

# COBI

MOBILE SOFTWARE SOLUTIONS

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## FREQUENTLY ASKED QUESTIONS

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### WHAT IS IBEACON OR BEACONS?

iBeacon® is trademarked but not restricted to fairly new wireless technology developed by Apple, which they built into their operating system and devices since 2013. It is important to note that this is not restricted to only Apple devices and that all recent Android devices also support it too. A “Beacon” is a small standalone device, which emits data (a UUID – Universally Unique Identifier) to its environment using Bluetooth 4.0 Low Energy (BLE) technology. Mobile Apps (running on both iOS and Android devices) are able to listen for signals from such devices and when they come into range, react accordingly (i.e. receive specific location based information and services).

### HOW DOES IT WORK?

iBeacons technology allows your Mobile device to understand its position, even in indoor locations (referred to as geo-location) where smartphones or tablets are not able to pick up GPS signals from satellites overhead. For example, if you pass a beacon in a shop, the retailer’s app (assuming you have it installed) could display a special offer alert for you. On a visit to a museum, the museum’s app would provide information about the closest display, using your distance from beacons placed near exhibits to work out your position.

### WHAT IS BLUETOOTH LOW ENERGY (BLE)?

Bluetooth Low Energy is a wireless personal area network technology used for transmitting data over short distances. As the name implies, it’s designed for low energy consumption and cost, while maintaining a communication range similar to that of its predecessor, Classic Bluetooth.

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## HOW IS BLE DIFFERENT FROM REGULAR BLUETOOTH?

**Power Consumption:** Bluetooth LE has low energy requirements. It can last over 2 years on a single coin cell battery.

**Lower Cost:** BLE is 60-80% cheaper than traditional Bluetooth.

**Application:** BLE is ideal for simple applications requiring small periodic transfers of data. Classic Bluetooth is preferred for more complex applications requiring consistent communication and more data throughput.

## BLE TRANSMISSION INTERVALS

Transmission can happen in intervals from 20ms to 10 seconds. The shorter the Broadcasting interval (ie the more frequent the broadcast) the more battery life will be used, however this allows for quicker discovery by smartphones and other listening devices.

## WHAT IS THE RANGE OF THE BEACON'S SIGNAL?

Maximum range on the market currently is between 65-70m, making Beacons ideal for indoor location tracking and awareness. Some Beacon's however only have a range of 30-40m.

## WHICH DEVICES ARE COMPATIBLE WITH BEACONS?

1. The minimum hardware requirement is Bluetooth 4.0 technology.
2. iBeacon first arrived in iOS7.0, which means it works with iPhone 4s or later, iPad (third generation and onwards) iPad mini and iPod touch (fifth generation or later).
3. As mentioned in a previous question, the same BLE technology is also compatible with Android 4.3 (Jelly Bean) or greater.

Here are some of the Beacon compatible devices:

iPad (3rd generation) and later; iPad Mini (1st generation) and later; iPod Touch (5th generation); Samsung Galaxy S3/S4/S4 Mini/S5; Samsung Galaxy Note 2/3; HTC One; Google/LG Nexus 7 (2013 version)/Nexus 4/Nexus5; HTC Butterfly (aka Droid DNA); Macintosh computers with OS X Mavericks (10.9) and Bluetooth 4.0 using the MacBeacon application from Radius Networks.

## DO BEACONS WORK OUTSIDE?

Beacons can be placed outdoors, however temperature can affect battery life. Some beacons are also waterproof, however placing them in the rain can also reduce the range of the signal.

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## WHAT DOES IT COST AND HOW DO I ORDER?

1 - 20 Beacons @ R299.95 each

21-100 Beacons @ R285 each

101 + Beacons @ R270 each

Order can be placed by emailing [info@cobiinteractive.com](mailto:info@cobiinteractive.com).

Additional postage costs to be determined based on quantity and delivery destination.