. The 'Common' tab is active, showing a 'Save' button at the top and a description: 'This page allows you to define the general configuration of this provider.' Below this, several configuration items are listed: 'Name' (ENTITYID), 'Description' (Authentication provider for FLEXCUBE users), 'Version' (FCUBS 12.2), and 'Control Flag' (SUFFICIENT). A 'Save' button is located at the bottom of the configuration area.

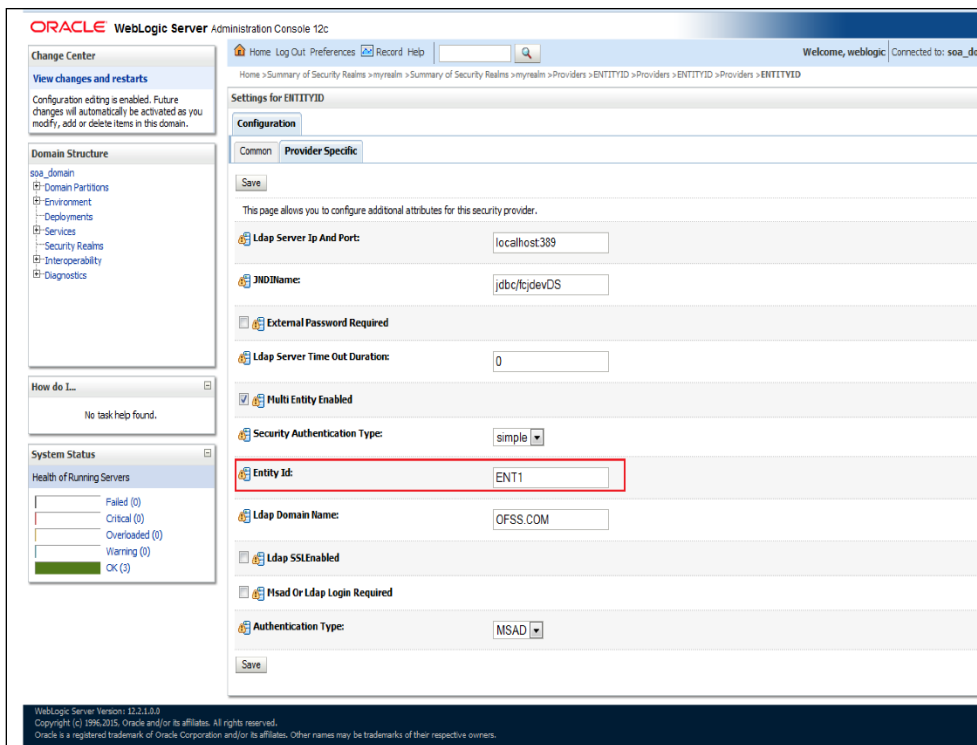
10. Select the provider Specific tab.

The screenshot shows the Oracle WebLogic Server Administration Console with the 'Settings for ENTITYID' page in the 'Provider Specific' tab. The 'Common' tab is also visible. The 'Provider Specific' tab contains a 'Save' button and a description: 'This page allows you to configure additional attributes for this security provider.' The configuration items include: 'Ldap Server Ip And Port' (localhost:389), 'JNDIName' (jdbc/cjdevDS), 'External Password Required' (checkbox), 'Ldap Server Time Out Duration' (0), 'Multi Entity Enabled' (checkbox), 'Security Authentication Type' (simple), 'Entity Id' (ENT1), 'Ldap Domain Name' (OFSS.COM), 'Ldap SSL Enabled' (checkbox), 'Msad Or Ldap Login Required' (checkbox), and 'Authentication Type' (MSAD). A 'Save' button is at the bottom.

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 Entity ID with the Entity name which we created in the property file level and click 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 multi entity 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'.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled 'Summary of Deployments' and contains a table of applications and modules. The table has the following columns: Name, State, Health, Type, Targets, and Deployment Order. The rows represent various components, including adapters, enterprise applications, and web applications, with their current states and health indicators.

Name	State	Health	Type	Targets	Deployment Order
AqAdapter	Active	OK	Resource Adapter	soa_server1	324
b2bul	Active	OK	Enterprise Application	soa_server1	313
BamComposer	New		Enterprise Application	bam_server1	500
BamCQService	New		Enterprise Application	bam_server1	300
BamServer	New		Enterprise Application	bam_server1	400
BPMComposer	Active	OK	Enterprise Application	soa_server1	385
coherence-transaction-rar	Active	OK	Resource Adapter	AdminServer, bam_server1, soa_server1	100
Coherence-Adapter	Installed		Resource Adapter		331
DbAdapter	Active	OK	Resource Adapter	soa_server1	322
DefaultToDoTaskFlow	Active	OK	Enterprise Application	soa_server1	314
OMS Application (12.1.3.0.0)	Active	OK	Web Application	AdminServer, bam_server1, soa_server1	5
em	Active	OK	Enterprise Application	AdminServer	400
FCUBSApp (12.1.0.0)	Prepared	OK	Enterprise Application	soa_server1	500

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

The screenshot shows the Oracle WebLogic Server Administration Console. The main content area is titled 'Settings for DbAdapter' and has several tabs: Overview, Deployment Plan, Configuration, Security, Targets, Control, Testing, Monitoring, and Notes. The 'Configuration' tab is selected, and within it, the 'Outbound Connection Pools' sub-tab is active. Below the tabs, there is a text block explaining that the page displays a table of Outbound Connection Pool groups and instances. Below this is the 'Outbound Connection Pool Configuration Table' with a 'New' and 'Delete' button. The table has two columns: 'Groups and Instances' and 'Connection Factory Interface'. The table contains one row with the value 'javax.resource.cci.ConnectionFactory' in both columns. At the bottom of the console, there is a footer with the version 'WebLogic Server Version: 12.1.3.0.0' and copyright information.

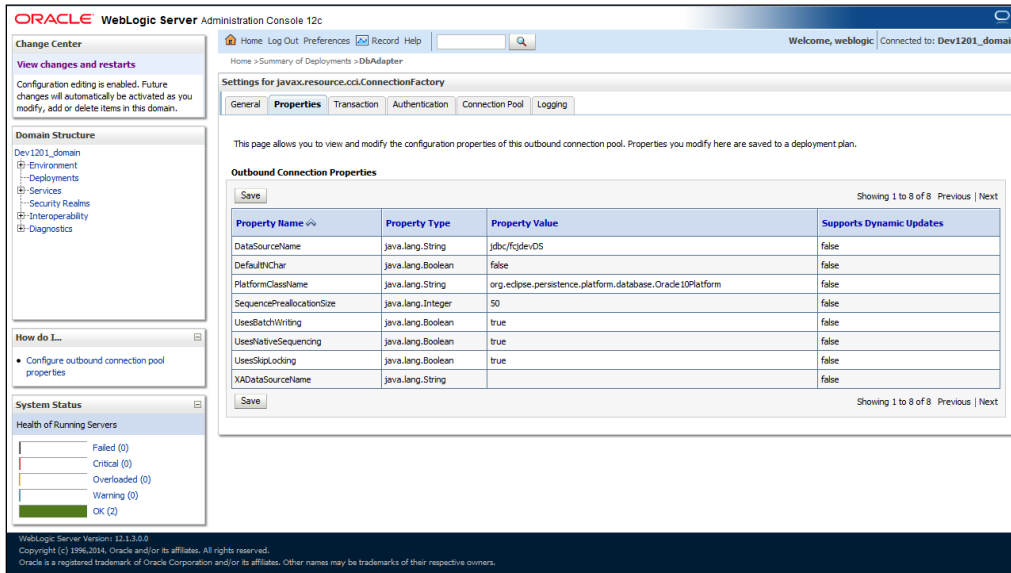
- Click 'Configuration' tab and select 'Outbound Connection Pools' under it.
- Under 'Groups and Instances', click and expand 'javax.resource.cci.ConnectionFactory'.
- Click 'New' and select 'javax.resource.cci.ConnectionFactory' in Outbound Connection Group.
- Define 'JNDI Name' as 'eis/DB/FCCDEV' and click on 'Finish'.



The 'jndi name' should be the same as the one in 'Dbutility sub-process'.

- Click 'DbAdapter' again. The new JNDI name is listed.

8. Click on the hyperlink 'eis/DB/FCCDEV'.

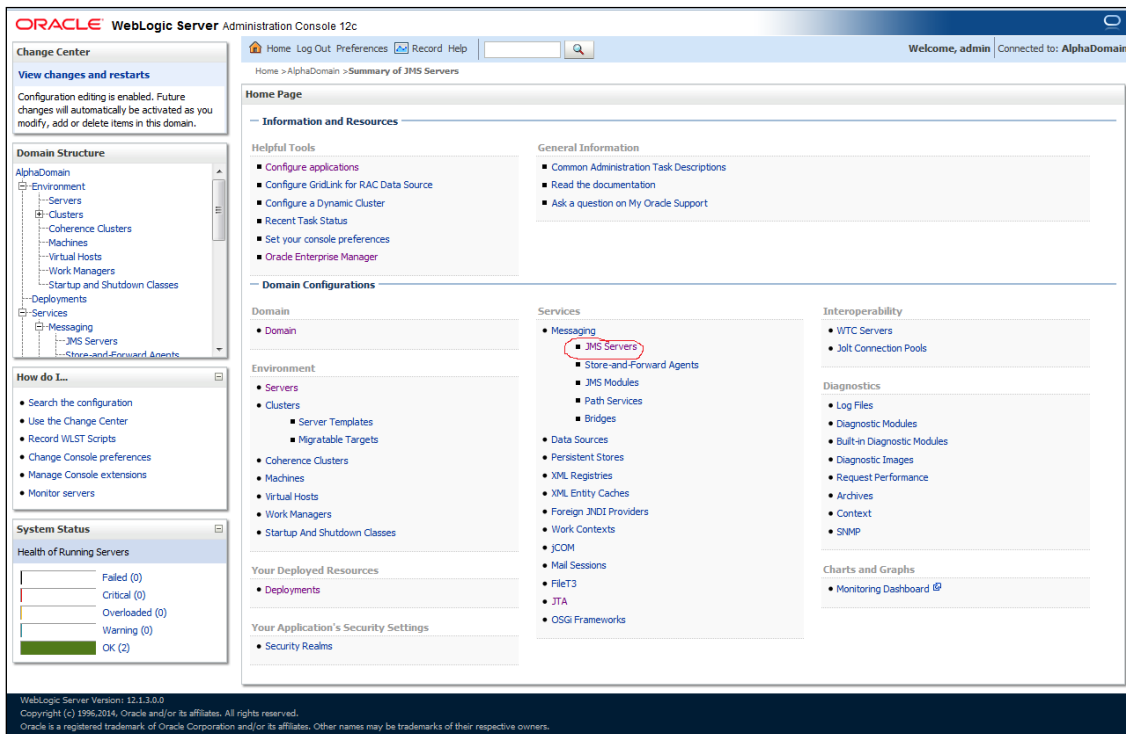


9. Click the 'Property Value' field for the 'DataSourceName' and update the application JNDI reference (given in 'fcubs.properties' file) and then press 'Enter' key.

10. Save and restart the Adminserver.

1.2.6 Configuring JMS Adapter

Login in to console → Click on JMS Servers→New



ORACLE WebLogic Server Administration Console 12c

Home > AlphaDomain > Summary of JMS Servers

Summary of JMS Servers

JMS servers act as management containers for the queues and topics in JMS modules that are targeted to them. This page summarizes the JMS servers that have been created in the current WebLogic Server domain.

Customize this table

JMS Servers (Filtered - More Columns Exist)

Name	Persistent Store	Target	Current Target	Health
BamAlertEngineJmsServer	BamAlertEngineJmsFileStore	BAMServer	BAMServer	
BamCQServiceJmsServer_BAMServer	BamCQServiceJmsFileStore_BAMServer	BAMServer	BAMServer	
BamReportCacheJmsServer	BamReportCacheJmsFileStore	BAMServer	BAMServer	
BamServerJmsServer_BAMServer	BamServerJmsFileStore_BAMServer	BAMServer	BAMServer	
BPMJMServer	BPMJMSFileStore	SOAServer	SOAServer	OK
SOAJMServer	SOAJMSFileStore	SOAServer	SOAServer	OK
UMSJMServer_auto_1	UMSJMSFileStore_auto_1	BAMServer	BAMServer	
UMSJMServer_auto_2	UMSJMSFileStore_auto_2	SOAServer	SOAServer	OK

Showing 1 to 8 of 8 Previous | Next

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

ORACLE WebLogic Server Administration Console 12c

Home > AlphaDomain > Summary of JMS Servers

Create a New JMS Server

Back Next Finish Cancel

JMS Server Properties

The following properties will be used to identify your new JMS Server.
* Indicates required fields

What would you like to name your new JMS Server?

Name: FCUBSJMServer

Specify persistent store for the new JMS Server.

Persistent Store: SOAJMSFileStore Create a New Store

Back Next Finish Cancel

12. Select the target as SOA Server →Finish

ORACLE WebLogic Server Administration Console 12c

Home > AlphaDomain > Summary of JMS Servers

Welcome, admin | Connected to: AlphaDomain

Change Center
View changes and restarts
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

Domain Structure
AlphaDomain
- Environment
- Servers
- Clusters
- Coherence Clusters
- Machines
- Virtual Hosts
- Work Managers
- Startup and Shutdown Classes
- Deployments
- Services
- Messaging
- JMS Servers
- Store and Forward Agents

How do I...?
• Configure JMS system modules
• Configure custom persistent stores

System Status
Health of Running Servers
Failed (0)
Critical (0)
Overloaded (0)
Warning (0)
OK (2)

Create a New JMS Server
Back | Next | **Finish** | Cancel

Select targets
Select the server instance or migratable target on which you would like to deploy this JMS Server.

Target: SOAServer
Back | Next | **Finish** | Cancel

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

ORACLE WebLogic Server Administration Console 12c

Home > AlphaDomain > Summary of JMS Servers

Welcome, admin | Connected to: AlphaDomain

Change Center
View changes and restarts
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

Domain Structure
AlphaDomain
- Environment
- Servers
- Clusters
- Coherence Clusters
- Machines
- Virtual Hosts
- Work Managers
- Startup and Shutdown Classes
- Deployments
- Services
- Messaging
- JMS Servers
- Store and Forward Agents

How do I...?
• Configure JMS servers
• Configure JMS system modules

System Status
Health of Running Servers
Failed (0)
Critical (0)
Overloaded (0)
Warning (0)
OK (2)

Messages
All changes have been activated. No restarts are necessary.
JMS Server created successfully.

Summary of JMS Servers
JMS servers act as management containers for the queues and topics in JMS modules that are targeted to them.
This page summarizes the JMS servers that have been created in the current WebLogic Server domain.

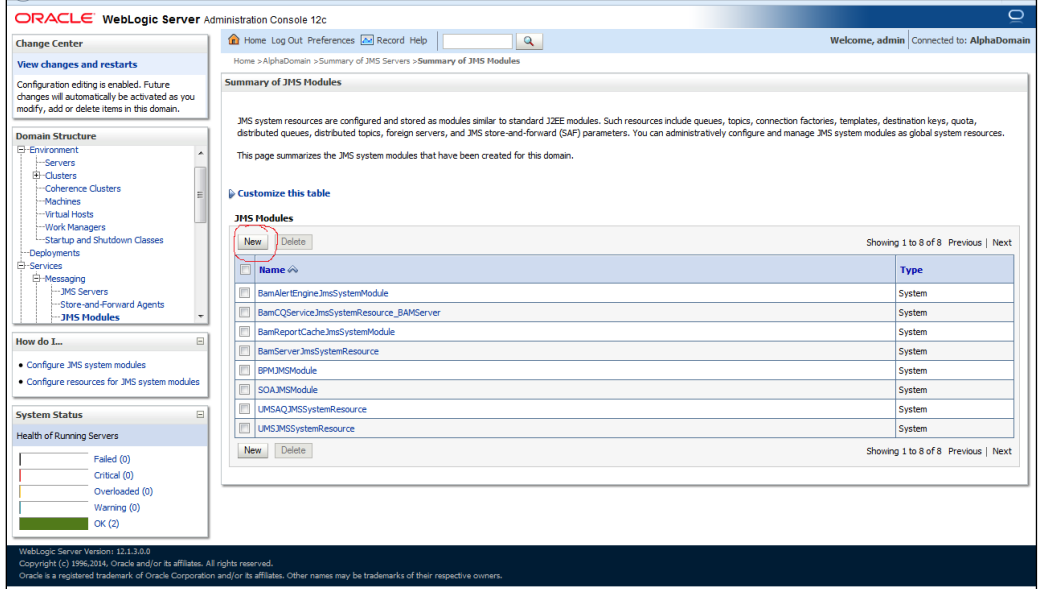
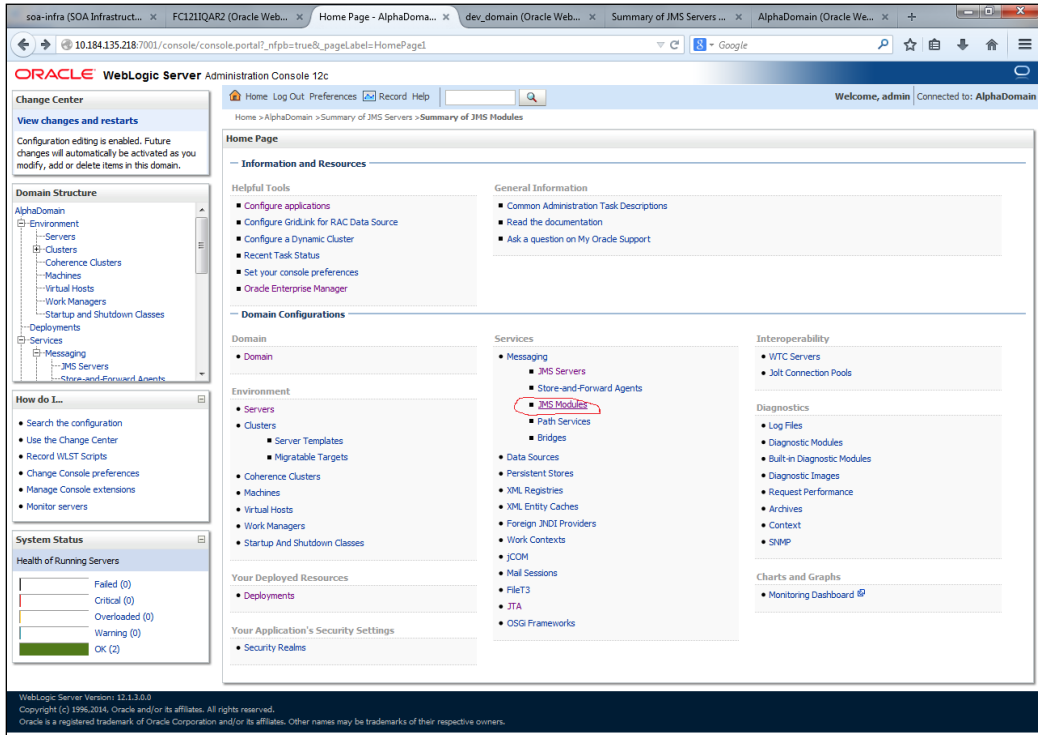
Customize this table
JMS Servers (Filtered - More Columns Exist)
Showing 1 to 9 of 9 Previous | Next

Name	Persistent Store	Target	Current Target	Health
BanAlertEngineJmsServer	BanAlertEngineJmsFileStore	BAMServer	BAMServer	
BanCQServiceJmsServer_BAMServer	BanCQServiceJmsFileStore_BAMServer	BAMServer	BAMServer	
BanReportCacheJmsServer	BanReportCacheJmsFileStore	BAMServer	BAMServer	
BanServerJmsServer_BAMServer	BanServerJmsFileStore_BAMServer	BAMServer	BAMServer	
BPMJMServer	BPMJMSFileStore	SOAServer	SOAServer	OK
FCUBS.JMServer	SOA.JMSFileStore	SOAServer	SOAServer	OK
SOA.JMServer	SOA.JMSFileStore	SOAServer	SOAServer	OK
LMSJMServer_auto_1	LMS.JMSFileStore_auto_1	BAMServer	BAMServer	
LMSJMServer_auto_2	LMS.JMSFileStore_auto_2	SOAServer	SOAServer	OK

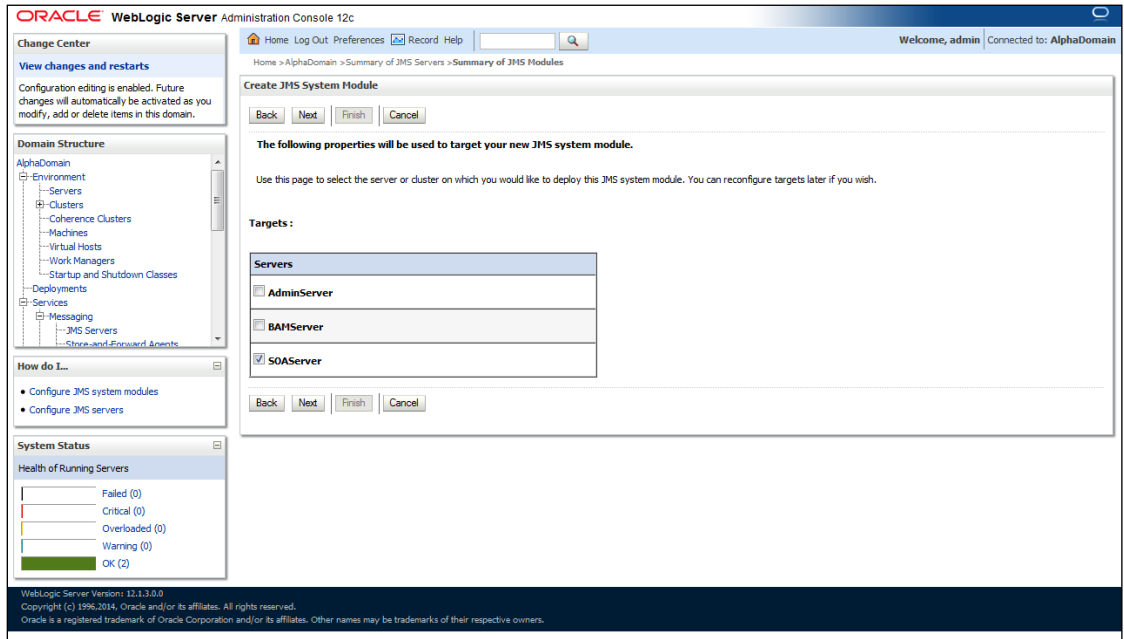
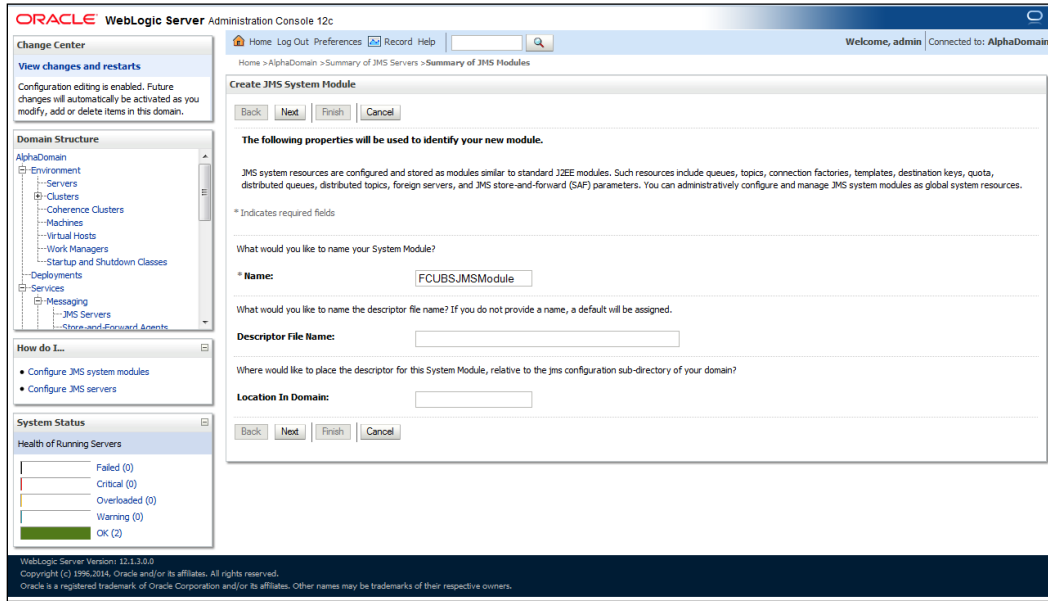
Showing 1 to 9 of 9 Previous | Next

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

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



ORACLE WebLogic Server Administration Console 12c

Welcome, admin | Connected to: AlphaDomain

Home > AlphaDomain > Summary of JMS Servers > Summary of JMS Modules > FCUBSJMSModule

Messages

- All changes have been activated. No restarts are necessary.
- The JMS module was created successfully.

Settings for FCUBSJMSModule

Configuration | Subdeployments | Targets | Security | Notes

This page displays general information about a JMS system module and its resources. It also allows you to configure new resources and access existing resources.

Name: FCUBSJMSModule The name of this JMS system module. More Info...

Descriptor File Name: jms/fcubsjmsmodule-jms.xml The name of the JMS module descriptor file. More Info...

This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.

Customize this table

Summary of Resources

New Delete Showing 0 to 0 of 0 Previous | Next

<input type="checkbox"/>	Name ↕	Type	JNDI Name	Subdeployment	Targets
There are no items to display					

New Delete Showing 0 to 0 of 0 Previous | Next

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

1. Go back to JMS Modules→FCUBSJMSModule→New

ORACLE WebLogic Server Administration Console 12c

Welcome, admin | Connected to: AlphaDomain

Home > AlphaDomain > Summary of JMS Servers > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule

Settings for FCUBSJMSModule

Configuration | Subdeployments | Targets | Security | Notes

This page displays general information about a JMS system module and its resources. It also allows you to configure new resources and access existing resources.

Name: FCUBSJMSModule The name of this JMS system module. More Info...

Descriptor File Name: jms/fcubsjmsmodule-jms.xml The name of the JMS module descriptor file. More Info...

This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.

Customize this table

Summary of Resources

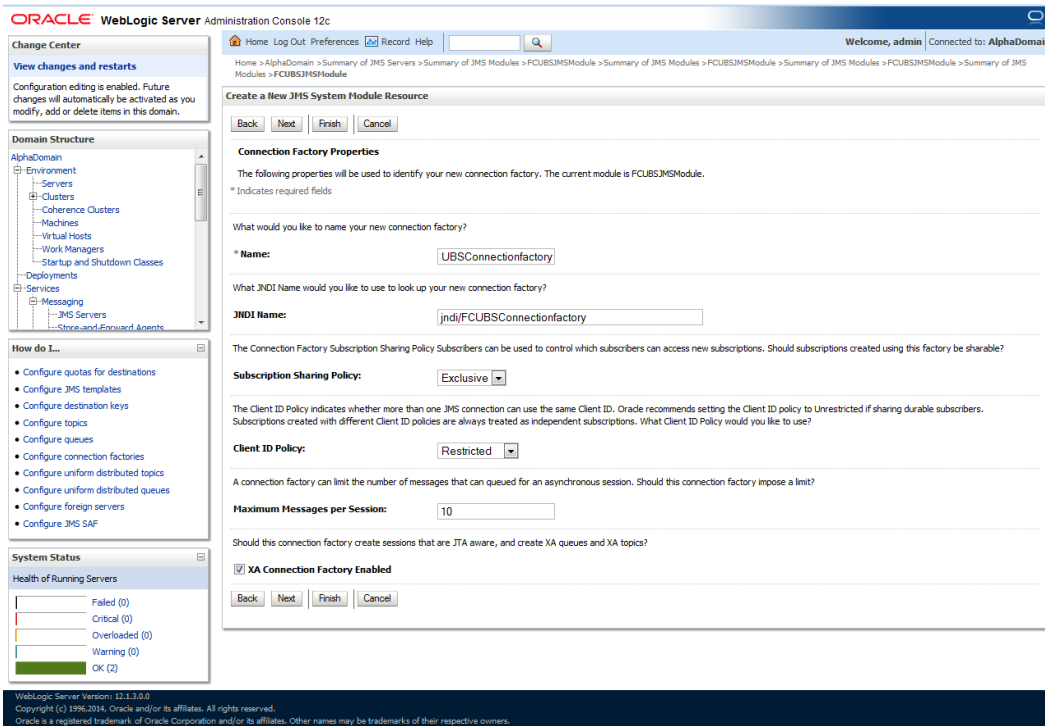
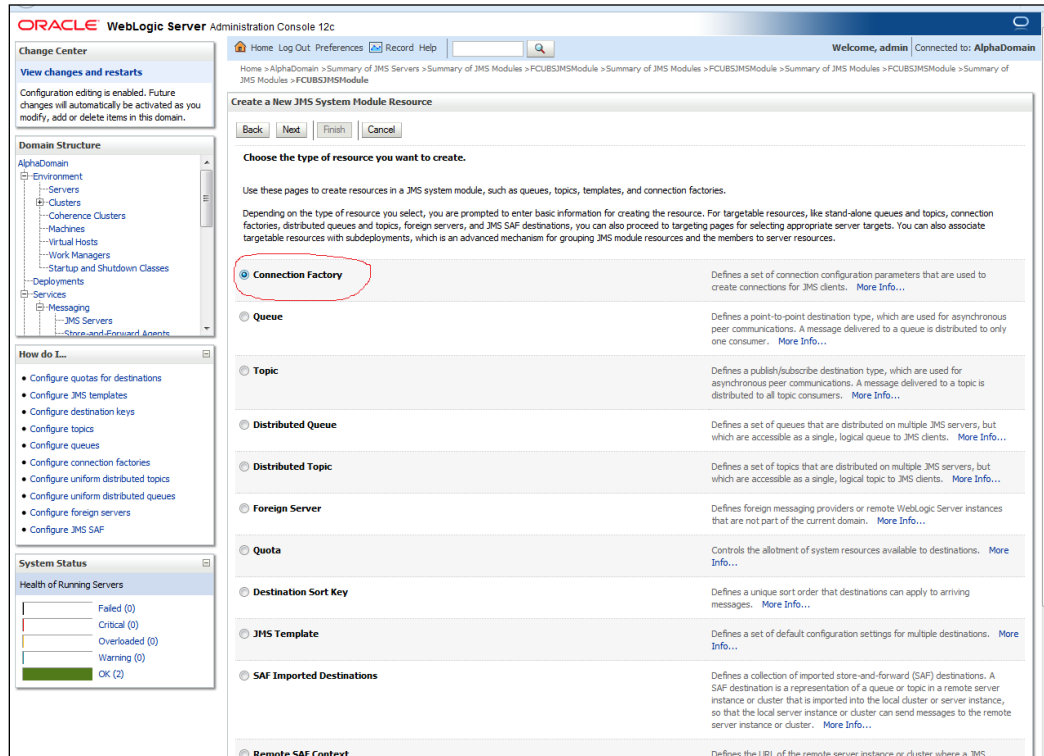
New Delete Showing 0 to 0 of 0 Previous | Next

<input type="checkbox"/>	Name ↕	Type	JNDI Name	Subdeployment	Targets
There are no items to display					

New Delete Showing 0 to 0 of 0 Previous | Next

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

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



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

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, admin Connected to: AlphaDomain

Home > Summary of JMS Modules > FCUBSJMModule > Summary of JMS Modules > FCUBSJMModule > FCUBSJMModule > FCUBSJMModule > FCUBSJMModule > placeholder

Create a New JMS System Module Resource

Back Next Finish Advanced Targeting Cancel

The following properties will be used to target your new JMS system module resource

Use this page to view and accept the default targets where this JMS resource will be targeted. The default targets are based on the parent JMS system module targets. If you do not want to accept the default targets, then click **Advanced Targeting** to use the subdeployment mechanism for targeting this resource.

The following JMS module targets will be used as the default targets for your new JMS system module resource. If the module's targets are changed, this resource will also be retargeted appropriately.

Targets:

Servers

SOAServer

Back Next Finish Advanced Targeting Cancel

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, admin Connected to: AlphaDomain

Home > Summary of JMS Modules > FCUBSJMModule > Summary of JMS Modules > FCUBSJMModule > FCUBSJMModule > FCUBSJMModule > FCUBSJMModule > placeholder

Create a New JMS System Module Resource

Back Next Finish Cancel

The following properties will be used to target your new JMS system module resource

Use this page to select a subdeployment to assign this system module resource. A subdeployment is a mechanism by which JMS resources are grouped and targeted to a server instance, cluster, or SAF agent. If necessary, you can create a new subdeployment by clicking the **Create a New Subdeployment** button. You can also reconfigure subdeployment targets later by using the parent module's subdeployment management page.

Select the subdeployment you want to use. If you select (none), no targeting will occur.

Subdeployments: (none) **Create a New Subdeployment**

What targets do you want to assign to this subdeployment?

Targets:

Back Next Finish Cancel

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, admin Connected to: AlphaDomain

Home > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > placeholder

Change Center
View changes and restarts
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

Domain Structure
AlphaDomain
Environment
Servers
Clusters
Coherence Clusters
Machines
Virtual Hosts
Work Managers
Startup and Shutdown Classes
Deployments
Services
Messaging
JMS Servers
Store-and-Forward Agents

How do I...

- Configure quotas for destinations
- Configure JMS templates
- Configure destination keys
- Configure topics
- Configure queues
- Configure connection factories
- Configure uniform distributed topics
- Configure uniform distributed queues
- Configure foreign servers
- Configure JMS SAF

System Status
Health of Running Servers

Failed	(0)
Critical	(0)
Overloaded	(0)
Warning	(0)
OK	(2)

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

Create a New Subdeployment

OK Cancel

Subdeployment Properties
The following properties will be used to identify your new subdeployment.

Subdeployment Name: FCUBS

OK Cancel

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, admin Connected to: AlphaDomain

Home > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > placeholder

Change Center
View changes and restarts
Pending changes exist. They must be activated to take effect. You may activate them now. Otherwise, they will be automatically activated when you next modify, add or delete items in this domain.

Activate Changes
Undo All Changes

Domain Structure
AlphaDomain
Environment
Servers
Clusters
Coherence Clusters
Machines
Virtual Hosts
Work Managers
Startup and Shutdown Classes
Deployments
Services
Messaging
JMS Servers
Store-and-Forward Agents

How do I...

- Configure quotas for destinations
- Configure JMS templates
- Configure destination keys
- Configure topics
- Configure queues
- Configure connection factories
- Configure uniform distributed topics
- Configure uniform distributed queues
- Configure foreign servers
- Configure JMS SAF

System Status
Health of Running Servers

Failed	(0)
Critical	(0)
Overloaded	(0)
Warning	(0)
OK	(2)

Create a New JMS System Module Resource

Back Next Finish Cancel

The following properties will be used to target your new JMS system module resource

Use this page to select a subdeployment to assign this system module resource. A subdeployment is a mechanism by which JMS resources are grouped and targeted to a server instance, cluster, or SAF agent. If necessary, you can create a new subdeployment by clicking the **Create a New Subdeployment** button. You can also reconfigure subdeployment targets later by using the parent module's subdeployment management page.

Select the subdeployment you want to use. If you select (none), no targeting will occur.

Subdeployments: FCUBS Create a New Subdeployment

What targets do you want to assign to this subdeployment?

Targets:

Servers

SOAServer

JMS Servers

BPHJMServer

FCUBSJMServer

SOAJMServer

UNSJMServer_auto_2

Back Next Finish Cancel

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, admin Connected to: AlphaDomain

Home > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > placeholder

Change Center
View changes and restarts
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

Domain Structure
AlphaDomain
Environment
- Servers
- Clusters
- Coherence Clusters
- Machines
- Virtual Hosts
- Work Managers
- Startup and Shutdown Classes
- Deployments
- Services
- Messaging
- JMS Servers
- Store-and-Forward Agents

How do I...?
No task help found.

System Status
Health of Running Servers
Failed (0)
Critical (0)
Overloaded (0)
Warning (0)
OK (2)

Messages
All changes have been activated. No restarts are necessary.
Connection factory created successfully.

Settings for FCUBSJMSModule
Configuration Subdeployments Targets Security Notes

This page displays general information about a JMS system module and its resources. It also allows you to configure new resources and access existing resources.

Name: FCUBSJMSModule The name of this JMS system module. [More Info...](#)

Descriptor File Name: jms/fcubsjmsmodule-jms.xml The name of the JMS module descriptor file. [More Info...](#)

This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.

[Customize this table](#)

Summary of Resources
New Delete Showing 1 to 1 of 1 Previous | Next

Name	Type	JNDI Name	Subdeployment	Targets
FCUBSConnectionFactory	Connection Factory	jndi/FCUBSConnectionFactory	FCUBS	FCUBSJMSServer

New Delete Showing 1 to 1 of 1 Previous | Next

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, admin Connected to: AlphaDomain

Home > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > placeholder

Change Center
View changes and restarts
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

Domain Structure
AlphaDomain
Environment
- Servers
- Clusters
- Coherence Clusters
- Machines
- Virtual Hosts
- Work Managers
- Startup and Shutdown Classes
- Deployments
- Services
- Messaging
- JMS Servers
- Store-and-Forward Agents

How do I...?
No task help found.

System Status
Health of Running Servers
Failed (0)
Critical (0)
Overloaded (0)
Warning (0)
OK (2)

Messages
All changes have been activated. No restarts are necessary.
Connection factory created successfully.

Settings for FCUBSJMSModule
Configuration Subdeployments Targets Security Notes

This page displays general information about a JMS system module and its resources. It also allows you to configure new resources and access existing resources.

Name: FCUBSJMSModule The name of this JMS system module. [More Info...](#)

Descriptor File Name: jms/fcubsjmsmodule-jms.xml The name of the JMS module descriptor file. [More Info...](#)

This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.

[Customize this table](#)

Summary of Resources
New Delete Showing 1 to 1 of 1 Previous | Next

Name	Type	JNDI Name	Subdeployment	Targets
FCUBSConnectionFactory	Connection Factory	jndi/FCUBSConnectionFactory	FCUBS	FCUBSJMSServer

New Delete Showing 1 to 1 of 1 Previous | Next

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

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

Use these pages to create resources in a JMS system module, such as queues, topics, templates, and connection factories.

Depending on the type of resource you select, you are prompted to enter basic information for creating the resource. For targetable resources, like stand-alone queues and topics, connection factories, distributed queues and topics, foreign servers, and JMS SAF destinations, you can also proceed to targeting pages for selecting appropriate server targets. You can also associate targetable resources with subdeployments, which is an advanced mechanism for grouping JMS module resources and the members to server resources.

- Connection Factory: Defines a set of connection configuration parameters that are used to create connections for JMS clients. [More Info...](#)
- Queue: Defines a point-to-point destination type, which are used for asynchronous peer communications. A message delivered to a queue is distributed to only one consumer. [More Info...](#)
- Topic: Defines a publish/subscribe destination type, which are used for asynchronous peer communications. A message delivered to a topic is distributed to all topic consumers. [More Info...](#)
- Distributed Queue: Defines a set of queues that are distributed on multiple JMS servers, but which are accessible as a single, logical queue to JMS clients. [More Info...](#)
- Distributed Topic: Defines a set of topics that are distributed on multiple JMS servers, but which are accessible as a single, logical topic to JMS clients. [More Info...](#)
- Foreign Server: Defines foreign messaging providers or remote WebLogic Server instances that are not part of the current domain. [More Info...](#)
- Quota: Controls the allotment of system resources available to destinations. [More Info...](#)
- Destination Sort Key: Defines a unique sort order that destinations can apply to arriving messages. [More Info...](#)
- JMS Template: Defines a set of default configuration settings for multiple destinations. [More Info...](#)
- SAF Imported Destinations: Defines a collection of imported store-and-forward (SAF) destinations. A SAF destination is a representation of a queue or topic in a remote server instance or cluster that is imported into the local cluster or server instance, so that the local server instance or cluster can send messages to the remote server instance or cluster. [More Info...](#)
- Remote SAF Context: Defines the URL of the remote server instance or cluster where a JMS destination is exported from. It also contains the security credentials to be authenticated and authorized in the remote cluster or server. [More Info...](#)
- SAF Error Handling: Defines the action to take when the SAF service fails to forward messages to remote destinations. [More Info...](#)

Back Next Finish Cancel

WebLogic Server Version: 11.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

5. 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

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main window is titled "Create a New JMS System Module Resource". The "JMS Destination Properties" section is active, showing the following configuration:

- Name:** NOTIFY_DEST_QUEUE
- JNDI Name:** jms/NOTIFY_DEST_QUEUE
- Template:** None

The left sidebar contains several panels:

- Change Center:** View changes and restarts. Configuration editing is enabled.
- Domain Structure:** A tree view showing the hierarchy of the domain, including Environment, Servers, Clusters, Coherence Clusters, Machines, Virtual Hosts, Work Managers, Startup and Shutdown Classes, Deployments, Services, Messaging, JMS Servers, and Store-and-Forward Agents.
- How do I...:** A list of configuration tasks such as "Configure quotas for destinations", "Configure JMS templates", "Configure destination keys", "Configure topics", "Configure queues", "Configure connection factories", "Configure uniform distributed topics", "Configure uniform distributed queues", "Configure foreign servers", and "Configure JMS SAF".
- System Status:** Health of Running Servers. A bar chart shows the status of servers: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (2).

The bottom of the console displays the version information: "WebLogic Server Version: 12.1.3.0.0" and copyright information for Oracle Corporation.

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, admin Connected to: AlphaDomain

Home > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > FCUBSConnectionFactory > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > placeholder

Create a New JMS System Module Resource

Back Next Finish Cancel

The following properties will be used to target your new JMS system module resource

Use this page to select a subdeployment to assign this system module resource. A subdeployment is a mechanism by which JMS resources are grouped and targeted to a server instance, cluster, or SAF agent. If necessary, you can create a new subdeployment by clicking the **Create a New Subdeployment** button. You can also reconfigure subdeployment targets later by using the parent module's subdeployment management page.

Select the subdeployment you want to use. If you select (none), no targeting will occur.

Subdeployments: FCUBS Create a New Subdeployment

What targets do you want to assign to this subdeployment?

Targets:

JMS Servers

- BPMJMServer
- FCUBSJMServer
- SOAJMServer
- UMSJMServer_auto_2

Back Next Finish Cancel

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, admin Connected to: AlphaDomain

Home > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > FCUBSConnectionFactory > Summary of JMS Modules > FCUBSJMSModule > Summary of JMS Modules > FCUBSJMSModule > placeholder

Messages

- ✓ All changes have been activated. No restarts are necessary.
- ✓ The JMS Queue was created successfully.

Settings for FCUBSJMSModule

Configuration Subdeployments Targets Security Notes

This page displays general information about a JMS system module and its resources. It also allows you to configure new resources and access existing resources.

Name: FCUBSJMSModule The name of this JMS system module. More Info...

Descriptor File Name: jms/FCUBSJMSModule-jms.xml The name of the JMS module descriptor file. More Info...

This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.

Customize this table

Summary of Resources

New Delete Showing 1 to 2 of 2 Previous | Next

Name	Type	JNDI Name	Subdeployment	Targets
FCUBSConnectionFactory	Connection Factory	jndi/FCUBSConnectionFactory	FCUBS	FCUBSJMServer
NOTIFY_DEST_QUEUE	Queue	jms/NOTIFY_DEST_QUEUE	FCUBS	FCUBSJMServer

New Delete Showing 1 to 2 of 2 Previous | Next

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

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

	DMS Application (12.1.3.0.0)	Active	✔ OK	Web Application	AdminServer, BAMServer, SOAServer	5
	em	Active	✔ OK	Enterprise Application	AdminServer	400
	FCLBSAppUIT (12.1.0.0.0)	Active	⚠ Warning	Enterprise Application	SOAServer	600
	FileAdapter	Active	✔ OK	Resource Adapter	SOAServer	321
	Frevvo	Active	✔ OK	Enterprise Application	SOAServer	100
	FtpAdapter	Active	✔ OK	Resource Adapter	SOAServer	325
	GWWebServices (12.1.0.0.0)	Active	✔ OK	Enterprise Application	SOAServer	600
	JDEWorldAdapter	Installed		Resource Adapter		333
	JmsAdapter	Active	✔ OK	Resource Adapter	SOAServer	323
	LdapAdapter [JmsAdapter, Level 1, 19 of 46]	Installed		Resource Adapter		332
	MQSeriesAdapter	Active	✔ OK	Resource Adapter	SOAServer	327
	MSMQAdapter	Installed		Resource Adapter		334
	OAAPredictionService	Active	✔ OK	Enterprise Application	SOAServer	100
	OracleAppsAdapter	Active	✔ OK	Resource Adapter	SOAServer	328
	OracleBamAdapter	Installed		Resource Adapter		329
	OracleBPMBACServerApp	Active	✔ OK	Enterprise Application	SOAServer	384
	OracleBPMComposerRolesApp	Active	✔ OK	Enterprise Application	SOAServer	382
	OracleBPMProcessRolesApp	Active	✔ OK	Enterprise Application	SOAServer	381
	OracleBPMWorkspace	Active	✔ OK	Enterprise Application	SOAServer	383
	SAPAdapter	Installed		Resource Adapter		335
	SimpleApprovalTaskFlow	Active	✔ OK	Enterprise Application	SOAServer	386
	soa-trifra	Active	✔ OK	Enterprise Application	SOAServer	350
	soa-webapps	Active	✔ OK	Enterprise Application	SOAServer	360

10.184.135.218:7001/console/console.portal?_rfpb=true&_pageLabel=AppApplicationDispatcherPage&AppApplica...Portlethandle=com.bea.console.handles.AppDeploymentHandle["com.bea.Name=JmsAdapter,Type=AppDeployment"]

Home > FCUBSConnectionFactory > Summary of JMS Modules > FCUBSJMModule > Summary of JMS Modules > FCUBSJMModule > placeholder > Summary of Deployments > JmsAdapter > Summary of Deployments > JmsAdapter

Settings for JmsAdapter

Overview | Deployment Plan | **Configuration** | Security | Targets | Control | Testing | Monitoring | Notes

General | Properties | **Outbound Connection Pools** | Admin Objects | Workload | Instrumentation

This page displays a table of Outbound Connection Pool groups and instances for this resource adapter. The top level entries in the table represent Outbound Connection Pool groups. Groups are listed by connection factory interface and the instances are listed by their JNDI names. Expand a group to obtain configuration information for a Connection Pool instance within an Outbound Connection Pool group. Click the name of a group or instance to configure it. Automatically generated Connection Pools are not displayed in the table below.

Outbound Connection Pool Configuration Table

Groups and Instances	Connection Factory Interface
oracle.tp.adapter.jms.IJmsConnectionFactory	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/activemq/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/aqjms/EDNLocalTxDurableTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/aqjms/EDNLocalTxTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/aqjms/EDNxaDurableTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/aqjms/EDNxaTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/aqjms/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/aqjms/Topic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/florantmq/Topic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/jbossmq/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/jms/jaas2QueueCF	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/jms/jaasErrorTopicCF	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/jxamat/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/summq/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/tbjms/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/tbjms/Topic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/tbjmsDirect/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/tbjmsDirect/Topic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/webpshermq/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/EDNLocalTxDurableTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/EDNLocalTxTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/EDNxaDurableTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/EDNxaTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/Topic	oracle.tp.adapter.jms.IJmsConnectionFactory

ORACLE WebLogic Server Administration Console 12c

Home | Log Out | Preferences | Record | Help | Welcome, admin | Connected to: AlphaDomain

Home > FCUBSJMModule > placeholder > Summary of Deployments > JmsAdapter > Summary of Deployments > JmsAdapter > Summary of Deployments > JmsAdapter > Summary of Deployments > JmsAdapter

Create a New Outbound Connection

Back | Next | Finish | Cancel

Outbound Connection Group

In which outbound connection group do you want to create an instance?

Outbound Connection Groups

Outbound Connection Group	Showing 1 to 1 of 1 Previous Next
<input checked="" type="radio"/> oracle.tp.adapter.jms.IJmsConnectionFactory	Showing 1 to 1 of 1 Previous Next

Back | Next | Finish | Cancel

WebLogic Server Version: 12.1.3.0.0
 Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
 Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

Change Center

View changes and restarts

Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

Domain Structure

- AlphaDomain
 - Environment
 - Servers
 - Clusters
 - Coherence Clusters
 - Machines
 - Virtual Hosts
 - Work Managers
 - Startup and Shutdown Classes
 - Deployments
 - Services
 - Messaging
 - JMS Servers
 - Store-and-Forward Agents

How do I...

- Configure outbound connection pool properties

System Status

Health of Running Servers

- Failed (0)
- Critical (0)
- Overloaded (0)
- Warning (0)
- OK (2)

Home > FCUBSJMModule > placeholder > Summary of Deployments > JmsAdapter > Summary of Deployments > JmsAdapter > Summary of Deployments > JmsAdapter > Summary of Deployments > JmsAdapter

Create a New Outbound Connection

Back Next Finish Cancel

JNDI name for Outbound Connection Instance

Enter the JNDI name that you want to use to obtain the new connection instance

* Indicates required fields

The Outbound Connection instance represents a connection pool. The JNDI name can be used to obtain the pool at runtime.

* JNDI Name:

Back Next Finish Cancel

Domain Structure

- Clusters
 - Coherence Clusters
 - Machines
 - Virtual Hosts
 - Work Managers
 - Startup and Shutdown Classes
- Deployments
- Services
 - Messaging
 - JMS Servers
 - Store-and-Forward Agents

How do I...

- Configure outbound connection pool properties

System Status

Health of Running Servers

- Failed (0)
- Critical (0)
- Overloaded (0)
- Warning (0)
- OK (2)

listed by connection factory interface and the instances are listed by their JNDI names. Expand a group to obtain configuration information for a Connection Pool instance within an Outbound Connection Pool group. Click the name of a group or instance to configure it. Automatically generated Connection Pools are not displayed in the table below.

Outbound Connection Pool Configuration Table

New Delete Showing 1 to 1 of 1 Previous Next

Groups and Instances	Connection Factory Interface
oracle.tp.adapter.jms.IJmsConnectionFactory	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/activemq/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/agjms/EDNLocalTxDurableTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/agjms/EDNLocalTxTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/agjms/EDNxaDurableTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/agjms/EDNxaTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/agjms/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/agjms/Topic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/foranoma/Topic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/jbossmq/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/jms/ais82QueueCF	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/jms/aisErrorTopicCF	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/pramati/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/Queue/Notif	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/summq/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/tbjms/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/tbjms/Topic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/tbjmsDirect/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/tbjmsDirect/Topic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/jwebspheremq/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/EDNLocalTxDurableTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/EDNLocalTxTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/EDNxaDurableTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/EDNxaTopic	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/Queue	oracle.tp.adapter.jms.IJmsConnectionFactory
eis/wls/Topic	oracle.tp.adapter.jms.IJmsConnectionFactory

New Delete Showing 1 to 1 of 1 Previous Next

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

ORACLE WebLogic Server Administration Console 12c

Home > JmsAdapter > Summary of Deployments > JmsAdapter > Summary of Deployments > JmsAdapter > Summary of JMS Modules > FCUBS3MSModule > Summary of JMS Modules > Summary of Deployments > JmsAdapter

Settings for oracle.tip.adapter.jms.DmsConnectionFactory

General **Properties** Transaction Authentication Connection Pool Logging

This page allows you to view and modify the configuration properties of this outbound connection pool. Properties you modify here are saved to a deployment plan.

Outbound Connection Properties

Showing 1 to 7 of 7 Previous | Next

Property Name	Property Type	Property Value	Supports Dynamic Updates
AcknowledgeMode	java.lang.String	AUTO_ACKNOWLEDGE	false
ConnectionFactoryLocation	java.lang.String	jndi/FCUBSConnectionFactory	false
FactoryProperties	java.lang.String		false
IsTopic	java.lang.Boolean	false	false
IsTransacted	java.lang.Boolean	false	false
Password	java.lang.String		false
Username	java.lang.String		false

Showing 1 to 7 of 7 Previous | Next

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996,2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

ORACLE WebLogic Server Administration Console 12c

Home > JmsAdapter > Summary of Deployments > JmsAdapter > Summary of Deployments > JmsAdapter > Summary of JMS Modules > FCUBS3MSModule > Summary of JMS Modules > Summary of Deployments > JmsAdapter

Messages

- All changes have been activated. No restarts are necessary.
- Deployment plan has been successfully updated.
- Remember to update your deployment to reflect the new plan when you are finished with your changes.

Settings for oracle.tip.adapter.jms.DmsConnectionFactory

General **Properties** Transaction Authentication Connection Pool Logging

This page allows you to view and modify the configuration properties of this outbound connection pool. Properties you modify here are saved to a deployment plan.

Outbound Connection Properties

Showing 1 to 7 of 7 Previous | Next

Property Name	Property Type	Property Value	Supports Dynamic Updates
AcknowledgeMode	java.lang.String	AUTO_ACKNOWLEDGE	false
ConnectionFactoryLocation	java.lang.String	jndi/FCUBSConnectionFactory	false
FactoryProperties	java.lang.String		false
IsTopic	java.lang.Boolean	false	false
IsTransacted	java.lang.Boolean	false	false
Password	java.lang.String		false
Username	java.lang.String		false

Showing 1 to 7 of 7 Previous | Next

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996,2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

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

The screenshot shows the Oracle WebLogic Server Administration Console interface. On the left, there is a navigation tree with categories like Clusters, Servers, and Deployments. Below the tree are panels for 'How do I...' (listing tasks like installing and updating applications) and 'System Status' (showing health of running servers). The main area displays a 'Deployments' table with columns for Name, State, Health, Type, Targets, and Deployment Order. The table lists various adapters and applications such as AqAdapter, b2bui, BamComposer, BamCQService, BamServer, BPMComposer, coherence-transaction-rar, CoherenceAdapter, DbAdapter, DefaultToDoTaskFlow, DMS Application, em, FCUBSAppTUT, FileAdapter, frevvo, FtpAdapter, GWWebServices, and JDEWorldAdapter. The 'JMS Adapter' is highlighted in the table.

Name	State	Health	Type	Targets	Deployment Order
AqAdapter	Prepared	OK	Resource Adapter	SOAServer	324
b2bui	Prepared	OK	Enterprise Application	SOAServer	313
BamComposer	New		Enterprise Application	BAMServer	500
BamCQService	New		Enterprise Application	BAMServer	300
BamServer	New		Enterprise Application	BAMServer	400
BPMComposer	Active	OK	Enterprise Application	SOAServer	385
coherence-transaction-rar	Active	OK	Resource Adapter	AdminServer, BAMServer, SOAServer	100
CoherenceAdapter	Installed		Resource Adapter		331
DbAdapter	Active	OK	Resource Adapter	SOAServer	322
DefaultToDoTaskFlow	Active	OK	Enterprise Application	SOAServer	314
DMS Application (12.1.3.0.0)	Active	OK	Web Application	AdminServer, BAMServer, SOAServer	5
em	Active	OK	Enterprise Application	AdminServer	400
FCUBSAppTUT (12.1.0.0.0)	Active	Warning	Enterprise Application	SOAServer	600
FileAdapter	Active	OK	Resource Adapter	SOAServer	321
frevvo	Active	OK	Enterprise Application	SOAServer	100
FtpAdapter	Active	OK	Resource Adapter	SOAServer	325
GWWebServices (12.1.0.0.0)	Active	OK	Enterprise Application	SOAServer	600
JDEWorldAdapter	Installed		Resource Adapter		333

The screenshot shows the 'Update Application Assistant' dialog box in the Oracle WebLogic Server Administration Console. The dialog is titled 'Update Application Assistant' and has buttons for 'Back', 'Next', 'Finish', and 'Cancel'. It contains the following text and options:

Locate new deployment files
You have elected to update the JmsAdapter application.

Update this application in place with new deployment plan changes. (A deployment plan must be specified for this option)

Deployment plan path: /scratch/app/oracle/product/fmw_12c3/soa/soa/connectors/Plan1.xml [Change Path](#)

Redeploy this application using the following deployment files:

Source path: /scratch/app/oracle/product/fmw_12c3/soa/soa/connectors/JmsAdapter.rar [Change Path](#)

Deployment plan path: /scratch/app/oracle/product/fmw_12c3/soa/soa/connectors/Plan1.xml [Change Path](#)

The background shows the 'Change Center' panel with 'View changes and restarts' and 'Configuration editing is enabled'. The 'Domain Structure' panel shows the tree for 'AlphaDomain' with 'Servers' and 'Deployments' expanded. The 'System Status' panel shows 'Health of Running Servers' with 2 OK, 0 Warning, 0 Overloaded, 0 Critical, and 0 Failed.

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, admin Connected to: AlphaDomain

Change Center
View changes and restarts
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

Domain Structure
AlphaDomain
Environment
Servers
Clusters
Coherence Clusters
Machines
Virtual Hosts
Work Managers
Startup and Shutdown Classes
Deployments
Services
Messaging
JMS Servers
Store-and-Forward Agents

How do I...

- Install an enterprise application
- Configure an enterprise application
- Update (redeploy) an enterprise application
- Start and stop a deployed enterprise application
- Monitor the modules of an enterprise application
- Deploy EJB modules
- Install a Web application

System Status
Health of Running Servers

- Failed (0)
- Critical (0)
- Overloaded (0)
- Warning (0)
- OK (2)

Messages

- All changes have been activated. No restarts are necessary.
- Selected Deployments were updated.

Summary of Deployments
Control Monitoring

This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.
To install a new application or module for deployment to targets in this domain, click the Install button.

Customize this table

Deployments
Install Update Delete Start Stop

Name	State	Health	Type	Targets	Deployment Order
AqAdapter	Prepared	OK	Resource Adapter	SOAServer	324
b2bul	Prepared	OK	Enterprise Application	SOAServer	313
BamComposer	New		Enterprise Application	BAMServer	500
BamCQService	New		Enterprise Application	BAMServer	300
BamServer	New		Enterprise Application	BAMServer	400
BPMComposer	Active	OK	Enterprise Application	SOAServer	385
coherence-transaction-iar	Active	OK	Resource Adapter	AdminServer, BAMServer, SOAServer	100
CoherenceAdapter	Installed		Resource Adapter		331
DbAdapter	Active	OK	Resource Adapter	SOAServer	322
DefaultToDoTaskFlow	Active	OK	Enterprise Application	SOAServer	314
DMS Application (12.1.3.0.0)	Active	OK	Web Application	AdminServer, BAMServer, SOAServer	5

Showing 1 to 46 of 46 Previous Next

Highlight Match Case

16. 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

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

ORACLE WebLogic Server Administration Console 12c

Home > Summary of Deployments > FtpAdapter

Welcome, admin Connected to: AlphaDomain

Settings for FtpAdapter

Overview | Deployment Plan | **Configuration** | Security | Targets | Control | Testing | Monitoring | Notes

General | Properties | **Outbound Connection Pools** | Admin Objects | Workload | Instrumentation

This page displays a table of Outbound Connection Pool groups and instances for this resource adapter. The top level entries in the table represent Outbound Connection Pool groups. Groups are listed by connection factory interface and the instances are listed by their JNDI names. Expand a group to obtain configuration information for a Connection Pool instance within an Outbound Connection Pool group. Click the name of a group or instance to configure it. Automatically generated Connection Pools are not displayed in the table below.

Outbound Connection Pool Configuration Table

Groups and Instances	Connection Factory Interface
javax.resource.cd.ConnectionFactory	javax.resource.cd.ConnectionFactory
eis/ftp/CoherenceHftpAdapter	javax.resource.cd.ConnectionFactory
eis/ftp/FtpAdapter	javax.resource.cd.ConnectionFactory
eis/ftp/FtpAdapterLcl	javax.resource.cd.ConnectionFactory
eis/ftp/FtpAdapter_VMS	javax.resource.cd.ConnectionFactory
eis/ftp/FtpsAdapter	javax.resource.cd.ConnectionFactory
eis/ftp/HftpAdapter	javax.resource.cd.ConnectionFactory
eis/ftp/HftpAdapterOB2	javax.resource.cd.ConnectionFactory
eis/ftp/HftpAdapterMSSQL	javax.resource.cd.ConnectionFactory
eis/ftp/LocalTransactionFtpAdapter	javax.resource.cd.ConnectionFactory

Showing 1 to 1 of 1 Previous | Next

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

ORACLE WebLogic Server Administration Console 12c

Home > Summary of Deployments > FtpAdapter

Welcome, admin Connected to: AlphaDomain

Create a New Outbound Connection

Back | Next | Finish | Cancel

JNDI name for Outbound Connection Instance

Enter the JNDI name that you want to use to obtain the new connection instance

* Indicates required fields

The Outbound Connection instance represents a connection pool. The JNDI name can be used to obtain the pool at runtime.

* JNDI Name: eis/ftp/FtpAdapterLcl

Back | Next | Finish | Cancel

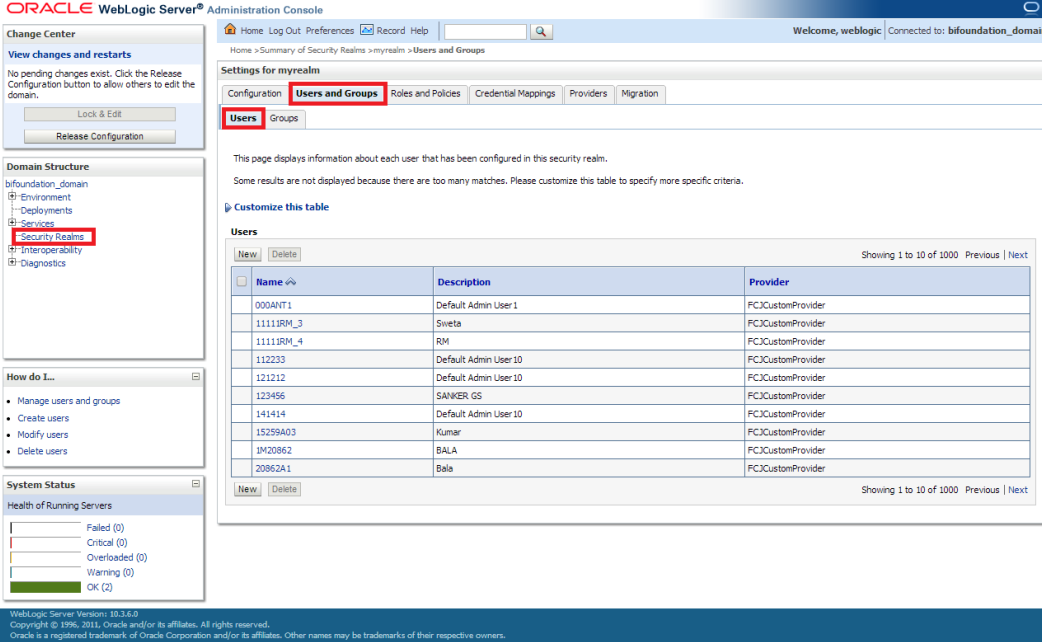
WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996-2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

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.

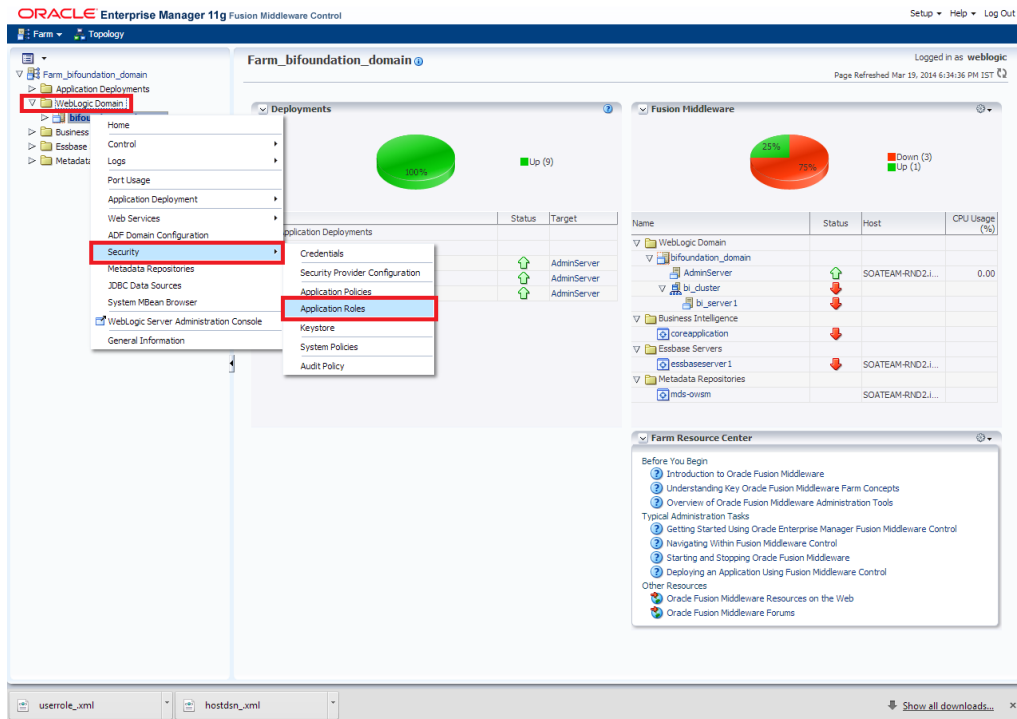


The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Settings for myrealm" and has tabs for "Configuration", "Users and Groups", "Roles and Policies", "Credential Mappings", "Providers", and "Migration". The "Users and Groups" tab is active, and the "Users" sub-tab is selected. A message states: "This page displays information about each user that has been configured in this security realm. Some results are not displayed because there are too many matches. Please customize this table to specify more specific criteria." Below this is a table of users:

Name	Description	Provider
000ANT1	Default Admin User 1	FCJCustomProvider
11111RM_3	Sweta	FCJCustomProvider
11111RM_4	RM	FCJCustomProvider
112233	Default Admin User 10	FCJCustomProvider
121212	Default Admin User 10	FCJCustomProvider
123456	SANKER GS	FCJCustomProvider
141414	Default Admin User 10	FCJCustomProvider
15259403	Kumar	FCJCustomProvider
1M20862	BALA	FCJCustomProvider
20862A1	Bala	FCJCustomProvider

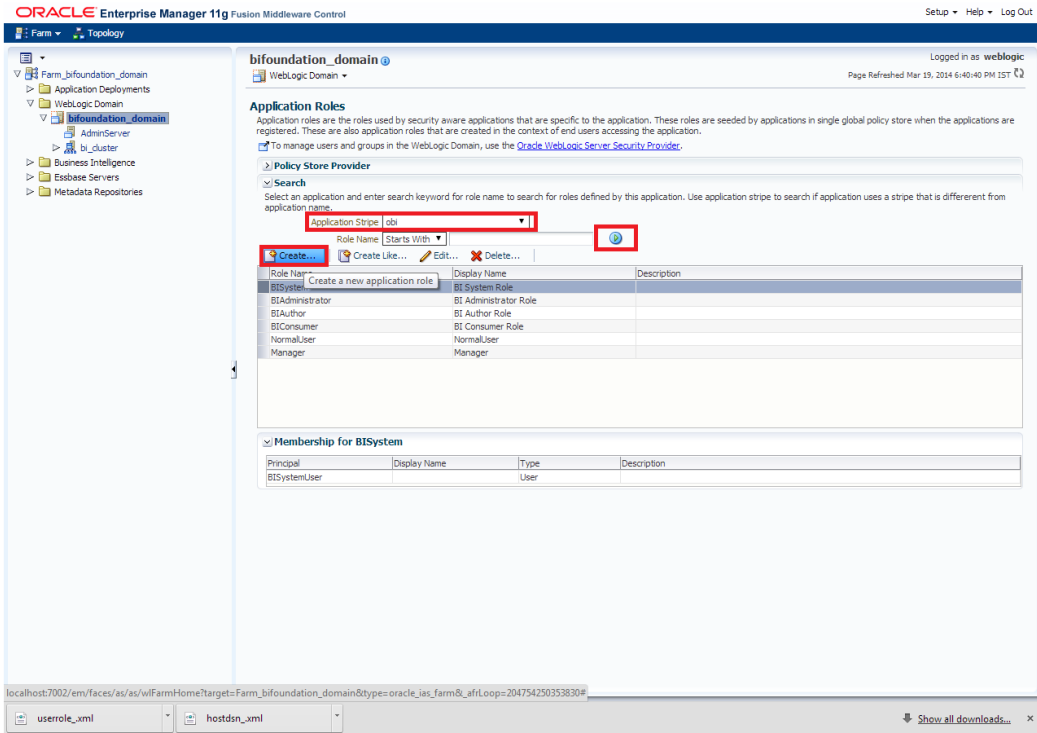
- 3) Login to the Enterprise Manager (em) `http/s:<hostname>:<port>/em`
 - Right click on the domain(in which BI suite is installed) under the weblogic domain

- 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.

The screenshot displays the Oracle Enterprise Manager 11g Fusion Middleware Control interface. The main window is titled "bifoundation_domain" and shows the "Create Application Role" dialog. The "General" tab is active, and the "Application String" is set to "obi". The "Role Name", "Display Name", and "Description" fields are all populated with "ALLROLES". A red box highlights these three fields. Below the "General" tab is the "Members" section, which contains an "Add" button (highlighted with a red box) and a table for listing members. The table is currently empty, with the text "No groups or application roles added." below it.

An "Add Principal" pop-up window is overlaid on the main window. It prompts the user to "Specify criteria to search and select the application roles that you want to grant permissions to." The "Search" section includes a "Type" dropdown menu set to "Group" (highlighted with a red box), and "Principal Name" and "Display Name" dropdown menus both set to "Starts With". Below this is a table of "Searched Principals":

Principal	Display Name	Description
BIAdministrators		BI Administrators
Group		Group
BIAuthors		BI Authors Group
BIConsumers		BI Consumers Group
BIPTTest		BIPTTest
CrossDomainConnectors		CrossDomainConn... can make inter-domain calls from foreign domains.
Deployers		Deployers can view all resource attributes and deploy applications.
Monitors		Monitors can view and modify all resource attributes and perform...

At the bottom of the pop-up window, the "Advanced Option" section is checked. A red box highlights the "Check to enter principal name here instead of searching from above. This option can be used for advanced scenarios related to custom authenticators." checkbox. Below this, the "Type" dropdown is set to "Group", and the "Principal Name" and "Display Name" fields are both populated with "ALLROLES-000" (both fields are highlighted with red boxes).

- 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

The screenshot shows the Oracle Enterprise Manager 11g Fusion Middleware Control interface. The left-hand navigation tree is expanded to show the 'WebLogic Domain' under 'Application Deployments'. A right-click context menu is open over the 'WebLogic Domain' node, with the 'Security' option selected. A sub-menu is displayed over 'Security', with 'Application Policies' highlighted. The main content area shows the 'Application Policies' configuration page for the 'bifoundation_domain'. Below this, there is a section titled 'Policies for BIAdministrator' containing a table of permissions.

Resource Name	Resource Type	Permission Actions	Permission Class
oracle.bi.server.manageRepositories	oracle.bi.server.permission	_all_	oracle.security.jps.ResourcePermission
oracle.bi.scheduler.manageJobs	oracle.bi.scheduler.permission	_all_	oracle.security.jps.ResourcePermission
oracle.bi.presentation.catalogmanager.mana...	oracle.bi.presentation.catalo...	_all_	oracle.security.jps.ResourcePermission
oracle.bi.publisher.administerServer	oracle.bi.publisher.permission	_all_	oracle.security.jps.ResourcePermission

- 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.

Application Policies

Application policies are the authorization policies that an application relies upon for controlling access to its resources.
 To manage users and groups in the WebLogic Domain, use the [Oracle WebLogic Server Security Provider](#).

Policy Store Provider

Scope: WebLogic Domain
 Provider: XML
 Location: /system-j2m-data.xml

Search

Select an application stripe in policy store, select principal type and enter search keyword to query application security grants assigned to the principals. Click on searched principal to query policies assigned to the principal.

Application Stripe: (highlighted)
 Principal Type: (highlighted)
 Name: Starts With: (highlighted)
 (highlighted)

PRINCIPAL	Display Name	Description
BIAdministrator	BI Administrator Role	
BIUserAdmin	BI System Role	
BIConsumer	BI Consumer Role	
BIAdmin	BI Admin Role	
BIReportViewer	FCUBI Consumer Role	

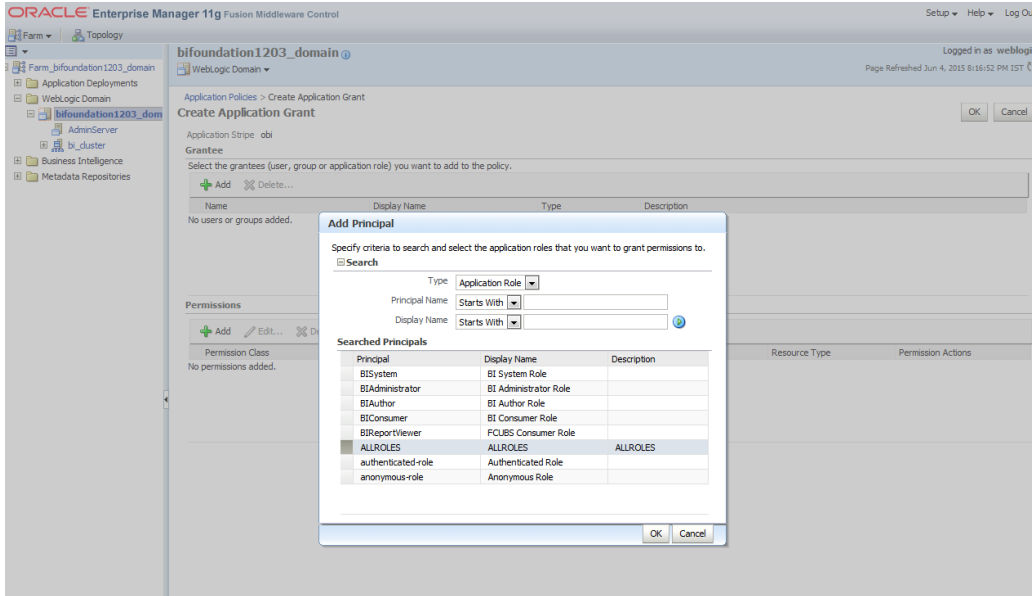
Policies for BIConsumer

Permissions

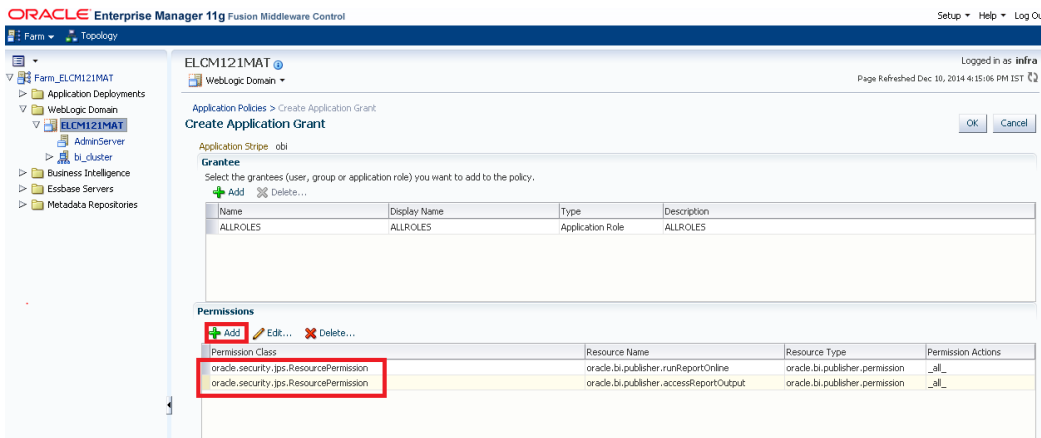
Resource Name	Resource Type	Permission Actions	Permission Class
Explore	rdt_fc_persp	dc_getobjective	oracle.security.jps.ResourcePermission
MyGance	rdt_fc_persp	dc_getobjective	oracle.security.jps.ResourcePermission
all	rdt_batch	batch admin	oracle.security.jps.ResourcePermission
el	rdt_ls	choice_edito	oracle.security.jps.ResourcePermission

8) After navigating to next screen as per the screen shot,

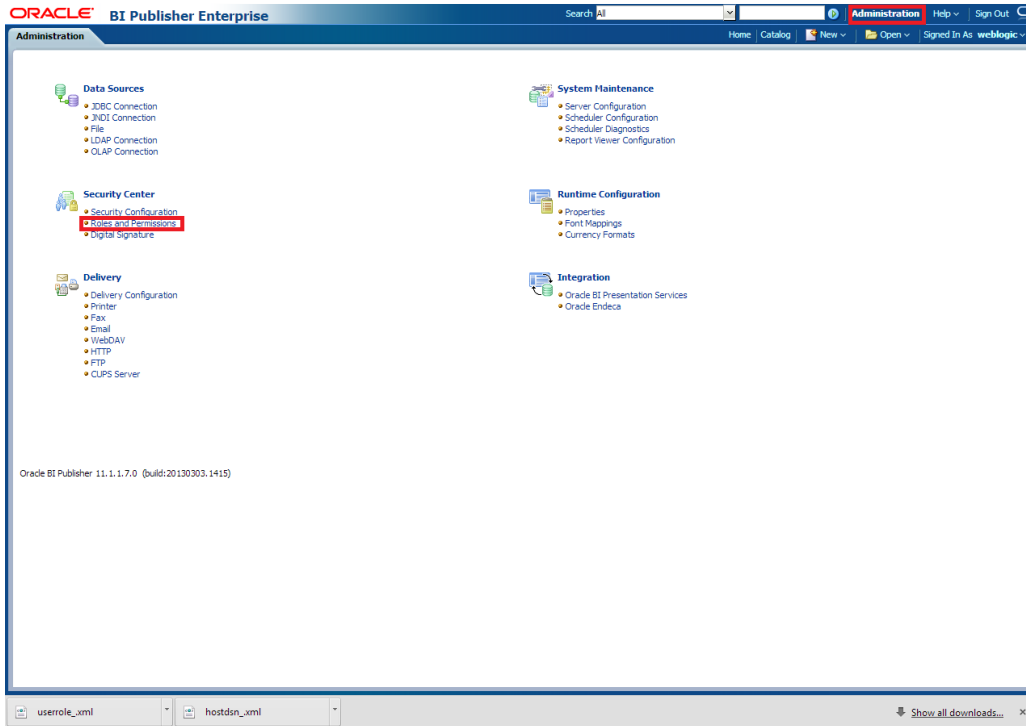
- Click on Add button , a new window “Add Principal” will be launched.
- Select Type as “Application Role” and click on the search button
- From the list select the role that has been created earlier in application role screen and click on OK button in pop up window and screen.



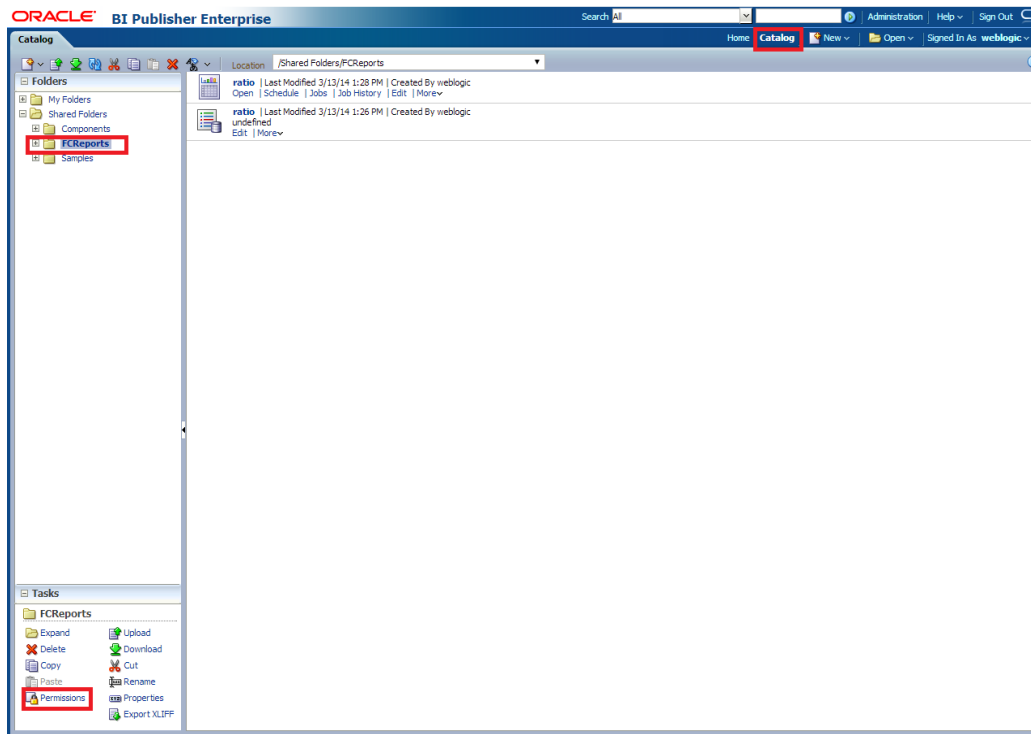
- Click Add button under Permissions and add the two permissions one by one as mentioned below.
 - oracle.bi.publisher.runReportOnline
 - oracle.bi.publisher.accessReportOutput



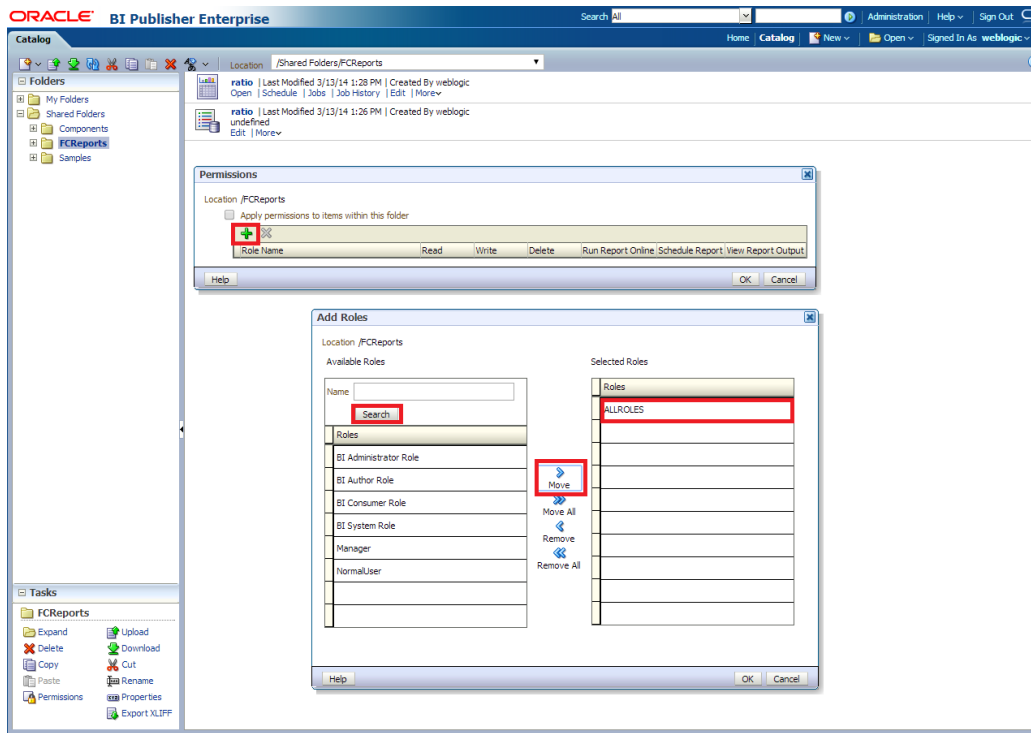
- 9) After getting information message like “A security added successfully”,
- Login into the BIPublisher , <http://s:<hostname>:<port>/xmlpserver>
 - Click on the Administration .
 - Click on the Roles and Permission under Security center and check if the added role(in em) is displayed, If not restart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



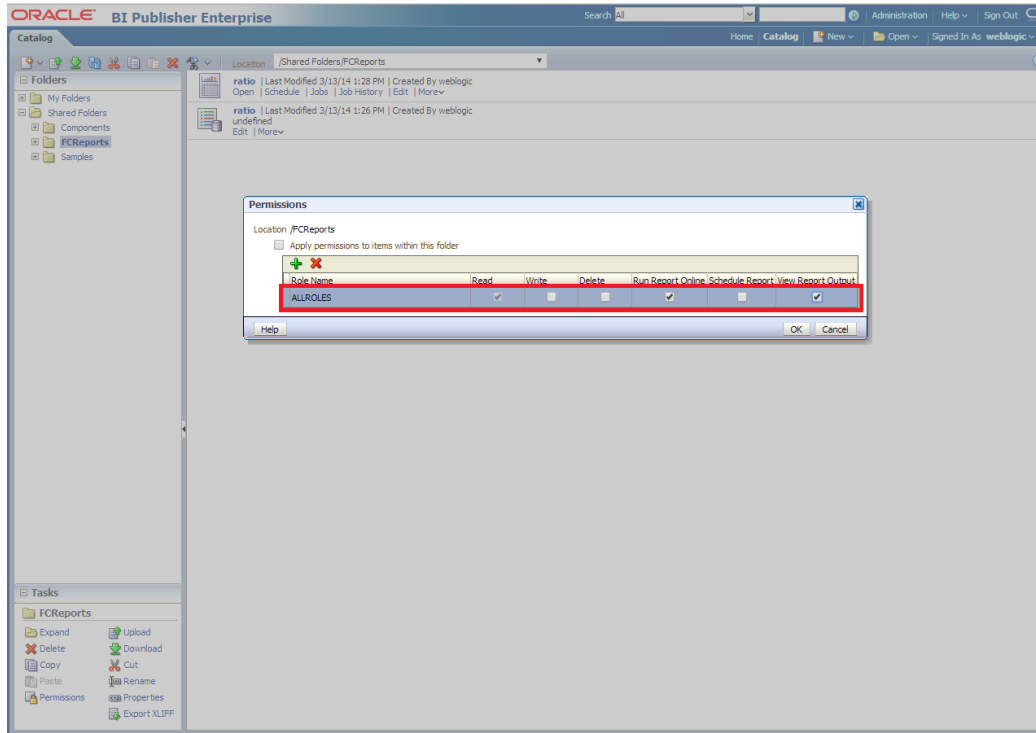
10) Then click on the Catalog , then on the folder that has been created , and then on permissions



- 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.



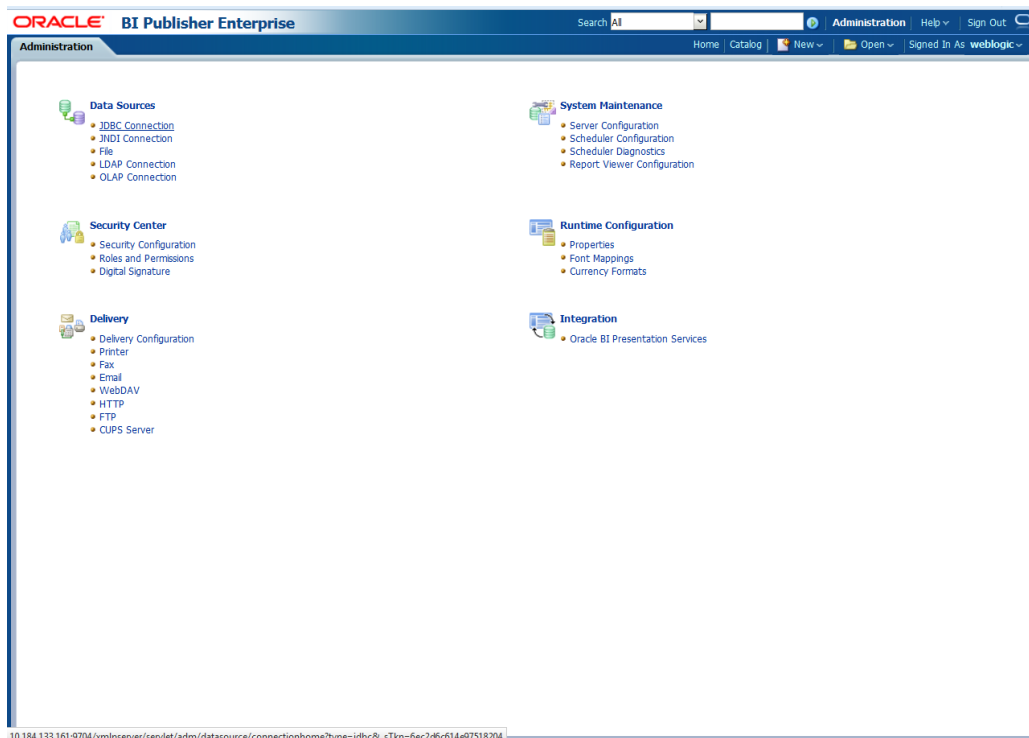
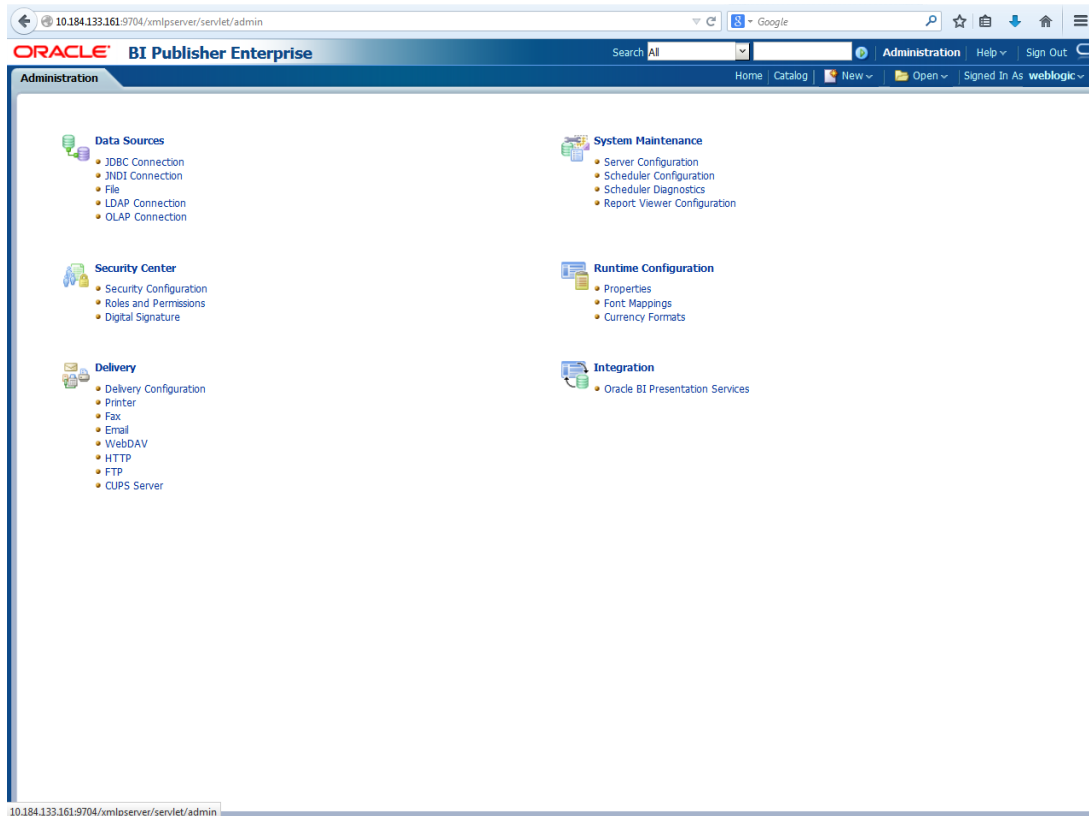
Now the reports in the folder will be accessed accordingly based on the roles.

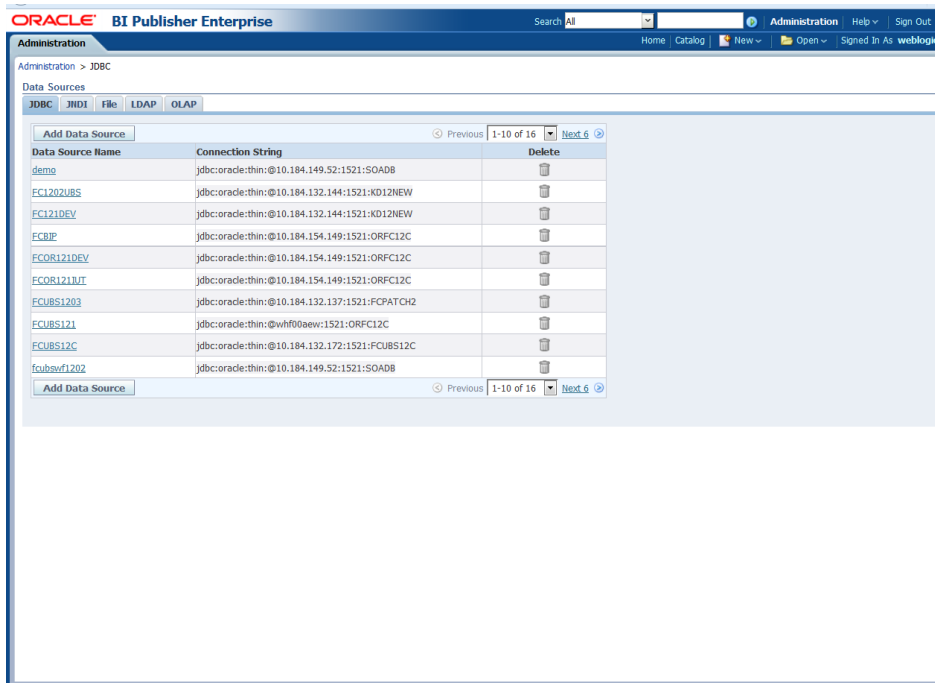
Note:

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

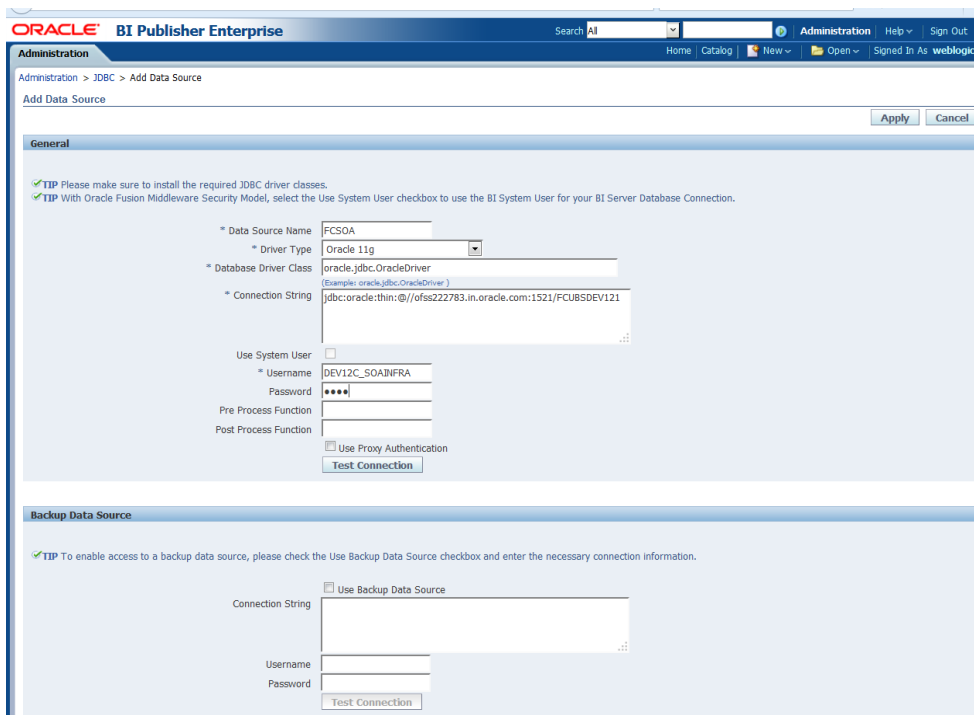
13. Please login in to Bi Publisher <http://server:port/xmlpserver>.

14. Click on Administration → JDBC connection → Add Data Source

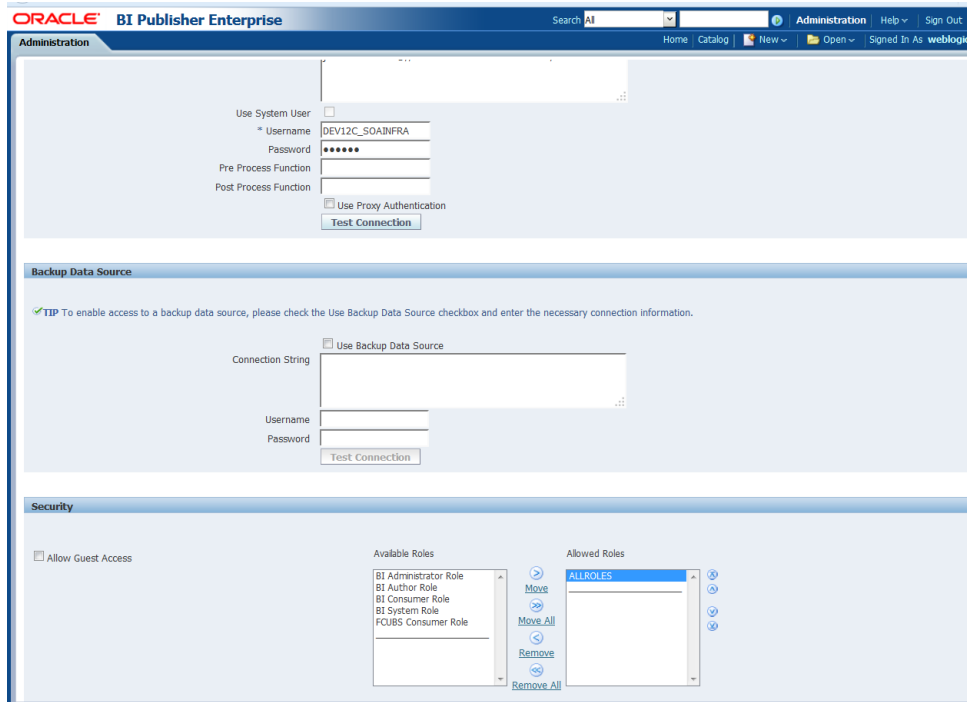




15. Please create the data source with data source name as **FCSOA** and use soa schema details to create the same.



16. Add the FCIS roles to allowed Roles under security



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

18. Please follow the steps 15 to 17 to create data source for FCIS 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

ORACLE WebLogic Server Administration Console 12c

Home > Summary of Deployments

Summary of Deployments

Control Monitoring

This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.

To install a new application or module for deployment to targets in this domain, click the Install button.

Customize this table

Name	State	Health	Type	Targets	Deployment Order
AgAdapter	Active	OK	Resource Adapter	soa_server1	324
ajb2bul	Active	OK	Enterprise Application	soa_server1	313
BAMComposer	Active	OK	Enterprise Application	bam_server1	500
BAMCQService	Active	OK	Enterprise Application	bam_server1	300
BAMServer	Active	OK	Enterprise Application	bam_server1	400
BPMComposer	Active	OK	Enterprise Application	soa_server1	385
coherence-transaction-rar	Active	OK	Resource Adapter	AdminServer, bam_server1, soa_server1	100
CoherenceAdapter	Installed		Resource Adapter		331
DBAdapter	Active	OK	Resource Adapter	soa_server1	322
DefaultToDoTaskFlow	Active	OK	Enterprise Application	soa_server1	314
DMS Application (12.1.3.0.0)	Active	OK	Web Application	AdminServer, bam_server1, soa_server1	5

4. Click on Configuration → Save

ORACLE WebLogic Server Administration Console 12c

Home > Summary of Deployments > BAMComposer > Summary of Deployments > BAMComposer

Settings for BAMComposer

Overview Deployment Plan **Configuration** Security Targets Control Testing Monitoring Notes

Application Workload Instrumentation

Save

This page describes the configuration information that is currently defined in the deployment plan for the selected module or component.

Session cookies max age (in seconds): -1
The life span of the session cookie (in seconds) after which it expires on the client. The value "-1" indicates that the cookie will persist until the client's browser shuts down. [More Info...](#)

Session Invalidation Interval (in seconds): 60
The time (in seconds) that WebLogic Server waits between doing house-cleaning checks for timed-out and invalid sessions, and deleting the old sessions and freeing up memory. [More Info...](#)

Session Timeout (in seconds): 3600
The amount of time (in seconds) that a session can remain inactive before it is invalidated. [More Info...](#)

Debug Enabled
Enable debugging information for this session. [More Info...](#)

Maximum in-memory Sessions: -1
The maximum number of sessions to retain in memory. The value "-1" indicates that there is no limit. [More Info...](#)

Monitoring Attribute Name:
Specifies the name of a session attribute which is tagged with session information. For example, if this value is set to username, then the username attribute is guaranteed to be unique. [More Info...](#)

Save

WebLogic Server Version: 12.1.3.0.0
Copyright (c) 1996, 2014, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

5. Click on Overview → check the deployment plan location

Settings for BamComposer

Name:	BamComposer	The name of this enterprise application. More Info...
Path:	/ scratch/ app/ fmw12c/ Middleware/ soa/ bam/ applications/ BamComposer. ear	The path to the source of the deployable unit on the Administration Server. More Info...
Deployment Plan:	/ scratch/ app/ fmw12c/ Middleware/ soa/ bam/ applications/ plan/ Plan3. xml	The path to the deployment plan document on the Administration Server. More Info...
Staging Mode:	nostage	Specifies whether a deployment's files are copied from a source on the Administration Server to the Managed Server's staging area during application preparation. More Info...
Plan Staging Mode:	(not specified)	Specifies whether an application's deployment plan is copied from a source on the Administration Server to the Managed Server's staging area during application preparation. More Info...
Security Model:	DDOnly	The security model that is used to secure a deployed module. More Info...
Deployment Order:	500	An integer value that indicates when this unit is deployed, relative to other deployable units on a server, during startup. More Info...
Deployment Principal Name:		A string value that indicates the principal that should be used when deploying the file or archive during startup and shutdown. This principal will be used to set the current subject when calling out into application code for interfaces such as ApplicationLifecycleListener. If no principal name is specified, then the anonymous principal will be used. More Info...

6. 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>
  </variable-assignment> </module-descriptor>

```



Plan3.xml

7. Stop the BAM composer application in console.

When work completes
Force Stop Now
Stop, but continue servicing administration requests

Name	State	Health	Type	Targets	Deployment Order
AqAdapter	Active	OK	Resource Adapter	soa_server1	324
h2bul	Active	OK	Enterprise Application	soa_server1	313
BAMComposer	Active	OK	Enterprise Application	bam_server1	500
BAMCQService	Active	OK	Enterprise Application	bam_server1	300
BAMServer	Active	OK	Enterprise Application	bam_server1	400
BPMComposer	Active	OK	Enterprise Application	soa_server1	385
coherence-transaction-rar	Active	OK	Resource Adapter	AdminServer, bam_server1, soa_server1	100
CoherenceAdapter	Installed		Resource Adapter		331
DbAdapter	Active	OK	Resource Adapter	soa_server1	322
DefaultToDoTaskFlow	Active	OK	Enterprise Application	soa_server1	314
DMS Application (12.1.3.0.0)	Active	OK	Web Application	AdminServer, bam_server1, soa_server1	5
em	Active	OK	Enterprise Application	AdminServer	400
FUJBSAppJIT (12.1.0.0.0)	Active	Warning	Enterprise Application	soa_server1	600
FUJBSAppSoaEmb (12.1.0.0.0)	Prepared	OK	Enterprise Application	soa_server1	601
FileAdapter	Active	OK	Resource Adapter	soa_server1	321
frevo	Installed		Enterprise Application		100
FinAdapter	Active	OK	Resource	soa_server1	325

8. Update the deployment plan.

9. Click on deployments → click on BAM Composer checkbox → Click on update

Summary of Deployments

Control Monitoring

This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.

To install a new application or module for deployment to targets in this domain, click the Install button.

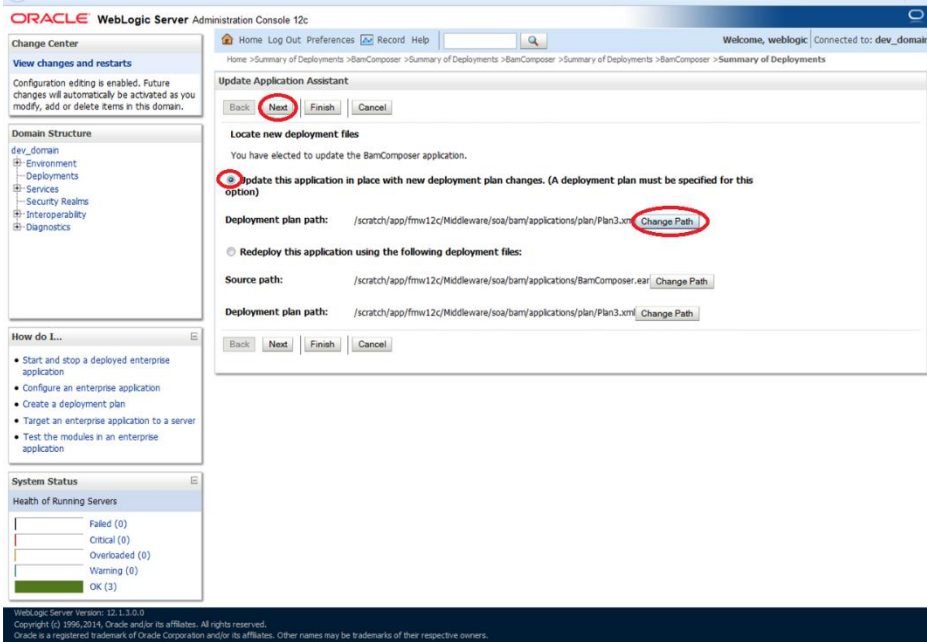
Customize this table

Deployments

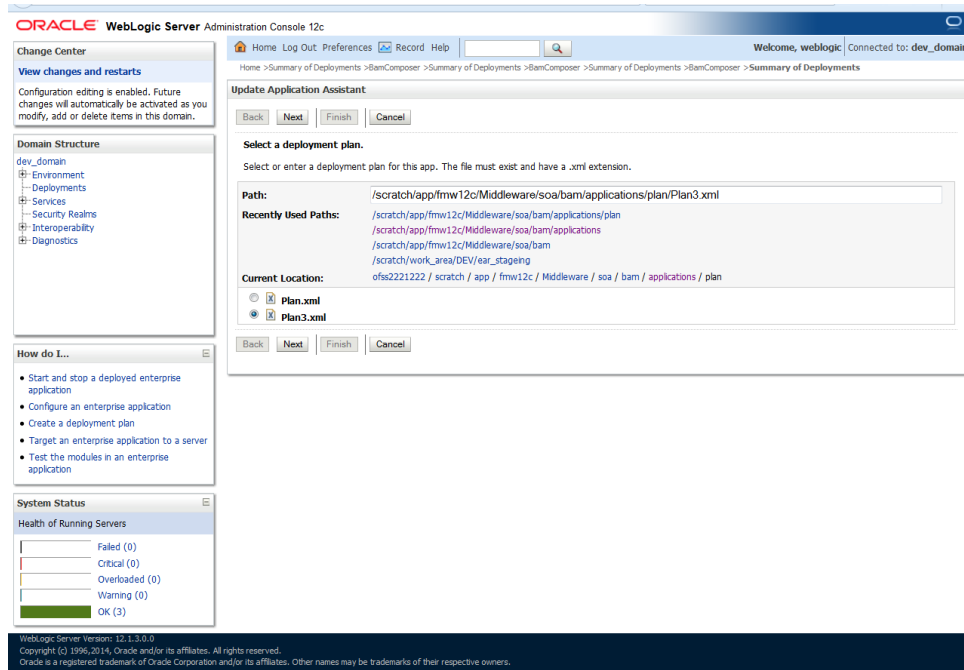
Install Update Delete Start Stop

Name	State	Health	Type	Targets	Deployment Order
AqAdapter	Active	OK	Resource Adapter	soa_server1	324
h2bul	Active	OK	Enterprise Application	soa_server1	313
BAMComposer	Active	OK	Enterprise Application	bam_server1	500
BAMCQService	Active	OK	Enterprise Application	bam_server1	300
BAMServer	Active	OK	Enterprise Application	bam_server1	400
BPMComposer	Active	OK	Enterprise Application	soa_server1	385
coherence-transaction-rar	Active	OK	Resource Adapter	AdminServer, bam_server1, soa_server1	100
CoherenceAdapter	Installed		Resource Adapter		331
DbAdapter	Active	OK	Resource Adapter	soa_server1	322
DefaultToDoTaskFlow	Active	OK	Enterprise Application	soa_server1	314
DMS Application (12.1.3.0.0)	Active	OK	Web Application	AdminServer, bam_server1, soa_server1	5

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



ORACLE WebLogic Server Administration Console 12c

Home > Summary of Deployments > BamComposer > Summary of Deployments > Summary of Deployments > Summary of Deployments > Summary of Deployments

Messages

- All changes have been activated. No restarts are necessary.
- Selected Deployments were updated.

Summary of Deployments

Control | Monitoring

This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.

To install a new application or module for deployment to targets in this domain, click the Install button.

Customize this table

Deployments

Install | Update | Delete | Start v | Stop v

Showing 1 to 47 of 47 Previous | Next

Name	State	Health	Type	Targets	Deployment Order
AqAdapter	Active	OK	Resource Adapter	soa_server1	324
mq_b2bul	Active	OK	Enterprise Application	soa_server1	313
BamComposer	Prepared	OK	Enterprise Application	bam_server1	500
BamCQService	Active	OK	Enterprise Application	bam_server1	300
BamServer	Active	OK	Enterprise Application	bam_server1	400
BPMComposer	Active	OK	Enterprise Application	soa_server1	385
coherence-transaction-rar	Active	OK	Resource Adapter	AdminServer, bam_server1, soa_server1	100
CoherenceAdapter	Installed		Resource Adapter		331
DbAdapter	Active	OK	Resource Adapter	soa_server1	322
DefaultToDoTaskFlow	Active	OK	Enterprise Application	soa_server1	314

12. Restart the BAM Composer application in the console

ORACLE WebLogic Server Administration Console 12c

Home > BamComposer > Summary of Deployments > BamComposer > Summary of Deployments > Summary of Servers > Summary of Deployments > BamComposer > Summary of Deployments

Messages

- Selected Deployments have been requested to stop.

Summary of Deployments

Control | Monitoring

This page displays a list of Java EE applications and stand-alone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.

To install a new application or module for deployment to targets in this domain, click the Install button.

Customize this table

Deployments

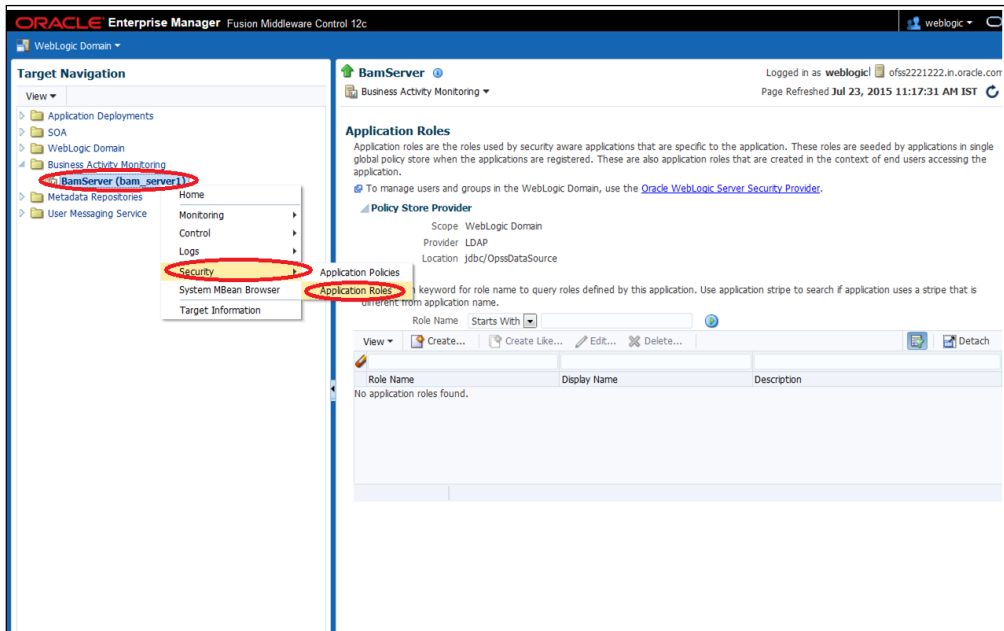
Install | Update | Delete | Start v | Stop v

Showing 1 to 48 of 48 Previous | Next

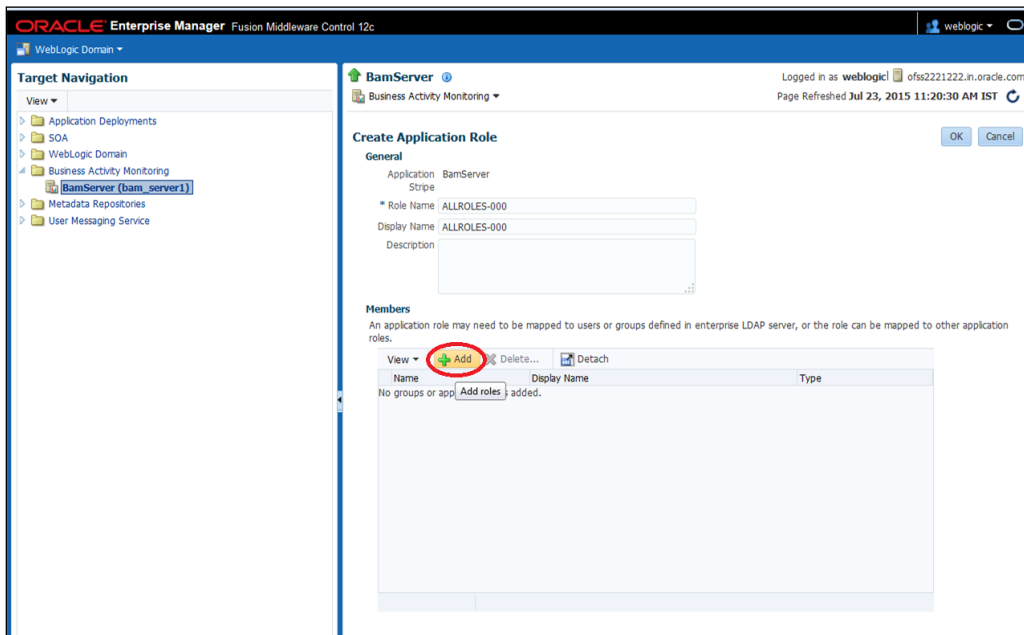
Name	State	Health	Type	Targets	Deployment Order
AqAdapter	Prepared	OK	Resource Adapter	SOAServer	324
mq_b2bul	Prepared	OK	Enterprise Application	SOAServer	313
BamComposer	Prepared	OK	Enterprise Application	BAMServer	500
BamCQService	Active	OK	Enterprise Application	BAMServer	300
BamServer	Active	OK	Enterprise Application	BAMServer	400
BPMComposer	Active	OK	Enterprise Application	SOAServer	385
coherence-transaction-rar	Active	OK	Resource Adapter	AdminServer, BAMServer, SOAServer	100
CoherenceAdapter	Installed		Resource Adapter		331
DbAdapter	Active	OK	Resource Adapter	SOAServer	322
DefaultToDoTaskFlow	Active	OK	Enterprise Application	SOAServer	314
DMS Application (12.1.3.0.0)	Active	OK	Web Application	AdminServer, BAMServer, SOAServer	5
PL/SQL CMANvll IT (12.1.0.0.0)	Active		Enterprise Application	SOAServer	600

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

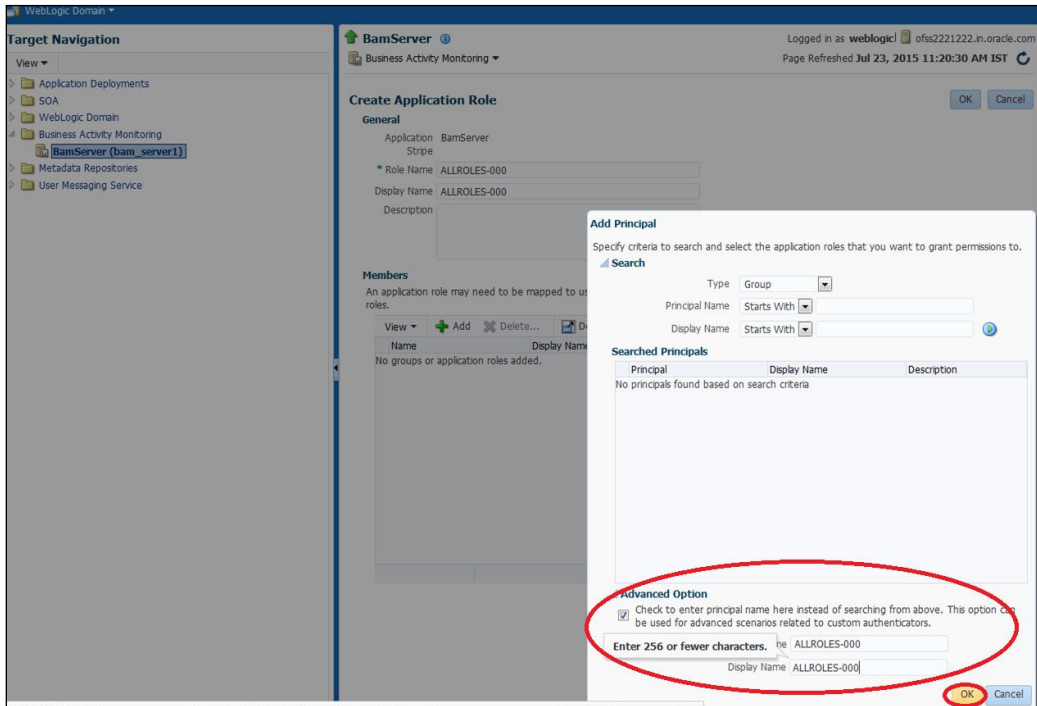
14. Right Click on BAM Server→Security→Application Roles



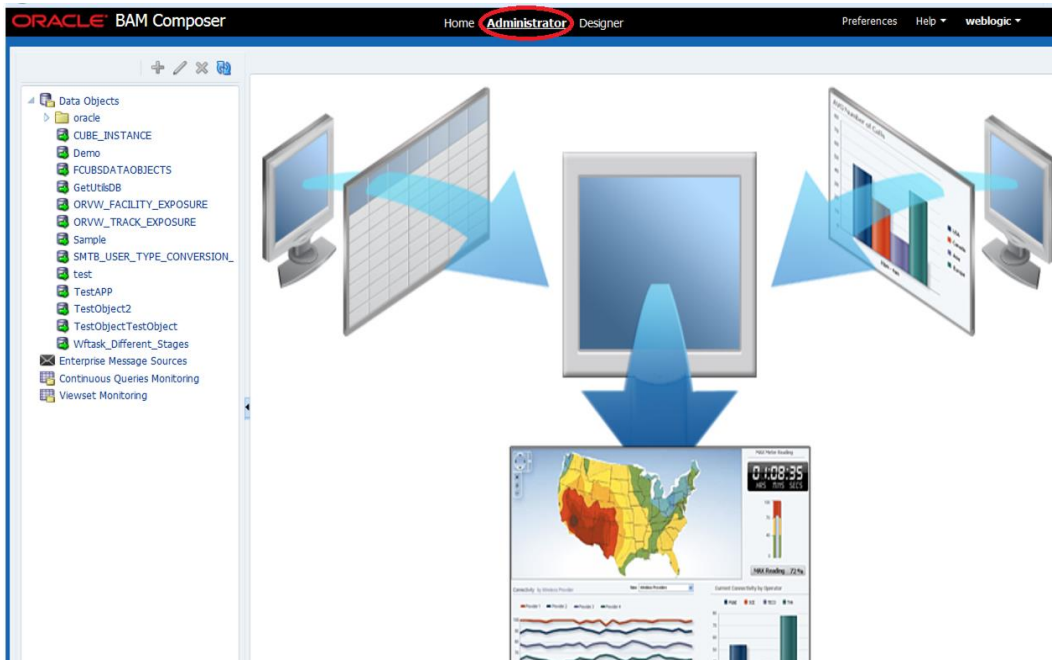
15. Click on Create → create application role with ALL ROLES-000→Click on ADD button in the Members



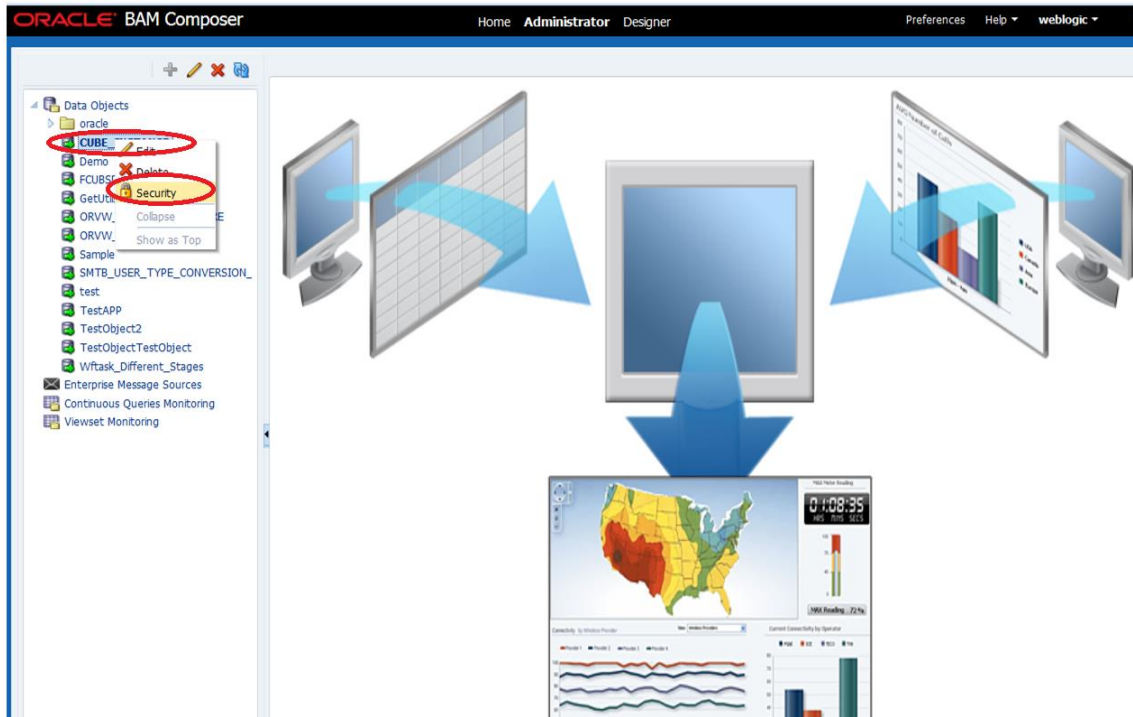
16. Select the Type as Group and add principle details by referring the below screen shot.



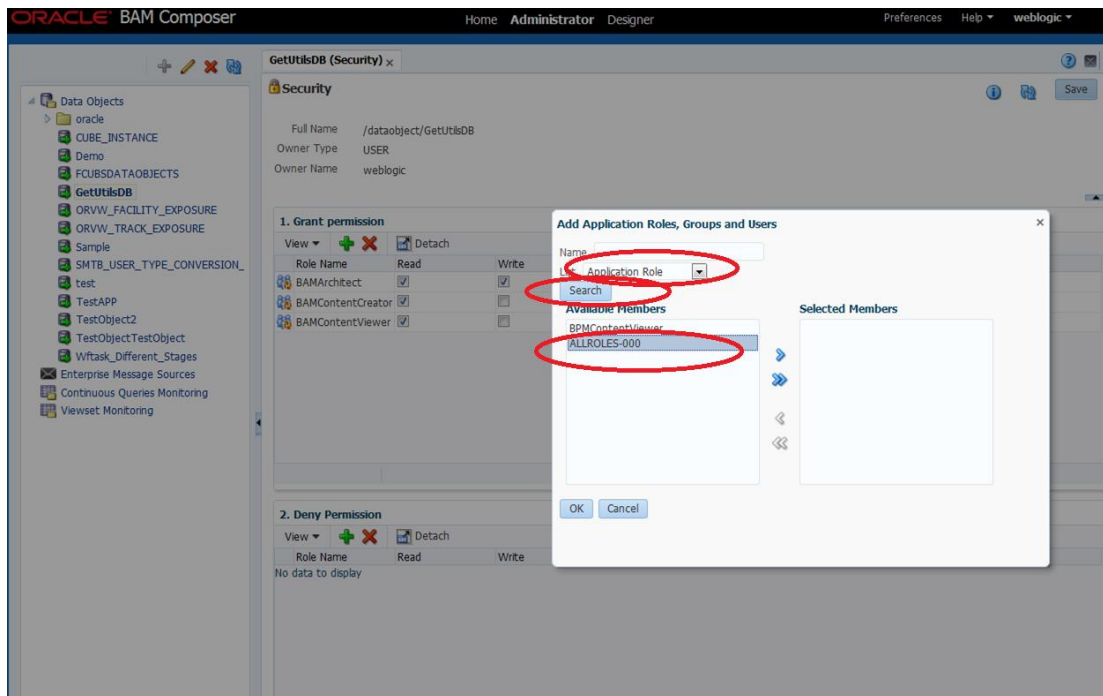
17. Login to BAM Composer → <http://hostname:port/bam/composer> → Click on Administrator.



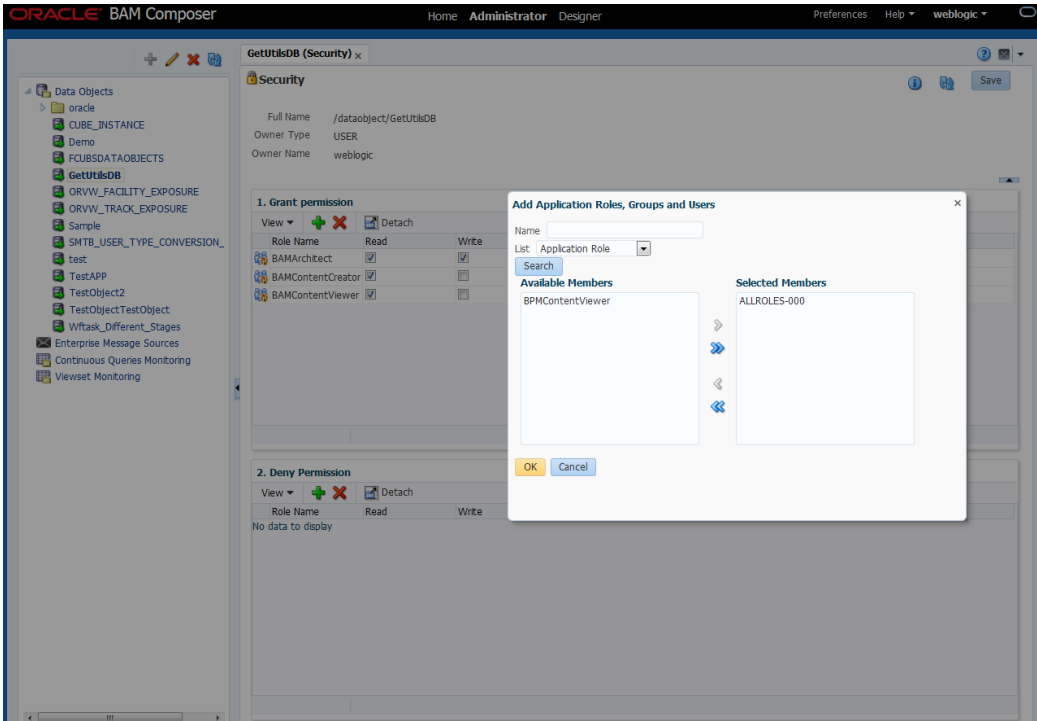
18. Go to Data Object → Right Click on CUBE_INSTANCE → Security



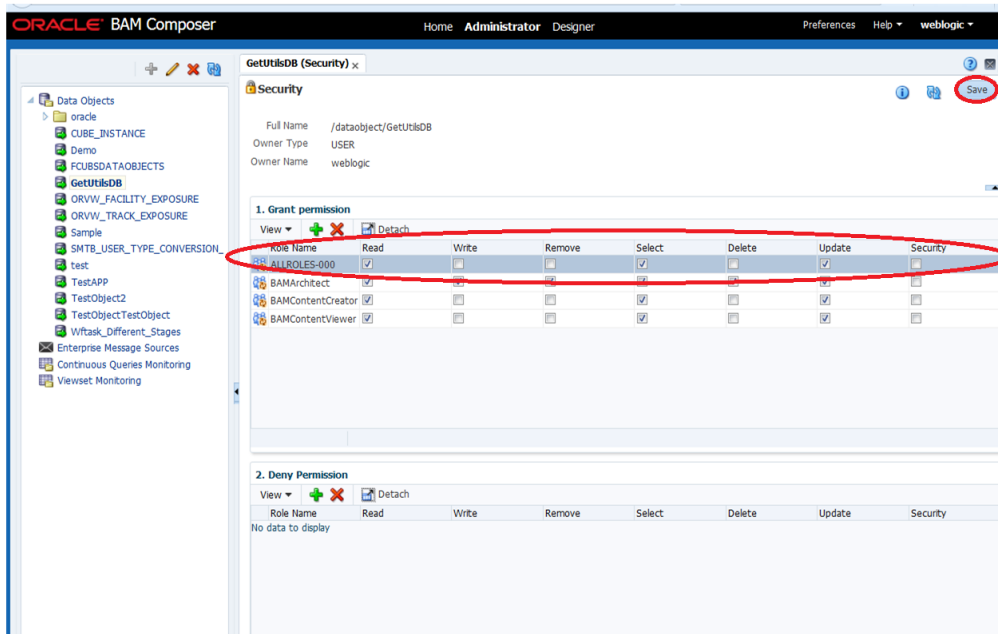
19. Click on Add button under Grant permission and search the list based on the Application Role



20. Move the ALLROLES-000 to Selected members.

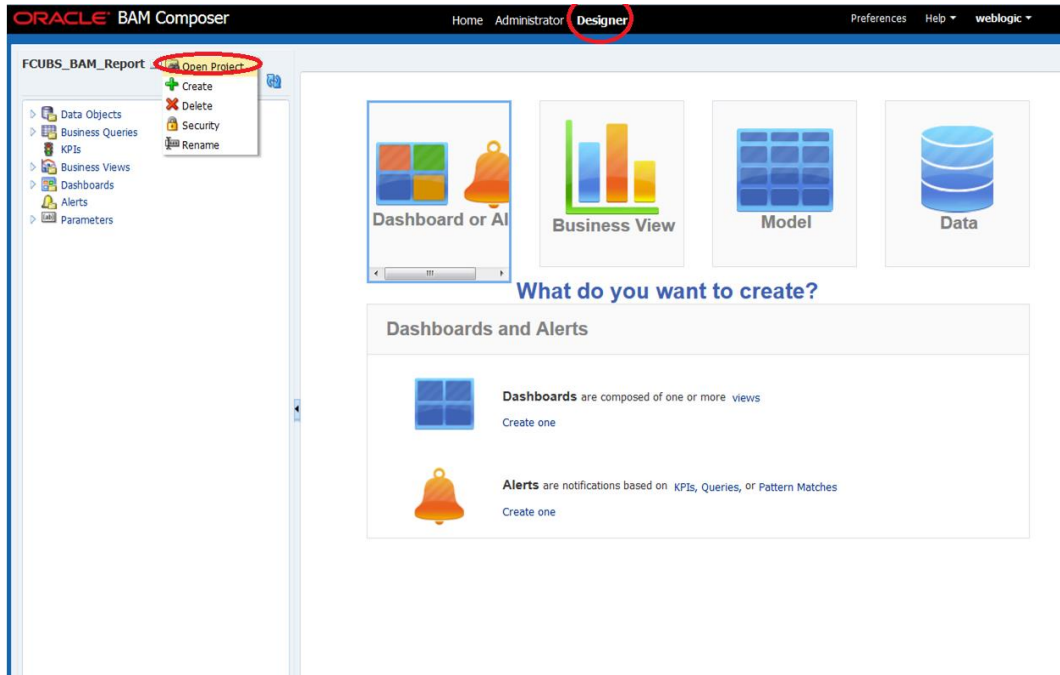


21. Click on read, select and Update check boxes → Click on Save.

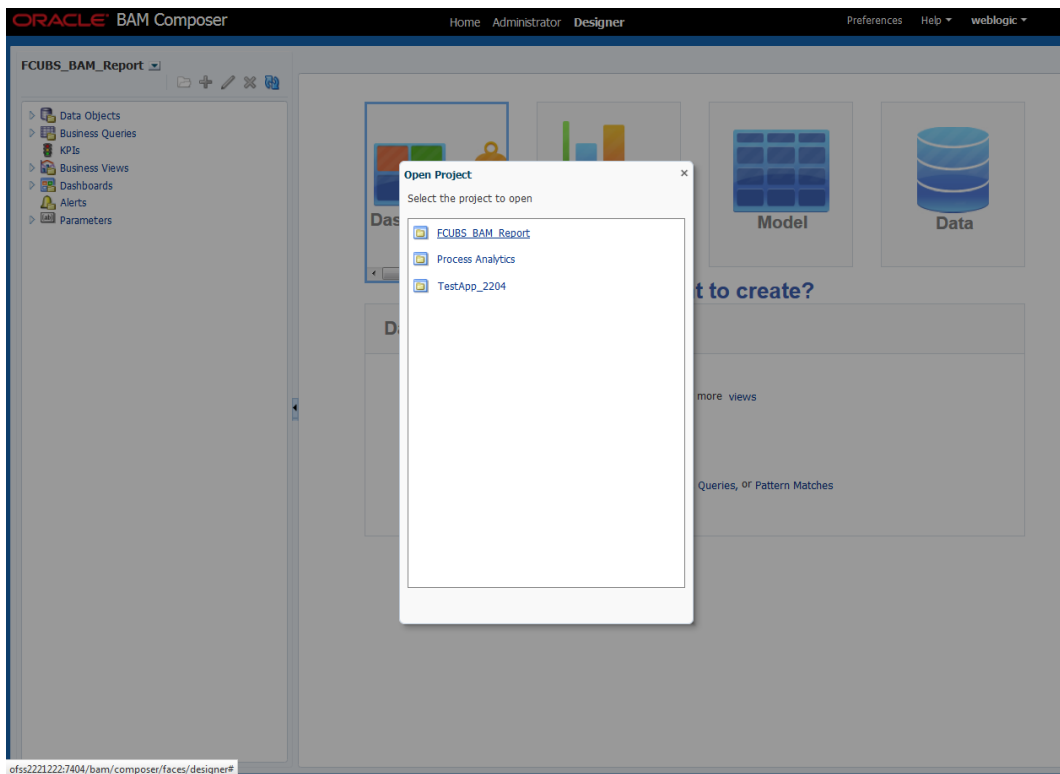


22. Follow the step 17 to 21 for other Data objects also.(cube_instance,wftask_different_stages, ORVW_TRACK_EXPOSURE, ORVW_FACILITY_EXPOSURE, GetUtilsDB, SMTB_USER_TYPE_CONVERSION_VIEW, FCUBSDATAOBJECTS).

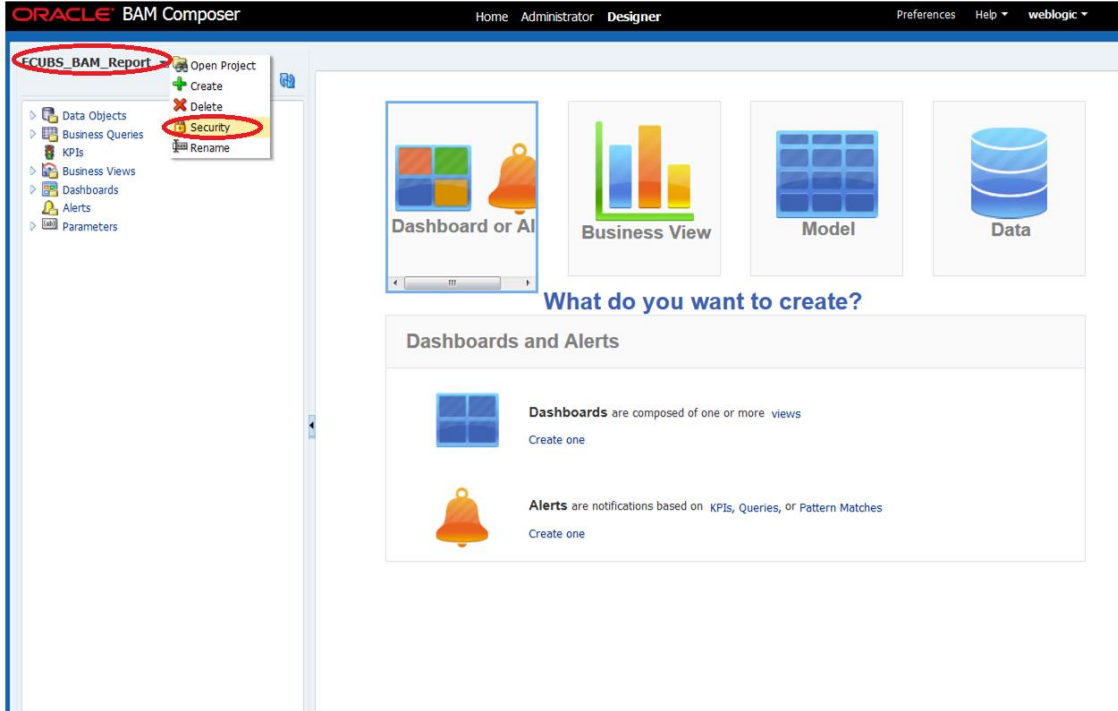
23. Click on Designer → Open Project



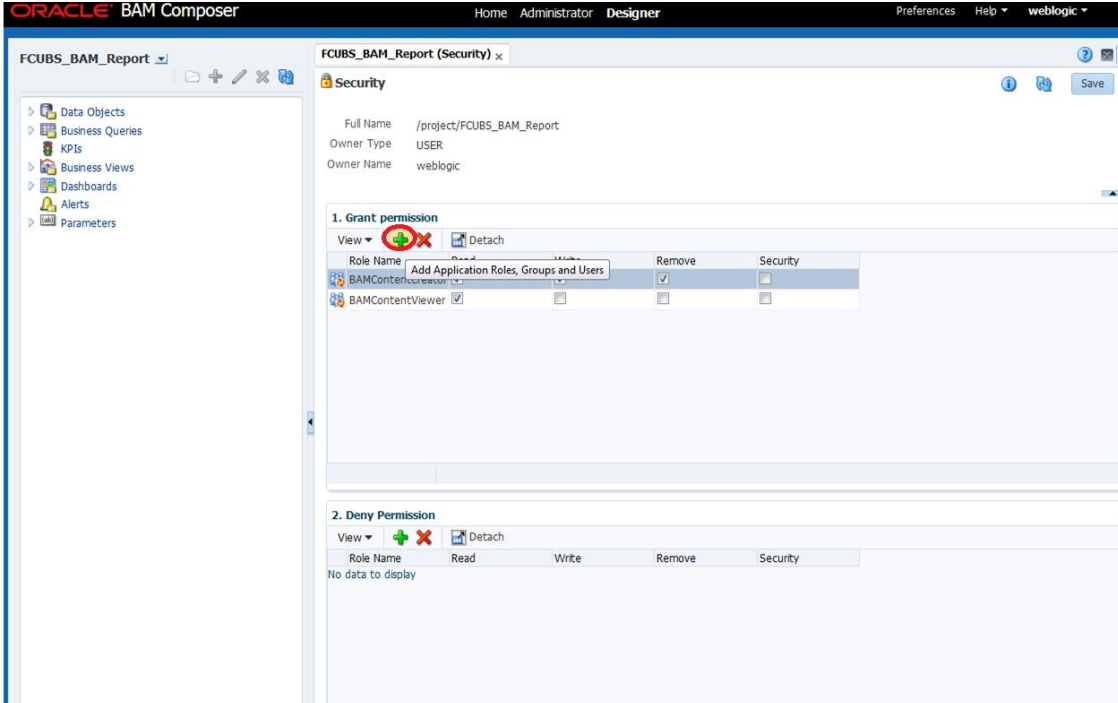
24. Click on FCUBS_BAM_report

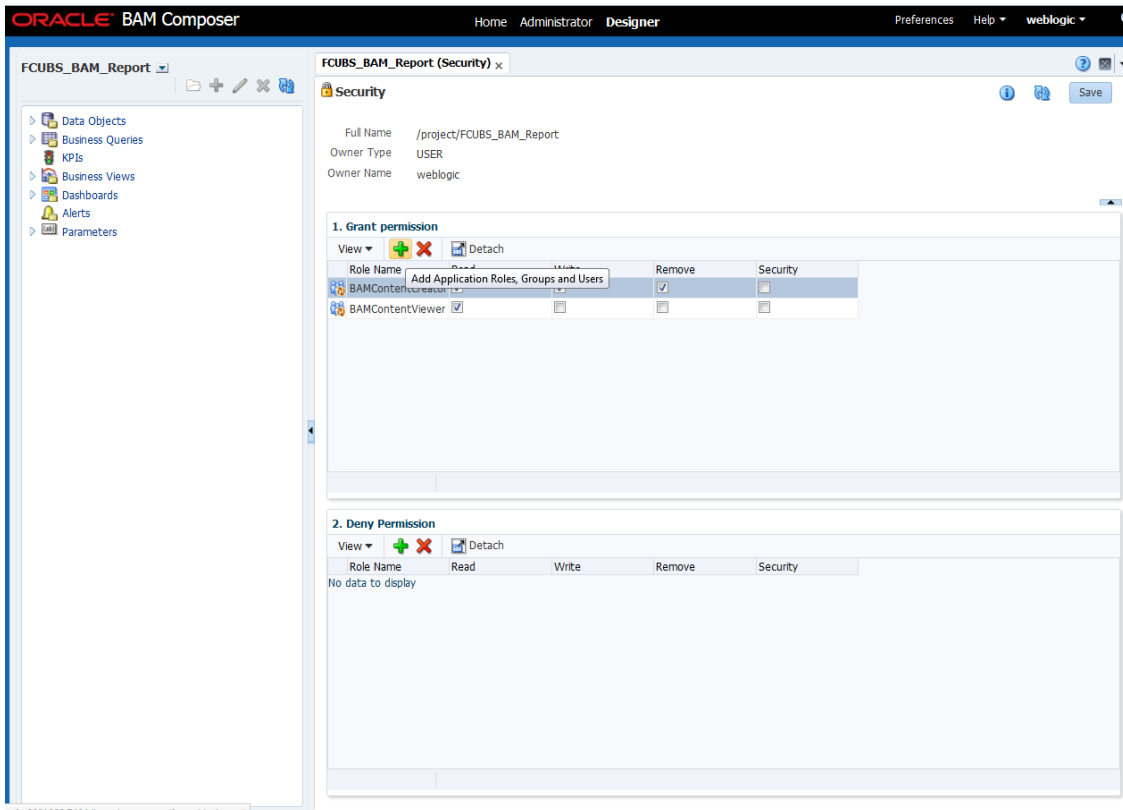


25. Click on FCUBS_BAM_Report → Security

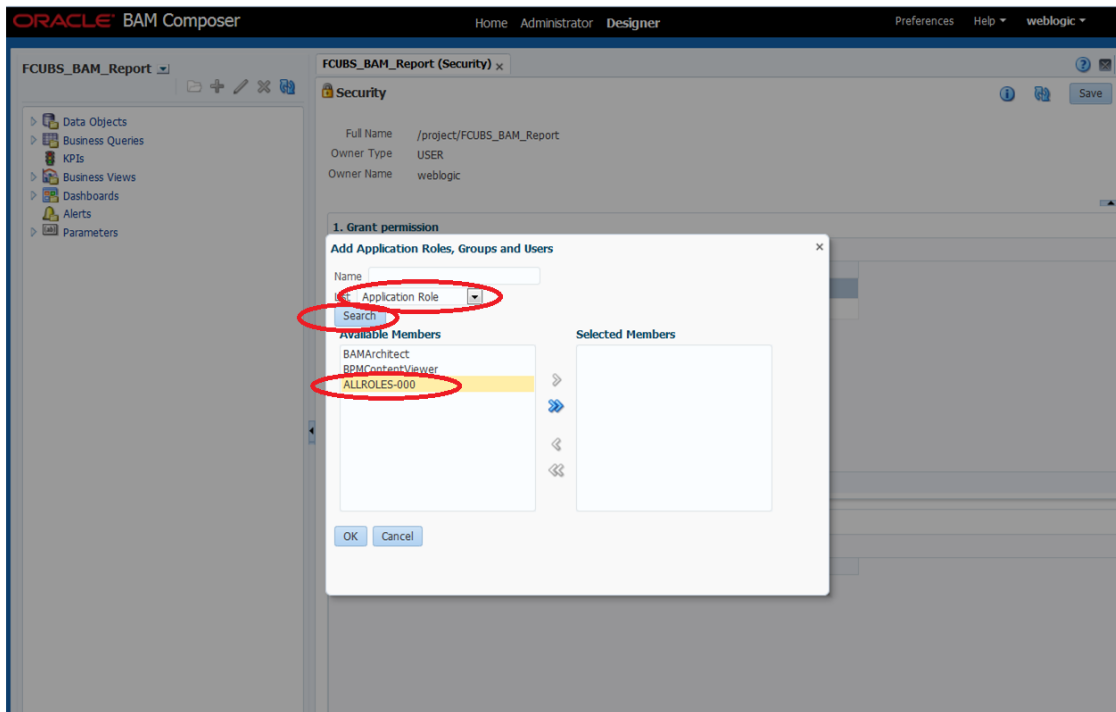


26. Click on ADD button Under Grant Permission.

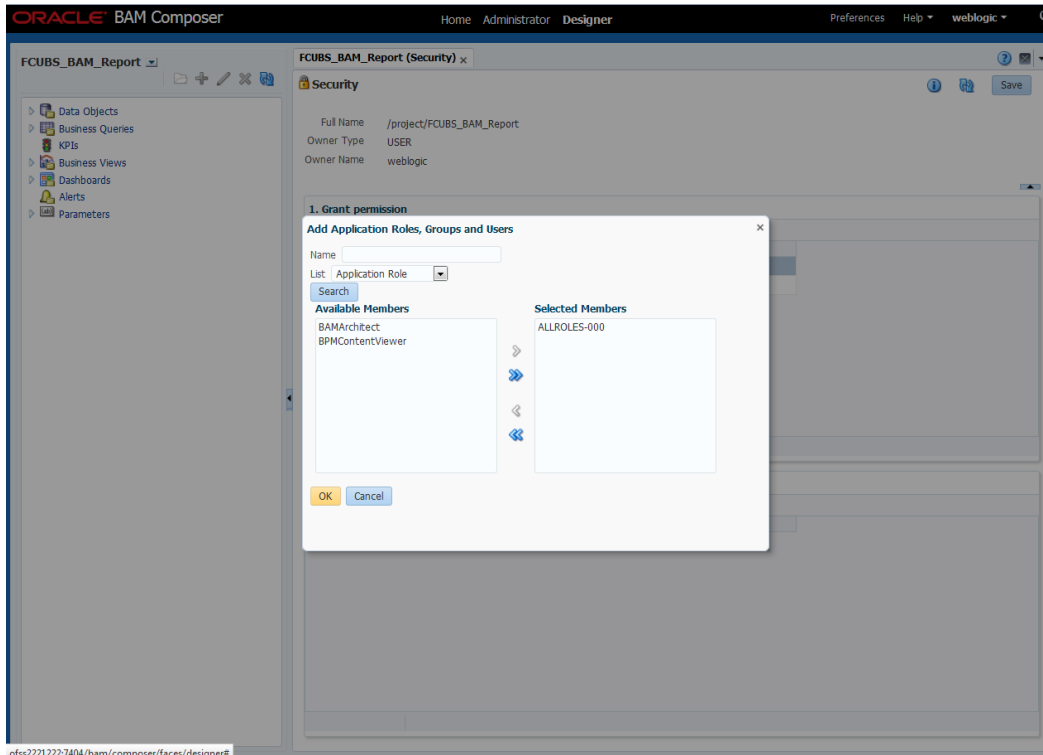




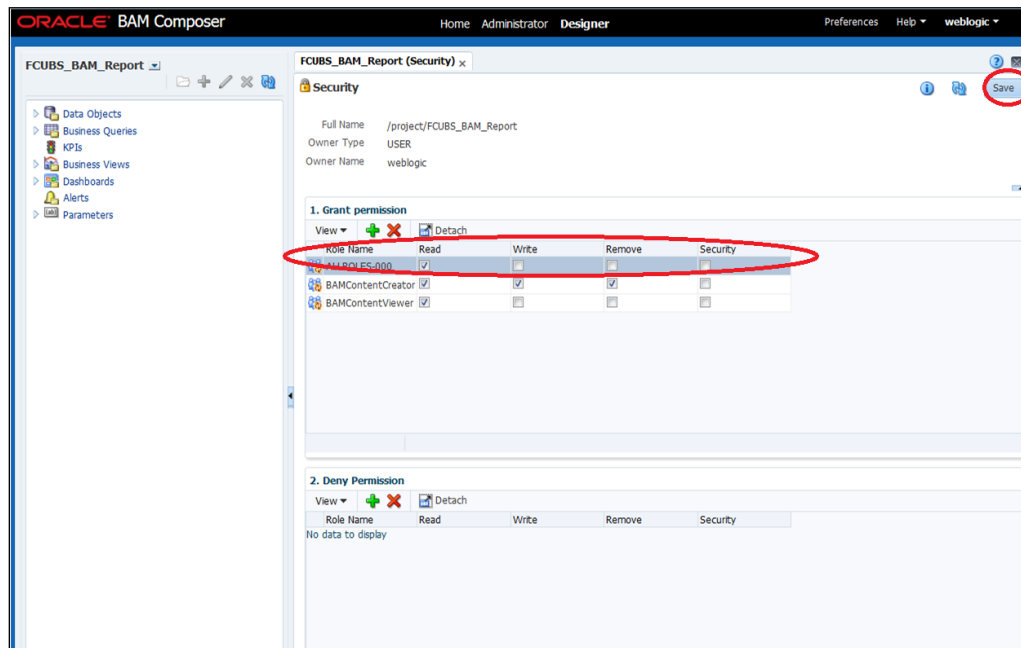
27. Search the List based on the Application Roles and Select the ALLROLES-000



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



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



1.2.10 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.

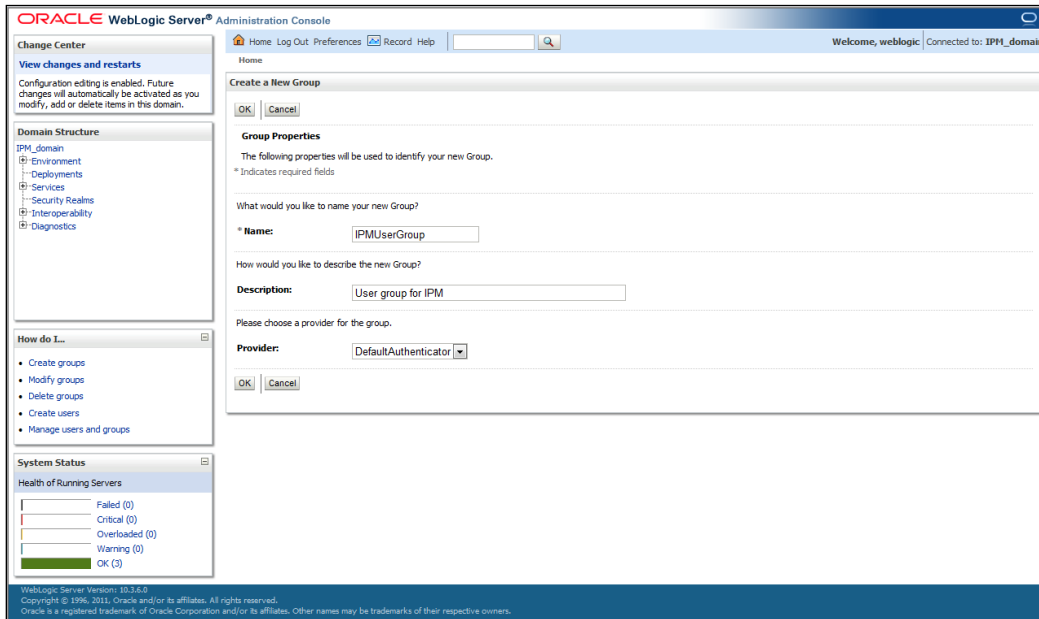
- 3) After adding the custom authenticator,
 - Navigate to security realms >my realm > Users and Groups > Groups.
 - Click on the New button.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled 'Settings for myrealm' and has tabs for 'Configuration', 'Users and Groups', 'Roles and Policies', 'Credential Mappings', 'Providers', and 'Migration'. The 'Users and Groups' tab is active, and the 'Groups' sub-tab is selected. Below the tabs, there is a message: 'This page displays information about each group that has been configured in this security realm.' Underneath, there is a 'Customize this table' section with a 'Groups' table. The table has columns for 'Name', 'Description', and 'Provider'. The 'New' button is highlighted in red. The table contains the following data:

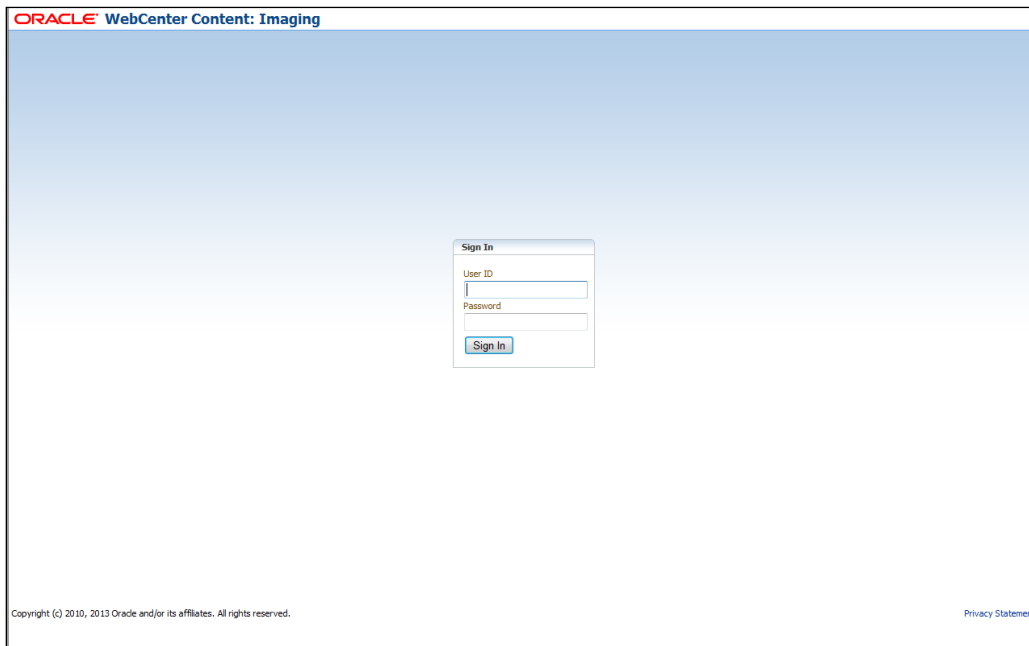
Name	Description	Provider
AC-BATCH	Accounting Batch Operations	Foubs
AC-REPORTS	Accounting Reports	Foubs
AC-RPT	Accounting Reports	Foubs
ADMIN	Admin	Foubs
AdminChannelUsers	AdminChannelUsers can access the admin channel.	DefaultAuthenticator
Administrators	Administrators can view and modify all resource attributes and start and stop servers.	DefaultAuthenticator
ADMINROLE	Admin Role	Foubs
AE-MAINT-IN	AEOD Maintenance	Foubs
AEOD-RPT	AEOD Reports	Foubs
AEOD-STB	Accounting Reports	Foubs

4) After Clicking on the new button,

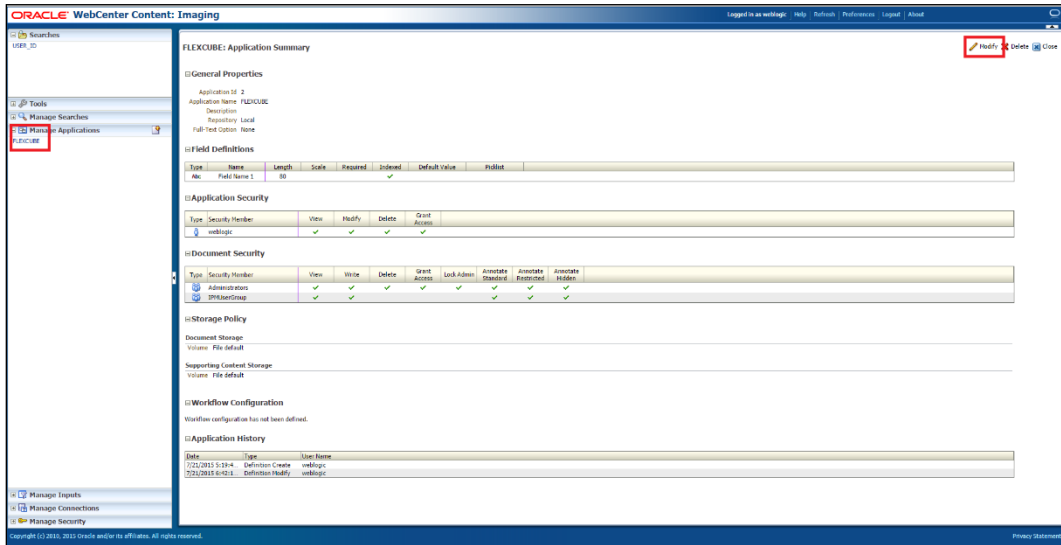
- Enter the name as “IPMUserGroup”
- Description for it (optional)
- And select the authenticator as “DefaultAuthenticator”
- And then click “Ok”



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

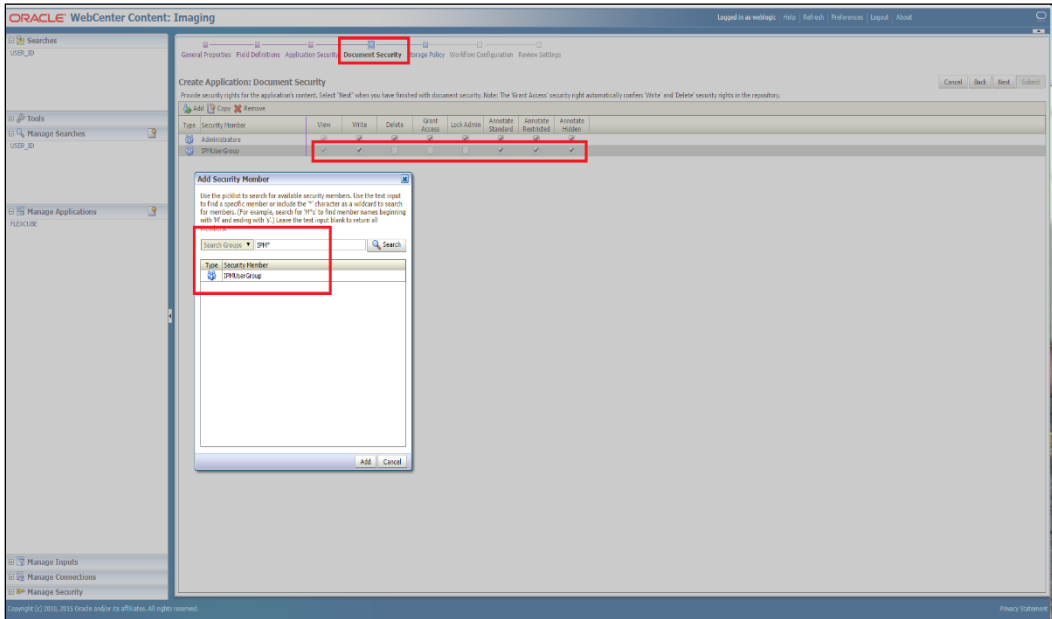


- a. Navigate to Manage Applications
- b. Click on the FLEXCUBE
- c. Then click on the modify on the right pane

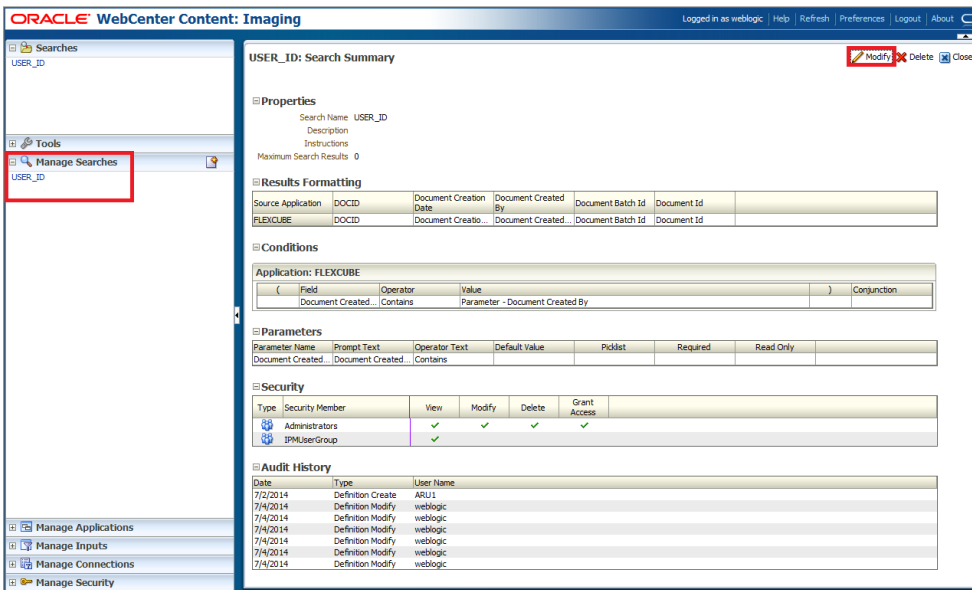


- 6) After clicking on the modify button,
 - a. Navigate to Document Security
 - b. Click on Add button
 - c. Click on Search button in the pop up window
 - d. Select the "IPMUserGroup"
 - e. Click on Add
 - f. IPMUserGroup will be listed in the panel, select view ,write,annotate Standard,Annotate Restricted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

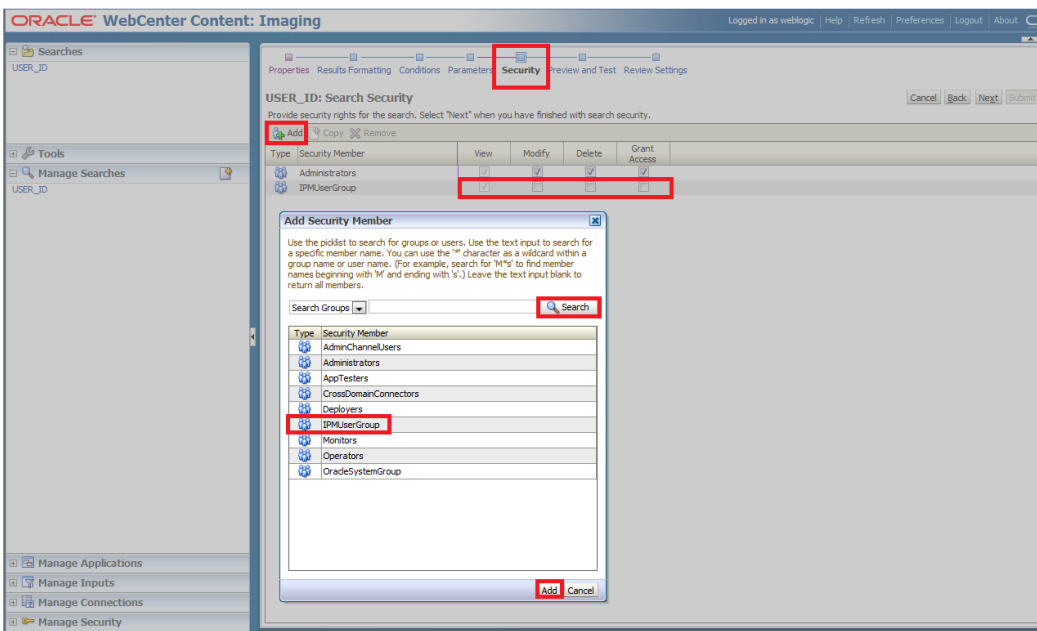
g. Finally click on the submit button on the right corner



- 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.

```
<serviceProvider
class="oracle.security.jps.internal.idstore.generic.GenericIdentityStoreProvider"
name="custom.generic.provider" type="IDENTITY_STORE">
  <description>DB IdentityStore Provider</description>
</serviceProvider>
```

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

```
<serviceInstance location="dumb" name="idstore.custom"
provider="custom.generic.provider">
  <description>Custom Identity Store Service Instance</description>
  <property name="idstore.type" value="CUSTOM"/>
  <property name="ADF_IM_FACTORY_CLASS"
value="com.ofss.fcc.bpel.security.idm.providers.stddb.FCIDentityStoreFactory"/
>
  <property name="DATASOURCE_NAME" value="jdbc/fcjdevDS"/>
  <property name="INTERNAL_CONTEXT_REQUIRED" value="true"/>
  <property name="INTERNAL_CONTEXT_NAME"
value="internalstore"/>
</serviceInstance>
```



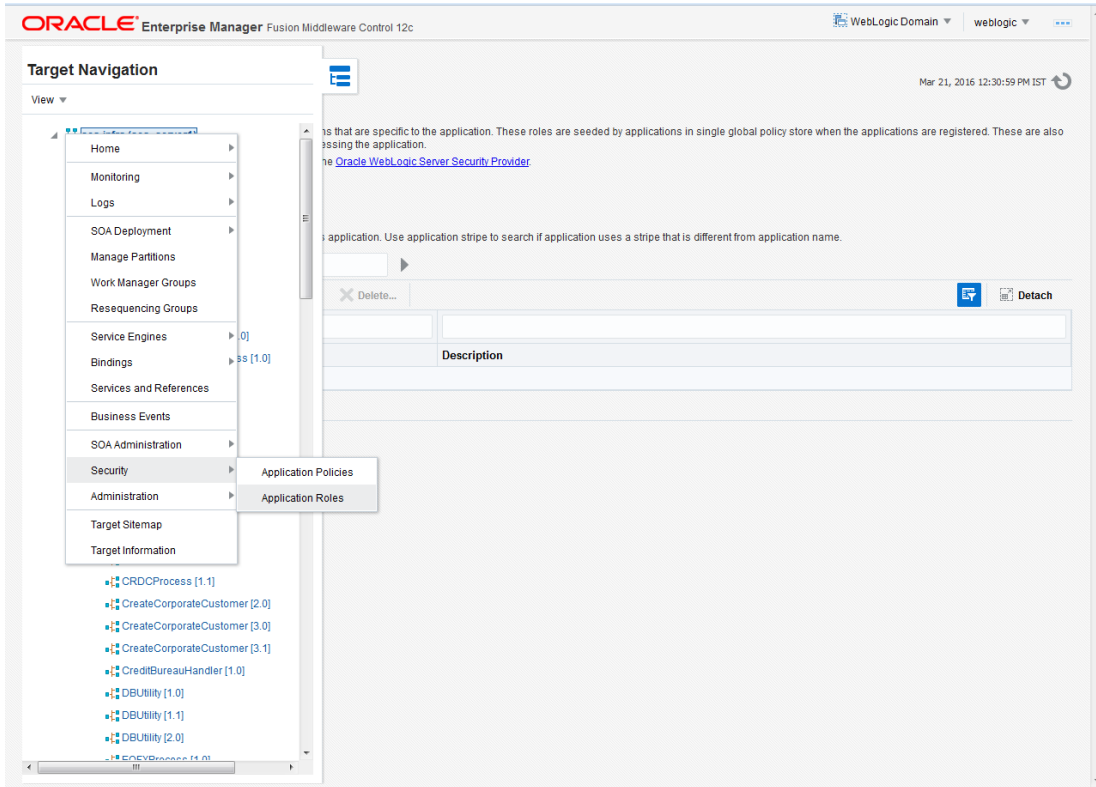
Make sure that the JNDI (jdbc/fcjdevDS) matches the value given during property file creation.

- 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 Supervisor Roles in EM

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



2. Search the Application Roles with “Starts with” option.

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain weblogic

soa-infra SOA Infrastructure Mar 21, 2016 12:30:59 PM IST

Application Roles

Application roles are the roles used by security aware applications that are specific to the application. These roles are seeded by applications in single global policy store when the applications are registered. These are also application roles that are created in the context of end users accessing the application.

To manage users and groups in the WebLogic Domain, use the [Oracle WebLogic Server Security Provider](#).

Policy Store Provider

Search

Enter search keyword for role name to query roles defined by this application. Use application stripe to search if application uses a stripe that is different from application name.

Role Name Starts With

View Create... Create Like... Edit... Delete... Search application roles Detach

Role Name	Display Name	Description
default_Composer	Composer for the Default Partition	A composer is responsible for making changes to composite artifacts, such as business rules in a business process, security poli...
default_Deployer	Composite Deployer for the Default P...	A deployer is responsible for deploying new applications, upgrading existing applications, and managing the continuous integratio...
default_Tester	Tester for the Default Partition	A tester performs integrated black box testing on preproduction systems. A system tester typically runs tests using a combination of...
default_ApplicationOperator	Application Operator for the Default Pa...	An application operator is responsible for handling customer complaints and making decisions on requests that result in faults in t...
default_Monitor	Monitor for the Default Partition	A default partition monitor is responsible for ensuring the successful operations of the deployed applications on the default partition.
MiddlewareOperator	SOA MiddleWare Operator	A middleware operator is responsible for ensuring operational continuity. A middleware operator is also the main point of contact w...
MiddlewareAdministrator	SOA Middleware Administrator	A middleware administrator is responsible for ensuring the continuous availability of the middleware servers, but is not always resp...
SOAdmin	SOA Admin Role	SOA application admin role, has full privilege for performing any operations including security related
SOAOperator	SOA operator Role	SOA application operator, for common operational tasks like start, stop, monitor, backups
SOAMonitor	SOA Monitor Role	SOA application monitor role, has read-only privileges for monitoring
SOAAuditAdmin	SOA Audit Admin Role	SOA audit administrator role, can perform audit configuratoin and administration
SOAAuditViewer	SOA Audit Viewer Role	SOA audit viewer role, can view audit records
BPMWorkflowAdmin	BPM Workflow System Admin Role	BPM Workflow Administrator Application Role
BPMWorkflowCustomize	BPM Workflow Customize Role	BPM Workflow Customize Application Role
BPMAGAdmin	BPM Activity Guide Admin Role	BPM Activity Guide Administrator Application Role
BPMOrganizationAdmin	BPM Organization Admin role	BPM Organization Administrator Application Role
SOADesigner	SOA Designer	SOA Designer

10.184.133.168:7401/em/faces/as/security/appRolesMain?_afPfm=oracle_soainfra&target=/Domain_soa_domain/soa_domain/soa_server1/soa-infra#

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

Application Roles

Application roles are the roles used by security aware applications that are specific to the application. These roles are seeded by applications in single global policy store when the applications are registered. These are also application roles that are created in the context of end users accessing the application.

To manage users and groups in the WebLogic Domain, use the [Oracle WebLogic Server Security Provider](#).

Policy Store Provider

Search

Enter search keyword for role name to query roles defined by this application. Use application stripe to search if application uses a stripe that is different from application name.

Role Name Starts With

View Create... Create Like... Edit... Delete... Detach

Role Name	Display Name	Description
default_Composer	Composer for the Default Partition	A composer is responsible for making changes to composite artifacts, such as business rules in a business process, security poli...
default_Deployer	Composite Deployer for the Default P...	A deployer is responsible for deploying new applications, upgrading existing applications, and managing the continuous integratio...
default_Tester	Tester for the Default Partition	A tester performs integrated black box testing on preproduction systems. A system tester typically runs tests using a combination of...
default_ApplicationOperator	Application Operator for the Default Pa...	An application operator is responsible for handling customer complaints and making decisions on requests that result in faults in t...
default_Monitor	Monitor for the Default Partition	A default partition monitor is responsible for ensuring the successful operations of the deployed applications on the default partition.
MiddlewareOperator	SOA MiddleWare Operator	A middleware operator is responsible for ensuring operational continuity. A middleware operator is also the main point of contact w...
MiddlewareAdministrator	SOA Middleware Administrator	A middleware administrator is responsible for ensuring the continuous availability of the middleware servers, but is not always resp...
SOAdmin	SOA Admin Role	SOA application admin role, has full privilege for performing any operations including security related
SOAOperator	SOA operator Role	SOA application operator, for common operational tasks like start, stop, monitor, backups
SOAMonitor	SOA Monitor Role	SOA application monitor role, has read-only privileges for monitoring
SOAAuditAdmin	SOA Audit Admin Role	SOA audit administrator role, can perform audit configuratoin and administration
SOAAuditViewer	SOA Audit Viewer Role	SOA audit viewer role, can view audit records
BPMWorkflowAdmin	BPM Workflow System Admin Role	BPM Workflow Administrator Application Role
BPMWorkflowCustomize	BPM Workflow Customize Role	BPM Workflow Customize Application Role
BPMAAdmin	BPM Activity Guide Admin Role	BPM Activity Guide Administrator Application Role
BPMOrganizationAdmin	BPM Organization Admin role	BPM Organization Administrator Application Role
SOADesigner	SOA Designer	SOA Designer

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

Oracle Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain weblogic

Mar 21, 2016 12:34:21 PM IST

Edit Application Role : SOAdmin OK Cancel

Role (or Enterprise Role) is the group of users designed at the enterprise level and typically used to assign a privilege or permission. A role can also contain other roles as members.

General

Application Stripe soa-infra

Role Name SOAdmin

Display Name SOAdmin

Description SOA application admin role, has full privilege for performing any operations including security related

Members

An application role may need other roles as members.

View Add

Name Administrators

Add Principal

Specify criteria to search and select the application roles that you want to grant permissions to.

Search

Type Group

Principal Name Starts With

Display Name Starts With

Searched Principals

Principal	Display Name	Description
No search conducted		

Advanced Option

Check to enter principal name here instead of searching from above. This option can be used for advanced scenarios related to custom authenticators.

OK Cancel

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.

The screenshot shows the Oracle Enterprise Manager interface for editing an application role. The main window is titled "Edit Application Role : SOAAdmin". A modal dialog box titled "Add Principal" is open in the foreground. The dialog contains the following elements:

- A search instruction: "Specify criteria to search and select the application roles that you want to grant permissions to."
- A "Search" section with three dropdown menus: "Type" (set to "Group"), "Principal Name Starts With" (set to "ALLROLES-000"), and "Display Name Starts With" (empty).
- A "Searched Principals" table with a "Search roles" button to its right.
- An "Advanced Option" section with a checkbox labeled "Check to enter principal name here instead of searching from above. This option can be used for advanced scenarios related to custom authenticators."
- "OK" and "Cancel" buttons at the bottom right.

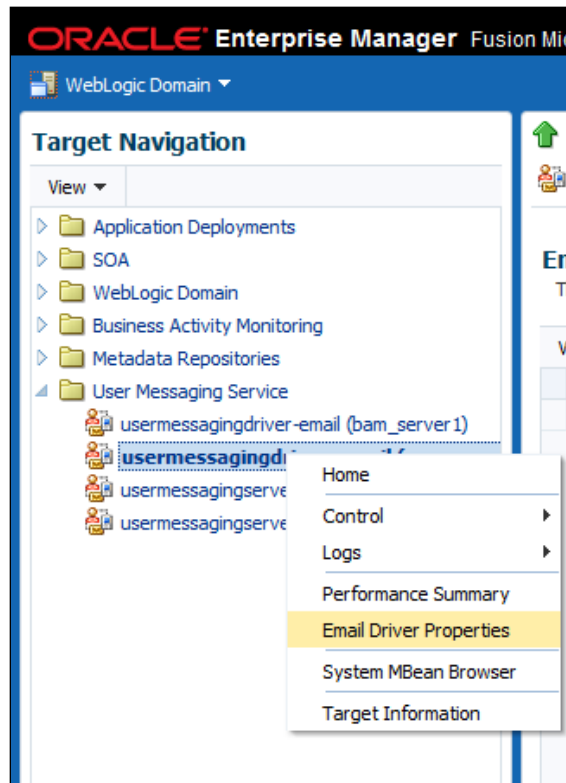
Principal	Display Name	Description
ALLROLES-000		ALLROLES-000

0.184.133.168:7401/em/aces/as/security/editAppRole?type=oracle_soainfra&target=/Domain_soa_domain/soa_domain/soa_server1/soa-infra#

6. Click on Ok .

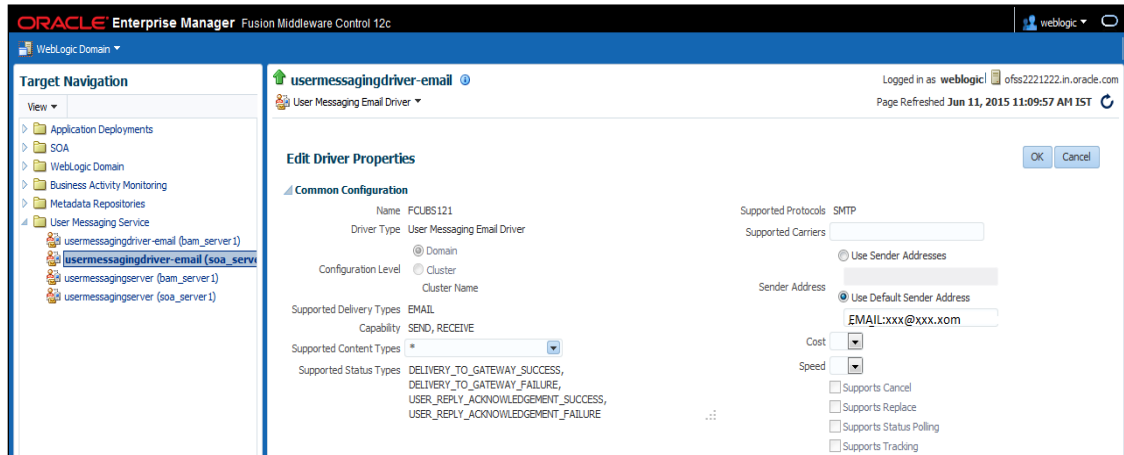
1.2.12 Email Driver Configuration

1. Login to EM console
13. Navigate to User Messaging Service
14. Right click usermessagingdriver-email (soa_server1)
15. Click on Email Driver Properties

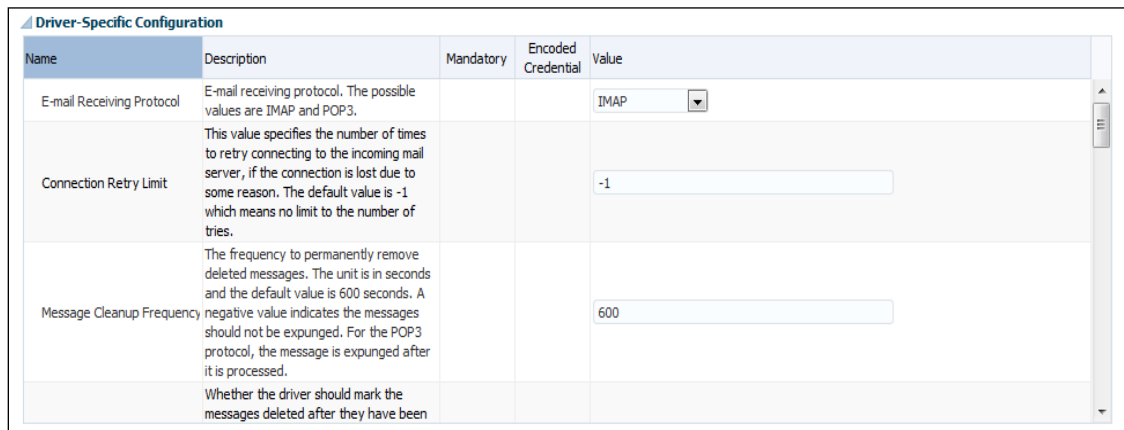


16. .Enter the sender Address and default sender address (This id will be used as sender address).

17. .Enter the supported protocols (SMTP)



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



19. Enter the Receive folder in the mailbox (INBOX)

20. Enter the Outgoing mail server hostname or IP

21. .Enter the outgoing mail server port

22. .Enter the outgoing default from address

23. Enter the Outgoing user name and password if required

Name	Description	Mandatory	Encoded Credential	Value
Outgoing Mail Server	The name of the SMTP server. Mandatory only if e-mail sending is required.			xxxxxx
Outgoing Mail Server Port	Outgoing Mail Server Port			25
Outgoing Mail Server Security	The security used by SMTP server. Possible values are None, TLS and SSL. Default value is None.			None
Default From Address	Deprecated. Use Default Sender Address instead. The default FROM address (if one is not provided in the outgoing message).			xxx@xxx.com
Outgoing Username	The username used for SMTP authentication. Required only if SMTP authentication is supported by the SMTP server.			
	The password used for SMTP			

24. Navigate to SOA Administration ->Workflow Properties

The screenshot shows the Oracle Enterprise Manager interface for configuring the Mailer. The main content area displays the 'Workflow Notification Properties' configuration page. The 'Notification Mode' is set to 'Email'. Under the 'Notification Service' section, the following email addresses are configured: 'Email : From Address' (xxx@xxx.com), 'Email : Actionable Address' (ggg@ggg.com), and 'Email : Reply To Address' (xxx@xxx.com). The left-hand navigation pane shows the 'SOA Administration' menu expanded to 'Workflow Properties'.

25. 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

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

The screenshot displays the Oracle WebLogic Server Administration Console interface. The browser address bar shows the URL `10.184.135.218:7001/console/console.portal?_nfpb=true&_pageLabel=HomePage1`. The page title is "ORACLE WebLogic Server Administration Console 12c". The user is logged in as "admin" and is connected to "AlphaDomain".

The breadcrumb navigation path is: Home > AlphaDomain > Summary of Servers > AlphaDomain > Summary of Servers > Summary of Deployments > soa-infra > BPELEngineBean.

The main content area is titled "Home Page" and contains several sections:

- Information and Resources:** Includes "Helpful Tools" (Configure applications, Configure GridLink for RAC Data Source, Configure a Dynamic Cluster, Recent Task Status, Set your console preferences, Oracle Enterprise Manager) and "General Information" (Common Administration Task Descriptions, Read the documentation, Ask a question on My Oracle Support).
- Domain Configurations:** Includes "Domain" (Domain), "Environment" (Servers, Clusters, Server Templates, Migratable Targets, Coherence Clusters, Machines, Virtual Hosts, Work Managers, Startup And Shutdown Classes), "Services" (Messaging, JMS Servers, Store-and-Forward Agents, JMS Modules, Path Services, Bridges, Data Sources, Persistent Stores, XML Registries, XML Entity Caches, Foreign JNDI Providers, Work Contexts, JCOM, Mail Sessions, FileT3, JTA, OSGI Frameworks), and "Interoperability" (WTC Servers, Jolt Connection Pools).
- Diagnostics:** Includes Log Files, Diagnostic Modules, Built-in Diagnostic Modules, Diagnostic Images, Request Performance, Archives, Context, and SNMP.
- Charts and Graphs:** Includes Monitoring Dashboard.

On the left side, there is a "Domain Structure" tree showing the hierarchy: AlphaDomain > Environment > Servers > Clusters > Coherence Clusters > Machines > Virtual Hosts > Work Managers > Startup and Shutdown Classes > Deployments > Services > Security Realms > Interoperability > WTC Servers.

At the bottom of the "Your Deployed Resources" section, the "Deployments" link is highlighted with a red circle.

3. Click on SOA_INFRA Application under deployments.

Name	State	Health	Type	Targets	Deployment Order
oracle.wism.console.core.view(1.0,12.1.3.0)	Active		Library	AdminServer	311
oracle.wism.seedpolicies(2.0,12.1.3)	Active		Library	AdminServer, BAMServer, SOAServer	100
OracleAppsAdapter	Active	OK	Resource Adapter	SOAServer	328
OracleBamAdapter	Installed		Resource Adapter		329
OracleBPMGACServerApp	Active	OK	Enterprise Application	SOAServer	384
OracleBPMComposerRolesApp	Active	OK	Enterprise Application	SOAServer	382
OracleBPMProcessRolesApp	Active	OK	Enterprise Application	SOAServer	381
OracleBPMWorkspace	Active	OK	Enterprise Application	SOAServer	383
oral8n-adf(11,11.1.1.1.1.0)	Active		Library	AdminServer, BAMServer, SOAServer	100
owasp.esapi(2.0,12.1.3)	Active		Library	AdminServer, BAMServer, SOAServer	100
SAPAdapter	Installed		Resource Adapter		335
SimpleApprovalTaskFlow	Active	OK	Enterprise Application	SOAServer	386
soa-infra	Active	OK	Enterprise Application	SOAServer	350
soa-webapps	Active	OK	Enterprise Application	SOAServer	360
soa.em	Active		Library	AdminServer	100
SocketAdapter	Installed		Resource Adapter		326
state-management-provider-memory-rar-12.1.3	Active	OK	Resource Adapter	AdminServer, BAMServer, SOAServer	100
UDX(11,12.1.3.0.0)	Active		Library	AdminServer, BAMServer, SOAServer	100

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

B2BInstanceMessageBean	EJB
B2BIntegratorBean	EJB
B2BMetadataUtilityBean	EJB
B2BStarterBeanWLS	EJB
B2BUtilityBean	EJB
BAMActionMDB	EJB
BeamActionMDB	EJB
BottleneckDetectionBean	EJB
BPELActivityManagerBean	EJB
BPELAuditTrailBean	EJB
BPELCacheRegistryBean	EJB
BPELCacheStoreBean	EJB
BPELClusterBean	EJB
BPELDeliveryBean	EJB
BPELDispatcherBean	EJB
BPELEngineBean	EJB
BPELFind (BPELEngineBean, Level 3, 22 of 106)	EJB
BPELInstanceManagerBean	EJB
BPELKeyGeneratorBean	EJB
BPELProcessManagerBean	EJB
BPELSensorValuesBean	EJB
BPELServerManagerBean	EJB
BPELTestInstanceManager	EJB
BpmAGProcessBrokerServiceBean	EJB
BpmAppServiceBean	EJB
BPMDataObjectSecurityService	EJB
BPMNActivityManagerBean	EJB
BPMNAuditTrailBean	EJB
BPMNClusterBean	EJB

The screenshot shows the configuration page for the BPELEngineBean in the Oracle WebLogic Server console. The 'Transaction Timeout' field is highlighted with a red circle and set to 300. The console also displays system status and navigation options on the left side.

Field	Value	Description
Name	BPELEngineBean	The name of this bean. More Info...
Type	stateless	The EJB type (session, entity, or message). More Info...
Transaction Type	Container	The bean's transaction type. More Info...
EJB Class Name	com.collaxa.cube.engine.ejb.inpl.BPELEngineBean	EJB Class Name. More Info...
Pool Configuration		
Initial Beans in Free Pool	100	The initial number of beans in the free pool. More Info...
Max Beans in Free Pool	1000	The maximum number of beans in the free pool. When an EJB has been in the free pool for the number of seconds specified in Idle Timeout, and the total number of beans in the free pool approaches the maximum beans in free pool specified in this field, idle beans are removed from the free pool. More Info...
Idle Timeout	0	The maximum length of time (in seconds) an EJB should remain in the cache or free pool before it is passivated or removed. More Info...
Enterprise Bean Configuration		
Network Access Point		Custom network channel that the EJB uses for network communications. More Info...
Run As Principal Name		The security principal to be used as the run-as principal for a bean that has security-identity specified in its ejb-jar.xml file. More Info...
Create As Principal Name		The principal to be used when ejbCreate would otherwise run with an anonymous principal. More Info...
Remove As Principal Name		The principal to be used when ejbRemove would otherwise run with an anonymous principal. More Info...
Passivate As Principal Name		The principal to be used when ejbPassivate would otherwise run with an anonymous principal. More Info...
JNDI Name		The JNDI name of an EJB, resource, or reference in WebLogic Server. More Info...
Local JNDI Name		The JNDI name for a bean's local home. More Info...
Dispatch Policy		Designates which server execute thread pool the EJB should run in. More Info...
Transaction Timeout	300	The transaction timeout value, in seconds. More Info...

5. Go to EJBs→BPEL Delivery Bean→ Configuration→set TransactionTimeout to 300

The screenshot shows a list of EJBs in the Oracle WebLogic Server console. The BPELDeliveryBean is highlighted with a red circle. The list includes various beans such as B2BUtilityBean, BAMActionMDB, BeamActionMDB, BottleneckDetectionBean, BPELActivityManagerBean, BPELAuditTrailBean, BPELCacheRegistryBean, BPELCacheStoreBean, BPELClusterBean, BPELDeliveryBean, BPELDispatcher, BPELEngineBean, BPELFinderBean, BPELInstanceManagerBean, BPELKeyGeneratorBean, BPELProcessManagerBean, BPELSensorValuesBean, BPELServerManagerBean, BPELTestInstanceManager, BpmAGProcessBrokerServiceBean, BpmAppServiceBean, BPMDataObjectSecurityService, BPMNActivityManagerBean, BPMNAuditTrailBean, BPMNClusterBean, BPMNDeliveryBean, BPMNDispatcherBean, BPMNEngineBean, and BPMNFinderBean.

Bean Name	Type
B2BUtilityBean	EJB
BAMActionMDB	EJB
BeamActionMDB	EJB
BottleneckDetectionBean	EJB
BPELActivityManagerBean	EJB
BPELAuditTrailBean	EJB
BPELCacheRegistryBean	EJB
BPELCacheStoreBean	EJB
BPELClusterBean	EJB
BPELDeliveryBean	EJB
BPELDispatcher	EJB
BPELEngineBean	EJB
BPELFinderBean	EJB
BPELInstanceManagerBean	EJB
BPELKeyGeneratorBean	EJB
BPELProcessManagerBean	EJB
BPELSensorValuesBean	EJB
BPELServerManagerBean	EJB
BPELTestInstanceManager	EJB
BpmAGProcessBrokerServiceBean	EJB
BpmAppServiceBean	EJB
BPMDataObjectSecurityService	EJB
BPMNActivityManagerBean	EJB
BPMNAuditTrailBean	EJB
BPMNClusterBean	EJB
BPMNDeliveryBean	EJB
BPMNDispatcherBean	EJB
BPMNEngineBean	EJB
BPMNFinderBean	EJB

The screenshot displays the configuration page for an EJB in the Oracle WebLogic Server console. On the left, there are panels for 'How do I...' (with links like 'Configure Version 2.X EJBs') and 'System Status' (showing 'Health of Running Servers' with 4 OK). The main configuration area is divided into sections: 'Pool Configuration' and 'Enterprise Bean Configuration'. In the 'Pool Configuration' section, 'Initial Beans in Free Pool' is 200 and 'Max Beans in Free Pool' is 1000. In the 'Enterprise Bean Configuration' section, the 'Transaction Timeout' field is highlighted with a red circle and contains the value 1800. Other fields include 'Type: stateless', 'Transaction Type: Container', and 'EJB Class Name: com.collaxa.cube.engine.ejb.impl.bpel.BPELDeliveryBean'. A 'Save' button is located at the bottom left of the configuration area.

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

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help

Welcome, weblogic Connected to: dev_domain

Home > Summary of Deployments > dev_domain

Settings for dev_domain

Configuration Monitoring Control Security Web Service Security Notes

General **JTA** JPA EJBs Web Applications Logging Log Filters

Use this page to define the Java Transaction API (JTA) configuration of this WebLogic Server domain.

Timeout Seconds: Specifies the maximum amount of time, in seconds, an active transaction is allowed to be in the first phase of a two-phase commit transaction. If the specified amount of time expires, the transaction is automatically rolled back. [More Info...](#)

Abandon Timeout Seconds: Specifies the maximum amount of time, in seconds, a transaction manager persists in attempting to complete the second phase of a two-phase commit transaction. [More Info...](#)

Before Completion Iteration Limit: The maximum number of cycles that the transaction manager performs the beforeCompletion synchronization callback for this WebLogic Server domain. [More Info...](#)

Max Transactions: The maximum number of simultaneous in-progress transactions allowed on a server in this WebLogic Server domain. [More Info...](#)

Max Unique Name Statistics: The maximum number of unique transaction names for which statistics are maintained. [More Info...](#)

Checkpoint Interval Seconds: The interval at which the transaction manager creates a new transaction log file and checks all old transaction log files to see if they are ready to be deleted. [More Info...](#)

Write recovery logs when determiners configured Indicates two-phase transaction recovery logs are written even if one or more determiners are configured. [More Info...](#)

Determiners: Specifies a list of one or more transaction resources (determiners) separated by line breaks. A determiner's in-doubt transaction records are used during transaction recovery when a TLog is not present. [More Info...](#)

Forget Heuristics Specifies whether the transaction manager automatically performs an XA Resource forget operation for heuristic transaction completions. [More Info...](#)

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

The screenshot displays the Oracle Enterprise Manager (EM) console interface. On the left, the 'Target Navigation' pane shows a tree view of SOA components. The 'soa-infra' target is selected, and the 'SOA Administration' menu is expanded, with 'BPEL Properties' highlighted. The main console area shows the 'soa-infra (SOAServer)' dashboard. The 'SOA Runtime Health' section indicates that the SOAServer is 'Initialized Successfully'. The 'Composites and Adapters Availability' section shows a list of health indicators: 'No Composite Start-Up Errors', 'No EIS Connectivity Errors', 'All Composites are UP', and 'All adapter service endpoints are UP'. The 'System Backlogs' section shows a list of messages in queues, including 'BPEL Invoke', 'BPEL Callback', and 'Mediator Parallel Routing'. The top of the console shows the user is logged in as 'admin' and the page was refreshed on Jun 17, 2015 at 11:36:01 AM IST.

System MBean Browser
Application Defined MBeans: BPELConfig:bpel

Information
The changes made on this mbean are not managed by the configuration session. The changes will be applied immediately. You cannot undo the changes from the Change Center.

Show MBean Information

Attributes	Operations	Notifications	Name	Description	Access	Value
			22	MaximumNumberOfInvokeMessagesInMemoryCache	RW	100000
			23	MaxRecoverAttempt	RW	2
			24	MinBPELWait	RW	2
			25	objectName	R	oracle.as.soainfra.config:mar
			26	OneWayDeliveryPolicy	RW	async.persist
			27	QualityOfService	RW	DirectWrite
			28	QualityOfServiceAuditStorePolicyUsed	RW	false
			29	QualityOfServiceOneWayDeliveryPolicyUsed	RW	false
			30	ReadOnly	R	false
			31	RecoveryConfig	RW	javax.management.openmbe
			32	RecurringMaxMessageRaiseSize	RW	50
			33	RestartNeeded	R	false
			34	SpecCompliance	RW	suggest
			35	StartupMaxMessageRaiseSize	RW	50
			36	StatsLastN	RW	-1
			37	SynMaxWaitTime	RW	45
			38	SystemMBean	R	false
			39	ValidateXML	RW	false
			40	Version	R	11.1.0
			41	Visible	R	true

1.3 Integrating Oracle FLEXCUBE IS and Scheduler

Before deploying the Oracle FLEXCUBE IS 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 IS and BIP Reports

You can integrate Oracle FLEXCUBE IS 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 IS and MBean

In order to integrate Oracle FLEXCUBE IS and MBean, you need to follow the below steps before deploying the Oracle FLEXCUBE IS 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.
```



Setting up Plug - Ins
[September] [2021]
Version 14.5.1.0.0

Oracle Financial Services Software Limited
Oracle Park
Off Western Express Highway
Goregaon (East)
Mumbai, Maharashtra 400 063
India

Worldwide Inquiries:
Phone: +91 22 6718 3000
Fax: +91 22 6718 3001
www.oracle.com/financialservices/

Copyright © [2007], [2021], Oracle and/or its affiliates.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.