CollabraSuite, BEA WebLogic Edition

Installation Guide

Version 3.8
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Contents

Introduction **1**
Prerequisites **2**
Install CollabraSuite **3**
Create the Domain **7**
Extend the Domain **8**
Create the Collaborative Environment **23**
Create the Portal **23**
Extend the Portal **23**
Appendices **25**
Domain Extension Summary 25
Portal Extension Summary 26
Upgrading CollabraSuite 28
Clustering Configuration 29
Known Limitations 30
Special PointBase Instructions 31
Index **32**

Introduction

You have just received a copy of CollabraSuite®, the most extensive and configurable contextual collaboration software application on the market today. The CollabraSuite software contains a suite of graphical real-time collaboration components that allows users to build customized collaborative environments made up of:

- Campuses—virtual grounds that buildings are housed on.
- Buildings—virtual structures that house operations and reside within the campus.
- Floors—the division of buildings, much like a physical structure.
- Rooms—support for individual or specific activities. Rooms can be configured as offices, conference rooms, etc.

The CollabraSuite components, called suitelets, provide a vast array of collaboration services including:

- Content management (documents of any type, links, notes)
- Knowledge exchange (secure chat,paging,whiteboarding, audio & video conferencing)
- Information organization and retrieval (rooms provide secure access to file cabinets and brief cases)
- Expertise location and management (presence awareness and skill search).

The core functionality suitelets provide—which offers client interaction presented through the use of applets within dynamically generated web pages or from within standalone applications, coupled with an environment that supports information persistence, rigid security, scalability, and platform independence—makes it possible for an organization to freely collaborate over geographically dispersed locations and thus leverage its distributed experience and expertise to meet today's real-time business requirements.

Our CollabraSuite product is developed completely in Java utilizing the Java 2 Enterprise Edition (J2EE) application model, making it deployable to multiple J2EE servers, existing applications or system frameworks such as portals or other suite products as a complementary technology. CollabraSpace components can be deployed using a flexible HTTP-style interface or by using the CollabraSuite custom tag library.

This version of CollabraSuite is specifically designed for deployment to a BEA WebLogic Server®. However the media does contain all of the necessary software and scripts to deploy to other application servers. CollabraSpace recommends that you attempt a CollabraSuite deployment in a development domain prior to performing a deployment into an existing production environment.

The rest of this document will guide you through the process of installing the CollabraSuite software. If you are upgrading an existing installation of CollabraSuite, see Upgrading CollabraSuite. It is assumed that the installer has some familiarity with J2EE applications and the

BEA WebLogic application server. For additional assistance email us at support@CollabraSpace.com.

Prerequisites

The following prerequisites must be satisfied before installing CollabraSuite:

- Install WebLogic Server or WebLogic Platform 8.1 SP2 or later.
- Install a database on the same network as the WebLogic server machine.
- Create a database user for CollabraSuite that has permissions to connect to the database and create tables.

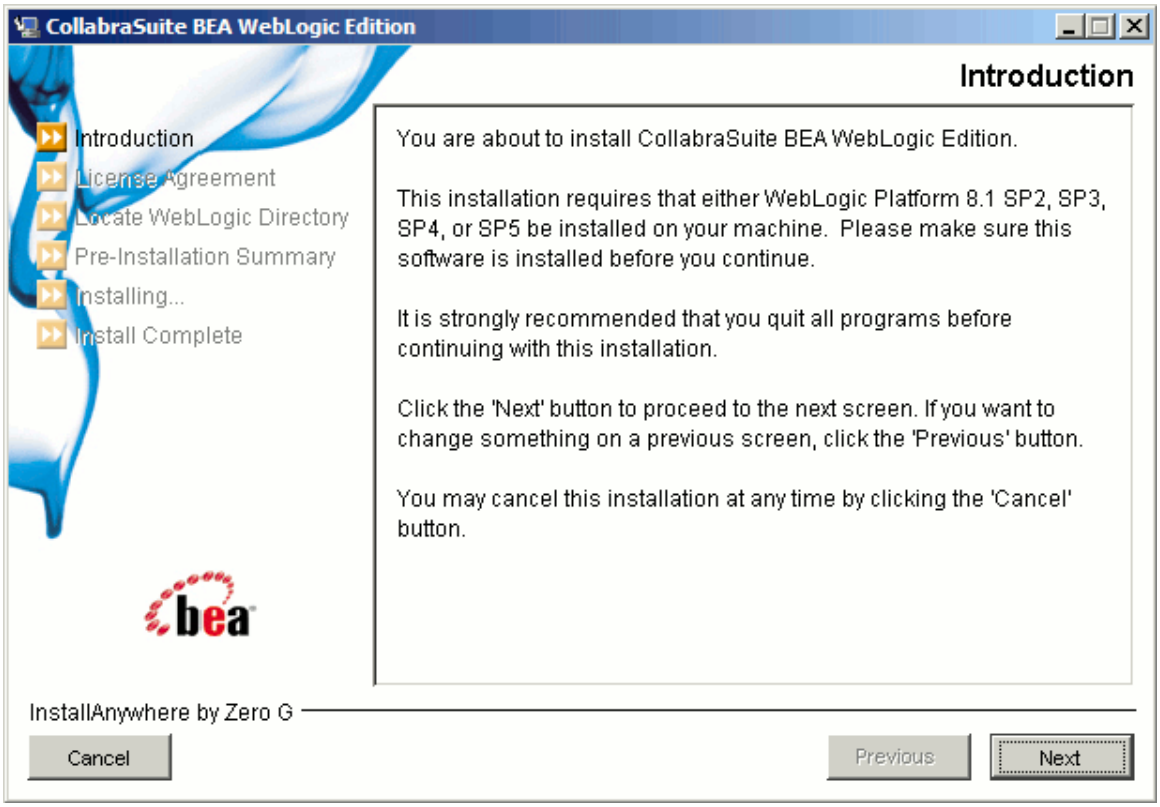
Install CollabraSuite

The CollabraSuite software installs as a component inside of the BEA WebLogic installation. Begin by installing the CollabraSuite software from the CD media.

The installer should start automatically when the installation CD is placed in a Windows machine. If the installer does not launch or you are running on a different platform, the installer can be started manually. For Windows, run contrib\WebLogic-8.1\windows\install.exe. For Solaris, run contrib/WebLogic-8.1/Solaris/install.bin. For Linux, run contrib/WebLogic-8.1/Linux/install.bin.

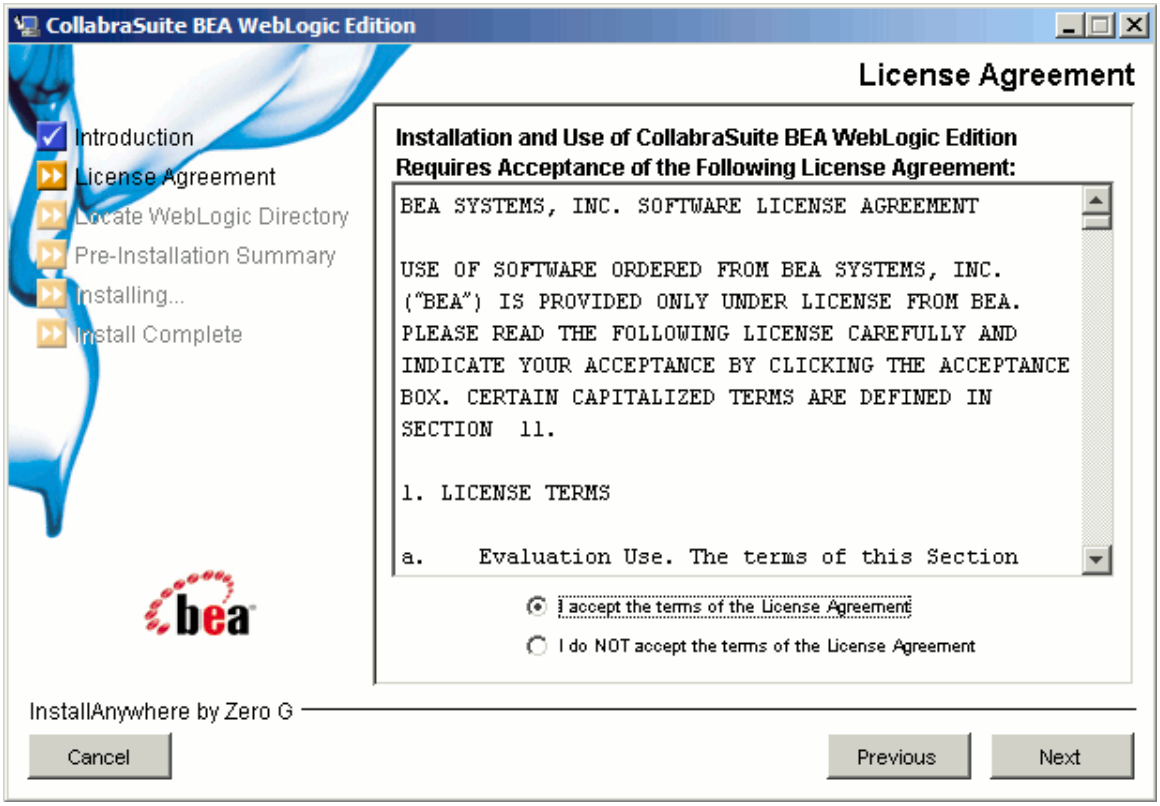
1. Launch the installer and click **Next** on the **Introduction Page**.

Figure 1: Introduction



2. Accept the terms of the license agreement and click **Next.**

Figure 2: License Agreement

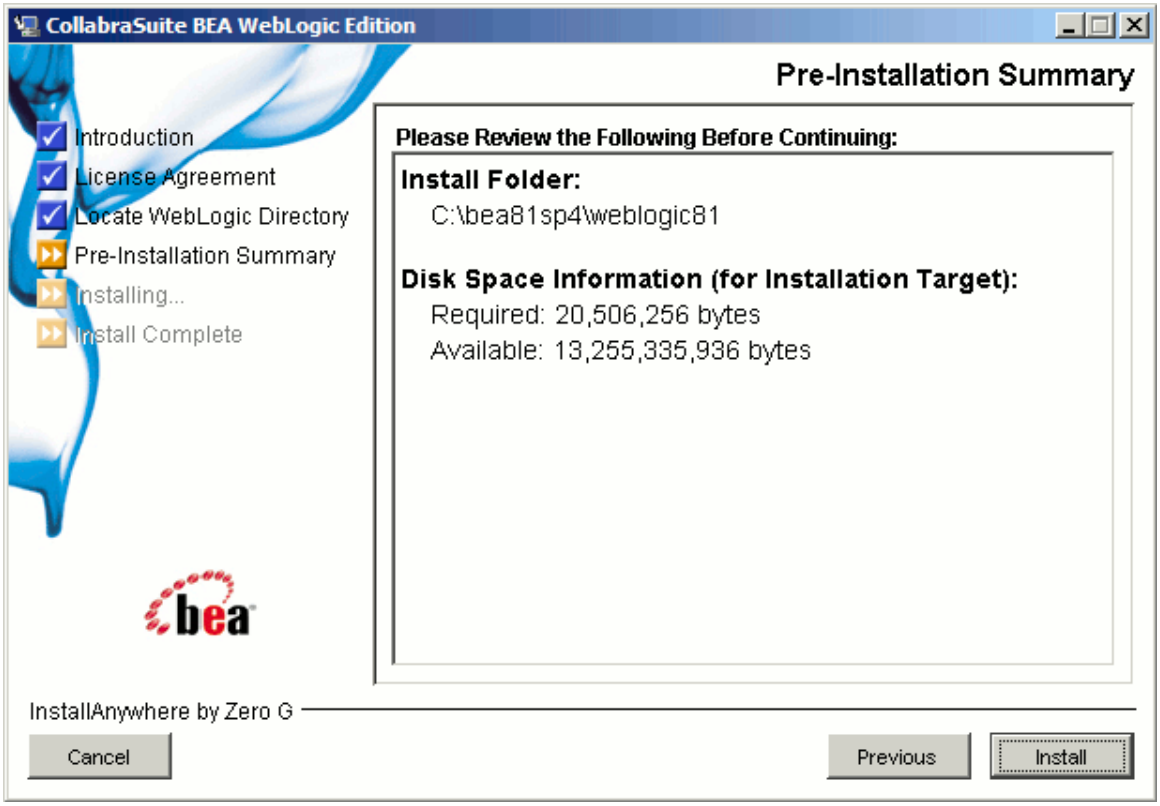


3. Choose the BEA WebLogic 8.1 install location and click **Next**. This is the directory under the BEA home directory, such as C:\bea81sp4\weblogic81.

Figure 3: Locate WebLogic Directory

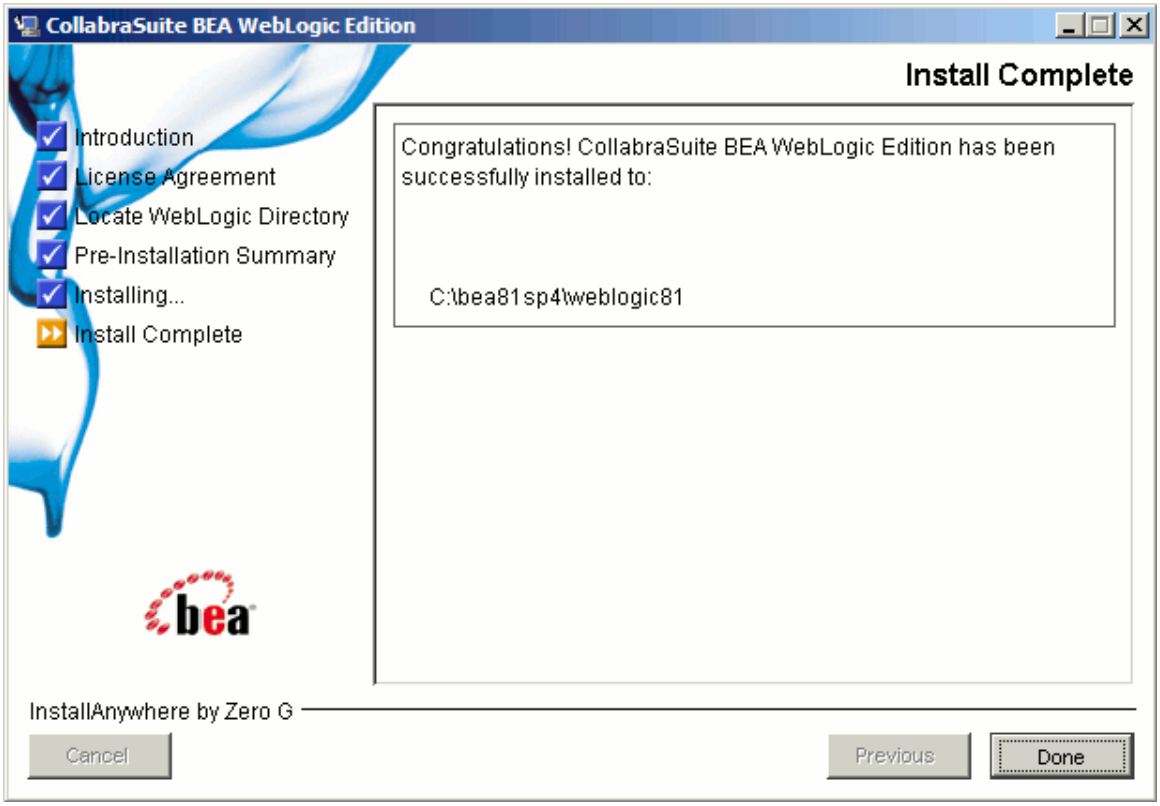
4. Review the pre-installation summary and click **Install**.

Figure 4: Pre-Installation Summary



5. At this point the CollabraSuite software has been installed. Click **Done** to exit the installer.

Figure 5: Install Complete



Create the Domain

The top level component of a WebLogic server is a domain. While CollabraSuite may be successfully deployed into any type of WebLogic domain, portal domains are the most useful. If a WebLogic Portal Domain has not yet been created at your site, use the WebLogic Configuration Wizard to create a new domain that will support a portal. Consult BEA's website for directions on Creating a New WebLogic Domain. (http://edocs.bea.com/platform/docs81/confgwiz/newdom.html) For more information about the Configuration Wizard, refer to BEA's website on Using the Configuration Wizard. (http://edocs.bea.com/platform/docs81/confgwiz/index.html)

In this document, the directory where WebLogic is installed will be referred to as $WL_HOME. For example:

```
% WL_HOME=/bea/weblogic81
```

The portal domain directory will be referred to as $DOMAIN_DIR. For example:

```
% DOMAIN_DIR=/bea/user_projects/domains/portalDomain
```

Extend the Domain

CollabraSuite is installed into a WebLogic server by adding the appropriate configuration to the server's domain. This domain configuration is automated with an extension template containing the CollabraSuite software. The template can also be used to create the necessary database tables for CollabraSuite.

Be sure to shut down WebLogic and backup your entire domain directory before applying the extension template to an existing domain. The configuration wizard will overwrite all scripts and bat files in the domain, removing any local modifications. This is a feature of WebLogic 8.1 and can't be helped. One strategy for updating an existing domain with local customizations is to first make a copy of the domain. You can then apply the extension template to the copy. When finished with the template, copy the config.xml and the csuite.ear file back into the original domain. This will allow you to update a domain with CollabraSuite while preserving any local modifications.

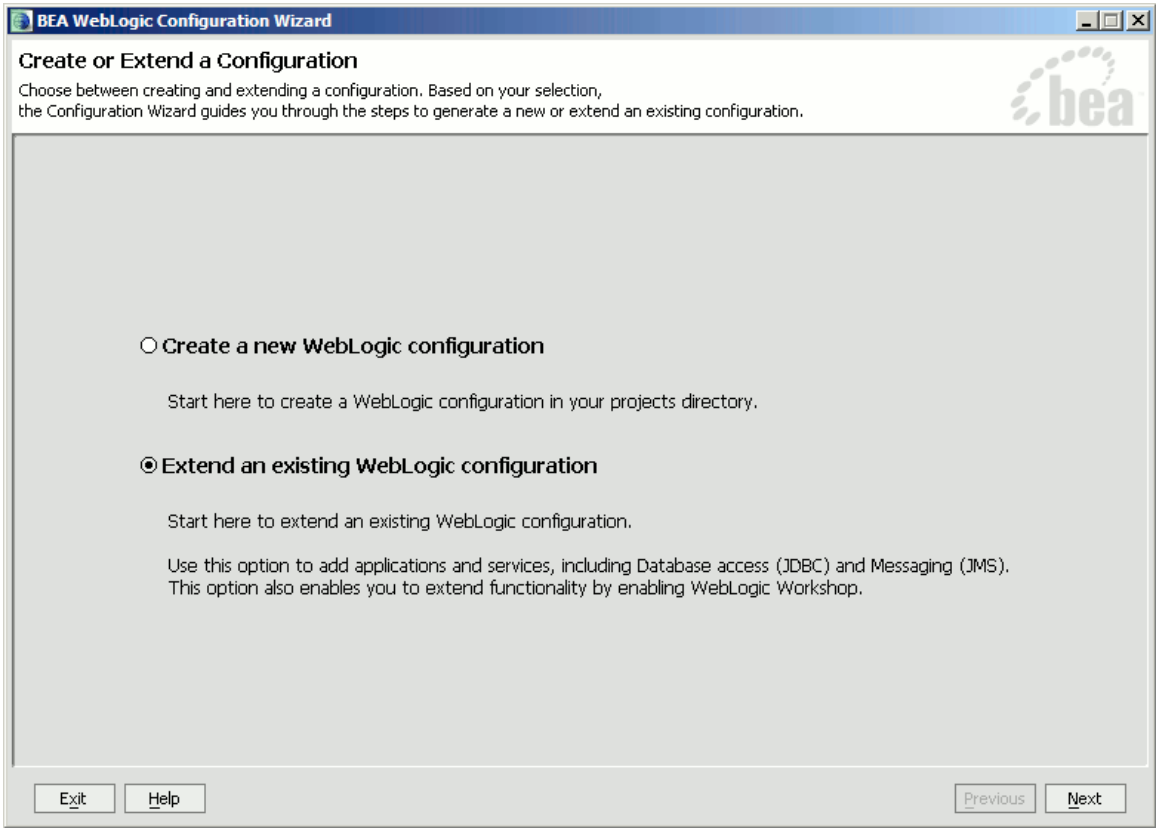
1. Run the BEA WebLogic Configuration Wizard.
   - Execute the script to start the **Configuration Wizard** located in the WebLogic installation directory:

     ```
     % cd $WL_HOME/common/bin
     % ./config.sh &
     ```

     (In Windows, you can use the Start menu to select **Config Wizard.**)

2. Extend an existing WebLogic configuration.
   - Choose Extend **an existing WebLogic configuration.**
   - Click Next**.**

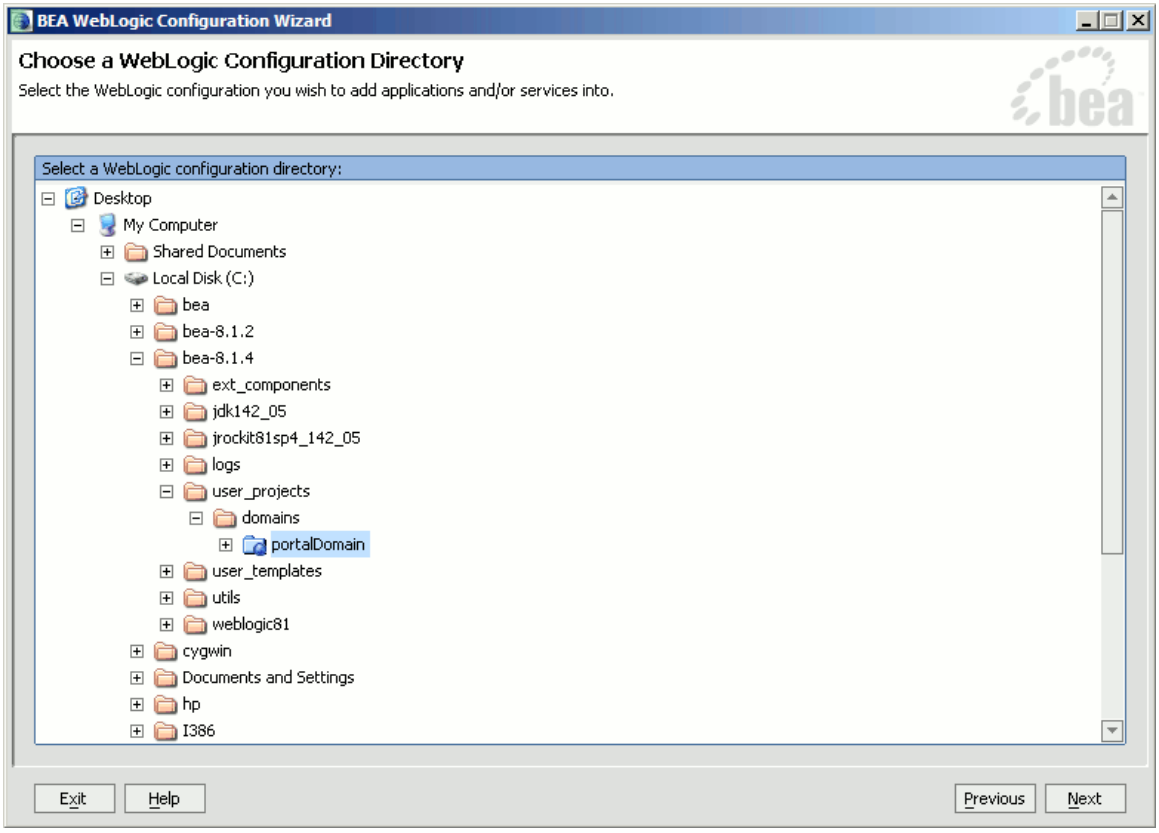
Figure 6: Create or Extend a Configuration



3. Select the configuration.

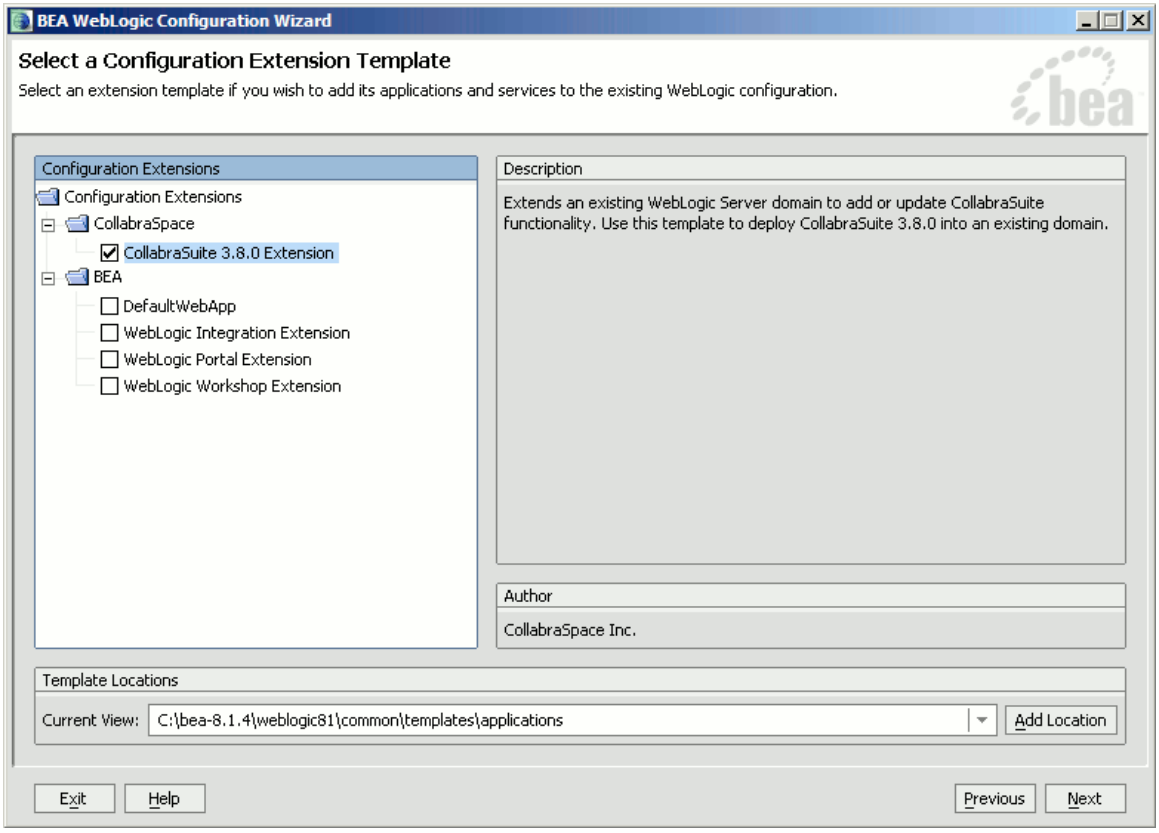
   - Use the tree to select the top level directory of domain you wish to extend with CollabraSuite functionality.
   - Click **Next.**

Figure 7: Choose a WebLogic Configuration Directory



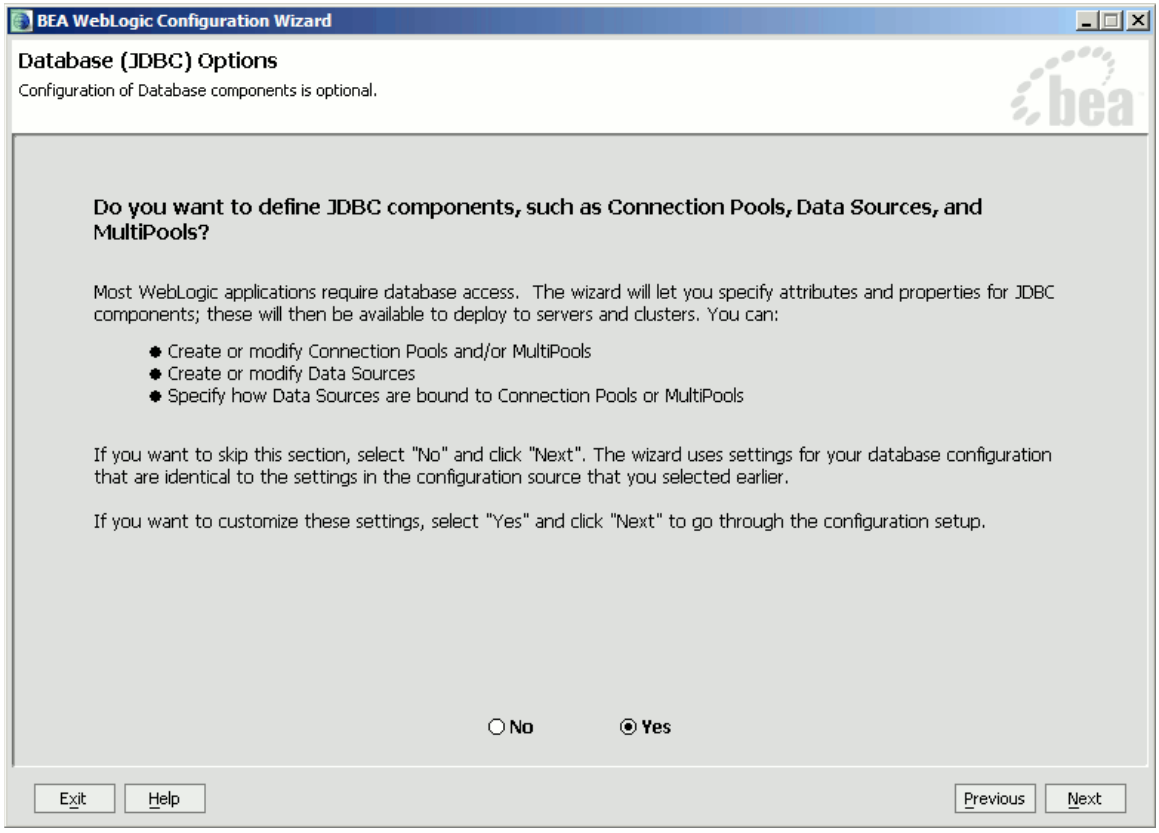
4. Select the CollabraSuite extension template.
   - Check **CollabraSpace/CollabraSuite Extension** under Configuration Extensions.
   - Click **Next.**

Figure 8: Select a Configuration Extension Template



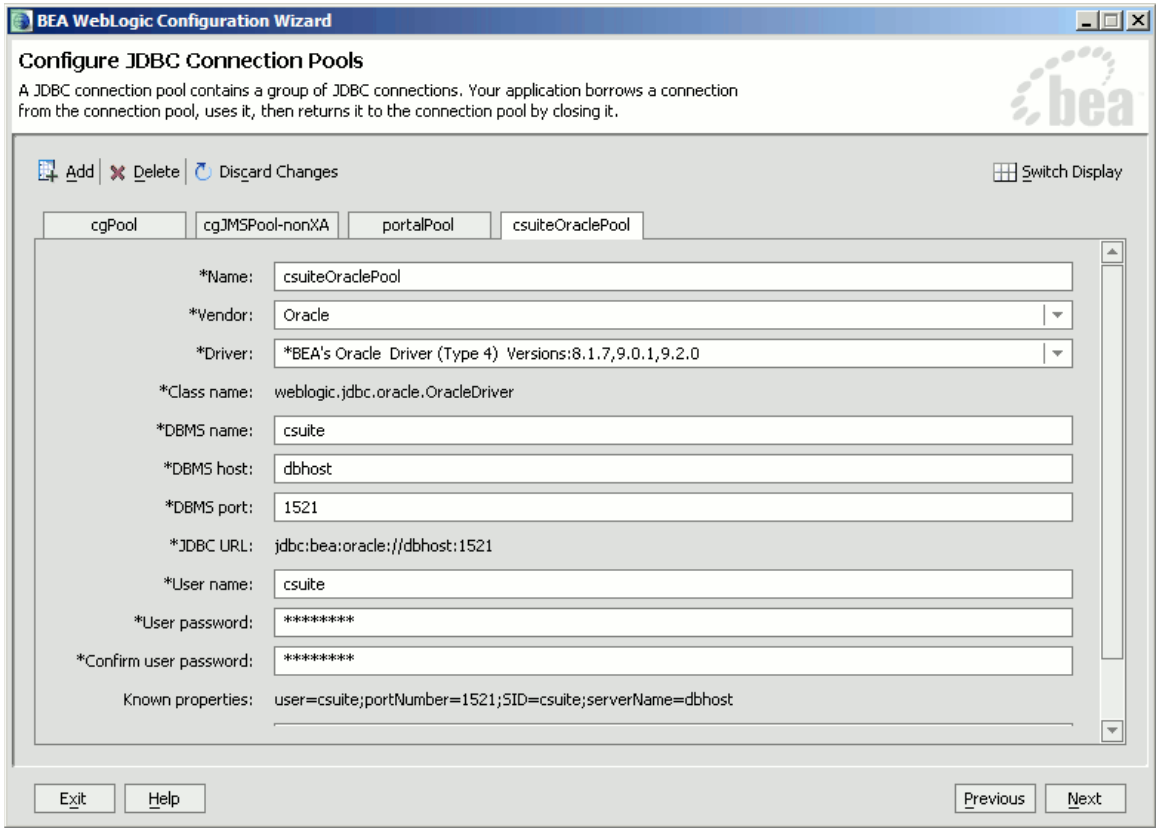
5. Define JDBC Components.
   - If using Pointbase; see the Special PointBase Instructions.
   - Click Yes when asked to define JDBC components.
   - Click **Next.**

Figure 9: Database (JDBC) Options



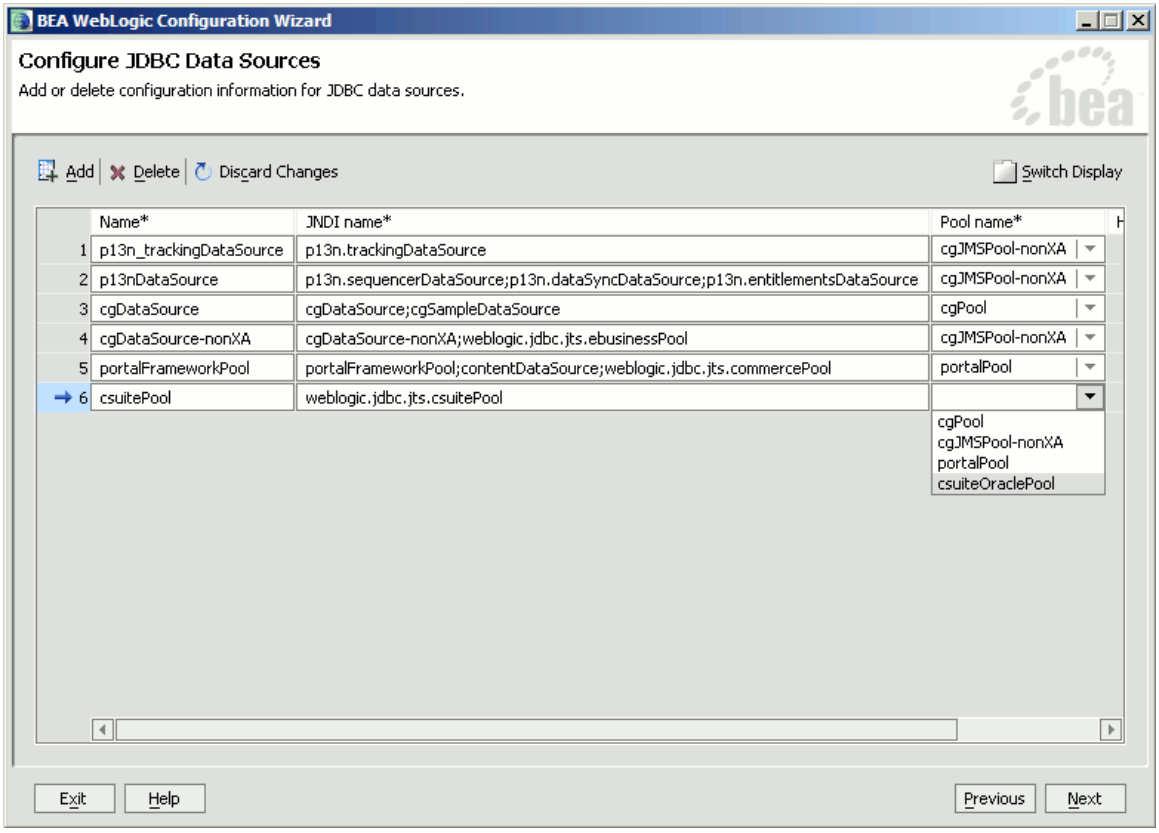
- The template provides CollabraSuite JDBC connection pools for Pointbase, Sybase and Oracle (both OCI and Thin drivers). Choose the CollabraSuite connection pool for the database you will be using and delete the remaining CollabraSuite pools (Those beginning with csuite). The cgPool, cgJMSPool-nonXA and the portalPool should not be deleted.
- Fill in the correct values for database name, database user and database password.
- Click **Next.**

Figure 10: Configure JDBC Connection Pools



- Click Next to skip the Configure JDBC MultiPools page.
- For the csuitePool Data Source, select the csuite Connection Pool from the drop down menu.
- Click **Next.**

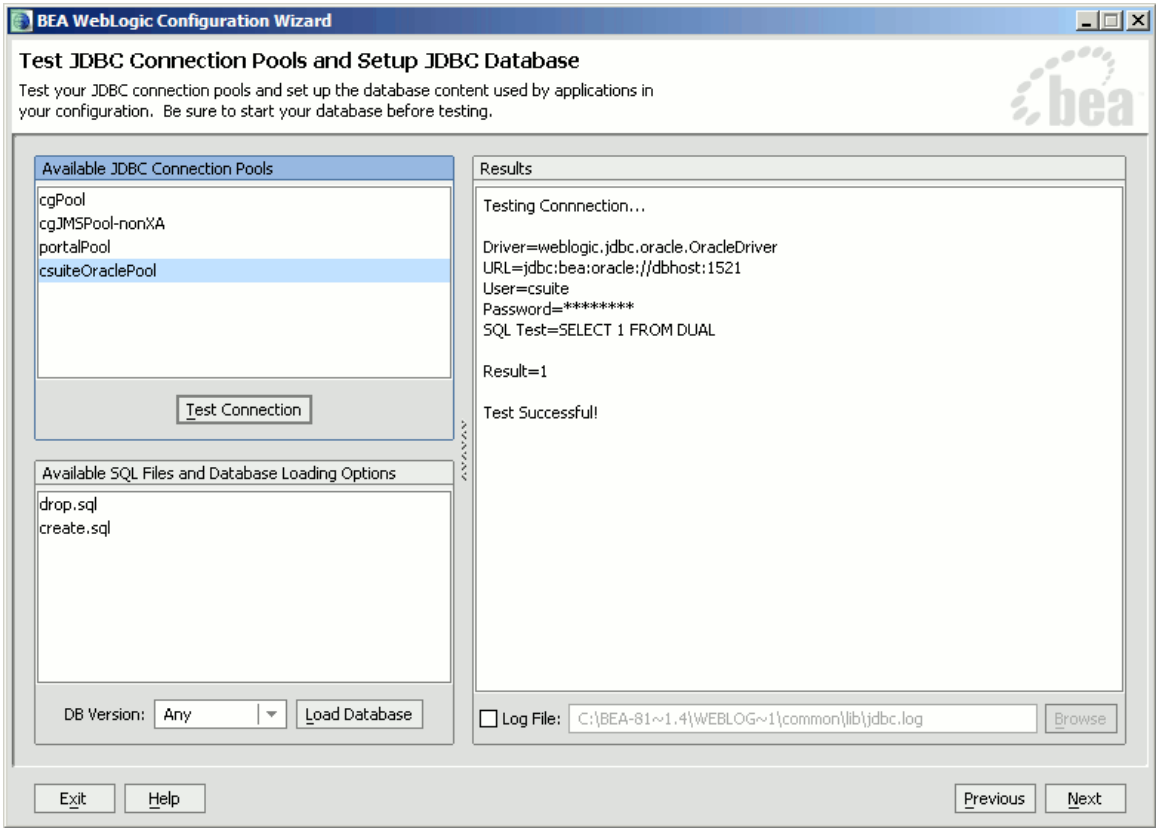
Figure 11: Configure JDBC Data Sources



6. Test JDBC Connection Pools and Settings.

   - To test the pool, select the csuite Connection Pool and click **Test Connection.** You should see a successful connection test in the right hand panel.

Figure 12: Test JDBC Connection Pools



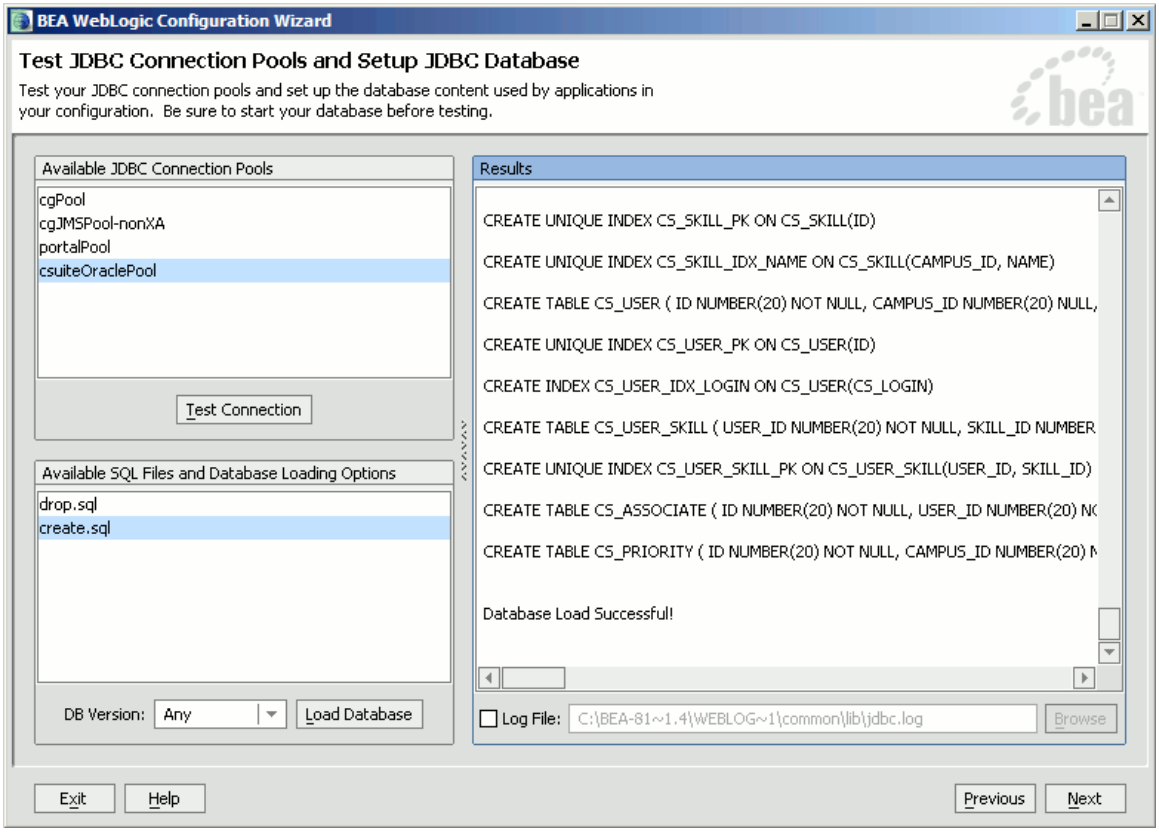
7. Create Database Schema

   - If the database schema does not already exist, click on **Load Database.**

   In WebLogic 8.1, all database scripts are run contrary to the BEA documentation. Because of this any existing CollabraSuite tables will be dropped and recreated, removing any previous CollabraSuite environment.

   - Click **Next.**

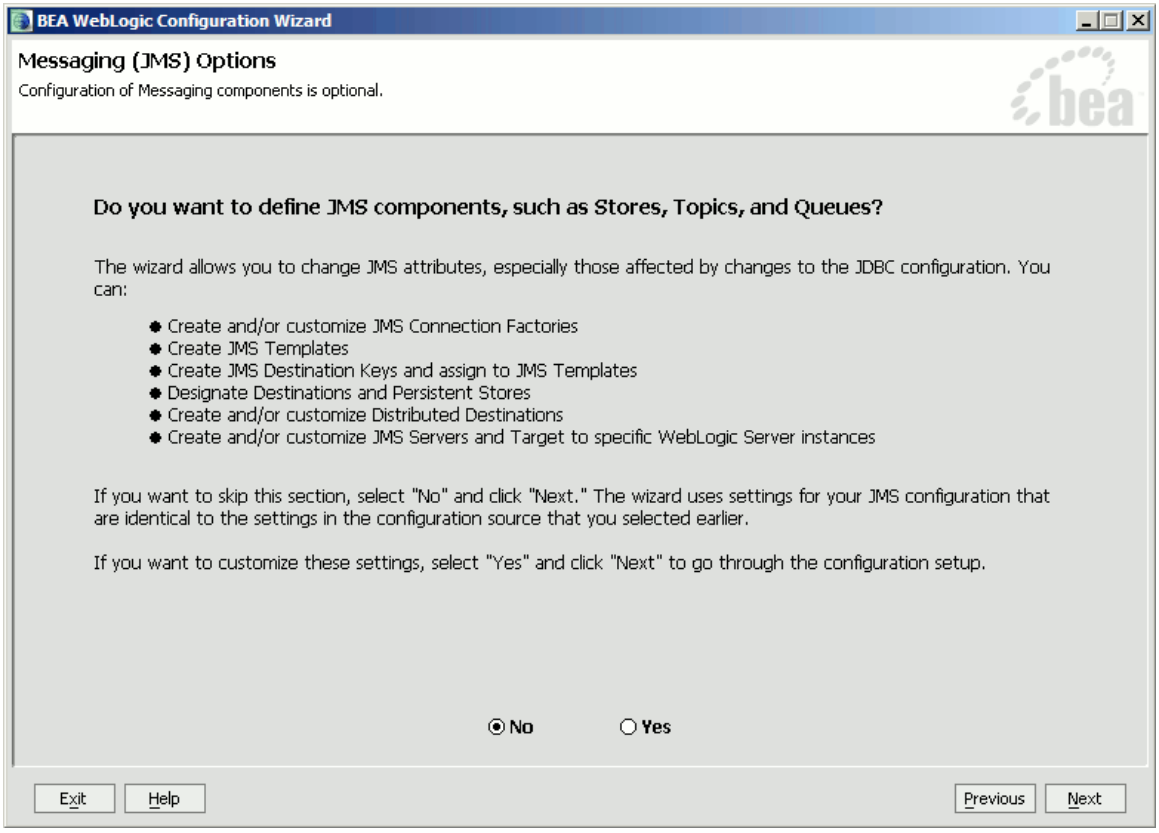
Figure 13: Setup JDBC Database



8. Define JMS Components.

   - Click **No** when asked to define JMS components. The JMS configuration should not have to be modified.
   - Click **Next.**

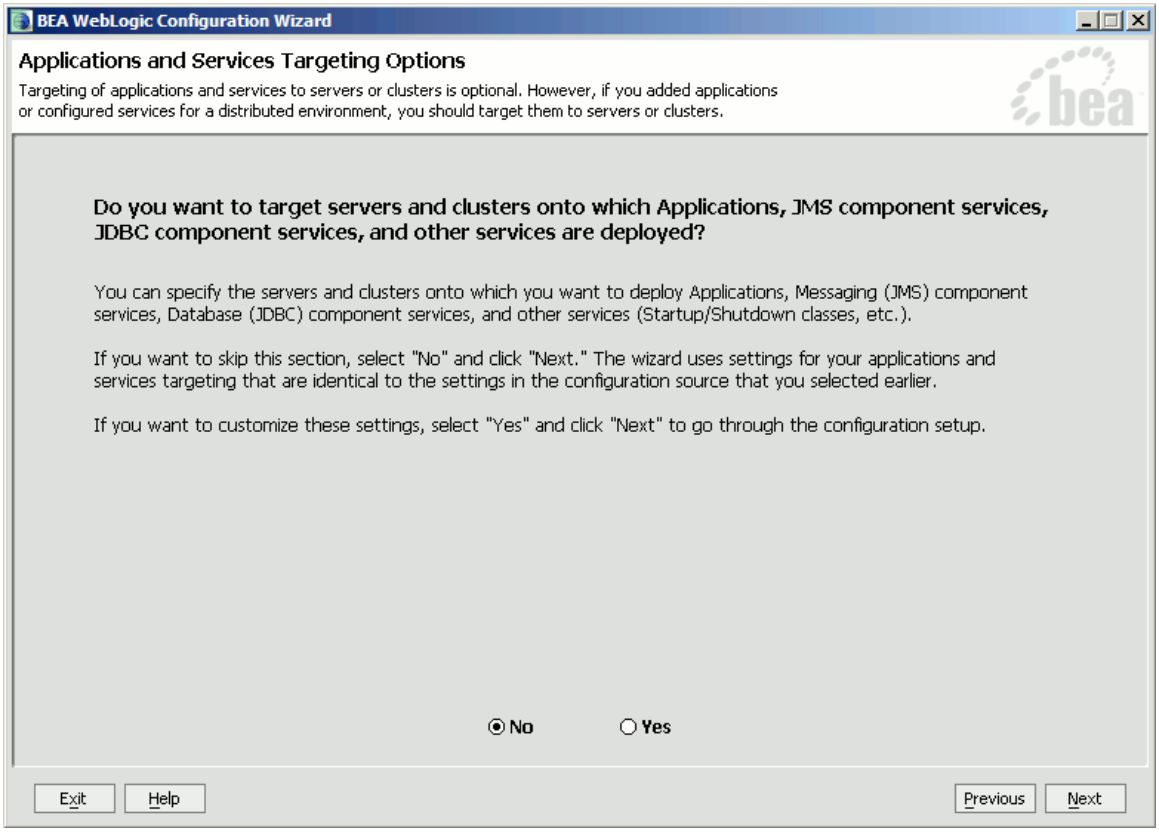
Figure 14: Messaging (JMS) Options



9. Target Components to Servers.

   - Click **No** when asked to target components to servers. The components will already be targeted to the server.
   - Click **Next.**

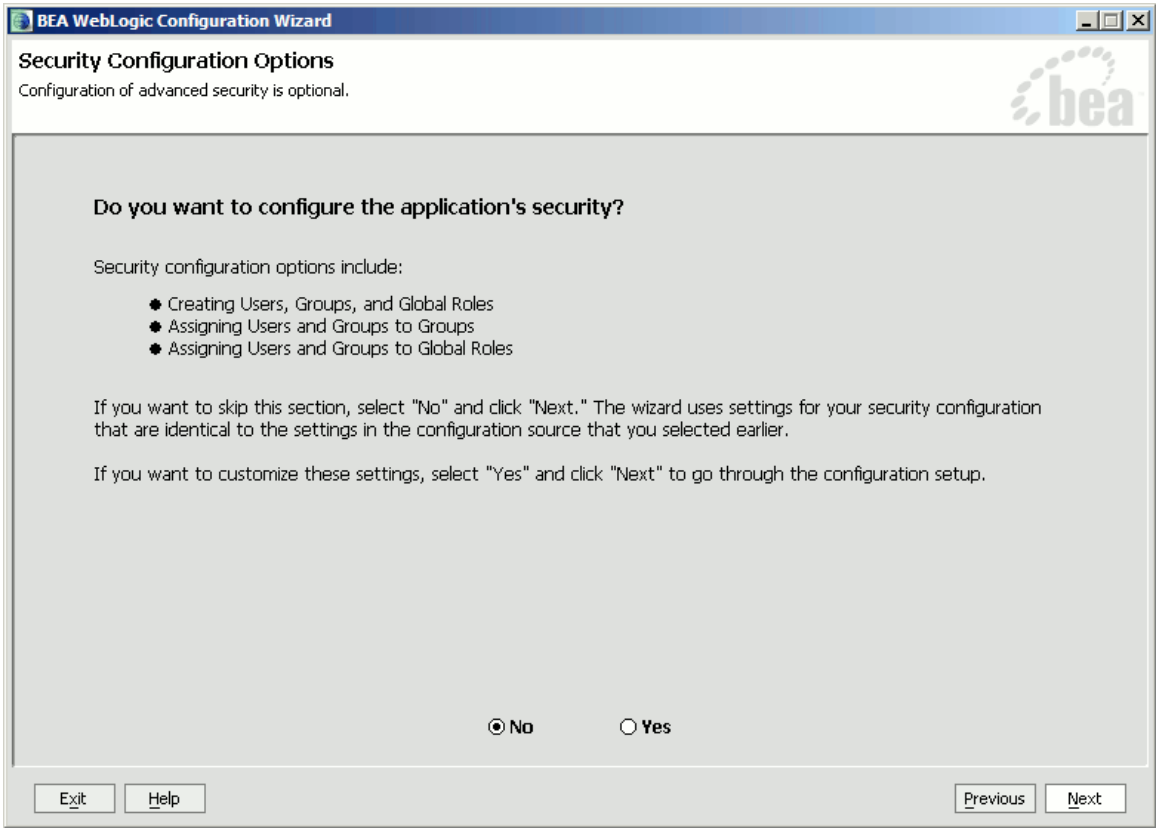
Figure 15: Applicatioins and Services Targeting Options



10. Configure Application Security.

    - Click **No** when asked to configure the application's security. The correct groups and roles have already been defined.
    - Click **Next.**

Figure 16: Security Configuration Options



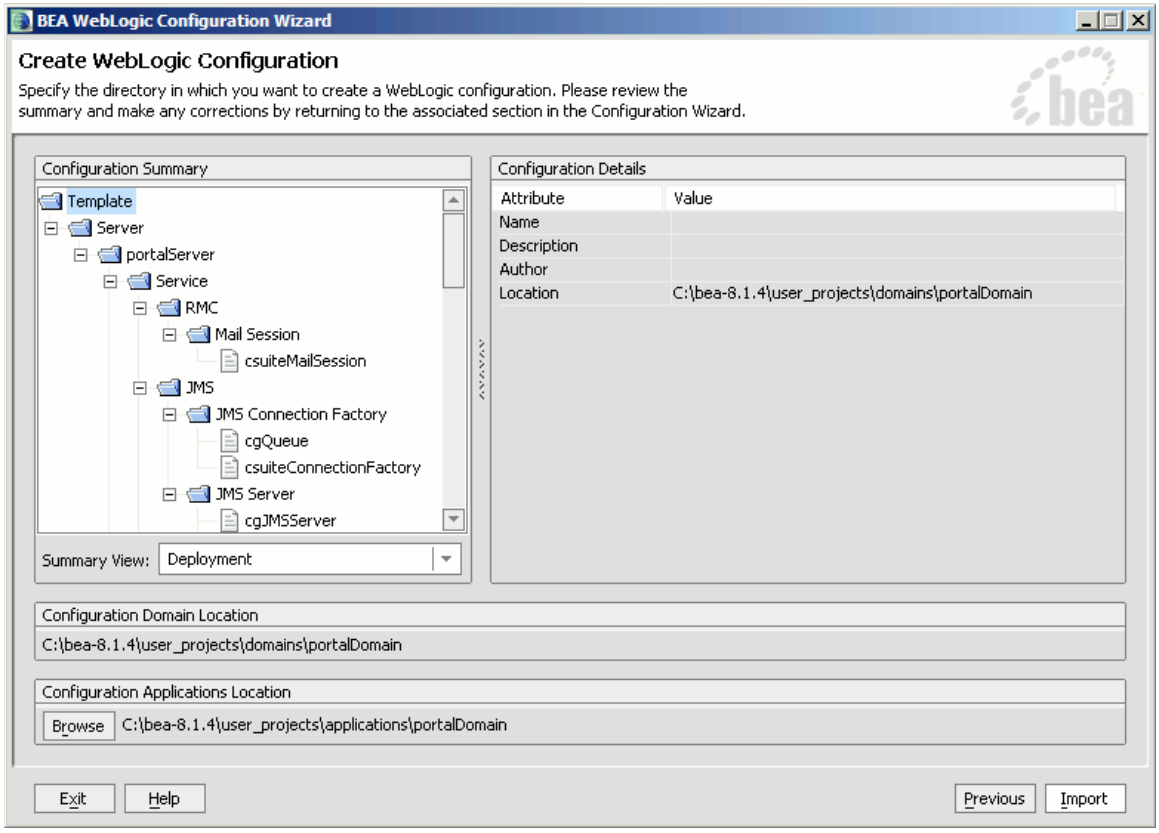
11. Extend the configuration.

    - Select the directory to place the csuite.ear.

    If you want to place the ear under the applications directory in the domain you may have to create the directory first.

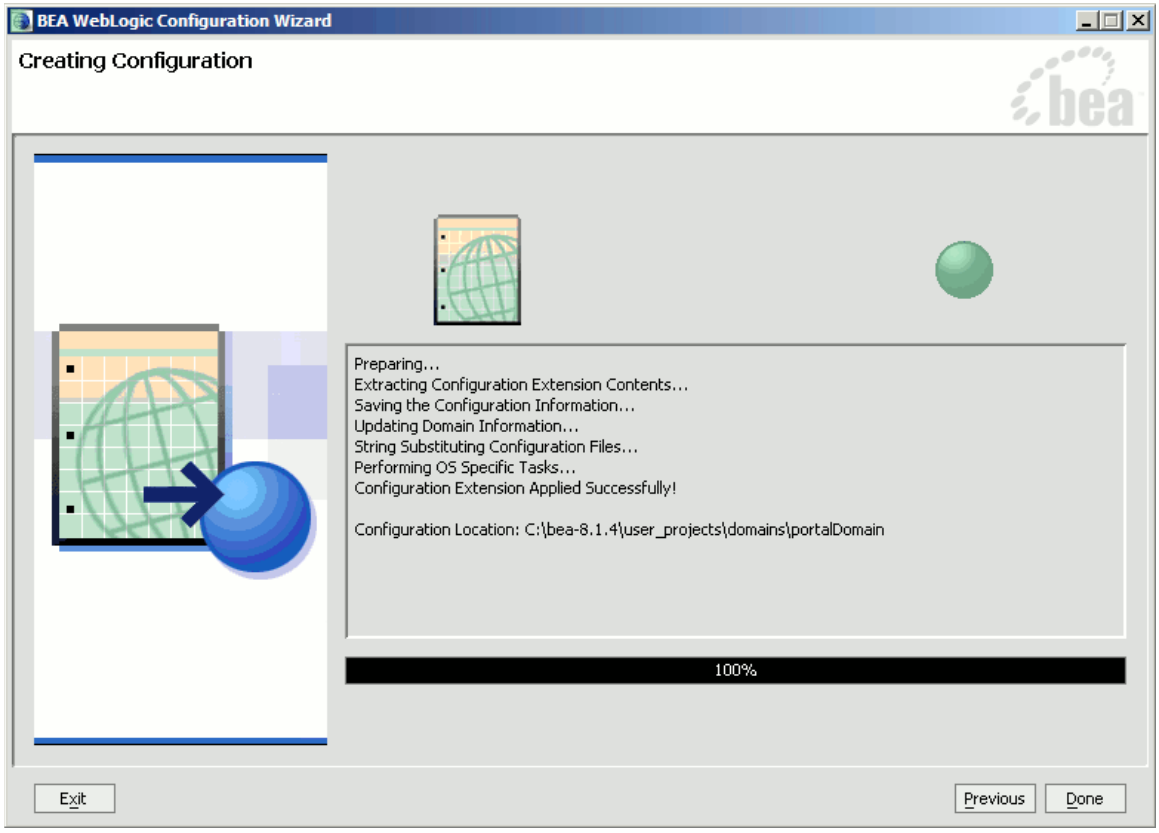
    - Click **Import.**

Figure 17: Create WebLogic Configuration



- A successful import is indicated in the screen below.
- Click **Done** to exit the Configuration Wizard.

Figure 18: Creating Configuration



12. Start WebLogic

    - Start the WebLogic server. Startup will take some time because the CollabraSuite JSPs are precompiled the first time the server is started after CollabraSuite has been deployed.

      ```
      % cd $DOMAIN_DIR
      % ./startWebLogic.sh &
      ```

13. Add any existing WebLogic users to the appropriate CollabraSuite groups.

    - Users must be added to the **CollabraSuiteGroup** in order to login to the CollabraSuite environment.

    - Users must be added to the **CollabraSuiteAdminGroup** in order to create a new CollabraSuite Campus.

14. Verify HTTP timeouts. CollabraSuite requires an HTTP timeout of at least 30 seconds.

    - The WebLogic default of 10 minutes is well within the requirements for CollabraSuite. If necessary, this setting can be modified from the WebLogic Administration Console under **Servers->ServerName->Tuning->Stuck Thread Max Time.**

    - This timeout also applies to any HTTP proxies between the client and WebLogic. The HTTP proxy timeout must be greater than or equal to WebLogic's timeout. Again, most defaults are much larger the 30 seconds, so these settings should not have to be modified to

accomodate CollabraSuite.

15. Modify the mail settings.

- Some CollabraSuite components generate email and therefore require a Mail Session.

The mail session is created by the template and can be edited from the WebLogic Administration Console under **Services->Mail->csuiteMailSession**. Important properties of the mail session include:

```
mail.host= SMTP mail server hostname; default=localhost

mail.user= The user name used to connect to the mail server;
default=empty

mail.from= The return email address used when the sending user has not
filled in their email address; default=collabraSuite@localhost
```

Note: For further details on the JavaMail API, refer to http://java.sun.com/products/javamail.

Advanced Mail options: CollabraSuite contains advanced mail formatting options that can enable security-markings to be placed on auto-generated emails; a bcc recipient list to be used; and a standard from address to be used. In order to configure advanced mail settings, the ejb-jar.xml file within the csuite-ebj.jar in csuite.ear must be updated and the jars repackaged. The individual options are documented within the ejb-jar.xml file.

Create the Collaborative Environment

Once the CollabraSuite software has been successfully installed, all other documentation and administration utilities are available via the deployed CollabraSuite application.

- The administration documentation is available at http://<ipaddress>:<port>/csuite/docs/admin
- The user documentation is available at http://<ipaddress>:<port>/csuite/docs/user
- The developer's documentation is available at http://<ipaddress>:<port>/csuite/docs/api
- CollabraSuite login examples are available at http://<ipaddress>:<port>/csuite/api

Create the initial collaborative environment by using the CollabraSuite administration web application.

1. If necessary, create a CollabraSuite administration user in WebLogic that belongs to the CollabraSuiteAdminGroup.
2. Bring up the CollabraSuite administration web application at http://<*ipaddress*>:<*port*>/csuite/admin and log in as an administrative user.
3. Create the desired campus, buildings, floors, and rooms.
4. Create the desired users
5. In a portal environment, create corresponding WebLogic users in the Portal Administration. Otherwise, create the WebLogic users in the WebLogic Administration Console. The WebLogic user name must match the CollabraSuite user loginID. Alternatively, you can use the syncPortalUserInfo tag inside a portlet to automatically create a CollabraSuite user that corresponds to the WebLogic user.

Create the Portal

CollabraSuite can run inside a portal environment. If a portal already exists or is not needed, creating the portal may be skipped.

For details on creating a portal application, consult BEA's website on Getting Started with Portal Development. (http://edocs.bea.com/wlp/docs81/startdev/index.html)

Extend the Portal

This section describes integrating CollabraSuite into a portal environment. This section can be safely skipped when portal integration is not required.

1. Run BEA WebLogic Workshop.
   - Execute the script to start **WebLogic Workshop** located in the WebLogic installation directory:

     ```
     % cd $WL_HOME/workshop
     ```

```
% ./Workshop.sh &
```

(In Windows, you can use the Start menu to select **WebLogic Workshop.**)

2. Open an existing portal application or create a new one via **File->New->Application...**
3. Select an existing web project or create a new one via **File->New->Project...**
4. Right-click on the web project in the left-hand tree and select **Install->CollabraSuite**
5. Sample CollabraSuite portlets are available in the **Data Palette**. Simply select a portal page and drag them onto the page in the desired location.
6. CollabraSuite provides a JSP tag library for creating CollabraSuite portlets. The CollabraSuite tags are available under the **JSP Palette** in **WebLogic Workshop**.
7. Edit the `portlets/CollabraSuite/collabrasuite.jspf` file as necessary:
   - Set the **campusName** variable to the correct campus
   - Add the **setuserinfo** JSP tag to automatically create CollabraSuite user accounts if desired. Note that this requires **Auto Account Creation** to be enabled on the campus. See the CollabraSuite Administration Guide for details.

Appendices

Domain Extension Summary

CollabraSuite J2EE components require specific services and security to be configured and deployed. The following table summarizes the configuration created by the CollabraSuite Domain Extension Template:

Table 1: Domain Extension Summary

Component	Settings
JDBC Connection Pool	Name: csuiteConnectionPool
JDBC Data Source	Name: csuitePool JNDI Name: weblogic.jdbc.jts.csuitePool
JMS Server	Name:csuiteJMSServer JNDI Name:weblogic.jms.csuiteEventTopic
JMS Connection Factory	Name: csuiteConnectionFactory JNDI Name:weblogic.jms.csuiteConnectionFactory
Mail Session	Name: csuiteMailSession JNDI Name:csuiteMail
User Group	Name: CollabraSuiteGroup
Admin Group	Name: CollabraSuiteAdminGroup
Admin User	Name: admin Member Of: CollabraSuiteAdminGroup, CollabraSuiteGroup

Portal Extension Summary

Integrating CollabraSuite J2EE components into a WebLogic portal requires specific files to be configured and deployed into the portal application. The following table summarizes the configuration performed by the CollabraSuite Portal Extension Template:

- The following files are copied into <portalApplication>/<portalProject>/WEB-INF/lib. They can be found on the distribution CD under the lib directory.
  - csuite-taglib.jar
  - common-server.jar
  - csuite-client.jar
  - csuite-ejb-client.jar
  - csuite-i9n-client.jar

- The following taglib is added to <portalApplication>/<portalProject>/WEB-INF/web.xml:

```
<taglib>
   <taglib-uri>csuite-taglib.tld</taglib-uri>
   <taglib-location>/WEB-INF/lib/csuite-taglib.jar</taglib-location>
</taglib>
```

- The following ejb-refs are added to <portalApplication>/<portalProject>/WEB-INF/web.xml:

```
<ejb-ref>
   <description>CollabraSuite Campus Service</description>
   <ejb-ref-name>ejb/CampusService</ejb-ref-name>
   <ejb-ref-type>Session</ejb-ref-type>
   <home>com.collabraspace.cserver.interfaces.CampusServiceRemoteHome</home>
   <remote>com.collabraspace.cserver.interfaces.CampusServiceRemote</remote>
</ejb-ref>
<ejb-ref>
   <description>CollabraSuite Building Service</description>
   <ejb-ref-name>ejb/BuildingService</ejb-ref-name>
   <ejb-ref-type>Session</ejb-ref-type>
   <home>com.collabraspace.cserver.interfaces.BuildingServiceRemoteHome
   </home>
   <remote>com.collabraspace.cserver.interfaces.BuildingServiceRemote
   </remote>
</ejb-ref>
```

- The following ejb-refs are added to <portalApplication>/<portalProject>/WEB-INF/weblogic.xml:

```
<ejb-reference-description>
   <ejb-ref-name>ejb/CampusService</ejb-ref-name>
   <jndi-name>ejb/CampusService</jndi-name>
</ejb-reference-description>
<ejb-reference-description>
   <ejb-ref-name>ejb/BuildingService</ejb-ref-name>
   <jndi-name>ejb/BuildingService</jndi-name>
</ejb-reference-description>
```

- Sample CollabraSuite portlets are installed under <portalApplication>/<portalProject>/portlets/CollabraSuite.

Upgrading CollabraSuite

The process of upgrading an existing installation of CollabraSuite fairly straightforward. Because the application server domain has already been configured for CollabraSuite, the following steps are sufficient to perform the upgrade:

1. Undeploy the CollabraSuite application from the WebLogic application server (or cluster).
   - In the WebLogic Administration Console, select **Deployments->Applications** and delete the CollabraSuite application.
2. Connect to the database configured for CollabraSuite and run the necessary upgrade SQL scripts. These scripts can be found under the sql directory on the distribution CD and they should be run in order.
   - For example, to upgrade from CollabraSuite 3.4.5 to CollabraSuite 3.6.0, run alter320to350.sql and then run alter350to360.sql.
3. Copy the latest csuite.ear file from the distribution CD onto the machine hosting the WebLogic application server. Alternatively, copy it to the machine hosting the WebLogic admin server in a clustered environment.
4. Deploy the CollabraSuite application to the WebLogic application server (or cluster).
   - In the WebLogic Administration Console, select **Deployments->Applications** and select **Deploy a new Application.**

Clustering Configuration

This section discusses deployment of CollabraSuite into a WebLogic cluster. This section can safely be skipped for single server installations.

Note: Clustering is not supported with PointBase.

Deploy the JDBC connection pool (csuiteXXXPool) to the entire cluster.
Deploy the JDBC DataSource (csuitePool) to the entire cluster.
Deploy the JMS ConnectionFactory (csuiteConnectionFactory) to the entire cluster.
Make sure of the following:

```
General -> 'Server Affinity Enabled' is checked
   Transactions -> 'XA Connection Factory Enabled' is checked
```

Create a JMS Server for each managed instance in the cluster.
JMS Servers don't need a file store (non-persistent messages are always used).
Create a distributed Destination (csuiteEventTopic) with

```
JNDI name: weblogic.jms.csuiteEventTopic
```

Use auto-deploy to create member topics (csuiteEventTopic) in all JMS Servers.
Deploy the mail session (csuiteMailSession) to the entire cluster.

When running in a clustered node, the system clocks of all servers must be synchronized, by using Network Timing Protocol (NTP) or some other means of clock synchronization. When system clocks are not synchronized, incorrect event timestamps and forced logouts may occur.

Known Limitations

There are some known limitations regarding specific combinations of software components within CollabraSuite. Due to inconsistencies in third party products, the following limitations exist:

- SSL support
  - In WebLogic 8.1, an additional HTTP cookie is used in conjunction with SSL. This cookie must be disabled by adding AuthCookieEnabled="false" to the WebServer tag in config.xml.
- Front-end web proxy support
  - In WebLogic 8.1, the Netscape NES proxy plugin is not supported.
  - In WebLogic 8.1 SP2 and SP3, the Apache proxy is not supported. However, you can successfully use the Apache proxy plugin from WebLogic 8.1 SP4 with both SP2 and SP3 application servers.
  - In WebLogic 8.1 SP4, the proxy plugin parameter "FileCaching" must be set to "OFF" to support HTTP chunked encoding. The default on Windows is "OFF" while the default on Solaris is "ON".
- Clustering Support
  - In WebLogic 8.1, the PointBase database is not supported.
- Database Support
  - MySQL versions 4.1.11 and earlier are not supported.
  - For MySQL versions 4.1.12 and later, InnoDB tables must be used to enable transaction support.
- Database Driver Support
  - In WebLogic 8.1 SP2, the Sybase driver is not supported.
  - In WebLogic 8.1 SP4, the driver supplied by Oracle (oracle.jdbc.driver.OracleDriver) is not supported.
  - In WebLogic 8.1 SP4, the driver supplied by BEA (weblogic.jdbc.oracle.OracleDriver) is supported, but only allows use of documents smaller than 16 MB. This is a known issue that is fixed in 8.1 SP5. Updated drivers for 8.1 SP4 can be obtained from BEA or CollabraSpace.

Special PointBase Instructions

When using PointBase, take the following special steps:

- Before step five:
  - Start PointBase

    ```
    % cd $DOMAIN
    % . setDomainEnv.sh
    % ${WL_HOME}/common/bin/startPointBase.sh -port=9093
      -ini=${DOMAIN_HOME}/pointbase.ini
    ```

- In Step five:
  - Change the database username/password for the csuitePointbasePool to weblogic/weblogic.
- After step seven:
  - Go back to the JDBC Connections page in step five and change the username/password for the csuitePointbasePool back to CSUITE/password. Note that the current tab may have been reset to the first pool in the list, so be certain to select the csuitePointbasePool prior to changing the username/password.
  - Re-test the JDBC connection as in step six.
  - Stop PointBase:

    ```
    % cd $DOMAIN
    % . setDomainEnv.sh
    % ${WL_HOME}/common/bin/stopPointBase.sh -port=9093 -name=workshop
    ```

Index

C

Clustering Configuration 29

Collaborative Environment..... 23

Configuration

- clustering 29
- domain 25

Create

- collaborative environment 23
- domain 7
- portal 23

D

Domain

- configure 25
- create 7
- extend 8

E

Extend Domain 8

I

Integrate Portal..... 23

Introduction..... 1

L

Limitations 30

P

PointBase Instructions 31

Portal

- create 23
- integrate 23

U

Upgrade CollabraSuite..... 28

W

WebLogic

- cluster 29
- domain 7, 8
- limitations 30
- prerequisites 1
- users 23