How to Install Apache ActiveMQ on CentOS 7

<https://www.vultr.com/docs/how-to-install-apache-activemq-on-centos-7>

Apache ActiveMQ is a free, open source messaging and integration pattern server which is widely used in enterprise software development.

In this tutorial, I will explain how to install the binary distribution of Apache ActiveMQ on CentOS 7.

Prerequisites

* A fresh Vultr CentOS 7 server instance with the server IP 203.0.113.1.
* A [sudo user](https://www.vultr.com/docs/how-to-use-sudo-on-debian-centos-and-freebsd).
* Java 7 or greater.

Step 1: Update the system

Log into your server as a sudo user from an SSH terminal, and then install all available updates using the EPEL YUM repo:

sudo yum install epel-release -y

sudo yum update -y

sudo shutdown -r now

After the system reboot, log back in as the same sudo user.

Step 2: Install OpenJDK JRE 8

Apache ActiveMQ 5.x requires Java 7 or greater. Here, we'll install OpenJDK 8 JRE using YUM:

sudo yum install -y java-1.8.0-openjdk

Then, use the following command to verify the installation result:

java -version

The output should resemble:

openjdk version "1.8.0\_111"

OpenJDK Runtime Environment (build 1.8.0\_111-b15)

OpenJDK 64-Bit Server VM (build 25.111-b15, mixed mode)

Setup the JAVA\_HOME environment variable:

echo "JAVA\_HOME=$(readlink -f /usr/bin/java | sed "s:bin/java::")" | sudo tee -a /etc/profile

source /etc/profile

Step 3: Install Apache ActiveMQ

You can always get the latest stable release of Apache ActiveMQ from its [official release page](https://archive.apache.org/dist/activemq/). At the time of writing this article, the latest release is 5.15.12.

cd

wget https://archive.apache.org/dist/activemq/5.15.12/apache-activemq-5.15.12-bin.tar.gz

sudo tar -zxvf apache-activemq-5.15.12-bin.tar.gz -C /opt

For your convenience, you can create a version-independent soft link pointing to the directory in which current release of Apache ActiveMQ resides. This practice is helpful for future updates.

sudo ln -s /opt/apache-activemq-5.15.12 /opt/activemq

Step 4: Create a Systemd unit file for Apache ActiveMQ

You can launch Apache ActiveMQ by running its executable file as shown in the following example.

cd /opt/activemq

sudo ./bin/activemq start

However, you may prefer to run ActiveMQ through a Systemd unit file. Create the unit file.

sudo vi /usr/lib/systemd/system/activemq.service

Populate the file with:

[Unit]

Description=activemq message queue

After=network.target

[Service]

PIDFile=/opt/activemq/data/activemq.pid

ExecStart=/opt/activemq/bin/activemq start

ExecStop=/opt/activemq/bin/activemq stop

User=root

Group=root

[Install]

WantedBy=multi-user.target

Save and quit:

:wq!

With the unit file in place, you can use Systemd to easily start or stop Apache ActiveMQ.

sudo systemctl enable activemq.service

sudo systemctl start activemq.service

sudo systemctl stop activemq.service

Step 5: Access the Apache ActiveMQ web console

When Apache ActiveMQ is running, you can access its web console using your web browser.

Start Apache ActiveMQ:

sudo systemctl start activemq.service

Modify firewall rules in order to allow access to port 8161:

sudo firewall-cmd --zone=public --permanent --add-port=8161/tcp

sudo firewall-cmd --reload

Now, point your web browser to http://203.0.113.1:8161/admin and log in using the default credentials.

* username: admin
* password: admin

The username and password can be configured in the /opt/activemq/conf/jetty-realm.properties file.