Using Sensors To Get Information Sent To Your Mobile Device

iBeacon and Other Bluetooth Low Energy Sensors – Getting Information from the Physical Environment with Mobile Devices

FileMaker recently announced support of iBeacons with FileMaker Go. iBeacon is Apple's protocol that allows mobile devices (iOS and Android) to pick up signals from small sensors using the Bluetooth Low Energy (BLE) protocol. In the case of the iBeacon protocol, devices can be associated with "things." A sensor can be attached, literally, to any physical object, and by utilizing the unique identifier broadcast from the sensor, information about the object is fetched and sent to your phone.

For instance, a sensor is attached to a piece of art in a gallery and users passing by can quickly retrieve information about the specific artwork. You could also place a bunch of sensors on every item on every pallet of inventory on a truck, and the person receiving that inventory could tell if something was missing before even unloading the truck. Unlike barcodes or Quick Response (QR) codes, sensors do not have to be "scanned," they are broadcast and have a range of about 70 meters, with the range on some sensors being configurable to greater or lesser distances. Users do not have to configure anything or make a connection to start receiving sensor data – simply open the app and nearby sensor information will be delivered to the device.
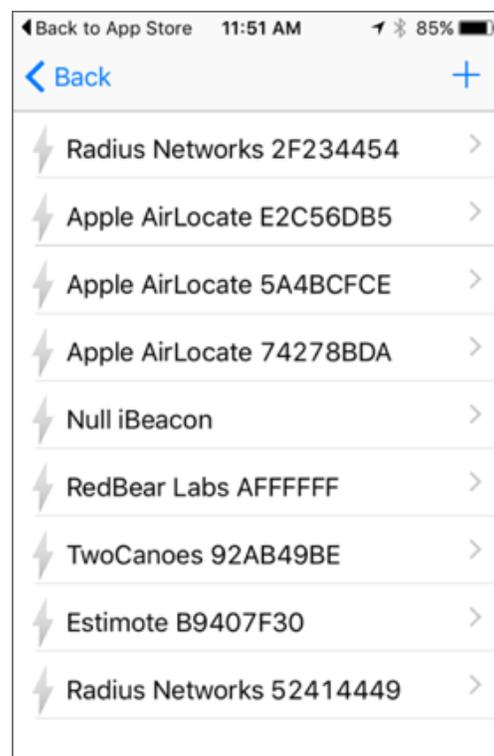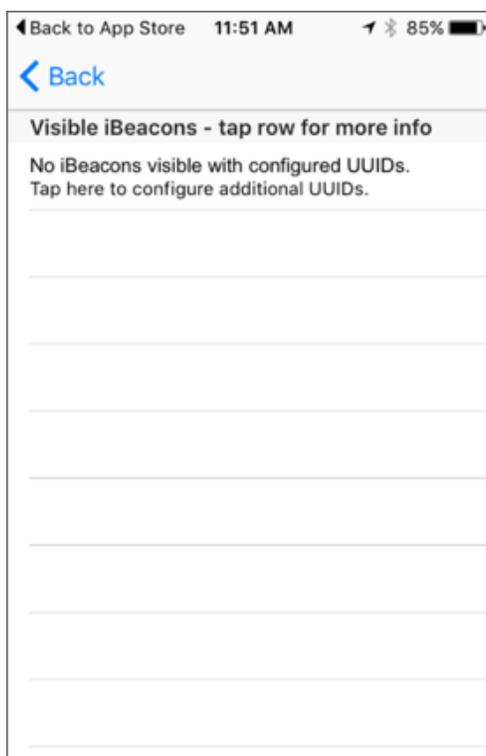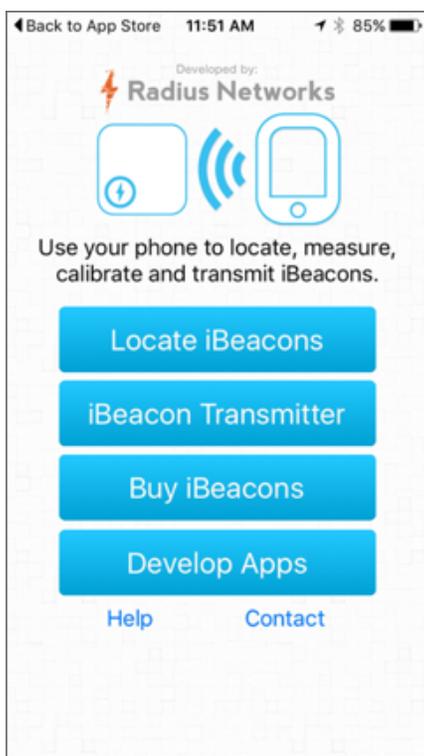
While iBeacon fulfills a specific need, it is not the only game in town. Increasingly, these specialized sensors have the ability to broadcast many protocols at once. Google has a competing protocol called Eddystone, which can broadcast four different packet formats (and with some sensors, you can use all four). Additionally, you can take advantage of all of this sensor goodness with a variety of web services:

UID — Like Apple's iBeacon Protocol where sensors broadcast a unique identifier picked up over Bluetooth for mobile devices

URL — Broadcasts a URL across the Google platform (in Google Play and in Google Chrome); these URLs are displayed without the user having to download any software

TLM — Broadcasts Telemetric data such as battery voltage, beacon temperature, light and motion

EID — For more secure implementations requiring a random unique ID, where the meaning is derived from the cloud resolver hosted by Google

It is also possible to broadcast custom packet formats from sensors.

All of these sensors come in a variety of form factors and capabilities. You can get coin-sized sensors, sticker-type sensors, and even sensors that can be embedded in clothing and washed. Imagine the ability to solve many business needs with sensors that can track movement, relay their location, give temperature readings, monitor light and motion, and retrieve information. It is now easier than ever to incorporate data from the physical environment with your business solutions.

The Revolution11 team is excited to incorporate the sensors when solving client needs — the uses for iBeacon and the other protocols are endless.

Have Questions?
Revolution11 provides a free initial consultation. Contact us and we would be happy to discuss your situation and needs.

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