Setup an Android SMS Gateway

Overview

SMS gateways are used by CommCareHQ to send and receive text messages. Each SMS gateway is represented by a phone number - normally a gateway is setup for each country, but some gateway providers will let you send messages to many countries.

If you don't want to use one of CommCareHQ's shared Gateways, or if you can't because connectivity isn't working with the countries or networks of your recipients, you can setup your own Android SMS gateway with Telerivet, and integrate it with CommCareHQ.   An Android SMS gateway will use an Android phone and its SIM card to send and receive messages for CommCareHQ.

Below are instructions on how to get setup.

Step 1 - Create a Telerivet Account and Connect it to Your CommCareHQ Project

> ⓘ Before proceeding, you will need an Android phone with an active SIM card. All SMS will be sent and received from this phone and SIM. Your phone will be charged according to your plan for sending and receiving SMS. Click here to see the Telerivet FAQ which has important information, including which phones are recommended to be used.

You should only consider setting up a Telerivet Android gateway if:

1. You have an Android phone that you will be using exclusively for this purpose
2. The phone will always be on and charged
3. The phone will always be connected to wifi (or optionally, mobile data, though that may be more expensive)
4. You will monitor the phone's balance and ensure it always has enough credit to send and receive SMS

If you have a phone that meets those criteria, you can get started by navigating to Messaging -> SMS Connectivity in your project space. At the bottom of this page, click "Add Another Gateway". CommCareHQ will then walk you through the steps to setup a Telerivet SMS gateway and connect it to your CommCareHQ project for sending and receiving SMS:

Create Another Gateway   Telerivet (Android) ▼   **+ Add Another Gateway**

Step 2: Read these Important Tips for using Telerivet with CommCare Messaging

- When creating your Telerivet account, check to see where your project falls under Telerivet's pricing. It is important to set up the right pricing structure before your project goes live. For example, it's important to ensure that the number of contacts you will be sending to falls within the limit allowed on the account. If you want to set your Telerivet pricing to a non-free plan, make sure that when you use your credit card to add funds to "Select a plan" that you want to use.

- It's important to be aware of the maximum number of stored messages that your Telerivet plan allows. For example, the Test Telerivet plan only allows 500 messages to be stored in the account, so after sending and receiving 500 messages total, the account will stop sending new messages until old messages are deleted. To have your Telerivet account automatically delete old messages, you can update the "Message Retention" setting for your Telerivet project (Dashboard -> Edit Settings).

- When sending outbound SMS, you may need to throttle the rate at which you send SMS in order to comply with regulations in the country you are sending. A good rule of thumb is to not exceed the rate of 1 SMS per second, though you should check with the regulations in the country you wish to send SMS. In order to enforce the rate limit, in the Telerivet Android app, go to Phone Settings -> Message Sending Parameters -> Delay after message sent (ms), and enter the number of milliseconds to wait between sending each SMS. For example, enter 1000 to send SMS no faster than the rate of 1 SMS per second.

- No matter what plan you sign up for with Telerivet, there is an initial limit of 100 outgoing SMS messages an hour. This is important to be aware of, especially for larger project or big training days when a lot of SMS messages will be sent in a short period. In order to change this, open the Telerivet app on your Android phone, click SMS rate limit, and install an SMS expansion pack (s). Can download multiple.

- If you have a large project, it is likely that your Telerivet gateway phone will eventually hit a memory capacity from storing all incoming and outgoing messages. To avoid this, you'll want to change the settings on Telerivet's website. Log into Telerivet, click "Phones" on the left side panel, select the phone that you are using, click "Edit Settings" on the top right, and click the following question from "Yes" to "No."

Keep new messages in Android phone's inbox?
○ Yes, keep a copy of new messages on the phone
◉ No, don't store new messages on the phone

- You can setup email notifications when a phone gets disconnected or has errors by adjusting the settings for the phone on telerivet.com. To do so, click Edit Settings on the Dashboard when logged into telerivet.com and adjust the Email Notifications. You can also click on the page for the phone on telerivet.com and click Edit Settings there for some additional Email Notifications.

- Ideally, all data sent from Telerivet to Commcare will be sent through a wi-fi connection. However, if the wi-fi connection is not working or intermittently cuts out, then it's important to have a back up 3G connection. By default, Android phones won't automatically switch from Wi-Fi to mobile data if the phone is connected to the Wi-Fi network but the Wi-Fi network isn't connected to the internet. The Telerivet Android app lets you override that. From the Phone Settings screen in the Telerivet Android app, scroll to the bottom and enable "Network failover". Then Telerivet will automatically switch the phone from Wi-Fi to mobile data if it can't connect to telerivet's servers via Wi-Fi. This may use more airtime but will result in a more reliable connection.

- If there are problems with CommCareHQ and messages can't be sent from the gateway to CommCareHQ immediately, Telerivet will retry failed webhooks periodically for up to a day.

- **Here is a guide you can download** to learn about how to maintain your Telerivet Android gateway through a CommCare Messaging project.

Step 3 - Registration of Contacts

You still register your contacts in CommCareHQ the same way as you would if used any other SMS gateway. Information on registering mobile worker contacts is here, and information on registering case contacts is here.

Step 4 (Optional) - Share Your Telerivet Gateway with Another Project

If you have already set up your Telerivet gateway on CommCareHQ, you may want to share it with another project. To do this:

1. Log into your original project space in CommCareHQ, and navigate to Messaging -> SMS Connectivity.

2. Select your pre-existing Telerivet Gatway and click **Edit** .

3. Under "General Settings," check the box that says "Give other domains access." In the next question, type out the name of the project.

Give other domains access ☑

List domains here: | newdomain

4. In the new project, **make sure that you click "Set As Default" for the shared Telerivet gateway** (example below called cc-messaging-test)

Connection	Description	Supported Countries	Status	Actions
Automatic Choose			DEFAULT CONNECTION	
CC-MESSAGING-TEST			Set As Default	✖ Delete