

BLUETOOTH LOW ENERGY

The Resurgence

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Friday, October 25, 13





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KEY FEATURES



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LOWER COST

Average cost is around \$3 in bulk.

SO WHY THE RESURGENCE?

HISTORICAL CONTEXT

2006

Nokia released Wibree to produce lower costs, lower power consumption and smaller sizes.

2007

Wibree added to the Bluetooth specification and renamed to Bluetooth Low Energy.

2010

Core Bluetooth 4.0 Specification was adopted which included Bluetooth Low Energy.

2011

Bluetooth Low Energy was rebranded as Bluetooth SMART and Bluetooth SMART READY.

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2013

Android 4.3, *Jelly Bean* was released joining the ranks of Bluetooth Smart Ready mobile devices.

500,000,000

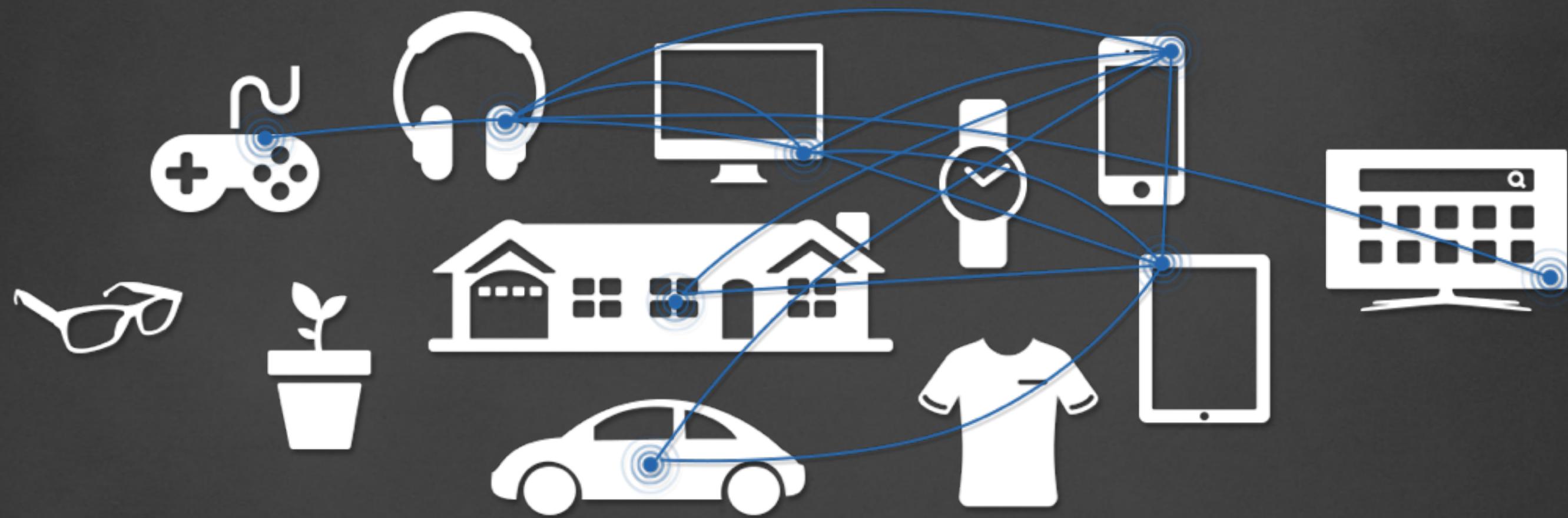
BLUETOOTH LOW ENERGY MOBILE DEVICES

Stuart Carlaw, CRO at ABI Research

CONNECTED LANDSCAPE



CONNECTED LANDSCAPE



CONNECTED LANDSCAPE





CONNECTIONS...

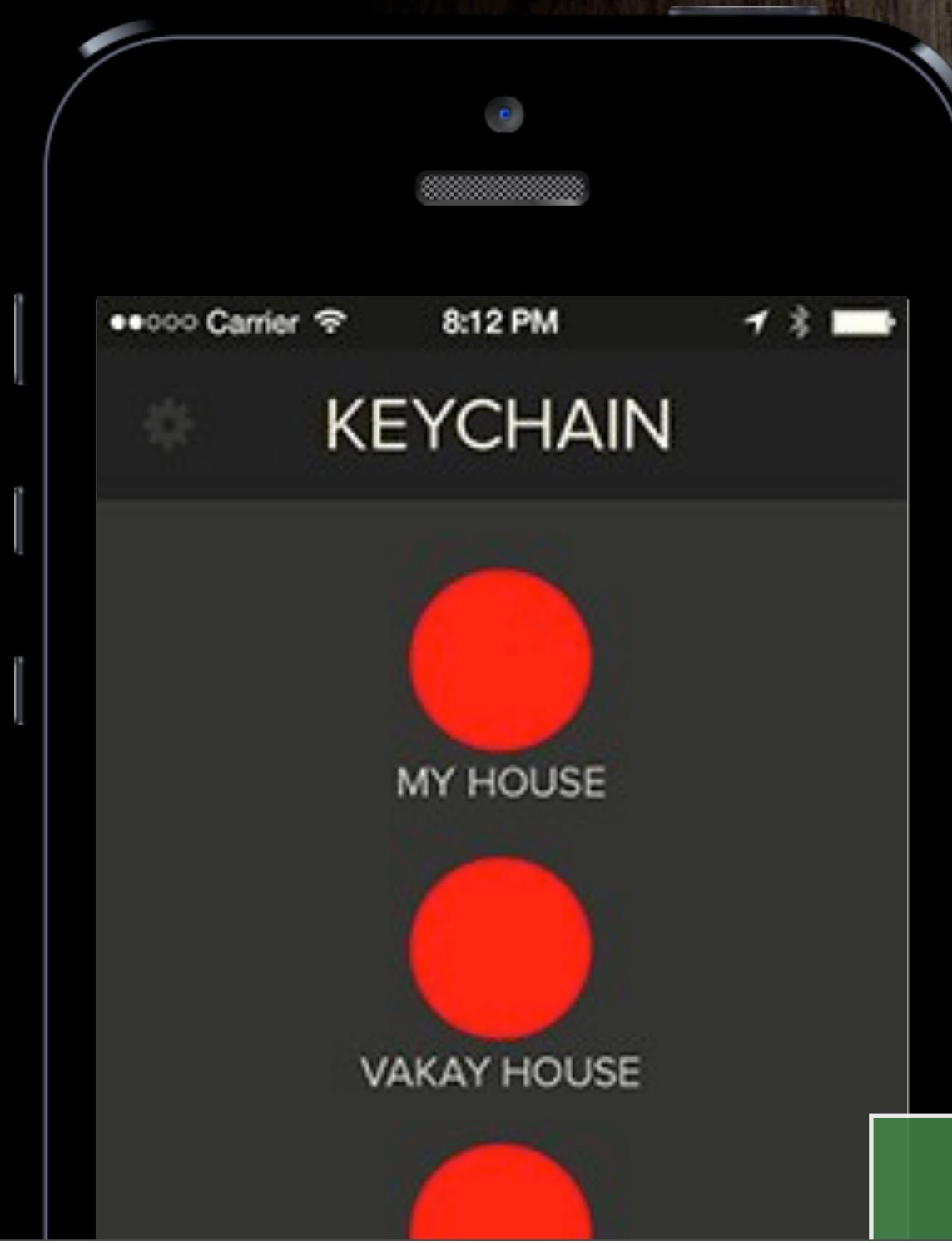
SWEET

A vibrant, wide-angle photograph of a city street, likely in San Francisco, showing a dense urban environment. The foreground features a multi-lane road with yellow and white traffic markings. In the middle ground, a street is filled with numerous cars and a red double-decker bus. The background is dominated by a variety of colorful buildings, including several multi-story houses with different facades and a few commercial structures with signs. One sign clearly reads "Washington". Another sign on the right side of the frame says "99¢ TRADING CO." and "Automotive 415-395". The overall atmosphere is one of a bustling, diverse urban area.

FUTURE & IN MARKET AWESOMENESS

HOME AUTOMATION

MAKING YOUR HOME SMARTER



HOME AUTOMATION



PARROT - FLOWER POWER

APPCESSORY

"An application on a mobile device that interacts with something in the physical world."

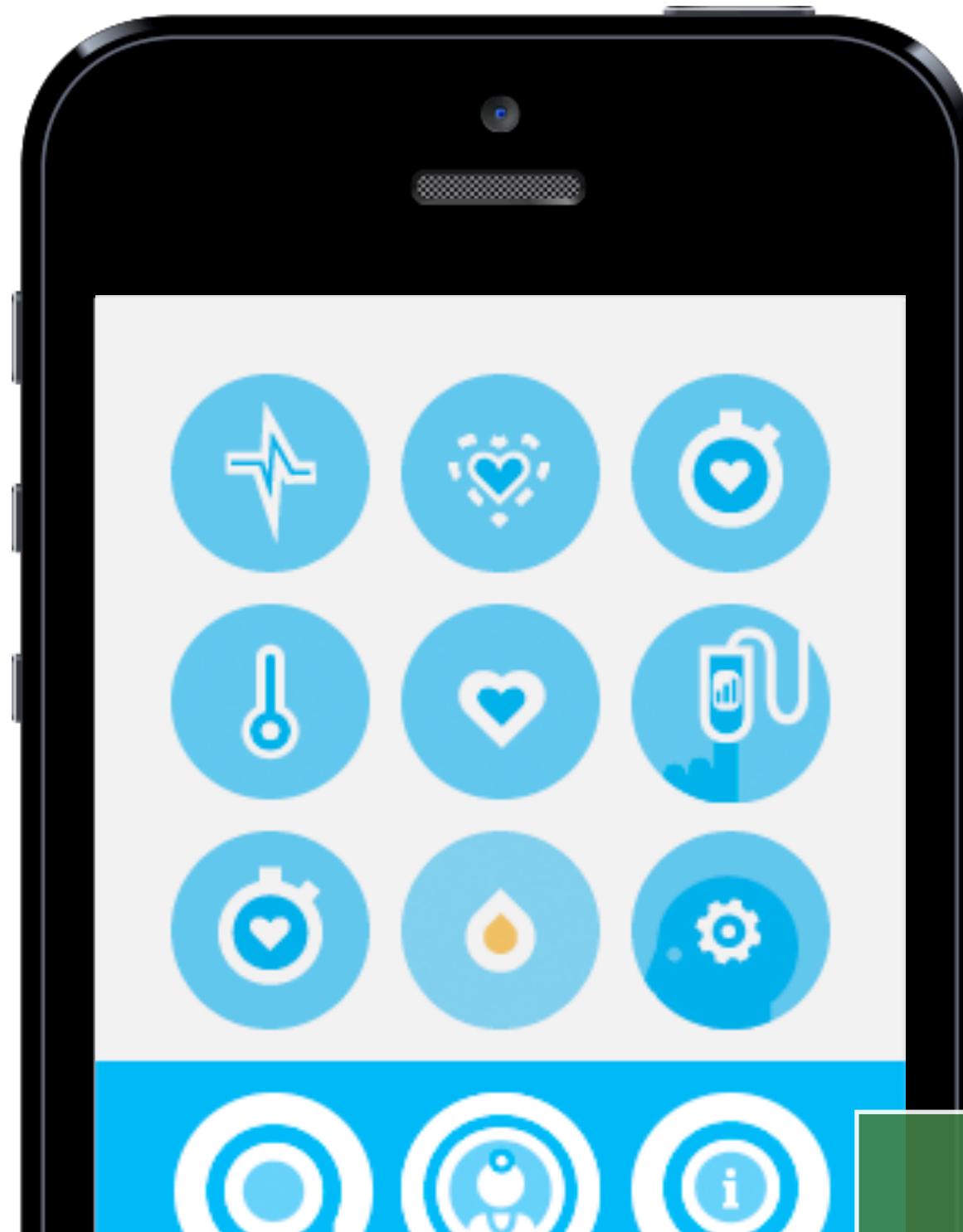
MEDICAL APPLICATIONS

PRODUCTS FOR THE GREATER YOU

MEDICAL

EPFL - BLUE CELL

MEDICAL

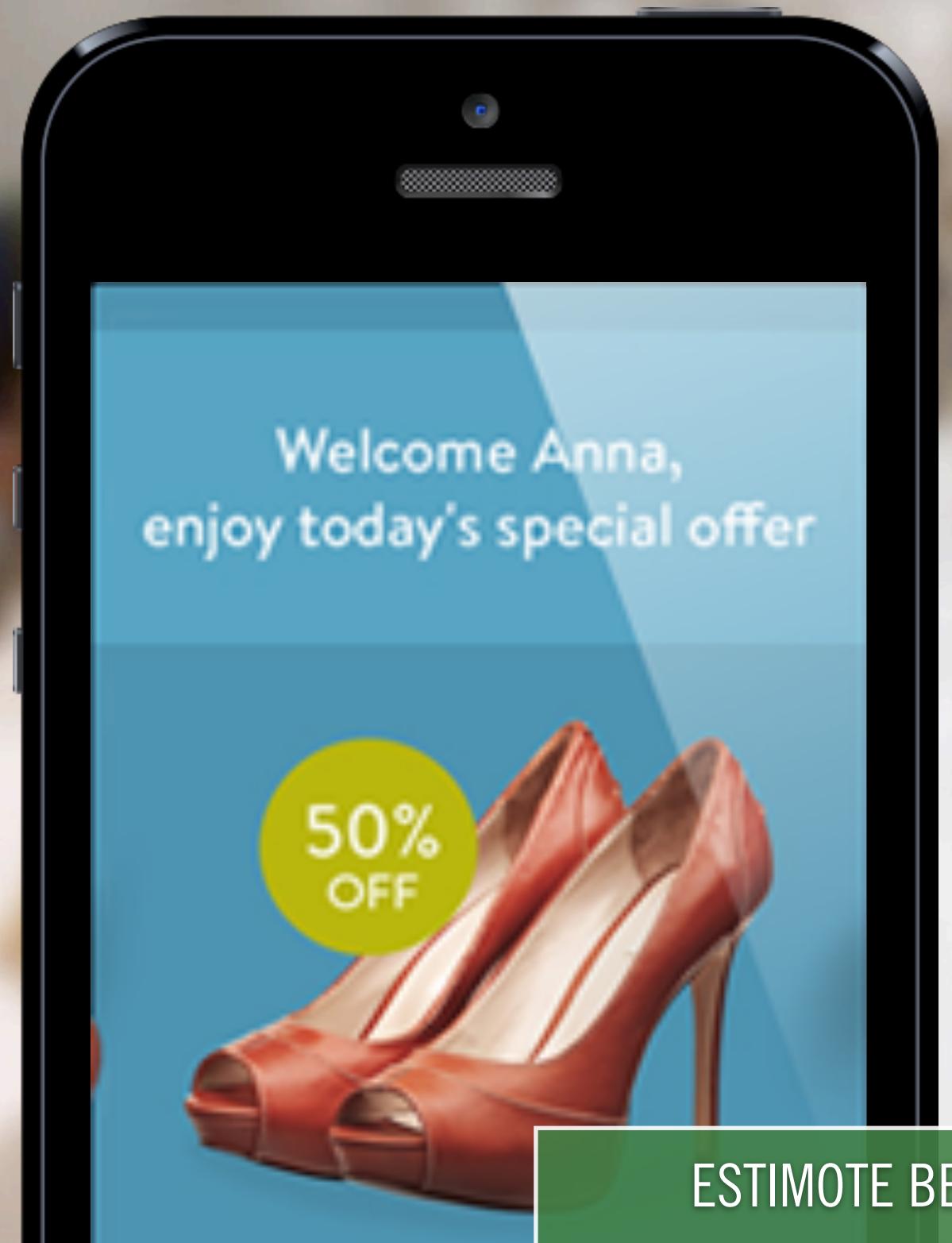


SCANADU - SCOUT

RETAIL APPLICATIONS

BREATHING LIFE INTO THE BRICK & MORTAR

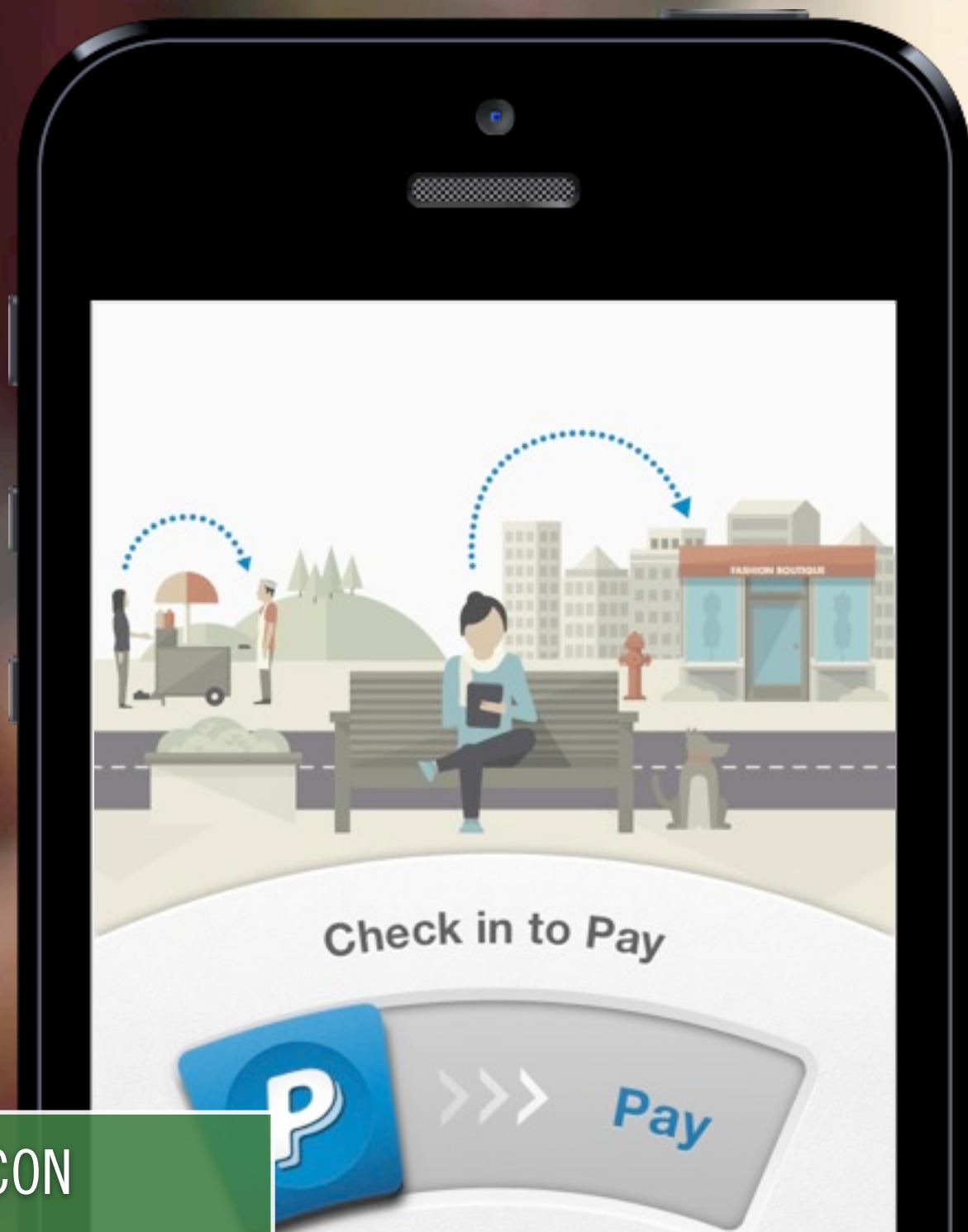
RETAIL



RETAIL



PAYPAL BEACON



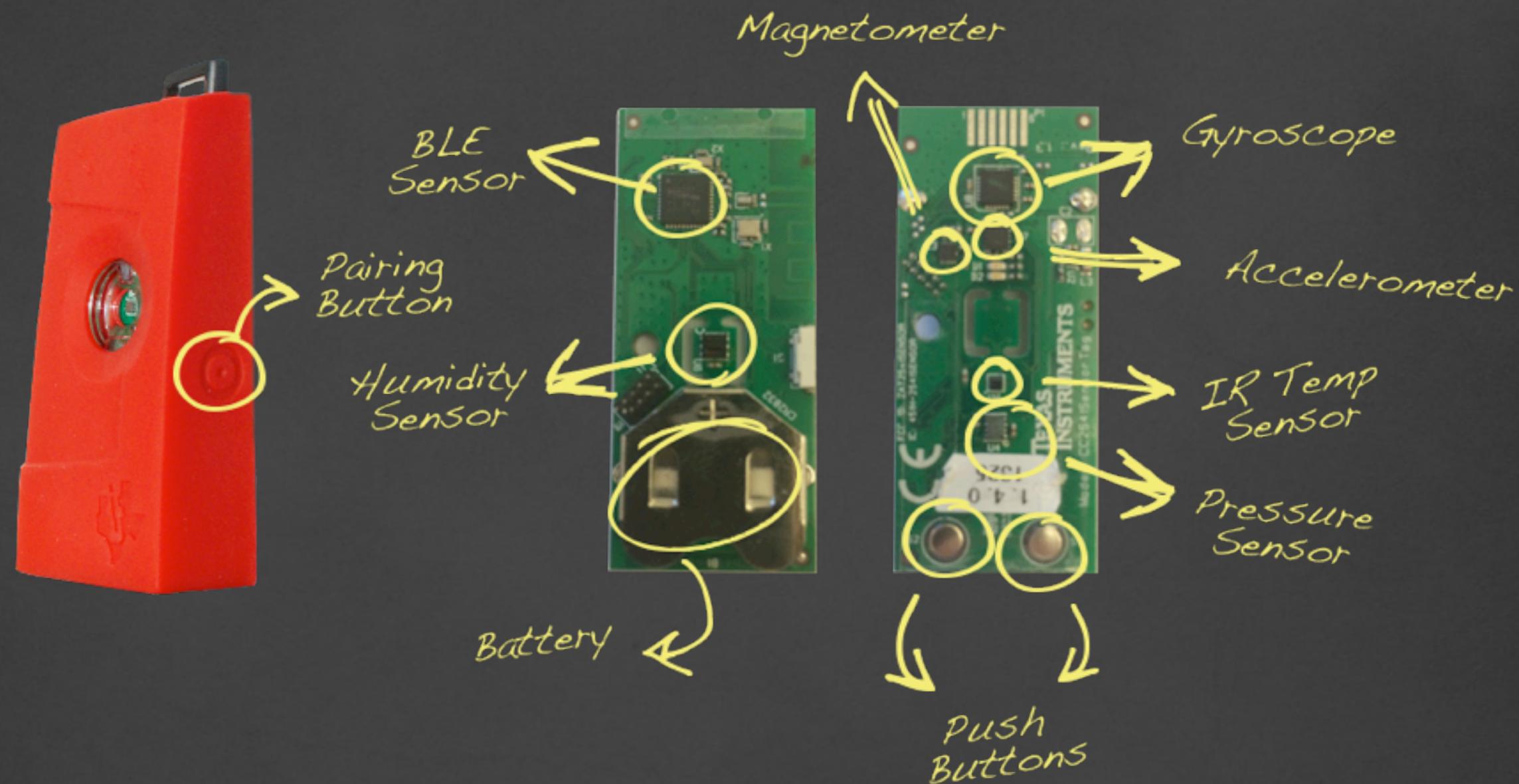
RETAIL-ISH





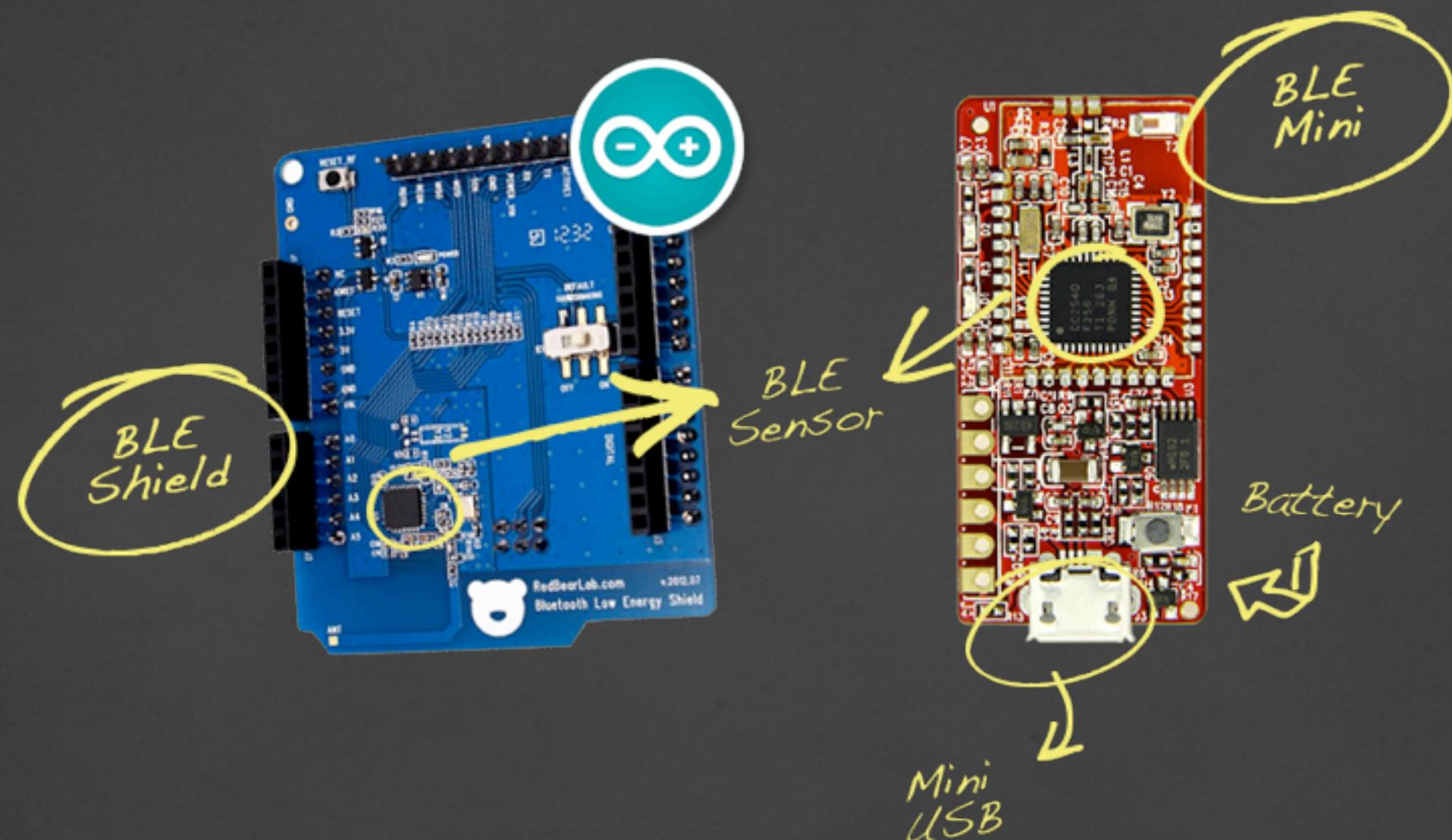
DEVELOPMENT TOOLS





<http://goo.gl/YsC8H3>

DEVELOPMENT TOOLS



<http://redbearlab.com/>

RED BEAR LAB - BLE



CoreBluetooth

- Create `CBCentralManager`
- Discover Peripheral
- Discover Services
- Discover Characteristics
- Connect & Communicate



Frameworks



CoreLocation

- Create `CLLocationManager`
- Create `CLBeaconRegion`
- Monitor Regions
- Range Beacons
- Adjust To Proximity



FEATURE RICH

Bluetooth Low Energy is fast, small, efficient and cost effective.



NUMEROUS APPLICABLE MARKETS

Medical, Home Automation, Retail and many more.



DEVELOPMENT RESOURCE

Numerous development tools and easy to use frameworks for iOS Bluetooth Low Energy development.

DEMO

<https://github.com/mcgaryes>



THANKS!

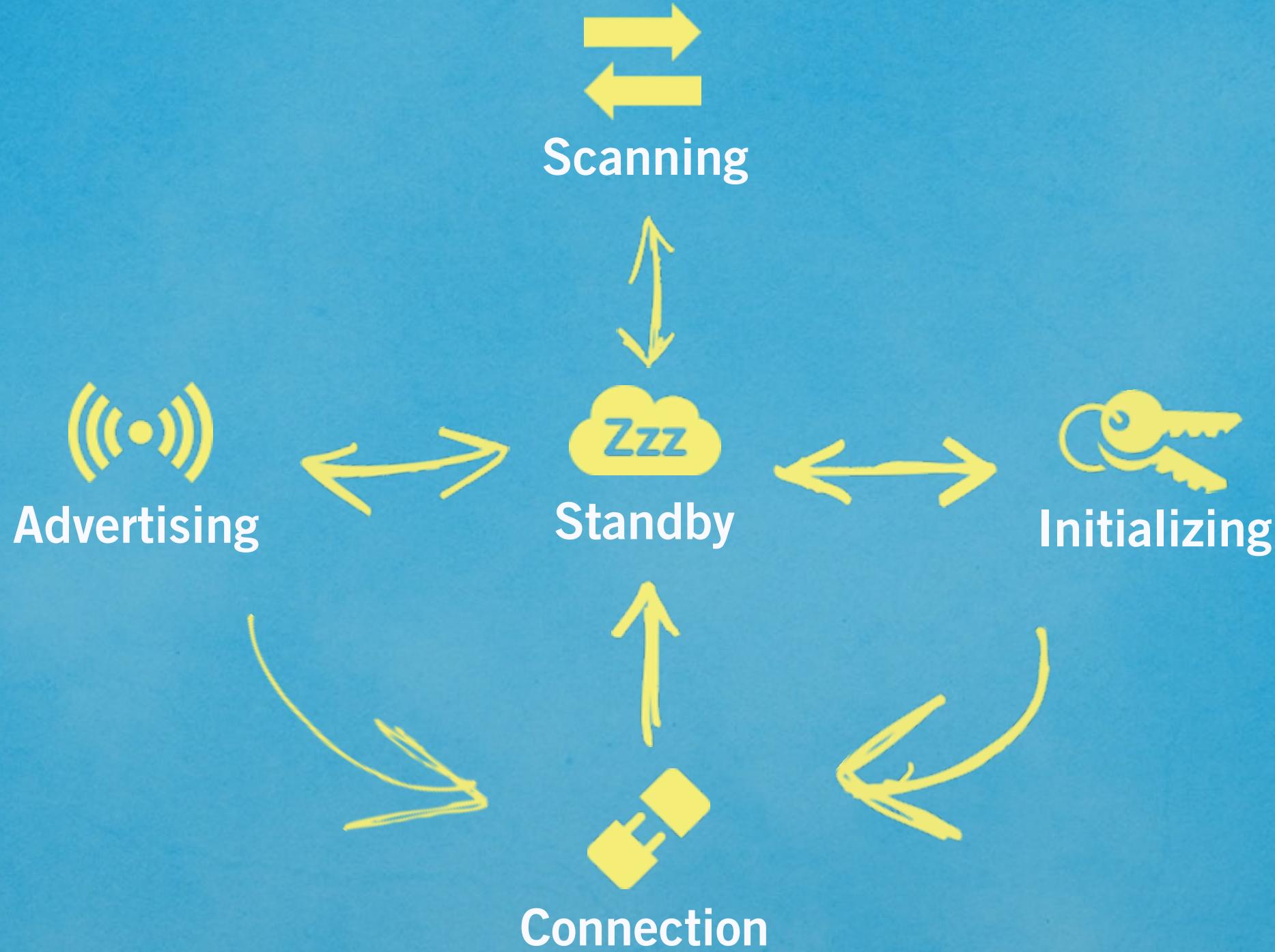
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APPENDIX

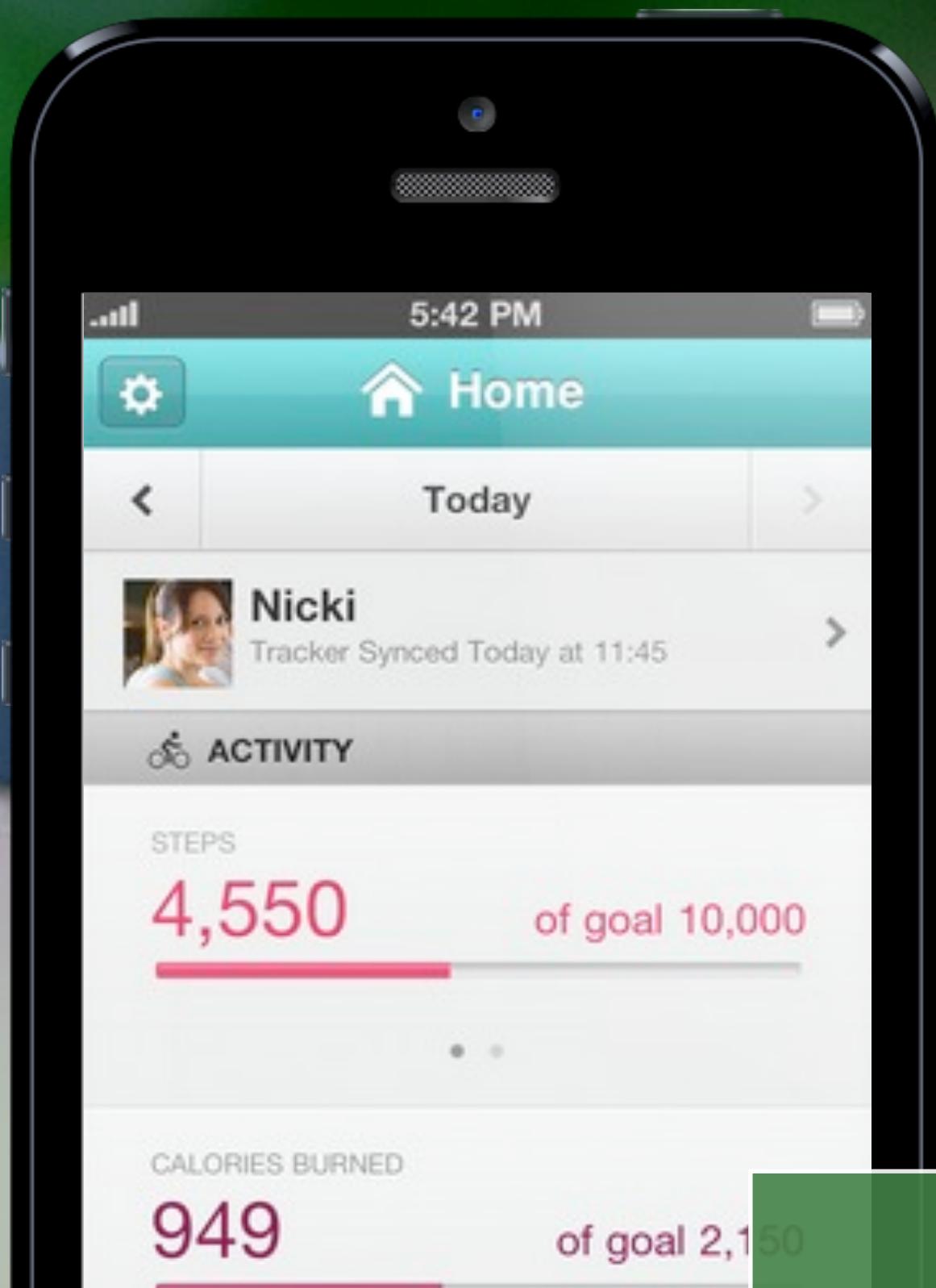
RESURGENCE

"An increase or revival after a period of little activity, popularity, or occurrence."

OPERATING STATES & ROLES



FITNESS



FITBIT - FLEX