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Blocking Mobile In-App Monetized Ad Engagements On Device Lock State

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BLOCKING MOBILE IN-APP MONETIZED AD ENGAGEMENTS ON DEVICE

LOCK STATE

ABSTRACT

This disclosure presents methods implementing blocker code on a mobile device for preventing a monetized ad engagement event from being triggered when a mobile is in the locked state. When ads are visible on mobile devices in a locked state, the user that clicks the ad has to additionally open the lock screen and unlock the device to view the ad landing page or activity. However, when clicks take place organically and advertisers are charged, and the user does not open the lock screen and unlock the device, the user never experiences the landing page of the ad. This disclosure presents a method to resolve this discrepancy. This blocker code is implemented such that it prohibits monetized ad engagement requests from firing if the device is in a "LOCKED" state. The blocker code confirms whether the device is locked and, if so, blocks any monetized ad engagement request from being sent until the device is unlocked.

BACKGROUND

Commonly with in-app mobile advertising, advertisers pay for user clicks. Advertisers are willing to pay per click because each click results in a user experiencing the click-through event designated by the advertiser. This click-through event may be the opening of a web page in a browser, the viewing of an app on screen, or some other mobile device activity launched as a direct result of the ad click. A popular placement for in-app ads on mobile devices is on the lock screen of the device in question. Another popular placement is on a "charging status" screen, which shows when the phone is plugged in and charging. In both cases, the device is in a "LOCKED" state. If a user has a security code of any kind on their device, other activities cannot be accessed without entering this code. This is a problem with the two aforementioned ad placements in that, in all cases, the advertiser is billed at the time

of the click, and the user may not experience the click-through event for which the advertiser paid. This could happen in either of the two following ways: 1) the lock screen adds friction, erecting a barrier between an ad click and the user experiencing the click-through event associated with that click. Due to this barrier, the user reconsiders and decides not to unlock the device, or 2) for whatever reason, a user cannot unlock the device. In both of these cases, clicks take place organically and advertisers are charged, but the user never experiences the intended click-through event due to the device being locked.

DESCRIPTION

This disclosure presents methods implementing blocker code on a mobile by preventing an ad engagement request from being triggered when a mobile is in the locked state. Device lock state is programmatically accessible via the API of the mobile operating system. The blocker code as disclosed above confirms whether the device is locked and, if so, blocks any monetized ad engagement request from being sent until the device is unlocked. This is accomplished via a mutex that would protect the code for the monetized engagement request from being accessed until the phone is unlocked.

This solution helps ensure that advertisers will not be billed unless a user actually experiences the event that the advertiser paid for. This solution does not compromise the security of the device lock by allowing a locked device to open other activities.