

How to build Restcomm-Connect/sip-
servlets from source (updated on
18/05/2016)

Table of Contents

Requirements	1
Obtaining git URL	1
Restcomm-Connect/sip-servlets cloning	1
Restcomm-Connect/sip-servlets building	2
Start Restcomm-Connect/sip-servlets	2
Stop Restcomm-Connect/sip-servlets	3
Restcomm-Connect/sip-servlets testing, sending traffic	3
Restcomm-Connect/sip-servlets IP Address configuration	3
Restcomm-Connect/sip-servlets logs configuration, logs collection	4
Restcomm-Connect/sip-servlets	5

Requirements

- You must have [git](#) installed on your computer
- You must have [ant](#) installed on your computer
- You must have [JDK - 7](#) installed on your computer
- You must be running [maven](#) version 3.x.x on your computer

Obtaining git URL

- Go to [sip-servlets git](#). You will see the page like this one below. Copy the URL in the **HTTPS** field. The URL should look like this: <https://github.com/RestComm/sip-servlets.git>

5,198 commits		52 branches		77 releases		8 contributors	
Branch: master		New pull request		New file		Find file	
HTTPS		https://github.com/RestC		Download ZIP			
deruelle Fixing old scripts				Latest commit b6c0e5e 6 days ago			
build	Adding WSS connector to tomcat server.xml			15 days ago			
containers	Adding more DEBUG logs to help investigate Cloud issues			8 days ago			
docs	header doc modifications			28 days ago			
management	#6 optional params are properly parsed when read from server, and pre...			8 months ago			
sip-servlets-annotations	Migrating a bit more the naming to restcomm			4 months ago			
sip-servlets-application-router	Migrating a bit more the naming to restcomm			4 months ago			
sip-servlets-arquillian-testsuite	MSS-119 #Comment test for the issue			2 years ago			
sip-servlets-client	fixes #126			a month ago			
sip-servlets-core-api	Merge branch 'issue-#101' into github-master			2 months ago			
sip-servlets-examples	Issue #95			4 months ago			
sip-servlets-impl	Adding more DEBUG logs for bypass LB property setting			6 days ago			
sip-servlets-jruby	Migrating a bit more the naming to restcomm			4 months ago			
sip-servlets-spec	Migrating a bit more the naming to restcomm			4 months ago			
sip-servlets-test-suite	Fixing old scripts			6 days ago			
.gitignore	refactor 1.0 - deployment, deploymentinfo, servletcontext, sessionman...			11 months ago			
README.md	Update README.md			3 months ago			
pom.xml	Moving to latest JAIN SIP			9 days ago			

Restcomm-Connect/sip-servlets cloning

In the bash window of your local computer create a directory where you should clone Restcomm-Connect/sip-servlets:

- Run the command :

```
git clone https://github.com/RestComm/sip-servlets.git
```

- This command will create a new directory called sip-servlets. Go to this directory by entering the command:

```
cd sip-servlets
```

The content of the directory should contain the following:

```
build      management  sip-servlets-annotations  sip-servlets-client  sip-servlets-impl  sip-servlets-test-suite
containers pom.xml    sip-servlets-application-router  sip-servlets-core-api  sip-servlets-jruby
docs      README.md  sip-servlets-arquillian-testsuite  sip-servlets-examples  sip-servlets-spec
```

Restcomm-Connect/sip-servlets building

- From sip-servlets folder, go to release folder by entering the command:

```
cd ../build/release
```

- At this folder, **build.xml** is the file shall be used by ant application to build sip-servlets source code. To build this source, entering the command:

```
ant -buildfile ../build.xml
```

This may take a while to build. If the build is successful, you should see this output at the end of the build:

```
release:

BUILD SUCCESSFUL
Total time: 42 minutes 11 seconds
```

Start Restcomm-Connect/sip-servlets

- At this tutorial, we will use tomcat-8 for running application. From .../sip-servlets/build/release, go to tomcat-8 bin folder by command:

```
cd ../target/apache-tomcat-8.0.26/bin
```

- Change permission:

```
sudo chmod +x catalina.sh
```

- Start server:

```
./catalina.sh run
```

You need to wait until terminal prints out below info

```
May 19, 2016 7:19:18 AM org.apache.catalina.startup.Catalina start  
INFO: Server startup in 4751 ms
```

For more information, you can read at [Restcomm-Connect starting with as7 2.2](#)

Stop Restcomm-Connect/sip-servlets

To stop Restcomm-Connect/sip-servlets, on terminal where Restcomm-Connect/sip-servlets was started, press Ctrl+C.

Restcomm-Connect/sip-servlets testing, sending traffic

Please refer [Restcomm-Connect starting with as7 2.2.1](#)

Restcomm-Connect/sip-servlets IP Address configuration

At default 127.0.0.1 is the ip address of server. If you want to change the IPAddress of the server, From .../sip-servlets/build/release, go to tomcat-8 conf folder by command:

```
cd ./target/apache-tomcat-8.0.26/conf/
```

Open **server.xml** file, replace all "127.0.0.1" to "one of ipaddresses which your machine has". For example, if machine has interface: eth0 ip 192.168.1.7, please replace "127.0.0.1" by "192.168.1.7". You also can change the port of server in this file.

- On Linux, entering command:

```
vi server.xml  
  
:%s/127.0.0.1/192.168.1.7/g
```

The output should be like down below:

```

<!-- Define an AJP 1.3 Connector on port 8009 -->
<Connector port="8009" protocol="AJP/1.3" redirectPort="8443" />

<!-- Define a SIP Connector on port 5080 -->
<Connector port="5080"
    ipAddress = "192.168.1.7"
    protocol="org.mobicenss.servlet.sip.startup.SipProtocolHandler"
    signalingTransport="udp"/>

    <!-- Define the default TCP SIP Connector -->
<Connector port="5080"
    ipAddress = "192.168.1.7"
    protocol="org.mobicenss.servlet.sip.startup.SipProtocolHandler"
    signalingTransport="tcp"/>

<!-- Define the default TLS SIP Connector -->
<Connector port="5081"
    ipAddress = "192.168.1.7"
    protocol="org.mobicenss.servlet.sip.startup.SipProtocolHandler"
    signalingTransport="tls"/>

<!-- Define the default SIP Over WebSockets Connector -->
<Connector port="5082"
    ipAddress = "192.168.1.7"
    protocol="org.mobicenss.servlet.sip.startup.SipProtocolHandler"
    signalingTransport="ws"/>

<!-- Define the default Secure SIP Over WebSockets Connector -->
<Connector port="5083"
    ipAddress = "192.168.1.7"
    protocol="org.mobicenss.servlet.sip.startup.SipProtocolHandler"
    signalingTransport="wss"/>

```

Restcomm-Connect/sip-servlets logs configuration, logs collection

For getting logs to debug or tracing flow of the code, you can enable a lot of log levels: INFO, WARNING, DEBUG ..etc.

- From ../sip-servlets/build/release, go to tomcat-8 lib folder by commnad:

```
cd ../target/apache-tomcat-8.0.26/lib
```

At default, the printout from sip-servlets application is at INFO level. To get more information from the source, adding more log level to configuration file named log4j.xml

Original content:

```
<category name="org.mobicients">
  <priority value="INFO" />
</category>
<category name="gov.nist">
  <priority value="INFO" />
</category>

<root>
  <priority value = "INFO" />
  <appender-ref ref="rolling-file" />
  <appender-ref ref="console" />
</root>
```

Changed Content:

```
<category name="org.mobicients">
  <priority value="INFO,DEBUG" />
</category>
<category name="gov.nist">
  <priority value="INFO,DEBUG" />
</category>

<root>
  <priority value = "INFO,DEBUG" />
  <appender-ref ref="rolling-file" />
  <appender-ref ref="console" />
</root>
```

Restcomm-Connect/sip-servlets

Thanks for reading