Several Streams Recording

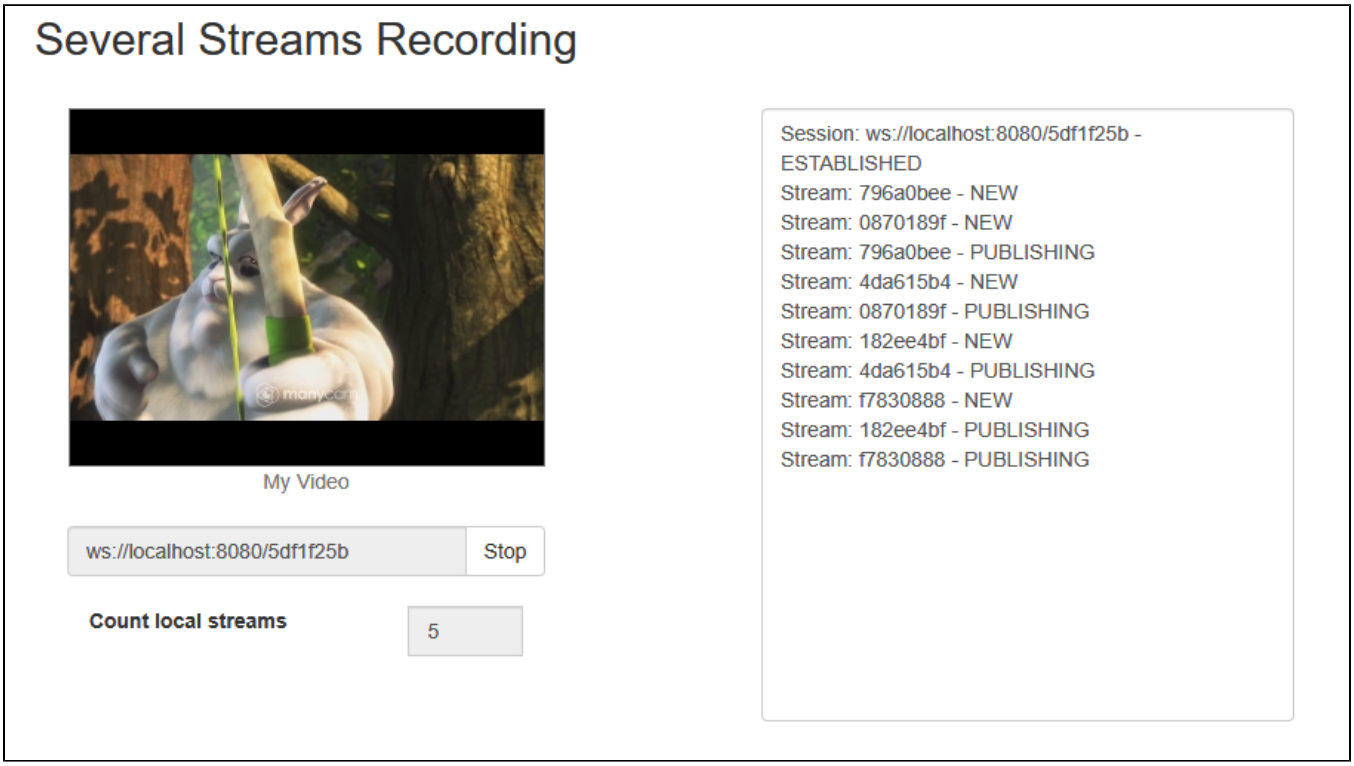
- Example of streamer with recording of several published video streams in one session
- Code of the example
- Analyzing the code

Example of streamer with recording of several published video streams in one session

This streamer can be used to publish and record several WebRTC streams simutaneously to Web Call Server in one session.

This example does not work in iOS Safari. It is recommended to use desktop PC/Mac browser.

On the screenshot below 5 streams are publishing and recording



Code of the example

The path to the source code of the example on WCS server is:

/usr/local/FlashphonerWebCallServer/client2/examples/demo/streaming/several_streams_recording

several_streams_recording.css - file with styles
several_streams_recording.html - page of the streamer
several_streams_recording.js - script providing functionality for the streamer

This example can be tested using the following address:

https://host:8888/client2/examples/demo/streaming/several_streams_recording/several_streams_recording.html

Here host is the address of the WCS server.

Analyzing the code

To analyze the code, let's take the version of file several_streams_recording.js with hash ecbadc3 which is available here and can be downloaded in build 2.0.212.

1.Initialization of the API

Flashphoner.init() code

```
Flashphoner.init();
```

2.Connection to server.

Flashphoner.createSession() code

```
    testSession = Flashphoner.createSession({urlServer: url}).on(SESSION_STATUS.ESTABLISHED, function (session)
{
        ...
    }).on(SESSION_STATUS.DISCONNECTED, function (session) {
        ...
    }).on(SESSION_STATUS.FAILED, function (session) {
        ...
    });
```

3.Receiving the event confirming successful connection

ConnectionStatusEvent ESTABLISHED code

```
    testSession = Flashphoner.createSession({urlServer: url}).on(SESSION_STATUS.ESTABLISHED, function (session)
{
        addSessionStatusLog(session);
        //session connected, start playback
        publishStreams(session);
    }).on(SESSION_STATUS.DISCONNECTED, function (session) {
        ...
    });
```

4.Video streaming.

session.createStream(), publish() code

When stream is created, the following parameters are passed

- streamName - name of the stream
- localVideo - element, in which video from camera will be displayed
- true for parameter 'record' - to enable stream recording

Every stream is added to streams array

```
    var stream = session.createStream({
        name: streamName,
        display: localVideo,
        record: true,
        receiveVideo: false,
        receiveAudio: false
        ...
    });
    addStatusLog(stream);
    stream.publish();
    streams.push(stream);
```

5.Receiving the event confirming successful streaming

StreamStatusEvent PUBLISHING code

```
    var stream = session.createStream({
        ...
    }).on(STREAM_STATUS.PUBLISHING, function (stream) {
        checkCountStreams();
        addStatusLog(stream);
        ...
    });
```

6.Streams count checking and publishing new streams until desired value is reached

code

```
    function checkCountStreams() {
        var $publishBtn = $("#publishBtn");
        if ($publishBtn.text() === "Start" && $publishBtn.prop('disabled') ) {
            if (streams.length < $("#countStreams").val()) {
                publishStreams(session);
            } else {
                toRecordedState();
            }
        }
    }
```

7.Streaming stop

stream.stop() code

```
function toRecordedState() {
    $("#publishBtn").text("Stop").off('click').click(function () {
        for (var i in streams) {
            streams[i].stop();
        }
        streams = [];
        toInitialState();
    }).prop('disabled', false);
}
```

8.Receiving the event confirming successful streaming stop

StreamStatusEvent UNPUBLISHED code

```
    var stream = session.createStream({
        ...
    }).on(STREAM_STATUS.UNPUBLISHED, function (stream) {
        checkCountStreams();
        addStatusLog(stream);
    }).on(STREAM_STATUS.FAILED, function (stream) {
        ...
    });
```