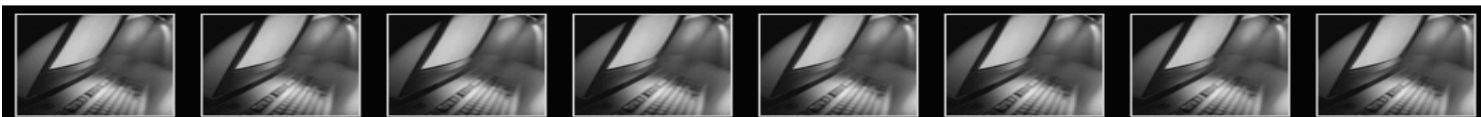


OIPA Application: Installation & Configuration with Weblogic 9

Oracle Insurance Policy Administration - Life
Release 8.1
Part Number: E14444-01
May 2009



Oracle® Insurance Policy Administration - Life Release V8.1

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Table of Contents

OVERVIEW	4
PREREQUISITES	4
ASSUMPTIONS.....	4
PRE-INSTALLATION TASKS	5
INITIAL CONFIGURATION (WEBLOGIC CONFIGURATION WIZARD).....	5
UPDATE WEBLOGIC LICENSE	11
INSTALL SYSTEMINFORMATION.PROPERTIES	11
INSTALL REQUIRED LIBRARIES	12
CREATE START/STOP SCRIPTS	13
START THE ADMINCONSOLE AND NODEMANAGER	14
INSTALLATION	15
LOG IN TO THE WEBLOGIC CONSOLE	15
CREATE A DATA SOURCE	15
CREATE A DEPLOYMENT	20
CONFIGURE SERVER SETTINGS	24
START THE MANAGED SERVER	25
APPENDIX I: SAMPLE START/STOP SCRIPTS	26
APPENDIX II: STARTING AND STOPPING WEBLOGIC SERVER 9.1	27

Overview

This guide will help you install and configure the Oracle Insurance Policy Administration (OIPA) Application on Weblogic Application Server v9.x.

Prerequisites

This guide requires the following:

- An existing database instance (Oracle 9.2.0.7 is used in this guide).
- The OIPA application (EAR file) built using Weblogic* as the application server.
 **Requires ASJ-2106 - ANT Build script enhancement for Weblogic*
- Weblogic 9.1 installed using BEA installation documentation.
- A VNC/Xwin client, and file transfer utility (WinSCP) installed on the user's PC

Assumptions

This guide assumes the following:

- Weblogic Server 9.1 installed in /opt/bea/

Pre-Installation Tasks

Initial Configuration (Weblogic Configuration Wizard)

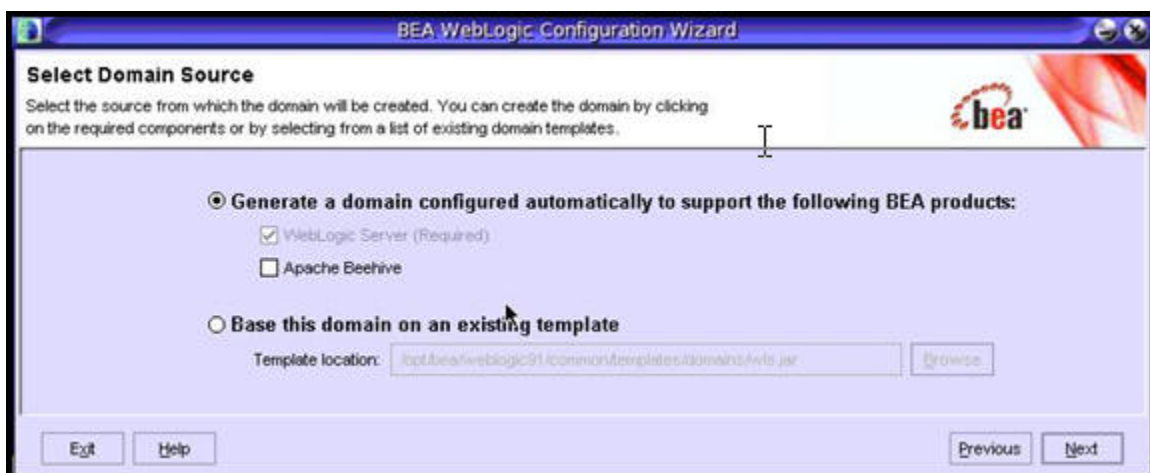
Follow these steps to launch the BEA Weblogic Configuration Wizard.

1. Open a VNC/Xwin session as root and open a terminal.
2. `# cd /opt/bean/weblogic91/common/bin`
3. `# ./config.sh`
4. Choose **Create a new WebLogic domain**.



Welcome Screen

5. Choose **Generate a domain configured automatically...**



Select Domain Source

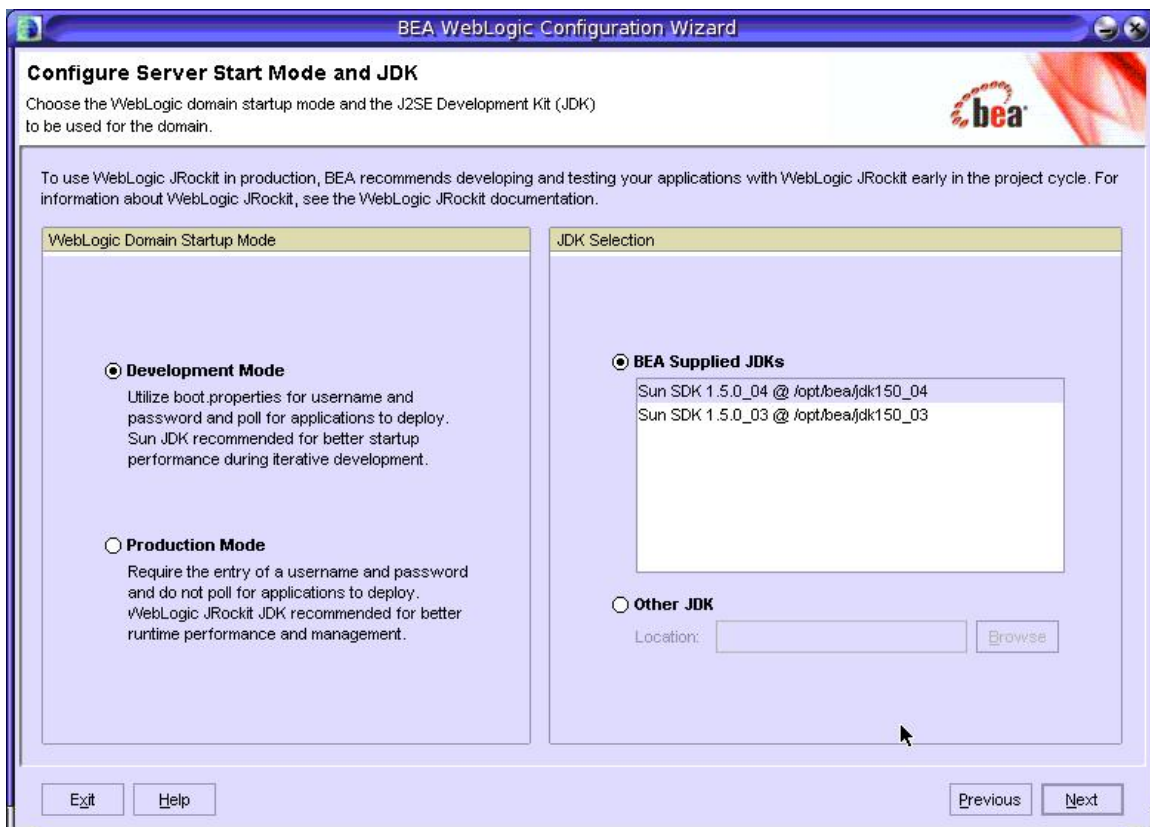
6. Enter the password for the weblogic user:



The screenshot shows the 'BEA WebLogic Configuration Wizard' window. The title bar reads 'BEA WebLogic Configuration Wizard'. The main heading is 'Configure Administrator Username and Password'. Below the heading, it says: 'Create a user to be assigned to the Administrator role. This user is the default administrator used to start development mode servers.' There is a 'Discard Changes' button with a circular arrow icon. The form contains four fields: '*User name:' with the value 'weblogic', '*User password:' with masked characters, '*Confirm user password:' with masked characters, and 'Description:' with the text 'This user is the default administrator.'. At the bottom, there are 'Exit', 'Help', 'Previous', and 'Next' buttons.

Configure Administrator Username and Password

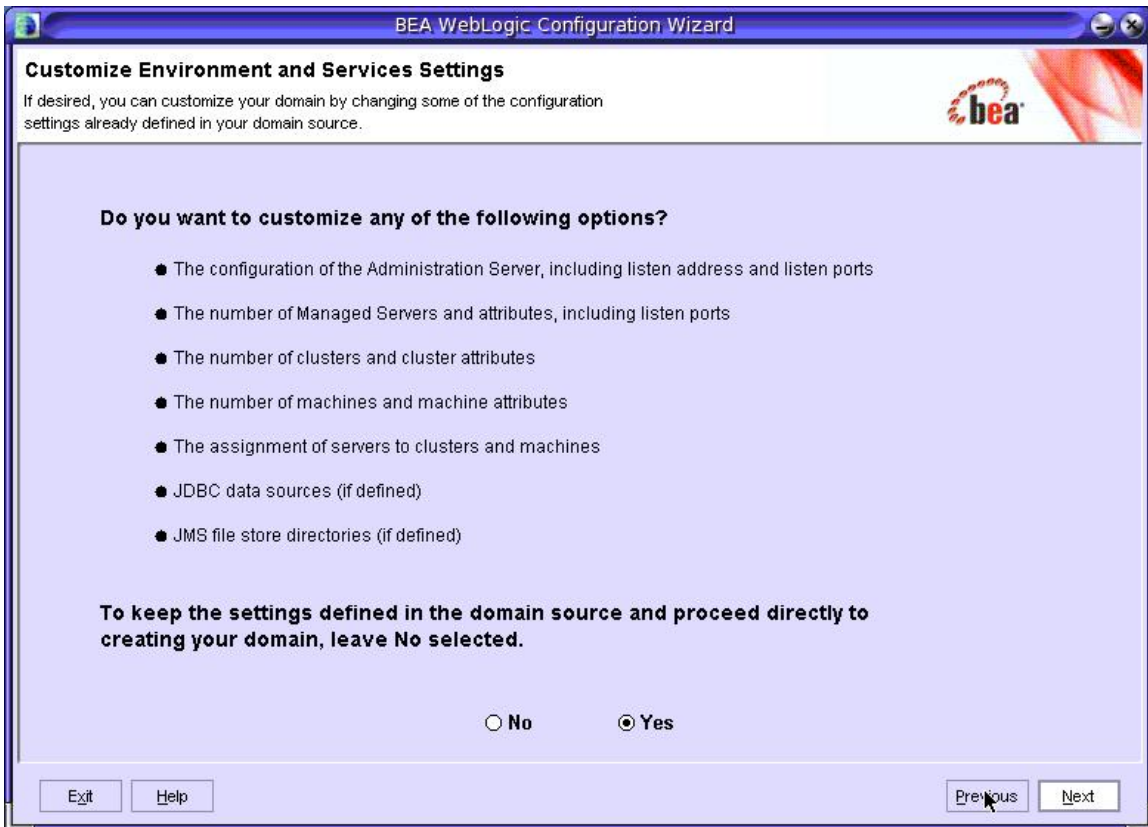
7. Choose Development Mode and select your JDK.



The screenshot shows the 'BEA WebLogic Configuration Wizard' window. The title bar reads 'BEA WebLogic Configuration Wizard'. The main heading is 'Configure Server Start Mode and JDK'. Below the heading, it says: 'Choose the WebLogic domain startup mode and the J2SE Development Kit (JDK) to be used for the domain.' There is a paragraph of text: 'To use WebLogic JRockit in production, BEA recommends developing and testing your applications with WebLogic JRockit early in the project cycle. For information about WebLogic JRockit, see the WebLogic JRockit documentation.' The window is divided into two panes. The left pane is titled 'WebLogic Domain Startup Mode' and contains two radio buttons: 'Development Mode' (selected) and 'Production Mode'. The right pane is titled 'JDK Selection' and contains a radio button for 'BEA Supplied JDKs' (selected), a list box showing 'Sun SDK 1.5.0_04 @ /opt/bean/jdk150_04' and 'Sun SDK 1.5.0_03 @ /opt/bean/jdk150_03', and an 'Other JDK' section with a 'Location:' text box and a 'Browse' button. At the bottom, there are 'Exit', 'Help', 'Previous', and 'Next' buttons.

Configure Server Start Mode and JDK

8. Select **Yes** for “Do you want to customize any of the following options?”



BEA WebLogic Configuration Wizard

Customize Environment and Services Settings

If desired, you can customize your domain by changing some of the configuration settings already defined in your domain source.

Do you want to customize any of the following options?

- The configuration of the Administration Server, including listen address and listen ports
- The number of Managed Servers and attributes, including listen ports
- The number of clusters and cluster attributes
- The number of machines and machine attributes
- The assignment of servers to clusters and machines
- JDBC data sources (if defined)
- JMS file store directories (if defined)

To keep the settings defined in the domain source and proceed directly to creating your domain, leave No selected.

☐ No ☒ Yes

Exit Help Previous Next

Customize Environment

9. Change the listen port to 7000. Remember this port number because you will use it to access the admin console later. (ex. <http://hartford-app1:7000/console>)



BEA WebLogic Configuration Wizard

Configure the Administration Server

Enter administration server configurations. Each WebLogic Server domain must have one Administration Server. The Administration Server hosts the Administration Console which is used to perform administrative tasks.

Discard Changes

*Name: AdminServer

Listen address: All Local Addresses

Listen port: 7000

SSL listen port: N/A

SSL enabled: ☐

Exit Help Previous Next

Configure the Administration Server

10. Add a new server. Name it and assign a listen port.



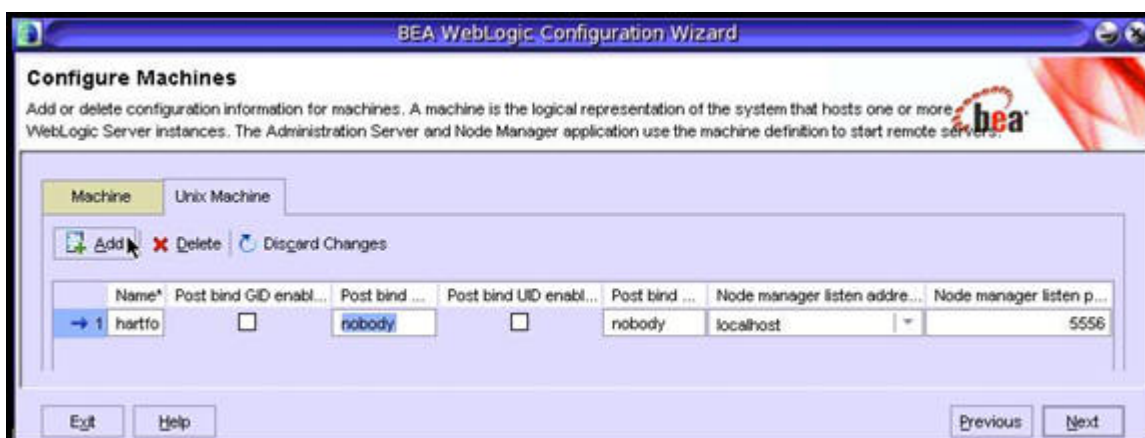
Configure Managed Servers

11. Skip over the next screen. Clustering is outside the scope of this guide.



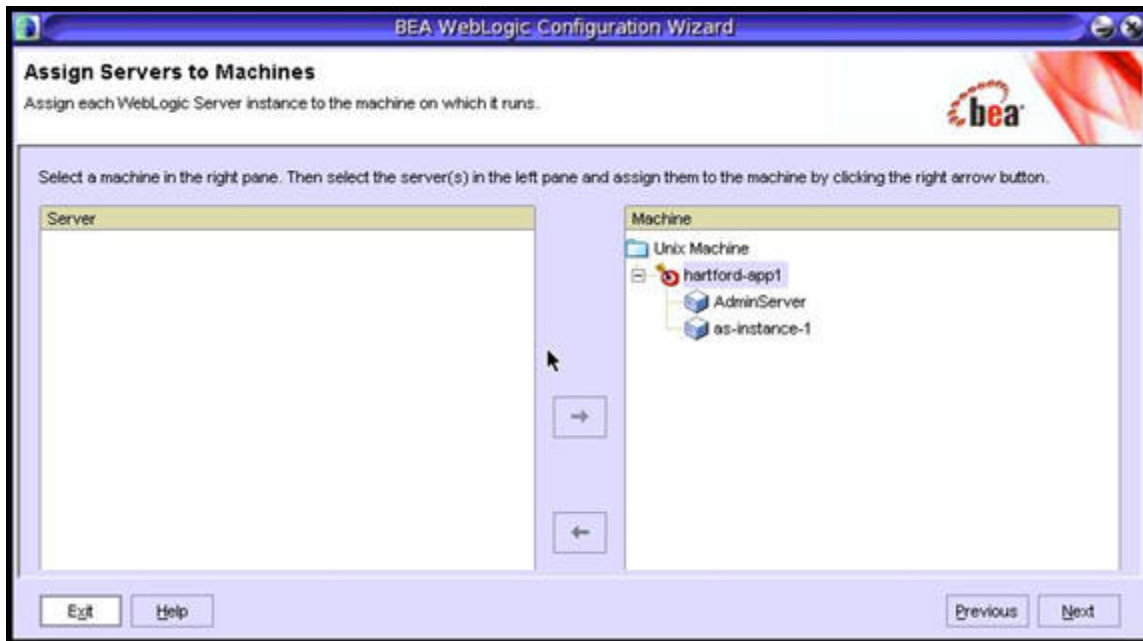
Configure Clusters

12. Click the Unix Machine tab and add a new Unix machine. Give it the name of your server and click next.



Configure Machines

13. Assign both the Administration Server and the server you created (refer to step 10) to the unix machine you created (refer to step 12).



Assign Servers to Machines

14. Select **Next**.



Review Weblogic Domain

15. Enter the domain name (eg: asdomain) and note the domain location.



Create WebLogic Domain

16. You have completed all necessary steps. Select **Done**.

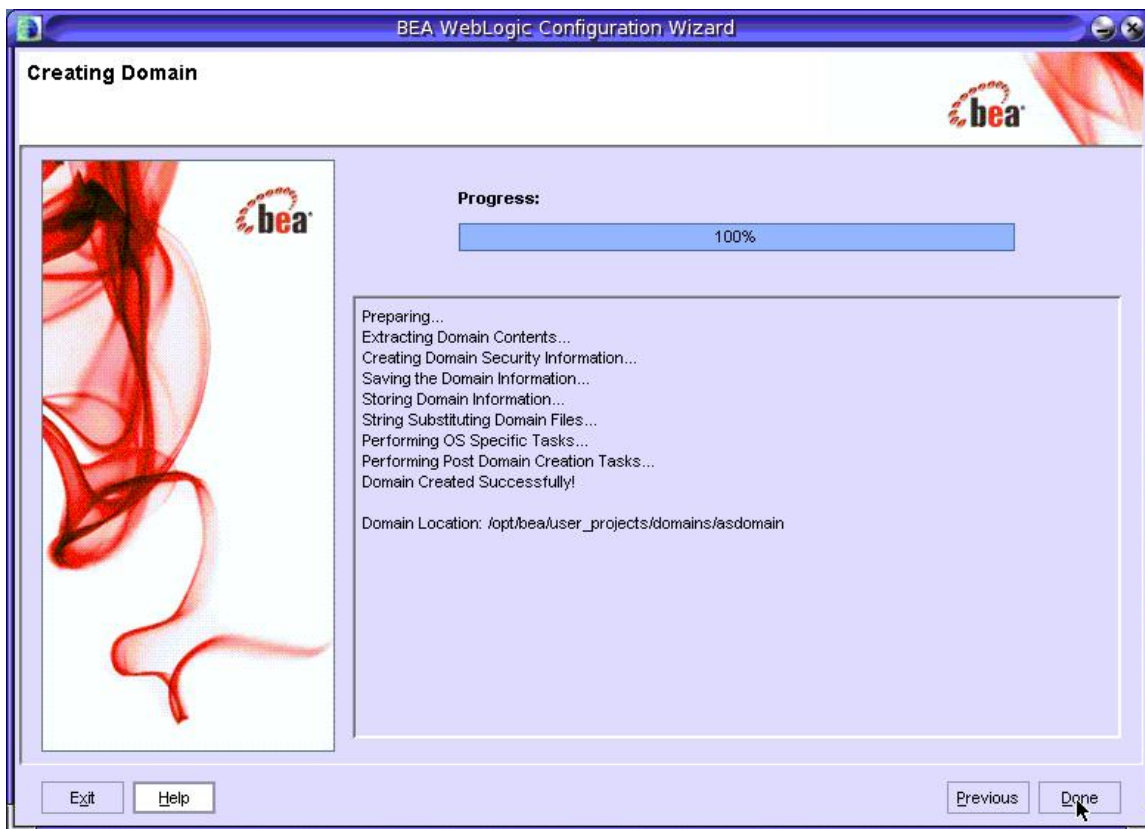


Figure 0-1

Update Weblogic License

Follow these steps to update the Weblogic license file.

1. Open a VNC/Xwin session as root and open a terminal.
2. Transfer (ASCII mode) the updated license.bea to the server (eg. /home/username/tmp).
3. `# cd /opt/bea`
4. `# mkdir licensebackup`
5. `# mv license.bea ./licensebackup/`
6. `# mv /home/username/tmp/license.bea .`

Install SystemInformation.properties

Follow these steps to install the SystemInformation.properties file.

1. Open a VNC/Xwin session as root and open a terminal.
2. Transfer (ASCII mode) the SystemInformation.properties file to the server (eg. /home/username/tmp).
3. `# cd /opt`
4. `# mkdir adminserver`
5. `# mv /home/username/tmp/SystemInformation.properties ./adminserver/`

Install required libraries

Follow these steps to install the necessary .jar files*

1. Open a VNC/Xwin session as root and open a terminal.
2. Transfer (Binary mode) the *.jar files to the server (eg. /home/username/tmp).
3. # `cd /opt/bea/weblogic91/server/lib`
4. # `mv /home/username/tmp/ojdbc14.jar .`
5. Repeat for each jar.

THEN

1. Add all of the required jars to the server's /lib directory.
2. The path to the /lib directory should be similar to:
../opt/bea/user_projects/domains/asdomain/lib
3. Create a new directory under asdomain called ext.
4. Place the following two jars in the ext folder (included in the ear):
 - o commons-logging-1.0.4.jar
 - o log4j-1.2.9.jar
5. Add all of the jars to the Class Path: variable under the Server Start tab for the selected server.

- JDBC driver jars (eg. ojdbc14.jar for Oracle)
- js.jar
- antlr-2.7.5H3.jar
- asm-attrs.jar
- asm.jar
- axis-jaxrpc-1.3.jar
- axis-saaj-1.3.jar
- c3p0-0.8.5.2.jar
- cglib-2.1.jar
- cleanimports.jar
- commons-collections-3.1.jar
- concurrent-1.3.2.jar
- connector.jar
- dom4j-1.5.2.jar
- ehcache-1.3.0.jar
- hibernate-3.2.1.jar
- jaas.jar
- jaxen-1.1-beta-4.jar
- jgroups-2.2.7.jar

- jta.jar
- proxool-0.8.3.jar
- axon8-dom.jar
- saxon8-jdom.jar
- saxon8-sql.jar
- saxon8-xom.jar
- saxon8-xpath.jar
- saxon8.jar
- swarmcache-1.0rc2.jar
- versioncheck.jar
- xerces-2.6.2.jar
- xml-apis.jar

Create Start/Stop Scripts

Follow these steps to create Start/Stop scripts for this server*

1. Open a VNC/Xwin session as root and open a terminal.
2. Transfer (ASCII mode) the start/stop scripts to the server (eg. /home/username/tmp).
3. # `chmod 755 /home/username/tmp /startAdminConsole.sh`
4. # `chmod 755 /home/username/tmp /stopAdminConsole.sh`
5. # `chmod 755 /home/username/tmp /startNodeManager.sh`
6. # `chmod 755 /home/username/tmp /startManagedServers.sh`
7. # `chmod 755 /home/username/tmp /stopManagedServers.sh`
8. # `cd /opt/bea/user_projects/domains/asdomain`
9. # `mkdir logs`
10. # `mv /home/username/tmp/startAdminConsole.sh .`
11. # `mv /home/username/tmp/stopAdminConsole.sh .`
12. # `mv /home/username/tmp/startNodeManager.sh .`
13. # `mv /home/username/tmp/startManagedServers.sh .`
14. # `mv /home/username/tmp/stopManagedServers.sh .`

* *Appendix I contains sample start/stop scripts.*

Start the AdminConsole and NodeManager

Follow these steps to start the AdminConsole and NodeManager*

1. Open a VNC/Xwin session as root and open a terminal.
2. # `cd /opt/bea/user_projects/domains/asdomain`
3. # `./StartAdminConsole.sh`
4. # `./StartNodeManager.sh`

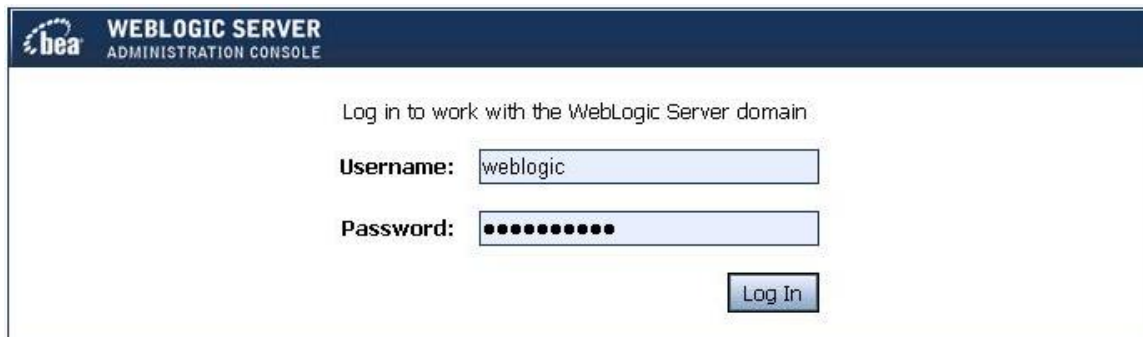
** See Appendix II for additional help in starting and stopping the AdminConsole, NodeManager and Managed Servers.*

Congratulations. You are now ready to install the OIPA Application.

Installation

Log in to the Weblogic Console

1. Log in to the Weblogic console at `http://<server-name>:7000/console`

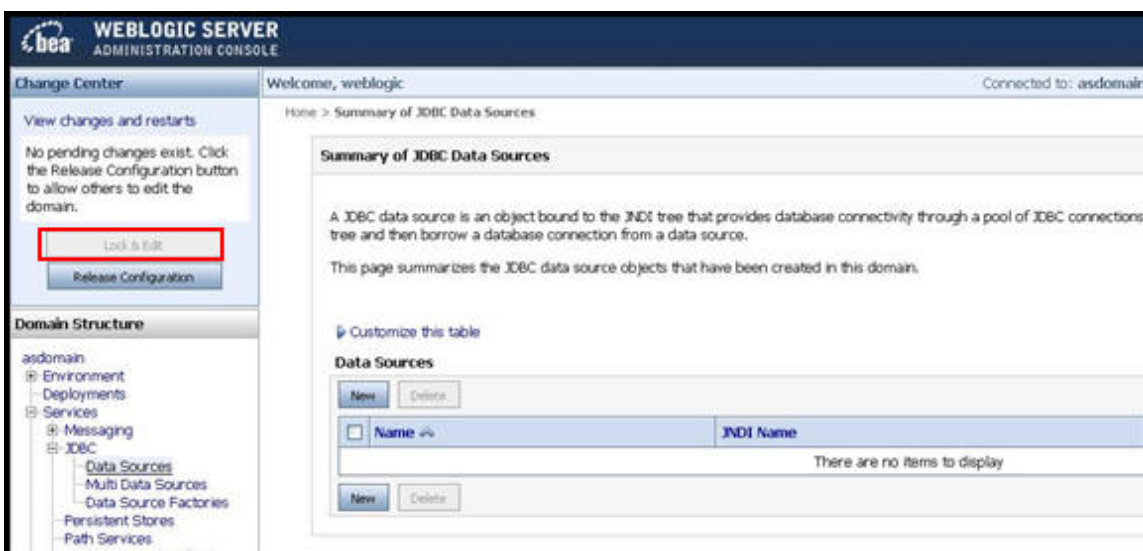


The screenshot shows the WebLogic Server Administration Console login page. At the top, there is a header with the BEA logo and the text "WEBLOGIC SERVER ADMINISTRATION CONSOLE". Below the header, a message says "Log in to work with the WebLogic Server domain". There are two input fields: "Username:" with the value "weblogic" and "Password:" with masked characters. A "Log In" button is located at the bottom right of the login area.

Log-in Menu

Create a Data Source

1. Navigate to `asdomain->Services->JDBC->Data`.
2. Select **Lock & Edit** and then select **New**.



The screenshot shows the "Summary of JDBC Data Sources" page in the WebLogic Server Administration Console. The left sidebar shows the "Domain Structure" tree with "asdomain" expanded, and "JDBC" > "Data Sources" selected. The main content area has a "Summary of JDBC Data Sources" section with a description of JDBC data sources. Below this, there is a "Data Sources" table with columns "Name" and "JNDI Name". The table is currently empty, showing "There are no items to display". A "Lock & Edit" button is highlighted in the left sidebar.

Welcome Screen

3. Create and name your new data source and select the appropriate database type and driver.

Name: Oracle Base Adminserver Dev 1

JNDI Name: ADMINSERVERDS

Database Type: Oracle

Database Driver: *Oracle's Driver (Thin XA) Versions 9.0.1, 9.2.0, 10

WEBLOGIC SERVER
ADMINISTRATION CONSOLE

Change Center: View changes and restarts. No pending changes exist. Click the Release Configuration button to allow others to edit the domain. [Lock & Edit] [Release Configuration]

Domain Structure: asdomain > Environment > Deployments > Services > Messaging > J2EE > Data Sources

Welcome, weblogic. Connected to: asdomain

Home > Summary of JDBC Data Sources

Create a New JDBC Data Source

[Back] [Next] [Finish] [Cancel]

JDBC Data Source Properties
The following properties will be used to identify your new JDBC data source.

What would you like to name your new JDBC data source?
Name: Oracle Base Adminserver

What JNDI name would you like to assign to your new JDBC Data Source?
JNDI Name: ADMINSERVERDS

What database type would you like to select?
Database Type: Oracle

What database driver would you like to use to create database connections?
Database Driver: *Oracle's Driver (Thin XA) Versions 9.0.1, 9.2.0, 10

[Back] [Next] [Finish] [Cancel]

Create New JDBC Data Source

4. Enter the appropriate connection properties for your data source.

Database Name: orcl

Host Name: hartford-db1

Port: 1521

Database User Name: ASADMINDEV1

Password: <password>

WEBLOGIC SERVER
ADMINISTRATION CONSOLE

Change Center
View changes and restarts
No pending changes exist. Click the Release Configuration button to allow others to edit the domain.
Lock & Edit
Release Configuration

Domain Structure
asdomain
+ Environment
- Deployments
+ Services
+ Messaging
+ JDBC
- Data Sources
- Multi Data Sources
- Data Source Factories
- Persistent Stores
- Path Services
- Foreign JNDI Providers
- Work Contexts
- XML Registries
- XML Entity Caches
- JCOM
- Mail Sessions
- File T3
- JTA
- Security Realms
+ Interoperability
+ Diagnostics

Welcome, weblogic
Connected to: asdomain
Home > Summary of JDBC Data Sources

Create a New JDBC Data Source
Back Next Finish Cancel

Connection Properties
Define Connection Properties.

What is the name of database you would like to connect to?
Database Name: orcl

What is the name or IP address of the database server?
Host Name: hartford-db1

What is the port on the database server used to connect to the database?
Port: 1521

What database account user name do you want to use to create database connections?
Database User Name: ASADMINDEV1

What is the database account password to use to create database connections?
Password: *****

Confirm Password: *****

Connection Properties

5. Review the JDBC connection properties, then click Test Configuration.

Create a New JDBC Data Source

Test Configuration Back Next Finish Cancel

Test Database Connection
Test the database availability and the connection properties you provided.

What is the full package name of JDBC driver class used to create database connections in the connection pool? (Note that this driver class must be in the classpath of any server to which it is deployed.)

Driver Class Name:

What is the URL of the database to connect to? The format of the URL varies by JDBC driver.

URL:

What database account user name do you want to use to create database connections?

Database User Name:

What is the database account password to use to create database connections?

Password:

Confirm Password:

What are the properties to pass to the JDBC driver when creating database connections?

Properties:

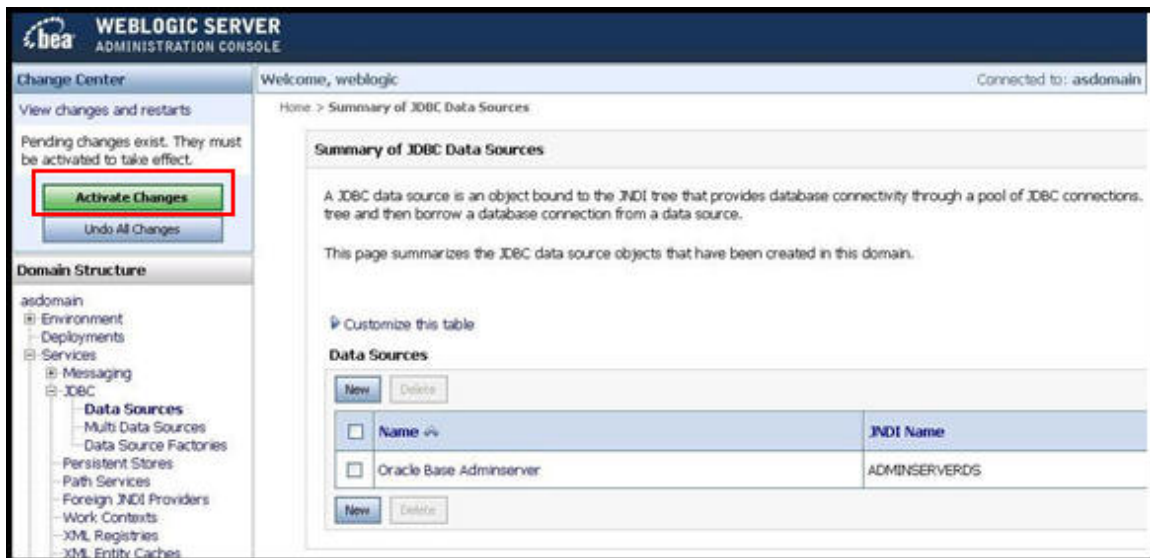
What table name or SQL statement would you like to use to test database connections?

Test Table Name:

Test Configuration Back Next Finish Cancel

Test Configuration

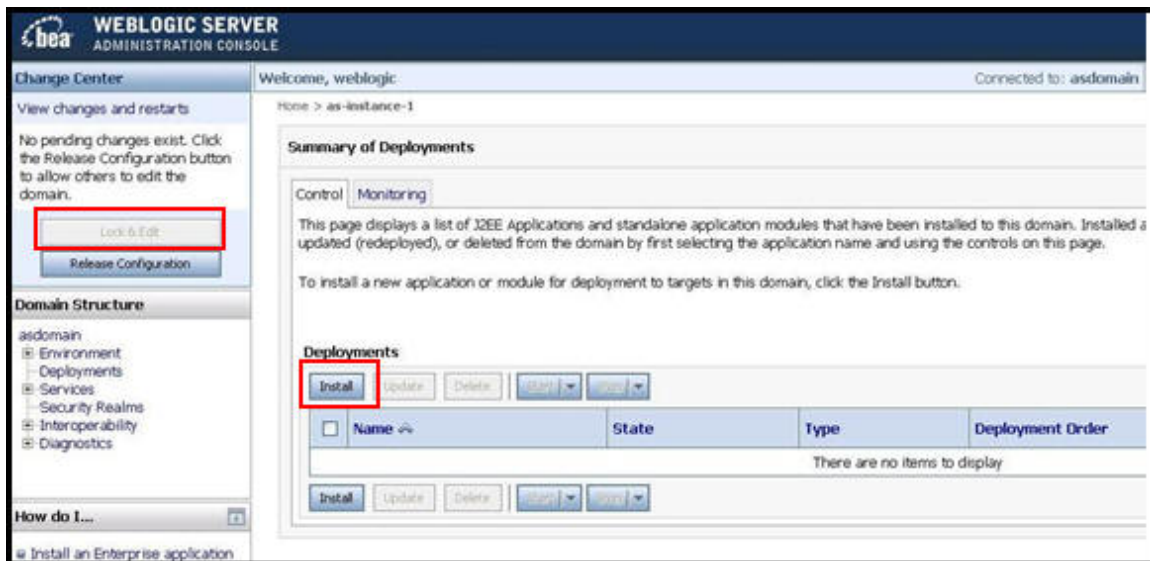
6. Click Activate Changes.



Activate Changes

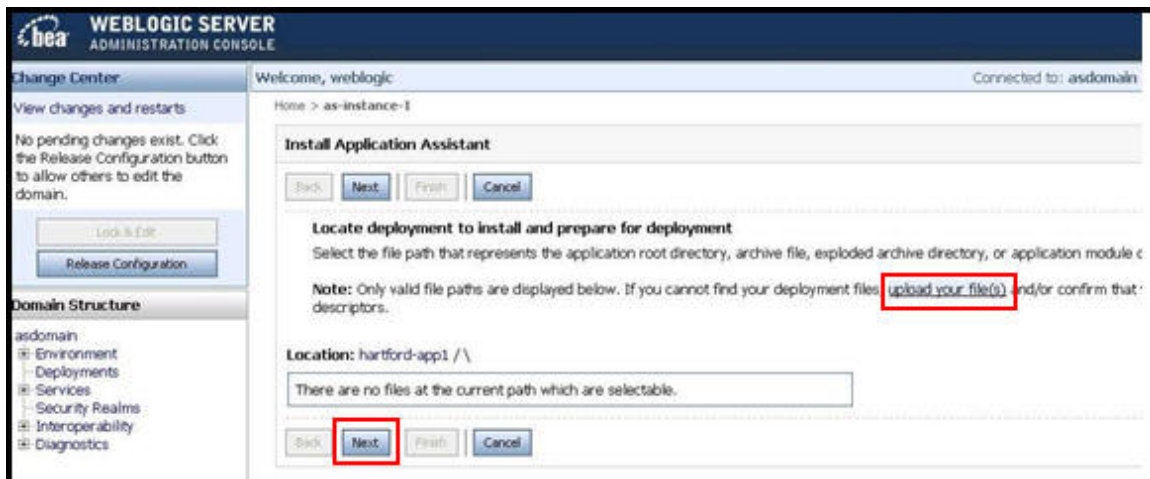
Create a Deployment

1. Navigate to asdomain->Deployments.
2. Click **Lock & Edit**.
3. Click **Install**.



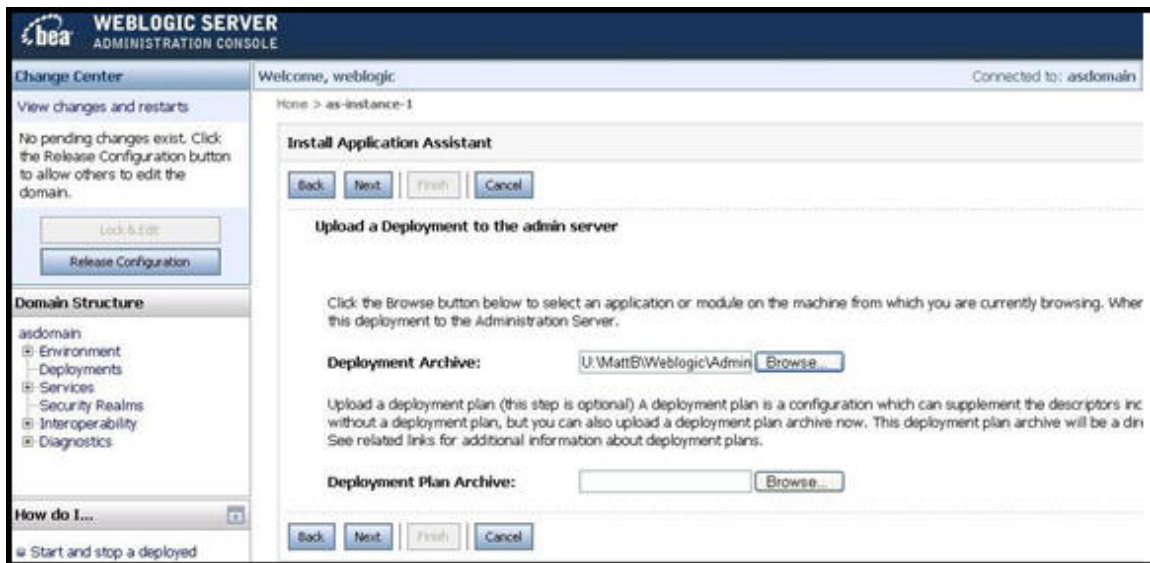
Deployments

4. Click **upload your file(s)** and click **Next**.



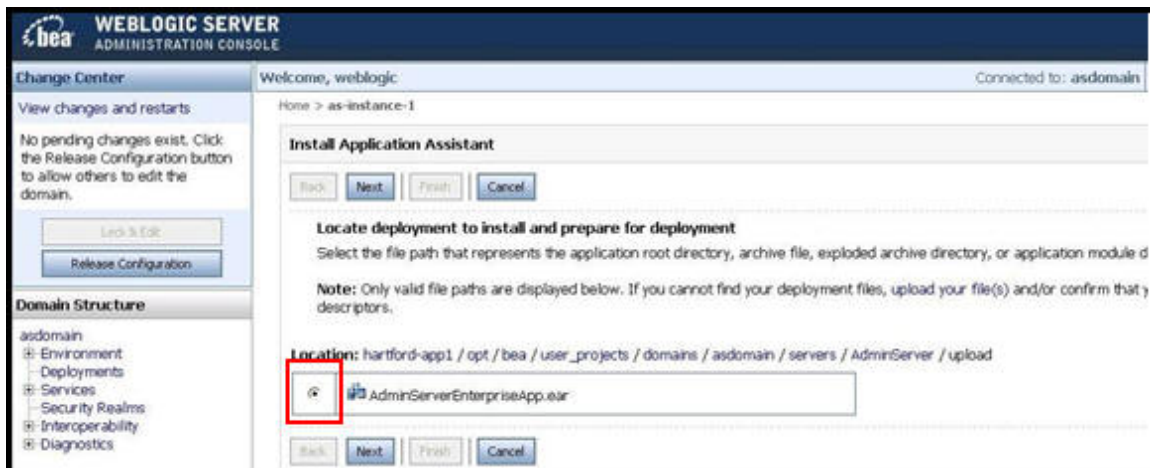
Upload Files

5. Select the location of your ear file.



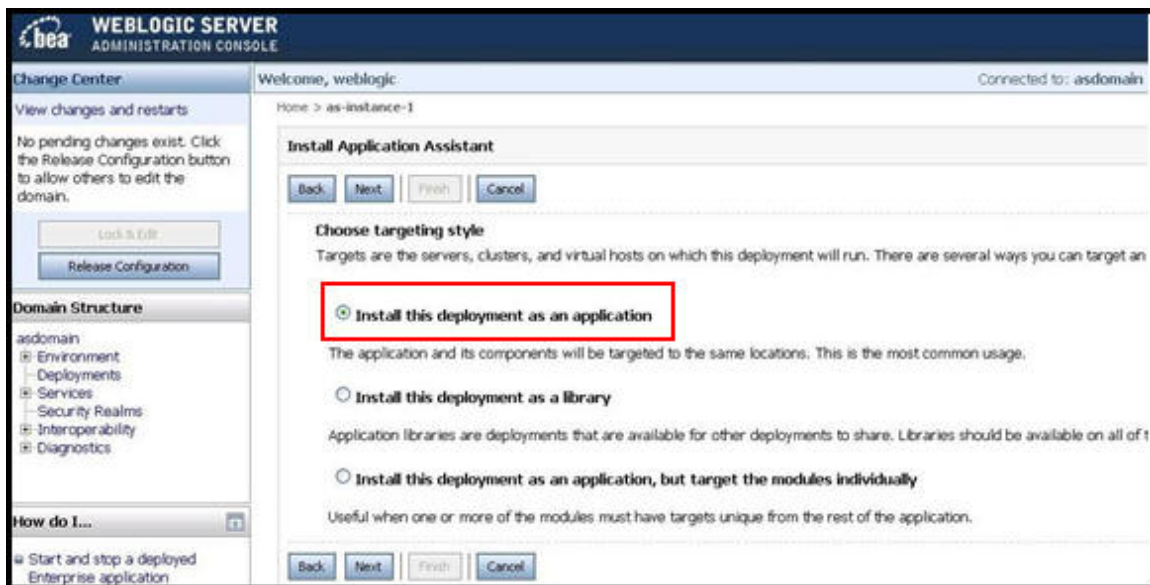
Locate ear file

6. Click the radio button to the left of your ear file.



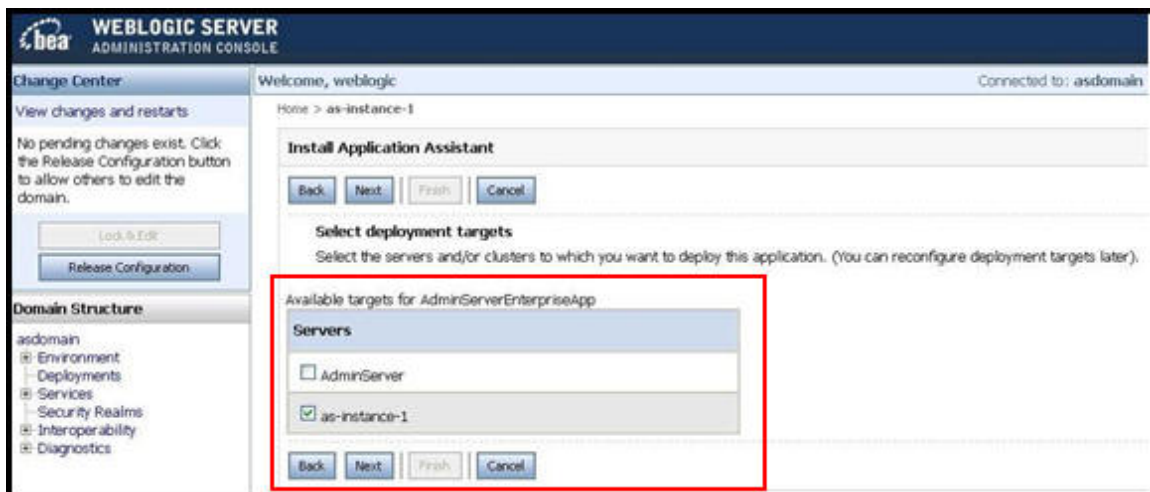
Select ear file

7. Click **Install the deployment as an application**.



Install Deployment as an Application

8. Target the deployment at the appropriate server.



Target Deployment

9. Leave the defaults and click **Finish**.

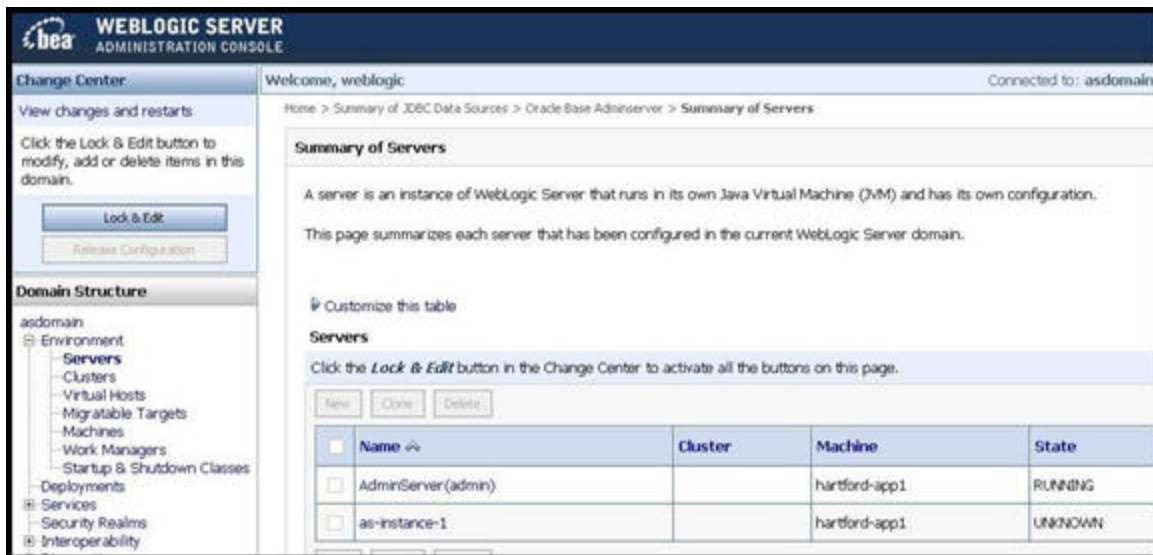
Leave Defaults as Set

10. Click **Activate Changes**.

Activate Changes

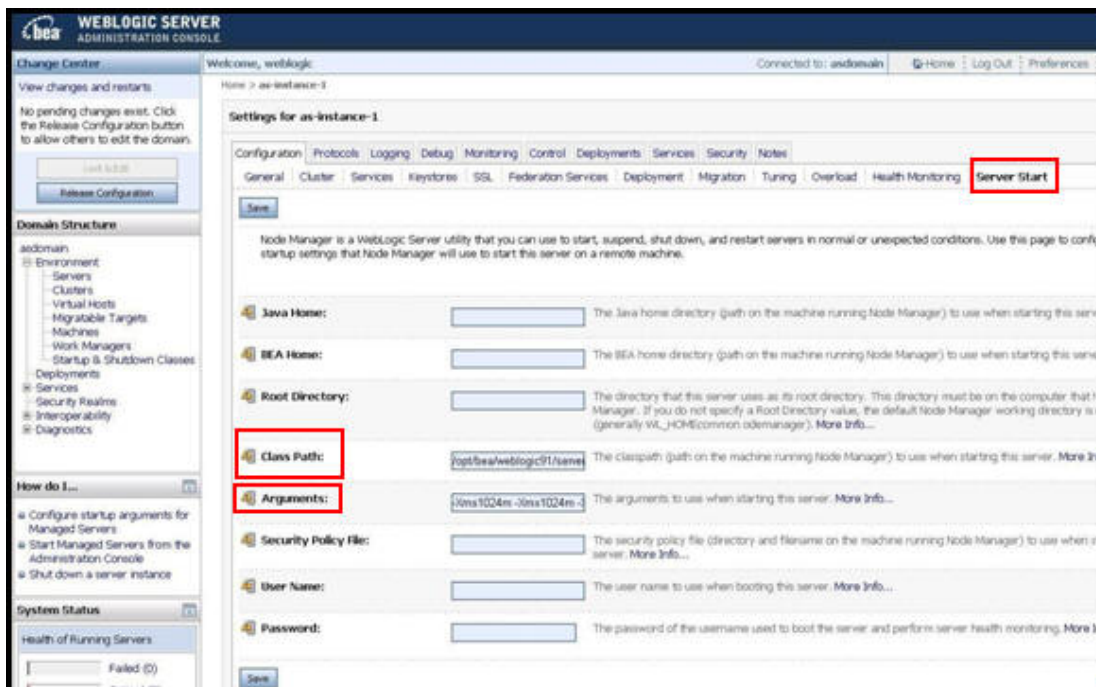
Configure server settings

1. Navigate to asdomain->Environment->Servers.
2. Click your server.



Select server

3. Click on the **Server Start** sub tab of the Configuration tab.
4. Click Lock & Edit.
5. Update the Class Path and Arguments fields.
6. Click Activate Changes.



Update Class Path and Arguments

Class Path: (The necessary AdminServer jars and all of the Weblogic required jars)

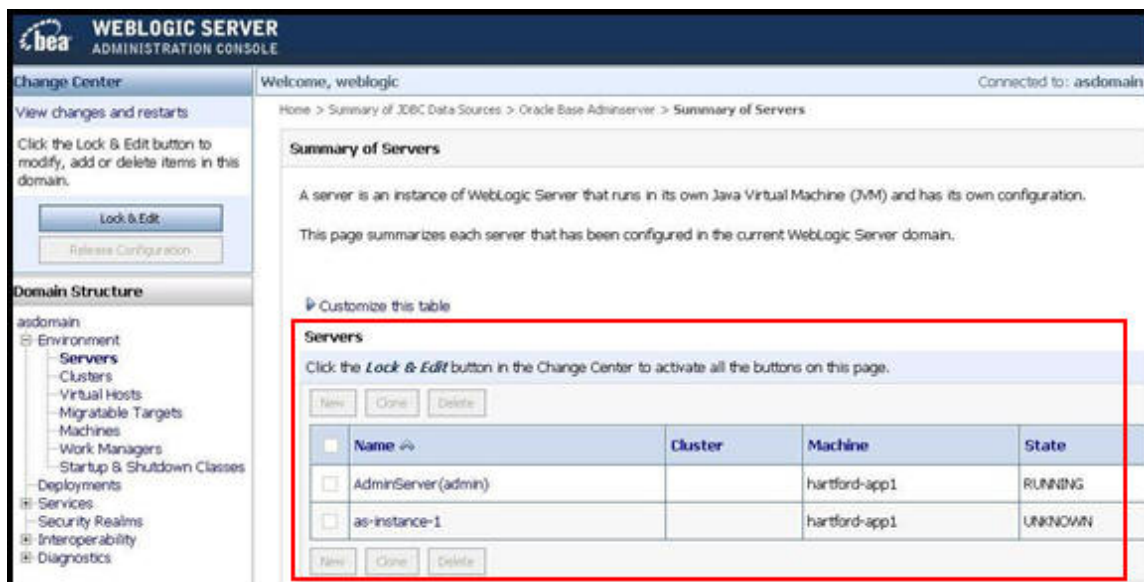
```
/opt/bea/weblogic91/server/lib/ojdbc14.jar:/opt/bea/weblogic91/server/lib/js.jar:/opt/bea/weblogic91/server/lib/dom4j-1.6.1.jar:/opt/bea/weblogic91/server/lib/jaxen-1.1-beta-4.jar:/opt/bea/weblogic91/server/lib/axis-jaxrpc-1.3.jar:/opt/bea/weblogic91/server/lib/axis-saaj-1.3.jar:/opt/bea/patch_weblogic910/profiles/default/sys_manifest_classpath/weblogic_patch.jar:/opt/bea/jdk150_04/lib/tools.jar:/opt/bea/weblogic91/server/lib/weblogic_sp.jar:/opt/bea/weblogic91/server/lib/weblogic.jar:/opt/bea/weblogic91/server/lib/webservices.jar:/opt/bea/weblogic91/common/eval/pointbase/lib/pbclient51.jar:/opt/bea/weblogic91/server/lib/xqrl.jar:/opt/bea/weblogic91/integration/lib/util.jar:/opt/adminserver
```

Arguments:

```
-Xms1024m -Xmx1024m -XX:MaxPermSize=128m
```

Start the Managed Server

1. Navigate to asdomain->Environment->Servers.
2. Click your server.



WEBLOGIC SERVER ADMINISTRATION CONSOLE

Welcome, weblogic. Connected to: asdomain

Home > Summary of JDBC Data Sources > Oracle Base Adminserver > Summary of Servers

Summary of Servers

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.

Customize this table

Servers

Click the **Lock & Edit** button in the Change Center to activate all the buttons on this page.

Name	Cluster	Machine	State
AdminServer(admin)		hartford-app1	RUNNING
as-instance-1		hartford-app1	UNKNOWN

Select Server

Appendix I: Sample Start/Stop Scripts

startAdminConsole.sh:

```
#!/bin/sh
```

```
DOMAIN_HOME="/opt/bea/user_projects/domains/asdomain"
```

```
nohup ${DOMAIN_HOME}/bin/startWebLogic.sh > ./logs/startAdminConsole.log &
```

stopAdminConsole.sh:

```
#!/bin/sh
```

```
DOMAIN_HOME="/opt/bea/user_projects/domains/asdomain"
```

```
${DOMAIN_HOME}/bin/stopWebLogic.sh weblogic <password> t3://localhost:7000
```

startNodeManager.sh:

```
#!/bin/sh
```

```
SERVER_HOME="/opt/bea/weblogic91/server"
```

```
nohup ${SERVER_HOME}/bin/startNodeManager.sh localhost &
```

startManagedServers.sh:

```
#!/bin/sh
```

```
DOMAIN_HOME="/opt/bea/user_projects/domains/asdomain"
```

```
nohup ${DOMAIN_HOME}/bin/startManagedWebLogic.sh as-instance-1 t3://localhost:7000 >  
./logs/startManagedServers-as-instance-1.log &
```

stopManagedServers.sh:

```
#!/bin/sh
```

```
DOMAIN_HOME="/opt/bea/user_projects/domains/asdomain"
```

```
${DOMAIN_HOME}/bin/stopWebLogic.sh as-instance-1 t3://localhost:8180 weblogic <password>
```

Appendix II: Starting and Stopping Weblogic Server 9.1

Start and Stop the admin console using scripts provided with Weblogic

To start the admin console:

1. # `cd /opt/bea/user_projects/domains/asdomain/bin`
2. # `nohup ./startWeblogic.sh > ../logs/console.log &`

To stop the admin console:

1. # `cd /opt/bea/user_projects/domains/asdomain/bin`
2. # `./stopWeblogic.sh Weblogic <password> t3://localhost:7000`

Start the node manager using scripts provided with Weblogic

To Start the node manager:

1. # `cd /opt/bea/weblogic91/server/bin`
2. # `nohup ./startNodeManager.sh &`

Start and Stop a managed server using scripts provided with Weblogic

To start a managed server:

1. # `cd /opt/bea/user_projects/domains/asdomain/bin`
2. # `nohup ./startManagedWeblogic.sh as1 > ../logs/as-1.log &`

To stop a managed server:

1. # `cd /opt/bea/user_projects/domains/asdomain/bin`
2. # `./stopManagedWeblogic.sh as1 t3://localhost:7000 weblogic <password>`

Start and Stop the admin console using example scripts provided in this guide

To start the admin console:

1. # `cd /opt/bea/user_projects/domains/asdomain`
2. # `./startAdminConsole.sh`

To stop the admin console:

1. # `cd /opt/bea/user_projects/domains/asdomain`
2. # `./stopAdminConsole.sh`

Start the node manager using example scripts provided in this guide

To Start the node manager:

1. # `cd /opt/bea/user_projects/domains/asdomain`
2. # `./startNodeManager.sh`

Start and Stop a managed server using example scripts provided in this guide

To start a managed server:

1. # `cd /opt/bea/user_projects/domains/asdomain`
2. # `./startManagedServers.sh`

To stop a managed server:

1. # `cd /opt/bea/user_projects/domains/asdomain`
2. # `./stopManagedServers.sh`