

# **Oracle FLEXCUBE Direct Banking**

Installation Manual On

Weblogic Application Server

Release 12.0.2.0.0

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**ORACLE®**

Installation Manual On Weblogic Application Server  
September 2013

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/](http://www.oracle.com/financialservices/)

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# 1. Preface

## 1.1. Intended Audience

This document is primarily targeted at

- Oracle FLEXCUBE Direct Banking Development Teams
- Oracle FLEXCUBE Direct Banking Implementation Teams
- Oracle FLEXCUBE Direct Banking Implementation Partners

## 1.2. Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

## 1.3. Access to OFSS Support

<https://flexsupp.oracle.com/>

## 1.4. Structure

This manual is organized into the following categories:

Preface gives information on the intended audience. It also describes the overall structure of the User Manual

Application Server Configuration provides information on Creating and Managing a JMS Servers etc.

Chapters post Application server configuration are dedicated to Setup JDBC data source and Connection Pooling and JMS queue creation on Weblogic server, Module Installation and Encryption and Decryption of property files.

## 1.5. Related Information Sources

For more information on Oracle FLEXCUBE Direct Banking Release 12.0.2.0.0, refer to the following documents:

- Oracle FLEXCUBE Direct Banking Licensing Guide

## 2.Abbreviations

FCDB	Oracle FLEXCUBE Direct Banking
Java EE / JEE	Java Enterprise Edition
Java SE / JSE	Java 2 Standard Edition
DBA	Database Administrator
JDK	Java Development Kit

## 3.Pre- requisites

All the software requirements mentioned in the sheet

“Oracle\_FLEXCUBE\_Direct\_Banking\_Software\_Stack” must be installed.

Oracle FLEXCUBE Direct Banking application is installed successfully using Oracle FCDB Installer.

# 4.Application Server Configuration

## 4.1.Creating and Managing a Server Instance

### 4.1.1.Creating a WebLogic domain

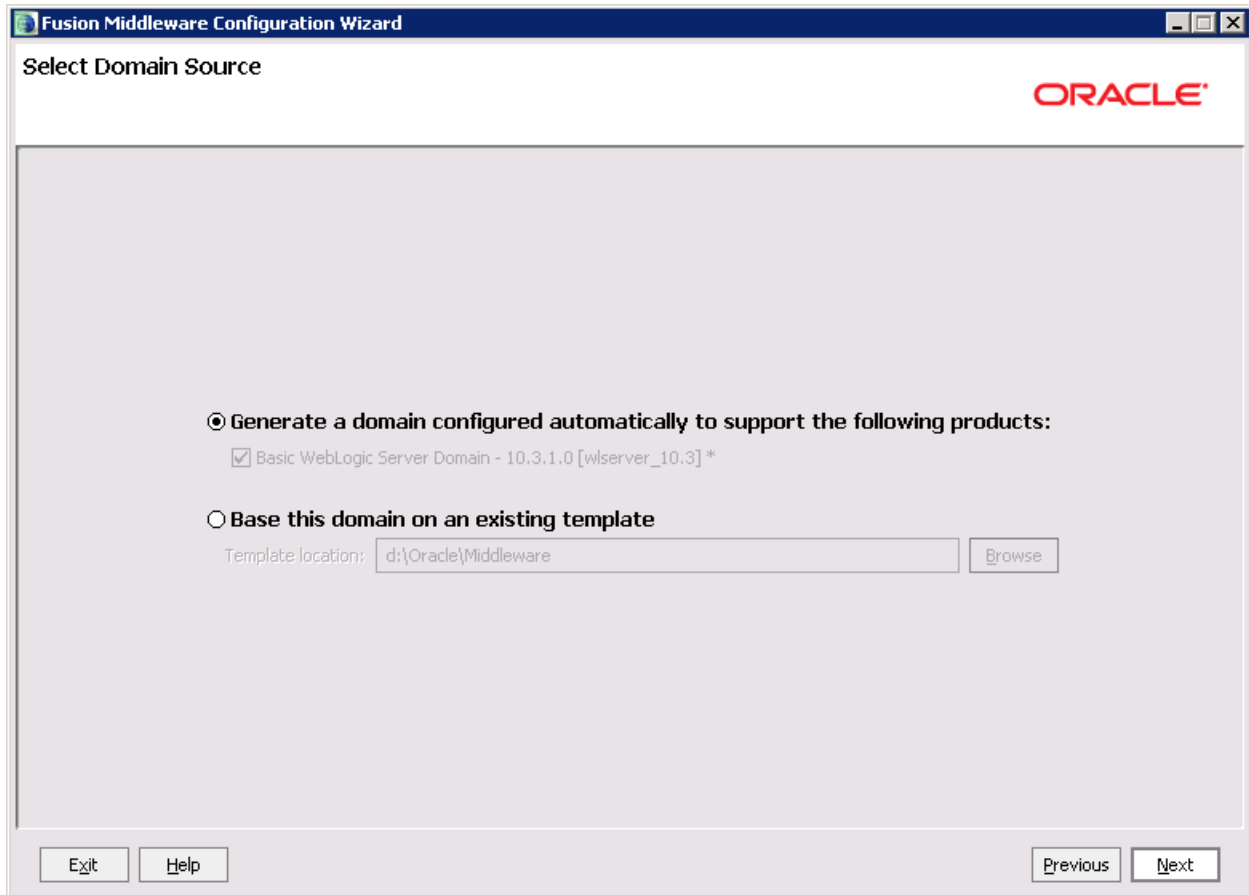
A domain consists of one or more server instances that can be managed with a single administration server. When the administration server is used to perform a configuration task, the changes made apply only to the domain managed by that administration server. To manage another domain, the administration server for that domain must be used.

#### **Through Wizard:**

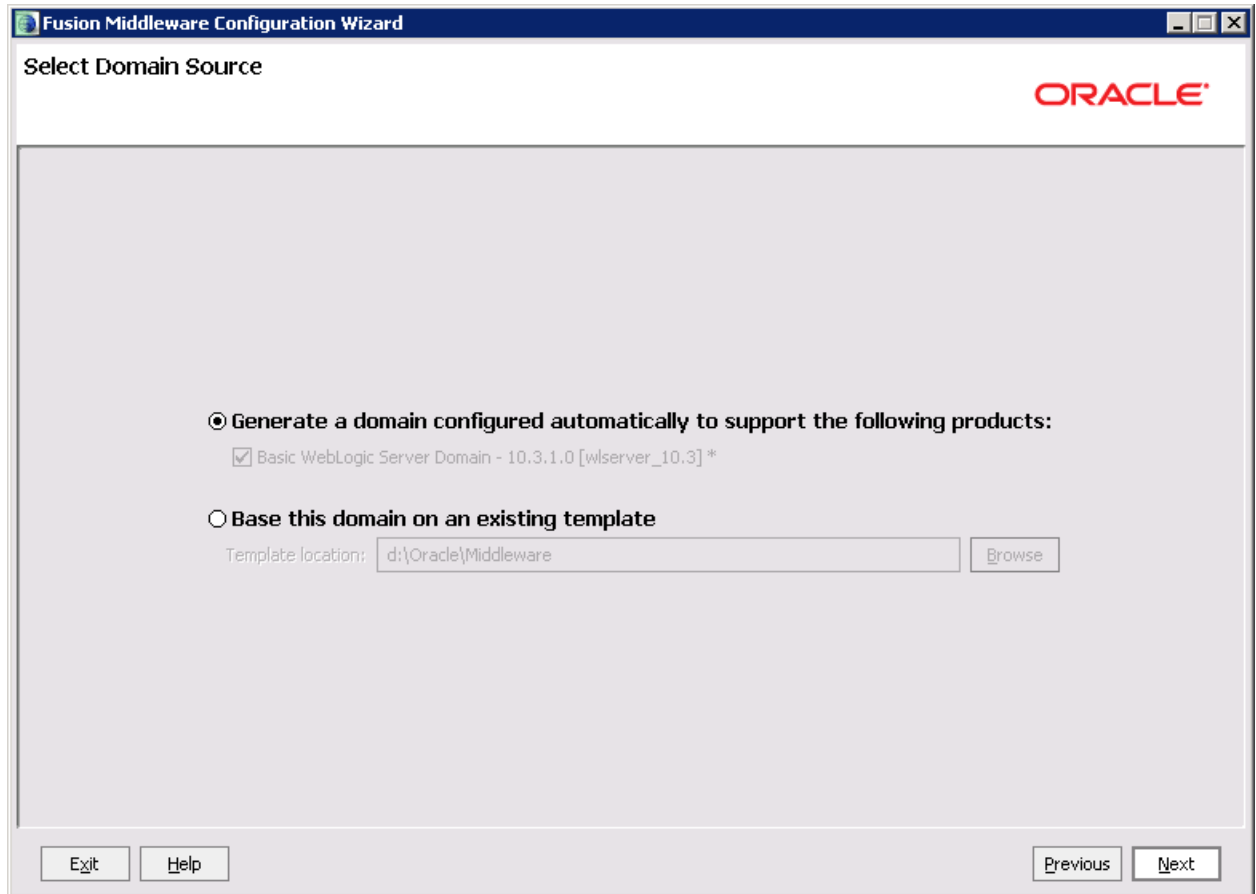
1. Go to Start Menu →Oracle WebLogic →WebLogic Server 11g R1 →Tools →Configuration Wizard in Windows.

Select “Create a new WebLogic Domain” and click “Next”.





Select "Generate a domain configured automatically to support the following Products" and click "Next"



## Specify Domain Name and Location

Enter the name and location for the domain:

Domain name:

Domain location:

Enter the following values and click “Next”

Field	Value
User Name	<Enter username>
User password	<Enter password>
Confirm user password	<Repeat same password>

Fusion Middleware Configuration Wizard

### Configure Administrator User Name and Password

ORACLE

Disard Changes

\*User name:

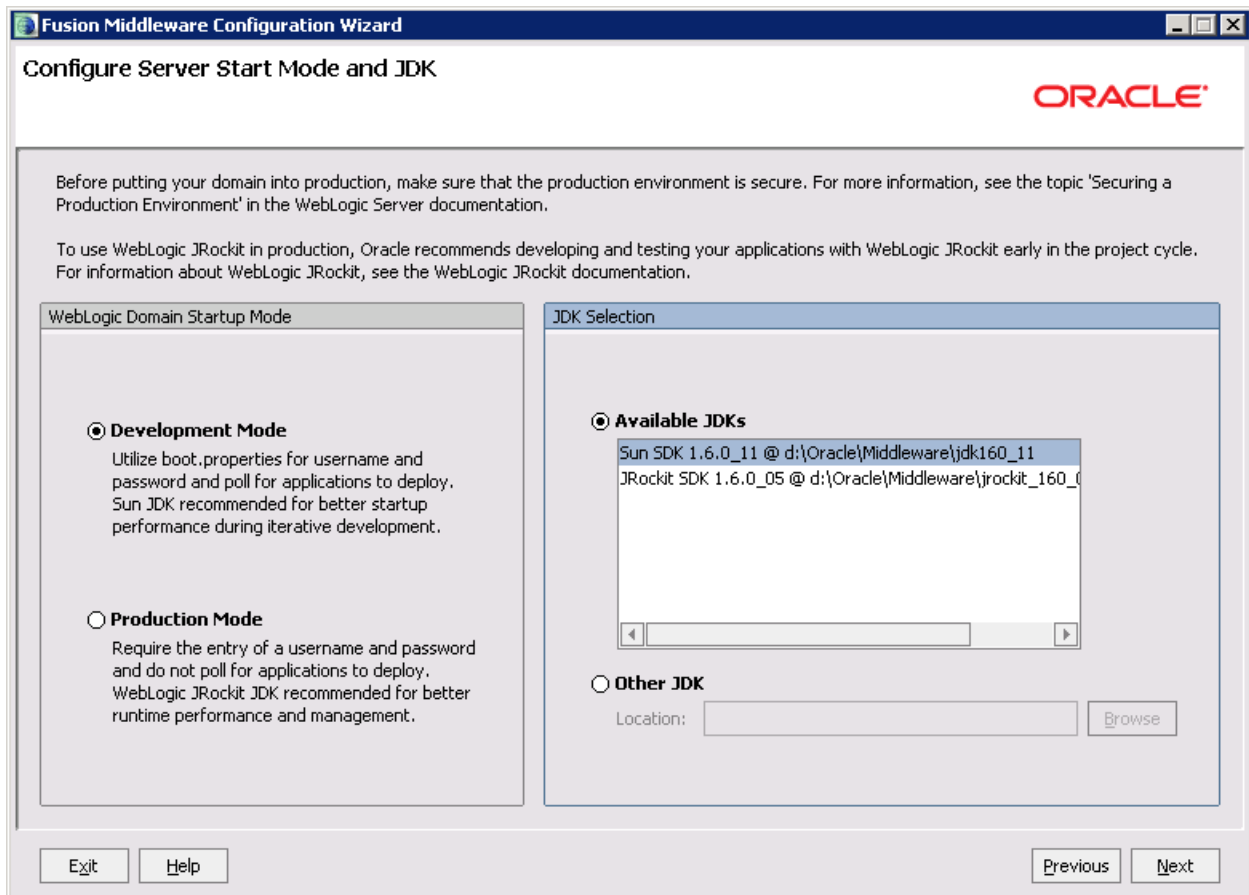
\*User password:

\*Confirm user password:

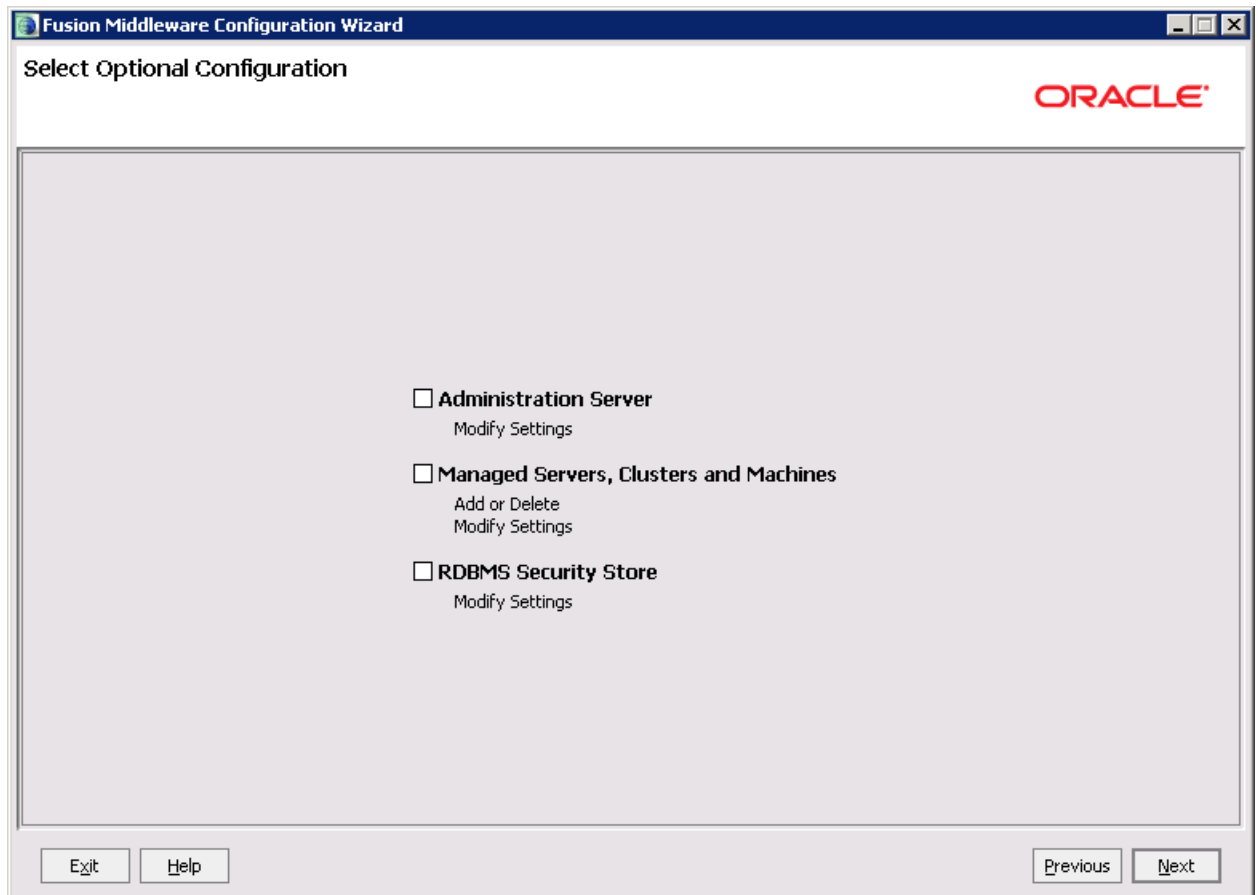
Description:

Exit Help Previous Next

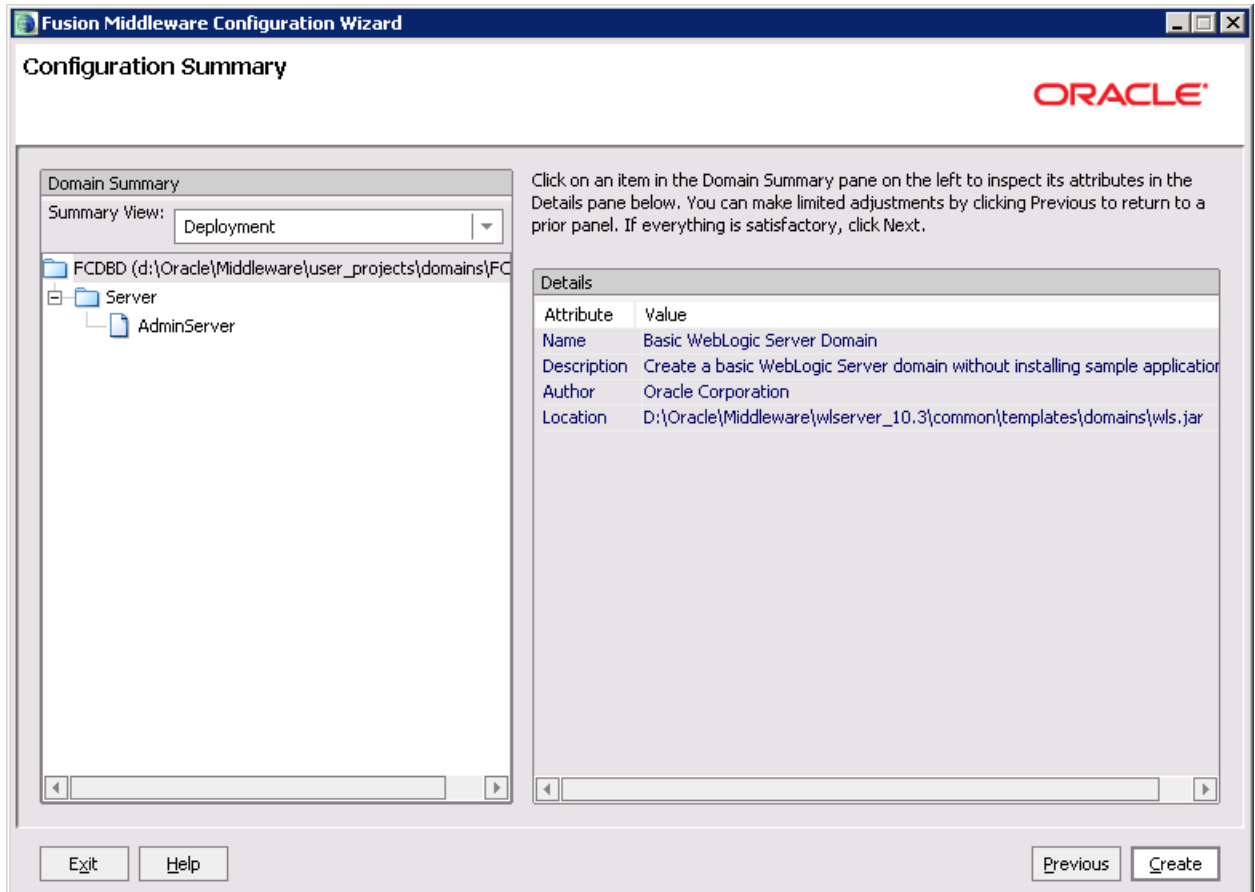
Select “Development Mode” under “Web Logic Domain Startup Mode”,  
Select “Available JDKs” in JDK selection and select “Sun SDK 1.6.0\_11” and click “Next”



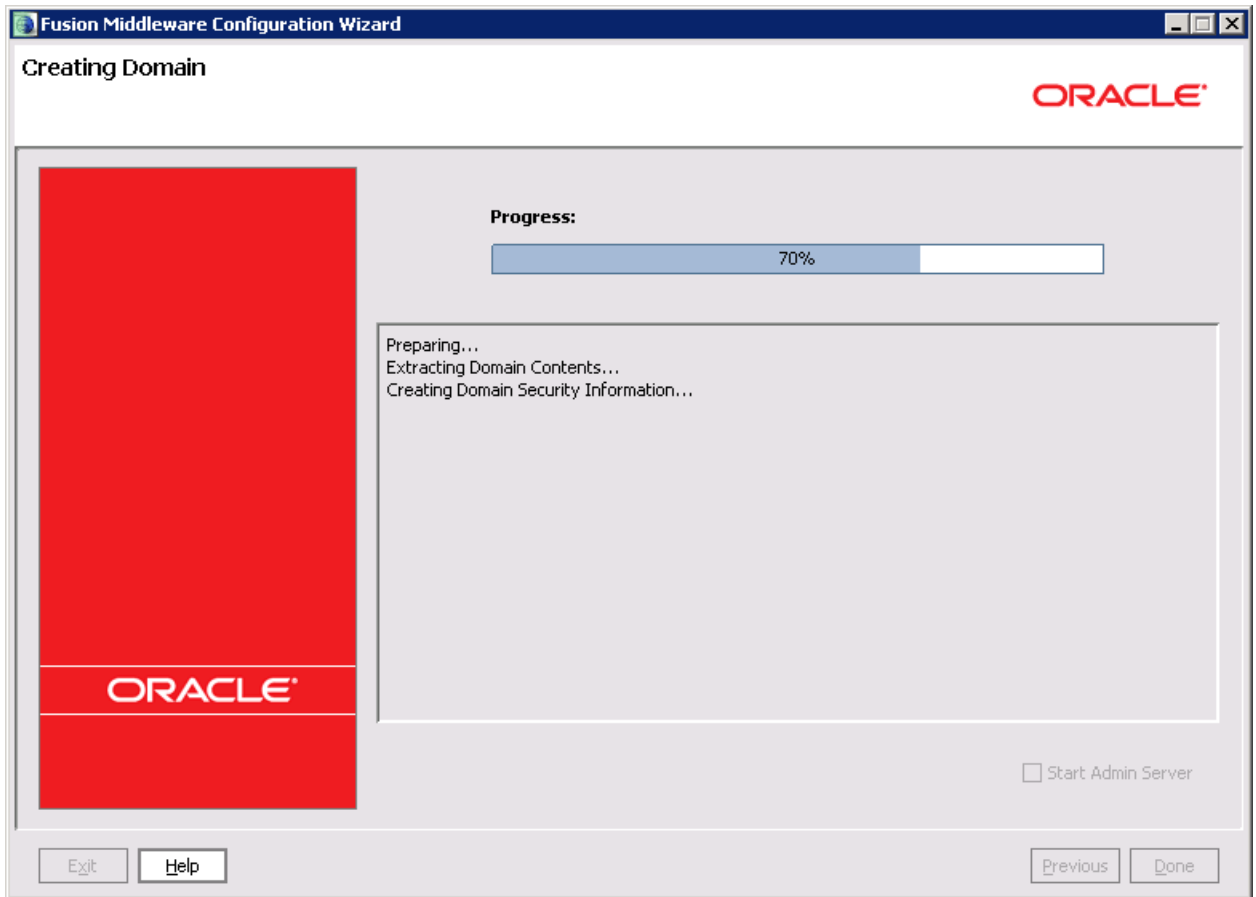
Do not select any of the check boxes and click "Next"



Click on "Create"

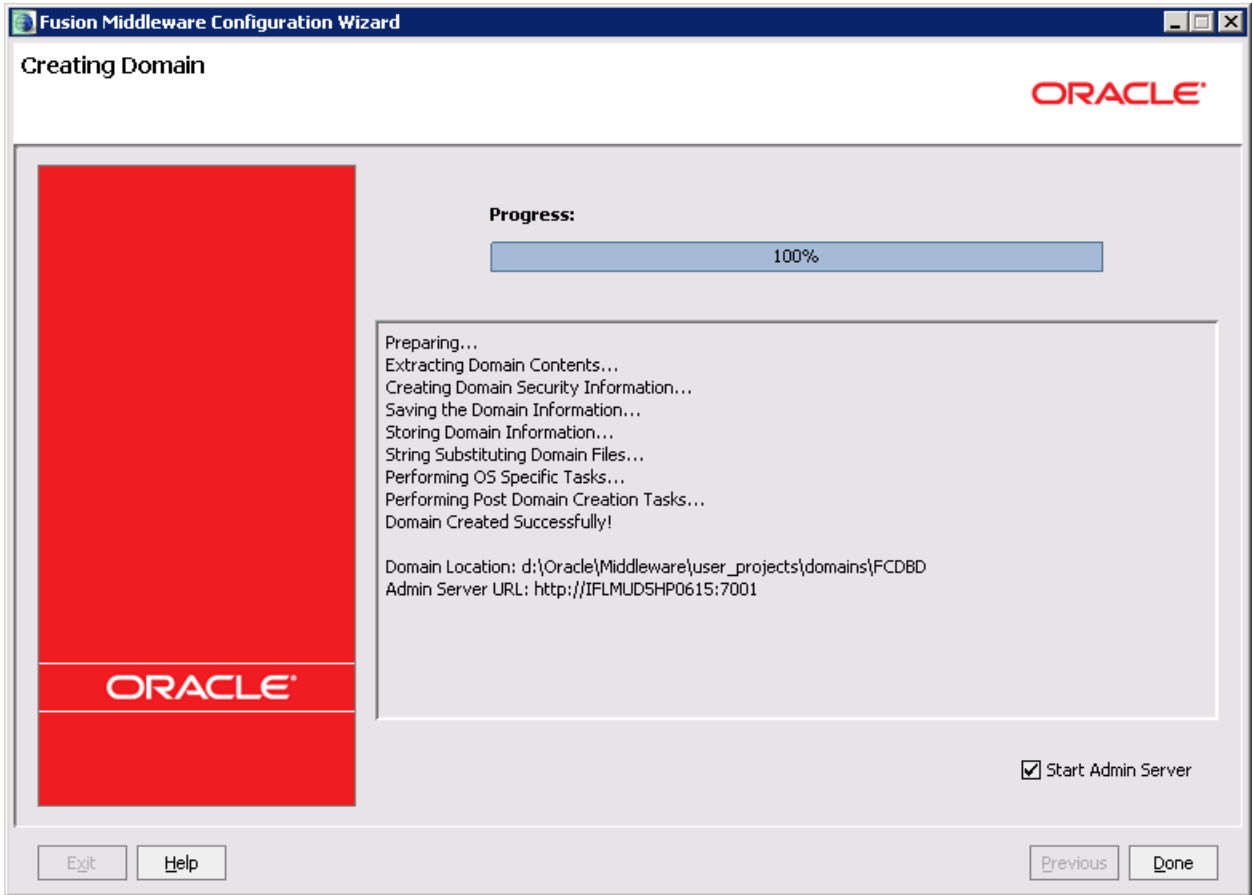


The screen displayed below show the progress





Click "Done"



### Using commands.

a) Through the command prompt go to the <Oracle Base Folder>/<WLS home directory>/common/bin

e.g If the base folder is **oracle** , the path will be D:\oracle\wlserver\_10.0\common\bin

b) Execute the batch file inside it wlst.bat (on Windows) or wlst.sh(on Unix)

c) The environment will be set and the prompt changes to wls:/offline>

d) Give the following command to create the domain.

```
createDomain(domainTemplate, domainDir, user, password)
```

Argument	Definition
domainTemplate	Name and location of the domain template from which you want to create a domain.
domainDir	Name of the directory to which you want to write the domain configuration information.
user	Name of the default user.
password	Password of the default user.

For e.g.:

```
createDomain('D:/oracle/wlserver_10.0/common/templates/domains/wls.jar','D:/oracle/user_projects/domains/trial', '<user_name>', '<password>')
```

This will create a domain under the location D:/oracle/user\_projects/domains.

### **4.1.2.SSL Configuration**

For the SSL configurations kindly refer to the doc  
“Oracle\_FLEXCUBE\_Direct\_Banking\_Configure\_Apache\_HTTP\_and\_Weblogic“

### **4.1.3.Create Cluster**

For configuration of clusters kindly refer to the doc  
“Oracle\_FLEXCUBE\_Direct\_Banking\_Clustering\_on\_Weblogic“

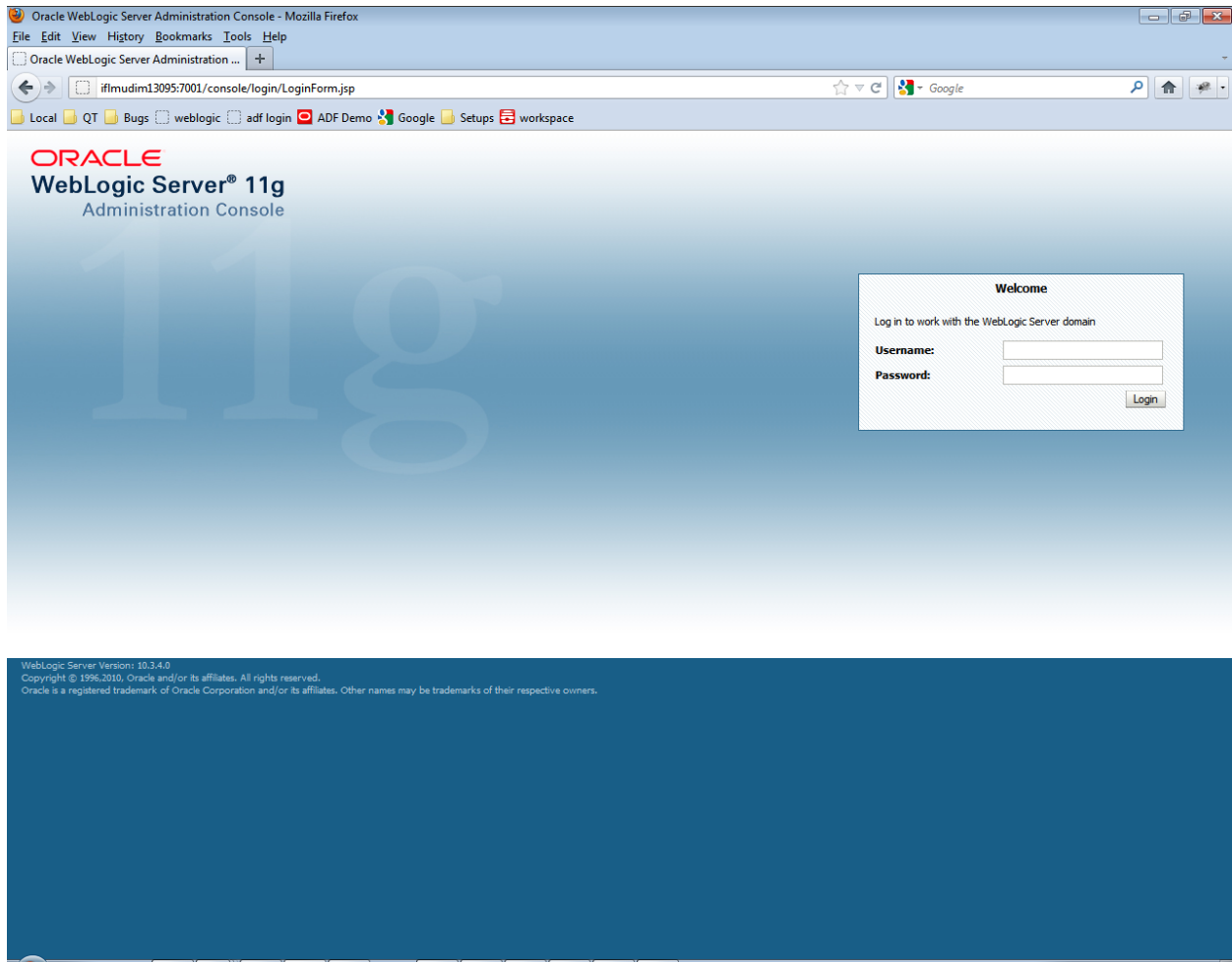
#### 4.1.4. ORACLE WebLogic server administrative console.

The Administration Console facilitates in creating, starting, suspending, resuming and stopping servers; deploying applications and other administration facilities.

1. To start the ORACLE WebLogic Server Administration Console in Windows ,click ORACLE Products →User Projects →<domain\_name>

To open Administration Console, type http://<hostname OR IP>:<port>/console in browser window.

Enter User Id and Password set during domain creation and click Log In.



## 1.5.5. Enable Archived Real Path

1. In the ORACLE Weblogic Server Administration Console, click Domain Name → Web Applications

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area is titled 'Settings for FCDBD' and is divided into several tabs: Configuration, Monitoring, Control, Security, Web Service Security, and Notes. The 'Configuration' tab is active, and within it, the 'Web Applications' sub-tab is selected. A 'Save' button is visible at the top left of the configuration area.

Below the 'Save' button, there is a heading: 'Use this page to define the domain-wide Web application configuration settings.'

The configuration is presented as a list of settings, each with a checkbox and a descriptive text block:

- Relogin Enabled:** . Description: Beginning with the 9.0 release the FORM/BASIC authentication behavior has been modified to conform strictly to the J2EE Specification. If a user has logged-in but does not have privileges to access a resource, the 403 (FORBIDDEN) page will be returned. Turn this flag on to enable the old behavior, which was to return the user to the login form. [More Info...](#)
- Allow All Roles:** . Description: In the security-constraints elements defined in a Web application's web.xml deployment descriptor, the auth-constraint element indicates the user roles that should be permitted access to this resource collection. Here role-name = "\*" is a compact syntax for indicating all roles in the Web application. In previous releases, role-name = "\*" was treated as all users/roles defined in the realm. This parameter is a backward-compatibility switch to restore old behavior. Default behavior is one required by the spec, meaning all roles defined in the web application. If set, the value defined in weblogic.xml (container-descriptor -> allow-all-roles) takes precedence (if set) over this value. [More Info...](#)
- Filter Dispatched Requests:** . Description: Indicates whether or not to apply filters to dispatched requests. This is a backward compatibility flag. Until version 8.1, WebLogic Server applied ServletFilters (if configured for the Web application) on request dispatches (and includes/forwards). Servlet 2.4 has introduced the "Dispatcher" element to make this behavior explicit. The default value is Dispatcher=REQUEST. In order to be compliant with the J2EE specification, the default value for FilterDispatchedRequestsEnabled is false beginning with WebLogic Server 9.0. Note that if you are using old descriptors (meaning web.xml does not have version=2.4), then WebLogic Server automatically uses FilterDispatchedRequestsEnabled = true for the Web applications, unless filter-dispatched-requests-enabled is explicitly set to false in weblogic.xml. This means that old applications will work fine without any modification. Additionally, during migration of old domains to the 9.0 domain, the migration plugin automatically sets this flag to true. [More Info...](#)
- Overload Protection Enabled:** . Description: This parameter is used to enable overload protection in the webapp container against low memory conditions. When a low memory situation occurs, new session creation attempts will result in weblogic.servlet.SessionCreationException. The application code needs to catch this exception and take proper action. Alternatively appropriate error-pages can be configured in web.xml against weblogic.servlet.SessionCreationException. This check is performed only on memory and replicated sessions. [More Info...](#)

At the bottom of the configuration area, there are two additional settings:

- X-Powered-By Header:** A dropdown menu currently set to 'Servlet/2.4 JSP/2.0'. Description: WebLogic Server uses the X-Powered-By HTTP header, as recommended by the Servlet 2.4 specification, to publish its implementation information. [More Info...](#)
- Mime Mapping File:** A text input field containing './config/mimemappings.properties'. Description: Returns the name of the file containing mime-mappings for the domain. [More Info...](#)

On the left side of the console, there are several utility panels:

- 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:** A tree view showing the hierarchy: FCDBD > Environment > Deployments > Services > Security Realms > Interoperability > Diagnostics.
- How do I...:** A list of actions: Deploy Web applications, Stop deployed Web applications, Delete Web applications, Update run-time descriptors.
- System Status:** Health of Running Servers. A bar chart showing: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (2).

2. Scroll down and Check *Archived Real Path Enabled* and click *Save*

overridden for specific Web applications by setting the optimistic-serialization value in weblogic.xml. <a href="#">More Info...</a>	
<input type="checkbox"/> <b>Error on Name request time value</b>	Global property which determines the behavior of the JSP compiler when a jsp:param attribute "name" has a request time value. Without this property set to "true", the JSP compiler throws an error for a JSP using a request time value for the "name" attribute as mandated by the JSP 2.0 spec. This property exists for backward compatibility. <a href="#">More Info...</a>
<input type="checkbox"/> <b>Client Cert Proxy Enabled</b>	Specifies whether or not to honor the WL-Proxy-Client-Cert header coming with the request. <a href="#">More Info...</a>
<input type="checkbox"/> <b>Http Trace Support Enabled</b>	Returns the value of HttpTraceSupportEnabled. <a href="#">More Info...</a>
<input type="checkbox"/> <b>WebLogic Plugin Enabled</b>	Specifies whether or not the proprietary WL-Proxy-Client-IP header should be honored. (This is needed only when WebLogic plugins are configured.) <a href="#">More Info...</a>
<input checked="" type="checkbox"/> <b>Auth Cookie Enabled</b>	Whether authcookie feature is enabled or not. <a href="#">More Info...</a>
<input type="checkbox"/> <b>WAP Enabled</b>	Indicates whether the session ID should include JVM information. (Checking this box may be necessary when using URL rewriting with WAP devices that limit the size of the URL to 128 characters, and may also affect the use of replicated sessions in a cluster.) When this box is selected, the default size of the URL will be set at 52 characters, and it will not contain any special characters. <a href="#">More Info...</a>
<b>Post Timeout:</b> <input type="text" value="30"/>	The amount of time this server waits between receiving chunks of data in an HTTP POST data before it times out. (This is used to prevent denial-of-service attacks that attempt to overload the server with POST data.) <a href="#">More Info...</a>
<b>Maximum Post Time:</b> <input type="text" value="-1"/>	Max Post Time (in seconds) for reading HTTP POST data in a servlet request. MaxPostTime < 0 means unlimited. <a href="#">More Info...</a>
<b>Maximum Post Size:</b> <input type="text" value="-1"/>	The maximum post size this server allows for reading HTTP POST data in a servlet request. A value less than 0 indicates an unlimited size. <a href="#">More Info...</a>
<input checked="" type="checkbox"/> <b>Work Context Propagation Enabled</b>	Indicates whether or not WorkContextPropagation is enabled. By default it is turned on. There is a little overhead involved in propagating WorkContexts. Therefore, if you don't care about WorkContext propagation, turn this value off in production environments. <a href="#">More Info...</a>
<b>P3P Header Value:</b> <input type="text"/>	Returns the P3P Header value that will be sent with all responses for http requests (if non-null). The value of this header points to the location of the policy reference file for the Web site. <a href="#">More Info...</a>
<input type="checkbox"/> <b>JSP Compiler Backwards Compatible</b>	Global property to determine the behavior of the JSP compiler. When this property set to "true", the JSP compiler throws a translation error for JSPs that do not conform to the JSP2.0 specification. This property exists for backward compatibility. <a href="#">More Info...</a>
<input checked="" type="checkbox"/> <b>Archived Real Path Enabled</b>	Global property to determine the behavior of getRealPath() for archived web applications. When this property set to "true", getRealPath() will return the canonical path of the resource files. <a href="#">More Info...</a>
<input type="button" value="Save"/>	

WebLogic Server Version: 10.3.2.0  
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## 4.1.6. Creating a Managed Server

1. In the ORACLE Weblogic Server Administration Console, click Environment → Servers

Click “New”

The screenshot displays the Oracle WebLogic Server Administration Console interface. The browser window title is "Summary of Servers - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The URL is "ifmudim13095:7001/console/console.portal?\_nfpb=true&\_pageLabel=CoreServerServerTablePage". The console header shows "ORACLE WebLogic Server Administration Console" and "Welcome, weblogic | Connected to: FCDB62\_DOMAIN".

The main content area is titled "Summary of Servers" and has tabs for "Configuration" and "Control". Below the tabs, there is a description: "A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain."

Below the description is a section titled "Customize this table" and "Servers (Filtered - More Columns Exist)". There are "New", "Clone", and "Delete" buttons. A table shows the following data:

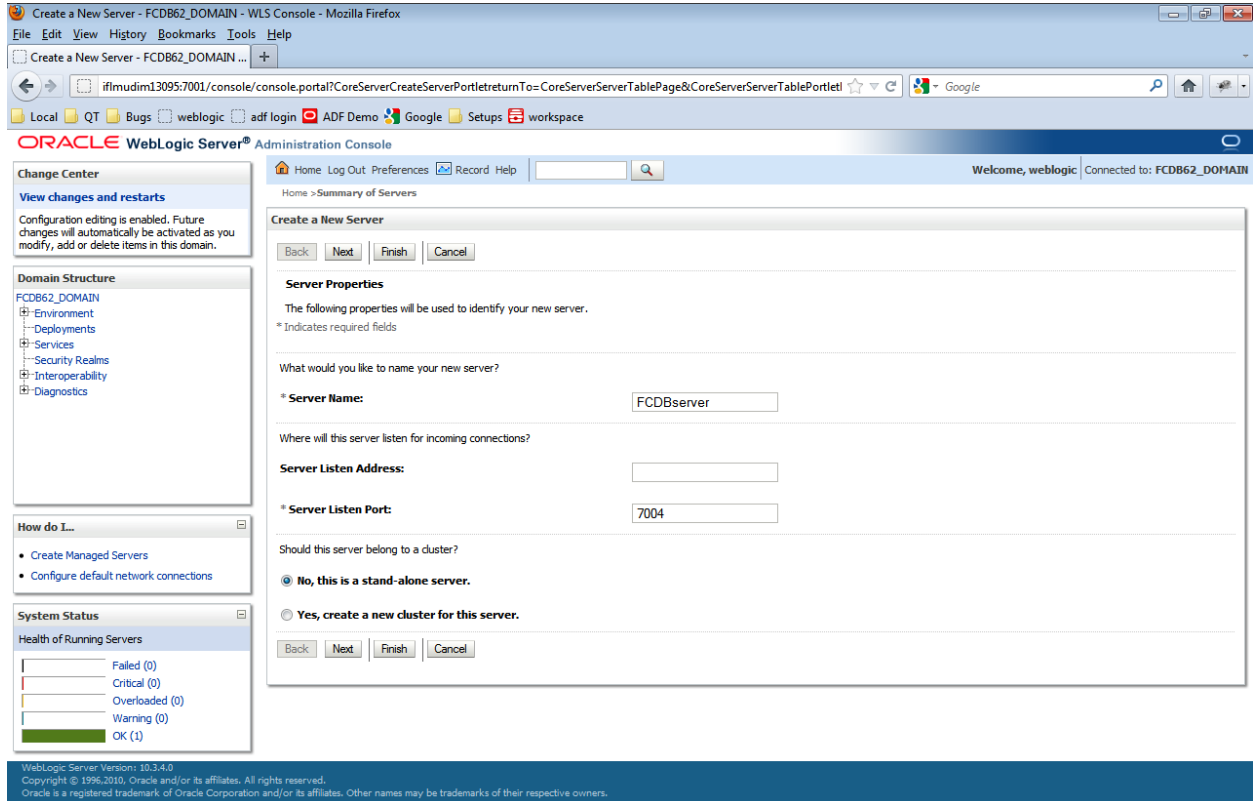
Name	Cluster	Machine	State	Health	Listen Port
AdminServer (admin)			RUNNING	OK	7001

At the bottom of the console, there is a "System Status" section titled "Health of Running Servers" with a bar chart showing: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (1).

At the very bottom, the footer text reads: "WebLogic Server Version: 10.3.4.0. Copyright © 1996-2010, 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."

Enter the “Server Name” as “FCDBServer”, set the Server listen Port to “7002” or any free port that is not in use.

Select the radio button against **No**, this is a stand-alone server and click “Finish”





Server created successfully is displayed and summary of servers is shown.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area displays the 'Summary of Servers' page. At the top, there are navigation links like 'Home', 'Log Out', 'Preferences', 'Record', and 'Help'. Below this, a 'Messages' section shows a green checkmark indicating that all changes have been activated and no restarts are necessary, along with a blue checkmark stating 'Server created successfully.'

The 'Summary of Servers' section includes a 'Configuration' tab and a 'Control' tab. A descriptive text states: 'A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain.'

Below the text is a table titled 'Servers (Filtered - More Columns Exist)'. The table has columns for Name, Cluster, Machine, State, Health, and Listen Port. There are 'New', 'Clone', and 'Delete' buttons above and below the table. The table shows two servers:

Name	Cluster	Machine	State	Health	Listen Port
AdminServer (admin)			RUNNING	OK	7001
FCD8Server			SHUTDOWN		7004

At the bottom left, there is a 'System Status' section showing the 'Health of Running Servers' with a bar chart indicating 0 Failed, 0 Critical, 0 Overloaded, 0 Warning, and 1 OK servers.

The footer of the console displays the version information: 'WebLogic Server Version: 10.3.4.0. Copyright © 1996, 2010, 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.'

## 4.1.7. Configurations to Start/Stop managed server from Administrative Console

### Creating Machine

It is required to create a machine in order to Start/Suspend/Resume/Stop the Managed Servers in Weblogic using Administration Console.

1. Click Environment → Machines

Click “New” button

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area is titled "Summary of Machines" and contains a table with columns "Name" and "Type". The table is currently empty, with the text "There are no items to display" centered below it. Above the table, there are "New", "Clone", and "Delete" buttons. The left sidebar shows the "Domain Structure" tree with "Machines" selected under the "Environment" folder. The top navigation bar includes "Home", "Log Out", "Preferences", "Record", and "Help". The bottom status bar shows "WebLogic Server Version: 10.3.4.0" and copyright information.

Enter the Name as "FCDBMachine" and click "Next"

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main window is titled "Create a New Machine - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The browser address bar shows the URL: `ifmudim13095:7001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineCreateMachine`. The console header includes "ORACLE WebLogic Server® Administration Console" and "Welcome, weblogic | Connected to: FCDB62\_DOMAIN".

The left sidebar contains several panels:

- Change Center:** View changes and restarts. Configuration editing is enabled.
- Domain Structure:** A tree view showing the hierarchy for FCDB62\_DOMAIN, including Environment, Servers, Clusters, Virtual Hosts, Migratable Targets, Coherence Servers, Coherence Clusters, Machines, Work Managers, Startup and Shutdown Classes, Deployments, Services, and Security Realms.
- How do I...:** A list of tasks: Create and configure machines, Assign server instances to machines, and Delete machines.
- System Status:** Health of Running Servers, showing 0 Failed, 0 Critical, 0 Overloaded, 0 Warning, and 1 OK.

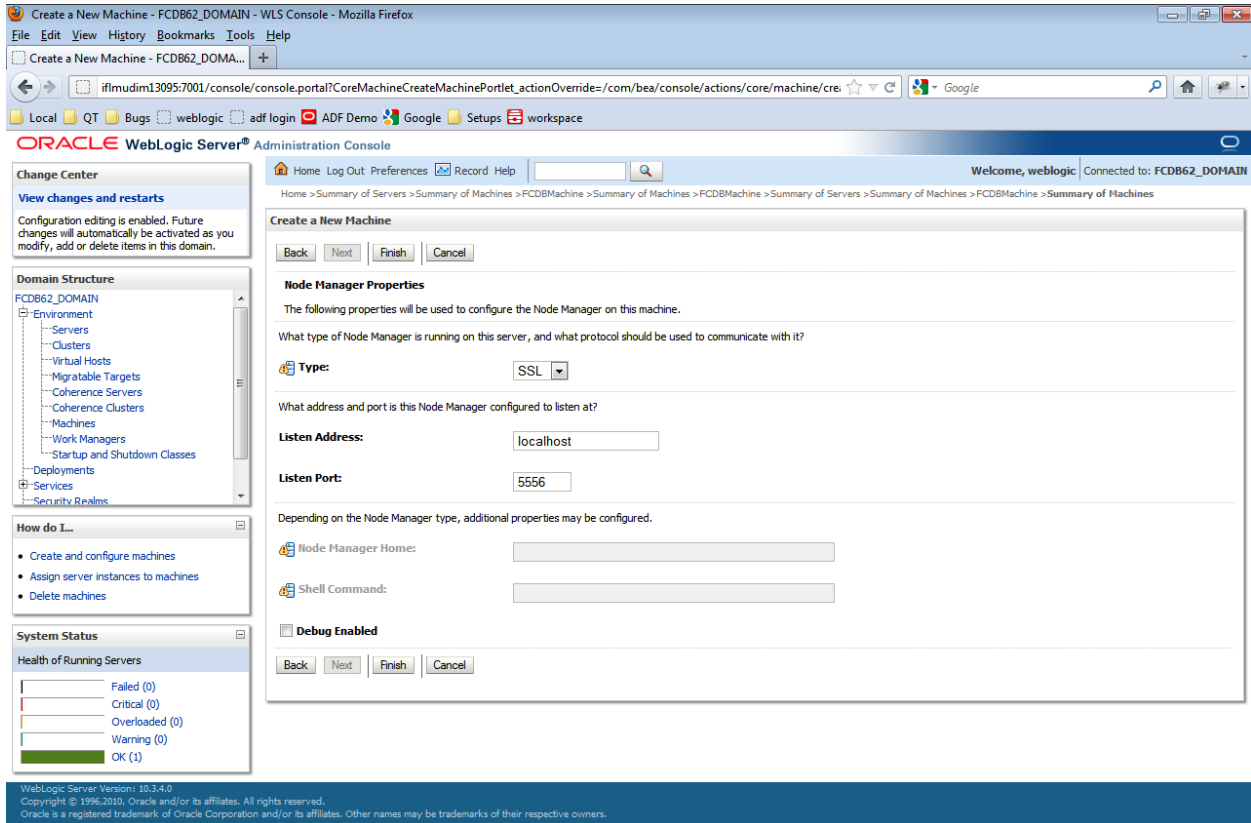
The main content area shows the "Create a New Machine" wizard. The "Machine Identity" section is active, with the following details:

- Machine Identity:** The following properties will be used to identify your new Machine. \* Indicates required fields.
- What would you like to name your new Machine?:** The "Name" field is populated with "FCDBMachine".
- Specify the type of machine operating system:** The "Machine OS" dropdown menu is set to "Other".

Navigation buttons at the top and bottom of the wizard include "Back", "Next", "Finish", and "Cancel". The "Next" button is highlighted, indicating the current step.

At the bottom of the console, the version information is displayed: "WebLogic Server Version: 10.3.4.0. Copyright © 1996-2010. 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."

Select "Type" as "Plain" from the drop down list and click Finish.



Machine created successfully message is displayed.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser address bar indicates the URL: `ifmudim13095:7001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineMachineTablePage`. The console header displays "ORACLE WebLogic Server® Administration Console" and "Welcome, weblogic | Connected to: FCDB62\_DOMAIN".

The main content area features a "Messages" section with a green checkmark and the text: "All changes have been activated. No restarts are necessary." Below this, a blue checkmark indicates "Machine created successfully".

The "Summary of Machines" section contains a table with the following data:

Name	Type
FCDBMachine	Machine

The table includes "New", "Clone", and "Delete" buttons above and below it. The status "Showing 1 to 1 of 1" is displayed on the right.

On the left side, the "Domain Structure" tree shows the hierarchy: FCDB62\_DOMAIN > Environment > Machines. The "System Status" section shows "Health of Running Servers" with a bar chart indicating 1 OK server.

At the bottom, the footer text reads: "WebLogic Server Version: 10.3.4.0. Copyright © 1996-2010, 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 Newly created FCDBMachine.

The screenshot displays the Oracle WebLogic Server Administration Console in a Mozilla Firefox browser. The page title is "Settings for FCDBMachine - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The browser address bar shows the URL: "http://ifmudim13095:7001/console/console.portal?\_nfpb=true&\_pageLabel=CoreMachineMachineConfigGeneralPage&CoreMachineMachineConfig".

The console interface includes a navigation menu on the left with sections like "Change Center", "Domain Structure", "How do I...", and "System Status". The "Domain Structure" section shows a tree view for "FCDB62\_DOMAIN" with sub-items like "Environment", "Servers", "Clusters", etc.

The main content area is titled "Settings for FCDBMachine" and has tabs for "Configuration", "Monitoring", and "Notes". Under the "Configuration" tab, there are sub-tabs for "General", "Node Manager", and "Servers". The "General" sub-tab is active, displaying the text: "This page displays the name of the machine which hosts one or more Managed Servers." Below this, a field labeled "Name:" contains the value "FCDBMachine".

At the bottom of the console, there is a "System Status" section titled "Health of Running Servers" with a progress bar showing the following counts: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (1).

Footer text: "WebLogic Server Version: 10.3.4.0. Copyright © 1996-2010, 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 Servers under the "Configuration tab.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser address bar indicates the URL: `ifimudim13095:7001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineConfigServersPage&handle=com.bea.console.handles.JMXI`. The page title is "Settings for FCDBMachine".

The main content area is titled "Settings for FCDBMachine" and has three tabs: "Configuration", "Monitoring", and "Notes". The "Configuration" tab is active, and within it, the "Servers" sub-tab is selected. The page contains the following elements:

- Change Center:** A section for viewing changes and restarts, noting that configuration editing is enabled.
- Domain Structure:** A tree view on the left showing the hierarchy: FCDB62\_DOMAIN > Environment > Servers.
- How do I...:** A list of tasks: Create and configure machines, Create Managed Servers, Delete machines, and Assign server instances to machines.
- System Status:** A bar chart showing the health of running servers: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (1).
- Servers Table:** A table with columns: Name, Cluster, Machine, State, Health, and Listen Port. The table is currently empty, displaying "There are no items to display".

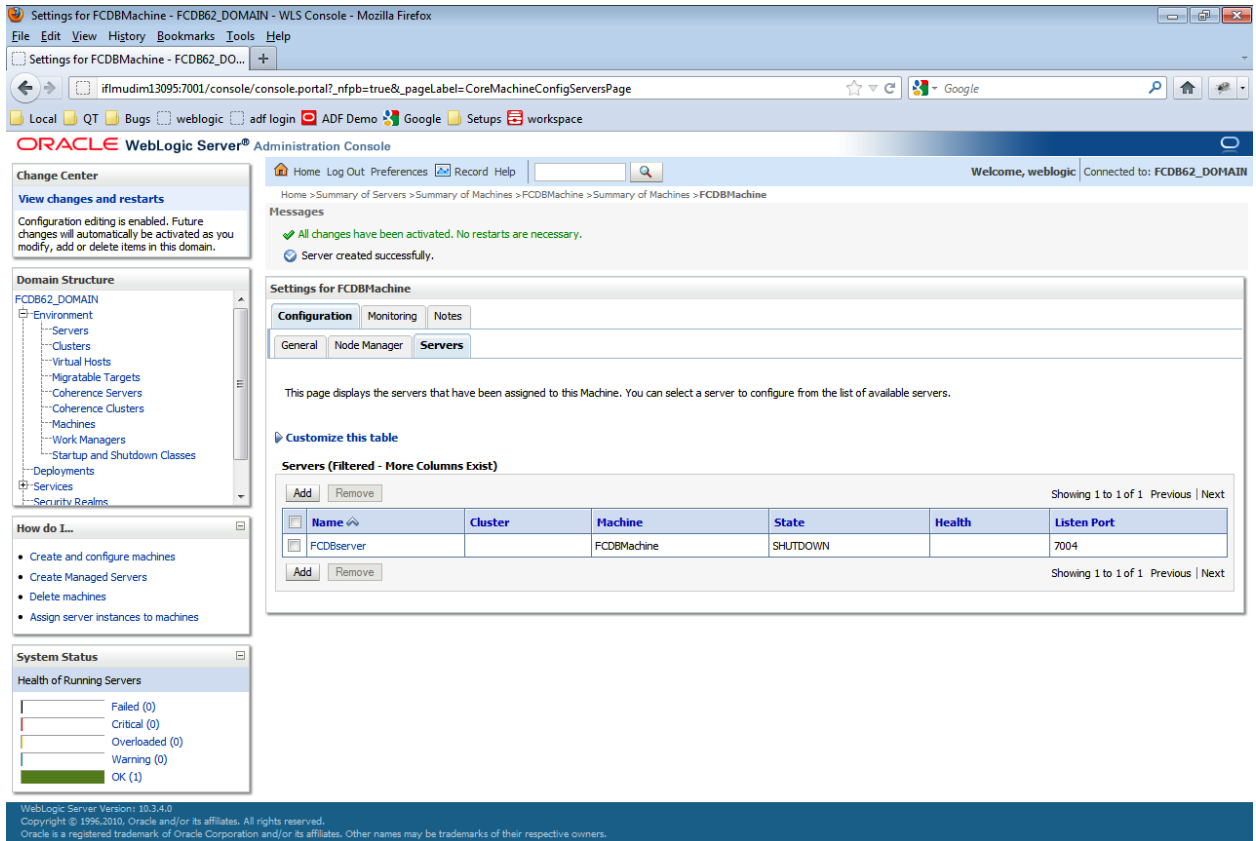
At the bottom of the console, the version information is displayed: "WebLogic Server Version: 10.3.4.0. Copyright © 1996, 2010, Oracle and/or its affiliates. All rights reserved. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners."

Click Add button to add a server to machine

The screenshot shows the Oracle WebLogic Server Administration Console in a Mozilla Firefox browser. The main content area displays the 'Add a Server to Machine' wizard. The wizard has a 'Back' button, a 'Next' button, a 'Finish' button, and a 'Cancel' button. The 'Identify Server' section is active, with the text 'Identify the server to be added' and 'How would you like to proceed?'. There are two radio button options: 'Select an existing server, and associate it with this machine' (which is selected) and 'Create a new server and associate it with this machine'. Below the first option, there is a 'Select a server:' label and a dropdown menu showing 'FCDBServer'. The left sidebar contains several panels: 'Change Center' (View changes and restarts), 'Domain Structure' (FCDB62\_DOMAIN tree), 'How do I...' (No task help found), and 'System Status' (Health of Running Servers: Failed (0), Critical (0), Overloaded (0), Warning (0), OK (1)). The bottom of the console shows the version 'WebLogic Server Version: 10.3.4.0' and copyright information.



Check the radio button against “Select an existing server, and associate it with this machine”.  
 Select FCDBServer from the “Select a Server” drop down and click on “Finish”. Server created successfully message is displayed



## Configuring Managed Server

1. Click on Environment→Server in the left menu.

The screenshot displays the Oracle WebLogic Server Administration Console interface. The browser address bar shows the URL: `iflmdim13095:7001/console/console.portal?_nfpb=true&_pageLabel=CoreServerServerTabPage`. The page title is "Summary of Servers - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox".

The left-hand navigation pane shows the "Domain Structure" for "FCDB62\_DOMAIN". The "Environment" folder is expanded, and "Servers" is selected. Below this, the "System Status" section shows the health of running servers:

- Failed (0)
- Critical (0)
- Overloaded (0)
- Warning (0)
- OK (1)

The main content area is titled "Summary of Servers" and includes a "Configuration" tab. It contains the following text:

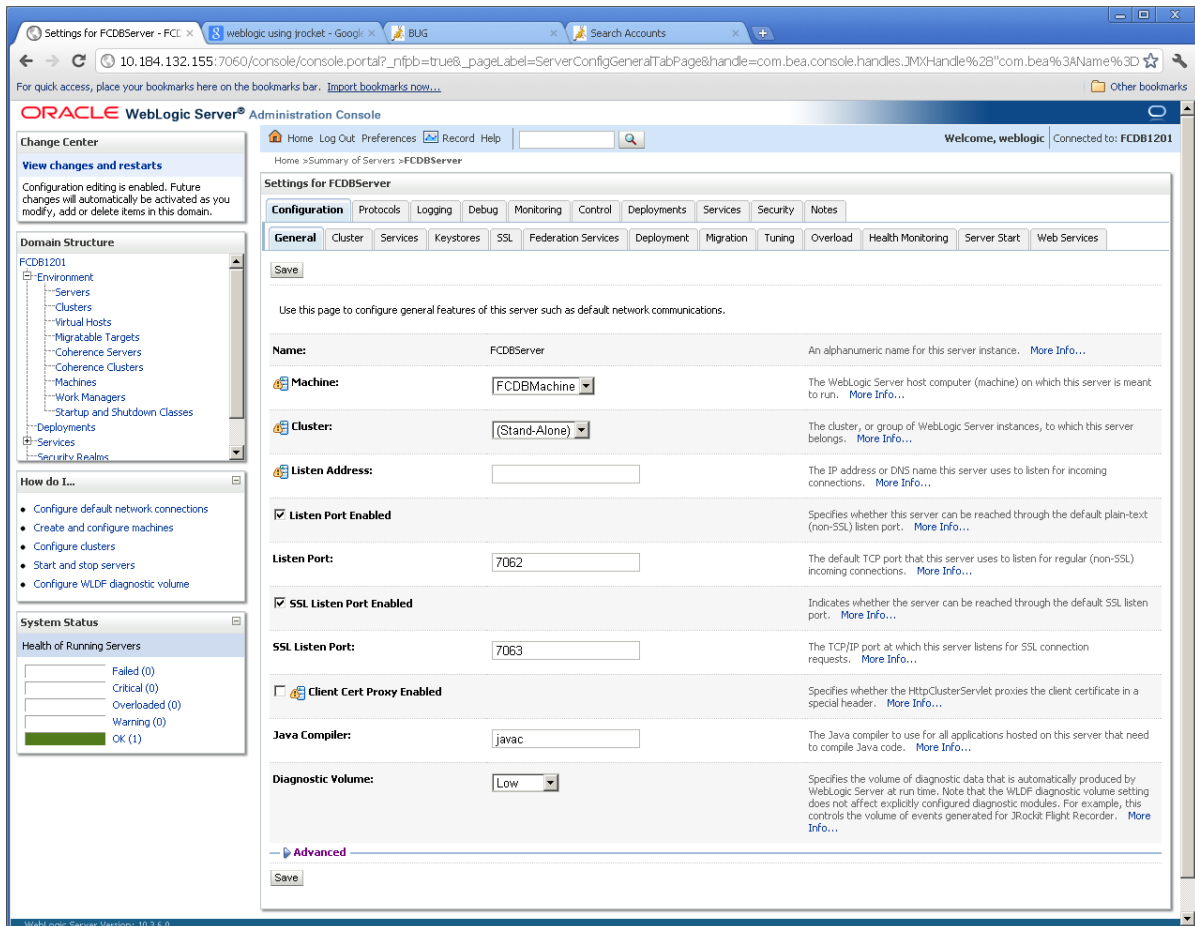
A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain.

Below this text is a "Customize this table" section with a table of servers. The table is titled "Servers (Filtered - More Columns Exist)" and shows two servers:

Name	Cluster	Machine	State	Health	Listen Port
AdminServer (admin)			RUNNING	OK	7001
FCDBServer		FCDBMachine	SHUTDOWN		7004

The footer of the console displays the version information: "WebLogic Server Version: 10.3.4.0. Copyright © 1996, 2010, 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."

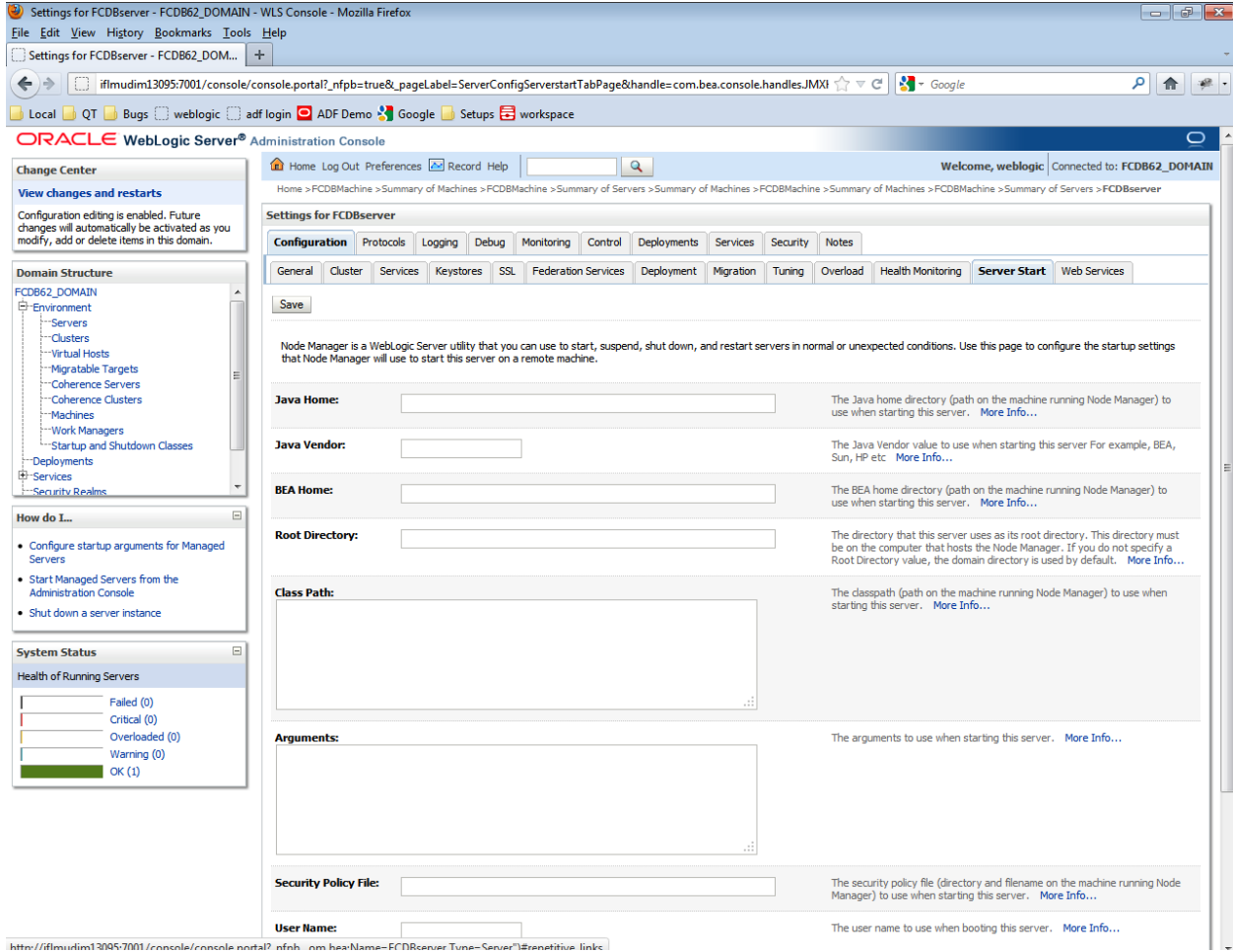
Click on server name with *FCDBServer*



On General tab, please ensure that the 'SSL Listen Port Enabled' feature is enabled (as it is mandatory). And the Listen Address should be "App Server IP"

*Note: If you are using APACHE HTTP server then kindly refer Oracle\_FLEXCUBE\_Direct\_Banking\_Configure\_Apache\_HTTP\_and\_Weblogic manual for more details.*

Click on Server Start under Configuration tab.



Enter the following values and click “Save”

Assuming the <FCDB BASE DIR> as Base Working Directory specify the path for all the jars from the following location.

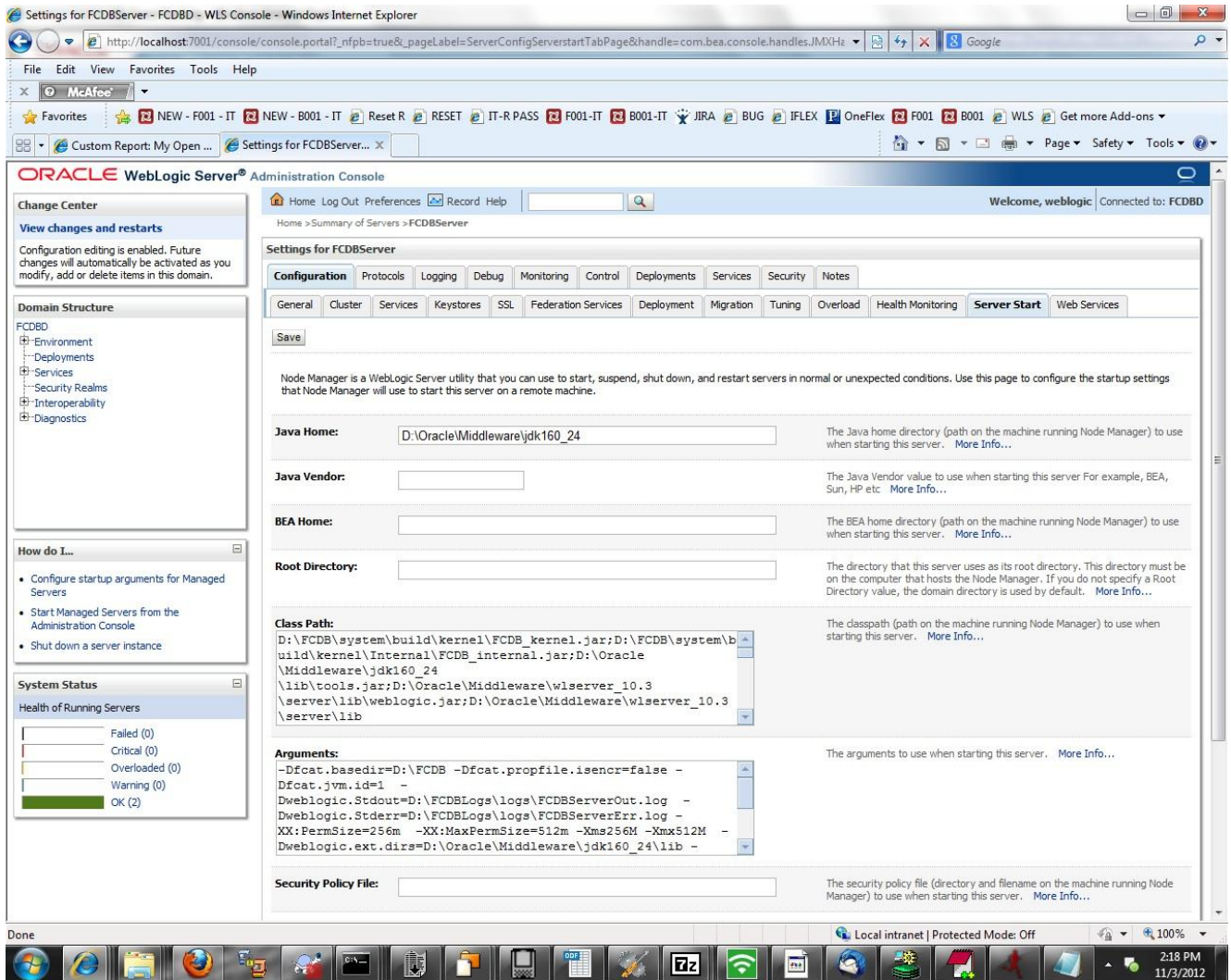
Location	Description
<FCDB BASE DIR>\system\build\kernel	Select the release jar FCDB_kernel.jar kept at this location.
<FCDB BASE DIR>\system\build\extclasses\jars	Select all the external or third-party jars within this folder.

Also mention the path for the home folder and logs.

Example configure the following properties.

Property Name	Value	Description
Java Home	<Oracle Base Folder>\jrockit-jdk1.6.0_22-R28.1.1-4.0.1	The Java home directory
Class Path	<FCDB BASE DIR>\system\build\kernel\FCDB_kernel.jar;<Oracle Base Folder>\jdk150_11\lib\tools.jar;<Oracle Base Folder>\wlserver_10.0\server\lib\weblogic.jar;<Oracle Base Folder>\wlserver_10.0\server\lib\webservices.jar;<FCDB BASE DIR>\system\build\extclasses\jars\<Include all jars residing in this path>%classpath%;	Set the Classpath, in case of windows environment use (;) as separator and in case of Unix use (:).  There Shouldn't be any space between variables.
Arguments (When JRockit is used)	-Dfcat.basedir=<BASE FOLDER> -Dfcat.propfile.isencr=false -Dfcat.jvm.id=1 -Dweblogic.Stdout=<FCAT.LOGFILE.PATH>\logs\FCDBServerOut.log - Dweblogic.Stderr=<FCAT.LOGFILE.PATH>\logs\FCDBServerErr.log -Xms1024M -Xmx1536M - Dweblogic.ext.dirs= < Oracle Base Folder>\jdk150_11\ lib - Dweblogic.security.SSL.ignoreHostnameVerification=true -Dweblogic.security.TrustKeyStore=DemoTrust -Dweblogic.security.SSL.enforceConstraints=off - Xmanagement:ssl=false,authenticate=false,port=7091	Path to all folders holding application relevant jar files , location of class files generated, logs and home folder which will be used when starting the server.  Note: Property "fcat.propfile.isencr" indicates the properties file's encryption status. Set as 'true' if files are encrypted, else set as 'false'. Refer to point 8 in this document for more details.
Arguments (When SUN JDK is used)	-Dfcat.basedir=<BASE FOLDER> -Dfcat.propfile.isencr=false -Dfcat.jvm.id=1 -Dweblogic.Stdout=<FCAT.LOGFILE.PATH>\logs\FCDBServerOut.log - Dweblogic.Stderr=<FCAT.LOGFILE.PATH>\logs\FCDBServerErr.log -XX:PermSize=512m -Xms1024M -Xmx1536M - Dweblogic.ext.dirs= < Oracle Base Folder>\jdk150_11\ lib	

	- Dweblogic.security.SSL.ignoreHostnameVerification=true -Dweblogic.security.TrustKeyStore=DemoTrust -Dweblogic.security.SSL.enforceConstraints=off -	
Note:-	Username and Password should be blank.	



Please Note that kernel.jar should precede all the external jars

### Configuring the Node Manager in Windows using command prompt

1. Open the file "WL\_HOME\common\nodemanager\nodemanager.properties"  
e.g. D:\Oracle\wlserver\_10.0\common\nodemanager\nodemanager.properties  
Change the value of the property "SecureListener" to "false" in the file.

Execute the file installNodeMgrSvc in WL\_Home\server\bin

Verify the configuration by following these steps

- a. Find the service with the name “Oracle Products NodeManager through services.msc.
- b. Make sure that the “Startup Type” is “Automatic”
- c. Click on the Start link to start the service.

### *Configuration to Start/Stop Servers as a windows Service.*

#### **Admin Server**

1. Copy the installAdminServerSvc.cmd file from the list of files provided in the following location.  
< Oracle Base Folder>user\_projects\domains\DOMAIN\_NAME

Execute the following command at the command prompt under the directory where the installAdminServerSvc.cmd file has been copied to.

```
installAdminServerSvc <username> <password>
```

#### **FCDBServer**

Copy the installFCDBServerSvc.cmd to the following location.

< Oracle Base Folder>user\_projects\domains\DOMAIN\_NAME

Execute the following command at the command prompt under the directory where the installFCDBServerSvc.cmd file has been copied to.

```
installFCDBServerSvc <username> <password>
```

Property	Description
DOMAIN_NAME	Name of the domain as specified in domain creation.
username	The user name specified at domain creation.
password	The password specified at domain creation.

Check the path in My Computer→Environment Variables→Path (Variable). It must not contain any spaces. This can be verified by giving the command at the command prompt

```
echo %PATH%
```

### *Starting Admin Server and Managed Server using command prompt*

1. In a command prompt, set up the required environment variables by running the following script:

WL\_HOME\server\bin\setWLSEnv.cmd (on Windows)

WL\_HOME/server/bin/setWLSEnv.sh (on UNIX)

where WL\_HOME is the home directory for WebLogic.

In the command prompt, change to the root of the domain directory, usually

<ORACLE\_HOME>user\_projects\domains\<DOMAIN\_NAME>

To start an Administration Server, enter the following command:

```
java weblogic.Server
```

You can start a Managed Server as follows:

```
java -Dweblogic.Name=<managed-server-name>
```

```
Dweblogic.management.server=<url-for-Administration-Server> weblogic.Server
```

For example, if you create a Managed Server named FCDBSerevr in the fcdb\_domain, you can enter the following command:

```
java -Dweblogic.Name= FCDBServer
```

```
Dweblogic.management.server=localhost:7001 weblogic.Server
```



### Starting the Node Manager through Windows

Start the Node Manager from the Program Files→< ORACLE Folder>→Tools→Node Manager.

### Starting Managed Server using Administrative Console

1. Click on “Environment→ Servers.”

Click on the server that is to be started.

Note: Only those servers which have been assigned a machine can be controlled through Administration console

Click on “Control” tab.

Select the checkbox against the server name and click on the “Start” button.

Click “Yes” in the confirmation screen.

## 4.2. Deploying Applications

### Web Application Deployment

Following section explains deploying Web application on Weblogic. For details and different options of deployment refer to documentations provided by ORACLE Weblogic .

These steps should be carried out for each FCDB web application mentioned below.

Deployable	Suggested Context	Path Location	Description
F001.war	F001	<FCDB BASE DIR>\deploy	Application for Super entity F001
B001.war	B001	< FCDB BASE DIR>\deploy	Application for Bank entity B001. This is available only for Base release.
T001.war	T001	< FCDB BASE DIR>\deploy	Application for Model Third Party Bank entity T001. This is applicable only for Third party Accelerator Pack release.
V001.war	V001	< FCDB BASE DIR>\deploy	Application for Model Virtual Bank entity V001. This is applicable only for Virtual Bank Accelerator Pack release.
SMS.war	SMS	< FCDB BASE DIR>\deploy	Required for SMS Banking.
help.war	B001	< FCDB BASE DIR>\deploy	Required for help

1. Click "Deployments" in the left menu.

The screenshot shows the Oracle WebLogic Administration Console interface. The browser address bar displays the URL: `#fmdim13095:7001/console/console.portal?_nfpb=true&_pageLabel=AppDeploymentsControlPage`. The page title is "Summary of Deployments - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox".

The main content area is titled "Summary of Deployments" and includes a "Control" tab. Below the tab, there is a text block explaining that the page displays a list of Java EE applications and stand-alone application modules installed to the domain. It also provides instructions on how to start, stop, update, or delete applications.

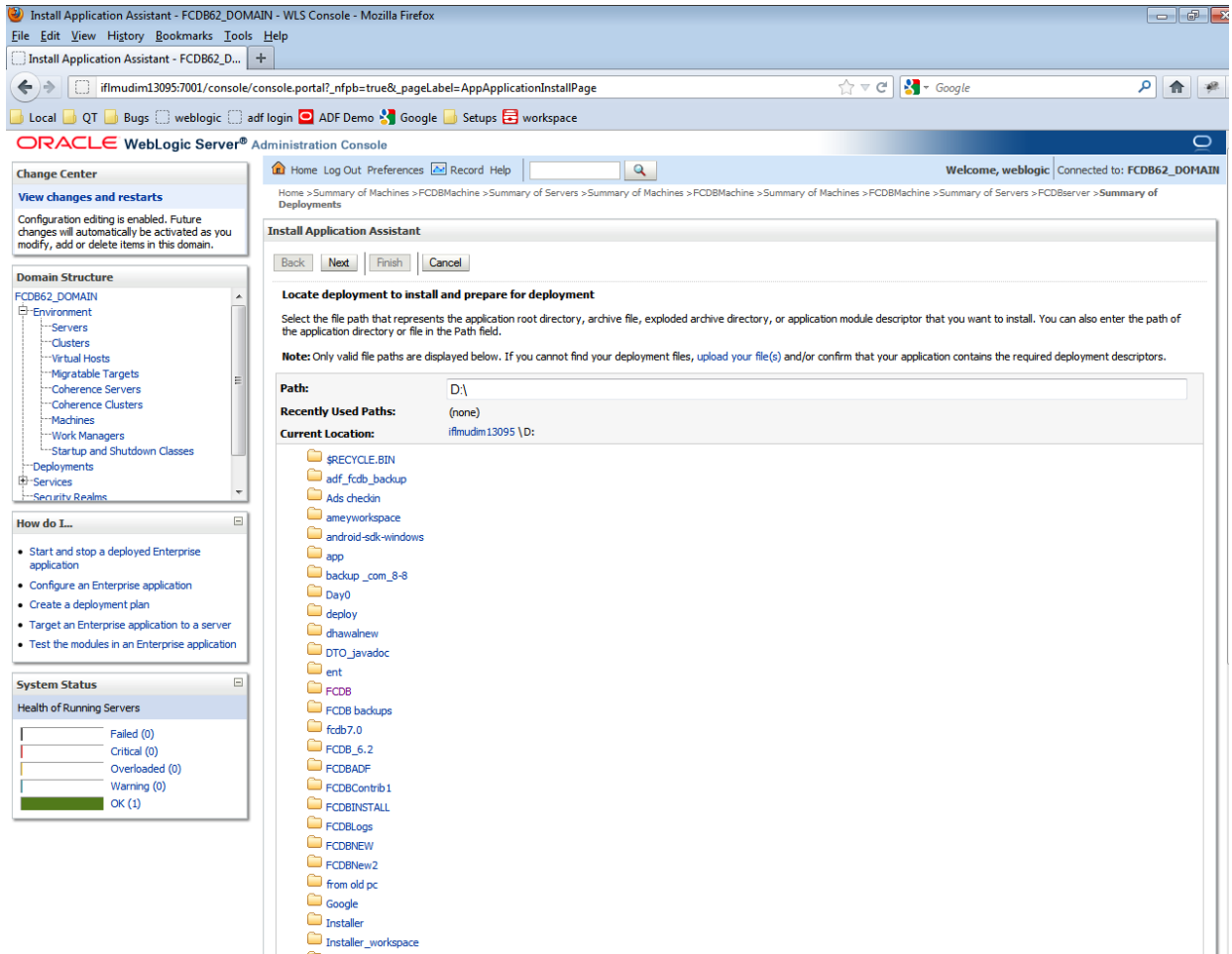
Below the text, there is a section titled "Customize this table" and "Deployments". This section contains a table with columns for "Name", "State", "Health", "Type", and "Deployment Order". The table is currently empty, displaying "There are no items to display". Above and below the table are control buttons: "Install", "Update", "Delete", "Start", and "Stop".

On the left side of the console, there is a "Domain Structure" tree view showing the hierarchy: Environment > Servers > Clusters > Virtual Hosts > Migratable Targets > Coherence Servers > Coherence Clusters > Machines > Work Managers > Startup and Shutdown Classes > Deployments. The "Deployments" node is selected.

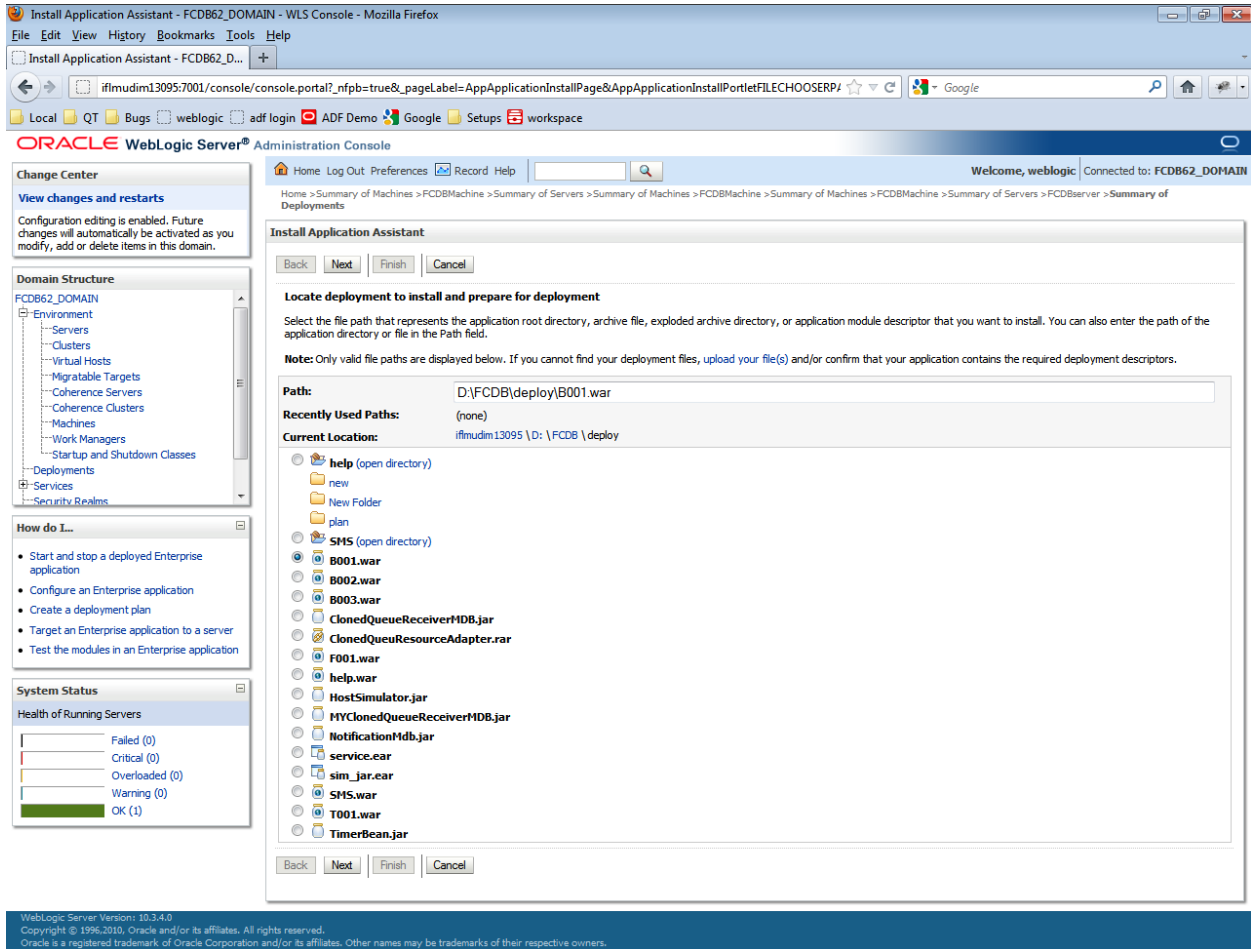
At the bottom of the console, there is a "System Status" section titled "Health of Running Servers". It shows a bar chart with the following status counts: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (1).

The footer of the console displays the version information: "WebLogic Server Version: 10.3.4.0. Copyright © 1996-2010, 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."

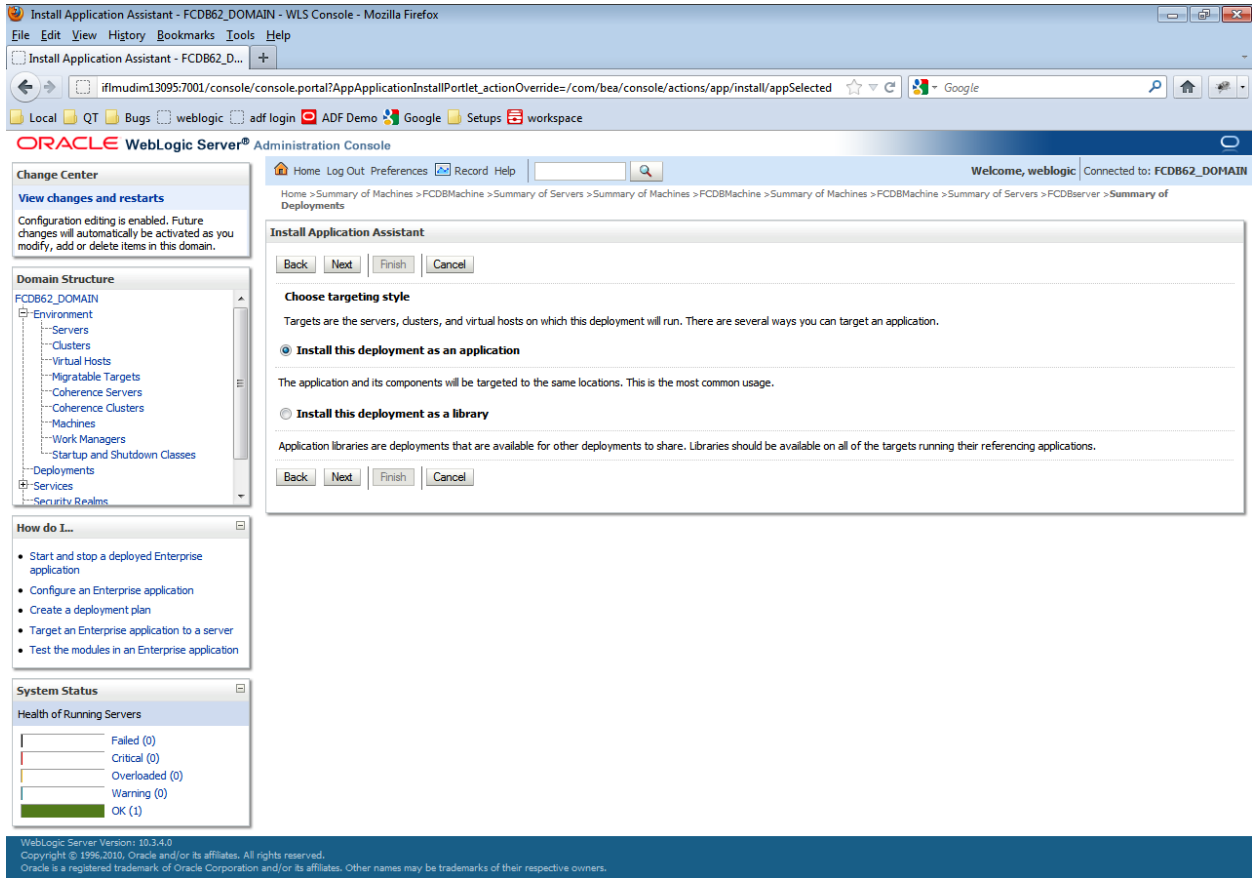
Click "Install" button.



Navigate to the location where the war is stored on the machine and select the radio button against the deployable .war file. Click “Next”



Check the radio button against “Install this deployment as an application” and click Next.



Select the server FCDBserver to be mapped and click on Next

The screenshot displays the Oracle WebLogic Administration Console interface. The main window is titled "Install Application Assistant" and shows the "Select deployment targets" step. The "Available targets for B001" section contains a table with two rows: "AdminServer" (unchecked) and "FCDBserver" (checked). The "Domain Structure" tree on the left shows the hierarchy for "FCDB62\_DOMAIN", including "Environment", "Servers", "Clusters", "Virtual Hosts", "Migratable Targets", "Coherence Servers", "Coherence Clusters", "Machines", "Work Managers", "Startup and Shutdown Classes", "Deployments", "Services", and "Security Realms". The "System Status" section at the bottom left shows the health of running servers: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (1). The footer of the console displays the version "WebLogic Server Version: 10.3.4.0" and copyright information.

Click Finish.

The screenshot shows the 'Install Application Assistant' wizard in a Mozilla Firefox browser window. The browser address bar shows the URL: `ifmudim13095:7001/console/console.portal?AppApplicationInstallPortlet_actionOverride=/com/BEA/console/actions/app/install/applicationTa`. The page title is 'Welcome, weblogic' and it indicates the user is connected to 'FCDB62\_DOMAI

The main content area is titled 'Install Application Assistant' and contains several sections:

- Optional Settings**: A section where you can modify settings or accept defaults. It includes:
  - General**: A question 'What do you want to name this deployment?' with a text input field containing 'B001'.
  - Security**: A question 'What security model do you want to use with this application?' with three radio button options:
    - DD Only: Use only roles and policies that are defined in the deployment descriptors.**
    - Custom Roles: Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.**
    - Custom Roles and Policies: Use only roles and policies that are defined in the Administration Console.**
  - Advanced**: A radio button option:  **Advanced: Use a custom model that you have configured on the realm's configuration page.**
  - Source accessibility**: A question 'How should the source files be made accessible?' with two radio button options:
    - Use the defaults defined by the deployment's targets**
    - Copy this application onto every target for me**
- Location**: A text input field containing 'D:\FCDB\deploy\B001.war'. Below it is a note: 'Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.'

At the bottom of the wizard, there are navigation buttons: 'Back', 'Next', 'Finish', and 'Cancel'. The 'Finish' button is highlighted, indicating it is the next step.

The left sidebar contains several panels:

- Change Center**: A section for viewing changes and restarts.
- Domain Structure**: A tree view showing the domain hierarchy for 'FCDB62\_DOMAI', including Environment, Servers, Clusters, Virtual Hosts, Migratable Targets, Coherence Servers, Coherence Clusters, Machines, Work Managers, Startup and Shutdown Classes, Deployments, Services, and Security Realms.
- How do I...**: A list of links for various tasks, such as 'Start and stop a deployed Enterprise application', 'Configure an Enterprise application', 'Create a deployment plan', 'Target an Enterprise application to a server', and 'Test the modules in an Enterprise application'.
- System Status**: A section for monitoring the health of running servers, showing a bar chart with categories: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (1).

At the bottom of the browser window, the footer text reads: 'WebLogic Server Version: 10.3.4.0 Copyright © 1996-2010, Oracle and/or its affiliates. All rights reserved.'

Confirmation Page is displayed

Summary of Deployments - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox

Summary of Deployments - FCDB62\_DOMAIN

ifilmudim13095:7001/console/console.portal?\_nfpb=true&\_pageLabel=AppDeploymentsControlPage

Oracle WebLogic Server Administration Console

Welcome, weblogic | Connected to: FCDB62\_DOMAIN

Home Log Out Preferences Record Help

Messages

- All changes have been activated. No restarts are necessary.
- The deployment has been successfully installed.

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	Deployment Order
B001	New		Web Application	100

Showing 1 to 1 of 1 Previous | Next

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 (1)

WebLogic Server Version: 10.3.4.0  
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Deploy all the deployable mentioned in the [Appendix](#) depending upon the invocation mode set.



## 4.2.1. Starting Application

1. Click “Deployments” in the left menu  
Select the applications that are to be started.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser address bar indicates the URL: `ifilmudim13095:7001/console/console.portal?_nfpb=true&_pageLabel=AppDeploymentsControlPage`. The page title is "Summary of Deployments - FCDB62\_DOMAIN".

The left sidebar contains several panels:

- Change Center:** View changes and restarts. Configuration editing is enabled.
- Domain Structure:** A tree view showing the hierarchy: FCDB62\_DOMAIN > Environment > Servers > Clusters > Virtual Hosts > Migratable Targets > Coherence Servers > Coherence Clusters > Machines > Work Managers > Startup and Shutdown Classes.
- Deployments:** Services > Security Realms.
- How do I...:** A list of tasks such as "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", and "Install a Web application".
- System Status:** Health of Running Servers. A bar chart shows: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (1).

The main content area is titled "Summary of Deployments" and has tabs for "Control" and "Monitoring". It contains the following text:

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.

Below this text is a "Customize this table" section and a table of deployments:

Name	State	Health	Type	Deployment Order
B001	New		Web Application	100

At the bottom of the console, the version information is displayed: "WebLogic Server Version: 10.3.4.0. Copyright © 1996-2010, 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 "Servicing all requests" in the drop down list under "Start" tab

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Summary of Deployments" and contains a table of installed applications. The "Start" dropdown menu is open, showing "Servicing all requests" as the selected option. The table below shows the details of the deployment.

Name	State	Health	Type	Deployment Order
B001	New		Web Application	100

WebLogic Server Version: 10.3.4.0  
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## Confirmation screen displayed

The screenshot shows the Oracle WebLogic Server Administration Console. The main content area is titled "Summary of Deployments" and includes a "Control" tab. Below the tab, there is a message: "Start requests have been sent to the selected Deployments." The page also contains a table of deployments with the following data:

Name	State	Health	Type	Deployment Order
B001	New		Web Application	100

On the left side, there is a "Domain Structure" tree showing the hierarchy for FCDB62\_DOMAIN, including Environment, Servers, Clusters, Virtual Hosts, Migratable Targets, Coherence Servers, Coherence Clusters, Machines, Work Managers, Startup and Shutdown Classes, Deployments, Services, and Security Realms. Below this is a "How do I..." section with a list of tasks such as "Install an Enterprise application" and "Configure an Enterprise application". At the bottom left, the "System Status" section shows the health of running servers, with a green bar indicating "OK (1)".

## 5.Setup JDBC data source and Connection Pooling

### **XA Enabled Data Source:**

The XA-aware data source implementation allows connections to participate in distributed transactions. If an application needs to participate in a two-phase commit like in case of Bulk which will interact across the MQ and the DB for example, this type of data source must be used.

Following are the steps to configure the XA data source.

1. Go to the “Services→Data Sources”.
2. Click New to create a new JDBC Data Source

The screenshot displays the Oracle WebLogic Server Administration Console interface. The browser window title is "Summary of JDBC Data Sources - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The URL is "ifimudim13095:7001/console/console.portal?\_nfpb=true&\_pageLabel=GlobalJDBCDataSourceTablePage". The page content includes a navigation breadcrumb: "Home > FCDBMachine > Summary of Servers > Summary of Machines > FCDBMachine > Summary of Servers > FCDBServer > Summary of Deployments > Summary of JDBC Data Sources". The main heading is "Summary of JDBC Data Sources" with tabs for "Configuration" and "Monitoring". A descriptive paragraph states: "A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections. Applications can look up a data source on the JNDI tree and then borrow a database connection from a data source. This page summarizes the JDBC data source objects that have been created in this domain." Below this is a "Customize this table" section with a table titled "Data Sources (Filtered - More Columns Exist)". The table has columns for Name, Type, JNDI Name, and Targets, but it is currently empty with the message "There are no items to display". On the left side, there are several panels: "Change Center" with a "View changes and restarts" link; "Domain Structure" showing a tree view with "Data Sources" selected; "How do I..." with links to create or delete data sources; and "System Status" showing "Health of Running Servers" with a bar chart indicating 1 OK server.

### 3. Select the option "Generic Data Source".

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser address bar displays the URL: `10.184.132.155:7060/console/console.portal?_nfpb=true&_pageLabel=GlobalJDBCDataSourceTablePage`. The page title is "Summary of JDBC Data Sources".

The left sidebar contains several panels:

- Change Center:** View changes and restarts. Configuration editing is enabled.
- Domain Structure:** A tree view showing the domain hierarchy, including Messaging, JMS Servers, Path Services, Bridges, Data Sources, and JCOM.
- How do I...:** A list of links for creating and deleting various data sources.
- System Status:** Health of Running Servers, showing 1 OK, 0 Failed, 0 Critical, 0 Overloaded, and 0 Warning.

The main content area is titled "Summary of JDBC Data Sources" and includes a "Configuration" tab. It contains a table of Data Sources:

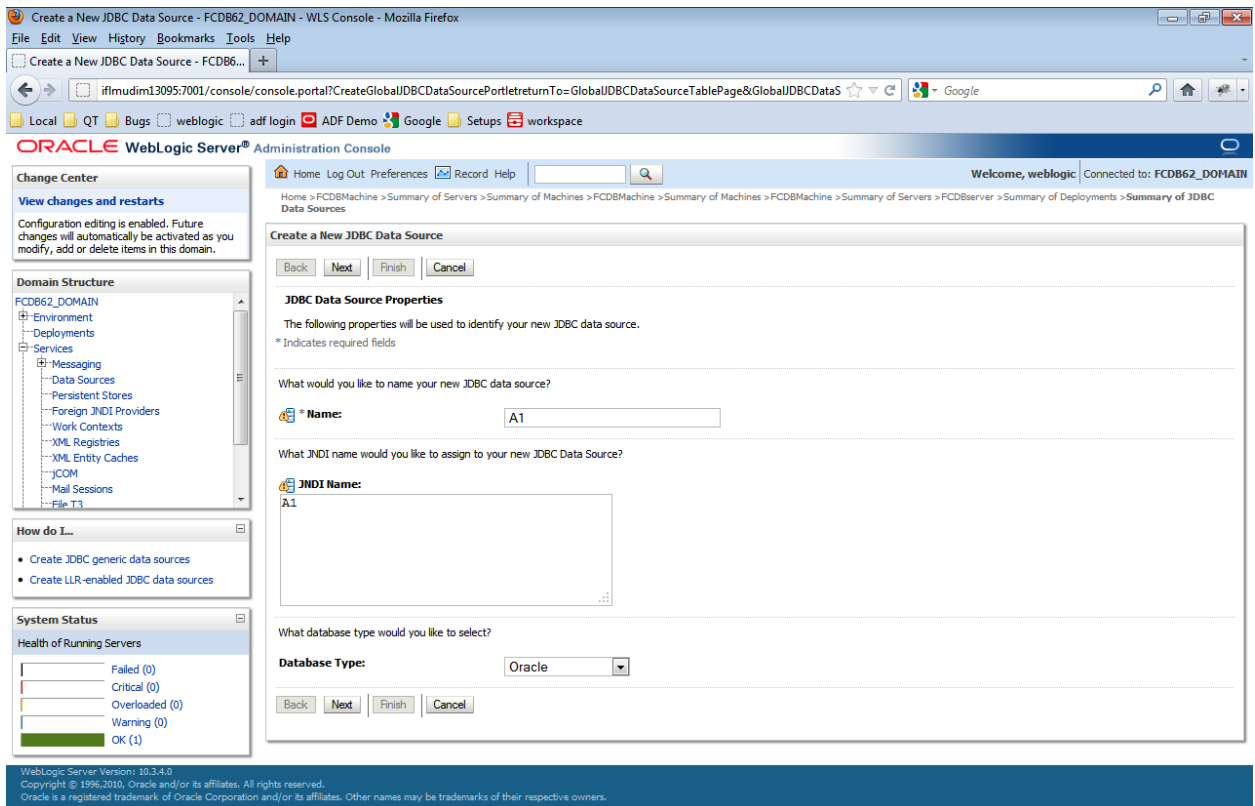
Type	JNDI Name	Targets
Generic Data Source		
GridLink Data Source		
Multi Data Source		

The table shows 0 items displayed. The "Generic Data Source" row is highlighted, indicating it is the selected option.

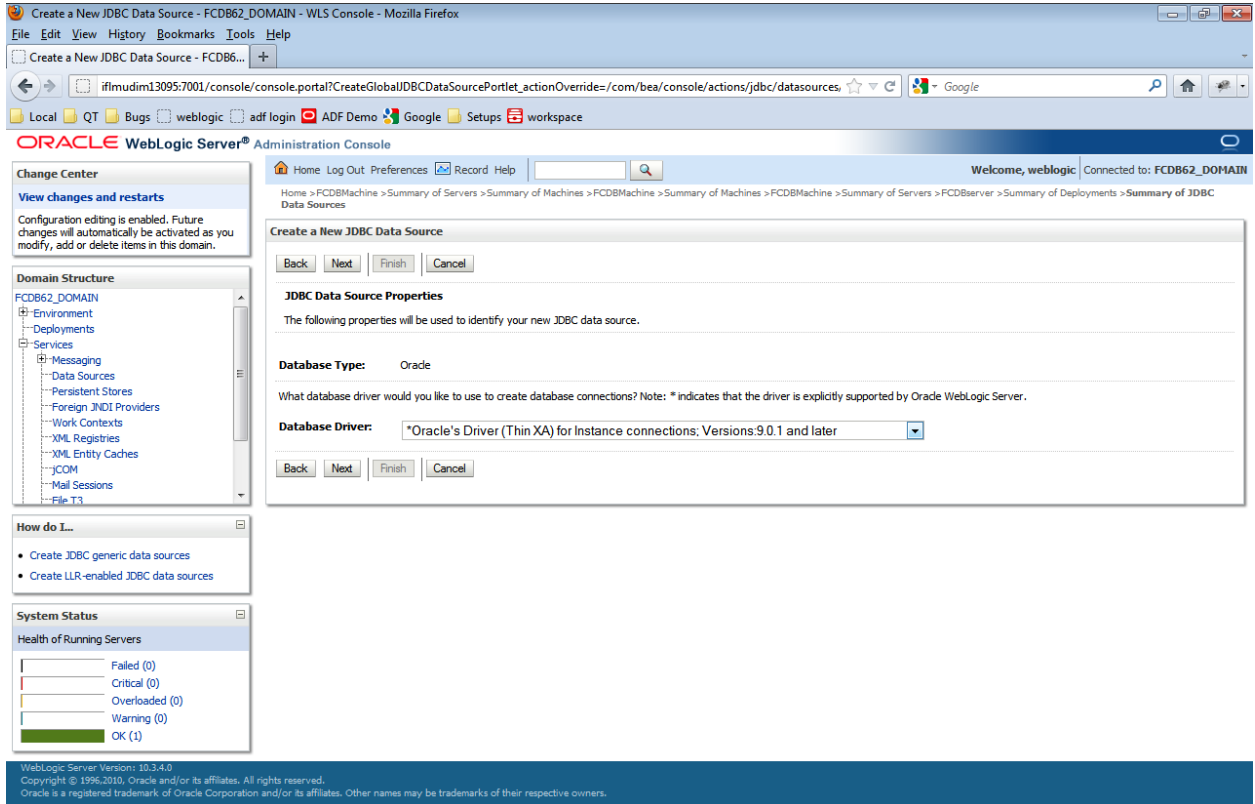
At the bottom of the page, the footer text reads: "WebLogic Server Version: 10.3.6.0. Copyright © 1996, 2011, Oracle and/or its affiliates. All rights reserved. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners."

Configure the following properties for Data Source creation and click “Next”.

Property	Value
Data Source Name	<FCDB data source name>
JNDI Name	A1
Database Type	Oracle

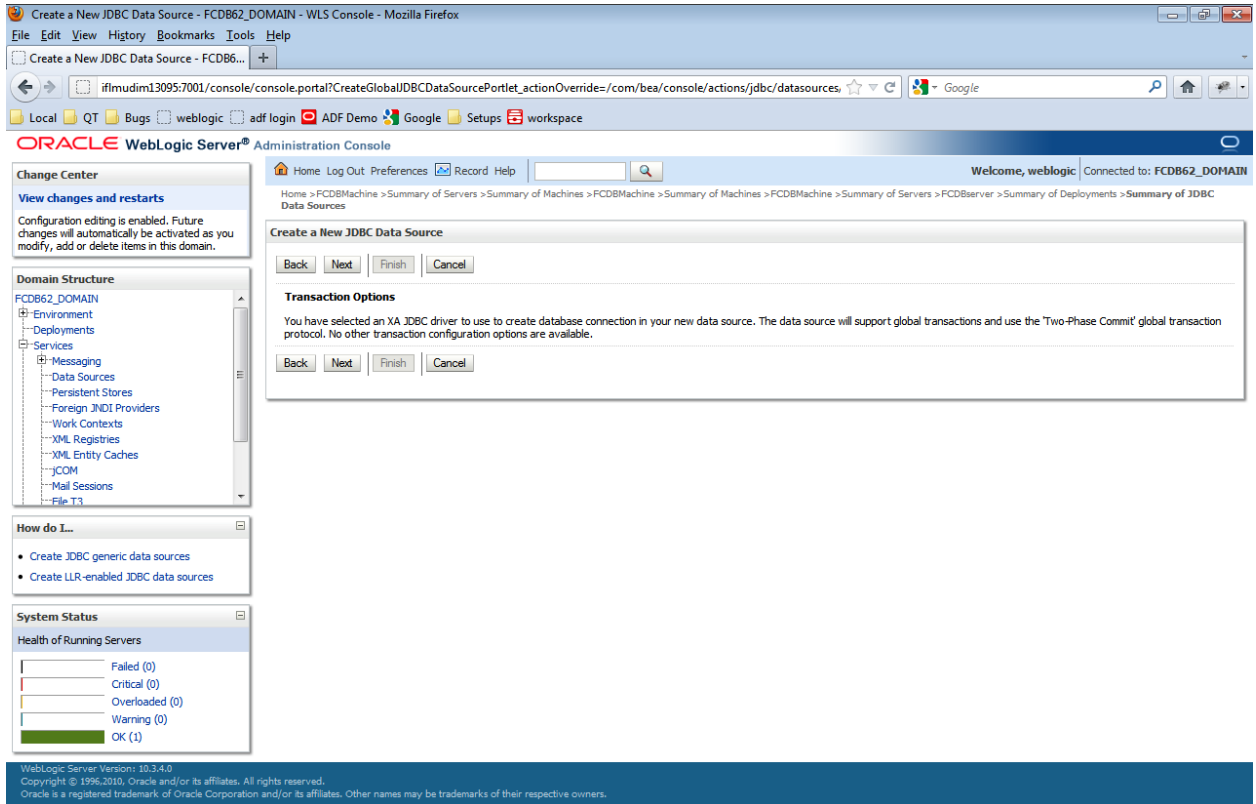


Select Database Driver as Oracle's Driver (Thin XA) Versions: 9.0.1 and later and click Next.





Click Next.



Click “Next” button.

Give the following database details to which you need to connect. For e.g :

Property	Description
Database Name	Name of the database to be connected to
Host Name	ip address or hostname
Port	Port number of the database
Database User Name	Username used to connect to the database.
Password	Password used to connect to the database.
Confirm Password	Same password used to connect to the database.

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main window is titled "Create a New JDBC Data Source - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The browser address bar shows the URL: `ifmudim13095:7001/console/console.portal?CreateGlobalJDBCDataSourcePortlet_actionOverride=/com/bean/console/actions/jdbc/datasources`. The console header includes "ORACLE WebLogic Server Administration Console" and "Welcome, weblogic | Connected to: FCDB62\_DOMAIN".

The "Create a New JDBC Data Source" wizard is active, showing the "Connection Properties" step. The wizard includes a navigation bar with "Back", "Next", "Finish", and "Cancel" buttons. The "Connection Properties" section contains the following fields and prompts:

- Database Name:** A text input field for the name of the database to connect to.
- Host Name:** A text input field for the name or IP address of the database server.
- Port:** A text input field containing the value "1521".
- Database User Name:** A text input field for the database account user name.
- Password:** A text input field for the database account password.
- Confirm Password:** A text input field for the password confirmation.

The left sidebar contains several panels: "Change Center" (View changes and restarts), "Domain Structure" (FCDB62\_DOMAIN tree), "How do I..." (Create JDBC generic data sources, Create LLR-enabled JDBC data sources), and "System Status" (Health of Running Servers: Failed (0), Critical (0), Overloaded (0), Warning (0), OK (1)).

At the bottom of the console, the version information is displayed: "WebLogic Server Version: 10.3.4.0. Copyright © 1996-2010, 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 "Next" button.

The screenshot shows the Oracle WebLogic Server Administration Console in a Mozilla Firefox browser window. The page title is "Create a New JDBC Data Source - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The browser address bar shows the URL: `ifmudim13095:7001/console/console.portal?CreateGlobalJDBCDataSourcePortlet_actionOverride=/com/bean/console/actions/jdbc/datasources`. The console header includes "ORACLE WebLogic Server Administration Console" and "Welcome, weblogic | Connected to: FCDB62\_DOMAIN".

The main content area is titled "Create a New JDBC Data Source" and contains a wizard with the following fields:

- Database Name:** FCDB
- Host Name:** 10.180.47.236
- Port:** 1521
- Database User Name:** FCDBAPPQT62R2
- Password:** (masked with dots)
- Confirm Password:** (masked with dots)

The navigation bar at the top of the wizard includes buttons for "Back", "Next", "Finish", and "Cancel". The "Next" button is highlighted in blue, indicating it is the current step. On the left side of the console, there are several panels: "Change Center" (View changes and restarts), "Domain Structure" (FCDB62\_DOMAIN > Environment > Deployments > Services > Data Sources), "How do I..." (Create JDBC generic data sources, Create LLR-enabled JDBC data sources), and "System Status" (Health of Running Servers: Failed (0), Critical (0), Overloaded (0), Warning (0), OK (1)).

At the bottom of the console, the footer text reads: "WebLogic Server Version: 10.3.4.0. Copyright © 1996-2010, 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 "Test Configuration" below.

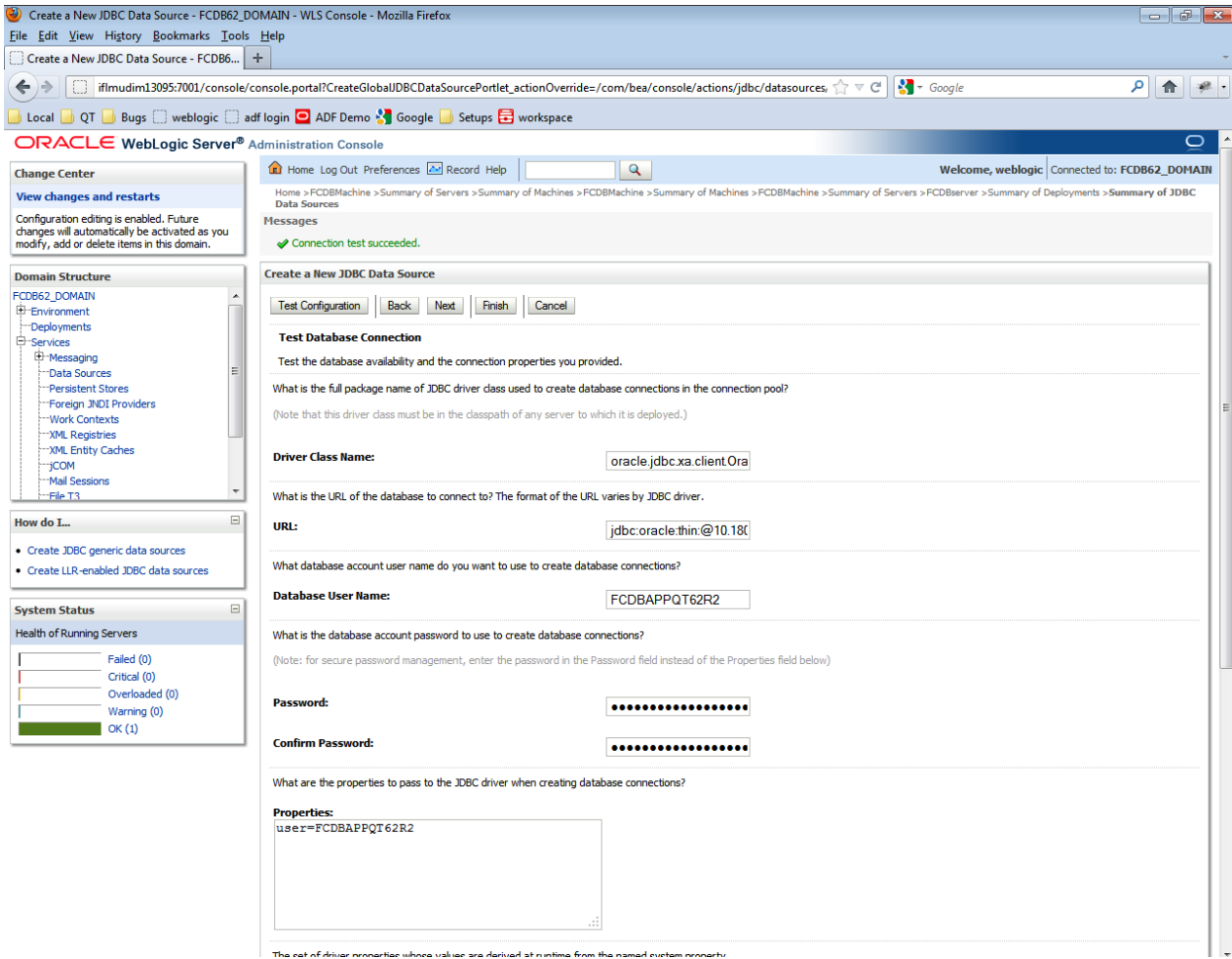
The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area shows the 'Create a New JDBC Data Source' wizard, currently at the 'Test Database Connection' step. The wizard includes the following fields and instructions:

- Test Configuration:** Buttons for 'Test Configuration', 'Back', 'Next', 'Finish', and 'Cancel'.
- Test Database Connection:** A section with instructions to test database availability and connection properties.
- Driver Class Name:** A text field containing 'oracle.jdbc.xa.client.Ora'. A note below states: '(Note that this driver class must be in the classpath of any server to which it is deployed.)'
- URL:** A text field containing 'jdbc:oracle:thin:@10.18'. A note below states: 'What is the URL of the database to connect to? The format of the URL varies by JDBC driver.'
- Database User Name:** A text field containing 'FCDBAPPQT62R2'. A note below states: 'What database account user name do you want to use to create database connections?'
- Password:** A masked text field (represented by dots). A note below states: 'What is the database account password to use to create database connections? (Note: for secure password management, enter the password in the Password field instead of the Properties field below)'
- Confirm Password:** A masked text field (represented by dots).
- Properties:** A text area containing 'user=FCDBAPPQT62R2'. A note below states: 'What are the properties to pass to the JDBC driver when creating database connections?'
- System Properties:** A section for properties derived at runtime from the named system property.

On the left side of the console, there are several panels:

- Change Center:** A section for viewing changes and restarts, with a note: 'Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.'
- Domain Structure:** A tree view showing the hierarchy of the domain, including Environment, Deployments, Services, Messaging, Data Sources, Persistent Stores, Foreign JNDI Providers, Work Contexts, XML Registries, XML Entity Caches, COM, Mail Sessions, and File T3.
- How do I...:** A list of links for creating JDBC generic data sources and LLR-enabled JDBC data sources.
- System Status:** A section showing the health of running servers, with a bar chart indicating 'Failed (0)', 'Critical (0)', 'Overloaded (0)', 'Warning (0)', and 'OK (1)'.

A success message must appear with “Connection test succeeded”.



Click on the “Next” button.

The screenshot shows the Oracle WebLogic Server Administration Console in a Mozilla Firefox browser window. The page title is "Create a New JDBC Data Source - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The browser address bar shows the URL: `ifimudim13095:7001/console/console.portal?CreateGlobalJDBCDataSourcePortlet_actionOverride=/com/bean/console/actions/jdbc/datasources`. The console header displays "ORACLE WebLogic Server Administration Console" and "Welcome, weblogic | Connected to: FCDB62\_DOMAIN".

The main content area is titled "Create a New JDBC Data Source" and contains the following elements:

- A breadcrumb trail: Home > FCDBMachine > Summary of Servers > Summary of Machines > FCDBMachine > Summary of Machines > FCDBMachine > Summary of Servers > FCDBserver > Summary of Deployments > Summary of JDBC Data Sources
- Buttons: Back, Next, Finish, Cancel
- Section: **Select Targets**
- Text: "You can select one or more targets to deploy your new JDBC data source. If you don't select a target, the data source will be created but not deployed. You will need to deploy the data source at a later time."
- Table: **Servers**

Servers
<input type="checkbox"/> AdminServer
<input type="checkbox"/> FCDBserver

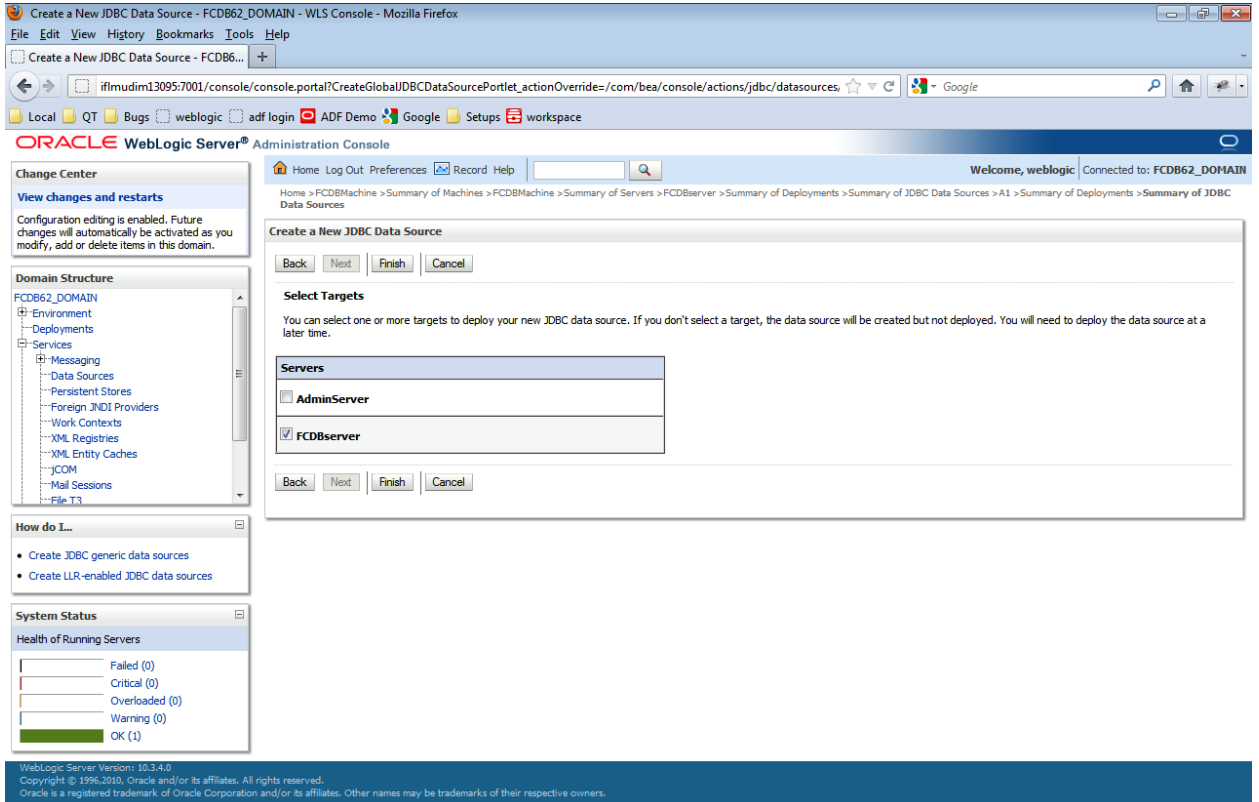
Buttons: Back, Next, Finish, Cancel

On the left side of the console, there are several panels:

- 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**: A tree view showing the hierarchy of the domain FCDB62\_DOMAIN, including Environment, Deployments, Services, Messaging, Data Sources, Persistent Stores, Foreign JNDI Providers, Work Contexts, XML Registries, XML Entity Caches, JCOM, Mail Sessions, and File T3.
- How do I...**: A list of links for help topics, including "Create JDBC generic data sources" and "Create LLR-enabled JDBC data sources".
- System Status**: Health of Running Servers. A progress bar shows the status: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (1).

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Select the server as 'FCDBServer' and click on Finish.



The data source is created successfully. Click on the newly created data source under Data Sources menu option.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Summary of JDBC Data Sources" and includes a "Configuration" tab. A message at the top states: "All changes have been activated. No restarts are necessary." Below this, a table lists the data sources:

Name	Type	JNDI Name	Targets
A1	Generic	A1	FCDBServer

The left sidebar shows the "Domain Structure" tree with "Data Sources" selected under "Services". The "System Status" section at the bottom left shows "Health of Running Servers" with "OK (1)" servers.



Click "Connection Pool" under "Configuration" tab on the top.

The screenshot displays the Oracle WebLogic Server Administration Console interface. The browser window title is "Settings for A1 - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The address bar shows the URL: "ifimudim13095:7001/console/console.portal?\_nfpb=true&\_pageLabel=JdbcDataSourcesJDBCDataSourceConfigConnectionPoolTabPage&handl...". The console header includes "ORACLE WebLogic Server Administration Console" and "Welcome, weblogic Connected to: FCDB62\_DOMAIN".

The left sidebar contains several panels: "Change Center" with "View changes and restarts", "Domain Structure" showing a tree view of the environment, "How do I..." with links to configuration guides, and "System Status" showing the health of running servers (OK (1)).

The main content area is titled "Settings for A1" and has tabs for "Configuration", "Targets", "Monitoring", "Control", "Security", and "Notes". The "Configuration" tab is active, and the "Connection Pool" sub-tab is selected. A "Save" button is visible at the top of the configuration area.

The configuration page includes the following fields and descriptions:

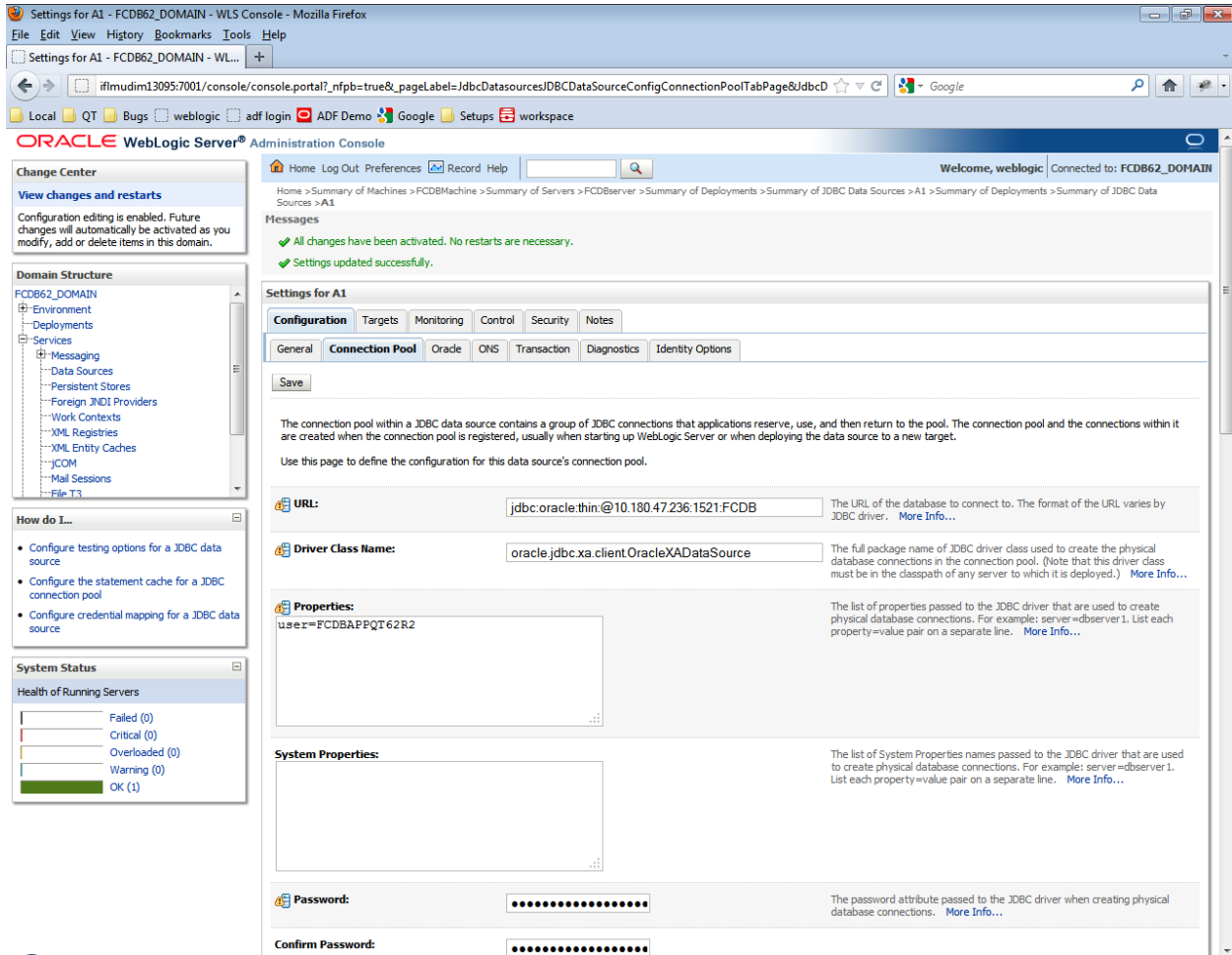
- URL:** jdbc:oracle:thin:@10.180.47.236:1521:FCDB. Description: The URL of the database to connect to. The format of the URL varies by JDBC driver. [More Info...](#)
- Driver Class Name:** oracle.jdbc.xa.client.OracleXADataSource. Description: The full package name of JDBC driver class used to create the physical database connections in the connection pool. (Note that this driver class must be in the classpath of any server to which it is deployed.) [More Info...](#)
- Properties:** user=FCDBAPPQT62R2. Description: The list of properties passed to the JDBC driver that are used to create physical database connections. For example: server=observer1. List each property=value pair on a separate line. [More Info...](#)
- System Properties:** (Empty field). Description: The list of System Properties names passed to the JDBC driver that are used to create physical database connections. For example: server=observer1. List each property=value pair on a separate line. [More Info...](#)
- Password:** (Masked field). Description: The password attribute passed to the JDBC driver when creating physical database connections. [More Info...](#)
- Confirm Password:** (Masked field).
- Initial Capacity:** 1. Description: The number of physical connections to create when creating the connection pool. [More Info...](#)

Click on the “Advanced” link below.

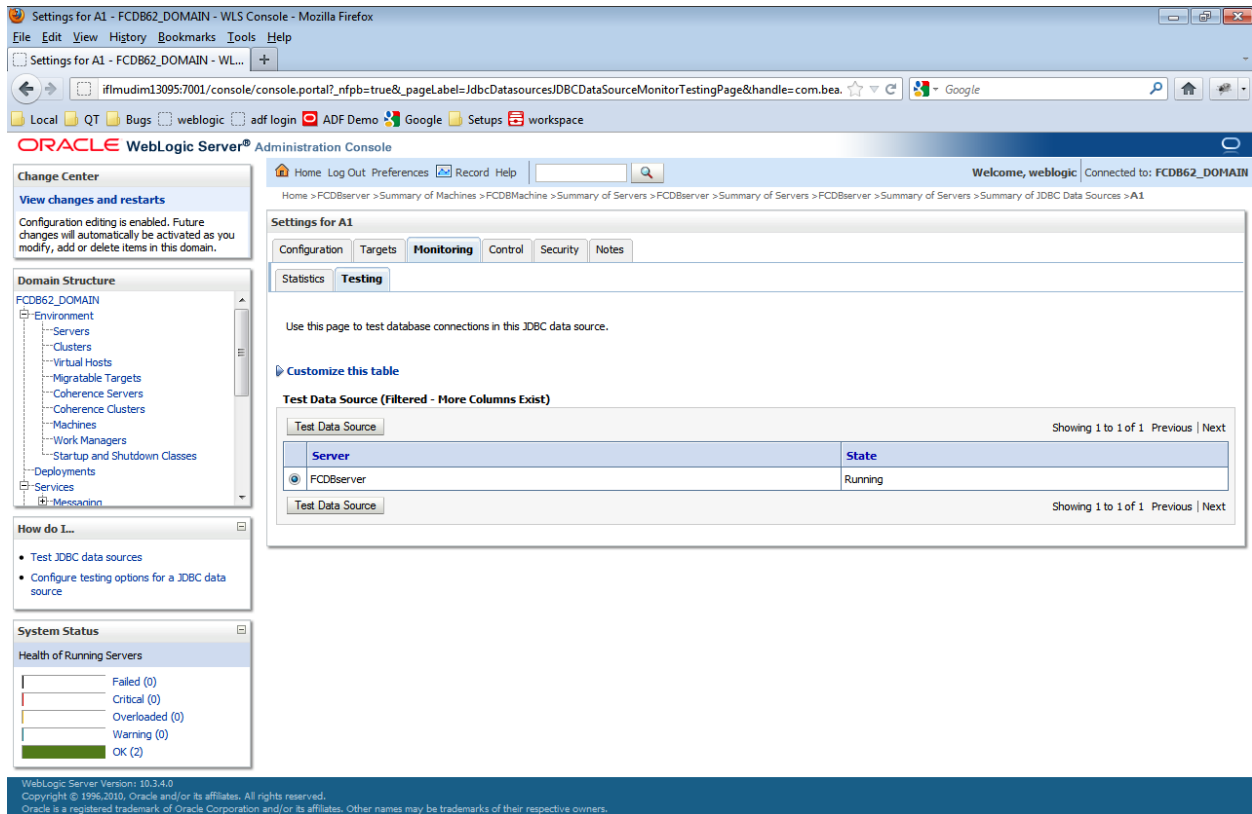
The screenshot shows the 'Advanced' configuration page for a connection pool in the Oracle WLS Console. The page is titled 'Advanced' and contains several settings:

- Test Connections On Reserve:** Checked. Description: Enables WebLogic Server to test a connection before giving it to a client. (Requires that you specify a Test Table Name.) [More Info...](#)
- Test Frequency:** 120. Description: The number of seconds between when WebLogic Server tests unused connections. (Requires that you specify a Test Table Name.) Connections that fail the test are closed and reopened to re-establish a valid physical connection. If the test fails again, the connection is closed. [More Info...](#)
- Test Table Name:** SQL: SELECT 1 FROM DUAL. Description: The name of the database table to use when testing physical database connections. This name is required when you specify a Test Frequency and enable Test Reserved Connections. [More Info...](#)
- Seconds to Trust an Idle Pool Connection:** 10. Description: The number of seconds within a connection use that WebLogic Server trusts that the connection is still viable and will skip the connection test, either before delivering it to an application or during the periodic connection testing process. [More Info...](#)
- Shrink Frequency:** 900. Description: The number of seconds to wait before shrinking a connection pool that has incrementally increased to meet demand. [More Info...](#)
- Init SQL:** (Empty text area). Description: SQL statement to execute that will initialize newly created physical database connections. Start the statement with SQL followed by a space. [More Info...](#)
- Connection Creation Retry Frequency:** 0. Description: The number of seconds between attempts to establish connections to the database. [More Info...](#)
- Login Delay:** 0. Description: The number of seconds to delay before creating each physical database connection. This delay supports database servers that cannot handle multiple connection requests in rapid succession. [More Info...](#)
- Inactive Connection Timeout:** 0. Description: The number of inactive seconds on a reserved connection before WebLogic Server reclaims the connection and releases it back into the connection pool. [More Info...](#)
- Maximum Waiting for Connection:** 2147483647. Description: The maximum number of connection requests that can concurrently block threads while waiting to reserve a connection from the data source's connection pool. [More Info...](#)
- Connection Reserve Timeout:** 10. Description: The number of seconds after which a call to reserve a connection from the connection pool will timeout. [More Info...](#)

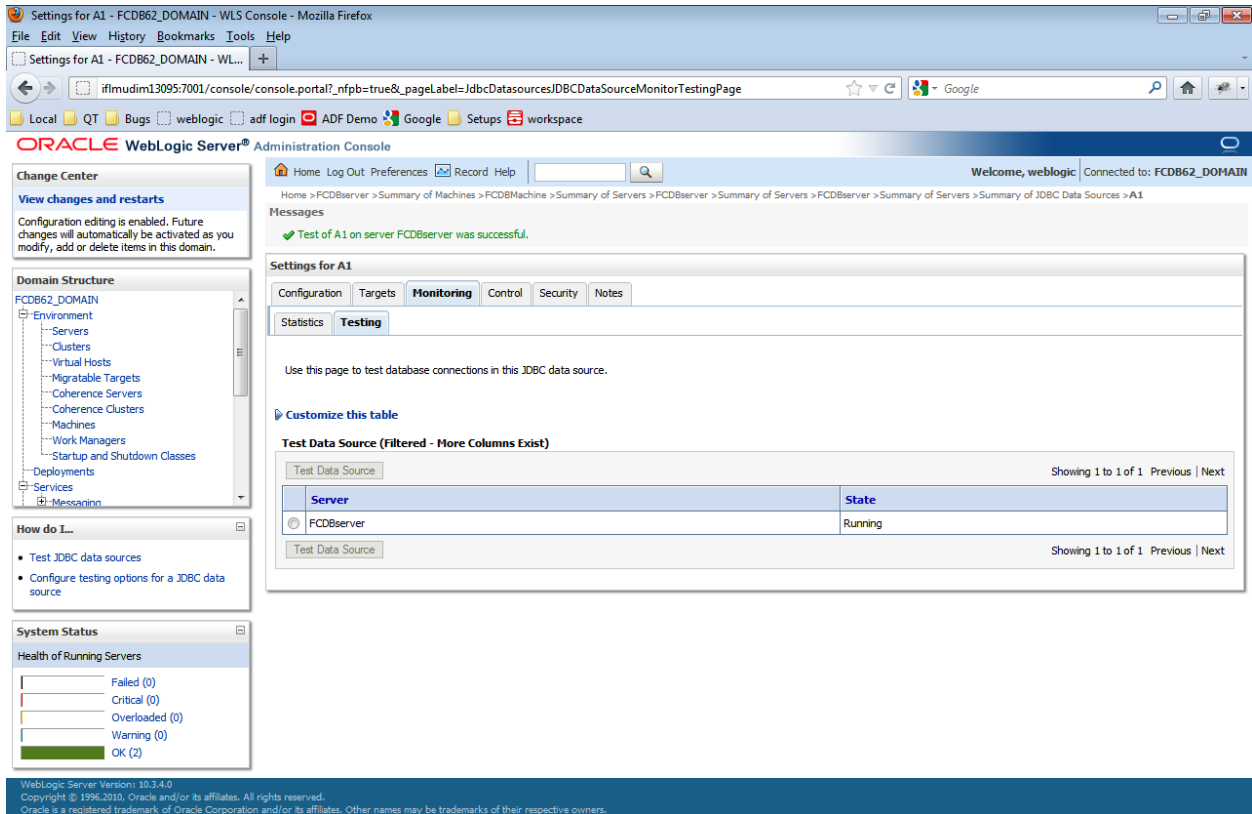
You can specify the required parameters for connection pooling. In the second section check the option against “Test Connections On Reserve” and click Save.



The server should be running to perform the remaining steps.  
 On the same screen next to the Configuration tab, select the “Monitoring” tab on the top.  
 Select Testing tab under Monitoring tab and then Select the radio button against the server and click  
 “Test Data Source”.



A success message with the connection tested successfully must appear.



The property files mentioned in the [Appendix](#) will need to be updated with the data source and connection pool details as per the "Oracle\_FLEXCUBE\_Direct\_Banking\_Parameter\_Sheet" under the Module Name "Core" and for Property location "fcat.properties" and "fcat-config.xml" where the Parameter Name includes application id "A1 and AP".

Different data sources can be created w.r.t Application Id, Application type etc.

## 6.JMS queue creation on Weblogic server

This section assumes that Weblogic JMS is to be used as the queuing system. For a detailed explanation on creation of queues on Weblogic JMS, please refer to the document

**Oracle\_FLEXCUBE\_Direct\_Banking\_JMS\_Queue\_Creation\_On\_Weblogic.doc.**

After completing the steps mentioned in above document, follow steps below

## 6.1. Create JMS Module

Click on “Services→Messaging→JMS Modules” on the left menu. Click on “New” button on RHS screen.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser title is "Create JMS System Module - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The URL is "http://ifmudim13095:7001/console/console.portal?CreateJMSSystemModulePortletreturnTo=JmsModulesTabPage&JmsModulesTablePortlethandle". The page title is "ORACLE WebLogic Server Administration Console".

The left sidebar contains several panels:

- 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:** A tree view showing the hierarchy: FCDB62\_DOMAIN > Environment > Deployments > Services > Messaging > JMS Modules.
- How do I...:** A list of links: "Configure JMS system modules" and "Configure JMS servers".
- System Status:** Health of Running Servers: Failed (0), Critical (0), Overloaded (0), Warning (0), OK (2).

The main content area is titled "Create JMS System Module". It includes a breadcrumb trail: Home > MQIntegrationTest > MQTestForeignServer > JMS Modules > MQIntegrationTest > MQTestForeignServer > Configuration > JMS Modules > MQIntegrationTest > placeholder > JMS Modules. The form contains the following fields and instructions:

- Back** **Next** **Finish** **Cancel** buttons.
- The following properties will be used to identify your new module.**
- Instruction: "JMS system resources are configured and stored as modules similar to standard J2EE modules. Such resources include queues, topics, connection factories, templates, destination keys, quota, distributed queues, distributed topics, foreign servers, and JMS store-and-forward (SAF) parameters. You can administratively configure and manage JMS system modules as global system resources."
- \* Indicates required fields
- Question: "What would you like to name your System Module?"
- \* Name:**
- Question: "What would you like to name the descriptor file name? If you do not provide a name, a default will be assigned."
- Descriptor File Name:**
- Question: "Where would you like to place the descriptor for this System Module, relative to the jms configuration sub-directory of your domain?"
- Location In Domain:**
- Back** **Next** **Finish** **Cancel** buttons.

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1. Type in a name “MQIntegrationTest” in the Name text box and click “Next”.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main window is titled "Create JMS System Module - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The breadcrumb trail is: Home > MQIntegrationTest > MQTestForeignServer > JMS Modules > MQIntegrationTest > MQTestForeignServer > Configuration > JMS Modules > MQIntegrationTest > placeholder > JMS Modules.

The "Create JMS System Module" wizard is displayed. It includes a "Change Center" sidebar on the left with sections for "View changes and restarts", "Domain Structure" (showing a tree view of the domain), "How do I...", and "System Status".

The main content area of the wizard is titled "Create JMS System Module" and contains the following text and form fields:

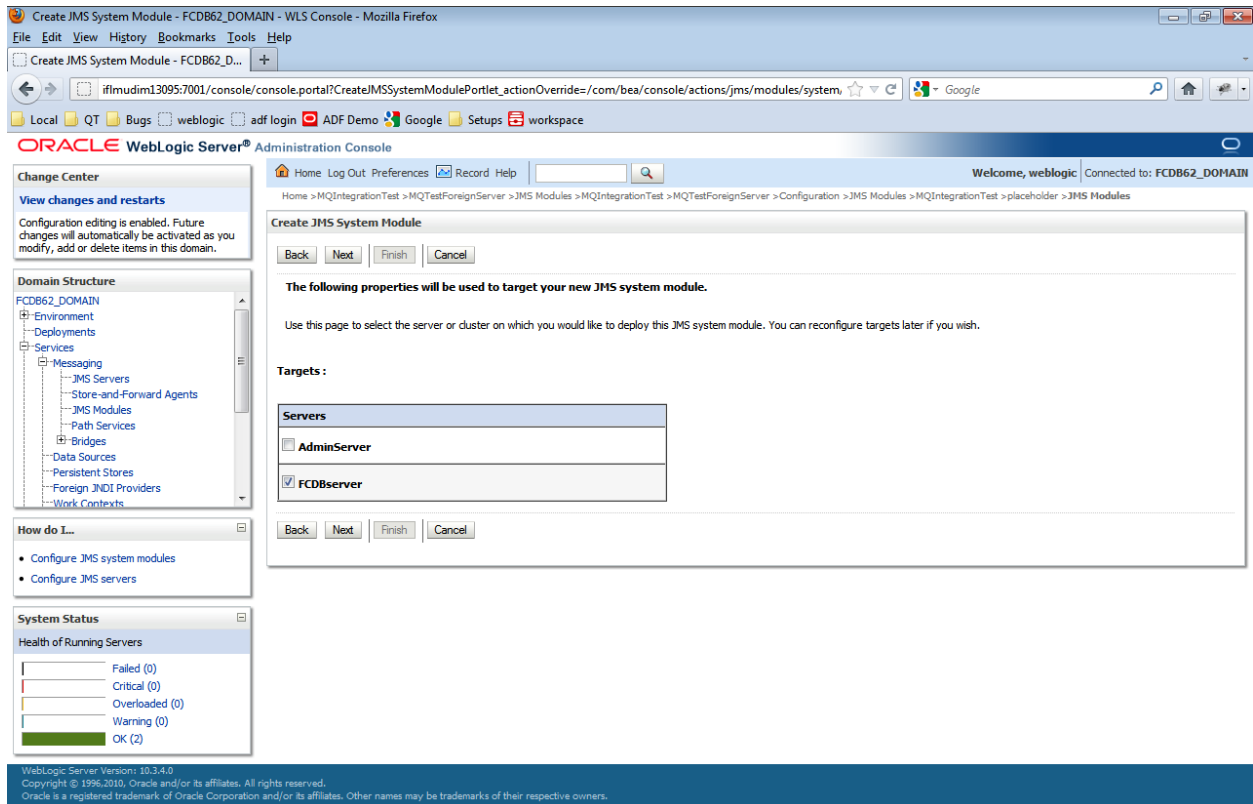
- Buttons: Back, Next, Finish, Cancel
- Text: "The following properties will be used to identify your new module."
- Text: "JMS system resources are configured and stored as modules similar to standard J2EE modules. Such resources include queues, topics, connection factories, templates, destination keys, quota, distributed queues, distributed topics, foreign servers, and JMS store-and-forward (SAF) parameters. You can administratively configure and manage JMS system modules as global system resources."
- Text: "\* Indicates required fields"
- Text: "What would you like to name your System Module?"
- Form field: \* Name: MQIntegrationTest
- Text: "What would you like to name the descriptor file name? If you do not provide a name, a default will be assigned."
- Form field: Descriptor File Name: (empty)
- Text: "Where would you like to place the descriptor for this System Module, relative to the jms configuration sub-directory of your domain?"
- Form field: Location In Domain: (empty)
- Buttons: Back, Next, Finish, Cancel

At the bottom of the console, the following text is visible:

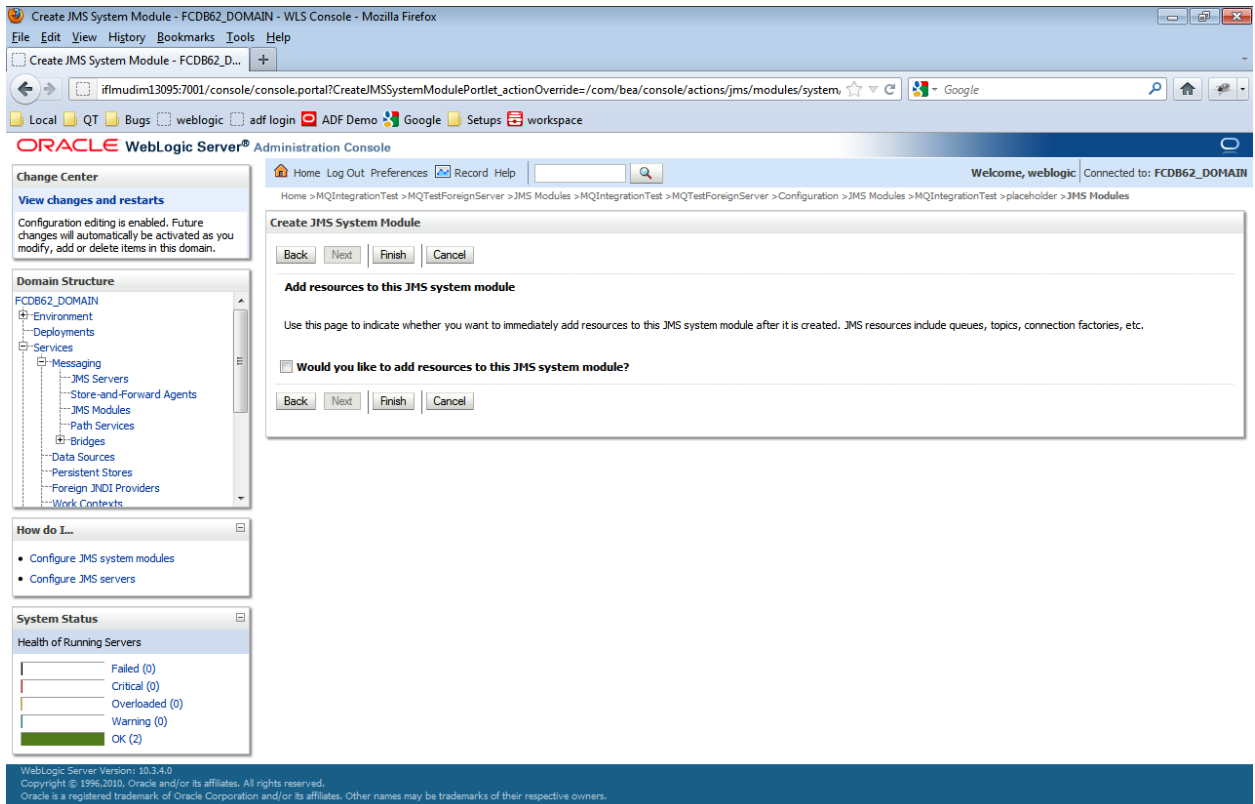
WebLogic Server Version: 10.3.4.0  
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2. Select the target server as “FCDB server” and click “Next”



3. Click on the “Finish” without selecting the add resource to this JMS System Module.



4. Following screen will appear.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Summary of JMS Servers". It includes a navigation breadcrumb, a "Messages" section with two green checkmarks indicating successful activation and creation, and a table of JMS servers. The table has columns for Name, Persistent Store, Target, Current Server, and Health. One server, "MQIntegrationTest", is listed with a health status of "OK".

**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 Server	Health
MQIntegrationTest		FCDBSERVER	FCDBSERVER	OK

Showing 1 to 1 of 1 Previous | Next

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

## 6.2. Create JMS Foreign Server

5. Select “Services→Messaging→JMS Modules” and click the link of the newly created module “MQIntegrationTest”.

The screenshot shows the Oracle WebLogic Server Administration Console. The main content area is titled "JMS Modules" and contains the following text:

JMS system resources are configured and stored as modules similar to standard J2EE modules. Such resources include queues, topics, connection factories, templates, destination keys, quota, distributed queues, distributed topics, foreign servers, and JMS store-and-forward (SAF) parameters. You can administratively configure and manage JMS system modules as global system resources.

This page summarizes the JMS system modules that have been created for this domain.

Below the text is a table with the following data:

Name	Type
MQIntegrationTest	System

The left sidebar shows the "Domain Structure" with the following hierarchy: FCDB62\_DOMAIN > Environment > Deployments > Services > Messaging > JMS Modules. The "System Status" section shows "Health of Running Servers" with a bar chart indicating 2 OK servers.

6. Click the “New” button.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser title is "Settings for MQIntegrationTest - FCDB62\_DOMAIN - WLS Console - Mozilla Firefox". The address bar shows the URL: `ifimudim13095:7001/console/console.portal?_nfpb=true&_pageLabel=JMSSystemModuleConfigGeneralPage`. The page header includes "ORACLE WebLogic Server Administration Console" and a user greeting "Welcome, weblogic | Connected to: FCDB62\_DOMAIN".

The main content area is titled "Settings for MQIntegrationTest" and has tabs for "Configuration", "Subdeployments", "Targets", "Security", and "Notes". The "Configuration" tab is active. It contains the following information:

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

Below this is a "Summary of Resources" section with a "New" button and a "Delete" button. The table below shows no resources:

Name	Type	JNDI Name	Subdeployment	Targets
There are no items to display				

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## 7. Select "Foreign Server" radio button and click Next

The screenshot displays the Oracle WebLogic Server Administration Console interface. The main content area is titled "Create a New JMS System Module Resource" and contains a list of resource types with radio buttons. The "Foreign Server" option is selected. The left sidebar contains navigation panels for "Change Center", "Domain Structure", "How do I...", and "System Status". The "Domain Structure" panel shows a tree view with "JMS Servers" selected. The "System Status" panel shows the health of running servers as "OK (2)".

**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**  
FCDB62\_DOMAIN  
Environment  
Deployments  
Services  
Messaging  
JMS Servers  
Store-and-Forward Agents  
JMS Modules  
Path Services  
Bridges  
Data Sources  
Persistent Stores  
Foreign JNDI Providers  
Work Contexts

**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

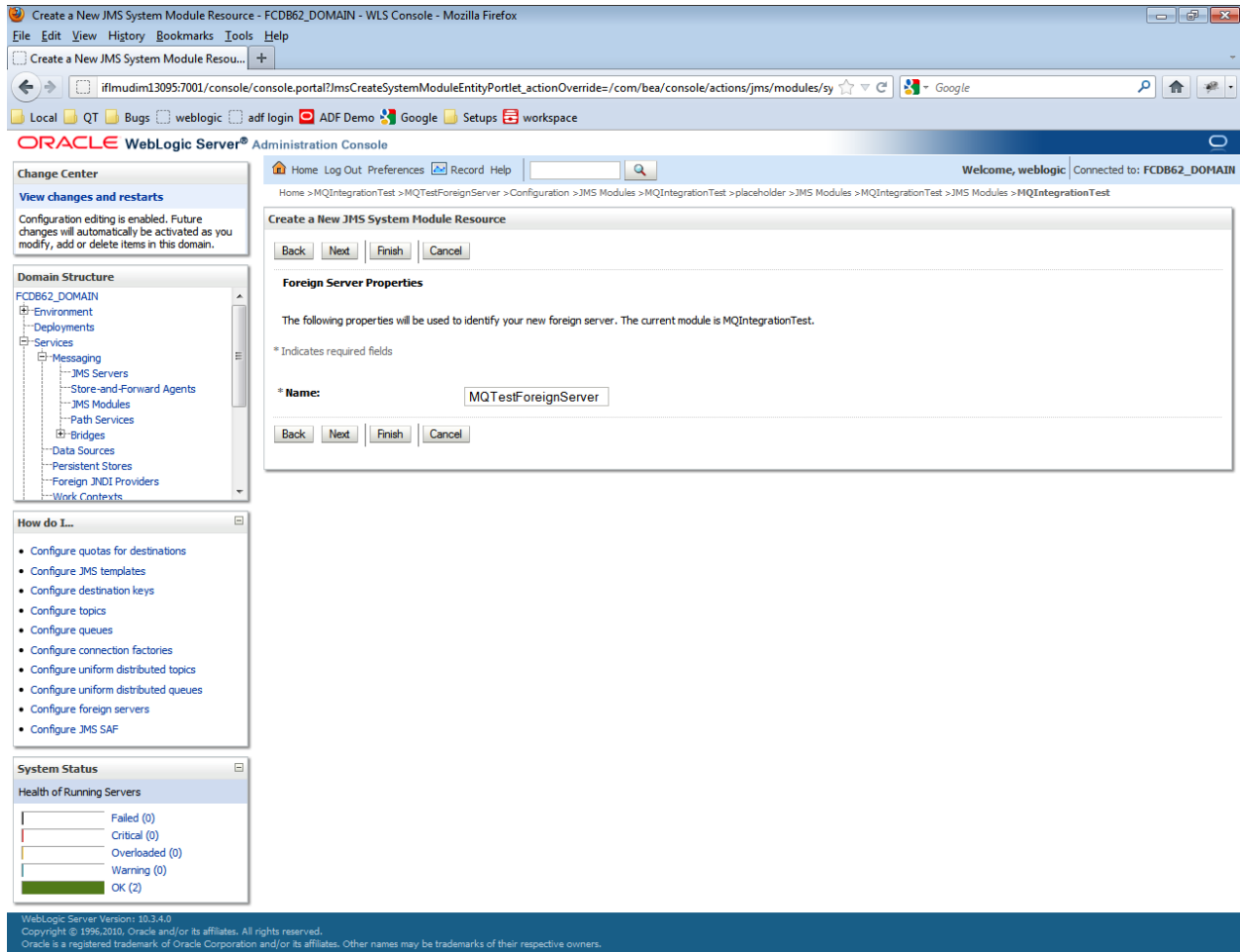
**System Status**  
Health of Running Servers  
Failed (0)  
Critical (0)  
Overloaded (0)  
Warning (0)  
OK (2)

**Create a New JMS System Module Resource**  
Choose the type of resource you want to create.  
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...](#)

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8. Enter “MQTestForeignServer” in the Name text box, click “Next” button.



9. The ensuing page shows that the target server is already selected. Click “Finish”

The screenshot displays the Oracle WebLogic Administration Console interface. The main content area is titled "Create a New JMS System Module Resource". It features a navigation bar with buttons for "Back", "Next", "Finish", "Advanced Targeting", and "Cancel". Below this, there is a section titled "The following properties will be used to target your new JMS system module resource". This section contains instructions on how to accept default targets and a "Targets:" section. Under "Targets:", there is a table with a single entry:

Servers
<input checked="" type="checkbox"/> FCDBserver

At the bottom of the targets section, there are buttons for "Back", "Next", "Finish", "Advanced Targeting", and "Cancel". On the left side of the console, there are several panels: "Change Center", "Domain Structure" (showing a tree view of the domain hierarchy), "How do I..." (with a list of configuration tasks), and "System Status" (showing the health of running servers: Failed (0), Critical (0), Overloaded (0), Warning (0), and OK (2)).



10. 'The foreign server was created successfully' message will appear.

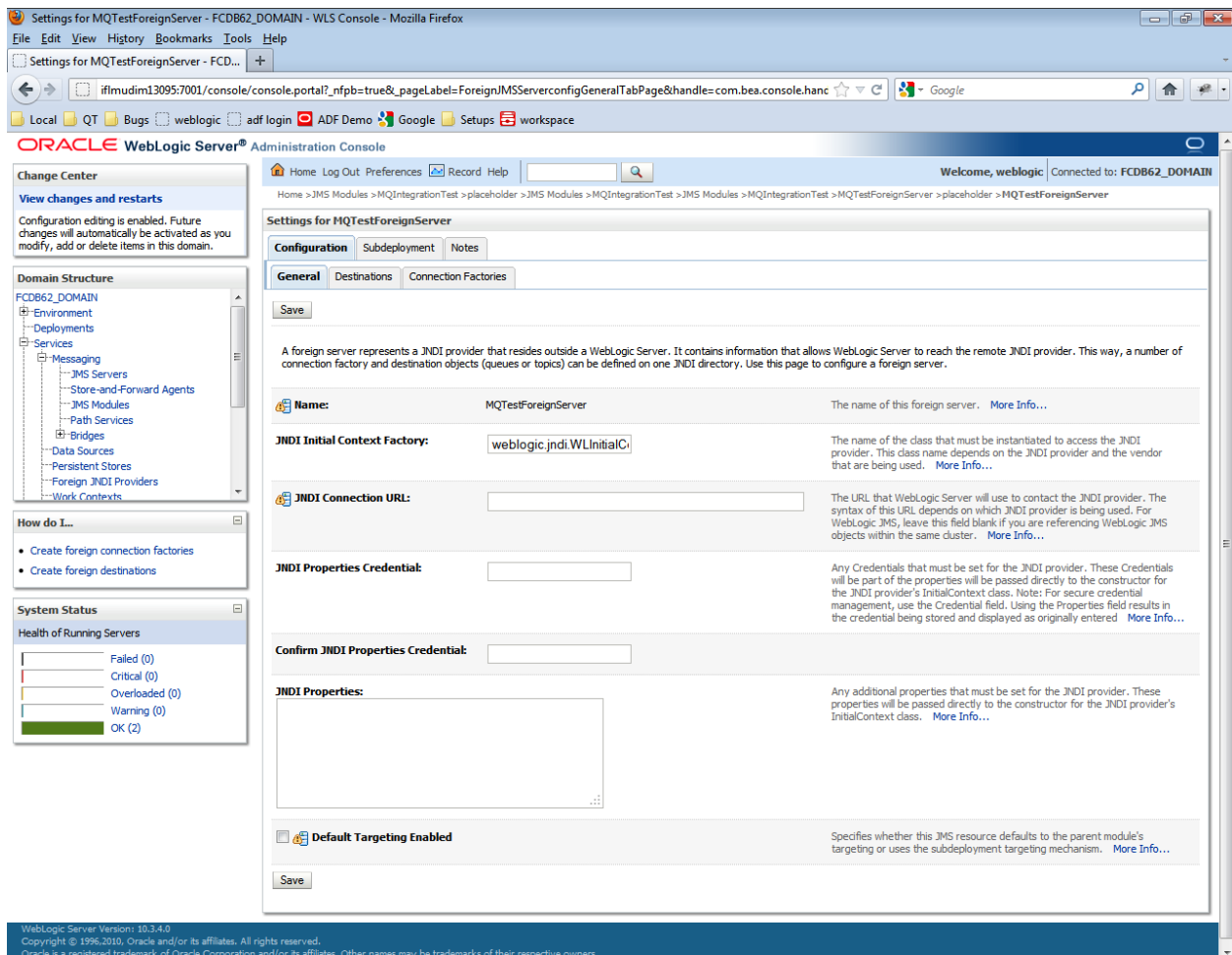
11. Click on the newly created foreign server ("MQTestForeignServer".)

The screenshot shows the Oracle WebLogic Server Administration Console. The main content area displays the configuration page for the JMS system module 'MQIntegrationTest'. A message at the top indicates that all changes have been activated and no restarts are necessary, with a specific note that the foreign server was created successfully. The 'Summary of Resources' table is as follows:

Name	Type	JNDI Name	Subdeployment	Targets
MQTestForeignServer	Foreign Server	N/A		

12. Under the tab “Configuration→General” type in following details

Property	Value
JNDI Initial Context Factory	weblogic.jndi.WLInitialContextFactory
JNDI Connection URL	t3://localhost:7003 (The server IP of the weblogic server where queues are created should be mentioned here. If the queues are on the same server as FCDB, then localhost can be mentioned. The port should be queuing server’s bootstrap port). If https is to be used then t3s should be used.



13. Click “Save”.

## 6.3. Creating Destinations

14. Click button “New” under “Configuration→Destinations” the tab at the top

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Settings for MQTestForeignServer" and has tabs for "Configuration", "Subdeployment", and "Notes". The "Configuration" tab is active, and the "Destinations" sub-tab is selected. The page contains the following text:

A foreign destination (topic or queue) can be found on a remote server. When this destination is looked up on the local server, a look-up will be performed automatically on the remote JNDI directory, and the object will be returned from that directory.

This page summarizes the foreign destinations that have been created for this domain.

**Customize this table**

**Foreign Destinations**

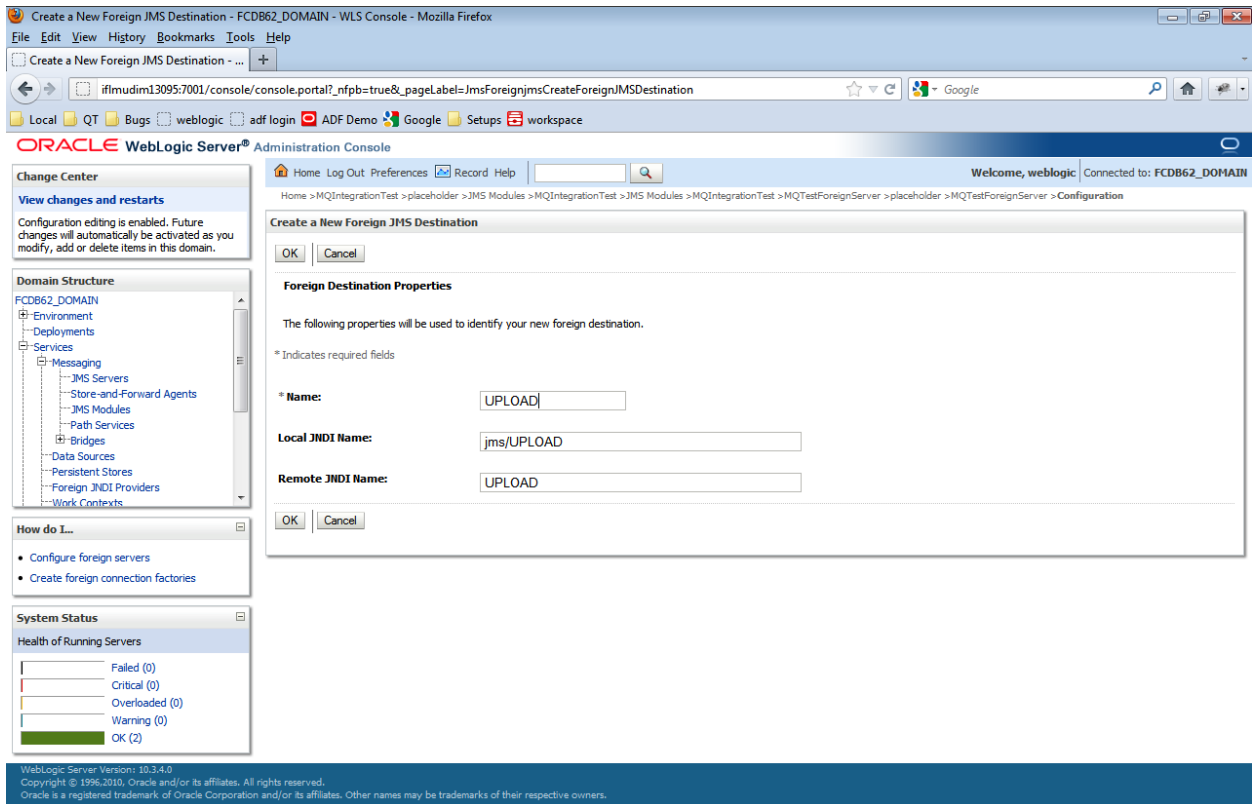
Name	Local JNDI Name	Remote JNDI Name
There are no items to display		

At the bottom of the table, there are "New" and "Delete" buttons. The status bar at the bottom of the console indicates "Showing 0 to 0 of 0" and "Previous | Next".

On the left side of the console, there are several panels: "Change Center" (View changes and restarts), "Domain Structure" (FCDB62\_DOMAIN, Environment, Deployments, Services, Messaging, JMS Servers, Store-and-Forward Agents, JMS Modules, Path Services, Bridges, Data Sources, Persistent Stores, Foreign JNDI Providers, Work Contexts), "How do I..." (Configure foreign servers, Create foreign connection factories), and "System Status" (Health of Running Servers: Failed (0), Critical (0), Overloaded (0), Warning (0), OK (2)).

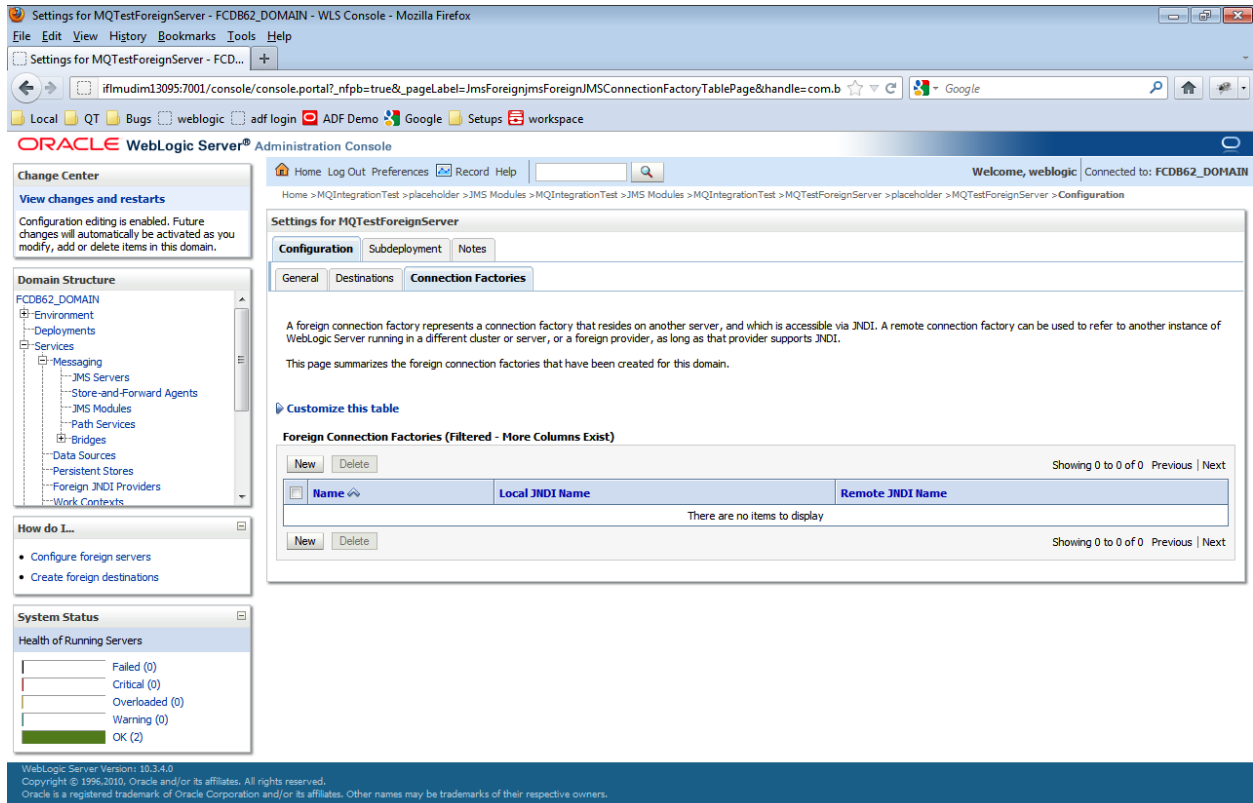
At the bottom of the console, the version information is displayed: "WebLogic Server Version: 10.3.4.0. Copyright © 1996-2010, Oracle and/or its affiliates. All rights reserved. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners."

15. Click “New” and enter following details.



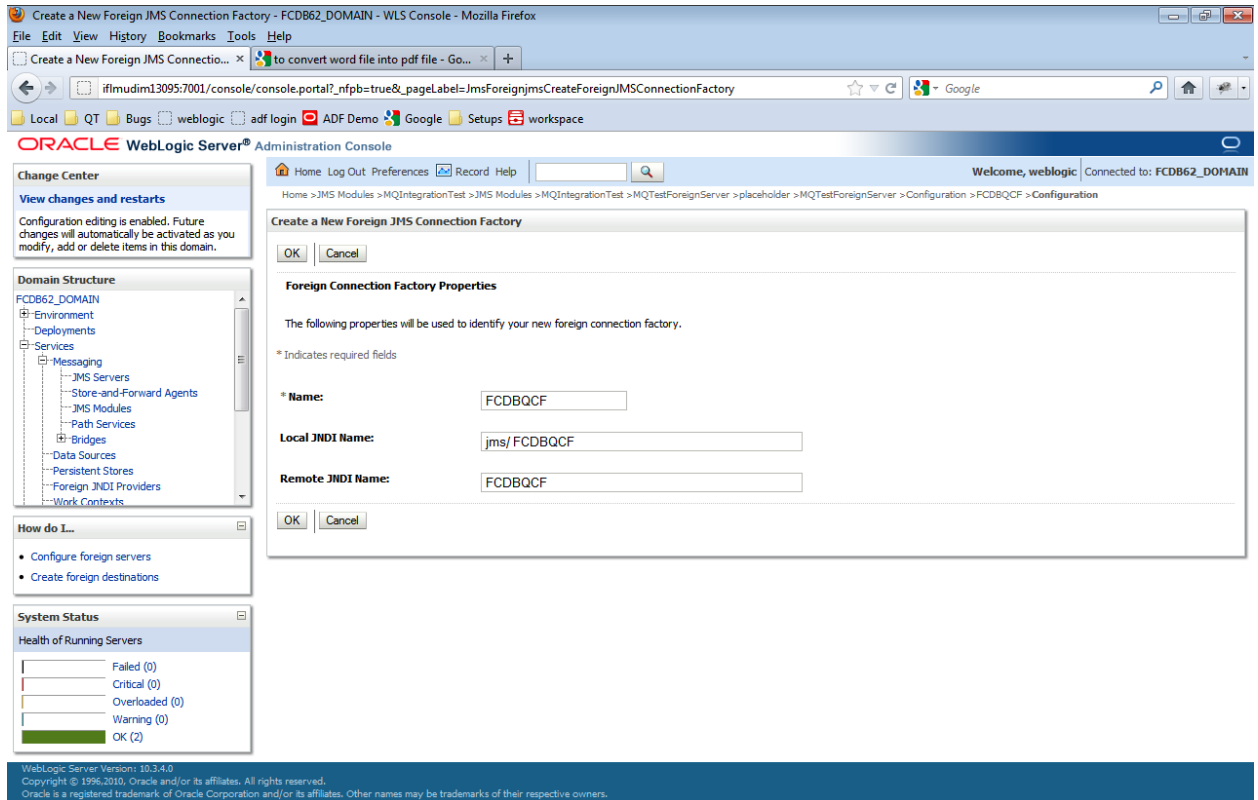
16. Click “OK”.

17. Click on Connection Factories under Configuration tab on top and click “New”.



18. Enter following details in “Create a New Foreign JMS Connection Factory”.

Property	Value
Name	FCDBQCF
Local JNDI Name	jms/ FCDBQCF (Name of the Queue Connection Factory)
Remote JNDI Name	FCDBQCF (Name of the Queue Connection Factory)



Click “OK”. With that you are done with creating and configuring Foreign JMS Server.

# 7.Module Installation

## 7.1. Bulk Module Setup

To deploy the bulk module on Weblogic JMS follow the steps explained in the doc “Oracle\_FLEXCUBE\_Direct\_Banking\_JMS\_Queue\_Creation\_On\_Weblogic” along with the deployment of MDBs as explained in section “[Deploying Applications](#)”. The MDBs will be deployed as a normal war/ear deployment. Alongwith the MDBs Refer to the [Appendix](#) for the ears required to be deployed for Bulk.

A queue connection factory with the JNDI name “jms/FCDBQCF” is required to be created.

List of queues required for Bulk module are:-

1. jms/UPLOAD
2. jms/DECRYPT
3. jms/PREPROCESS
4. jms/PROCESS
5. jms/AUTH
6. jms/AUTHREJECT
7. jms/RESPONSE
8. jms/COMPLETE

The list of MDBs required for deployment on the queues is as follows:

1. UPLOAD\_MDB
2. DECRYPT\_MDB
3. PREPROCESS\_MDB
4. PROCESS\_MDB

5. AUTH\_MDB
6. AUTHREJECT\_MDB
7. RESPONSE\_MDB
8. COMPLETE\_MDB

Configure the properties in as per the sheet attached  
 “Oracle\_FLEXCUBE\_Direct\_Banking\_Parameter\_Sheet” for the Property Location “fcat.properties  
 and fcat.config file” under the Module Name for the “BULK” section.

*Creating Data source for Bulk Connection:*

To create Data source for Bulk connection follow the steps of creation of ‘XA Enabled Data Source.  
 (As mentioned in the section ‘Setup JDBC data source and Connection Pooling’ of this document)  
 using following parameters.

Property	Value
Data Source Name	BT
JNDI Name	BT
Database Type	Oracle
Database Driver	Oracle’s Driver (Thin XA) Versions:9.0.1 or later

## 7.2. Alerts Notification and Chase Cycle Setup

To deploy the Alerts and Chase module on the Weblogic JMS follow the steps explained in the doc  
 “Oracle\_FLEXCUBE\_Direct\_Banking\_JMS\_Queue\_Creation\_On\_Weblogic” along with the deployment  
 of MDBs as explained in section “[Deploying Applications](#)”. The MDBs will be deployed as a normal  
 war/ear deployment.

1. Create one queue manager and two Queues. One Queue manager will manage both the  
 queues.
2. Deploy the following MDBs for Alerts and Chase:
  - a. AlertMDBQueue
  - b. ChaseQueue
3. Configure the properties in as per the sheet attached  
 “Oracle\_FLEXCUBE\_Direct\_Banking\_Parameter\_Sheet” for the Property Location  
 “fcat.properties and fcat.config file” under the Module Name for “Timer Bean, Alerts (Email),  
 Alerts (SMS),EMAIL SMTP,Chase”



### 7.3.J2ME based Oracle FLEXCUBE Direct Banking Application

The following archives should be downloaded on user mobile to enable J2ME Based Oracle FLEXCUBE Direct Banking Application:

Deployable	Path Location
FCDBMidlet.jar	<FCDB BASE DIR>\deploy\mobile
FCDBMidlet.jad	<FCDB BASE DIR>\deploy\mobile

### 7.4.SMS based Oracle FLEXCUBE Direct Banking Application

The following web archive needs to be deployed on the Application server to enable SMS Based Oracle FLEXCUBE Direct Banking Application:

Deployable	Context	Path Location
SMS.war	SMS	<FCDB BASE DIR>\deploy

## 8.DB Creation

For completing the DB setup kindly refer to the doc  
“Oracle\_FLEXCUBE\_Direct\_Banking\_Database\_Setup“

Once the database scripts are successfully executed the SUPERADMIN user created must be unlocked by executing the files in the [Tools](#) Section.

## 9.Encryption and Decryption of property files

The property files <Identity>.xml , fcat-config.xml and fcat.properties mentioned in the [Appendix](#) will be stored in the encrypted format and decrypted later for reading them.

The system property “fcat.propfile.isencr” is set as “true”; if the property files are encrypted. It is set as “false”; if property files are in plain text format. If this property is not set at all as system property then all the property files are assumed to be in plain text format.

The usage of the tools are mentioned in the [Tools](#) section.

# 10.Service Tier Security

## 10.1.Webservice Mode

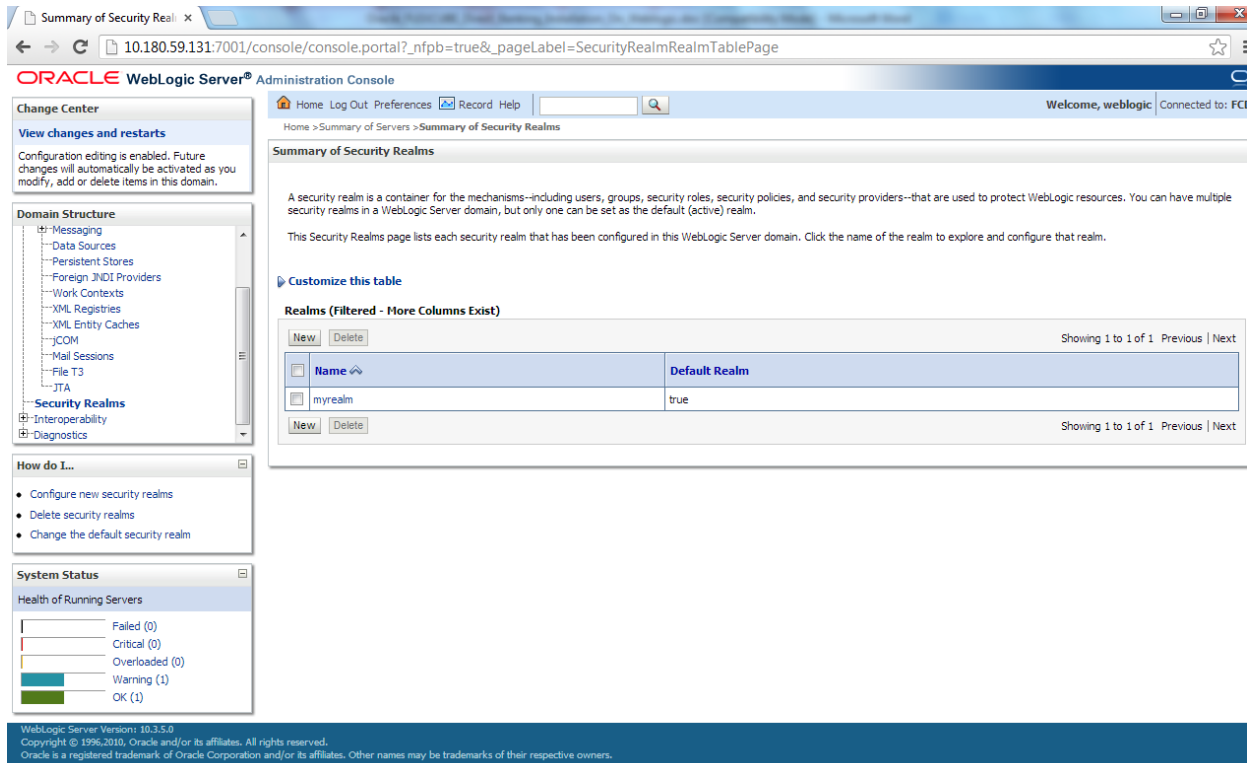
For enabling webservice mode, the invocation mode in fcat-config.xml should be set as 'W'.

Deployment of application through *Webservice* mode requires following ear:

Application Name	Deployable	Context	Path Location
service	service.ear	service	<FCDB BASE DIR>\deploy\weblogic

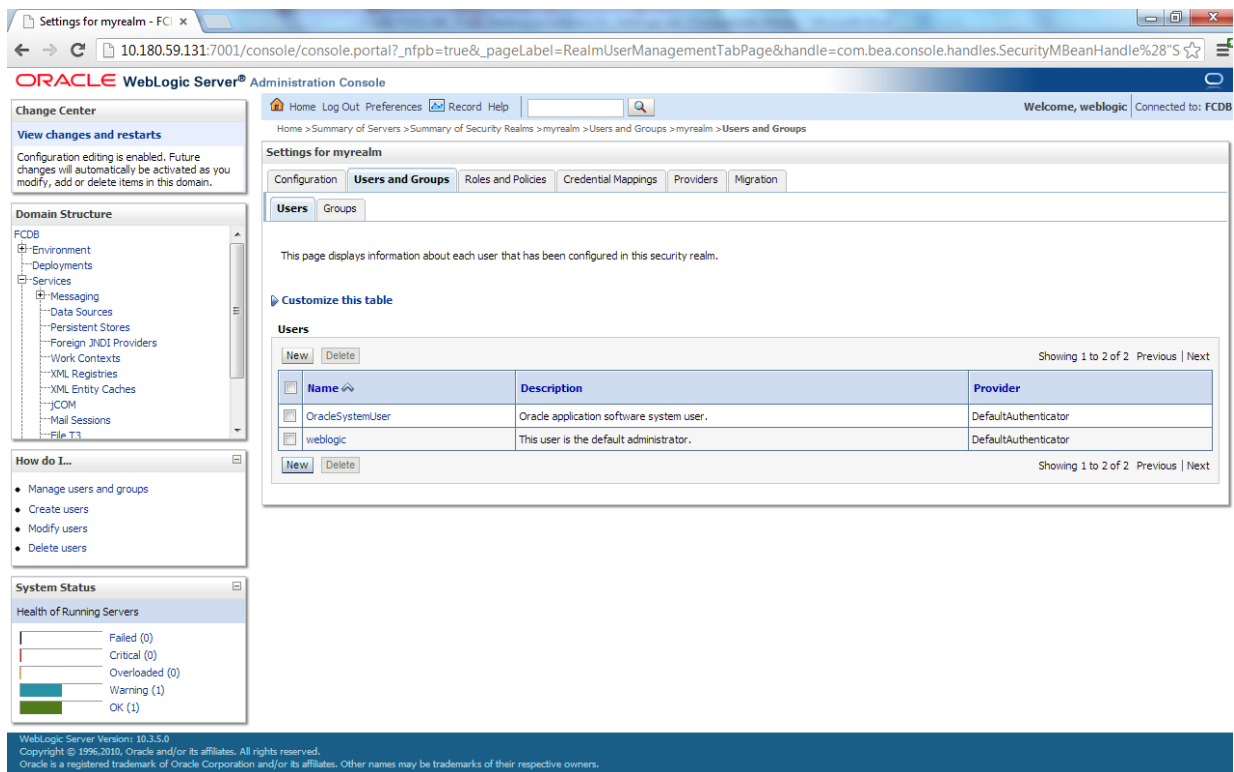
After deploying services.ear, please follow the below steps to authenticate webservice –

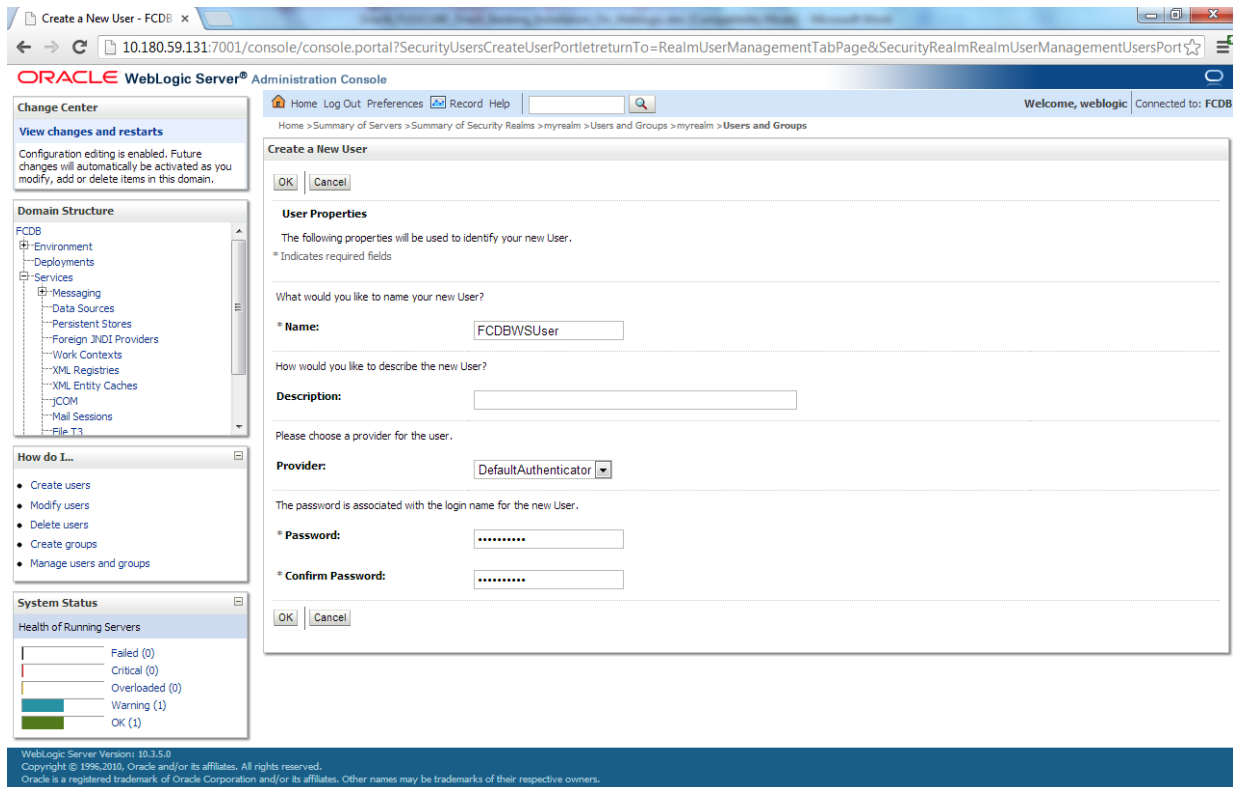
1. Create a user under the current security realm.



Click on the name of security realm.

Under 'User & Groups' tab, click on "New"

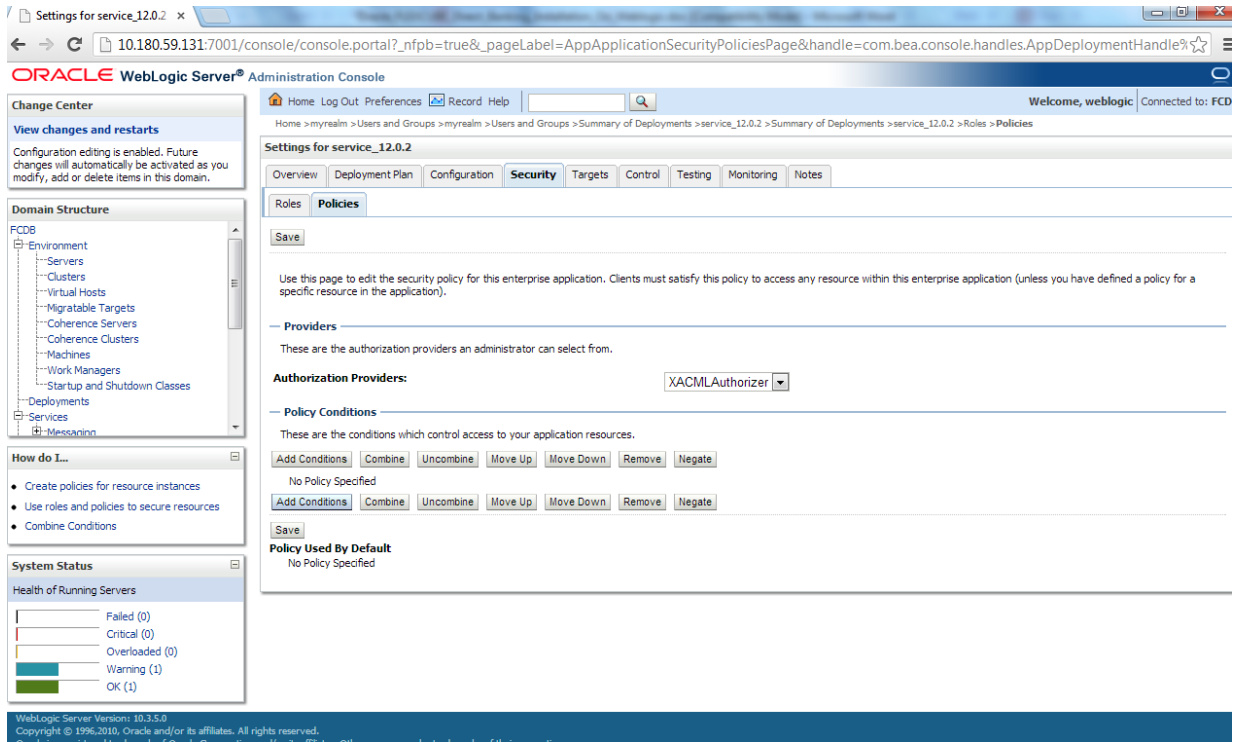




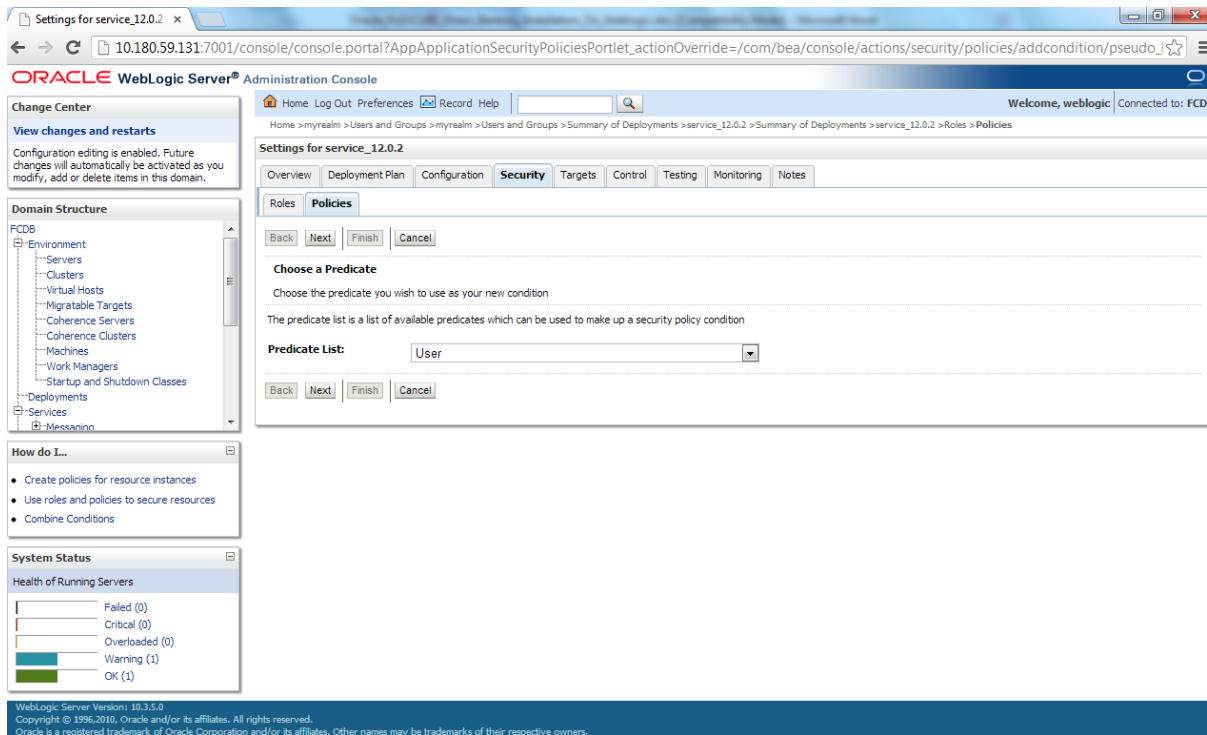
Enter the following values and click “OK”

Field	Value
Name	<Enter username>
Password	<Enter password>
Confirm Password	<Repeat same password>

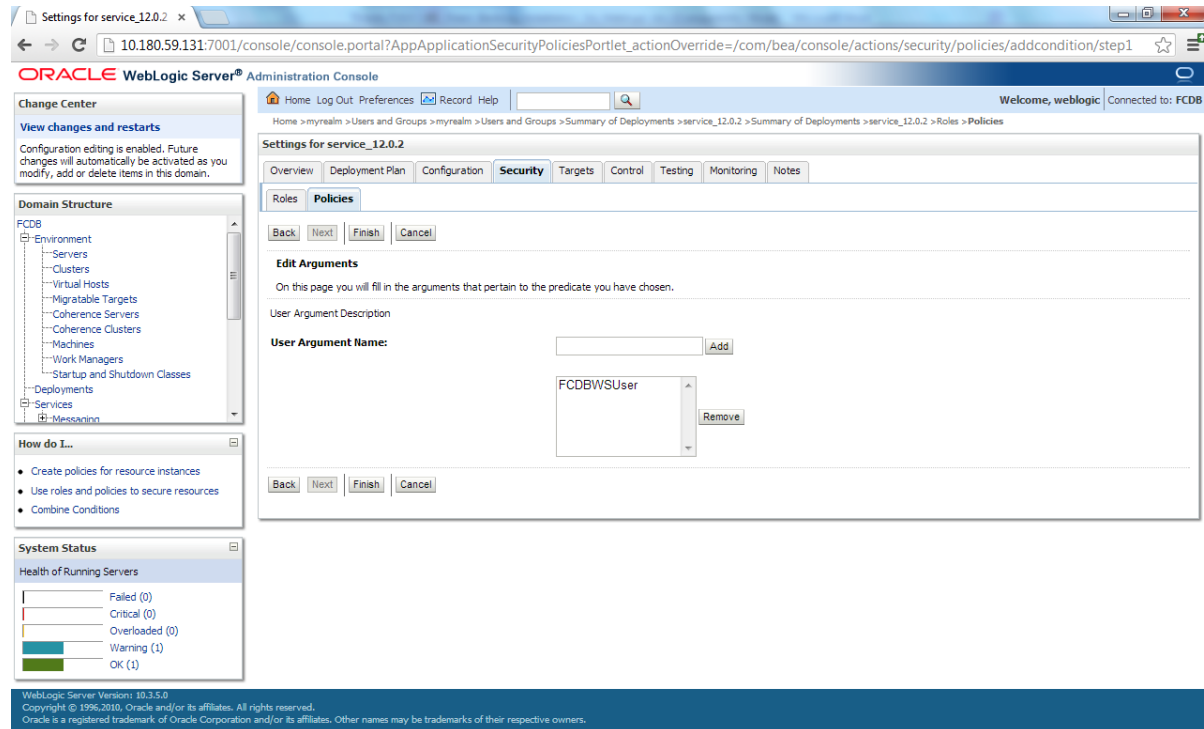
- Go to Deployment and click on “service”  
Go to Security → Policies → Add condition



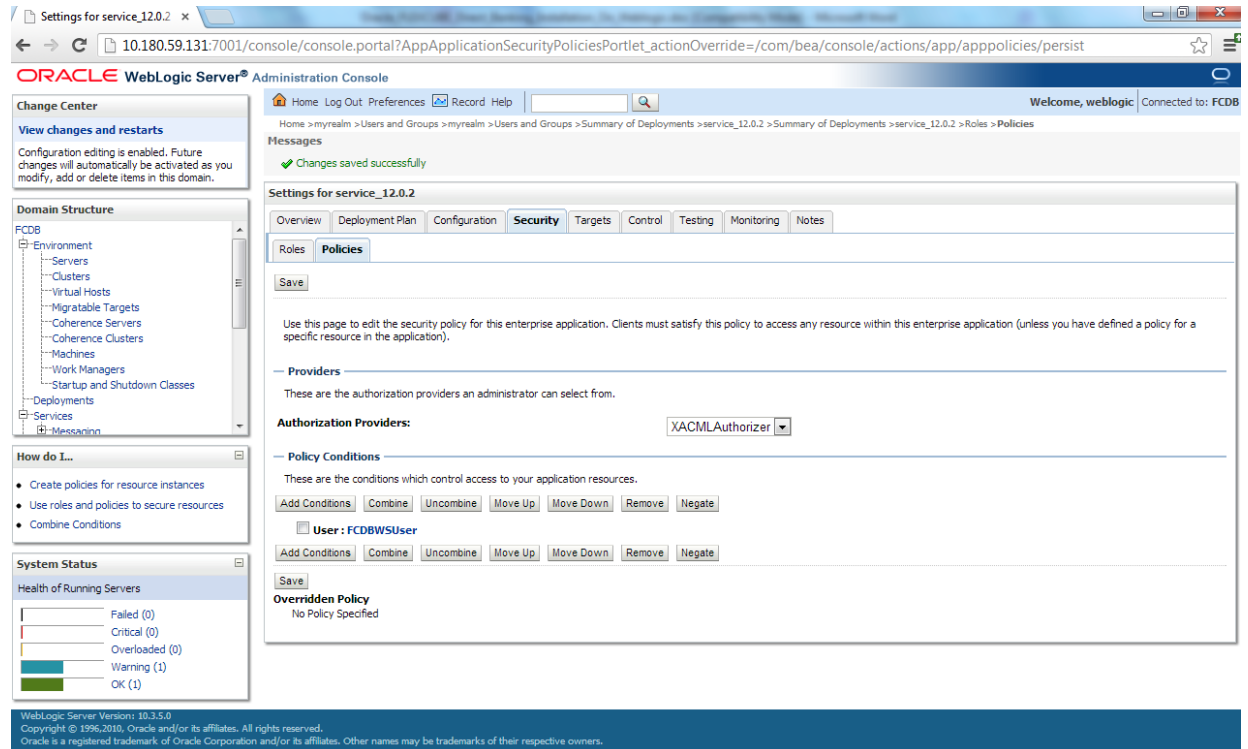
From predicate list, select the “User” option and click on “Next”



Specify the name of the user in "User Argument Name" field and "Add", Click on "Finish"



Click on "Save"





3. In fcat-config.xml set the following properties with username and password of the user created in above steps.

Field	Value
FCAT.CONNECT.SVC.USERNAME	<Enter username>
FCAT.CONNECT.SVC.PASSWORD	<Enter password>

## 10.2.EJB Mode

For enabling EJB mode, the invocation mode in fcat-config.xml should be set as 'E'.

Deployment of application through *EJB* mode requires following jar:

Application Name	Deployable	Context	Path Location
ServiceEndPointRI	ServiceEndPointRI.jar	ServiceEndPointEJB	<FCDB BASE DIR>\deploy

After deploying ServiceEndPointRI.jar, please follow the below steps to authenticate EJB mode –

1. Create a user under the current security realm.

Summary of Security Realms

A security realm is a container for the mechanisms—including users, groups, security roles, security policies, and security providers—that are used to protect WebLogic resources. You can have multiple security realms in a WebLogic Server domain, but only one can be set as the default (active) realm.

This Security Realms page lists each security realm that has been configured in this WebLogic Server domain. Click the name of the realm to explore and configure that realm.

**Customize this table**

Realms (Filtered - More Columns Exist)

Name	Default Realm
myrealm	true

WebLogic Server Version: 10.3.5.0  
Copyright © 1996-2010, 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 the name of security realm.

Under 'User & Groups' tab, click on "New"

Settings for myrealm

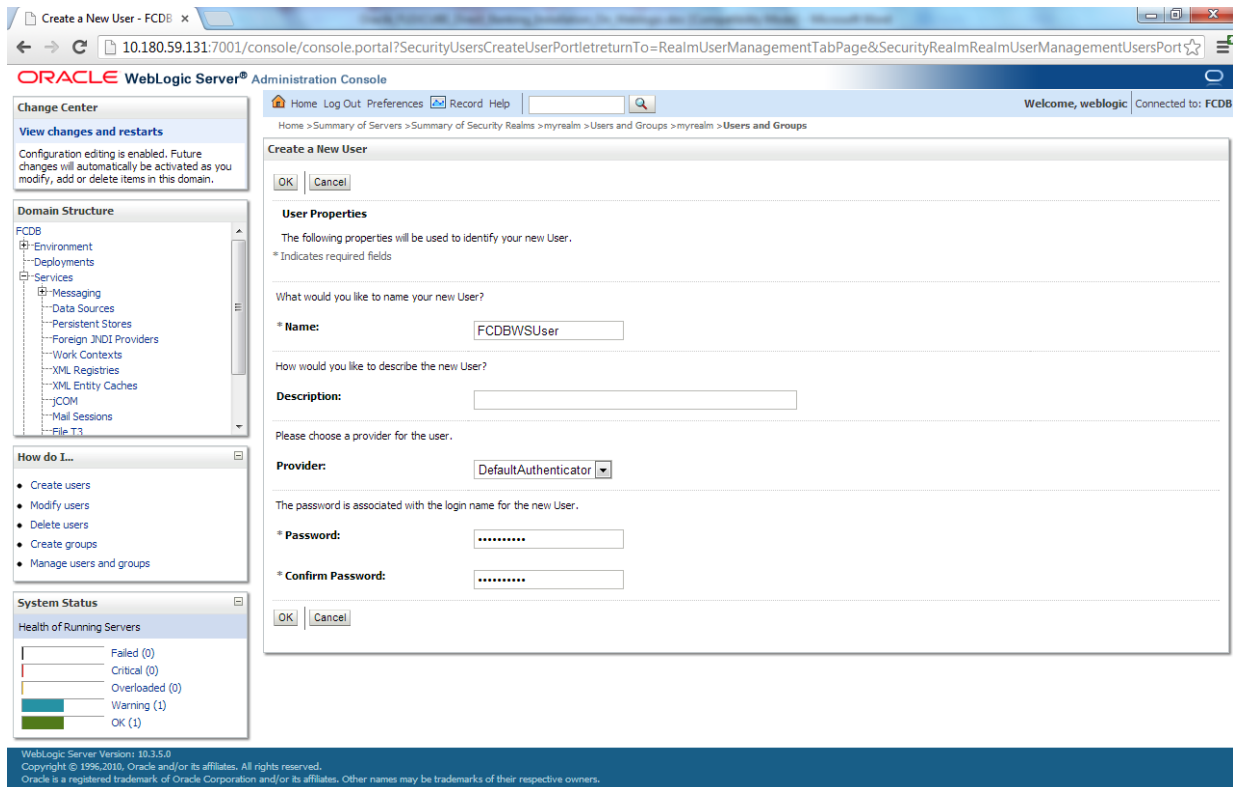
This page displays information about each user that has been configured in this security realm.

**Customize this table**

Users

Name	Description	Provider
OracleSystemUser	Oracle application software system user.	DefaultAuthenticator
weblogic	This user is the default administrator.	DefaultAuthenticator

WebLogic Server Version: 10.3.5.0  
Copyright © 1996-2010, 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.



Enter the following values and click “OK”

Field	Value
Name	<Enter username>
Password	<Enter password>
Confirm Password	<Repeat same password>

2. In fcac-config.xml set the following properties with username and password of the user created in above steps.

Field	Value
FCAT.CONNECT.SVC.USERNAME	<Enter username>
FCAT.CONNECT.SVC.PASSWORD	<Enter password>

3. A role named *FCDBEJBRole* is defined as follows, in *ejb-jar.xml* inside *ServiceEndPointRI.jar*. The user which was created in the above steps is to be assigned this role which is done in step 4.s

```
<assembly-descriptor>
  <security-role>
    <role-name>FCDBEJBRole</role-name>
  </security-role>
  <method-permission>
    <role-name>FCDBEJBRole</role-name>
    <method>
      <ejb-name>ServiceEndPointEJB</ejb-name>
      <method-name>processRequestWithXML</method-name>
    </method>
  </method-permission>
</assembly-descriptor>
```

4. Update the above created username in *weblogic-*ejb-jar.xml** inside *ServiceEndPointRI.jar* in *<principal-name/>* tag.

```
<security-role-assignment>
  <role-name>FCDBEJBRole</role-name>
  <principal-name>%%username%%</principal-name>
</security-role-assignment>
```

\*\*By default, the username set in *<principal-name/>* is *weblogic*.

## 12.Appendix

After the successful installation of FCDB with the help of FCDB Installer, following folder structure will be created:

Folder Name	Comments
<FCDB BASE DIR>\documents	Folder containing all FCDB documents
<FCDB BASE DIR>\dbsetup	Folder containing scripts for FCDB Database setup
<FCDB BASE DIR>\system	Folder containing FCDB application & properties files
<FCDB BASE DIR>\system\build\kernel	Folder containing the application codebase in form of a jar called FCDB_kernel.jar.
<FCDB BASE DIR>\system\build\extclasses\jars	Folder containing all requisite third-party jars. Seperate folders will be created for all the third party jars. e.g. <FCDB BASE DIR>\system\build\extclasses\jars\fcr
<FCDB BASE DIR>\system\home	Folder containing all the configuration/properties files of the application.

<FCDB BASE DIR>\system\build\tools	Folder containing all the tools required to generate the GUI xls, to encrypt/decrypt the property files and generation of password for db user.
<FCAT.LOGFILE.PATH>\logs	Property FCAT.LOGFILE.PATH is configured to locate the folder for storing the log files of the server. e.g. D:\FCDBLogs.  If this property is not set then logs are created at default location at <FCDB BASE DIR>\logs.

Deployment of application through *EJB mode* requires following jars:

Application Name	Deployable	JNDI	Path Location
EJBChannleController	EJBChannleController.jar	EJBChannelController	<FCDB BASE DIR>\deploy
ServiceEndPointRI	ServiceEndPointRI.jar	ServiceEndPointEJB	<FCDB BASE DIR>\deploy
TransactionBean	TransactionBean.jar	TransactionBean	<FCDB BASE DIR>\deploy
TimerBean	TimerBean.jar	TimerBean	<FCDB BASE DIR>\deploy

Deployment of the war file is mandatory for both modes (EJB\Webservice).

Deployable	Context	Path Location
F001.war	F001	<FCDB BASE DIR>\deploy
B001.war	B001	<FCDB BASE DIR>\deploy
SMS.war [SMS Banking]	SMS	<FCDB BASE DIR>\deploy
T001.war	T001	< FCDB BASE DIR>\deploy
V001.war	V001	< FCDB BASE DIR>\deploy
SMS.war	SMS	< FCDB BASE DIR>\deploy

Additional deployments when interaction with host is Message driven requires the following MDBs:

Deployable	Context	Comment	Path Location
------------	---------	---------	---------------

CloneQueueReceiverMDB.jar	CloneQueueReceiverMDB	Mandatory	<FCDB BASE DIR>\deploy
ClonedQueuResourceAdapter.rar	ClonedQueuResourceAdapter	Mandatory	<FCDB BASE DIR>\deploy

The following ears will be required for Bulk module setup.

Deployable	Context	Path Location
BULKEVENTHANDLEREJB.ear	BULKEVENTHANDLEREJB	<FCDB BASE DIR>\deploy\weblogic\bulk

The following archives should be downloaded on user mobile to enable J2ME Based Oracle FLEXCUBE Direct Banking Application.

Deployable	Context	Path Location
FCDBMidlet.jar		<FCDB BASE DIR>\deploy\mobile
FCDBMidlet.jad		<FCDB BASE DIR>\deploy\mobile

#### Configuration/Property Files

The layers presentation, channel & service in the system use the following property files:

Property File	Purpose
<Identity>.xml	Each web application deployed has its own property file named as <daemonName>.xml. The daemon name can be configured by property 'FCAT.INTERNETSERVLET.DAEMON.NAME' in web.xml. If no daemon name is specified, default name 'INTERNETSERVLET' is used. (internetservlet.xml). The daemon name can be B001 hence B001.xml.
fcac-config.xml	Configuration property used at the channel layer containing the db properties, invocation mode. This will be updated mainly when the invocation mode is Webservice (W).
fcac.properties	Configuration property used at the service layer containing the db properties, connection pool settings, path for logs and properties configured specific to any module installed.

Kindly refer to the sheet "Oracle\_FLEXCUBE\_Direct\_Banking\_Parameter\_Sheet" under Module Name "Core" and Property Location for all the above files.

## 13.Tools

Before using the tools ensure that the Java home path is set.

### **Encryption and Decryption of property files in home folder.**

Change the working folder to <FCDB BASE DIR>\system\build\tools. Pick up the following files for the respective platform and execute them at the command prompt:

File Name	OS
securepropertiesfiles.bat	Windows
securepropertiesfiles.sh	Linux

The tool operates in the interactive mode. The arguments will be provided on execution of the files.

To encrypt or decrypt a file the arguments prompted are :

<Encryption or Decryption mode(E/D)> <Path of the input property file> <Path of the output property file>

e.g. E D:\FCDB\system\home\fcac-config.xml D:\config

Once the file is encrypted set the system property "fcac.propfile.isencr" to "true".



**Build the XSL templates to required language.**

The templatized xsls will be picked up from the location

<FCDB BASE DIR>\system\datafiles\gui\<usertype>\<channel id>\template To generate the GUI xsls from the templatized xsls the following tools must be executed at the command prompt.

File Name	OS
xslbuild.bat	Windows
xslbuild.sh	Linux

The tool will execute in the interactive mode and prompt for the user type, channel id, language id and format. After execution the generated files will be stored in the location

<FCDB BASE DIR>\system\datafiles\gui\<usertype>\<channel id>\<language id>

**Unlock & set password for user "SUPERADMIN"**

To unlock the user created and set a user defined password for it, the following files must be executed at the command prompt for the respective platform.

File Name	OS
resetadmin.bat	Windows
resetadmin.sh	Linux

These tools cannot be successfully used more than once

The tool would require weblogic.jar which is located in the following path on the application server

< ORACLE Base Folder>\<WLS home directory>\server\lib