Android Player

Example of player for Android

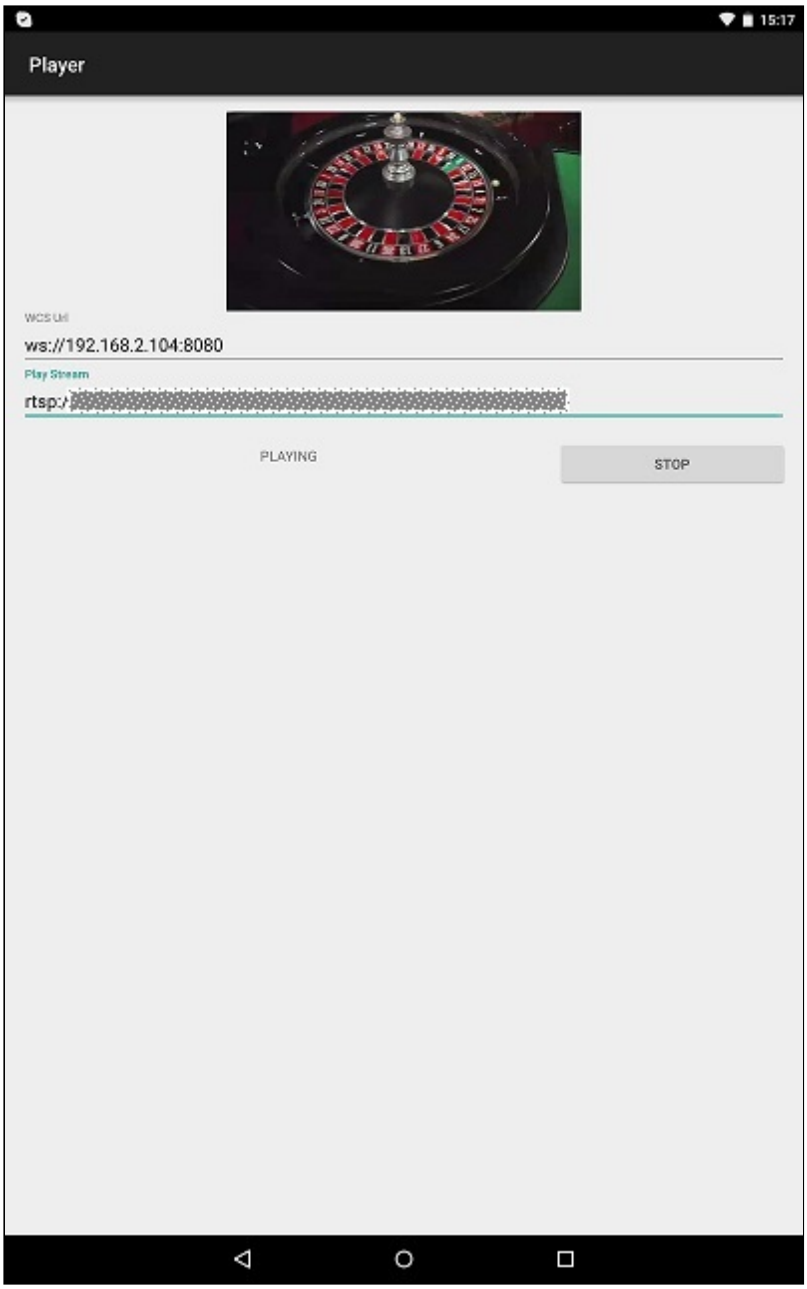
This player can be used to play any type of stream on Web Call Server

- RTSP
- WebRTC
- RTMP

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 to the `Play Stream` field (RTSP URL in this case)



Analyzing the example code

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

1. Initialization of the API

`Flashphoner.init()` code

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

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

2. Session creation

`Flashphoner.createSession()` code

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

- URL of WCS server
- `SurfaceViewRenderer remoteRenderer`, 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

`StreamOptions` object 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());
        }
    });
}
```