



# **JBoss Enterprise Application Platform 6**

## **Installation Guide**

For Use with JBoss Enterprise Application Platform 6

Edition 2



# JBoss Enterprise Application Platform 6 Installation Guide

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Edition 2

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## Abstract

This book is a guide to the installation of JBoss Enterprise Application Platform 6 and its patch releases.

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# PREFACE

# CHAPTER 1. INTRODUCING JBOSS ENTERPRISE APPLICATION PLATFORM 6

## 1.1. INTRODUCING JBOSS ENTERPRISE APPLICATION PLATFORM 6

JBoss Enterprise Application Platform 6 is a middleware platform built on open standards, and compliant with Java EE. It integrates JBoss Application Server 7 with high-availability clustering, powerful messaging, distributed caching, and other technologies to create a stable, scalable, and fast platform. In addition, it also includes APIs and development frameworks you can use to develop secure, powerful, and scalable Java EE applications quickly.

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## 1.2. NEW AND CHANGED FEATURES IN JBOSS ENTERPRISE APPLICATION PLATFORM 6

**Table 1.1. 6.0.1 Features**

Feature	Description
Java Certification	Certified implementation of the Java Enterprise Edition 6 Full Profile and Web Profile specifications.
Managed Domain	<ul style="list-style-type: none"> <li>Centralized management of multiple server instances and physical hosts, while a Standalone Server allows for a single server instance.</li> <li>Configurations, deployments, socket bindings, modules, extensions, and system properties are managed per server group.</li> <li>Application security, including security domains, are managed centrally for simplified configuration.</li> </ul>
Management Console and Management CLI	New interfaces are provided to manage the domain or standalone server. Manual editing of XML configuration files is no longer required. The Management CLI also offers batch mode that can script and automate management tasks.
Simplified directory layout	The <i>modules/</i> directory now contains the application server modules, instead of using common and server-specific <i>lib/</i> directories. The <i>domain/</i> and <i>standalone/</i> directories contain the artifacts and configuration files for domain and standalone deployments.



Feature	Description
Modular classloading mechanism	Modules are loaded and unloaded on demand to provide performance and security benefits and a faster start-up and restart time.
Streamlined Data source management	Database drivers are deployed just like other services. In addition, datasources are created and managed directly in the Management Console or Management CLI.
Faster start and stop time	JBoss Enterprise Application Platform 6 uses fewer resources and is extremely efficient in its use of system resources. This is especially beneficial for developers.

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## CHAPTER 2. DOWNLOADING JBOSS ENTERPRISE APPLICATION PLATFORM 6

### 2.1. ABOUT THE RED HAT CUSTOMER PORTAL

The *Red Hat Customer Portal* is a website where Red Hat customers download officially-supported software, manage entitlements and support contracts, contact Global Support Services, and file bugs against Red Hat products. The web address to access the Customer Portal is <https://access.redhat.com>.

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### 2.2. AVAILABLE DOWNLOADS FOR JBOSS ENTERPRISE APPLICATION PLATFORM 6

JBoss Enterprise Application Platform 6 includes a number of different installation types and optional components, which are available for download on the Red Hat Customer Portal at <https://access.redhat.com/>. The following table explains the different options. Some components are only appropriate for certain operating systems or architectures, and thus are only available for those specific variations.

**Table 2.1. Available Downloads for JBoss Enterprise Application Platform 6**

Name	Description	Operating Systems
Apache HTTP Server	A stand-alone Apache HTTP server instance for each supported operating system and architecture. This HTTP server has been tested and verified to work with JBoss Enterprise Application Platform 6.	Red Hat Enterprise Linux 5, Red Hat Enterprise Linux 6, Microsoft Windows Server 2008, Solaris 10 and 11
Native Components	Components which have been compiled to be optimized for a specific platform. For instance, DLLs are provided for Microsoft Windows Server environments. In some cases, the native components may provide performance improvements.	Red Hat Enterprise Linux 5, Red Hat Enterprise Linux 6, Microsoft Windows Server 2008, Solaris 10 and 11
Native Utilities	Utilities specific to each supported operating system and architecture, such as scripts and utilities for installing JBoss Enterprise Application Platform as a service in your operating system and generating SSL encryption keys and certificates.	Red Hat Enterprise Linux 5, Red Hat Enterprise Linux 6, Microsoft Windows Server 2008, Solaris 10 and 11

Name	Description	Operating Systems
Webserver Connector Natives	Pre-compiled modules for Apache, Microsoft, and Oracle iPlanet web servers, for HTTP load balancing and high-availability capabilities. These binaries are extensively tested and known to work well with JBoss Enterprise Application Platform 6.	Red Hat Enterprise Linux 5, Red Hat Enterprise Linux 6, Microsoft Windows Server 2008, Solaris 10 and 11
Javadocs	Documentation for all public APIs exposed by JBoss Enterprise Application Platform 6. You can install these into your local HTTP server or IDE, or can view them on your local machine.	Platform-independent
Installer	Java graphical installer for JBoss Enterprise Application Platform 6	Platform-independent
Maven Repository	A Maven repository which you can download and make available in your local development environment, and which contains artifacts common to applications built upon JBoss Enterprise Application Platform 6.	Platform-independent
Quickstarts	Example applications to help you get started developing Java EE 6 applications with APIs supplied with JBoss Enterprise Application Platform 6.	Platform-independent
Source Code	The Java source code for JBoss Enterprise Application Platform 6, provided so that you can recompile it in your own environment or audit it yourself.	Platform-independent
Application Platform	The ZIP installation package which can be installed and run on every supported platform. This is the most common way to install JBoss Enterprise Application Platform 6.	Platform-independent



## IMPORTANT

The RPM installation method's downloads are not available on the Customer Portal, but via the Red Hat Network (RHN). To install JBoss Enterprise Application Platform 6 via RPM, refer to the following topic: [Section 4.4, “Install JBoss Enterprise Application Platform 6 using the Red Hat Network \(RPM installation\)”](#)

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## 2.3. DOWNLOAD JBOSS ENTERPRISE APPLICATION PLATFORM 6

1. Log into the Customer Service Portal at <https://access.redhat.com>.
2. From the menu, select **Downloads** → **JBoss Enterprise Middleware** → **Downloads**.
3. Select **Application Platform** from the **Product** drop-down box.
4. Locate the appropriate Application Platform version and click the **Download** link.
5. Download any other available packages you need, such as the Quickstarts, Maven Repository, HTTP Connectors, or Native binaries.

### Result

JBoss Enterprise Application Platform 6 and any supplemental files that you selected are downloaded to your computer.

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## CHAPTER 3. PREPARING TO INSTALL JBOSS ENTERPRISE APPLICATION PLATFORM 6

### 3.1. INSTALLATION PREREQUISITES FOR JBOSS ENTERPRISE APPLICATION PLATFORM 6

Before you can install JBoss Enterprise Application Platform 6, you need to meet the following requirements:

- Set up an account on the Red Hat Customer Portal at <https://access.redhat.com>. Refer to Section 2.1, “About the Red Hat Customer Portal”
- Review and make sure your computer uses a supported configuration, according to <https://access.redhat.com/support/configurations/jboss/>.

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### 3.2. JAVA ENVIRONMENTS SUPPORTED BY JBOSS ENTERPRISE APPLICATION PLATFORM 6

JBoss Enterprise Application Platform 6 requires Java 6 or Java 7. The list of supported Java environments can be found at <http://www.jboss.com/products/platforms/application/supportedconfigurations/>. A Java Development Kit (JDK) is required for development, and a Java Runtime Environment (JRE) is required to run JBoss Enterprise Application Platform.



#### NOTE

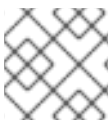
If you are using a RPM installation, you need a Java 6 JDK installed even if you use the Java 7 JDK for development.

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### 3.3. INSTALL OPENJDK ON RED HAT ENTERPRISE LINUX

#### Introduction

OpenJDK is one of many Java Development Kits (JDKs) supported in Red Hat Enterprise Linux for use with JBoss enterprise products. This task shows you how to install OpenJDK in Red Hat Enterprise Linux, and how to configure your system to use it as the default JDK.



#### NOTE

It is possible to install multiple JDKs on a single system.

#### Task Prerequisites

You must meet the following conditions before continuing with this task:

- You must be running Red Hat Enterprise Linux 6. OpenJDK is not available or supported for Red Hat Enterprise Linux 5 at this time.
- The server running Red Hat Enterprise Linux 6 must be registered with RHN and subscribed to the base channel. Refer to the Package Management section of the *Red Hat Enterprise Linux 6 Deployment Guide* on <https://access.redhat.com/knowledge/docs/> for more information about managing subscriptions and entitlements on Red Hat Enterprise Linux systems.

### 1. Install the OpenJDK RPM.

There are two different ways to install an RPM, depending on whether you have used a command-line interface (CLI) or a Graphical User Interface (GUI).

#### o From the CLI

After logging in with administrator access, run one of the following two commands:

##### OpenJDK 6

```
yum install java-1.6.0-openjdk-devel
```

##### OpenJDK 7

```
yum install java-1.7.0-openjdk-devel
```

#### o From a GUI

- a. In Gnome, select **Administration** from the **System** menu, and click **Add / Remove Software**.
- b. Search for **openjdk** and choose the **java-1.6.0-openjdk-devel** option for OpenJDK 6 or the **java-1.7.0-openjdk-devel** option for OpenJDK 7.
- c. Click **Apply** to install the selected packages and dependencies.
- d. When prompted, enter the administrator password to install the packages.

### 2. Optional: Set the JAVA\_HOME environment variable.

Some applications such as Apache Maven and Apache Ant require you to set the **JAVA\_HOME** environment variable. If you need to do this, follow these steps.

- a. Determine the correct value for **JAVA\_HOME**. Red Hat Enterprise Linux installs OpenJDK 1.6 into either **/usr/lib/jvm/java-1.6.0-openjdk-1.6.0.0/** or **/usr/lib/jvm/java-1.6.0-openjdk-1.6.0.0.x86\_64/**, depending on whether your system is a 32-bit or 64-bit architecture. The **JAVA\_HOME** should point to the directory containing a **bin/java** executable.
- b. As the user who will use OpenJDK, open the shell configuration file. For the Bash shell, this file is **/home/username/.bashrc**.
- c. At the bottom of the file, type the following line, replacing the hypothetical path with the actual path to use on your own system: **export JAVA\_HOME="/path/to/java/home"**
- d. Save the file, and log out of and back into your session.

### 3. Switch between different OpenJDK versions using the `alternatives` utility.

Red Hat Enterprise Linux includes a utility called **alternatives**, which lets you change the default version for applications which allow multiple versions to be installed. OpenJDK is one such application.

To use the **alternatives** utility, perform the following steps. Note that setting the environment variables overrides the behavior of the **alternatives** command. For instance, if you use a script which manually sets **\$JAVA\_HOME** and **\$JAVA** variables to a different JDK from the one specified by the **alternatives** command, the environment variables will override the command.

- Log in as the **root** user, or prefix the commands below with the **sudo** command.
- The **alternatives** command is not installed by default, but may already be installed on your system. If not, install the **alternatives** package by running the following command:

```
yum install alternatives
```

- Issue the following command:

```
/usr/sbin/alternatives --config java
```

- Follow the prompts that follow to set the default version of OpenJDK.

**Result:**

OpenJDK is installed on your server and available for your use. If necessarily, the **JAVA\_HOME** environment variable has been specified as well. If necessary, the default OpenJDK for your system has been set using the **alternatives** utility.

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## CHAPTER 4. INSTALLING JBOSS ENTERPRISE APPLICATION PLATFORM 6

### 4.1. INSTALLATION METHODS FOR JBOSS ENTERPRISE APPLICATION PLATFORM 6

The installation choices for JBoss Enterprise Application Platform 6 include an RPM repository, a JAR installer or the extraction of a ZIP archive.

You can use the RPM installer if you have a compatible operating system, or the Zip file if you would like to extract the server manually. The installer file is available to assist new users in the configuration and startup process, which also creates an XML installation script to automate the installation process for other or future installations.

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### 4.2. INSTALL JBOSS ENTERPRISE APPLICATION PLATFORM 6 USING THE INSTALLER METHOD

#### Summary

The JBoss Enterprise Application Platform 6 installer offers multiple methods for installation. Choose from either the standard Graphical User Interface (GUI) installation, or a Command Line Interface (CLI) mode with the console parameter. An Automatic Installation mode enables you to generate an XML file of your selected installation settings to assist in future installations.

#### Prerequisites

- [Section 2.3, “Download JBoss Enterprise Application Platform 6”](#)

#### Procedure 4.1. Task

- **Install JBoss Enterprise Application Platform 6**

Choose your installation preference.

- **GUI Installation**

- a. Launch the GUI installer with the following Java command.

```
java -jar jboss-eap-6.0.0-installer.jar
```

- b. Follow the installation prompts. At the end of installation, an XML file of the installation can be generated, for future use with the Automatic Installation feature.

- **Console Installation**

- a. Launch the console installer with the following Java command.

```
java -jar jboss-eap-6.0.0-installer.jar -console
```



- b. Follow the installation text prompts. At the end of the installation, an XML file of the installation can be generated, for use with the automatic installation feature.

- o **Automatic Installation**

- a. If you have created a previous installation instance, you will have generated an automatic installation XML script. You can use this file to run the automatic installation option.
- b. Launch the automatic installer with the following Java command.

```
java -jar jboss-eap-6.0.0-installer.jar NameOfXML.xml
```

- c. Installation will complete according to the values in the XML file.

### Result

The installation is complete.

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## 4.3. INSTALL JBOSS ENTERPRISE APPLICATION PLATFORM 6 USING THE ZIP DOWNLOAD

### Summary

The Zip file installation method is appropriate for all support operating systems.

### Prerequisites

Before you can install JBoss Enterprise Application Platform 6, you need to download the Zip archive from the Red Hat Customer Service Portal.

### Procedure 4.2. Task

1. **Move the Zip archive to the desired location.**

Move the Zip file to the server and directory where you want to install JBoss Enterprise Application Platform 6. The directory should be accessible by the user who will start and stop the server.

2. **Use an appropriate application to extract the Zip archive.**

In Linux, the command to extract a Zip archive is typically called **unzip**. In a Microsoft Windows environment, right-click the file and select **Extract All**.

### Result

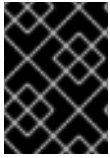
The directory created by extracting the Zip archive is the top-level directory for JBoss Enterprise Application Platform 6. This is typically referred to as **EAP\_HOME**. If you ever decide to move your installation, you can move this directory to another directory or another server.

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## 4.4. INSTALL JBOSS ENTERPRISE APPLICATION PLATFORM 6 USING THE RED HAT NETWORK (RPM INSTALLATION)

### Summary

The RPM package method of installing JBoss Enterprise Application Platform 6 is appropriate for Red Hat Enterprise Linux 6. The recommended installation method is to use the Red Hat Network (RHN) to manage your server subscriptions and channels.



### IMPORTANT

The **jbossas-hornetq-native** package is included for high availability in JBoss Enterprise Application Platform 6 but it is not activated by default.

### Prerequisites

To install JBoss Enterprise Application Platform 6 using the Red Hat Network, the host server must meet the following requirements:

- The server must be registered on the Red Hat Network.
- The server must be subscribed to the **Red Hat Enterprise Linux Server (v.6)** base software channel.
- The server must be subscribed to the **JBoss Application Platform (v 6) for 6Server x86\_64** sub-channel. The sub-channel is in the **Additional Services Channels for Red Hat Enterprise Linux 6 for x86\_64** group.
- A Java 6 JDK must be installed. If you wish to use a Java 7 JDK, you need to install both versions. To configure which JDK your system uses as the default, run the following command, with superuser privileges:

```
[root@host /root]# alternatives --config java
```

A plus sign (+) is displayed beside the current default. Follow the on-screen instructions to make any changes, or press the Enter key to keep the current selection.

## jboss-eap-600-accounts

[- delete system](#)
[Details](#) **Software** [Groups](#) [Events](#)
[Errata](#) [Packages](#) **Software Channels**

### Base Software Channel

You can change the base software channel your system is subscribed to. The system will be unsubscribed from all software channels, and subscribed to the new base software channel.

Base Channel:

[Modify Base Channel](#)

### Software Channel Subscriptions

This system is subscribed to the base channel, listed at top, and to the checked channels beneath, if any. Disabled checkboxes indicate channels that can't be manually subscribed or unsubscribed from.

+ [Release Channels for Red Hat Enterprise Linux 6 for x86\\_64](#)

+ [BETA Channels for Red Hat Enterprise Linux 6 for x86\\_64](#)

- [Additional Services Channels for Red Hat Enterprise Linux 6 for x86\\_64](#)

Channel Entitlement	Entitlement Usage <a href="#">?</a>
<input type="checkbox"/> JBoss Application Platform (v 5) for 6Server x86_64 ( <a href="#">Channel Details</a> )	Consumes a Flex Guest entitlement (39995 available)
<input checked="" type="checkbox"/> JBoss Application Platform (v 6) for 6Server x86_64 ( <a href="#">Channel Details</a> )	Consumes a Flex Guest entitlement (39995 available)

Figure 4.1. A system configured for RHN installation of JBoss Enterprise Application Platform 6

#### Procedure 4.3. Task

Access and install the RPM package by using the YUM install via the Red Hat Network.

1. **Install the RPM package by using YUM and the Red Hat Network**

Use YUM to install the default JBoss Enterprise Application Platform 6 group package by using the `groupinstall` command.

```
[user@host ~]$ yum groupinstall jboss-eap6
```

2. **Configure init options.**

The RPM install contains init scripts for launching the server. The configuration for the init scripts are contained in several additional files. Refer to [Section 4.5, “RPM Installation Configuration Files”](#) for details about these files and the options contained within.

#### Result

The installation is complete. Refer to [Section A.1, “RPM Package List and Dependencies”](#) for a complete list of all the packages installed.

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## 4.5. RPM INSTALLATION CONFIGURATION FILES

The RPM installation of JBoss Enterprise Application Platform 6 includes three additional configuration files that are used by the service init script to specify the application server's launch environment. One of these files applies to all JBoss Enterprise Application Platform 6 instances, the other two provide overrides for standalone and domain mode servers.

**Table 4.1. RPM Installation Configuration Files**

File	Description
<code>/etc/jbossas/jbossas.conf</code>	This file is read first and applies to all JBoss Enterprise Application Platform 6 instances.
<code>/etc/sysconfig/jbossas</code>	Settings specific to standalone servers. Values specified here will override those in <code>jbossas.conf</code> when running as a standalone server.
<code>/etc/sysconfig/jbossas-domain</code>	Settings specific to domain-mode servers. Values specified here will override those in <code>jbossas.conf</code> when running as a domain-mode server.

**Table 4.2. RPM Installation Configuration Properties**

Property	Description
<code>JBOSS_USER</code>	The system user account that the JBoss Enterprise Application Platform 6 runs as. This user also has ownership of the files.  Default value: <code>jboss</code> .
<code>JBOSS_GROUP</code>	The system user group that the JBoss Enterprise Application Platform 6 files belong to.  Default value: <code>jboss</code>
<code>JBOSS_START_WAIT</code>	The number of seconds that the init script will wait until confirming that the server has launched successfully after receiving a <code>start</code> or <code>restart</code> command.  Default value: <code>60</code>
<code>JBOSS_SHUTDOWN_WAIT</code>	The number of seconds that the init script will wait for the server to shutdown before continuing when it receives a <code>stop</code> or <code>restart</code> command.  Default value: <code>20</code>
<code>JBOSS_CONSOLE_LOG</code>	The file that the CONSOLE log handler will be redirected to.  Default value: <code>/var/log/jbossas/\$JBOSSCONF/console.log</code>
<code>JAVA_HOME</code>	The directory where your Java Runtime Environment is installed.  Default value: <code>/usr/lib/jvm/jre</code>

Property	Description
<b>JBOSS_HOME</b>	The directory where the application server files are installed. Default value: <b>/usr/share/jbossas</b>
<b>JAVAPTH</b>	The path where the Java executable files are installed. Default value: <b>\$JAVA_HOME/bin</b>
<b>JBOSSCONF</b>	The server mode to launch this server in, <b>standalone</b> or <b>domain</b> . Default value: <b>standalone</b> or <b>domain</b> depending on server mode.
<b>JBOSSSH</b>	The script which is used to launch to server. Default value: <b>\$JBOSS_HOME/bin/\$JBOSSCONF.sh</b>
<b>JBOSS_SERVER_CONFIG</b>	The server configuration file to use. Default value: <b>standalone.xml</b> or <b>domain.xml</b> or standalone or domain servers respectively.

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## 4.6. INSTALLATION STRUCTURE AND DETAILS

JBoss Enterprise Application Platform 6 includes a simplified directory structure, compared to previous versions. Following is a listing of the directory structure, and a description of what the directory contains.

**Table 4.3. Top-level directories and files**

Name	Purpose
appclient/	Contains configuration details for the application client container.
bin/	Contains start-up scripts for JBoss Enterprise Application Platform 6 on Red Hat Enterprise Linux and Microsoft Windows.
bundles/	Contains OSGi bundles which pertain to JBoss Enterprise Application Platform 6 internal functionality.
docs/	License files, schemas, and examples.
domain/	Configuration files, deployment content, and writable areas used when JBoss Enterprise Application Platform 6 runs as a managed domain.

Name	Purpose
modules/	Modules which are dynamically loaded by JBoss Enterprise Application Platform 6 when services request them.
standalone/	Configuration files, deployment content, and writable areas used when JBoss Enterprise Application Platform 6 runs as a standalone server.
welcome-content/	Contains content used by the Welcome web application which is available on port 8080 of a default installation.
<b>jboss-modules.jar</b>	The bootstrapping mechanism which loads modules.

**Table 4.4. Directories within the domain/ directory**

Name	Purpose
configuration/	Configuration files for the managed domain. These files are modified by the Management Console and Management CLI, and are not meant to be edited directly.
data/	Information about deployed services. Services are deployed using the Management Console and Management CLI, rather than by a deployment scanner. Therefore, do not place files in this directory manually.
log/	Contains the run-time log files for the host and process controllers which run on the local instance.
servers/	Contains the equivalent <b>data/</b> , <b>log/</b> , and <b>tmp/</b> directories for each server instance in a domain, which contain similar data to the same directories within the top-level <b>domain/</b> directory.
tmp/	Contains temporary data such as files pertaining to the shared-key mechanism used by the Management CLI to authenticate local users to the managed domain.

**Table 4.5. Directories within the standalone/ directory**

Name	Purpose
------	---------

Name	Purpose
configuration/	Configuration files for the standalone server. These files are modified by the Management Console and Management CLI, and are not meant to be edited directly.
deployments/	Information about deployed services. The standalone server does include a deployment scanner, so you can place archives in this directory to be deployed. However, the recommended approach is to manage deployments using the Management Console or Management CLI.
lib/	External libraries which pertain to a standalone server mode. Empty by default.
tmp/	Contains temporary data such as files pertaining to the shared-key mechanism used by the Management CLI to authenticate local users to the server.

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## CHAPTER 5. UPGRADING JBOSS ENTERPRISE APPLICATION PLATFORM 6

### 5.1. UPGRADE THE JBOSS ENTERPRISE APPLICATION PLATFORM 6 ZIP INSTALLATION

#### Summary

Upgrading to JBoss Enterprise Application Platform 6.0.1 requires some initial work to back up the existing 6.0.0 installation. This topic covers upgrading the ZIP installation.

#### Prerequisites

- Ensure that the base operating system is up to date.
- Determine which files have been modified since EAP 6.0.0 was installed.
- Back up any modified configuration files, deployments, and all user data.
- [Section 2.3, “Download JBoss Enterprise Application Platform 6”](#).



#### WARNING

For managed domains, the master Host Controller (or Domain Controller) instance should be upgraded first, before each Host Controller is upgraded.

#### Procedure 5.1. Upgrade to JBoss Enterprise Application Platform 6.0.1

1. Move the 6.0.1 ZIP archive to the desired location. It is recommended that this is a different location to the JBoss Enterprise Application Platform 6.0.0 installation.



#### IMPORTANT

If you wish to install JBoss Enterprise Application Platform 6.0.1 to the same directory location as 6.0.0, you will need to move the existing installation to a different location before proceeding. This is to prevent modified configuration files, deployments, and upgrades from 6.0.0 to 6.0.1 from being lost.

2. Unzip the archive. This step installs a clean instance of JBoss Enterprise Application Platform 6.0.1.
3. Copy the **EAP\_HOME/domain/** and **EAP\_HOME/standalone/** directories from the 6.0.0 installation over the 6.0.1 directories.
4. Review the changes made to the **bin** directory of the 6.0.0 installation, and make the equivalent modifications to the 6.0.1 directory.



**WARNING**

Files in the 6.0.1 **bin** directory should not be overwritten by the 6.0.0 files. Changes should be made manually.

5. Review the remaining modified files from the 6.0.0 installation, and move these changes into the 6.0.1 installation. These files may include:
  - o The **welcome-content** directory.
  - o Custom modules in the **modules** directory.
  - o Custom bundles in the **bundles** directory.

**Result**

The JBoss Enterprise Application Platform 6 ZIP installation has been successfully upgraded to the 6.0.1 release.

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## 5.2. UPGRADE THE JBOSS ENTERPRISE APPLICATION PLATFORM 6 RPM INSTALLATION

**Summary**

Upgrading to JBoss Enterprise Application Platform 6.0.1 requires some initial work to back up the existing 6.0.0 installation. This topic covers upgrading the RPM installation via the Red Hat Network (RHN).

**Prerequisites**

- Ensure that the base operating system is up to date.
- Ensure that the the **jboss-eap6** RHN channel is enabled.
- Back up any modified configuration files, deployments, and all user data.

**WARNING**

For managed domains, the master Host Controller (or Domain Controller) instance should be upgraded first, before each Host Controller is upgraded.

**Procedure 5.2. Upgrade to JBoss Enterprise Application Platform 6.0.1**

1. Run the following command in a terminal to upgrade the installation:

```
█ [user@host] yum update
```

2. Manually merge each created \*.rpmnew file that contains changes into the production configuration files.

### Result

JBoss Enterprise Application Platform 6 has been successfully upgraded to the 6.0.1 release.

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## CHAPTER 6. RUNNING JBOSS ENTERPRISE APPLICATION PLATFORM 6 AS A SERVICE

### 6.1. RUN JBOSS ENTERPRISE APPLICATION PLATFORM 6 AS AN OPERATING SYSTEM SERVICE

JBoss Enterprise Application Platform 6 can be configured to run as a service, allowing you to start a Managed Domain or Standalone Server configuration at system runtime, and allowing the server instance to continue to run when you log out of your local system.

- [Section 6.2, “Install JBoss Enterprise Application Platform as a Service in Red Hat Enterprise Linux”](#)
- [Section 6.3, “Install JBoss Enterprise Application Platform 6 as a Service in Microsoft Windows”](#)

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### 6.2. INSTALL JBOSS ENTERPRISE APPLICATION PLATFORM AS A SERVICE IN RED HAT ENTERPRISE LINUX

#### Summary

Use the following procedure to install JBoss Enterprise Application Platform 6 as a service on Red Hat Enterprise Linux.

#### Prerequisites

You need administrator access to complete this task.

#### Procedure 6.1. Task

##### 1. Copy the start-up script to the `/etc/init.d/` directory

The start-up script and an associated configuration file are located in the `EAP_HOME/bin/init.d/` directory. Copy each of these files to the `/etc/init.d/` directory.

```
[user@host init.d]$ sudo cp jboss-as-standalone.sh jboss-as.conf /etc/init.d
```

##### 2. Add the start-up script as a service.

Add the new `jboss-as-standalone.sh` service to list of automatically started services, using the `chkconfig` service management command.

```
[user@host init.d]$ sudo chkconfig --add jboss-as-standalone.sh
```

##### 3. Edit the script options.

If desired, edit the `jboss-as.conf` file to customize start-up options for JBoss Enterprise Application Platform and the JVM. Use the comments in the file as guidance. It is recommended to set the `JBOSS_HOME` variable in this file, to point to the directory where you extracted JBoss Enterprise Application Platform 6. Do not add a trailing slash (`/`) at the end of the directory name.

##### 4. Edit the script itself.

You may need to edit the start-up script itself. It makes certain assumptions about the name of your start-up file and the location of your JBoss Enterprise Application Platform instance. Customize the script, paying special attention to the following variables, which you will need to customize to start JBoss Enterprise Application Platform 6 as a managed domain.

- **JBOSS\_HOME** - the location where JBoss Enterprise Application Platform 6 is extracted
- **JBOSS\_USER** - the user with the ability to run JBoss Enterprise Application Platform. This should be a non-privileged user, as no superuser privileges as required.
- **JBOSS\_CONFIG** - the name of the configuration file used to start JBoss Enterprise Application Platform 6, such as **domain.xml** or **standalone.xml**
- **JBOSS\_SCRIPT** - the script used to start JBoss Enterprise Application Platform 6, such as **domain.sh** or **standalone.sh**

#### 5. Start the service.

If desired, start the new service using the standard syntax for starting Red Hat Enterprise Linux services.

```
[user@host bin]$ sudo service jboss-as-standalone.sh start
```

#### Result

JBoss Enterprise Application Platform 6 starts automatically when the Red Hat Enterprise Linux reaches its default run-level, and stops automatically when the operating system goes through its shutdown routine.

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## 6.3. INSTALL JBOSS ENTERPRISE APPLICATION PLATFORM 6 AS A SERVICE IN MICROSOFT WINDOWS

### Summary

This task installs JBoss Enterprise Application Platform 6 as a service on Microsoft Windows.

### Prerequisites

You need administrator access to complete this task.

### Procedure 6.2. Task

#### 1. Download the Native Utilities package for your architecture.

32-bit, 64-bit, and Itanium 64-bit packages are available from the Red Hat Customer Portal at <https://access.redhat.com>. For more information on downloading software from the Red Hat Customer Portal, refer to the *JBoss Enterprise Application Platform 6 Installation Guide*, available here: [https://access.redhat.com/knowledge/docs/JBoss\\_Enterprise\\_Application\\_Platform/](https://access.redhat.com/knowledge/docs/JBoss_Enterprise_Application_Platform/).

#### 2. Unzip the downloaded archive.

Unzip the archive into a new folder.

**Result:** The `modules\native\bin\` folder is created.

The `modules\native\bin\` folder contains the files you need to install JBoss Enterprise Application Platform 6 as a service. These services are part of *Procrun*, which is a series of wrapper scripts provided by Apache Commons. To learn more about *Procrun* and its syntax, refer to the following link: <http://commons.apache.org/daemon/procrun.html>.

### 3. Run the `modules\sbin\prunsvr.exe` executable.

```
prunsvr.exe install path_to_startup_script
```

#### Result

The service is installed. JBoss Enterprise Application Platform 6 is listed in the Services applet `services.msc`.

### 4. Manage your service.

Use the `modules\bin\prunmgr.exe` executable to manage, edit, add, or delete services. The following command-line options are supported:

- o run
- o service
- o start
- o stop
- o update
- o install
- o delete
- o pause [seconds]
- o version
- o help

The general syntax is:

```
prunmgr.exe command service_name
```

#### Result

You can use the `net service` command at the command line, or the `services.msc` applet, to start, stop, and manage automatic start-up of JBoss Enterprise Application Platform 6 in Microsoft Windows Server.

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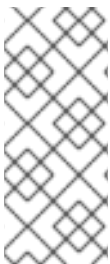
# CHAPTER 7. GETTING STARTED WITH JBOSS ENTERPRISE APPLICATION PLATFORM 6

## 7.1. ADD THE INITIAL USER FOR THE MANAGEMENT INTERFACES

### Overview

The management interfaces in JBoss Enterprise Application Platform 6 are secured by default, and there is no default user. This is a security precaution, to prevent security breaches from remote systems due to simple configuration errors. Local non-HTTP access is protected by a SASL mechanism, with a negotiation happening between the client and server each time the client connects for the first time from the localhost.

This task describes how to create the initial administrative user, which can use the web-based Management Console and remote instances of the Management CLI to configure and administer JBoss Enterprise Application Platform 6 from remote systems. For more information about the default security configuration, refer to [Section 7.8, “Default User Security Configuration”](#).



### NOTE

HTTP communication with JBoss Enterprise Application Platform 6 is considered to be remote access, even if the traffic originates on the localhost. Therefore, you must create at least one user in order to be able to use the management console. If you attempt to access the management console before adding a user, you will receive an error because it does not even deploy until the user is added.

### Procedure 7.1. Task

#### 1. Invoke the `add-user.sh` or `add-user.bat` script.

Change to the `EAP_HOME/bin/` directory. Invoke the appropriate script for your operating system.

#### Red Hat Enterprise Linux

```
[user@host bin]$ ./add-user.sh
```

#### Microsoft Windows Server

```
C:\bin> add-user.bat
```

#### 2. Choose to add a Management user.

Select option **a** to add a Management user. This user is added to the `ManagementRealm` and is authorized to perform management operations using the web-based Management Console or command-line based Management CLI. The other choice, **b**, adds a user to the `ApplicationRealm`, and provides no particular permissions. That realm is provided for use with applications.

#### 3. Choose the realm for the user.

The next prompt refers to the realm where the user will be added. For a user with permissions to manage JBoss Enterprise Application Platform 6, choose the default, which is `ManagementRealm`.

**4. Enter the desired username and password.**

When prompted, enter the security realm, username and password. Pressing **ENTER** selects the default realm of **ManagementRealm**, which allows the user to administer JBoss Enterprise Application Platform 6 using the management interfaces. You must add at least one user to this realm. You are prompted to confirm the information. If you are satisfied, type **yes** .

**5. Choose whether the user represents a remote JBoss Enterprise Application Platform 6 server instance.**

Besides administrators, the other type of user which occasionally needs to be added to JBoss Enterprise Application Platform 6 in the **ManagementRealm** is a user representing another instance of JBoss Enterprise Application Platform 6, which needs to be able to authenticate to join a cluster as a member. The next prompt allows you to designate your added user for this purpose. If you select **yes**, you will be given a hashed **secret** value, representing the user's password, which would need to be added to a different configuration file. For the purposes of this task, answer **no** to this question.

**6. Enter additional users.**

You can enter additional users if desired, by repeating the procedure. You can also add them at any time on a running system. Instead of choosing the default security realm, you can add users to other realms to fine-tune their authorizations.

**7. Create users non-interactively.**

You can create users non-interactively, by passing in each parameter at the command line. This approach is not recommended on shared systems, because the passwords will be visible in log and history files. The syntax for the command, using the management realm, is:

```
[user@host bin]$ ./add-user.sh username password
```

To use the application realm, use the **-a** parameter.

```
[user@host bin]$ ./add-user.sh -a username password
```

**Result**

Any users you add are activated within the security realms you have specified. Users active within the **ManagementRealm** realm are able to manage JBoss Enterprise Application Platform 6 from remote systems.

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**7.2. START JBOSS ENTERPRISE APPLICATION PLATFORM 6****Task**

Start JBoss Enterprise Application Platform 6 in one of the following ways:

- [Section 7.3, “Start JBoss Enterprise Application Platform 6 as a Managed Domain”](#)
- [Section 7.4, “Start JBoss Enterprise Application Platform 6 as a Standalone Server”](#)
- [Section 6.1, “Run JBoss Enterprise Application Platform 6 as an Operating System Service”](#)

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## 7.3. START JBOSS ENTERPRISE APPLICATION PLATFORM 6 AS A MANAGED DOMAIN

**Red Hat Enterprise Linux.**

Run the command: `EAP_HOME/bin/domain.sh`

**Microsoft Windows Server.**

Run the command: `EAP_HOME\bin\domain.bat`

**Optional: Pass additional parameters to the start-up script**

For a list of parameters you can pass to the start-up script, use the `-h` parameter.

**Result**

The JBoss Enterprise Application Platform 6 Managed Domain instance starts.

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## 7.4. START JBOSS ENTERPRISE APPLICATION PLATFORM 6 AS A STANDALONE SERVER

**Red Hat Enterprise Linux.**

Run the command: `EAP_HOME/bin/standalone.sh`

**Microsoft Windows Server.**

Run the command: `EAP_HOME\bin\standalone.bat`

**Optional: Specify additional parameters.**

To print a list of additional parameters to pass to the start-up scripts, use the `-h` parameter.

**Result**

The JBoss Enterprise Application Platform 6 Standalone Server instance starts.

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## 7.5. TEST THE INSTALLATION



## Task Prerequisites

- [Section 7.2, “Start JBoss Enterprise Application Platform 6”](#)
- The necessary network ports must be open. Refer to [Section 7.6, “Network Ports Used By JBoss Enterprise Application Platform 6”](#) and [Section 7.7, “Configure Network Firewalls to Work with JBoss Enterprise Application Platform 6”](#).

### 1. Look for error messages in the log files.

After you start the server, view the log files in `EAP_HOME/domain/log/` or `EAP_HOME/standalone/log/`.

#### Result:

If the server started properly, there will be no errors, and you will see output similar to the following:

#### Example 7.1. Example of a successful start-up

```
10:20:37,007 INFO [org.jboss.as] (Controller Boot Thread)
JBAS015874: JBoss EAP 6.0.0.GA (AS 7.1.2.Final-redhat-1) started
in 17942ms - Started 134 of 214 services (79 services are passive
or on-demand)
```

In a managed domain, you see a similar message for each locally-run server.

### 2. Browse to the Management Console.

If the installation worked properly and your server is running, you should be able to access the Management Console by pointing your web browser at an address similar to `http://YOUR_SERVER:9990/`, replacing `YOUR_SERVER` with a valid value.

#### Result:

The front page of the Management Console appears.

#### Result:

The Management Console is a deployable service. If you are able to reach it after starting the server, your installation is working properly and is able to deploy services.

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## 7.6. NETWORK PORTS USED BY JBOSS ENTERPRISE APPLICATION PLATFORM 6

The ports used by the JBoss Enterprise Application Platform 6 default configuration depend on several factors:

- Whether you use a managed domain or standalone server configuration.
- Whether your server groups use one of the default socket binding groups, or a custom group.
- The requirements of your individual deployments.

**NOTE**

A numerical port offset can be configured, to alleviate port conflicts when you run multiple servers on the same physical server. If your server uses a numerical port offset, add the offset to the default port number for its server group's socket binding group. For instance, if the HTTP port of the socket binding group is 8080, and your server uses a port offset of 100, its HTTP port is 8180.

Unless otherwise stated, the ports use the TCP protocol.

**The default socket binding groups**

- **full-ha-sockets**
- **full-sockets**
- **ha-sockets**
- **standard-sockets**

**Table 7.1. Reference of the default socket bindings**

Name	Port	Mulicast Port	Description	full-ha-sockets	full-sockets	ha-socket	standard-socket
<b>ajp</b>	8009		Apache JServ Protocol. Used for HTTP clustering and load balancing.	Yes	Yes	Yes	Yes
<b>http</b>	8080		The default port for deployed web applications.	Yes	Yes	Yes	Yes
<b>https</b>	8443		SSL-encrypted connection between deployed web applications and clients.	Yes	Yes	Yes	Yes
<b>jacorb</b>	3528		CORBA services for JTS transactions and other ORB-dependent services.	Yes	Yes	No	No
<b>jacorb-ssl</b>	3529		SSL-encrypted CORBA services.	Yes	Yes	No	No

Name	Port	Mulicast Port	Description	full-ha-sockets	full-sockets	ha-socket	standar d-socket
<b>jgroup s-diagnostics</b>		7500	Multicast. Used for peer discovery in HA clusters.	Yes	No	Yes	No
<b>jgroup s-mping</b>		45700	Multicast. Used to discover initial membership in a HA cluster.	Yes	No	Yes	No
<b>jgroup s-tcp</b>	7600		Unicast peer discovery in HA clusters using TCP.	Yes	No	Yes	No
<b>jgroup s-tcp-fd</b>	57600		Used for HA failure detection over TCP.	Yes	No	Yes	No
<b>jgroup s-udp</b>	55200	45688	Unicast peer discovery in HA clusters using UDP.	Yes	No	Yes	No
<b>jgroup s-udp-fd</b>	54200		Used for HA failure detection over UDP.	Yes	No	Yes	No
<b>messaging</b>	5445		JMS service.	Yes	Yes	No	No
<b>messaging-group</b>			Referenced by HornetQ JMS broadcast and discovery groups.	Yes	Yes	No	No
<b>messaging-throughput</b>	5455		Used by JMS Remoting.	Yes	Yes	No	No
<b>mod_cluster</b>		23364	Multicast port for communication between the JBoss Enterprise Application Platform and the HTTP load balancer.	Yes	No	Yes	No

Name	Port	Mulicast Port	Description	full-ha-sockets	full-sockets	ha-socket	standard-socket
<b>osgi-http</b>	8090		Used by internal components which use the OSGi subsystem.	Yes	Yes	Yes	Yes
<b>remoting</b>	4447		Used for remote EJB invocation.	Yes	Yes	Yes	Yes
<b>txn-recovery-environment</b>	4712		The JTA transaction recovery manager.	Yes	Yes	Yes	Yes
<b>txn-status-manager</b>	4713		The JTA / JTS transaction manager.	Yes	Yes	Yes	Yes

## Management Ports

In addition to the socket binding groups, each host controller opens two more ports for management purposes:

- 9990 - The Web Management Console port
- 9999 - The port used by the Management Console and Management API

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## 7.7. CONFIGURE NETWORK FIREWALLS TO WORK WITH JBOSS ENTERPRISE APPLICATION PLATFORM 6

### Overview

Most production environments use firewalls as part of an overall network security strategy. If you need multiple server instances to communicate with each other or with external services such as web servers or databases, your firewall needs to take this into account. A well-managed firewall only opens the ports which are necessary to operation, and limits access to the ports to specific IP addresses, subnets, and network protocols.

A full discussion of firewalls is out of the scope of this documentation.

### Prerequisites

- Determine the ports you need to open. Refer to [Section 7.6, “Network Ports Used By JBoss Enterprise Application Platform 6”](#) to determine the list of ports for your situation.

- An understanding of your firewall software is required. This procedure uses the **system-config-firewall** command in Red Hat Enterprise Linux 6. Microsoft Windows Server includes a built-in firewall, and several third-party firewall solutions are available for each platform.

### Assumptions

This procedure configures a firewall in an environment with the following assumptions:

- The operating system is Red Hat Enterprise Linux 6.
- JBoss Enterprise Application Platform 6 runs on host **10.1.1.2**. Optionally, the server has its own firewall.
- The network firewall server runs on host **10.1.1.1** on interface **eth0**, and has an external interface **eth1**.
- You want traffic on port 5445 (a port used by JMS) forwarded to JBoss Enterprise Application Platform 6. No other traffic should be allowed through the network firewall.

### Procedure 7.2. Task

#### 1. Log into the Management Console.

Log into the Management Console. By default, it runs on <http://localhost:9990/console/>.

#### 2. Managed Domain: Determine the socket binding group your server group uses.

Each server group uses a socket binding group, which is a collection of socket bindings. A socket binding is a name-value pair of port name and number.

To determine which socket binding group your server groups, click the **Server Groups** label at the top right side of the screen. Then click the name of your server group in the **Available server group configurations** table. The **Server attributes** area at the bottom of the screen is populated with the profile and socket binding group used by the server group.

#### 3. Determine the socket bindings used by the socket binding group.

Click the **Profiles** label at the top right of the Management Console. At the left-hand side of the screen, a series of menus is shown. The bottom menu heading is **General Configuration**. Click the **Socket Binding Groups** item below this heading. The **Socket Binding Declarations** screen appears. Initially, the **standard-sockets** group is shown. You can choose a different group by selecting it from the combo box on the right-hand side.



#### NOTE

If you use a standalone server, it has only one socket binding group.

The list of socket names and ports is shown, six values per page. You can go through the pages by using the arrow navigation below the table.

#### 4. Determine the ports you need to open.

Depending on the function of the particular port and the needs of your environment, some of the ports may need to be accessible across your firewall. If you are unsure of the purpose of a socket binding, refer to [Section 7.6, “Network Ports Used By JBoss Enterprise Application Platform 6”](#) for a list of the default socket bindings and their purposes.

#### 5. Configure your firewall to forward traffic to JBoss Enterprise Application Platform 6.

Perform these steps to configure your network firewall to allow traffic on the desired port.

- a. Log into your firewall machine and access a command prompt, as the root user.
  - b. Issue the command **system-config-firewall** to launch the firewall configuration utility. A GUI or command-line utility launches, depending on the way you are logged into the firewall system. This task makes the assumption that you are logged in via SSH and using the command-line interface.
  - c. Use the **TAB** key on your keyboard to navigate to the **Customize** button, and press the **ENTER** key. The **Trusted Services** screen appears.
  - d. Do not change any values, but use the **TAB** key to navigate to the **Forward** button, and press **ENTER** to advanced to the next screen. The **Other Ports** screen appears.
  - e. Use the **TAB** key to navigate to the **<Add>** button, and press **ENTER**. The **Port and Protocol** screen appears.
  - f. Enter **5445** in the **Port / Port Range** field, then use the **TAB** key to move to the **Protocol** field, and enter **tcp**. Use the **TAB** key to navigate to the **OK** button, and press **ENTER**.
  - g. Use the **TAB** key to navigate to the **Forward** button until you reach the **Port Forwarding** screen.
  - h. Use the **TAB** key to navigate to the **<Add>** button, and press the **ENTER** key.
  - i. Fill in the following values to set up port forwarding for port 5445.
    - Source interface: eth1
    - Protocol: tcp
    - Port / Port Range: 5445
    - Destination IP address: 10.1.1.2
    - Port / Port Range: 5445Use the **TAB** key to navigate to the **OK** button, and press **ENTER**.
  - j. Use the **TAB** key to navigate to the **Close** button, and press **ENTER**.
  - k. Use the **TAB** key to navigate to the **OK** button, and press **ENTER**. To apply the changes, read the warning and click **Yes**.
6. **Configure a firewall on your JBoss Enterprise Application Platform 6 host.**  
Some organizations choose to configure a firewall on the JBoss Enterprise Application Platform 6 server itself, and close all ports that are not necessary for its operation. Consult [Section 7.6, “Network Ports Used By JBoss Enterprise Application Platform 6”](#) and determine which ports to open, then close the rest. The default configuration of Red Hat Enterprise Linux 6 closes all ports except 22 (used for Secure Shell (SSH) and 5353 (used for multicast DNS). While you are configuring ports, make sure you have physical access to your server so that you do not inadvertently lock yourself out.

## Result

Your firewall is configured to forward traffic to your internal JBoss Enterprise Application Platform 6 server in the way you specified in your firewall configuration. If you chose to enable a firewall on your server, all ports are closed except the ones needed to run your applications.

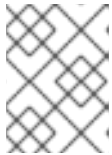
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## 7.8. DEFAULT USER SECURITY CONFIGURATION

### Introduction

All management interfaces in JBoss Enterprise Application Platform 6 are secured by default. This security takes two different forms:

- Local interfaces are secured by a SASL contract between local clients and the server they connect to. This security mechanism is based on the client's ability to access the local filesystem. This is because access to the local filesystem would allow the client to add a user or otherwise change the configuration to thwart other security mechanisms. This adheres to the principle that if physical access to the filesystem is achieved, other security mechanisms are superfluous. The mechanism happens in four steps:



#### NOTE

HTTP access is considered to be remote, even if you connect to the localhost using HTTP.

1. The client sends a message to the server which includes a request to authenticate with the local SASL mechanism.
  2. The server generates a one-time token, writes it to a unique file, and sends a message to the client with the full path of the file.
  3. The client reads the token from the file and sends it to the server, verifying that it has local access to the filesystem.
  4. The server verifies the token and then deletes the file.
- Remote clients, including local HTTP clients, use realm-based security. The default realm with the permissions to configure the JBoss Enterprise Application Platform 6 remotely using the management interfaces is **ManagementRealm**. A script is provided which allows you to add users to this realm (or realms you create). For more information on adding users, refer to the Getting Started chapter of the Installation guide for JBoss Enterprise Application Platform 6. For each user, the username, a hashed password, and the realm are stored in a file. The file is in a different location if the JBoss Enterprise Application Platform 6 is configured as a managed domain or a standalone server.

#### Managed domain

```
EAP_HOME/domain/configuration/mgmt-users.properties
```

#### Standalone server

```
EAP_HOME/standalone/configuration/mgmt-users.properties
```

Even though the contents of the **mgmt-users.properties** are masked, the file should still be treated as a sensitive file. It is recommended that it be set to the file mode of **600**, which gives no access other than read and write access by the file owner.

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## CHAPTER 8. UNINSTALLING JBOSS ENTERPRISE APPLICATION PLATFORM 6

### 8.1. UNINSTALL JBOSS ENTERPRISE APPLICATION PLATFORM 6

#### Task Summary

The exact steps for uninstalling JBoss Enterprise Application Server 6 depend on how it was installed.

- [Section 8.2, “Uninstall JBoss Enterprise Application Platform 6 From a Zip Installation”](#)
- [Section 8.3, “Uninstall JBoss Enterprise Application Platform 6 From a Graphical Installation”](#)
- [Section 8.4, “Uninstall JBoss Enterprise Application Platform 6 From an RPM Installation”](#)

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### 8.2. UNINSTALL JBOSS ENTERPRISE APPLICATION PLATFORM 6 FROM A ZIP INSTALLATION

1. **Log into the server.**

Log into your server as a user who has write access to the JBoss Enterprise Application Platform 6 installation directory.

2. **Remove the installation directory.**

JBoss Enterprise Application Platform 6 installs in a single directory when you use the Zip installation method. Delete the installation directory to uninstall JBoss Enterprise Application Platform 6.

3. **Optional: Remove any initialization scripts you created.**

If you created initialization scripts or other scripts which depended upon JBoss Enterprise Application Platform 6 being installed on your computer, remove them.

4. **Optional: Microsoft Windows: Remove JBoss Enterprise Application Platform 6 from your Services.**

To remove the JBoss Enterprise Application Platform 6 service, run the following command at a command prompt, as an administrative user: `sc delete "JBEAP6SVC"`.

#### Result:

JBoss Enterprise Application Platform 6 is uninstalled from your server.

[Report a bug](#)

### 8.3. UNINSTALL JBOSS ENTERPRISE APPLICATION PLATFORM 6 FROM A GRAPHICAL INSTALLATION

1. **Navigate to the `EAP_HOME/Uninstaller/` directory on the server.**

During the installation of JBoss Enterprise Application Platform 6, a directory called `EAP_HOME/Uninstaller/` was created. This directory contains a file called `uninstaller.jar`.

**2. Run the `java -jar uninstaller.jar` command.**

This command uninstalls JBoss Enterprise Application Platform 6.

**Result:**

JBoss Enterprise Application Platform 6 is uninstalled from your server.

[Report a bug](#)

## 8.4. UNINSTALL JBOSS ENTERPRISE APPLICATION PLATFORM 6 FROM AN RPM INSTALLATION

**1. Log into the server.**

Log into the server where JBoss Enterprise Application Platform 6 is installed and gain root access.

**2. Optional: Create a list of files and directories created by the RPM installation.**

To create a list of files and directories created by the RPM installation, run the command `rpm -q1 jboss-eap6 > /tmp/jbeap6.txt`. The reason to do this step is because removing the RPM may not remove all of these files and directories from your system. You may need to remove some of them by hand.

**3. Remove the package with the yum command.**

Use the YUM `groupremove` command to remove the `jboss-eap6` group.

```
yum groupremove jboss-eap6
```

**4. Optional: Check for and remove files or directories that were not removed by the yum groupremove command.**

Check the list of files and directories created by the `rpm -q1` command above. Remove any that were not removed automatically.

**Result**

JBoss Enterprise Application Platform 6 is uninstalled from your server.

[Report a bug](#)

# APPENDIX A. JBOSS ENTERPRISE APPLICATION PLATFORM 6 RPM PACKAGES

## A.1. RPM PACKAGE LIST AND DEPENDENCIES

JBoss Enterprise Application Platform 6 is installed on Red Hat Enterprise Linux 6 using the YUM package group **JBoss EAP 6**. That group is made up of the following packages.

- **jbossas-appclient**
- **jbossas-bundles**
- **jbossas-core**
- **jbossas-domain**
- **jbossas-hornetq-native**
- **jbossas-jbossweb-native**
- **jbossas-modules-eap**
- **jbossas-product-eap**
- **jbossas-standalone**
- **jbossas-welcome-content-eap**

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## APPENDIX B. REVISION HISTORY

<b>Revision 0.1-1.400</b> Rebuild with publican 4.0.0	<b>2013-10-31</b>	<b>Rüdiger Landmann</b>
<b>Revision 0.1-1</b> JBoss Enterprise Application Platform 6.0.1 Installation Guide.	<b>Tue Dec 18 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-16</b> Bugzilla fixes and updated topics for the JBoss Enterprise Application Platform 6.0.1 Installation Guide.	<b>Fri Dec 14 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-15</b> Updated build of the JBoss Enterprise Application Platform 6.0.1 Installation Guide.	<b>Tue Dec 11 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-14</b> Updated build of the JBoss Enterprise Application Platform 6.0.1 Installation Guide.	<b>Mon Dec 03 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-13</b> Updated build of the JBoss Enterprise Application Platform 6.0.1 Installation Guide.	<b>Fri Nov 30 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-12</b> Bugzilla fixes, new topics, and structural changes for the JBoss Enterprise Application Platform 6 Installation Guide.	<b>Tue Nov 27 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-11</b> Bugzilla fixes, new topics, and structural changes for the JBoss Enterprise Application Platform 6 Installation Guide.	<b>Tue Nov 13 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-10</b> Release update. Bugzilla fixes, new topics, and structural changes for the JBoss Enterprise Application Platform 6 Installation Guide.	<b>Tue Oct 09 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-9</b> Updated documentation. Includes revised RPM installation instructions, bugzilla fixes, and updated topics.	<b>Wed Oct 03 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-8</b> Updated structure and bugzilla fixes for the Installation Guide.	<b>Fri Sept 28 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-7</b> Bugzilla fixes for the Installation Guide.	<b>Fri Sept 21 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-6</b> Bugzilla fixes and updated documentation for the Installation Guide.	<b>Wed Sept 12 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-5</b> Bug fixes for the August asynchronous update to the Installation guide.	<b>Mon Sept 3 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-4</b> Bug fixes for the August asynchronous update to the Installation guide.	<b>Mon Sept 3 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-3</b> August update of the Installation guide for JBoss Enterprise Application Platform 6.	<b>Fri Aug 31 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-2</b> Updated edition of the Installation guide for JBoss Enterprise Application Platform 6.0.0.	<b>Fri Aug 31 2012</b>	<b>Tom Wells</b>
<b>Revision 0.0-1</b> First edition of the JBoss Enterprise Application Platform 6 Installation Guide.	<b>Wed Jun 20 2012</b>	<b>Tom Wells</b>

