# Content Server

Version: 7.0

# Installing Content Server with Sun Java Enterprise System

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Table of

# Contents

## Part 4. Content Server



## Appendices

Chapter 1

# Introduction

This document provides guidelines for installing Content Server on Sun Java Enterprise System versions 2005Q4 and 2006Q4, connecting to a supported database of your choice.

**Note**

Anyone using this guide is expected to have experience installing and configuring databases, web servers, and application 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 product's documentation.

In this guide, Sun Java Enterprise System is called "JES."

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 usage of Sun Java Enterprise System versions 2005Q4 and 2006Q4 as it pertains to Content Server. Topics covered include the installation and configuration of a database, installation and configuration of JES, creation of a data source, deployment of `war` and `ear` files, configuration of a cluster, configuration of a remote web server, and the installation of Content Server.

This guide does not cover the following topics, as they fall outside the scope of this guide:

- Installation of the Apache and IIS web servers
- SSL configuration on Apache and IIS

## 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 application deployment is associated with the application server. It is presented in Part II (which covers the application server), even though it is performed, later, when Content Server is installed (Part IV). 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 9).

## Terms and Acronyms

The following table defines the acronyms that are used throughout this guide.

| Term | Definition |
|---|---|
| AS | Application Server |
| CA | Certified Authority |
| JES | Java Enterprise System |
| lb | load balancer |
| SJSAS | Sun Java Enterprise Application Server |
| SJSWS | Sun Java Enterprise Web Server |
| SSL | Secure Sockets Layer |
| TA | Trusted Authority |

## 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.

# 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 the installation procedure and to chapters that provide detailed instructions.

## I. Set Up the Database

Install, create, and configure your choice of supported databases. For instructions on creating and configuring the database, see our guide *Configuring Third-Party Software*.

## II. Set Up the Application Server

1. Install JES and verify the installation.

   For instructions, see Chapter 3, "Installing Sun Java Enterprise System." Note that Chapter 3 also provides supplementary information for uninstalling JES (as necessary), as well as starting and stopping JES components (the application server, identity server, and directory server).

2. Configure the JES installation. The steps that you will complete depend on the components you have selected for your installation. The steps are outlined below and given in the sections of Chapter 4, "Configuring JES Application Server."

   - If you need to create a new server instance and node agent in JES 2005Q4, follow the steps in "Working with JES 2005Q4 Server Instances," on page 27.
   - If you need to create a new domain and server instance in JES 2006Q4, follow the steps in "Working with JES 2006Q4 Server Instances," on page 29.

3. If you are creating a portal installation, follow the steps in "Modifying an App Server Instance to Support Portal Installations," on page 32.

4. Configure the data source. The steps are outlined below and given in detail in Chapter 5, "Working with the Data Source."

   a. Modify the classpath of the domain (created during the JES installation) to include database connection jars.

   b. Modify the classpaths(s) of the node agent(s).

   c. Create a data source.

## III. (Optional) Set Up the Web Server

1. If you are planning to use a web server, do the following:

**a.** Generate the loadbalancer plugin that comes with JES application server. For instructions, see "Generating the JES Application Server Load Balancing Plugin," on page 46.

**b.** Install and configure a supported web server:

**1)** For instructions on installing the web server, see Chapter 8, "Installing a Web Server."

**2)** For instructions on configuring the web server, see Chapter 9, "Configuring the Web Server and JES Load Balancing Plugin." Note the following:

- For all supported web servers, follow the steps in "Configuring the Apache and IIS Web Servers," on page 52.
- Make sure to configure the loadbalancer plugin for your choice of web server. For instructions, see "Configuring the Load Balancing Plugin for the Web Server," on page 52.

## IV. Install and Configure Content Server

**1.** Before you run the installer, make sure that:

- You have created the directory into which you are installing Content Server. The directory name and path cannot contain spaces and the application server must be able to read from and write to that directory. Typically, this directory is `<sun_j2ee_app_root>/<app_name>/cs_war/`
- For clustered installations, you have created a shared file system directory that all cluster members can read from and write to; the directory name and path cannot contain spaces. Note the following:
  - For delivery systems, the default location of the shared file system directory is the directory containing the directory in which Content Server is installed.
  - For content management and development systems, the default location of the shared file system directory is inside the directory in which Content Server is installed.
- Your system is capable of displaying the CS installer GUI. The installer will not work in text mode.

**2.** 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 10, "Installing and Configuring Content Server."

Half-way through the installation, the installer will display an "Installation Actions" pop-up window. When this window appears, you will have to deploy the CS application. For instructions, see Chapter 6, "Deploying Applications."

If you are using an Oracle database and will require text attributes greater than 2000 characters, you will have to set the `cc.bigtext` property to `CLOB` after the CS application is deployed. For instructions, see step 5 in "Running the Installer," on page 58.

**3.** Complete the Content Server installation by performing the steps described in "Post-Installation Steps," on page 59 and summarized below:

**a.** If you installed Content Server on Unix, set the permissions for Content Server binaries by following the steps in "Setting File Permissions (Unix Only)," on page 59.

**b.** Verify the Content Server installation by logging in as the administrator. For instructions, see "Verifying the Installation," on page 59.

**c.** If you created a portal installation, configure the portal installation to display the correct portlets on the required pages. For instructions, see "Configuring the Portal Interface (Portal Installations Only)," on page 66.

**d.** If you need to perform LDAP integration, follow the steps in "Integrating with LDAP (Required for Portal Installations)," on page 87. LDAP integration is mandatory for portal installations, and optional for web installations.

**e.** If you are creating a clustered installation, repeat steps 2 and 3 (a–d) in this section and follow instructions in "Working with Clusters," on page 30.

**f.** 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 the databases are given in our guide *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 specifically configured for Content Server. The list of supported databases (as well as other third-party components) is given in the *Supported Platform Document*, accessible from:

`http://e-docs.fatwire.com/CS`

(Click the Content Server version number, and on the Content Server page, click the **Supported Platform Document** link.)

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. Refer to the correct chapter to create and configure the database of your choice.

Part 2

# Application Server

This part contains information about installing and configuring the Sun JES Application Server to support and deploy your Content Server web application or portal.

This part contains the following chapters:

Chapter 3

# Installing Sun Java Enterprise System

This chapter provides instructions for installing and verifying JES for use by Content Server.

This chapter contains the following sections:

# Start/Stop Commands

This section provides the commands for starting and stopping the application server, access manager (identity server) and the directory server.

**Note**

Note the following:

- If Directory Server instances are present (LDAP integrated systems), start the Access Manager and Directory Servers **before** starting the application server.
- JES2006Q4 does not include the Access Manager, Directory Server, or Common Agent Container Management Daemon.

## Application Server

- To start (JES 2005Q4):

```
# /opt/SUNWappserver/appserver/bin/asadmin start-domain \
   --user admin --password <admin_user_password> <domain-name>
```

- To start (JES 2006Q4):

```
# /opt/SUNWappserver/appserver/bin/asadmin start-domain
   <domain-name>
```

- To stop:

```
# /opt/SUNWappserver/appserver/bin/asadmin stop-domain
   <domain-name>
```

**Note**

If you are using Sun JES Application Server 8.2, every time the application server is restarted, you must log in to the Advanced interface first before you can log in to the Dashboard interface. (Logging in to the Advanced interface initializes the CS servlet.)

## Access Manager (Identity Server; JES 2005Q4 only)

- To start:

```
# /opt/SUNWam/bin/amserver start
```

- To stop:

```
# /opt/SUNWam/bin/amserver stop
```

## Directory Server (JES 2005Q4 only)

- To start:

```
# /usr/sbin/directoryserver start
```

- To stop:

```
# /usr/sbin/directoryserver stop
```

### Common Agent Container Management Daemon (JES 2005Q4 only)

- To start:

  ```
  # /opt/sun/cacao/bin/cacaoadm start
  ```

- To stop:

  ```
  # /opt/sun/cacao/bin/cacaoadm stop
  ```

## Installing JES

Procedures for installing JES are environment-specific. They depend on licensing terms and the JES version, among other factors.

- For instructions on installing JES on your environment, consult the JES documentation. Commands for starting and stopping JES components are given in the next section.
- For reference, Appendix A in this guide provides a sample procedure for installing JES.

When you have completed the JES installation, complete the steps in “Verifying the JES Installation,” on page 22.

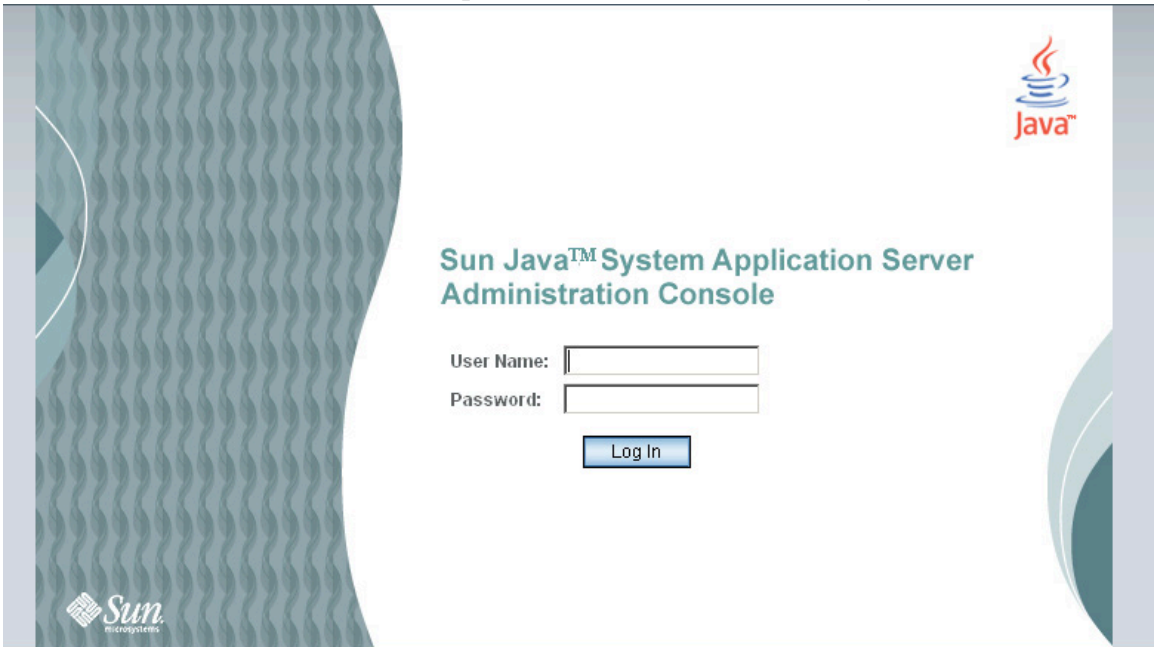
# Verifying the JES Installation

**Note**

**Ports:** The ports given below (4849 and 8080 for JES 2005Q4, 4848 for JES 2006Q4) are the default ports. If they were changed during the installation, enter the new port numbers in their place, wherever appropriate.

**Connections:** By default, JES 2005Q4 does not allow unsecured (non-SSL) connections to the console, while JES 2006Q4 allows unsecured (non-SSL) connections on port 4848.

1. Log in to the following administrative interfaces using the `amadmin` user to confirm that the server is running:
   a. Sun JES Application Server Admin Console:
      - JES 2005Q4: `https://<hostname>:4849/admingui/`
      - JES 2006Q4: `http://<hostname>:4848/admingui/`



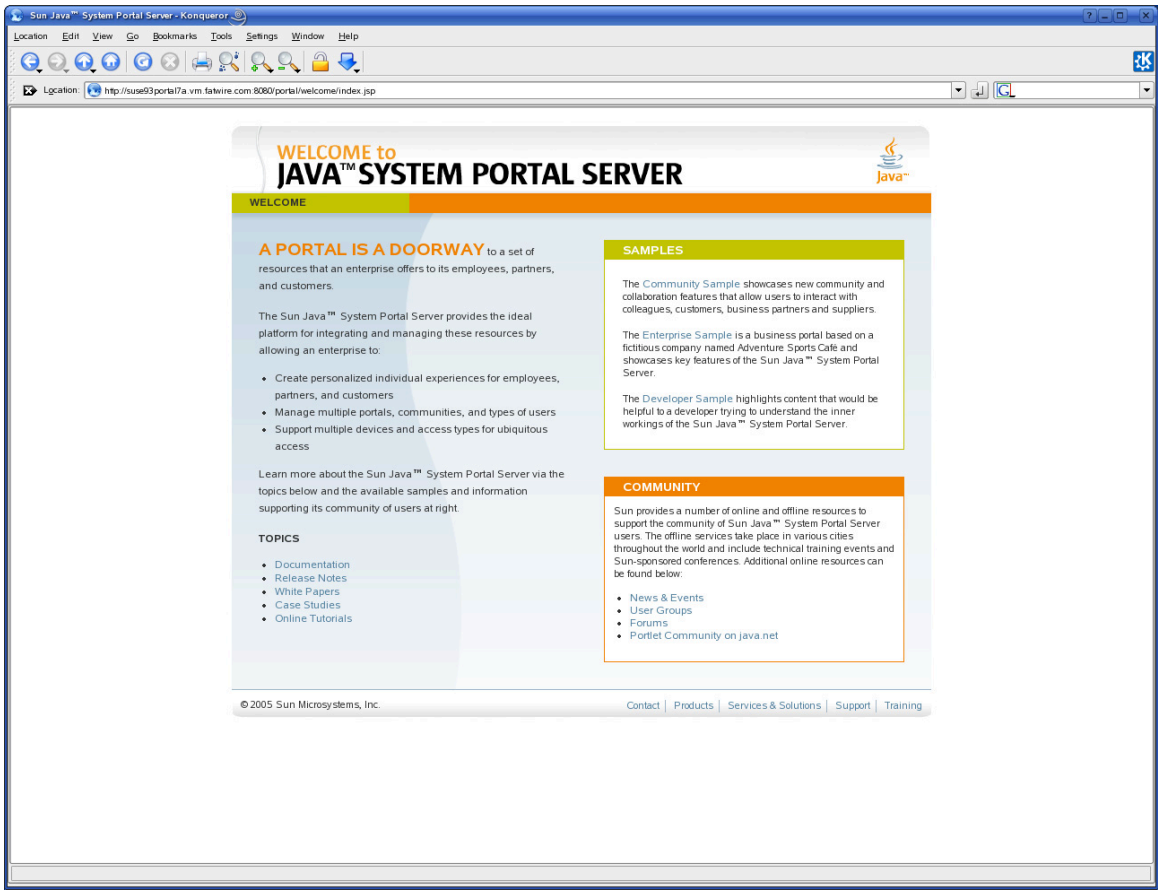

   b. Sun JES Access Manager Admin Console (JES 2005Q4 only):
      `http:/<hostname>:8080/amserver`

2. If a portal server is installed (JES 2005Q4 only):
   a. Log in to the Portal Server Admin Console using the `amadmin` user and test the portal server:

      `http://<hostname>:8080/psconsole`

   b. Access the following URL to confirm that the portal is running:

      `http://<hostname>:8080/portal/dt`




3. Create a `password` file in `/opt/sun/portal/bin/` using the following command:

   **`echo "<amadmin_password>" > /opt/sun/portal/bin/password`**

4. Make sure you can access the Portal Admin Console using the **`psadmin`** command:

   **`/opt/sun/portal/bin/psadmin list-portals -u -amadmin -f /opt/sun/bin/password --portal <portalname>`**

5. List the applications currently deployed on the default server using the following command:

   **`/opt/sun/appserver/bin/asadmin list-application-refs --host <hostname> --port 4849 --user admin server`**

# Uninstalling JES

For reference, Appendix A provides a sample procedure for uninstalling JES by the use of scripts obtained from Sun Microsystems.

Chapter 4

# Configuring JES Application Server

This chapter provides instructions for configuring JES Application Server for use by Content Server.

This chapter contains the following sections:

# Working with Domains

This section provides instructions for completing the following operations:

- Backing Up a Domain
- Restoring a Domain

## Backing Up a Domain

You may wish to back up your domain before you attempt to modify it. This allows you to restore the domain later on if something fails to work properly.

**To back up a domain**

1. Stop the domain you wish to back up:

   ```
   ./asadmin stop-domain domain1
   ```

2. Back up the domain:

   ```
   ./asadmin backup-domain --domaindir  /var/opt/SUNWappserver/
        domains/ --description 032507backup_domain1 domain1
   ```

3. Write down the name of the backup file. The name of the backup file is displayed after the backup task is complete. You will need this file name to restore the domain.

   For example:

   ```
   Backup Filename: /var/opt/SUNWappserver/domains/domain1/
      backups/sjsas_backup_v00001.zip
   Date and time backup was performed: Sun Mar 25 12:13:44 EDT
      2007
   Domains Directory: /var/opt/SUNWappserver/domains
   Domain Directory: /var/opt/SUNWappserver/domains/domain1
   Domain Name: domain1
   Name of the user that performed the backup: root
   ```

4. Restart the domain:

   ```
   ./asadmin start-domain --user admin --password demo4132 domain1
   ```

## Restoring a Domain

1. Stop the domain you wish to back up:

   ```
   ./asadmin stop-domain domain1
   ```

2. Restore the domain:

   ```
   ./asadmin restore-domain --filename /var/opt/SUNWappserver/
         domains/domain1/backups/sjsas_backup_v00001.zip domain1
   ```

3. Restart the domain:

   ```
   ./asadmin start-domain --user admin --password demo4132 domain1
   ```

# Working with JES 2005Q4 Server Instances

This section provides instructions for completing the following operations:

- Creating a New Server Instance and Node Agent (as Necessary)
- Deleting a Server Instance
- Deleting a Node Agent

## Creating a New Server Instance and Node Agent (as Necessary)

The following steps show you how to create a new server instance on which to install Content Server. A new server instance is helpful, as it allows you to separate your Content Server installation from administration functions. Note, however, that while the server instance can be expanded for use in portal installations, the procedure is outside the scope of this guide. Instead, you will be creating a new node (named `realsun03` in our examples) and a new instance (named `csPortal` in our examples).

**Note**

The commands below are based on the assumption that you are executing them from the directory in which JES application server is installed (the default location is `/opt/SUNWappserver/sbin`).

1. List all known instances:

   ```
   ./asadmin list-instances --host localhost --port 4849 \
      --user admin --password demo4132
   ```

   Normally the command returns `none` for a new installation.

2. List all known node agents:

   ```
   ./asadmin list-node-agents --host localhost --port 4849 \
      --user admin --password demo4132
   ```

   Normally the command returns `none` for a new installation.

3. Create a new node agent:

   ```
   ./asadmin create-node-agent --host localhost \
      --port 4849 --user admin --password demo4132 realsun03
   ```

   Enter a master password when prompted. (Note that your password is not displayed as you type it. Be sure that you enter the password correctly.)

4. Start the new node agent:

   ```
   ./asadmin start-node-agent --user admin \
      --password demo4132 realsun03
   ```

**Note**

Before continuing, repeat step 2 to see whether your new node agent was correctly created (this can also be confirmed from the administrative GUI).

5. Create a new instance:

```
./asadmin create-instance --user admin --password demo4132 \
   --host localhost --port 4849  --nodeagent realsun03s\
   csPortal
```

6. Start the new instance:

```
./asadmin start-instance --host localhost --port 4849 \
   --user admin --password demo4132 csPortal
```

> **Note**
>
> Before continuing, repeat step 1 to see whether your new instance was correctly created (this can also be confirmed from the administrative GUI).

7. List information on the new instance, including ports:

```
./asadmin list-system-properties --host localhost \
   --port 4849 --user admin --password demo4132 csPortal
```

This command returns information similar to the following, which is a list of all the ports allocated to this new instance:

```
HTTP_LISTENER_PORT=38080
HTTP_SSL_LISTENER_PORT=38181
IIOP_SSL_LISTENER_PORT=33820
IIOP_LISTENER_PORT=33700
JMX_SYSTEM_CONNECTOR_PORT=38686
IIOP_SSL_MUTUALAUTH_PORT=33920
Command list-system-properties executed successfully.
```

## Deleting a Server Instance

1. Stop the instance:

```
./asadmin stop-instance --user admin --password demo4132 \
   --host localhost --port 4849 csPortal
```

2. Delete the instance:

```
./asadmin delete-instance --user admin --password demo4132 \
   --host localhost --port 4849 csPortal
```

## Deleting a Node Agent

1. Stop the node agent:

```
./asadmin stop-node-agent realsun03
```

2. Delete the node agent:

```
./asadmin delete-node-agent realsun03
```

# Working with JES 2006Q4 Server Instances

In order to deploy your CS application on JES 2006Q4, you must create a domain. When you create a domain, JES 2006Q4 automatically creates a server instance under the domain. (Note that JES 2006Q4 allows only one server instance per domain.)

Once the domain has been created, you must also create an HTTP listener which enables the server instance to accept connections on the port of your choice.

This section provides instructions for completing the following operations:



## Creating a Domain and Server Instance

To create a domain (and a corresponding server instance), perform the following steps:

1. Execute the following command:

   ```
   ./asadmin create-domain --adminport 4949 --adminuser admin
      --instanceport 9090 --savelogin=true <domain_name>
   ```

2. When prompted, enter the `admin` user password, then re-enter it for verification.
3. When prompted, enter the master password, then re-enter it for verification.

   You will see output similar to the following:

   ```
   Using default port 7676 for JMS.
   Using default port 3700 for IIOP.
   Using default port 8181 for HTTP_SSL.
   Using default port 3820 for IIOP_SSL.
   Using default port 3920 for IIOP_MUTUALAUTH.
   Using default port 8686 for JMX_ADMIN.
   Domain <domain-name> created.
   Admin login information for host [localhost] and port [4949] is
   being overwritten with credentials provided. This is because
   the --savelogin option was used during create-domain command.
   Login information relevant to admin user name [admin] for this
   domain [<domain_name>] stored at [/root/.asadminpass]
   successfully.
   Make sure that this file remains protected. Information stored
   in this file will be used by asadmin commands to manage this
   domain.
   ```

## Deleting a Domain and Server Instance

To delete a domain (and the corresponding server instance), execute the following command:

```
./asadmin/delete-domain <domain_name>
```

## Creating an HTTP Listener

Once you create a domain (and server instance), you must create an HTTP listener which enables the application server to accept connections for that domain on a port of your choice (`9191` in our example). To create a listener, execute the following command:

```
./asadmin create-http-listener --host localhost --port 4949 --user
   admin --listeneraddress 0.0.0.0 --listenerport 9191 --defaultvs
   server --securityenabled=true --enabled=true <listener-name>
```

## Deleting an HTTP Listener

To delete a listener, execute the following command:

```
./asadmin delete-http-listener --host localhost --port 4949
   --user admin <listener-name>
```

# Working with Clusters

This section provides instructions for completing the following operations:

- Creating a Cluster
- Migrating EJB Timers on a Cluster
- Deleting a Cluster

## Creating a Cluster

1. List existing clusters:

   ```
   ./asadmin list-clusters --user admin --password demo4132 \
      --host localhost --port 4849
   ```

2. Create a new cluster:

   ```
   ./asadmin create-cluster --user admin --password demo4132 \
      --host localhost --port 4849 testCluster
   ```

3. Create a new instance to add to your cluster:

   **Note**

   For detailed instructions on creating a node agent and instance see "Creating a New Server Instance and Node Agent (as Necessary)," on page 27. Follow the instructions as given; however, add the `-- cluster <name>` option to the `create-instance` command.

   ```
   ./asadmin create-instance --user admin --password demo4132 \
      --host localhost --port 4849 --cluster testCluster \
      --nodeagent portalTest Ctest
   ```

4. Start the new cluster:

   ```
   ./asadmin start-cluster --user admin --password demo4132 \
      --host localhost --port 4849 testCluster
   ```

## Migrating EJB Timers on a Cluster

1. Locate the stopped instance by using the list command:

```
./asadmin list-instances --host localhost --port 4849 \
   --user admin --password demo4132
```

2. Move the EJB timers from the stopped instance to one that is running on the same cluster. In this case move the EJB timers from Dtest to Ctest:

```
./asadmin migrate-timers --user admin --password demo4132 \
   --host localhost --port 4849 --destination Ctest Dtest
```

3. Restart the instance to which the timers were moved:

```
./asadmin stop-instance --user admin --password demo4132 \
   --host localhost --port 4849 Ctest
```

```
./asadmin start-instance --host localhost --port 4849 \
   --user admin --password demo4132 Ctest
```

## Deleting a Cluster

1. Delete all instances located in the cluster:

```
./asadmin delete-instance --user admin --password demo4132 \
   --host localhost --port 4849 Ctest
```

2. Stop the cluster:

```
./asadmin stop-cluster --user admin --password demo4132 \
   --host localhost --port 4849 testCluster
```

3. Delete the cluster:

```
./asadmin delete-cluster  --user admin --password demo4132 \
   --host localhost --port 4849 testCluster
```

4. List the remaining clusters to ensure that the deletion was completed:

```
./asadmin list-clusters --user admin --password demo4132 \
   --host localhost --port 4849
```

# Modifying an App Server Instance to Support Portal Installations

By default, the portal is installed on the `server` instance, which was created during the installation of the portal. If you wish to deploy the portal to a new instance, follow the steps in this section.

1. Execute `/opt/SUNWps/bin/multiserverinstance` (the location may vary with the installation).
   a. Select option 1: "**`Create a new portalserver instance`**"
   b. Select option 3: "**`Sun Java System Application Server 8.1`**"
   c. Answer the following questions when prompted:

```
Where is the Web Container installed? [/opt/SUNWappserver/
   appserver]

What is the domain name? [domain1]

What is the domain (DAS) path? [] /var/opt/SUNWappserver/
   domains/domain1/

What is the Web Container instance path? [] /var/opt/
   SUNWappserver/nodeagents/<node agent name>/<instance
   name>/

What is the Web Container administrator? [admin]

What is the Web Container administration port? [4849]

Is the Web Container administration port secure? [y]/n y

Instance name? <instance to add portal to>

Instance port? <port on which the instance is running>

Is the instance port secure? y/[n] n

What is the Web Container document root directory? [/var/
   opt/SUNWappserver/nodeagents/realsun03a/csInstanceA//
   docroot]

What is the Application Server administration password?
   <hidden>

What is the Identity Server administration password?
   <hidden>
```

   d. Confirm that your previous selections are correct and press **y**.
   e. Wait for the installation to complete.
2. If you already have a portal configured on another instance, the script will not redeploy the portal applications. To correct the situation, do the following:
   a. Log in to the admin console.
   b. Complete the steps below for each of the following web applications: `amserver`, `ampassword`, `amcommon`, `amconsole`, `portal`, `portalsamples`.
      1) Select the application.
      2) Select the **Targets** tab.

3) Click the **Manage Targets** button.
4) Add the instance that was added above (in step 1 on page 32).
5) Click **OK**.

**c.** Restart the affected instance and domain.

# Setting Permissions for Content Server

This section shows you how to modify your `server.policy` file to add the permissions necessary to support Content Server. The permissions must be in place before the CS application is deployed.

**1.** Locate the `server.policy` file for your domain. For example:

```
/var/opt/sun/appserver/domains/domain1/config/server.policy
```

**2.** Open the `server.policy` file in a text editor and locate the following section:

```
// Basic set of required permissions granted to all remaining
code
grant {
permission java.lang.RuntimePermission "loadLibrary.*";
permission java.lang.RuntimePermission "queuePrintJob";
permission java.net.SocketPermission "*", "connect";
permission java.io.FilePermission "<<ALL FILES>>","read";
```

**a.** Change the line highlighted in the previous step to the following (keep it as one line):

```
permission java.io.FilePermission "<<ALL FILES>>",
   "read,write,delete";
```

**b.** Locate the following line:

```
permission java.util.PropertyPermission "*", "read";
```

and change it to the following:

```
permission java.util.PropertyPermission "*", "read,write";
```

**c.** Add the following line after the line you just edited:

```
permission java.lang.reflect.ReflectPermission "*",
   "read,write";
```

**d.** Locate the following line,

```
permission java.lang.RuntimePermission "queuePrintJob";
```

and add the following lines after it:

```
permission java.lang.RuntimePermission "createClassLoader";
permission java.lang.RuntimePermission
   "setContextClassLoader";
permission java.lang.RuntimePermission
   "getProtectionDomain";
```

When you have made the above changes, the section should look as follows (new and modified lines are highlighted in bold):

```
// Basic set of required permissions granted to all remaining
code
grant {
permission java.lang.RuntimePermission "loadLibrary.*";
permission java.lang.RuntimePermission "queuePrintJob";
permission java.lang.RuntimePermission "createClassLoader";
permission java.lang.RuntimePermission "setContextClassLoader";
permission java.lang.RuntimePermission "getProtectionDomain";
permission java.net.SocketPermission "*", "connect";
permission java.io.FilePermission "<<ALL FILES>>",
   "read,write,delete";
// work-around for pointbase bug 4864405
permission java.io.FilePermission
   "${com.sun.aas.instanceRoot}${/}lib${/}databases${/}-",
   "delete";
permission java.io.FilePermission "${java.io.tmpdir}${/}-",
   "delete";
permission java.util.PropertyPermission "*", "read,write";
permission java.lang.reflect.ReflectPermission "*",
   "read,write";
permission java.lang.RuntimePermission "modifyThreadGroup";
};
```

3. At the very end of the file, add the following:

**Note**

Note the following:

- `ear` files are deployed to the `j2ee-apps` directory located in `/var/opt/SUNWappserver/domains/<domain>/applications/`
- `war` files are deployed to the `j2ee-modules` directory located in `/var/opt/SUNWappserver/domains/<domain>/applications/`

Depending on your installation type (web application or portal), modify the path in the code below as necessary.

```
grant codeBase "file:/var/opt/sun/appserver/domains/domain1/
   applications/j2ee-apps/ContentServer/cs_war/WEB-INF/lib/-"
   { permission java.security.AllPermission; };
```

4. Save and close the file.
5. If you are using node agents, repeat steps 2-4 for the corresponding node agent's `server.policy` file. For example:

   `<node_agent_name>/agent/config/server.policy`

Chapter 5

# Working with the Data Source

This chapter provides instructions for creating a domain and data source for web and portal installations.

This chapter contains the following sections:

# Modifying the Classpath of a Domain

The classpath of a domain must be modified to include database connection jars. The basic classpath affects only the domain and not any server instances.

**To modify the classpath of a domain**

1. Determine the pre_class_path for a server running on a given port:

   ```
   ./asadmin get --user admin --password demo4132 \
      --host localhost --port 4849 server.java-
      config.classpath_prefix
   ```

   Example response:

   ```
   server.java-config.classpath-prefix = /opt/SUNWam/lib/sax.jar:/
      opt/SUNWam/lib/dom.jar:/opt/SUNWam/lib/saaj-api.jar:/opt/
      SUNWam/lib/common-logging.jar:/opt/SUNWam/lib/saaj-
      impl.jar:/opt/SUNWam/lib/mail.jar:/opt/SUNWam/lib/
      activation.jar:
   ```

2. Add a new item to the classpath:

   ```
   ./asadmin set --user admin --password demo4132 \
      --host localhost \
      --port 4849 server.java-config.classpath_prefix={string
      return from get}:{path to classes12.zip}
   ```

   Example response:

   ```
   /opt/SUNWam/lib/sax.jar:/opt/SUNWam/lib/dom.jar:/opt/SUNWam/
      lib/saaj-api.jar:/opt/SUNWam/lib/common-logging.jar:/opt/
      SUNWam/lib/saaj-impl.jar:/opt/SUNWam/lib/mail.jar:/opt/
      SUNWam/lib/activation.jar:/u01/DB/Oracle/classes12.zip:/u01/
      DB/Oracle/ojdbc14.jar:/u01/DB/JTDS/jtds-1.1.jar:/u01/DB/DB2/
      db2jcc.jar:/u01/DB/DB2/db2jcc_license_cu.jar
   ```

3. Restart the affected domain.

# Manually Modifying the Classpath of a Node Agent

This section shows you how to modify the classpath of a node agent, using the graphical interface and a file-based method.

**Note**

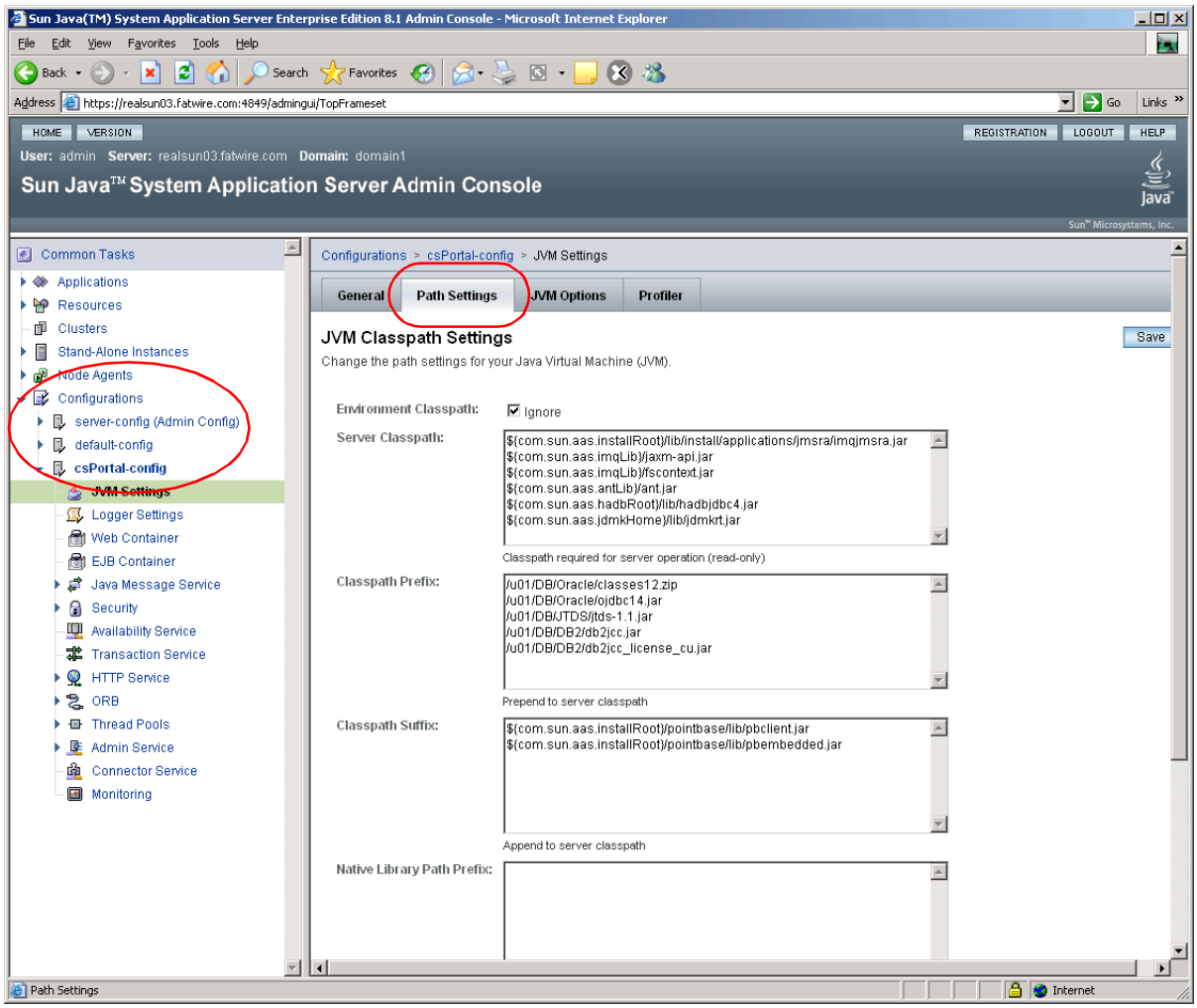
The graphical interface method is preferred. The file-based method is an advanced method for experienced users.

## Graphical Method (preferred)

1. Open the admin console of the Sun JES Application Server and browse the left-hand tree to **Configurations** > ***instance_name*** > **JVM Settings**.
2. In the right-hand pane, select the **Path Settings** tab.

**a.** Add the correct paths to the list box “Classpath Prefix,” making sure to list one `jar` file per line.

**b.** Save the changes by clicking the **Save** button, then restart the instance.




## File-based Method (advanced)

The file-based method for modifying the classpath of a node agent involves editing an XML file. In order to successfully edit the file, you must be especially careful to enter all characters correctly. Complete the following steps:

1. Make a backup of the `domain.xml` file located in `/var/opt/SUNWappserver/domains/domain1/config/`
2. Using a text editor, open `domain.xml` located in `/var/opt/SUNWappserver/domains/domain1/config/`
   **a.** Search for: `<instance name>-name`
   **b.** Search again for: `server-classpath`

**c.** Add a new section called: `classpath-prefix`

It has the following form:

```
classpath-prefix="/<path>/file.jar:
   ${path.separator}<path>/file.jar"
```

**Example:**

```
classpath-prefix="
  /u01/DB/Oracle/classes12.zip:
  ${path.separator}/u01/DB/Oracle/ojdbc14.jar:
  ${path.separator}/u01/DB/JTDS/jtds-1.1.jar:
  ${path.separator}/u01/DB/DB2/db2jcc.jar:
  ${path.separator}/u01/DB/DB2/db2jcc_license_cu.jar"
```

**d.** Save the changes.

**3.** Restart the domain.

# Creating a New Data Source

**Note**

If you are using an Oracle database and require text attributes greater than 2000 characters, you will have to set `cc.bigtext` to `CLOB`. To support `CLOB`, use Oracle database 9.2.0.6 (or a higher supported version). Also use Oracle 10g drivers. (`CLOB` is not supported for lower database versions and for Oracle drivers 9x [thin, type 4].)

You will set `cc.bigtext` to `CLOB` when you run the Content Server installer (as explained in "Running the Installer," on page 58.)

**1.** List all currently created pools and all resources:

```
./asadmin list-jdbc-connection-pools --user admin \
   --password demo4132
```

```
./asadmin list-jdbc-resources --user admin --password demo4132
```

**2.** Create a new data pool for your database type:

- **For Oracle 9 and 10**:
  Include `ojdbc14.jar` and `classes12.zip` in the classpath

```
./asadmin create-jdbc-connection-pool --user admin \
   --password demo4132 --host localhost --port 4849 \
   --datasourceclassname oracle.jdbc.pool.OracleDataSource \
   --restype javax.sql.ConnectionPoolDataSource \
   --property User=JES3:Password=demo4132:URL=\
   "jdbc:oracle:thin:@10.120.16.55:1521:OraCS\
   " csPoolOracle
```

- **For SQL Server 2000**:
  Using the third-party JTDS driver, include `jtds-1.2.jar` in the classpath:

```
./asadmin create-jdbc-connection-pool --user admin \
   --password demo4132 --host localhost --port 4849 \
   --datasourceclassname net.sourceforge.jtds.jdbcx.
   JtdsDataSource --restype javax.sql.DataSource \
   --property User=csuser:Password=demo4132:
   SelectMethod=Cursor:DatabaseName=CS:serverName=\
   "win2k3db.fatwire.com\":portNumber=1433 csPoolJTDS
```

- **For DB2**:
  Using the third-party IBM DB2 drivers, include `db2jcc.jar` and `db2jcc_license_cu.jar`

```
./asadmin create-jdbc-connection-pool --user admin \
   --password demo4132 --host localhost --port 4849 \
   --datasourceclassname
   com.ibm.db2.jcc.DB2ConnectionPoolDataSource \
   --restype javax.sql.ConnectionPoolDataSource \
   --property User=csuser:Password=demo4132:URL=\"jdbc:db2:/
   /aixdb2.fatwire.com:50001/
   CS621JES\":driverType=4:serverName=aixdb2.fatwire.com:dat
   abaseName=CS:portNumber=50001 csPoolIBMDB2
```

**Note**

The data source command below automatically targets the default instance `server` to target another instance. Add the **`--target <instance name>`** option after **`--port <number>`**.

3. Create a new data source that connects to your pool above:

```
./asadmin create-jdbc-resource --user admin \
   --password demo4132 --host localhost --port 4849 \
   --connectionpoolid csPoolOracle jdbc/csDataSourceOracle
```

4. Restart the domain.
5. Test the pool:

```
./asadmin ping-connection-pool --user admin \
   --password demo4132 --host localhost \
   --port 4849 csPoolIBMDB2
```

# Deleting a Data Source

1. List all currently created pools and all resources:

```
./asadmin list-jdbc-connection-pools --user admin \
   --password demo4132
```

```
./asadmin list-jdbc-resources --user admin --password demo4132
```

2. Delete the data pool:

```
./asadmin delete-jdbc-resource --user admin \
   --password demo4132 --host localhost --port 4849 jdbc/
   csDataSourceOracle
```

3. Delete the data source:

```
./asadmin delete-jdbc-connection-pool --user admin \
   --password demo4132 --host localhost --port 4849 csPoolDB2
```

Chapter 6

# Deploying Applications

This chapter provides instructions for deploying Content Server as a web application and a portal.

This chapter contains the following sections:

# Deploying Applications

This section provides instructions for completing the following operations:

- Deploying a Web Application (JES 2005Q4)
- Deploying a Portal Application (Portal Server 7)

## Deploying a Web Application (JES 2005Q4)

**To deploy a web application on JES 2005Q4**

1. List all currently deployed applications:

```
./asadmin list-application-refs --user admin \ --password
   demo4132 --host localhost --port 4849 csPortal
```

2. Deploy Content Server:

> **Note**
>
> The deployment command in this step automatically targets the default instance `server`. To target another instance, add **`--target <instance_name>`** after **`--port <number>`**.

```
./asadmin deploy --user admin --password demo4132 \
   --host localhost --port 4849 --contextroot cs --name cs \
   --target csPortal <cs_application_path>/ContentServer.ear
```

3. List all currently deployed applications to confirm proper deployment:

```
./asadmin list-application-refs --user admin \
   --password demo4132 --host localhost --port 4849 csPortal
```

4. Restart the instance on which you deployed Content Server (not required but strongly suggested):

```
./asadmin stop-instance --host localhost --port 4849 \
   --user admin --password demo4132 csPortal
```

```
./asadmin start-instance --host localhost --port 4849 \
   --user admin --password demo4132 csPortal
```

## Deploying a Web Application (JES 2006Q4)

**To deploy a web application on JES 2006Q4**

1. List all currently deployed applications:

```
./asadmin list-application-refs --user admin --password
   <password> --host localhost --port 4848
```

2. Deploy Content Server:

```
./asadmin deploy --user admin --port 4848 --host localhost \
   --virtualservers server --contextroot servlet --upload \
   --name ContentServer –enabled=true \ <cs_application_path>
   /ContentServer.ear
```

3. List all currently deployed applications to confirm proper deployment:

```
./asadmin list-application-refs --user admin --password
   <password> --host localhost --port 4848
```

4. Restart the domain on which you deployed Content Server:
   a. Stop the domain: **`./asadmin stop-domain <domain-name>`**
   b. Start the domain: **`./asadmin start-domain <domain-name>`**

## Deploying a Portal Application (Portal Server 7)

**Note**

The commands in this section automatically target the default instance, `server`. To target another instance, add `--target <instance_name>` after `--port <number>`.

**To deploy a portal application on Sun Portal Server 7**

1. List all currently deployed applications:

```
/opt/sun/appserver/bin/asadmin list-application-refs --host
<hostname> --port 4849 --user admin server
```

2. Deploy the Spark portlet using the following command:

```
/opt/sun/portal/bin/psadmin deploy-portlet -u amadmin -f /opt/
sun/portal/bin/password -p portal1 -d
"o=DeveloperSample,dc=vm,dc=fatwire,dc=com" /u01/cs/
ominstallinfo/app/cs.war
```

3. List all currently deployed applications to confirm proper deployment:

```
/opt/sun/appserver/bin/asadmin list-application-refs --host
<hostname> --port 4849 --user admin server
```

4. Restart the instance on which you deployed Content Server (not required but strongly suggested):

```
./asadmin stop-instance --host localhost --port 4849 \
   --user admin --password demo4132 csPortal

./asadmin start-instance --host localhost --port 4849 \
   --user admin --password demo4132 csPortal
```

# Undeploying Applications

This section provides instructions for completing the following operations:

- Undeploying a Web Application
- Undeploying a Portal Application

## Undeploying a Web Application

**To undeploy a web application**

Use the following command to undeploy a web application:

```
./opt/SUNWappserver/sbin/asadmin undeploy --user admin --
   password demo4132 \ --host localhost --port 4849 --target
   csPortal cs
```

## Undeploying a Portal Application

**To undeploy a portal application**

1. List all currently deployed applications:

   ```
   /opt/sun/appserver/bin/asadmin list-application-refs --host
      <hostname> --port 4849 --user admin server
   ```

2. Use the following command to undeploy the CS application:

   ```
   ./opt/sun/portal/bin/psadmin undeploy-portlet -u amadmin -f \
       /opt/sun/portal/bin/password -p portal1 -d \
      "o=DeveloperSample,dc=vm,dc=fatwire,dc=com" cs
   ```

Chapter 7

# Setting Up the Sun JES Application Server Load Balancing Plugin

If you plan to install a web server, you need to generate the load balancing plugin that comes with JES application server. This chapter provides instructions for generating the plugin.

This chapter contains the following sections:

# Generating the JES Application Server Load Balancing Plugin

1. Create an `lb-config` file:

```
./asadmin create-http-lb-config  --host localhost --port 4849 \
   --user admin --password demo4132 --target csPortal
   lbconfig_csPortal
```

2. Run the following command for each instance, other than the first, that you want to be referenced in the `lb-config` file:

```
./asadmin create-http-lb-ref --host localhost --port 4849 \
   --user admin --password demo4132 --config lbconfig_csPortal
   csDB2
```

3. Enable the `http-lb-server` for each instance you included in the commands in steps 1 and 2:

```
./asadmin enable-http-lb-server --host localhost --port 4849 \
   --user admin --password demo4132 csPortal
```

4. Create a new health checker. Repeat this step for each instance you included in the commands in steps 1 and 2:

```
./asadmin create-http-health-checker --host localhost \
   --port 4849 --user admin --password demo4132 --config
   lbconfig_csPortal csPortal
```

5. Export the `lb-config` file to disk, then copy it to each web server that you will use:

```
./asadmin export-http-lb-config --host localhost --port 4849 \
   --user admin --password demo4132 --config lbconfig_csPortal
   /u01/lbconfig.xml
```

# Deleting the JES Application Server Load Balancing Plugin

1. Delete the http health checker for each instance:

```
./asadmin create-http-health-checker --host localhost \
   --port 4849 --user admin --password demo4132 --config
   lbconfig_csPortal csPortal
```

2. Delete references to each instance you want to remove:

```
./asadmin delete-http-lb-ref  --host localhost --port 4849 \
   --user admin --password demo4132 --config lbconfig_csPortal
   csPortal
```

3. After all instances have been deleted, remove the `lb-config` file:

```
./asadmin delete-http-lb-config --host localhost --port 4849 \
   --user admin --password demo4132 lbconfig_csPortal
```

Part 3

# Web Server

This part contains information related to the web servers that support Content Server web applications and portals. Note that installing a web server is optional.

This part contains the following chapters:

Chapter 8

# Installing a Web Server

Content Server supports the Apache 2.x and Microsoft IIS web servers.

For instructions on installing the web server, consult the following sources:

- If you are installing an Apache web server on Linux or Solaris, consult our guide *Configuring Third-Party Software* for instructions. If you are using an operating system other than Linux or Solaris, refer to the Apache documentation.
- If you are installing IIS on Windows, consult our guide *Configuring Third-Party Software* for instructions. If you are using a different operating system, refer to the IIS documentation.

Chapter 9

# Configuring the Web Server and JES Load Balancing Plugin

This chapter provides instructions for configuring the web server and the load balancing plugin for use with the web server.

This chapter contains the following sections:

# Configuring the Apache and IIS Web Servers

Before you can use any external web server with the Sun JES application server, you must complete the steps required to create an lb-configuration. For instructions, see "Generating the JES Application Server Load Balancing Plugin," on page 46.

To configure the Apache or IIS web server, refer to the product documentation for instructions.

# Configuring the Load Balancing Plugin for the Web Server

This section provides instructions for configuring the plugin that comes with and connects to Sun JES application server. The following configurations are covered:

- Configuring for Apache 2.x
- Configuring for IIS

**Note**

If you have not generated the load balancing plugin, do so now. For instructions, see "Generating the JES Application Server Load Balancing Plugin," on page 46.

## Configuring for Apache 2.*x*

### A. Configuration Requirements

- **Linux installations**: In order to use the Sun plugin with a Linux server, you must have a copy of the Sun Java Application Server installed before configuring Apache. See the *High Availability Administration Guide* (available from Sun) for the complete set of steps that are needed to install Apache as a front-end web server for Sun Java Application Server on Linux.
- **Solaris installations**: See the *High Availability Administration Guide* (available from Sun) for the complete set of steps that are needed to install Apache as a front-end web server for Sun Java Application Server on Solaris.
- `lbconfig.xml` refers to the file that was copied from the application server. Place `lbconfig.xml` in your `<apache install>/conf` directory.
- Copy from the application server to this server all the `.db` files that are associated with the domain you will be connecting to, and place the files into: `<apache install>/sec_db_files`
- Obtain the file `mod_loadbalancer.so` located in `/opt/SUNWappserver/appserver/lib/webserver-plugin/<platform>/apache2/` for your given platform. Copy the file into the `<apache install> /libexec` directory.

### B. Configuration Steps

1. Edit the `httpd.conf` file by adding the following lines:

```
LoadModule apachelbplugin_module libexec/mod_loadbalancer.so
#AddModule mod_apachelbplugin.cpp
<IfModule mod_apachelbplugin.cpp>
config-file <apache install>/conf/lbconfig.xml
locale en
</IfModule>
```

2. If Apache is located on Solaris, add the following line before the block of lines in step 1 above:

```
LoadFile /usr/lib/libCstd.so.1
```

3. Under `<apache install>`, create a new directory named: `sec_db_files`
4. Copy all the files from the directory `/var/opt/domains/domain1/config/*.db` on the application server to `<apache install>/sec_db_files`.
5. Modify the `apachectl` file located in `<apache install>/bin` by adding the following to the beginning of the `LIB_PATH` statement:

   Linux: `/opt/sun/private/lib`

   Solaris: `/usr/lib/mps/secv1`
6. Stop and restart Apache.

## Configuring for IIS

> **Note**
>
> In order to use the Sun plugin with IIS, you must install a copy of the Sun JES application server locally.

1. Copy the file `lbconfig.xml` to the local machine and place it in: `wwroot\sun-passthrough`
2. Locate the file `sun-passthrough.dll` in the Sun JES application server. Install and copy the file to a directory under: `wwroot\sun-passthrough`
3. Open the **ISAPI Filters** tab and add a new filter:

   **name**: `lbpassthrough`

   **executable**: location of the file copied in step 1
4. Right-click on the website which will forward your request to Sun JES application server and select **New > Virtual Directory**.

   **Alias**: `sun-passthrough`

   **Path**: `wwwroot\sun-passthrough`

   **Permissions**: execute only
5. Add the location of the Sun JES application server `install/bin` directory to the system path.
6. Stop the web server instance that was edited.

7. Restart the server.
8. Start the web server instance that was edited.
9. Edit the file `sun-passthrough.properties` in `wwwroot\sun-passthrough` by modifying the property `lb-config-file` to point to the `lbconfig.xml file` that was copied in step 1.
10. Restart the web server.

Part 4

# Content Server

This part shows you how to proceed through the installation of Content Server. It contains the following chapters:

- Chapter 10, “Installing and Configuring Content Server”

Chapter 10

# Installing and Configuring Content Server

Content Server can be installed on any instance, but certain requirements must be met prior to the installation. This chapter covers the pre-installation requirements and provides instructions for installing Content Server as a web application and a portal.

This chapter contains the following sections:

# Installing Content Server

After completing Steps I – IV.1 in the "Installation Quick Reference," on page 9, you install Content Server using the provided installer. The installation process consists of two stages.

In the first stage, the installer gathers necessary configuration information, installs the file structure, and deploys the CS application. At the end of the first stage, the installer displays an "Installation Actions" window describing the steps you must perform before proceeding to the second stage of the installation. The first of those steps will be to deploy the CS application (for instructions, see Chapter 6, "Deploying Applications").

If you are using an Oracle database and require text attributes greater than 2000 characters, you must set the `cc.bigtext` property to `CLOB` after the CS application is deployed. (For instructions, see step 5 in the next section.)

If the first stage fails, the installer allows you to go back and modify your configuration options (except the database type), and retry the installation.

**Note**

If you need to change the type of database you have specified during the installation, you must delete the installed CS file structure and restart the installation.

In the second stage, the installer populates the database with the tables and data required for Content Server to function. If the second stage fails, the file structure and database tables must be deleted and the installation restarted from the beginning.

## Running the Installer

**To install Content Server**

1. Make sure you have completed Steps I – IV.1 in the "Installation Quick Reference," on page 9.
2. Extract the Content Server installer archive into a temporary directory.
3. Change to the temporary directory containing the installer files.
4. Execute the installer script:
   - On Windows: **`csInstall.bat`**
   - On Unix: **`csInstall.sh`**

   The installer provides online help at each screen. Read the online help for detailed explanations of the options that are presented in each screen. If you encounter problems during the installation process, consult the online help for possible causes and solutions.
5. If you are using an Oracle database and require text attributes greater than 2000 characters, you must set the `cc.bigtext` property to `CLOB`. When the installer displays the "Installation Actions" pop-up window, complete step 1 displayed in the window, then do the following:
   a. Open the Property Editor by clicking the **Property Editor** button.
   b. In the Property Editor, open the `futuretense.ini` file.

c. Click the **Database** tab.

d. Locate the `cc.bigtext` property and set its value to `CLOB`.

e. Save your changes and close the Property Editor.

f. Continue on to step 3 displayed in the "Installation Actions" window.

6. When the installation completes successfully, perform the post-installation steps in the next section as required for your installation.

# Post-Installation Steps

When the installation process completes successfully, perform the following steps:



## A. Setting File Permissions (Unix Only)

If you installed Content Server on Unix, you must grant the "executable" permission to all files in the `<cs_install_dir>/bin` directory. To do so, perform the following steps:

1. Change to the `<cs_install_dir>/bin` directory.
2. Run the following command: **`chmod +x *`**
3. Restart the CS application.

## B. Verifying the Installation

> **Note**
>
> If you are using Sun JES Application Server 8.2, note the following:
>
> Before logging in to the Dashboard interface for the first time, log in to the Advanced interface first.

In this section, you will log in to your installation in order to verify that it functions. This section covers the following types of installations:

- Web Installations
- Portal Installations

### Web Installations

If you installed Content Server as a web application, log in as the administrator to verify your installation.

### Logging in to the Advanced Interface

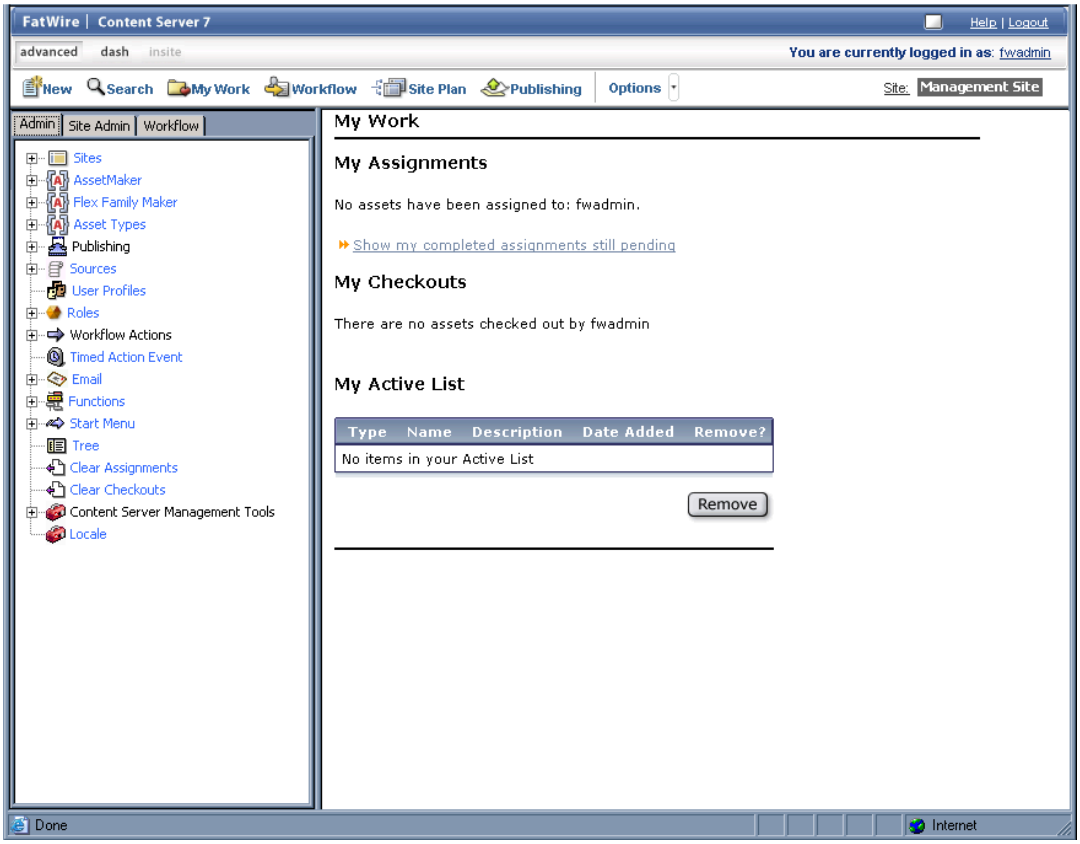
1. Point your browser to the following URL:

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

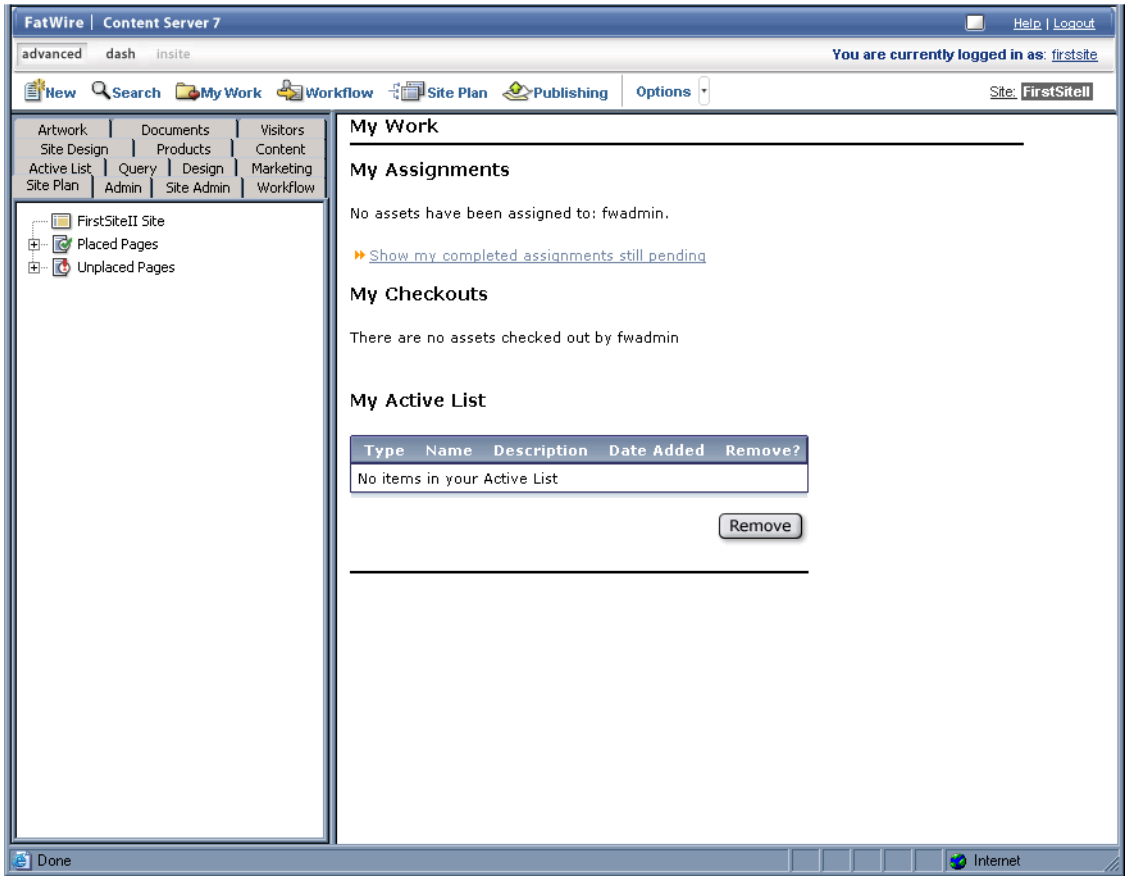
   Content Server displays the Advanced interface login page.


2. Enter the following credentials:
   - User name: **fwadmin**
   - Password: **xceladmin**
3. Click **Login**.

   Depending on whether you installed sample sites, 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.



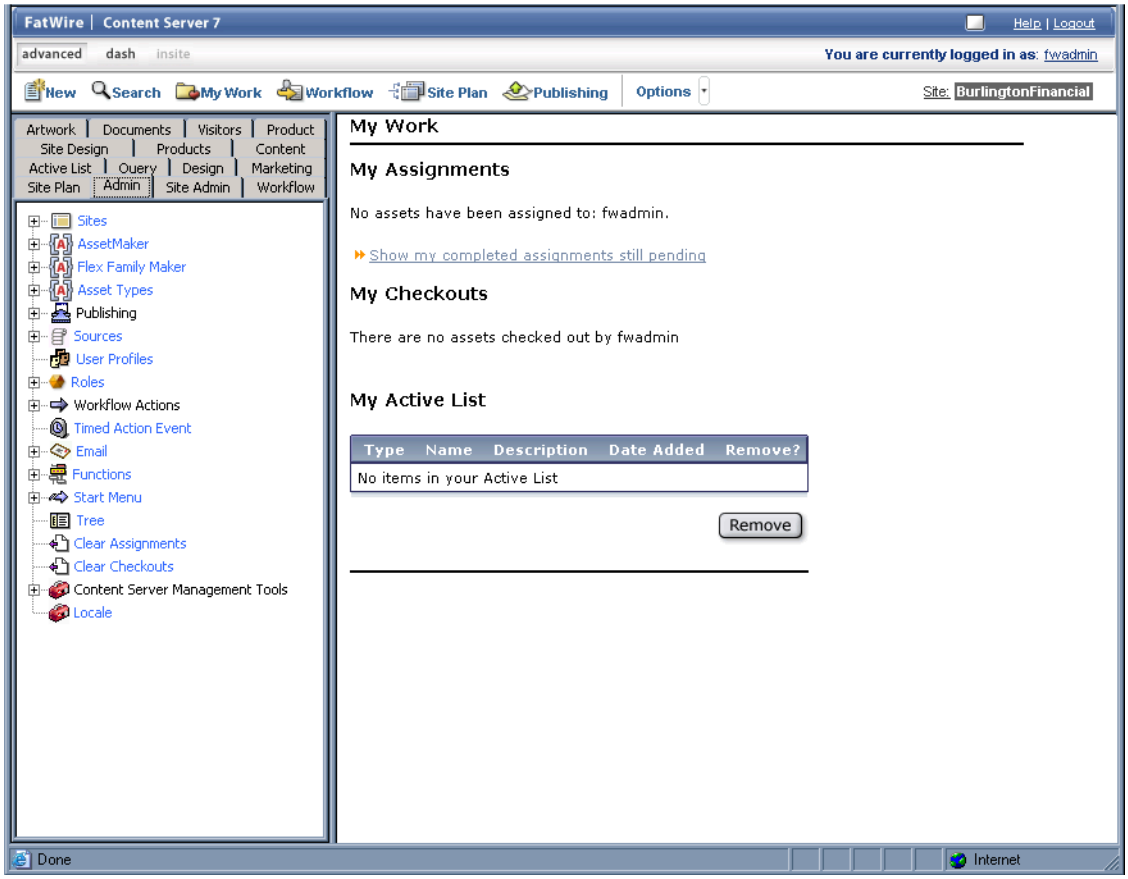

- If you installed more than one sample site, Content Server displays the "Select Site" screen. In such case, select the sample site you wish to log in to.

**You have logged in as fwadmin**
Select a site that you want to work on:

| Site | Description | Assigned Role |
|---|---|---|
| BurlingtonFinancial | Burlington Financial | GeneralAdmin, ArtworkEditor, Approver, ContentEditor, WorkflowAdmin, Analyst, Pricer, Marketer, SiteAdmin, Checker, MarketingAuthor, MarketingEditor, Author, Editor, ContentAuthor, Expert, ProductAuthor, ProductEditor, DocumentAuthor, DocumentEditor, Designer, ArtworkAuthor |
| FirstSiteII | FirstSite Mark II | ArtworkEditor, GeneralAdmin, Approver, ContentEditor, WorkflowAdmin, Analyst, Pricer, Marketer, SiteAdmin, Checker, MarketingAuthor, MarketingEditor, Author, Editor, ContentAuthor, Expert, ProductAuthor, ProductEditor, DocumentAuthor, ArtworkAuthor, Designer, DocumentEditor |
| GE Lighting | GE Lighting | Designer, SiteAdmin, WorkflowAdmin, GeneralAdmin |

[Log in again]

When you select a site, you are logged in to that site.




### Logging in to the Dashboard Interface

1. Point your browser to the following URL:

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

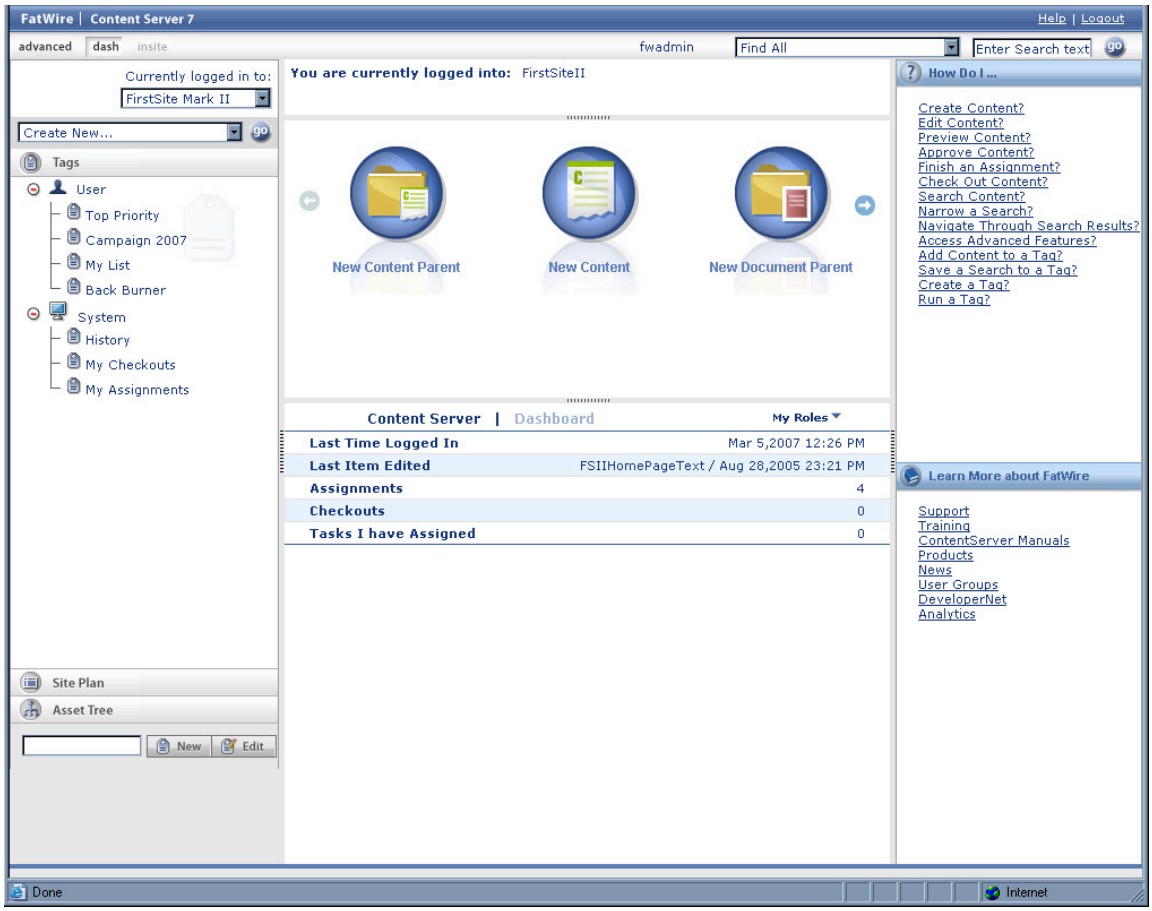
   Content Server displays the Dashboard interface login page.


2. Enter the following credentials:
   - User name: **fwadmin**
   - Password: **xceladmin**

3. Click **Login**.

   Depending on whether you installed sample sites, 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 Dashboard interface until at least one site exists on your system.
   - If you installed one sample site, you are logged in to that site.



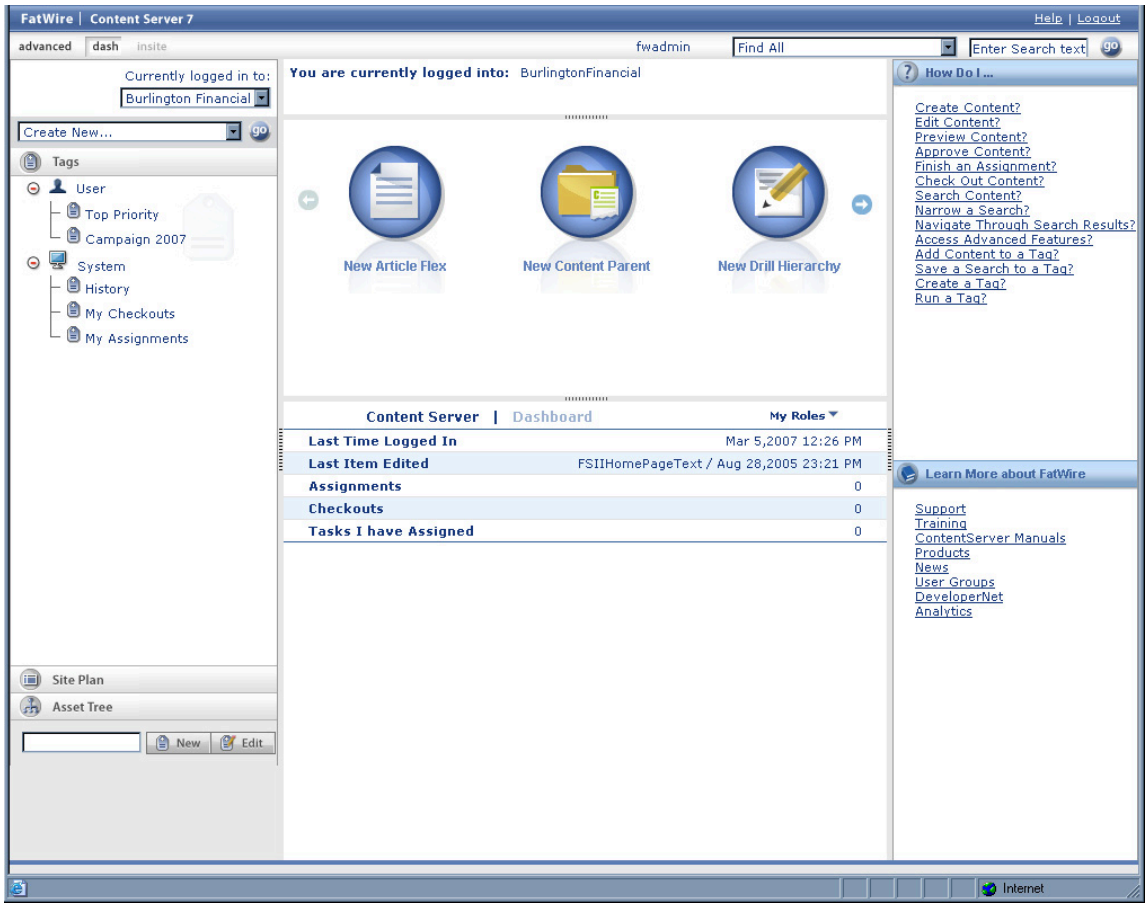

   - If you installed more than one sample site, Content Server displays the "Select Site" screen. In such case, select the sample site you wish to log in to.

**You are currently logged in as 'fwadmin'**
Select a site that you want to work on:

| Select | Name | Description | Roles |
|---|---|---|---|
| ◉ | BurlingtonFinancial | Burlington Financial | ArtworkEditor, GeneralAdmin, Approver, ContentEditor, WorkflowAdmin, Analyst, Pricer, Marketer, SiteAdmin, Checker, MarketingAuthor, MarketingEditor, Author, Editor, ContentAuthor, Expert, ProductAuthor, ProductEditor, DocumentAuthor, DocumentEditor, Designer, ArtworkAuthor |
| ○ | GE Lighting | GE Lighting | Designer, SiteAdmin, WorkflowAdmin, GeneralAdmin |
| ○ | FirstSiteII | FirstSite Mark II | ArtworkEditor, GeneralAdmin, Approver, ContentEditor, WorkflowAdmin, Analyst, Pricer, Marketer, SiteAdmin, Checker, MarketingAuthor, MarketingEditor, Author, Editor, ContentAuthor, Expert, ProductAuthor, ProductEditor, DocumentAuthor, ArtworkAuthor, Designer, DocumentEditor |

**Select Site**

When you select a site, you are logged in to that site.



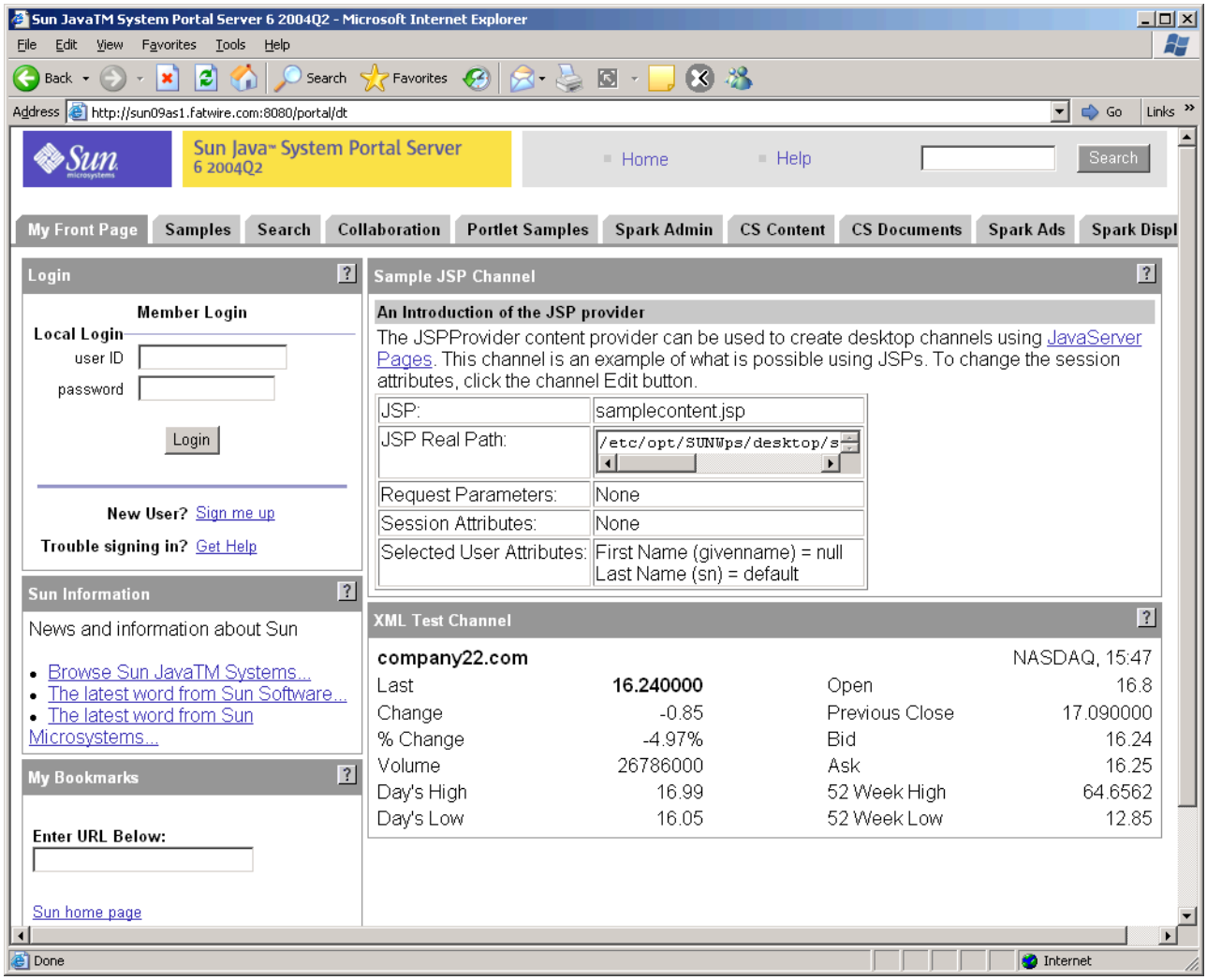

Content Server is now ready for configuration. Follow the steps in the rest of this chapter, starting with "D. Integrating with LDAP (Required for Portal Installations)," on page 87.

## Portal Installations

If you installed a Content Server portal, log in to the portal interface by doing the following:

1. Point your web browser to the following URL:
   `http://<hostname>:<port>/<URI>/portal/dt`
2. Log in with the following credentials:
   - User name: **fwadmin**
   - Password: **xceladmin**

   The "Sun Java System Portal Server" page is displayed and the Content Server portal is now ready for configuration. Follow the steps in the rest of this chapter.



# C. Configuring the Portal Interface (Portal Installations Only)

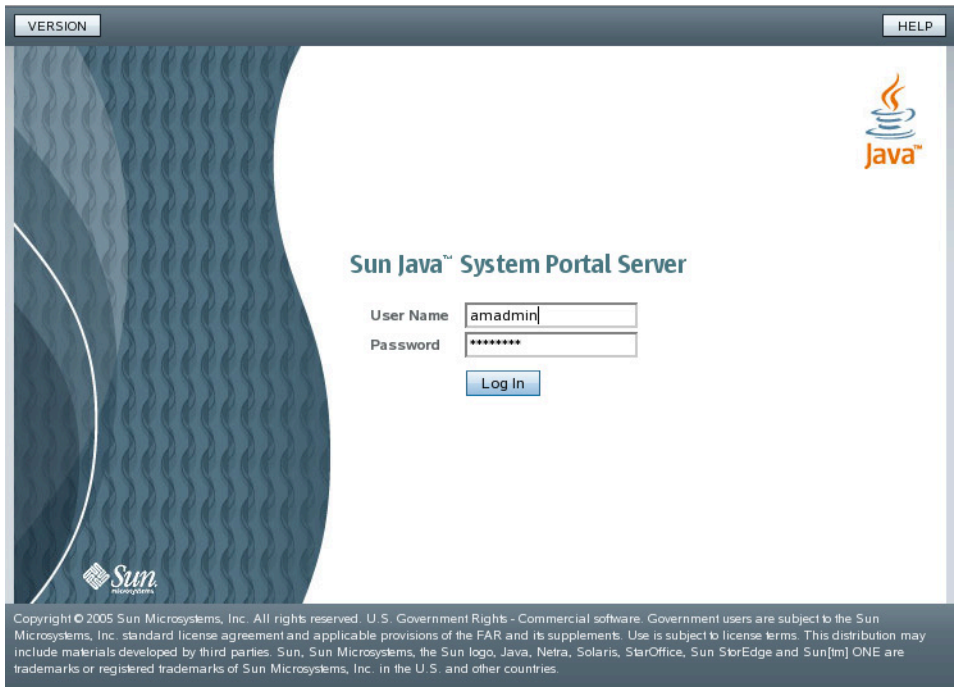
In this section, you will create portlet channels, select the portlets you wish to display, and create the container channels on which to display the portlets.

**Note**

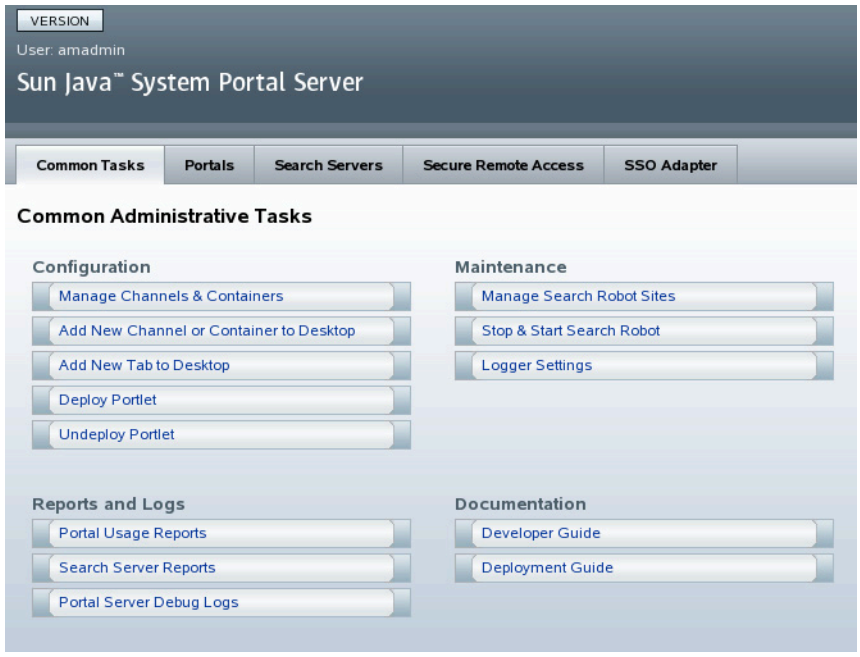
In this guide, “container channel” is also called “display page.”

### To configure the portal interface

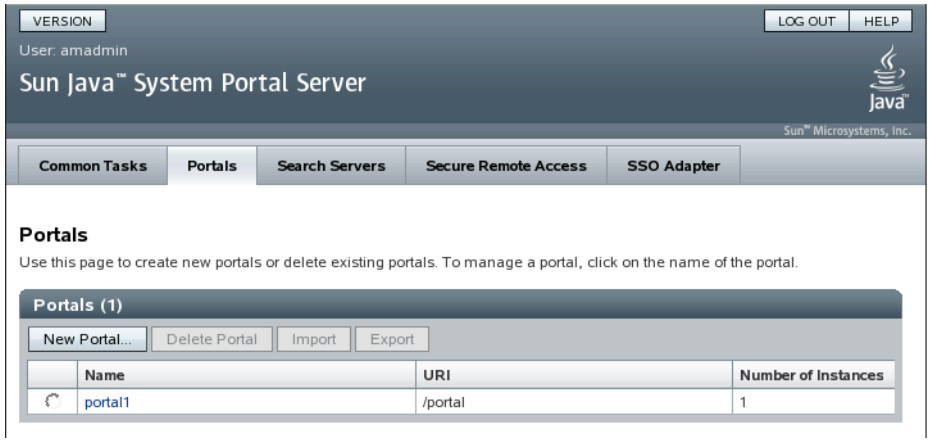
1. Create a new portal tab:
   a. Access the Sun Portal Server Admin Console (`http://<servername>:8080/psconsole`) and log in as the `amadmin` user.



**b.** Select the **Portals** tab.

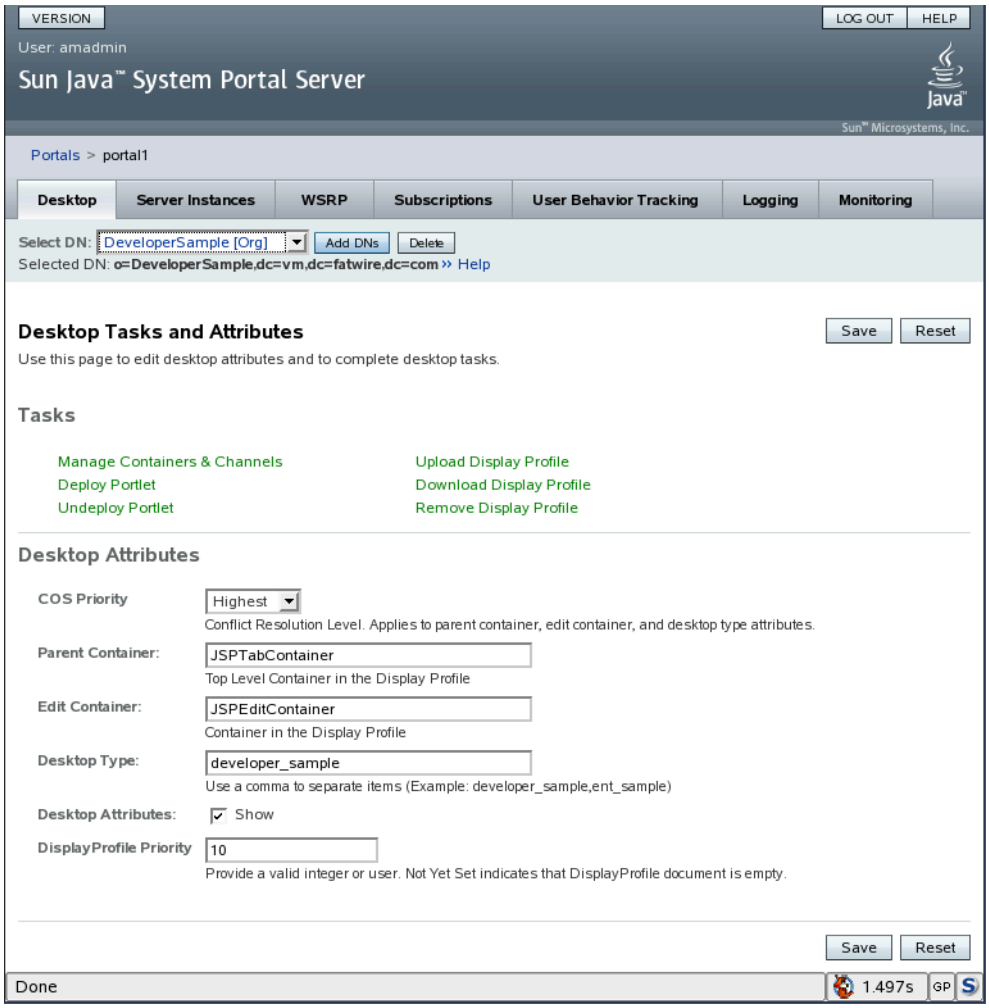



**c.** Select the portal on which Content Server is installed.

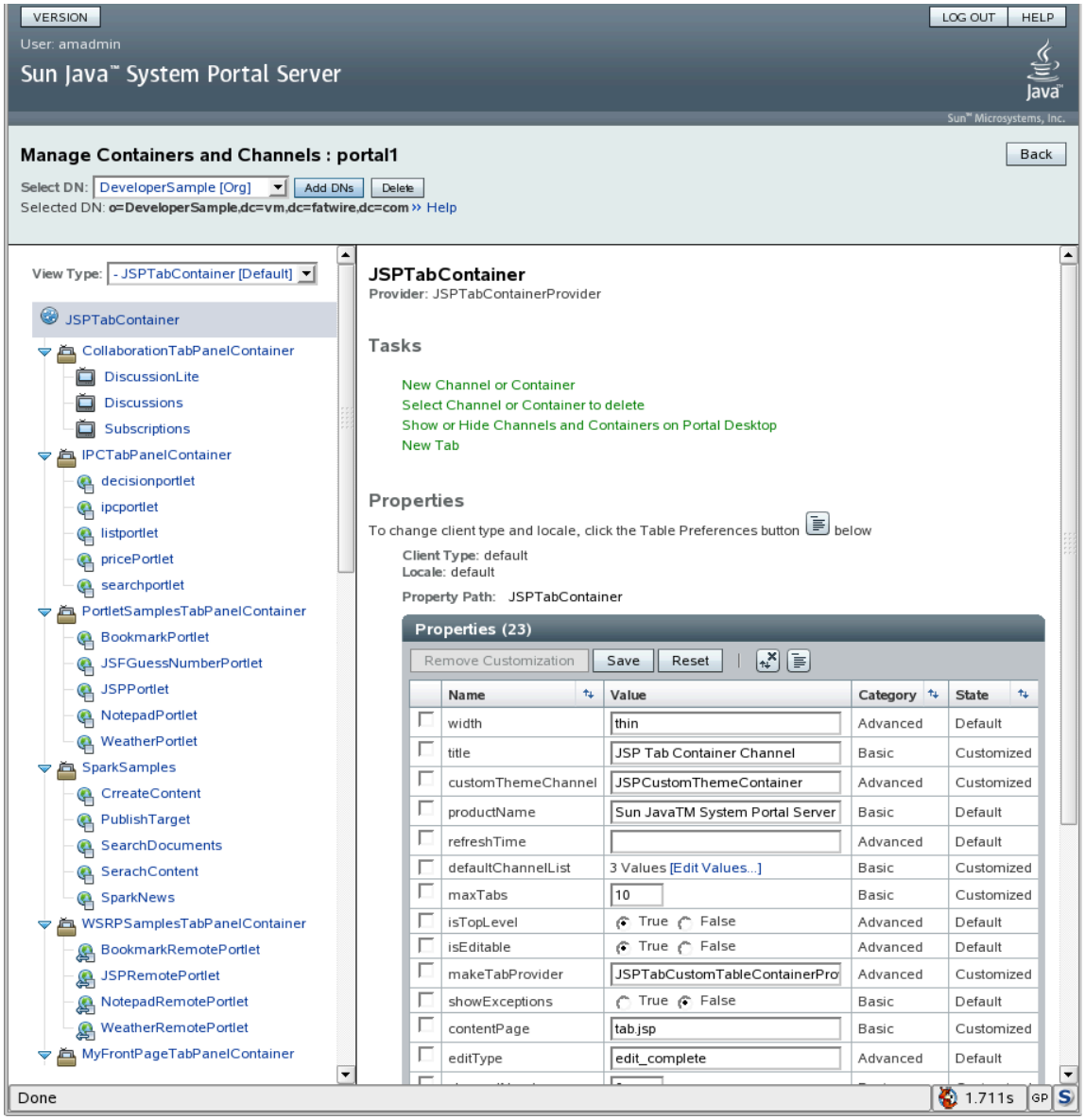



**d.** In the "Select DN:" drop-down list, select **DeveloperSample [Org]**.

**e.** In the "Tasks" area, click the **Manage Containers & Channels** link.

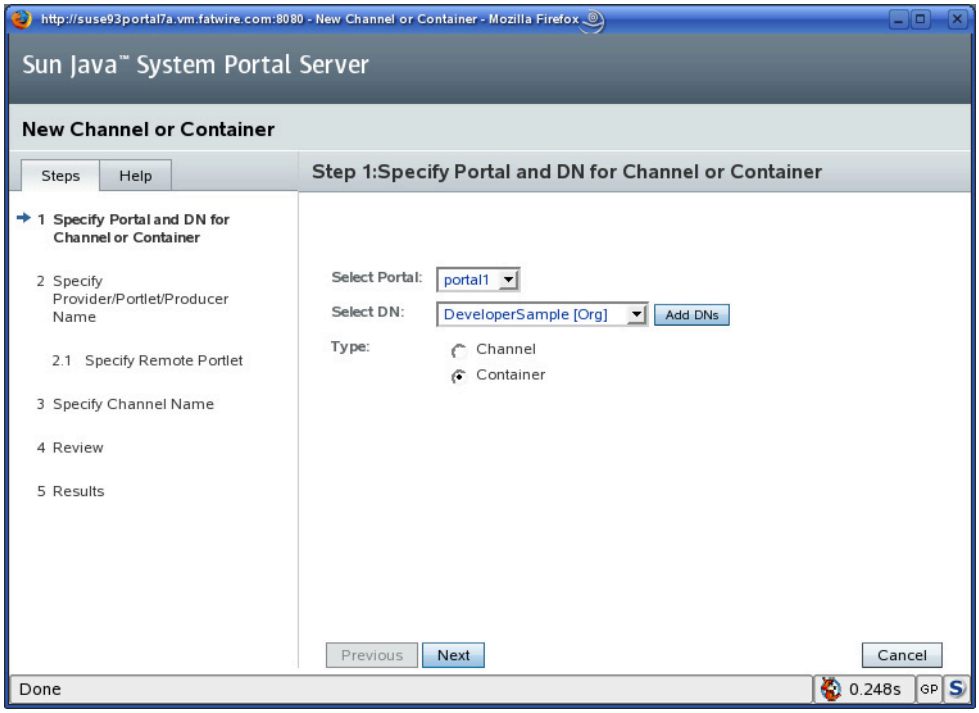


**f.** In the “View Type” drop-down list on the “Manage Containers and Channels” page, select - **JSPTabContainer [Default]**.

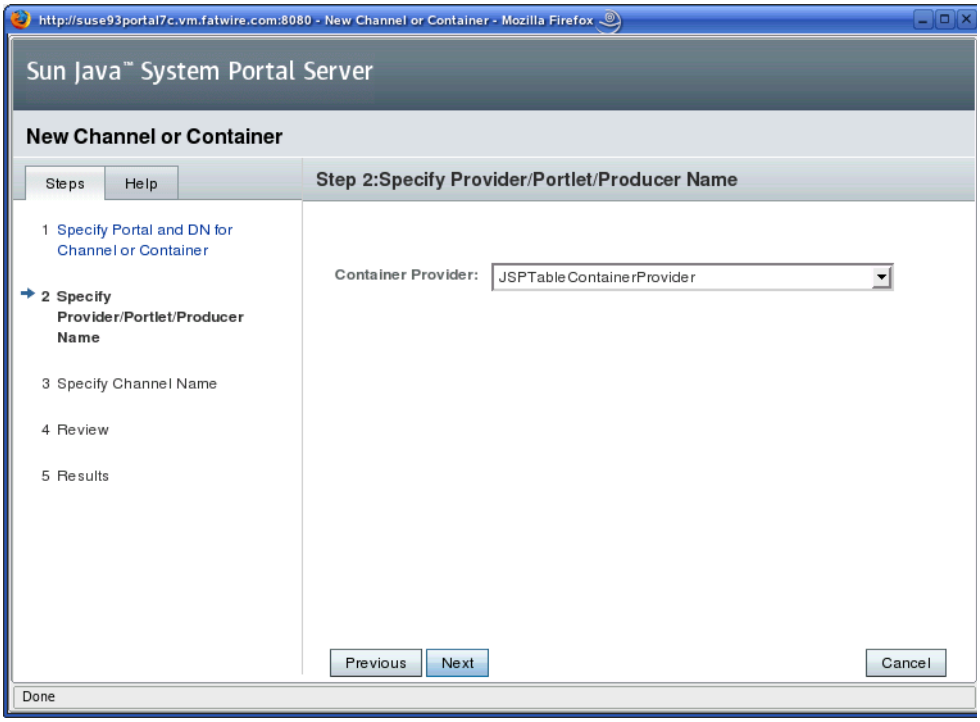



**g.** In the “Tasks” area, click the **New Channel or Container** link.

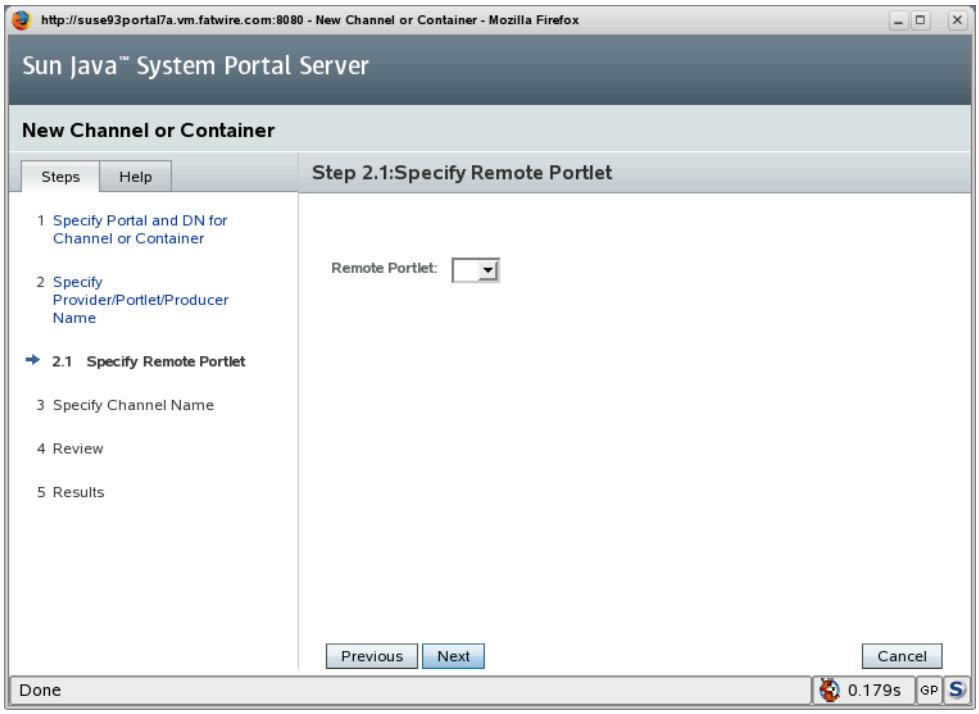
**h.** In the “New Channel or Container” pop-up window, select **Container** and click **Next**.



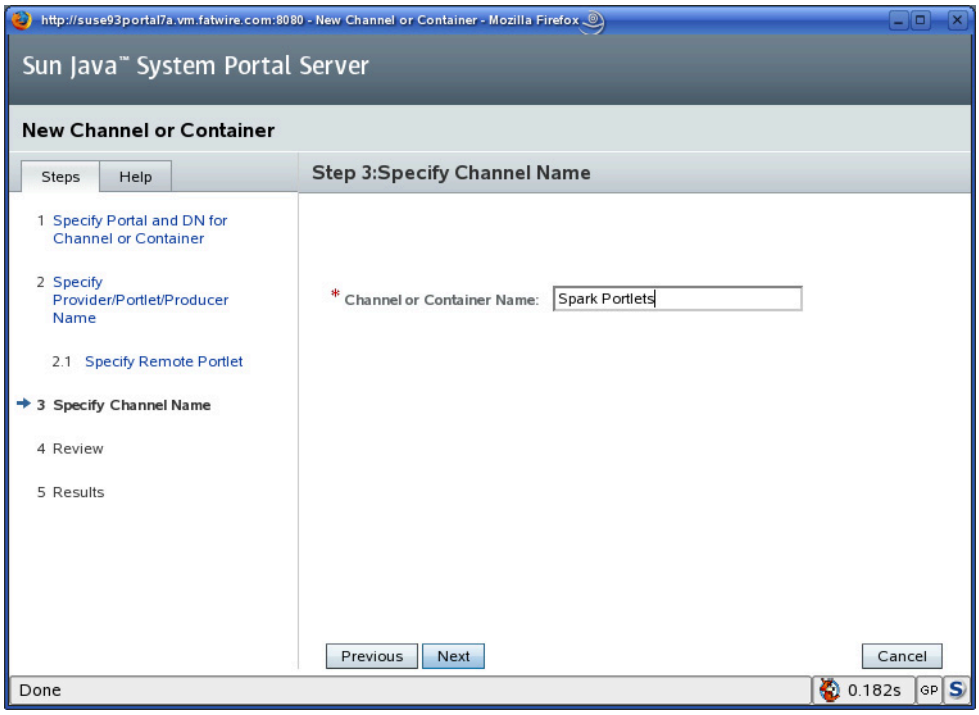

**i.** In the “Container Provider” drop-down list, select **JSPTabContainerProvider** and click **Next**.



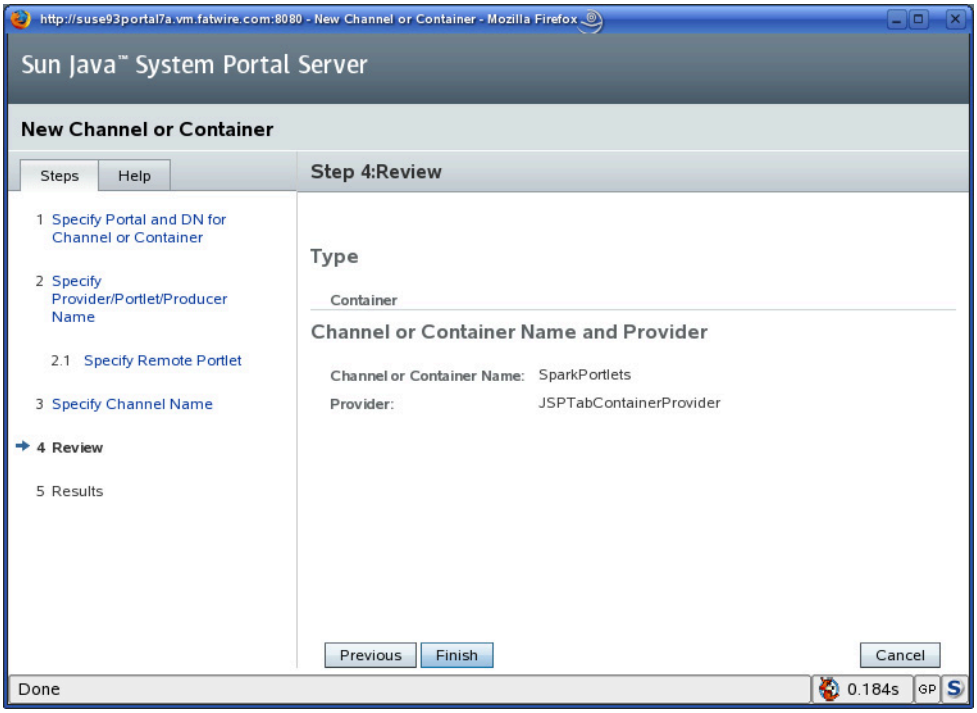
**j.** Do not select anything in the “Remote Portlet” drop-down list; click **Next**.




**k.** Enter a name for the new portal tab and click **Next**.

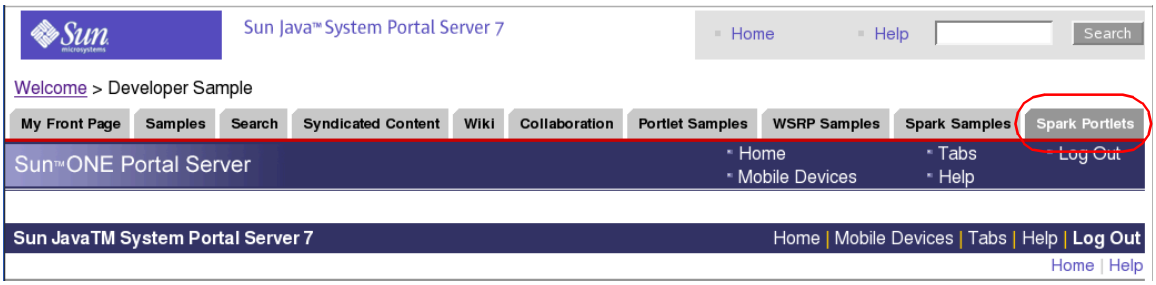


l. In the “Review” screen, click **Finish**.

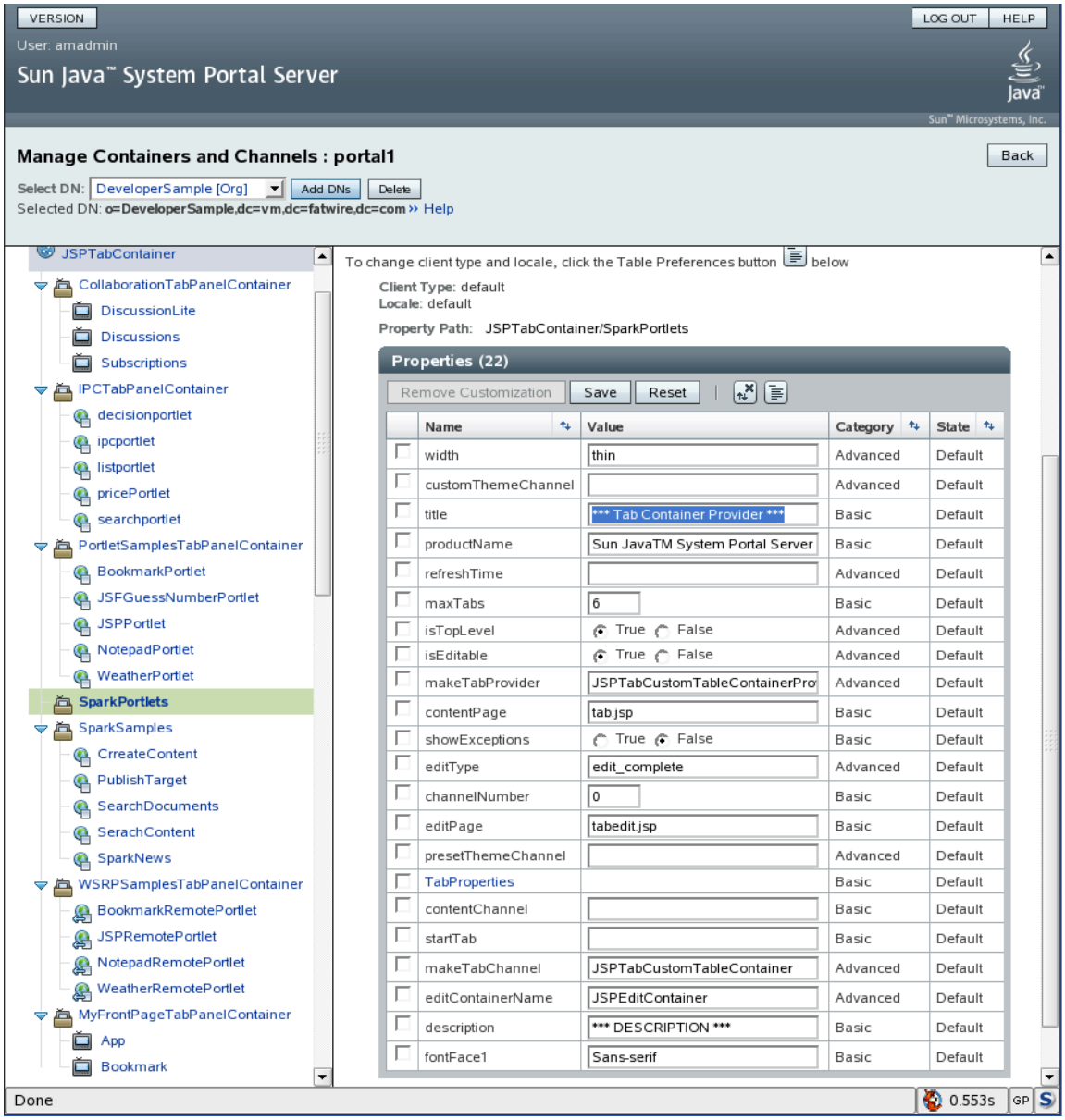



m. In the “Results” screen, click **Close**.

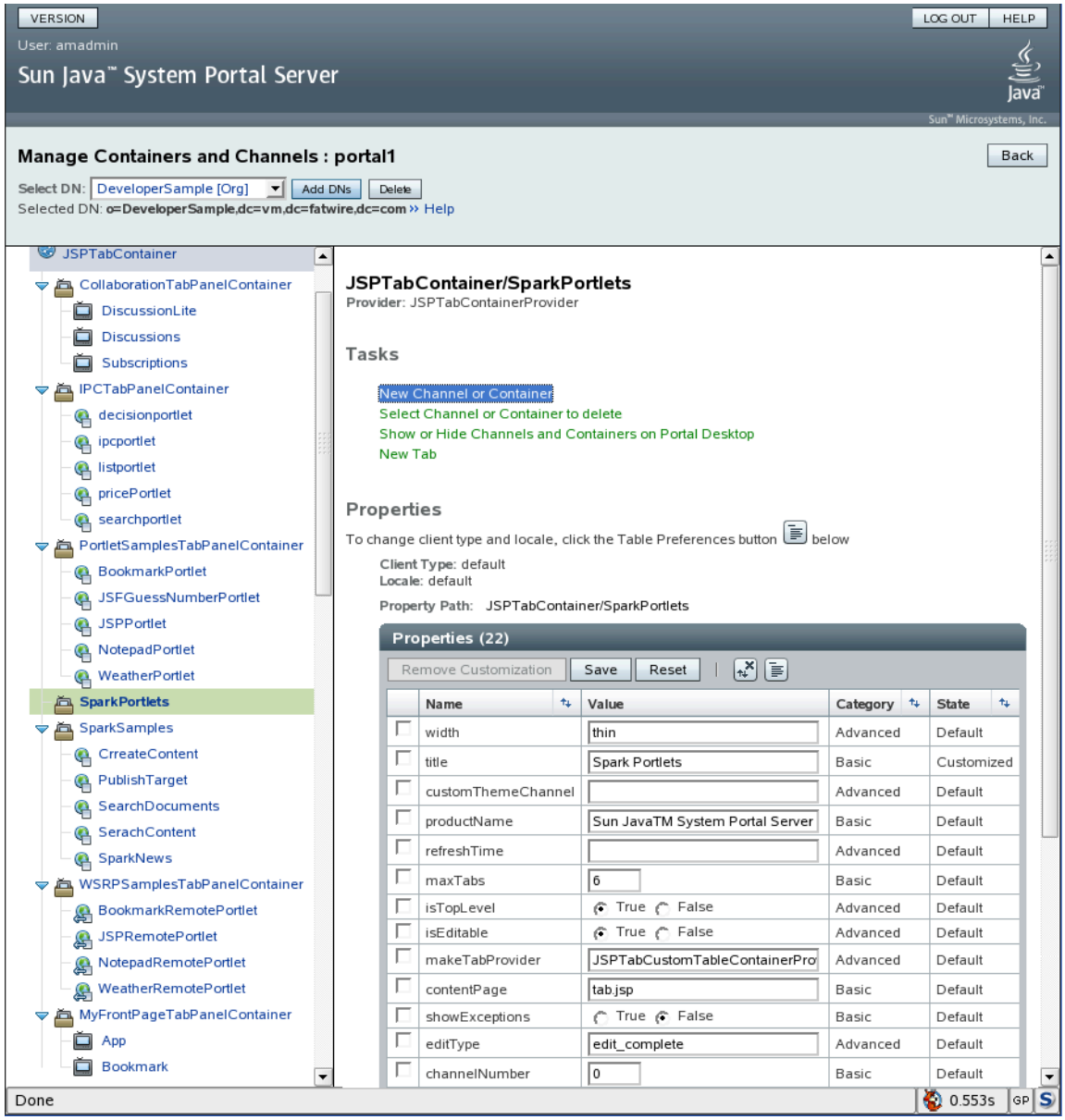
The new tab container appears in the left-hand pane; the tab it represents appears in your portal.



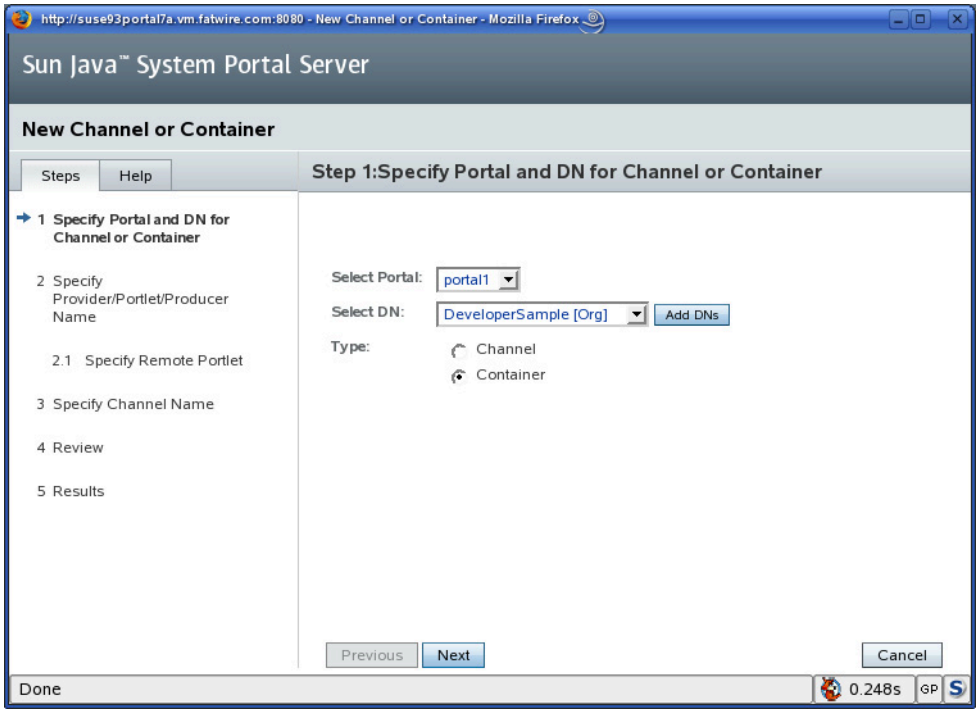
**n.** In the left-hand pane, select the tab container you just created and enter a descriptive value for the **title** property, then click **Save**.



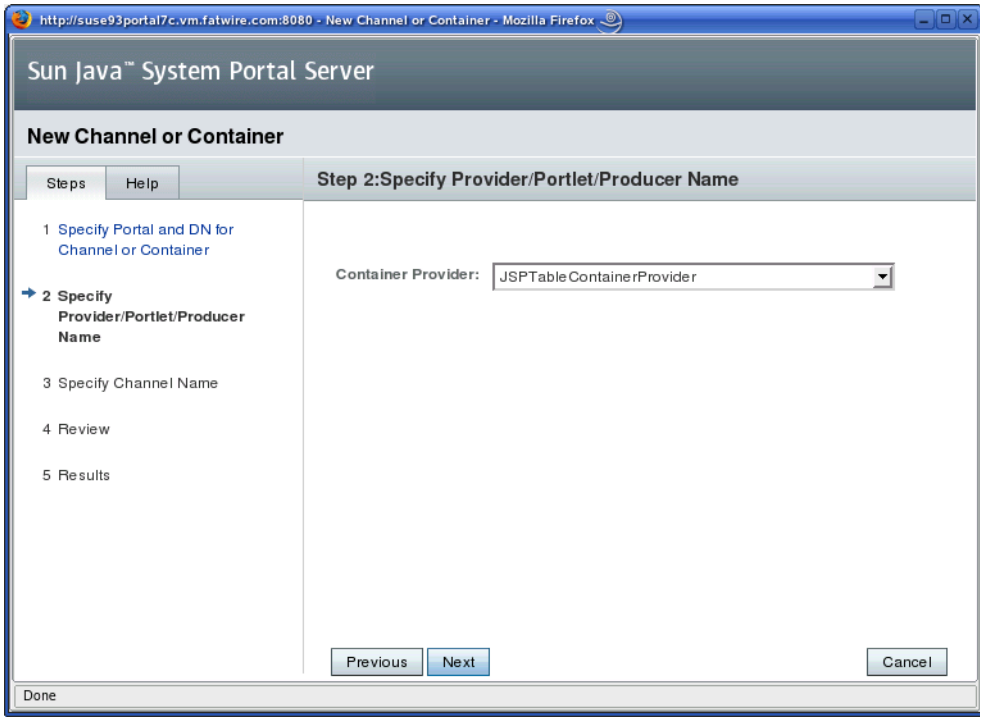
2. Create new containers under the tab container you created in step 1:
   a. In the left-hand pane, select the tab you created in step 1.
   b. In the right-hand pane, click **New Channel or Container**.



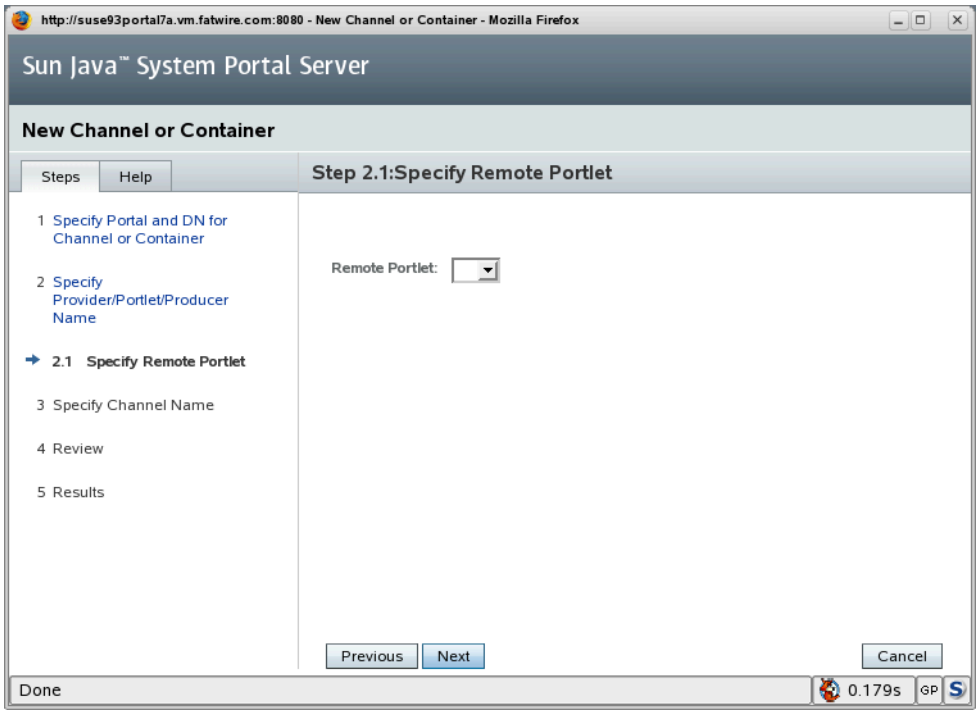
**c.** In the "New Channel or Container" pop-up window, select **Container** and click **Next**.



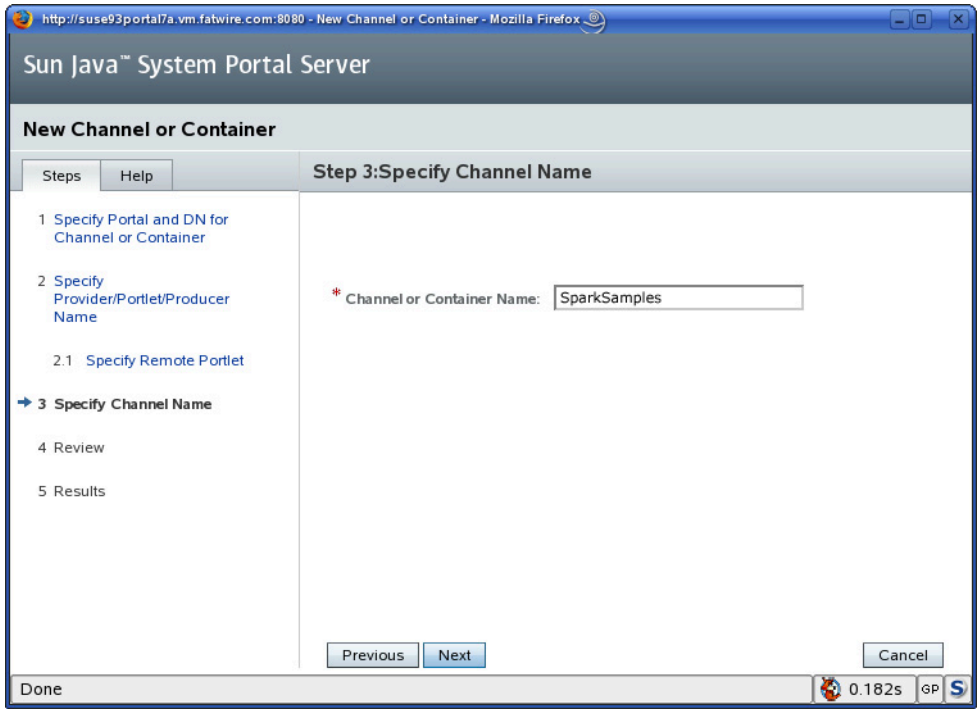

**d.** In the "Container Provider" drop-down list, select **JSPTableContainerProvider** and click **Next**.



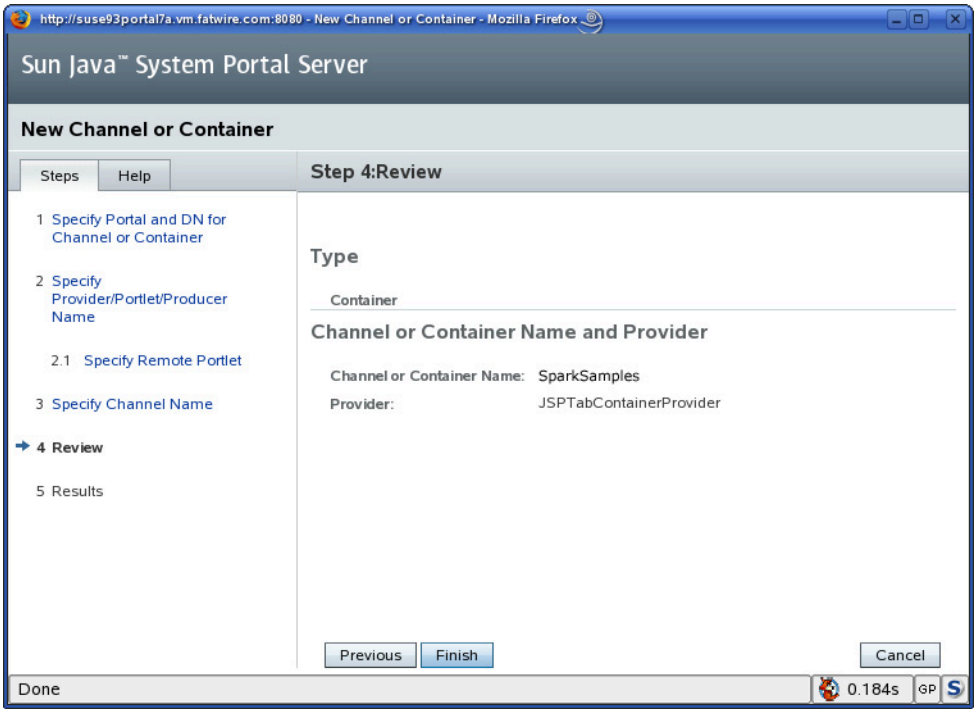
**e.** Do not select anything in the “Remote Portlet” drop-down list; click **Next**.




**f.** Enter a name for the new container and click **Next**.



**g.** In the “Review” screen, click **Finish**.



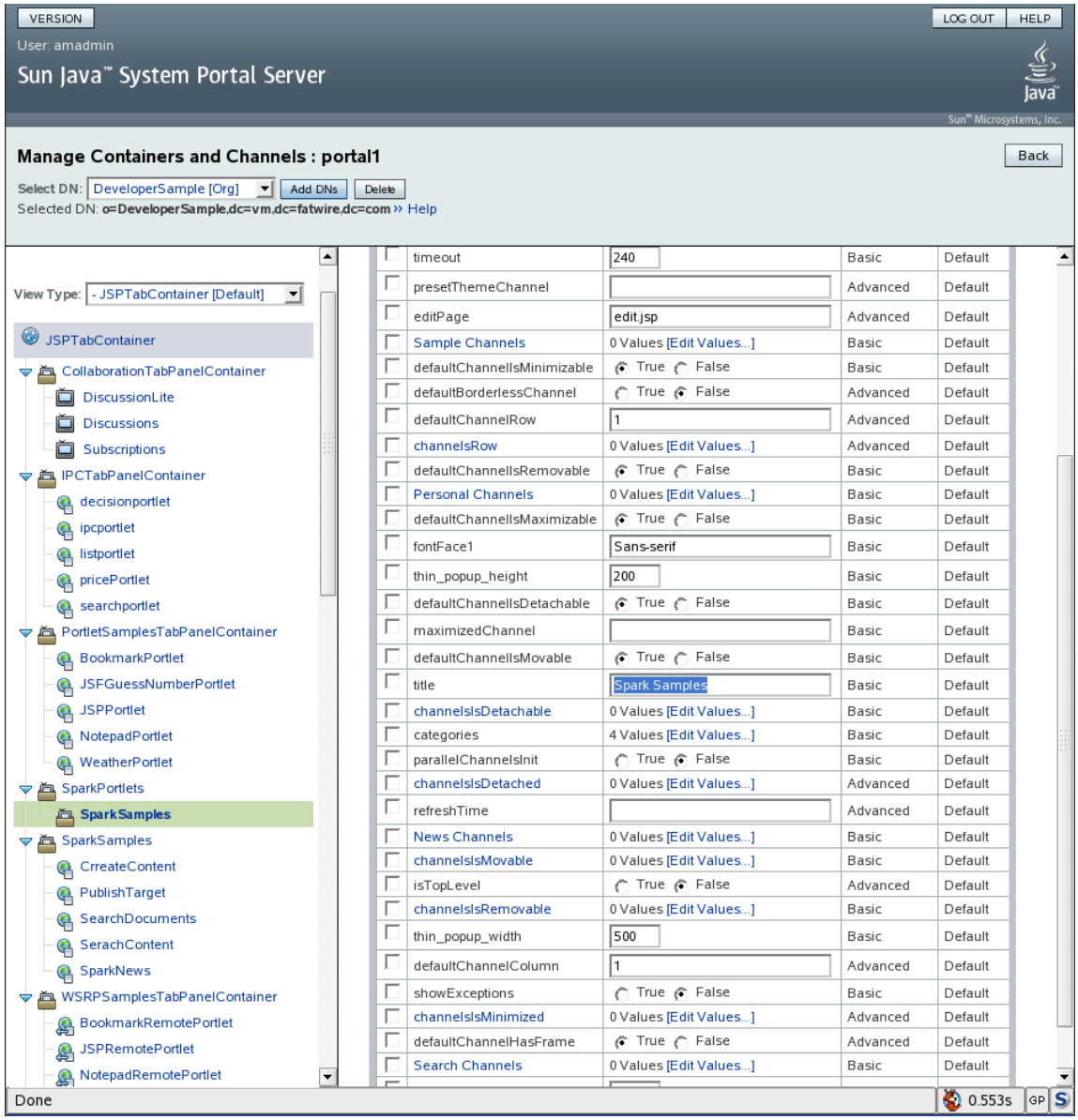

**h.** In the “Results” screen, click **Close**.

The new container appears below the tab container you created in step 1.

i. In the left pane, selected the newly created container and enter a descriptive value for the **title** property. Suggested container names are the following:

- FatWire Spark
- FatWire Content
- FatWire Documents
- FatWire Admin

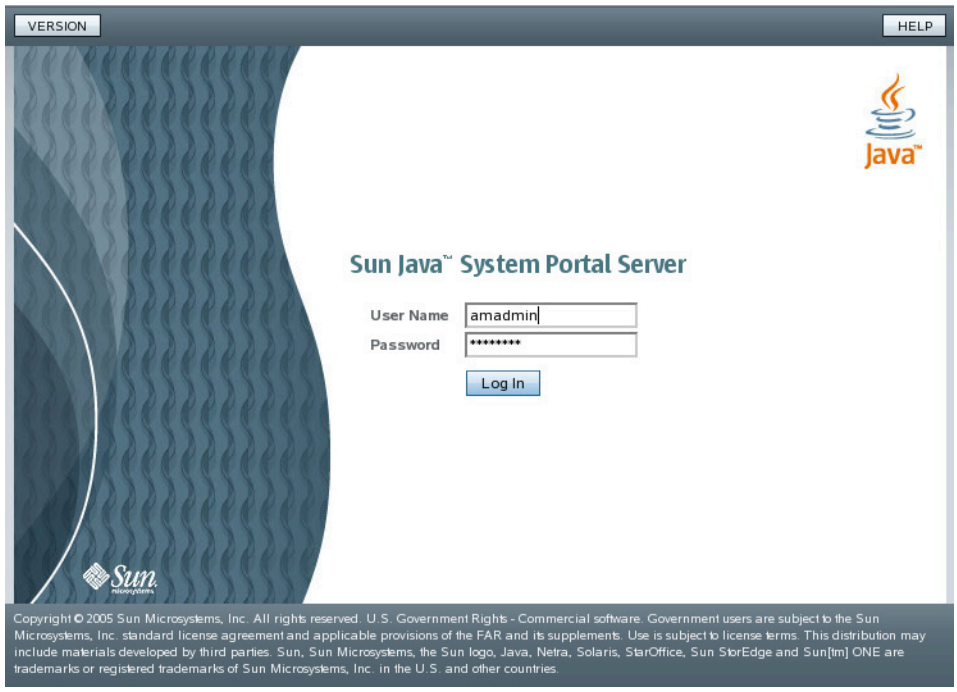
When you are finished, click **Save**.




j. Repeat steps a – i to create additional containers.

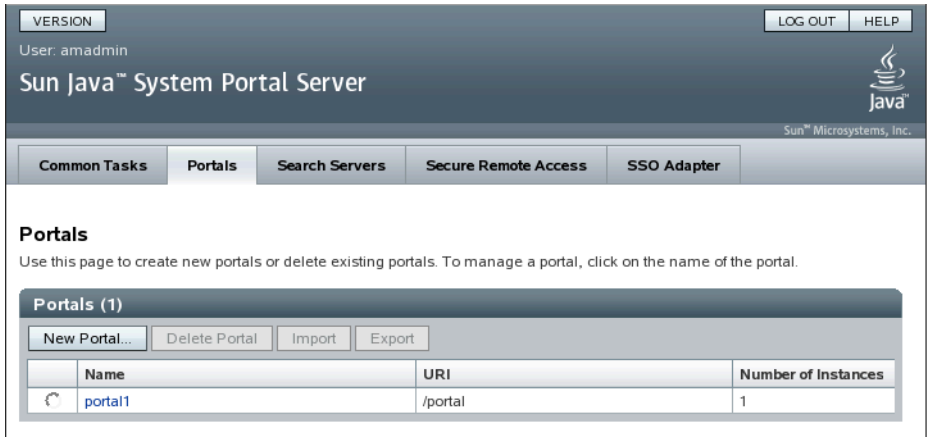
k. When you are finished, log out of the Portal Server Admin Console to save your changes.

3. Add portlets to each tab container:
   a. Access the Sun Portal Server Admin Console (`http://<servername>:8080/psconsole`) and log in as the `amadmin` user.



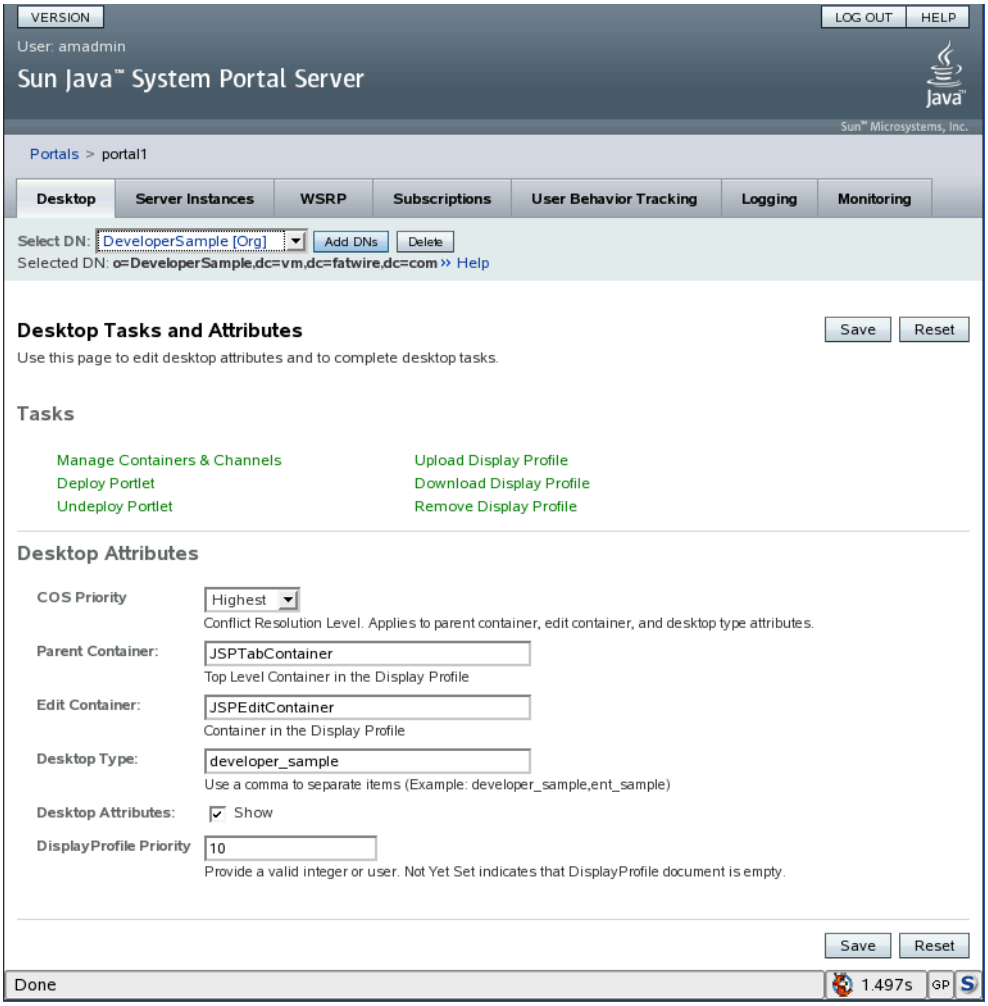

   b. Select the **Portals** tab.

**c.** Select the portal on which Content Server is installed.

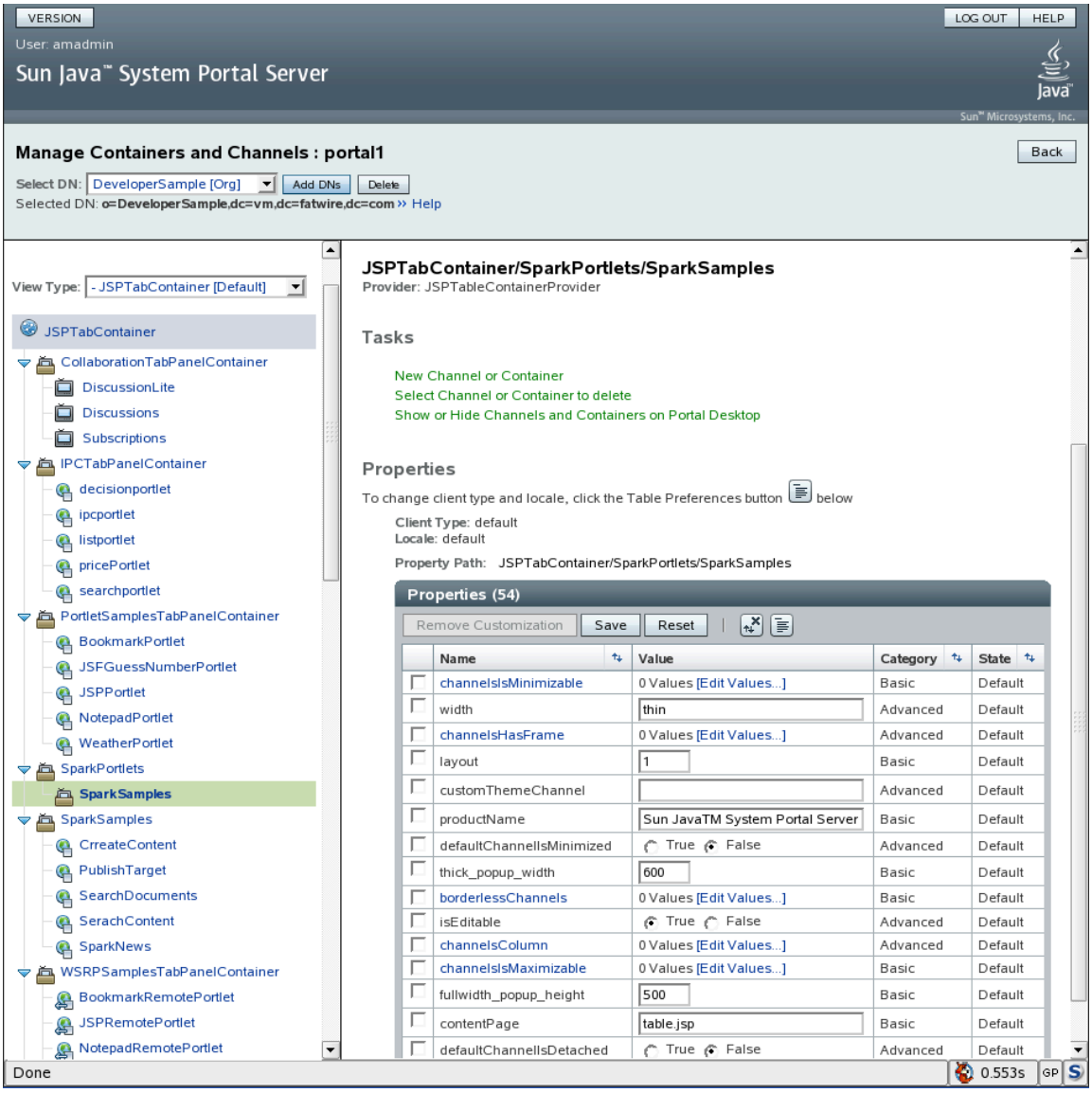



**d.** In the "Select DN:" drop down list, select **DeveloperSample [Org]**.

**e.** In the "Tasks" area, click the **Manage Containers & Channels** link.



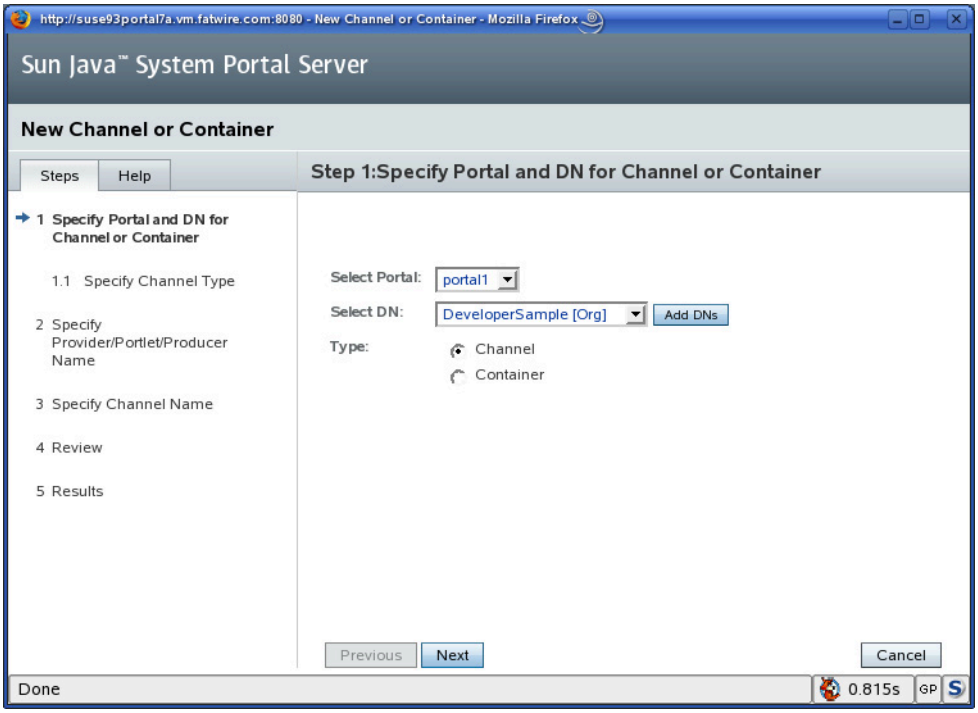
**f.** In the “View Type” drop-down list on the “Manage Containers & Channels” page, select **- JSPTabContainer [Default]**.



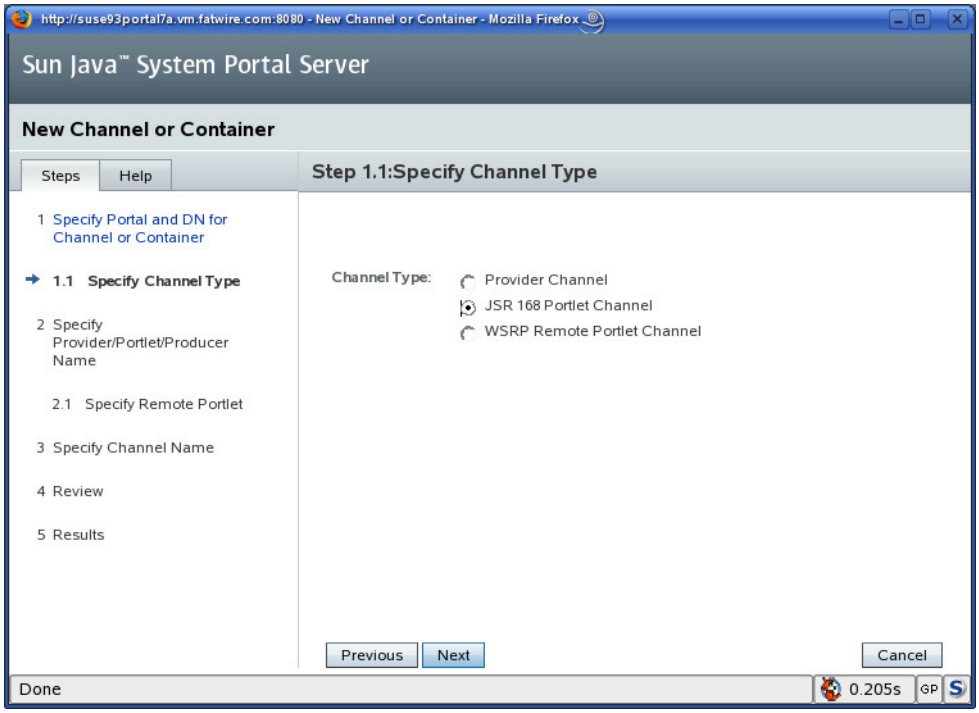

**g.** In the left-hand pane, select the container to which you want to add a portlet.

**h.** In the right-hand pane, click the **New Channel or Container** link.

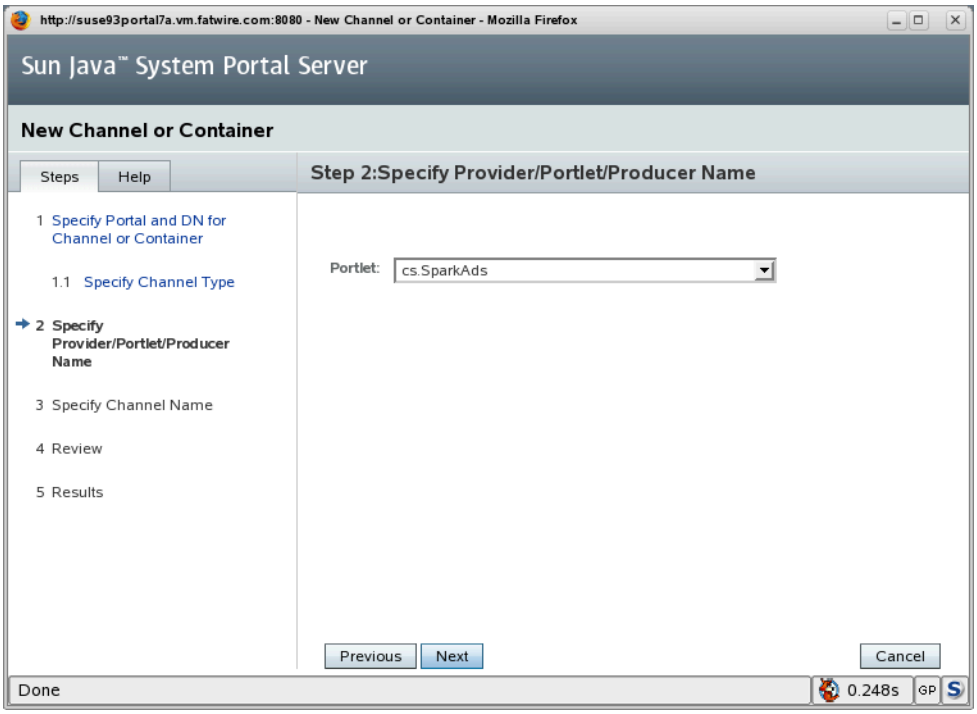
**i.** In the "New Channel or Container" pop-up window, select **Channel** and click **Next**.



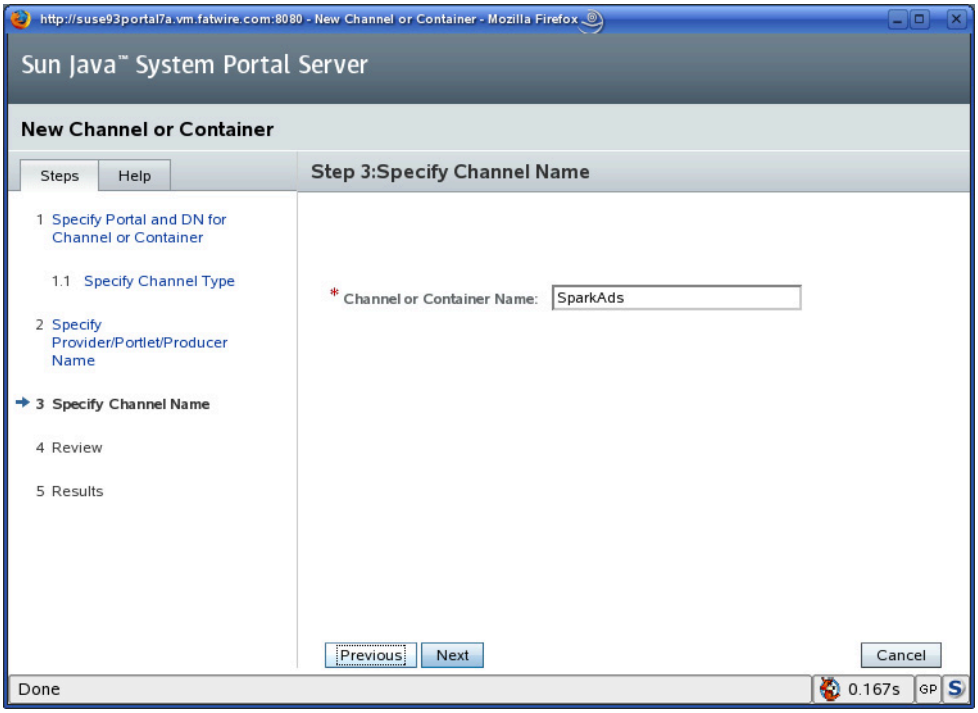

**j.** In the "Channel Type" drop-down list, select **JSP 168 Portlet Channel**.



**k.** Select the portlet you wish to add to the container (display page) and click **Next**.

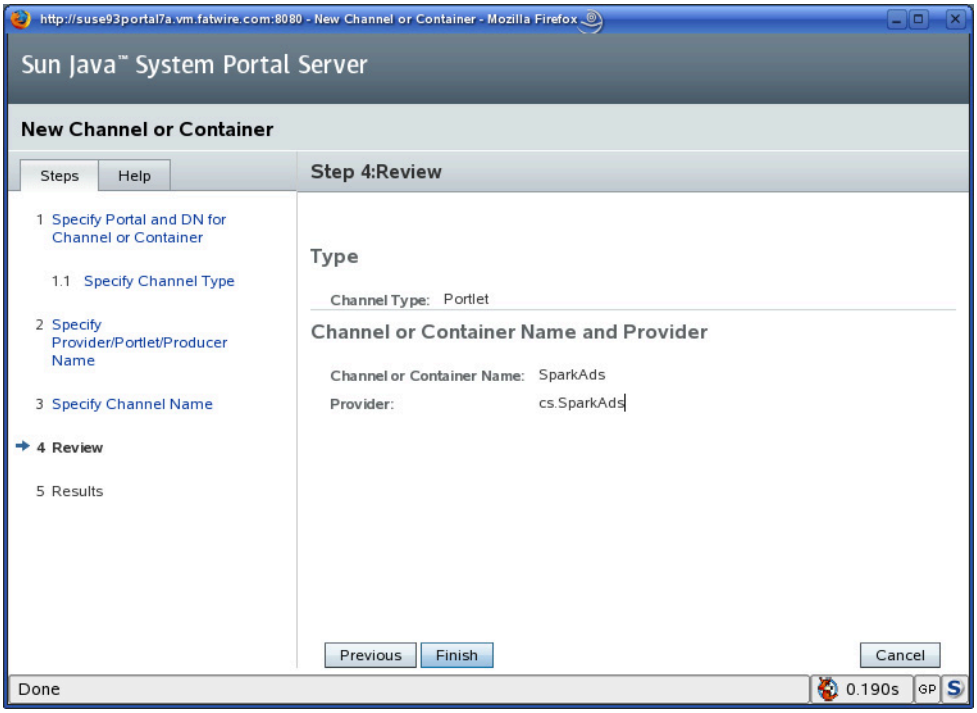


l. In the **Channel or Container Name** field, enter the name you wish the portlet to display when rendered on the page. For a list of portlet names, refer top the table below the figure. When you are finished, click **Next**.



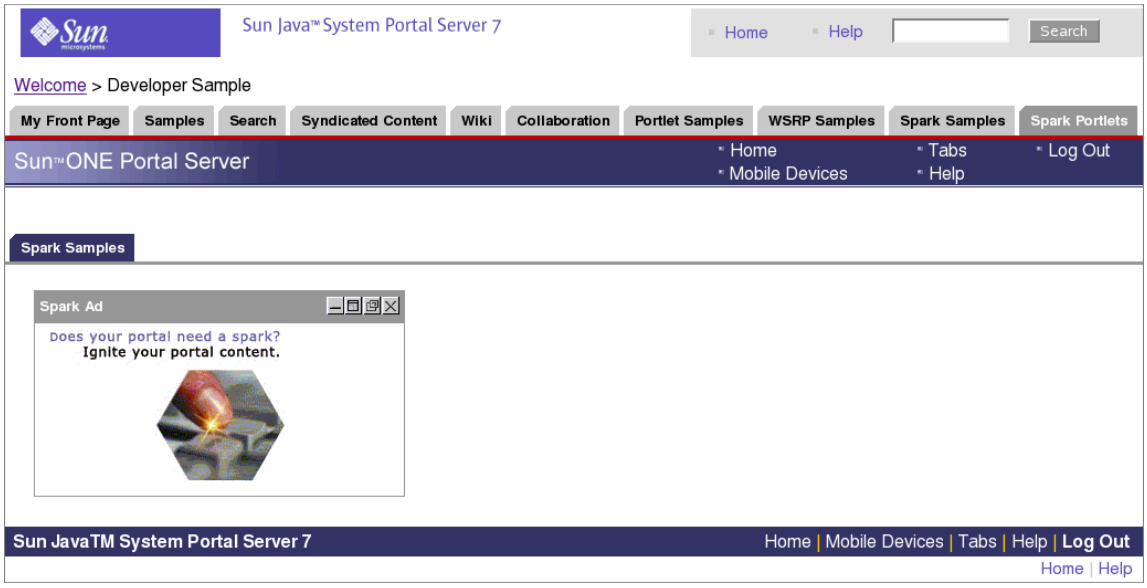

| Default Portlet Names | | | | Sample Portlet Names |
|---|---|---|---|---|
| Active Content | ClearCheckouts | Document Assignments | RolesAdmin | SparkAd |
| Active Documents | Content Assignments | Document History | Search Content | SparkDocuments |
| Checked Out Content | Content History | My Documents | Search Documents | SparkJobs |
| Checked Out Documents | ContentDefinition | Publish Console | Site Info | SparkNews |
| ClearAssignments | Create Content | PublishTarget | | |

**m.** In the “Review” screen, click **Finish**.

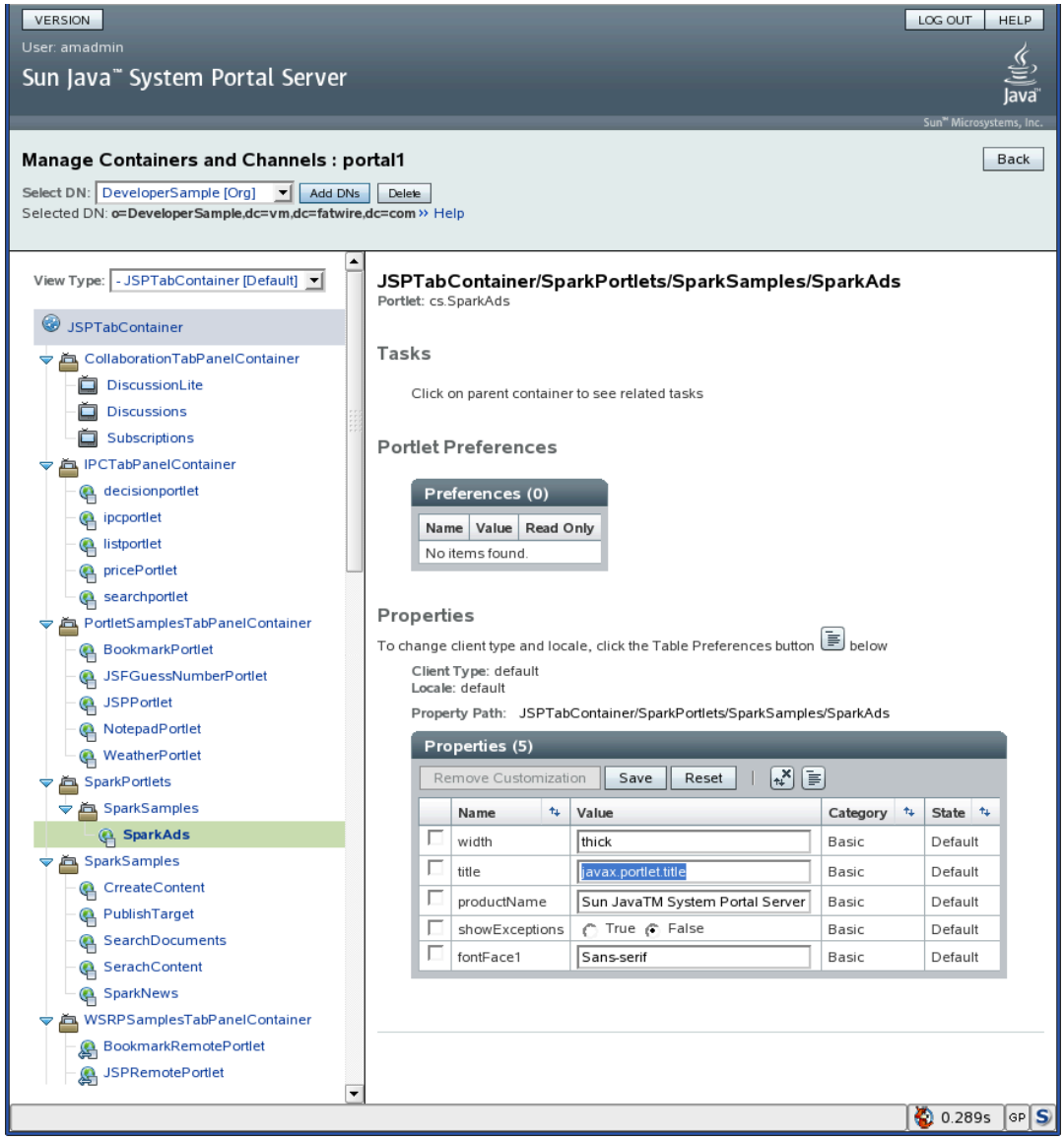



**n.** In the “Results” screen, click **Close**.

The new portlet channel appears in the left-hand pane, below the selected parent container; the portlet it represents appears in your portal, in the tab you created in step 1.



**o.** In the left pane, select the portlet channel you created earlier in this step and enter a descriptive value for the **title** property. When you are finished, click **Save**.




**p.** Repeat steps g – o for each portlet you wish to add to a container. When you are finished, repeat this procedure for each container you have created in step 2.

**q.** When you are finished, log out of the Portal Server Admin Console to save your changes.

## D. Integrating with LDAP (Required for Portal Installations)

LDAP integration is mandatory for portal installations, and optional for web installations. If you need to perform LDAP integration, you must do the following:

1. Set up a supported LDAP server of your choice. For instructions, see *Configuring Third-Party Software*.
2. Run the LDAP integration program included on the Content Server CD.

For more information, see the *LDAP Integration Guide*.

## E. Setting Up a Content Server Cluster (Optional)

If you plan to create a Content Server cluster, see "Working with Clusters," on page 30 for instructions.

## F. 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*. The guides explain how to create and enable a content management environment including the data model, content management sites, site users, publishing functions, and client interfaces.

# Appendices

This section contains the following appendices:

- Appendix A, “Sample Procedure for Installing JES”
- Appendix B, “Sample Procedure for Uninstalling JES”

Appendix A

# Sample Procedure for Installing JES

This appendix provides a sample procedure for installing JES for use by Content Server. Use the procedure as a reference and a means of obtaining detailed information about the steps that apply to your own installation procedure.

This chapter contains the following section:

# Installing JES 2005Q4

**Note**

Procedures for installing JES are environment specific. They depend on licensing terms and the JES version, among other factors. For instructions on installing JES on your environment, consult the JES documentation. Commands for starting and stopping JES components are given in "Verifying the JES Installation," on page 22.

1. Download the JES 2005Q4 packages and decompress them to a temporary directory.
2. Ensure that installer has "execute" permissions. If not, run:

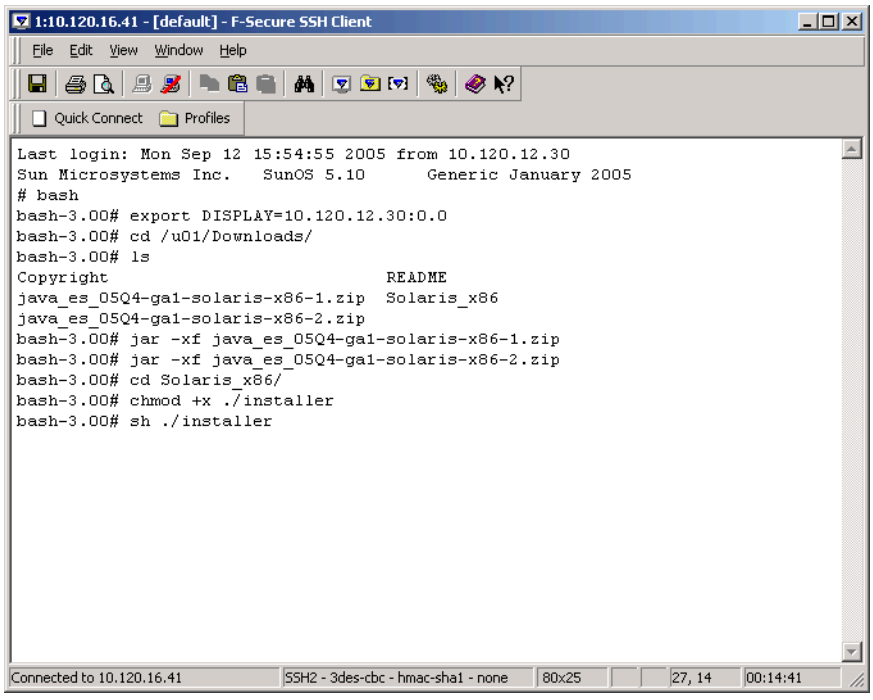
```
chmod +x ./installer; chmod +x ./install/utils/
   introspectPkgs.sh
```

**Note**

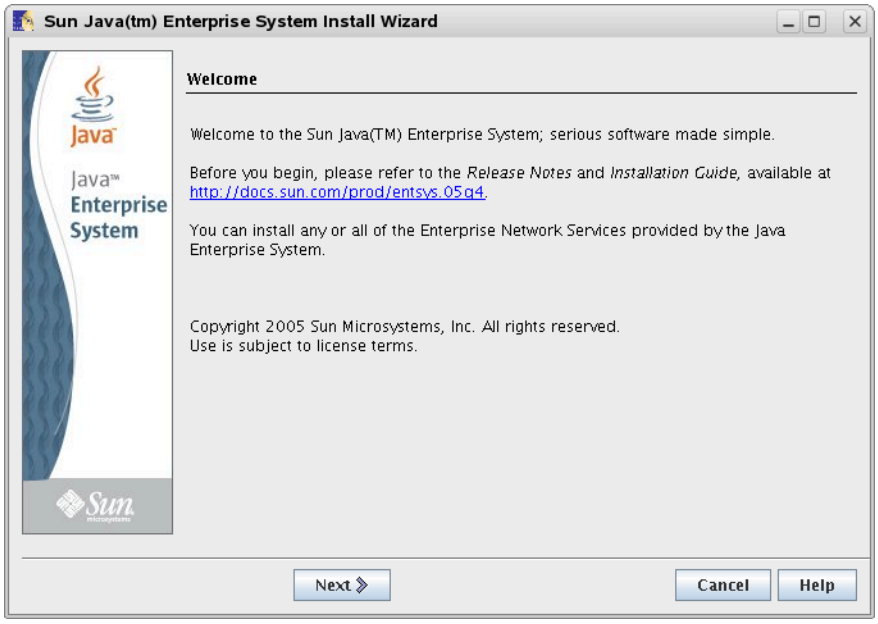
On Linux, also run: `./install/utils/introspectLinuxRPMS.sh`

3. Execute the installer:

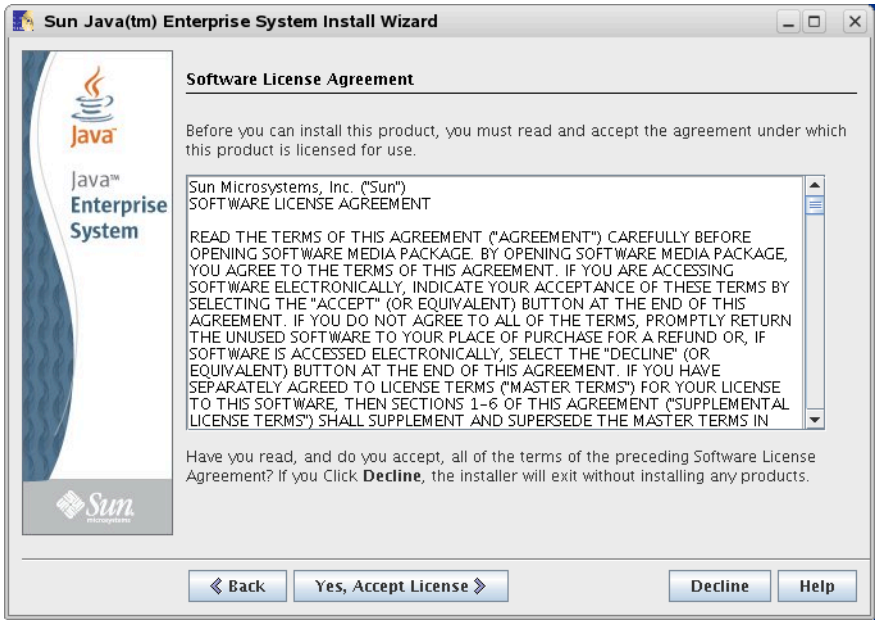
```
sh ./installer
```



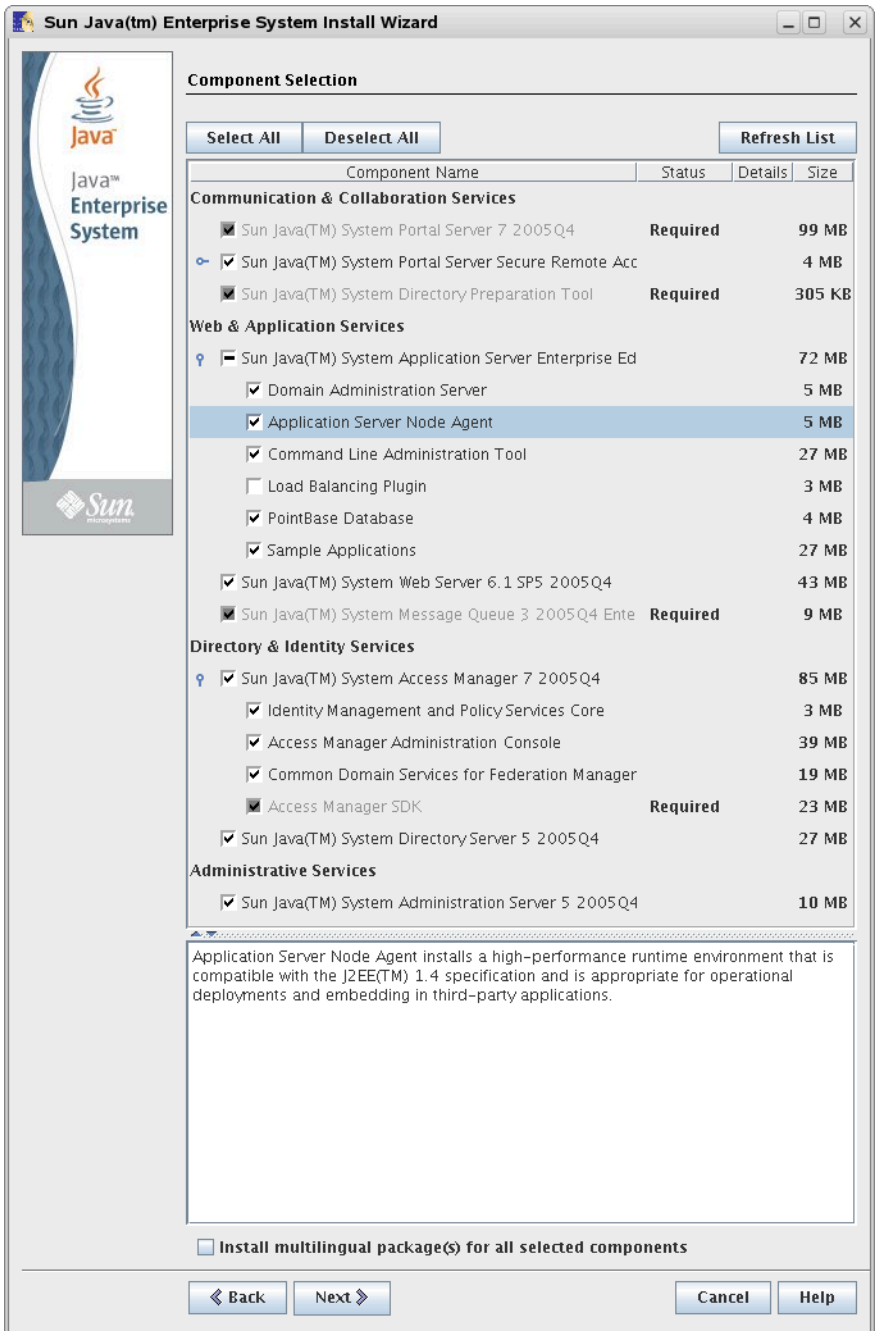
4. In the “Welcome” screen, click **Next**:




5. In the “Software License Agreement” screen, click **Yes, Accept License**:

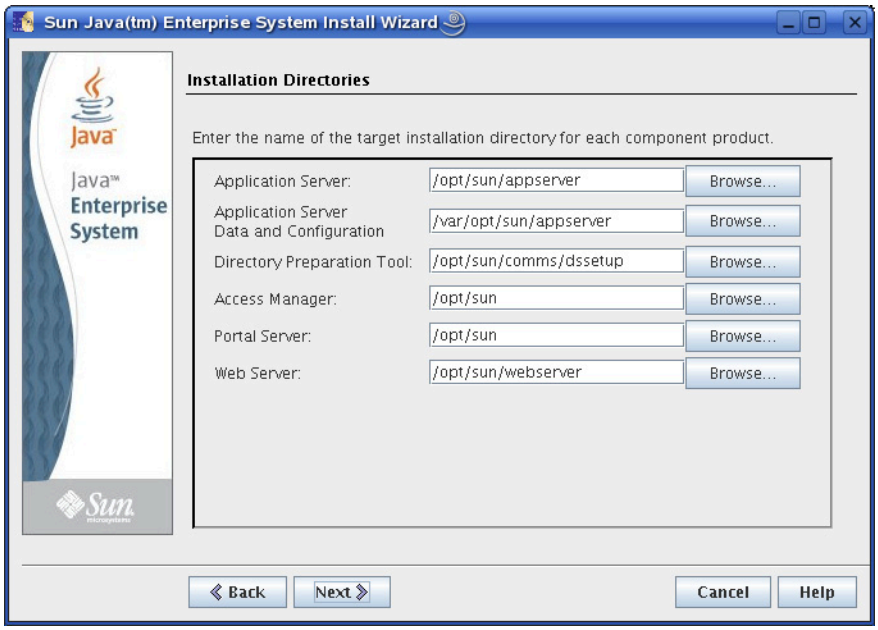


6. In the “Component Selection” screen, select the following:
   - **Sun Java System Portal Server**
   - **Sun Java System Application Server Enterprise Edition**
   - **Sun Java System Access Manager**
   - **Sun Java System Directory Server**




7. If you plan on using Sun Java System Web Server with the load balancing plugin, expand the **Web & Application Services** node and select **Load Balancing Plugin**.

8. Set up your directories and click **Next**:

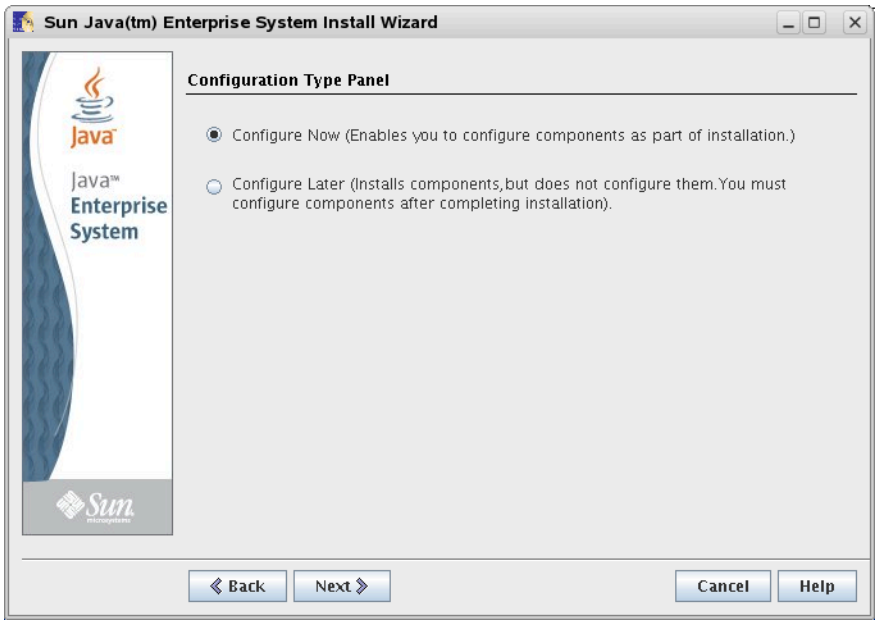



**Note**

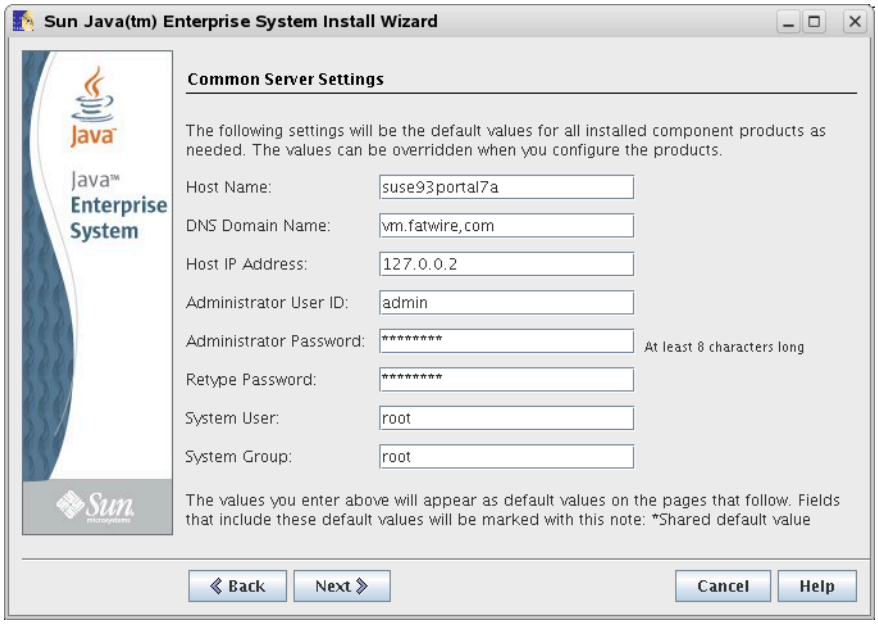
While changes can be made to the directory structure, they should not be made unless you are thoroughly familiar with the Sun Java Enterprise System suite. Changes to the default directory structure will result in additional and substantial work. The associated steps are not covered in this guide.

9. In the “Verify System Requirements” screen, allow the process to run to completion, then click **Next**.

10. In the “Configuration Type” screen, select **Configure Now** and click **Next**.




11. In the “Common Server Settings” screen, enter the domain name, host IP address, and the `admin` user password (re-enter in the next field to verify), then click **Next**:



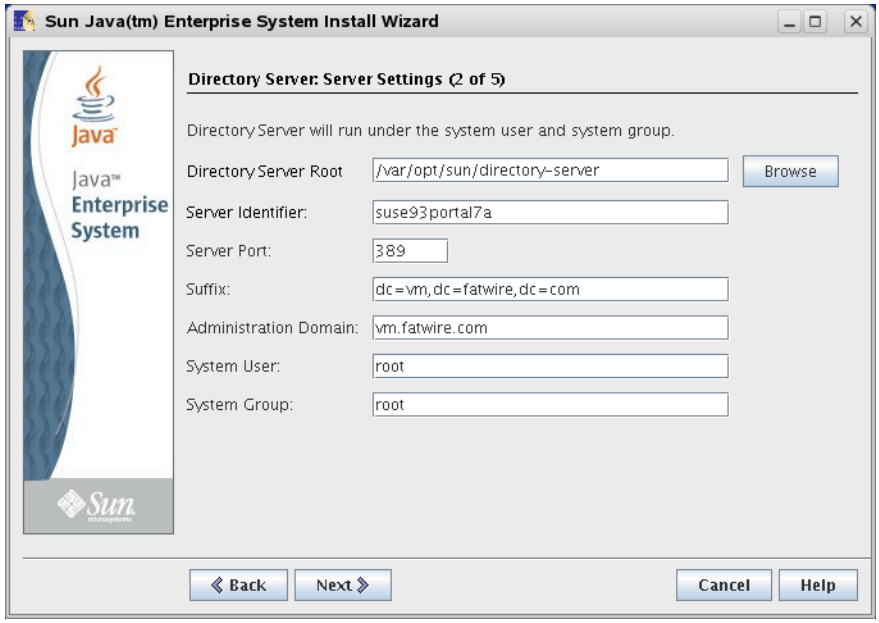

12. Configure the Web Server:
    a. In the “Web Server: Administration” screen, click **Next**.
    b. In the “Web Server: Default Server Instance” click **Next**.
13. Configure the Application Server:
    a. At the “Application Server: Domain Administration” screen, write down the ports listed in the **Admin** and **HTTP** fields and click **Next**.

**b.** In the “Application Server: Node Agent” screen, click **Next**.

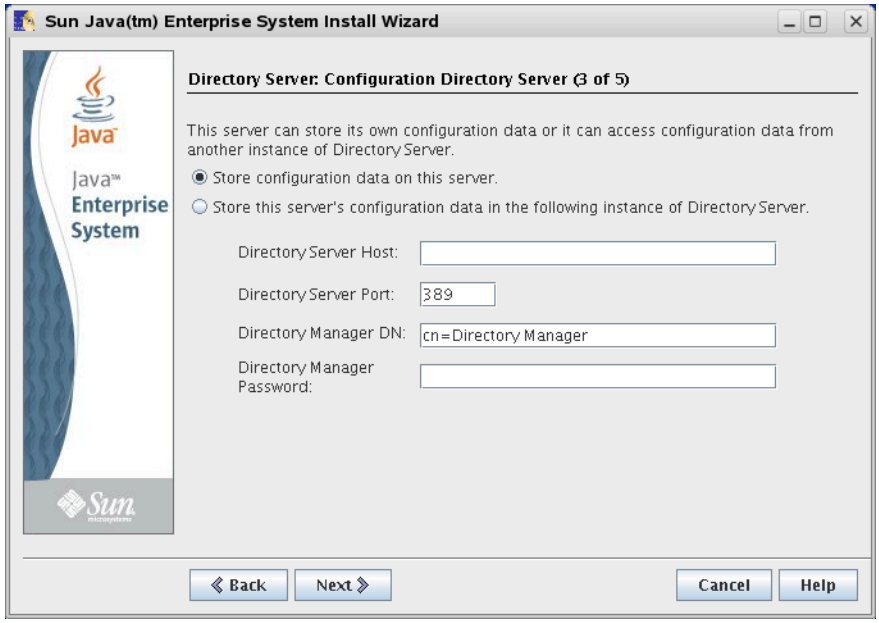
**14.** Configure the Directory Server:

**a.** In the “Directory Server: Administration” screen, click **Next**.

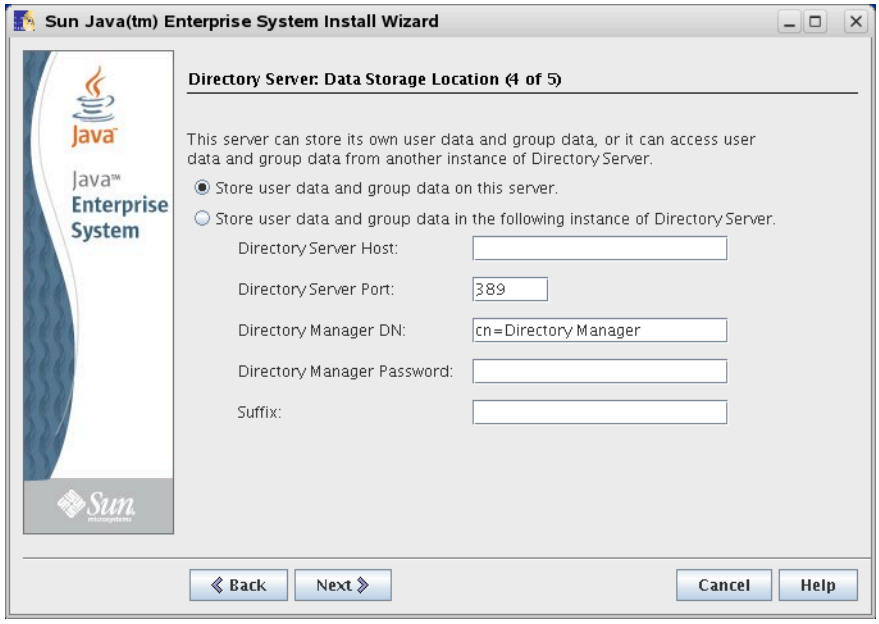
**b.** In the “Directory Server: Server Settings” screen, enter a suffix and click **Next**.




**c.** In the “Directory Server: Configuration Directory Server” screen, leave the defaults if LDAP is local; if LDAP is remote, select **Store this server’s configuration data in the following instance of Directory Server**, fill in the fields, and click **Next**.



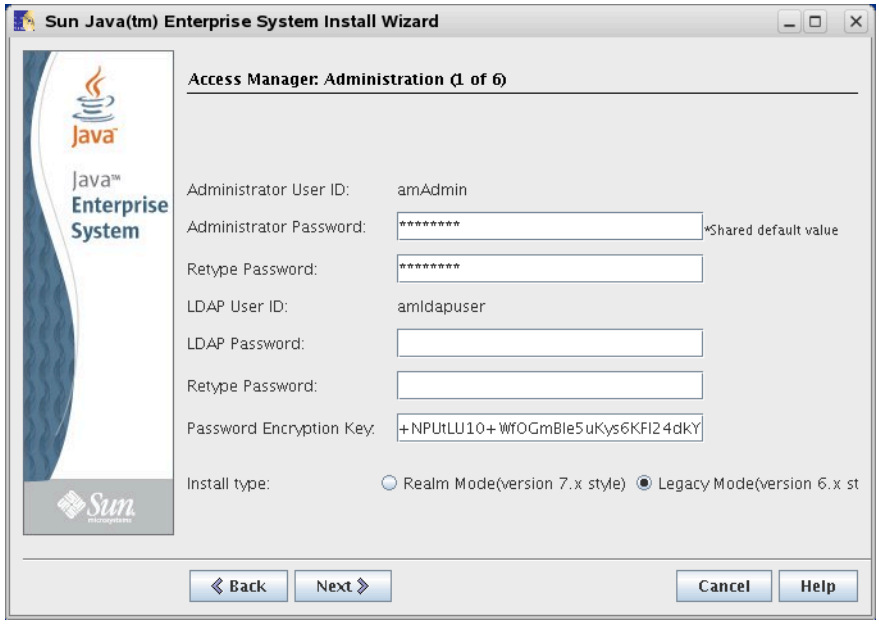
**d.** In the "Directory Server: Data Storage Location" screen, leave the defaults if LDAP is local; if LDAP is remote, select **Store user data and group data in the following instance of Directory Server**, fill in the fields, and click **Next.**



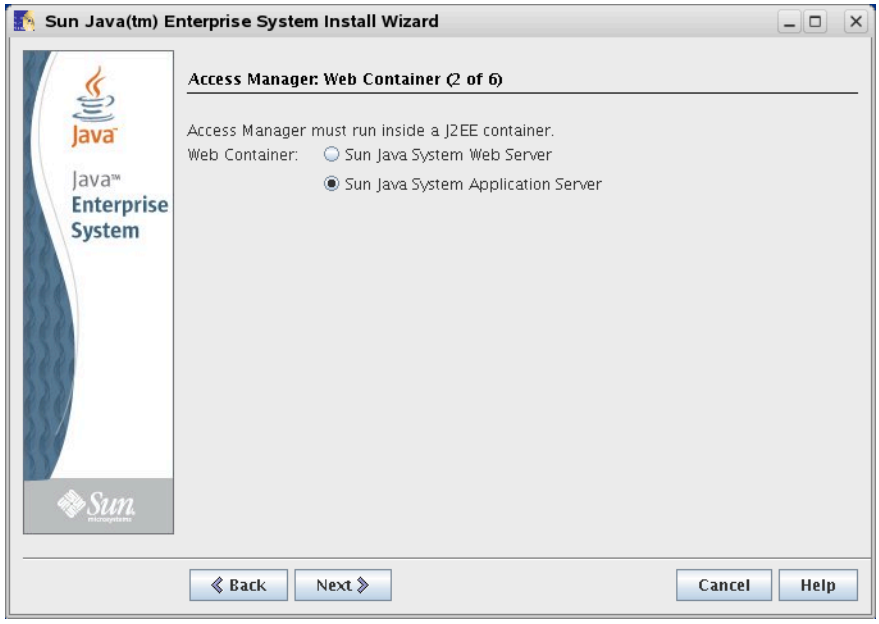

**e.** In the "Directory Server: Populate Data" screen, click **Next**.

**15.** Configure the Access Manager:

**a.** In the "Access Manager: Administration" screen, enter the LDAP password (`4132demo` in our examples). The password must be different from the password used by the `amadmin` user. When you are finished, click **Next**.



**b.** In the “Access Manager: Web Container” screen, select **Sun Java Application Server** and click **Next**.




**c.** In the “Access Manager: Sun Java Application Server” screen, click **Next**.

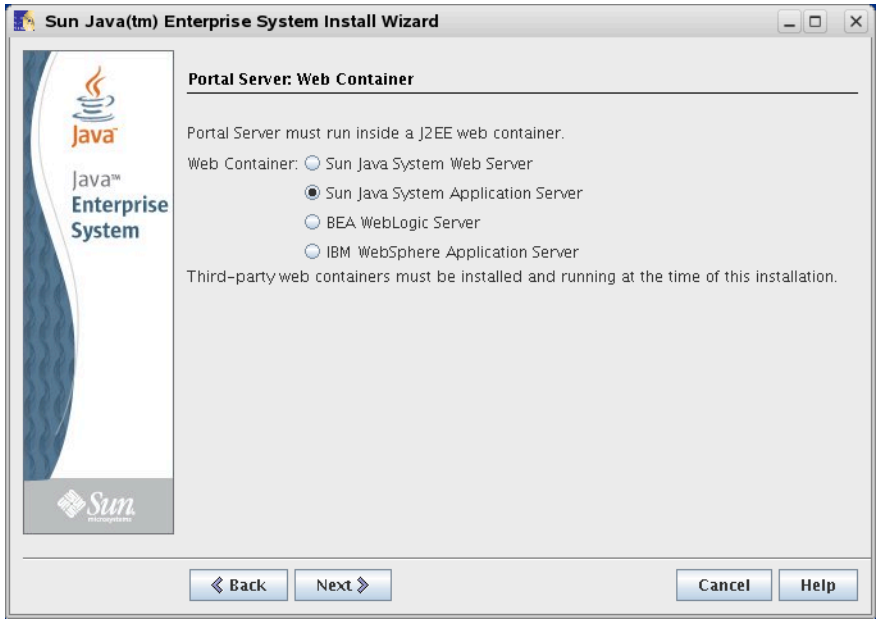
**d.** In the “Access Manager: Web Container for running Access Manager Services” screen, keep the displayed values and click **Next**.

**e.** In the “Access Manager: Directory Server Information 1” screen, keep the displayed values and click **Next**.

**f.** In the “Access Manager: Directory Server Information 2” screen, click **Next**.

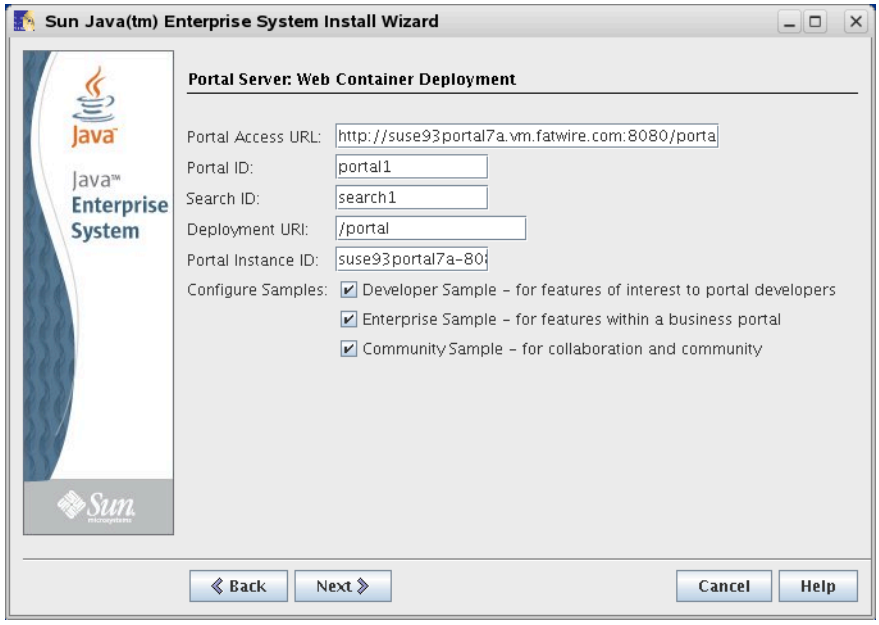
16. Configure the Portal Server:

    a. In the “Portal Server: Web Container” screen, select **Sun Java System Application Server** and click **Next**.




    b. In the “Portal Server: Sun Java Systems Application Server” screen, click **Next**.

    c. In the “Portal Server: Web Container Deployment” Screen, select **Developer Sample** and click **Next**.




    d. In the “Portal Server: Secure Remote Access: Gateway Information” screen, click **Next**.

    e. In the “Portal Server: Secure Remote Access: Gateway” screen, click **Next**.

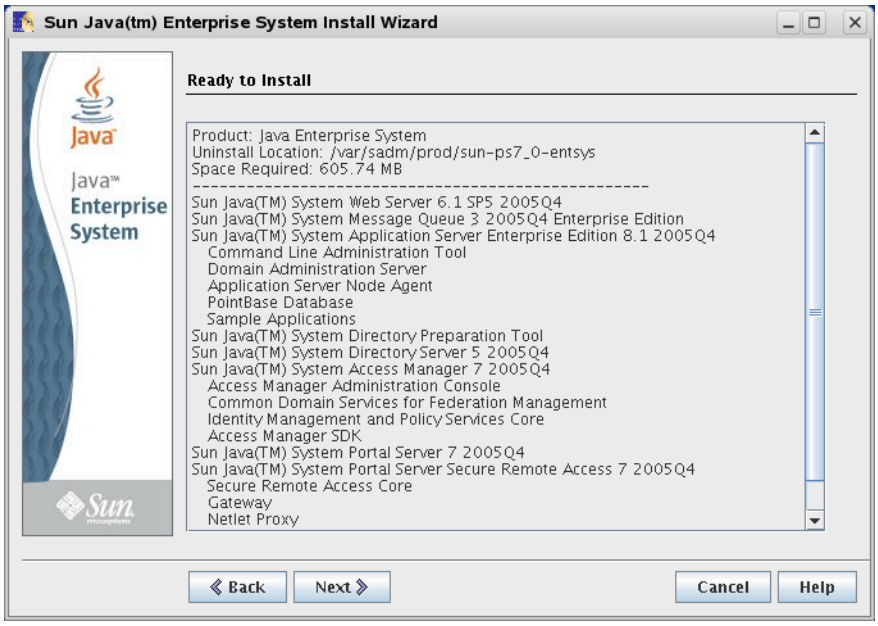
**f.** In the “Portal Server: Secure Remote Access: Netlet Proxy” screen, click **Next**.

**g.** In the “Portal Server: Secure Remote Access: Rewriter Proxy” screen, click **Next**.

**h.** In the “Portal Server: Remote Access: Proxy Information” screen, click **Next**.

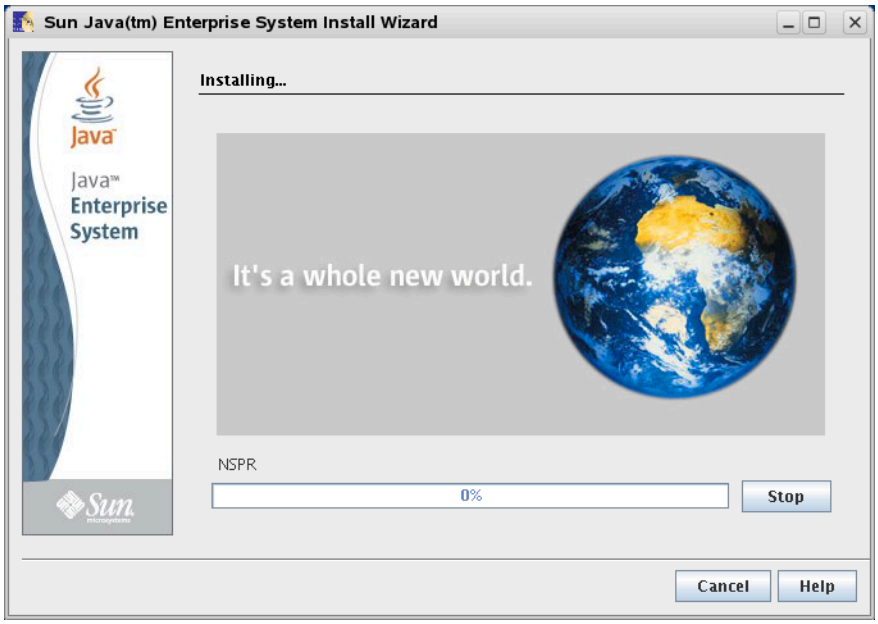
**i.** In the “Portal Server: Remote Access: Certificate Information” screen, click **Next**.

**17.** In the “Ready to Install” screen, click on **Next**.

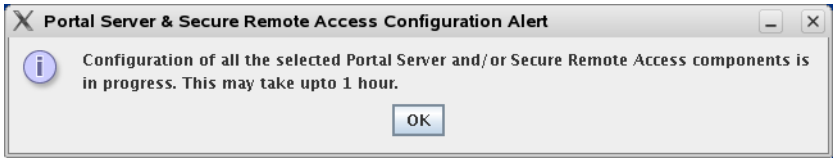



**18.** In the “Product Registration” screen, click **Install.**

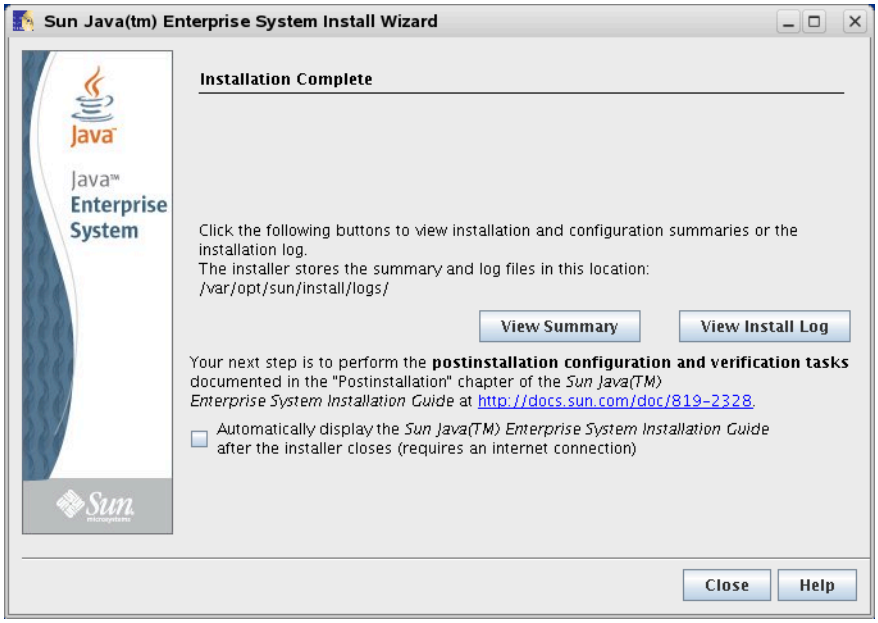
**19.** The installation process begins. Progress is shown in the “Installing” screen:



**20.** In the “Portal Server & Secure Remote Access Configuration Alert” pop-up box, click **OK**.




**21.** The installation is now complete. Click **Close**.



Appendix B

# Sample Procedure for Uninstalling JES

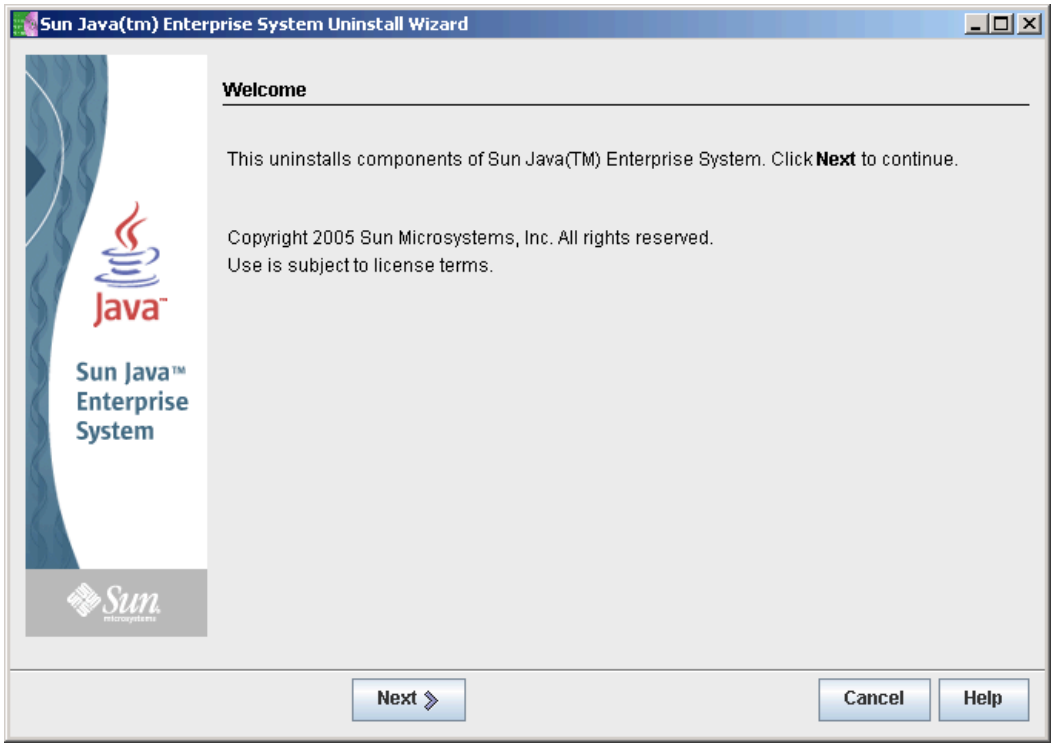
This appendix provides a sample procedure for uninstalling JES. The procedure is based on scripts provided by Sun Microsystems.

# Uninstalling JES

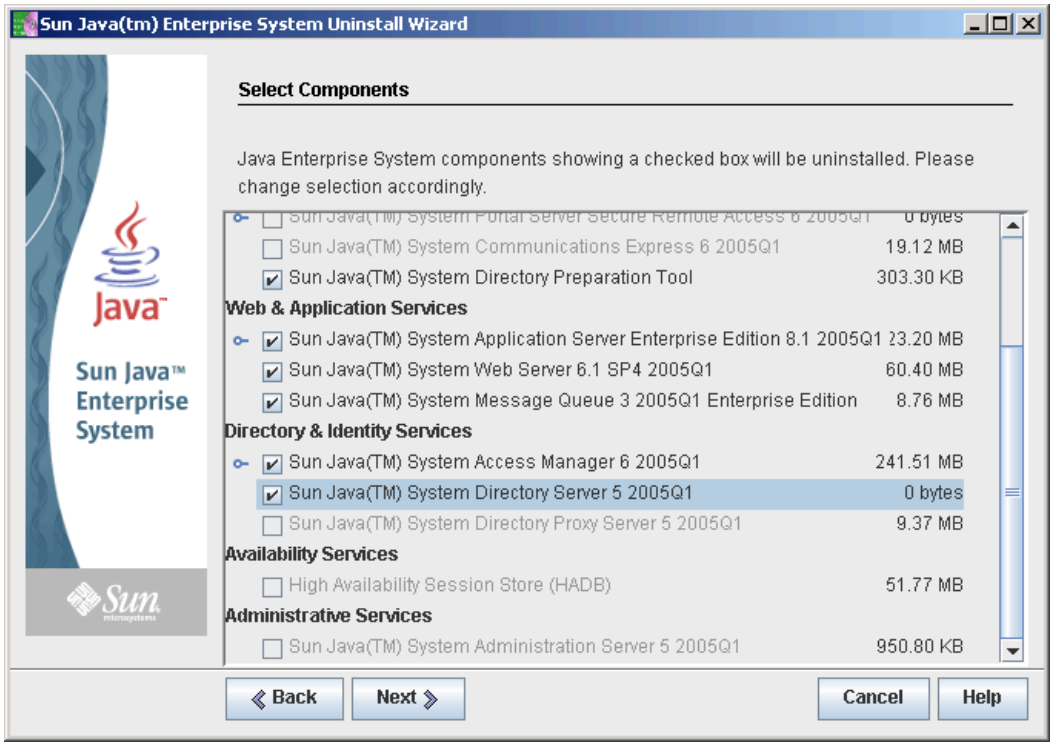
1. Execute the following command:

   **`/var/scam/prod/entices/uninstall`**

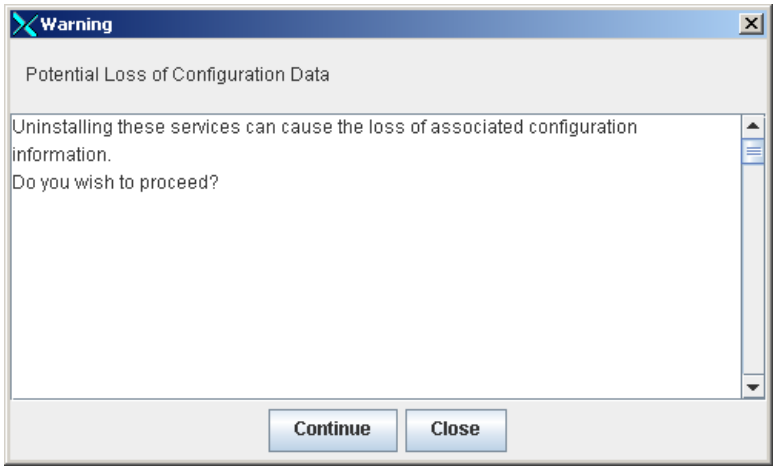
2. In the "Welcome" screen, click **Next**.



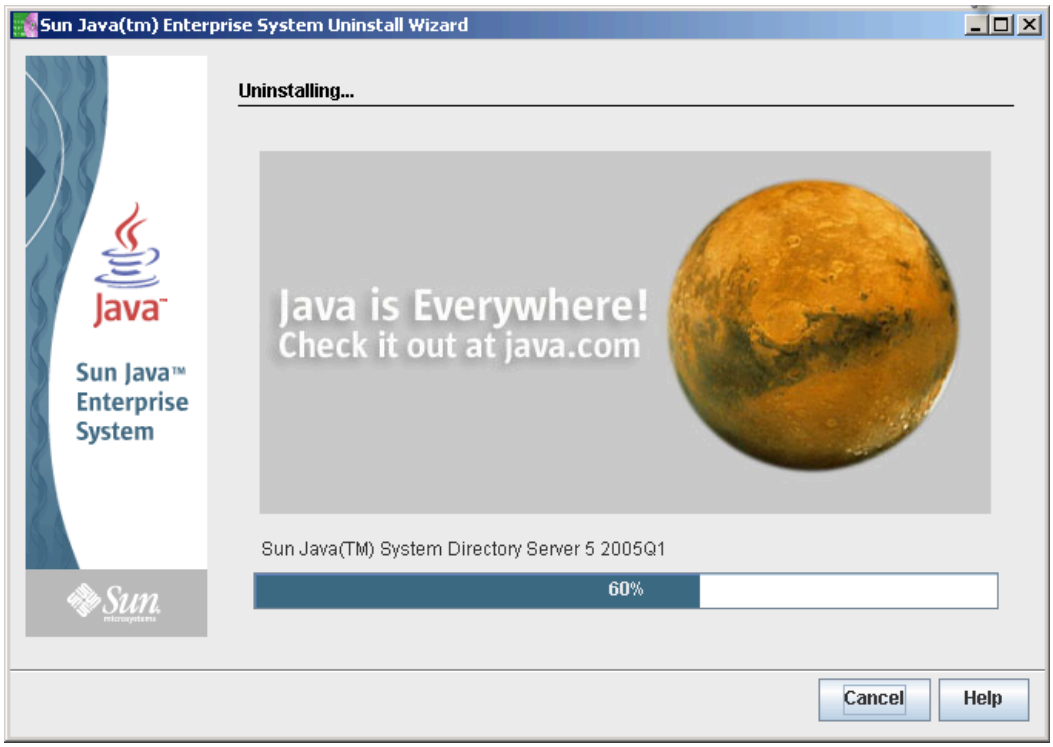
3. In the next screen, select all components. Click **Next**.



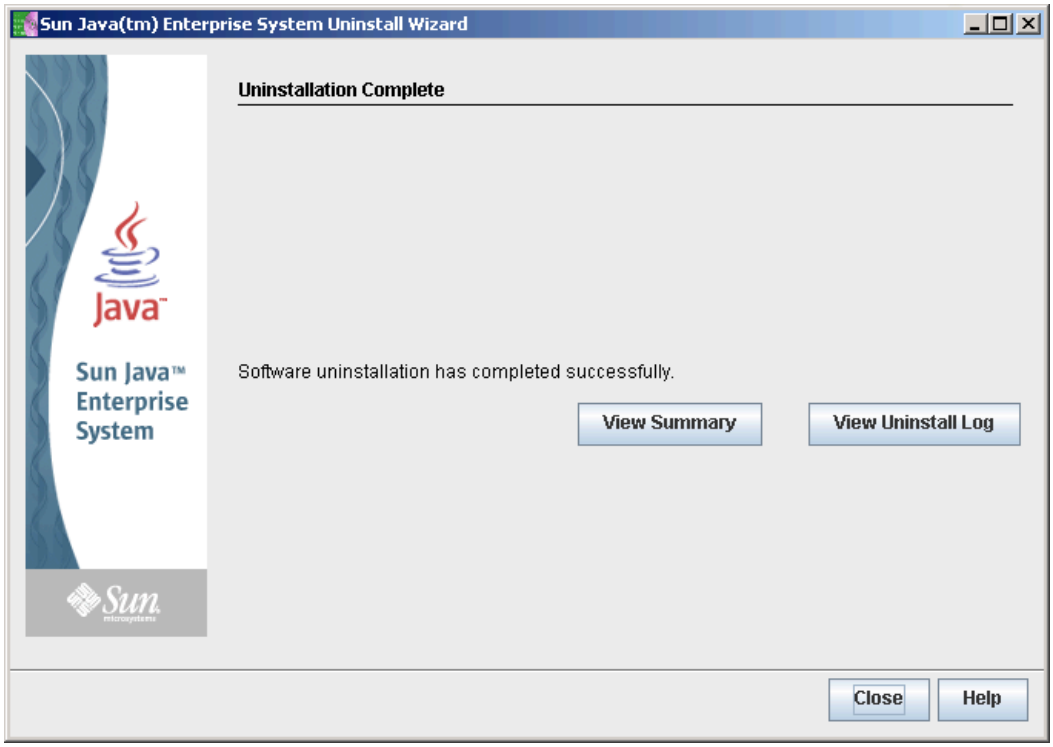

4. In the "Potential Loss of Configuration Data" window, click **Continue**.



5. Wait for the uninstallation process to complete.




6. Click **Close**.



7. Run `jesrm.sh` (this file can be found on the Sun site; it is not part of the FatWire distribution) and select option 8 from the menu.
8. Check that none of the following are running. If they are, stop them:

```
ps -ef|grep "appserver"
ps -ef|grep "webserv"
ps -ef|grep "dps"
ps -ef|grep "imq"
ps -ef|grep "slapd"
ps -ef|grep "admin"
```

9. Remove the following directories:

```
rm -rf /var/sadm/install/logs/Orion*
rm -rf /var/sadm/install/productregistry
rm -rf /var/sadm/install/.lockfile
rm -rf /var/sadm/install/.pkg.lock
rm -rf /var/sadm/install/logs/Administration_Server*
rm -rf /var/sadm/install/logs/Directory_Server*
rm -rf /var/sadm/prod/orion
rm -rf /usr/sunone/*
rm -rf /var/opt/SUNW*
rm -rf /etc/opt/SUNW*
rm -rf /opt/SUNWps
rm -rf /opt/SUNWam
rm -rf /opt/SUNWappserver
rm -rf /opt/SUNWwbsvr
```

10. Reboot the server.