

# Mobicents Installation and Configuration

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Note that for this tutorial the Windows version of Mobicents was used and the working directory was simply called “**Mobicents**”. This tutorial is mostly copy-pasted from the “Mobicents User Guide”, but enhanced to parts, where more explanation is needed.

## Requirements

Mobicents needs the following software in order to work correctly:

- Java Development Kit (JDK 1.5 recommended)
- Ant
- Maven

## Java Development Kit

### Installing

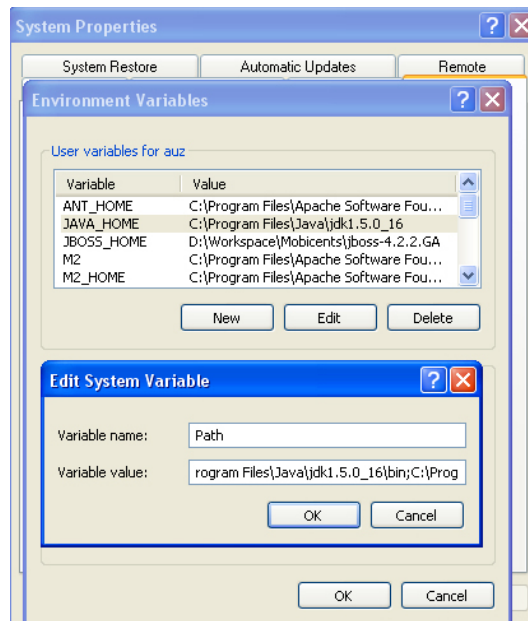
Mobicents is written in Java; therefore, before running any Mobicents server, you must have a working Java Development Kit (JDK) installed on your system. In addition, the JDK you are using to run Mobicents must be version 1.5 (a.k.a. “Java 5”) or higher.

You can download the Sun JDK 5.0 (Java 2 Development Kit) from Sun's website “[http://java.sun.com/javase/downloads/index\\_jdk5.jsp](http://java.sun.com/javase/downloads/index_jdk5.jsp)”. After the download is finished, simply double-click the downloaded self-extracting installer and follow the instructions to install the JDK.

### Configuring

In order to make the JDK work correctly, you have to set the “**JAVA\_HOME**” environment variable and you have to put the binary directory into your “**PATH**” variable. You can set these variables by going to your “**Control Panel**” and click on “**System**”. Under the “**Advanced**” tab, you will find the “**Environmental Variables**”.

It is assumed that your JDK installation is located under “C:\Program Files\Java\jdk1.5.0\_16”.  
Your variables should look this:



**Figure 1: Environmental Variables**

Finally, to make sure that you are using the correct JDK or Java version (1.5 or higher), and that the java executable is in your PATH, run the “**java -version**” command in the terminal:

```
C:\>java -version
java version "1.5.0_16"
Java(TM) 2 Runtime Environment, Standard Edition (build 1.5.0_16-b02)
Java HotSpot(TM) Client VM (build 1.5.0_16-b02, mixed mode)
```

**Figure 2: Running Java in the terminal**

If you see the same as displayed in the screenshot, your JDK is successfully installed.

## Ant

In order to deploy various examples and services in Mobicents, you need to install and configure Apache Ant. You can download it at “<http://ant.apache.org/bindownload.cgi>”.

Just extract the content of the ZIP file into a directory of your choice. For this tutorial it is assumed that you placed the files into the directory “C:\Program Files\Apache Software Foundation\Ant”.

Before you can run Ant there is some additional set up you will need to do. Therefore add the “C:\Program Files\Apache Software Foundation\Ant\bin” directory to your “**PATH**”. And set the “**ANT\_HOME**” environment variable to the directory where you installed Ant (here it would be “C:\Program Files\Apache Software Foundation\Ant”, see “Figure 1: Environmental Variables”).

Now you can check the basic installation by opening a new shell and typing “**ant**” and “**ant -version**”. You should get a message like this:

```
C:\>ant
Buildfile: build.xml does not exist!
Build failed
C:\>ant -version
Apache Ant version 1.7.1 compiled on June 27 2008
C:\>
```

**Figure 3: Running Ant in the terminal**

If you see the message above, Ant is successfully installed and configured.

## Maven

Mobicents provides the possibility to build all the examples and services from the source code. In order to be able to do that, you need to install and configure Maven.

You can download the latest version of Maven at “<http://maven.apache.org/download.html>”. Unzip the distribution archive to the directory you wish to install Maven. These instructions assume you chose “C:\Program Files\Apache Software Foundation\Maven”.

Add the “**M2\_HOME**” environment variable with the value “C:\Program Files\Apache Software Foundation\Maven”. Be sure to omit any quotation marks around the path even if it contains spaces. In the same dialog, add the “**M2**” environment variable in the user variables with the value “C:\Program Files\Apache Software Foundation\Maven\bin”. Then add the “**PATH**” variable value “C:\Program Files\Apache Software Foundation\Maven\bin” to make Maven available in the command line (see “Figure 1: Environmental Variables”).

Open a new command prompt and run “**mvn -version**” to verify that it is correctly installed.

```
C:\>mvn --version
Maven version: 2.0.9
Java version: 1.5.0_16
OS name: "windows xp" version: "5.1" arch: "x86" Family: "windows"
C:\>
```

Figure 4: Running Maven in the terminal

## Installing Mobicents

The Mobicents binary distribution is comprised of – and comes bundled with – all of the following components:

- the JBOSS Application Server
- the Mobicents JAIN SLEE Server
- the Mobicents Media Server
- the Mobicents SIP Servlets Server
- the Mobicents SIP Presence Service
- a large number of resource adapters
- multiple demonstration examples

Mobicents can be installed by downloading the ready-to-go binary distribution, or, alternately, the source code can be obtained using the Subversion version control system (VCS) and then Mobicents can be built from source. Installing the binary distribution is recommended for most users, and obtaining and building the source code distribution is recommended for those who want access to the latest revisions and capabilities.

You can download the latest version of the Mobicents from “[http://sourceforge.net/project/showfiles.php?group\\_id=102670](http://sourceforge.net/project/showfiles.php?group_id=102670)”. The top row of the table holds the latest version.

Just extract the downloaded ZIP file into a directory of your choice. It is assumed that your working directory is called “Mobicents”.

Once installed, make sure that the “**JBOSS\_HOME**” environment variable is set and is pointing to the Mobicents JAIN SLEE Server directory, i.e. “Mobicents\jboss-4.X.Y.GA” (see “Figure 1: Environmental Variables”).

## Starting Mobicents

Now you can run the Mobicents JAIN SLEE Server by executing the one of the startup scripts in the “Mobicents\jboss-4.X.Y.GA\bin” directory, or by double-clicking the “**run.bat**” executable batch file in that same directory. However, we suggest always starting the JAIN SLEE Server using the terminal, because you are then able to read – and act upon – any startup messages, and possibly debug any problems that might arise. In the terminal, you will be able to tell that the JAIN SLEE Server started successfully if the last line of output is similar to the following (ending with “Started in e.g. 25s:527ms”):

```
14:42:41,625 INFO [ManagementConsole] Mobicents Management Console initialized
14:42:41,984 INFO [TomcatDeployer] deploy, ctxPath=/mobicents, warUrl=../tmp/d
eploy/tmp5594mobicents-exp.war/
14:42:42,203 INFO [Http11Protocol] Starting Coyote HTTP/1.1 on http-127.0.0.1-8
000
14:42:42,343 INFO [AjpProtocol] Starting Coyote AJP/1.3 on ajp-127.0.0.1-8009
14:42:42,359 INFO [Server] JBoss (MX MicroKernel) [4.2.3.GA (build: SUNTag=JBos
s_4_2_3_GA date=200807181417)] Started in 1m:24s:312ms
```

Figure 5: Mobicents JSLEE Server Output

## Stopping Mobicents

Assuming that you started the JAIN SLEE Server as a foreground process in the terminal, the easiest way to stop it is by pressing the “**Ctrl + C**” key combination in the same terminal in which you started it.

## Resources

“Mobicents – User Guide”, [http://groups.google.com/group/mobicents-public/web/chapter-Installation\\_of\\_the\\_Mobicents\\_Converged\\_Application\\_Server.html](http://groups.google.com/group/mobicents-public/web/chapter-Installation_of_the_Mobicents_Converged_Application_Server.html), 12/03/2008

“Apache Ant – User Manual”, <http://ant.apache.org/manual/index.html>, 12/10/2008

“Apache Maven”, <http://maven.apache.org/download.html>, 12/10/2008