Installation Guide

JBoss Enterprise Application Platform

4.3

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This Installation Guide documents relevant information regarding the installation of JBoss Enterprise Application Platform

Installation Guide: JBoss Enterprise Application Platform

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Introduction

JBoss Enterprise Application Platform is the open source implementation of the Java EE suite of services. It comprises a set of offerings for enterprise customers who are looking for preconfigured profiles of JBoss Enterprise Middleware components that have been tested and certified together to provide an integrated experience. It's easy-to-use server architecture and high flexibility makes JBoss the ideal choice for users just starting out with J2EE, as well as senior architects looking for a customizable middleware platform.

Because it is Java-based, JBoss Enterprise Application Platform is cross-platform, easy to install and use on any operating system that supports Java. The readily available source code is a powerful learning tool to debug the server and understand it. It also gives you the flexibility to create customized versions for your personal or business use.

Installing JBoss Enterprise Application Platform is simple and easy. You can have it installed and running in no time. This guide will teach you to install and uninstall JBoss.

1. Feedback

If you spot a typo in this guide, or if you have thought of a way to make this manual better, we would love to hear from you! Submit a report in *JIRA*[1] against the Product: JBoss Enterprise Application Platform, Version: `<version>`, Component: *Doc*. If you have a suggestion for improving the documentation, try to be as specific as possible. If you have found an error, include the section number and some of the surrounding text so we can find it easily.

2. Other Manuals

If you are looking for detailed product information refer to the manuals available online at *http://www.redhat.com/docs/manuals/jboss*.

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[1] http://jira.jboss.com/jira/browse/JBPAPP

Getting Started

1. Pre-Requisites

You must have adequate disk space to install JDK and JBoss Enterprise Application Platform while also allowing enough space for your applications. Before installing JBoss Enterprise Application Platform you must have a working installation of Java. Since JBoss is 100% pure Java you can have it working on any Operating System / Platform that supports Java. However there are a few Operating System-specific issues that you must be aware of. Refer to *http://wiki.jboss.org/wiki/Wiki.jsp?page=JBossOperatingSystemSpecificIssues* for more information.

1.1. Hardware and Operating System Requirements

For the latest information on supported Operating System / JVM combinations and supported Database platforms, please refer to *http://www.jboss.com/products/platforms/application/testedconfigurations*.

1.2. Configuring Your Java Environment

You must have a working installation of **JDK 1.5** before you install JBoss Enterprise Application Platform. You can install the 32-bit or 64-bit JVM as per your requirements. In this guide we will show you how to install a 32-bit Sun JDK 5.0 on a Linux Platform and Microsoft Windows Platform. But before we do that let's take a look at some of the benefits of using a 64-bit JVM.

Benefits of 64-bit JVM on 64-bit OS and Hardware:

- Wider datapath: The pipe between RAM and CPU is doubled, which improves the performance of memory-bound applications.
- 64-bit memory addressing gives virtually unlimited (1 exabyte) heap allocation. However large heaps affect garbage collection.
- Applications that run with more than 1.5GB of RAM (including free space for garbage collection optimization) should utilize the 64-bit JVM.
- Applications that run on 32-bit JVM and do not require more than minimal heap sizes will gain nothing from a 64-bit JVM. Barring memory issues, 64-bit hardware with the same relative clock speed and architecture is not likely to run Java applications faster than their 32-bit cousin.

Installing and Configuring 32-bit Sun JDK 5.0 on Linux

- Download the Sun JDK 5.0 (Java 2 Development Kit) from Sun's website:

http://java.sun.com/javase/downloads/index_jdk5.jsp. Choose "JDK 5.0 Update <x>" (where x is the latest update number) for download and then select "RPM in self-extracting" file for Linux[1]. Read the instructions on Sun's website for installing the JDK.

- If you don't want to use SysV service scripts you can install the "self-extracting file" for Linux instead of choosing the "RPM in self-extracting" file. In that case you can skip the next step mentioned here. But it is recommended to use the SysV service scripts for production servers.
- Download and install the appropriate `-compat RPM` from `JPackage` *here*[2]. Please ensure you choose a matching version of the `-compat` package to the JDK you installed.
- Create an environment variable that points to the JDK installation directory and call it `JAVA_HOME`. Add `$JAVA_HOME/bin` to the system path to be able to run `java` from the command line. You can do this by adding the following lines to the `.bashrc` file in your home directory.

```
#In this example /usr/java/jdk1.5.0_11 is the JDK installation directory.
export JAVA_HOME=/usr/java/jdk1.5.0_11
export PATH=$PATH:$JAVA_HOME/bin
```

  Set this variable for the user account doing the installation and also for the user account that will run the server.

- If you have more than one version of JVM installed in your machine, make sure you are using the JDK1.5 installation as the default `java` and `javac`. You can do this using the alternatives system. The alternatives system allows different versions of Java, from different sources to co-exist on your system.

Select alternatives for java, javac and java_sdk_1.5.0

  - As root, type the following command at the shell prompt and you should see something like this:

```
[root@vsr ~]$ /usr/sbin/alternatives --config java
There are 2 programs which provide 'java'.
Selection    Command
-----------------------------------------------
   1           /usr/lib/jvm/jre-1.4.2-gcj/bin/java
*+ 2           /usr/lib/jvm/jre-1.5.0-sun/bin/java
Enter to keep the current selection[+], or type selection number:
```

    Make sure the Sun version [`jre-1.5.0-sun` in this case] is selected (marked with a '+' in the output), or select it by entering its number as prompted.

  - Repeat the same for javac and java_sdk_1.5.0.

---

[1] Make sure you choose the appropriate file for your platform

```
[root@vsr ~]$ /usr/sbin/alternatives --config javac
There are 1 programs which provide 'javac'.
        Selection   Command
-----------------------------------------------
*+ 1           /usr/lib/jvm/java-1.5.0-sun/bin/javac
Enter to keep the current selection[+], or type selection number:
```

```
[root@vsr ~]$ /usr/sbin/alternatives --config java_sdk_1.5.0
There are 1 programs which provide 'java_sdk_1.5.0'.
        Selection   Command
-----------------------------------------------
*+ 1           /usr/lib/jvm/java-1.5.0-sun
Enter to keep the current selection[+], or type selection number:
```

You should verify that java, javac and java_sdk_1.5.0 all point to the same manufacturer and version.

Note

You can always override this step by setting the `JAVA_HOME` environment variable as explained in the previous step.

- Make sure that the `java` executable is in your path and that you are using an appropriate version. To verify your Java environment, type `java -version` at the shell prompt and you should see something like this:

```
[root@vsr ~]$ java -version
java version "1.5.0_11"
Java(TM) 2 Runtime Environment, Standard Edition (build 1.5.0_11-b03)
Java HotSpot(TM) Client VM (build 1.5.0_11-b03, mixed mode, sharing)
```

Installing and Configuring 32-bit Sun JDK 5.0 on Microsoft Windows

- Download the Sun JDK 5.0 (Java 2 Development Kit) from Sun's website: *http://java.sun.com/javase/downloads/index_jdk5.jsp*. Choose "JDK 5.0 Update <x>" (where x is the latest update number) for download and then select your Windows Platform options to perform the installation.
- Create an environment variable called `JAVA_HOME` that points to the JDK installation directory, for example: `C:\Program Files\Java\jdk1.5.0_11\`. In order to run java from the

command line add the `jre\bin` directory to your path, for example: `C:\Program Files\Java\jdk1.5.0_11\jre\bin`. To do this, open the Control Panel from the Start Menu, switch to Classic View if necessary, open the System Control Panel applet, select the Advanced Tab, and click on the Environment Variables button.

2. Components of JBoss Enterprise Application Platform

For current information on the revision level of included components please refer to *http://www.jboss.com/products/platforms/application/testedconfigurations*.

Chapter 3.

Installation Alternatives

You can install the JBoss Enterprise Application Platform in one of these three modes:

- *Graphical Installer*

  Using the Graphical Installer can simplify the installation and configuration process for non-sophisticated users. In addition to the basic installation, the installer provides you with basic configuration capabilities, allows you to control whether the JMX interfaces are secured and the ability to enter console username/password.

- *ZIP download*

  In this form of installation, simply unzip the downloaded zip file to the directory of your choice. You can unzip the platform on any operating system that supports the zip format.

- *RPM download*

  In this form of installation, you can automatically install the platform on a Red Hat Enterprise Linux system using Red Hat Network.

When you install from the installer, you get a smaller install image that is more tuned for your environment. However, the directory structure will be slightly different than when using the rpm/zip archive.

Four types of server configurations will be included in your installation - *minimal*, *default*, *production* and *all*. The Getting Started Guide explains in detail the different server configuration file sets.

Installation Using The Graphical Installer

Launching the Graphical Installer

- The installer is an executable JAR file named `enterprise-installer-<release>.jar`
- On many operating systems, you can run executable JARs by double-clicking them. If your system doesn't support that, you can run the installer directly from the command line:

```
[vsr]$ java -jar enterprise-installer-<release>.jar
```

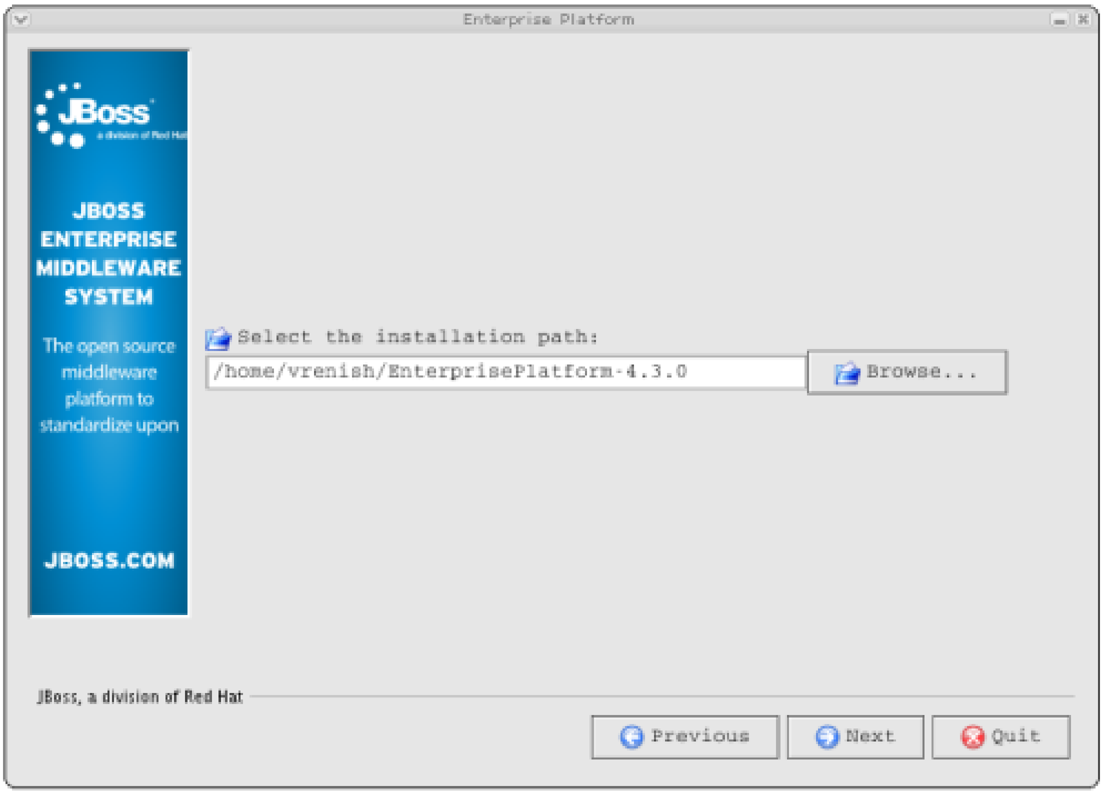
- The installer will then guide you through a series of installation steps explained in detail in the following section. You can quit the installation process any time before you confirm the final installation.

Installation Steps

- Choose the language to be used for the installation instructions and press the OK button.
- Read the License Agreement carefully. If you agree to the terms of the agreement select "I accept the terms of this license agreement" option and press the Next button. If you do not accept to the terms then choose "I do not accept to the terms of this license agreement" option. If you choose the second option you will not be able to proceed with the installation.
- Select the Installation Path where you would like JBoss Enterprise Application Platform to be installed. You can either type the complete path or browse for it. If the directory corresponding to the path you entered does not exist, the installer will create the target directory in the specified path. If the directory corresponding to the path you entered exists already, the installer will overwrite the contents of the directory. In either case the installer will prompt you to confirm the action.

Note

It does not matter where on your system you install JBoss Enterprise Application Platform, however note that installing JBoss Enterprise Application Platform into a directory that has a name containing spaces causes problems in some situations with Sun-based VMs. This is caused by bugs with file URLs not correctly escaping the spaces in the resulting URL.


Enterprise Platform
JBoss a division of Red Hat
JBOSS ENTERPRISE MIDDLEWARE SYSTEM
The open source middleware platform to standardize upon
JBOSS.COM
Browse...
JBoss, a division of Red Hat
Previous
Next
Quit

Select the installation path:

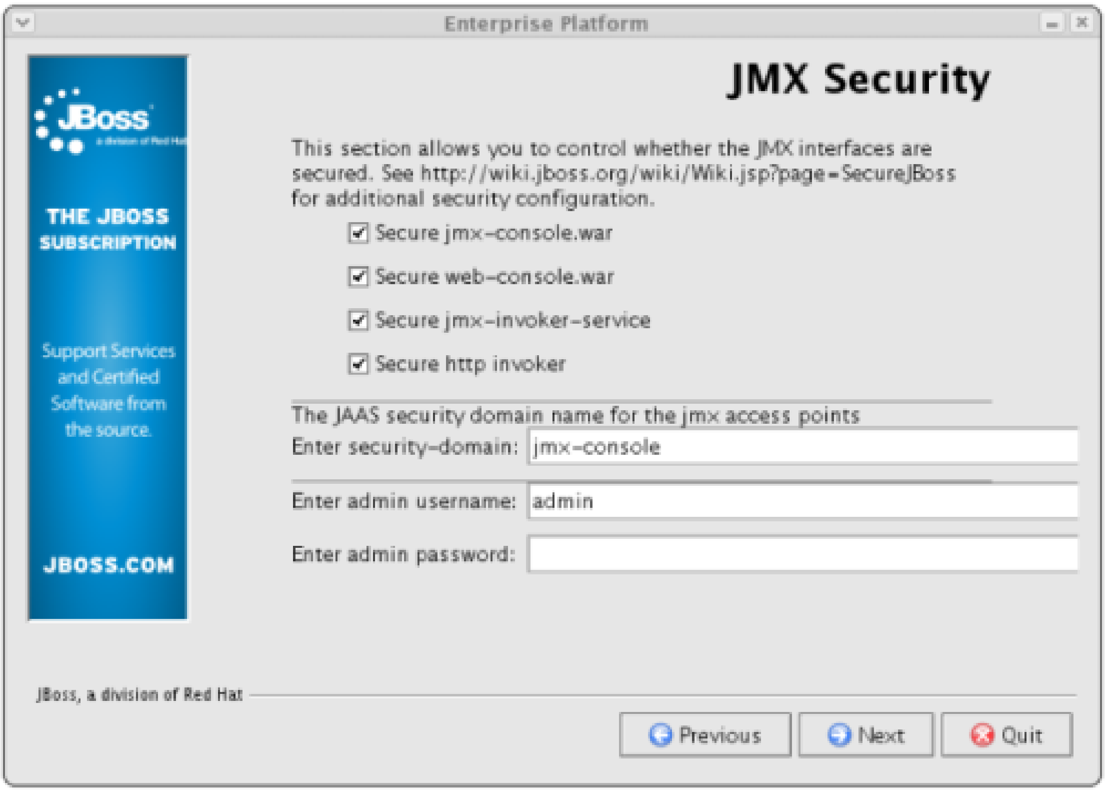
/home/vrenish/EnterprisePlatform-4.3.0

Figure 4.1. Select Installation Path

- Configure JMX Security - In this section you can control the security settings for the JMX interfaces. You can choose to secure the following services:

  jmx-console.war, **web-console.war**, **jmx-invoker-services**, **http invoker**

  It is recommended that you click to enable security for all services and change the username/password from the default `admin`/`admin` values.


Enterprise Platform
JBoss
THE JBOSS SUBSCRIPTION
Support Services and Certified Software from the source.
JBOSS.COM
JBoss, a division of Red Hat
Previous
Next
Quit

JMX Security

This section allows you to control whether the JMX interfaces are secured. See http://wiki.jboss.org/wiki/Wiki.jsp?page=SecureJBoss for additional security configuration.

- ☑ Secure jmx-console.war
- ☑ Secure web-console.war
- ☑ Secure jmx-invoker-service
- ☑ Secure http invoker

The JAAS security domain name for the jmx access points

Enter security-domain: jmx-console

Enter admin username: admin

Enter admin password:

Figure 4.2. Configure JMX Security

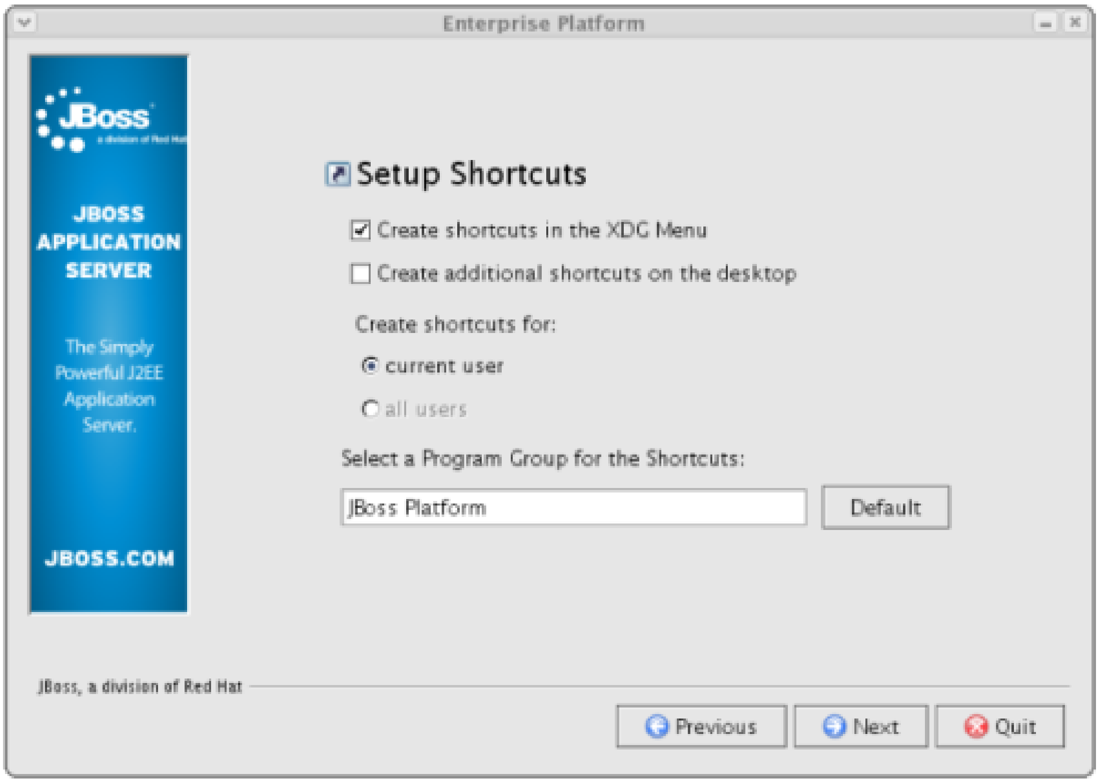
Note

The JMX and web console would ask for your password if you install from the GUI installer.

- You can find the latest release notes available here: *http://www.redhat.com/docs/manuals/jboss*. Read the release notes information carefully to know about important compatibility and configuration issues, library updates, feature requests and bugs, links to additional documentation and license information.
- JBoss Enterprise Application Platform is now ready to install. Verify the installation path displayed in the summary screen before you hit the Next button. Pressing the Next button will begin the installation.
- You can add the JBoss Platform menu in the XDG menu and also choose to create shortcuts on the desktop. If you select the "Create additional shortcuts on the desktop" checkbox, the installer will create the following shortcuts:
  - Shortcut to Start the application server

- Shortcut to Stop the application server
- Shortcut to the documentation
- Shortcut to the JMX Console
- Shortcut to start the demo application

If you run the installer as the root user you can choose to create these shortcuts for all users.



Setup Shortcuts

☑ Create shortcuts in the XDG Menu

☐ Create additional shortcuts on the desktop

Create shortcuts for:

● current user

○ all users

Select a Program Group for the Shortcuts: JBoss Platform

Figure 4.3. Create Desktop Shortcuts

- You are done with the installation! You should now have a directory called `EnterprisePlatform-<release>`, or whatever other name you specified. To explore the Platform directory structure and to understand the layout in detail, refer to the Getting Started Guide.

Installation With ZIP Download

1. Download

You can download the zip file from the JBoss Customer Service Portal (CSP), located at *https://network.jboss.com*.

2. Installation

In this form of installation, simply unzip the downloaded zip file to the directory of your choice. You can unzip the platform on any operating system that supports the zip format.

- Unzip `jboss-eap-<release>.zip` to extract the archive contents into the location of your choice. You can do this using the JDK `jar` tool (or any other ZIP extraction tool).

```
        [vsr]$ cd jbeapinstallationdir
        [vsr]$ jar -xvf jboss-eap-<release>.zip
```

- You are done with the installation! You should now have a directory called `jboss-eap-<release>`. Refer to the Getting Started Guide to understand and explore the Platform Directory Structure.

Installation With RHN

1. Introduction

The Red Hat Network is an Internet solution for managing a single Red Hat Enterprise Linux system or a network of Red Hat Enterprise Linux systems. All Security Alerts, Bug Fix Alerts, and Enhancement Alerts (collectively known as Errata Alerts) can be downloaded directly from Red Hat or your own custom collection. You can even schedule updates for delivery to your system immediately after release.

The Red Hat Update Agent provides your initial connection to Red Hat Network. Red Hat Enterprise Linux 4 and newer systems use the Red Hat Update Agent to register with RHN. Registration involves creating a unique RHN username and password, probing the hardware on your system to create a Hardware Profile, and probing the software packages installed on your system to create a Package Profile. This information is sent to RHN and RHN returns a unique System ID to your system. Once registered, the Red Hat Update Agent enables channel subscription, package installs, and management of System Profiles.

The Red Hat Update Agent, as the base component of RHN, is designed to manage a single system. It allows the system's superuser to view and apply Errata to the system. The RHN web interface facilitates the management, monitoring, and provisioning of a large deployment of systems, including the configuration of the Red Hat Update Agent for each system. More information about the RHN can be viewed on *https://www.redhat.com/rhn/*.

2. Installation using RHN

To be able to install JBoss Enterprise Application Platform using RHN, please firstly ensure that you have met the pre-requisites described in *Section 1, “Pre-Requisites”* and subscribe to the appropriate child channel (refer to the instructions that follow).

Software channels provide a well-defined method to determine which packages should be available to a system for installation or upgrade, based upon its operating systems, packages, and functionality. After logging in to your account on the RHN website at *http://rhn.redhat.com* you can click on a channel name to view its Channel Details page.

You can use the following steps to subscribe a system to the Application Platform channel. This channel will only be available for a valid subscription. Use the Channels tab to view the software channels available for your account.

- For a system that is already registered to Red Hat Network (RHN), log in to your account.
- Select the Systems tab along the top menu. This will bring up the System Overview.
- If the System Overview menu shows System Groups, select View Systems, to see the Systems list.

- Select the desired system by clicking the system name link under the System column.
- Select the Alter Channel Subscriptions link under the Subscribed Channels section (on the right side of the page).
- To modify the child channels associated with this system, use the checkboxes next to the channels and click the Change Subscriptions button. You will receive a success message or be notified of any errors.

On Red Hat Enterprise Linux 4: .

- Subscribe to the child channel: `jbappplatform-4.3.0-[i386|x86_64]-[as|es]-4-rpm`
- Run the following command:

```
up2date jbossas jboss-seam rh-eap-docs jboss-profiler
```

On Red Hat Enterprise Linux 5: .

- Subscribe to the child channel: `jbappplatform-4.3.0-[i386|x86_64]-server-5-rpm`
- Run the following command:

```
yum install jbossas jboss-seam rh-eap-docs jboss-profiler
```

Post Installation Configuration

1. Set JBOSS_HOME Environment Variable

On a Linux Platform .

Create an environment variable that points to the installation directory (`JBOSS_DIST/jboss-as`) and call it `JBOSS_HOME`. Add `$JBOSS_HOME/bin` to the system path to be able to run the server from the command line. You can do this by adding the following lines to the `.bashrc` file in your home directory.

```
#In this example /home/vrenish/EnterprisePlatform-4.3.0/jboss-as is the
installation directory.
  export JBOSS_HOME=/home/vrenish/EnterprisePlatform-4.3.0/jboss-as
  export PATH=$PATH:$JBOSS_HOME/bin
```

Set this variable for the user account(s) that will run the server.

On Microsoft Windows .

Create an environment variable called `JBOSS_HOME` that points to the installation directory, for example: C:\Program Files\EnterprisePlatform-4.3.0\jboss-as\. In order to run the server from the command line add the `bin` directory to your path, for example: C:\Program Files\EnterprisePlatform-4.3.0\jboss-as\bin. To do this, open the Control Panel from the Start Menu, switch to Classic View if necessary, open the System Control Panel applet, select the Advanced Tab, and click on the Environment Variables button.

2. Adjust memory settings

The default configuration for the server to start with, if no other configuration is specified, is the production configuration. It is recommended to run the example Seam applications that are included with the documentation using the production configuration.

To avoid memory issues, adjust the memory settings before deploying the applications. You can do this by updating `JAVA_OPTS` settings in the file `JBOSS_DIST/jboss-as/server/production/run.conf` with these recommended values:

```
     -Xms1303m -Xmx1303m -XX:PermSize=256m -XX:MaxPermSize=256m
```

3. Post Installation Security Configuration

When installed from the zip archive, all JBoss services require authentication to access most JBoss services, including administrative services. Additionally no user accounts are set up. This is to stop default user/password-based attacks.

Set up Accounts for `jmx-console` and the invokers by modifying:

```
  $JBOSS_HOME/server/$CONFIG/conf/props/jmx-console-users.properties
```

Set up Accounts for `web-console` users by modifying:

```
  $JBOSS_HOME/server/$CONFIG/deploy/management/console-mgr.sar/
web-console.war/WEB-INF/classes/web-console-users.properties
```

Where `$JBOSS_HOME` is the install directory and `$CONFIG` is the server configuration being used.

Set SuckerPassword for JBoss Messaging:

JBoss Messaging makes internal connections between nodes in order to redistribute messages between clustered destinations. These connections are made with the user name of a special reserved user whose password is specified by this parameter `SuckerPassword` in the Server Peer configuration file:

```
$JBOSS_HOME/server/$CONFIG/deploy/jboss-messaging.sar/messaging-service.xml
```

Where `$JBOSS_HOME` is the install directory and `$CONFIG` is the server configuration being used. To avoid a security risk, you MUST specify the value of the attribute `SuckerPassword`, failing which the default value will be used. Any one who knows the default password will be able to gain access to any destinations on the server. The following fragment should be uncommented and modified:

```
  <mbean code="org.jboss.jms.server.ServerPeer"
      name="jboss.messaging:service=ServerPeer"
      xmbean-dd="xmdesc/ServerPeer-xmbean.xml">
      ...
      ...
      ...
      ...
   <!-- The password used by the message sucker connections to create
connections.
           THIS SHOULD ALWAYS BE CHANGED AT INSTALL TIME TO SECURE SYSTEM
-->
      <attribute name="SuckerPassword"></attribute>

      ...
```

```
        ...
        ...
    </mbean>
```

4. Disabling Authentication

It is also possible to disable authentication on specific services. All specified paths in the sections below are relative to `$JBOSS_HOME`.

Disabling Authentication for JXM Console:

To disable authentication for the JMX console, edit the following file and comment out the security-constraint section:

```
server/$CONFIG/deploy/jmx-console.war/WEB-INF/web.xml
```

The following fragment should be commented out:

```
<security-constraint>
    <web-resource-collection>
        <web-resource-name>HtmlAdaptor</web-resource-name>
        <description>An example security config that only allows
users with the
role JBossAdmin to access the HTML JMX console web application
        </description>
        <url-pattern>/*</url-pattern>
         <http-method>GET</http-method>
         <http-method>POST</http-method>
    </web-resource-collection>
    <auth-constraint>
        <role-name>JBossAdmin</role-name>
    </auth-constraint>
</security-constraint>
```

Disabling Authentication for Web Console:

To disable authentication for the Web console, edit the following file to comment out the security-constraint section:

```
server/$CONFIG/deploy/management/console-mgr.sar/web-console.war/WEB-INF/web.xml
```

The following fragment should be commented out:

```
<security-constraint>
    <web-resource-collection>
        <web-resource-name>HtmlAdaptor</web-resource-name>
        <description>An example security config that only allows
users with the role JBossAdmin to access the HTML JMX console web
application
        </description>
        <url-pattern>/*</url-pattern>
        <http-method>GET</http-method>
        <http-method>POST</http-method>
    </web-resource-collection>
    <auth-constraint>
        <role-name>JBossAdmin</role-name>
    </auth-constraint>
</security-constraint>
```

Disabling Authentication for HTTP Invoker:

To disable authentication for the http invoker, `JNDIFactory`, `EJBInvokerServlet`, and `JMXInvokerServlet` need to be removed from the security realm in the file:

```
server/$CONFIG/deploy/httpha-invoker.sar/invoker.war/WEB-INF/web.xml
```

For example, the security-constraint element should look as follows:

```
<security-constraint>
    <web-resource-collection>
        <web-resource-name>HttpInvokers</web-resource-name>
        <description>An example security config that only allows
users with the role HttpInvoker to access the HTTP invoker servlets
        </description>
        <url-pattern>/restricted/*</url-pattern>
        <http-method>GET</http-method>
        <http-method>POST</http-method>
    </web-resource-collection>
    <auth-constraint>
        <role-name>HttpInvoker</role-name>
    </auth-constraint>
    </security-constraint>
```

Disabling Authentication for JMX Invoker:

To disable authentication for the JMX invoker, edit the following file to comment out the security interceptor passthrough:

```
server/$CONFIG/deploy/jmx-invoker-service.xml
```

Locate the mbean section with the class `org.jboss.jmx.connector.invoker.InvokerAdaptorService`. In that section comment out the line that relates to authenticated users:

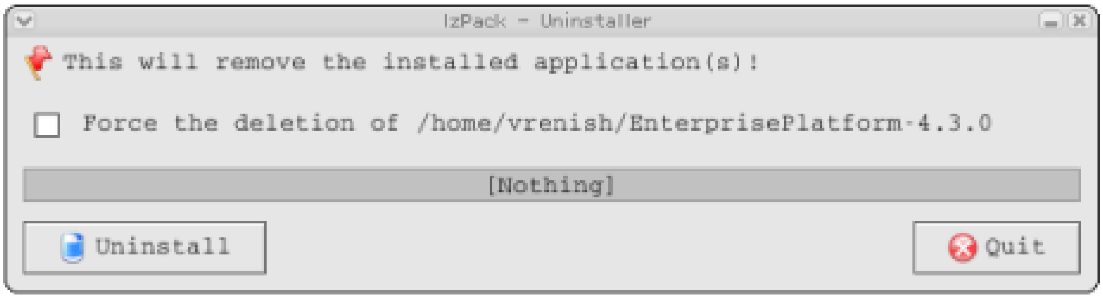
```
<descriptors>
    <interceptors>
        <!-- Uncomment to require authenticated users -->
        <interceptor
code="org.jboss.jmx.connector.invoker.AuthenticationInterceptor"
                    securityDomain="java:/jaas/jmx-console"/>
        <!-- Interceptor that deals with non-serializable results -->
        <interceptor
code="org.jboss.jmx.connector.invoker.SerializableInterceptor"
                    policyClass="StripModelMBeanInfoPolicy"/>
    </interceptors>
</descriptors>
```

Uninstall JBoss

If you used the GUI installer to install JBoss Enterprise Application Platform, then an automatic uninstaller is also installed. From the GUI the uninstaller can be selected from the JBoss program group, if one was created at installation time. A second option is to run this uninstaller from the command line. Within the JBoss Enterprise Application Platform Installation directory you will find a directory called `Uninstaller`. Inside the `Uninstaller` directory you will find a jar file named `uninstaller.jar`. Run the uninstaller from the command line using the `jar` utility.

```
[vsr]$ java -jar uninstaller.jar
```

This command will launch the uninstaller program. If you wish to delete the installation directory and all its contents select the check box "Force the deletion of <installation_directory>" and hit the Uninstall button.



This will remove the installed application(s)!

☐ Force the deletion of /home/vrenish/EnterprisePlatform-4.3.0

Figure 8.1. Uninstaller

If no uninstaller is available, and JBoss Enterprise Application Platform was installed using the zip file, it may be uninstalled by simply deleting the JBoss Enterprise Application Platform installed directory.

Test your Installation

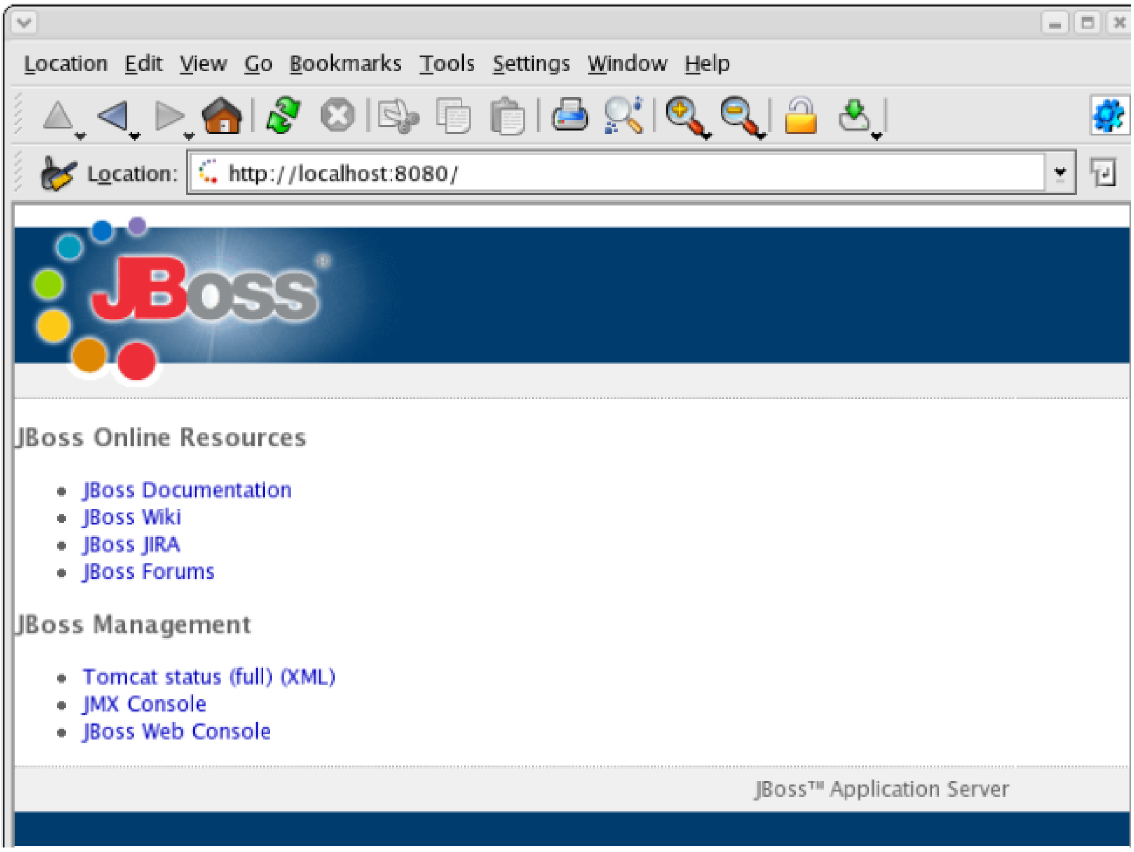
After you have installed the JBoss Enterprise Application Platform, it is wise to perform a simple startup test to validate that there are no major problems with your Java VM/operating system combination. Make sure you have set the `JBOSS_HOME` envirnoment variables as explained in *Post_Installation_Configuration*. To test your installation, move to `JBOSS_DIST/jboss-as/bin` directory and execute the `run.bat` (for Windows) or `run.sh` (for Linux) script, as appropriate for your operating system. Your output should look like the following (accounting for installation directory differences) and contain no error or exception messages:

```
[vrenish@vinux bin]$ ./run.sh
=====================================================

  JBoss Bootstrap Environment

  JBOSS_HOME: /home/vrenish/jboss-eap-4.3/jboss-as

  JAVA: /usr/java/jdk1.5.0_11/bin/java

  JAVA_OPTS: -Dprogram.name=run.sh -server -Xms1503m -Xmx1503m
-Dsun.rmi.dgc.cli ent.gcInterval=3600000
             -Dsun.rmi.dgc.server.gcInterval=3600000 -Djava.net.prefer
IPv4Stack=true

  CLASSPATH: /home/vrenish/jboss-eap-4.3/jboss-as/bin/run.jar:/u
sr/java/jdk1.5.0_11/lib/tools.jar

=====================================================

18:45:49,550 INFO  [Server] Starting JBoss (MX MicroKernel)...
.
.
.
.
18:45:50,449 INFO  [ServerInfo] Java version: 1.5.0_11,Sun Microsystems Inc.
18:45:50,449 INFO  [ServerInfo] Java VM: Java HotSpot(TM) Server VM
1.5.0_11-b03 ,Sun Microsystems Inc.
18:45:50,449 INFO  [ServerInfo] OS-System: Linux 2.6.9-42.0.3.EL,i386
18:45:51,824 INFO  [Server] Core system initialized
18:45:59,622 INFO  [WebService] Using RMI server codebase:
http://127.0.0.1:8083 /
18:45:59,659 INFO  [Log4jService$URLWatchTimerTask] Configuring from URL:
resour ce:jboss-log4j.xml
```

Note

Note that there is no "Server Started" message shown at the console when the server is started using the `production` profile, which is the default profile used when no other is specified. This message may be observed in the `server.log` file located in the `server/production/log` subdirectory.

Now open `http://localhost:8080` in your web browser. (Make sure you dont have anything else already on your machine using that port).[1] The contents of your page should look similar to this: *Figure 9.1, “Test your Installation”*.



JBoss Online Resources

- JBoss Documentation
- JBoss Wiki
- JBoss JIRA
- JBoss Forums

JBoss Management

- Tomcat status (full) (XML)
- JMX Console
- JBoss Web Console

JBoss™ Application Server

Figure 9.1. Test your Installation

You are now ready to use the JBoss Enterprise Application Platform. Refer to the Getting Started Guide for more information about the platform layout and example applications showcasing JBoss in action.

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[1] Note that on some machines, the name localhost won’t resolve properly and you should use the local loopback address 127.0.0.1 instead.