

Configuring Google Cloud Messaging Service for Android Devices

ZENworks® Mobile Management 3.2.x

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1800 South Novell Place
Provo, UT 84606
U.S.A.
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Google Cloud Messaging for Android

What Is GCM

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

How GCM Works

ZENworks Mobile Management 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 *ZENworks Mobile Management* server connects with GCM servers. GCM then pings the device telling it to synchronize with *ZENworks Mobile Management*. This method of initiating synchronization is used in place of the *ZENworks Mobile Management* 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

- *ZENworks Mobile Management* version 2.8.2 or later
- Port 5228-5230 (GCM does not provide specific IPs, so it frequently changes IPs)
- A Google Mail (Gmail) account (required for obtaining the GCM token and Sender ID)

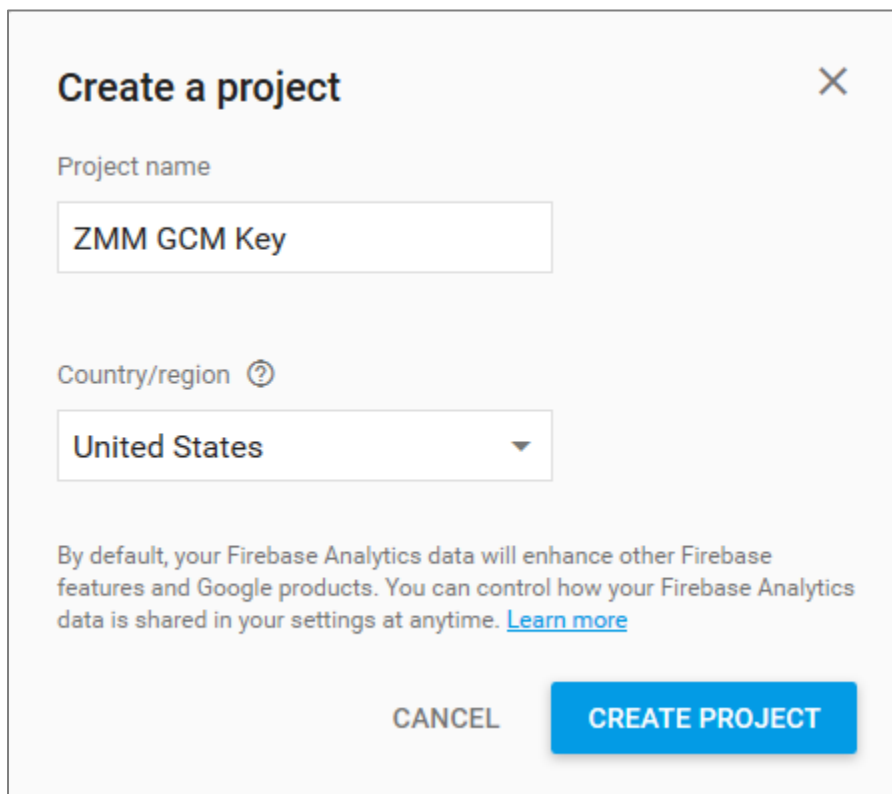
Prerequisites for Devices

- Devices must run Android 2.2 or higher.
- Certain 2.2.x devices will not register with GCM properly. In this case, the *ZENworks Mobile Management* 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.

Set up a GCM Project

In order to use the Google Cloud Messaging service, you need to create a GCM project. The GCM project provides the credentials (Sender ID and API Key) that your ZENworks Mobile Management Server and mobile devices use to communicate securely.

1. Make sure you have a Google account.
2. Log in to the [Google Firebase Console \(https://console.firebase.google.com/\)](https://console.firebase.google.com/).
3. Click **Create a New Project** to display the Create a Project dialog.




Create a project ✕

Project name

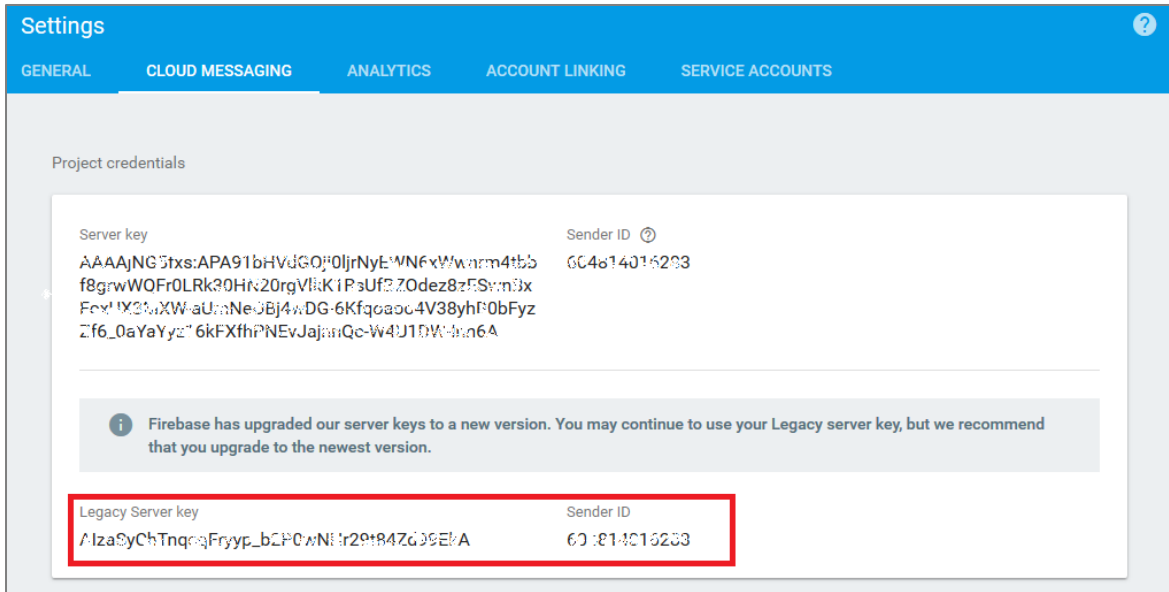
Country/region ?

By default, your Firebase Analytics data will enhance other Firebase features and Google products. You can control how your Firebase Analytics data is shared in your settings at anytime. [Learn more](#)

CANCEL **CREATE PROJECT**

4. Enter a project name, then click **Create Project**.
5. In the upper-left corner, click  > **Project Settings**.

6. Click **Cloud Messaging**.



7. Record the **Legacy Server key** and the **Sender ID** for use in the next section, *Configure the Server for GCM Service*.

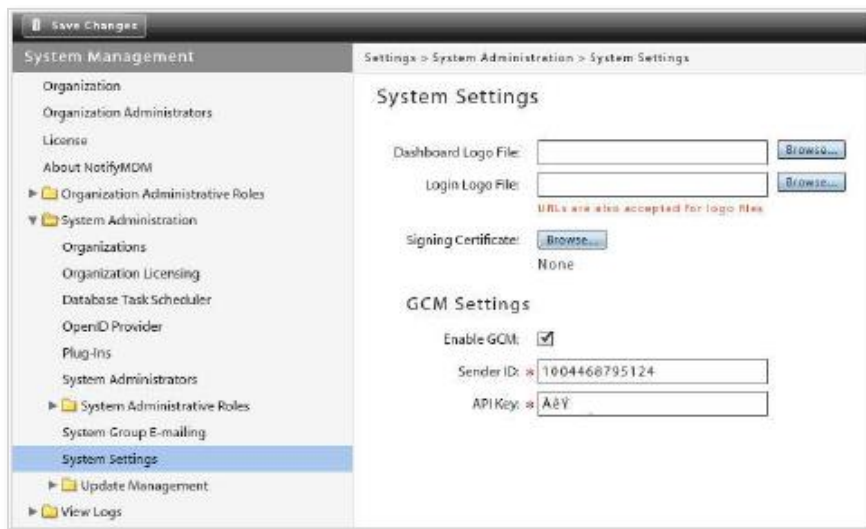
Configure the Server for GCM Service

The GCM service must be enabled for the system on the *ZENworks Mobile Management* server under *System Settings*. GCM credentials (Sender ID and API Key) 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 on or left off for each individual organization.

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

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

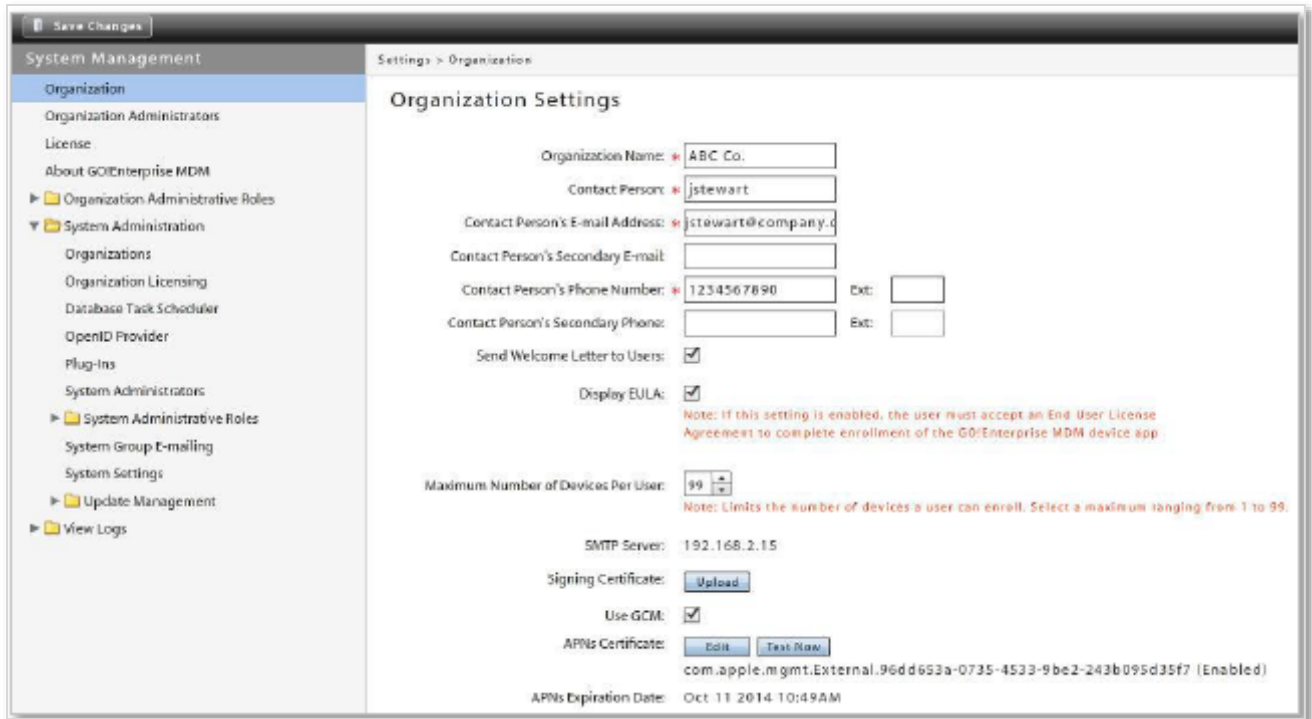


3. In the **Sender ID** field, enter the Sender ID that was generated via the Google Firebase Console.
4. In the **API Key** field, enter the Legacy Server Key that was generated via the Google Firebase Console.
5. Click **Save Changes**.

Toggle the service on for each organization that will use GCM

1. From the *ZENworks Mobile Management* dashboard, select **System > Organization**.

2. Check the box next to **Use GCM** to turn on the service for the organization.



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.