



# **JBoss Enterprise Application Platform 6.3**

## **Installation Guide**

For use with Red Hat JBoss Enterprise Application Platform 6



# JBoss Enterprise Application Platform 6.3 Installation Guide

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For use with Red Hat JBoss Enterprise Application Platform 6

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## Abstract

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

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# CHAPTER 1. PRODUCT OVERVIEW

## 1.1. ABOUT RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM 6

Red Hat JBoss Enterprise Application Platform 6 (JBoss EAP 6) is a middleware platform built on open standards and compliant with the Java Enterprise Edition 6 specification. It integrates JBoss Application Server 7 with high-availability clustering, messaging, distributed caching, and other technologies.

JBoss EAP 6 includes a new, modular structure that allows service enabling only when required, improving start-up speed.

The Management Console and Management Command Line Interface make editing XML configuration files unnecessary and add the ability to script and automate tasks.

In addition, JBoss EAP 6 includes APIs and development frameworks for quickly developing secure and scalable Java EE applications.

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## 1.2. FEATURES OF JBOSS EAP 6

Table 1.1. JBoss EAP 6.3.0 Features

Feature	Description
Java Certification	Java Enterprise Edition 6 Full Profile and Web Profile certified.
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>• Per-server group management of configuration, deployment, socket bindings, modules, extensions and system properties.</li><li>• Centralized and simplified management of application security (including security domains).</li></ul>
Management Console and Management CLI	New domain or standalone server management interfaces. XML configuration file editing is no longer required. The Management CLI also includes a batch mode that can script and automate management tasks.



Feature	Description
Simplified directory layout	The <b>modules</b> directory now contains all application server modules. The common and server-specific <b>lib</b> directories are deprecated. The <b>domain</b> and <b>standalone</b> directories contain the artifacts and configuration files for domain and standalone deployments respectively.
Modular classloading mechanism	Modules are loaded and unloaded on demand. This improves performance, has security benefits and reduces start-up and restart times.
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.
Reduced and more efficient resource use.	JBoss EAP 6 uses fewer system resources and uses them more efficiently than previous versions. Among other benefits, JBoss EAP 6 starts and stops faster than JBoss EAP 5.

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## CHAPTER 2. INTRODUCTION

### 2.1. ABOUT THE RED HAT CUSTOMER PORTAL

The *Red Hat Customer Portal* is the centralized platform for Red Hat knowledge and subscription resources. Use the *Red Hat Customer Portal* to do the following:

- Manage and maintain Red Hat entitlements and support contracts.
- Download officially-supported software.
- Access product documentation and the Red Hat Knowledgebase.
- Contact Global Support Services.
- File bugs against Red Hat products.

The Customer Portal is available here: <https://access.redhat.com>.

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## CHAPTER 3. SYSTEM REQUIREMENTS

### 3.1. JBOSS EAP 6 INSTALLATION PREREQUISITES

Each installation process for JBoss EAP 6 has a number of prerequisites. This section covers the common requirements, as well as those that are installation specific.

#### Common Prerequisites

- Set up an account on the Red Hat Customer Portal at <https://access.redhat.com>. For more information, refer here: [Section 2.1, “About the Red Hat Customer Portal”](#).
- Review the supported configurations and ensure your system is supportable: <https://access.redhat.com/site/articles/111663>.
- Ensure that your system is up to date with Red Hat issued updates and errata.

#### ZIP/Installer Prerequisites

- Administration privileges for the installation directory.
- Ensure that the chosen JDK has been extracted (or installed). Refer to the JDK's documentation for information on how to do this.
- On Microsoft Windows Server, ensure that the JAVA\_HOME and PATH environment variables have been set, otherwise shortcuts will not work.
- On Hewlett-Packard HP-UX, ensure that an `unzip` utility has been installed.

#### RPM Prerequisites

- Register the server on the Red Hat Network.
- Subscribe to the **Red Hat Enterprise Linux Server** base software channel appropriate to your Red Hat Enterprise Linux version.
- Subscribe to the **JBoss Application Platform for Server** sub-channel, in the **JBoss Enterprise Platform** group.
- On Red Hat Enterprise Linux 5, JDK 6 must be installed, even if JDK 7 only is to be used. On Red Hat Enterprise Linux 6 and higher, only a JDK 7 is required. This can be obtained by subscribing to the **supplementary** software channel for your Red Hat Enterprise Linux installation. For example; the channel for Red Hat Enterprise Linux version 6 installed on i386 architecture is `rhel-i386-server-supplementary-6`.

#### ppc64 Prerequisites

- On Red Hat Enterprise Linux 6, subscribe to the `rhel-ppc64-server-optional-6` channel.
- On Red Hat Enterprise Linux 7, subscribe to the `rhel-7-server-optional-rpms-7Server` repository.

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## CHAPTER 4. INSTALL INSTRUCTIONS

### 4.1. JBOSS EAP 6 INSTALLATION METHODS

There are several different ways to install JBoss EAP 6. Each method is best used in certain situations. This topic provides a brief overview for each type of installation, and links to the sections that cover the relevant installation processes.

**Table 4.1. Installation Methods**

Method	Description	Instructions
Zip Installation	The Zip archive is suitable for installation on all supported operating systems. This process should be used if you wish to extract the instance manually.	<ul style="list-style-type: none"> <li>• <a href="#">Section 4.2.2, “Install JBoss EAP 6 (ZIP Installation)”</a></li> </ul>
JAR Installer	The JAR installer can be run in a console, or as a graphical wizard. Both options provide step-by-step instructions for installing and configuring the server instance. Additional setup, including the Quickstarts and Maven Repository, is also possible with the installer. This is the preferred way to install JBoss EAP 6 on all supported platforms.	<ul style="list-style-type: none"> <li>• <a href="#">Section 4.3.2, “Run the JBoss EAP Installation Program”</a></li> </ul>
RPM Installation	JBoss EAP 6 can be installed with the supported RPM package graphical installer, or with a command-line interface. This method is suitable for supported installations of Red Hat Enterprise Linux 5 and 6.	<ul style="list-style-type: none"> <li>• <a href="#">Section 4.4.1, “Install JBoss EAP 6 (Graphical RPM Installation)”</a></li> <li>• <a href="#">Section 4.5.1, “Install JBoss EAP 6 (Text-based RPM Installation)”</a></li> </ul>

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## 4.2. ZIP INSTALLATION

### 4.2.1. Download JBoss EAP 6 (Zip Installation)

**Prerequisites:**

- [Section 3.1, “JBoss EAP 6 Installation Prerequisites”](#)

**Summary**

The JBoss EAP 6 ZIP file is available from the Red Hat Customer Portal. The ZIP file installation is platform-independent. This topic covers the steps to download the archive.

### Procedure 4.1. Download the ZIP file

1. Open a browser and log into the Customer Portal at <https://access.redhat.com>.
2. Click **Downloads**.
3. Click **Red Hat JBoss Enterprise Application Platform** in the **Product Downloads** list.
4. Select the correct JBoss EAP version from the **Version** drop-down menu.
5. Find **Red Hat JBoss Enterprise Application Platform 6.x.x** in the list and click the **Download** option.

### Result

JBoss EAP 6 is now downloaded to your target machine, ready for installation.

### Next Step in [Zip Installation](#)

- [Section 4.2.2, “Install JBoss EAP 6 \(ZIP Installation\)”](#)

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## 4.2.2. Install JBoss EAP 6 (ZIP Installation)

### Previous Step in [Zip Installation](#)

- [Section 4.2.1, “Download JBoss EAP 6 \(Zip Installation\)”](#)

### Summary

This topic covers the steps to install JBoss EAP 6 using the downloaded ZIP file.

### Procedure 4.2. ZIP File Installation

1. **Move the ZIP archive to the desired location.**  
Move the ZIP file to the server and directory where you plan to install JBoss EAP 6. The user who will start and stop the server must have read and write access to this directory.
2. **Use an appropriate application to extract the ZIP archive to the desired location.**  
In a Red Hat Enterprise Linux environment, use the `unzip` utility to extract the contents of the ZIP archive.

In a Microsoft Windows environment, right-click the file and select **Extract All**.

In a Hewlett-Packard HP-UX environment, use the `unzip` utility to extract the contents of the ZIP archive.

### Result

JBoss EAP 6 has been installed successfully. The directory created by extracting the ZIP archive is the top-level directory for the server. This is referred to as *EAP\_HOME*.

### Next Step in [Zip Installation](#)

- [Section 4.2.3, “Uninstall JBoss EAP 6 \(Zip Installation\)”](#)

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### 4.2.3. Uninstall JBoss EAP 6 (Zip Installation)

Previous Step in [Zip Installation](#)

- [Section 4.2.2, “Install JBoss EAP 6 \(ZIP Installation\)”](#)

#### Prerequisites

Backup any modified configuration files and deployments that may be reused in a later instance.

#### Summary

This section covers the steps required to uninstall a Zip installation of JBoss EAP 6.

#### Procedure 4.3. Uninstall JBoss EAP 6 (Zip installation)

1. Go to the directory where you had extracted the JBoss EAP 6 folder from the Zip file.
2. **Delete the installation directory.**  
JBoss EAP 6 installs in a single directory when you use the Zip installation method. Delete the installation directory to uninstall JBoss EAP 6.
3. **Optional: Delete any initialization scripts you created.**  
If you created initialization scripts or other scripts which depended upon JBoss EAP 6 being installed on your computer, delete them.

#### Result

JBoss EAP 6 is uninstalled from the server.

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## 4.3. INSTALLER

### 4.3.1. Download JBoss EAP 6 (Installer)

#### Prerequisites:

- [Section 3.1, “JBoss EAP 6 Installation Prerequisites”](#)

#### Summary

The JBoss EAP 6 installer archive is available from the Red Hat Customer Portal. The `.jar` archive can be used to run either the graphical or text-based installers. The installer is the preferred way to install JBoss EAP 6 on all supported platforms. This topic covers the steps to download the archive.

#### Procedure 4.4. Download the Installer

1. Open a browser and log into the Customer Portal at <https://access.redhat.com>.
2. Click **Downloads**.
3. Click **Red Hat JBoss Enterprise Application Platform** in the **Product Downloads** list.

4. Select the correct JBoss EAP version from the **Version** drop-down menu.
5. Find **Red Hat JBoss Enterprise Application Platform 6.x.x Installer** in the list and click the **Download** option.

### Result

JBoss EAP 6 is now downloaded to your target machine, ready for installation.

### Next Step in [Installer](#)

- [Section 4.3.3, “Uninstall JBoss EAP 6 \(Installer\)”](#)

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## 4.3.2. Run the JBoss EAP Installation Program

The JBoss EAP installation program can be run in either graphical or text mode. This topic covers the command to run the installation program in graphical mode.

### Procedure 4.5. Run the JBoss EAP Installation Program

1. Open a terminal and navigate to the directory containing the downloaded installation program JAR.
2. Type the following command:

```
java -jar jboss-eap-6.3.0-installer.jar
```


3. Follow the instructions in the table below.

**Table 4.2. JBoss EAP Installation Program Screens**

Screen name	When it Appears	Description
<a href="#">Section B.1, “Language Selection”</a>	Always	Choose the desired language for the installation program and click <b>OK</b> .
<a href="#">Section B.2, “End User License Agreement”</a>	Always	The EULA for RED HAT JBOSS MIDDLEWARE. Select "I accept the terms of this license agreement", and click <b>Next</b> .
<a href="#">Section B.3, “Installation Path”</a>	Always	Select the installation path for JBoss EAP and click <b>Next</b> . You are prompted to create the new directory, or, if it exists, to replace the named directory.
<a href="#">Section B.4, “Select the Packs to Install”</a>	Always	Select the packs to install. Required packs are disabled for deselection.

Screen name	When it Appears	Description
<a href="#">Section B.5, “Administrative User Creation”</a>	Always	Create an administrative user and assign a password. The password must be at least eight characters long, with one alphabetic character, one digit, and one non-alphanumeric character. Then click <b>Next</b> .
<a href="#">Section B.6, “Quickstart Installation”</a>	Always	Install the quickstart examples. If you would like to install them, choose <b>Yes</b> and select the installation path. If you do not wish to install them, choose <b>No</b> . Then click <b>Next</b> .
<a href="#">Section B.7, “Maven Repository Setup”</a>	If you choose to install the quickstart examples	A publicly hosted Maven repository is available for use with the quickstarts. The default selections automatically configure your installation to use this repository. This is the easiest way to run the quickstarts. If you prefer, specify the path to a locally installed repository, Specify a path if your Maven settings file is not in the default location.
<a href="#">Section B.8, “Socket Binding Setup”</a>	Always	Determine whether the installation will use the default port bindings, configure custom port bindings, or configure port offsets for all default bindings. If you select custom bindings, select whether to configure the ports for standalone mode, domain mode, or both. If you choose to configure port offsets, choose the offset. Then click <b>Next</b> .
<a href="#">Section B.9, “Custom Socket Bindings for Standalone Configurations”</a>	If you choose to configure the custom port bindings for standalone mode	Configure the ports and system properties for the various standalone modes, then click <b>Next</b> .
<a href="#">Section B.10, “Custom Socket Bindings for Domain Configurations”</a>	If you choose to configure the custom port bindings for domain mode.	Configure the ports and system properties for the various domain modes, then click <b>Next</b> .
<a href="#">Section B.11, “Server Launch”</a>	Always	Select the startup option required on completion of the installation process. Then click <b>Next</b> .
<a href="#">Section B.12, “Configure Logging Levels”</a>	Always	Choose <b>Yes</b> to configure log levels, or <b>No</b> to skip this configuration. Then click <b>Next</b> .
<a href="#">Section B.13, “Configure Runtime Environment”</a>	Always	Choose <b>Perform default configuration</b> to install the default configuration. Choose <b>Perform advanced configuration</b> to choose from a list of advanced configuration options. Advanced options can also be configured after installation. Then click <b>Next</b> .



Screen name	When it Appears	Description
<a href="#">Section B.14, “Password Vault Configuration”</a>	If you choose to install password vault in advanced configuration of runtime environment	Configure a password vault to store all your sensitive passwords in an encrypted keystore and click <b>Next</b> . For more information see: Administration and Configuration Guide, "Mask the Keystore Password and Initialize the Password Vault"
<a href="#">Section B.15, “Configure SSL Security”</a>	If you choose to enable SSL security in advanced configuration of runtime environment	Configure an SSL keystore for securing EAP management interfaces. Then click <b>Next</b> . For more information see: Security Guide, "Generate a SSL Encryption Key and Certificate"
		<div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;">  <p><b>WARNING</b></p> <p>Red Hat recommends that you explicitly disable SSL in favor of TLSv1.1 or TLSv1.2 in all affected packages.</p> </div>
<a href="#">Section B.16, “Configure LDAP”</a>	If you choose to enable LDAP Configuration in advanced configuration of runtime environment	Enable LDAP authentication to use an LDAP directory server as the authentication source for the Management Console, Management CLI or Management API. When you are done click <b>Next</b> . For more information see: Administration and Configuration Guide, "Use LDAP to Authenticate to the Management Interfaces"
<a href="#">Section B.17, “Infinispan Configuration”</a>	If you choose to install Infinispan cache in advanced configuration of runtime environment	Create an Infinispan cache for managing cached data. Give an Infinispan name, configure the other fields and click <b>Next</b> . For more information see: Administration and Configuration Guide, "Chapter 14 Infinispan"
<a href="#">Section B.18, “Security Domain Configuration”</a>	If you choose to add a security domain in advanced configuration of runtime environment	Configure a security domain to incorporate the services provided by PicketBox to a JBoss EAP server instance. Most of the fields are already populated with default values and do not need modifications. When you are done click <b>Next</b> . For more information see: Administration and Configuration Guide, "Security Domains"
<a href="#">Section B.19, “JDBC Driver Setup”</a>	If you choose to install a JDBC driver in advanced configuration of runtime environment	Install and setup a JDBC driver to convert your application code to the relevant database language. Choose an appropriate driver from the supported list of drivers which appears in "Driver Vendor" drop down list. For more information see: Administration and Configuration Guide, "Chapter 6 Datasource Management"

Screen name	When it Appears	Description
<a href="#">Section B.20, "Datasource Setup"</a>	If you choose to install a datasource in advanced configuration of runtime environment	Configure a datasource which can be used by applications. Give a datasource name, configure the other fields and click <b>Next</b> . For more information see: Administration and Configuration Guide, "Datasource Configuration"
<a href="#">Section B.21, "Review Installation Components"</a>	Always	Review your selections and click <b>Next</b> .
<a href="#">Section B.22, "Installation Progress"</a>	Always	When installation progress completes, click <b>Next</b> .
<a href="#">Section B.23, "Installation Processing Finished"</a>	Always	When processing finishes, click <b>Next</b> .
<a href="#">Section B.24, "Create Shortcuts"</a>	Always	Choose whether to create shortcuts and how to configure them. Then click <b>Next</b> .
<a href="#">Section B.25, "Generate Install Script"</a>	Always	Click <b>Generate installation script and properties file</b> if you want to capture the selected installation options. Then click <b>Done</b> .  Installation is now complete.

**Result**

The installation is complete and JBoss EAP 6 is installed on your target machine.

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**4.3.3. Uninstall JBoss EAP 6 (Installer)**

Previous Step in [Installer](#)

- [Section 4.3.1, "Download JBoss EAP 6 \(Installer\)"](#)

**Summary**

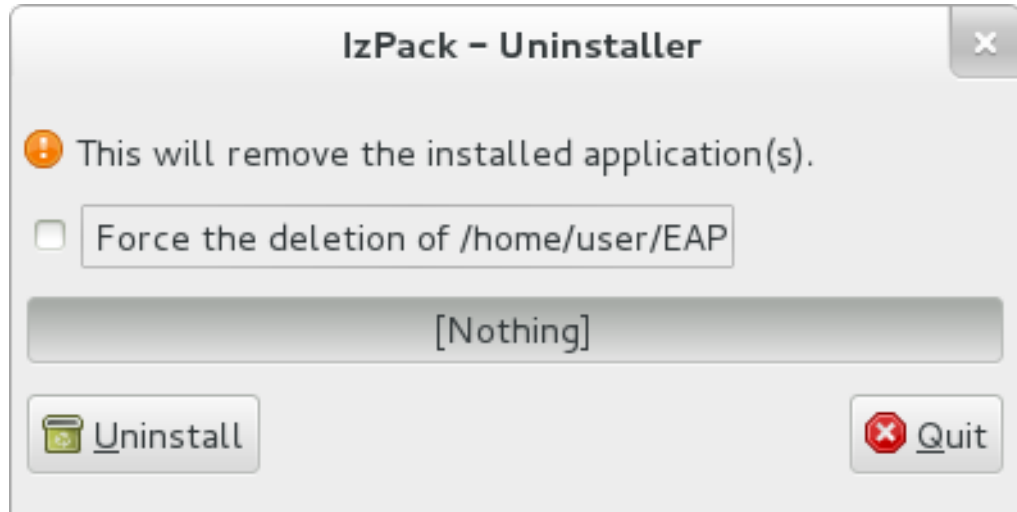
This section details the steps required to uninstall an instance of JBoss EAP 6 that was installed using either the graphical or text-based installer.

**Procedure 4.6. Uninstall JBoss EAP 6 (Graphical Installation)**

1. During the installation of JBoss EAP 6 on the target machine, a directory called **Uninstaller** was created in the directory where you had installed JBoss EAP 6. This directory contains a file called **uninstaller.jar**. Navigate to this directory in a terminal window.
2. Launch the GUI uninstaller by executing the following command:

```
java -jar uninstaller.jar
```

- The execution of the command will launch the graphical uninstaller as shown in the following figure. Select the check box if you want to delete the JBoss EAP 6 installation directory.



**Figure 4.1. Uninstall JBoss EAP 6 using the graphical installer**

- Press the **Uninstall** button to start the uninstall process.
- When the uninstall process is finished, press the **Quit** button to exit the uninstaller.
- After a successful uninstall, you may want to manually remove the **Uninstaller** directory from where you launched the uninstaller.

#### Procedure 4.7. Text-based Uninstall Process

- In a console, navigate to the **Uninstaller** directory created during the installation process. This can be found one level above *EAP\_HOME*.
- Launch the Text-based uninstaller by executing the following command:

```
java -jar uninstaller.jar -console
```

- Follow the steps to uninstall JBoss EAP 6.

#### Result:

JBoss EAP 6 is uninstalled from your server.

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## 4.4. GRAPHICAL RPM INSTALLATION

### 4.4.1. Install JBoss EAP 6 (Graphical RPM Installation)

#### Prerequisites:

- [Section 3.1, “JBoss EAP 6 Installation Prerequisites”](#)

#### Summary

The Graphical RPM package method of installing JBoss EAP 6 is available for Red Hat Enterprise Linux 5 and Red Hat Enterprise Linux 6. This topic covers the steps required to complete the installation.

#### Procedure 4.8. Install JBoss EAP 6 (Graphical RPM Installation)

Use PackageKit to graphically install JBoss EAP 6 on your target machine.

##### 1. Launch PackageKit

PackageKit is an open source package management software installed as part of Red Hat Enterprise Linux. On the target machine launch PackageKit by selecting **System** → **Administration** → **Add/Remove Software**.

##### 2. Type

```
jboss-eap6
```

in the search box and then press the **Find** button. You will be presented with the JBoss EAP 6 package in the result box.

##### 3. Select the JBoss EAP 6 package and press the **Apply** button. See figure below.

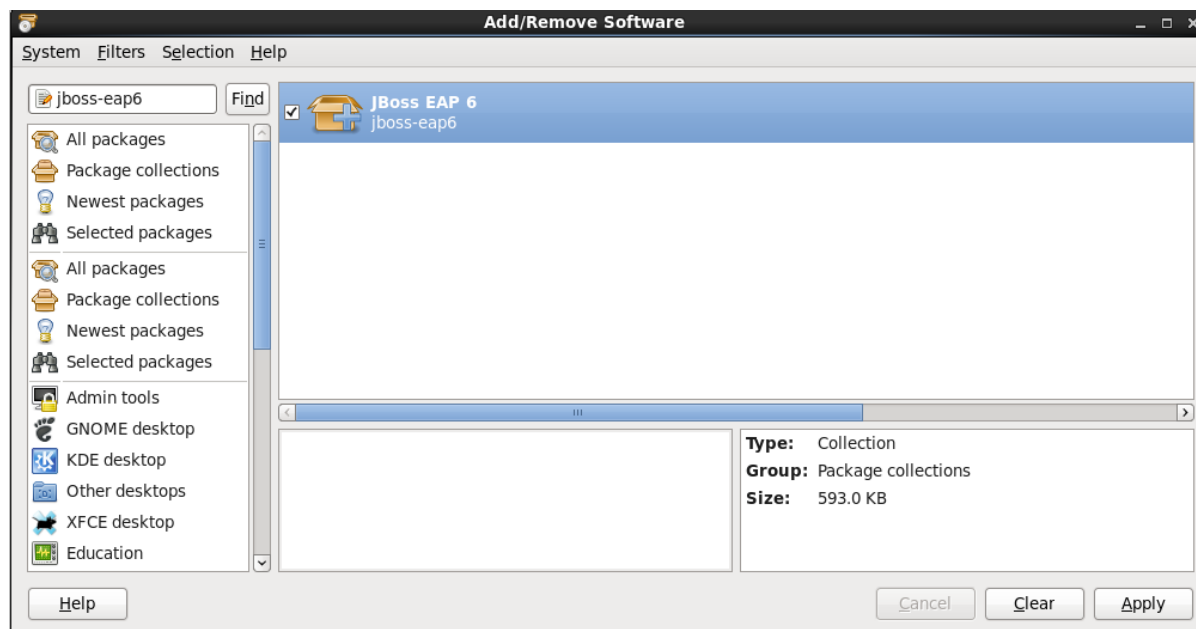


Figure 4.2. JBoss EAP 6 PackageKit Install

##### 4. Follow the rest of the steps to install JBoss EAP 6 on your target machine.

#### Result

The installation is complete and JBoss EAP 6 is installed in your target machine.

[Report a bug](#)

## 4.5. TEXT-BASED RPM INSTALLATION

### 4.5.1. Install JBoss EAP 6 (Text-based RPM Installation)

**Prerequisites:**

- [Section 3.1, “JBoss EAP 6 Installation Prerequisites”](#)

### Summary

The RPM package method of installing JBoss EAP 6 is appropriate for Red Hat Enterprise Linux 5, Red Hat Enterprise Linux 6, and Red Hat Enterprise Linux 7. This topic covers the steps required to install an instance using the command line.

### Procedure 4.9. Text-based Installation Steps

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 EAP 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 A.4, “RPM Installation Configuration Files for JBoss EAP 6”](#) for details about these files and the options contained within.

### Result

The installation is complete. The default `EAP_HOME` path for the RPM installation is `/usr/share/jbossas`. Refer to [Section A.3, “RPM Package List for JBoss EAP 6”](#) for a complete list of all the packages installed.

[Report a bug](#)

## 4.6. AUTOMATED INSTALLATION

### 4.6.1. Install Multiple Instances of JBoss EAP 6 (Installer)

#### Prerequisites

- Generate an automatic installation script using the Graphical or Text-based Installer:
  - [. Section 4.3.2, “Run the JBoss EAP Installation Program”](#)

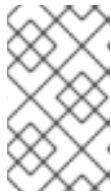
### Summary

Multiple identical instances of JBoss EAP 6 can be installed using an automatic installation script, generated during the installation process, using either the Graphical or Text-based installer. This topic covers the steps required to install JBoss EAP 6 using a generated script.

### Procedure 4.10. Automated Installation

- In a terminal, run the following command to install JBoss EAP 6 using the automatic installation script:

```
java -jar jboss-eap-6.3.0-installer.jar auto.xml
```

**NOTE**

When you use the automatic installation script (`auto.xml`) for automated installation the installer by default will generate a prompt for entering all passwords.

**Result**

An identical instance of JBoss EAP 6 has been installed, based on the automatic installation script.

[Report a bug](#)

## 4.6.2. Use Automatic Installation Script (`auto.xml`) from Different Sources for Installing JBoss EAP 6

The installer can use the automatic installation script (`auto.xml`) from any of the network locations irrespective of where it is being run. Thus the installer (`jboss-eap-6.3.0-installer.jar`) and the automatic installation script (`auto.xml`) can be located on different machines. This topic covers the steps to install JBoss EAP 6.3 automatically from a different network location.

- In a terminal type either of the following commands to specify the automatic installation script (present at a different network location) to your current network location:

```
java -jar jboss-eap-6.3.0-installer.jar http://network-host/auto.xml  
(For HTTP)
```

```
java -jar jboss-eap-6.3.0-installer.jar ftp://network-host/auto.xml  
(For FTP)
```

**Result**

JBoss EAP 6 is installed on your machine.

[Report a bug](#)

## 4.7. AUTOMATED INSTALLATION APPROACHES

### 4.7.1. About Automated Installation Approaches

**Prerequisites**

Run the installer and generate an automatic installation script using Graphical or Text-based installer: [Section 4.3.2, “Run the JBoss EAP Installation Program”](#)

**Summary**

You may use two approaches to install JBoss EAP 6 automatically using the automatic installation script generated by the installer:

- The first approach is to specify all the key/password values needed for automatic installation in the automatic installation variable file
- The second approach is to specify the key/password values during install time

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### 4.7.2. Install JBoss EAP 6 by Pre-setting the Key/Password Values in the Automatic Installation Variable File

Use the following procedure for automatically installing JBoss EAP 6 by pre-setting the key/password values in the automatic installation variable file.

#### Procedure 4.11.

##### 1. Enter key values in variable file

JBoss EAP 6 installer creates an automatic installation script and an automatic installation variable file. The automatic installation variable file contains a list of keys/password parameters needed for automatic installation. To enter key values open the automatic installation variable file. Fill in a valid key/password value against each key parameter. For example:

```
adminPassword = password#2
vault.keystorepwd = vaultkeystorepw
ssl.password = user12345
```

##### 2. Run the installer with the variablefile filename argument to begin automated installation

You can begin fully automated EAP installation by running the installer with variablefile `auto.xml.variablefile` argument. This argument supplies the variable file key/password values (step 1) to the installer. To begin fully automated installation open a terminal and enter the following command with relevant filenames:

```
java -jar jboss-eap-6.3.0-installer.jar auto.xml -variablefile
auto.xml.variablefile
```

#### Result

JBoss EAP 6 is installed on your machine.

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### 4.7.3. Install JBoss EAP 6 automatically by Specifying the Key Values/Passwords During Install Time

Use the following procedure for automatically installing JBoss EAP 6.3 by specifying the key values/passwords during install time.

#### Procedure 4.12.

##### • Run the installer with variables argument

You can initiate automated installation by running the installer with variables argument and then specifying a variable list. This variables argument will help you define variables along with the key/password values during install time. To initiate the installation process open a terminal and enter the following command with relevant filenames:

```
java -jar jboss-eap-6.3.0-installer.jar auto.xml -variables
adminPassword=password#2, vault.keystorepwd=vaultkeystorepw, ssl.passw
ord=user12345
```

**NOTE**

It is important to specify the variable names (adminPassword, keystorepwd and ssl.password) without any empty space for successful installation.

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## 4.8. INSTALLING NATIVE COMPONENTS AND UTILITIES

Native Components are optional components which have been compiled to be optimized for a specific operating system and architecture. In some cases, using the native components may provide performance improvements. Native Components include native support for HornetQ (AIO), and the Tomcat Native Library. For more information, see [Section 4.9.2, “Configure JBoss EAP 6 as a Service in Red Hat Enterprise Linux \(Zip, Installer\)”](#) and the *Jsvc* section of the *Administration and Configuration Guide*.

Native Utilities are optional utilities specific to each supported operating system and architecture. These include scripts and utilities for installing JBoss EAP 6 as a service in your operating system, and generating SSL encryption keys and certificates.

In addition to Native Components and Native Utilities, Webserver Connector Natives are used for load balancing and clustering. See the *Administration and Configuration Guide* to configure Webserver Connector Natives.

[Report a bug](#)

### 4.8.1. Install Native Components and Native Utilities (Zip, Installer)

#### Prerequisites

- Install JBoss EAP 6 using the Zip installation, Graphical Installer, or Text-based Installer:
  - [Section 4.2.2, “Install JBoss EAP 6 \(ZIP Installation\)”](#).
  - [Section 4.3.2, “Run the JBoss EAP Installation Program”](#)
- Access to the Management CLI or the Management Console for the JBoss EAP 6 server. Refer to *Launch the Management CLI* or *Log in to the Management Console* in the *Administration and Configuration Guide*.
- For Native Components:
  - In Red Hat Enterprise Linux 6 and 7 environments, ensure that the Apache Portability Runtime (APR) and OpenSSL libraries are installed. If you intend to use the Tomcat Native Library which is part of the JBoss EAP Native Components, the operating system package `tomcat-jss` must be removed before installation.
  - In a HP-UX environment, OpenSSL must be installed.

#### Procedure 4.13. Download and Install Native Components

1. Download the Native Components package for your operating system and architecture from the Red Hat Customer Portal. You can download the packages from the same location specified in [Section 4.2.1, “Download JBoss EAP 6 \(Zip Installation\)”](#).



2. Extract the downloaded Native Components zip archive over your JBoss EAP 6 installation.

You can verify a successful extraction by checking if there is a new folder for your operating system and architecture in

`EAP_HOME/modules/system/layers/base/org/jboss/as/web/main/lib/`.

3. Using the Management CLI, activate the native components for the web subsystem with the following command:

```
[standalone@localhost:9999 /] /subsystem=web:write-attribute(name=native,value=true)
```

4. Restart the JBoss EAP 6 server to apply the changes.

#### Procedure 4.14. Download and Install Native Utilities

1. Download the Native Utilities package for your operating system and architecture from the Red Hat Customer Portal. You can download the packages from the same location specified in [Section 4.2.1, “Download JBoss EAP 6 \(Zip Installation\)”](#).

2. Extract the downloaded Native Components zip archive over your JBoss EAP 6 installation.

You can verify a successful extraction by checking if there is `native` directory in

`EAP_HOME/modules/system/layers/base/`.

3. Refer to procedures in the JBoss EAP documentation suite and on the Red Hat Customer Portal to configure specific native utilities features.

[Report a bug](#)

### 4.8.2. Install Native Components and Native Utilities (RPM Installation)

You can use the RPM installation method to install native components, utilities and all the corresponding dependencies only if you have installed EAP using RPM installation method. The RPM package method of installing natives is appropriate for Red Hat Enterprise Linux 5, 6 and 7. This topic covers the steps required to install the native components and utilities using the command line.

#### Prerequisites

- [Section 3.1, “JBoss EAP 6 Installation Prerequisites”](#)

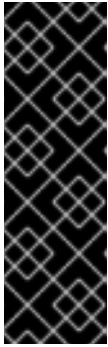
#### Procedure 4.15. Install Native Components and Native Utilities

1. **Install native components and utilities**

To install native components and utilities in Red Hat Enterprise Linux 5, 6 and 7 (with their dependencies) run the following command using your administration account replacing *package\_name* with name of the native component which you need to install:

```
yum install package_name
```

You can install these native components: `mod_cluster-native`, `mod_jk`, `mod_rt`, `mod_snmp`, `apache-commons-daemon-jsvc-eap6`, `httpd`, `httpd-devel`, `jbossas-hornetq-native`, `jbossas-jbossweb-native`.



## IMPORTANT

The native components `jbossas-hornetq-native` and `jbossas-jbossweb-native` are installed by default when you run the `yum groupinstall jboss-eap6` command to install JBoss EAP 6 group package. If you have used [Section 4.4.1, “Install JBoss EAP 6 \(Graphical RPM Installation\)”](#) or [Section 4.5.1, “Install JBoss EAP 6 \(Text-based RPM Installation\)”](#) for JBoss EAP 6 installation you need not install `jbossas-hornetq-native` and `jbossas-jbossweb-native`.



## NOTE

It is important to give the correct package name in order to install a specific native component. Package names are case sensitive. In Red Hat Enterprise Linux 7 the name of the `httpd` package is `httpd22`. Therefore the package `httpd` must be replaced with `httpd22` when you run `yum install package_name` command for installing Apache HTTP server in Red Hat Enterprise Linux 7.

### 2. Restart the server

Restart the JBoss EAP 6 server to apply the changes

[Report a bug](#)

## 4.9. SERVICE CONFIGURATION

### 4.9.1. Configure JBoss EAP 6 as a Service in Red Hat Enterprise Linux (RPM Method)

#### Prerequisites

- Install JBoss EAP 6 using the RPM Method (Graphical or Text Based).
  - [Section 4.4.1, “Install JBoss EAP 6 \(Graphical RPM Installation\)”](#)
  - [Section 4.5.1, “Install JBoss EAP 6 \(Text-based RPM Installation\)”](#)
- Administrator privileges on the server are required.

#### Summary

Use the following procedure to install JBoss EAP 6 as a service on Red Hat Enterprise Linux when the installation has been done using the RHN (RPM) method.

#### Procedure 4.16. Configure JBoss EAP 6 as a Service using the RPM Method in Red Hat Enterprise Linux

##### 1. Install JBoss EAP 6

Install JBoss EAP 6 via the RPM method using one of the steps listed in the prerequisite sections listed above.

##### 2. Enable the service

The RPM install method for JBoss EAP 6 installs the requisite service files in their correct locations. All you need to do to set it up as service is issue the following command:

```
chkconfig jbossas on
```

To set it up as a service in domain mode, issue the following command:

```
chkconfig jbossas-domain on
```

### Result

JBoss EAP 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.

[Report a bug](#)

## 4.9.2. Configure JBoss EAP 6 as a Service in Red Hat Enterprise Linux (Zip, Installer)

### Prerequisites

- Install JBoss EAP 6 using the Zip installation, Graphical Installer, or Text-based Installer:
  - [Section 4.2.2, “Install JBoss EAP 6 \(ZIP Installation\)”](#).
  - [Section 4.3.2, “Run the JBoss EAP Installation Program”](#).
- Administrator privileges on the server are required.

### Summary

Use the following procedure to install JBoss EAP 6 as a service on Red Hat Enterprise Linux when the installation has been done with either the zip, text, or graphical methods. This process does not apply when the installation has been done using the RHN (RPM) method.

### Procedure 4.17. Set Up the Service



#### NOTE

The steps below describe running JBoss EAP 6 as a service in standalone mode. In order to run JBoss EAP 6 as a service in domain mode, use the same steps but replace `jboss-as-standalone.sh` with `jboss-as-domain.sh`.

#### 1. Locate the start-up script and configuration file

The start-up script and an associated configuration file are located in the `EAP_HOME/bin/init.d/` directory. Open the configuration file `jboss-as.conf` to edit it.

#### 2. Customize the start-up options in the `jboss-as.conf` file

There are several options within the `jboss-as.conf` file. At the minimum, specify the correct values for `JBOSS_HOME` and the `JBOSS_USER` variables. If these variables are absent, add them.

#### 3. Copy files into system directories

- a. Copy the modified configuration file to the `/etc/jboss-as` directory.

```
[user@host init.d]$ sudo mkdir /etc/jboss-as
```

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

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

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

#### 4. 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
```

#### 5. Start the service.

Test that the service has been installed correctly by using one of the following commands for Red Hat Enterprise Linux.

- o For Red Hat Enterprise Linux 5 and 6:

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

- o For Red Hat Enterprise Linux 7:

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

If everything has gone correctly, you should get a green [OK]. If you get an error, check the error logs and make sure your paths are correct in the configuration file.



#### NOTE

The green [OK] does not appear for Red Hat Enterprise Linux 7.

#### 6. Make the service start automatically when you restart your server.

To add the service to the list of services which start automatically when your server restarts, issue the following command.

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

#### Result

JBoss EAP 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.

#### Procedure 4.18. Uninstall the JBoss EAP 6 service from Red Hat Enterprise Linux

**NOTE**

The steps below describe uninstalling the JBoss EAP 6 service in standalone mode. In order to uninstall the JBoss EAP 6 service in domain mode, use the same steps but replace `jboss-as-standalone.sh` with `jboss-as-domain.sh`.

1. If the service is running, first open a terminal and stop the service by executing the `stop` command with the name of the service:

```
sudo service jboss-as-standalone.sh stop
```

2. Remove JBoss EAP from the list of services:

```
sudo chkconfig --del jboss-as-standalone.sh
```

3. Remove the system directory files.

- a. Remove the service start-up script:

```
sudo rm /etc/init.d/jboss-as-standalone.sh
```

- b. Remove the service configuration file:

```
sudo rm /etc/jboss-as/jboss-as.conf
```

**IMPORTANT**

`/etc/jboss-as` is not a standard system directory. Only if there are no other files being used there, also remove the directory itself:

```
sudo rm -rf /etc/jboss-as/
```

**Result**

JBoss EAP 6 service is uninstalled from the server.

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### 4.9.3. Configure JBoss EAP 6 as a Service in Microsoft Windows Server (Zip, Installer)

**Prerequisites**

- Install JBoss EAP 6 using the Zip installation, Graphical Installer, or Text-based Installer:
  - [Section 4.2.2, “Install JBoss EAP 6 \(ZIP Installation\)”](#).
  - [Section 4.3.2, “Run the JBoss EAP Installation Program”](#)
- Administrator privileges on the server are required.

- The `JAVA_HOME` system environment variable must be set.
- The JBoss EAP 6 server instance must not be running.



## IMPORTANT

When setting system environment variables, using the `set` command at a Windows Server command prompt will not permanently set the environment variable. You must use either the `setx` command, or the **System** interface in the **Control Panel**.

## Summary

Use the following procedures to configure JBoss EAP 6 as a service on Microsoft Windows Server.

### Procedure 4.19. Configure a Service for JBoss EAP 6 in Microsoft Windows Server

#### 1. Create system environment variables

Create two system environment variables:

- `JBOSS_HOME` pointing to the JBoss EAP 6 installation directory.
- `NOPAUSE=1`

#### 2. If not already configured, download and extract the Native Utilities package for your architecture

If the Native Utilities for Windows Server package has not been installed as part of the JBoss EAP 6 installation, download the relevant 32-bit or 64-bit package from the Red Hat Customer Portal at <https://access.redhat.com>. Extract the Native Utilities zip archive over the JBoss EAP 6 installation.

This will result in a `native` directory in the following location in the JBoss EAP 6 installation:  
`EAP_HOME\modules\system\layers\base\`

#### 3. Install the service

Open a terminal, and change directories to  
`EAP_HOME\modules\system\layers\base\native\sbin`

A new service can be created with the `service install` command, with the available options shown in the following table.

**Table 4.3. `service install` options**

Argument or Switch	Description
<code>/controller</code> <code>HOST:PORT</code>	The host and port of the management interface. If omitted, the default is <code>localhost:9999</code> .
<code>/host</code> <code>[DOMAIN_HOST]</code>	Indicates that domain mode is to be used, optionally specifying the name of the domain controller. If the domain controller name is omitted, the default name is <code>master</code> .
<code>/loglevel</code> <code>LEVEL</code>	The log level for the service, either: <code>ERROR</code> , <code>INFO</code> , <code>WARN</code> or <code>DEBUG</code> . If omitted, the default is <code>INFO</code>

Argument or Switch	Description
<code>/name</code> <code>SERVICE_NAME</code>	The name of the service to be created, must not contain spaces. If omitted, the default is <b>JBosseEAP6</b>
<code>/desc "DESCRIPTION"</code>	The description of the service. If omitted, the default is " <b>JBoss Enterprise Application Platform 6</b> "
<code>/serviceuser</code> <code>DOMAIN\USERNAME</code>	Specifies the name of the account under which the service will run. Use an account name in the format of <code>DOMAIN\USERNAME</code> . If omitted, the service runs as the Local System account.
<code>/servicepass</code> <code>PASSWORD</code>	Password for <code>/serviceuser</code> account.
<code>/jbossuser</code> <code>USERNAME</code>	Optional, the JBoss EAP 6 username to use for the shutdown command.
<code>/jbosspass</code> <code>PASSWORD</code>	Password for <code>/jbossuser</code> account, required if <code>/jbossuser</code> is specified.

Below are basic examples of an `install` command to create a new service in either standalone or domain mode. Execute the following command, adjusting the log level for the service as required:

- o Standalone mode:

```
service.bat install /loglevel INFO
```

- o Domain mode:

If you are not using the default master for your JBoss EAP 6 domain controller, replace `master` with the correct host name or alias of the JBoss EAP 6 domain controller.

```
service.bat install /host master /loglevel INFO
```

A new Windows service will be created with name **JBosseEAP6**.

#### 4. Verify the new service in the Services console

Execute the following command in a terminal to open the Windows Services console:

```
services.msc
```

If the default service name was used, in the list of Windows services, the new service will have the display name: **JBoss Enterprise Application Platform 6**. From the Services console you can start and stop the service, as well change its settings on how and when it starts.

#### 5. Starting and stopping the JBoss EAP 6 service from a terminal

To start the service from a terminal, use the following command, changing the service name if necessary:

```
net start JBossEAP6
```

To stop the service from a terminal, use the following command, changing the service name if necessary:

```
net stop JBossEAP6
```

### Result

A JBoss EAP 6 service is configured in Microsoft Windows Server.

### Procedure 4.20. Uninstall the JBoss EAP 6 service from Microsoft Windows Server

- If the service is running, first open a terminal and stop the service by executing the `net stop` command with the name of the service:

```
net stop JBossEAP6
```

In a terminal, change directories to `EAP_HOME\modules\system\layers\base\native\sbin` and execute the following command:

```
service uninstall
```

### Result

The JBoss EAP 6 service has been removed from Microsoft Windows Server.

[Report a bug](#)



## CHAPTER 5. PATCHING AND UPGRADING JBOSS EAP 6

### 5.1. ABOUT PATCHES AND UPGRADES

Patching in JBoss EAP 6 applies updates which are made available to a specific minor version of JBoss EAP 6, for example JBoss EAP 6.2. Patches can contain individual or cumulative updates.

Upgrading is the process of moving to a newer major version (for example, from 5.0 to 6.0) or newer minor version (for example, from 6.1 to 6.2), and cannot be done via patching.

**See Also:**

- [Section 5.2, “Patching JBoss EAP 6”](#)
- [Section 5.3, “Upgrading JBoss EAP 6”](#)

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### 5.2. PATCHING JBOSS EAP 6

#### 5.2.1. About Patching Mechanisms

JBoss patches are distributed in two forms: zip (for all products) and RPM (for a subset of products).



#### IMPORTANT

A JBoss product installation must always only be updated using one patch method: either zip or RPM patches. Only security and cumulative patches will be available via RPM, and customers using an RPM installation will not be able to update using zip patches.

JBoss patches can be either an asynchronous update, or a planned update:

- **Asynchronous updates:** individual patches which are released outside the normal update cycle of the existing product. These may include security patches, as well as other individual patches provided by Red Hat Global Support Services (GSS) to fix specific issues.
- **Planned updates:** These include cumulative patches, as well as micro, minor or major upgrades of an existing product. Cumulative patches include all previously developed updates for that version of the product.

Deciding whether a patch is released as part of a planned update or an asynchronous update depends on the severity of the issue being fixed. An issue of low impact is typically deferred, and is resolved in the next cumulative patch or minor release of the affected product. Issues of moderate or higher impact are typically addressed in order of importance as an asynchronous update to the affected product, and contain a fix for only a specific issue.

Security updates for JBoss products are provided by an erratum (for both zip and RPM methods). The erratum encapsulates a list of the resolved flaws, their severity ratings, the affected products, textual description of the flaws, and a reference to the patches. Bug fix updates are not announced via an erratum.



## IMPORTANT

It is important to note that after a patch has been applied, the jars picked up at runtime are picked up from the `EAP_HOME/modules/system/layers/base/.overlays/$PATCH_ID/$MODULE` directory. The original files are left in `EAP_HOME/modules/system/layers/base/$MODULE`. The patching mechanism cripples the original jar files for security reasons. This means that if you apply a patch which updates a module, the original module's jar files are altered to be unusable. If the patch is rolled back, the original files will be reverted back to a usable state. This also means that the proper rollback procedure must be used to rollback any applied patch. See [Section 5.2.2.3, “Rollback the Application of a Patch in Zip Form Using the Patch Management System”](#) for the proper rollback procedure.

For more information on how Red Hat rates JBoss security flaws, refer to: [Section 5.2.5, “Severity and Impact Rating of JBoss Security Patches”](#)

Red Hat maintains a mailing list for notifying subscribers about security related flaws. See [Section 5.2.4, “Subscribe to Patch Mailing Lists”](#)

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## 5.2.2. Patching a Zip/Installer Installation

### 5.2.2.1. The Patch Management System

The JBoss EAP 6 patch management system is used to apply downloaded zip patches to a single JBoss EAP 6 server. It can be accessed either through the Management CLI by using the `patch` command, or through the Management Console. The patch management system cannot be used to automatically patch JBoss EAP 6 server instances across a managed domain, but individual server instances in a managed domain can be patched independently.



## IMPORTANT

JBoss EAP 6 server instances which have been installed using the RPM method cannot be updated using the patch management system. Refer to [Section 5.2.3, “Patching an RPM Installation”](#) to update RPM-installed JBoss EAP 6 servers.



## NOTE

The patch management system can only be used with patches produced for versions of JBoss EAP 6.2 and later. For patches for versions of JBoss EAP prior to 6.2, you should instead refer to the relevant version's documentation available at <https://access.redhat.com/site/documentation/>.

In addition to applying patches, the patch management system can provide basic information on the state of installed patches, and also provides a way to immediately rollback the application of a patch.

When applying or rolling back a patch, the patch management system will check the modules and other miscellaneous files that it is changing for any user modifications. If a user modification is detected, and a conflict-handling switch has not been specified, the patch management system will abort the

operation and warn that there is a conflict. The warning will include a list of the modules and other files that are in conflict. To complete the operation, it must be retried with a switch specifying how to resolve the conflict: either to preserve the user modifications, or to override them.

The table below lists the arguments and switches for the Management CLI `patch` command.

**Table 5.1. patch Command Arguments and Switches**

Argument or Switch	Description
<code>apply</code>	Applies a patch.
<code>--override-all</code>	If there is a conflict, the patch operation overrides any user modifications.
<code>--override-modules</code>	If there is a conflict as a result of any modified modules, this switch overrides those modifications with the contents of the patch operation.
<code>--override=path(,path)</code>	For specified miscellaneous files only, this will override the conflicting modified files with the files in the patch operation.
<code>--preserve=path(,path)</code>	For specified miscellaneous files only, this will preserve the conflicting modified files.
<code>--host=HOST_NAME</code>	Available in domain mode, this specifies the host that the patch operation will be performed on.
<code>info</code>	Returns information on currently installed patches.
<code>history</code>	Returns information on the patching history.
<code>rollback</code>	Rollsback the application of a patch.
<code>--patch-id=PATCH_ID</code>	Required for rollback, the ID of the patch to rollback.
<code>--reset-configuration=TRUE FALSE</code>	Required for rollback, this specifies whether to restore the server configuration files as part of the rollback operation.
<code>--rollback-to</code>	If the patch to rollback is an individual (one-off) patch, using this argument specifies that the rollback operation will also rollback all other one-off patches that have been applied on top of the specified patch.

[Report a bug](#)

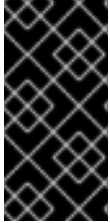
### 5.2.2.2. Installing Patches in Zip Form Using the Patch Management System

**Prerequisites:**

- [Section 3.1, “JBoss EAP 6 Installation Prerequisites”](#)

**Summary**

Patches that are in the zip format can be installed using the JBoss EAP 6 patch management system via either the Management CLI or the Management Console.

**IMPORTANT**

The patch management system is a feature that was added in JBoss EAP 6.2. For versions of JBoss EAP prior to 6.2, the process to install patches in zip form is different, and you should instead refer to the relevant version's documentation available at <https://access.redhat.com/site/documentation/>.

**Prerequisites**

- Valid access and subscription to the Red Hat Customer Portal.
- A current subscription to a JBoss product installed in zip format.
- Access to the Management CLI or the Management Console for the JBoss EAP 6 server to be updated. Refer to *Launch the Management CLI* or *Log in to the Management Console* in the *Administration and Configuration Guide*

**WARNING**

Before installing a patch, you should backup your JBoss product along with all customized configuration files.

**Procedure 5.1. Apply a zip patch to a JBoss EAP 6 server instance using the Management CLI**

1. Download the patch zip file from the Customer Portal at <https://access.redhat.com/downloads/>
2. From the Management CLI, apply the patch with the following command including the appropriate path to the patch file:

```
[standalone@localhost:9999 /] patch apply /path/to/downloaded-patch.zip
```

The **patch** tool will warn if there are any conflicts in attempting to apply the patch. Refer to [Section 5.2.2.1, “The Patch Management System”](#) for available **patch** command switches to re-run the command to resolve any conflicts.

3. Restart the JBoss EAP 6 server for the patch to take effect:

```
[standalone@localhost:9999 /] shutdown --restart=true
```

**Procedure 5.2. Apply a zip patch to a JBoss EAP 6 server instance using the Management Console**

1. Download the patch zip file from the Customer Portal at <https://access.redhat.com/downloads/>
2. In the Management Console:
  - o For a standalone server: click on the **Runtime** tab at the top of the screen, then click **Patch Management**.
  - o For a managed domain: click on the **Domain** tab at the top of the screen, select the host you want to patch from the **Host** drop-down menu, then click **Patch Management**.
3. Click **Apply a New Patch**.
  - a. If you are patching a managed domain host, on the next screen select whether to shutdown the servers on the host, and click **Next**.
4. Click the **Browse** button, select the downloaded patch you want to apply, and then click **Next**.
  - a. If there are any conflicts in attempting to apply the patch, a warning will be displayed. Click **View error details** to see the detail of the conflicts. If there is a conflict, you can either cancel the operation, or select the **Override all conflicts** check box and click **Next**. Overriding conflicts will result in the content of the patch overriding any user modifications.
5. After the patch has been successfully applied, select whether to restart the JBoss EAP 6 server now for the patch to take effect, and click **Finish**.

**Result**

The JBoss EAP 6 server instance is patched with the latest update.

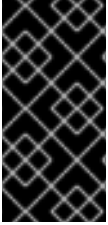
[Report a bug](#)

**5.2.2.3. Rollback the Application of a Patch in Zip Form Using the Patch Management System****Summary**

The JBoss EAP 6 patch management system can be used to rollback the application of a previously applied zip patch, via either the Management CLI or the Management Console.

**WARNING**

Rolling back the application of a patch using the patch management system is not intended as a general uninstall functionality. It is only intended to be used immediately after the application of a patch which had undesirable consequences.



## IMPORTANT

The patch management system is a feature that was added in JBoss EAP 6.2. For versions of JBoss EAP prior to 6.2, the process to rollback patches in zip form is different, and you should instead refer to the relevant version's documentation available at <https://access.redhat.com/site/documentation/>.

### Prerequisites

- A patch that was previously applied using the JBoss EAP 6 patch management system.
- Access to the Management CLI or the Management Console for the JBoss EAP 6 server. Refer to *Launch the Management CLI* or *Log in to the Management Console* in the *Administration and Configuration Guide*.



### WARNING

When following either procedure, use caution when specifying the value of the `Reset Configuration` option:

If set to `TRUE`, the patch rollback process will also rollback the JBoss EAP 6 server configuration files to their pre-patch state. Any changes that were made to the JBoss EAP 6 server configuration files after the patch was applied will be lost.

If set to `FALSE`, the server configuration files will not be rolled back. In this situation, it is possible that the server will not start after the rollback, as the patch may have altered configurations, such as namespaces, which may no longer be valid and have to be fixed manually.

### Procedure 5.3. Rollback a patch from a JBoss EAP 6 server instance using the Management CLI

1. From the Management CLI, use the `patch info` command to find the ID of the patch that is to be rolled back.
  - For cumulative patches, the patch ID is the value of the first `cumulative-patch-id` shown in the `patch info` output.
  - Individual security or bug fix patch IDs are listed as the value of the first `patches` shown in the `patch info` output, with the most recently applied individual patch listed first.
2. From the Management CLI, rollback the patch with the appropriate patch ID from the previous step.

```
[standalone@localhost:9999 /] patch rollback --patch-id=PATCH_ID --
reset-configuration=TRUE
```

The `patch` tool will warn if there are any conflicts in attempting the rollback the patch. Refer to [Section 5.2.2.1, “The Patch Management System”](#) for available `patch` command switches to re-run the command to resolve any conflicts.

- Restart the JBoss EAP 6 server for the patch rollback to take effect:

```
[standalone@localhost:9999 /] shutdown --restart=true
```

#### Procedure 5.4. Rollback a patch from a JBoss EAP 6 server instance using the Management Console

- In the Management Console:
  - For a standalone server: click on the **Runtime** tab at the top of the screen, then click **Patch Management**.
  - For a managed domain: click on the **Domain** tab at the top of the screen, select the relevant host from the **Host** drop-down menu, then click **Patch Management**.
- In the **Recent Patch History** table, select the patch that you want to rollback, then click **Rollback**.
  - For a managed domain host, on the next screen select whether to shutdown the servers on the host, and click **Next**.
- Choose your options for the rollback process, then click **Next**.
- Confirm the options and the patch to be rolled back, then click **Next**.
  - If the **Override all** option was not selected and there are any conflicts in attempting to rollback the patch, a warning will be displayed. Click **View error details** to see the detail of the conflicts. If there is a conflict, you can either cancel the operation, or click **Choose Options** and try the operation again with the **Override all** check box selected. Overriding conflicts will result in the rollback operation overriding any user modifications.
- After the patch has been successfully rolled back, select whether to restart the JBoss EAP 6 server now for the changes to take effect, and click **Finish**.

#### Result

The patch, and optionally also the server configuration files, are rolled back on the JBoss EAP 6 server instance.

[Report a bug](#)

### 5.2.3. Patching an RPM Installation

#### Prerequisites:

- [Section 3.1, “JBoss EAP 6 Installation Prerequisites”](#)

#### Summary

JBoss patches are distributed in two forms: ZIP (for all products) and RPM (for a subset of products). This task describes the steps you need to take to install the patches via the RPM format.

#### Prerequisites

- A valid subscription to the Red Hat Network.
- A current subscription to a JBoss product installed via an RPM package.

### Procedure 5.5. Apply a patch to a JBoss product via the RPM method

Security updates for JBoss products are provided by errata (for both zip and RPM methods). The errata encapsulates a list of the resolved flaws, their severity ratings, the affected products, textual description of the flaws, and a reference to the patches.

For RPM distributions of JBoss products, the errata include references to the updated RPM packages. The patch can be installed by using `yum`.



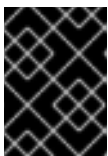
#### WARNING

Before installing a patch, you must backup your JBoss product along with all customized configuration files.

1. Get notified about the security patch either via being a subscriber to the JBoss watch mailing list or by browsing the JBoss watch mailing list archives.
2. Read the errata for the security patch and confirm that it applies to a JBoss product in your environment.
3. If the security patch applies to a JBoss product in your environment, then follow the link to download the updated RPM package which is included in the errata.
4. Use

```
yum update
```

to install the patch.



#### IMPORTANT

When updating an RPM installation, your JBoss product is updated cumulatively with all RPM-released fixes.

#### Result

The JBoss product is patched with the latest update using the RPM format.

[Report a bug](#)

## 5.2.4. Subscribe to Patch Mailing Lists

### Summary

The JBoss team at Red Hat maintains a mailing list for security announcements for Red Hat JBoss Middleware products. This section covers what you need to do to subscribe to this list.



## Prerequisites

- None

### Procedure 5.6. Subscribe to the JBoss Watch List

1. Click the following link to go to the JBoss Watch mailing list page: [JBoss Watch Mailing List](#).
2. Enter your email address in the **Subscribing to Jboss-watch-list** section.
3. [You may also wish to enter your name and select a password. Doing so is optional but recommended.]
4. Press the **Subscribe** button to start the subscription process.
5. You can browse the archives of the mailing list by going to: [JBoss Watch Mailing List Archives](#).

## Result

After confirmation of your email address, you will be subscribed to receive security related announcements from the JBoss patch mailing list.

[Report a bug](#)

### 5.2.5. Severity and Impact Rating of JBoss Security Patches

To communicate the risk of each JBoss security flaw, Red Hat uses a four-point severity scale of low, moderate, important and critical, in addition to Common Vulnerability Scoring System (CVSS) version 2 base scores which can be used to identify the impact of the flaw.

**Table 5.2. Severity Ratings of JBoss Security Patches**

Severity	Description
Critical	This rating is given to flaws that could be easily exploited by a remote unauthenticated attacker and lead to system compromise (arbitrary code execution) without requiring user interaction. These are the types of vulnerabilities that can be exploited by worms. Flaws that require an authenticated remote user, a local user, or an unlikely configuration are not classed as critical impact.
Important	This rating is given to flaws that can easily compromise the confidentiality, integrity, or availability of resources. These are the types of vulnerabilities that allow local users to gain privileges, allow unauthenticated remote users to view resources that should otherwise be protected by authentication, allow authenticated remote users to execute arbitrary code, or allow local or remote users to cause a denial of service.

Severity	Description
Moderate	This rating is given to flaws that may be more difficult to exploit but could still lead to some compromise of the confidentiality, integrity, or availability of resources, under certain circumstances. These are the types of vulnerabilities that could have had a critical impact or important impact but are less easily exploited based on a technical evaluation of the flaw, or affect unlikely configurations.
Low	This rating is given to all other issues that have a security impact. These are the types of vulnerabilities that are believed to require unlikely circumstances to be able to be exploited, or where a successful exploit would give minimal consequences.

The impact component of a CVSS v2 score is based on a combined assessment of three potential impacts: Confidentiality (C), Integrity (I) and Availability (A). Each of these can be rated as None (N), Partial (P) or Complete (C).

Because the JBoss server process runs as an unprivileged user and is isolated from the host operating system, JBoss security flaws are only rated as having impacts of either None (N) or Partial (P).

#### Example 5.1. CVSS v2 Impact Score

The example below shows a CVSS v2 impact score, where exploiting the flaw would have no impact on system confidentiality, partial impact on system integrity and complete impact on system availability (that is, the system would become completely unavailable for any use, for example, via a kernel crash).

C:N/I:P/A:C

Combined with the severity rating and the CVSS score, organizations can make informed decisions on the risk each issue places on their unique environment and schedule upgrades accordingly.

For more information about CVSS2, please see: [CVSS2 Guide](#).

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## 5.3. UPGRADING JBOSS EAP 6

### 5.3.1. Upgrade the JBoss EAP 6 ZIP Installation

#### Prerequisites

- Ensure that the base operating system is up to date.
- Determine which files have been modified since JBoss EAP 6 was installed.
- Back up any modified configuration files, deployments, and all user data.

- [Section 4.2.1, “Download JBoss EAP 6 \(Zip Installation\)”](#).

## Summary

This procedure covers upgrading a JBoss EAP 6 ZIP installation between minor versions (for example, from JBoss EAP 6.1 to 6.2). For installing patches for a specific minor version, refer to the *Patch Installation* section. Upgrading to the latest release of JBoss EAP 6 requires some initial work to back up the existing installation.

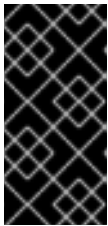


### WARNING

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

## Procedure 5.7. Upgrade to the latest JBoss EAP 6 version

1. Move the downloaded ZIP archive to the desired location. It is recommended that this is a different location to the existing JBoss EAP 6 installation.



### IMPORTANT

If you wish to install the latest version of JBoss EAP 6 to the same directory location as the existing installation, 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 being lost.

2. Unzip the archive. This step installs a clean instance of the latest JBoss EAP 6 release.
3. Copy the *EAP\_HOME/domain/* and *EAP\_HOME/standalone/* directories from the previous installation over the new installation directories.



### NOTE

New features in the new release, such as new subsystems, may not be activated if configuration files are copied from an older JBoss EAP 6 installation. To use these new features, it is necessary to compare and update the old configuration files with the ones from the new version.

4. Review the changes made to the *bin* directory of the previous installation, and make the equivalent modifications to the new directory.

**WARNING**

Files in the `bin` directory should not be overwritten by the files from previous versions. Changes should be made manually.

5. Review the remaining modified files from the previous installation, and move these changes into the new installation. These files may include:
  - o The `welcome-content` directory.
  - o Custom modules in the `modules` directory.
  - o Custom bundles in the `bundles` directory.
6. **Optional:** If JBoss EAP 6 was previously configured to run as a service, remove the existing service and configure a new service for the upgraded installation.

**Result**

The JBoss EAP 6 ZIP installation has been successfully upgraded to the latest release.

[Report a bug](#)

### 5.3.2. Upgrade the JBoss EAP 6 RPM Installation

**Prerequisites**

- Ensure that the base operating system is up to date and that the system is subscribed and enabled to get updates for the Base OS channel.
- Ensure that the correct JBoss EAP 6 RHN channel is enabled. For example, on a x86, 64 bit architecture, this will be the JBoss Application Platform (v 6) for 6Server x86\_64 channel (`jbappplat form-6-x86_64-server-6-rpm`).
- Back up any modified configuration files, deployments, and all user data.

**Summary**

Upgrading to the latest release of JBoss EAP 6 requires some initial work to back up the existing installation. This topic covers upgrading the RPM installation via the Red Hat Network (RHN).

**WARNING**

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

### Procedure 5.8. Upgrade to the latest JBoss EAP 6 release

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 EAP 6 has been successfully upgraded.

[Report a bug](#)

### 5.3.3. Upgrade JBoss EAP Cluster from 6.2 to 6.3

#### Prerequisites

- None

#### Summary

JBoss EAP 6.3 does not support the creation of clusters where the different nodes are made up of different versions of JBoss EAP servers. Thus, a mixed cluster based on different versions is not supported and all nodes within a cluster must be the same version - 6.3.



#### WARNING

The upgrade process for migrating traffic from a 6.2 cluster to a 6.3 cluster is therefore based on transferring all traffic to the 6.3 cluster and then shutting down the servers or nodes in the 6.2 cluster.

### Procedure 5.9. Setup a JBoss EAP Cluster in 6.3

1. Refer to the *HTTP Clustering and Load Balancing* chapter of the *JBoss EAP 6.3 Administration and Configuration Guide* for instructions on how to setup a JBoss EAP cluster in 6.3.
2. Migrate all traffic to this new cluster using the steps outlined in the *Migrate Traffic between Clusters* chapter of the *JBoss EAP 6.3 Administration and Configuration Guide*

#### Result

Your JBoss EAP 6.2 cluster has been migrated to a cluster based on JBoss EAP 6.3.

[Report a bug](#)

## APPENDIX A. REFERENCE MATERIAL

### A.1. AVAILABLE DOWNLOADS FOR JBOSS EAP 6

JBoss EAP 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 A.1. Available Downloads**

Name	Description	Operating Systems
Apache HTTP Server	A standalone Apache HTTP server instance for each supported operating system and architecture. This HTTP server has been tested and verified to work with JBoss EAP 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, Hewlett-Packard HP-UX
Native Utilities	Utilities specific to each supported operating system and architecture, such as scripts and utilities for installing JBoss EAP 6 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, Hewlett-Packard HP-UX
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 EAP 6.	Red Hat Enterprise Linux 5, Red Hat Enterprise Linux 6, Microsoft Windows Server 2008, Solaris 10 and 11, Hewlett-Packard HP-UX
Javadocs	Documentation for all public APIs exposed by JBoss EAP 6. You can install these into your local HTTP server or IDE, or can view them on your local machine.	Platform-independent
Installer	Java installer for JBoss EAP 6. Includes steps to install the Quickstarts and Maven Repository.	Platform-independent

Name	Description	Operating Systems
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 EAP 6. The Maven repository is also available through the JBoss EAP 6 Installer.	Platform-independent
Quickstarts	Example applications to help you get started developing Java EE 6 applications with APIs supplied with JBoss EAP 6. The Quickstarts are also available through the JBoss EAP 6 Installer.	Platform-independent
Source Code	The Java source code for JBoss EAP 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 EAP 6.	Platform-independent



### IMPORTANT

The RPM installation method's downloads are not available on the Customer Portal, but via the Red Hat Network (RHN).

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## A.2. DIRECTORY STRUCTURE OF JBOSS EAP 6

### Summary

JBoss EAP 6 includes a simplified directory structure, compared to previous versions. This topic contains a listing of the directories, and a description of what each directory contains.

It also includes directory structures of the `standalone/` and `domain/` folders.

**Table A.2. Top-level directories and files**

Name	Purpose
<code>appclient/</code>	Contains configuration details for the application client container.

Name	Purpose
<code>bin/</code>	Contains start-up scripts for JBoss EAP 6 on Red Hat Enterprise Linux and Microsoft Windows.
<code>bundles/</code>	Contains OSGi bundles which pertain to JBoss EAP 6 internal functionality.
<code>docs/</code>	License files, schemas, and examples.
<code>domain/</code>	Configuration files, deployment content, and writable areas used when JBoss EAP 6 runs as a managed domain.
<code>modules/</code>	Modules which are dynamically loaded by JBoss EAP 6 when services request them.
<code>standalone/</code>	Configuration files, deployment content, and writable areas used when JBoss EAP 6 runs as a standalone server.
<code>welcome-content/</code>	Contains content used by the Welcome web application which is available on port 8080 of a default installation.
<code>.installation/</code>	Contains metadata for the patching mechanism. No modifications are required for the contents of this directory.
<code>jboss-modules.jar</code>	The bootstrapping mechanism which loads modules.
<code>JBosseULA.txt</code>	Contains license agreement details.
<code>LICENSE.txt</code>	Contains license details.
<code>version.txt</code>	Contains version details.

Table A.3. Directories within the `domain/` directory

Name	Purpose
<code>configuration/</code>	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.



Name	Purpose
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 A.4. Directories within the `standalone/` directory

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.
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.
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.
log/	Contains the run-time log files for the host and process controllers which run on the local instance.

Name	Purpose
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.

[Report a bug](#)

## A.3. RPM PACKAGE LIST FOR JBOSS EAP 6

### Summary

JBoss EAP 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.

**Table A.5. Package List**

Package	Description
jbossas-appclient	JEE Application Client Container
jbossas-bundles	OSGi bundles
jbossas-core	Core components. This is required for all configurations.
jbossas-domain	Domain configuration
jbossas-hornetq-native	Container for the JBoss AS HornetQ files
jbossas-jbossweb-native	JBoss Enterprise Web Platform
jbossas-modules-eap	JBoss EAP modules
jbossas-product-eap	Product configuration components. This customizes product execution.
jbossas-standalone	Standalone configuration
jbossas-welcome-content-eap	Welcome content used in startup messages and console pages



### IMPORTANT

The `jbossas-hornetq-native` package is included for high availability in JBoss EAP 6 but it is not activated by default.

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## A.4. RPM INSTALLATION CONFIGURATION FILES FOR JBOSS EAP 6

### Summary

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

**Table A.6. Additional RPM Configuration Files**

File	Description
<code>/etc/jbossas/jbossas.conf</code>	This file is read first and applies to all JBoss EAP 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.

The following table shows a list of available configuration properties along with their default values.

**Table A.7. RPM Installation Configuration Properties**

Property	Description
<b>JBOSS_USER</b>	The system user account that the JBoss EAP 6 runs as. This user also has ownership of the files.  Default value: <b>jboss</b>
<b>JBOSS_GROUP</b>	The system user group that the JBoss EAP 6 files belong to.  Default value: <b>jboss</b>
<b>JBOSS_STARTUP_WAIT</b>	The number of seconds that the init script will wait until confirming that the server has launched successfully after receiving a <b>start</b> or <b>restart</b> command.  Default value: <b>60</b>
<b>JBOSS_SHUTDOWN_WAIT</b>	The number of seconds that the init script will wait for the server to shutdown before continuing when it receives a <b>stop</b> or <b>restart</b> command.  Default value: <b>20</b>
<b>JBOSS_CONSOLE_LOG</b>	The file that the CONSOLE log handler will be redirected to.  Default value: <code>/var/log/jbossas/\$JBOSSCONF/console.log</code>

Property	Description
<b>JAVA_HOME</b>	The directory where your Java Runtime Environment is installed. Default value: <code>/usr/lib/jvm/jre</code>
<b>JBOSS_HOME</b>	The directory where the application server files are installed. Default value: <code>/usr/share/jbossas</code>
<b>JAVAPATH</b>	The path where the Java executable files are installed. Default value: <code>\$JAVA_HOME/bin</code>
<b>JBOSSCONF</b>	The server mode to launch this server in, <code>standalone</code> or <code>domain</code> . Default value: <code>standalone</code> or <code>domain</code> depending on server mode.
<b>JBOSSSH</b>	The script which is used to launch to server. Default value: <code>\$JBOSS_HOME/bin/\$JBOSSCONF.sh</code>
<b>JBOSS_SERVER_CONFIG</b>	The server configuration file to use. There is no default for this property. Either <code>standalone.xml</code> or <code>domain.xml</code> can be defined at start.
<b>JBOSS_HOST_CONFIG</b>	This property allows a user to specify the host configuration (such as <code>host.xml</code> ). It has no value set as the default.

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## APPENDIX B. INSTALLER SCREENSHOTS

### B.1. LANGUAGE SELECTION

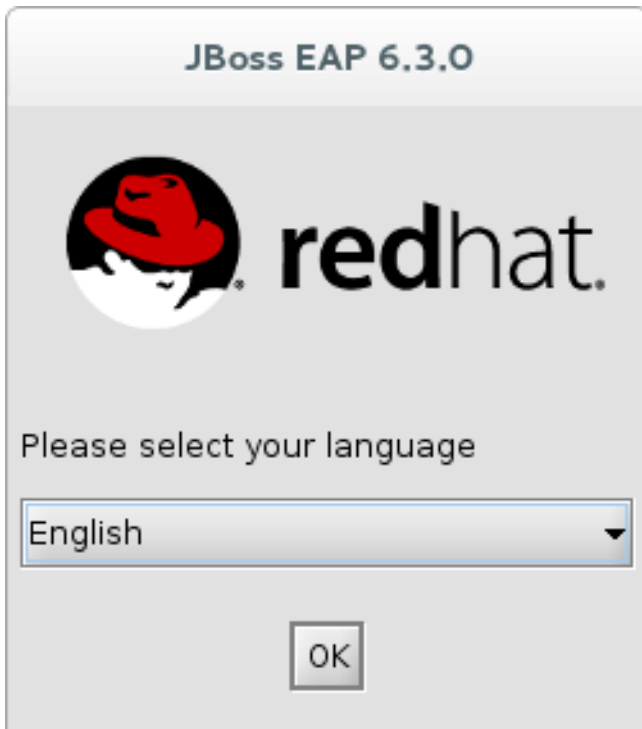


Figure B.1. JBoss EAP Installation Program Language Selection

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### B.2. END USER LICENSE AGREEMENT

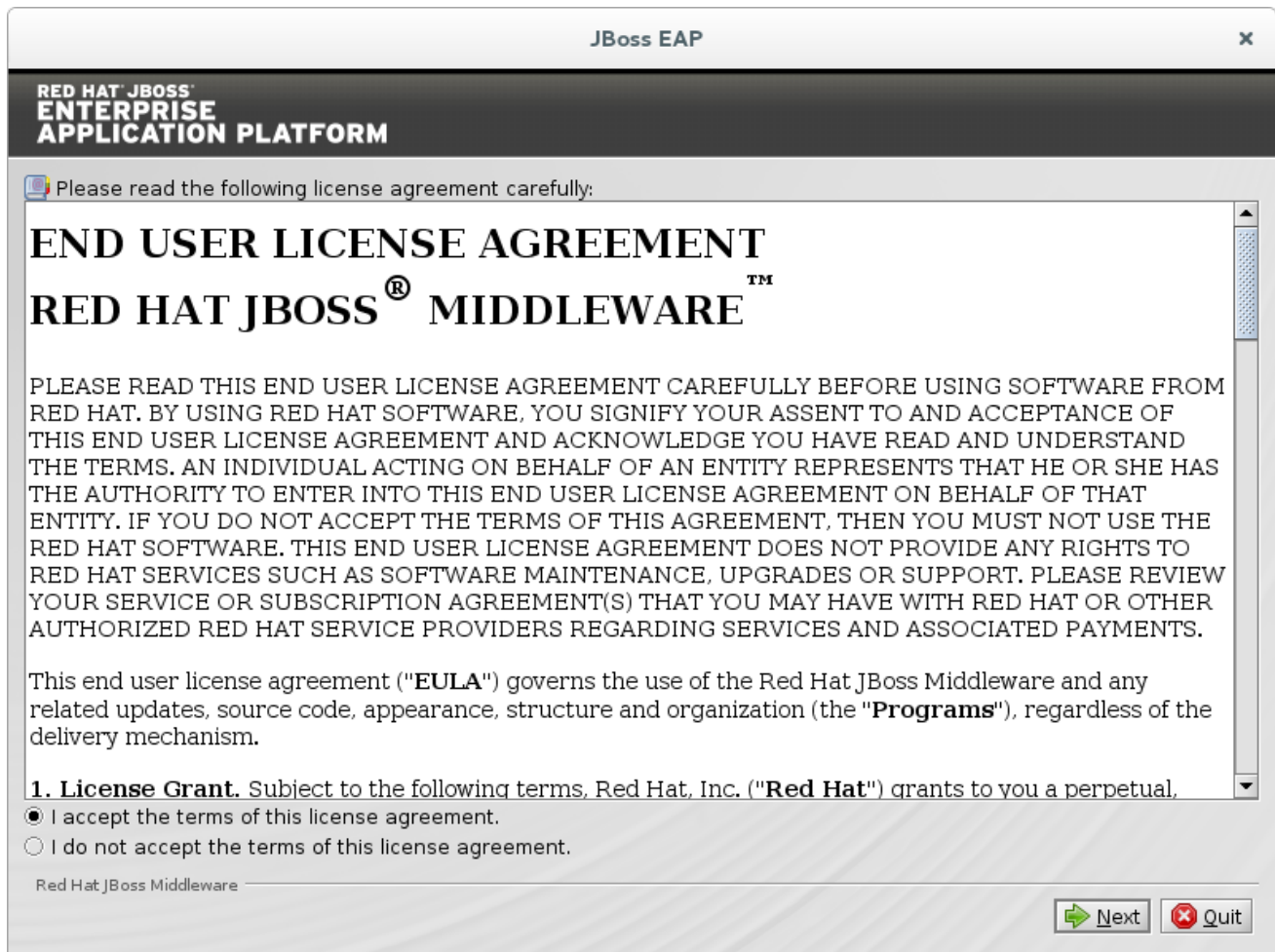
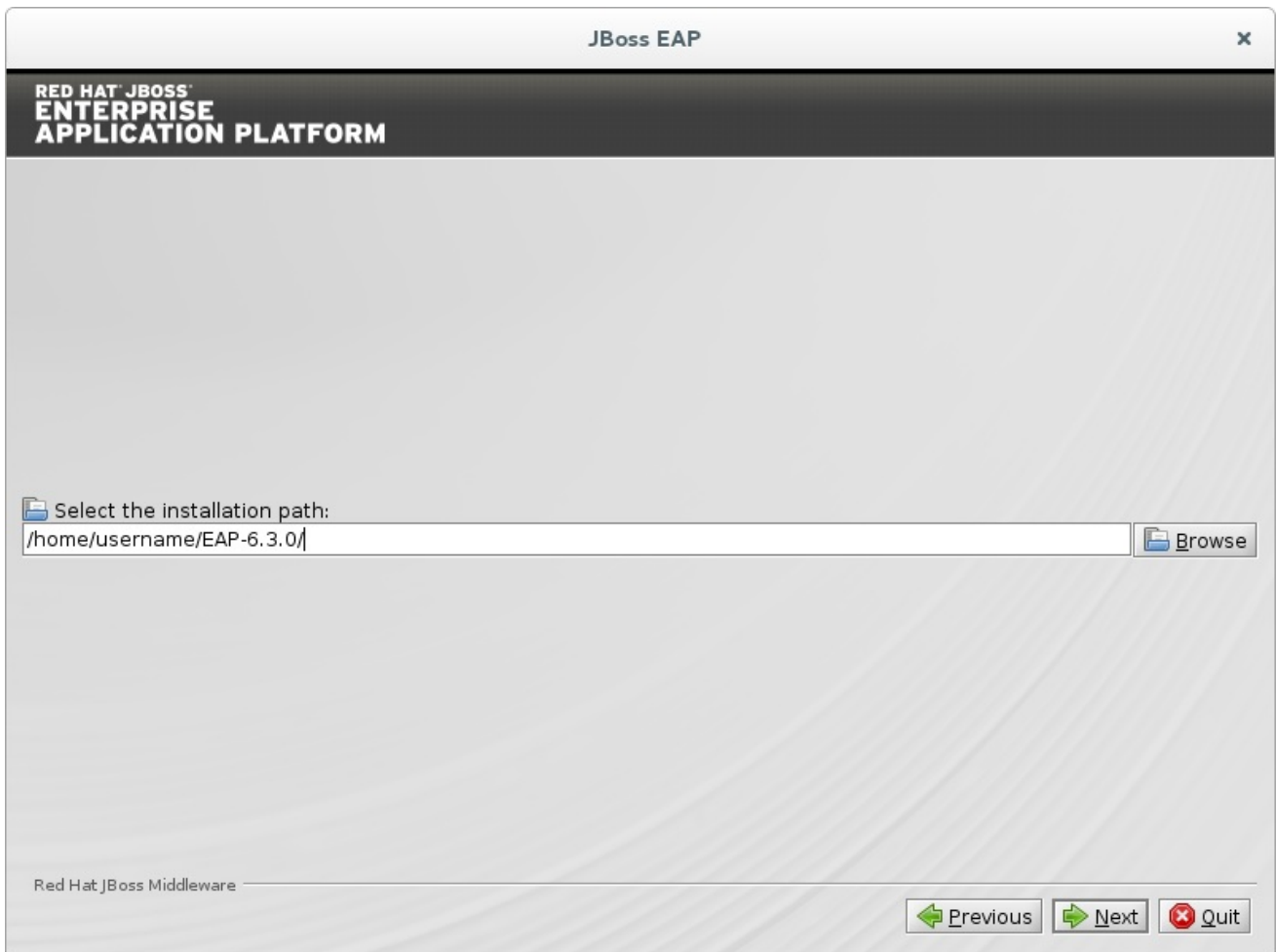


Figure B.2. JBoss EAP Installation Program End User License Agreement

[Report a bug](#)

## B.3. INSTALLATION PATH



**Figure B.3. JBoss EAP Installation Program Installation Path**

[Report a bug](#)

## B.4. SELECT THE PACKS TO INSTALL

Select or deselect the packs to install. Required packs are disabled for deselection.

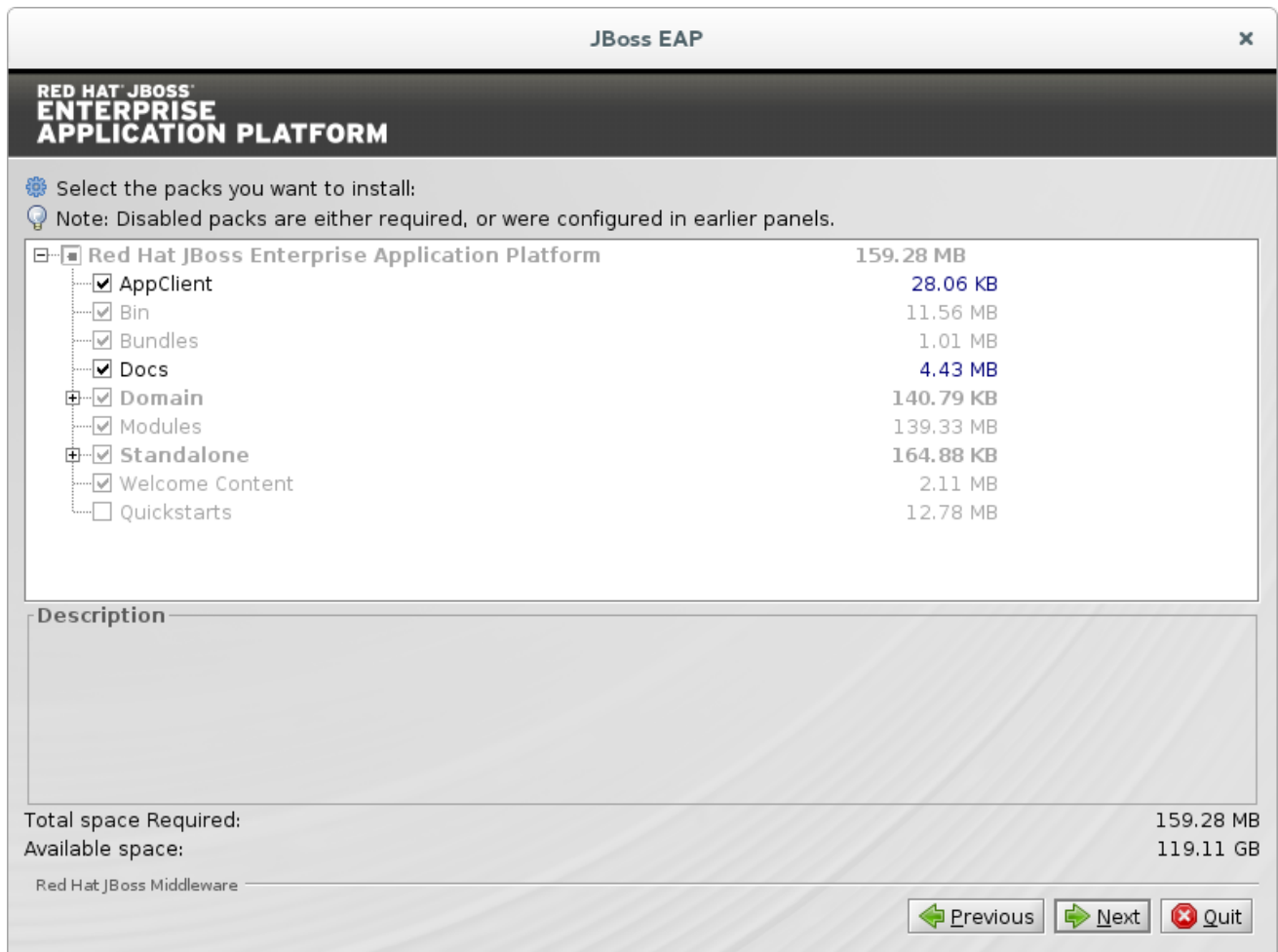
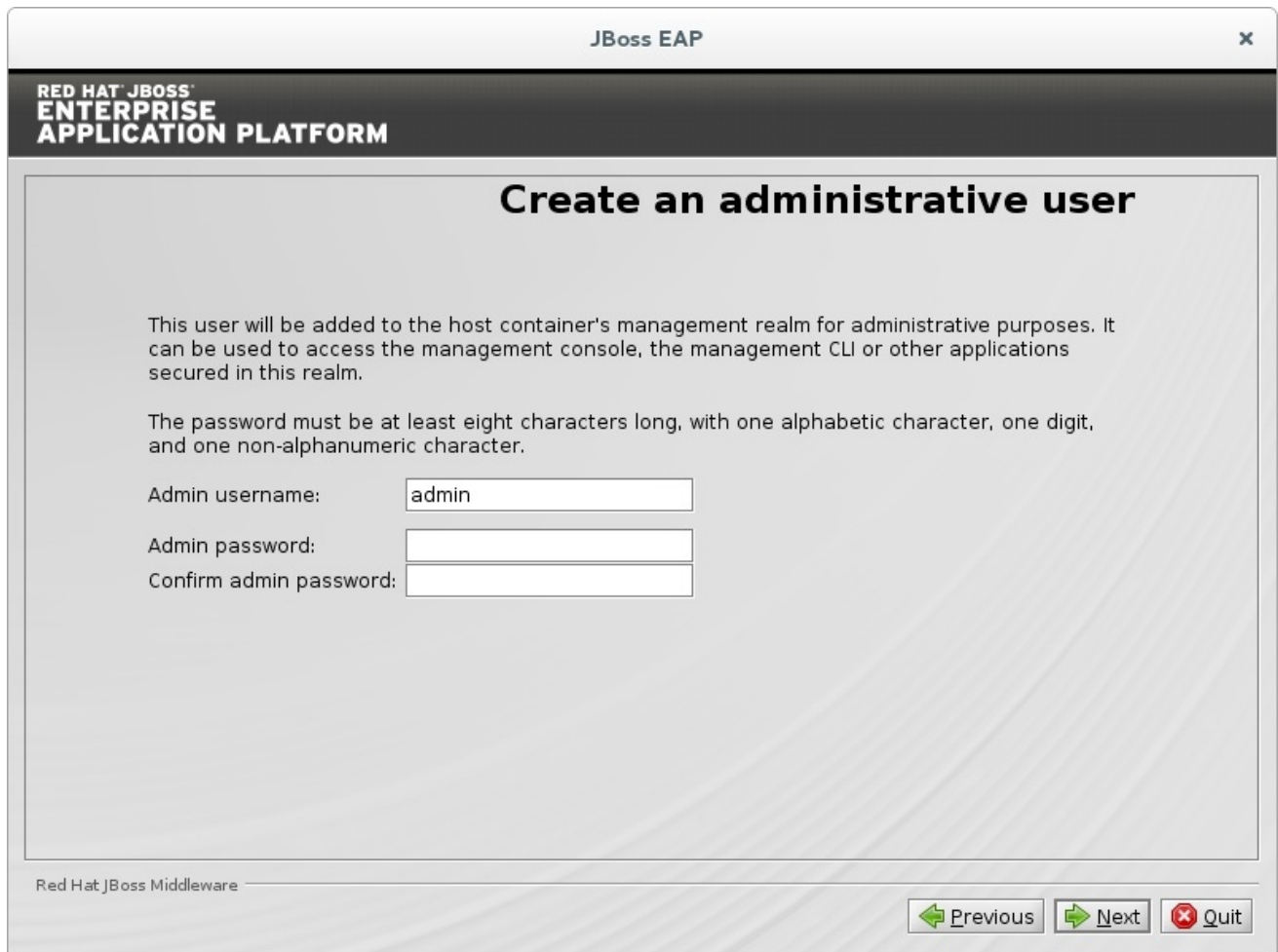


Figure B.4. JBoss EAP Installation Program Select Packs to Install

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## B.5. ADMINISTRATIVE USER CREATION



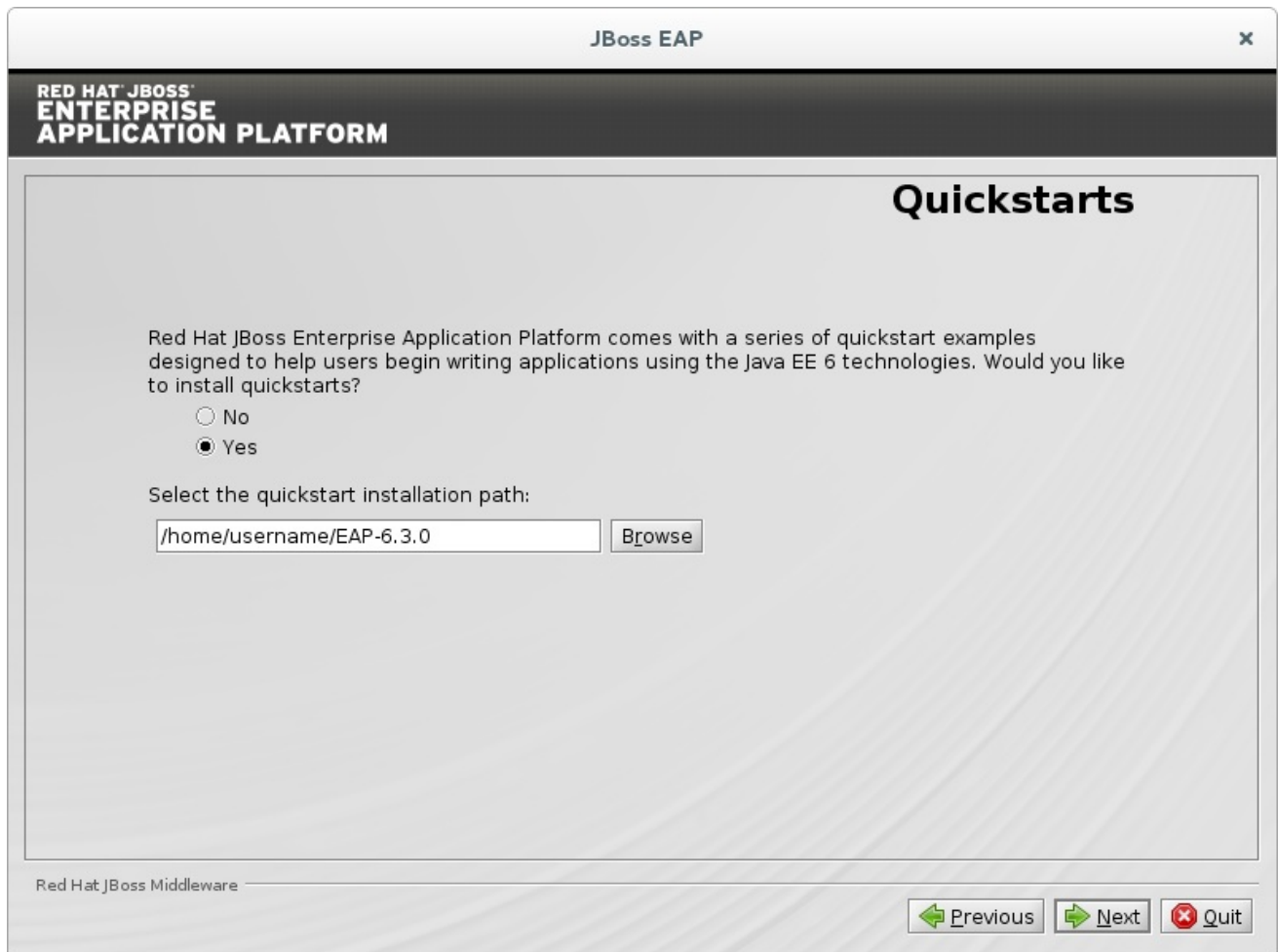


The screenshot shows a window titled "JBoss EAP" with a close button (x) in the top right corner. Below the title bar is a dark header with the text "RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM". The main content area is titled "Create an administrative user". It contains two paragraphs of text: "This user will be added to the host container's management realm for administrative purposes. It can be used to access the management console, the management CLI or other applications secured in this realm." and "The password must be at least eight characters long, with one alphabetic character, one digit, and one non-alphanumeric character." Below the text are three input fields: "Admin username:" with the value "admin", "Admin password:", and "Confirm admin password:". At the bottom left, it says "Red Hat JBoss Middleware". At the bottom right, there are three buttons: "Previous" (with a left arrow), "Next" (with a right arrow), and "Quit" (with a red X icon).

**Figure B.5. JBoss EAP Installation Program Administrative User Creation**

[Report a bug](#)

## B.6. QUICKSTART INSTALLATION



**Figure B.6. JBoss EAP Installation Program Quickstart Setup**

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## B.7. MAVEN REPOSITORY SETUP

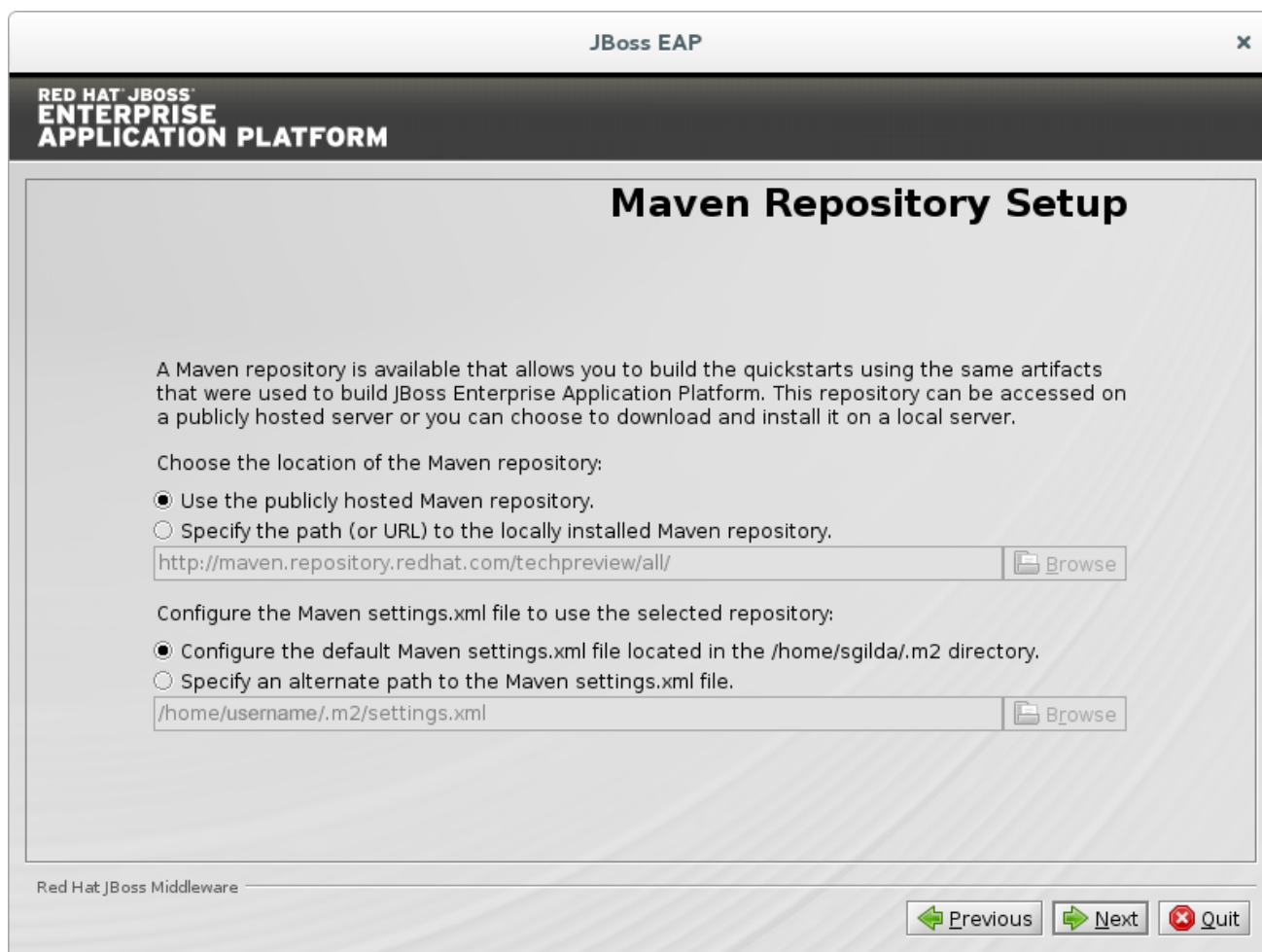


Figure B.7. JBoss EAP Installation Program Maven Repository Setup

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## B.8. SOCKET BINDING SETUP

Determine whether to use the default bindings, or configure custom bindings.

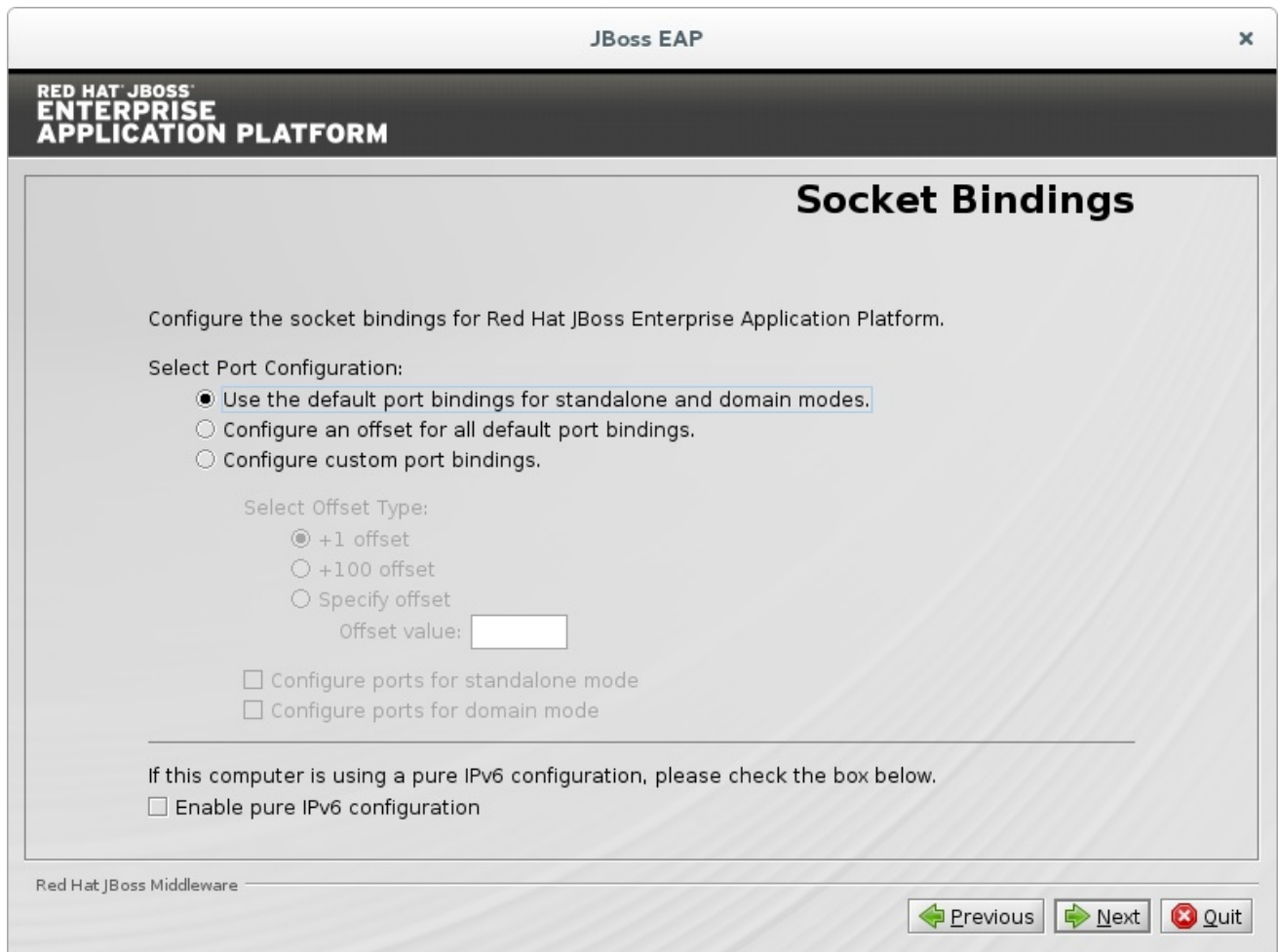


Figure B.8. JBoss EAP Installation Program Default Socket Bindings

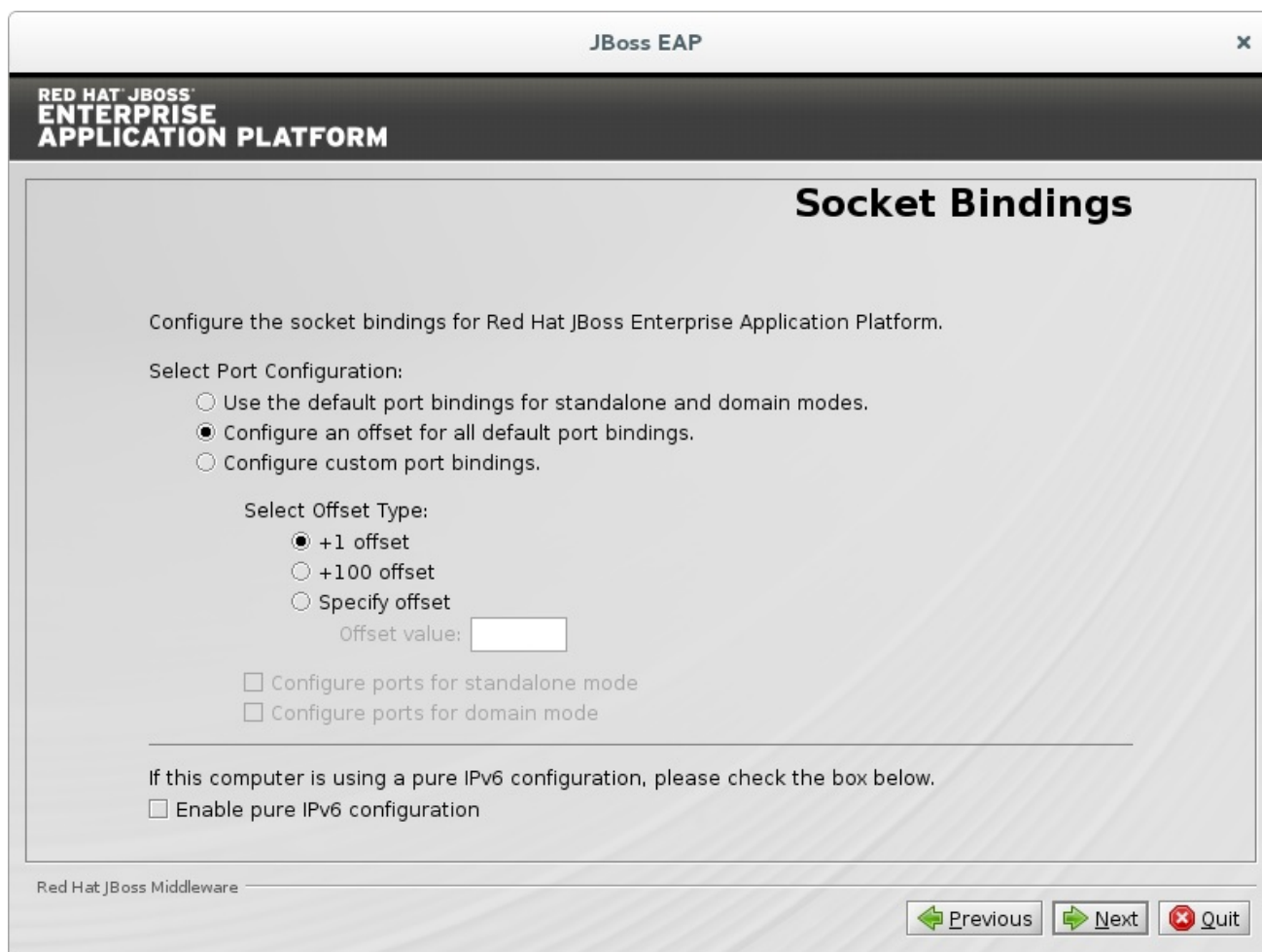


Figure B.9. JBoss EAP Installation Program Custom Port Socket Bindings

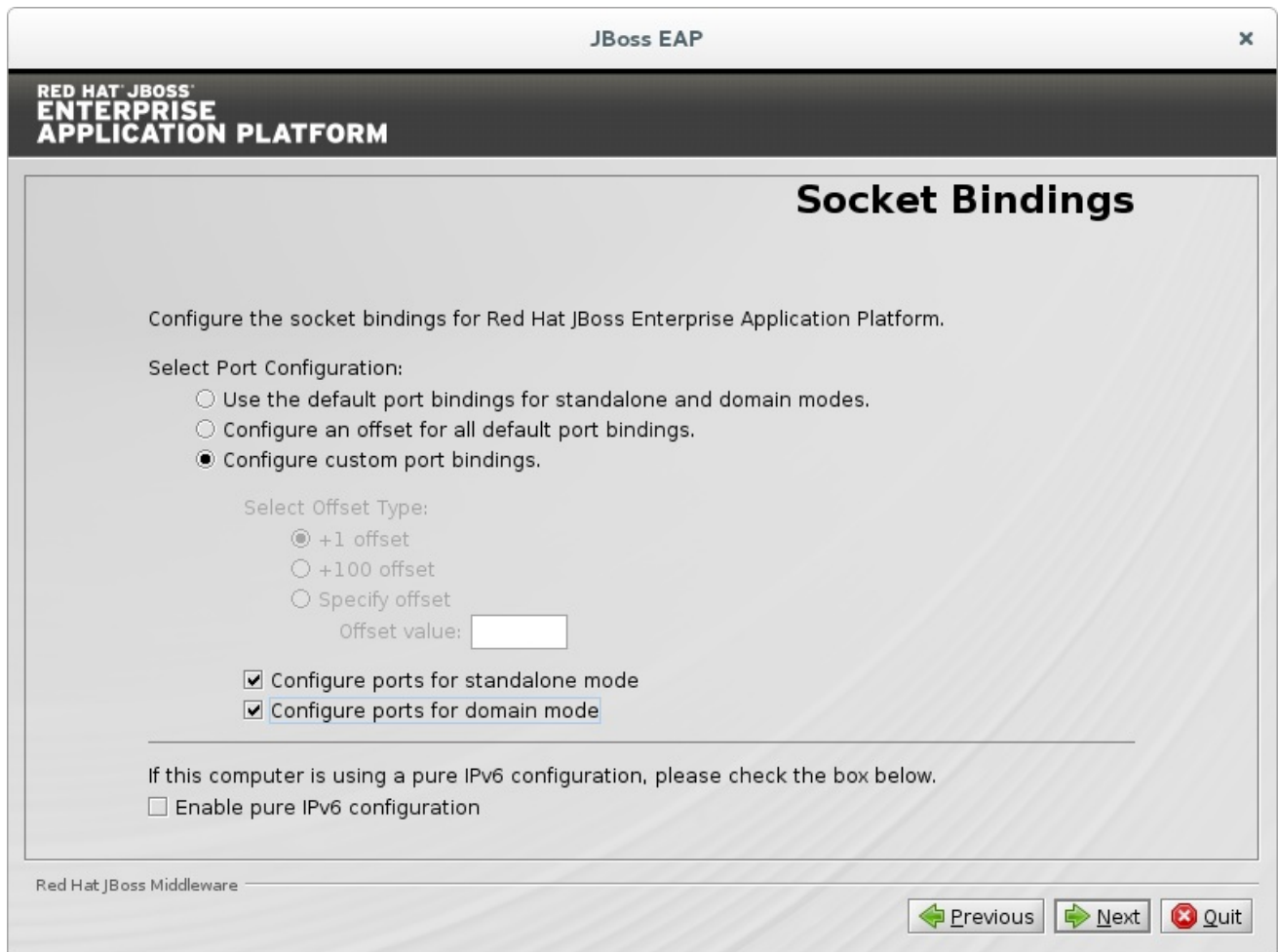


Figure B.10. JBoss EAP Installation Program Configure Offset for Default Socket Bindings

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## B.9. CUSTOM SOCKET BINDINGS FOR STANDALONE CONFIGURATIONS

The following sequence of screens appear if you choose to configure custom port bindings for standalone mode.

JBoss EAP x

**RED HAT JBOSS<sup>®</sup>  
ENTERPRISE  
APPLICATION PLATFORM**

## Socket Binding (standalone)

Port	System Property (Optional)	Default Value
ajp Port Number	<input type="text"/>	<input type="text" value="8009"/>
http Port Number	<input type="text"/>	<input type="text" value="8080"/>
https Port Number	<input type="text"/>	<input type="text" value="8443"/>
management-native Port Number	<input type="text" value="jboss.management.native.port"/>	<input type="text" value="9999"/>
management-http Port Number	<input type="text" value="jboss.management.http.port"/>	<input type="text" value="9990"/>
management-https Port Number	<input type="text" value="jboss.management.https.port"/>	<input type="text" value="9443"/>
remoting Port Number	<input type="text"/>	<input type="text" value="4447"/>
txn-recovery-environment Port Number	<input type="text"/>	<input type="text" value="4712"/>
txn-status-manager Port Number	<input type="text"/>	<input type="text" value="4713"/>

Red Hat JBoss Middleware

**Figure B.11. JBoss EAP Installer Standalone Socket Binding Configuration**

JBoss EAP

**RED HAT JBOSS<sup>®</sup>  
ENTERPRISE  
APPLICATION PLATFORM**

## Socket Binding (ha-standalone)

Port	System Property (Optional)	Default Value
ajp Port Number	<input type="text"/>	8009
http Port Number	<input type="text"/>	8080
https Port Number	<input type="text"/>	8443
jgroups-mping Multicast-Address	<input type="text" value="jboss.default.multicast.addr"/>	230.0.0.4
jgroups-mping Multicast-Port	<input type="text"/>	45700
jgroups-tcp Port Number	<input type="text"/>	7600
jgroups-tcp-fd Port Number	<input type="text"/>	57600
jgroups-udp Port Number	<input type="text"/>	55200
jgroups-udp Multicast-Address	<input type="text" value="jboss.default.multicast.addr"/>	230.0.0.4
jgroups-udp Multicast-Port	<input type="text"/>	45688
jgroups-udp-fd Port Number	<input type="text"/>	54200

Red Hat JBoss Middleware

**Figure B.12. JBoss EAP Installer Standalone HA Socket Binding Configuration**



JBoss EAP

**RED HAT JBOSS<sup>®</sup>  
ENTERPRISE  
APPLICATION PLATFORM**

## Socket Binding (full-standalone)

Port	System Property (Optional)	Default Value
ajp Port Number	<input type="text"/>	8009
http Port Number	<input type="text"/>	8080
https Port Number	<input type="text"/>	8443
jacorb Port Number	<input type="text"/>	3528
jacorb-ssl Port Number	<input type="text"/>	3529
messaging-group Multicast-Address	<input type="text" value="jboss.messaging.group.add"/>	231.7.7.7
messaging-group Multicast-Port	<input type="text" value="jboss.messaging.group.port"/>	9876
messaging-throughput Port Number	<input type="text"/>	5455
management-native Port Number	<input type="text" value="jboss.management.native.p"/>	9999
management-http Port Number	<input type="text" value="jboss.management.http.por"/>	9990
management-https Port Number	<input type="text" value="jboss.management.https.po"/>	9443

Red Hat JBoss Middleware

**Figure B.13. JBoss EAP Installer Standalone Full Standalone Socket Binding Configuration**

Port	System Property (Optional)	Default Value
ajp Port Number	<input type="text"/>	8009
http Port Number	<input type="text"/>	8080
https Port Number	<input type="text"/>	8443
jacorb Port Number	<input type="text"/>	3528
jacorb-ssl Port Number	<input type="text"/>	3529
jgroups-mping Multicast-Address	<input type="text" value="jboss.default.multicast.addr"/>	230.0.0.4
jgroups-mping Multicast-Port	<input type="text"/>	45700
jgroups-tcp Port Number	<input type="text"/>	7600
jgroups-tcp-fd Port Number	<input type="text"/>	57600
jgroups-udp Port Number	<input type="text"/>	55200
jgroups-udp Multicast-Address	<input type="text" value="jboss.default.multicast.addr"/>	230.0.0.4

Red Hat JBoss Middleware

**Figure B.14. JBoss EAP Installer Standalone Full HA Standalone Socket Binding Configuration**

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## B.10. CUSTOM SOCKET BINDINGS FOR DOMAIN CONFIGURATIONS

The following sequence of screens appear if you choose to configure custom port bindings for domain mode.

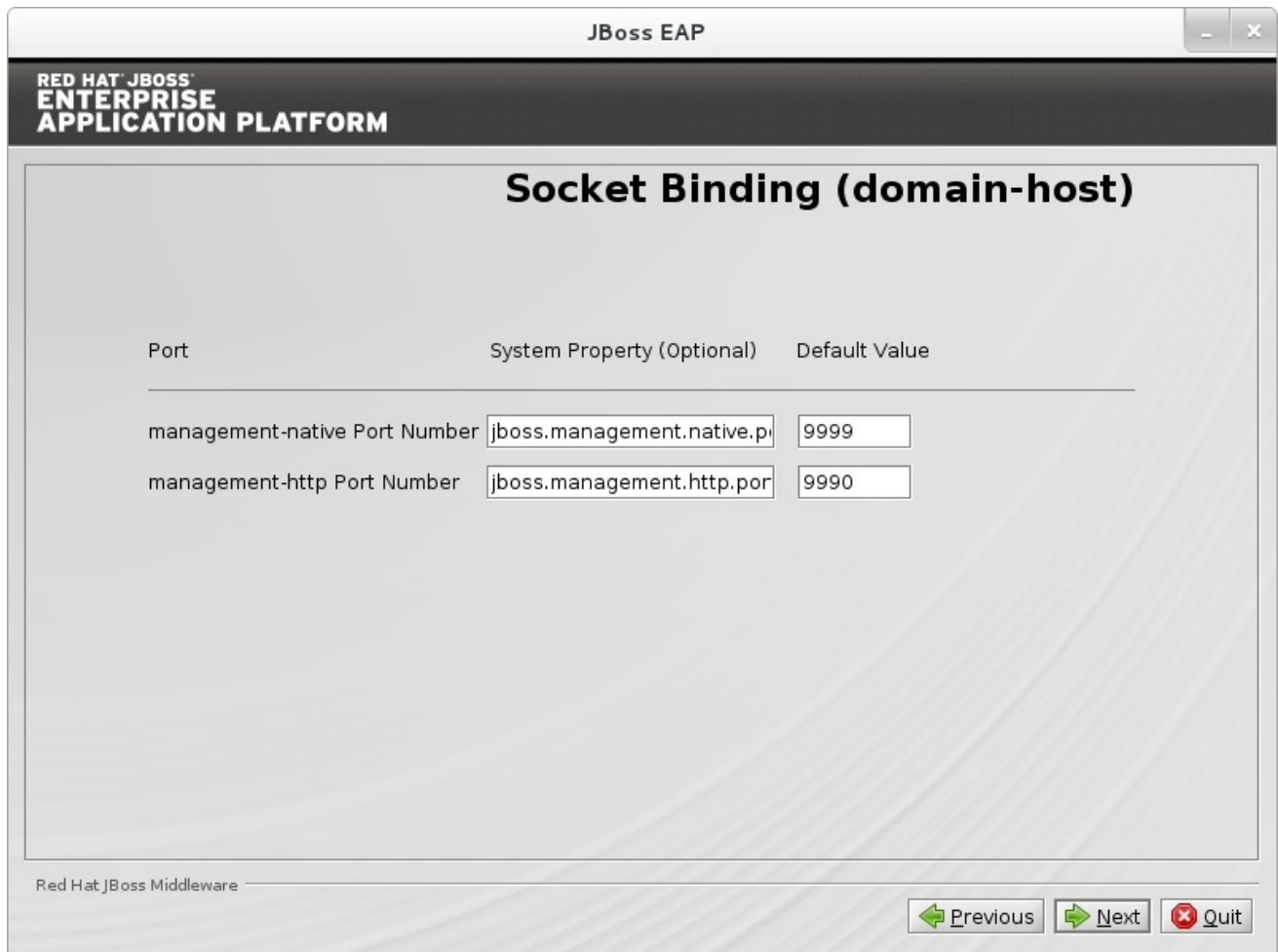
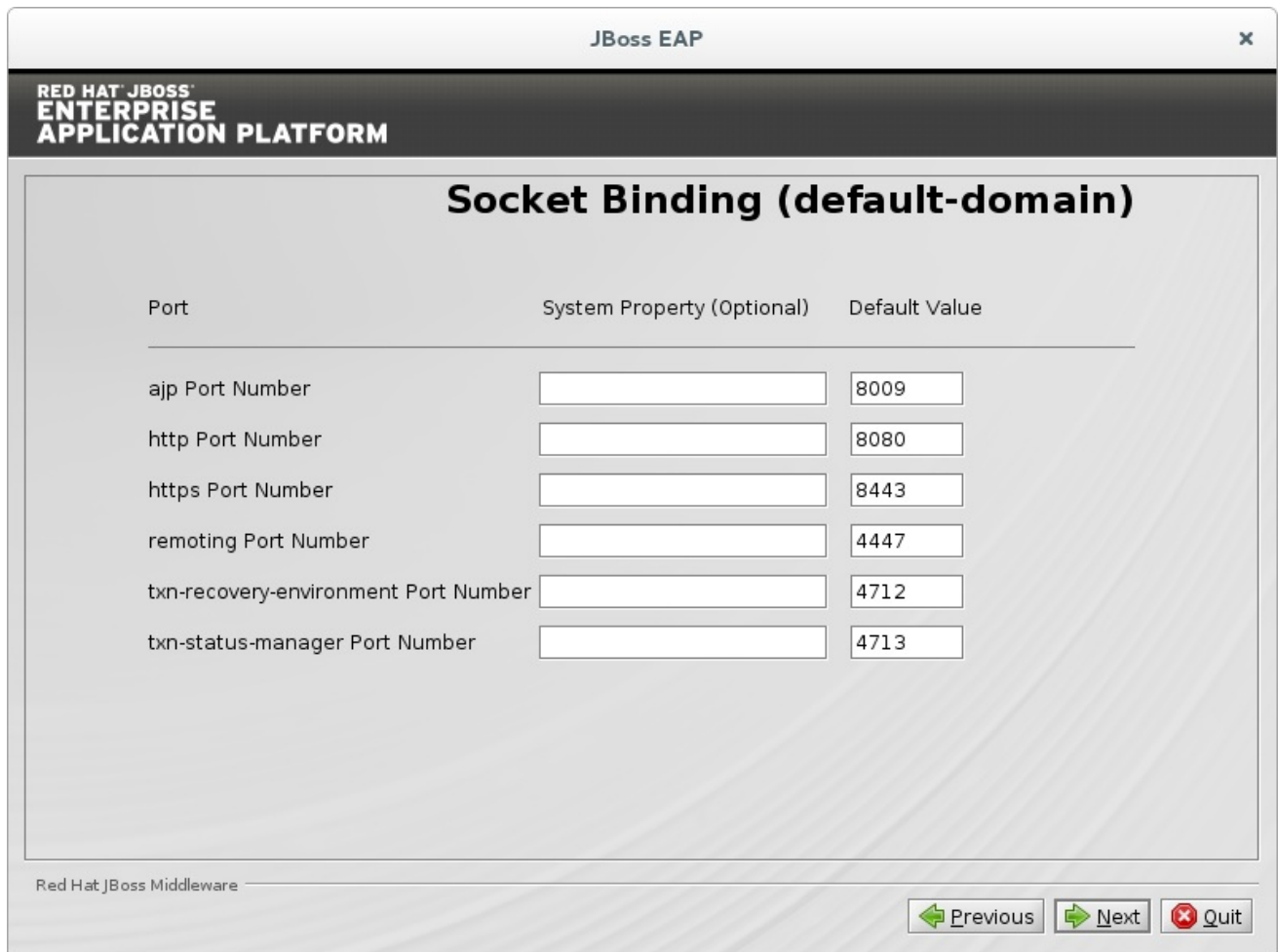


Figure B.15. JBoss EAP Installer Domain Host Socket Binding Configuration



The image shows a screenshot of the JBoss EAP installer window titled "JBoss EAP". The window has a dark header with the "RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM" logo. The main content area is titled "Socket Binding (default-domain)" and contains a table for configuring port numbers. The table has three columns: "Port", "System Property (Optional)", and "Default Value". Below the table, there are three navigation buttons: "Previous", "Next", and "Quit".

Port	System Property (Optional)	Default Value
ajp Port Number	<input type="text"/>	8009
http Port Number	<input type="text"/>	8080
https Port Number	<input type="text"/>	8443
remoting Port Number	<input type="text"/>	4447
txn-recovery-environment Port Number	<input type="text"/>	4712
txn-status-manager Port Number	<input type="text"/>	4713

Red Hat JBoss Middleware

Figure B.16. JBoss EAP Installer Default Domain Socket Binding Configuration

**JBoss EAP**

**RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM**

## Socket Binding (ha-domain)

Port	System Property (Optional)	Default Value
ajp Port Number	<input type="text"/>	8009
http Port Number	<input type="text"/>	8080
https Port Number	<input type="text"/>	8443
jgroups-mping Multicast-Address	<input type="text" value="jboss.default.multicast.addr"/>	230.0.0.4
jgroups-mping Multicast-Port	<input type="text"/>	45700
jgroups-tcp Port Number	<input type="text"/>	7600
jgroups-tcp-fd Port Number	<input type="text"/>	57600
jgroups-udp Port Number	<input type="text"/>	55200
jgroups-udp Multicast-Address	<input type="text" value="jboss.default.multicast.addr"/>	230.0.0.4
jgroups-udp Multicast-Port	<input type="text"/>	45688

Red Hat JBoss Middleware

**Figure B.17. JBoss EAP Installer HA Domain Socket Binding Configuration**

JBoss EAP x

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ENTERPRISE  
APPLICATION PLATFORM**

## Socket Binding (full-domain)

Port	System Property (Optional)	Default Value
ajp Port Number	<input type="text"/>	8009
http Port Number	<input type="text"/>	8080
https Port Number	<input type="text"/>	8443
jacorb Port Number	<input type="text"/>	3528
jacorb-ssl Port Number	<input type="text"/>	3529
messaging Port Number	<input type="text"/>	5445
messaging-group Multicast-Address	<input type="text" value="jboss.messaging.group.addi"/>	231.7.7.7
messaging-group Multicast-Port	<input type="text" value="jboss.messaging.group.port"/>	9876
messaging-throughput Port Number	<input type="text"/>	5455
remoting Port Number	<input type="text"/>	4447
txn-recovery-environment Port Number	<input type="text"/>	4712

Red Hat JBoss Middleware

**Figure B.18. JBoss EAP Installer Full Domain Socket Binding Configuration**

**JBoss EAP**

RED HAT JBOSS  
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APPLICATION PLATFORM

### Socket Binding (full-ha-domain)

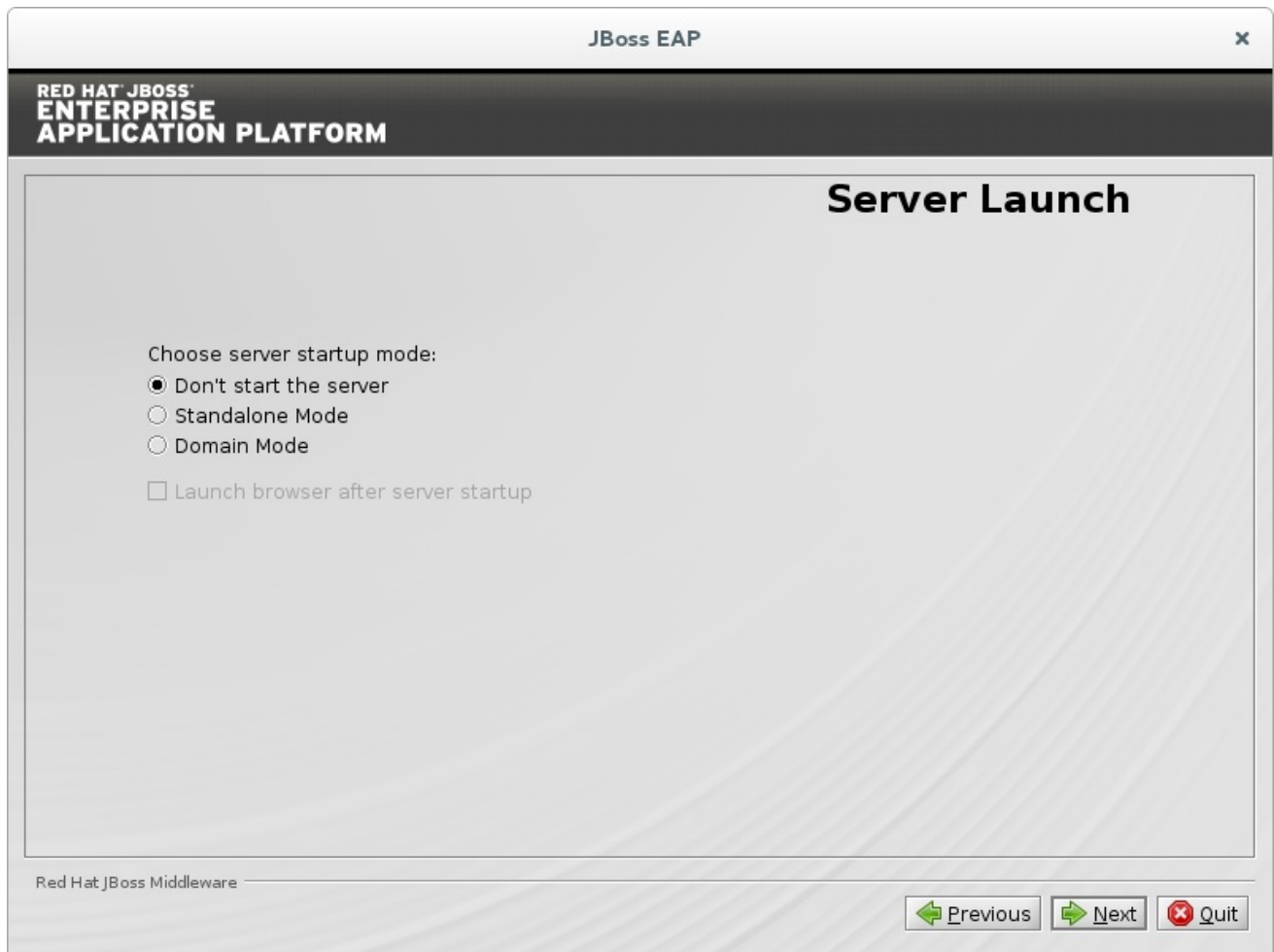
Port	System Property (Optional)	Default Value
ajp Port Number	<input type="text"/>	8009
http Port Number	<input type="text"/>	8080
https Port Number	<input type="text"/>	8443
jacorb Port Number	<input type="text"/>	3528
jacorb-ssl Port Number	<input type="text"/>	3529
jgroups-mping Multicast-Address	jboss.default.multicast.addr	230.0.0.4
jgroups-mping Multicast-Port	<input type="text"/>	45700
jgroups-tcp Port Number	<input type="text"/>	7600
jgroups-tcp-fd Port Number	<input type="text"/>	57600
jgroups-udp Port Number	<input type="text"/>	55200

Red Hat JBoss Middleware

**Figure B.19. JBoss EAP Installer Full HA Domain Socket Binding Configuration**

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## B.11. SERVER LAUNCH



**Figure B.20. JBoss EAP Installation Program Server Launch**

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## B.12. CONFIGURE LOGGING LEVELS



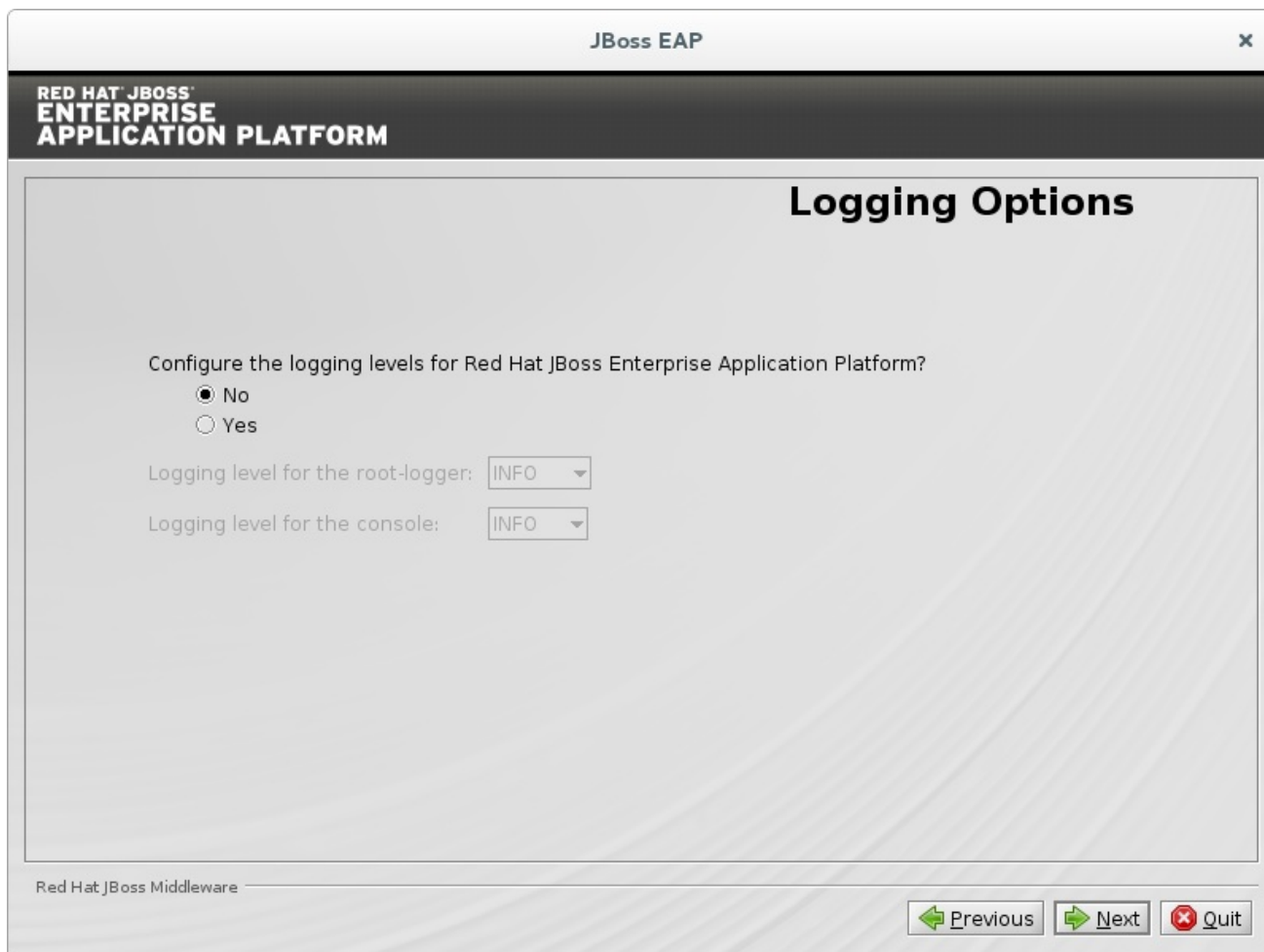


Figure B.21. JBoss EAP Installation Program Configure Logging Levels

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## B.13. CONFIGURE RUNTIME ENVIRONMENT

Choose **Perform advanced configuration** to customize installation and configuration of security, caching, LDAP, and datasource options.

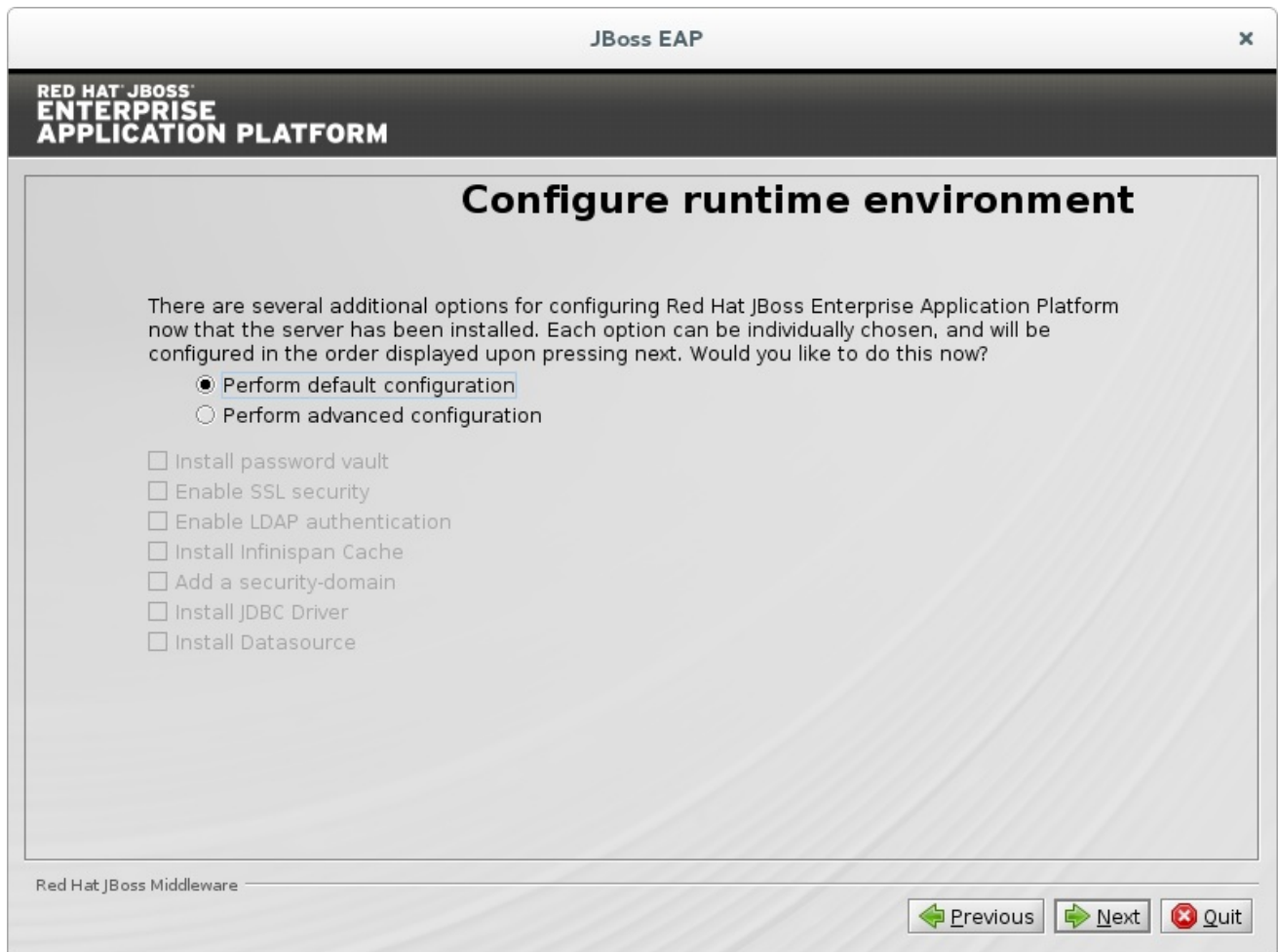


Figure B.22. JBoss EAP Installation Program Configure Runtime Environment - Default

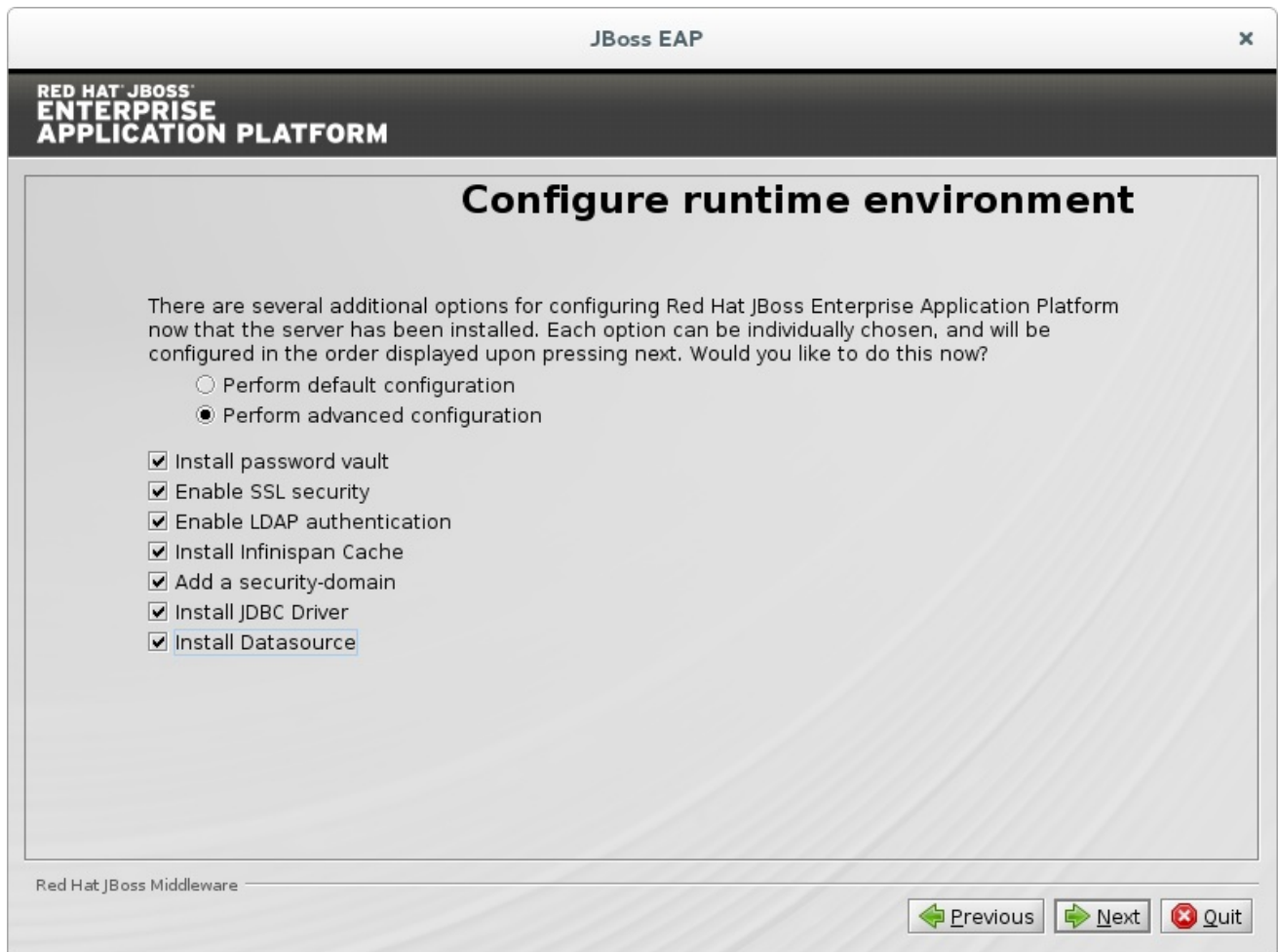
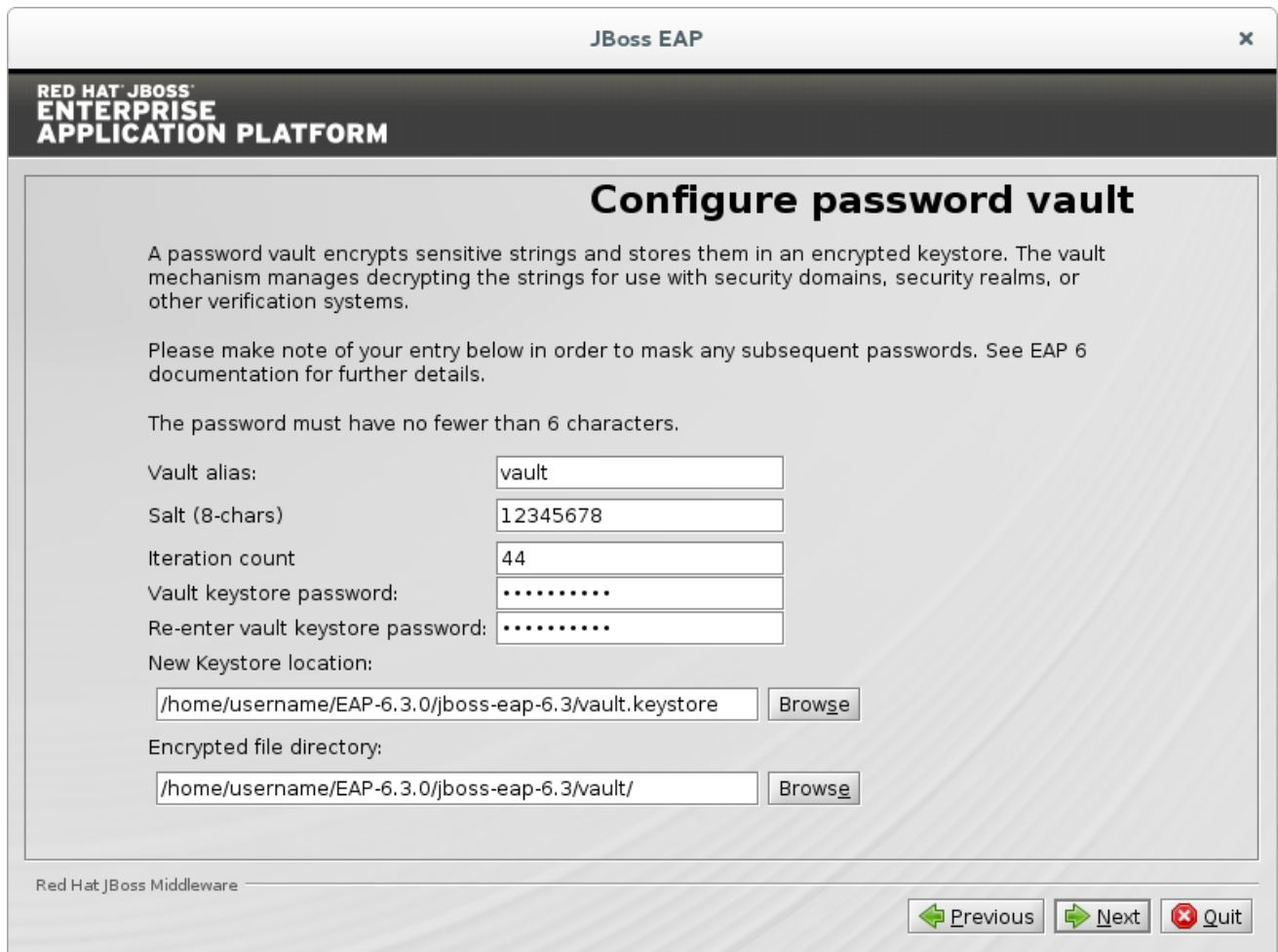


Figure B.23. JBoss EAP Installation Program Configure Runtime Environment - Advanced

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## B.14. PASSWORD VAULT CONFIGURATION



The screenshot shows a window titled "JBoss EAP" with a close button (x) in the top right corner. Below the title bar is a dark header with the text "RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM". The main content area is titled "Configure password vault" and contains the following text:

A password vault encrypts sensitive strings and stores them in an encrypted keystore. The vault mechanism manages decrypting the strings for use with security domains, security realms, or other verification systems.

Please make note of your entry below in order to mask any subsequent passwords. See EAP 6 documentation for further details.

The password must have no fewer than 6 characters.

The form includes the following fields and controls:

- Vault alias:
- Salt (8-chars):
- Iteration count:
- Vault keystore password:
- Re-enter vault keystore password:
- New Keystore location:
- Encrypted file directory:

At the bottom left, it says "Red Hat JBoss Middleware". At the bottom right, there are three buttons: "Previous" (with a left arrow), "Next" (with a right arrow), and "Quit" (with a red X).

Figure B.24. JBoss EAP Install Password Vault Configuration

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## B.15. CONFIGURE SSL SECURITY



Figure B.25. JBoss EAP Install Configure SSL Security

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## B.16. CONFIGURE LDAP

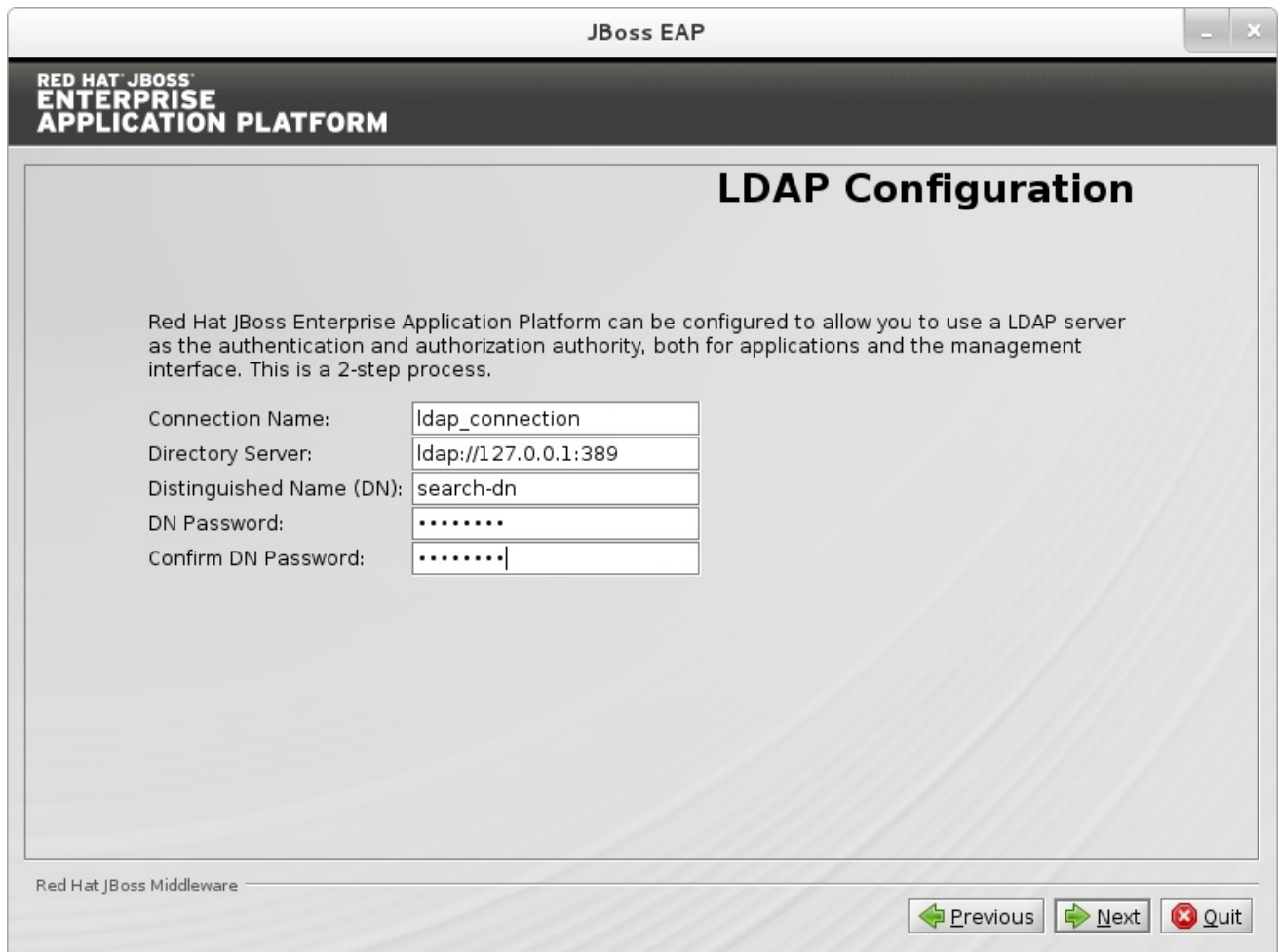
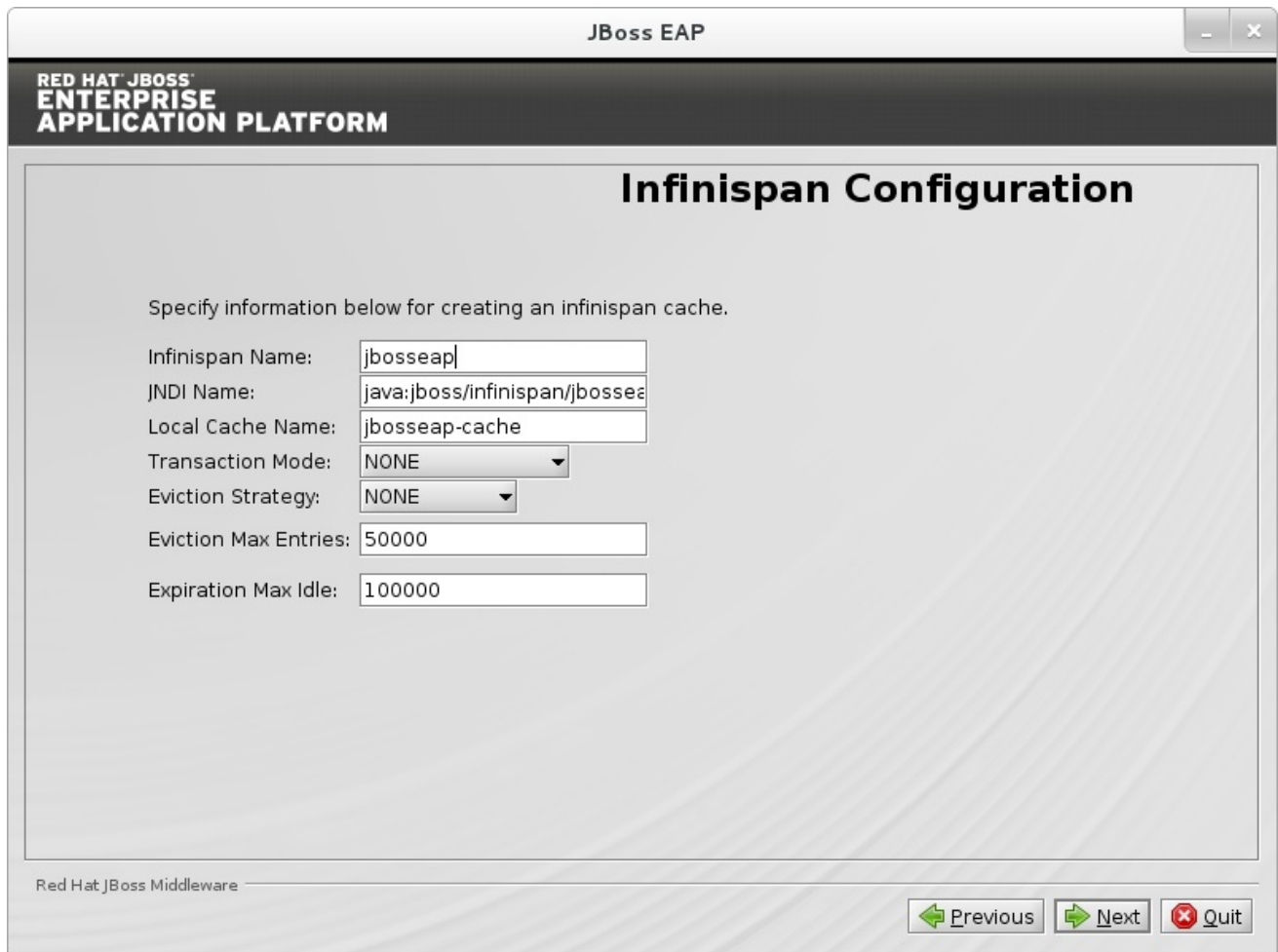


Figure B.26. JBoss EAP Install LDAP Configuration

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## B.17. INFINISPAN CONFIGURATION



The screenshot shows the 'Infinispan Configuration' window in the JBoss EAP installer. The window title is 'JBoss EAP'. The header bar contains the 'RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM' logo. The main content area is titled 'Infinispan Configuration' and contains the instruction: 'Specify information below for creating an infinispan cache.' Below this, there are several configuration fields:

- Infinispan Name:
- JNDI Name:
- Local Cache Name:
- Transaction Mode:
- Eviction Strategy:
- Eviction Max Entries:
- Expiration Max Idle:

At the bottom of the window, there is a footer with 'Red Hat JBoss Middleware' on the left and three navigation buttons: 'Previous', 'Next', and 'Quit' on the right.

Figure B.27. JBoss EAP Install Infinispan Configuration

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## B.18. SECURITY DOMAIN CONFIGURATION

JBoss EAP x

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Security Domain

Configure a security-domain using the fields below. The only required field is the security-domain name. The rest of the fields are optional. Most fields have a predefined list of valid values.

Security-Domain Name:

Security-Domain Cache-type:

Add authentication element:

Authentication code:	Authentication flag:	Authentication options:
<input type="text" value="Client"/>	<input type="text" value="Required"/>	<input type="text" value="testName=testValue"/>
		<input type="button" value="Add Module"/> <input type="button" value="Remove Module"/>

Add authorization element:

Authorization code:	Authorization flag:	Authorization options:
<input type="text" value="DenyAll"/>	<input type="text" value="Required"/>	<input type="text" value="testName=testValue"/>
		<input type="button" value="Add Module"/> <input type="button" value="Remove Module"/>

Add mapping element:

Mapping code:	Mapping type:	Mapping options:
<input type="text" value="PropertiesRoles"/>	<input type="text" value="Principal"/>	<input type="text" value="testName=testValue"/>
		<input type="button" value="Add Module"/> <input type="button" value="Remove Module"/>

Red Hat JBoss Middleware

JBoss EAP x

RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM

JSSE Configuration

Configure a JSSE element. The JSSE element requires either a keystore or a truststore to be configured.

Add jsse element

Cipher suites used by SSLContext:

Protocols used by SSLContext:

Alias of client-side keystore:

Alias of server-side keystore:

Third party validation token:

Add keystore element

JSSE keystore password:

Confirm JSSE keystore password:

Keystore Provider:

Provider argument:

Keystore type:

Keystore URL:

Add keystore manager element

KeyManagerFactory algorithm:

KeyManagerFactory Provider:

Add truststore element

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Figure B.28. JBoss EAP Install Security Domain Configuration

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## B.19. JDBC DRIVER SETUP

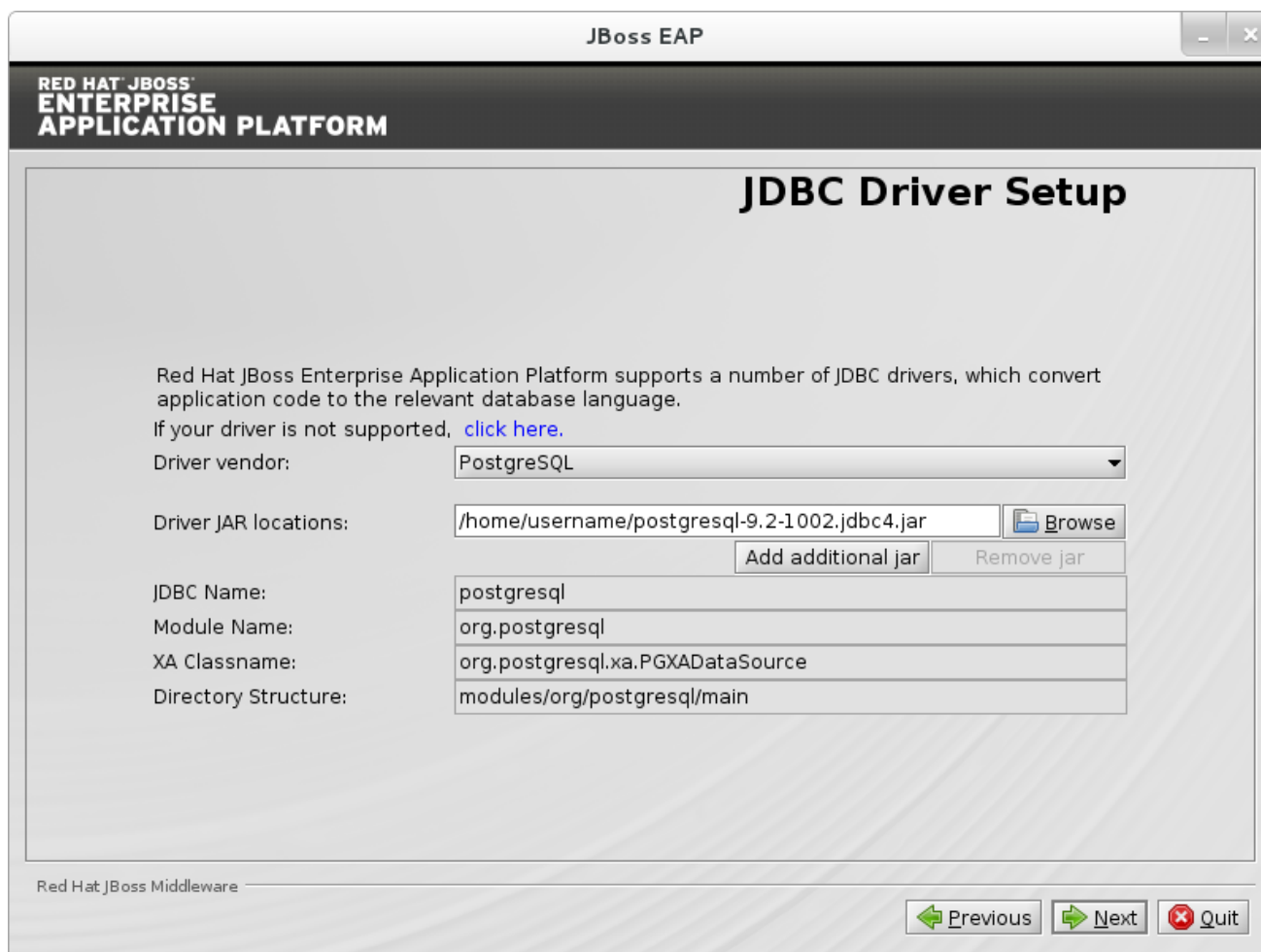


Figure B.29. JBoss EAP Install Configure a JDBC Driver

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## B.20. DATASOURCE SETUP

JBoss EAP

RED HAT JBOSS  
ENTERPRISE  
APPLICATION PLATFORM

## Datasource Setup

Configure the datasource for Red Hat JBoss Enterprise Application Platform below.

Name:	myNewDatasource
JNDI Name:	java:jboss/PostgresDS
Min Pool Size:	0
Max Pool Size:	20
Security Type:	Security-domain
Security-domain:	mySecurityDomain
Datasource type:	postgresql
Connection URL:	jdbc:postgresql://SERVER_NAME:PORT/DATABASE_NAME

Red Hat JBoss Middleware

Previous Next Quit

Figure B.30. JBoss EAP Install Datasource Setup

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## B.21. REVIEW INSTALLATION COMPONENTS

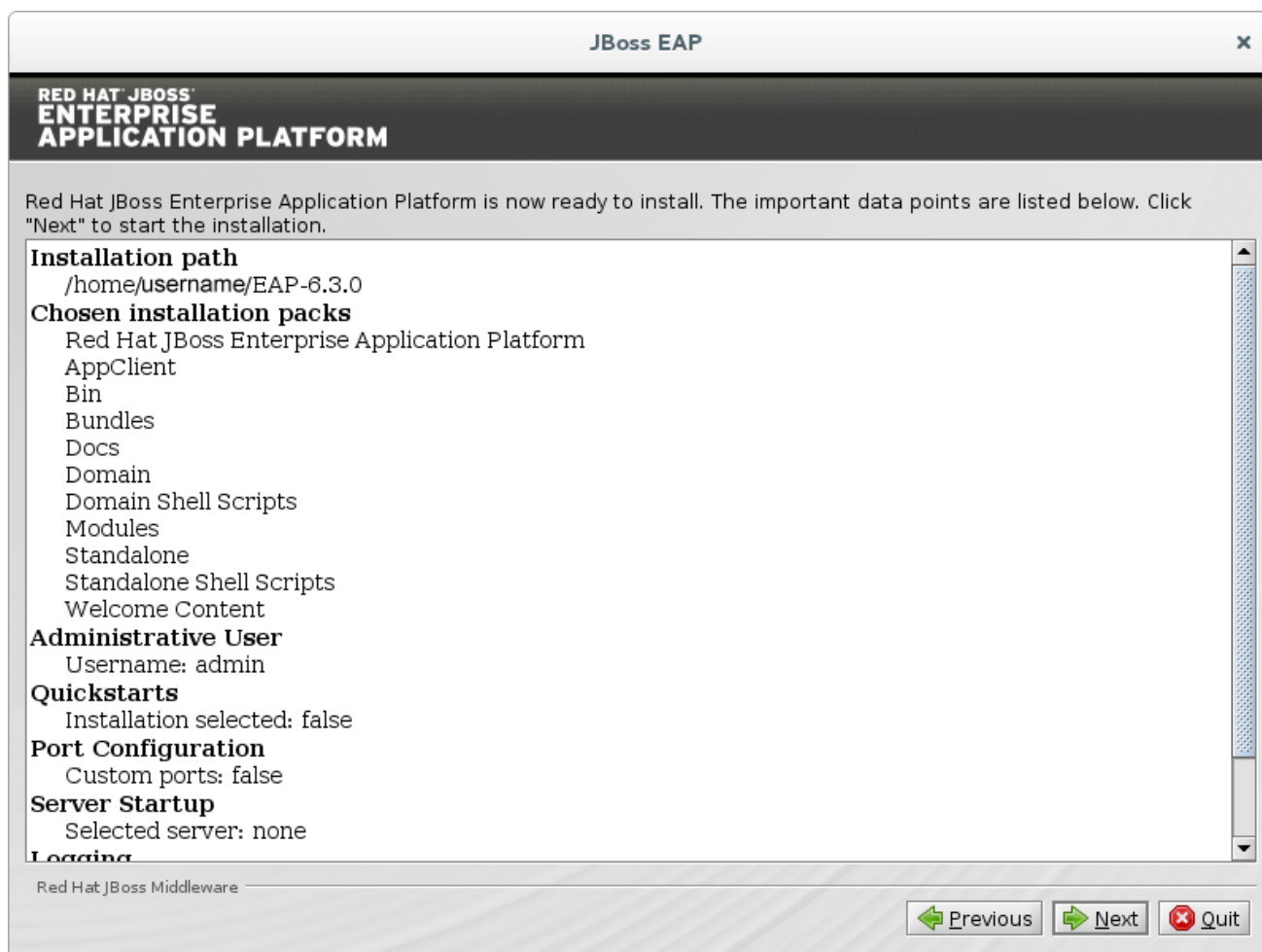
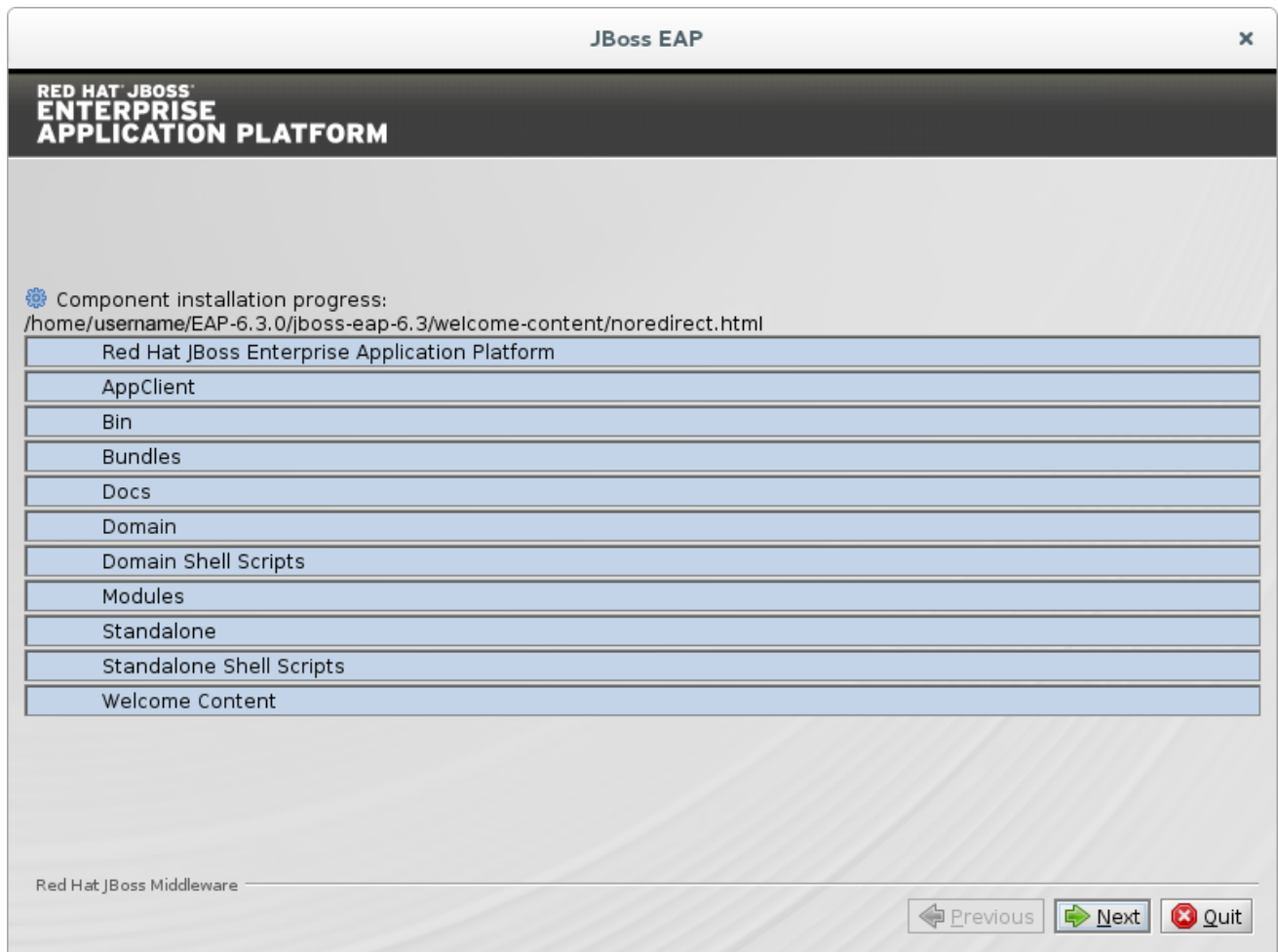


Figure B.31. JBoss EAP Installation Program Review Selected Components

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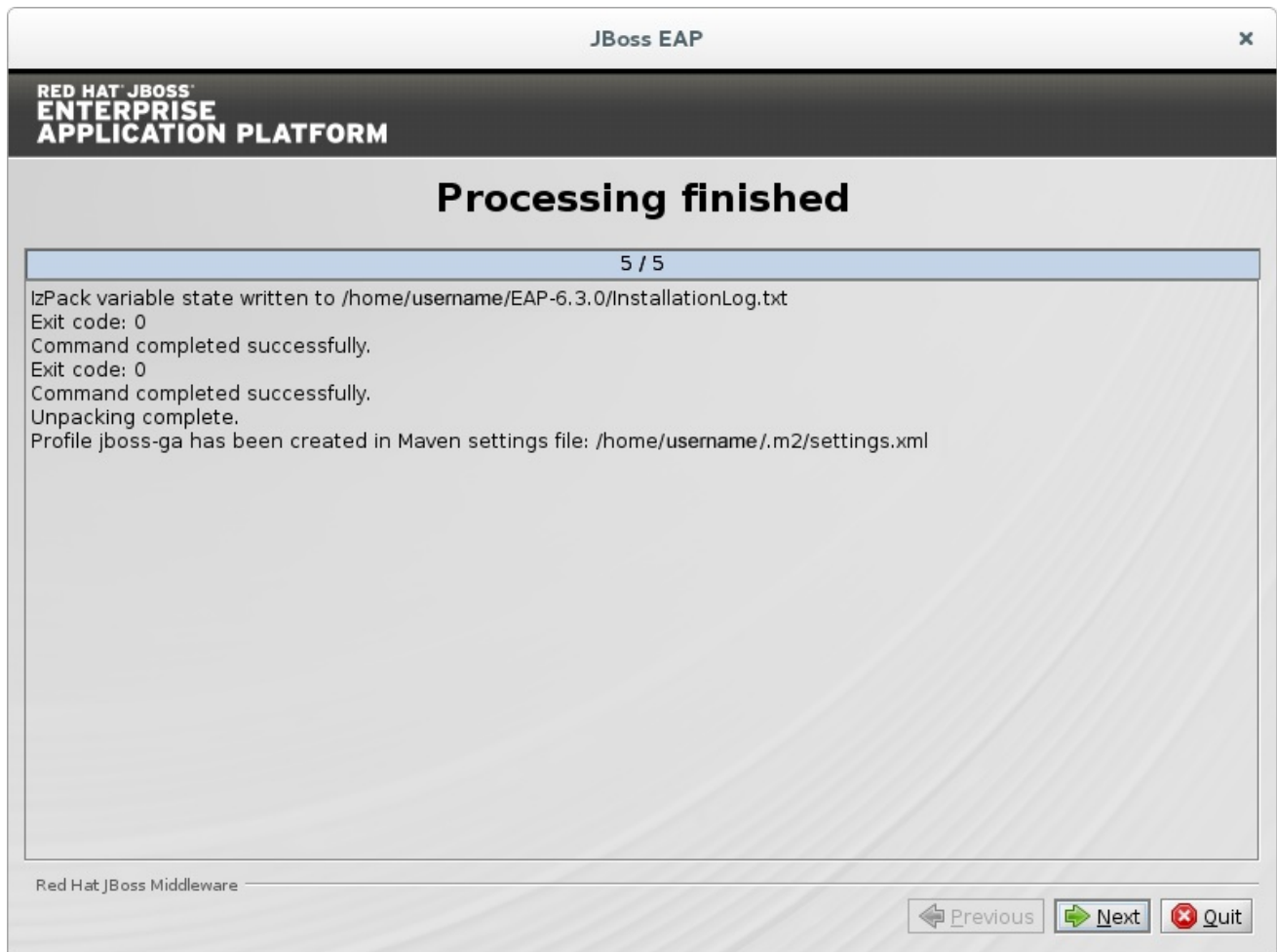
## B.22. INSTALLATION PROGRESS



**Figure B.32. JBoss EAP Installation Program Component Installation Progress**

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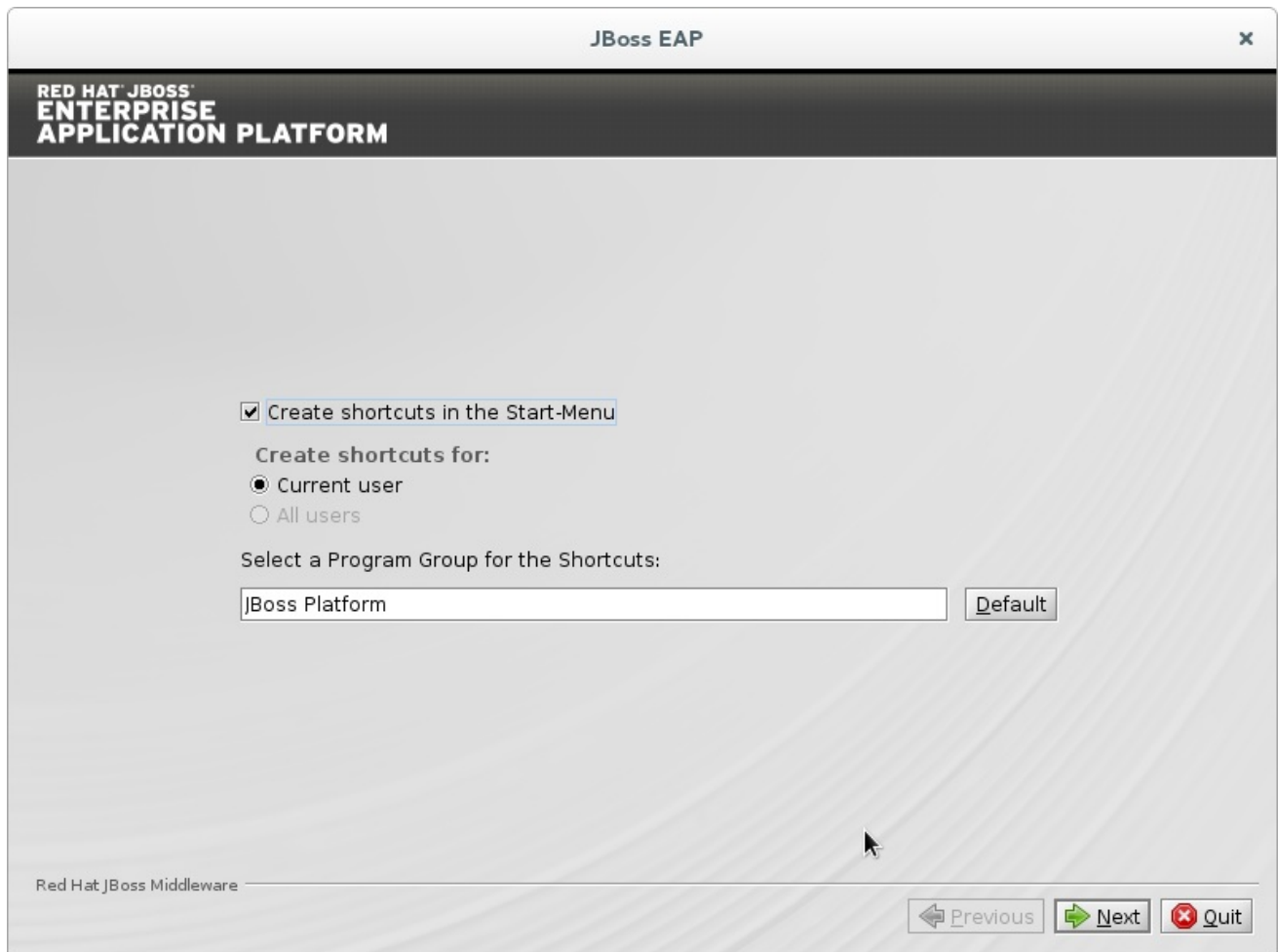
## B.23. INSTALLATION PROCESSING FINISHED



**Figure B.33. JBoss EAP Installation Program Processing Finished**

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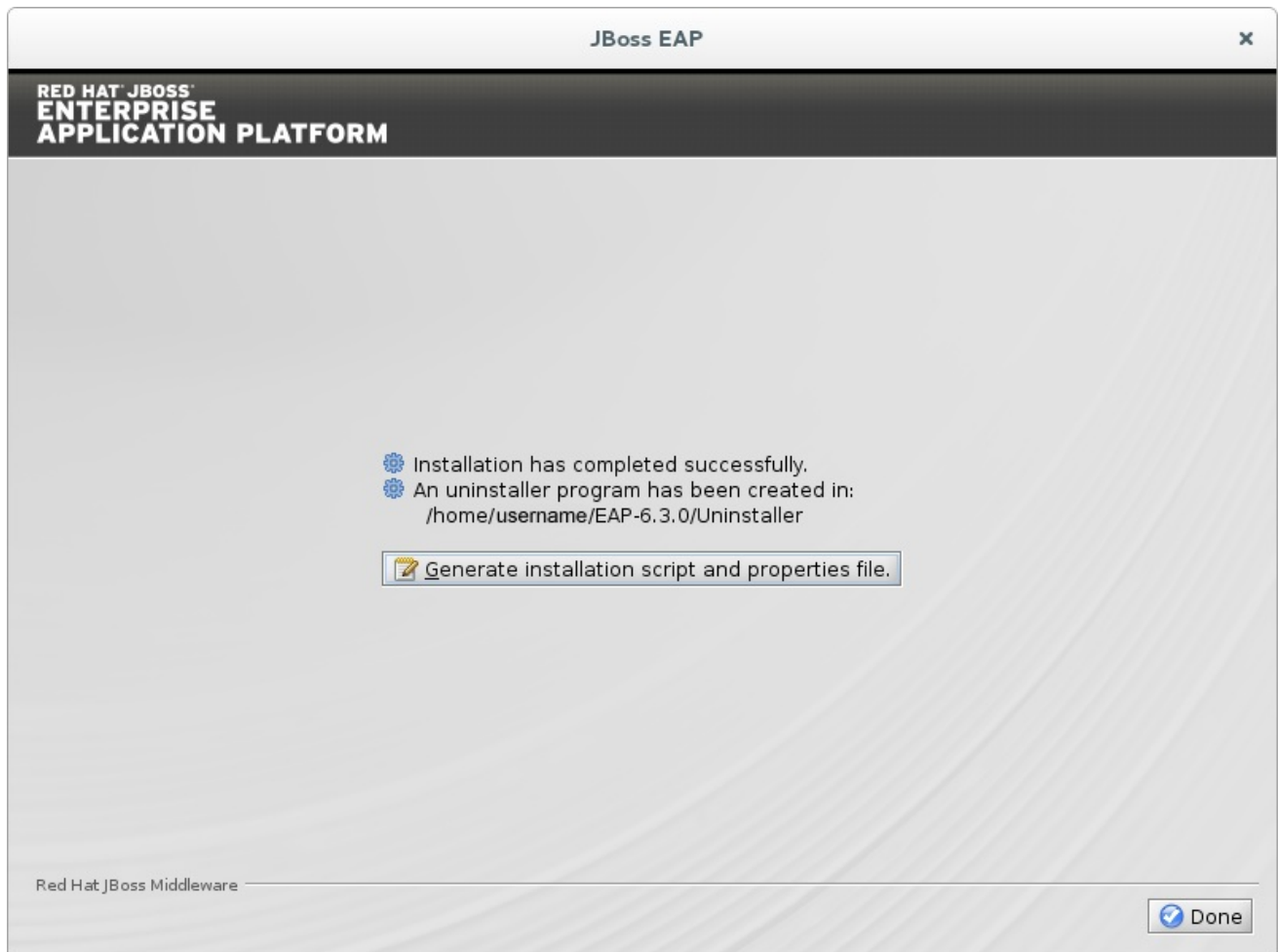
## B.24. CREATE SHORTCUTS



**Figure B.34. JBoss EAP Installer Create Shortcuts**

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## B.25. GENERATE INSTALL SCRIPT



**Figure B.35. JBoss EAP Installation Program Generate Install Script**

[Report a bug](#)

## APPENDIX C. REVISION HISTORY

<b>Revision 6.3.0-50</b> Red Hat JBoss Enterprise Application Platform 6.3.0 Continuous Release	<b>Tuesday November 18 2014</b>	<b>Russell Dickenson</b>
<b>Revision 6.3.0-32</b> Red Hat JBoss Enterprise Application Platform 6.3.0 Continuous Release	<b>Friday August 8 2014</b>	<b>Lucas Costi</b>
<b>Revision 6.3.0-30</b> Red Hat JBoss Enterprise Application Platform 6.3.0.GA	<b>Monday August 4 2014</b>	<b>Sande Gilda</b>