# Installation and setup of ANTISPAM

 $\Diamond$ 

ANTRAX 2015



# **INSTALLATION STEPS**

- | Development and configuration of the project
- | Development of the project
- | Interface components
- | Configuration of the project

# **DEVELOPMENT AND CONFIGURATION OF THE PROJECT**

To develop the project it is necessary to install Apache Tomcat: http://tomcat.apache.org/download-70.cgi

# Installation and setup of Apache Tomcat for Linux

- We need to download the file with extension .zipili .tar.tgz
- Unpack the archive to the catalogue /opt
- Create a user tomcat with the help of the command adduser tomacat assign the owner and group of the unpacked catalogue chown -R tomcat: tomcat apache-tomcat- [version] / in file (opt/apache-tomcat-[version]/bin/catalina.sh, replace \$ 14VA\_OPTSpa\_-Xms256m

in file /opt/apache-tomcat-[version]/bin/catalina.sh replace \$ JAVA\_OPTSna -Xms256m -Xmx512m in lines

JAVA\_OPTS = "\$ JAVA\_OPTS-Djava.util.logging.manager = org.apache.juli.ClassLoaderLog-Manager"

JAVA\_OPTS = "\$ JAVA\_OPTS \$ LOGGING\_MANAGER"

- copy the file tomcatv /etc/init.d
- run tomcat with the help of the command /etc/init.d/tomcat start check whether Tomcat has started, to do it in the browser write down in the address bar a line like [ip: 8080]. If a homepage of Apache Tomcat has opened, Tomcat is successfully installed and run

| Apache Tomcat   |                 |
|---|-----------------|
| Search the Site Search  |                 |
| Tomcat 7 Downloads  |                 |
| Welcome to the Apache Tomcat <sup>110</sup> 7.x download page. This page provides download links for obtaining the latest version of Tomcat 7.0.x, as well as links to the archives of older releases.  |                 |
| Quick Navigation  |                 |
| KEYS   Z.0.61   Browse   Archives   |                 |
| Release Integrity   |                 |
| You must verify the integrity of the downloaded files. We provide OpenPGP signatures for every release file. This signature should be matched against the KEYS file which contains the OpenPGP keys of Tomcat's Release Managers. We also provide NDS and SHA-1 checksums for every release file. After you download the file, you should calculate a checksum for your download, and make sure it is the same as ours. |                 |
| Mirrors   |                 |
| You are currently using http://apache.volia.net/. If you encounter a problem with this mirror, please select another mirror. If all mirrors are failing, there are <i>backup</i> mirrors (at the end of the mirrors list) that should be available.<br>Other mirrors: [http://apache.volia.net/  Change   |                 |
| 7.0.61  |                 |
| Please see the <u>README</u> file for packaging information. It explains what every distribution contains.  |                 |
| Binary Distributions  |                 |
| Core:   |                 |
| 32-bit Windows zip (ggp, md5, sha1)     64-bit Windows zip (ggp, md5, sha1)     64-bit Haimi Windows zip (ggp, md5, sha1)   |                 |
| <ul> <li>32-bit/64-bit Windows Service Installer (pgp. md5, sha1)</li> </ul>  |                 |
| Full documentation: <ul> <li>targright growth Shall</li> </ul>  |                 |
| Deployer:     Deployer:   |                 |
| ◇ zip (pgp, md5 sha1)   |                 |
| ◇ tar.gz (ogo, md5, sha1)   |                 |
| MX Remote jar (pgp. md5, sha1)  |                 |
| Web services jar (pgp. md5. sha1)   |                 |
|   | Apache Tonnical |

To stop tomcat execute command /etc/init.d/tomcat stop

# **DEVELOPMENT OF THE PROJECT**

copy archive voipantispam.war in the catalogue / opt / apache-tomcat- [version] / webapps enter the web-interface of the project, to do it in the browser put in the address bar the line like [ip: 8080 / voipantispam]

# **INTERFACE COMPONENTS**

**Statistics Tab** 



Chart Routing request displays statistics of the amount of incoming calls during 24 hours



Chart Block number displays statistics of the amount of number blocking during 24 hours

White List

| Show 10 Centries     | number       | A                  |             | status         |
|----------------------|--------------|--------------------|-------------|----------------|
| 22708003063          |              |                    | manual      |                |
| 22708003064          |              |                    | manual      |                |
| 22708003066          |              |                    | manual      |                |
|                      |              |                    |             |                |
|                      |              |                    |             |                |
| Clear Add to White L | ist Bulk Del | Selected Del Impor | t from File | Export to File |

|                     |    | Search:               |      |
|---------------------|----|-----------------------|------|
| add time            | \$ | routing request count | \$   |
| 2013-10-10 17:32:07 | 0  |                       |      |
| 2013-10-10 17:32:07 | 0  |                       |      |
| 2013-10-10 17:32:07 | 0  |                       |      |
|                     |    | First Previous 1 Next | Last |

In this chart there are the numbers that have call duration more than a given one (by default is 1 minute) for a certain period of time (by default is 10 minutes) with the given amount (by default is 2 calls) .That is, if during 10 minutes there were 2 calls with duration of more than 1 minute, then this number goes to the white list. It is possible to add numbers to the white list manually. Parameters for the filter are specified in a file that is in the resources of the projects.

# **Description of the fields**

number - the number itself

status - status of the number in the list (displays the filter parameters at the time of the number blocking), can be:

manual - number is added manually

auto - number is added automatically during the analysis of conformity of the above conditions for entry to the white list

add time - while adding numbers

routing request count - the amount of requests for routing after the number's transfer to the white list

## Description of the buttons purpose

Clear - cleaning of the number chart

Add To White List – adding of the numbers to the white list

Bulk Del - mass removing of the numbers. In the dialog window there are numbers for removing. In the function of the divider is used any non-numeric character.

Selected Del – removing of the selected numbers in the table

Import from File - adds the data from the file. In the function of the divider is used any non-numeric character.

Export To File – adds the data from a chart to a file with the extension .csv

Gray List

| Show 10 v entries |          |                     |
|-------------------|----------|---------------------|
| number            | status 0 | block time          |
| 22508003063       | routing  | 2013-09-16 13:59:21 |
| 22508078844       | routing  | 2013-09-24 17:08:14 |
| 22508125403       | routing  | 2013-09-24 17:27:26 |
| 22508479709       | routing  | 2013-09-16 13:59:18 |
| 22508864483       | routing  | 2013-09-24 17:09:51 |
| 22509005513       | routing  | 2013-09-24 17:48:08 |
| 22509390128       | routing  | 2013-09-24 17:44:33 |
| 22509427010       | routing  | 2013-09-24 17:31:44 |
| 22509655071       | routing  | 2013-09-24 17:35:22 |
| 22509810629       | routing  | 2013-09-16 15:50:29 |
|                   |          |                     |

Clear Bulk Del

Selected Del Selected to Black List

The numbers are added to this chart on the basis of filtration algorithms: Filtration algorithm of the routing requests to: If during a definite period of time the number has passed a certain amount of calls that exceeds a predetermined maximum amount of requests for the gray list.

If the number goes to the gray list and this number continues to receive the calls intensively (amount of calls exceeds the maximum during a definite period of time), that is the number blocking is prolonged. Filtration algorithm of the call duration:

If calls with short duration exceeded the maximum amount of the calls allowed during a certain period of time, this number goes to the gray list.

After the time of blocking finishes, the number is no longer considered blocked, but it is for further control.

Parameters for the filters are set on the tab Config.

|   |             | Search:                     |                               |
|---|-------------|-----------------------------|-------------------------------|
|   | block count | \$<br>block time left 🛛 🗢   | routing<br>request ¢<br>count |
| 1 |             | 2013-09-16 14:59:21         | 25                            |
| 1 |             | 2013-09-24 18:08:14         | 9                             |
| 1 |             | 2013-09-24 18:27:26         | 14                            |
| 1 |             | 2013-09-16 14:59:18         | 10                            |
| 1 |             | 2013-09-24 18:09:51         | 12                            |
| 1 |             | 2013-09-24 18:48:08         | 9                             |
| 1 |             | 2013-09-24 18:44:33         | 9                             |
| 1 |             | 2013-09-24 18:31:44         | 17                            |
| 1 |             | 2013-09-24 18:35:22         | 17                            |
| 1 |             | 2013-09-16 16:50:29         | 10                            |
|   |             | First Previous 1 2 3 4 5 No | ext Last                      |

#### Description of the fields

#### number - the number itself

status - status of the number in the list (displays the filter parameters at the time of the number blocking), can be:

routing - the number is added to the list because it exceeded the allowed amount of routing requests (filtration algorithm of the routing requests) acd - number is added to the list due to the short duration (filtration algorithm of the call duration)

block time - start time of the last blocking

block count - the total amount of blocking

block time left - time of the unblocking. If the number is blocked, the field block time will be highlighted in red routing request count - the amount of routing requests after the number entered the gray list

#### Description of the purpose of the buttons

#### Clear - cleaning of the number chart

Bulk Del-mass removing of the numbers. In the dialog window there are numbers for removing. In the function of the divider is used any non-numeric character. Selected Del – removing of the selected numbers in the table Selected To Black List – moving the numbers to the black list

#### Таблица Black List - список черных номеров

Black List

Clear

Add to Black List

|             | number | st     | atus 🗢 |
|-------------|--------|--------|--------|
| 22501109841 |        | manual |        |
| 22501110046 |        | manual |        |
| 22501110165 |        | manual |        |
| 22501110238 |        | manual |        |
| 22501110243 |        | manual |        |
| 22501110545 |        | manual |        |
| 22501111003 |        | manual |        |
| 22501111076 |        | manual |        |
| 22501111290 |        | manual |        |
| 22501111420 |        | manual |        |
|             |        |        |        |

Import from File

|                     |            |     | Search:               | ]  |
|---------------------|------------|-----|-----------------------|----|
|                     | add time 🗘 |     | routing request count | \$ |
| 2012-11-30 17:03:59 |            | 86  |                       |    |
| 2012-11-30 17:03:59 |            | 66  |                       |    |
| 2012-11-30 17:03:59 |            | 112 |                       |    |
| 2012-11-30 17:03:59 |            | 169 |                       |    |
| 2012-11-30 17:03:59 |            | 70  |                       |    |
| 2012-11-30 17:03:59 |            | 68  |                       |    |
| 2012-11-30 17:03:59 |            | 206 |                       |    |
| 2012-11-30 17:03:59 |            | 188 |                       |    |
| 2012-11-30 17:03:59 |            | 226 |                       |    |
| 2012-11-30 17:03:59 |            | 165 |                       |    |

The numbers in this table are added on the basis of the filtration algorithms

Bulk Del

Selected Del

#### Filtration algorithm for routing requests:

If during a definite period of time the number has passed a certain amount of calls that exceeds a predetermined maximum amount of requests for the black list. If the amount of blocking in the gray list according to the filtration algorithm of the routing requests exceeded the maximum allowed value, this number is transferred from the gray list to black list.

#### Filtration algorithm of call duration:

If the amount of blocking in the gray list according to the filtration algorithm of the call duration exceeded maximum allowed value, this number is transferred from gray list to black list.

Complementary to algorithms it is possible to add numbers in this table manually. The numbers of this list always are considered blocked. Parameters for the filters are set on the tab "Config".

# Description of the fields

Export to File

number - the number itself

status - status of the number in the list (displays the filter parameters at the time of the number blocking), can be: manual - number is added manually

First Previous 1 2 3 4 5 Next Last

routing - the number is added to the list because it exceeded the allowable amount of routing requests or blocking in the gray list (filtration algorithm of roting requests)

acd - number is added to the list due to the exceeding of the allowable amount of blocking in the grey list (filtration algorithm of the call duration)

add time – time of number adding routing request count - the amount of routing requests after the number entered the black list

#### Description of the purpose of the buttons

Clear - cleaning of the number chart

Add To White List – adding of the numbers to the black list Bulk Del - mass removing of the numbers. In the dialog window there are numbers for removing. In the function of the divider is used any non-numeric character.

Selected Del – removing of the selected numbers in the table Import from File - adds the data from the file. In the function of the divider is used any non-numeric character.

Export To File – adds the data from a chart to a file with the extension .csv

# Config TabNumbers filter config chart — consists of the parameters for filtration of the numbers

Numbers filter config

|  | White List |
|--|------------|
| add prefix                               |            |
|  | Gray List  |
| add prefix                               |            |
| period                                   |            |
| max routing request per period           |            |
| block period                             |            |
| 🗹 ACD analize                            |            |
| period                                   |            |
| max min acd call per period              |            |
| min acd                                  |            |
|  | Black List |
| add prefix                               |            |
| period                                   |            |
| max routing request per period           |            |
| max block count befor move to black list |            |

Set Filter Configs

#### **Section White List**

add prefix — prefix line, which is added to the number for reference of the fact that the number is in white list

#### **Section Gray List**

**add prefix** - prefix line, which is added to the number for reference of the fact that the number is in gray list **period** - period of time during which the system calculates the amount of routing requests (calls), minutes **max routing request per period** - the maximum amount of routing requests (calls) during definite period of time **block period** - the time interval when the number is blocked in the gray list, minutes

#### **Section Black List**

add prefix -prefix line, which is added to the number for reference of the fact that the number is in black list
 period - period of time during which the system calculates the amount of routing requests (calls), minutes
 max routing request per period - the maximum amount of routing requests (calls) during definite period of time
 max block count befor move to black list — maximum amount of number blocking in the gray list, after which the number is transferred automatically to the black list

#### **Section ACD analize**

period — time interval during which the system calculates the calls with short duration
 max min acd call per period — maximum amount of the calls with short duration before going to the gray list
 min acd — minimum value of the call duration for entering the gray list

If the number is in any of the lists it will be assigned a corresponding prefix that is already analyzed in the MVTS. Installation of new values is done by pressing the button Set Filter Configs

# Server Config chart – contains parameters for the port of the RADIUS server and parameters of the client's configuration (MVTS)

Server Config

| radius port            |  |
|------------------------|--|
| client 1 ip            |  |
| client 1 port          |  |
| client 1 shared secret |  |
| client 2 ip            |  |
| client 2 port          |  |
| client 2 shared secret |  |
| client 3 ip            |  |
| client 3 port          |  |
| client 3 shared secret |  |
| ✓ Enable Proxy Server  |  |
| proxy ip               |  |
| proxy auth port        |  |
| proxy acct port        |  |
| proxy shared secret    |  |

radius port - port on which RADIUS server will receive the requests

**client n ip** — client's ip, which will send the requests (calls)

client n port — client's port, which will send the requests (calls)

client n shared secret — client's password (secret), which will send the requests (calls)

## Section Enable Proxy Server- consists of parameters for proxy regime

**proxy ip** — client's ip, to which the requests (calls) will be transferred

proxy auth port — client's authentication port, to which the requests (calls) will be transferred

proxy acct port — client's accounting port, to which the requests (calls) will be transferred

proxy shared secret — client's password (secret), to which the requests (calls) will be transferred

# Configuration of new values is done by pressing the button Set Server Config

# **CONFIGURATION OF THE PROJECT**

- go to the tab Config
- assign filter parameters for Source and Destination numbers (zone Filter Config)
  assign parameters for RADIUS server (zone Server Config):

radius port - value Routing port in settings of MVTS in the section Radius client n ip - ip MVTS

client n port - value Local Routing port in settings MVTS in section Radius client n shared secret - secret key MVTS

• assign parameters for Proxy (zone Enable Proxy Server):

proxy ip - ip radius of the server (freeRADIUS) proxy auth port - port, on which radius auth receives the requests (freeRADIUS) proxy acct port - port, on which radius acct receives the requests (freeRADIUS) proxy shared secret

## **Configuration of MVTS**

in settings MVTS in section Radius in the field Routing IP Address you need to install computer's IP, where RADIUS server is run

| Statistic Config   |           |
|--|-----------|
| Numbers filter config  |           |
| W  | hite List |
| add prefix   |           |
| G  | iray List |
| add prenx  |           |
| period   |           |
| max routing request per period   |           |
|  |           |
| Period   |           |
| max min acd call per period  |           |
| min acd  |           |
| В  | lack List |
| add prefix   |           |
| period   |           |
| max routing request per period   |           |
| max block count befor move to black list   |           |
| Server Config  |           |
| radius port  |           |
| client 1 ip  |           |
| client 1 port  |           |
| client 1 shared secret   |           |
| client 2 ip  |           |
| client 2 port  |           |
| client 2 shared secret   |           |
| client 3 ip  |           |
| client 3 port  |           |
| client 3 shared secret   |           |
|  |           |
| Enable Proxy Server  |           |
| Enable Proxy Server  |           |
| Enable Proxy Server proxy ip proxy auth port                                     |           |
| Enable Proxy Server proxy ip proxy auth port proxy acct port                     |           |
| Enable Proxy Server proxy ip proxy auth port proxy acct port proxy shared secret |           |