

FLEXCUBE UBS Oracle GL MDB Adapter Installation  
Oracle FLEXCUBE Universal Banking  
Release 12.2.0.0.0  
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# Table of Contents

<b>1. INSTALLATION STEPS .....</b>	<b>3</b>
1.1 PREREQUISITE .....	3
1.2 STEPS .....	3

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# 1. Installation Steps

## 1.1 Prerequisite

- ✓ Ensure that the basic KERNEL Oracle GL Adapter Environment Setup is done.

[Please refer [ADOGL\\_Installation.doc.](#)]

## 1.2 Steps

### A. Modify ejb-jar.xml

- ✓ Edit <KERNEL\_INSTALL\_DIR>/ADOGL\_MDB/config/ejb-jar.xml. This XML file shall have a similar section as the one shown below,

```
<resource-ref>
  <res-ref-name>ADOGL_DS</res-ref-name>
  <res-type>javax.sql.XADataSource</res-type>
  <res-auth>Container</res-auth>
</resource-ref>
```

Here **ADOGL\_DS** is the name of the FLEXCUBE UBS Oracle GL Adapter Database Layer Instance.

- ✓ For each **res-ref-name** create an XA DataSource in WebSphere Application Server

[Refer: [WAS\\_ADOGL\\_DataSource\\_Creation.doc](#)]

## B. Configure FLEXCUBE UBS MDB Gateway Properties

Edit `<KERNEL_INSTALL_DIR>/ADOGL_MDB/config/ADOGL_MDB_Prop.properties` file to give appropriate values for the properties as described below,

1. **ADOGL\_EJB\_JNDI\_NAME**: This must be set to the JNDI name of the Oracle GL Facade Bean  
e.g. `ADOGL_EJB_JNDI_NAME=AQBridgeFacade`
2. **ADOGL\_EJB\_CTX\_FACTORY**: This property specifies which JNDI service provider is in use.  
e.g. `ADOGL_EJB_CTX_FACTORY=com.ibm.websphere.naming.WsnInitialContextFactory`
3. **ADOGL\_EJB\_SERVER\_URL**: This property specifies the URL of the service provider.  
e.g. `ADOGL_EJB_SERVER_URL=iiop://10.80.4.102:2809`
4. **MAX\_CLOB\_LEN**: This property specifies the length till which oracle considers the incoming text as string. For Oracle 10g R2 Database, it should be 32512.  
e.g. `MAX_CLOB_LEN=32512`
5. **DB\_TIMEOUT**: This is the timeout in SECONDS for which the FCUBS MDB Gateway will wait for PL/SQL to finish its processing. If database does not return within this timeout, the call to PL/SQL will be timed out.
6. **MSG\_SCHEMA\_CON\_POOLNAME**: This property specifies the FLEXCUBE UBS Oracle GL Adapter Database Layer Instance name.
7. **ADOGL\_MDB\_JMS\_QCF**: This property specifies the Queue Connection Factory of the Queue Manager on which the MDB is deployed.  
e.g. `ADOGL_MDB_JMS_QCF=ADOGL_MDBQCF`
8. **ADOGL\_MDB\_JMS\_QUEUE\_NAME**: This property specifies the Queue on which the MDB is listening.  
`ADOGL_MDB_JMS_QUEUE_NAME=NOTIFY_DEST_QUEUE`
9. **ADOGL\_MDB\_JMS\_DLQ\_CF**: This property specifies the Queue Connection Factory of the Queue Manager having Dead Letter Queue.

e.g. **ADOGL\_MDB\_JMS\_DLQ\_CF=ADOGL\_MDBQCF**

10. **ADOGL\_MDB\_JMS\_DLQ**: This property specifies the Dead Letter Queue.

e.g. **ADOGL\_MDB\_JMS\_DLQ=NOTIFY\_DEST\_QUEUE\_DLQ**

11. **LOGGER\_PATH**: This property specifies the path of the logger property file. This file can be found at <KERNEL\_INSTALL\_DIR>/ADOGL\_MDB/config.

*[NOTE: Give the logger path with forward slash (/).]*

The ADOGL\_MDB\_Prop.properties will look similar as follows,

```
ADOGL_EJB_JNDI_NAME=AQBridgeFacade
```

```
ADOGL_EJB_CTX_FACTORY=com.ibm.websphere.naming.WsnInitialContextFactory
```

```
ADOGL_EJB_SERVER_URL=iiop://10.80.4.102:2809
```

```
MAX_CLOB_LEN=32512
```

```
DB_TIMEOUT=200
```

```
MSG_SCHEMA_CON_POOLNAME=ADOGL_DS
```

```
ADOGL_MDB_JMS_QCF=ADOGL_MDBQCF
```

```
ADOGL_MDB_JMS_QUEUE_NAME=NOTIFY_DEST_QUEUE
```

```
ADOGL_MDB_JMS_DLQ_CF=ADOGL_MDBQCF
```

```
ADOGL_MDB_JMS_DLQ=NOTIFY_DEST_QUEUE_DLQ
```

```
LOGGER_PATH=D:/Kernel7.2/ADOGL_MDB/config/adogl_mdb_logger.cfg
```

### C. Configure logger parameters

Edit <KERNEL\_INSTALL\_DIR>/ADOGL\_MDB/config/adogl\_mdb\_logger.cfg file to change the value of the property "AD.LOGGER.FPATH" to <KERNEL\_INSTALL\_DIR>/ADOGL\_MDB/log/.

E.g. If the value of your <KERNEL\_INSTALL\_DIR> is D:/Kernel7.2, then the entry for this property will be,

```
AD.LOGGER.FPATH=D:/Kernel7.2/ADOGL_MDB/log/
```

*[NOTE: Give AD.LOGGER.FPATH with forward slash (/) as file separator and remember to give a slash (/) at the end.]*

### D. Run the build file

✓ For WINDOWS

- Go to the folder <KERNEL\_INSTALL\_DIR>\setup in the command prompt, type "**set\_env**" and press enter.
- Change directory to <KERNEL\_INSTALL\_DIR>\ADOGL\_MDB\setup\WAS in the command prompt, type "**ws\_ant**" and press enter.

✓ For UNIX

- Go to the folder <KERNEL\_INSTALL\_DIR>/setup in the shell prompt, type "**set\_env.sh**" and press enter.
- Change directory to <KERNEL\_INSTALL\_DIR>/ADOGL\_MDB/setup/WAS in the shell prompt, type "**ws\_ant**" and press enter.

[NOTE: Please make sure that you get a message **BUILD SUCCESSFUL** after compilation.]

## E. Deploy the MDB in WebSphere Application Server (WAS)

### 1. Stop the application server.

If the application server is already running, then stop the application server as follows:

- ✓ For Windows
- Go to the <APP\_SERVER\_HOME>/bin directory in the command prompt, type **stopServer.bat server1** and press enter.

### 2. Start the application server.

- ✓ For Windows
- Go to the < APP\_SERVER\_HOME>/bin .i.e. the application server installation directory in the command prompt, type **startServer.bat server1** and press enter.
- This will start the server. Ensure that you get no error during start up. If the server start up is proper we shall get the following screen.

```
C:\Program Files\IBM\WebSphere\AppServer\bin>startServer.bat server1
ADMU0116I: Tool information is being logged in file C:\Program
Files\IBM\WebSphere\AppServer\profiles\default\logs\server1\startServer.log
ADMU0128I: Starting tool with the default profile
ADMU3100I: Reading configuration for server: server1
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server server1 open for e-business; process id is 1852
```

### 3. Open the administrative console of the application server

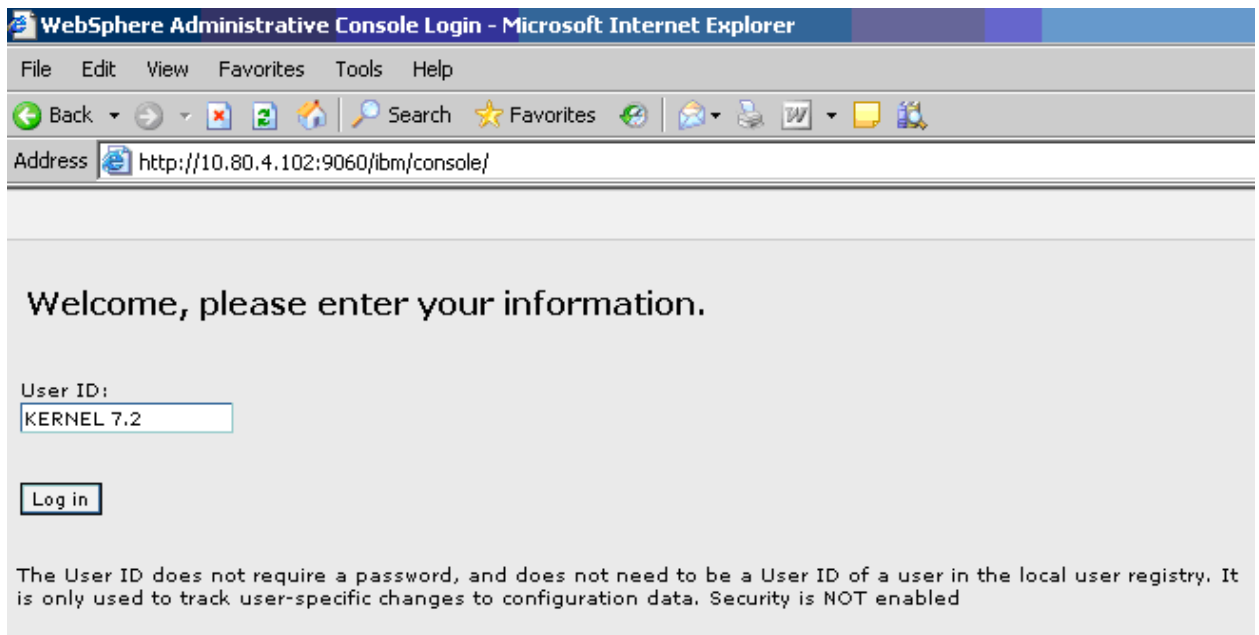
- ✓ Open an internet browser and type the WAS Admin Console URL Address of the server.

e.g. <http://10.80.4.102:9060/ibm/console>

Where, 10.80.4.102 is the machine IP Address on which WAS is running.

- ✓ Enter a user id for launching the WAS Admin Console window.

The user id can be any name e.g.: KERNEL 7.2



4. For each “res-ref-name” in ejb-jar.xml create an XA DataSource in WebSphere Application Server

[Refer: [WAS ADOGL DataSource Creation.doc](#)]

5. Create an XA QueueConnectionFactory with the name ADOGL\_MDBQCF

[Refer: [WAS ADOGL DataSource Creation.doc](#)]



**6. Create WebSphere MQ Queue Destinations with the following names**

- a. NOTIFY\_DEST\_QUEUE\_DLQ
- b. MDB\_QUEUE\_RESPONSE
- c. MDB\_QUEUE\_DLQ

[Refer: [WAS\\_ADOGL\\_WebSphereMQ\\_Installation.doc](#)]

**7. Create Message Listener with the name OGL\_MDB\_LISTENER with Destination as NOTIFY\_DEST\_QUEUE and QueueConnectionFactory as ADOGL\_MDBQCF**

[Refer: [WAS\\_ADOGL\\_WebSphereMQ\\_Installation.doc](#)]

**8. Stop and re-start the WebSphere Application Server**

[Refer: Steps 1 and 2 above.]

**9. Deploying ADOGL\_MDB\_Bean.ear**

- ✓ Click on **Applications -> Install New Application**.
- ✓ Following screen will be displayed. Specify the local path of the enterprise archive file  
(ie <KERNEL\_INSTALL\_DIR>/ADOGL\_MDB/build/ADOGL\_MDB\_Bean.ear) and click on **Next**.

- Welcome
- Guided Activities
- Servers
- Applications
  - Enterprise Applications
  - **Install New Application**
- Resources
- Security
- Environment
- System administration
- Monitoring and Tuning
- Troubleshooting
- Service integration
- UDDI

Enterprise Applications

**Preparing for the application installation**

Specify the EAR, WAR or JAR module to upload and install.

**Path to the new application.**

Local file system

Specify path

Remote file system

Specify path

Context root  
 Used only for standalone Web modules (.war files)

10. Following screen will be displayed. Click on Next.

Enterprise Applications

[Close page](#)

**Preparing for the application installation**

Choose to generate default bindings and mappings.

Generate Default Bindings

**Override:**

Do not override existing bindings

Override existing bindings

Specific bindings file

11. Following screen will be displayed. Click on Next.

**Install New Application**

Specify options for installing enterprise applications and modules.

→ **Step 1: Select installation options**

[Step 2](#) Map modules to servers

[Step 3](#) Provide listener bindings for message-driven beans

✦ [Step 4](#) Map resource references to resources

✦ [Step 5](#) Map resource env entry references to resources

[Step 6](#) Summary

### Select installation options

Specify the various options that are available to prepare and install your application.

Pre-compile JSP

Directory to install application

Distribute application

Use Binary Configuration

Deploy enterprise beans

Application name

Create MBeans for resources

Enable class reloading

Reload interval in seconds

Deploy Web services

Validate Input off/warn/fail

Process embedded configuration

12. Following screen will be displayed. Click on Next.

**Install New Application**

Specify options for installing enterprise applications and modules.

[Step 1](#) Select installation options

→ **[Step 2: Map modules to servers](#)**

[Step 3](#) Provide listener bindings for message-driven beans

★ [Step 4](#) Map resource references to resources

★ [Step 5](#) Map resource env entry references to resources

[Step 6](#) Summary

**Map modules to servers**

Specify targets such as application servers or clusters of application servers where you want to install the modules for application. Modules can be installed on the same application server or dispersed among several application servers, servers as targets that will serve as routers for requests to this application. The plug-in configuration file (plug-in-cfg.xml) server is generated based on the applications which are routed through it.

Clusters and Servers:

Select	Module	URI	Server
<input type="checkbox"/>	ADCGL_MDB_Bean.jar	ADCGL_MDB_Bean.jar,META-INF/ajb-jar.xml	WebSphere:cell=cvrhp1455Node01Cell,node=cvrhp1455

13. Following screen will be displayed.

Give the Listener Name as provided in step 7 and click on Next.

**Enterprise Applications**

**Enterprise Applications > ADOGL\_MDB\_Bean > Provide listener bindings for message-driven beans**

Provide listener bindings for message-driven beans

Each message-driven enterprise bean in your application or module must be bound to a listener port name or to an activation specification JNDI name. When a message-driven enterprise bean is bound to an activation specification JNDI name you may also specify destination JNDI name and authentication alias.

Apply Multiple Mappings

Select	EJB module	EJB	URI	Messaging Type	Bindings
<input checked="" type="checkbox"/>	ADOGL_MDB_Bean.jar	ADOGL_MDB_Bean	ADOGL_MDB_Bean.jar,META-INF/ejb-jar.xml	javax.jms.MessageListener	<input checked="" type="radio"/> Listener port Name <input type="text" value="OGL_MDB_LISTENER"/> <input type="radio"/> Activation Specification JNDI name <input type="text"/> Destination JNDI Name <input type="text"/> ActivationSpec Authentication Alias <input type="text"/>

#### 14. Following screen will be displayed.

Give the mapping for Queue Connection Factory and Data Source that has been created in above steps 6 and 7.

**Specify authentication method:**

none

Use default method  
 Select authentication data entry

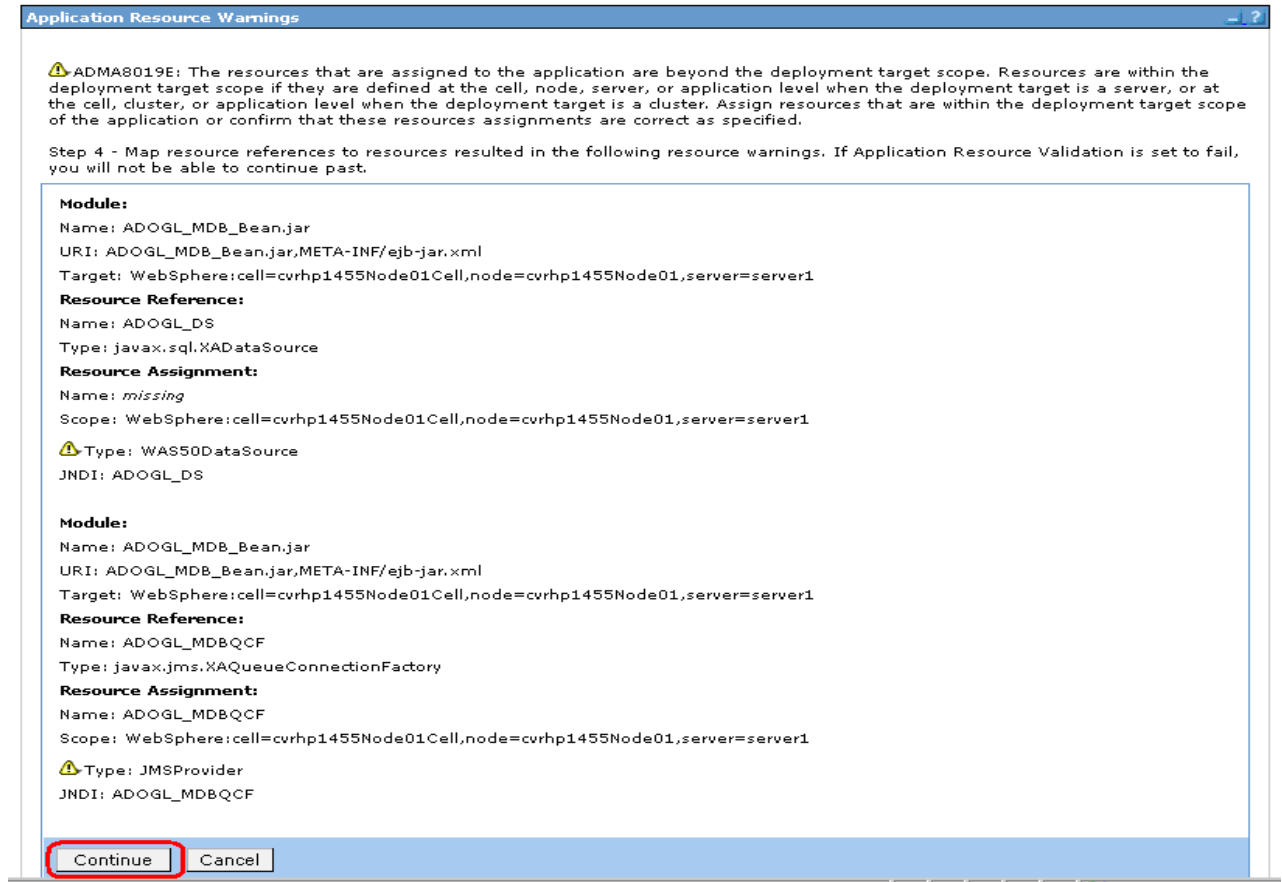
Use custom login configuration  
 Select application login configuration

Select	Module	EJB	URI	Reference binding	JNDI name	Login configuration
<input checked="" type="checkbox"/>	ADOGL_MDB_Bean.jar	ADOGL_MDB_Bean	ADOGL_MDB_Bean.jar,META-INF/ejb-jar.xml	ADOGL_MDBQCF	<input type="text" value="ADOGL_MDBQCF"/>	Resource authorization: Container Authentication method: none

**javax.sql.XADataSource**

Select	Module	EJB	URI	Reference binding	JNDI name	Login configuration
<input checked="" type="checkbox"/>	ADOGL_MDB_Bean.jar	ADOGL_MDB_Bean	ADOGL_MDB_Bean.jar,META-INF/ejb-jar.xml	ADOGL_DS	<input type="text" value="ADOGL_DS"/>	Resource authorization: Container Authentication method: none

15. Following screen will be displayed. Click on Continue.



## 16. Following screen will be displayed.

- ✓ Give the JNDI name mapping for Queues same as their respective reference Bindings names.



Install New Application [Close page](#)

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**Install New Application** ?

Specify options for installing enterprise applications and modules.

[Step 1](#) Select installation options

[Step 2](#) Map modules to servers

[Step 3](#) Provide listener bindings for message-driven beans

[Step 4](#) Map resource references to resources

**→ [Step 5: Map resource env entry references to resources](#)**

[Step 6](#) Summary

**Map resource env entry references to resources**

Each resource environment reference defined in your application must map to a resource.

Apply Multiple Mappings

Select	Module	EJB	URI	Reference binding	JNDI name
<input checked="" type="checkbox"/>	ADOGL_MDB_Bean.jar	ADOGL_MDB_Bean	ADOGL_MDB_Bean.jar,META-INF/ejb-jar.xml	NOTIFY_DEST_QUEUE_DLQ	NOTIFY_DEST_QUEUE_DL

17. Following screen will be displayed. Click on Continue.



**Application Resource Warnings**

⚠ ADMA8019E: The resources that are assigned to the application are beyond the deployment target scope. Resources are within the deployment target scope if they are defined at the cell, node, server, or application level when the deployment target is a server, or at the cell, cluster, or application level when the deployment target is a cluster. Assign resources that are within the deployment target scope of the application or confirm that these resources assignments are correct as specified.

Step 5 - Map resource env entry references to resources resulted in the following resource warnings. If Application Resource Validation is set to fail, you will not be able to continue past.

**Module:**  
Name: ADOGL\_MDB\_Bean.jar  
URI: ADOGL\_MDB\_Bean.jar,META-INF/ejb-jar.xml  
Target: WebSphere:cell=cvrhp1455Node01Cell,node=cvrhp1455Node01,server=server1

**Resource Reference:**  
Name: NOTIFY\_DEST\_QUEUE\_E  
Type: null

**Resource Assignment:**  
Name: NOTIFY\_DEST\_QUEUE\_E  
Scope: WebSphere:cell=cvrhp1455Node01Cell,node=cvrhp1455Node01,server=server1

⚠ Type: JMSProvider  
JNDI: NOTIFY\_DEST\_QUEUE\_E

**Module:**  
Name: ADOGL\_MDB\_Bean.jar  
URI: ADOGL\_MDB\_Bean.jar,META-INF/ejb-jar.xml  
Target: WebSphere:cell=cvrhp1455Node01Cell,node=cvrhp1455Node01,server=server1

**Resource Reference:**  
Name: NOTIFY\_DEST\_QUEUE\_DLQ  
Type: null

**Resource Assignment:**  
Name: NOTIFY\_DEST\_QUEUE\_DLQ  
Scope: WebSphere:cell=cvrhp1455Node01Cell,node=cvrhp1455Node01,server=server1

⚠ Type: JMSProvider  
JNDI: NOTIFY\_DEST\_QUEUE\_DLQ

18. Following screen will be displayed. Click on Finish.

*[NOTE: This may take a few minutes.]*

**Install New Application**
?

Specify options for installing enterprise applications and modules.

[Step 1](#) Select installation options

[Step 2](#) Map modules to servers

[Step 3](#) Provide listener bindings for message-driven beans

[Step 4](#) Map resource references to resources

[Step 5](#) Map resource env entry references to resources

→ Step 6: Summary

Summary

Summary of installation options

Options	Values
Use Binary Configuration	No
Create MBeans for resources	Yes
Cell/Node/Server	<a href="#">Click here</a>
Reload interval in seconds	
Enable class reloading	No
Process embedded configuration	No
Application name	ADOGL_MDB_Bean
Validate Input off/warn/fail	warn
Directory to install application	
Distribute application	Yes
Deploy Web services	No
Pre-compile JSP	No
Deploy enterprise beans	No

Previous
Finish
Cancel

19. Following screen will be displayed. Click on “Save to Master Configuration”.

ADMA0139W: Resource Assignment of name NOTIFY\_DEST\_QUEUE\_E and type javax.jms.Queue, with JNDI name NOTIFY\_DEST\_QUEUE\_E is found within scope of module ADOGL\_MDB\_Bean.jar with URI ADOGL\_MDB\_Bean.jar,META-INF/ejb-jar.xml deployed to target WebSphere:cell=cvrhp1455Node01Cell,node=cvrhp1455Node01,server=server1, but of wrong resource type ResourceEnvironmentProvider. The expected resource type is JMSProvider.

ADMA0139W: Resource Assignment of name NOTIFY\_DEST\_QUEUE\_DLQ and type javax.jms.Queue, with JNDI name NOTIFY\_DEST\_QUEUE\_DLQ is found within scope of module ADOGL\_MDB\_Bean.jar with URI ADOGL\_MDB\_Bean.jar,META-INF/ejb-jar.xml deployed to target WebSphere:cell=cvrhp1455Node01Cell,node=cvrhp1455Node01,server=server1, but of wrong resource type ResourceEnvironmentProvider. The expected resource type is JMSProvider.

ADMA5068I: The resource validation for application ADOGL\_MDB\_Bean completed successfully, but warnings occurred during validation.

ADMA5058I: Application and module versions validated with versions of deployment targets.

ADMA5005I: The application ADOGL\_MDB\_Bean is configured in the WebSphere Application Server repository.

ADMA5053I: The library references for the installed optional package are created.

ADMA5005I: The application ADOGL\_MDB\_Bean is configured in the WebSphere Application Server repository.

ADMA5001I: The application binaries are saved in D:\Program Files\IBM\WebSphere\AppServer\profiles/default\wstemp\1134867395\workspace\cells\cvrhp1455Node01Cell\applications\ADOGL\_MDB\_Bean.ear\ADOGL\_MDB\_Bean.ear

ADMA5005I: The application ADOGL\_MDB\_Bean is configured in the WebSphere Application Server repository.

SECJ0400I: Successfully updated the application ADOGL\_MDB\_Bean with the appContextIDForSecurity information.

ADMA5011I: The cleanup of the temp directory for application ADOGL\_MDB\_Bean is complete.

ADMA5013I: Application ADOGL\_MDB\_Bean installed successfully.

Application ADOGL\_MDB\_Bean installed successfully.

To start the application, first save changes to the master configuration.

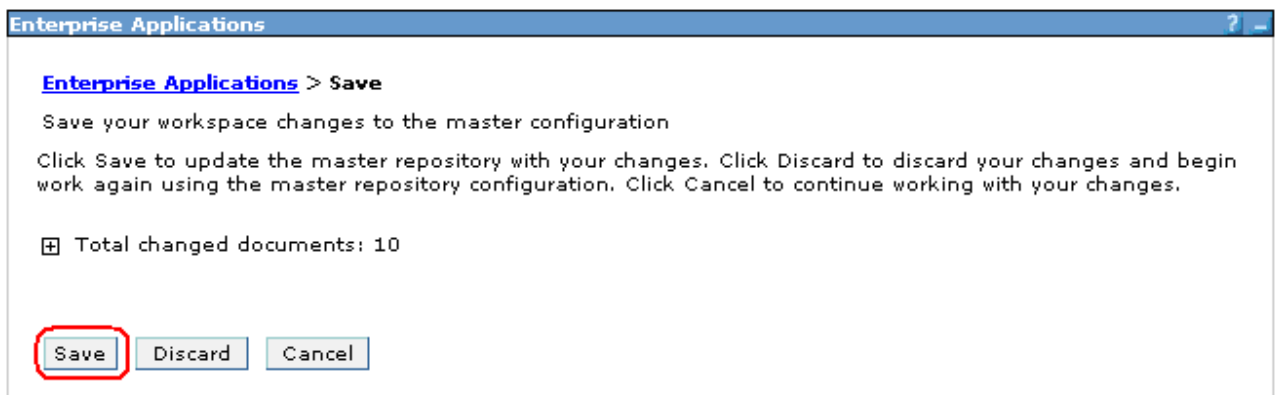
**Save to Master Configuration**

To work with installed applications, click the "Manage Applications" button.

**Manage Applications**

## 20. Following screen will be displayed. Click on Save.

Enterprise Applications



## 21. Browse to Application -> Enterprise Applications.

- ✓ The deployed ADOGL\_MDB\_Bean will be displayed on the screen.
- ✓ Click the check box beside it and click on **Start**.

Enterprise Applications

**Enterprise Applications**

Lists installed applications. A single application can be deployed onto multiple servers.

Preferences

**Start** Stop Install Uninstall Update Rollout Update Remove File Export Export DDL

Select	Name	Status
<input type="checkbox"/>	<a href="#">ADOGL EJB_FACADE Bean</a>	➔
<input checked="" type="checkbox"/>	<a href="#">ADOGL MDB Bean</a>	✖
<input type="checkbox"/>	<a href="#">AQBridgeFacade</a>	➔
<input type="checkbox"/>	<a href="#">GW EJB Bean</a>	➔
<input type="checkbox"/>	<a href="#">GW HTTP Servlet</a>	➔
<input type="checkbox"/>	<a href="#">GW NOTIFY MDB Bean</a>	➔
<input type="checkbox"/>	<a href="#">GW NOTIFY TIMER Bean</a>	➔

Total 7

22. Following screen will be displayed with a green arrow as the status indicating that the deployed ADOGL\_MDB\_Bean is running.

**Enterprise Applications** ?

Messages

Application ADOGL\_MDB\_Bean on server server1 and node cvrhp1455Node01 started successfully.

**Enterprise Applications**

Lists installed applications. A single application can be deployed onto multiple servers.

Preferences

Start Stop Install Uninstall Update Rollout Update Remove File Export Export DDL

☑ 📄 ↕ 🔄

Select	Name	Status
<input type="checkbox"/>	<a href="#">ADOGL EJB FACADE Bean</a>	➡
<input type="checkbox"/>	<a href="#">ADOGL MDB Bean</a>	➡
<input type="checkbox"/>	<a href="#">AQBridgeFacade</a>	➡
<input type="checkbox"/>	<a href="#">GW EJB Bean</a>	➡
<input type="checkbox"/>	<a href="#">GW HTTP Servlet</a>	➡
<input type="checkbox"/>	<a href="#">GW NOTIFY MDB Bean</a>	➡
<input type="checkbox"/>	<a href="#">GW NOTIFY TIMER Bean</a>	➡

Total 7



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Version 12.2.0.0.0

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