

# Background Work + Push Notifications

## Android

### Background Work

The Android SDK includes a foreground service that enables your application to continue running when it's not in the foreground (i.e. it's in the background). It will remain active from `ZelloSdk.connect()` until `ZelloSdk.disconnect()`.

This service is required for your app to work when it's in the background. If background operation is not necessary—or if you have your own foreground service—you can disable the SDK's foreground service using the `ZelloSdk.configure()` method.

Additionally, the SDK will display a notification prompting the user to disable battery optimizations.

### Push Notifications

To send push notifications to Android devices via the SDK, Zello uses [Firebase Cloud Messaging](#) (FCM). Push notifications are used differently for direct contacts and channels:

Direct Contacts	Used for all messages sent to direct contacts in <a href="#">Standby</a> status.
Channels	Used for <a href="#">channel alerts</a> sent at the "Everyone" level. This includes emergency alerts.

### Enabling/Disabling Push Notifications

If you'd like to push notifications on your Android application, first add FCM to your project. Then, email your FCM server key to `sdk@zello.com`. This key will be securely stored on Zello's servers, and will allow us to send your users push notifications.

Alternatively, if you currently have push notifications enabled in the SDK and would like to disable them, opt out using the `ZelloSdk.configure()` method.

## iOS

### Background Work

**Limitation: Messaging will only work reliably in the foreground. Upon entering the background, the app may be suspended or terminated by the OS. We expect to have this resolved in an upcoming release.**

The Zello SDK uses push notifications and the Push to Talk framework so that the user can continue to receive messages from others even while it is running in the background.


To configure your application to receive push notifications in a development build, you must call `Zello.configure(isDebugBuild:)` before `Zello.connect(credentials:)`, passing in `true`.

```
1 #if DEBUG
2     Zello.shared.configure(isDebugBuild: true)
3 #else
4     Zello.shared.configure(isDebugBuild: false)
5 #endif
```

For devices running on iOS 17.2 and later, Zello's SDK will utilize Apple's [Push to Talk framework](#) to send and receive voice messages in the background. This new PTT framework has some limitations and consequently requires additional setup by both the client and Zello. For

more information, see the **Framework Setup** and **Push Notifications** sections below.

The PTT framework will run from `ZelloSdk.connect()` until `ZelloSdk.disconnect()`.

 Note: To stop the PTT framework from operating in the background, press the framework's **Leave** button. When the app is brought to the foreground again, the SDK will rejoin the PTTFramework's PTChannel.

### Framework Setup

Please see the iOS Installation Guide for project setup.

### Push Notifications

Zello uses Apple's servers to deliver push notifications. Please email your APN key to [sdk@zello.com](mailto:sdk@zello.com) to enable push notifications for your network. The APN key will be securely stored on our servers.