**InRange behavior description (After killed by iOS)**

**Bluetooth state preservation behavior, after app killed by iOS**

When app killed by iOS, core Bluetooth maintains last states of bluetooth, which associated with application. When event received from Bluetooth device application tried to re-launch in background. If next event received to application, then application becomes restore latest state and behave as normal.

**InRange behavior for Link lost after app killed by iOS**

Using state preservation in InRange. After app killed by iOS, core Bluetooth maintains last states of connection between app and Leash. When InRange received event from leash it tries to re-launch in background. Then next event happened it restore latest state and behave as normal.

For the “Link Loss” case it is halfway completed. That’s what when app received “Link Loss” after app killed by iOS, it tries to re-launch in background. But it will not receive any events from Leash because there is not connection with Leash after “Link Loss” so it will not reconnect any more.

**InRange behavior for user re-launch, after app killed by iOS(LL or Connected)**

This scenario is similar as user manually kills the app and re-launch. Here application is already killed by iOS but it is not restored completely. So it is not recovery completely. At that point when user re-launch the app, it start as fresh starting. According to that when InRange manually killed by user Leash make sound until getting connects. So when killed app launch to the background it make sound until getting connect.

**HipKey behavior for killed by iOS**

HipKey did not use state preservation at all. So iOS will not take care about maintain last status of connected devices of HipKey. Therefore HipKey devices getting disconnected after it killed by iOS. And HipKey devices start make sound when it killed by iOS until user manually re-launch it.

*Reference:*

[*https://developer.apple.com/library/ios/documentation/NetworkingInternetWeb/Conceptual/CoreBluetooth\_concepts/CoreBluetoothBackgroundProcessingForIOSApps/PerformingTasksWhileYourAppIsInTheBackground.html*](https://developer.apple.com/library/ios/documentation/NetworkingInternetWeb/Conceptual/CoreBluetooth_concepts/CoreBluetoothBackgroundProcessingForIOSApps/PerformingTasksWhileYourAppIsInTheBackground.html)

Document reviewers:

|  |  |  |
| --- | --- | --- |
| **Name** | **Date** | **Description** |
| Arun Ganeshwaran |  |  |
| Jason Sia |  |  |
| Pradeep Senanayake |  |  |
| Yazied Rahman |  |  |
| Reno Reballos |  |  |