



INTRODUCTION TO BLE ON IOS

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CHIEF SOFTWARE OFFICER @ WIRED BEAUTY

SUMMARY

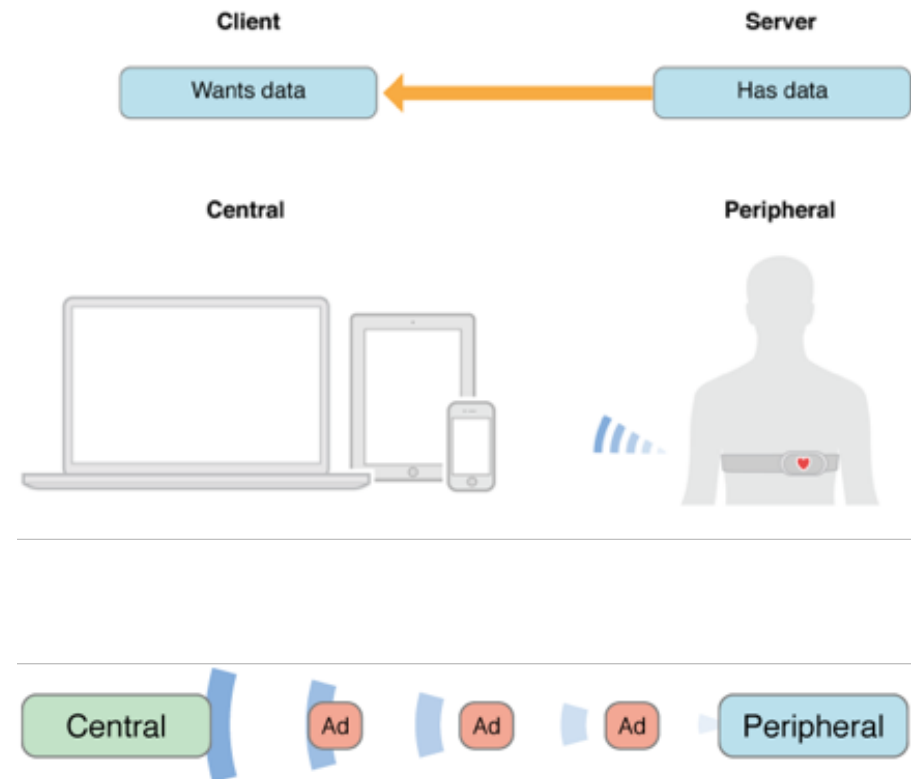
- ▶ BLE Protocol
- ▶ CoreBluetooth
- ▶ The universal battery monitor

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BLE PROTOCOL

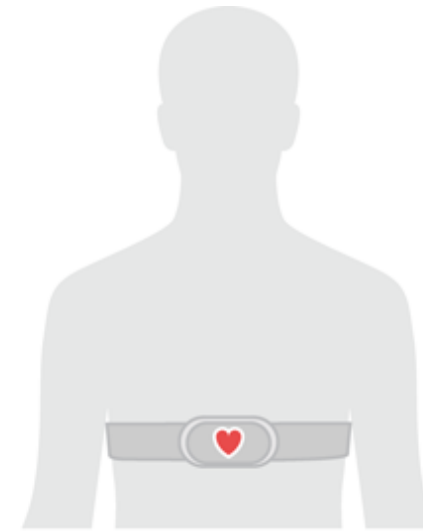
CENTRAL VS PERIPHERAL

- ▶ Central (Master)
- ▶ Peripheral (Slave)
- ▶ Advertising packet

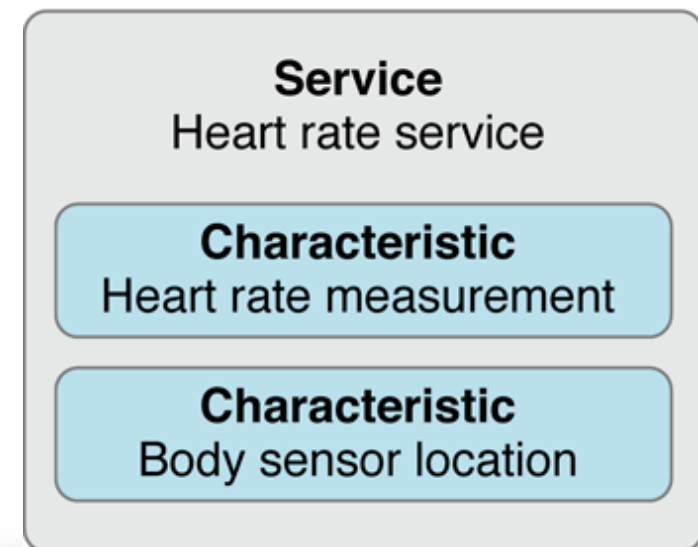


DATA HIERACHY

- ▶ Profiles
- ▶ Services
- ▶ Characteristics
- ▶ Descriptors

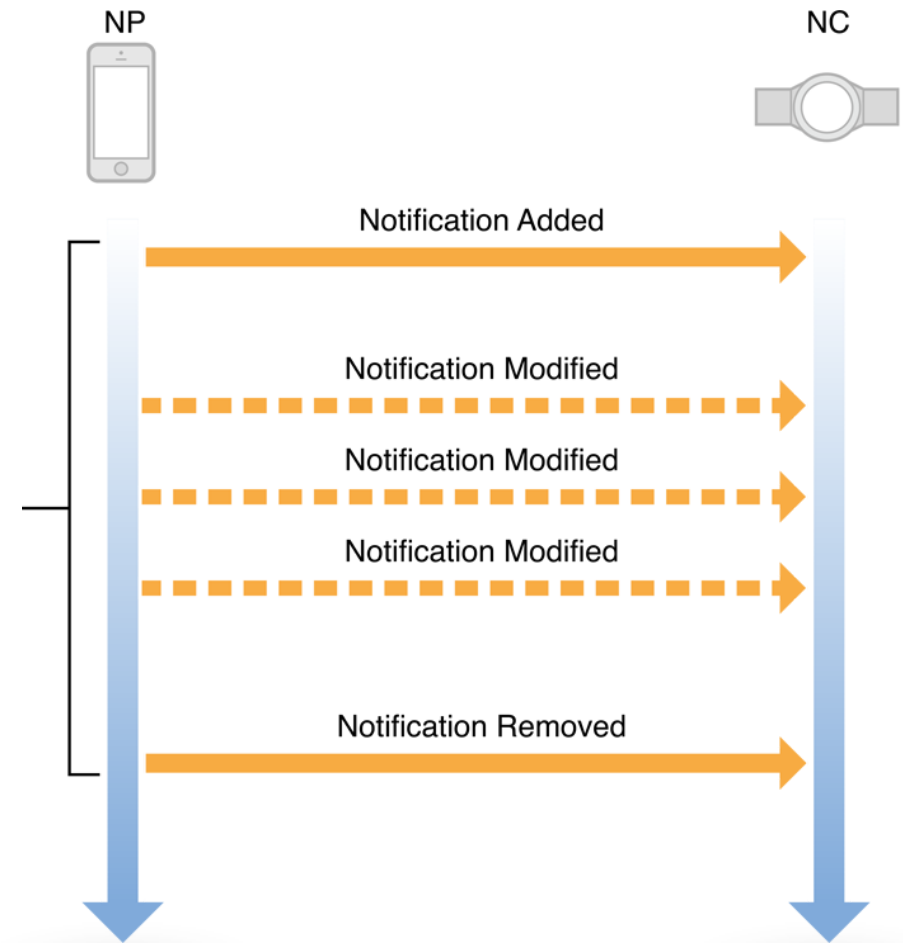


Peripheral



INTERACTION

- ▶ Read
- ▶ Write (w/o response)
- ▶ Notify

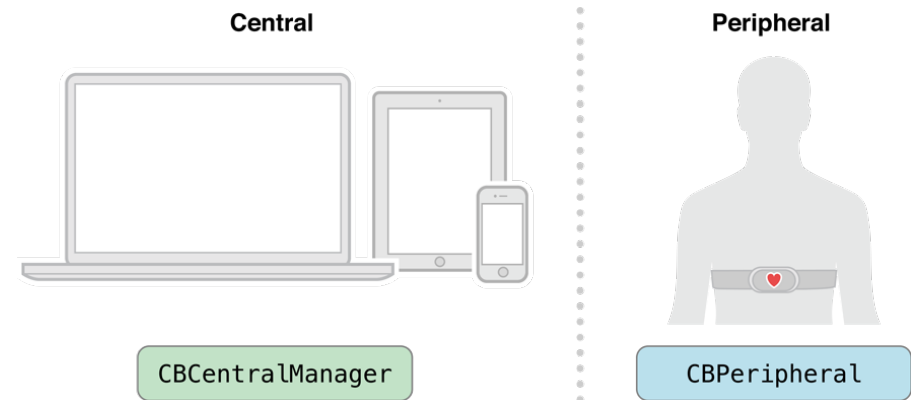


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COREBLUETOOTH

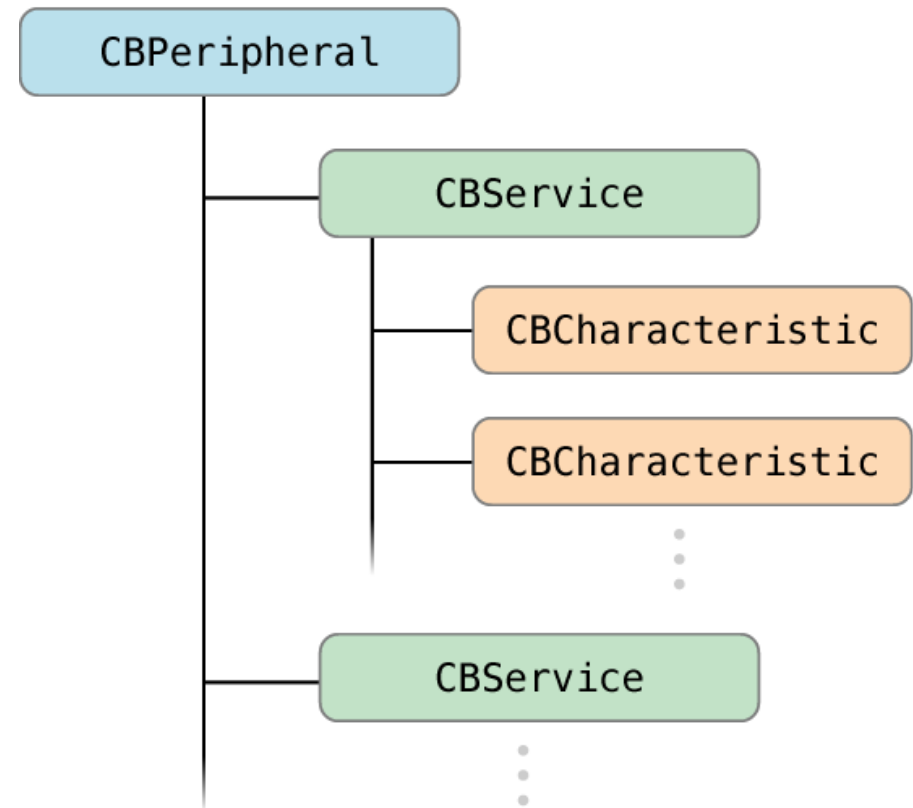
CBCENTRALMANAGER & DELEGATE

- ▶ State of the Bluetooth
- ▶ Discover a peripheral
- ▶ Connect to a peripheral
- ▶ iOS Optimization



CBPERIPHERAL & DELEGATE

- ▶ Discover services
- ▶ Discover characteristics
- ▶ Read / write / notify





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THE UNIVERSAL BATTERY MONITOR

STEP BY STEP

- ▶ Discover BLE devices
 - ▶ Connect to it
 - ▶ Discover services
- ▶ Device using Battery GATT BLE profile?
 - ▶ Read battery level
 - ▶ Notify?

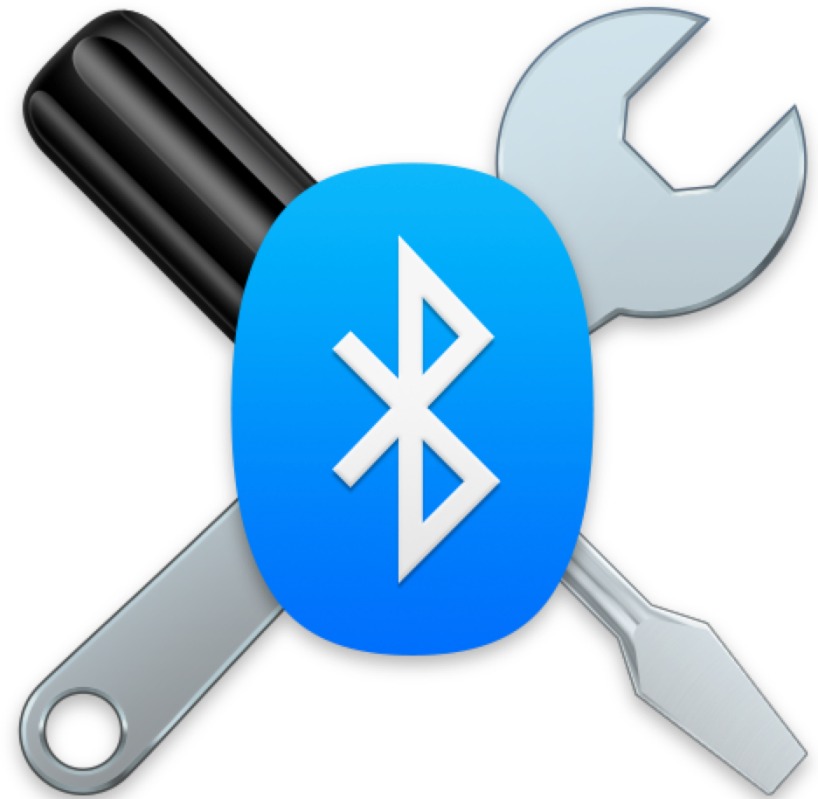
LIGHTBLUE APP

- ▶ Discover devices
- ▶ Discover services
- ▶ Discover characteristics
- ▶ Read / write / notify
- ▶ ...



BLUETOOTH EXPLORER

- ▶ Made by Apple
- ▶ Discover devices
- ▶ Discover services
- ▶ Discover characteristics
- ▶ Read / write / notify
- ▶ ...





LET'S CODE

PRESENTATION AVAILABLE AT: [HTTP://BIT.LY/225SIBM](http://bit.ly/225SIBM)

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