



# **Search Ads Attribution API**

**Tracking Campaign Performance**

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# Overview

Search Ads Attribution API enables iOS developers to track and attribute app downloads that originate from Search Ads campaigns. With Search Ads Attribution API, 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. For Example: 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. iAd framework: Add the iAd framework to the Xcode project for your app.
2. iAd headers: Import the iAd headers in the file containing your attribution code.
3. Search Ads attribution: In your app, check for Search Ads attribution.
4. Error handling: Handle errors and recheck if required.
5. "Phone Home": "Phone home" and send the downloaded data to your server.

## Requirements

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

- This feature is available in all Search Ads-supported storefronts.
- 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.

## iAd framework

The iAd framework is bundled with Xcode. Follow these steps 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.

## 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.

## 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);
```

## Error handling

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.

## "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
<code>iad-attribution</code>	Boolean	True if user clicked on a Search Ads impression within 30 days prior to app download.
<code>iad-click-date</code>	Date/time string	Date and time the user clicked on a corresponding ad
<code>iad-conversion-date</code>	Date/time string	Date and time the user downloaded your app after clicking on a Search Ad.
<code>iad-purchase-date</code>	Date/time string	Date and time the user first downloaded your app. In the case where <code>iad-conversion-type = "Redownload"</code> , this represents the original purchase date. This may or may not have been associated with a Search Ad.
<code>iad-conversion-type</code>	String	ConversionType identifies a conversion as a new download or a redownload. A redownload is a download of an app a user had previously deleted from their device. Or, a download of the same app by a user on an additional device. <code>iad-conversion-date</code> represents their latest download via a Search Ad.
<code>iad-keyword-matchtype</code>	String	This can either be Broad, Exact or Search Match.
<code>iad-org-name</code>	String	The organization that owns the campaign which the corresponding ad was part of.
<code>iad-campaign-id</code>	Integer	The ID of the campaign which the corresponding ad was part of.
<code>iad-campaign-name</code>	String	The name of the campaign which the corresponding ad was part of.
<code>iad-adgroup-id</code>	Integer	The ID of the ad group which the corresponding ad was part of.
<code>iad-adgroup-name</code>	String	The name of the ad group which the corresponding ad was part of.
<code>iad-keyword</code>	String	The keyword that drove the ad impression which led to the corresponding ad click.
<code>iad-creativeset-id</code>	Integer	The ID of the Creative Set which the corresponding ad was part of.
<code>iad-creativeset-name</code>	String	The name of the Creative Set which the corresponding ad was part of.

## 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";
    "iad-creativeset-id" = "456093";
    "iad-creativeset-name" = "Nature Images";
  }
}
```

## FAQ

### **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 redownloads 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 eventual download or redownload can occur on the organic iTunes AppStore listing or a Search Ads impression.

### **My campaign's attributed conversions are different from the conversions that I see on my Search Ads reports. What are the differences?**

The following areas will highlight the difference:

#### **Limited Ad Tracking**

Conversions from users who have turned on Limited Ad Tracking (LAT On) 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.