## App Note: GCM to FCM migration

11/09/2017

Updated 9/12/2018: Remove deprecated service, replace with FCM listener method

### Introduction

FCM is the new version of GCM under the Firebase brand. It inherits GCM’s core infrastructure to make sure to deliver messages reliably on Android, and Chrome. If you are integrating messaging in a new app, Google recommends to start with FCM. GCM users are strongly recommended to upgrade to FCM, in order to benefit from new FCM features today and in the future.

Changes needed for Migration to FCM

1. In the app build.gradle file remove the gcm play servives and add fire base messaging

Remove compile 'com.google.android.gms:play-services-gcm:11.0.4

Add compile 'com.google.firebase:firebase-messaging:11.0.4

Also add the following to build.gradle

apply plugin: 'com.google.gms.google-services'

1. In the project build.gradle add the following line to dependencies

classpath 'com.google.gms:google-services:3.0.0'

1. New Cloud Messaging projects must create a Firebase project in the [Firebase console](https://firebase.google.com/console/). In this process, you'll generate a configuration file and credentials for your project
   1. Create a Firebase project in the [Firebase console](https://firebase.google.com/console/), if you don't already have one. If you already have an existing Google project associated with your mobile app, click **Import Google Project**. Otherwise, click **Create New Project**.
   2. Click **Add Firebase to your Android app** and follow the setup steps. If you're importing an existing Google project, this may happen automatically and you can just [download the config file](http://support.google.com/firebase/answer/7015592).
   3. When prompted, enter your app's package name. It's important to enter the package name your app is using; this can only be set when you add an app to your Firebase project.
   4. At the end, you'll download a google-services.json file. You can [download this file](http://support.google.com/firebase/answer/7015592) again at any time.
   5. If you haven't done so already, copy this into your project's module folder, typically app/
2. Remove the existing GCM classes GcmBroadcastReceiver and GcmIntentService from the project
3. In the AndroidManifest file remove the service GcmIntentService and also remove the receiver GcmBroadcastReceiver
4. Add the following Service to the AndroidManifest file

<service

android:name=“.MyFcmListenerService">

<intent-filter>

<action android:name="com.google.firebase.MESSAGING\_EVENT"/>

</intent-filter>

</service>

1. Now implement the service class that was defined in the AndroidManifest file as follows:

*MyFcmListenerService class should extend the class FirebaseMessagingService and implement the methods onMessageReceived and onNewToken as follows:*

public class MyFcmListenerService extends FirebaseMessagingService {

@Override

public void onMessageReceived(RemoteMessage message){

String from = message.getFrom();

Log.*d*(*TAG*,"From:"+from);

Map<String,String> data = message.getData();

if(data != null && !data.isEmpty()) {

String msg = data.get("message");

String sound = data.get("sound");

//Use this message and sound to display the message as Notification

}

}

public void onNewToken(String token) {

//Save this token

// If you want to send messages to this application instance or

// manage this apps subscriptions on the server side, send the

// Instance ID token to your app server.

}

}

1. In the app code replace the triggerApp configureAsPushAndroid method to configureAsPushFCM method as fllows

triggerApp.configureAsPushAndroid(registrationId…

triggerApp.configureAsPushFCM(fcmtoken..

where fcmtoken is the token we got from the method onNewToken()