

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
```

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 SIP calls on server to test

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 dialog box titled "Register SIP". It has a green header bar with the title. Below it is a white content area with several input fields and buttons. At the top left is a dropdown menu labeled "Choose node" with "test1.flashphoner.com" selected. Below it is a section labeled "SIP proxy" with a text input field containing "sip server". There are three expandable sections: "Start" (set to 10001), "End" (set to 10006), and "Rate" (set to 1). At the bottom right is a large green "Register" button with a power icon. At the bottom left is a "Cancel" button with a cross icon.

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

7. 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	TERMINATE

8. 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

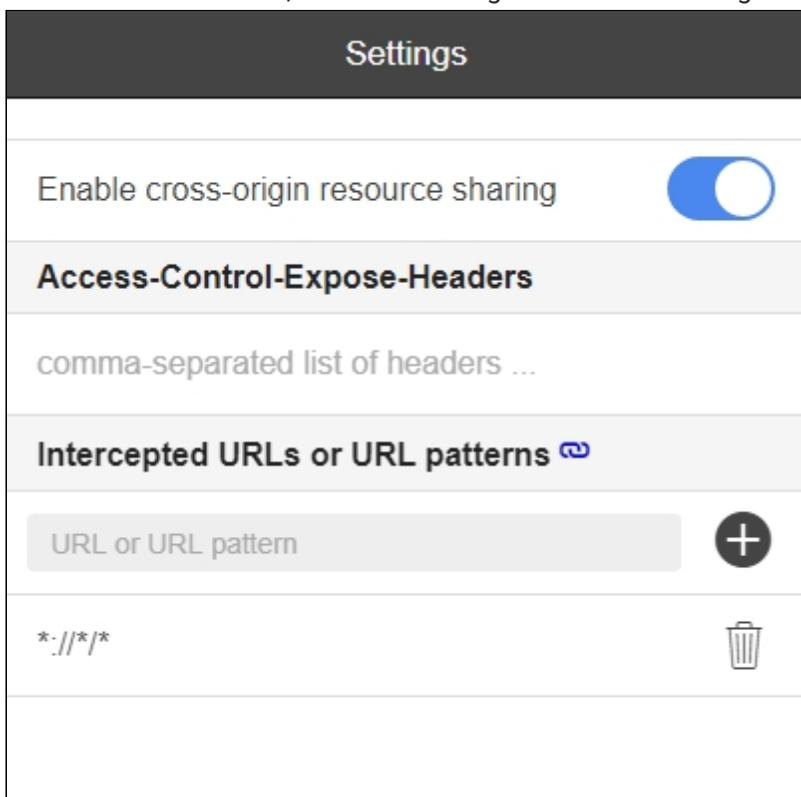
1. For test we use:

- 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/console/console.html`

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

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



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

The screenshot shows the 'Console' application interface. On the left, there's a sidebar with green buttons for various actions: 'Pull stream', 'Pull RTSP stream', 'Pull streams', 'Register', 'Unregister', 'Call', 'Hangup', 'Stress Register', 'Stress Call', and 'Stress Play Stream'. The main area has a table with columns: #, NAME, TECH, STATUS, TYPE, AUDIO, VIDEO, and ACT. It lists two nodes: 'test1.flashphoner.com' and 'test2.flashphoner.com'. Below the table is a toolbar with 'Show All' dropdown and 'Apply' button.

#	NAME	TECH	STATUS	TYPE	AUDIO	VIDEO	ACT
	test1.flashphoner.com		19.20	1789812	113	0	0 0
	test2.flashphoner.com		24.28	1790080	55	1	0 0

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

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	TERMINATE

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
```