

Stress test for SIP calls

Overview

SIP calls stress test is carried out according to the following scenario:

1. Server 1 creates [SIP calls](#) from specified range of SIP accounts to the specified SIP account on server 2 with 1 second interval.
2. Server 2 makes SIP calls from specified range of SIP accounts to the specified SIP account.

SIP registration stress test is carried out according to the following scenario:

1. Server 1 creates connections for SIP calls from specified range of SIP accounts to the specified SIP account on server 2 with 1 second interval.
2. Server 2 connects to SIP server and registers on it.

SIP server to use as proxy for SIP calls is necessary to carry out those tests. The SIP server should be set up as follows:

- SIP logins must be digital, `10001`, `10002` etc for example
- it must be possible to accept any password for SIP logins, or to set the same password for all SIP accounts, `Abcd1111` for example

SIP accounts password is set in `Console` web application source [code](#):

```
var password = "Abcd1111";
```

Stress SIP calls test

1. For test we use:

- two WCS servers, for example `test1.flashphoner.com` and `test2.flashphoner.com`
- `Console` web application to carry out the test
- Chrome browser with [Allow-Control-Allow-Origin](#) extension for Console web application to work.

2. Open Console application over HTTP (not

HTTPS!) `http://test1.flashphoner.com:9091/client2/examples/demo/streaming/con`


Node ip/domain name	#	CPU	MEM	TH	CONN	IN	OUT

- Settings

Enable cross-origin resource sharing

Access-Control-Expose-Headers


comma-separated list of headers ...

Intercepted URLs or URL patterns 

URL or URL pattern

+

.///*



- test2.flashphoner.com

Add node

test1.flashphoner.com

test2.flashphoner.com

#	CPU	MEM	TH	CONN	IN	OUT
test1.flashphoner.com	19.20	1789812	113	0	0	0
test2.flashphoner.com	24.28	1790080	55	1	0	0

Pull stream

Pull RTSP stream

Show

All

▼

Apply

#	NAME	TECH	STATUS	TYPE	AUDIO	VIDEO	ACT

Pull streams

Register

Unregister

Call

Hangup

Stress Register

Stress Call

Stress Play Stream

5. Select `test2.flashphoner.com` in `Console` application, press `Register` button, set SIP registration parameters:

- `Choose node`: choose server to test `test1.flashphoner.com`
- `Sip proxy`: set SIP server name
- `Start`: set the SIP account number to be callee for test
- `End`: set the last of test participants SIP account number
- `Rate`: set the test rate

The screenshot shows a 'Register SIP' dialog box with a green header bar containing the title and a close button. The dialog contains several input fields and a large green 'Register' button at the bottom. The 'Choose node' field is a dropdown menu with 'test1.flashphoner.com' selected. The 'SIP proxy' field is a text input with 'sip server' and a help icon. The 'Start' field is a text input with '10001'. The 'End' field is a text input with '10006'. The 'Rate' field is a text input with '1'. A 'Cancel' button is located at the bottom left.

Register SIP

Choose node test1.flashphoner.com ▼

SIP proxy

sip server ⓘ

▼ **Start**

10001

^ **End**

10006

⚡ **Rate**

1

Register

✕ Cancel

6. Press `Stress Call`, set the test parameters:

- `Ext`: set the SIP account number to be callee for test
- `Start`: set the first SIP account number to be caller for test
- `End`: set the last SIP account number to be caller for test

- **Rate**: set the test rate

Stress Call

Ext

10001

Start

10005

End

10006

Rate

1|

Stress Call

Cancel

- Press **Stress Call** button. The test begins. In **Show** dropdown select **TESTS** and press **Apply**. The information about test passing will be displayed on the page:

Show	TESTS	Apply						
#	NAME	START	END	RATE	INITIALIZED	TERMINATED	PENDING	ACT
0	CALL	10005	10006	10	8	13	21	<div>TERMINATE</div>

- Current servers load information is displayed at top right corner

#	CPU	MEM	TH	CONN	IN	OUT
test1.flashphoner.com	42.32	1791632	74	5	0	0
test2.flashphoner.com	15.99	1809428	60	0	0	0

After finishing the test, it is recommended to restart WCS on both servers.

Stress SIP registration test

- For test we use:

- two WCS servers, for example `test1.flashphoner.com` and `test2.flashphoner.com`
- **Console** web application to carry out the test
- Chrome browser with **Allow-Control-Allow-Origin** extension for **Console** web application to work.


2. Open **Console** application over HTTP (not

HTTPS!) `http://test1.flashphoner.com:9091/client2/examples/demo/streaming/console/console.html`

Node ip/domain name	Add node	#	CPU	MEM	TH	CONN	IN	OUT


3. Install ACAO extension, allow Cross-Origin-Resource-Sharing


Settings

Enable cross-origin resource sharing 


Access-Control-Expose-Headers

comma-separated list of headers ...

Intercepted URLs or URL patterns 

URL or URL pattern 

.///*



4. Enter server name `test1.flashphoner.com` and press **Add node**. This server will be tested. Then, add the server `test2.flashphoner.com`, which will create connections to

server to test

test2.flashphoner.com

Add node

test1.flashphoner.com	#	CPU	MEM	TH	CONN	IN	OUT
test1.flashphoner.com	test1.flashphoner.com	19.20	1789812	113	0	0	0
test2.flashphoner.com	test2.flashphoner.com	24.28	1790080	55	1	0	0

Pull stream

Pull RTSP stream

Pull streams

Register

Unregister

Call

Hangup

Stress Register

Stress Call

Stress Play Stream

Show All

Apply

#	NAME	TECH	STATUS	TYPE	AUDIO	VIDEO	ACT

5. Select `test2.flashphoner.com` in `Console` application, press `Stress register` button, set SIP registration parameters:

- `Choose node`: choose server to test `test1.flashphoner.com`
- `Sip proxy`: set SIP server name
- `Start`: set the SIP account number to be callee for test
- `End`: set the last of test participants SIP account number

- **Rate**: set the test rate

Register SIP Stress

Choose node

test1.flashphoner.com

SIP proxy

sip server

Start

10005

End

10006

Rate

10

Start

Cancel

6. Press **Start** button. The test begins. In **Show** dropdown select **TESTS** and press **Apply**. The information about test passing will be displayed on the page:

Show	TESTS	Apply						
#	NAME	START	END	RATE	INITIALIZED	TERMINATED	PENDING	ACT
0	REGO	10005	10006	10	21	19	1	<div>TERMINATE</div>

7. Current servers load information is displayed at top right corner

#	CPU	MEM	TH	CONN	IN	OUT
test1.flashphoner.com	29.83	1798608	208	6	0	0
test2.flashphoner.com	33.58	1785032	58	0	0	0

After finishing the test, it is recommended to restart WCS on both servers.

Tuning recommendations

If the load test was failed, it is recommended to change the following server settings:

1. In [wcs-core.properties](#) file extend heap memory limits. It is recommended to set the limit in half of physical RAM, for example, set 16 Gb while physical RAM is 32 Gb. Make sure you have enough RAM:

```
-Xmx16g -Xms16g
```