

# Search Ads Attribution API

## Tracking Campaign Performance

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### Overview

Search Ads App Attribution enables developers to track and attribute app downloads that originate from Search Ads campaigns. With Search Ads App Attribution, iOS developers have the ability to accurately measure the lifetime value of newly acquired users and the effectiveness of their advertising campaigns.

### Key Benefits

- Easily measure effectiveness of your Search Ads campaigns.
- Enable your app for attribution at any time and begin tracking app downloads from your existing Search Ads campaigns.
- Access information about the ad that resulted in a tap and download within 30 days: the campaign name and ID, ad group name and ID, keyword, and tap and download dates
- Since the data is returned as an NSDictionary object, pass the entire data object to your server; your app will not need to be updated even if the data structure returned by Search Ads changes.

### Implementation

To enable your app for Search Ads Attribution, follow these steps:

1. Add the iAd framework to the Xcode project for your app.
2. Import the iAd headers in the file containing your attribution code.
3. In your app, check for Search Ads attribution.
4. Handle errors and recheck if required.
5. "Phone home" and send the downloaded data to your server.

### Requirements

- This feature is available in all Search Ads-supported countries for developers running Search Ads campaigns.
- To track attribution, the app must be compiled with the appropriate headers (available in Xcode for iOS 10.0 or later).
- App download data is available for at least the past 12 months for users running iOS 10.0 or later

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## 1 Add the iAd framework

The iAd framework is bundled with Xcode. To add the iAd framework to the Xcode project file for your app:

1. Go to your target view and select General.
2. Scroll down to a section called Linked Frameworks and Libraries and click the plus (+) icon.
3. In the dropdown menu, search for iAd.
4. Select iAd.framework and click the Add button.

## 2 Import the iAd headers

Import the iAd headers into your app, typically in the file containing your attribution code. This header file is dependent on the iOS version for which you compile your app in Xcode. Search Ads Attribution requires iOS 10.0 or later.

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## 3 Check for Search Ads attribution

In your app, check for Search Ads attribution once, such as at first open or when registration is complete. Store the data locally so that you do not need to call again.

```
#import <iAd/iAd.h>
/*!
 * @method requestAttributionDetailsWithBlock:
 *
 * @param completionHandler
 * A block which will be called with details related to the attribution status of the app.
 * The attributionDetails dictionary will contain click and download dates
 * as well as other specific campaign related information provided by Search Ads. If the
 * attributionDetails
 * dictionary is nil, an NSError is passed with an ADClientError enum.
 *
 * The handler will be called on an arbitrary queue.
 *
 * @discussion
 * Provides a way for an app to determine when an ad was shown to the user
 * which resulted in the user's download of the app.
 */
- (void)requestAttributionDetailsWithBlock:(void (^)(NSDictionary *attributionDetails, NSError
 *error))
completionHandler NS_AVAILABLE_IOS(9_0);
```

## 4 Handle any errors

Handle any errors you receive and re-poll for data, if required. Use `ADClientErrorDomain` to capture returned errors.

In the Search Ads Attribution API, there are two error values, `ADClientErrorUnknown` and `ADClientErrorLimitAdTracking`. If you receive `ADClientErrorUnknown`, wait a few seconds and try again.

When you have successfully retrieved your attribution data, you will not need to poll for data again; the values you have retrieved will not change.

If you receive `ADClientErrorLimitAdTracking`, it means the user has turned on Limit Ad Tracking on their iOS device. No data will be available about this user's ad taps and conversions.

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## 5 "Phone home"

Send the downloaded data to your server. When your app has retrieved the `NSDictionary` object (in the sample below the object is `attributionDetails`), you can upload the data to your servers, with any user registration data you want, and using any method of your choice.

```

/*!
 * @const ADClientErrorDomain
 *
 * @discussion
 * Error domain for NSError objects passed to the completionHandler as a
 * result of calling:
 *
 * • -[ADClient SharedClient] requestAttributionDetailsWithBlock]
 *
 */
extern NSString * const ADClientErrorDomain;
/*!
 * @enum ADClientError
 *
 * @const ADClientErrorUnknown
 * General errors that aren't covered by one of the more specific error reasons.
 * This is generally related to connectivity issues.
 *
 * @const ADClientErrorLimitAdTracking
 * The device has Limit Ad Tracking enabled. It will not be possible to receive
 * attribution details for app purchases made on this device.
 *
 * @discussion
 * Error codes for NSError objects passed to the completionHandler block
 * when calling the requestAttributionDetailsWithBlock method.
 */
typedef NS_ENUM(NSUInteger, ADClientError) {
    ADClientErrorUnknown = 0,
    ADClientErrorLimitAdTracking = 1,
};
// Call the iOS10 attribution API
[[ADClient sharedClient] requestAttributionDetailsWithBlock:^(NSDictionary *attributionDetails,
NSError *error) {
    if(!error) {
        // Send the attributionDetails dictionary to your server for further processing.
        return;
    }
    if(error.code == ADClientErrorLimitAdTracking) {
        // The device has limit ad tracking enabled. It will not be possible to retrieve attribution
        details.
        return;
    }
    // For any other errors, you may schedule a time to call the API again,
    // later in this session or the next time the app is launched.
}];

```

## Returned Values

This table shows the data dictionary keys and data types returned by the Search Ads Attribution API.

Dictionary Key	Type	Comments
iad-attribution	Boolean	True if user clicked on a Search Ads impression within 30 days prior to app download.
iad-click-date	Date/time string	Date and time the user clicked on a corresponding ad
iad-conversion-date	Date/time string	Date and time the user downloaded your app after clicking on a Search Ad.

Dictionary Key	Type	Comments
iad-purchase-date	Date/time string	Date and time the user first downloaded your app. In the case where iad-conversion-type = "Redownload", this represents the original purchase date. This may or may not have been associated with a Search Ad.
iad-conversion-type	String	ConversionType identifies a conversion as a new download or a redownload. A redownload occurs if a user has previously downloaded the app but since deleted it from their device. iad-conversion-date represents their latest download via a Search Ad.
iad-keyword-matchtype	String	This can either be Broad, Exact or Search Match.
iad-org-name	String	The organization that owns the campaign which the corresponding ad was part of.
iad-campaign-id	Integer	The ID of the campaign which the corresponding ad was part of.
iad-campaign-name	String	The name of the campaign which the corresponding ad was part of.
iad-adgroup-id	Integer	The ID of the ad group which the corresponding ad was part of.
iad-adgroup-name	String	The name of the ad group which the corresponding ad was part of.
iad-keyword	String	The keyword that drove the ad impression which led to the corresponding ad click.

## Sample Returned Data

This sample code shows the structure that you can expect to receive when you call `requestAttributionDetailsWithBlock`.

```
{
  "Version3.1" = {
    "iad-attribution" = true;
    "iad-org-name" = "Light Right";
    "iad-campaign-id" = 15292426;
    "iad-campaign-name" = "Light Bright Launch";
    "iad-purchase-date" = "2016-10-14T17:18:07Z";
    "iad-conversion-date" = "2016-10-14T17:18:07Z";
    "iad-conversion-type" = "Download";
    "iad-click-date" = "2016-10-14T17:17:00Z";
    "iad-adgroup-id" = 15307675;
    "iad-adgroup-name" = "LightRight Launch Group";
    "iad-keyword" = "light right";
    "iad-keyword-matchtype" = "Broad";
  }
}
```

## Additional Information – Frequently Asked Questions

**Does the Search Ads Attribution API support requesting attribution data for apps downloaded as part of an iTunes App Bundle?**

No, attribution for apps downloaded as part of an iTunes App Bundle is not supported.

**Does the Search Ads Attribution API support app downloads occurring via iOS Family Sharing?**

No, attribution for app downloads occurring via Family Sharing is not supported.

**I am not the owner of the campaign data. How do I receive more information about the pricing or targeting used in the campaign?**

Please contact the campaign owner for more information. The campaign id and name in the attribution data should help you identify who ran the campaign to promote your app.

**How can I tell when I will get attribution data and when I will not?**

Attribution data is available when a user taps on a Search Ads impression and either downloads or re-downloads the corresponding attribution-enabled app within 30 days of tapping.

**Additional criteria:**

- All of the above actions must happen on the same device.
- The click has to come from a Search Ads impression.
- The download or re-download actions that occur within 30 days of the ad click either come from the organic iTunes App Store listing or a Search Ads impression.

**My campaign's attributed conversions are different from the conversions I see from my Search Ads reports. How can I explain the difference?**

The following can explain the difference:

**Limited Ad Tracking**

- Conversions from users who have turned on Limited Ad Tracking will appear in your Search Ads reports, but will not be available for Search Ads attribution.

**App Downloads vs. App Opens**

- Search Ads counts when a user downloads an app, whereas the Search Ads Attribution API counts only when the app is opened.

**Click Latency**

- Most users that click on a Search Ads impression immediately download the app. When the app is opened immediately and the Search Ads Attribution API is called, the corresponding ad click might not have been processed by our system yet due to some latency. We recommend setting a delay of a few seconds before retrieving attribution data.