SKYHOOK°

SKYHOOK'S BATTERY CONSCIOUS APPROACH

Skyhook's Context Accelerator SDK delivers the fastest, most reliable mobile location features. Large-scale mobile initiatives often require the monitoring of thousands of venues for location-based triggers or consumer intelligence. Our Infinite Geofencing feature is not limited by existing OS constraints that allow for only 20 geofences to be monitored on iOS and 100 on Android. We can monitor massive geofence campaigns (100,000+) that can be set up in a matter of minutes.

The Context Accelerator SDK has been engineered to allow for large-scale geofence campaign management with limited impact on battery life. Through vigorous and extensive third-party field testing we can proudly state that Context Accelerator **consumes less than 1% of smartphone battery power per hour over the course of a typical day** based on 3000 mAh capacity.

Testing Scenarios

In testing our technology across iOS and Android, we took care to optimize for multiple device usage scenarios that would reflect our customers' needs and a mobile user's best interests:

○ **Stationary Device:** 0.44 - 0.53% battery drain/hour
Less than 1% battery drain was measured while devices were at rest, essentially without leaving the confines of a specific venue—eg. while at home or in an office.

○ **Commuting In and Out of Dense Urban Areas:** 0.91 - 1.32% battery drain/hour
Traveling from rural or suburban areas into cities and dense urban environments, where multiple geofences are present, did not have a significant impact on battery drain.

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○ **Shopping and Traveling by Foot:** 1.24 - 1.43% battery drain/hour
We recorded minimal incremental battery impact when devices traveled through urban environments where hundreds of geofences were present in densely packed areas. This venue density averaged to 1-3 venues every metro city block.

How Skyhook Saves Battery Power

Our Context Accelerator SDK leverages Skyhook's patented technology client-side location technology to enable our location features while optimizing for minimal power consumption. Originally designed for our Precision Location SDK as a way to resolve millions of location requests daily with battery consciousness, this technology has been adapted to Context Accelerator.

○ **Venue Tiles For Local Geofencing**
Skyhook intelligently makes requests for surrounding venue tiles based on connection type and current location of the device.

○ **Intelligently requesting location samples**
Rather than probing for location periodically as with many server-side solutions, Skyhook adjusts the frequency of location requests based on proprietary algorithms and proximity to desired locations.

○ **Additional Compression and Data Transmission**
Skyhook has extensively measured the tradeoffs between compression and size of data transmission, optimizing for minimal power consumption.
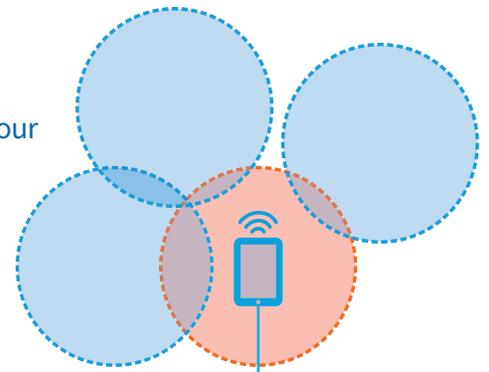
Learn more about Context Accelerator:

resources.skyhookwireless.com

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