FatWire | Content Server 7

Version 7.5 Patch 2

Installing Content Server with IBM WebSphere Portal Server

Document Publication Date: Jun. 15, 2011

FatWire SOFTWARE

Installing Content Server with IBM WebSphere Portal Server
Document Publication Date: Jun. 15, 2011
Product Version: 7.5 Patch 2

FatWire Technical Support
www.fatwire.com/Support

FatWire Headquarters
FatWire Corporation
330 Old Country Road
Suite 303
Mineola, NY 11501
www.fatwire.com

Table of

Contents

Part 3. Content Server

Chapter 1

Introduction

This document provides guidelines for installing Content Server on WebSphere Portal Server 6.1, connecting to the supported database of your choice.

Note

Anyone using this guide is expected to have experience installing and configuring databases, and portal servers. Selected information regarding the configuration of third-party products is given in this guide. For detailed information about a particular third-party product, refer to that project's documentation.

This chapter provides information that will help you prepare for the Content Server installation. It contains the following sections:

About This Guide

This guide covers the installation, configuration, and maintenance of the WebSphere Portal Server, as required to support Content Server. This includes configuration of one or more WebSphere Portal Server instances, and backend databases.

How This Guide Is Organized

The content of this guide is organized by function rather than the order in which installation steps are completed. For example, a function such as portal deployment is associated with the portal server. It is presented in Part II (which covers the portal server), even though it is performed, later, when Content Server is installed (Part III). Each major component of the Content Server installation is covered in its own part. A summary of the installation steps in the required order is given at the end of this chapter (see "Installation Quick Reference," on page 8).

Graphics in This Guide

Many steps in this guide include screen captures of dialog boxes and similar windows that you interact with in order to complete the steps. The screen captures are presented to help you follow the installation process. They are not intended to be sources of specific information, such as parameter values, options to select, or product version number.

Acronyms and Variables

This guide uses the following acronyms and variables:

Name used in this guide	Description
CS	Content Server
DM	Deployment Manager
lbe	LDAP Browser/Editor
WAS	WebSphere Application Server
`<appserv_node>`	The name of the application server node.
`<DM_console_port>`	The port number on which the Deployment Manager console is listening for connections.
`<DM_host>`	The host name or IP address of the Deployment Manager host.
`<server_name>`	The name of the WebSphere Portal server.
`<WAS_home>`	Path to the directory where WebSphere Portal Server is installed. The path includes the name of the directory.
`<WAS_host>`	The host name of the machine running the WebSphere Portal Server.

Prerequisites

Before installing and configuring Content Server with WebSphere Portal Server, make sure the prerequisites are satisfied:

- You have read the *Supported Platform Document* (SPD) and you are installing licensed copies of the certified software.

  Note

  The *Supported Platform Document* is available on the e-docs site:

  `http://support.fatwire.com`

  The site is password protected. New e-docs users can obtain their passwords from FatWire Technical Support at the same site.

- The LDAP server is supported by WebSphere Portal 6.1.0.1 (Tivoli Directory Server is recommended).
- You have downloaded the required WebSphere Portal 6.1.0.1 installation archives (the archives are determined by the operating system you are using). For more information about which archives are required, refer to the following URL:

  `http://www-01.ibm.com/support/docview.wss?uid=swg21363952`

  Note

  - The installation documented in this guide is based on a 32-bit Linux installation. The following packages were downloaded for this operating system: `C1TL1ML`, `C1TQ8ML`, `C1U2UML`, `C1U2XML`, `C1U30ML`, and `C1U34ML`.
  - WebSphere Portal 6.1.0.1 contains WebSphere 6.1.0.19 and IBM Java 1.5 (SR8a). Therefore, no updates are required for the Application Server or the JDK.

- Under UNIX, the **`shell ksh`** command is installed and present in the `Path`.
- Complete the following steps:
  1. Install the LDAP server. Instructions can be found in *Configuring Third-Party Software*.
  2. Ensure that your operating system meets requirements. For information about your operating system's requirements, visit the following URL:

     `http://www-01.ibm.com/support/docview.wss?uid=swg24012959`
  3. Unzip all WebSphere portal archives (the `zip` and `tgz` files that you downloaded) into a temporary directory (you may have to overwrite a few files during the extraction process).
     - For `.zip` files, execute: **`unzip -d <files name>`**

       Example: **`#unzip -d C1U2UML.zip`**
     - For `.tgz` files, execute: **`tar -xvzf <file name>`**

       Example: **`#tar -xvzf C1TQ8ML.tgz`**

4. (Optional) If you need to free up disk space, remove the `zip` and `tgz` files.

Installation Quick Reference

After you install and configure the J2EE components that support Content Server, you will run the Content Server installer, which will guide you through the installation process. You will run the installer on each development, delivery, and management system on which you plan to use Content Server. During the Content Server installation, you will have the option to install sample sites and sample content.

Note

The names of the systems in your Content Server environment might differ from the names used in this document. Typically, the management system is also called "staging," and the delivery system is also called "production."

The steps below summarize the installation and configuration of Content Server and its supporting software. Keep the steps handy as a quick reference to installation procedures and to chapters that provide detailed instructions.

To install Content Server and its supporting software

Complete the steps below for each development, content management, and production environment.

I. Set Up the Database

Set up your choice of supported databases by installing the database management system, creating a database for Content Server, and configuring the database. For instructions, see *Configuring Third-Party Software*.

II. Set Up the Portal Server

Install and configure WebSphere Portal Server by following the steps described in Chapter 3, "Installing and Configuring WebSphere Portal Server, and summarized below:

1. Configure the LDAP server for the WebSphere Portal Server, and add the required WebSphere Portal entries to the LDAP server. For more information and detailed instructions, see "Configuring LDAP for WebSphere Portal," on page 18.
2. Install WebSphere Portal Server and integrate it with LDAP. For more information and detailed instructions, see "Installing WebSphere Portal," on page 24, and "Integrating the WebSphere Portal with LDAP," on page 33.
3. Configure the WebSphere Portal instance for database communications, as shown in "Configuring the WebSphere Portal Server Instance for Database Communications," on page 48. This step requires you to:
   a. Create a J2C Authentication. For instructions, see "A. Creating a J2C Authentication," on page 48.
   b. Create a JDBC Provider. For instructions, see "B. Creating a JDBC Provider," on page 52.

c. Create a JDBC Data Source. For instructions, see "C. Creating a JDBC Data Source," on page 57.

III. Install and Configure Content Server

1. Install Content Server by running the supplied installer. The installer provides online help at each screen, should you need guidance. For more information, see Chapter 4, "Installing Content Server."
2. Complete the Content Server installation by performing the following steps:
   - **a.** Verify that Content server has been installed properly. For instructions, see "A. Verifying the Installation," on page 82
   - **b.** Integrate the Content Server installation with LDAP. For instructions, see "B. Integrating Content Server with LDAP," on page 84.
   - **c.** Configure the portlets by adding new pages and then adding portlets to the new pages. For instructions and detailed informations, see Chapter 5, "Configuring Portlets."
   - **d.** Once the entire installation is completed and verified, set up Content Server for its business purpose. For instructions, see the *Content Server Administrator's Guide* and the *Content Server Developer's Guide*.

Part 1

Database

This part contains a short chapter summarizing the databases that Content Server uses. Instructions on creating and configuring databases are given in *Configuring Third-Party Software*.

This part contains the following chapter:

- Chapter 2, “Setting Up a Database

Chapter 2

Setting Up a Database

Content Server requires access to a database that is configured specifically for Content Server. Supported databases (and other third-party components) are listed in the *Supported Platform Document* (SPD), available on the e-docs site at:

`http://support.fatwire.com`

(New e-docs users can obtain their passwords from FatWire Technical Support at the same site.)

Before installing any other of Content Server's supporting software, you must complete the following steps:

1. Install the database management system.
   For instructions, refer to the product vendor's documentation.
2. Create and configure a database for Content Server.
   For instructions, consult our guide *Configuring Third-Party Software*. Note that database configuration is identical across different application servers.

Part 2

Portal Server

This part contains information about installing and configuring WebSphere Portal Server to support Content Server.

This part contains the following chapter:

- Chapter 3, “Installing and Configuring WebSphere Portal Server

Chapter 3

Installing and Configuring WebSphere Portal Server

This chapter provides you with instructions about installing the WebSphere Portal on your operating system.

This section includes the following:

Start/Stop Commands and Default Ports

All commands are based on `<WAS Portal Root>`.

Action / Path	Command / Path
Stop servers	• `AppServer/bin/stopServer.sh server1` • `AppServer/bin/stopServer.sh WebSphere_Portal`
Start servers	• `AppServer/bin/startServer.sh server1` • `AppServer/bin/startServer.sh WebSphere_Portal`
Path to the Configuration Wizard	`wp_profile/PortalServer/wizard/configwizard.sh`
URL for the WebSphere Portal interface	`http://vmrh5.vm.fatwire.com:10040/wps/portal`
URL for the Admin console	`https://10.120.19.188:10041/ibm/console/logon.jsp`

Configuring LDAP for WebSphere Portal

In this guide we assume that you have installed and configured the Tivoli Directory Server as specified in *Configuring Third-Party Software*. If you are using a different LDAP server the configuration commands may differ from the commands documented in this guide. For commands of the LDAP server you are using, refer to *Configuring Third-Party Software.*

Note

All commands are executed on the server where Tivoli Directory Server is installed.

1. Change to the `sbin` directory under the location where Tivoli is installed (the default location is: `/opt/IBM/ldap/V6.1`).
2. Execute the command **`./idsilist`**, to return a list of configured instances:

   ```
   # ./idsilist
   Directory server instances:
   idsinst
   ```

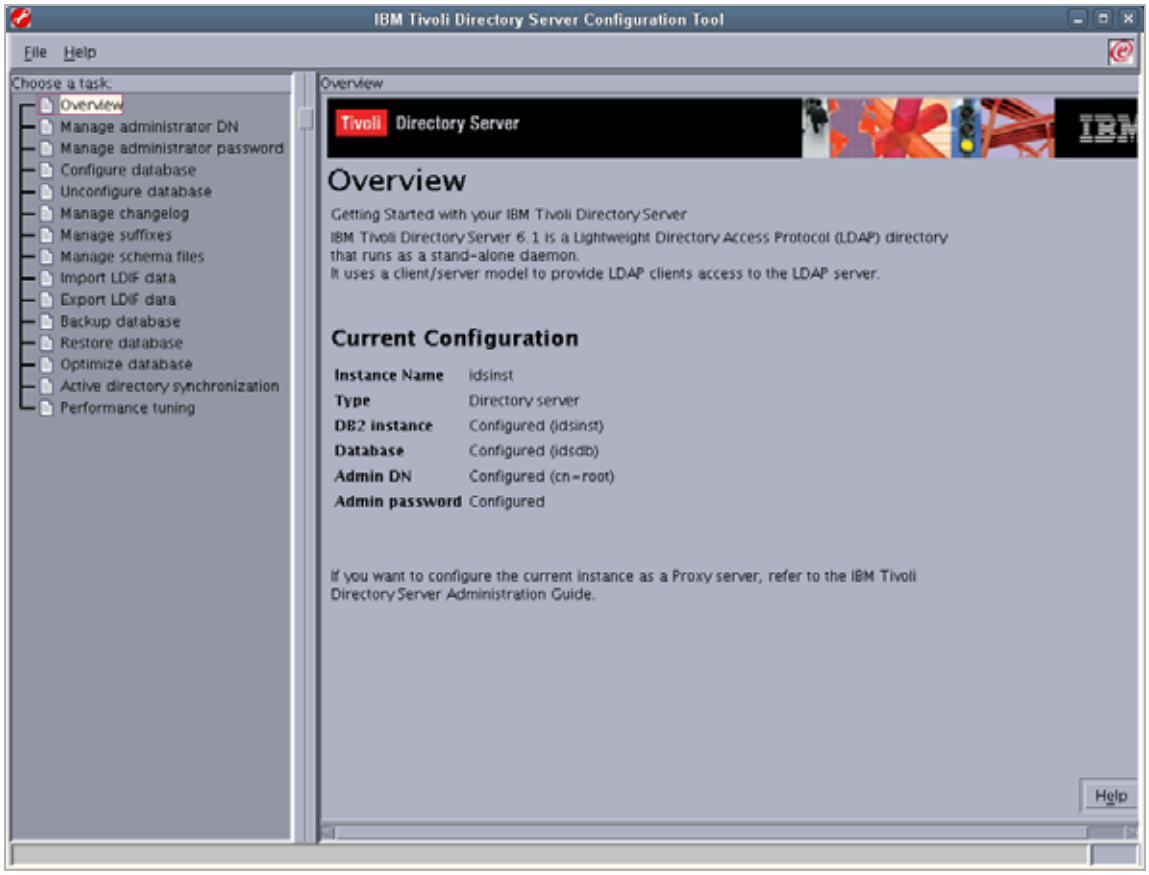
3. Shut down the instance:

   ```
   # ./idsslapd -k -I <instance name>
   GLPSRV176I Terminated directory server instance 'idsinst'
      normally.
   ```

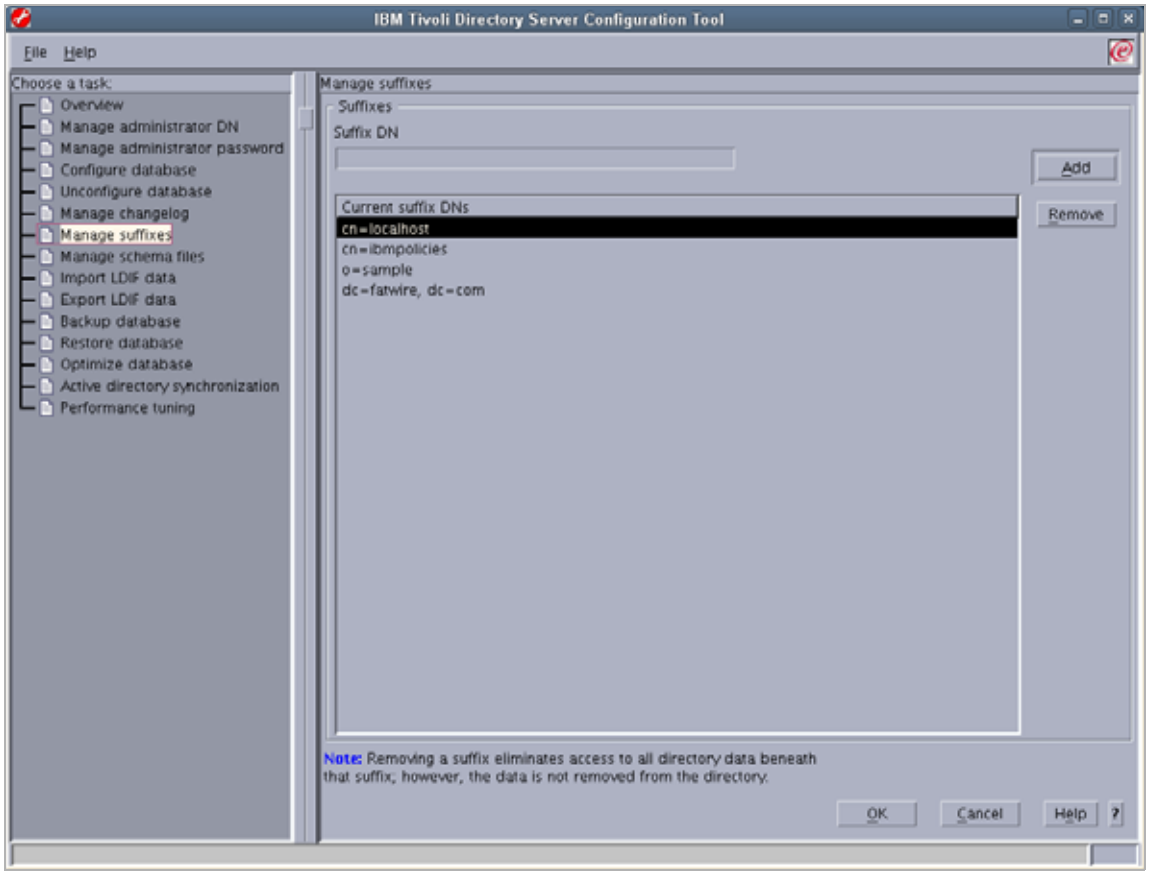
4. Start the LDAP server “Configuration Tool” using the following command:

   `# ./idsxcfg -I <instance name>`

   The “Configuration Tool” window loads:



5. In the “Configuration Tool” window, select **Manage suffixes** from the left navigation tree.



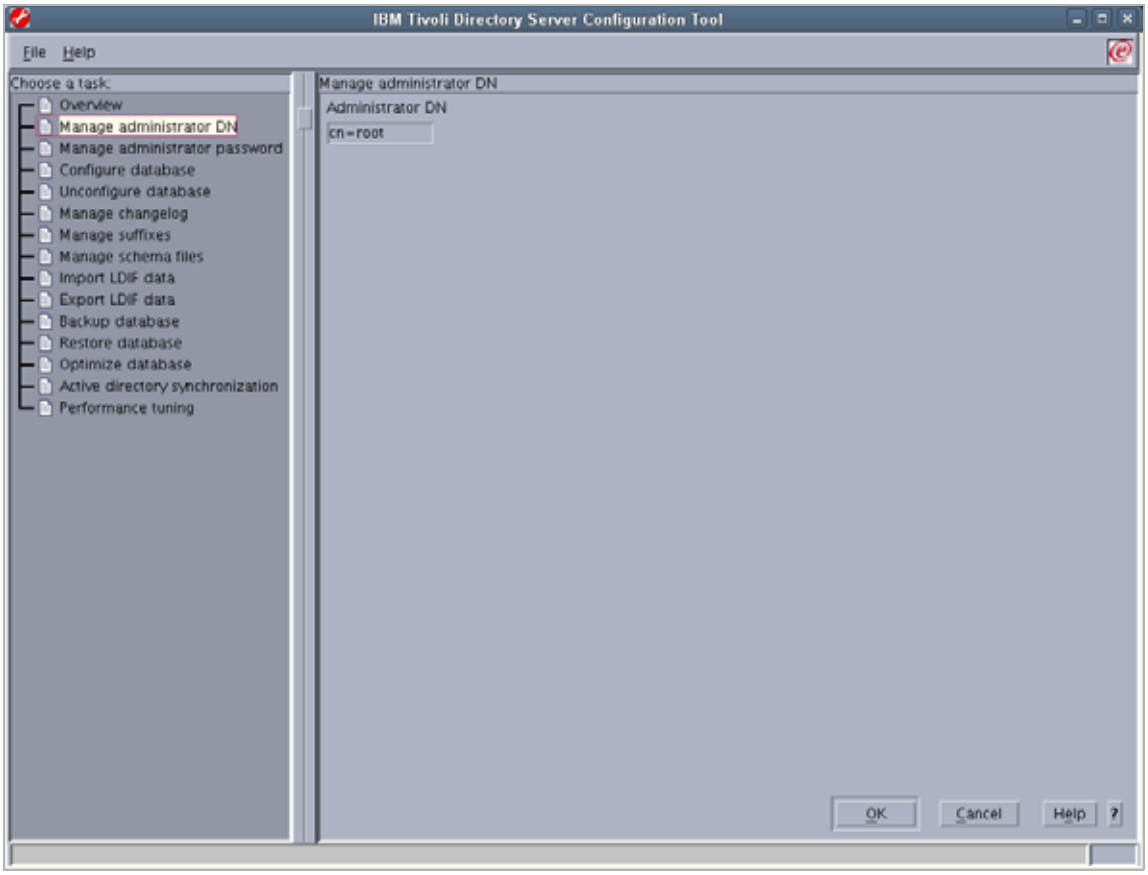
   a. In the **Suffix DN** field, enter a new suffix DN.

> **Note**
>
> For this example (and throughout this guide), the test suffix used for the portal is: `dc=test,dc=com`.

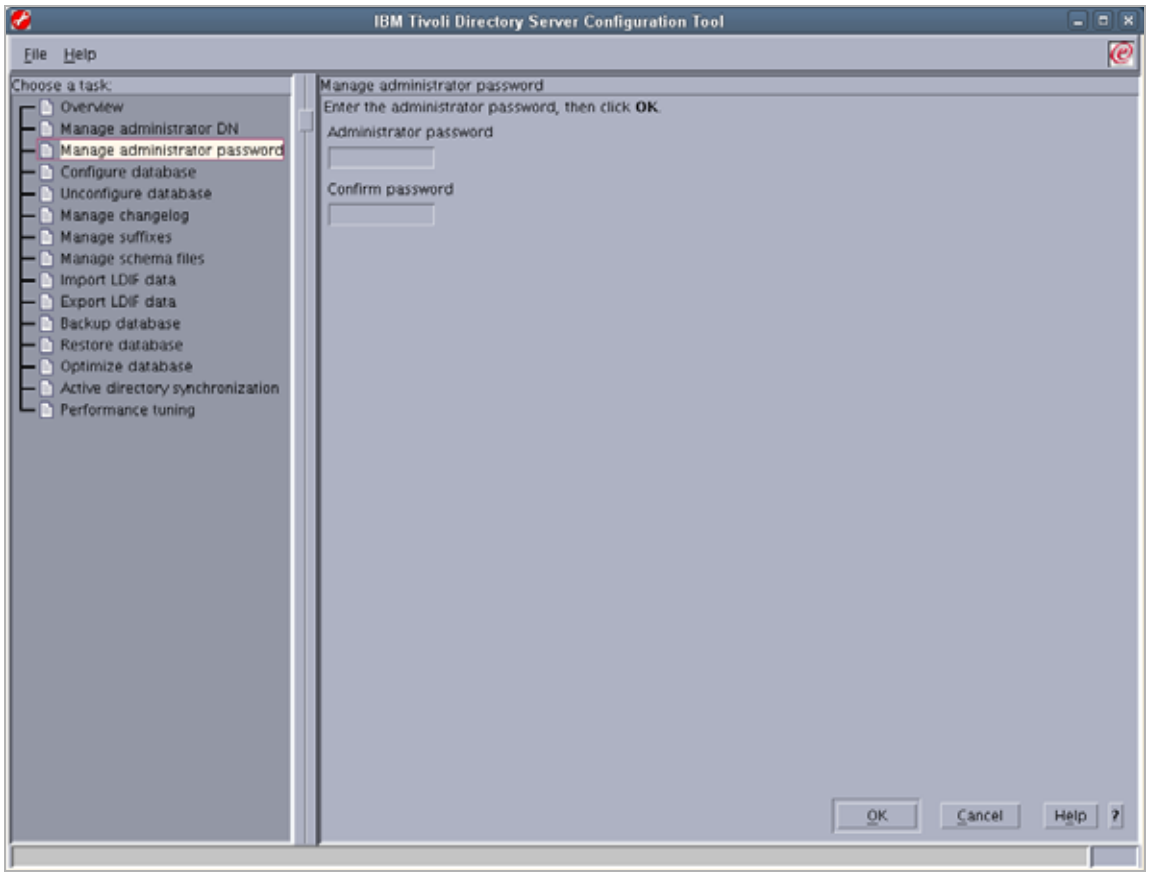
   b. Click **Add**.

6. Click **OK**.

7. In the left navigation tree, click **Manage administrator DN**. Make sure the "Administration DN" field is set with the value `cn=root`.



8. In the left navigation tree, click **Manage administrator password.** Fill in the following fields, and then click **OK**:
   - **Administration password**: Enter a password.
   - **Confirm password**: Re-enter the password.



9. In the top menu, select **File** > **Close**
10. Start the LDAP Server:

```
# ./idsslapd -I <instance name>
GLPSRV041I Server starting.
...
GLPSRV180I Pass-through authentication is disabled.
GLPCOM003I Non-SSL port initialized to 389.
```

11. The Tivoli Directory Server setup is complete. Throughout the rest of this guide you will not have to access the Tivoli server again.
12. Continue to next section, "Adding Required WebSphere Portal Entries to the LDAP Server," on page 23.

Adding Required WebSphere Portal Entries to the LDAP Server

To set up WebSphere Portal with LDAP authentication, a number of entries must be added to the LDAP server via an LDIF file.

1. Navigate to the `PortalUsers.ldif` file, located in the WebSphere Portal installer directory (the temporary directory where `install.sh` is located).
2. Edit the `PortalUsers.ldif` file:
   a. Open the `PortalUsers.ldif` file in a text editor.
   b. Replace every occurrence of `dc=yourco,dc=com` with the suffix in the LDAP server (for this guide the suffix is `dc=test,dc=com`).

      For example, locate the following section:

      ```
      dn: dc=yourco,dc=com
      objectclass: domain
      objectclass: top
      # Add lines according to this scheme that correspond to
      your suffix
      dc: yourco,dc=com
      dc: yourco
      ```

      and replace it with:

      ```
      dn: dc=test,dc=com
      objectclass: domain
      objectclass: top
      # Add lines according to this scheme that correspond to
      your suffix
      dc: test,dc=com
      dc: test
      ```

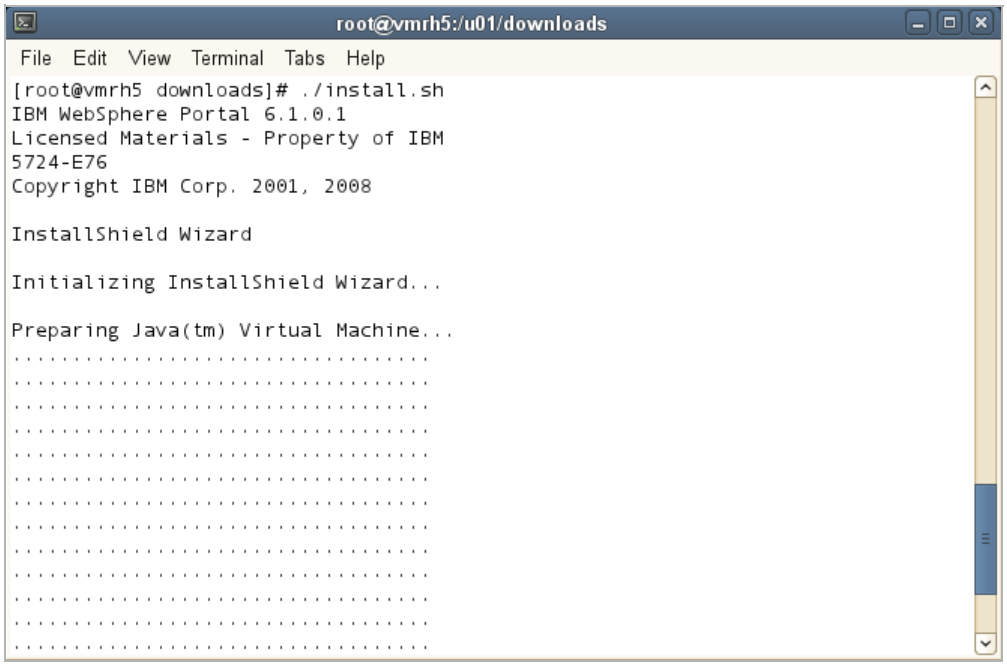
   c. Save the modified file.
3. Start an LDAP browser (LDAP Browser\Editor lbe is suggested).

   For information and instructions about starting LDAP Browser\Editor lbe (or if you wish to start an LDAP browser other than LDAP Browser/Editor lbe), see *Configuring Third-Party Software*.
4. Import the LDIF file that you created in step 2.
5. Close lbe.

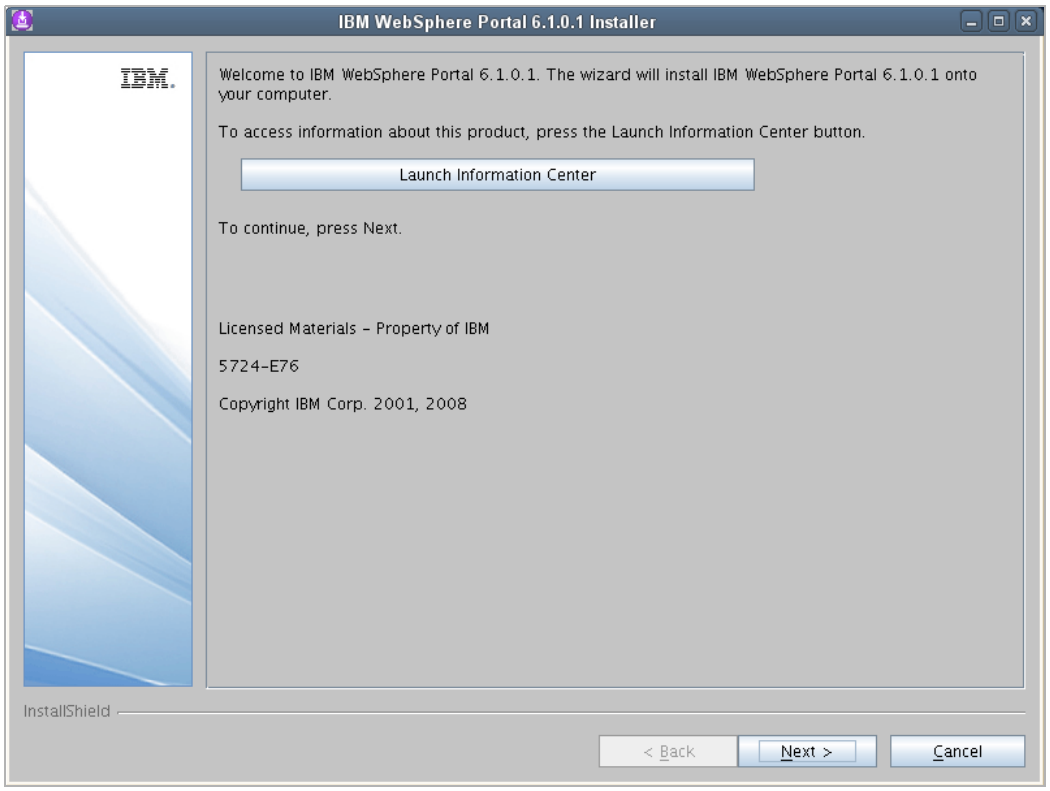
   The LDAP server setup for the WebSphere Portal is complete.
6. Continue to the next section to install WebSphere Portal.

Installing WebSphere Portal

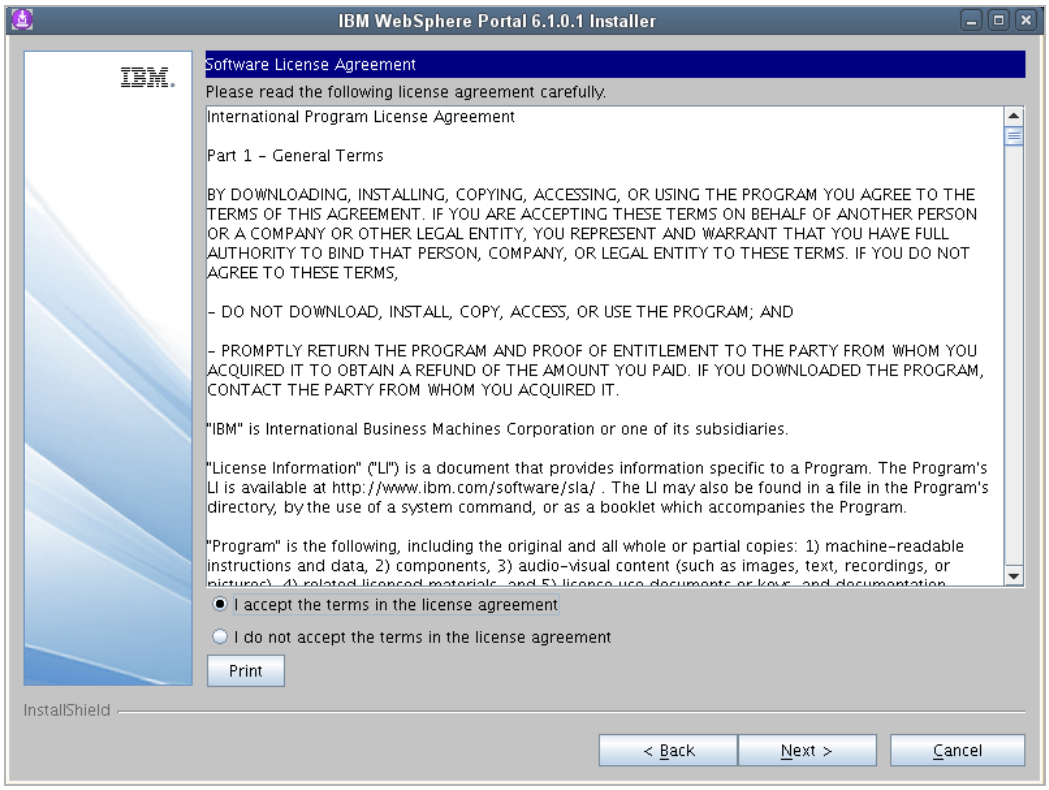
1. Switch to the temporary directory in which you extracted the WebSphere Portal Archives.
2. Execute the command: **`# ./install.sh`**



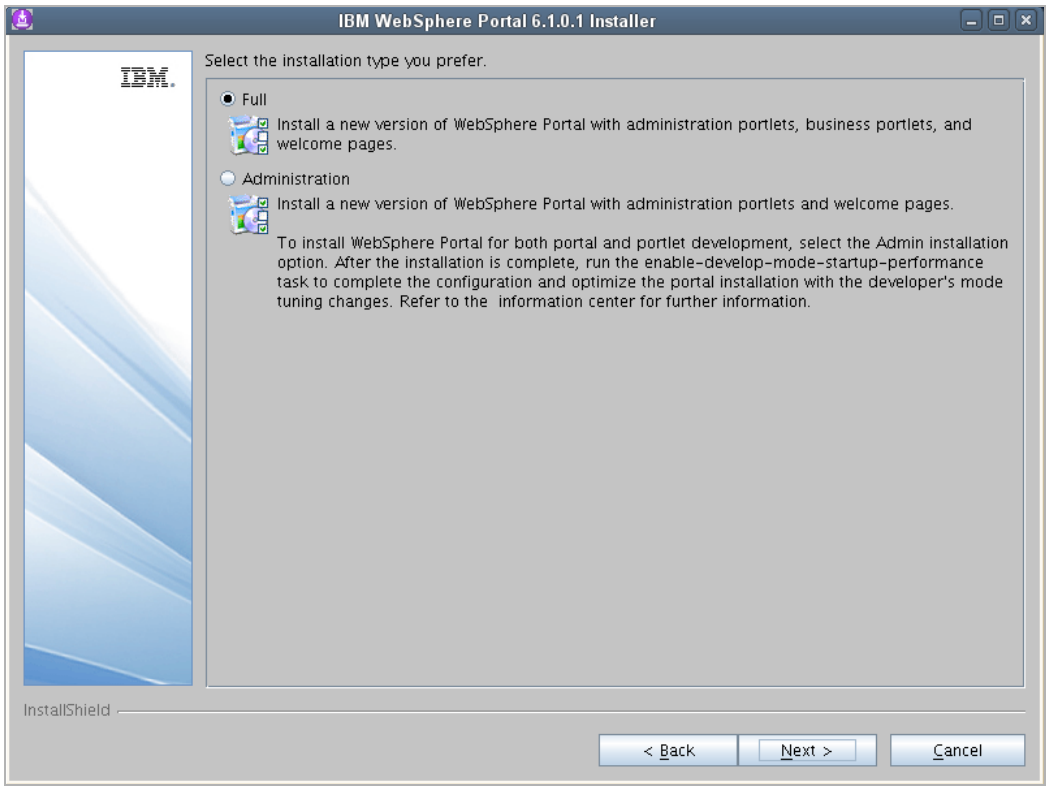
3. The WebSphere portal installer opens. Click **Next**.



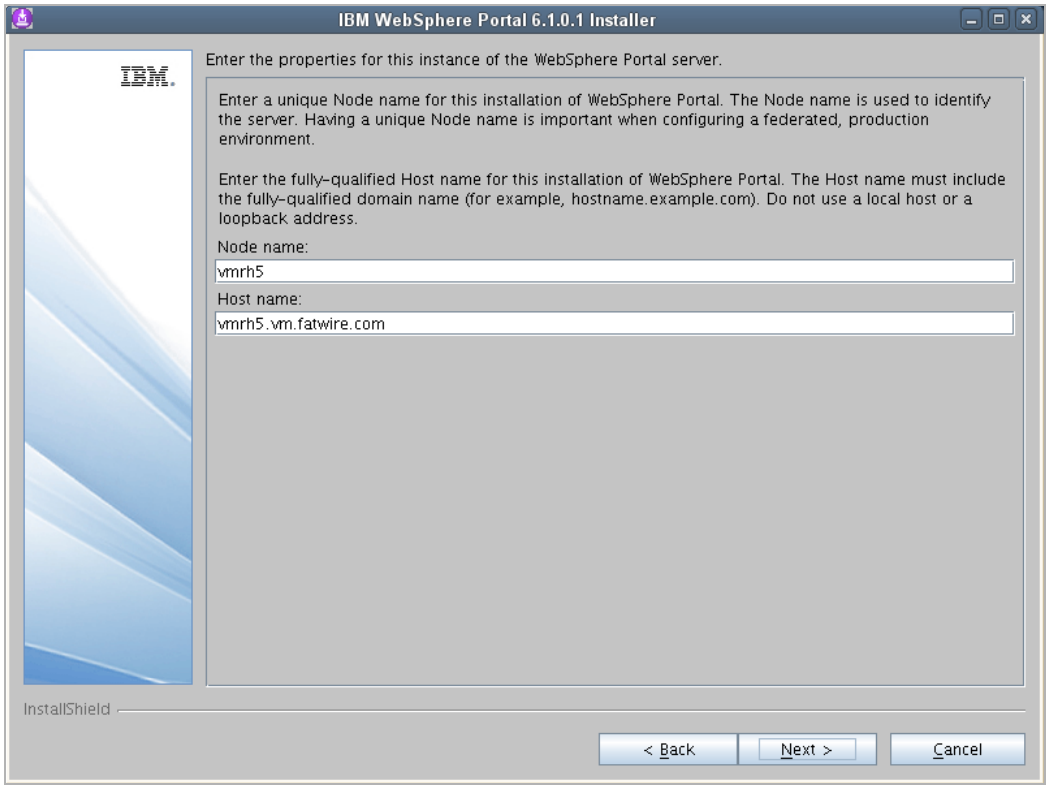
4. Accept the terms in the license agreement and then click **Next**.



5. In the “Installation Type” screen, select **Full**, and then click **Next**.



6. Once the initial validation is completed, fill in the **Node name** and **Host name** fields, and then click **Next**.

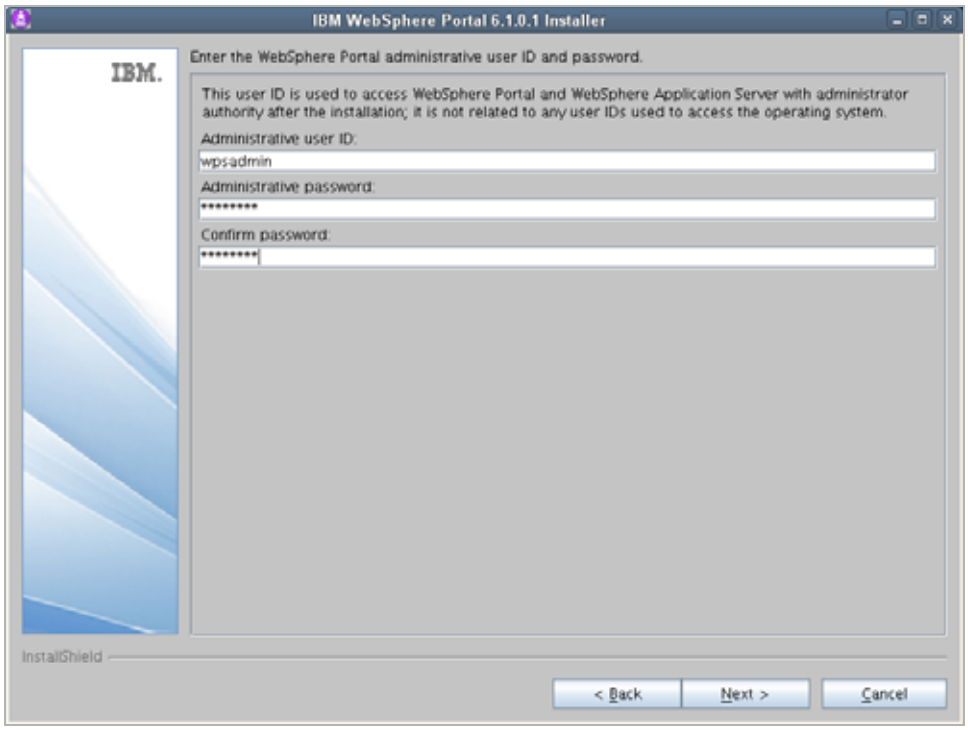


Note

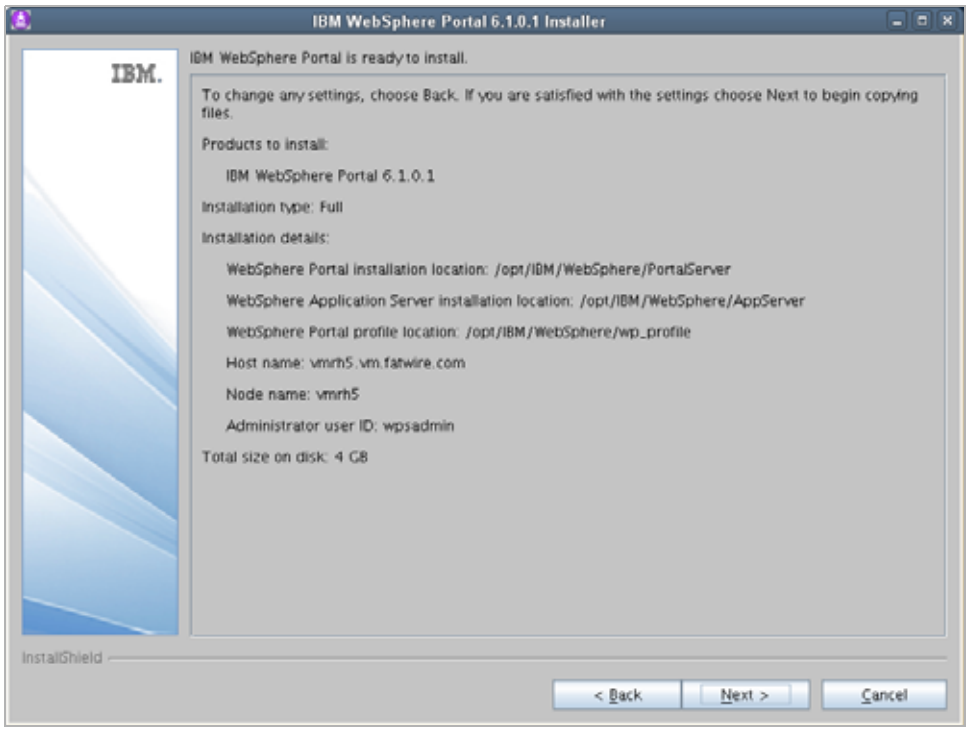
If the system has a proper DNS name, the fields will be pre-populated with the value of the DNS name.

7. Fill out the **Administrative user ID** field and the password fields:
   - **Administrative user ID** – `wpsadmin`
   - **Password** – Enter the password for the administrative user.

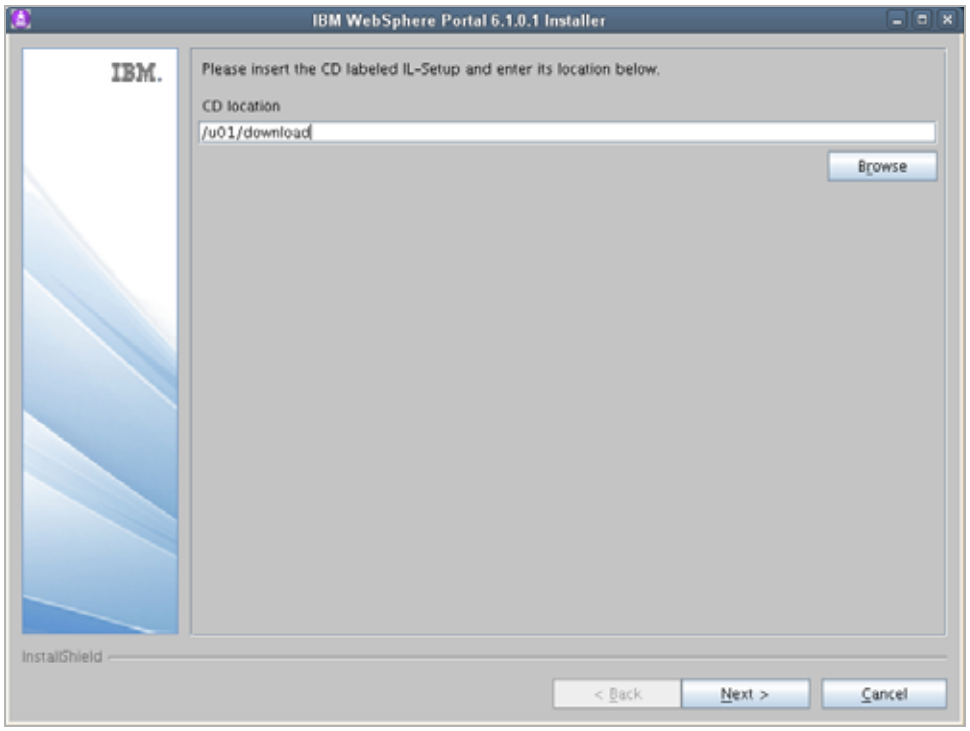
   Click **Next**.



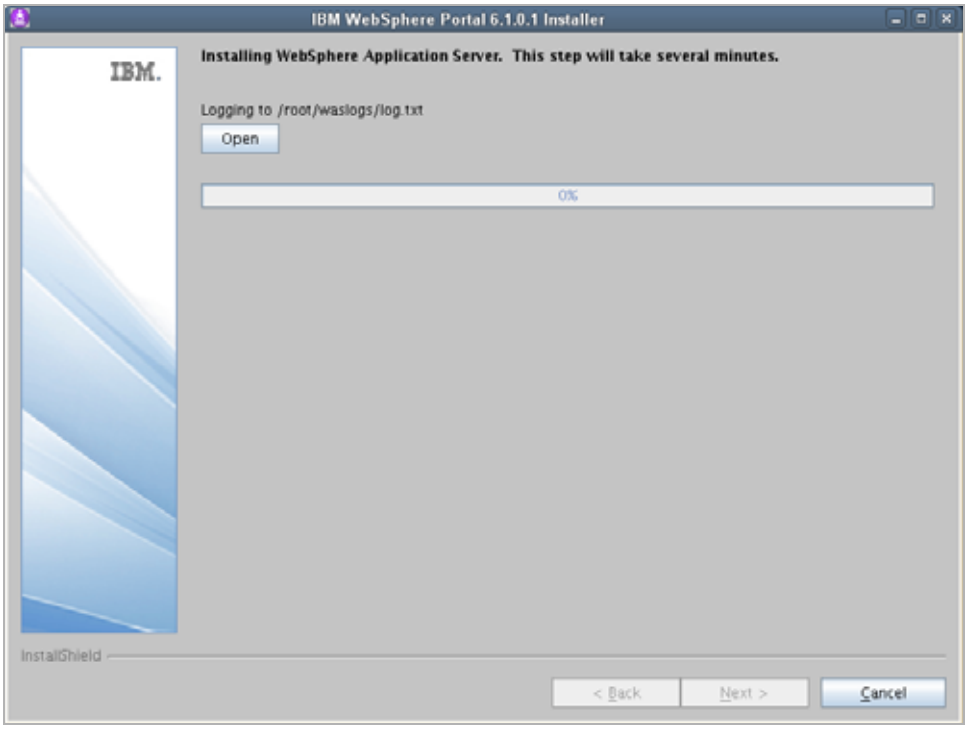
8. In the summary screen confirm all information is correct, and then click **Next**.



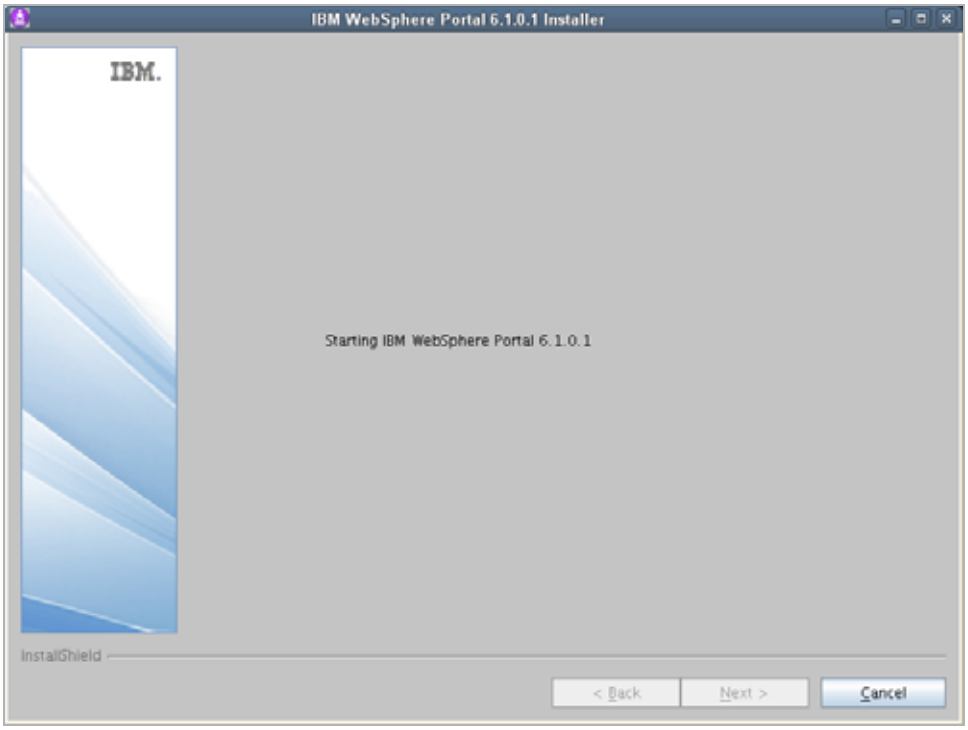
9. In the **CD location** field, enter the temporary directory where WebSphere Portal is located (this is the same directory where `install.sh` is located), then click **Next**.



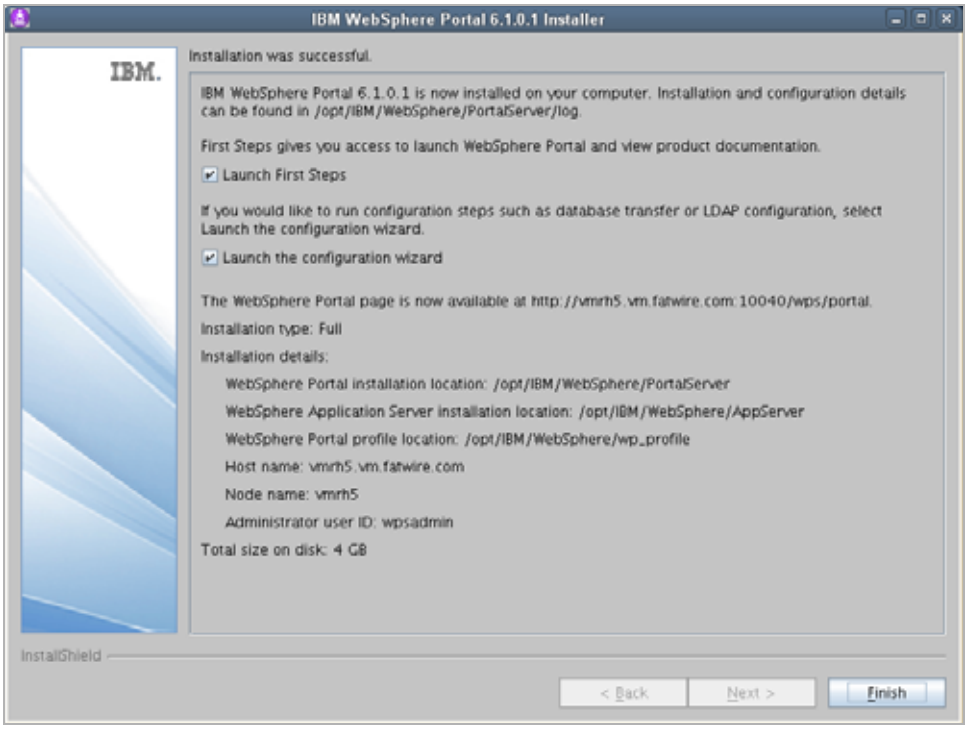
The automated installation starts. You can determine the status of the installation by monitoring the installer and logs.



Once the installation is complete, WebSphere portal starts.



10. In the summary screen, deselect the **Launch First Steps** check box, then click **Finished**.

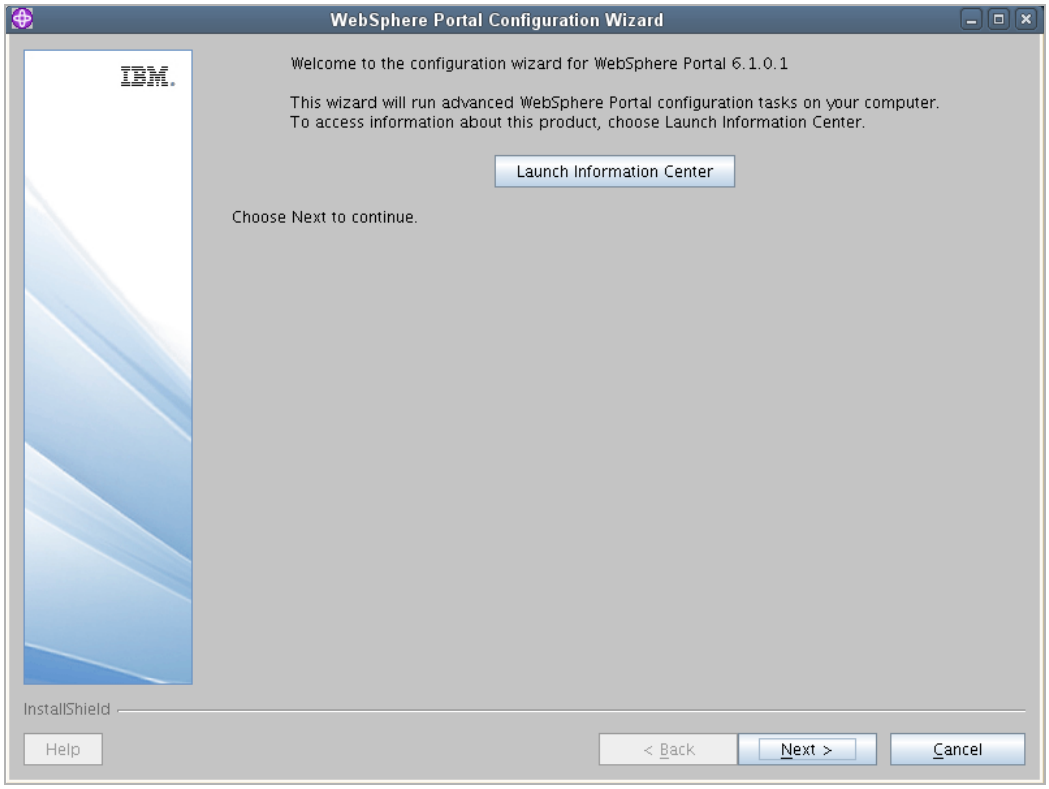


11. Continue to the next section to integrate WebSphere portal with LDAP.

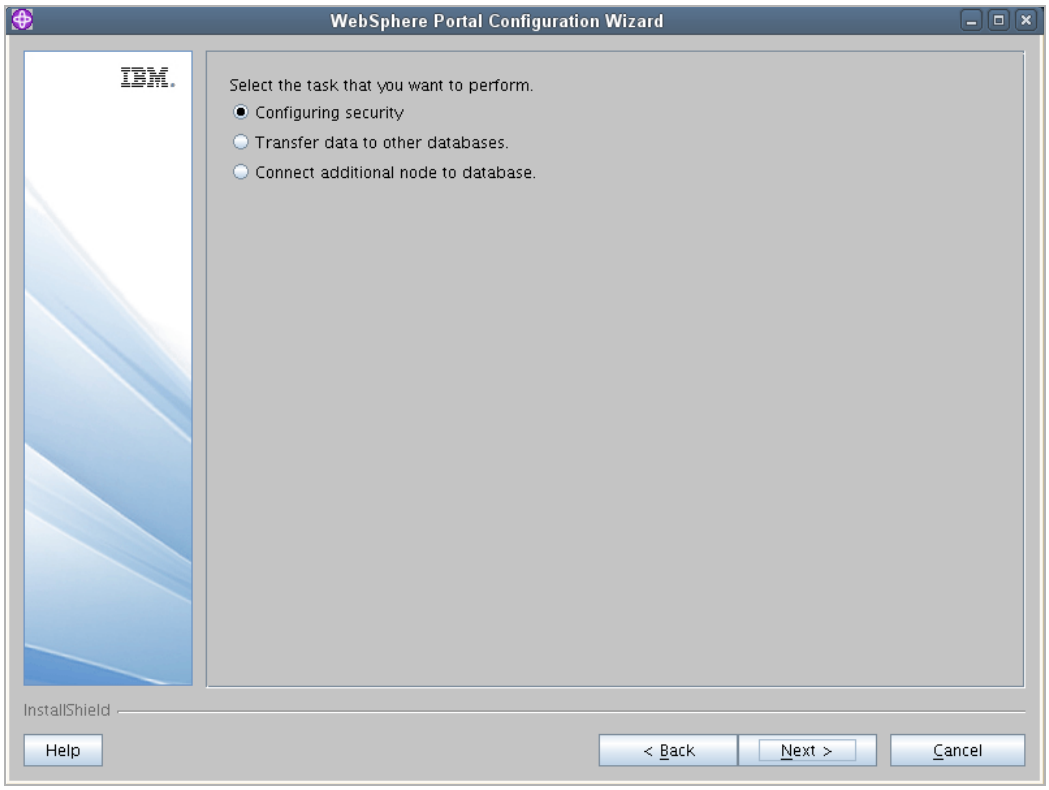
Integrating the WebSphere Portal with LDAP

In this section, you will be using the WebSphere Portal configuration wizard to configure LDAP integration for your WebSphere Portal installation.

1. In the Configuration wizard's "Welcome" screen, click **Next**.

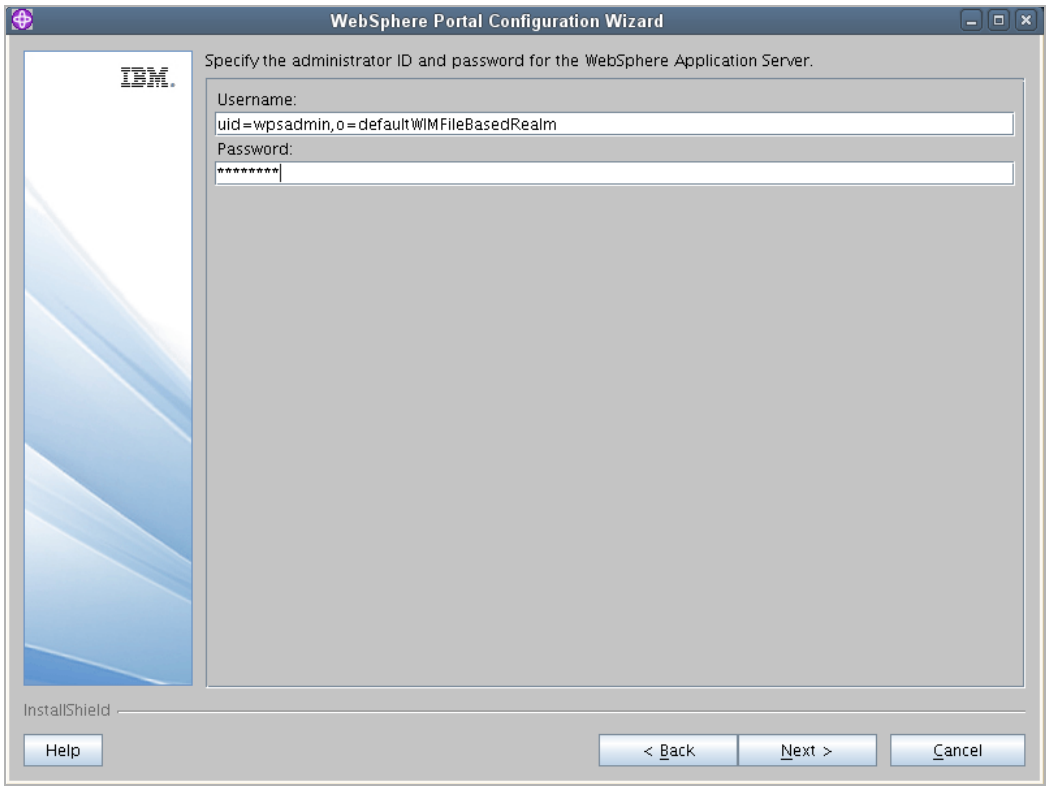


2. Select **Configuring Security**, then click **Next**.

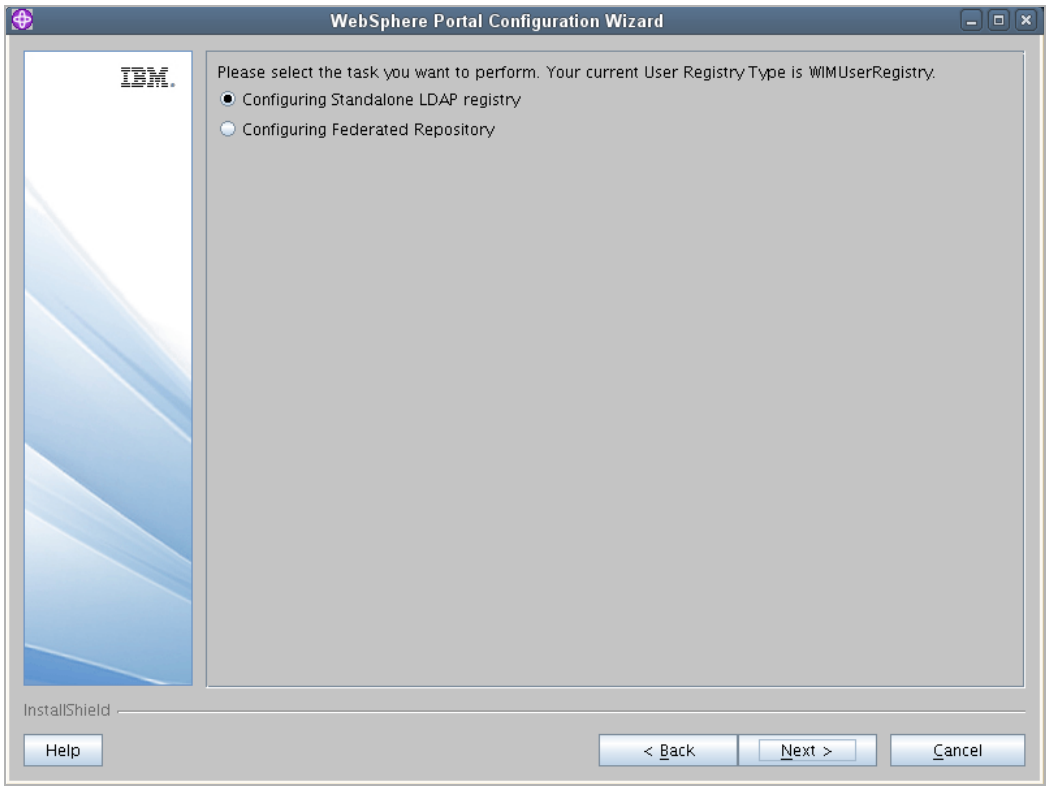


3. Specify the administrator ID and password for the WebSphere Portal Server by filling in the following fields:
   - **Username**: Do not change the information in this field.
   - **Password**: Enter the password given during the WebSphere Portal installation, (see step 7 on page 29).

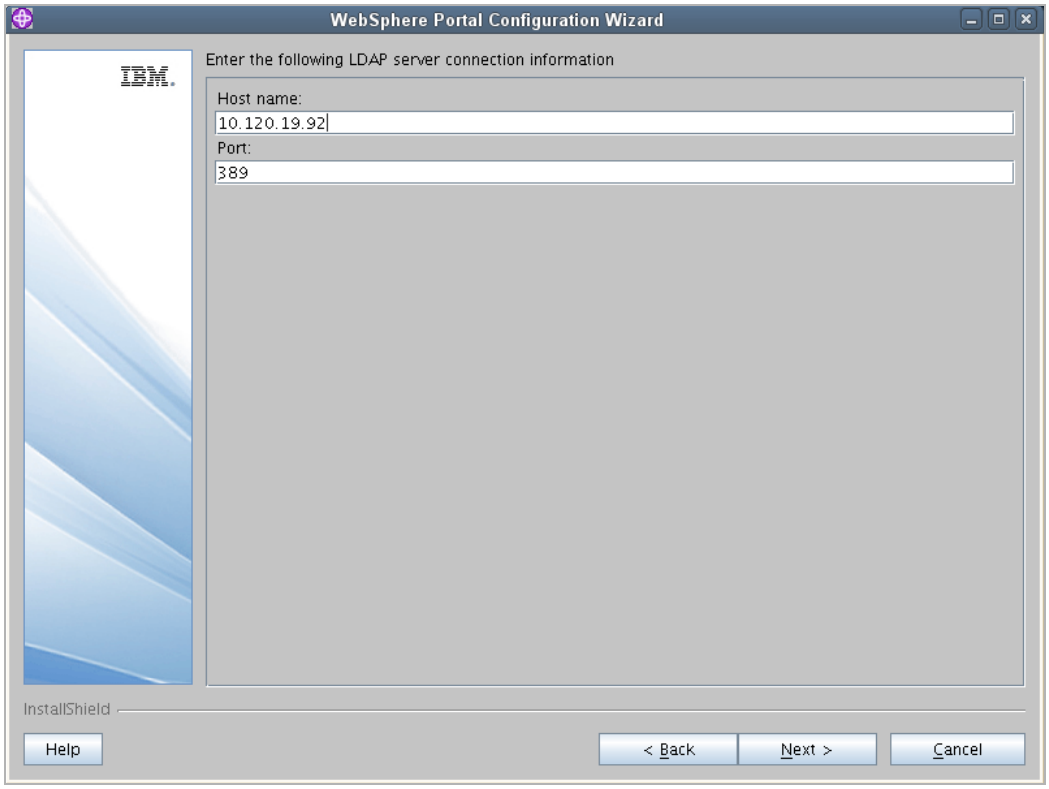
   Click **Next**.



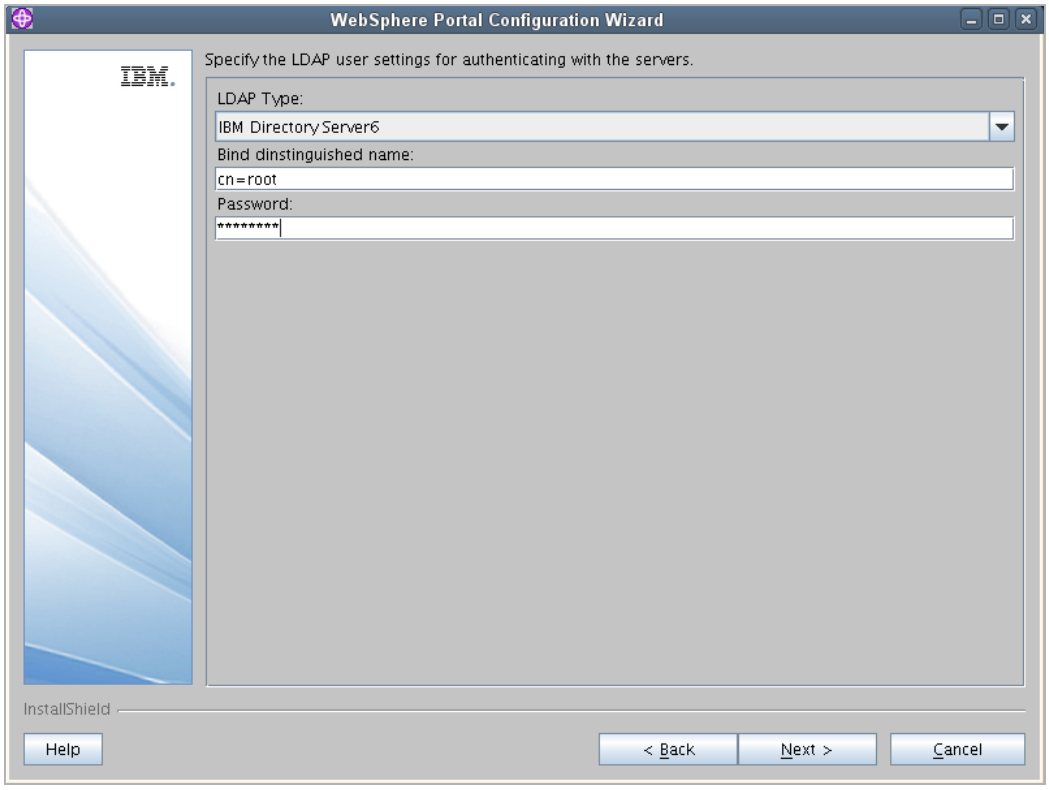
4. Select the **Configuring Standalone LDAP registry** option, then click **Next**.



5. Enter the **Host name** and **port** of the LDAP server you previously configured. Click **Next**.

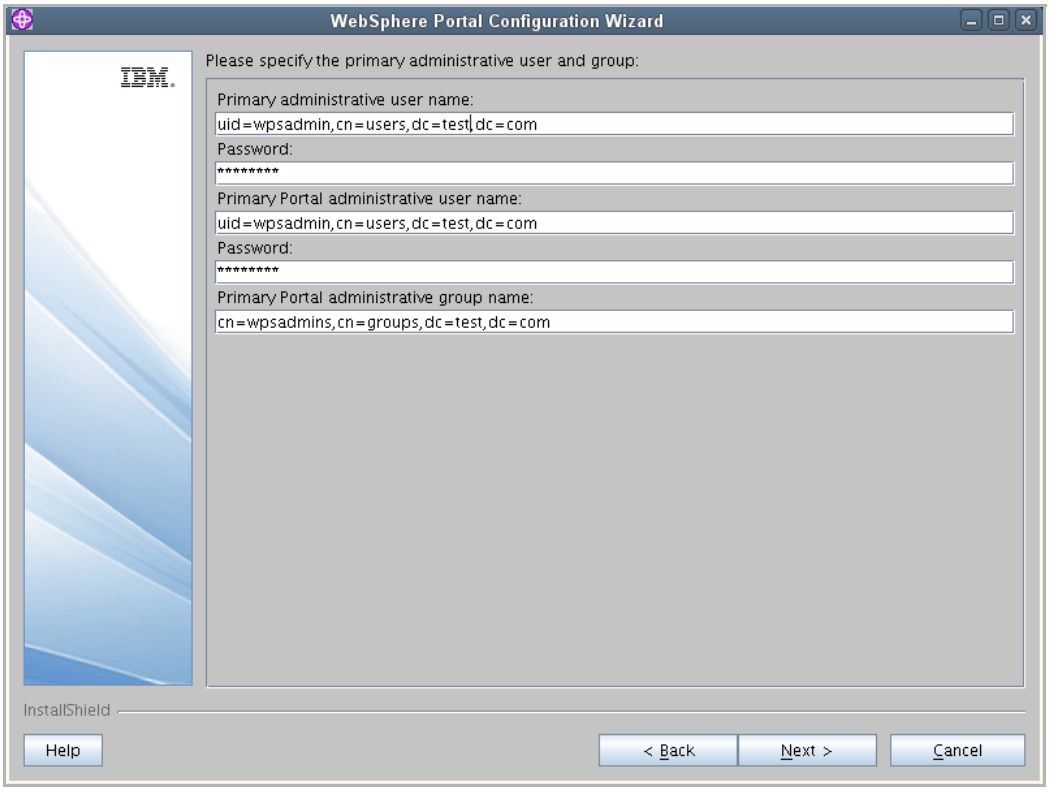


6. Specify the LDAP user settings for authentication with the servers. Fill in the fields:
   - **LDAP Type** – Select the LDAP server type.
   - **Bind distinguished name** – Enter the same DN that you used to connect when using lbe.
   - **Password** – Enter the password you used to connect using lbe.

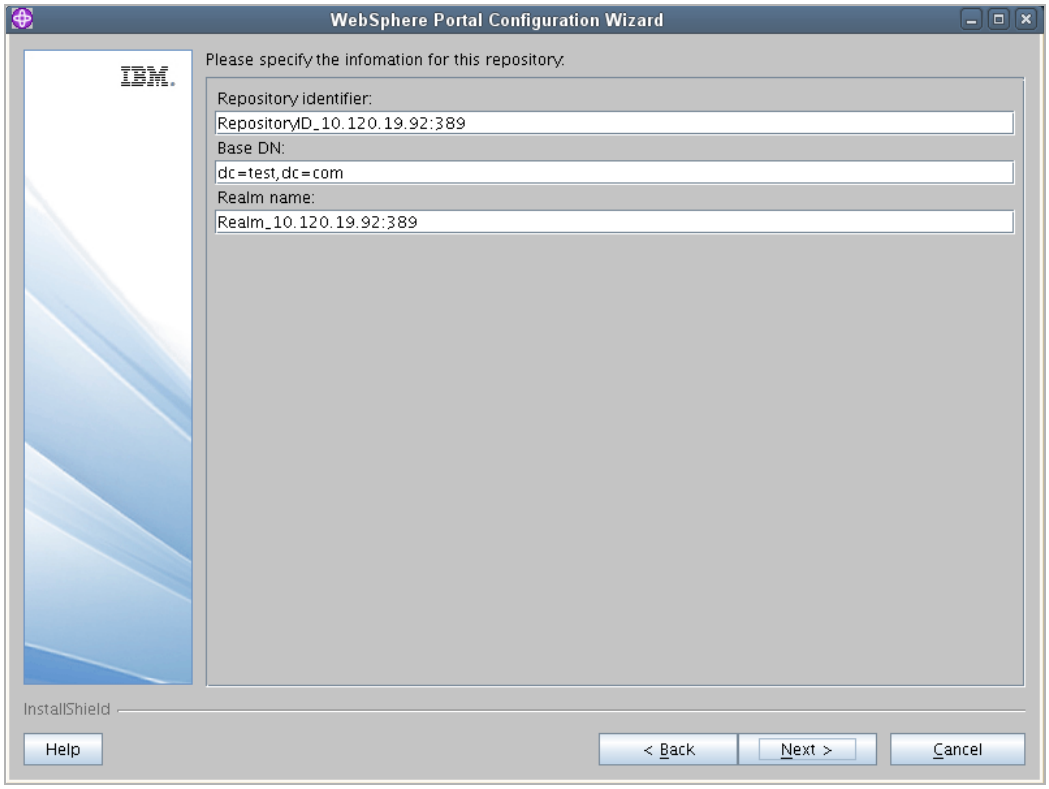


7. In this screen, specify the primary administrative user and group. Fill in the fields:
   - **Primary administrative user name** and **Primary Portal administrative user name** – Set the user names to **wpsadmin**, and set the DN to the value you entered in step 5 on page 20 when setting up the LDAP server (in this guide the DN value is `DC=TEST,DC=COM`).
   - **Password** fields – for both the "Primary administrative user name" and the "Primary Portal administrative user name," enter the password you used when setting up lbe.
   - **Primary Portal administrative group name** – Enter the user name **wpsadmin**, and the DN that you entered when setting up the LDAP server step 5 on page 20 (in this guide the DN value is `DC=TEST,DC=COM`).

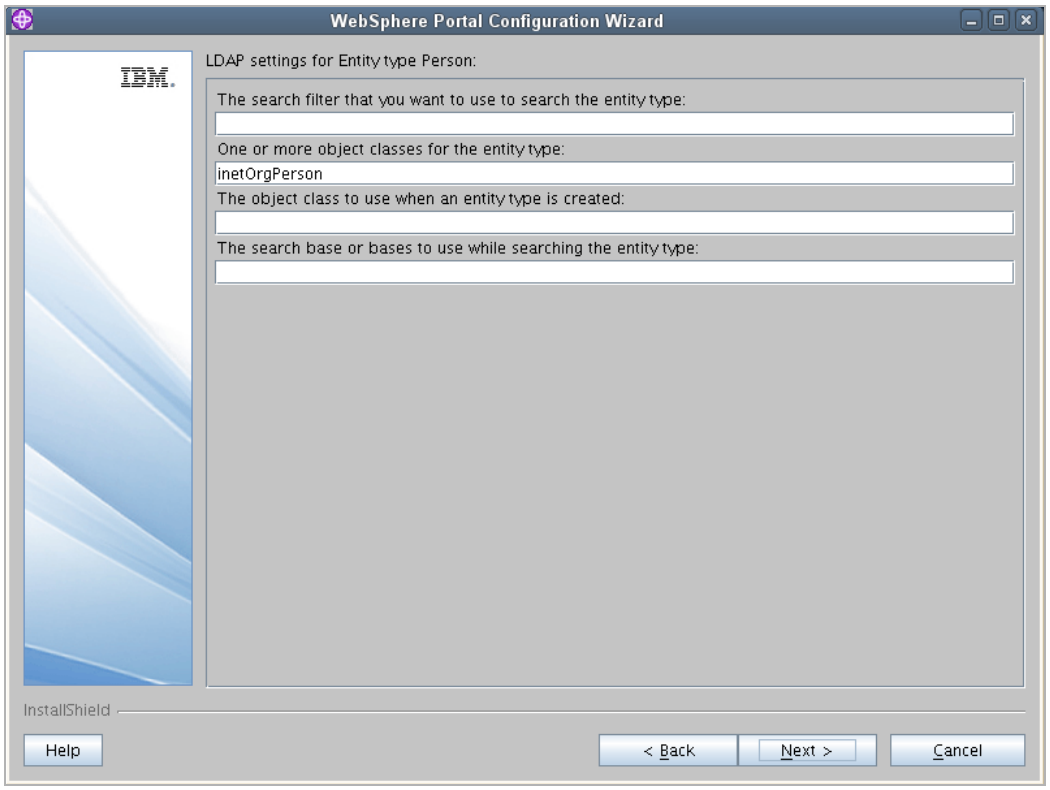
     Click **Next**.



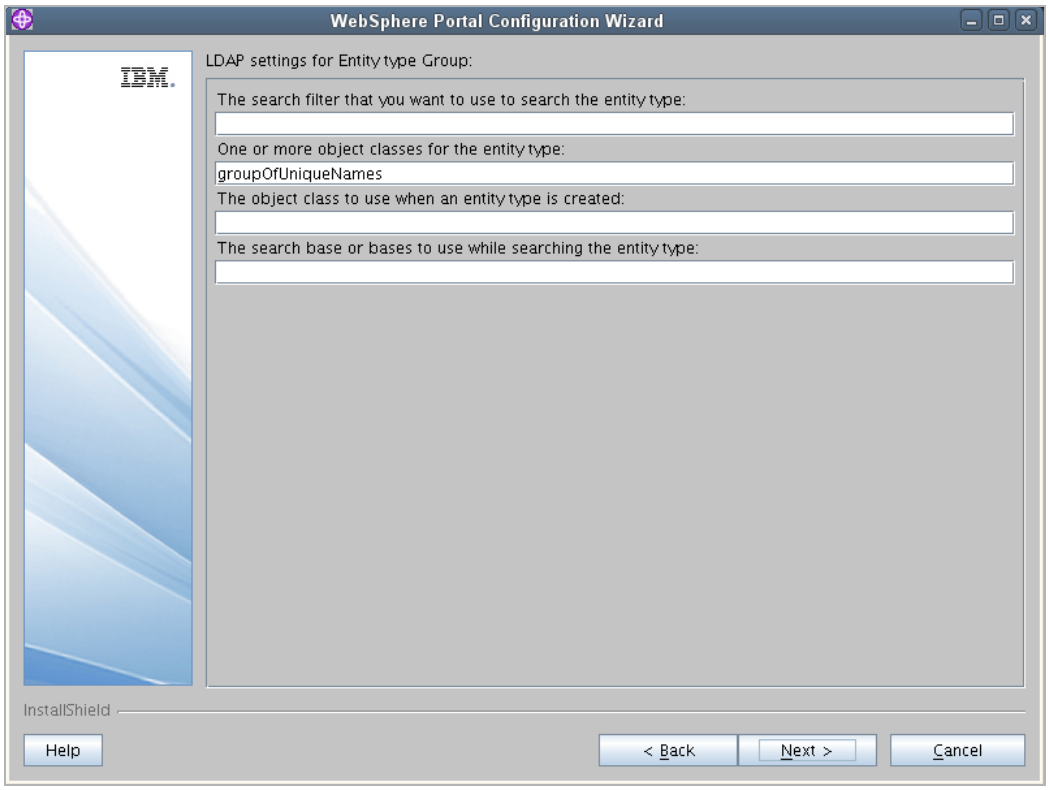
8. Make sure all field information is correct. (The “Realm name” should be correct for the install, but confirm the “Base DN” before you proceed with the rest of this section.) Click **Next**.



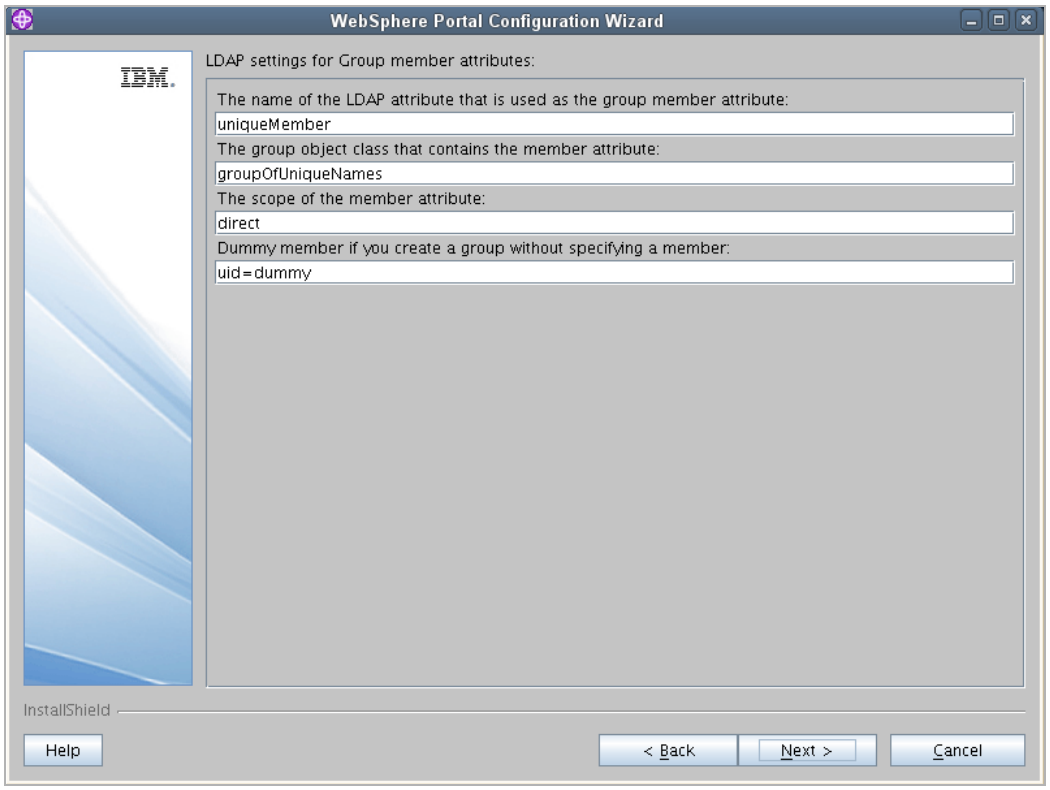
9. In this screen, leave the default values and click **Next**.



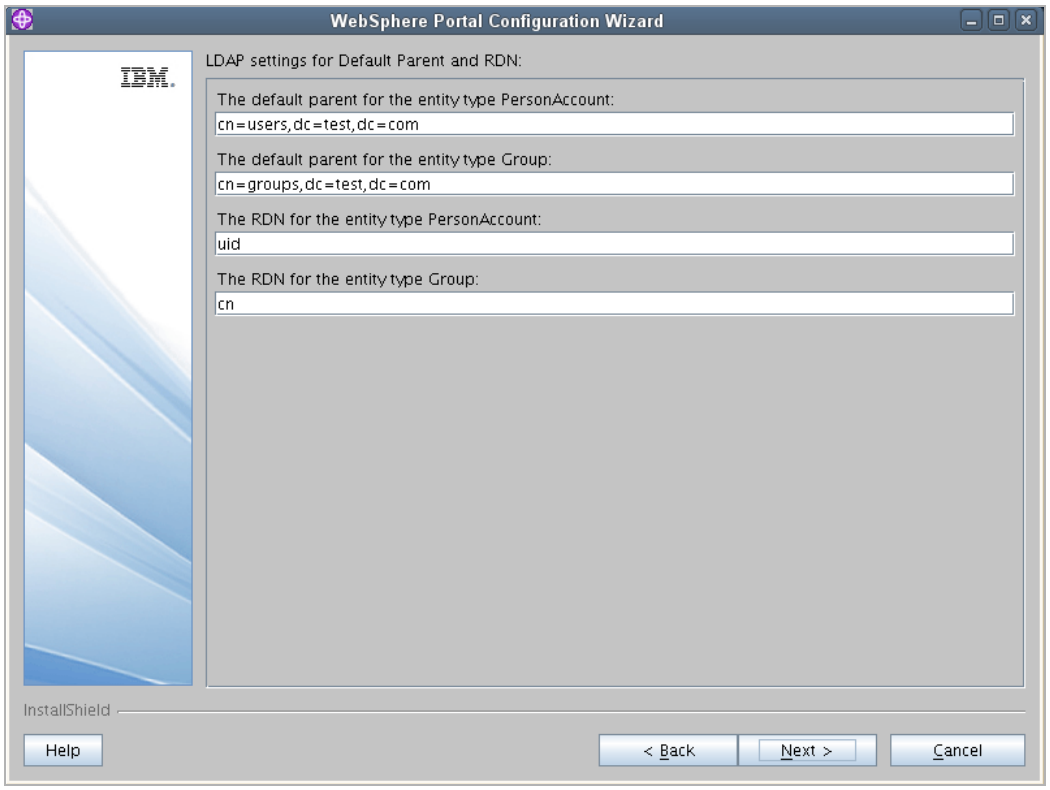
10. In this screen, leave the default values and then click **Next**.



11. In this screen, leave the default values and then click **Next**.



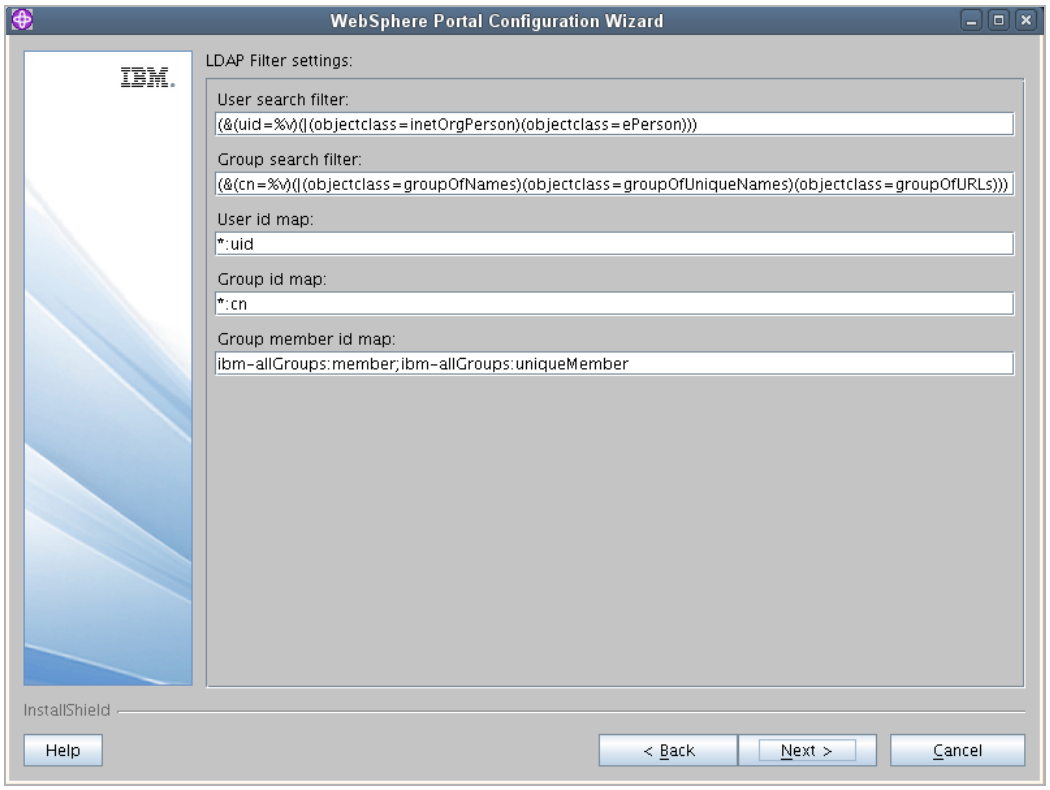
12. In this screen, leave the default values and then click **Next**.



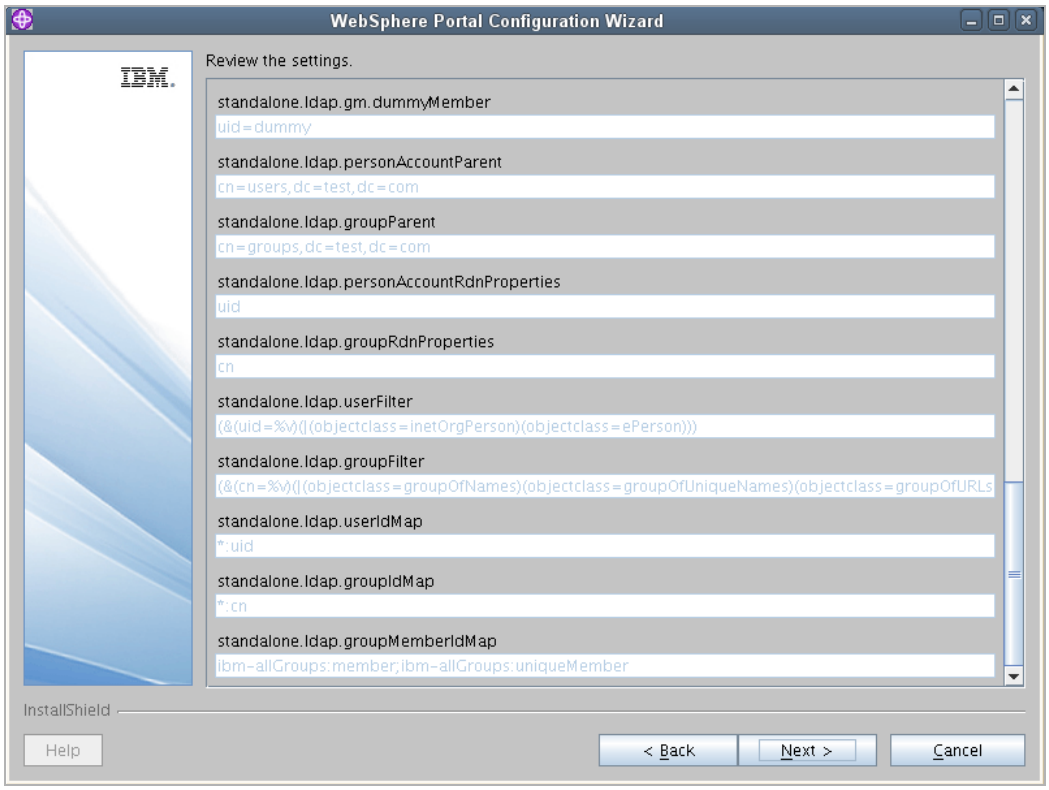
Note

Write down the values of the `User` and `Group` parents. These values will be needed when integrating Content Server with LDAP.

13. In this screen, leave the default values and then click **Next**.

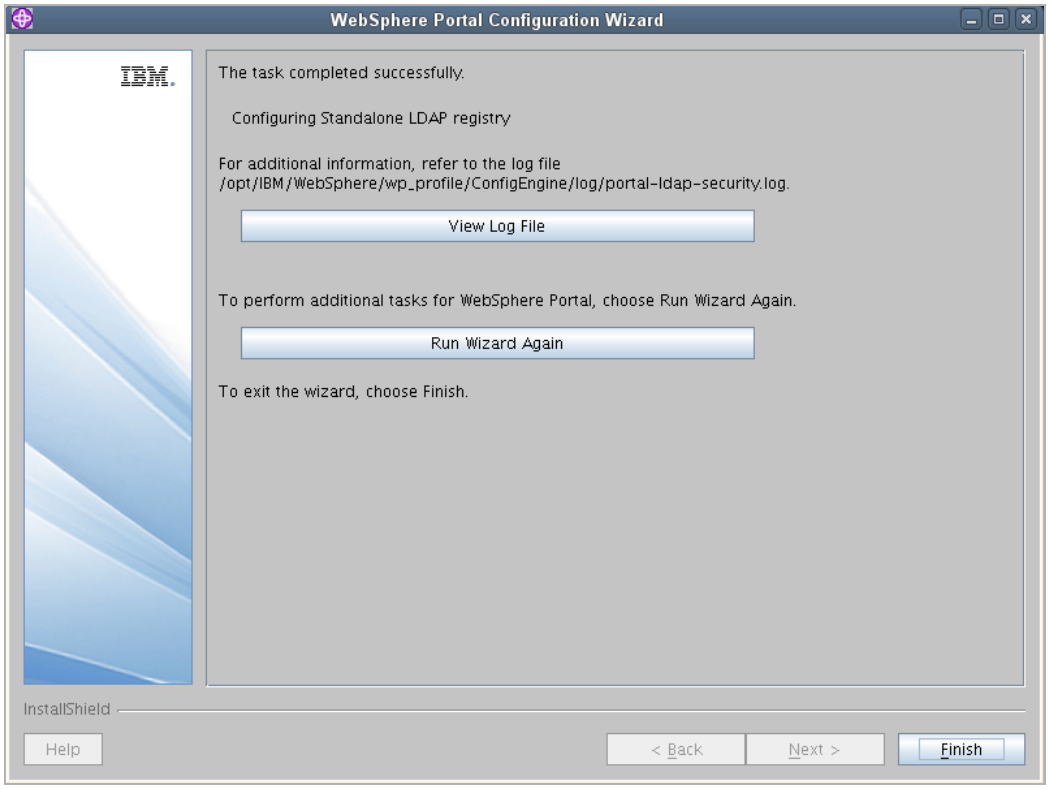


14. Review the information in the fields and click **Next**.



15. Allow the installation to complete.

16. Click **Finish**.



17. Continue to the next step to configure database communications.

Configuring the WebSphere Portal Server Instance for Database Communications

Before installing Content Server, a data source is required. The data source must be created under the Server named `WebSphere_Portal`. This section explains how to configure the WebSphere Portal Server instance you created in the previous section to communicate with the database Content Server will be using.

This section contains the following steps:

- A. Creating a J2C Authentication
- B. Creating a JDBC Provider
- C. Creating a JDBC Data Source

Note

Before completing the steps in the rest of this chapter, start the following WebSphere Portal Server components, in the order shown:

1. Deployment Manager
2. Node Agent
3. Application Server

The list of commands for starting and stopping WebSphere Portal components is available in “Start/Stop Commands and Default Ports,” on page 18.

A. Creating a J2C Authentication

The J2C authentication contains the login information that the WebSphere Portal Server will use to connect to the Content Server database. A J2C authentication is the first of three components required to set up your WebSphere Portal Server instance to connect to your database.

To create a J2C authentication

1. Log in to the Deployment Manager console:

   Note

   The default Deployment Manager console port is 9060.

   a. Point your browser to the following URL:

      `http://<DM_host>:<DM_console_port>/admin`

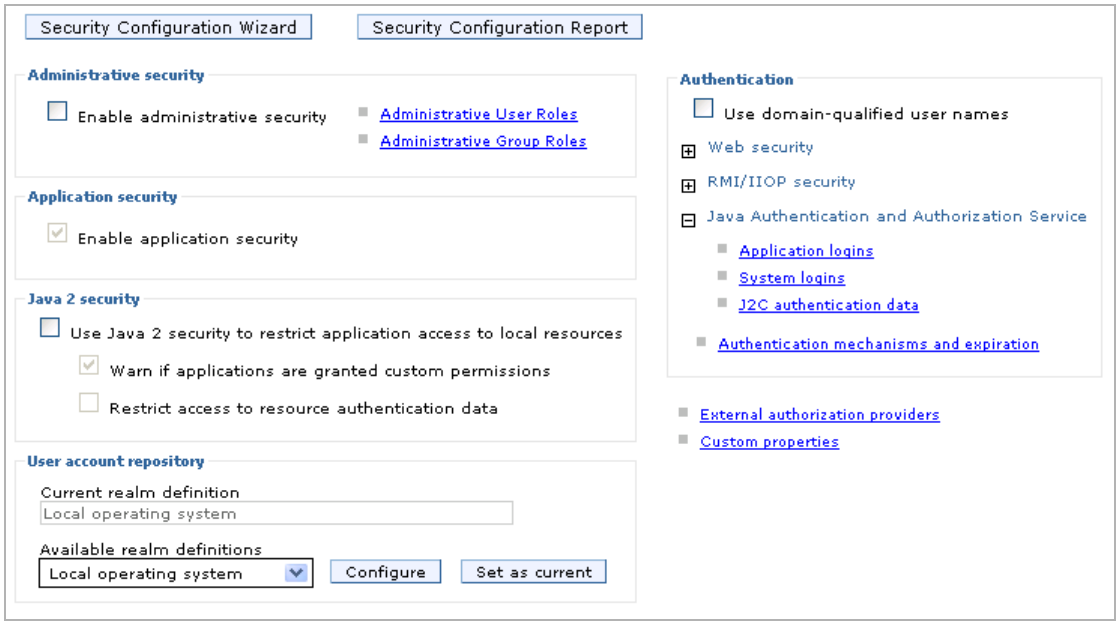
   b. Enter your user name and password.

   c. Click **Log in**.

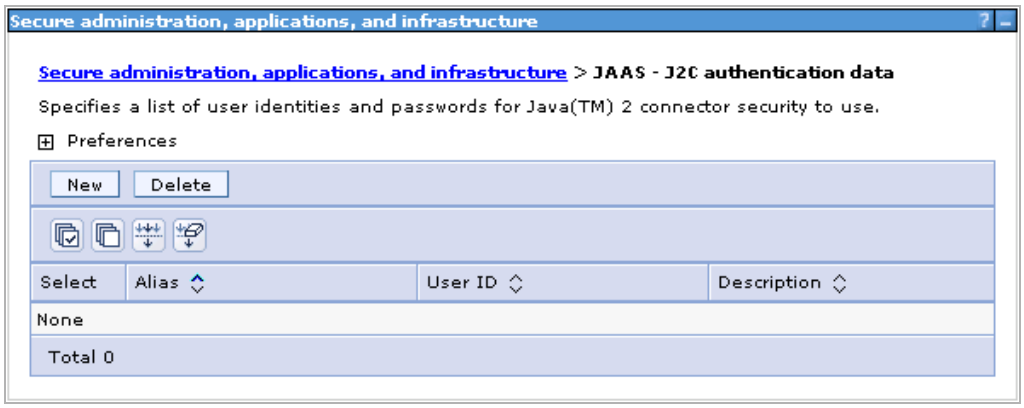
      The Deployment Manager console loads.

2. In the left-hand pane, expand the **Security** node.

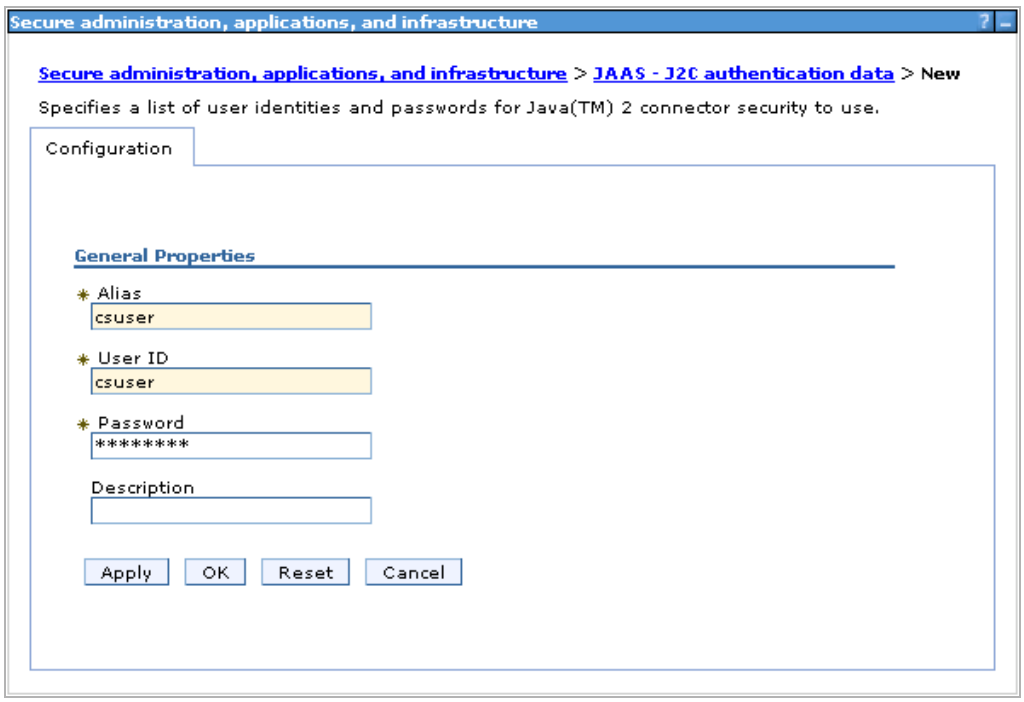
3. Under the Security node, select **Secure administration**, **applications**, and **infrastructure**.
4. In the "Authentication" area in the right-hand pane, expand the J**ava Authentication and Authorization Service** node and click **J2C authentication data**.



The console displays the “JAAS – J2C authentication data” screen.

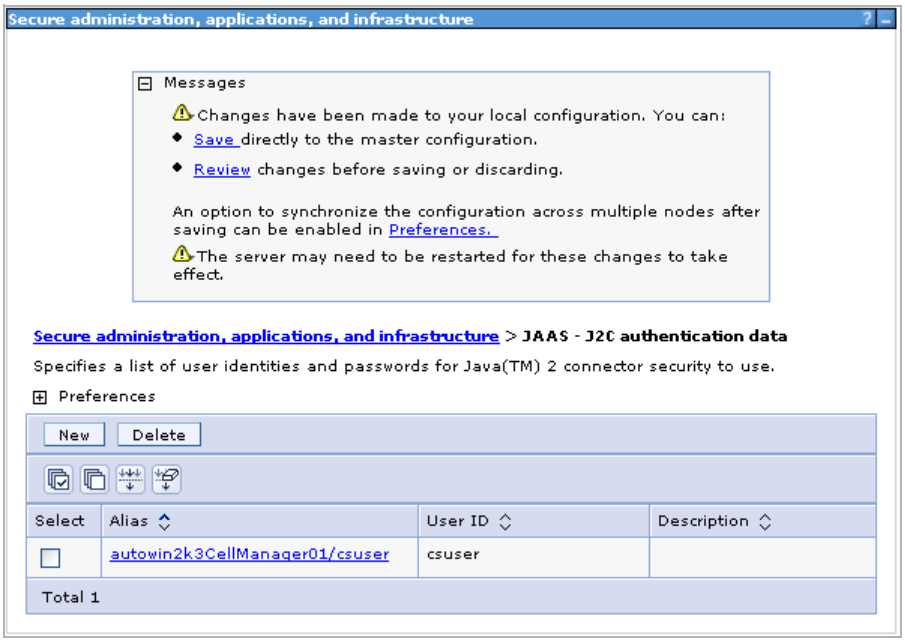


5. In the “JAAS – J2C authentication data” screen, click **New**. The console displays the “Configuration” tab.



6. In the “Configuration” tab, do the following:
   a. In the **Alias** field, enter a unique alias for the J2C authentication.
   b. In the **User ID** and **Password** fields, enter the credentials of the database user account WebSphere Portal Server will use to connect to the Content Server database. (Re-enter the password for verification).

c. When you have finished, click **OK**. The J2C authentication you created appears in the list in the "JAAS – J2C authentication data" screen.

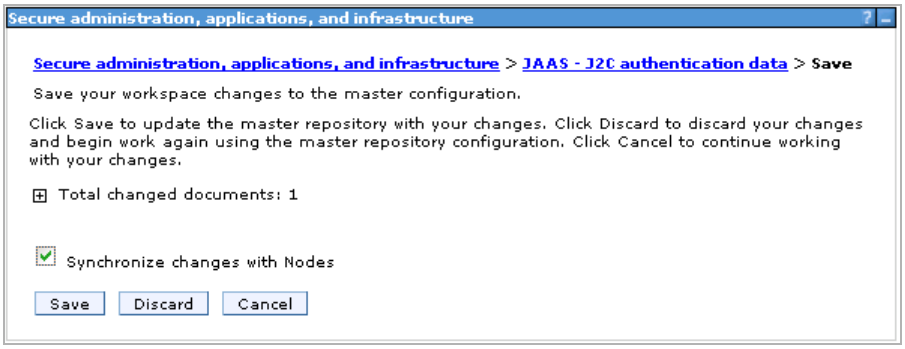


7. In the "Messages" box, click **Save**.

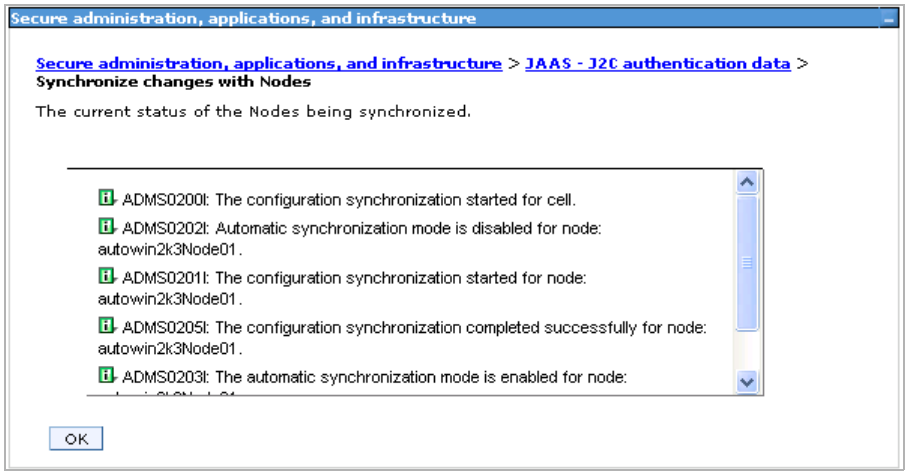
8. In the "Save" screen, do the following:

a. Select the **Synchronize changes with nodes** check box.

b. Click **Save**.



9. In the “Synchronize changes with nodes” screen, click **OK**.



10. Restart the application server for the changes to take effect. For a list of start and stop commands, see “Start/Stop Commands and Default Ports,” on page 18.

B. Creating a JDBC Provider

A JDBC provider encapsulates all data sources that use a vendor-specific JDBC driver implementation. A JDBC provider is the second of the three components required to set up your WebSphere Portal Server instance to connect to your database.

To create a JDBC provider

1. If you are using a DB2 or Oracle database, place the following `jar` files in the `<WAS_home>/universalDriver/lib` directory:

> **Note**
>
> If you are using SQL Server, skip this step.

   - For DB2:
     - `db2jcc.jar`
     - `db2jcc_license_cu.jar`
   - For Oracle:
     - `ojdbc14.jar` or `ojdbc5.jar`

2. Log in to the Deployment Manager console:

> **Note**
>
> The default Deployment Manager console port is 9060.

   a. Point your browser to the following URL:

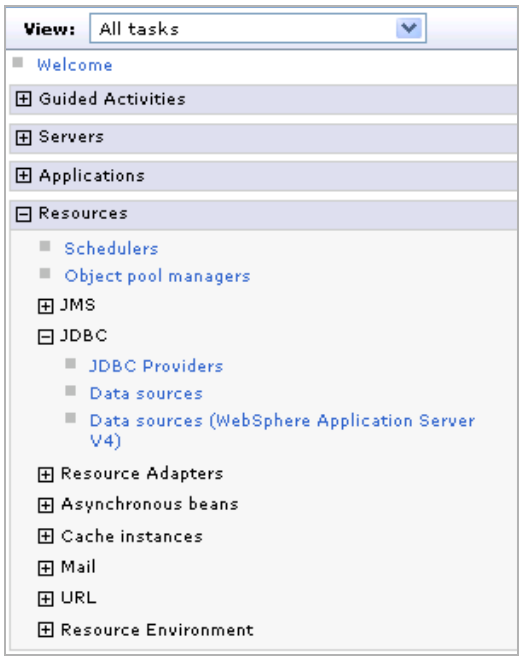
   `http://<DM_host>:<DM_console_port>/admin`

   b. Enter your user name and password.

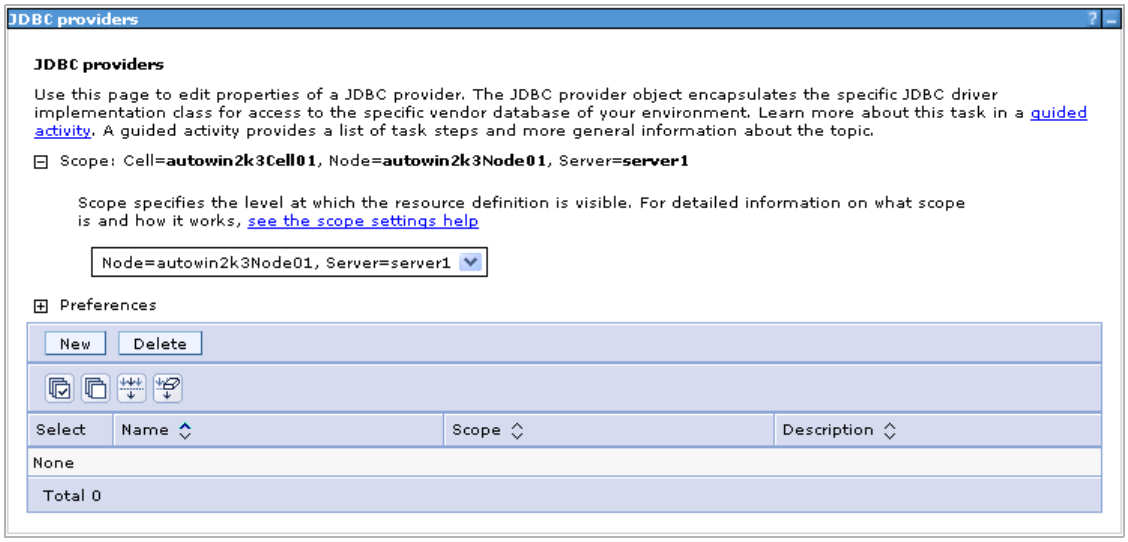
c. Click **Log in**.

The Deployment Manager console loads.

3. In the left-hand pane, expand the **Resources** node.



4. Under the **Resources** node, expand the **JDBC** node and click **JDBC Providers**. The console displays the "JDBC providers" screen.



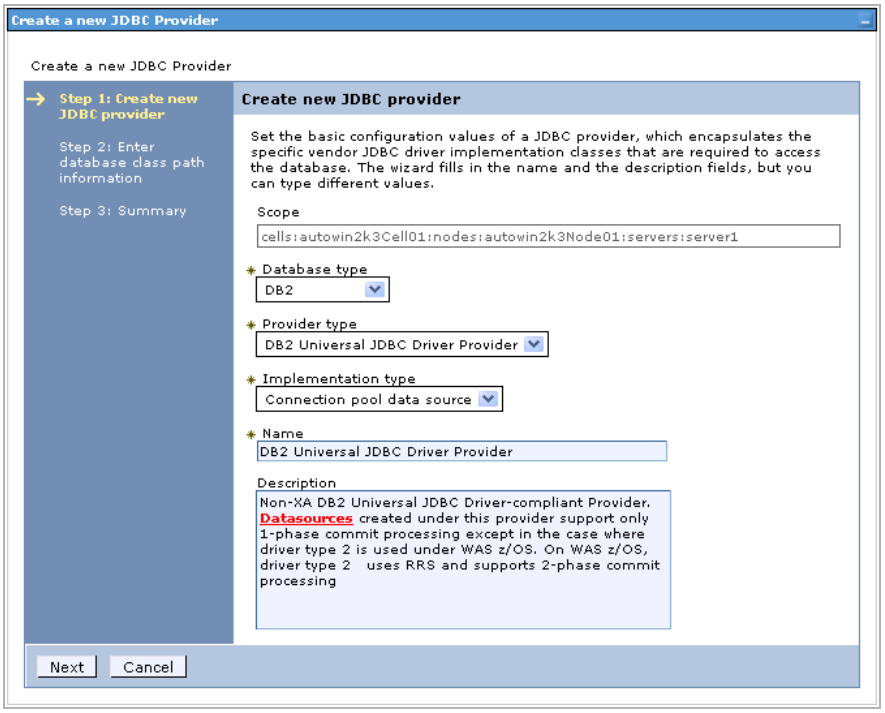
5. In the “Scope” area of the “JDBC providers” screen, select **Node=<appserv_node>, Server=<server_name>** from the drop-down list, and click **New**.

> **Note**
>
> The default name of the first application server node created is `<WAS_host>Node01`. The default server name is `server1`.

6. In the “Create a new JDBC provider” screen, do the following:
   a. In the “Database type” drop-down list, select the database Content Server will be using.
   b. In the “Provider type” drop-down list, select the provider corresponding to the database you selected in step a, as shown in the following table:

Database Type	Corresponding Provider Type
DB2	Universal JDBC Driver Provider
Oracle	Oracle JDBC Driver
SQL Server	WebSphere embedded ConnectJDBC driver for MS SQL Server.

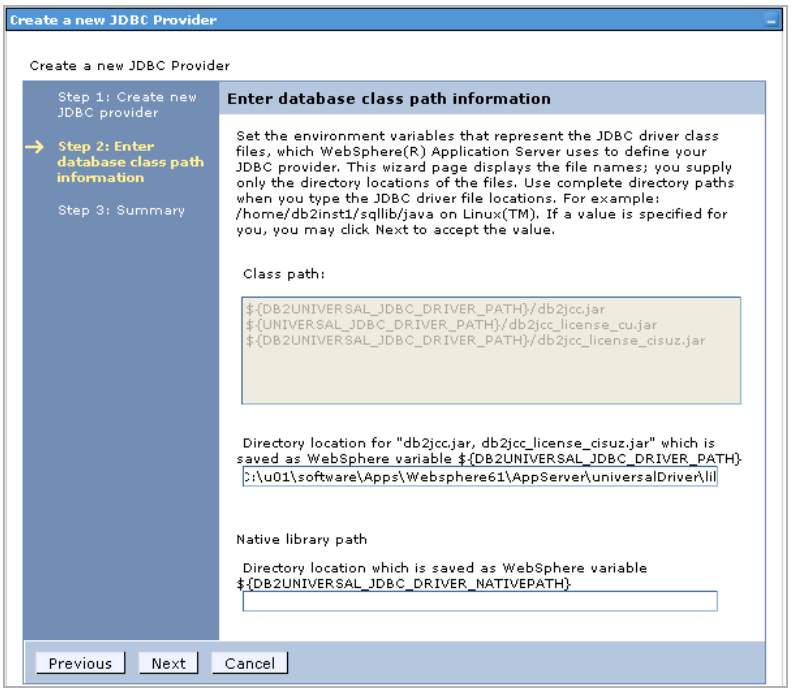
   c. In the “Implementation type” drop-down list, select **Connection pool data source**.
   d. In the **Name** field, enter a unique name for this JDBC provider.
   e. Click **Next**.



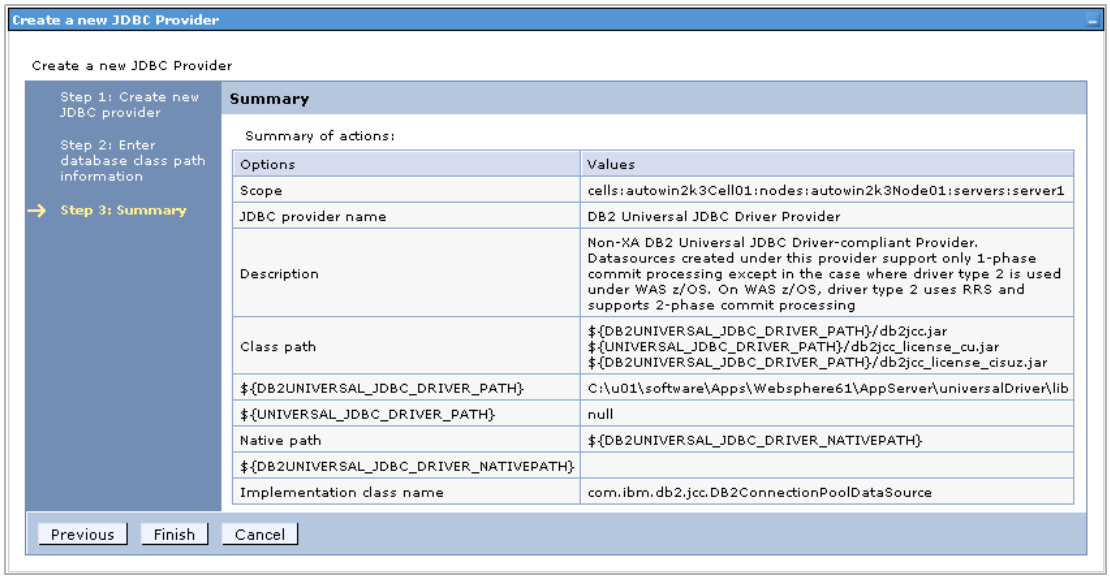
7. In the “Enter database class path information” screen, do one of the following:
   - If you selected **DB2** or **Oracle** in step 6, enter the location containing the database-specific `jar` files you copied in step 1, that is:

     `<WAS_home>/universalDriver/lib`

     When you have finished, click **Next**.
   - If you selected SQL Server in step 6, click **Next**.



8. In the “Summary” screen, review the settings you have chosen, then click **Finish**.



9. In the “Message” box, click **Review**.

10. In the “Save” screen, do the following:
    a. Select the **Synchronize changes with nodes** check box.
    b. Click **Save**.
11. In the “Synchronize changes with nodes” screen, click **OK**.

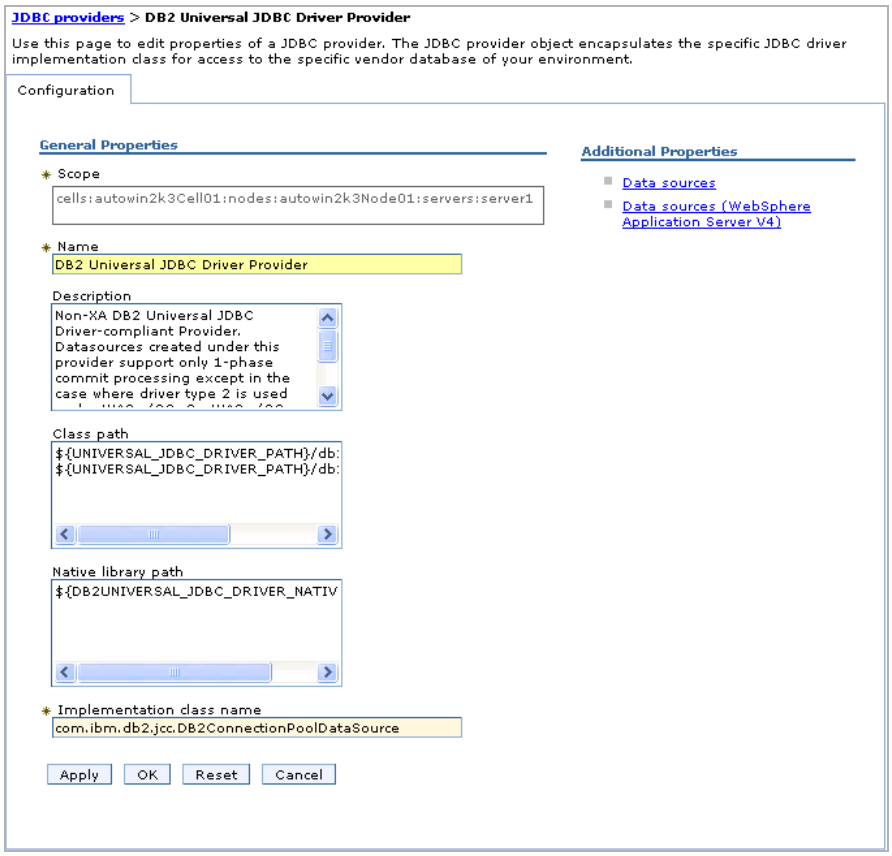
    The console re-displays the “JDBC Providers” screen. The new JDBC provider appears in the list of providers in the right-hand pane.
12. If you selected DB2 in step 6, do the following:

> **Note**
>
> If you selected **Oracle** or **SQL Server** in step 6, skip the steps below and proceed to the next section.

    a. In the list of JDBC providers in the right-hand pane, select the JDBC provider you created earlier in this section.
    b. In the **Class path** field of the “DB2 Universal JDBC driver provider” screen do the following:
        1) Delete the path to the `db2jcc_license_cisuz.jar` file.
        2) Change the variable name for the `db2jcc_license_cu.jar` file:

           From: `${UNIVERSAL_JDBC_DRIVER_PATH}`

           To: `${DB2UNIVERSAL_JDBC_DRIVER_PATH}`



c. Click **OK**.
d. In the "Messages" box, click **Review**.
e. In the "Save" screen, do the following:
   1) Select the **Synchronize changes with nodes** check box.
   2) Click **Save**.
f. In the "Synchronize changes with nodes" screen, click **OK**.

C. Creating a JDBC Data Source

Note

Before starting this procedure, make sure you have done the following:

1. Created a J2C authentication by following the steps in "A. Creating a J2C Authentication."
2. Created a JDBC provider by following the steps in "B. Creating a JDBC Provider."

Once you have created the J2C authentication and the JDBC provider, you must create a data source. The data source is the final component required to set up your WebSphere Portal Server instance to connect to your database.

To create a JDBC data source

1. Log in to the Deployment Manager console:

Note

The default Deployment Manager console port is `9060`.

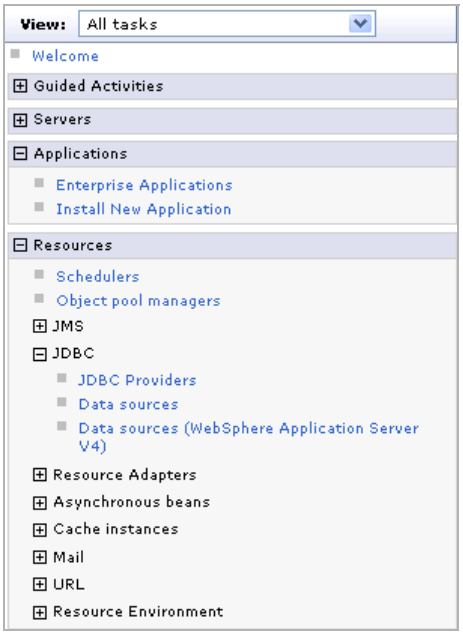
   a. Point your browser to the following URL:

      `http://<DM_host>:<DM_console_port>/admin`

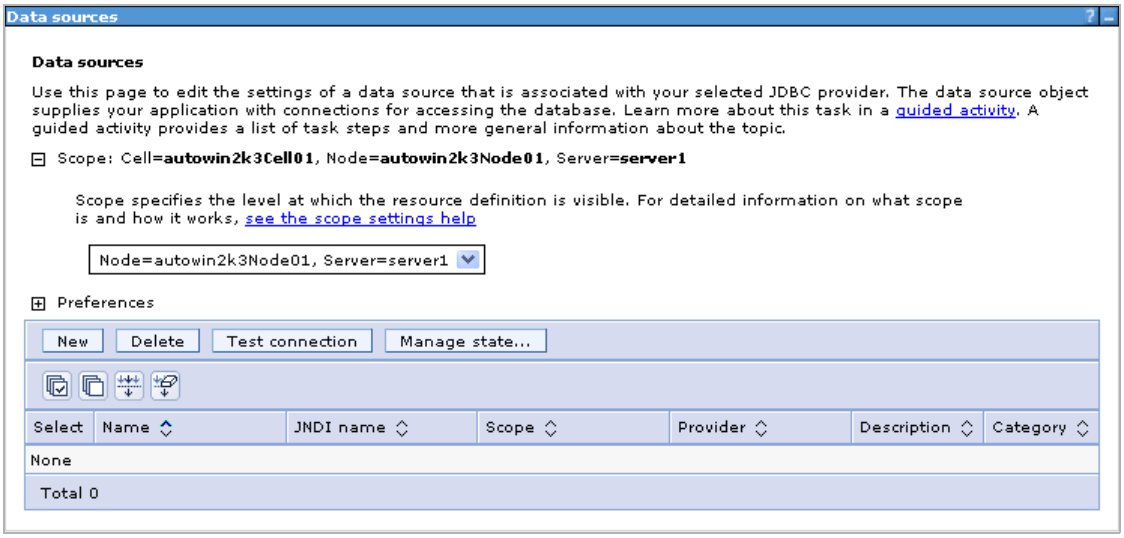
   b. Enter your user name and password.
   c. Click **Log in**.

      The Deployment Manager console opens.

2. In the left-hand pane, expand the **Resources** node.



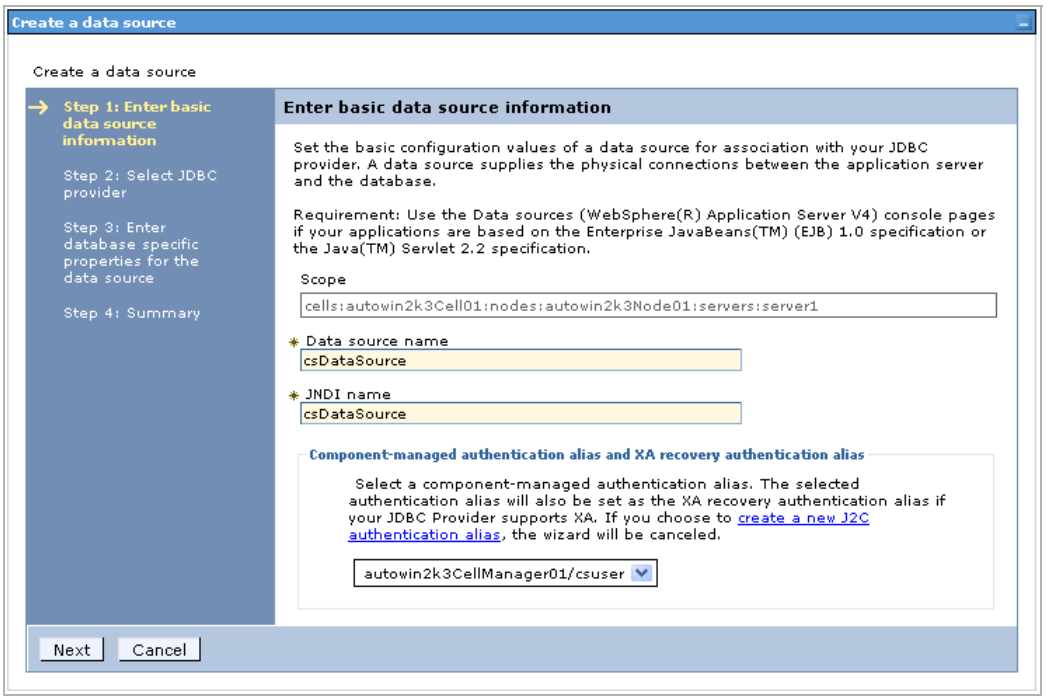
3. Under the **Resources** node, expand the **JDBC** node, and click **Data sources**. The console displays the "Data sources" screen.



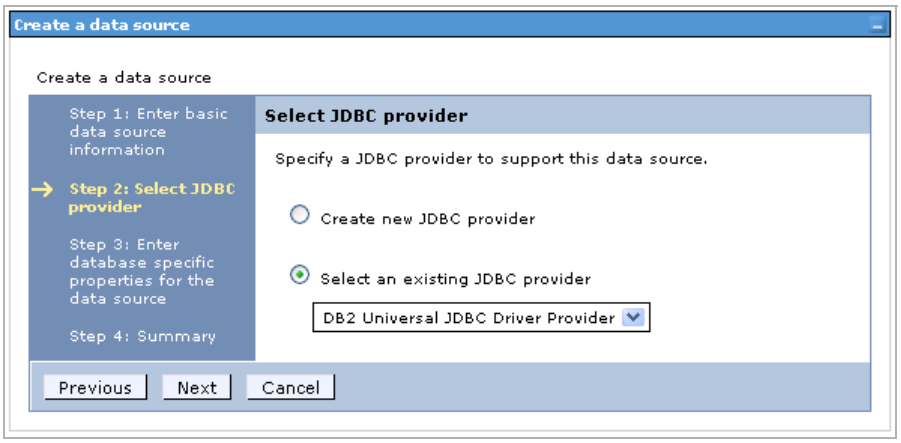
4. In the "Scope" area of the "Data sources" screen, select **Node=<appserv_node>**, **Server=<server_name>** from the drop-down list and click **New**.

> **Note**
>
> The default name of the first application server node created is `<WAS_host>Node01`.
>
> The default server name is `server1`.

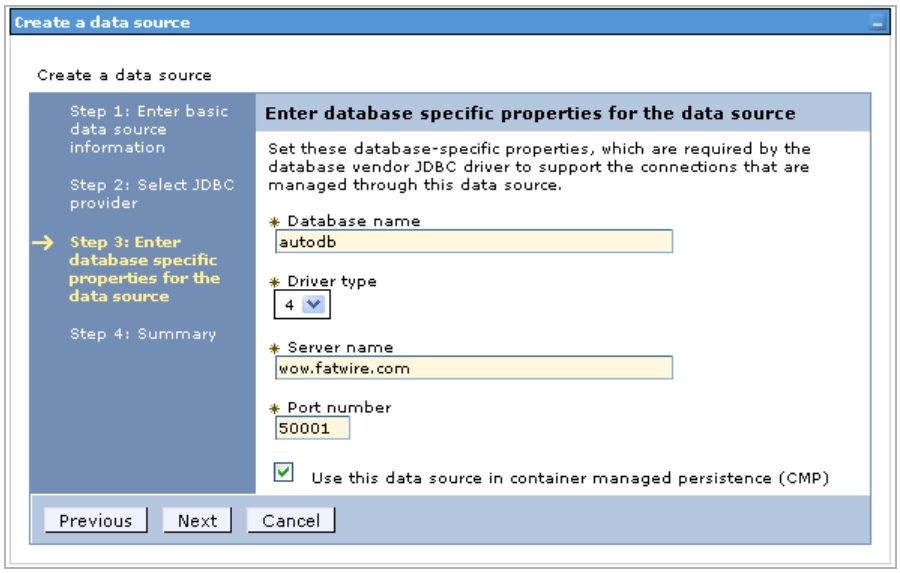
5. In the "Enter basic data source information" screen, do the following:
   a. In the **Data source** name field, enter a unique name for this data source.
   b. In the **JNDI name** field, enter the JNDI name for this data source.
   c. In the "Component-managed authentication alias" drop-down list, select the J2C authentication you created in A. Creating a J2C Authentication.
   d. Click **Next**.



6. In the "Select JDBC provider" screen, do the following:
   a. Select the **Select an existing JDBC provider** option.
   b. In the drop-down list, select the JDBC provider you created in step "B. Creating a JDBC Provider."
   c. When you are finished, click **Next**.



7. In the “Enter database-specific properties for the data source” screen, do one of the following:
   - If you selected a DB2 JDBC provider in step 6, do the following:
     1) In the **Database name** field, enter the name of the database Content Server will be using.
     2) In the “Driver type” drop-down list, select **4**.
     3) In the **Server name** field, enter the host name or IP address of the machine running the Content Server database.
     4) In the **Port number** field, enter the port number on which the Content Server database is listening for connections.
     5) Select the **Use this data source in container managed persistence (CMP)** check box.
     6) Click **Next**.

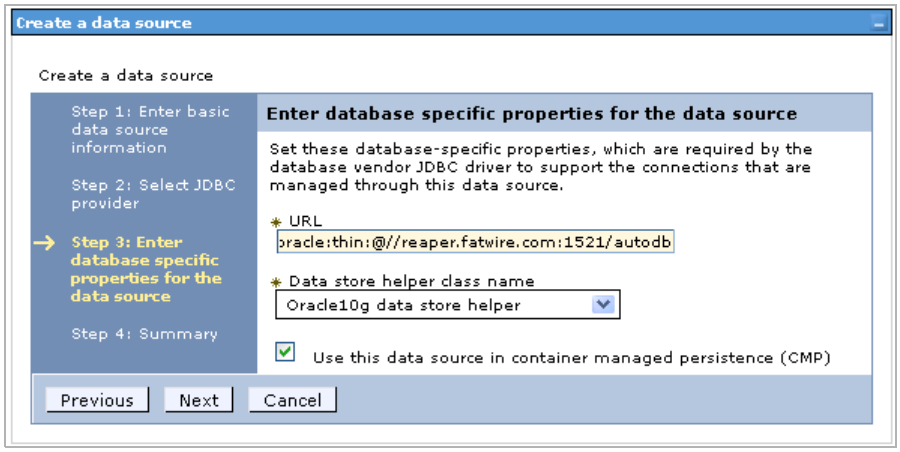


   - If you selected an Oracle JDBC provider in step 6, do the following:
     1) In the URL field, enter the URL of the database Content Server will be using. The URL you enter must be in the following format:

        `jdbc:oracle:thin:@//<db_host>:<db_port>/<db_name>`

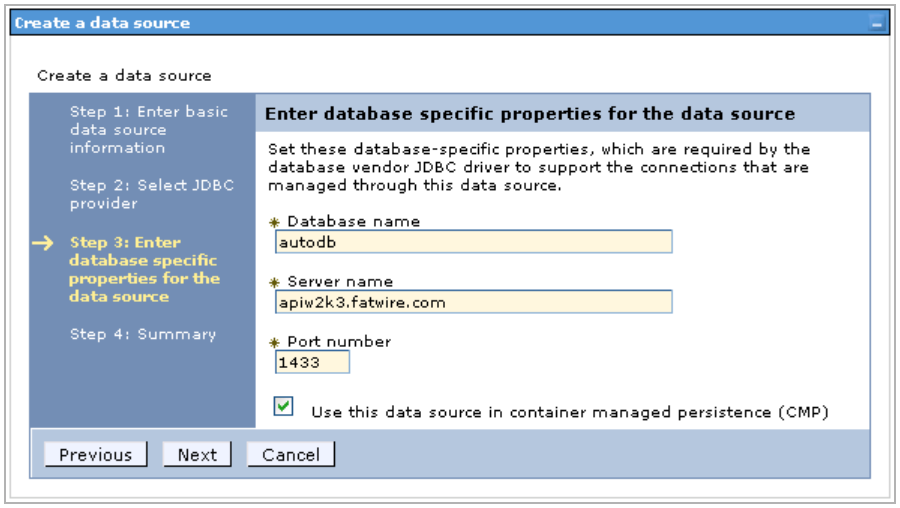
        where:
        - `<db_host>` is the host name or IP address of the machine running the Content Server database.
        - `<db_port>` is the port number on which the Content Server database is listening for connections.
        - `<db_name>` is the name of the Content Server database.
     2) In the “Data store helper class name” drop-down list, select **Oracle10g data store helper**.
     3) Select the **Use this data source in container managed persistence (CMP)** check box.

4) Click **Next**.



- If you selected a SQL Server provider in step 6, do the following:

  1) In the **Database name** field, enter the name of the database Content Server will be using.
  2) In the "Driver type" drop-down list, select **4**.
  3) In the **Server name** field, enter the host name or IP address of the machine running the Content Server database.
  4) In the **Port number** field, enter the port number on which the Content Server database is listening for connections.
  5) Select the **Use this data source in container managed persistence (CMP)** check box.
  6) Click **Next**.



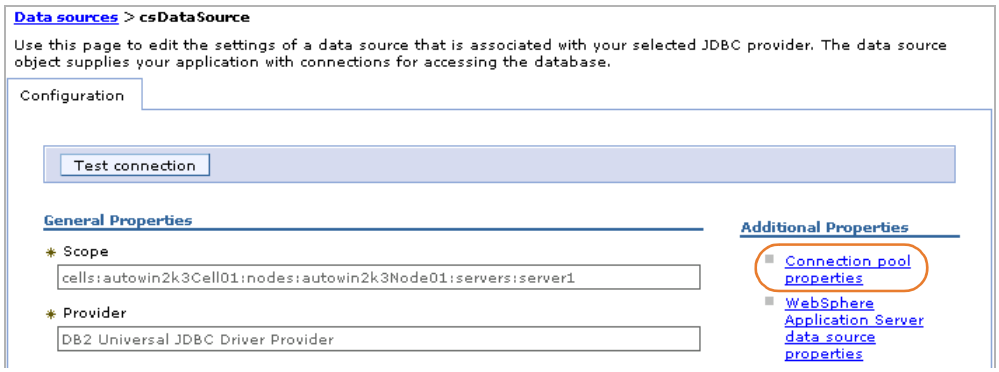
8. In the "Summary" screen, review the settings you have chosen, then click **Finish**.
9. In the "Messages" box, click **Review**.
10. In the "Save" screen, do the following:
    a. Select the **Synchronize changes with nodes** check box.

b. Click **Save**.

11. In the "Synchronize changes with nodes" screen, click **OK**. The console re-displays the "Data sources" screen showing the data source you just created.

12. In the list of data sources, select the data source you just created.

13. In the "Additional Properties" area of the "Data source" screen, click **Connection pool properties**.

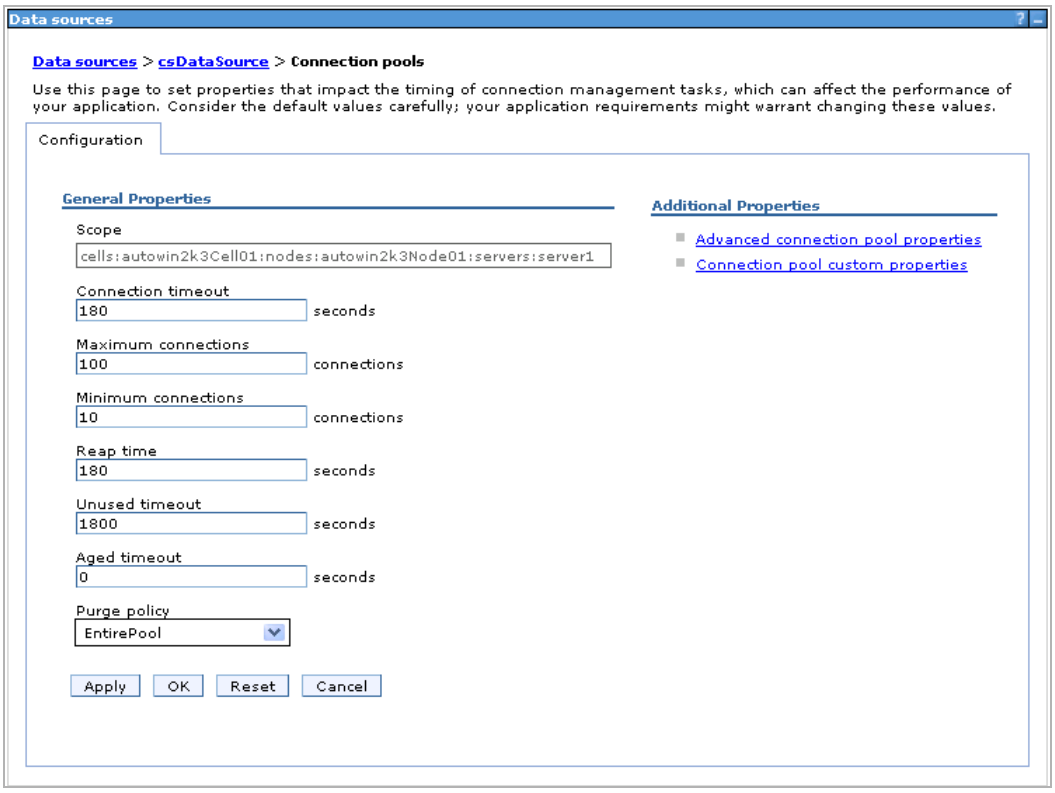


14. In the "Connection pools" screen, do the following:

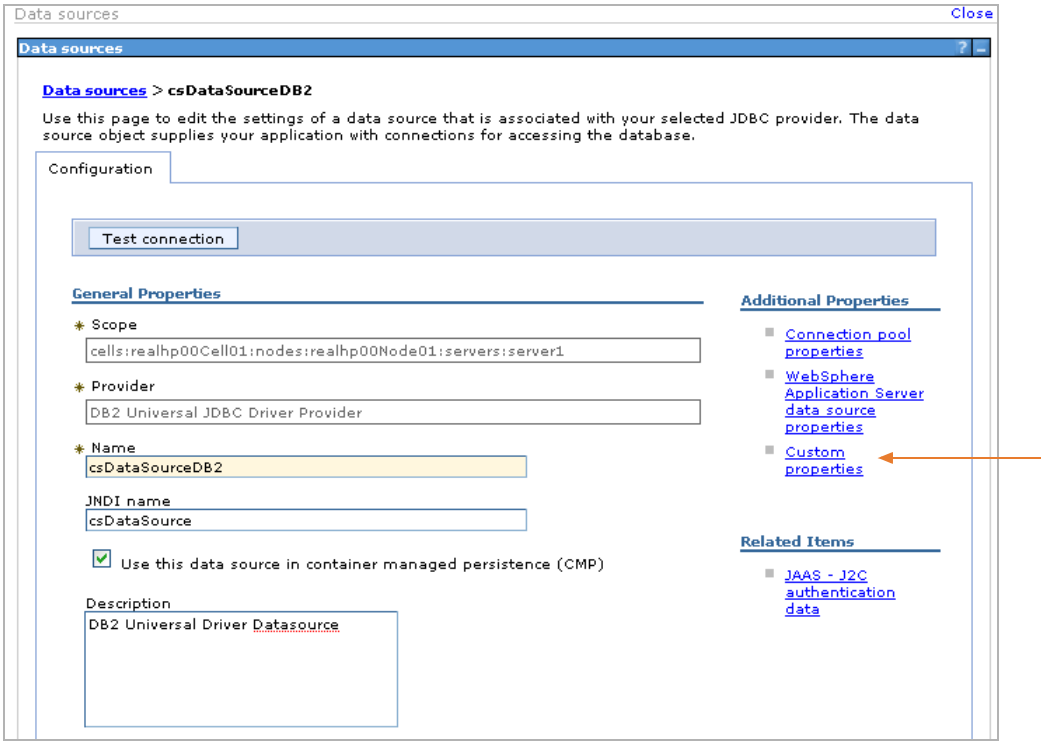
a. In the **Maximum connections** field, enter `100` (or a value appropriate to your configuration, if known).

b. In the **Minimum connections** field, enter `10` (or a value appropriate to your configuration, if known).

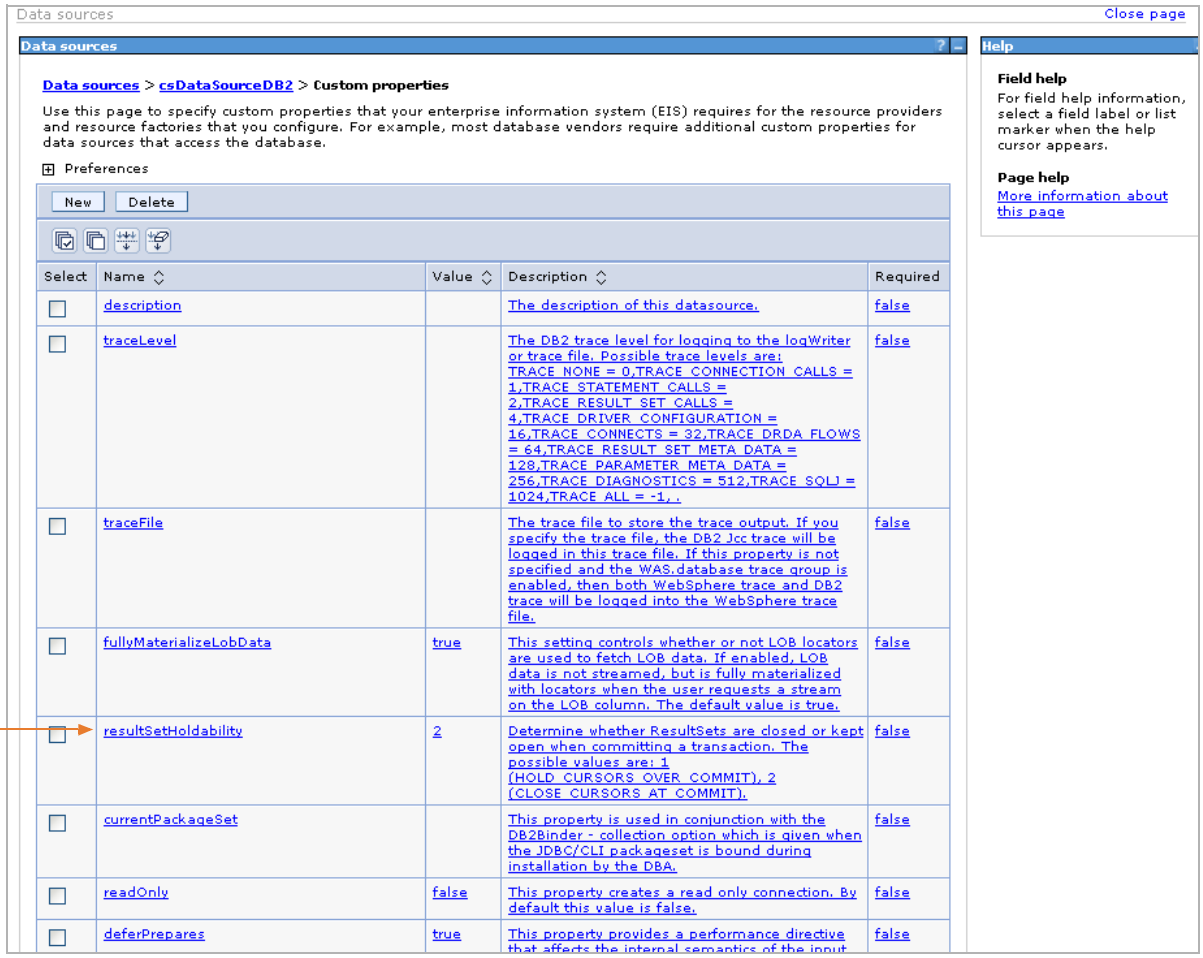
c. Click **OK**.



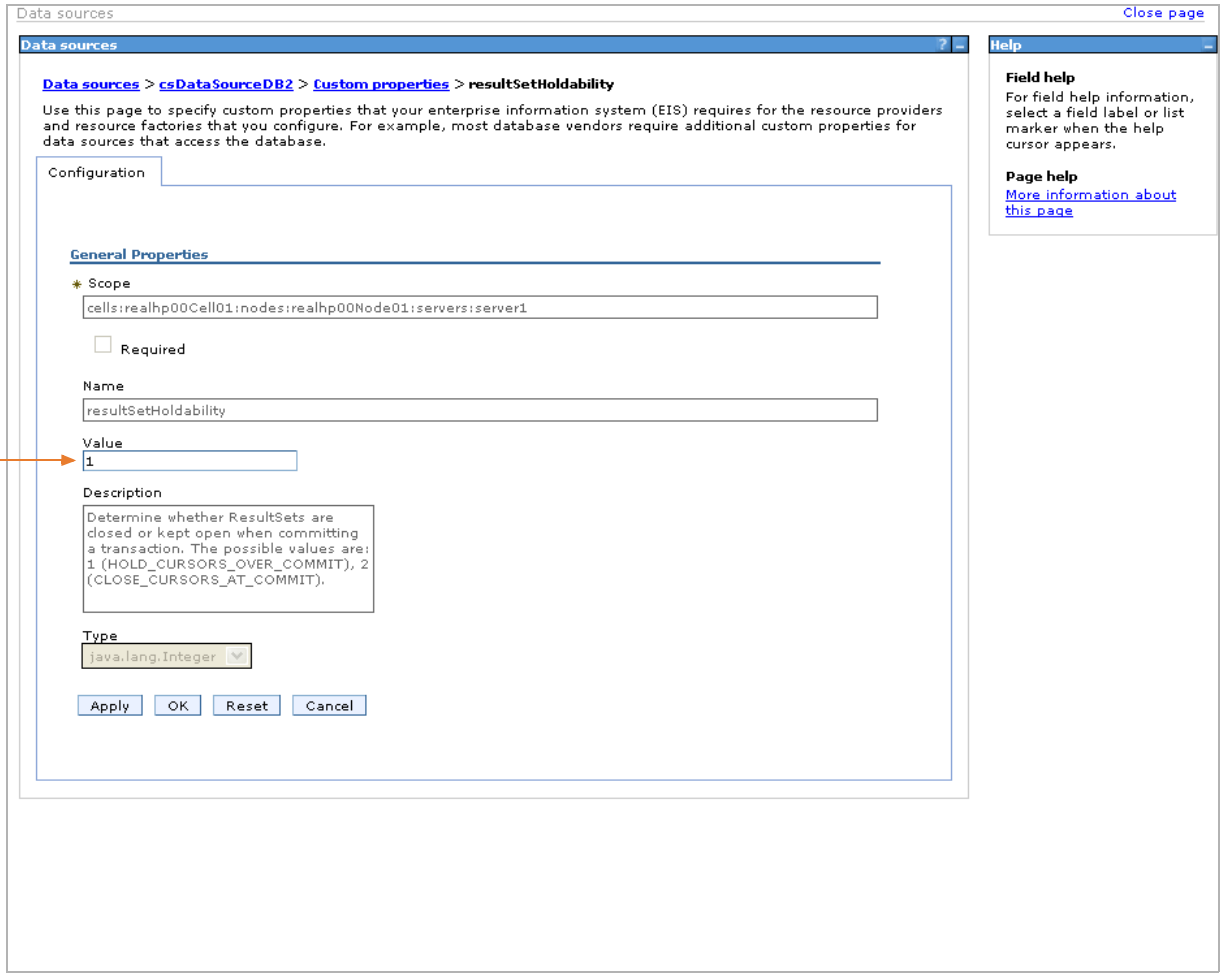
15. In the “Messages” box, click **Review**.
16. In the “Save” screen, do the following:
    a. Select the **Synchronize changes with nodes** check box.
    b. Click **Save**.
17. In the “Synchronize changes with nodes” screen, click **OK**.
18. For installations running DB2:
    a. In the list of data sources, select the data source you just created.
    b. In the “Additional Properties” area of the “Data source” screen, click **Custom properties**.



c. In the "Custom properties" screen, click on **resultSetHoldability**.



d. In the “Value” field enter **1**, and click **OK**.



e. In the “Messages” box, click **Review**.

f. In the “Save” screen, do the following:

1) Select the “Synchronize changes with nodes” screen, click **OK**.

2) Click **Save**.

19. In the “Synchronize changes with nodes” screen, click **OK**.

20. Continue to the next step to verify your WebSphere Portal installation.

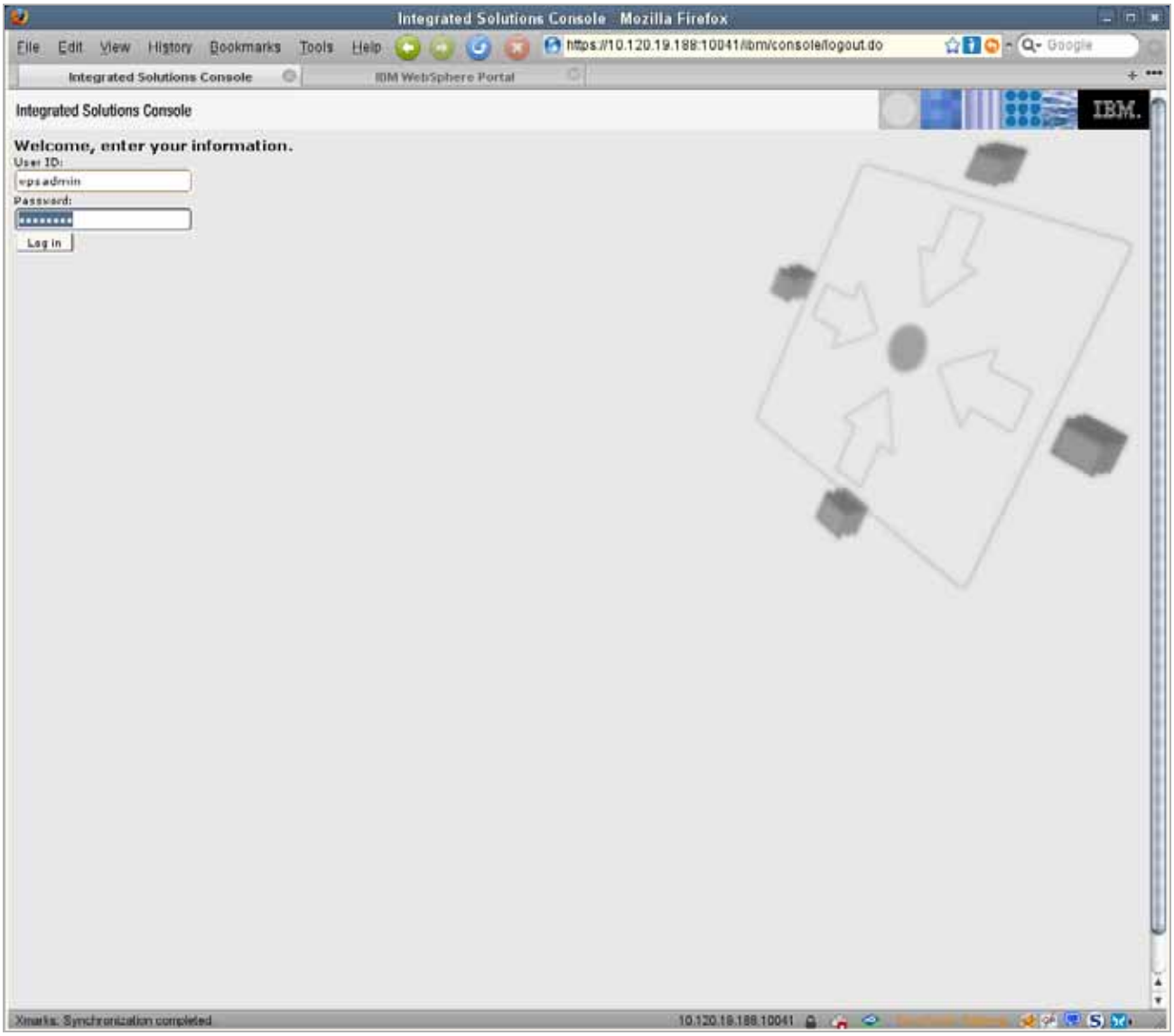
Verifying the WebSphere Portal Installation

WebSphere Portal is now installed and configured so that it authenticates against LDAP. Log in to WebSphere Application Server and WebSphere Portal Server to ensure they are working properly.

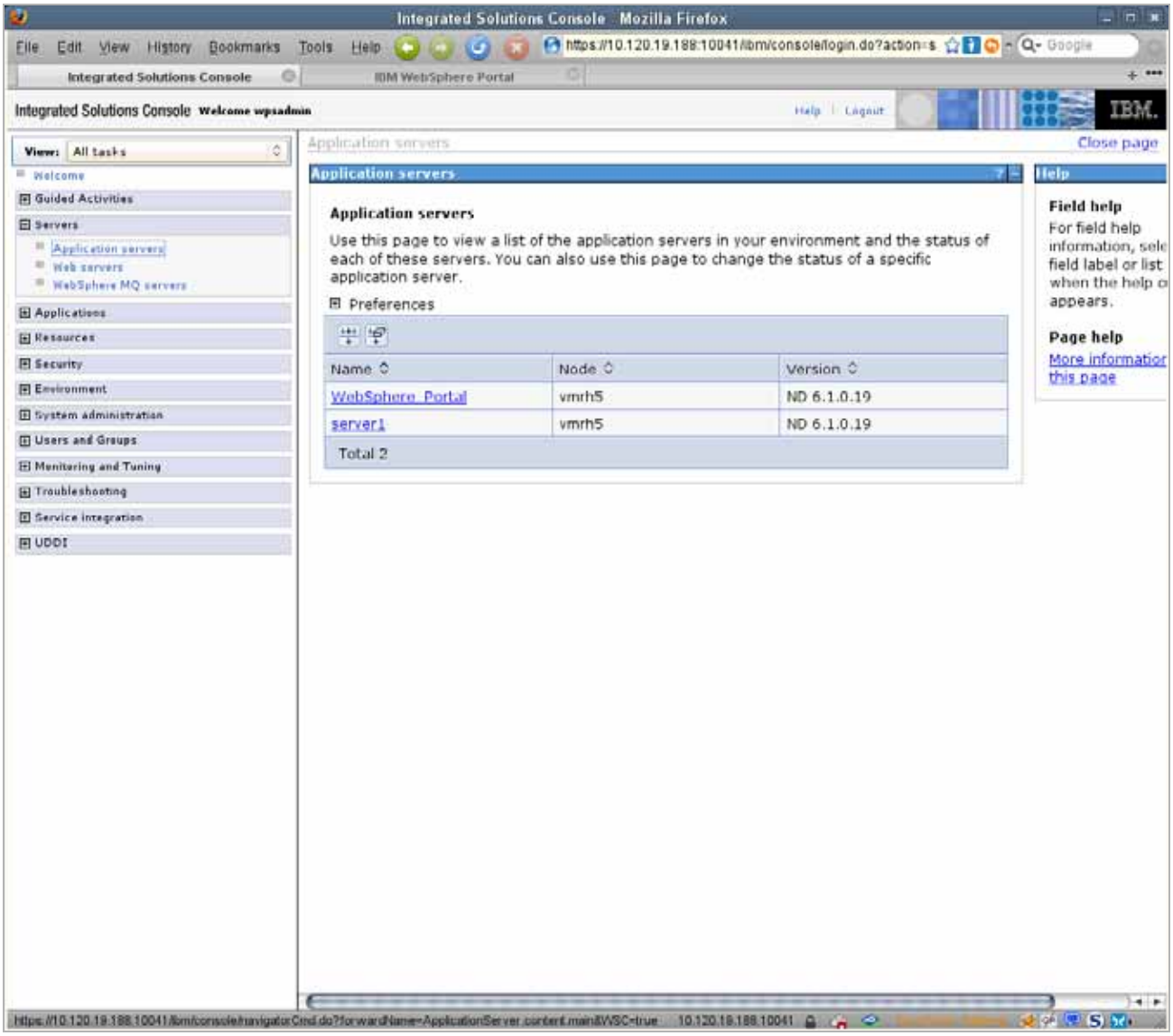
Note

This guide uses the default ports for the WebSphere servers. The default ports are `https 10041` for the application server and `http 10040` for the portal server.

1. Connect to the WebSphere Application Server Console: `https://<hostname>:10041/ibm/console/logon.jsp`. In the "Login" screen, log in with the **wpsadmin** user ID and password.

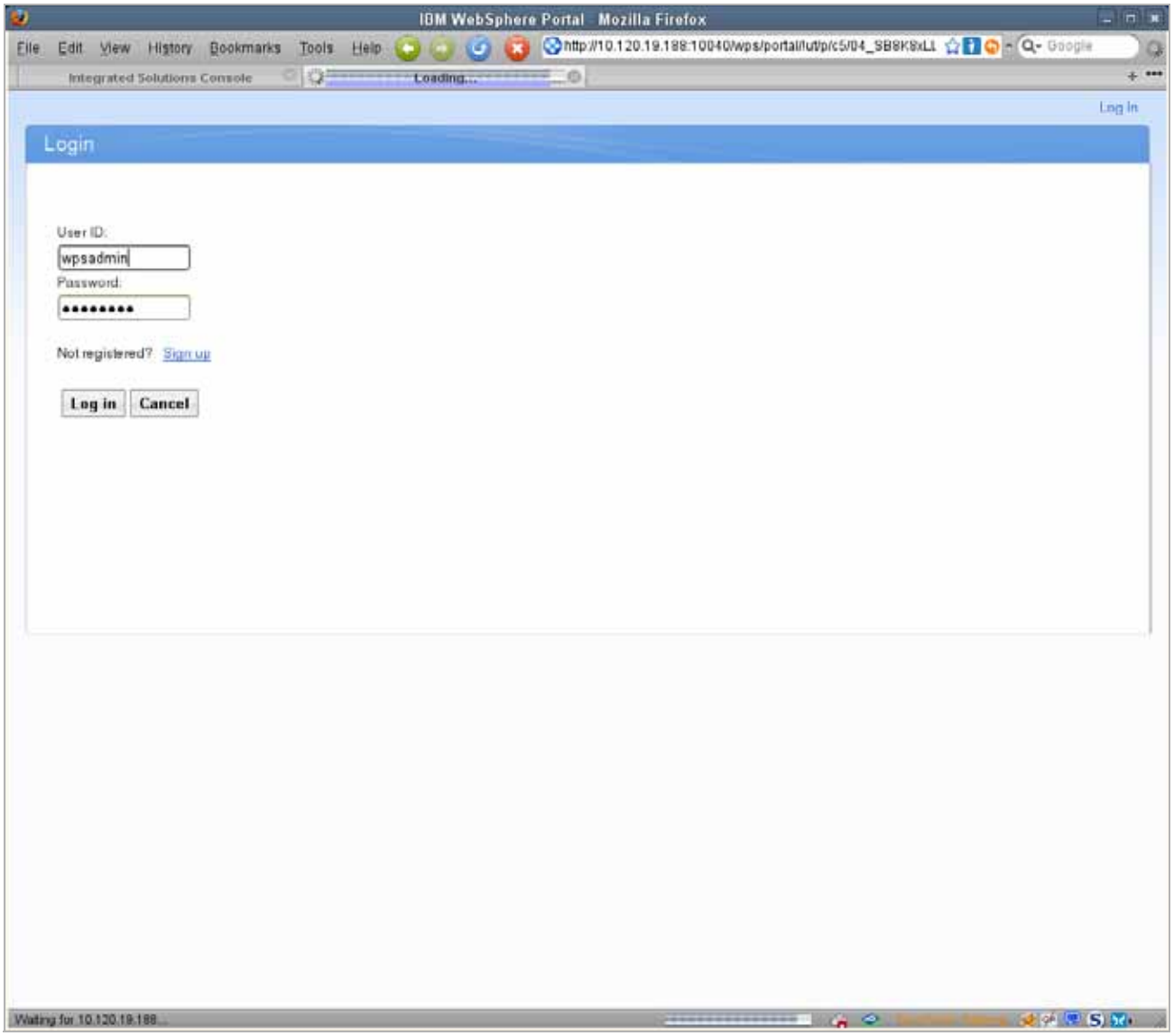


2. Expand the left navigation tree under **Servers**, then click **Application Servers**. Two servers should be displayed.



3. Log out of the Admin Interface.

4. Connect to the WebSphere Portal Interface: `http://<hostname>:10040/wps/portal`. In the "Login" screen, log in with the **wpsadmin** user ID and password.



The following interface is displayed.:

5. Log out of the portal interface.
6. Continue to the next part to install and configure Content Server.

Part 3

Content Server

This part shows you how to install Content Server and configure portlets for the users.

This part contains the following chapters:

- Chapter 4, “Installing Content Server”
- Chapter 5, “Configuring Portlets”

Chapter 4

Installing Content Server

Now that you have confirmed that the portal is set up and working properly, you can install Content Server on the WebSphere portal.

This chapter contains the following sections:

Installing Content Server on the WebSphere Portal

To install Content Server with Patch 2 on the WebSphere portal

1. Start the Content Server installer.
2. Select **Portal Server Platform**, then select **WebSphere Portal 6.1**.
3. For the installation location, enter: `<WAS Portal Home>/wp_profile/installedApps/<node name>/ContentServer.ear/cs.war`
4. Continue with the installation. Stop at the midway point, when you see the dialog box that prompts you to deploy.

To deploy, do the following:

5. Modify the `cs.war` file for use on WebSphere Portal 6.1.
   a. Change to: `<CS HOME>/ominstallinfo/app/`
   b. Make a new directory called `1`.
   c. Rename `cs.war` to `cs_org.war`.
   d. Change to directory `1`.
   e. Uncompress `cs.war` into directory `1`.

      ```
      # jar -xvf ../cs.war
      ```

   f. Edit the file `WEB-INF/classes/commons-logging.properties`:
      1) Locate and remove the line `priority=1`.
      2) Create a new line at the very beginning of the file that states `priority=1`.
      3) Save the changes.
6. Edit the file `WEB-INF/classes/ibm-web-ext.xmi`:
   a. Go the `</webappext:WebAppExtension>` tag:

      ```
      <webappext:WebAppExtension xmi:version="2.0"
         xmlns:xmi="http://www.omg.org/XMI"
         xmlns:webappext="webappext.xmi"
         xmlns:webapplication="webapplication.xmi"
         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xmi:id="WebAppExtension_2" reloadInterval="5"
         reloadingEnabled="true" defaultErrorPage="error.jsp"
         additionalClassPath="" fileServingEnabled="true"
         directoryBrowsingEnabled="true"
         serveServletsByClassnameEnabled="false">
        <webApp href="WEB-INF/web.xml#WebApp_ID"/>
      </webappext:WebAppExtension>
      ```

   b. Add the following lines before the tag:

      ```
      <jspAttributes xmi:id="JSPAttribute_1237644990616"
         name="jdkSourceLevel" value ="15"/>
      <jspAttributes xmi:id="JSPAttribute_1237644990617"
         name="disableJspRuntimeCompilation" value="false"/>
      <jspAttributes xmi:id="JSPAttribute_1237644990618"
         name="reloadEnabled" value= "true"/>
      ```

```
<jspAttributes xmi:id="JSPAttribute_1237644990619"
   name="reloadInterval" value ="10"/>
```

The new file now looks like this:

```
<webappext:WebAppExtension xmi:version="2.0"
   xmlns:xmi="http://www.omg.org/XMI"
   xmlns:webappext="webappext.xmi"
   xmlns:webapplication="webapplication.xmi"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmi:id="WebAppExtension_2" reloadInterval="5"
   reloadingEnabled="true" defaultErrorPage="error.jsp"
   additionalClassPath="" fileServingEnabled="true"
   directoryBrowsingEnabled="true"
   serveServletsByClassnameEnabled="false">
  <webApp href="WEB-INF/web.xml#WebApp_ID"/>
  <jspAttributes xmi:id="JSPAttribute_1237644990616"
     name="jdkSourceLevel" value ="15"/>
  <jspAttributes xmi:id="JSPAttribute_1237644990617"
     name="disableJspRuntimeCompilation" value="false"/>
  <jspAttributes xmi:id="JSPAttribute_1237644990618"
     name="reloadEnabled" value= "true"/>
  <jspAttributes xmi:id="JSPAttribute_1237644990619"
     name="reloadInterval" value ="10"/>
</webappext:WebAppExtension>
```

c. Save the changes.

7. Compress the changes into a new `cs.war` file:

a. Change to: `<CS HOME>/ominstallinfo/app/1`

b. Run the following command:

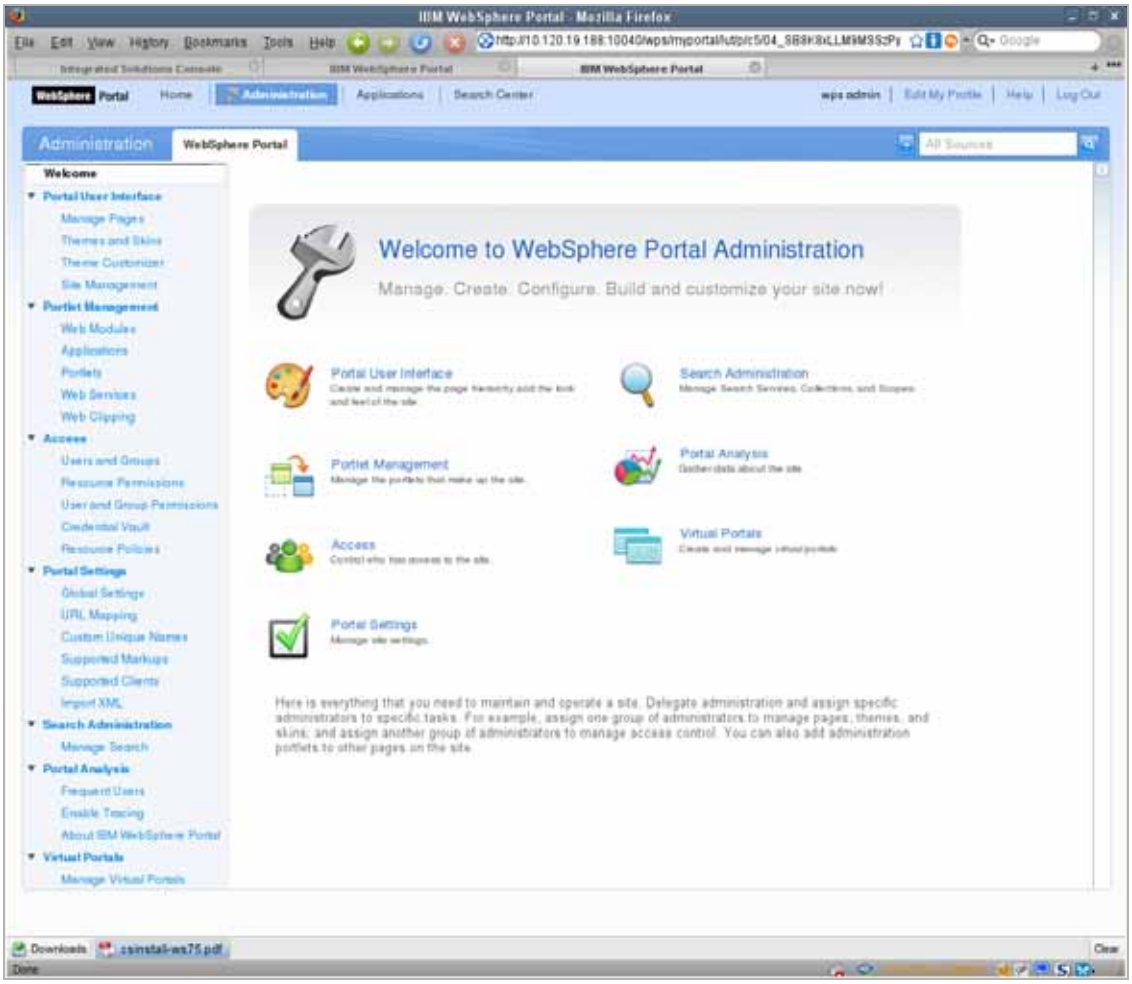
```
# jar -cvf ../cs.war *
```

8. Copy the `cs.war` file (located in `<CS HOME>/ominstallinfo/app/`) to your local file system (from which you are starting the browser).

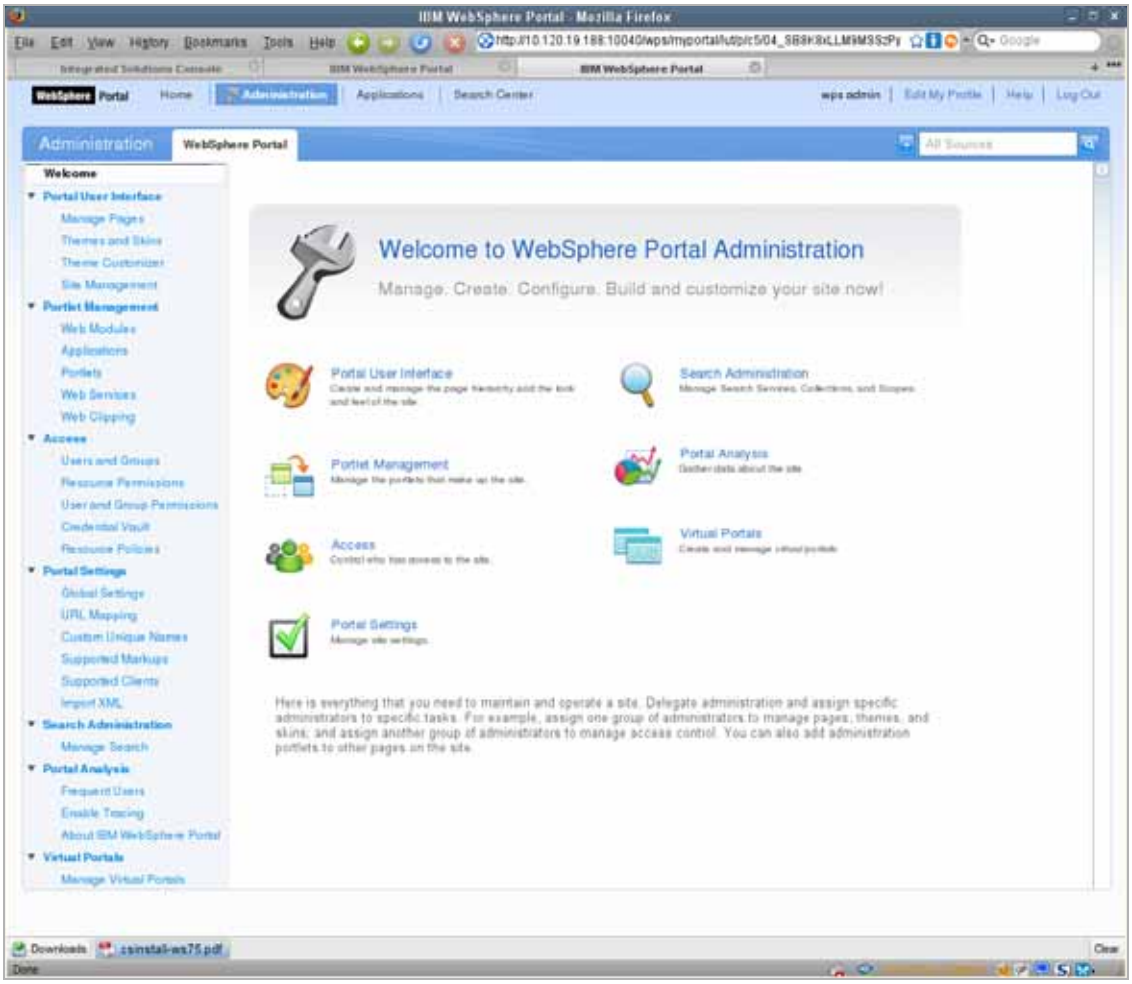
Complete the installation:

9. Log in to the portal: `http://<hostname>:10040/wps/portal`

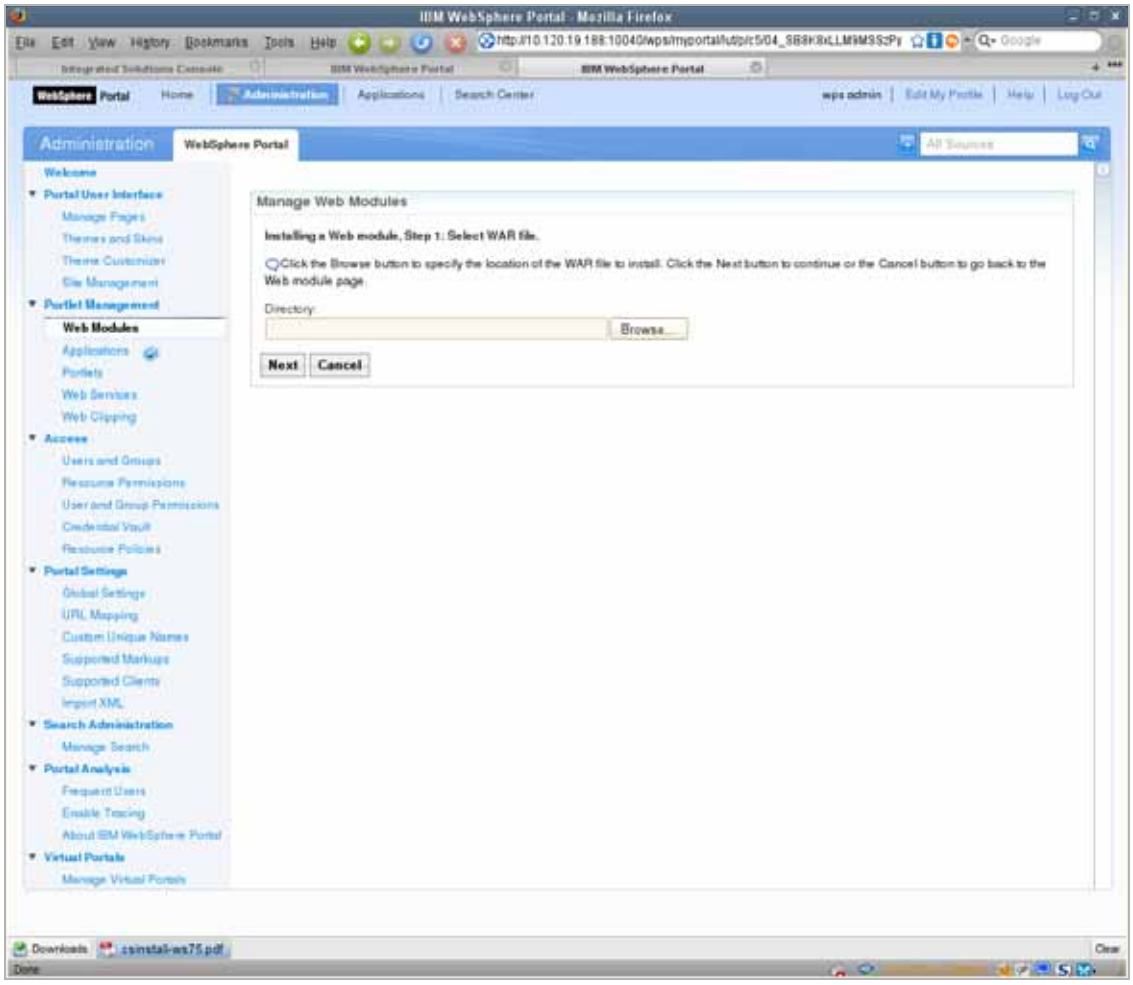
10. On the top menu bar, click **Administration**.



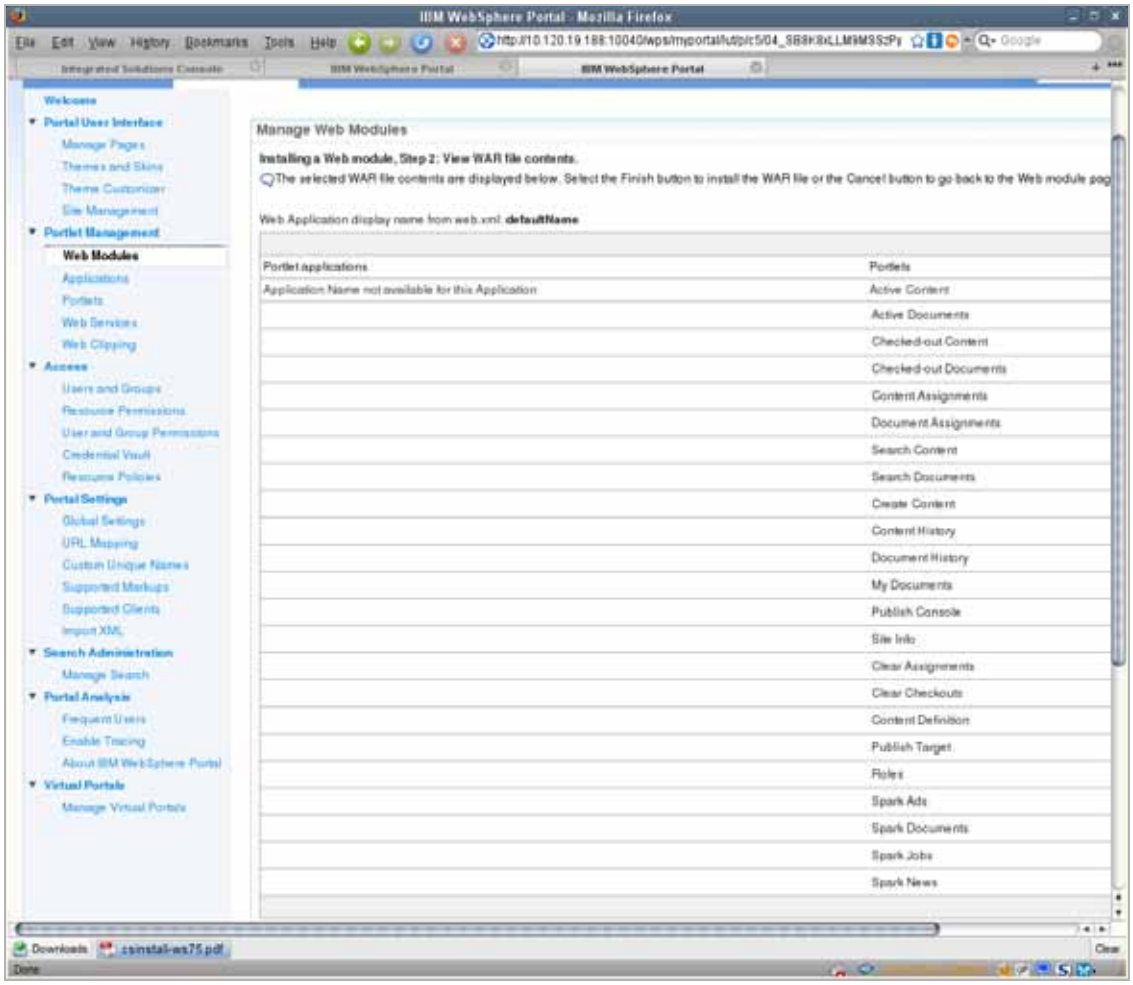
11. In the left navigation tree, click **Web Modules**, located under **Portlet Manager**.



12. Click the **Install** option.



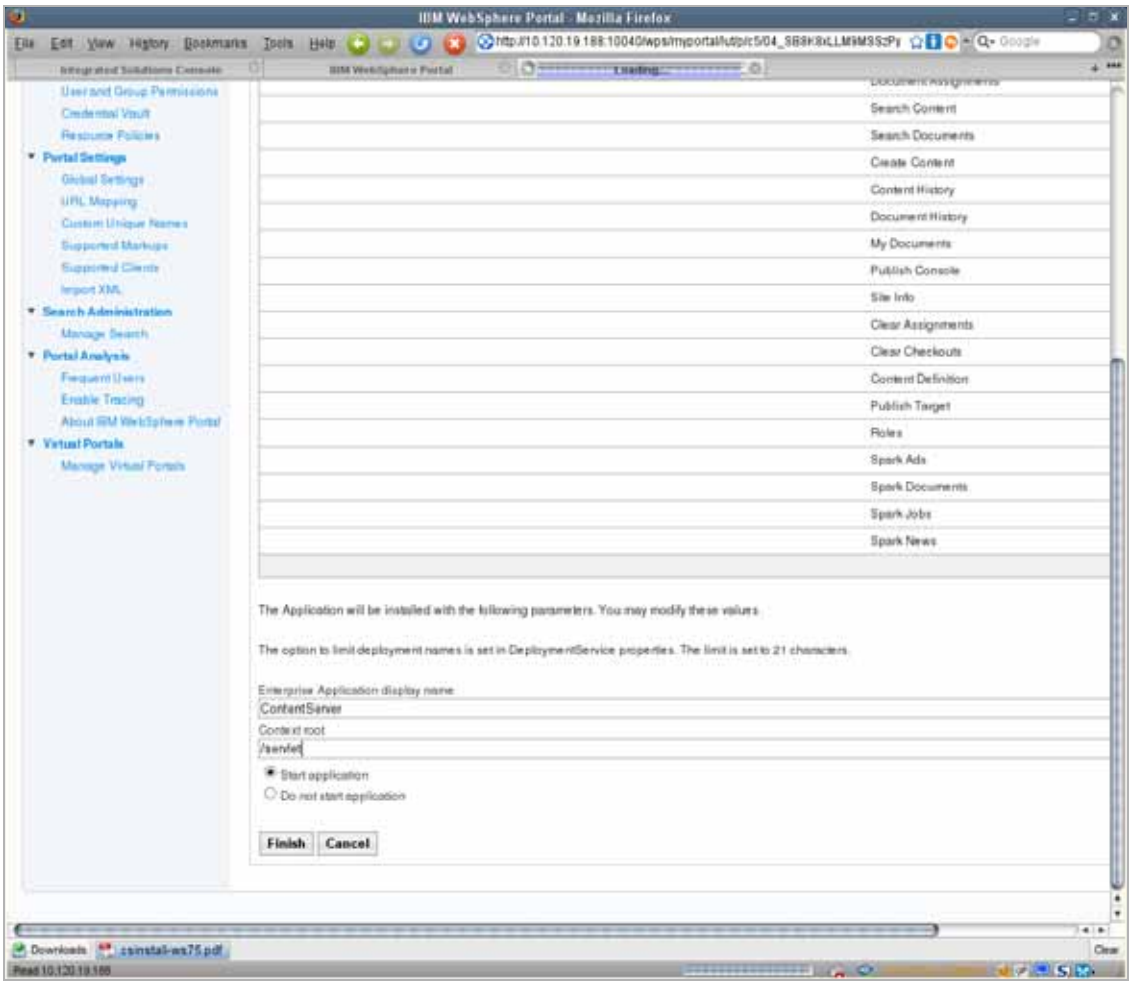
13. Select the copy of `cs.war` you moved to your local file system, then click **Next**.
The following summary screen is displayed:



a. Fill in the following fields:

- **Enterprise Application display name** – Replace the default name `PA_defaultName` with the name **Content Server** .
- **Context root** – Replace the default `/wps/PA_defaultName` with the context root given in the installer (`/servlet` is the default).

b. Click **Finish**.



14. Upon completion, the application will be installed and started. Go back to the Content Server installer and click **Test**. Once the test is completed successfully, click **OK**.

> **Note**
>
> If you wish to uninstall the application, do so through the Portal Admin interface and not through the WebSphere Admin interface.

15. When the installation completes, restart the application from the WebSphere Admin interface, in order for the changes to take effect:
    a. Log in to the Deployment Manager console:

> **Note**
>
> The default Deployment Manager console port is 9060.

        1) Point your browser to the following URL:

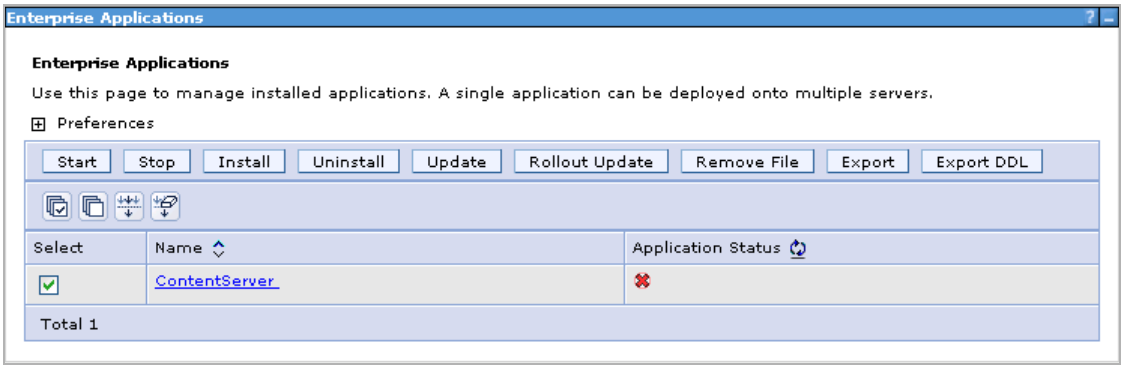
           `http://<DM_host>:<DM_console_port</admin`

        2) Enter your user name and password.
        3) Click **Log in**.

           The Deployment Manager console loads.

    b. In the left-hand pane, expand the **Applications** node.

    c. Under the Applications node, click **Enterprise Applications**.
    d. In the "Enterprise Applications" screen, select the check box next to the CS application you want to restart.



    e. Click **Stop**, then click **OK**.
    f. Click **Start**, then click **OK**.
16. Install patch 2.
17. Perform the post-installation steps in the next section as required for your installation.

Post-Installation Steps

When the Content Server installation completes successfully, perform the following steps:

A. Verifying the Installation

Verify the installation by logging in to Content Server as the administrator.

Logging in to the Advanced Interface

1. Point your browser to the following URL:

   `http://<hostname>:<port>/<context>/Xcelerate?LoginPage.html`

   Content Server displays the Advanced interface login form.
2. Enter the following credentials:
   - User name: **fwadmin**
   - Password: **xceladmin**
3. Click **Login**.

   One of the following happens:
   - If you did not install any sample sites, you are logged in to the built-in Content Server management site. Only system administration functionality is available.
   - If you installed one sample site, you are logged in to that site.
   - If you installed more than one sample site, Content Server displays the “Select Site” screen. In such cases, select the sample site you wish to log in to.
   - If the screen continues to refresh, it means the `jsproot` was set incorrectly.
     a) From the WebSphere Admin interface, stop the application.
     b) Fix the `jsproot` in `futuretense.ini` and restart the application.

Logging in to the Dash Interface

1. Point your browser to the following URL:

   `http://<hotname>:<port>/<context>`

   Content Server displays the Dash interface login page.
2. Enter the following credentials:
   - User name: **fwadmin**
   - Password: **xceladmin**
3. Click **Login**.

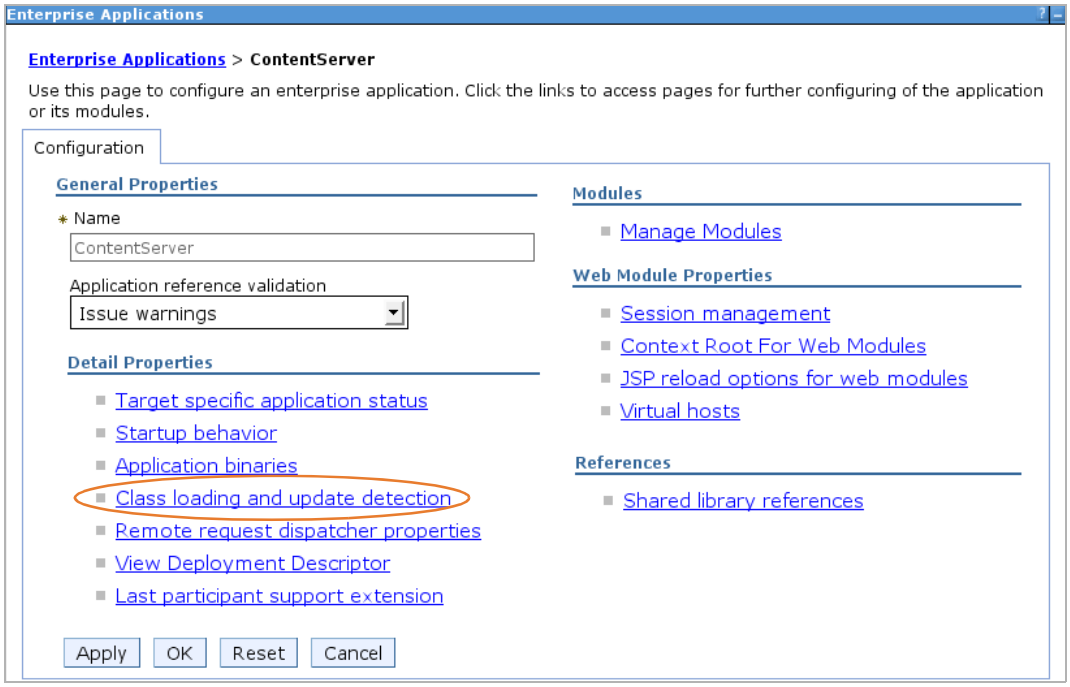
   One of the following happens:
   - If you did not install any sample sites, Content Server displays a message notifying you of that fact. You will not be able to log in to the Dash interface until at least one site exists on your system.

- If you installed more than one sample site, Content Server displays the "Select Site" screen. Select the sample site you wish to log in to.
- If the Dash interface does not load, then the class loading is set improperly.

  To set the class loading:

  Open the WebSphere Admin interface and do the following:

  1) Click **Class loading and update detection**.



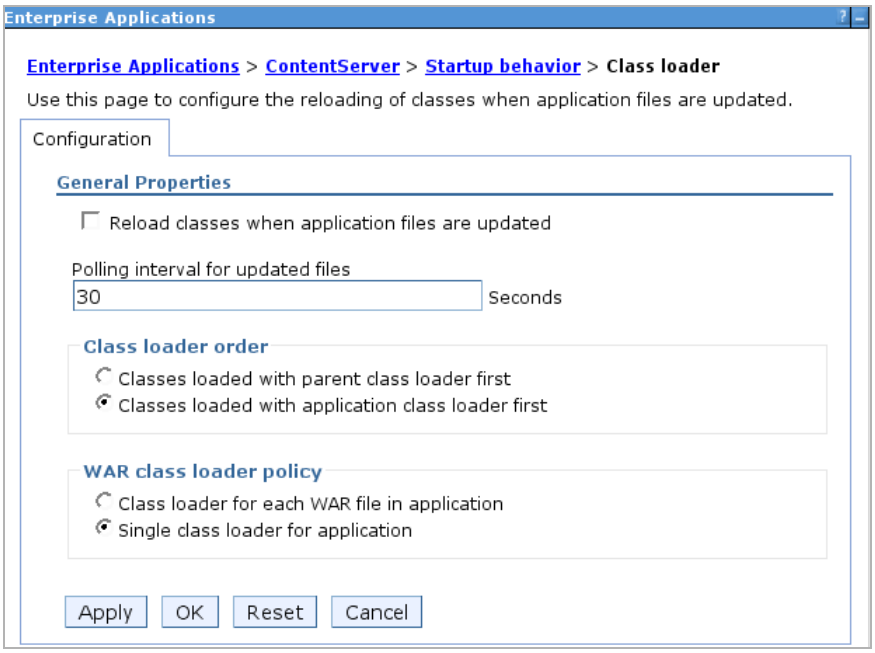
  2) In the screen that appears, do the following:

  a) In the **Polling interval for updated files** field, enter `30`.

  b) In the "Class load order" section, select **Classes loaded with application class loader first**.

  c) In the "WAR class loader policy" section, select **Single class loader for application**.

d) Click **OK**.



B. Integrating Content Server with LDAP

In this guide, we assume you are working with the Tivoli Directory Server. If you are using an LDAP other than Tivoli Directory Server, the default values used by Content Server will not be compatible, resulting in issues for getting single sign-on to work.

1. Start the Content Server LDAP integrator:

   ```
   # ./configureLDAP.sh
   ```

2. In the drop down list, select **Tivoli**.
3. In the "LDAP Parameters" screen, do the following:
   a. For the **Username** field, enter `cn=root`.
   b. For the **JNDI password** field, enter the password you entered when setting up Tivoli.
   c. People and Group parents are correct, but the DN needs to be updated
4. Once the installation completes, import the LDIF file created by the Content Server LDAP integrator (use lbe or another LDAP browser to import the file).

   The path to the LDIF file is: `<CS_HOME>/ldap/tivolildap.ldif`

   Note

   Upon file import, three of the entries will fail (because they are duplicate entries). You can safely ignore the failure.

5. Change the passwords of the following users: **fwadmin**, **ContentServer** and **defaultreader** in order for the passwords to be encrypted correctly.

For each user do the following:

a. Click the user name under the **cs=users** tree.

b. On the right side, double-click the **userpassword** entry.

c. In the dialog, click **Set**.

d. Enter the password and click **Save as**.

e. (Optional) To verify your password, click **Verify** and re-enter the password.

   Once your password has been successfully verified, the message "`password verified`" is displayed.

f. Click **Apply**.

6. Confirm that the integration is successful by logging in to the Content Server administrator interface and the WebSphere portal interface, using the **fwadmin** user account.

Next Step

Go to Chapter 5 to configure the Content Server portlets.

Chapter 5

Configuring Portlets

This chapter contains instructions for configuring pages, tabs, and portlets for your Content Server installation.

This chapter contains the following sections:

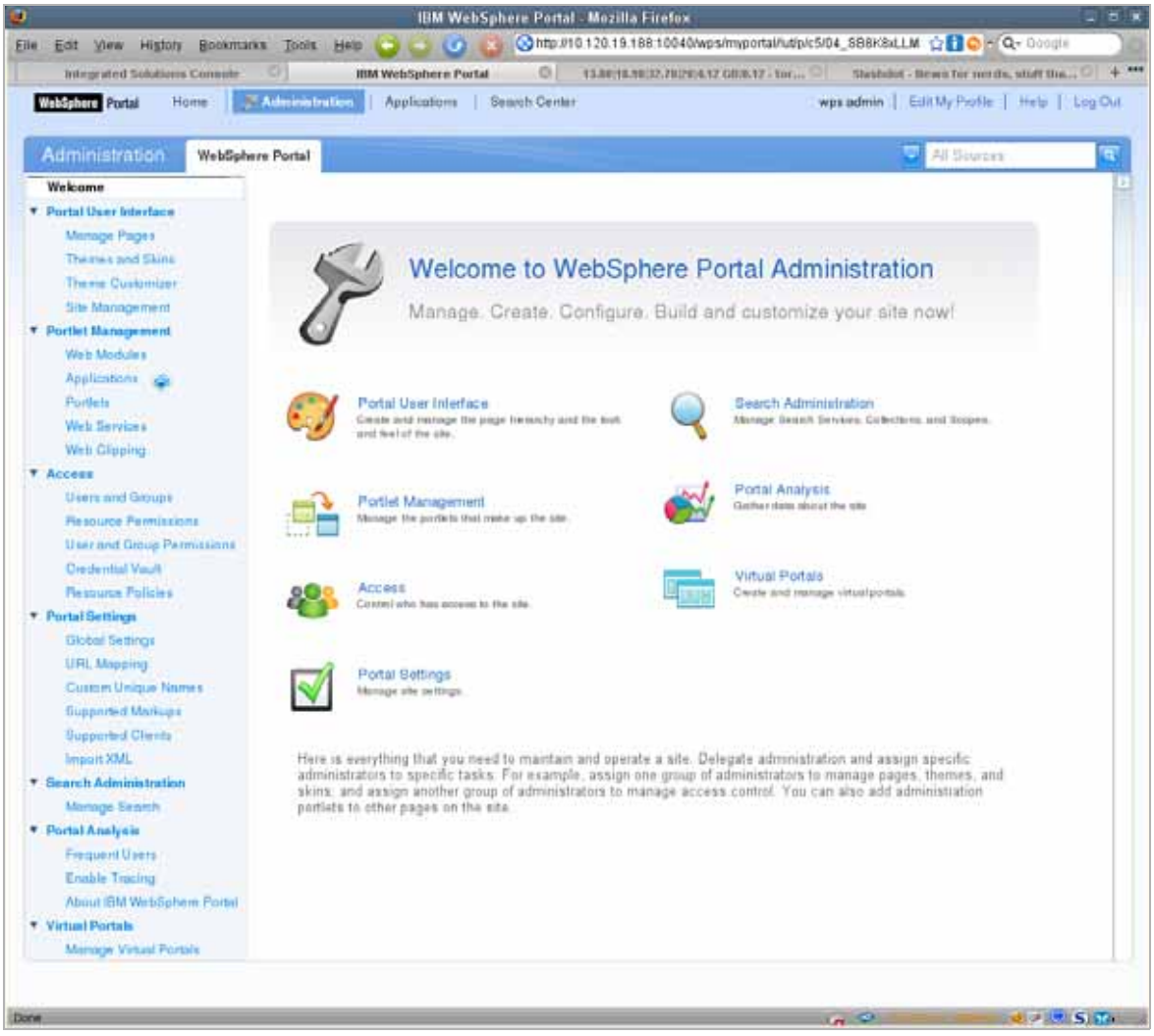
Configuring Content Server Portlets in WebSphere Portal

To configure Content Server portlets in the WebSphere Portal, follow the steps listed below:

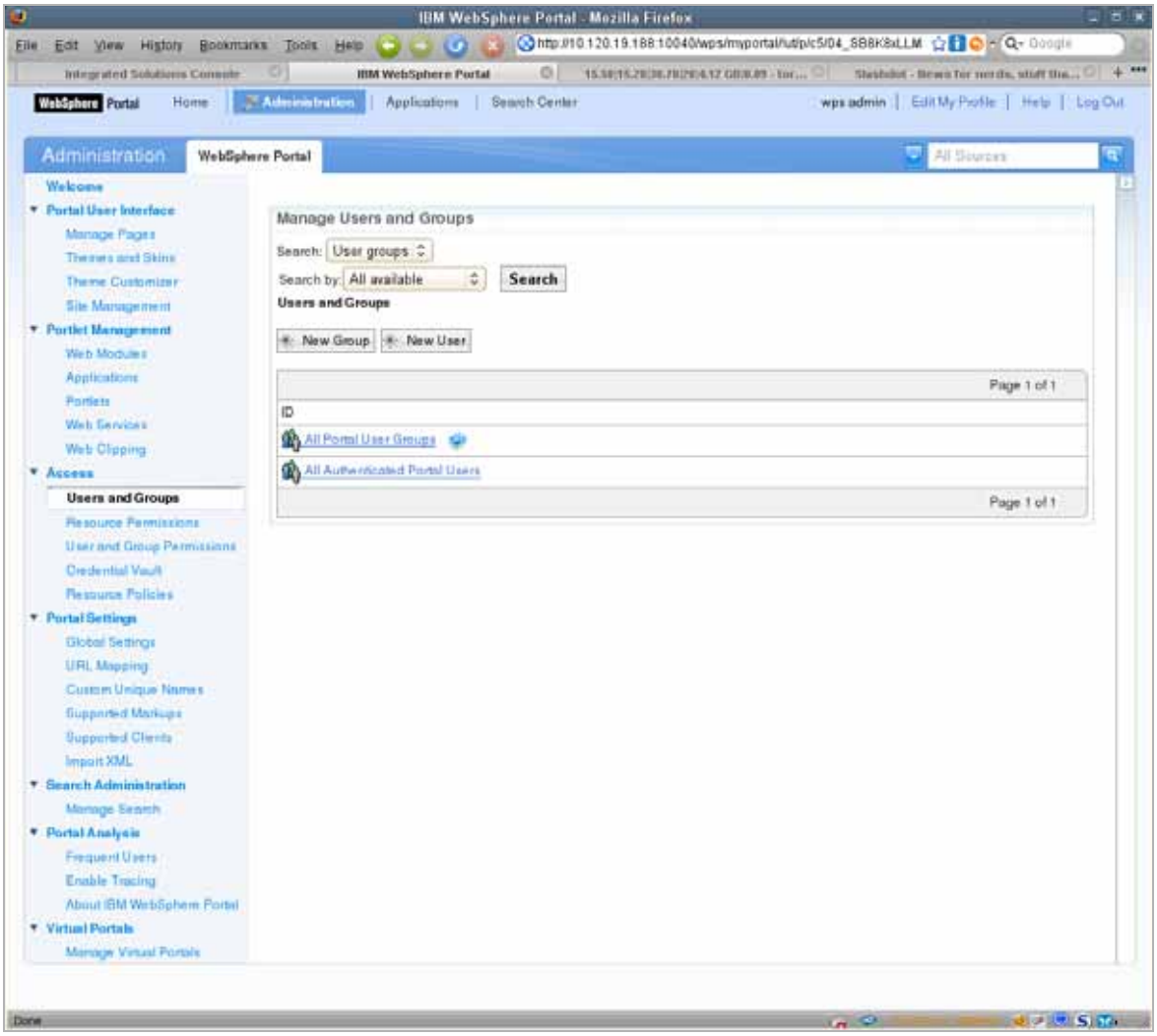
- Adding Content Server Users to the wpsadmin Group
- Configuring Portlets
- Adding New Pages
- Adding Portlets to Pages

Adding Content Server Users to the wpsadmin Group

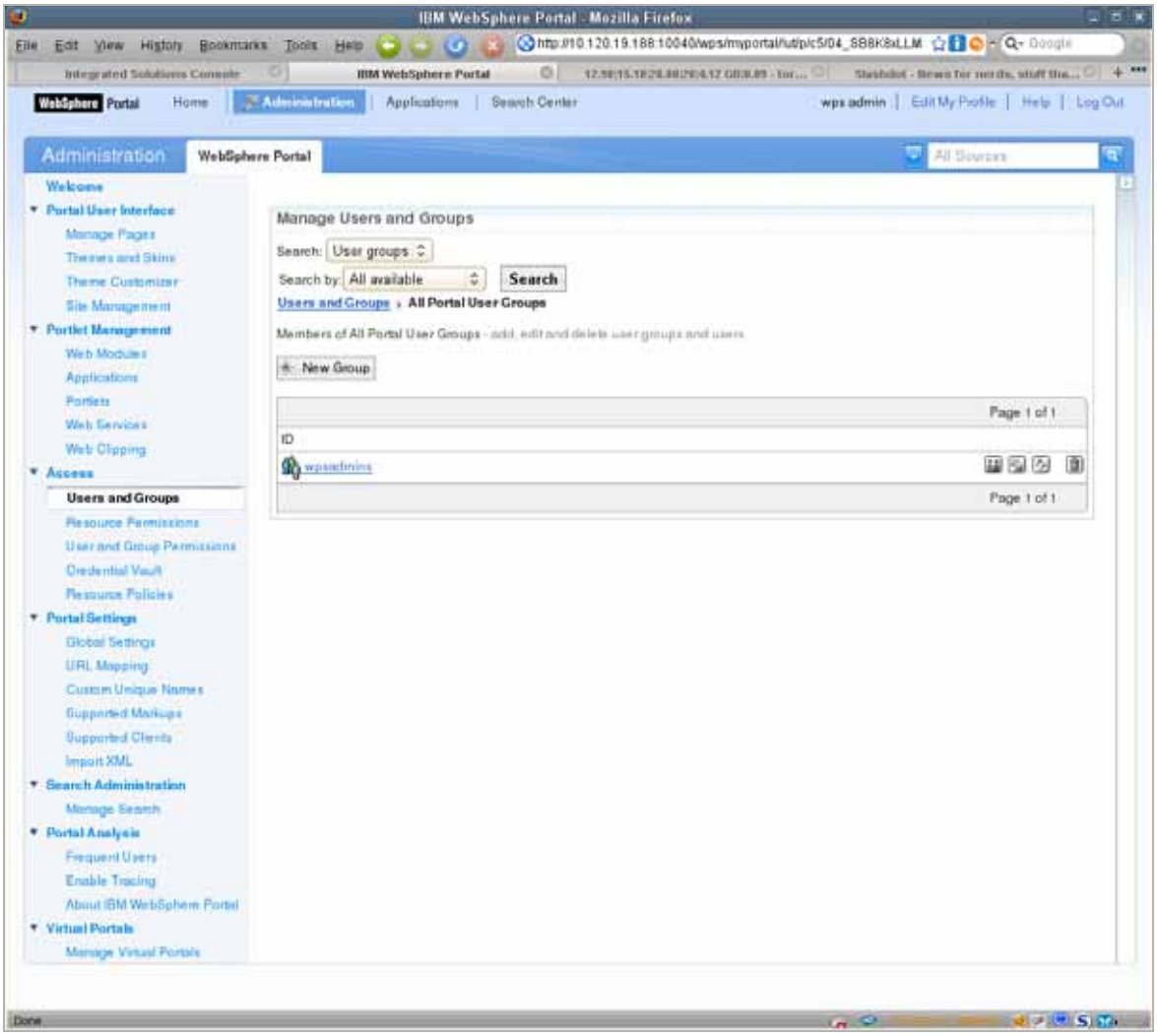
1. Log in to the WebSphere Portal interface with the **wpsadmin** user name.
2. In the top menu, click **Administration**.



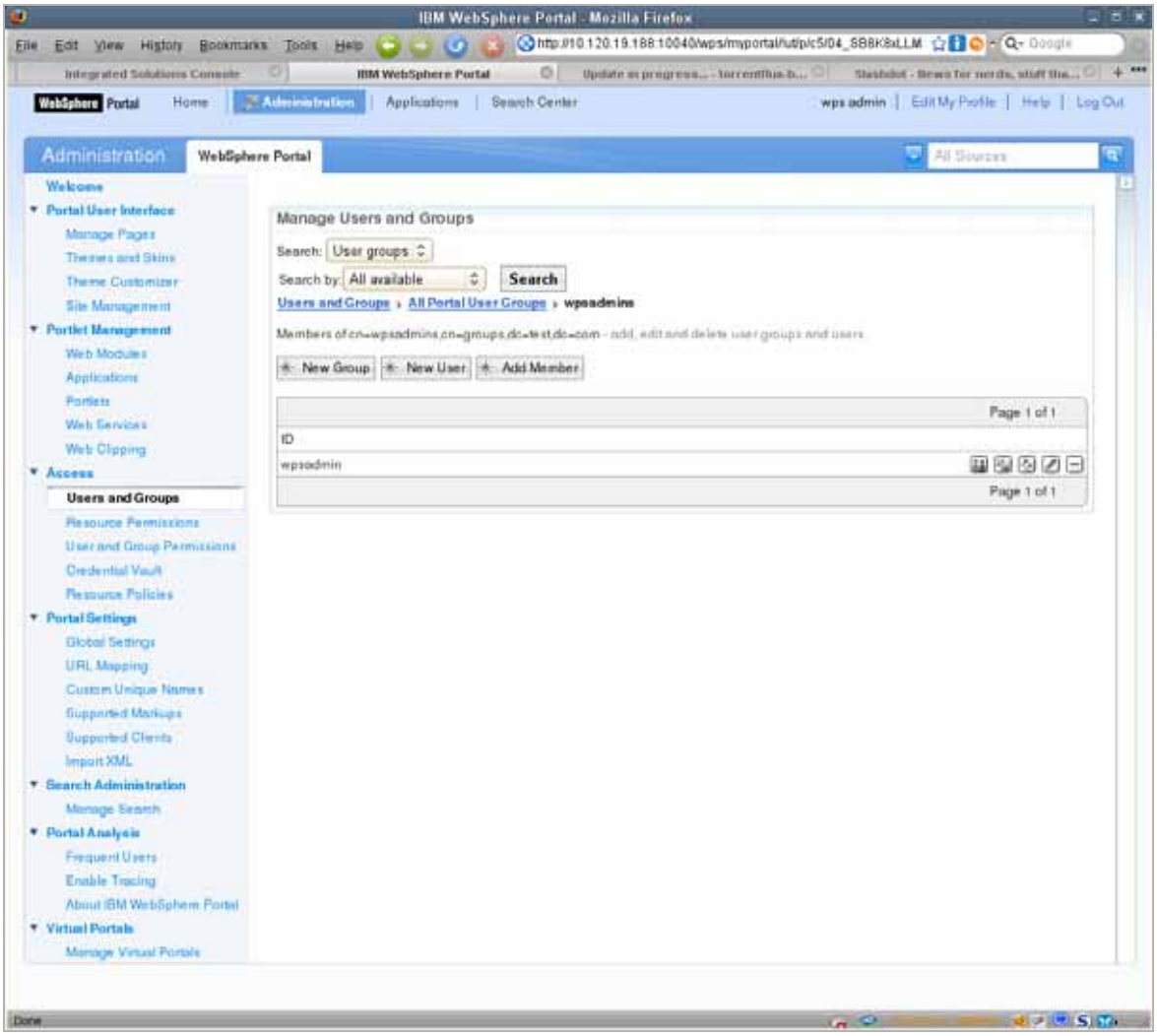
3. In the left navigation tree, select **Users and Groups**, located under **Access**.



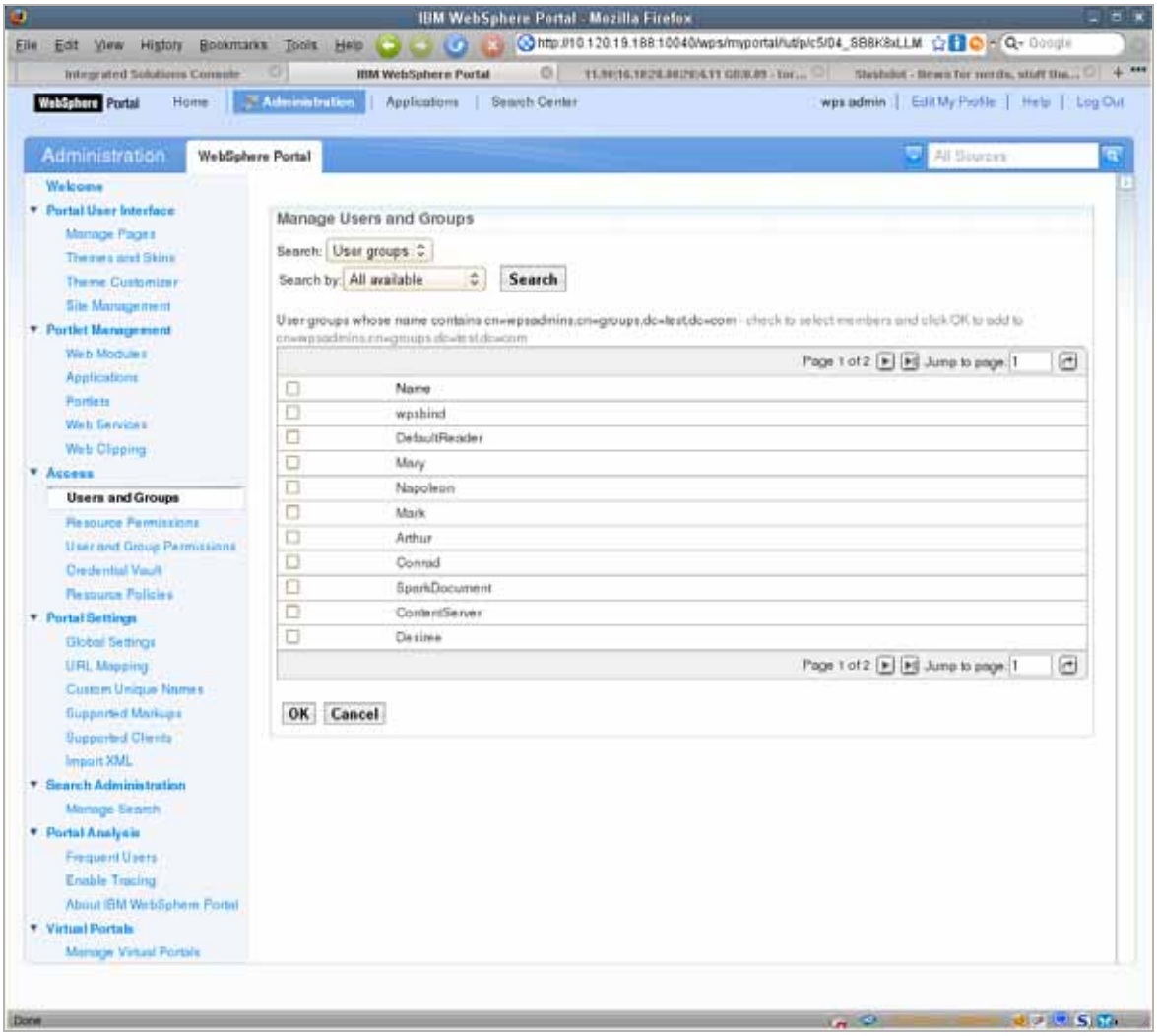
4. Click the **All Portal User Groups** option.



5. Click the user name **wpsadmin**.



6. Click the **Add Member** option.



7. Select **fwadmin**, then click **OK**.
8. Repeat steps 6 and 7 for each new user that you wish to add.

Configuring Portlets

In the WebSphere portal server, there exists a hierarchy of **pages** and **channels**. A **page** is a parent object and can contain many channels (child objects).

A **tab** in the portal interface is an instance of a page and the portlets it contains are channels. To display the portlets on your site, you must first create the appropriate tabs, and then populate them with the appropriate portlets.

The table below shows which portlets belong to which tabs. Use this information when naming your tabs and populating them with portlets.

Table 1: Object Names

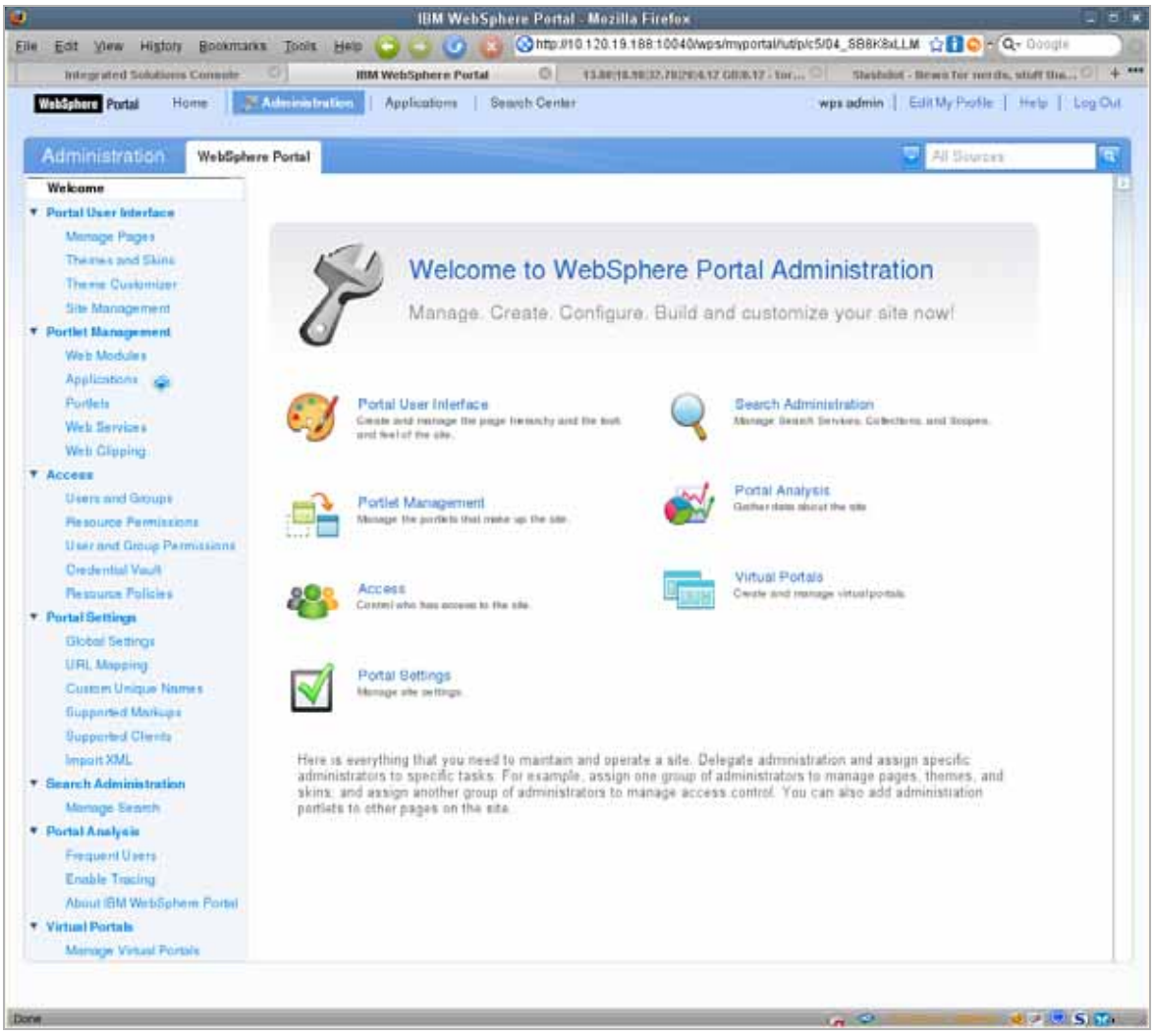
Page Name	Tab Name	Portlet Name[a]
FatWire_Content	FatWire Content	Active Content, Checked Out Content, Content Assignments, Search Content, Create Content, Content History, Publish Console
FatWire_Documents	FatWire Documents	Active Documents, Checked Out Documents, Document Assignments, Search Documents, Document History, My Documents
FatWire_Admin	Admin	RolesAdmin, ClearCheckouts, ContentDefinition, Clear Assignments, Publish Target
Spark_Display	Spark Display	SparkAd, Spark Documents, SparkJobs, SparkNews

a. These are portlet names as they are displayed in the portal interface. The portlet object names you need to select from the drop-down list when creating portlet channels are the same, except they have a **cs.** prefix and contain no spaces.

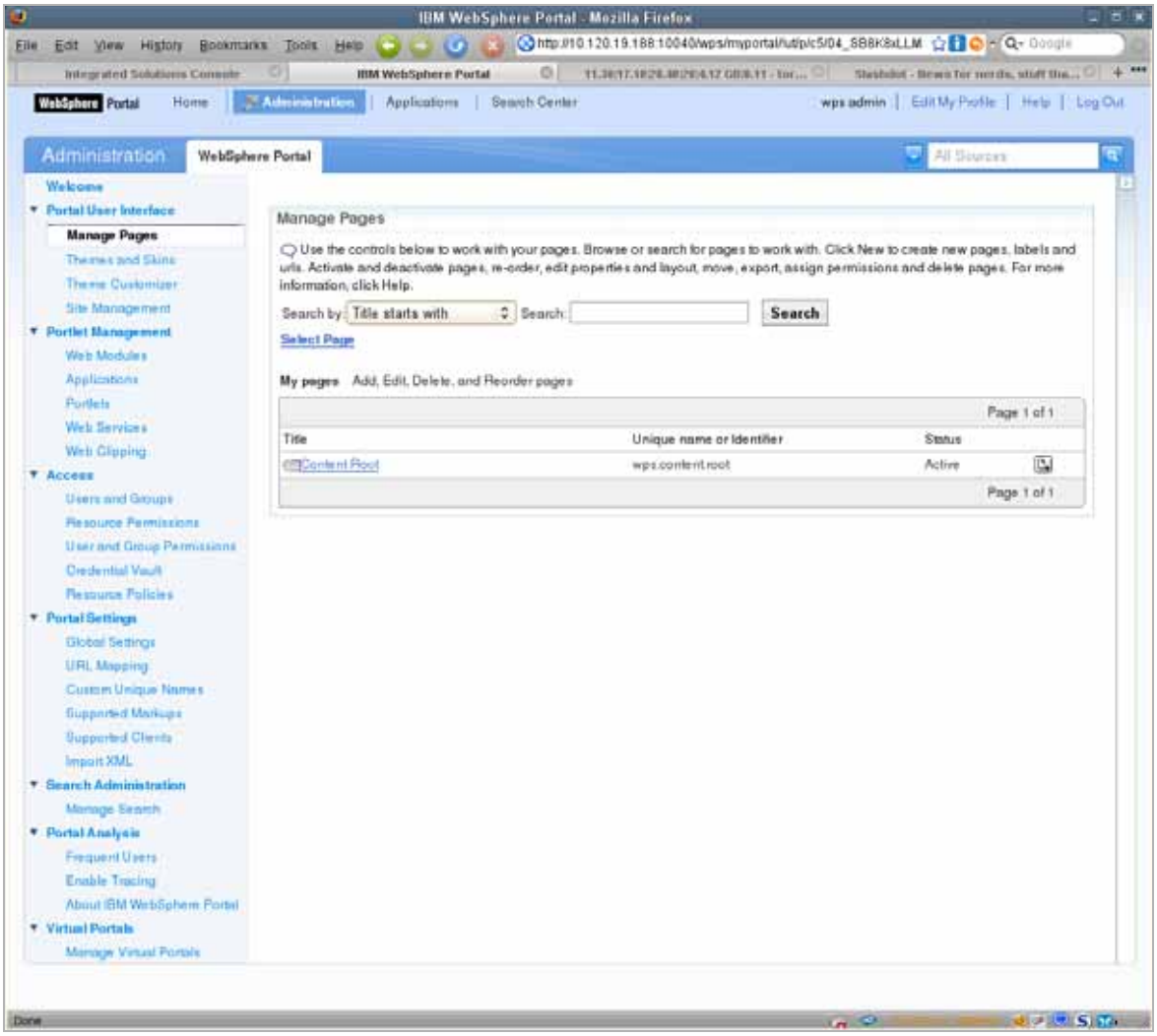
When creating portlet channels, type the portlet channel names exactly as the portlet names shown above, but without the spaces.

Adding New Pages

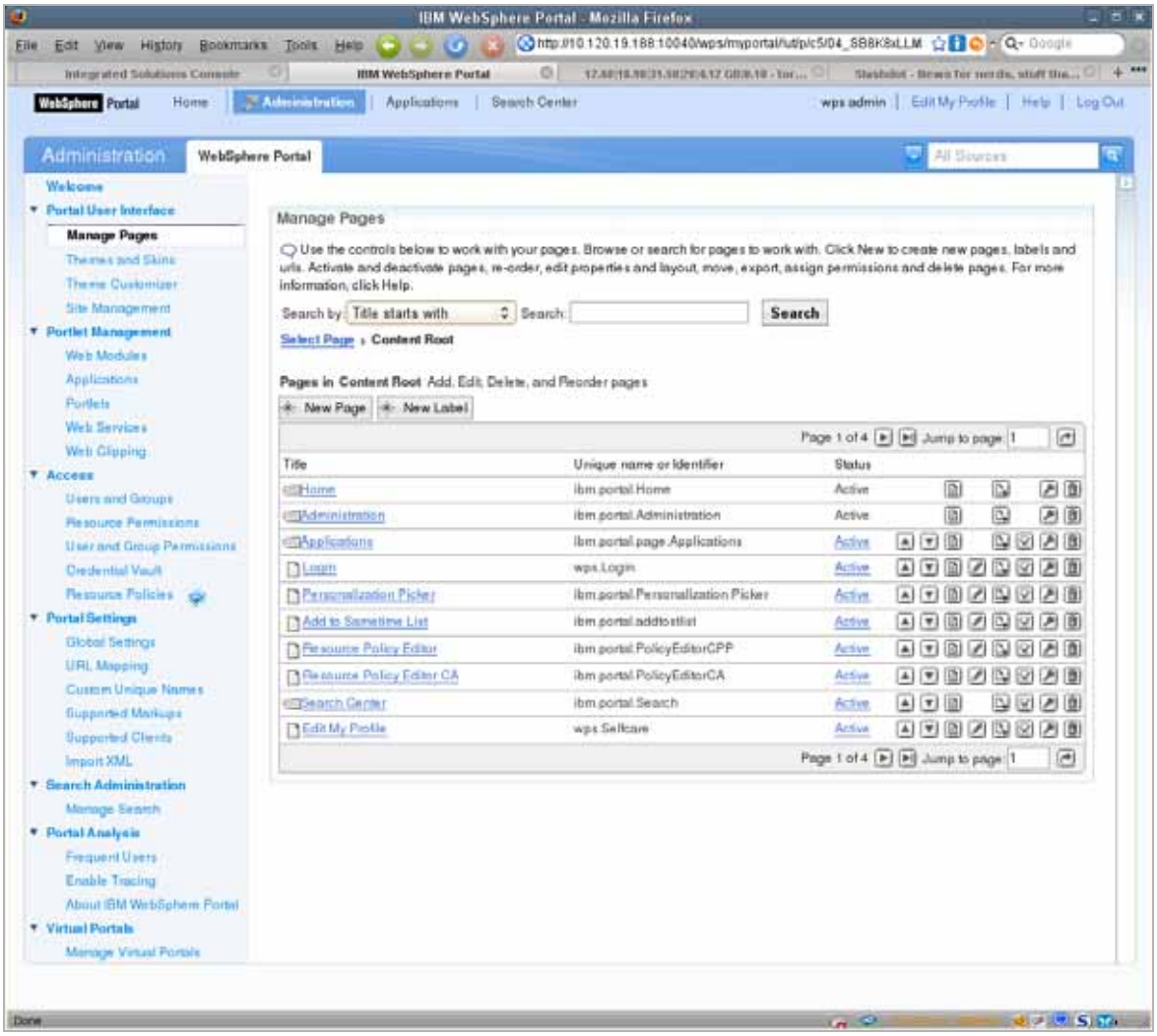
1. Log in to the WebSphere Portal interface with the user name **wpsadmin**.
2. In the top menu, click the **Administration** option.



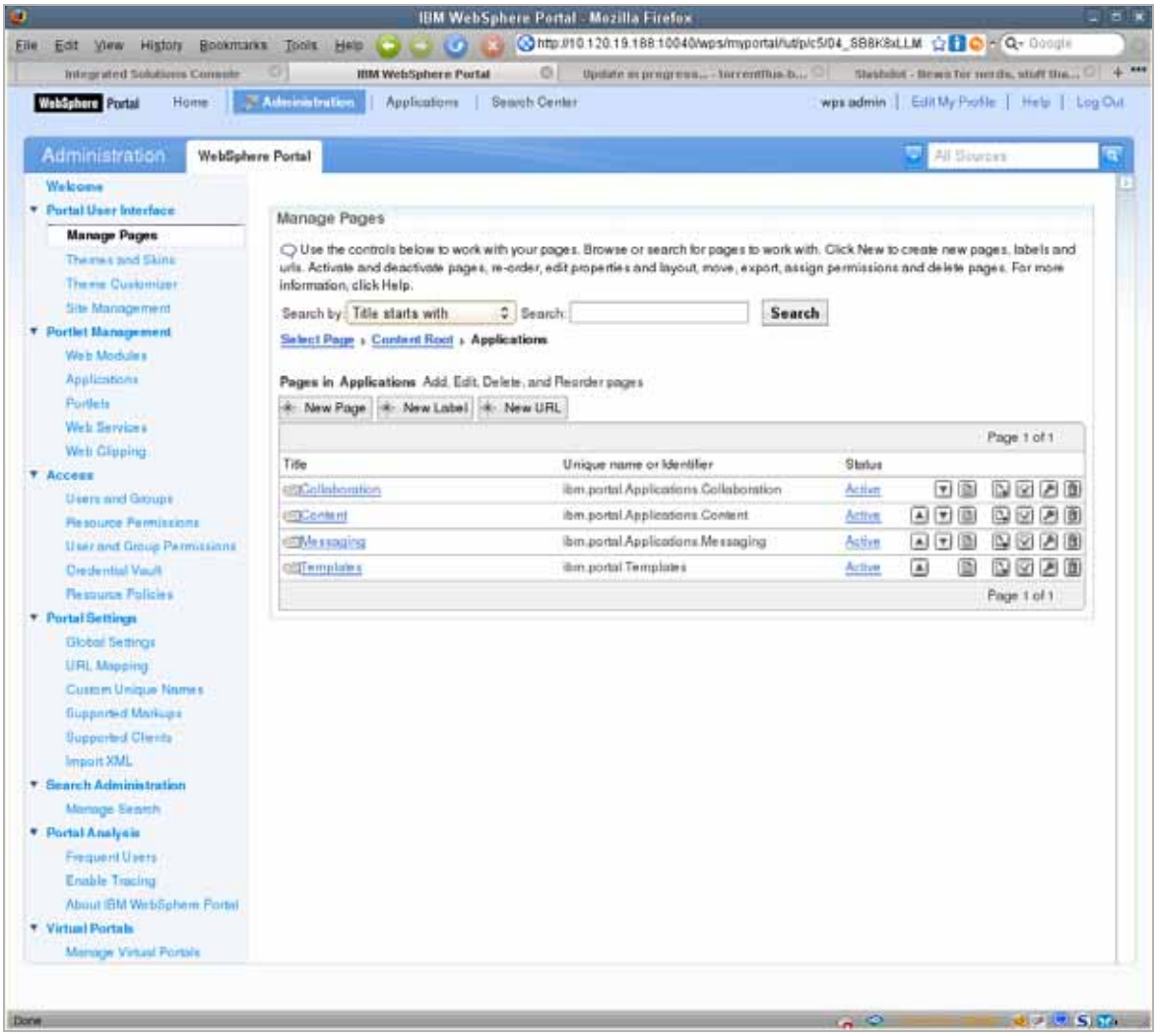
3. In the left navigation tree click **Manage Pages**, located under **Portal User Interface**.



4. Click the **Content Root** option.



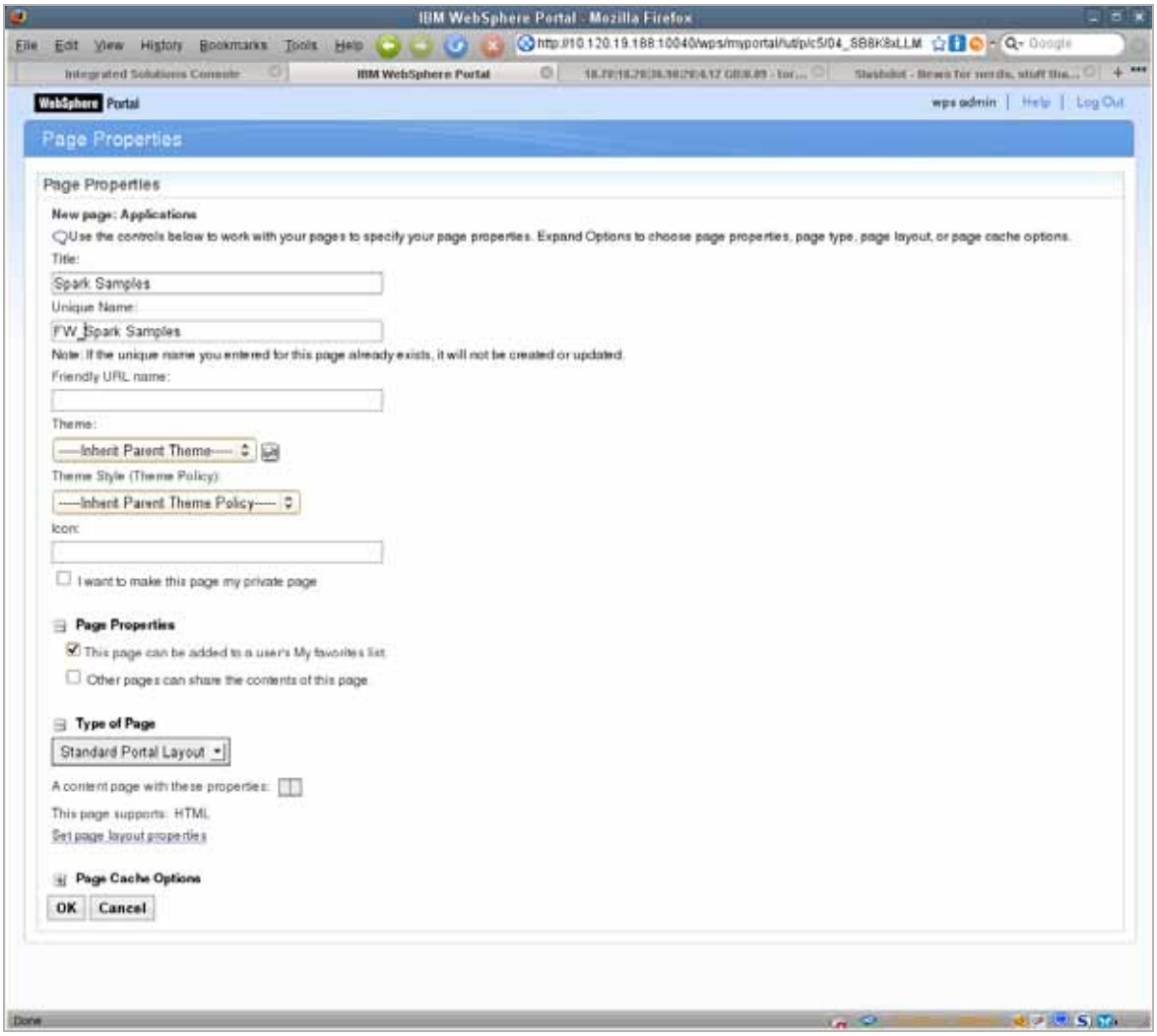
5. Click the **Applications** option.



6. Click the **New Page** option.

7. In the **Page Properties** screen, fill in the following fields:
   - **Title** – Enter a page name (from Table 1, on page 93).
   - **Unique Name** – Enter a unique name (`FW_<Title>` is recommended).

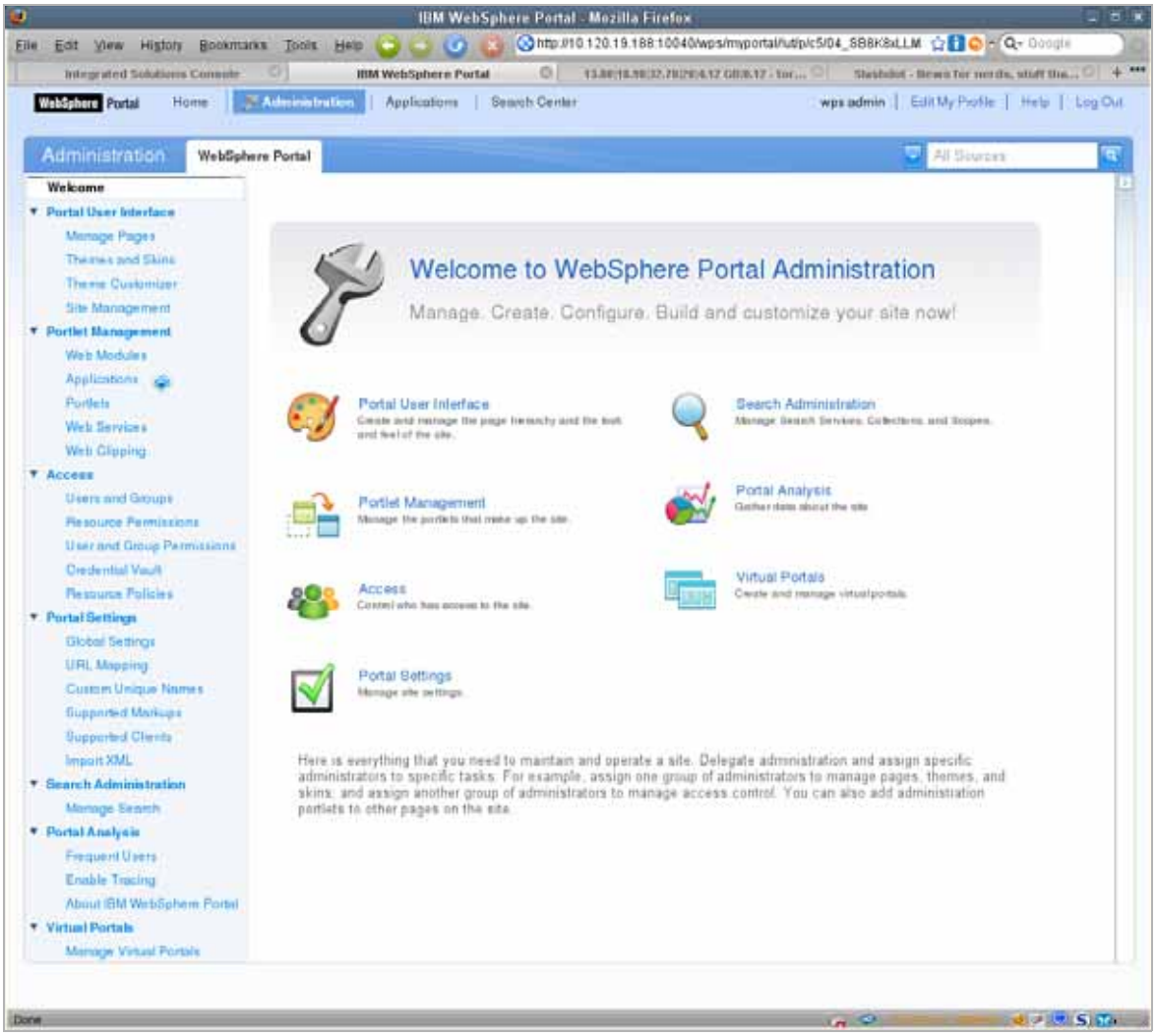
   Click **OK**.



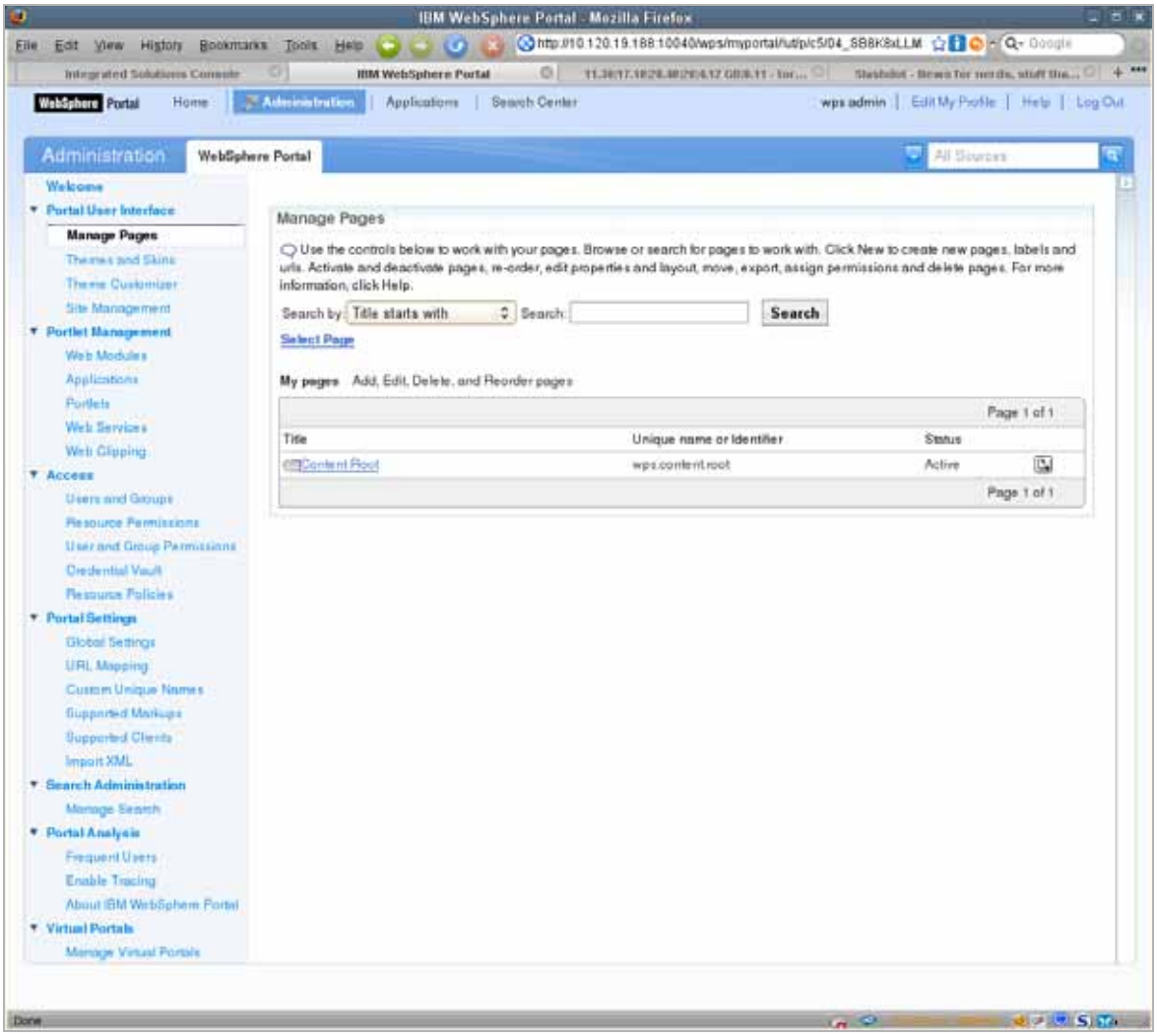
8. Repeat step 7 for each page you wish to create.

Adding Portlets to Pages

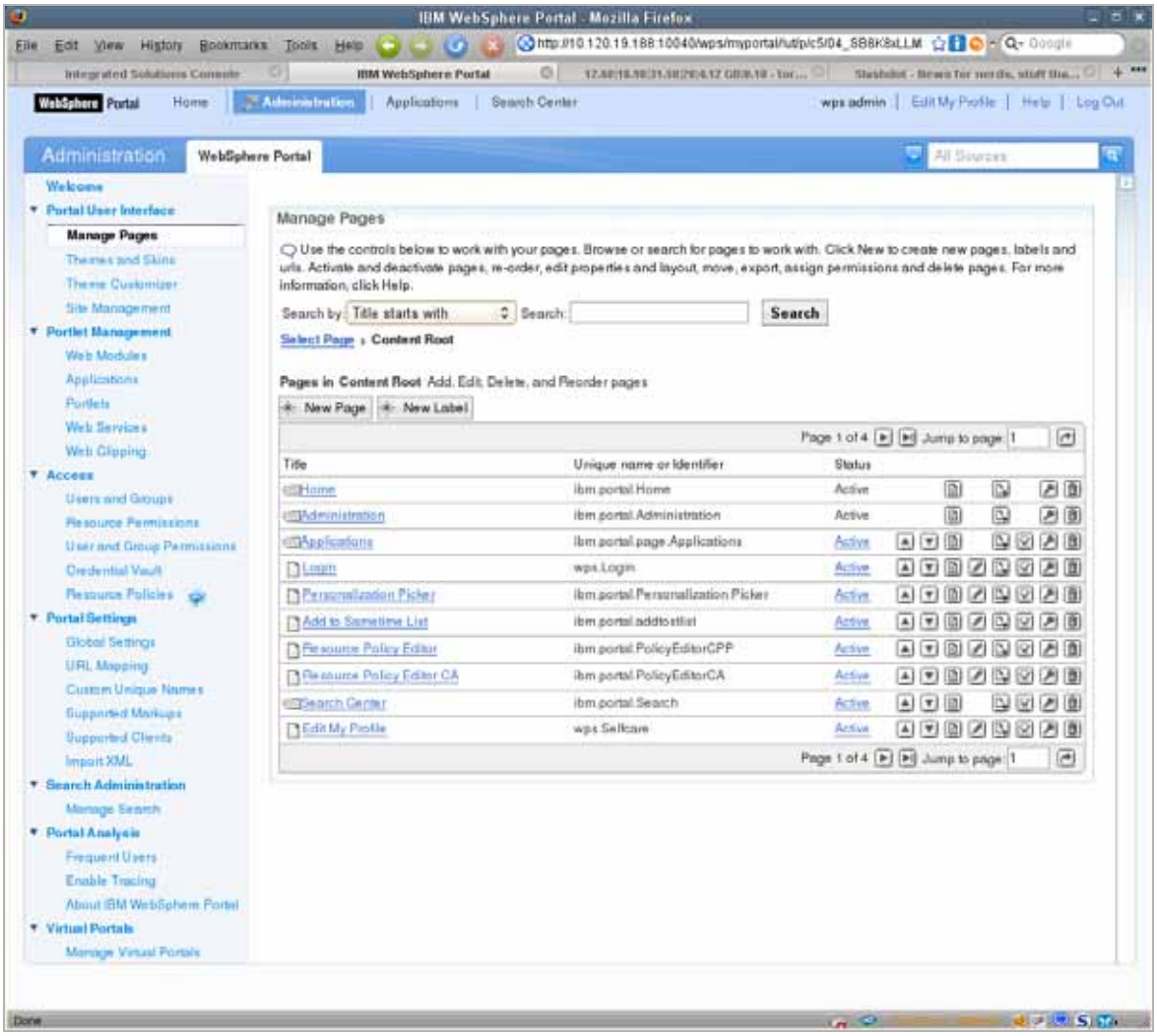
1. Log in to the WebSphere portal interface with the **wpsadmin** user name.
2. In the top menu, click the **Administration** option.



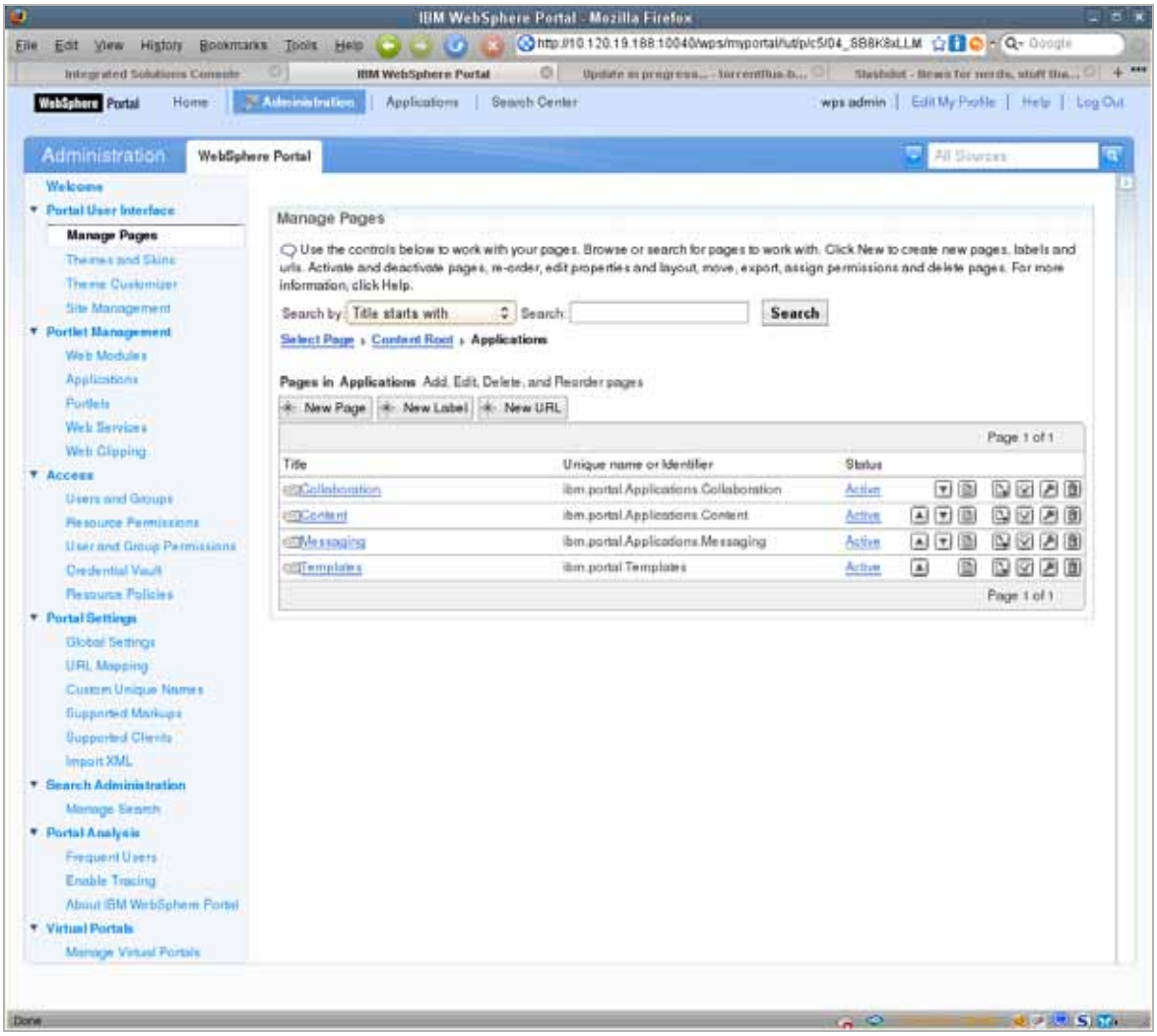
3. In the left hand tree, under **Portal User Interface**, click **Manage Pages**.



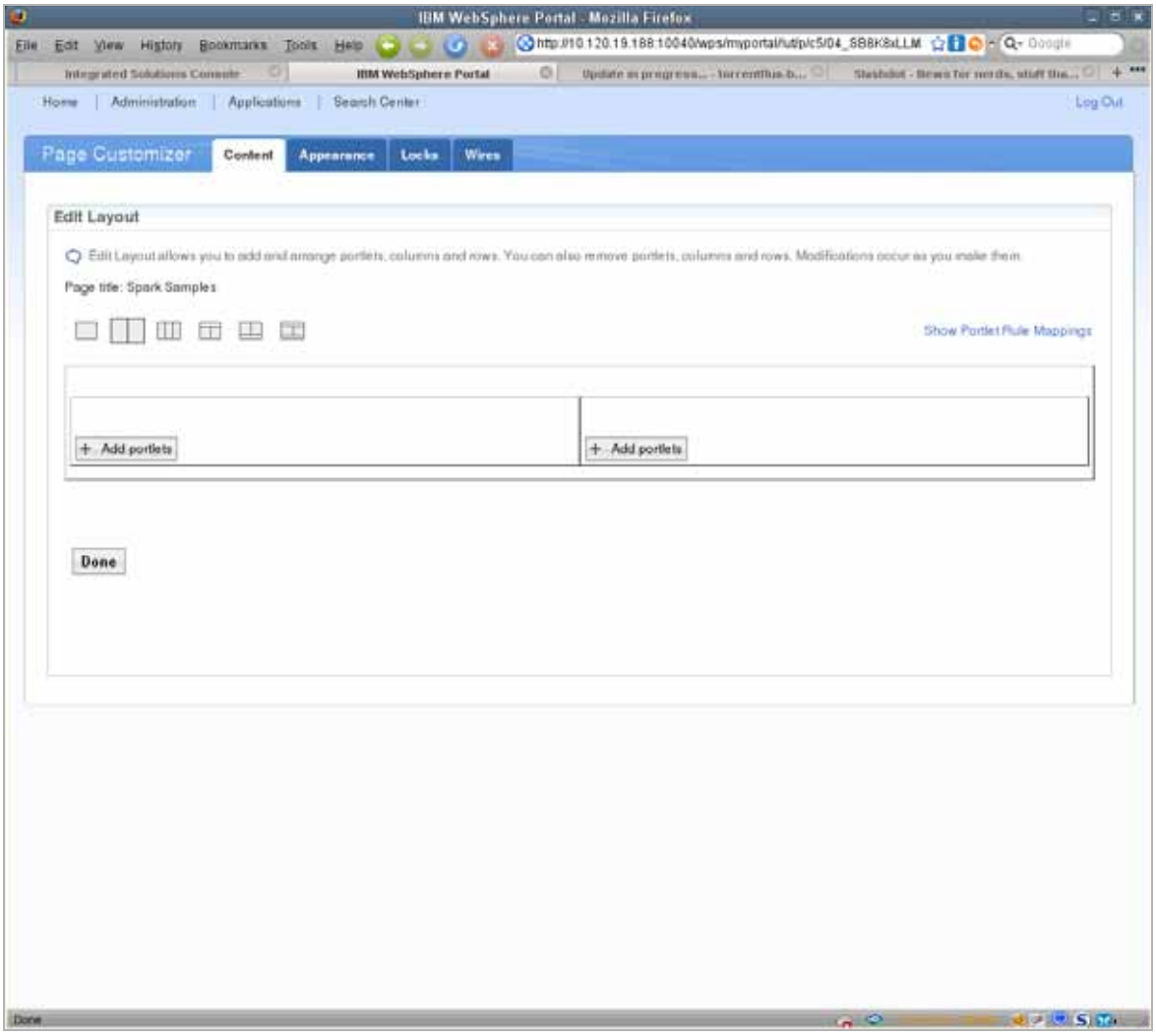
4. Click the **Content Root** option.



5. Click the **Applications** option.

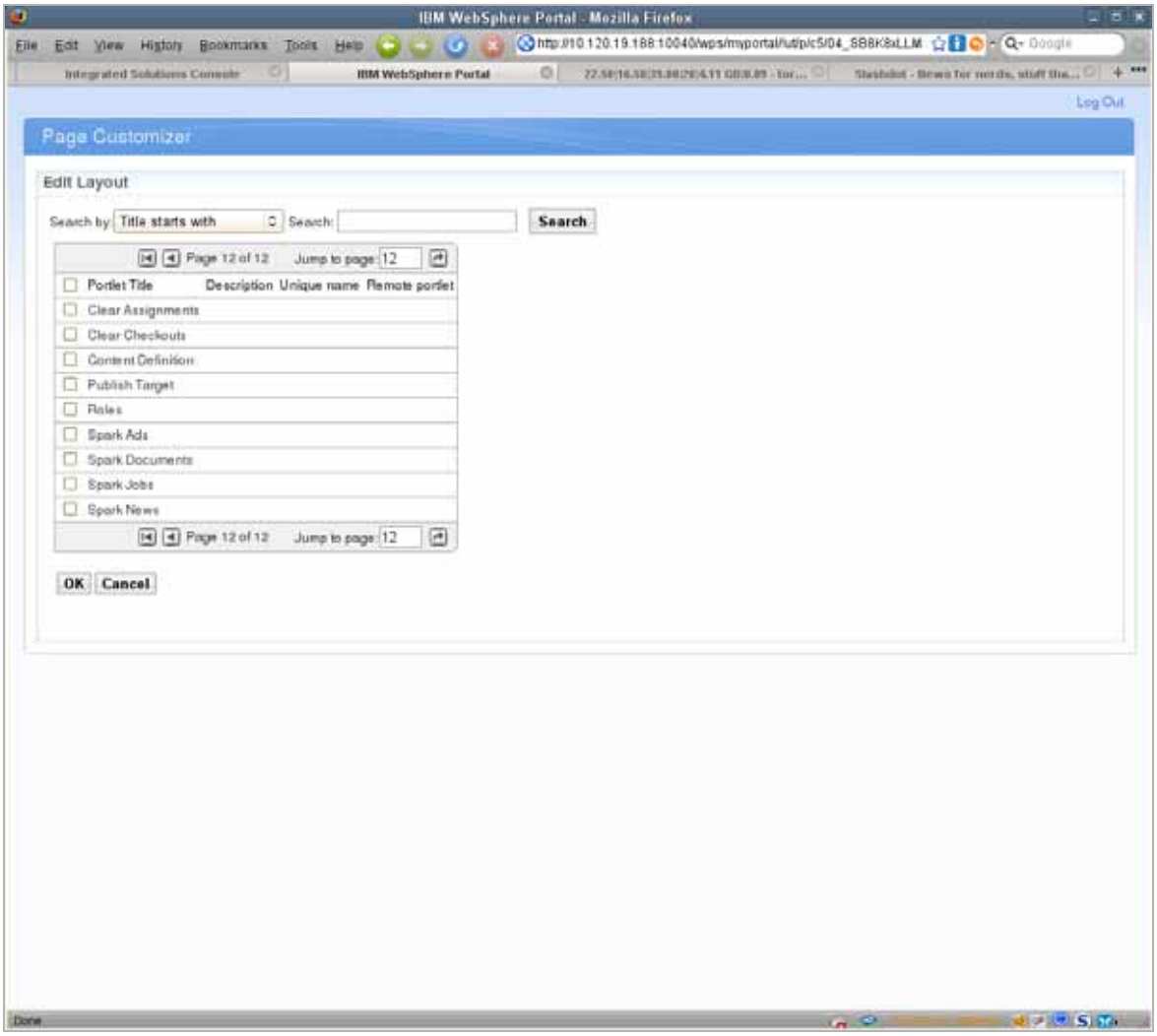


6. Locate the page you wish to modify and click the pencil icon to edit the page layout, (in this example we use the page `Spark Samples`).

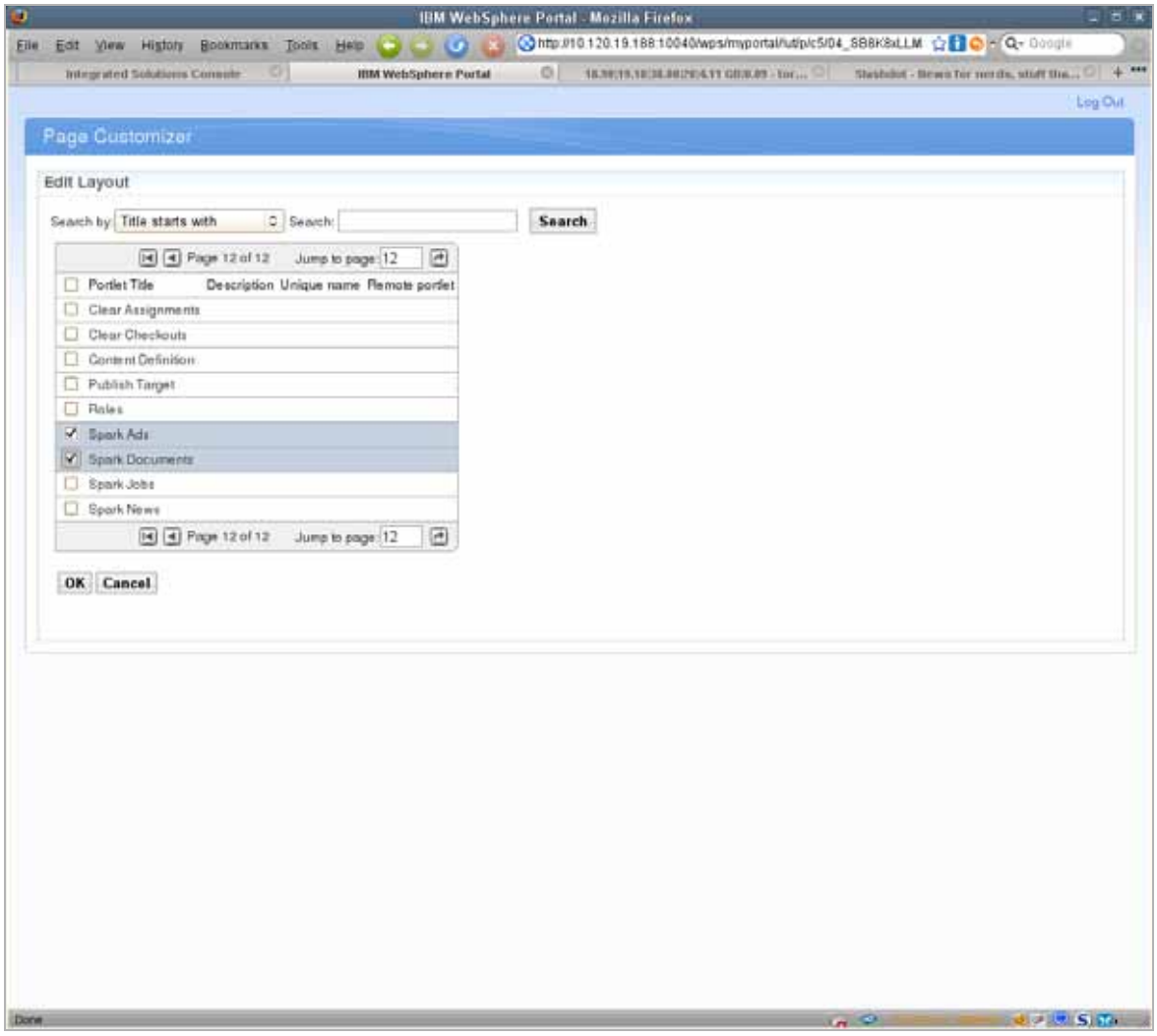


7. From the top row, select a page layout for the page you are modifying ("Spark Samples" page in this example).

8. In the bottom row, click the + **Add portlets** option.



9. Select the check boxes next to the portlets you wish to add from the list, then click **OK**.

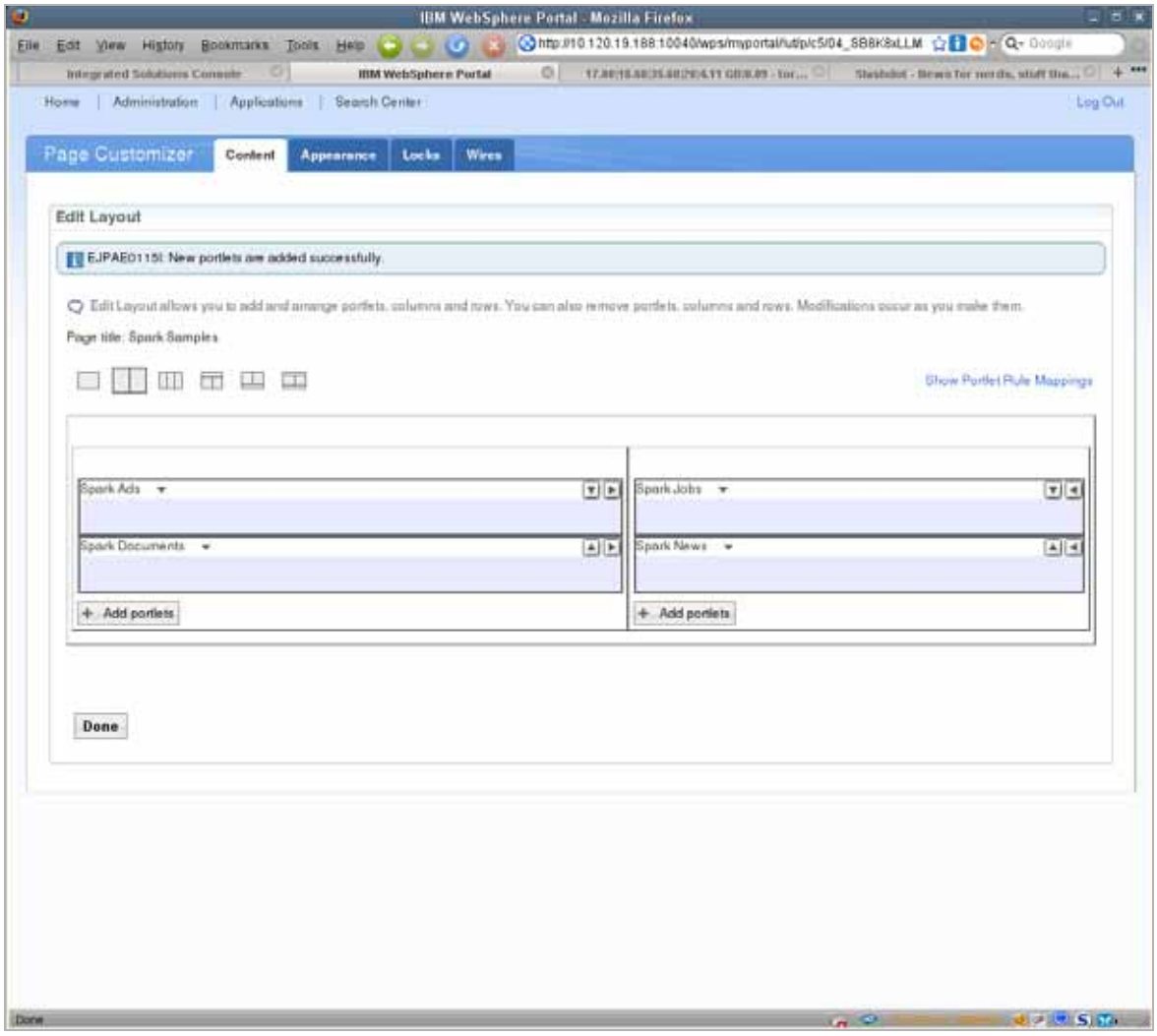


Note

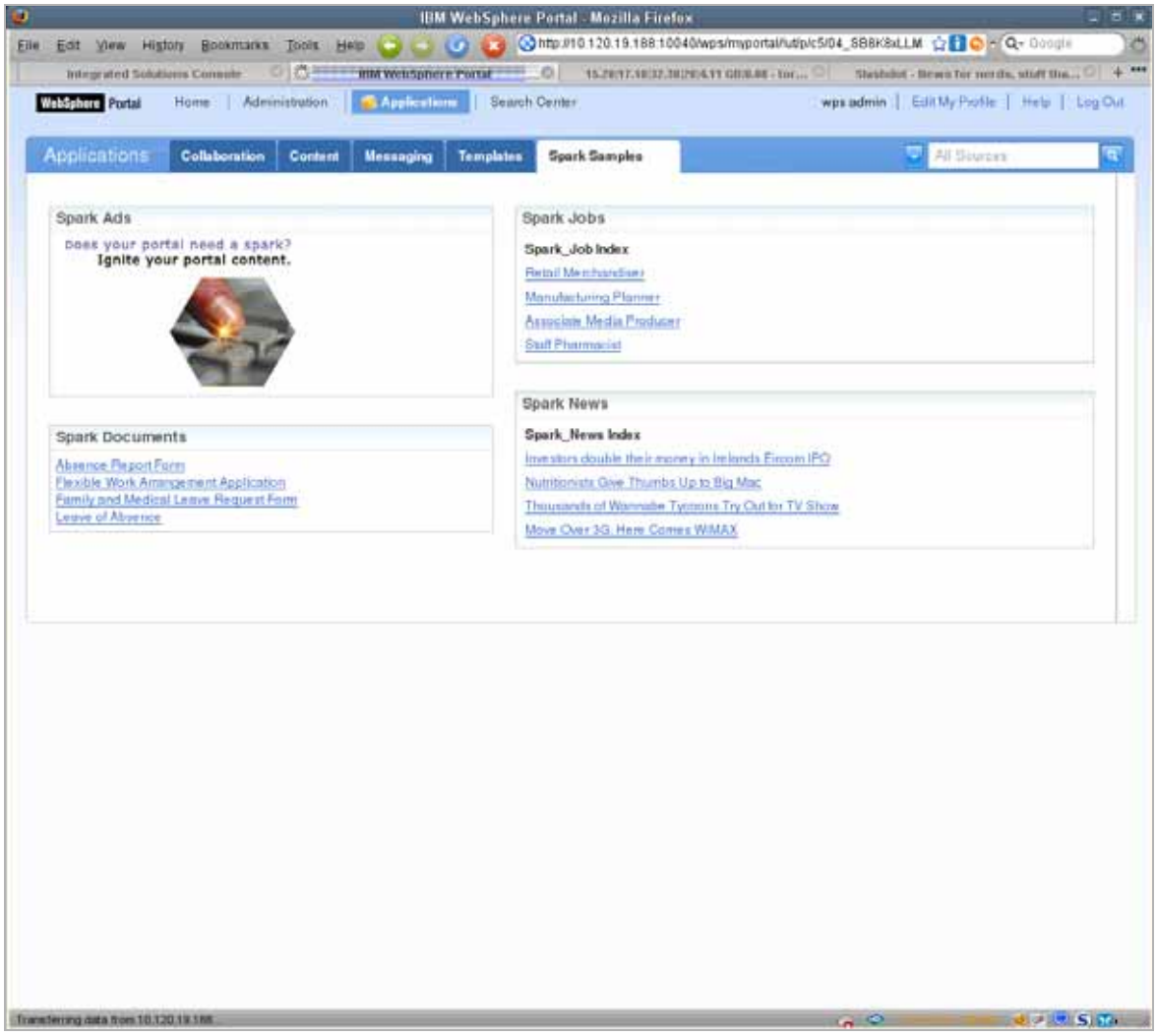
Content Server Portlets are located at the end of the “Portlets” list.

10. Repeat step 9 for each column on the page.
11. Click **Done**.

The following shows the completed “Spark Sample” page:



The following shows how the page will be rendered to the end user when you navigate to that page:



Setting Up Content Server for Its Business Purpose

Once you have completed your Content Server installation, you are ready to configure it for business use. For instructions, see the *Content Server Administrator's Guide* and the *Content Server Developer's Guide*. These guides explain how to create and enable a content management environment including the data model, content management sites, sit users, publishing functions, and client interfaces.