

Installing the Advanced Edition on Linux (Intel) using the Typical Installation option

The following articles describe how to install a WebSphere Application Server Advanced Edition configuration that uses the following--

- One of the following distributions of Linux for Intel processors:
 - Red Hat Linux 7.1, 2.4 kernel
 - SuSE Linux 7.1, 2.4 kernel
- IBM Java 2™ Software Developer's Kit (SDK) 1.3.0
- IBM HTTP Server 1.3.19
- A supported database
- A single node

See the WebSphere Application Server Supported Software and APIs Web site at www.ibm.com/software/webservers/appserv/doc/latest/prereq.html to determine the products and fix levels that are supported for use with your version of WebSphere Application Server.

Note: All installation and configuration procedures for WebSphere Application Server Advanced Edition 4.0 on Linux were created and tested using Red Hat Linux. If you are using a different distribution of Linux, some operating system procedures can be different than what is documented in the InfoCenter. Consult your Linux distribution's documentation as necessary.

[Steps for installation](#)

[Installing WebSphere Application Server 4.0 -- Typical Installation option](#)

[Testing the installation](#)

[Testing with an enterprise bean](#) (optional)

Installing WebSphere Application Server 4.0 -- Typical Installation option

This article describes the quickest way to install WebSphere Application Server and IBM HTTP Server on a Linux (Intel) machine.

These instructions assume the following:

- Your machine has enough memory and disk space for your installation. The Typical Installation requires approximately 130 MB of disk space for WebSphere Application Server and an additional 22 MB for IBM HTTP Server.
- If you plan to use IBM HTTP Server, you will select it for installation during the WebSphere Application Server installation process. If you plan to use a different supported Web server with WebSphere, you have already installed it on the same machine that will contain WebSphere Application Server.
- You have installed and configured a supported database for use with WebSphere Application Server.
- You do not have a previous version of WebSphere Application Server already installed on this machine. If you do have a previous version of WebSphere Application Server already installed, do not follow these instructions. Instead, see the article [Migration overview](#).

Perform the following steps to install WebSphere Application Server:

1. Log into the machine with superuser (root) privileges.
2. If you have a version of IBM HTTP Web Server previous to version 1.3.19 installed on your machine, uninstall IBM HTTP Web Server. The Typical Installation of WebSphere Application Server installs IBM HTTP Web Server

version 1.3.19.

3. If another Web server is running on your system, stop the Web server.
4. Insert the WebSphere Application Server CD-ROM into the CD-ROM drive.
5. If necessary, use the **mkdir** command to create a mount point for the CD-ROM. The following command creates a mount point at the directory /cdrom; you can mount the CD-ROM at any location on the machine's local file system.

```
# mkdir /cdrom
```

The commands in these steps assume the CD-ROM is mounted at /cdrom. If you mount the CD-ROM at a different location, use that location when issuing commands.

6. Mount the CD-ROM drive by entering the following command:

```
# mount -t iso9660 -r /dev/cdrom /cdrom
```

Note: Some window managers automatically mount a CD-ROM for you. Consult your operating system documentation for more information.

7. Ensure that the DISPLAY and TERM environment variables are set properly.
8. If the supported Web server or database you plan to use with WebSphere is newer than the version currently required by WebSphere Application Server, you must update the prereq.properties file or disable the prerequisite checking functionality before installing WebSphere Application Server.

To obtain an updated prereq.properties file, download the latest version from the WebSphere Application Server Tools Web site at www.ibm.com/software/webservers/appserv/tools.html. Ensure that the updated prereq.properties file is downloaded or copied into the local /tmp directory.

To disable prerequisite checking functionality, perform the following steps:

- a. Copy the prereq.properties file from the /cdrom directory to the /tmp directory on the machine on which you plan to install WebSphere Application Server.
 - b. Open the prereq.properties file in a text editor and disable prerequisite checking for an individual component by changing the value of the specific key from 1 to 0.
 - c. Save the edited prereq.properties file.
9. Navigate to the /cdrom directory.
 10. If you have not downloaded an updated prereq.properties file or disabled the prerequisite checking functionality, start the WebSphere Application Server installation program by using the **install.sh** command, as follows:

```
# ./install.sh
```

If you have downloaded an updated prereq.properties file or disabled the prerequisite checking functionality as detailed in [Step 8](#), start the WebSphere Application Server installation program by using the **install.sh** command, as follows:

```
# ./install.sh -prereqfile /tmp/prereq.properties
```

11. The Welcome to the IBM WebSphere Application Server Setup program dialog box opens. Click **Next** to continue.
12. The Install Options dialog box opens. Ensure that **Typical Installation** is selected, and click **Next**.
13. The Database Options dialog box opens. Depending on the database you have installed, complete one of the following set of instructions:
 - o If you are using DB2, perform the following steps in the Database Options dialog:
 - a. In the **Database Type** field, select **DB2** from the pull-down menu.
 - b. Ensure that **Remote DB** is not selected. For this example, the database and WebSphere Application Server are installed on the same node.
 - c. In the **Database Name (Database SID)** field, type the name of the database, was40.
 - d. In the **DB Home** field, type the full pathname of the home directory of the DB2 instance owner, /home/db2inst1, or specify the full pathname of the home directory by using the **Browse** button.

- e. The **DB URL** field cannot be edited.
 - f. The **Server Name** field cannot be edited.
 - g. The **Port Number** field cannot be edited.
 - h. In the **Database User ID** field, type the name of the database instance owner, `db2inst1`.
 - i. In the **Database Password** field, type the current password for the database instance owner.
 - j. Click **Next** to continue.
- o If you are using Oracle, perform the following steps in the Database Options dialog:
 - a. In the **Database Type** field, select **Oracle** from the pull-down menu.
 - b. Ensure that **Remote DB** is not selected. For this example, the database and WebSphere Application Server are installed on the same node.
 - c. In the **Database Name (Database SID)** field, type the name of the Oracle database you created. For example, `ORA817.machine_name`.
 - d. In the **DB Home** field, type the full pathname of the directory you created to contain the Oracle software and to be the home directory of the user named oracle, or specify the full path name of the directory by using the **Browse** button. This path should also be the value of the `ORACLE_HOME` environment variable.
 - e. In the **DB URL** field, accept the default value `jdbc:oracle:thin:@fully_qualified_domain_name:port_number:database_name`, or specify a different URL for accessing the database.
 - f. In the **Server Name** field, type the name of the machine on which the database is installed.
 - g. In the **Port Number** field, type the port number used to access the database.
 - h. In the **Database User ID** field, type the name of the database owner, `EJSADMIN`.
 - i. In the **Database Password** field, type the current password for the database owner.
 - j. Click **Next** to continue.
14. The Select Destination Directory dialog opens. Specify the directory in which you want to install WebSphere Application Server. You can either accept the default destination directory or specify a different one by typing the full pathname or by clicking **Browse**. Note that you cannot modify the destination directory for IBM HTTP Server. Click **Next** to continue.
 15. The Install Options Selected dialog box opens. Verify that the information is correct and click **Install** to complete the installation.
 16. The Setup Complete dialog box opens. To view the ReadMe file, ensure that **Yes, I want to view the ReadMe File** is selected and click **Finish**; the ReadMe file is displayed in a default browser window. To view the ReadMe file at a later time, deselect **Yes, I want to view the ReadMe File** and click **Finish** to exit from the WebSphere Application Server installation program.
 17. The WebSphere Application Server - First Steps dialog box opens. You can use this GUI to access product information in the InfoCenter, start the administrative server, launch the administrative console, or launch the application assembly tool. Because you must first start and possibly configure the Web server before using WebSphere, close this dialog for now. You can launch the First Steps GUI at a later time by running the `firststeps.sh` script located in the `/opt/WebSphere/AppServer/bin` directory.
 18. Unmount the CD-ROM before removing it from the CD-ROM drive by using the **umount** command, as follows:


```
# umount /cdrom
```
 19. If you are using a Web server other than IBM HTTP Server, start the server. If you are using IBM HTTP Server and have installed it during the WebSphere Application Server installation, you may need to configure the Web Server to run it successfully.

Perform the following steps to verify that IBM HTTP Server is installed and configured correctly:

- a. Ensure that the Web server is running. If not, start it by entering the following command:

```
# /opt/IBMHTTPServer/bin/apachectl start
```

- b. Start a browser and enter the name of the local machine as the URL. If you see the IBM HTTP Server Web page, the server is installed and configured correctly.

See the IBM HTTP Server documentation Web site at www.ibm.com/software/webservers/httpservers/library.html for more information about configuring IBM HTTP Server.

To enable the Secure Sockets Layer (SSL) for IBM HTTP Server, see the IBM HTTP Server documentation Web site at www.ibm.com/software/webervers/httpservers/doc/v1319/index.html for more information.

20. Proceed to the article [Testing the installation](#).

Testing the installation

This article describes how to test the installation and configuration of your WebSphere Application Server system. These instructions assume that you have installed a supported Web server, database, and the WebSphere Application Server component.

Perform the following steps to test your WebSphere installation:

1. Ensure that you are logged into the machine with superuser (root) privileges.
2. Start the WebSphere administrative server by executing the **startupServer** script, as follows:

```
# cd /opt/WebSphere/AppServer/bin
# ./startupServer.sh
```

Ensure that the administrative server has started successfully by checking the file named tracefile located in the /opt/WebSphere/AppServer/logs directory. The message `Server open for e-business` appears in this file when the server has started successfully.

3. Start the administrative console by running the **adminclient** script, as follows:

```
# cd /opt/WebSphere/AppServer/bin
# ./adminclient.sh
```

4. When the console displays the message `Console Ready`, administer the application server by performing the following steps:
 - a. When the console opens, a tree view is displayed. Click the plus sign (+) next to **WebSphere Administrative Domain** entry to expand the view.
 - b. Expand the view of the **Nodes** entry.
 - c. Identify the name of your host machine and expand the view of that entry.
 - d. Expand the view of the **Application Servers** entry.
 - e. Select the **Default Server** entry and click the **Start** icon located on the toolbar. An information window opens, and indicates that the server has started. Click **OK** to close the information window.

After the default server is started initially, it will start automatically if it stops or if you restart the machine. If the administrative server fails, the default server continues to run.

- f. Click **OK**.
5. Ensure that the Web server is running. If the Web server is not running, start it.
6. Start a Web browser and enter the URL for the snoop servlet, which is a standard sample servlet that is installed by default, as follows:

```
http://machine_name/servlet/snoop
```

In this command, *machine_name* represents the name of the machine on which WebSphere is running. Information about /servlet/snoop is displayed.

7. Proceed to the article [Testing with an enterprise bean](#).

Testing with an enterprise bean

This article describes how to test your WebSphere configuration by using an enterprise bean and the Increment sample. These instructions assume that you have installed your WebSphere Application Server system and have tested the installation by using the instructions in the article [Testing the installation](#).

Perform the following steps to test your WebSphere configuration using an enterprise bean:

1. Ensure that you are logged into the machine with superuser (root) privileges.
2. Ensure that the administrative console is running.
3. Ensure that the default server (located under **WebSphere Administrative Domain > Nodes > node_name > Application Servers**) is running.
4. Start a Web browser and specify the following URL:

```
http://machine_name/webapp/examples/HitCount
```

In this command, *machine_name* represents the name of the machine on which WebSphere is running. When the Web page opens, several selection options are displayed.

5. Under the heading **Generate hit count using**, click the radio button for the **Enterprise Java Bean** option.
6. Under the heading **Transaction Type**, click the radio button for the **None** option.
7. Click **Increment**.

If the number of hits is displayed, WebSphere is functioning properly.

Uninstalling WebSphere Application Server

Perform the following steps to uninstall WebSphere Application Server from a UNIX machine:

1. Ensure that you are logged into the machine with superuser (root) privileges.
2. If IBM HTTP Server or another Web server is running on your system, stop the Web server.

Note: Although IBM HTTP Server can be installed using the WebSphere Application Server installation program, it is not uninstalled when you uninstall WebSphere Application Server. It must be uninstalled separately. See the IBM HTTP Server Library Web site at www.ibm.com/software/webservers/htpservers/library.html for more information.

3. Ensure that your DISPLAY and TERM environment variables are set properly.
4. Navigate to the root installation directory (/opt/WebSphere/AppServer on HP-UX, Linux, and Solaris; /usr/WebSphere/AppServer on AIX) and execute the **uninstall.sh** script as follows:

```
# ./uninstall.sh
```

5. The uninstallation program starts and the Uninstall dialog box opens. Click **Uninstall** to remove WebSphere Application Server from the machine.
6. To ensure that subsequent installations of WebSphere Application Server do not conflict with files left on the machine from a previous installation, use the **rm -r** command to remove the WebSphere directory structure. Use caution when executing this command to prevent the unintentional removal of portions of the file system.