



Red Hat JBoss Enterprise Application Platform 7.3

Installation Guide

For Use with Red Hat JBoss Enterprise Application Platform 7.3

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Abstract

This guide contains supported installation methods for Red Hat JBoss Enterprise Application Platform (JBoss EAP). It also includes instructions for configuring JBoss EAP to run as a service, as well as instructions for uninstalling JBoss EAP.

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CHAPTER 1. INTRODUCTION

1.1. 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>.

1.2. ABOUT THE USE OF `EAP_HOME` IN THIS DOCUMENT

In this document, the variable **`EAP_HOME`** is used to denote the path to the JBoss EAP installation. Replace this variable with the actual path to your JBoss EAP installation.

- If you installed JBoss EAP using the ZIP install method, the install directory is the **`jboss-eap-7.3`** directory where you extracted the ZIP archive.
- If you installed JBoss EAP using the RPM install method, the install directory is **`/opt/rh/eap7/root/usr/share/wildfly/`**.
- If you used the installer to install JBoss EAP, the default path for **`EAP_HOME`** is **`${user.home}/EAP-7.3.0:`**
 - For Red Hat Enterprise Linux and Solaris: **`/home/USER_NAME/EAP-7.3.0/`**
 - For Microsoft Windows: **`C:\Users\USER_NAME\EAP-7.3.0\`**
- If you used the Red Hat CodeReady Studio installer to install and configure the JBoss EAP server, the default path for **`EAP_HOME`** is **`${user.home}/devstudio/runtimes/jboss-eap:`**
 - For Red Hat Enterprise Linux: **`/home/USER_NAME/devstudio/runtimes/jboss-eap/`**
 - For Microsoft Windows: **`C:\Users\USER_NAME\devstudio\runtimes\jboss-eap`** or **`C:\Documents and Settings\USER_NAME\devstudio\runtimes\jboss-eap\`**



NOTE

`EAP_HOME` is not an environment variable. **`JBOSS_HOME`** is the environment variable used in scripts.

CHAPTER 2. PREPARING FOR INSTALLATION

2.1. CHOOSING A JBOSS EAP INSTALLATION METHOD

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



NOTE

If you plan to use JBoss ON to deploy and install JBoss EAP patches, the target JBoss EAP instances must be installed using the ZIP installation method.

Table 2.1. Installation Methods

Method	Description
ZIP Installation	<p>The ZIP archive is suitable for installation on all supported operating systems. This method should be used if you wish to extract the instance manually.</p> <p>The ZIP installation provides a default installation of JBoss EAP, and all configuration must be done following installation.</p>
JAR Installer	<p>The JAR installer can either be run in a console or as a graphical wizard. Both options provide step-by-step instructions for installing and configuring the server instance. This is the preferred method to install JBoss EAP on all supported platforms.</p> <p>Additional setup, including the Quickstarts and Maven repository, is also possible with the installer.</p>
RPM Installation	<p>JBoss EAP can be installed using RPM packages on supported installations of Red Hat Enterprise Linux 6, Red Hat Enterprise Linux 7, and Red Hat Enterprise Linux 8.</p>

2.2. JBOSS EAP INSTALLATION PREREQUISITES

Each installation method has a number of prerequisites. The table below covers the common requirements, as well as those specific to each installation method.

Table 2.2. JBoss EAP Installation Prerequisites

Installation type	Prerequisites
-------------------	---------------

Installation type	Prerequisites
Common Prerequisites	<ul style="list-style-type: none">● Set up an account on the Red Hat Customer Portal● Review the JBoss EAP 7 supported configurations and ensure your system is supportable.● Ensure that your system is up to date with Red Hat issued updates and errata.
ZIP/Installer Prerequisites	<ul style="list-style-type: none">● Ensure that a supported Java Development Kit (JDK) has been installed.● On Microsoft Windows Server, ensure that the JAVA_HOME and PATH environment variables have been set, otherwise shortcuts will not work.
RPM Prerequisites	<ul style="list-style-type: none">● Register the Red Hat Enterprise Linux server using Red Hat Subscription Manager.● Ensure that a supported Java Development Kit (JDK) has been installed.

CHAPTER 3. INSTALLING JBOSS EAP

3.1. ZIP INSTALLATION

3.1.1. Downloading JBoss EAP (ZIP Installation)

Prerequisites

- [JBoss EAP Installation Prerequisites](#)

The JBoss EAP ZIP file is available from the Red Hat Customer Portal. The ZIP file installation is platform-independent.

1. Log in to the [Red Hat Customer Portal](#).
2. Click **Downloads**.
3. Click **Red Hat JBoss Enterprise Application Platform** in the **Product Downloads** list.
4. In the **Version** drop-down menu, select **7.3**.
5. Find **Red Hat JBoss Enterprise Application Platform 7.3.0** in the list and click the **Download** link.

3.1.2. Installing JBoss EAP (ZIP Installation)

Once the JBoss EAP ZIP installation file has been downloaded, it can be installed by extracting the package contents.

1. If necessary, move the ZIP file to the server and location where JBoss EAP should be installed.

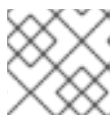


NOTE

The user who will be running JBoss EAP must have read and write access to this directory.

2. Extract the ZIP archive.

```
$ unzip jboss-eap-7.3.0.zip
```



NOTE

For Windows Server, right-click the ZIP file and select **Extract All**.

The directory created by extracting the ZIP archive is the top-level directory for the JBoss EAP installation. This is referred to as **EAP_HOME**.

3.2. INSTALLER INSTALLATION

3.2.1. Downloading JBoss EAP (Installer Installation)

Prerequisites

- [JBoss EAP Installation Prerequisites](#)

The JBoss EAP JAR installer 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 on all supported platforms.

Downloading the JBoss EAP Installer

1. Open a browser and log in to the Red Hat Customer Portal at <https://access.redhat.com>.
2. Click **Downloads**.
3. Click **Red Hat JBoss Enterprise Application** in the **Product Downloads** list.
4. In the **Version** drop-down menu, select **7.3**.
5. Find **Red Hat JBoss Enterprise Application 7.3.0 Installer** in the list and click the **Download** link.

3.2.2. Running the JBoss EAP Installer

You can run the JBoss EAP JAR installer in either [graphical](#) or [text](#) mode.

Running the JBoss EAP Graphical Installer

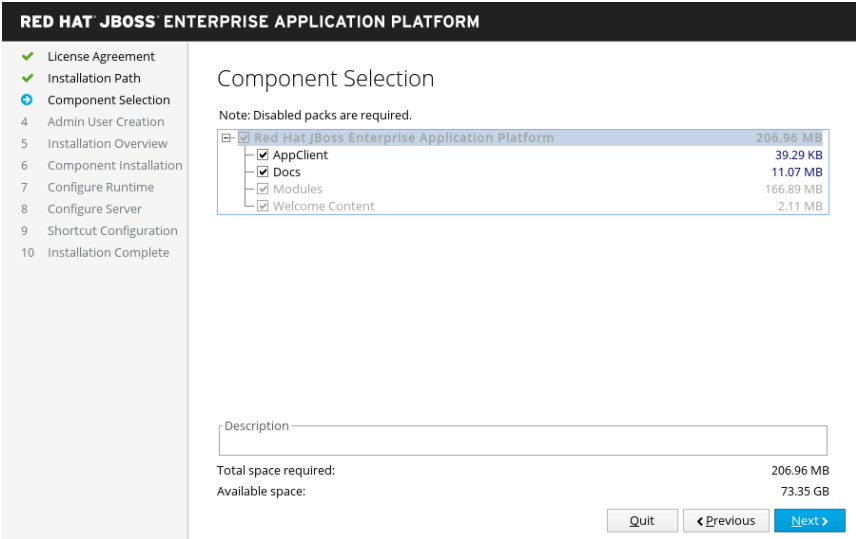
1. Open a terminal and navigate to the directory containing the downloaded JBoss EAP Installer JAR file.
2. Run the graphical installer using the following command:

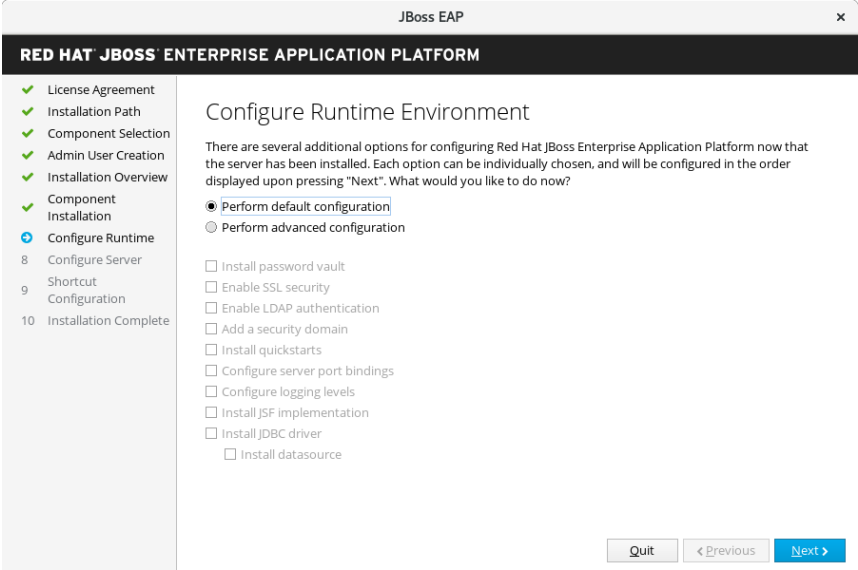
```
$ java -jar jboss-eap-7.3.0-installer.jar
```

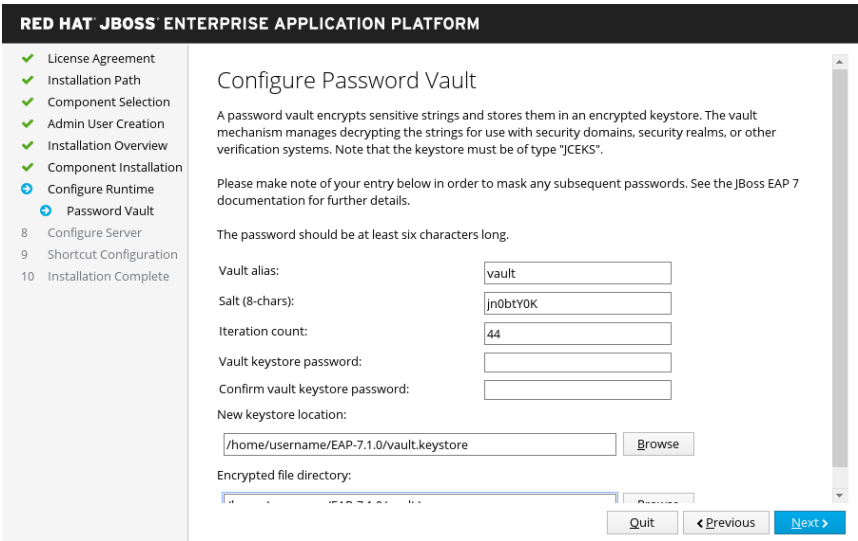

3. Follow the instructions in the table below.

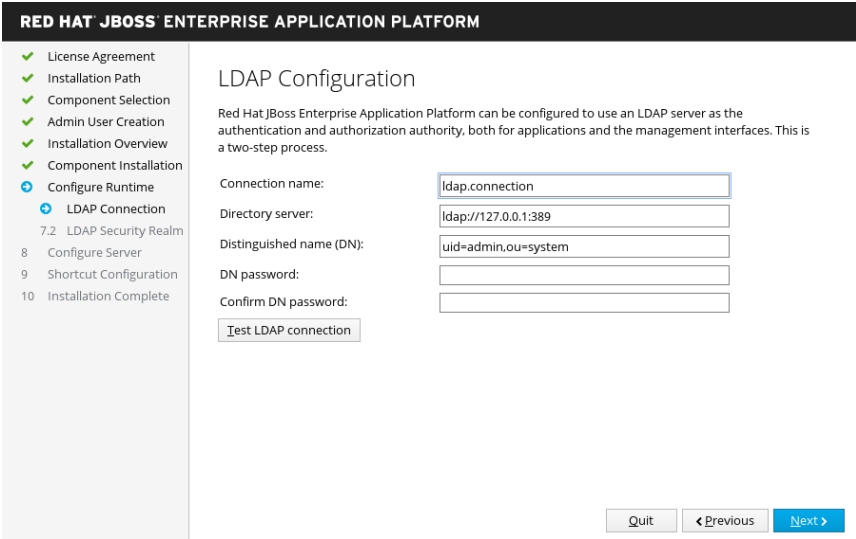
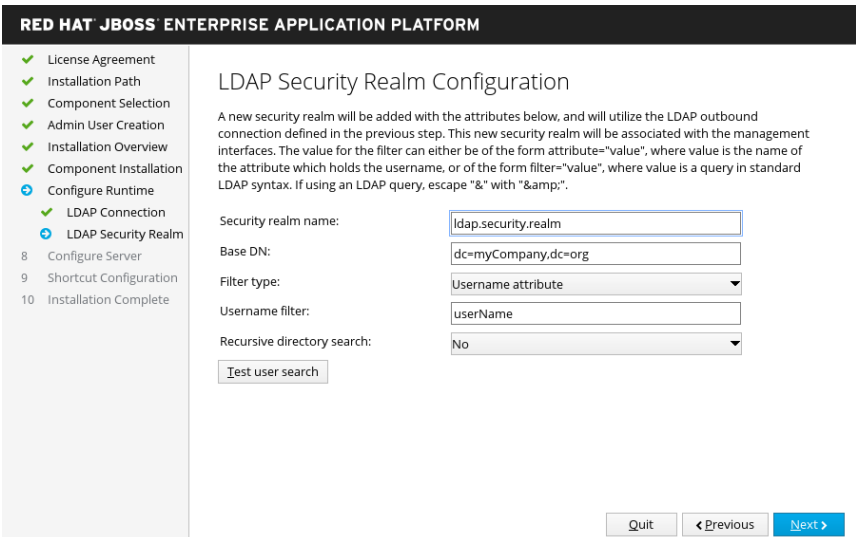
Table 3.1. JBoss EAP Installer Screens

Screen Name	When it Appears	Description
Language Selection	Always	Choose the desired language for the installer and click OK .
License Agreement	Always	The EULA for RED HAT JBOSS MIDDLEWARE. Select "I accept the terms of this license agreement.", and click Next .
Installation Path	Always	Select the installation path for JBoss EAP, and click Next .
Component Selection	Always	Select the components to install. Required components are disabled for deselection.

Screen Name	When it Appears	Description
		<p style="text-align: center;">Figure 3.1. JBoss EAP Installer - Component Selection Screen</p> 
Create an Administrative User	Always	Create an administrative user and assign a password. Then click Next .
Installation Overview	Always	Review your installation options, then click Next .
Component Installation	Always	When the installation progress completes, click Next .
Configure Runtime Environment	Always	<p>You can choose a default configuration for your JBoss EAP installation, or choose to perform an advanced configuration with the installer. Note that even if you choose a default configuration, you can still alter your configuration using the JBoss EAP management interfaces at a later time.</p> <p>Select Perform default configuration, or select Perform advanced configuration and select the items to configure, then click Next.</p>

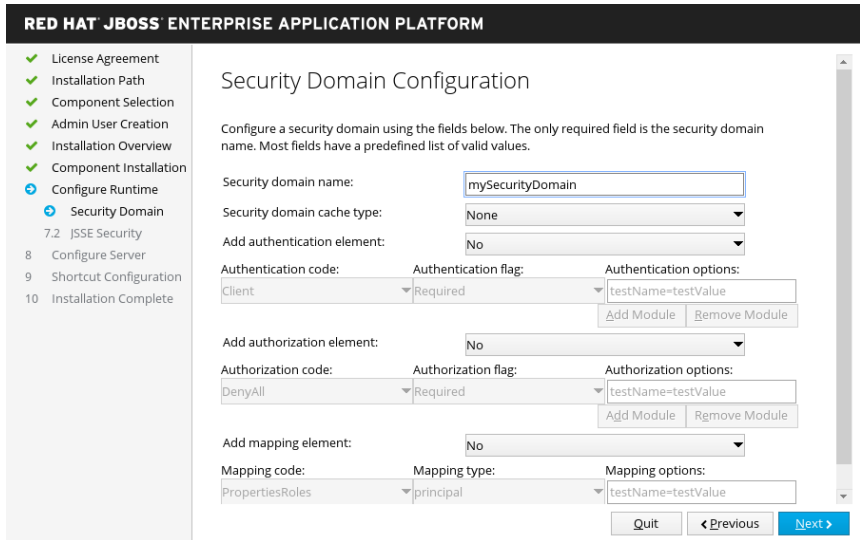
Screen Name	When it Appears	Description
		<p style="text-align: center;">Figure 3.2. JBoss EAP Installer – Configure Runtime Environment Screen</p> 
Configure Password Vault	If you choose to install a password vault in the advanced configuration of the runtime environment.	Configure a password vault to store all your sensitive passwords in an encrypted keystore, then click Next . For more information, see the password vault documentation in the <i>How To Configure Server Security</i> guide.

Screen Name	When it Appears	Description
		<p align="center">Figure 3.3. JBoss EAP Installer - Configure Password Vault Screen</p> 
<p>SSL Security</p>	<p>If you choose to enable SSL Security in the advanced configuration of the runtime environment.</p>	<p>Specify an SSL keystore and the keystore password for securing the JBoss EAP management interfaces, then click Next. For more information, see the documentation on securing the management interfaces in the <i>How To Configure Server Security</i> guide.</p> <div data-bbox="869 1173 1430 1585" style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p align="center"> WARNING</p> <p>Red Hat recommends that SSLv2, SSLv3, and TLSv1.0 be explicitly disabled in favor of TLSv1.1 or TLSv1.2 in all affected packages.</p> </div>
<p>LDAP Configuration</p>	<p>If you choose to enable LDAP authentication in the advanced configuration of the runtime environment.</p>	<p>Enable LDAP authentication to use an LDAP directory server as the authentication source for the management console, management CLI, and management API. When you are done, click Next. For more information, see the LDAP documentation in <i>How to Configure Identity Management</i>.</p>

Screen Name	When it Appears	Description
		<p align="center">Figure 3.4. JBoss EAP Installer - LDAP Configuration Screen</p> 
LDAP Security Realm Configuration	If you choose to enable LDAP authentication in the advanced configuration of the runtime environment.	<p>A new security realm will be created and associated with the management interfaces, using the LDAP connection defined in the previous step.</p> <p>Specify the values for your LDAP environment, then click Next. For more information, see the LDAP documentation in <i>How to Configure Identity Management</i>.</p>
		<p align="center">Figure 3.5. JBoss EAP Installer - LDAP Security Realm Configuration Screen</p> 

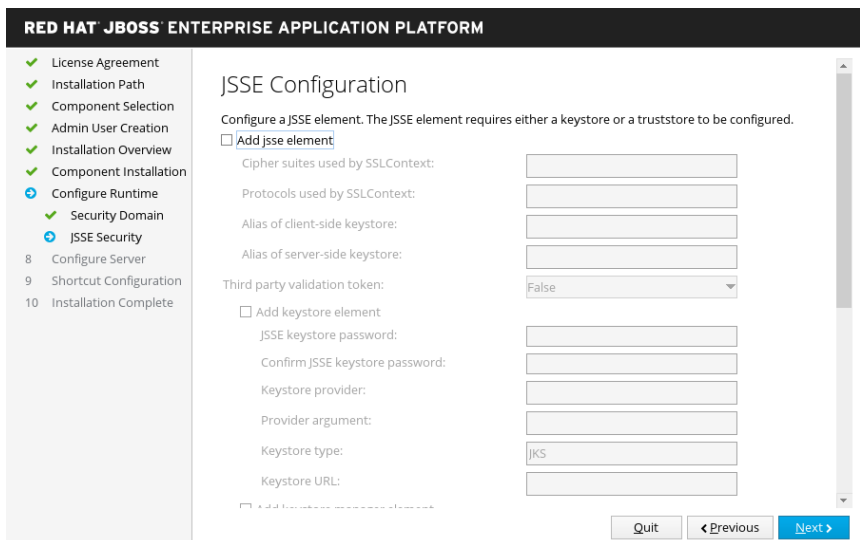
Screen Name	When it Appears	Description
Security Domain Configuration	If you choose to add a security domain in the advanced configuration of the runtime environment.	Configure a security domain for the JBoss EAP server instance. Most of the fields are already populated with default values and do not need modification. When you are done, click Next . For more information, see Security Domains in the Security Architecture guide.

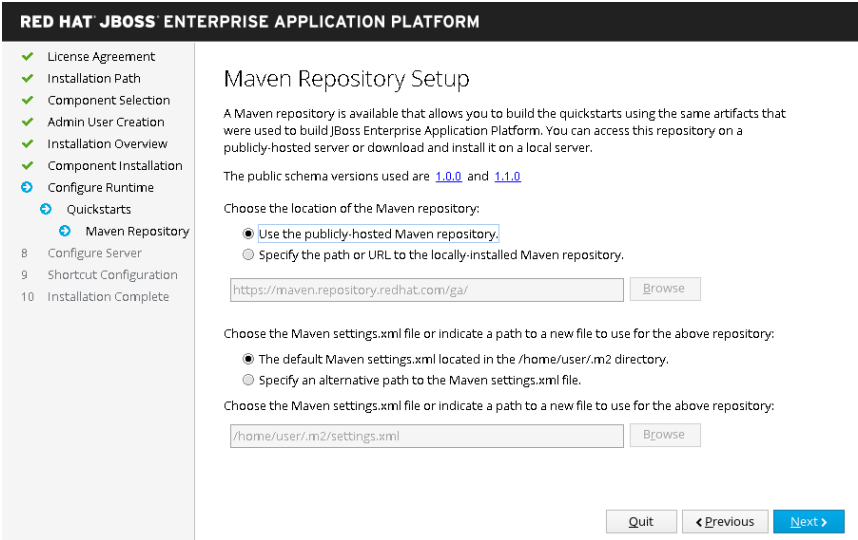
Figure 3.6. JBoss EAP Installer - Security Domain Configuration Screen

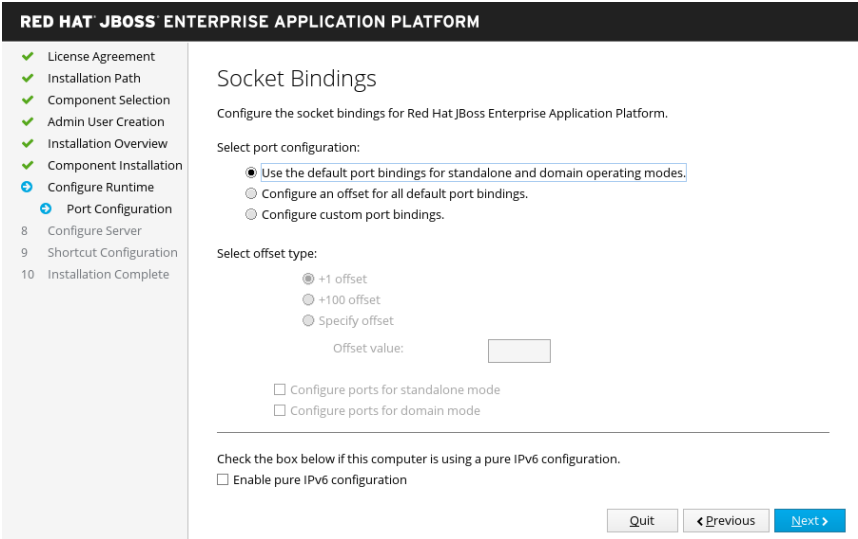


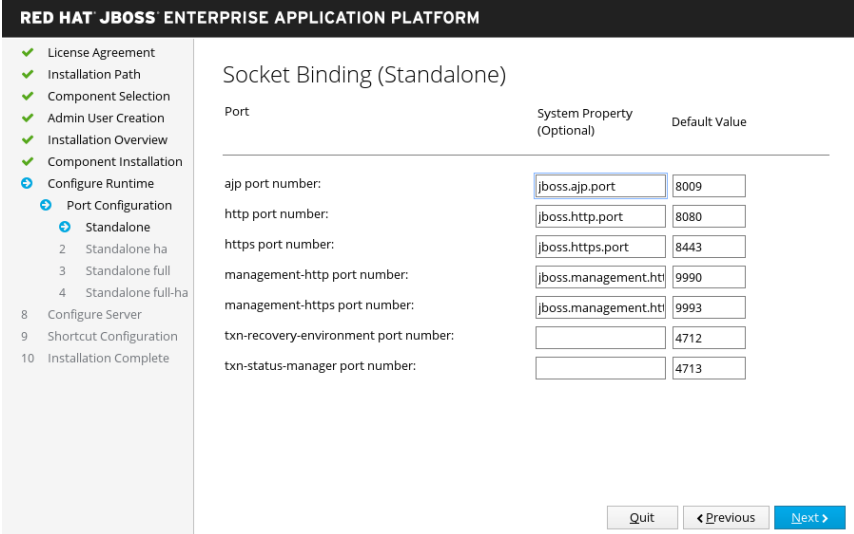
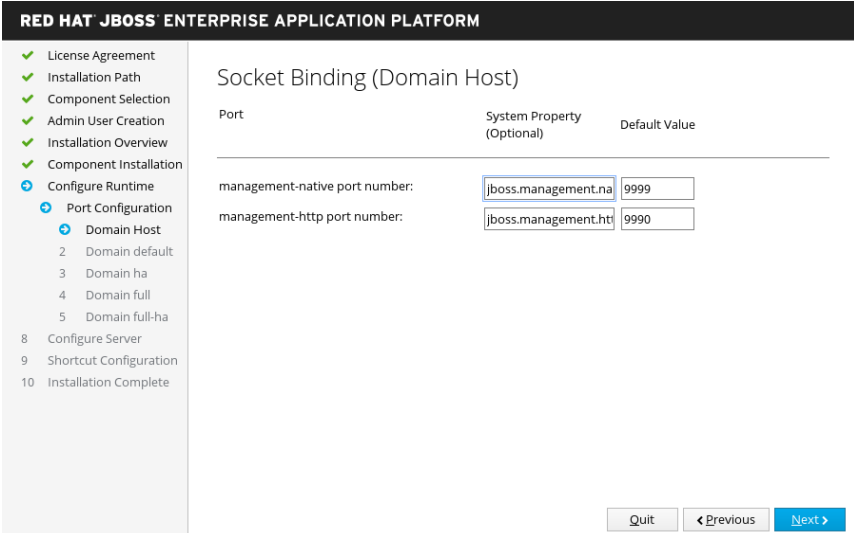
JSSE Configuration	If you choose to add a security domain in the advanced configuration of the runtime environment.	Configure Java Secure Socket Extension (JSSE) for the security domain defined in the previous step, using either a keystore or a truststore. When you are done, click Next .
--------------------	--	---

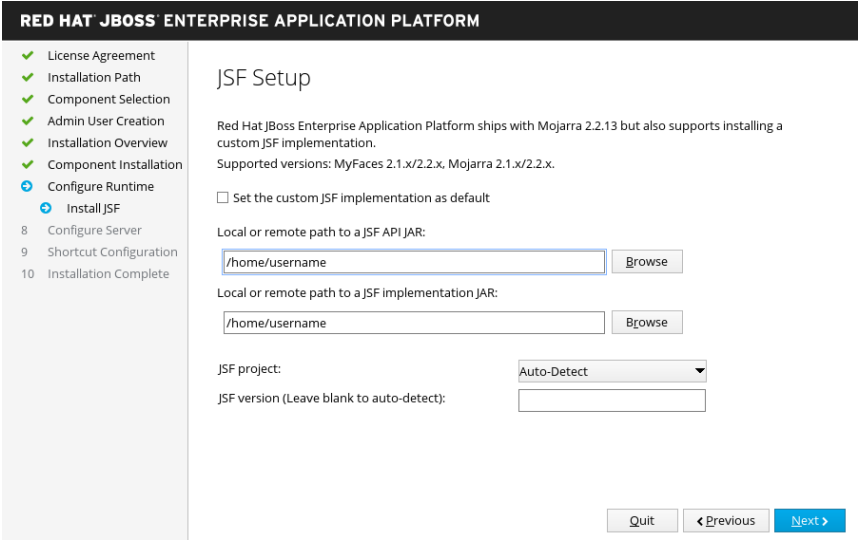
Figure 3.7. JBoss EAP Installer - JSSE Configuration Screen

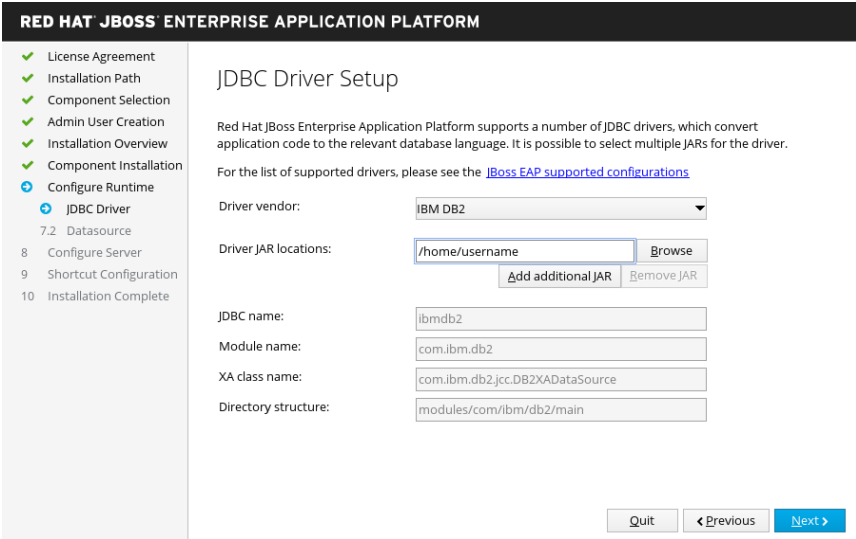
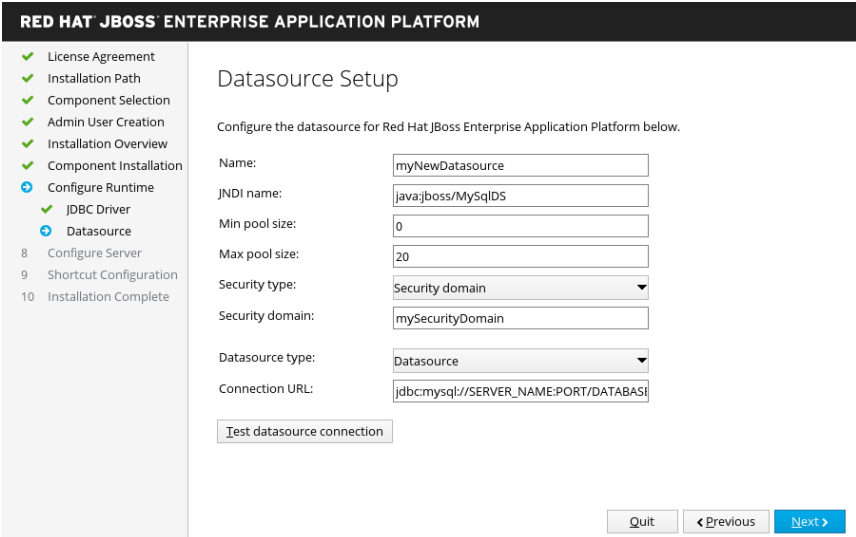


Screen Name	When it Appears	Description
Quickstarts	If you choose to install quickstarts in the advanced configuration of the runtime environment.	Select the quickstart installation path, then click Next .
Maven Repository Setup	If you choose to install the quickstarts in the advanced configuration of the runtime environment.	<p>Select your Maven repository and settings file.</p> <p>Figure 3.8. JBoss EAP Installer – Maven Repository Setup Screen</p> 
Socket Bindings	If you choose to configure server port bindings in the advanced configuration of the runtime environment.	<p>Determine whether the installation will use the default port bindings, configure port offsets for all default bindings, or configure custom port bindings.</p> <p>If you choose to configure port offsets, choose the offset number.</p> <p>If you choose to configure custom bindings, select whether to configure the ports for standalone mode, domain mode, or both.</p> <p>If the host is configured for IPv6 only, select the Enable pure IPv6 configuration check box and the installer will make the required configuration changes.</p> <p>Click Next.</p>

Screen Name	When it Appears	Description
		<p style="text-align: center;">Figure 3.9. JBoss EAP Installer - Socket Bindings Screen</p> 
<p>Custom Socket Bindings for Standalone Configurations</p>	<p>If you choose to configure custom port bindings for standalone mode.</p>	<p>Configure the ports and system properties for each of the standalone configurations (standalone, standalone ha, standalone full, standalone full-ha), then click Next.</p>

Screen Name	When it Appears	Description
		<p style="text-align: center;">Figure 3.10. JBoss EAP Installer - Custom Socket Bindings for Standalone Configurations Screen</p> 
<p>Custom Socket Bindings for Domain Configurations</p>	<p>If you choose to configure custom port bindings for domain mode.</p>	<p>Configure the ports and system properties for the host configuration (domain host) and each of the domain profiles (domain default, domain ha, domain full, domain full-ha), then click Next.</p> <p style="text-align: center;">Figure 3.11. JBoss EAP Installer - Custom Socket Bindings for Domain Configurations Screen</p> 

Screen Name	When it Appears	Description
Logging Options	If you choose to configure logging levels in the advanced configuration of the runtime environment.	Select the desired logging levels, then click Next .
JSF Setup	If you choose to install a JSF implementation in the advanced configuration of the runtime environment.	<p>Configure the JSF options and paths to your JSF JARs, then click Next. For more information, see Installing a JSF Implementation in the <i>Configuration Guide</i>.</p> <p style="text-align: center;">Figure 3.12. JBoss EAP Installer - JSF Setup Screen</p> 
JDBC Driver Setup	If you choose to install a JDBC driver in the advanced configuration of the runtime environment.	Install and setup a JDBC driver. Choose the appropriate driver vendor from the drop down list and specify the driver JAR location(s). When you are done, click Next . For more information, see the datasource JDBC driver section in the <i>Configuration Guide</i> .

Screen Name	When it Appears	Description
		<p style="text-align: center;">Figure 3.13. JBoss EAP Installer - JDBC Driver Setup Screen</p> 
Datasource Setup	If you choose to install a JDBC driver and install a datasource in the advanced configuration of the runtime environment.	<p style="text-align: center;">Figure 3.14. JBoss EAP Installer - Datasource Setup Screen</p> 
Configure Server	Always	When the configuration progress completes, click Next .

Screen Name	When it Appears	Description
Shortcut Configuration	Always	Select the Create shortcuts in the Start-Menu check box to create shortcuts. Only alphanumeric characters, dash (-) and underscore (_) characters are allowed. On Microsoft Windows, the slash (/) and backslash (\) characters are also allowed. Click Next .
Installation Complete	Always	Click Generate installation script and properties file if you want to capture the selected installation options for a future automated installation , then click Done . Installation is now complete. The directory created by the installer is the top-level directory for the server. This is referred to as EAP_HOME .

Running the JBoss EAP Text-based Installer

1. Open a terminal and navigate to the directory containing the downloaded JBoss EAP Installer JAR.
2. Run the text-based installer using the following command:

```
$ java -jar jboss-eap-7.3.0-installer.jar -console
```

3. Follow the prompts to install JBoss EAP. The directory created by the installer is the top-level directory for the server. This is referred to as **EAP_HOME**.

3.3. RPM INSTALLATION



NOTE

From Red Hat Enterprise Linux 7, the term **channel** was replaced with the term **repository**. In these instructions only the term **repository** is used.

3.3.1. Choosing a Repository

Installing JBoss EAP via RPM requires a subscription to both the **Red Hat Enterprise Linux Server** base software repository, as well as a minor JBoss EAP repository.

For the JBoss EAP repository, you must subscribe to a **minor** JBoss EAP repository. A **minor** repository provides a specific minor release of JBoss EAP 7 and all applicable patches. This allows you to maintain the same minor version of JBoss EAP, while staying current with high severity and security patches.

For example, updating from this repository will include patches and security updates for the minor JBoss EAP version, but *will not* include upgrades from JBoss EAP 7.3 to JBoss EAP 7.4, if it is released.

3.3.1.1. Subscribing to a Minor JBoss EAP 7 Repository

1. Ensure that your Red Hat Enterprise Linux system is registered to your account using Red Hat Subscription Manager. For more information, see the [Red Hat Subscription Management documentation](#).
2. Using Red Hat Subscription Manager, subscribe to a minor JBoss EAP 7 repository using the following command. Ensure that you:
 - Replace **EAP_MINOR_VERSION** with your intended JBoss EAP **minor** version. For example, for this release’s minor version, enter: **7.3**.
 - Replace **RHEL_VERSION** with either **6** or **7** depending on your Red Hat Enterprise Linux version.

```
# subscription-manager repos --enable=jb-eap-EAP_MINOR_VERSION-for-rhel-RHEL_VERSION-server-rpms
```

- For Red Hat Enterprise Linux 8, use the following command:

```
# subscription-manager repos --enable=jb-eap-EAP_MINOR_VERSION-for-rhel-RHEL_VERSION-ARCH-rpms
```

3.3.2. Installing JBoss EAP (RPM Installation)

Prerequisites

- [JBoss EAP Installation Prerequisites](#)
- [Subscribe to a JBoss EAP repository](#)

Install JBoss EAP

Install JBoss EAP from your subscribed repository using one of the following commands:

- Install JBoss EAP and JDK 8.

```
# yum groupinstall jboss-eap7
```

- Install JBoss EAP and JDK 11. JDK 11 is available for Red Hat Enterprise Linux 7 and later.
 - Red Hat Enterprise Linux 7:

```
# yum groupinstall jboss-eap7-jdk11
```

- Red Hat Enterprise Linux 8:

```
# dnf groupinstall jboss-eap7-jdk11
```

The **groupinstall** command installs the specified version of JDK if that version of JDK is not installed on the system. If a different version of JDK already exists, the system will have multiple JDKs installed after the command is executed.

If there are multiple JDKs installed on your system after **groupinstall** is complete, check which JDK is used for JBoss EAP execution. By default, the system default JDK is used.

You can modify the default, in the following ways:

- Change system wide configuration using the **alternatives** command:

```
# alternatives --config java
```

The command displays a list of installed JDKs and instructions for setting a specific JDK as the default.

- Change the JDK used by JBoss EAP via JAVA_HOME property as described in [RPM Service Configuration Properties](#) section of the Configuration Guide.

Your installation is complete. The default **EAP_HOME** path for the RPM installation is **/opt/rh/eap7/root/usr/share/wildfly**.



IMPORTANT

It is not supported to configure multiple domain or host controllers on the same machine when using the RPM installation method to install JBoss EAP.

3.3.3. Changing Repositories

Over the lifespan of a JBoss EAP installation, you may want to change the software subscription from one JBoss EAP repository to another. Changing repositories is supported, but only within the following conditions.

Changing from the current repository to a minor repository

Supported if changing to the *latest* minor repository.



IMPORTANT

The JBoss EAP **current** repository is no longer available as of JBoss EAP 7.3. If you subscribed to the **current** repository for a previous release of JBoss EAP, you must change your subscription to a **minor** repository for this release of JBoss EAP.

Changing from a minor repository to another minor repository

Supported if changing to the next minor JBoss EAP version. For example, changing from JBoss EAP 7.0 to JBoss EAP 7.1 is supported, but changing from JBoss EAP 7.0 to JBoss EAP 7.2 is *not* supported.

Prerequisites

- Install JBoss EAP as an [RPM installation](#).
- [Choose a repository to change to](#) , and ensure that you comply with the supported change conditions shown above.

Changing the JBoss EAP Repository

1. Before changing the repository, ensure that the JBoss EAP installation has all applicable updates applied:

```
# yum update
```


- Using Red Hat Subscription Manager, unsubscribe from the existing repository and subscribe to the new repository you want to change to. In the command below, replace **EXISTING_REPOSITORY** and **NEW_REPOSITORY** with the respective repository names.

```
# subscription-manager repos --disable=EXISTING_REPOSITORY--
enable=NEW_REPOSITORY
```

3.4. AUTOMATED INSTALLER INSTALLATION

If you use the [JAR installer](#) to install JBoss EAP, you can use an installation script generated from a previous install to automate future installations with the same configuration.



WARNING

The automated installer is not backwards compatible. You cannot use an installation script generated from a previous version of JBoss EAP with the automated installer. You should only use installation scripts generated by the same minor version of JBoss EAP, for example JBoss EAP 7.3.

Prerequisites

- Use the [JAR installer](#) to generate an automatic installation script. The automatic installation script is an XML file.

Automated Installer Installation

- Open a terminal and navigate to the directory containing the downloaded JBoss EAP Installer JAR file.
- Run the following command to install JBoss EAP using the automatic installation script XML file:

```
$ java -jar jboss-eap-7.3.0-installer.jar auto.xml
```

By default, the installer will prompt you to enter any passwords required for the JBoss EAP configuration. You can do an unattended install by [pre-setting the passwords for the installation](#).



NOTE

You can store the automatic installation script XML file on a network host, and use HTTP or FTP to point the installer to use it for an installation. For example:

```
$ java -jar jboss-eap-7.3.0-installer.jar http://network-host.local/auto.xml
```

```
$ java -jar jboss-eap-7.3.0-installer.jar ftp://network-host.local/auto.xml
```

3.4.1. Unattended Automated Installer Installation

Prerequisites

- Use the [JAR installer](#) to generate an automatic installation script. The automatic installation script is an XML file.

To do an unattended automated installer installation, you must preset the passwords required for the JBoss EAP installation.

When the installation script XML file is generated from a previous installer installation, an incomplete installation script variables file is also generated. It has the same file name as the installation script file, but with a **.variables** suffix.

This variables file contains a list of key and password parameters needed for an unattended automated installation.

You can provide the required passwords as a [completed variables file](#), or as an [argument when running the installer command](#).

Unattended Automated Installer Installation Using a Variables File

1. Open the **.variables** file in a text editor and provide a password value for each key. For example:

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

2. Run the installer using the automatic installation script XML file. The installer detects the variables file automatically if the completed variables file is in the same directory as the installation script XML file, and you haven't modified its file name.

```
$ java -jar jboss-eap-7.3.0-installer.jar auto.xml

Checking for corresponding .variables file
Variables file detected: auto.xml.variables
[ Starting automated installation ]
...
```

Alternatively, you can specify the path to the variables file using **-variablefile**:

```
$ java -jar jboss-eap-7.3.0-installer.jar auto.xml -variablefile auto.xml.variables
```

Unattended Automated Installer Installation Using the-variables Argument

1. Run the installer using the automatic installation script XML file, and specify the required passwords as key/value pairs using the **-variables** argument. For example:

```
$ java -jar jboss-eap-7.3.0-installer.jar auto.xml -variables
adminPassword=password#2,vault.keystorepwd=vaultkeystorepw,ssl.password=user12345
```



NOTE

It is important that you do not have any spaces when specifying the **-variables** key/value pairs.

CHAPTER 4. CONFIGURING JBOSS EAP TO RUN AS A SERVICE

4.1. CONFIGURING JBOSS EAP AS A SERVICE IN RED HAT ENTERPRISE LINUX (ZIP AND INSTALLER INSTALLATIONS)

Prerequisites

- Install JBoss EAP as a [ZIP](#) or [Installer](#) installation.
- Administrator privileges on the server.

Configuring JBoss EAP as a Service in Red Hat Enterprise Linux

1. Customize the start-up options in the **jboss-eap.conf** file.

The startup script and an associated configuration file are located in the **EAP_HOME/bin/init.d/** directory. Open **jboss-eap.conf** in a text editor and set the options for your JBoss EAP installation.

There are several options in **jboss-eap.conf** file, but at the minimum you must provide the correct values for **JBOSS_HOME** and the **JBOSS_USER**.

You can customize the other options provided in the configuration file by uncommenting and editing the respective lines. If you do not, the service will default to starting a standalone JBoss EAP server using the default configuration file, **standalone.xml**.



NOTE

If you want the service to start JBoss EAP as a managed domain, add **JBOSS_MODE=domain** to **jboss-eap.conf**.

To specify custom [domain configuration files](#), add **JBOSS_DOMAIN_CONFIG=DOMAIN_CONFIG_FILE.xml** and **JBOSS_HOST_CONFIG=HOST_CONFIG_FILE.xml**. By default, JBoss EAP uses **domain.xml** and **host.xml** as the domain configuration files.

2. Copy the service files into the system directories.

- a. Copy the modified service configuration file to the **/etc/default** directory.

```
$ sudo cp EAP_HOME/bin/init.d/jboss-eap.conf /etc/default
```

- b. Copy the service startup script to the **/etc/init.d** directory, and give it execute permissions:

```
$ sudo cp EAP_HOME/bin/init.d/jboss-eap-rhel.sh /etc/init.d
$ sudo chmod +x /etc/init.d/jboss-eap-rhel.sh
```

3. Add the new **jboss-eap-rhel.sh** service to list of automatically started services using the **chkconfig** service management command:

```
$ sudo chkconfig --add jboss-eap-rhel.sh
```

4. Test that the service has been installed correctly by using one of the following commands.

- a. For Red Hat Enterprise Linux 6:

```
$ sudo service jboss-eap-rhel.sh start
```

- b. For Red Hat Enterprise Linux 7 and later:

```
$ sudo service jboss-eap-rhel start
```

The service will start. If you get an error, check the error logs and make sure that the options in the configuration file are set correctly.

5. To make the service start automatically when the Red Hat Enterprise Linux server starts, run the following command:

```
$ sudo chkconfig jboss-eap-rhel.sh on
```

If you want to remove the JBoss EAP service, use the following procedure.

Removing the JBoss EAP Service in Red Hat Enterprise Linux

1. If the service is running, open a terminal and stop the service with one of the following commands.

- a. For Red Hat Enterprise Linux 6:

```
$ sudo service jboss-eap-rhel.sh stop
```

- b. For Red Hat Enterprise Linux 7 and later:

```
$ sudo service jboss-eap-rhel stop
```

2. Remove JBoss EAP from the list of services:

```
$ sudo chkconfig --del jboss-eap-rhel.sh
```

3. Delete the service configuration file and startup script:

```
$ sudo rm /etc/init.d/jboss-eap-rhel.sh  
$ sudo rm /etc/default/jboss-eap.conf
```

4.2. CONFIGURING JBOSS EAP AS A SERVICE IN RED HAT ENTERPRISE LINUX (RPM INSTALLATION)

Prerequisites

- Install JBoss EAP as an [RPM installation](#).
- Administrator privileges on the server.

**IMPORTANT**

It is not supported to configure more than one JBoss EAP instance as a system service on a single machine.

An RPM installation of JBoss EAP installs everything that is required to run JBoss EAP as a service. Use one of the following commands to activate the JBoss EAP service to start automatically at system boot.

For the commands below, replace ***EAP_SERVICE_NAME*** with either **eap7-standalone** for a standalone JBoss EAP server, or **eap7-domain** for a managed domain.

- For Red Hat Enterprise Linux 6:

```
chkconfig EAP_SERVICE_NAME on
```

- For Red Hat Enterprise Linux 7 and later:

```
systemctl enable EAP_SERVICE_NAME.service
```

To start or stop an RPM installation of JBoss EAP on demand, see the [RPM instructions](#) in the JBoss EAP *Configuration Guide*.

**NOTE**

See the [RPM service configuration files appendix](#) in the JBoss EAP *Configuration Guide* for further details and options.

4.3. CONFIGURING JBOSS EAP AS A SERVICE IN MICROSOFT WINDOWS SERVER

Prerequisites

- Install JBoss EAP as a [ZIP](#) or [Installer](#) installation.
- Administrator privileges on the server.
- The **JAVA_HOME** system environment variable must be set.
- The JBoss EAP server instance must not be running.

**IMPORTANT**

Using the **set** command to set system environment variables in 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**.

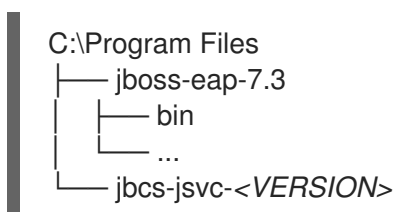
Configuring JBoss EAP as a Service in Microsoft Windows Server

1. Create two system environment variables:
 - **JBOSS_HOME** pointing to the JBoss EAP installation directory.
 - **NOPAUSE=1**

2. Install the JBoss Core Services Jsvc Package

If not already configured, download and extract the JBoss Core Services Jsvc package.

- a. Open a browser and log in to the Red Hat Customer Portal [JBoss Software Downloads page](#).
- b. Select **Apache Jsvc** in the **Product** drop-down menu.
- c. Select the latest version from the **Version** drop-down menu.
- d. Find **Red Hat JBoss Core Services Apache Jsvc** in the list, ensuring that you select the correct platform and architecture for your system, and click the **Download** link.
- e. Extract the downloaded ZIP file into the directory containing your JBoss EAP installation directory.
This will result in a **jbc-s-jsvc-<VERSION>** directory at the same depth as your JBoss EAP installation directory. For example:



3. Install the Service

Open a terminal, and change directories to **EAP_HOME\bin**.

Below are examples of a basic **service.bat install** command to create a new service for either a standalone server, or a server in a managed domain. For a list of all possible options, run **service.bat** without any arguments.

**IMPORTANT**

If you specify the **/jbossuser** and **/jbosspass** parameters, you must ensure that your JBoss EAP user's password does not contain a hash (**#**) or a semicolon (**;**).

Execute the following command, adjusting the log level for the service as required:

- a. For a standalone server:

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

- b. For a server in a managed domain:

Use the **/host** parameter to specify the name of the JBoss EAP host controller being controlled by the service. You can see valid values for the name by executing **ls /host** in the management CLI.

Replace **EAP_HOST_NAME** in the command below with your JBoss EAP host controller name. If you specify the **/host** parameter without providing a JBoss EAP host controller name, the name defaults to **master**.

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

A new Windows service will be created with name **JBossEAP7**.

4. Verify the New Service in the **Services** console
Open the Windows Services console (**services.msc**) and verify that the service was created.

If the default service name was used, in the list of Windows services the new service will have the display name: **JBossEAP7**. From the Services console you can start and stop the service, as well change its settings of how and when it starts.

5. Starting and Stopping the JBoss EAP Service from a Terminal
To start the service from a terminal, use the following command, changing the service name if necessary:

```
net start JBossEAP7
```

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

```
net stop JBossEAP7
```

If you want to remove the JBoss EAP service, use the following procedure.

Removing the JBoss EAP Service in Microsoft Windows Server

1. 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 JBossEAP7
```

2. In a terminal, change directories to **EAP_HOME\bin** and execute the following command:

```
service.bat uninstall
```

4.4. CONFIGURING JBOSS EAP AS A SERVICE USING JSVC

The Apache Jsvc component of the JBoss Core Services collection can be used to run JBoss EAP as a background service on Red Hat Enterprise Linux and Solaris.



NOTE

Jsvc support for JBoss EAP is primarily intended for running JBoss EAP as a service on Microsoft Windows and Solaris. Although Jsvc works on Red Hat Enterprise Linux, we strongly recommend that you use the [native methods](#) for running JBoss EAP as a service on Red Hat Enterprise Linux.

Jsvc is a set of libraries and applications which allow Java applications to run on UNIX-like platforms as a background service. It allows an application to perform operations as a privileged user, and then switch identity to a non-privileged user.

Jsvc uses three processes: a launcher process, a controller process, and a controlled process. The controlled process is also the main Java thread. If the JVM crashes, the controller process will restart it within 60 seconds. Jsvc is a daemon process, and for JBoss EAP it must be started by a privileged user.

Install the JBoss Core Services Jsvc Package

- For ZIP or installer installations:
 1. Open a browser and log in to the Red Hat Customer Portal [JBoss Software Downloads page](#).
 2. Select **Apache Jsvc** in the **Product** drop-down menu.
 3. Select the latest version from the **Version** drop-down menu.
 4. Find **Red Hat JBoss Core Services Apache Jsvc** in the list, ensuring that you select the correct platform and architecture for your system, and click the **Download** link.
 5. Extract the downloaded ZIP file into the directory containing your JBoss EAP installation directory.
This will result in a **jbc-s-jsvc-<VERSION>** directory at the same depth as your JBoss EAP installation directory. For example:

```

/var/opt/
├── jboss-eap-7.3
│   ├── bin
│   └── ...
└── jbc-s-jsvc-<VERSION>

```

6. The command examples for using Jsvc to start JBoss EAP assume that a **jboss** user has been created. If you have not already created a user for JBoss EAP, run the following commands to create the **jboss** user and group:

```

# groupadd -f -g 185 -r jboss
# useradd -r -u 185 -g jboss -d EAP_HOME -s /sbin/nologin -c "JBoss" jboss

```

- For RPM installations on Red Hat Enterprise Linux:
 1. Log in to [Red Hat Subscription Manager](#).
 2. Click on **Systems** in the **Subscriber Inventory**.
 3. Subscribe to the JBoss Core Services CDN repositories for your operating system version and architecture:
 - a. For Red Hat Enterprise Linux 6:
 - `jb-coreservices-1-for-rhel-6-server-rpms`
 - b. For Red Hat Enterprise Linux 7 and later:
 - `jb-coreservices-1-for-rhel-7-server-rpms`
 4. Run the following command as the root user to install Jsvc:

```

# yum groupinstall jbc-s-jsvc

```



NOTE

Be sure to set the **JAVA_HOME** system environment variable.

Using Jsvc to Start JBoss EAP as a Standalone Server

The following commands are used to start and stop JBoss EAP in standalone mode using Jsvc. The tables below show the paths that are needed for the commands for a ZIP/installer JBoss EAP installation, or an RPM installation.

Table 4.1. Jsvc File Locations for ZIP/Installer Installations - Standalone Server

File Reference in Instructions	File Location
JSVC_BIN	<i>EAP_HOME</i>/../jboss-jsvc-<VERSION>/sbin/jsvc
JSVC_JAR	<i>EAP_HOME</i>/../jboss-jsvc-<VERSION>/lib/commons-daemon.jar
CONF_DIR	<i>EAP_HOME</i>/standalone/configuration
LOG_DIR	<i>EAP_HOME</i>/standalone/log

Table 4.2. Jsvc File Locations for RPM Installations - Standalone Server

File Reference in Instructions	File Location
JSVC_BIN	/usr/bin/jboss-jsvc/jsvc
JSVC_JAR	/usr/bin/jboss-jsvc/commons-daemon.jar
CONF_DIR	/opt/rh/eap7/root/usr/share/wildfly/standalone/configuration
LOG_DIR	/opt/rh/eap7/root/usr/share/wildfly/standalone/log

Start a standalone JBoss EAP server using Jsvc:

```
$ JSVC_BIN \
  -outfile LOG_DIR/jsvc.out.log \
  -errfile LOG_DIR/jsvc.err.log \
  -pidfile LOG_DIR/jsvc.pid \
  -user jboss \
  -D[Standalone] -XX:+UseCompressedOops -Xms1303m \
  -Xmx1303m -XX:MaxPermSize=256m \
  -Djava.net.preferIPv4Stack=true \
  -Djboss.modules.system.pkgs=org.jboss.byteman \
  -Djava.awt.headless=true \
  -Dorg.jboss.boot.log.file=LOG_DIR/server.log \
  -Dlogging.configuration=file:CONF_DIR/logging.properties \
  -Djboss.modules.policy-permissions \
  -cp EAP_HOME/jboss-modules.jar:JSVC_JAR \
  -Djboss.home.dir=EAP_HOME \
  -Djboss.server.base.dir=EAP_HOME/standalone \
  @org.jboss.modules.Main -start-method main \
```

```
-mp EAP_HOME/modules \
-jaxpmodule javax.xml.jaxp-provider \
org.jboss.as.standalone
```

Stop a standalone JBoss EAP server using Jsvc:

```
$ JSVC_BIN \
-stop \
-outfile LOG_DIR/jsvc.out.log \
-errfile LOG_DIR/jsvc.err.log \
-pidfile LOG_DIR/jsvc.pid \
-user jboss \
-D[Standalone] -XX:+UseCompressedOops -Xms1303m \
-Xmx1303m -XX:MaxPermSize=256m \
-Djava.net.preferIPv4Stack=true \
-Djboss.modules.system.pkgs=org.jboss.byteman \
-Djava.awt.headless=true \
-Dorg.jboss.boot.log.file=LOG_DIR/server.log \
-Dlogging.configuration=file:CONF_DIR/logging.properties \
-Djboss.modules.policy-permissions \
-cp EAP_HOME/jboss-modules.jar:JSVC_JAR \
-Djboss.home.dir=EAP_HOME \
-Djboss.server.base.dir=EAP_HOME/standalone \
@org.jboss.modules.Main -start-method main \
-mp EAP_HOME/modules \
-jaxpmodule javax.xml.jaxp-provider \
org.jboss.as.standalone
```

Using Jsvc to Start a JBoss EAP Managed Domain

The following commands are used to start and stop a JBoss EAP managed domain using Jsvc. The tables below show the paths that are needed for the commands for a ZIP/installer JBoss EAP installation, or an RPM installation.

Table 4.3. Jsvc File Locations for ZIP/Installer Installations - Managed Domain

File Reference in Instructions	File Location
JSVC_BIN	EAP_HOME/./jboss-jsvc-<VERSION>/sbin/jsvc
JSVC_JAR	EAP_HOME/./jboss-jsvc-<VERSION>/lib/commons-daemon.jar
CONF_DIR	EAP_HOME/domain/configuration
LOG_DIR	EAP_HOME/domain/log

Table 4.4. Jsvc File Locations for RPM Installations - Managed Domain

File Reference in Instructions	File Location
JSVC_BIN	/usr/bin/jboss-jsvc/jsvc

File Reference in Instructions	File Location
JSVC_JAR	/usr/bin/jbcs-jsvc/commons-daemon.jar
CONF_DIR	/opt/rh/eap7/root/usr/share/wildfly/domain/configuration
LOG_DIR	/opt/rh/eap7/root/usr/share/wildfly/domain/log

Before you issue the following command, be sure to set the **JAVA_HOME** system environment variable.

Start a JBoss EAP managed domain using Jsvc:

```
$ JSVC_BIN \
-outfile LOG_DIR/jsvc.out.log \
-errfile LOG_DIR/jsvc.err.log \
-pidfile LOG_DIR/jsvc.pid \
-user jboss \
-nodetach -D"[Process Controller]" -server -Xms64m \
-Xmx512m -XX:MaxPermSize=256m \
-Djava.net.preferIPv4Stack=true \
-Djboss.modules.system.pkgs=org.jboss.byteman \
-Djava.awt.headless=true \
-Dorg.jboss.boot.log.file=LOG_DIR/process-controller.log \
-Dlogging.configuration=file:CONF_DIR/logging.properties \
-Djboss.modules.policy-permissions \
-cp "EAP_HOME/jboss-modules.jar:JSVC_JAR" \
org.apache.commons.daemon.support.DaemonWrapper \
-start org.jboss.modules.Main -start-method main \
-mp EAP_HOME/modules org.jboss.as.process-controller \
-jboss-home EAP_HOME -jvm "${JAVA_HOME}"/bin/java \
-mp EAP_HOME/modules -- \
-Dorg.jboss.boot.log.file=LOG_DIR/host-controller.log \
-Dlogging.configuration=file:CONF_DIR/logging.properties \
-Djboss.modules.policy-permissions \
-server -Xms64m -Xmx512m -XX:MaxPermSize=256m \
-Djava.net.preferIPv4Stack=true \
-Djboss.modules.system.pkgs=org.jboss.byteman \
-Djava.awt.headless=true -- -default-jvm "${JAVA_HOME}"/bin/java \
&
```

Stop a JBoss EAP managed domain using Jsvc:

```
$ JSVC_BIN \
-stop \
-outfile LOG_DIR/jsvc.out.log \
-errfile LOG_DIR/jsvc.err.log \
-pidfile LOG_DIR/jsvc.pid \
-user jboss \
-nodetach -D"[Process Controller]" -server -Xms64m \
-Xmx512m -XX:MaxPermSize=256m \
-Djava.net.preferIPv4Stack=true \
-Djboss.modules.system.pkgs=org.jboss.byteman \
-Djava.awt.headless=true \
```

```
-Dorg.jboss.boot.log.file=LOG_DIR/process-controller.log \  
-Dlogging.configuration=file:CONF_DIR/logging.properties \  
-Djboss.modules.policy-permissions \  
-cp "EAP_HOME/jboss-modules.jar:JSVC_JAR" \  
org.apache.commons.daemon.support.DaemonWrapper \  
-start org.jboss.modules.Main -start-method main \  
-mp EAP_HOME/modules org.jboss.as.process-controller \  
-jboss-home EAP_HOME -jvm $JAVA_HOME/bin/java \  
-mp EAP_HOME/modules -- \  
-Dorg.jboss.boot.log.file=LOG_DIR/host-controller.log \  
-Dlogging.configuration=file:CONF_DIR/logging.properties \  
-Djboss.modules.policy-permissions \  
-server -Xms64m -Xmx512m -XX:MaxPermSize=256m \  
-Djava.net.preferIPv4Stack=true \  
-Djboss.modules.system.pkgs=org.jboss.byteman \  
-Djava.awt.headless=true -- -default-jvm $JAVA_HOME/bin/java
```

CHAPTER 5. UNINSTALLING JBOSS EAP

5.1. UNINSTALLING JBOSS EAP (ZIP INSTALLATION)

1. Ensure that you back up any modified configuration files and deployments that may be reused.
2. The ZIP installation method installs JBoss EAP in a single directory. Delete the installation directory to uninstall JBoss EAP.
3. Also delete any other scripts that depended on JBoss EAP being installed on your machine.

5.2. UNINSTALLING JBOSS EAP (INSTALLER INSTALLATION)

If you installed JBoss EAP using the installer, you can uninstall JBoss EAP using the uninstaller in either [graphical](#) or [text](#) mode.

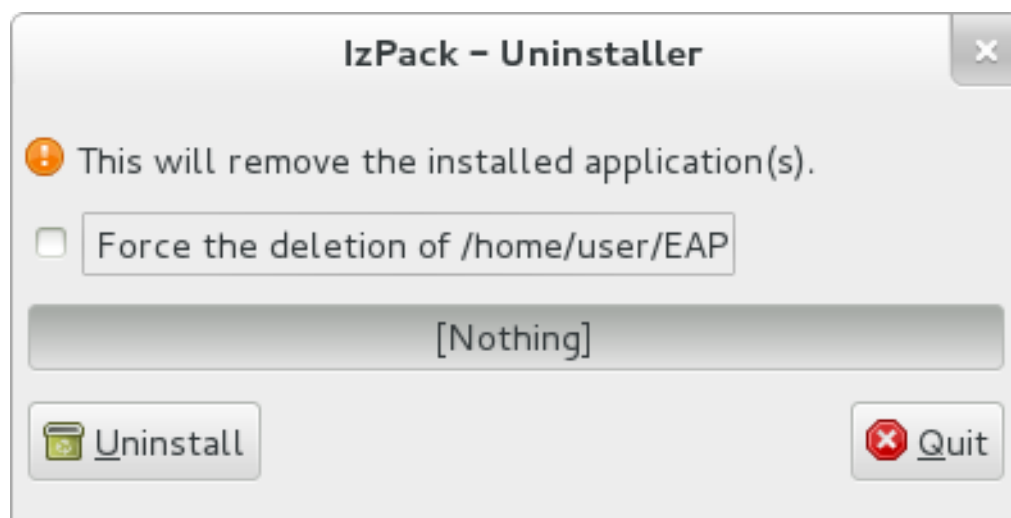
Running the JBoss EAP Graphical Uninstaller

1. Open a terminal and navigate to ***EAP_HOME/Uninstaller***.
2. Run the graphical uninstaller using the following command:

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

The graphical uninstaller is similar to following figure. Select the check box if you want to delete the JBoss EAP installation directory.

Figure 5.1. JBoss EAP Graphical Uninstaller



3. Click **Uninstall** to start the uninstall process.
4. When the uninstall process is finished, click **Quit** to exit the uninstaller.

Running the JBoss EAP Text-based Uninstaller

1. Open a terminal and navigate to ***EAP_HOME/Uninstaller***.
2. Run the text-based uninstaller using the following command:

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

3. Follow the prompts to uninstall JBoss EAP.

5.3. UNINSTALLING JBOSS EAP (RPM INSTALLATION)



WARNING

Uninstalling a JBoss EAP installation that was installed using the RPM method is not recommended.

Because of the nature of RPM package management, it cannot be guaranteed that all installed packages and dependencies will be completely removed, or that the system will not be left in an inconsistent state caused by missing package dependencies.

Revised on 2020-03-18 10:10:57 UTC