


# Two-way Streaming

## Example with streamer and player on the same page

This example demonstrates how to publish a video stream while playing another one using the same web page.


### Two-way Streaming

Local



test Stop

Player



rtsp://demo.flashj Stop Available

PUBLISHING

{"count": 23}

Send payload as object

PLAYING

ws://localhost:8080 Disconnect

ESTABLISHED

## Code of the example

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

*/usr/local/FlashphonerWebCallServer/client/examples/demo/streaming/two\_way\_streaming*

- two\_way\_streaming.css - file with styles
- two\_way\_streaming.html - page of the client
- two\_way\_streaming.js - script providing functionality for the example

This example can be tested using the following address:

[https://host:8888/client/examples/demo/streaming/two\\_way\\_streaming/two\\_way\\_streaming.html](https://host:8888/client/examples/demo/streaming/two_way_streaming/two_way_streaming.html)

Here host is the address of the WCS server.

## Analyzing the code

To analyze the code, let's take the version of file `two_way_streaming.js` with hash `ecbadc3`, which is available [here](#) and can be downloaded with corresponding build [2.0.212](#).

### 1. Initialization of the API

`Flashphoner.init()` [code](#)

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

### 2. Connection to server

`Flashphoner.createSession()` [code](#)

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

### 3. Receiving the event confirming successful connection

`ConnectionStatusEvent ESTABLISHED` [code](#)

```
Flashphoner.createSession({urlServer: url}).on(SESSION_STATUS.ESTABLISHED,
function(session){
    setStatus("#connectStatus", session.status());
    onConnected(session);
}).on(SESSION_STATUS.DISCONNECTED, function(){
    ...
}).on(SESSION_STATUS.FAILED, function(){
    ...
});
```

### 4. Video streaming

`Session.createStream()`, `Stream.publish()` [code](#)

When stream is created, the following parameters are passed

- `streamName` - name of the stream
- `localVideo` - `<div>` element, in which video from camera will be displayed

```
session.createStream({
  name: streamName,
  display: localVideo,
  cacheLocalResources: true
  ...
}).publish();
```

## 5. Receiving the event confirming successful streaming

`StreamStatusEvent PUBLISHING` [code](#)

```
session.createStream({
  name: streamName,
  display: localVideo,
  cacheLocalResources: true
  ...
}).on(STREAM_STATUS.PUBLISHING, function(stream){
  setStatus("#publishStatus", STREAM_STATUS.PUBLISHING);
  onPublishing(stream);
}).on(STREAM_STATUS.UNPUBLISHED, function(){
  ...
}).on(STREAM_STATUS.FAILED, function(){
  ...
}).publish();
```

## 6. Stream playback

`Session.createStream()`, `Stream.play()` [code](#).

When stream is created, the following parameters are passed

- `streamName` - name of the stream (including the stream published on step above)
- `remoteVideo` - `<div>` element, in which video playback will be displayed

```
session.createStream({
  name: streamName,
  display: remoteVideo
  ...
}).play();
```

## 7. Receiving the event confirming successful stream playback

`StreamStatusEvent PLAYING` [code](#)

```

session.createStream({
  name: streamName,
  display: remoteVideo
  ...
}).on(STREAM_STATUS.PLAYING, function(stream) {
  setStatus("#playStatus", stream.status());
  onPlaying(stream);
}).on(STREAM_STATUS.STOPPED, function() {
  ...
}).on(STREAM_STATUS.FAILED, function() {
  ...
}).play();

```

## 8. Stream playback stop

`Stream.stop()` code

```

function onPlaying(stream) {
  $("#playBtn").text("Stop").off('click').click(function(){
    $(this).prop('disabled', true);
    stream.stop();
  }).prop('disabled', false);
  $("#playInfo").text("");
}

```

## 9. Receiving the event confirming successful playback stop

`StreamStatusEvent STOPPED` code

```

session.createStream({
  name: streamName,
  display: remoteVideo
  ...
}).on(STREAM_STATUS.PLAYING, function(stream) {
  ...
}).on(STREAM_STATUS.STOPPED, function() {
  setStatus("#playStatus", STREAM_STATUS.STOPPED);
  onStopped();
}).on(STREAM_STATUS.FAILED, function() {
  ...
}).play();

```

## 10. Streaming stop

`Stream.stop()` code

```

function onPublishing(stream) {
  $("#publishBtn").text("Stop").off('click').click(function(){
    $(this).prop('disabled', true);
    stream.stop();
  }).prop('disabled', false);
  $("#publishInfo").text("");
}

```

```
    ...  
  }
```

## 11. Receiving the event confirming successful streaming stop

`StreamStatusEvent UNPUBLISHED` [code](#)

```
session.createStream({  
  name: streamName,  
  display: localVideo,  
  cacheLocalResources: true  
  ...  
}).on(STREAM_STATUS.PUBLISHING, function(stream){  
  ...  
}).on(STREAM_STATUS.UNPUBLISHED, function(){  
  setStatus("#publishStatus", STREAM_STATUS.UNPUBLISHED);  
  onUnpublished();  
}).on(STREAM_STATUS.FAILED, function(){  
  ...  
}).publish();
```

## 12. Sendig data bound to the stream

`Stream.sendData()` [code](#)

```
function onPublishing(stream) {  
  ...  
  $('#sendDataBtn').off('click').click(function(){  
    var streamData = field('streamData');  
    stream.sendData(JSON.parse(streamData));  
  }).prop('disabled', false);  
}
```

## 13. Receiving data bound to the stream

`STREAM_EVENT`, `STREAM_EVENT_TYPE.DATA` [code](#)

```
session.createStream({  
  name: streamName,  
  display: remoteVideo  
}).on(STREAM_STATUS.PENDING, function (stream) {  
  ...  
}).on(STREAM_STATUS.PLAYING, function (stream) {  
  ...  
}).on(STREAM_STATUS.STOPPED, function () {  
  ...  
}).on(STREAM_STATUS.FAILED, function (stream) {  
  ...  
}).on(STREAM_EVENT, function(streamEvent) {  
  switch (streamEvent.type) {  
    case STREAM_EVENT_TYPE.DATA:  
      addPayload(streamEvent.payload);  
      break;
```

```
    }  
    console.log("Received streamEvent ", streamEvent.type);  
  }).play();
```