

# Tag-based notifications in native Android applications

## Overview

Tag notifications are notification messages that are targeted to all subscribed devices to a particular tag. Tags represent topics of interest to the user and provide the ability to receive notifications according to the chosen interest.

## Setting up tags

Tags are defined in application-descriptor.xml:

```
<nativeAndroidApp xmlns="http://www.worklight.com/native-android-descriptor" id="NativeAndroidTagNotifi
cations" platformVersion="7.0.0.00.20150312-0731" version="1.0">

  <pushSender key="API_KEY" senderId="PROJECT_NUMBER"/>
  ...
  ...
  ...
  <tags>
    <tag>
      <name>my tag 1</name>
      <description>About my tag 1</description>
    </tag>
    <tag>
      <name>my tag 2</name>
      <description>About my tag 2</description>
    </tag>
  </tags>
</nativeAndroidApp>
```

## Tag-based notifications API methods

### Client-side API methods:

- `WLPush.subscribeTag(tagName,options)` - Subscribes the device to the specified tag name
- `WLPush.unsubscribeTag(tagName,options)` - Unsubscribes the device from the specified tag name
- `WLPush.isTagSubscribed(tagName)` - Returns whether the device is subscribed to a specified tag name

## Common API methods for tag-based and broadcast notifications

### Client-side API:

- `WLNotificationListener` Defines the callback method to be notified when the notification arrives.
- `client.getPush().setWLNotificationListener(listener)` This method sets the implementation class of the `WLNotificationListener` interface.
- `client.getPush().setOnReadyToSubscribeListener(listener)` This method registers a listener to be used for push notifications. This listener should implement the `onReadyToSubscribe()` method.
- The `onMessage(props,payload)` method of `WLNotificationListener` is called when a push notification is received by the device.

- **props** - A JSON block that contains the notifications properties of the platform.
- **payload** - A JSON block that contains other data that is sent from MobileFirst Server. The JSON block also contains the tag name for tag-based or broadcast notification. The tag name appears in the "tag" element. For broadcast notification, the default tag name is `Push.ALL`.

## Server-side API:

This method submits a notification that is based on the specified target parameters.

- `WL.Server.sendMessage(applicationId,notificationOptions)`
  - `applicationId` - (mandatory) The name of the MobileFirst application
  - `notificationOptions` - (mandatory) A JSON block containing message properties

For a full list of message properties, refer to the `WL.Server.sendMessage` API in the API reference of user documentation

## Sample application

Before running the application, check the adapter's `PushAdapter-impl.js` file and verify that the `WL.Server.sendMessage()` method use the correct application name. The correct application name can be determined from the `id` attribute in `application-descriptor.xml`. Click to download (<http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/PushNotificationsNativeProject.zip>) the Studio project. Click to download (<http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/AndroidNativePushProject.zip>) the Native project.