



**NotifyMDM**  
Mobile Device Management

## GCM for Android Setup Guide

This guide provides information on . . .

- . . . Prerequisites for using Google Cloud Messaging service
- . . . Instructions for setting up GCM service via the Google API console
  - . . . Configuring the NotifyMDM server for GCM service

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# Google Cloud Messaging for Android

## What Is GCM

Google Cloud Messaging (GCM) for Android is a service that allows *NotifyMDM* to send push notifications from the server to the *NotifyMDM* Android device agent.

## How GCM Works

*NotifyMDM* can use the Google Cloud Messaging service to let Android devices know that it is time to synchronize. Each device establishes an accredited and encrypted IP connection with the GCM service. Whenever notifications for the device are available, the *NotifyMDM* server connects with GCM servers. GCM then pings the device telling it to synchronize with *NotifyMDM*. This method of initiating synchronization is used in place of the *NotifyMDM* app's device connection schedule, eliminating delayed updates to the device. Using the service offers added functionality in the following ways:

- Security commands such as Full Wipe or Lock Device are applied immediately.
- Changes made to a policy suite or user settings are applied immediately.
- Android corporate resource assignments are applied immediately.
- Fewer resources are used than with direct push, since the connection is not persistent.

## Requirements

- *NotifyMDM* version 3.4.1 or later
- Port 5228-5230 (GCM does not provide specific IPs, so it frequently changes IPs.
- A Google Mail (Gmail) account (required for accessing the Google console and obtaining a key and Sender ID)

## Prerequisites for Devices

- Devices must run Android 2.2 or higher.
- Certain 2.2.x devices will not register with GCM properly. In this case, the *NotifyMDM* device connection schedule handles the aspects of queuing of messages and delivery to the target Android app running on the device.
- Devices with an Android OS lower than 4.0.4 must have a Gmail account and have the Google Play Store application installed on the device.
- A Google account is not required on devices running Android OS 4.0.4 or higher.

## An Overview of the Steps to Set Up GCM Service

Only one GCM project is required per *NotifyMDM* system, regardless of the number of organizations hosted on the server.

From the Google Firebase Console:

1. Create a Google API project (or import an existing one). This process will generate a *Legacy Server Key* and a *Sender ID*. These are the credentials you will need to configure GCM service on the *NotifyMDM* server.

On the *NotifyMDM* server:

2. Enter the GCM credentials and enable the service for each organization.

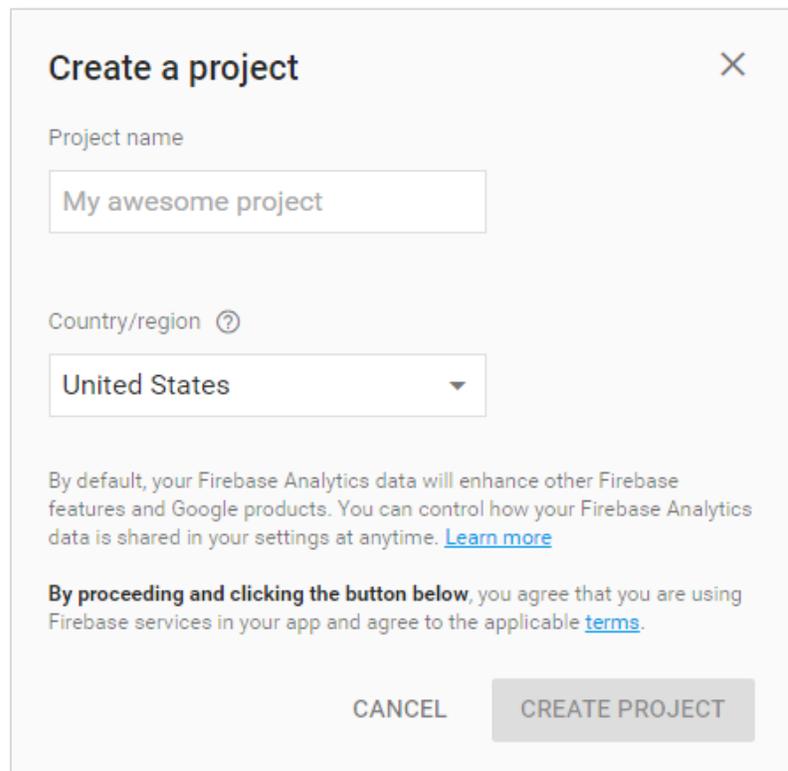
# Create a Project and Generate Configuration Credentials

Make sure you have a Gmail account before you begin.

1. Navigate to the Google Firebase Console at <https://console.firebase.google.com> and sign in using your Google account credentials.
2. Click **Create New Project**. (Click *Import Google Project* and follow the prompts to use a pre-existing project.)



3. A pop-up appears prompting you to name the project. Enter a name in the **Project name** field and verify that the correct selection is made for **Country/region**. Click **Create Project**.

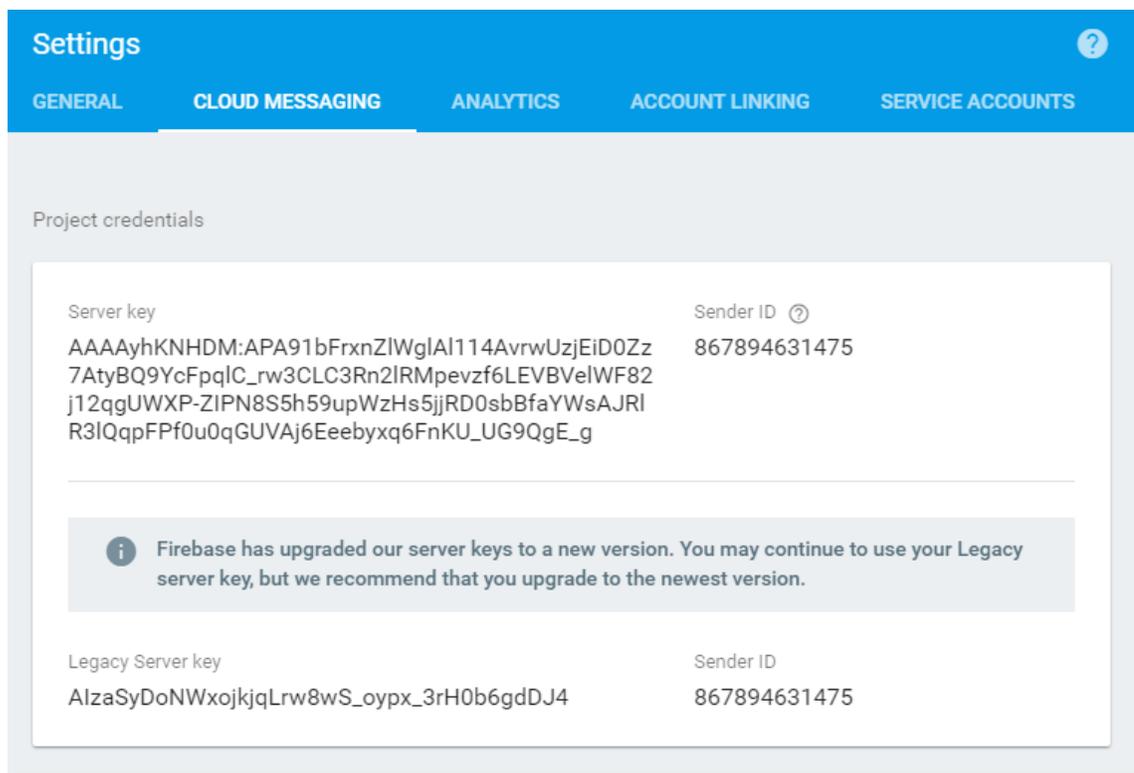
A screenshot of the 'Create a project' dialog box. The dialog has a title bar with 'Create a project' and a close button (X). Below the title, there is a 'Project name' label and a text input field containing 'My awesome project'. Below that is a 'Country/region' label with a help icon (?) and a dropdown menu showing 'United States'. A paragraph of text explains that by default, Firebase Analytics data will enhance other features and Google products, and provides a link to 'Learn more'. Below this is another paragraph stating that by proceeding and clicking the button below, the user agrees to use Firebase services and agree to the applicable terms. At the bottom, there are two buttons: 'CANCEL' and 'CREATE PROJECT'.

- Once the project has been created, click the gear icon located next to the *Overview* option and select **Project settings**.



- From the **Settings** menu, select the **Cloud Messaging** tab. The page under this tab displays the Google generated **Legacy Server Key** and **Sender ID**.

Make note of both these codes. You will need them to configure the *NotifyMDM* server for GCM service.



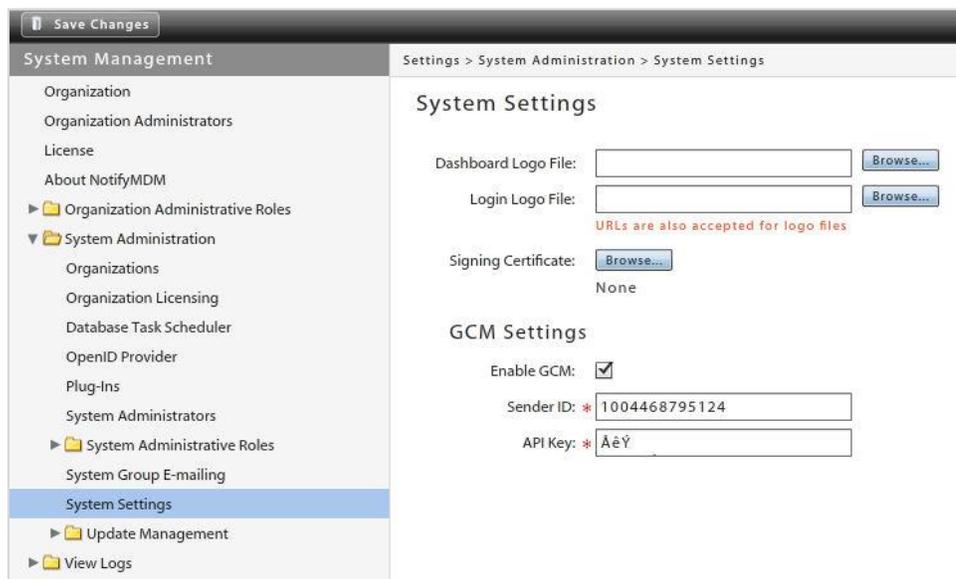
# Configure the MDM Server for GCM Service

The GCM service must be enabled for the system on the *NotifyMDM* server under *System Settings*. GCM credentials are also entered here.

Only one set of credentials is required per system, regardless of the number of organizations the system hosts. The GCM service can be turned or left off for each individual organization.

## Enter your GCM credentials and enable the GCM service for the system

1. From the *NotifyMDM* dashboard, select **System > System Administration > System Settings**.
2. Check the box next to **Enable GCM**.



The screenshot shows the 'System Settings' page in the NotifyMDM dashboard. The left sidebar is titled 'System Management' and includes a 'Save Changes' button at the top. The main content area is titled 'System Settings' and shows the following configuration options:

- Dashboard Logo File: [Text Field] [Browse...]
- Login Logo File: [Text Field] [Browse...]
- URLs are also accepted for logo files
- Signing Certificate: [Browse...]
- None
- GCM Settings
  - Enable GCM:
  - Sender ID: \* [Text Field: 1004468795124]
  - API Key: \* [Text Field: Åëÿ]

3. In the **Sender ID** field, enter the *Sender ID* that was generated via the Google Firebase Console.
4. In the **API Key** field, enter the *Legacy Server Key* that was generated via the Google Firebase Console.
5. Click **Save Changes**.

## Toggle the service on for each organization that will use GCM

1. From the *NotifyMDM* dashboard, select **System > Organization**.

2. In the *Organization Settings*, check the box next to **Use GCM** to turn on the service for the organization.

Settings > Organization

### Organization Settings

Organization Name: \* ABC Co.

Contact Person: \* jstewart

Contact Person's E-mail Address: \* jstewart@company.c

Contact Person's Secondary E-mail:

Contact Person's Phone Number: \* 1234567890 Ext:

Contact Person's Secondary Phone: Ext:

Send Welcome Letter to Users:

Display EULA:   
Note: If this setting is enabled, the user must accept an End User License Agreement to complete enrollment of the GO!Enterprise MDM device app

Maximum Number of Devices Per User: 99  
Note: Limits the number of devices a user can enroll. Select a maximum ranging from 1 to 99.

SMTP Server: 192.168.2.15

Signing Certificate:

Use GCM:

APNs Certificate:    
com.apple.mgmt.External.96dd653a-0735-4533-9be2-243b095d35f7 (Enabled)

APNs Expiration Date: Oct 11 2014 10:49AM

3. Click **Save Changes**.
4. To turn on GCM service for other organizations hosted by the system, switch to another organization and mark the **Use GCM** checkbox.

To switch organizations:

Select *System > System Administration > Organizations* and click the **Switch Organizations** button.