Android Player

Example of player for Android

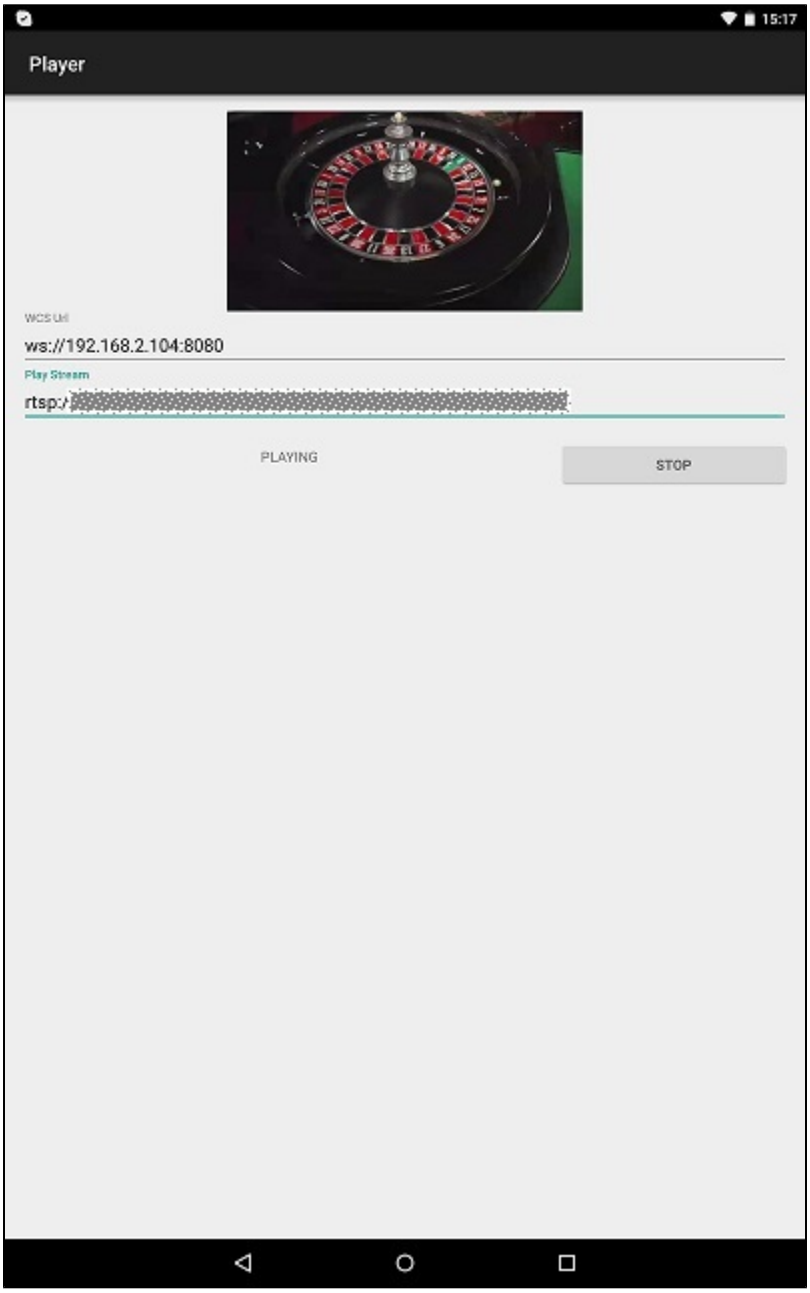
This player can be used to play any type of stream on Web Call Server

- RTSP
- WebRTC
- RTMP
- RTMFP

On the screenshot below an RTSP stream is being playing.

In the input fields

- 192.168.2.104 in the URL is the address of the WCS server
- stream name is entered in to the 'Play Stream' field (RTSP URL in this case)



Work with code of the example

To analyze the code, let's take class PlayerActivity.javaof the player example, which can be downloaded with corresponding build 1.0.1.38.

1. Initialization of the API

Flashphoner.init()code

For initialization, object Context is passed to the init() method.

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

2. Session creation.

Flashphoner.createSession()code

Object SessionOptions with the following parameters is passed to createSession() metod()

- URL of WCS server
- SurfaceViewRenderer, which will be used to play video stream

```
SessionOptions sessionOptions = new SessionOptions(mWcsUrlView.getText().toString());
sessionOptions.setRemoteRenderer(remoteRender);

/**
  * Session for connection to WCS server is created with method createSession().
  */
session = Flashphoner.createSession(sessionOptions);
```

3. Connection to the server.

Session.connect().code

```
session.connect(new Connection());
```

4.Receiving the event confirming successful connection

session.onConnected()code

```
@Override
public void onConnected(final Connection connection) {
    runOnUiThread(new Runnable() {
        @Override
        public void run() {
            mStartButton.setText(R.string.action_stop);
            mStartButton.setTag(R.string.action_stop);
            mStartButton.setEnabled(true);
            mStatusView.setText(connection.getStatus());
            ...
        }
    });
}
```

5. Playback of video stream.

Session.createStream(), Stream.play()code
Object StreamOptions (line 114) with name of the stream is passed to the createStream() method.

```
StreamOptions streamOptions = new StreamOptions(mPlayStreamView.getText().toString());

/**
  * Stream is created with method Session.createStream().
  */
playStream = session.createStream(streamOptions);

/**
  * Callback function for stream status change is added to display the status.
  */
playStream.on(new StreamStatusEvent() {
    @Override
    public void onStreamStatus(final Stream stream, final StreamStatus streamStatus) {
        runOnUiThread(new Runnable() {
            @Override
            public void run() {
                if (!StreamStatus.PLAYING.equals(streamStatus)) {
                    Log.e(TAG, "Can not play stream " + stream.getName() + " " + streamStatus);
                } else if (StreamStatus.NOT_ENOUGH_BANDWIDTH.equals(streamStatus)) {
                    Log.w(TAG, "Not enough bandwidth stream " + stream.getName() + ", consider using lower
video resolution or bitrate. " +
                          "Bandwidth " + (Math.round(stream.getNetworkBandwidth() / 1000)) + " " +
                          "bitrate " + (Math.round(stream.getRemoteBitrate() / 1000)));
                } else {
                    mStatusView.setText(streamStatus.toString());
                }
            }
        });
    }
});

/**
  * Method Stream.play() is called to start playback of the stream.
  */
playStream.play();
```

6. Session disconnection.

Session.disconnect()code

```
session.disconnect();
```

7.Receiving the event confirming successful disconnection

session.onDisconnection()code

```
@Override
public void onDisconnection(final Connection connection) {
    runOnUiThread(new Runnable() {
        @Override
        public void run() {
            mStartButton.setText(R.string.action_start);
            mStartButton.setTag(R.string.action_start);
            mStartButton.setEnabled(true);
            mStatusView.setText(connection.getStatus());
        }
    });
}
```