Geofence support in the iPad/iPhone HCA app

A GeoFence is a circle drawn around a physical point on a map with a given diameter. Crossing into and out of this area triggers a GeoFence alert. Once Geofences are configured in the iOS application, then when you cross the fence – and have your iOS device (phone or tablet) a program on the HCA server is started.

To make this all happen, first on the HCA side, create a "Location Aware Programs" folder – must be named exactly that. In that folder place the programs that you want to select from when configuring a fence.

You can have many different programs or only a single program. You select what program to run during the configuration of the fence. You could have a single program used for all fences and have the program test a parameter to see which fence it is, or you could have different programs for different fences. That's up to you.

When a program is started as the result of entering or leaving a fenced area, the programs receives as arguments several pieces of info. Each program that is started by crossing – exit or enter – a Geofence should have 4 parameters like this:

When the program is started it receives data in each parameter. These are:

- Parameter 1 has the name of the client from the iOS App HCA Settings "Client Name".
- Parameter 2 is the name of the GeoFence that is happening. This is the name entered on the iOS device when the fence is created.
- Parameter 3 is the state. The string "Left" is used when the area is left and "Arrived" when it is entered.
- Parameter 4 is the description text, if any, given when creating the Geofence in the iOS app
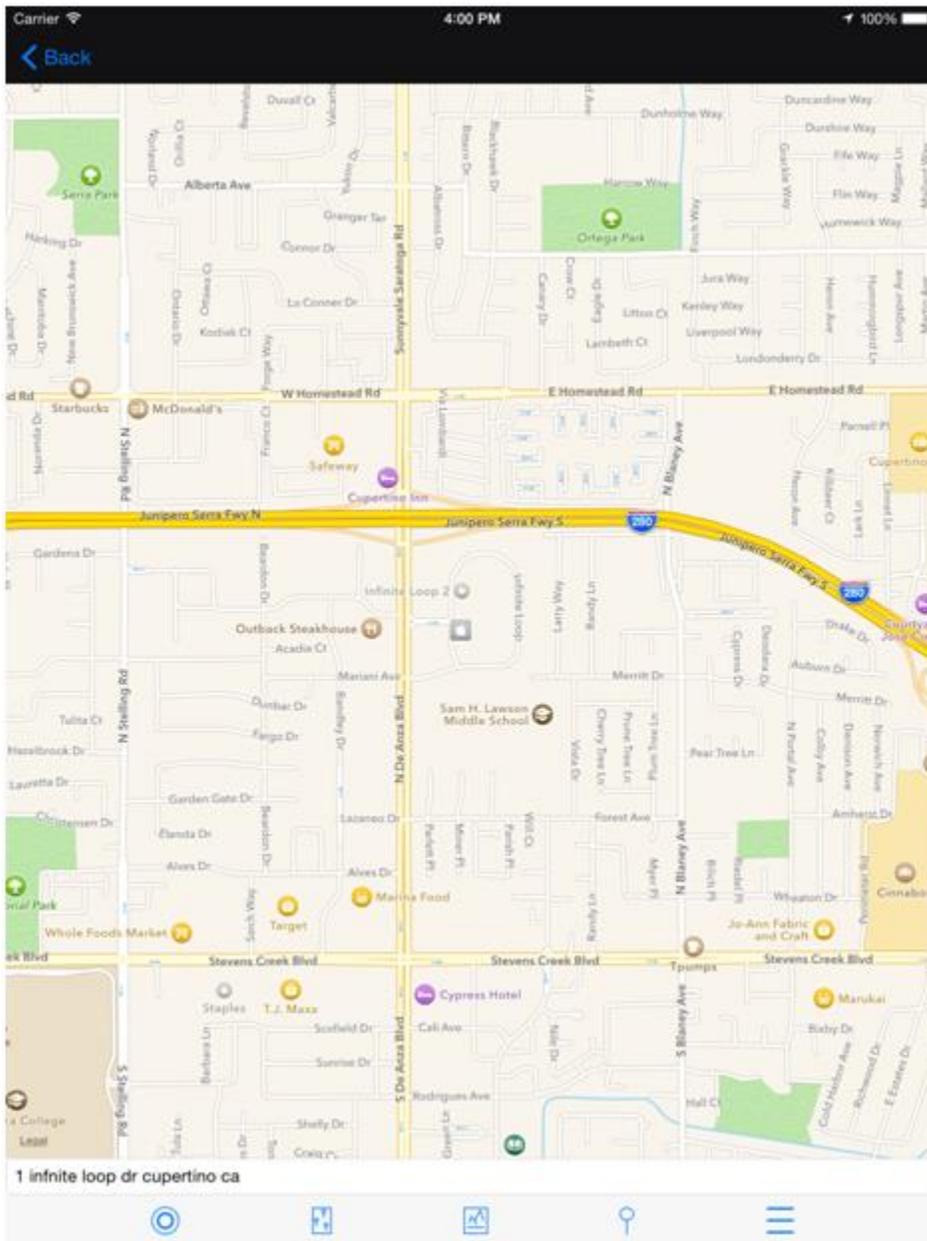
Configuring a Geofence On the iOS device

In the iOS app after connecting, click on "Settings" in the app menu (left side "slide out panel" on iPad and the base screen on the iPhone app) and then "Geofences" in the "Location Triggers" section. The map opens.

Note: It is impossible to keep up on all the changes that happen every day on mobile devices so the screen images below from an iPad Mini may be different than you see on your device. Just accept that change is inevitable and go with it. The general operations described below will be the same just maybe a bit different.
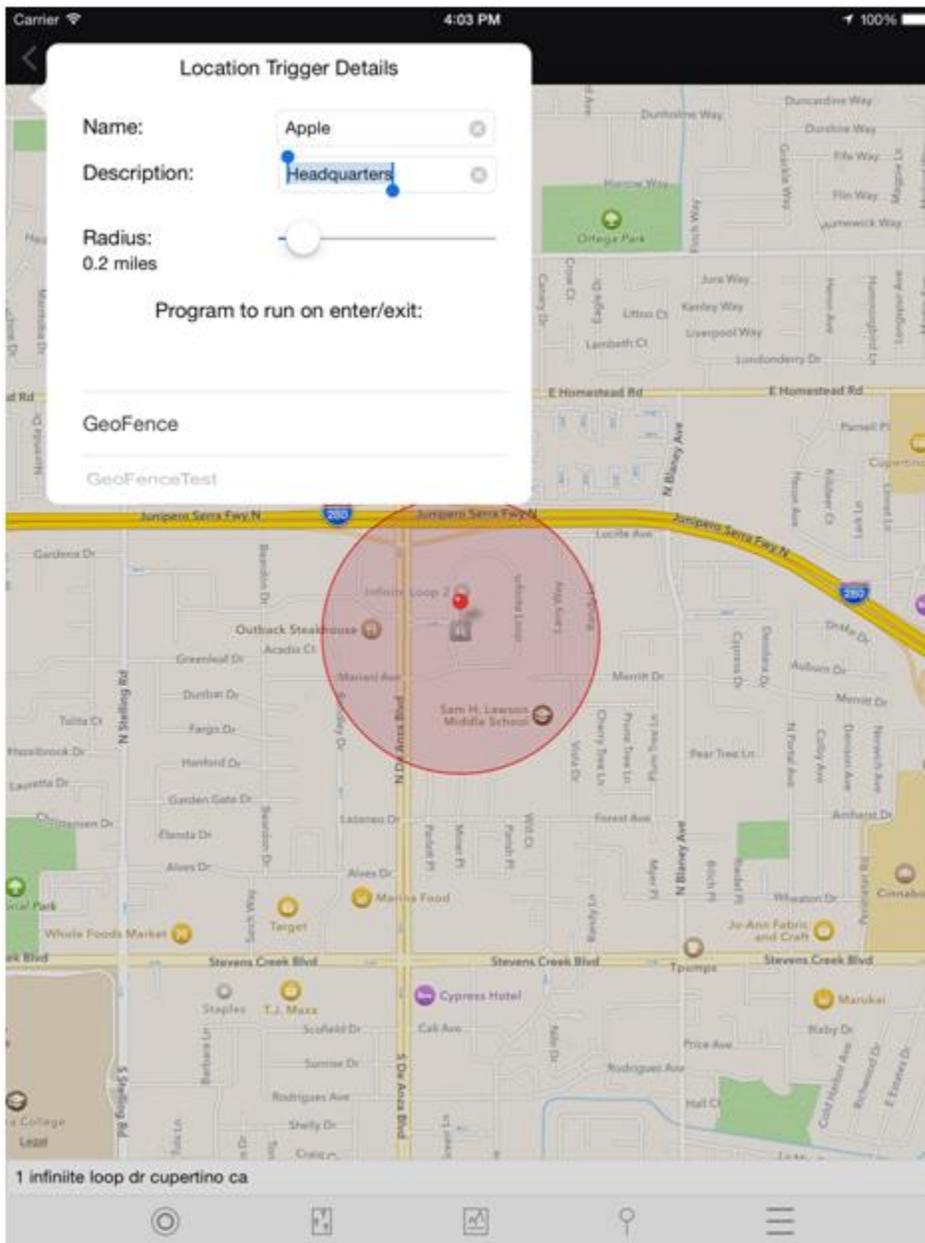
Zoom and move the map to center the desired location and then tap the 4th icon from the left at the bottom of the map - the "circle on a stick" icon. It creates a point on the map and a popup appears for specifying its configuration.

You can also long-press an area on the map to create a Geofence at that location and you can center the map location by using the "Enter address to search" at the bottom of the map.

Enter a name for this Geofence – it is passed to the associated HCA Program when that program is started, a description – also passed as an argument to the program, the radius of the fenced area, and the name of the HCA program to run when entering or exiting the area. Only the programs in the "Location Aware Programs" folder are available for selection.

The other icons at the bottom of the map are (left to right):

- Enable/Disable automatic map zooming to the current location. It is enabled when the icon has a solid blue center and disabled when the inner circle is not filled in.
- Set zoom level to show all fences.
- Show / Hide Terrain overlay on the map.
- Create a point on the map.
- Open a list of fences. Once on that list you can "tap" to open its properties or delete it. To delete, slide it left until the "Delete" button appears then press the "Delete" button.

##end##