



Red Hat JBoss Enterprise Application Platform 7.4

Installation Guide

For Use with Red Hat JBoss Enterprise Application Platform 7.4

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Abstract

This Installation Guide contains supported installation methods for Red Hat JBoss Enterprise Application Platform (JBoss EAP). The guide also includes instructions for configuring JBoss EAP as a service or as a detached process with a daemon, and instructions for uninstalling JBoss EAP.

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PROVIDING FEEDBACK ON RED HAT DOCUMENTATION

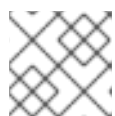
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Prerequisites

- Log in to the Red Hat Customer Portal.
- In the Red Hat Customer Portal, view the document in **Multi-page HTML** format.

Procedure

1. Click **Feedback** to see existing reader comments.



NOTE

The feedback feature is enabled only in the **Multi-page HTML** format.

2. Highlight the section of the document where you want to provide feedback.
3. In the prompt menu that displays near the text you selected, click **Add Feedback**.
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CHAPTER 1. PREPARING TO INSTALL JBOSS EAP


You can choose to install an instance of JBoss EAP using any of the three types of installers. Depending on your requirements, each installer type is useful in certain situations.

1.1. JBOSS EAP INSTALLATION METHODS

You can choose one of several methods to install JBoss EAP. Each method is best used in certain situations.

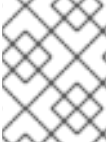
The following table provides a brief overview of each type of installation and links to the sections that cover the relevant processes.

Table 1.1. Installer Types

Method	Description
Installer installation	<ul style="list-style-type: none"> You can run the installer on a console or as a graphical wizard. Both options provide step-by-step instructions for installing and configuring the server instance. The Installer Installation is the preferred method to install JBoss EAP on all supported platforms. The installer also provides an additional setup option, including Quickstarts and configuration of the Maven repository.
Archive installation	<ul style="list-style-type: none"> The archive installation is suitable for installation on all supported operating systems. Use this method if you want to extract the instance manually. The archive installation provides a default installation of JBoss EAP, and you must implement any configuration changes after the installation. <div style="display: flex; align-items: flex-start; margin-top: 10px;">  <div> <p>NOTE</p> <p>If you plan to use JBoss Operations Network (JBoss ON) to deploy and install JBoss EAP patches, install the target JBoss EAP instances using the archive installation method.</p> </div> </div>
RPM installation	<ul style="list-style-type: none"> You can install JBoss EAP using RPM packages on supported installations of Red Hat Enterprise Linux 6+.

1.2. THE *EAP_HOME* VARIABLE

You can use the variable, *EAP_HOME*, to denote the path for the JBoss EAP installation. Set the *EAP_HOME* variable to the actual path for the JBoss EAP installation. The path set for the *EAP_HOME* variable stays the same and does not change after patching or updating an instance of the JBoss EAP.

**NOTE**

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

Depending on the installation option you choose to install JBoss EAP, you can locate the installation directory or the default path as follows:

- If you installed JBoss EAP using the archive installation method, the installation directory is the **jboss-eap-7.4** directory where you extracted the archive.
- If you installed JBoss EAP using the installer application, the default path for ***EAP_HOME*** is ***\${user.home}/EAP-7.4.0***:
 - For Red Hat Enterprise Linux and Solaris: ***/home/USER_NAME/EAP-7.4.0/***
 - For Microsoft Windows: ***C:\Users\USER_NAME\EAP-7.4.0***
- If you installed JBoss EAP using the RPM installation method, the installation directory is ***/opt/rh/eap7/root/usr/share/wildfly/***.

CHAPTER 2. ARCHIVE INSTALLATION OF JBOSS EAP

You can use the archive installer to install, configure, and uninstall a JBoss EAP instance. You can use the archive installation on all platforms supported by JBoss EAP.

2.1. DOWNLOADING JBOSS EAP ARCHIVE

You can use the JBoss EAP archive file on the Red Hat Customer Portal to install JBoss EAP. The archive file installation is platform-independent.

Prerequisites

- Set up an account on the [Red Hat Customer Portal](#).
- Review the [JBoss EAP 7 supported configurations](#) and ensure that your system is supported.

Procedure

1. Log in to the [Red Hat Customer Portal](#).
2. Click **Downloads**.
3. Select **Red Hat JBoss Enterprise Application Platform** in the **Product Downloads** list.
4. In the **Version** drop-down list, select **7.4**.
5. Find **Red Hat JBoss Enterprise Application Platform 7.4.0** in the list and click the **Download** link.

2.2. INSTALLING JBOSS EAP BY USING THE ARCHIVE

You can use the archive installation method to install JBoss EAP. This method is the simplest way to install JBoss EAP and the method provides a basic default installation of a server, with configuration files and libraries placed in standard folders.

Prerequisites

- Set up an account on the [Red Hat Customer Portal](#).
- Review the [JBoss EAP 7 supported configurations](#) and ensure that your system is supported.
- Download the JBoss EAP installation package.
- Install a supported Java Development Kit (JDK).
- If you are using Windows, set the **JAVA_HOME** and **PATH** environment variables. If you do not have this set up, shortcuts do not work.

Procedure

1. Log in to the [Red Hat Customer Portal](#).
2. Click **Downloads**.
3. Select **Red Hat JBoss Enterprise Application Platform** in the **Product Downloads** list.

4. From the **Version** drop-down list, select **7.4**
5. Find **Red Hat JBoss Enterprise Application Platform 7.4.0** in the list and select the **Download** link.
6. Optional: Move the archive file to the server and location where you want to install JBoss EAP.

**NOTE**

You must have read and write access to this directory.

7. Depending on your operating system, choose one of the following options:
 - For Red Hat Enterprise Linux, extract the archive file by entering the following command in the management CLI:

```
$ unzip jboss-eap-7.4.0.zip
```
 - For Windows Server, right-click the archive file and select **Extract All**.

**NOTE**

EAP_HOME is the top-level directory for the JBoss EAP installation. The directory is created by extracting the archive.

Additional resources

- See Setting up the **EAP_HOME** variable in the JBoss EAP *Installation Guide*.
- For more information about authentication and authorization options, see [Management Users](#) in the JBoss EAP *Configuration Guide*.

2.3. JBOSS EAP CONFIGURATION FILE

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

The startup script and an associated configuration file are located in the **EAP_HOME/bin/init.d/** directory.

**NOTE**

Several configurable options exist in the **jboss-eap.conf** file. You must provide the correct values for **JBOSS_HOME** and the **JBOSS_USER**.

If you want to start JBoss EAP in a managed domain, add **JBOSS_MODE=domain** to **jboss-eap.conf**. For example, to specify custom domain configuration files, add **JBOSS_DOMAIN_CONFIG=DOMAIN_CONFIG_FILE.xml** and **JBOSS_HOST_CONFIG=HOST_CONFIG_FILE.xml**.

**NOTE**

By default, JBoss EAP uses **domain.xml** and **host-master.xml** as the domain configuration files.

2.4. CONFIGURING JBOSS EAP ARCHIVE INSTALLATION AS A SERVICE ON RHEL

You can configure the archive installation to run as a service in Red Hat Enterprise Linux (RHEL).

Prerequisites

- Install JBoss EAP as an archive installation.
- Ensure that you administrator privileges on the server.

Procedure

1. Configure the start-up options in the **jboss-eap.conf** file by opening the **jboss-eap.conf** in a text editor and set the options for your JBoss EAP installation.
2. Copy the service initialization and configuration 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
$ sudo restorecon /etc/init.d/jboss-eap-rhel.sh
```

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

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

4. Verify 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 8:

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

The service starts. If the service does not start and you get an error message, check the error logs and make sure that the options in the configuration file are set correctly.

- c. For Red Hat Enterprise Linux 9:



NOTE

Red Hat Enterprise Linux 9 does not have the **initscripts** package in the default build. This package includes the **/etc/init.d/functions** file used by the **jboss-eap-rhel.sh** service. The **/etc/init.d/functions** file is required to start JBoss EAP as a service; therefore, install the **initscripts** package using the following command:

```
$ sudo dnf install initscripts
```

- i. Restart **systemctl**:

```
$ sudo systemctl daemon-reload
```

- ii. Start JBoss EAP:

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

5. Optional: 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
```

Verification

- To check the permissions of a file, enter the **ls -l** command in the directory containing the file.
- To check that the automatic service start is enabled, enter the following command:

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

Additional resources

- For more information about controlling the state of services, see [Management system services](#) in the *JBoss EAP Configuring basic system settings guide*.
- For more information about viewing error logs, see [Bootup logging](#) in the *JBoss EAP Configuration Guide*.

2.5. REMOVING JBOSS EAP SERVICE ON RHEL

Depending on your work environment, the archive installation method might not meet the needs of your environment. You can remove the instance of JBoss EAP and any services associated with it. Thereafter, you can install JBoss EAP using a suitable installation method.

Procedure

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 configuration file and startup script:

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

2.6. INSTALLING JBOSS EAP ARCHIVE INSTALLATION AS A SERVICE ON MICROSOFT WINDOWS SERVER

You can install JBoss EAP on Microsoft Windows Server by using the archive installation method. This method provides a basic default installation of a server, with configuration files and libraries placed in standard folders. The default installation of the server contains a **service.bat** script that you can use with Jsvc to stop and start JBoss EAP.

Prerequisites

- Ensure that you have administrator privileges on the server.
- Set the JAVA_HOME system environment variable.

Procedure

1. Install the JBoss EAP Core Services Jsvc package:
 - a. Open a browser and log in to the Red Hat Customer Portal's [Software Downloads page](#).
 - b. From the **Product** drop-down list, select **Apache Jsvc**.
 - c. From the **Version** drop-down list, select the latest version.
 - d. From the **Releases** list, select **Red Hat JBoss Core Services Apache Jsvc**. Ensure that you select the correct platform and architecture for your system. Next, select the **Download** link.
2. Extract the downloaded archive file into the directory containing your JBoss EAP installation directory. This results in a **jbc-s-jsvc-<VERSION>** directory at the same depth as your JBoss EAP installation directory. The following example shows the path to the **jbc-s-jsvc-<VERSION>** directory:

```
C:\Program Files
├── jboss-eap-7.4
│   ├── bin
│   └── ...
└── jbc-s-jsvc-<VERSION>
```

3. Install the service by opening the terminal and changing the directories to **EAP_HOME\bin**. For a list of all possible options, run **service.bat** without any arguments



NOTE

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 (**;**).

The following examples show a basic **service.bat install** command that is needed to create a new service for either a standalone server, or a server in a managed domain.

Enter 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.

In the following command, replace **EAP_HOST_NAME** 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
```

4. A new Windows service is created with the name **JBossEAP7**.

Verification

- Verify the new service in the Services console by opening the Windows Services console (services.msc) and checking that the service is created.

If the default service name was used, in the list of Windows services the new service is displayed as **JBossEAP7**.



NOTE

From the Services console you can start and stop the service, and change its settings of how and when it starts.

2.7. CONFIGURING JBOSS EAP ARCHIVE INSTALLATION AS A SERVICE ON MICROSOFT WINDOWS SERVER

You can install JBoss EAP on Microsoft Windows Server using the archive installation method. This method provides a basic default installation of a server, with configuration files and libraries placed in standard folders.



WARNING

If you use the **set** command to set system environment variables in a Windows Server command prompt, it does not permanently set the environment variables. You must use either the **setx** command, or the **System** interface in the **Control Panel**.

Prerequisites

- Install JBoss EAP as an archive installation.
- Ensure that you have administrator privileges on the server.
- Set the JAVA_HOME system environment variable.
- Verify that the JBoss EAP server instance is not running.

Procedure

1. Use the **setx** command to create two system environment variables: **JBOSS_HOME** and **NOPAUSE**.
2. Use the **setx** command to configure the two environment variables:
 - a. Configure the path for the **JBOSS_HOME** variable to the JBoss EAP installation directory.
 - b. The **jboss-cli.bat** script contains the **if "x%NOPAUSE%" == "x" pause** line of code. This code creates a status message when you issue the **pause** command. To disable these messages, you must specify a value for the **NOPAUSE** variable. For example, setting the **NOPAUSE** variable to **NOPAUSE=true** disables status messages from appearing when a script completes.

Additional resources

- To learn more about how to set environment variables on a Microsoft Windows Server, refer to the Microsoft Windows documentation.

2.8. STARTING AND STOPPING THE JBOSS EAP SERVICE ON MICROSOFT WINDOWS SERVER

In certain situations, you might need to use the command prompt to either stop or start the service. For instance, if you make any registry changes, you must stop the service and then restart it to force the service to re-read the registry.

Prerequisites

- Install JBoss EAP as an archive installation.

Procedure

- To start the service, at the command prompt issue the following command:

```
$ net start JBossEAP7
```

- To stop the service, at the command prompt issue the following command:

```
$ net stop JBossEAP7
```

2.9. REMOVING JBOSS EAP SERVICE ON MICROSOFT WINDOWS SERVER

Depending on your work environment, the archive installation method might not meet the needs of your environment. You can remove the instance of JBoss EAP and any services associated with it. Thereafter, you can install JBoss EAP using a suitable installation method.

Procedure

1. If the service is running, open the command prompt and stop the service by entering the **net stop** command with the name of the service:

```
net stop JBossEAP7
```

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

```
service.bat uninstall
```

2.10. INSTALLING AND STARTING JBOSS EAP ARCHIVE INSTALLATION BY USING JSVC

You can use the Apache Java Service (Jsvc) component of the JBoss Core Services [Apache HTTP Server Installation Guide](#) collection to run JBoss EAP as a detached process, daemon, on Red Hat Enterprise Linux (RHEL).



NOTE

Although Jsvc works on RHEL, we strongly recommend that you use the [native methods](#) for running JBoss EAP as a service on RHEL.

Jsvc is a set of libraries and applications that provide Java applications the ability to run as a background service. Applications run using Jsvc can perform operations as a privileged user, then switch identity to a non-privileged user.

Procedure

1. Open a browser and log in to the Red Hat Customer Portal's [Software Downloads page](#).
2. From the **Product** drop-down list, select **Apache Jsvc**.
3. From the **Version** drop-down list, select the latest version.

- From the **Releases** list, select **Red Hat JBoss Core Services Apache Jsvc**. Ensure that you select the correct platform and architecture for your system. Next, select the **Download** link.
- Extract the downloaded archive file into the directory containing your JBoss EAP installation directory.
This results in a **jbcsv-jsvc-<VERSION>** directory at the same depth as your JBoss EAP installation directory. For example:

```

/var/opt/
├── jboss-eap-7.4
│   ├── bin
│   └── ...
└── jbcsv-jsvc-<VERSION>

```

- Optional: 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

```

Additional resources

- To learn more about controlling JBoss Core Services, see [Configuring the Apache HTTP Server Installation](#) in the *Apache HTTP Server Installation Guide*.

2.11. JSVC COMMANDS TO START OR STOP JBOSS EAP AS A STANDALONE SERVER

Using Java Service (Jsvc), you can enter various commands for starting or stopping JBoss EAP. The following table shows a list of paths that are needed for the commands for an archive JBoss EAP installation.

Table 2.1. File Locations of Paths

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

The following example demonstrates starting a standalone JBoss EAP server using Jsvc with a **JSVC_BIN ** path:

```

$ 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

```

The following example demonstrates stopping a standalone JBoss EAP server using Jsvc with a JSVC_BIN \ path:

```

$ 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

```

2.12. JSVC COMMANDS TO START OR STOP JBOSS EAP ON A MANAGED DOMAIN

Using Java Service (Jsvc), you can enter various commands for starting or stopping JBoss EAP. The following tables show the path that is needed for the commands for an archive JBoss EAP installation.

Table 2.2. File Locations of Paths

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

Before you issue the following command, set the [JAVA_HOME](#) system environment variable.

The following example demonstrates starting 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 \
```

The following example demonstrates stopping 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 \  

```

2.13. UNINSTALLING A JBOSS EAP ARCHIVE INSTALLATION

You can use the the archive installation method to install JBoss EAP in a single directory.

Depending on your work environment, the archive installation method might not meet the needs of your environment. You can remove the instance of JBoss EAP and any services associated with it. Thereafter, you can install JBoss EAP using a suitable installation method.

Prerequisites

- Optional: Back up any modified configuration files and deployments that may be reused.

Procedure

1. Delete the installation directory to uninstall JBoss EAP.
2. Delete any scripts that depend on JBoss EAP being installed on your machine.

CHAPTER 3. JBOSS EAP INSTALLER

You can use the JBoss EAP installer to install, configure, and uninstall a JBoss EAP instance. You can use the JBoss EAP installer on all platforms supported by JBoss EAP.

3.1. DOWNLOADING AND INSTALLING THE JBOSS EAP INSTALLER

You can use the JBoss EAP installer that 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.

Prerequisites

- Set up an account on the [Red Hat Customer Portal](#).
- Review the [JBoss EAP 7 supported configurations](#) and ensure that your system is supported.
- Install a supported Java Development Kit (JDK).

Procedure

1. Log in to the [Red Hat Customer Portal](#).
2. From the **Product Downloads** list, select **Red Hat JBoss Enterprise Application Platform**
3. Click **Downloads**.
4. From the **Version** drop-down list, select **7.4**.
5. Find **Red Hat JBoss Enterprise Application Platform 7.4.0 Installer** file in the list and click the **Download** link.

3.2. RUNNING THE JBOSS EAP GRAPHICAL INSTALLER

The graphical installer offers a convenient way for you to install, configure, and uninstall a JBoss EAP instance. Additionally, you can use the graphical installer to access many optional configuration options.

Prerequisites

- Set up an account on the [Red Hat Customer Portal](#).
- Review the [JBoss EAP 7 supported configurations](#) and ensure that your system is supportable.
- Download the JBoss EAP installation package.
- Install a supported Java Development Kit (JDK).

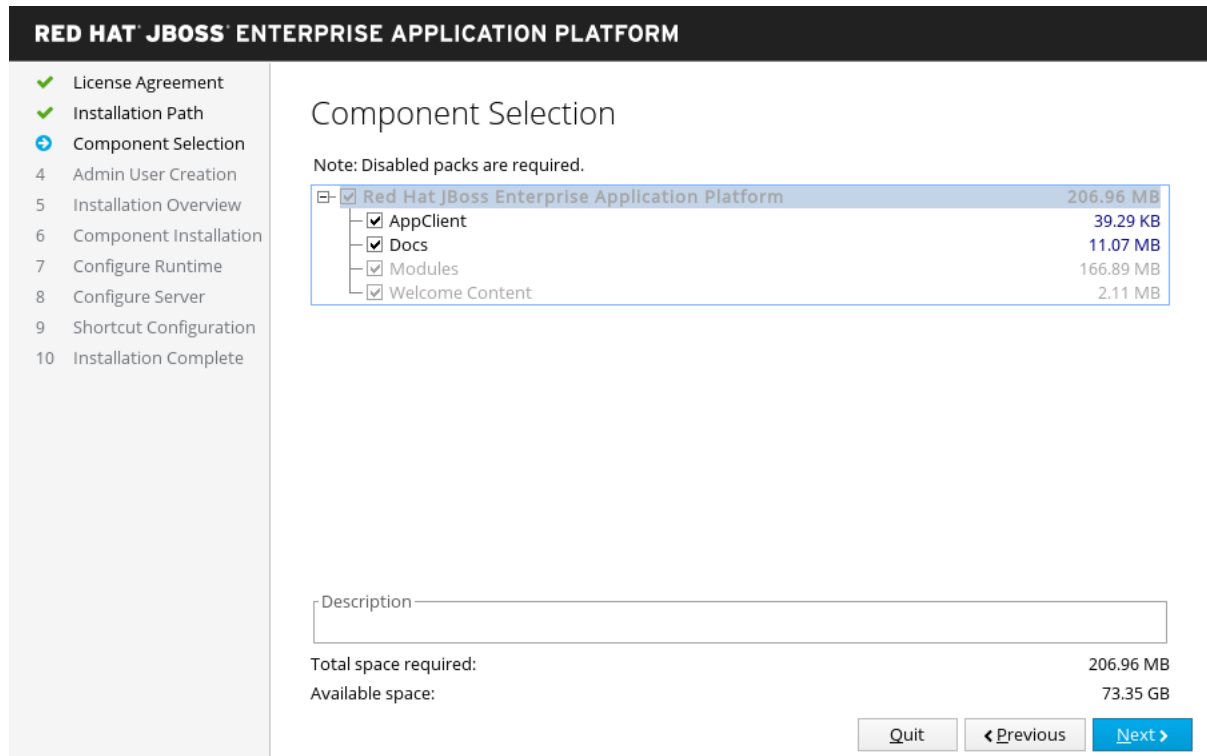
Procedure

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

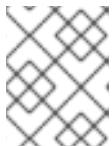
```
$ java -jar jboss-eap-7.4.0-installer.jar
```

- Choose the desired language for the installer and click **OK**.
- Agree with the prompt for The EULA for RED HAT JBOSS MIDDLEWARE by selecting "I accept the terms of this license agreement", and then click **Next**.
- Select the installation path for JBoss EAP, and click **Next**.
- Select the components to install. Required components are disabled for deselection.

Figure 3.1. JBoss EAP installer - Component selection screen



- Create an administrative user and assign a password. Then click **Next**.
- Review your installation options, and then click **Yes**.
- When the installation progress completes, click **Next**.
- Choose a default configuration for your JBoss EAP installation, or choose to perform an advanced configuration with the installer.

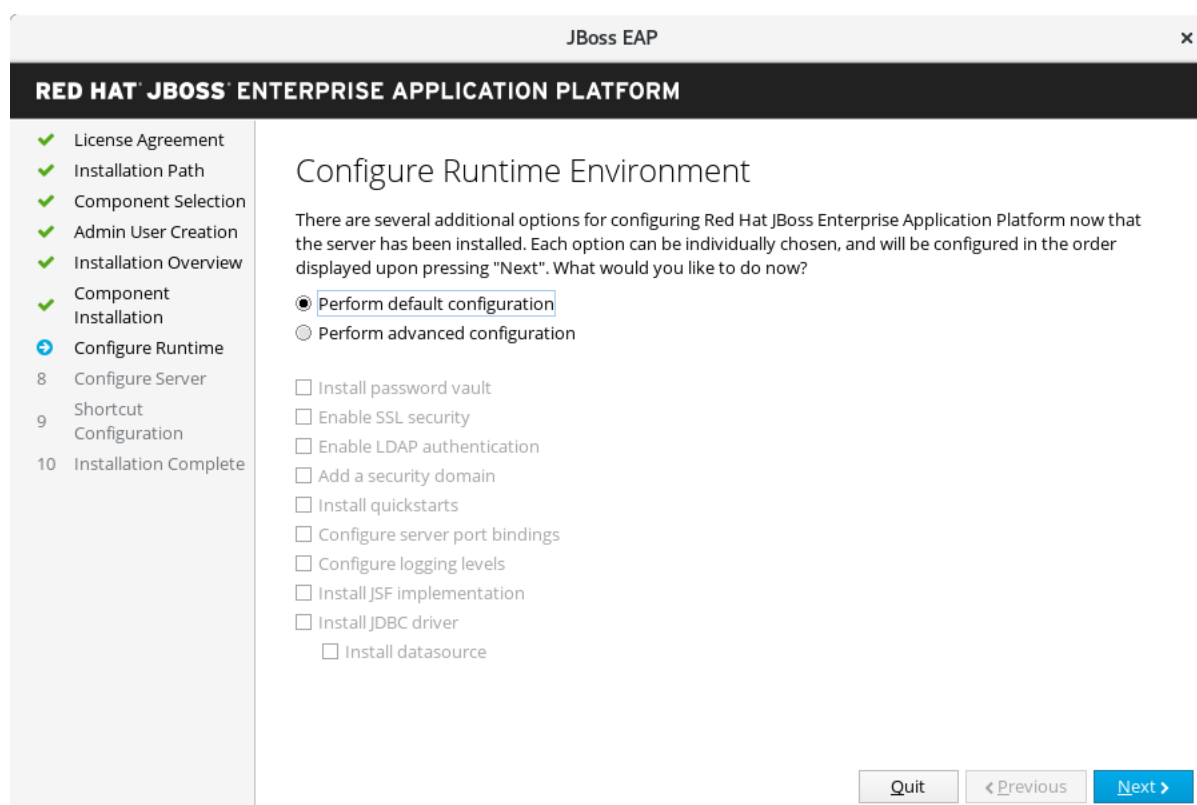


NOTE

Even if you choose a default configuration, you can still alter your configuration using the JBoss EAP management interfaces at a later time.

- Select **Perform default configuration**, or select **Perform advanced configuration** and select the items to configure, and then click **Next**.

Figure 3.2. JBoss EAP installer - Configure runtime environment screen



12. The following configuration steps are optional:

Configure password vault

You can use the Configure Password Vault option to install a password vault in the advanced configuration of the runtime environment.

- Configure a password vault to store your sensitive passwords in an encrypted keystore, and then click **Next**.

For more information, see the [password vault documentation](#) in the *How To Configure Server Security* guide.

Figure 3.3. JBoss EAP installer - Configure password vault screen

RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM

- ✓ License Agreement
- ✓ Installation Path
- ✓ Component Selection
- ✓ Admin User Creation
- ✓ Installation Overview
- ✓ Component Installation
- ➔ Configure Runtime
 - ➔ Password Vault
- 8 Configure Server
- 9 Shortcut Configuration
- 10 Installation Complete

Configure Password Vault

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. Note that the keystore must be of type "JCEKS".

Please make note of your entry below in order to mask any subsequent passwords. See the JBoss EAP 7 documentation for further details.

The password should be at least six characters long.

Vault alias:

Salt (8-chars):

Iteration count:

Vault keystore password:

Confirm vault keystore password:

New keystore location:

Encrypted file directory:

SSL Security

You can enable SSL Security in the advanced configuration of the runtime environment by specifying the location of the keystore and the password for securing the JBoss EAP management interfaces.

- a. Specify the location of the keystore and the password for securing the JBoss EAP management interfaces.
- b. When you have specified these values, click **Next**.

For more information, see the documentation on [securing the management interfaces](#) in the *How To Configure Server Security* guide.



WARNING

Red Hat recommends that SSLv2, SSLv3, and TLSv1.0 be explicitly disabled in favor of TLSv1.1 or TLSv1.2 in all affected packages.

LDAP configuration

You can enable the LDAP server to be the authentication and authorization authority as follows:

- a. Select **Configure Runtime**.
- b. Select **Enable LDAP authentication**
- c. On the LDAP Configuration screen, complete the required configurations and click **Next**.

For more information, see the [LDAP documentation](#) in *How to Configure Identity Management*.

Figure 3.4. JBoss EAP installer - LDAP configuration screen

LDAP security realm configuration

You can enable LDAP authentication in the advanced configuration of the runtime environment by using the LDAP connection, which is defined in the previous step. Enabling LDAP authentication creates a new security realm and this realm becomes associated with the management interfaces.

- Specify the values for your **LDAP Security Realm**, and then click **Next**.

For more information, see the [LDAP documentation](#) in *How to Configure Identity Management*.

Figure 3.5. JBoss EAP installer - LDAP security realm configuration screen

RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM

- ✓ License Agreement
- ✓ Installation Path
- ✓ Component Selection
- ✓ Admin User Creation
- ✓ Installation Overview
- ✓ Component Installation
- ➔ Configure Runtime
 - ✓ LDAP Connection
 - ➔ **LDAP Security Realm**
- 8 Configure Server
- 9 Shortcut Configuration
- 10 Installation Complete

LDAP Security Realm Configuration

A new security realm will be added with the attributes below, and will utilize the LDAP outbound connection defined in the previous step. This new security realm will be associated with the management interfaces. The value for the filter can either be of the form attribute="value", where value is the name of the attribute which holds the username, or of the form filter="value", where value is a query in standard LDAP syntax. If using an LDAP query, escape "&" with "&".

Security realm name:

Base DN:

Filter type:

Username filter:

Recursive directory search:

Security Domain Configuration

You can add a security domain in the advanced configuration of the runtime environment by configuring a security domain for the JBoss EAP server instance. Most of the fields are already populated with default values and do not need modification.

- a. Configure the security domain for your JBoss EAP server instance.
- b. Click **Next**.

For more information, see [Security Domains](#) in the [Security Architecture](#) guide.

Figure 3.6. JBoss EAP installer - Security domain configuration screen

RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM

Security Domain Configuration

Configure a security domain using the fields below. The only required field is the security domain name. 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:

Add authorization element:

Authorization code: Authorization flag: Authorization options:

Add mapping element:

Mapping code: Mapping type: Mapping options:

Java Secure Socket Extension configuration

You can add a security domain in the advanced configuration of the runtime environment by configuring the Java Secure Socket Extension (JSSE) for the security domain defined in the previous step.

- a. For the JSSE element, set either a keystore or a truststore.
- b. Click **Next**.

Figure 3.7. JBoss EAP installer - Java Secure Socket Extension configuration screen

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 truststore element

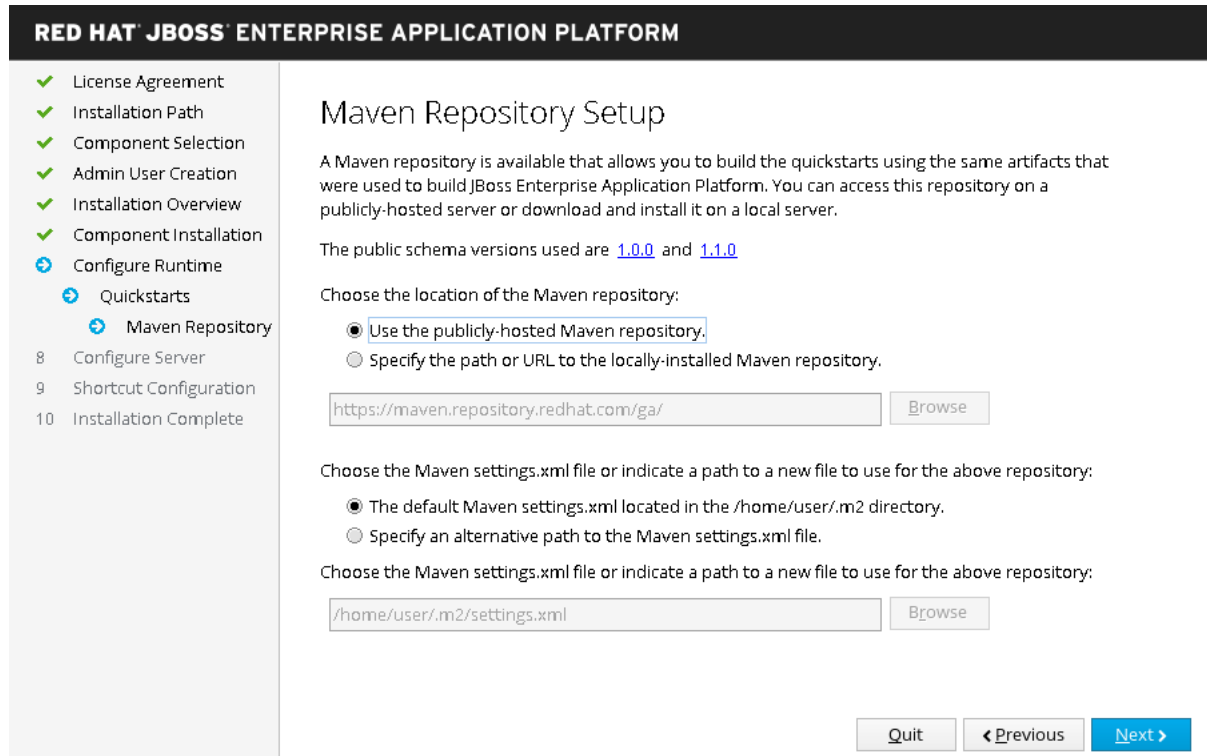
Quickstarts

You can choose to install quickstarts in the advanced configuration of the runtime environment by selecting the quickstart installation path, and then clicking **Next**.

Maven repository setup

You can install quickstarts in the advanced configuration of the runtime environment by selecting your Maven repository and its settings.xml file.

Figure 3.8. JBoss EAP installer - Maven repository setup screen



Socket bindings

Choose one of the following options to configure your socket bindings:

- Configure server port bindings in the advanced configuration settings of the runtime environment by configuring port offsets for all default bindings, or configuring custom port bindings. You might need to determine whether the installation uses the default port bindings.
- Configure port offsets by choosing the offset type.
- Configure custom bindings by selecting whether to configure the ports for standalone mode, domain mode, or both.
- If the host is configured for IPv6 only, select the **Enable pure IPv6 configuration** check box and the installer makes the required configuration changes.

When you have configured your socket binding, click **Next**.

Figure 3.9. JBoss EAP Installer - Socket bindings screen

RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM

✓ License Agreement
 ✓ Installation Path
 ✓ Component Selection
 ✓ Admin User Creation
 ✓ Installation Overview
 ✓ Component Installation
 ➤ Configure Runtime
 ➤ Port Configuration
 8 Configure Server
 9 Shortcut Configuration
 10 Installation Complete

Socket Bindings

Configure the socket bindings for Red Hat JBoss Enterprise Application Platform.

Select port configuration:

- Use the default port bindings for standalone and domain operating modes.
- Configure an offset for all default port bindings.
- Configure custom port bindings.

Select offset type:

- +1 offset
- +100 offset
- Specify offset

Offset value:

Configure ports for standalone mode
 Configure ports for domain mode

Check the box below if this computer is using a pure IPv6 configuration.

Enable pure IPv6 configuration

Quit < Previous Next >

Custom socket bindings for Standalone configurations

- Configure custom port bindings for standalone mode by setting the ports and system properties for each of the standalone configurations (**standalone**, **standalone ha**, **standalone full**, **standalone full-ha**), and then click **Next**.

Figure 3.10. JBoss EAP installer - Custom socket bindings for standalone configurations screen

RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM

✓ License Agreement
 ✓ Installation Path
 ✓ Component Selection
 ✓ Admin User Creation
 ✓ Installation Overview
 ✓ Component Installation
 ➤ Configure Runtime
 ➤ Port Configuration
 ➤ Standalone
 2 Standalone ha
 3 Standalone full
 4 Standalone full-ha
 8 Configure Server
 9 Shortcut Configuration
 10 Installation Complete

Socket Binding (Standalone)

Port	System Property (Optional)	Default Value
ajp port number:	<input type="text" value="jboss.ajp.port"/>	<input type="text" value="8009"/>
http port number:	<input type="text" value="jboss.http.port"/>	<input type="text" value="8080"/>
https port number:	<input type="text" value="jboss.https.port"/>	<input type="text" value="8443"/>
management-http port number:	<input type="text" value="jboss.management.htl"/>	<input type="text" value="9990"/>
management-https port number:	<input type="text" value="jboss.management.htl"/>	<input type="text" value="9993"/>
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"/>

Quit < Previous Next >

Custom socket bindings for domain configurations

- Configure custom port bindings for domain mode by setting 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**), and then click **Next**.

Figure 3.11. JBoss EAP installer - Custom socket bindings for domain configurations screen

Port	System Property (Optional)	Default Value
management-native port number:	jboss.management.na	9999
management-http port number:	jboss.management.htt	9990

Logging options

You can configure logging levels in the advanced configuration settings of the runtime environment as follows:

- Select the desired logging levels for the root logger and the console logger.
- Click **Next**.

Jakarta server faces setup

You can install a Jakarta Server Faces implementation in the advanced configuration settings of the runtime environment, as follows:

- Configure the Jakarta Server Faces options and paths to your Jakarta Server Faces JARs.
- Click **Next**.

For more information, see [Installing a Jakarta Server Faces Implementation](#) in the *Configuration Guide*.

Figure 3.12. JBoss EAP installer - Jakarta server faces setup screen

RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM

- ✓ License Agreement
- ✓ Installation Path
- ✓ Component Selection
- ✓ Admin User Creation
- ✓ Installation Overview
- ✓ Component Installation
- ➔ Configure Runtime
- ➔ **Install JSF**
- 8 Configure Server
- 9 Shortcut Configuration
- 10 Installation Complete

JSF Setup

Red Hat JBoss Enterprise Application Platform ships with Mojarra 2.2.13 but also supports installing a custom JSF implementation.
Supported versions: MyFaces 2.1.x/2.2.x, Mojarra 2.1.x/2.2.x.

Set the custom JSF implementation as default

Local or remote path to a JSF API JAR:

Local or remote path to a JSF implementation JAR:

JSF project:

JSF version (Leave blank to auto-detect):

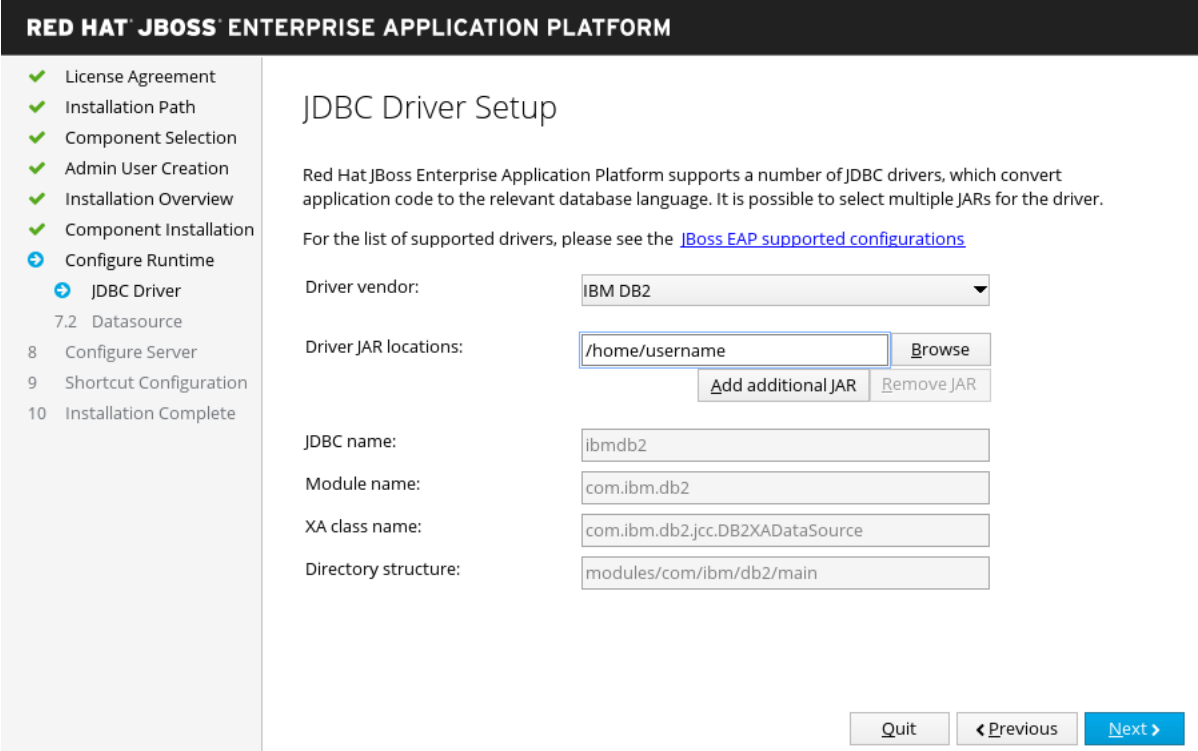
JDBC driver setup

You can install a JDBC driver in the advanced configuration settings of the runtime environment by installing and setting up a JDBC driver.

- a. Choose the appropriate driver vendor from the drop-down list.
- b. Specify the driver's JAR location(s).
- c. Click **Next**.

For more information, see the [datasource JDBC driver section](#) in the *Configuration Guide*.

Figure 3.13. JBoss EAP installer - JDBC driver setup screen



RED HAT JBOSS ENTERPRISE APPLICATION PLATFORM

License Agreement
 Installation Path
 Component Selection
 Admin User Creation
 Installation Overview
 Component Installation
 Configure Runtime
 JDBC Driver
 7.2 Datasource
 8 Configure Server
 9 Shortcut Configuration
 10 Installation Complete

JDBC Driver Setup

Red Hat JBoss Enterprise Application Platform supports a number of JDBC drivers, which convert application code to the relevant database language. It is possible to select multiple JARs for the driver.

For the list of supported drivers, please see the [JBoss EAP supported configurations](#)

Driver vendor:

Driver JAR locations:

JDBC name:

Module name:

XA class name:

Directory structure:

Datasource setup

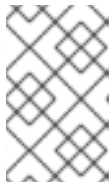
You can install a JDBC driver and install a datasource in the advanced configuration settings of the runtime environment by configuring a datasource.

- a. Provide a datasource name and configure the other options.
- b. Click **Next**.

For more information, see the details of [datasource management](#) in the [Configuration Guide](#).

Figure 3.14. JBoss EAP installer - Datasource setup screen

13. When the configuration progress completes, click **Next**.
14. Select the **Create shortcuts in the Start-Menu** check box to create shortcuts, and then click **Next**.



NOTE

Only alphanumeric characters, dash (-), and underscore (_) characters are allowed. On Microsoft Windows, the slash (/) and backslash (\) characters are also allowed.

15. Click **Generate installation script and properties file** if you want to capture the selected installation options for a future automated installer installation, and 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**.

3.3. RUNNING THE JBOSS EAP TEXT-BASED INSTALLER

You can use the text-based installer to install, configure, and uninstall a JBoss EAP instance. This installer method offers an uncluttered and straightforward experience.

Prerequisites

- Set up an account on the [Red Hat Customer Portal](#).
- Review the [JBoss EAP 7 supported configurations](#) and ensure that your system is supported.
- Install a supported Java Development Kit (JDK).
- Download the [text-based installer](#).

- If you are using Windows, set the `JAVA_HOME` and `PATH` environment variables. If you do not have this set up, shortcuts do not work.

Procedure

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

```
$ java -jar jboss-eap-7.4.0-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`**.

Additional resources

- See Setting up the **`EAP_HOME`** variable, in the JBoss EAP *Installation Guide*.

3.4. CONFIGURING JBOSS EAP INSTALLER INSTALLATION AS A SERVICE ON RHEL

You can configure the installer installation to run as a service in Red Hat Enterprise Linux (RHEL).

Prerequisites

- Install the installer.
- Ensure that you have administrator privileges on the server.

Procedure

1. Configure the start-up options in the **`jboss-eap.conf`** file by opening the **`jboss-eap.conf`** in a text editor and set the options for your JBoss EAP installation.
2. Copy the service initialization and configuration 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 the list of automatically started services using the **`chkconfig`** service management command:

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

4. Verify 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 starts. If the service does not start and you get an error message, check the error logs and make sure that the options in the configuration file are set correctly.

5. Optional: 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
```

Verification

- To check the permissions of a file, enter the **ls -l** command in the directory containing the file.
- To check that the automatic service start is enabled, enter the following command:

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

- For more information about controlling the state of services, see [Management system services](#) in the JBoss EAP *Configuring basic system settings guide*.
- For more information about viewing error logs, see [Bootup logging](#) in the JBoss EAP *Configuration Guide*.

3.5. CONFIGURING JBOSS EAP INSTALLER INSTALLATION AS A SERVICE ON MICROSOFT WINDOWS SERVER

You can install JBoss EAP on Microsoft Windows Server using the installer installation method. This method provides a basic default installation of a server, with configuration files and libraries placed in standard folders. The default installation of the server contains a **service.bat** script that you can use with Jsvc to stop and start JBoss EAP.



NOTE

If you use the **set** command to set system environment variables in a Windows Server command prompt it does not permanently set the environment variables. You must use either the **setx** command, or the **System** interface in the **Control Panel**.

Prerequisites

- Install the JBoss EAP installer.
- Ensure that you administrator privileges on the server.
- Set the JAVA_HOME system environment variable.
- Ensure that you have an instance of the JBoss EAP server that is not running.

Procedure

The procedure for configuring JBoss EAP installer installation as a service in Microsoft Windows Server is similar to that of the archive installation method. See [Configuring JBoss EAP archive installation as a service on Microsoft Windows Server](#).

3.6. INSTALLING AND RUNNING THE JBOSS EAP INSTALLER INSTALLATION BY USING JSVC

You can use the Apache Java Service (Jsvc) component of the JBoss Core Services [Apache HTTP Server Installation Guide](#) collection to run JBoss EAP as a detached service, a daemon, on Red Hat Enterprise Linux (RHEL).



WARNING

Although Jsvc works on RHEL, we strongly recommend that you use the [native methods](#) for running JBoss EAP as a service on RHEL.

Jsvc is a set of libraries and applications that provide Java applications the ability to run as a background service. Applications run using Jsvc can perform operations as a privileged user, then switch identity to a non-privileged user.

Prerequisites

- Install the JBoss EAP installer.
- Ensure that you administrator privileges on the server.
- Set the JAVA_HOME system environment variable.
- Ensure that you have an instance of the JBoss EAP server that is not running.

Procedure

The procedure for configuring the JBoss EAP installer installation by using Jsvc is similar to that of the archive installation method. For more information refer to the following sections in the [JBoss EAP Installation Guide](#):

- [Installing and starting JBoss EAP installer installation by using Jsvc](#)
- [Jsvc commands to start or stop JBoss EAP as a standalone server](#)
- [Jsvc commands to start or stop JBoss EAP on a managed domain](#)
- *Optional:* [Configuring JBoss EAP installer installation as a service on Microsoft Windows Server](#)

Additional resources

- For information about controlling JBoss Core Services, see [Configuring the Apache HTTP Server Installation](#) in the [Apache HTTP Server Installation Guide](#).

- For information about configuring a JBoss EAP archive installation as a service using Jsvc, see [Archive installation of JBoss EAP](#).
- For information about configuring a JBoss EAP installer installation on a Microsoft Windows server, see [Configuring JBoss EAP installer installation as a service on Microsoft Windows Server](#).

3.7. USING THE AUTOMATED INSTALLER INSTALLATION

If you used the installer installation 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 backward compatible. You cannot use an installation script generated from a previous version of JBoss EAP with the automated installer. Only use installation scripts generated by the same minor version of JBoss EAP. For example JBoss EAP 7.4.

Prerequisites

- Use the installer installation to generate an automatic installation script.
 - The automatic installation script is an XML file.

Procedure

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

```
$ java -jar jboss-eap-7.4.0-installer.jar auto.xml
```

By default, the installer prompts 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-7.4.0-installer.jar http://network-host.local/auto.xml
```

```
$ java -jar jboss-eap-7.4.0-installer.jar ftp://network-host.local/auto.xml
```

Additional resources

- See Unattended automated installer installation in the JBoss EAP *Installation Guide*.

3.8. UNATTENDED AUTOMATED INSTALLER INSTALLATION

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.

The 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.

3.9. PROVIDING THE PASSWORD AS AN ARGUMENT IN THE INSTALLER COMMAND

You can edit the **.variables** file in a text editor and provide a password value for each key. You can then run the installer by using the automatic installation script. The installer detects the variables file automatically if the completed variables file is in the same directory as the installation script XML file. Additionally, you must not have modified variables file name.

Prerequisites

- Use the JBoss EAP installer to generate an automatic installation script.
 - The automatic installation script is an XML file.

Procedure

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

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

2. Run the installer using the automatic installation script XML file:

```
$ java -jar jboss-eap-7.4.0-installer.jar auto.xml
```

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

```
...
```

3.10. PROVIDING THE PASSWORD AS A COMPLETED VARIABLES FILE

You can use the **-variablefile** option in the management CLI to specify a path to the variables file. You can then run the installer using the automatic installation script to specify passwords as key or value pairs using the **-variables** argument.

Prerequisites

- Use the JBoss EAP installer to generate an automatic installation script.
 - The automatic installation script is an XML file.

Procedure

1. Specify the path to the variables file using **-variablefile**:

```
$ java -jar jboss-eap-7.4.0-installer.jar auto.xml -variablefile auto.xml.variables
```

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

```
$ java -jar jboss-eap-7.4.0-installer.jar auto.xml -variables
adminPassword=password#2,vault.keystorepwd=vaultkeystorepw,ssl.password=user12345
```



NOTE

Check that you have not entered any spaces when specifying the **-variables** key or value pairs.

3.11. UNINSTALLING A JBOSS EAP INSTALLER WITH THE GRAPHICAL UNINSTALLER

If you installed JBoss EAP using the installer, you can uninstall JBoss EAP using the graphical uninstaller. The graphical uninstaller offers a convenient way to uninstall the JBoss EAP installer in a few simple steps.

Prerequisites

- Install the JBoss EAP installer.
- Ensure that you administrator privileges on the server.
- Set the JAVA_HOME system environment variable.
- Ensure that you have an instance of the JBoss EAP server that is not running.

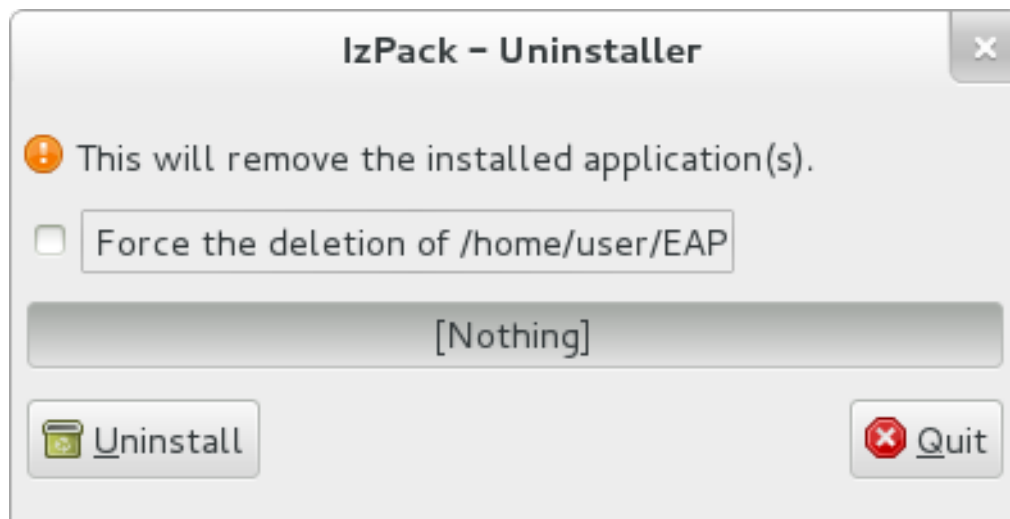
Procedure

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 the following figure. Select the check box if you want to delete the JBoss EAP installation directory.

Figure 3.15. 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.

3.12. UNINSTALLING JBOSS EAP INSTALLER INSTALLATION WITH THE TEXT UNINSTALLER

If you installed JBoss EAP using the installer, you can uninstall JBoss EAP using the text uninstaller. The text uninstaller offers a simpler way to manually uninstall the JBoss EAP installer.

Prerequisites

- Install the JBoss EAP installer.
- Ensure that you have administrator privileges on the server.
- Set the `JAVA_HOME` system environment variable.
- Ensure that you have an instance of the JBoss EAP server that is not running.

Procedure

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.

CHAPTER 4. RPM INSTALLATION OF JBOSS EAP

You can install JBoss EAP using RPM packages on supported installations of Red Hat Enterprise Linux 6, Red Hat Enterprise Linux 7, and Red Hat Enterprise Linux 8.

4.1. SUBSCRIBING TO A MINOR JBOSS EAP REPOSITORY

To install JBoss EAP with RPM, you need 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 includes patches and security updates for the minor JBoss EAP version, but *does not* include upgrades from JBoss EAP 7.4 to JBoss EAP 7.5.

Prerequisites

- 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](#).

Procedure

1. Enter the Red Hat Subscription Manager.
2. Replace **EAP_MINOR_VERSION** with your intended JBoss EAP **minor** version. For example, **7.4**.
 - a. For Red Hat Enterprise Linux 6 and 7, 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
```

- b. 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
```

4.2. INSTALLING THE JBOSS EAP RPM INSTALLATION ON RHEL

Choose the Red Hat Packet Manager (RPM) to install a minor version of JBoss EAP. Conversely, you can subscribe to the current JBoss EAP using this method.

A minor version of JBoss EAP provides a specific minor release and all applicable patches. When you subscribe to a minor version of JBoss EAP, you can remain up-to-date with high severity and security patches.

Prerequisites

- Set up an account on the [Red Hat Customer Portal](#).
- Review the [JBoss EAP 7 supported configurations](#) and ensure your system is supported.

- Download the JBoss EAP installation package.
- Register to the Red Hat Enterprise Linux server using Red Hat Subscription Manager.
- Install a supported Java Development Kit (JDK).

Procedure

1. Install JBoss EAP and JDK 8.

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

2. 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
```



NOTE

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 contains 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 by either of 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 by using the `JAVA_HOME` property. Your installation is complete. The default **EAP_HOME** path for the RPM installation is **/opt/rh/eap7/root/usr/share/wildfly**.



IMPORTANT

When using the RPM installer to install JBoss EAP, configuring multiple domain or host controllers on the same machine is not supported.

Additional resources

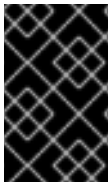
- See Setting up the **EAP_HOME** variable, in the JBoss EAP *Installation Guide*.

- See [Subscribing to a Minor JBoss EAP repository](#), in the *JBoss EAP Installation Guide*.
- For more information about changing the `JAVA_HOME` property, see the [RPM Service Configuration Properties](#) section of the Configuration Guide.

4.3. 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 is supported if changing to the *latest* minor repository.
- Changing from a *minor* repository to another *minor* repository is 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.



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.

Prerequisites

- Install JBoss EAP using the RPM installation.
- Choose a repository.
- Ensure that the JBoss EAP installation has all applicable updates applied.
 - Issue the following command on your terminal to apply the updates:

```
# yum update
```

- Comply with the supported change conditions shown above.

Procedure

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

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

4.4. CONFIGURING JBOSS EAP RPM INSTALLATION AS A SERVICE ON RHEL

You can configure the Red Hat Packet Manager (RPM) installation to run as a service in Red Hat Enterprise Linux (RHEL). An RPM installation of JBoss EAP installs everything that is required to run JBoss EAP as a service

Run the appropriate command for your RHEL, as demonstrated in this procedure. Replace **EAP_SERVICE_NAME** with either **eap7-standalone** for a standalone JBoss EAP server, or **eap7-domain** for a managed domain.



IMPORTANT

You cannot configure more than one JBoss EAP instance as a service on a single machine.

Prerequisites

- Install JBoss EAP as an RPM installation.
- Ensure that you have administrator privileges on the server.

Procedure

- 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
```

Additional resources

- To start or stop an RPM installation of JBoss EAP on demand, see the [RPM instructions](#) in the *JBoss EAP Configuration Guide*.
- See the [RPM service configuration files appendix](#) in the *JBoss EAP Configuration Guide* for further details and options.

4.5. INSTALLING JBOSS EAP RPM INSTALLATION BY USING JSVC

You can use the Apache Java Service (Jsvc) component of the JBoss Core Services collection to run JBoss EAP as a detached process, daemon, on Red Hat Enterprise Linux (RHEL). You would usually use Jsvc to run JBoss EAP on Windows or Solaris.

For best product performance, use the [native method](#) for running JBoss EAP as a service on your version of RHEL.

Jsvc is a set of libraries and applications that provide Java applications the ability to run as a background service. Applications run using Jsvc can perform operations as a privileged user and then switch identity to a non-privileged user.

Prerequisites

- Install JBoss EAP as an RPM installation.
- Ensure that you have administrator privileges on the server.

Procedure

1. Log in to the [Red Hat Customer Portal](#).
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
```

- c. Run the following command as the root user to install Apache Jsvc:

```
# yum groupinstall jbcs-jsvc
```

Additional resources

- To learn more about controlling JBoss Core Services, see [Apache HTTP Server Installation Guide](#).
- For information about installing JBoss Core Services on RHEL, see [Installing JBoss Core Services Apache HTTP Server on Red Hat Enterprise Linux](#) in the *Apache HTTP Server Installation Guide*.
- For information about installing JBoss Core Services on Windows, see [Installing JBoss Core Services Apache HTTP Server on Windows](#) in the *Apache HTTP Server Installation Guide*.
- For information about installing JBoss Core Services on Solaris, see [Installing Apache HTTP Server on Solaris](#) in the *Apache HTTP Server Installation Guide*.

4.6. JSVC COMMANDS TO START OR STOP JBOSS EAP AS A STANDALONE SERVER

Using Java Service (Jsvc), you can enter various commands for starting or stopping JBoss EAP. The following table shows a list of paths that are needed for the commands for an archive JBoss EAP installation.

Table 4.1. File Locations of Paths

File Reference in Instructions	File Location
JSVC_BIN	/usr/bin/jbcs-jsvc/jsvc
JSVC_JAR	/usr/bin/jbcs-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

The following example demonstrates starting a JBoss EAP standalone server using Jsvc with a **JSVC_BIN** \ path:

```
$ 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
```

The following example demonstrates stopping a JBoss EAP standalone server using Jsvc with a **JSVC_BIN** \ path:

```
$ 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
```

4.7. JSVC COMMANDS TO START OR STOP JBOSS EAP AS A MANAGED DOMAIN

Using Java Service (Jsvc), you can enter various commands for starting or stopping JBoss EAP. The following table shows a list of paths that are needed for the commands for an archive JBoss EAP installation.

Table 4.2. File Locations of Paths

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

The following example demonstrates starting a JBoss EAP domain server using Jsvc with a **JSVC_BIN** path. Before you issue the following command, set the **JAVA_HOME** system environment variable.

```
$ 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 \
```

The following example demonstrates stopping a JBoss EAP domain server using Jsvc with a **JSVC_BIN** path.

```
$ 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

```

4.8. UNINSTALLING A JBOSS EAP RPM INSTALLATION



WARNING

Uninstalling a JBoss EAP installation that is 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 are completely removed, or that the system is not left in an inconsistent state caused by missing package dependencies.

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