

INTREPID 

BEACONS

Discovering Devices Nearby



GOAL

We want to build an experience where nearby users can discover and interact with a host device with as little friction as possible.

iBEACONS



PASSING DATA

Beacons are limited by what they can broadcast.

- Major / Minor Pair
- UInt16 Numbers (0 - 65535)

BROADCASTING

New playlist created on server

Receives Major / Minor identification pair

Host device broadcasts this pair

LISTENING

- On entering an iBeacon region, app is woken into background
- Queries server with Major / Minor pair
- Schedule local notification

Bonus: Automatically appears on homescreen quick open

PROBLEM

iBeacons can only be broadcast from an iOS device when the application is in the foreground

BLUETOOTH LE



FEATURES

Bluetooth has some additional capabilities that we can use:

- Background advertising
- More complex data transmission

TRANSMITTING DATA

Limited by what we can advertise beyond service UUID

Have to connect the devices to pass the Major / Minor values encoded to a characteristic

WHY NOT JUST BLUETOOTH

Wakes application even if completely closed

Lock screen icon

Better discovery experience

DEVICES AS REGIONS

By incorporating this library, particularly the iBeacon features, we can turn user's devices into regions that we can monitor

USER EXPERIENCE

Switching between iBeacon and Bluetooth broadcasting depending on what's available, our application can seamlessly maintain a broadcast to nearby devices

This means users can always connect to nearby Qups, even when the host app is backgrounded

OPEN SOURCE

Coming soon...