

# Android Click to Call

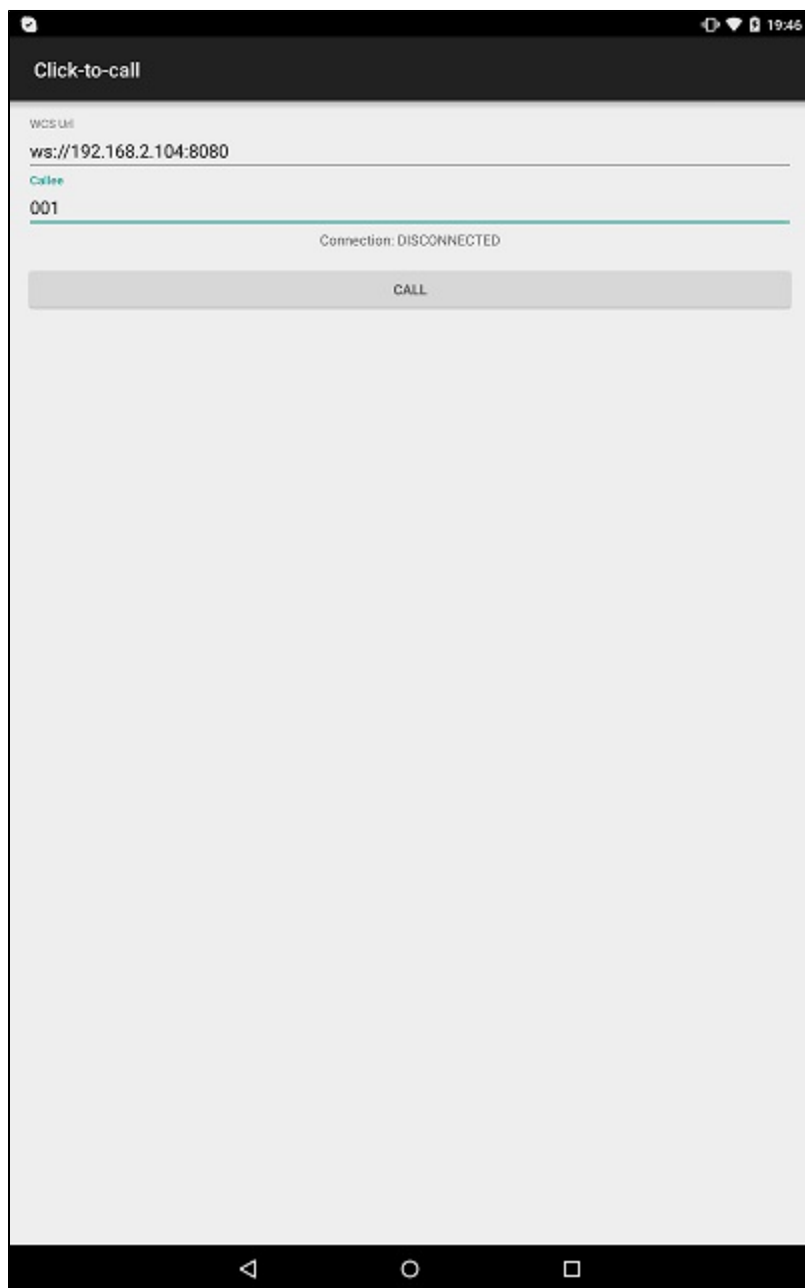
## Example of Click to Call application for Android

This example allows to place outgoing audio call with one button click using account specified in server config file

`/usr/local/FlashphonerWebCallServer/conf/apps/click-to-call/accounts.xml`

On the screenshot below the example is displayed after terminating a call and closing connection to server  
Input fields required for connecting to WCS server and placing a call

- 'WCS URL', where 192.168.2.104 is the address of the WCS server
- 'Callee', where 001 is the SIP username of the callee



## Work with code of the example

To analyze the code, let's take class [ClickToCallActivity.java](#) of the click-to-call 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 URL of WCS server is passed to createSession method

```
SessionOptions sessionOptions = new SessionOptions(mWcsUrlView.getText().toString());  
session = Flashphoner.createSession(sessionOptions);
```

3. Connection to the server.

Session.connect()[code](#)

Connection object with appKey of internal server-side application 'clickToCallApp' is passed to the method

```
Connection connection = new Connection();  
connection.setAppKey("clickToCallApp");  
/**  
 * Connect to WCS server  
 */  
session.connect(connection);
```

4. Receiving the event confirming successful connection.

Session.onConnected(), Session.createCall()[code](#)

On this event, outgoing call is created with Session.createCall() method. CallOptions object with callee SIP username is passed to the method.

```
@Override  
public void onConnected(final Connection connection) {  
    runOnUiThread(new Runnable() {  
        @Override  
        public void run() {  
            mCallButton.setText(R.string.action_hangup);  
            mCallButton.setTag(R.string.action_hangup);  
            mCallButton.setEnabled(true);  
            mCallStatus.setText("Connection: " + connection.getStatus());  
  
            /**  
             * Pass 'callee' to the callOptions and create a new call object  
             */  
            CallOptions callOptions = new CallOptions(mCalleeView.getText().toString());  
            call = session.createCall(callOptions);  
            call.on(new CallStatusEvent() {  
                ...  
            });  
  
            ActivityCompat.requestPermissions(ClickToCallActivity.this,  
                new String[]{Manifest.permission.RECORD_AUDIO},  
                CALL_REQUEST_CODE);  
  
            ...  
        }  
    });  
}
```

5. Making outgoing call when permissions are granted.

Call.call()[code](#)

```

case CALL_REQUEST_CODE: {
    if (grantResults.length == 0 ||
        grantResults[0] != PackageManager.PERMISSION_GRANTED) {
        mCallButton.setEnabled(false);
        session.disconnect();
        Log.i(TAG, "Permission has been denied by user");
    } else {
        /**
         * Make the outgoing call
         */
        call.call();
        Log.i(TAG, "Permission has been granted by user");
    }
}
}

```

## 6. Disconnection.

`Session.disconnect()`[code](#)

```

mCallButton.setEnabled(false);
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() {
            mCallButton.setText(R.string.action_call);
            mCallButton.setTag(R.string.action_call);
            mCallButton.setEnabled(true);
            mCallStatus.setText("Connection: " + connection.getStatus());
        }
    });
}

```