

smaato[®]

"Example" would like per-
mission to track you across
apps and websites owned
by other companies.
Your data will be used to deliver
personalized ads to you.

Allow Tracking

Ask App Not to Track

Maintaining Compliance with iOS 14

Apple's new IDFA privacy policies are having a major impact on the industry. Luckily, SKAdNetwork offers a compliant, user-friendly alternative.

Table of Contents

Introduction

- iOS 14 and Apple's Privacy Laws, [p. 2](#)
- Industry Impact, [p. 3](#)

Ensuring Compliance with NextGen SDK

SKAdNetwork

- What is an SKAdNetwork?, [p. 4](#)
- How Does SKAdNetwork Work?, [p. 4](#)
- Enabling SKAdNetwork Attribution Through Smaato, [p. 6](#)

♦ **How To: Publishers**

- » Updating Your plist, [p. 7](#)

♦ **How To: DSPs/Marketers**

- » Requesting SKAdNetwork IDs, [p. 13](#)
- » Setting Up Install Attribution Flow, [p. 13](#)
- » Updating Bid Response, [p. 15](#)
- » Measuring Success, [p. 16](#)

Conclusion

Introduction

What is IDFA?

IDFA is Apple's Identifier for Advertisers. It creates a unique ID tag for each device, which enables ad tracking.

Previously, the default was that users were opted in to sharing this unique identifier. Eventually, some user-privacy solutions were put in place, like Limit Ad Tracking (LAT). Users could choose to opt out, by selecting Settings > Privacy > Advertising > Limit Ad Tracking. LAT would wipe out the IDFA, replacing it with zeros.

But unless a user actively sought out LAT, IDFA-sharing was the default.

What's the deal with iOS 14?

On June 24, at the 2020 Apple Worldwide Developers Conference, Apple announced big changes to its AppStore privacy policy. What caused the biggest stir?

AppTrackingTransparency in iOS 14.

AppTrackingTransparency is a new framework with iOS 14, and affects how devices share data. Instead of devices having IDFA-sharing set as the default, iOS requires explicit permission for tracking users and accessing IDFA.

What counts as tracking? Apple shared the following (including, but not limited to):

- [Displaying targeted advertisements](#) in your app based on user data collected from apps and websites owned by other companies.
- [Sharing device location data](#) or email lists with a data broker.
- [Sharing a list of emails, advertising IDs, or other IDs](#) with a third-party advertising network that uses that information to retarget those users in other developers' apps or to find similar users.
- [Placing a third-party SDK in your app](#) that combines user data from your app with user data from other developers' apps to target advertising or measure advertising efficiency, even if you don't use the SDK for these purposes. For example, using an analytics SDK that repurposes the data it collects from your app to enable targeted advertising in other developers' apps.

There's a new default in town.

Users are opted out of sharing IDFA – and must choose to opt in.

¹ Mobile Dev Memo, June 2020

Industry Impact

Historically, publishers leveraged user identifiers like the IDFA to drive higher eCPMs through well-targeted ads. IDFAs also allowed marketers to execute effective campaign targeting, retargeting, and attribution.

But now, that data sharing is completely optional, and the default is that users are opted out. Apple's new requirements are expected to result in significant opt-out rates – a projected at least 80%¹ at least. In other words, **only 20% of current users are expected to opt in to this level of tracking.**

Apple initially deferred its requirement to use the AppTrackingTransparency framework. But In January 2021, Apple announced that rollout for all users will be in the spring of 2021. (Beta users of iOS 14 may already see publisher prompts requesting opt-in.)

While publishers can continue to prompt users to opt-in, IDFA information may only be accessed with explicit permission.

As a result, marketers must find new ways to measure app-install campaign efficacy, and to otherwise measure success.

Luckily, there are options.

Ensuring Compliance with NextGen SDK

We are committed to equipping our publishers with the controls needed to own their monetization strategy, and giving our marketers access to quality audiences worldwide.

The Smaato Digital Ad Tech Platform

delivers powerful tools to help create a positive user experience without compromising privacy. Contextual targeting, for example, can help marketers reach highly engaged audiences and enables publishers to deliver a relevant experience.

And, reaching audiences based on what content they're consuming, rather than who they are, respects privacy choices.



We are continuing our investment in this area and are working closely with our partners to re-invent contextual advertising for a digital, screen-agnostic future.

Smaato also fully supports SKAdNetwork as part of our continued goal to supply the best available tools for our publishers and advertising partners.

SKAdNetwork is a valuable advertising tool. It offers stability for user acquisition and helps ensure successful ad campaigns, while honoring end-user privacy.

SKAdNetwork

What is an SKAdNetwork?

SKAdNetwork is a framework developed by Apple to measure the conversion rates of app installs. This framework uncouples the impression event from the actual app installation, removing the need for user identifiers.

SKAdNetwork operates through an end-to-end attribution flow that is controlled by the App Store and validates each attribution with a cryptographic signature assigned to the ad when provided by the advertiser.

SKAdNetwork offers a clear, compliant alternative to IDFA-based attributions. Marketers get what they need, while users gain control over their privacy settings.

Simply put, SKAdNetwork provides a way for marketers to measure the success of their campaigns, while protecting end-user privacy.

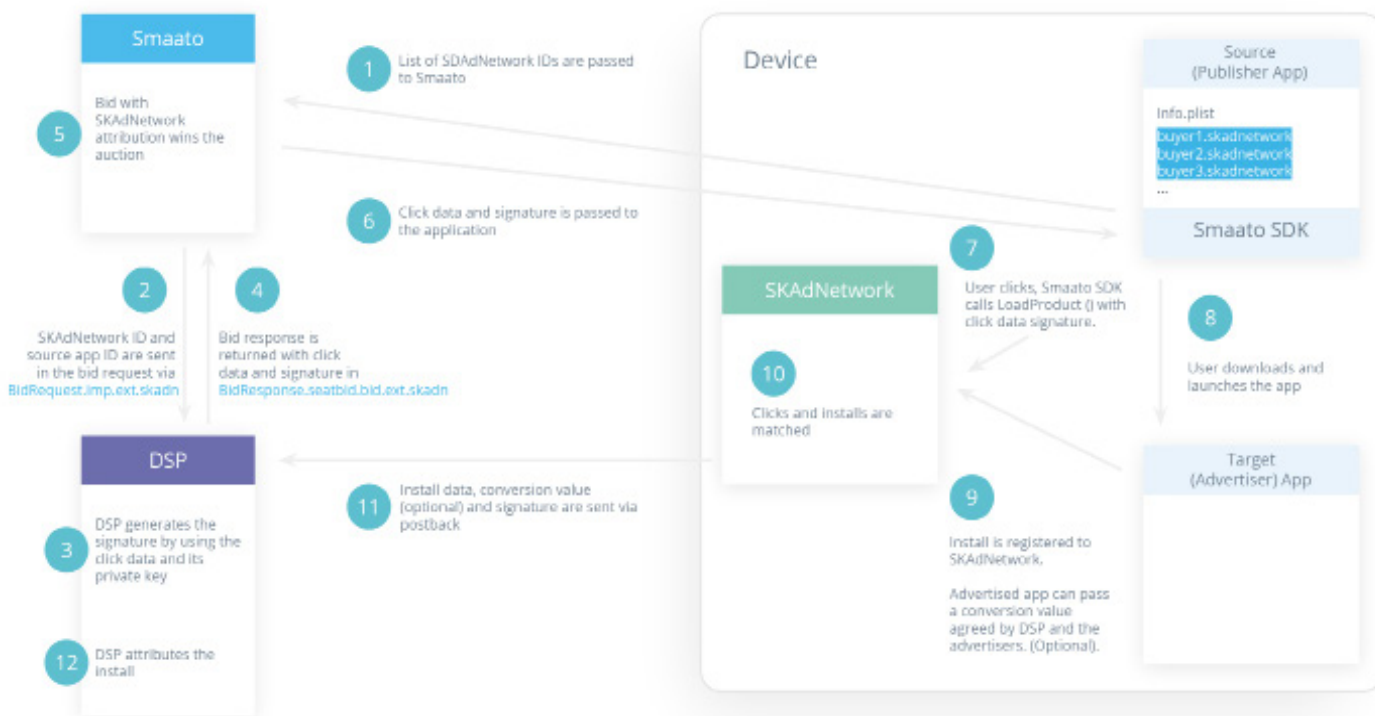
How Does SKAdNetwork Work?

SKAdNetwork allows for attribution via a series of back-and-forth information sharing. This goes a little something like this:

- SKADN information (including SKAdNetwork IDs from the publisher's Info.plist) is sent from the publisher app to the ad platform, like Smaato, in the ad request.
- SKADN information is then sent from Smaato to our marketers, in the bid request during the auction. When ad exchanges, like Smaato, share a bid request to marketers during the auction, it includes SKADN information.
- During the auction, marketers respond back to Smaato with some additional SKADN information in the bid response (bid). This full set of SKADN information is sent back to the publisher app from Smaato, from the marketer's winning bid. (Eventually, the complete set of SKADN information will also be shared with Apple.)

- When a user clicks on the ad, the signed SKADN information from the marketer who won the auction gets passed to Apple. This way, Apple can pass it through to the marketer's app once it is installed.
- Apple sends a postback to the marketer notifying them of the install and conversion (or, if necessary, redownload) 24-48 hours after the user installs and launches the downloaded app.

To simplify, here's how that flow looks visually:





Enabling SKAdNetwork Attribution Through Smaato

Publishers

We built our platform with publishers in mind – to ensure they'd always have the tools they need to monetize their inventory, deliver positive user experiences, and scale their business. While these privacy policy changes are adding some hurdles for publishers and marketers alike, we're here to help keep it simple. Our SDK provides the tools you need, while ensuring you are in full control.

Apple's policy changes will have an impact on publisher revenue. Luckily, this is temporary.

As marketer's bidding algorithms adjust to the SKAdNetwork attribution flow, these fluctuations will settle down and stabilize.

One thing publishers can do to minimize the impact is to encourage opt-in from users.

When a user opts in when prompted, their IDFA is shared as before, giving marketers highly-valuable, instant attribution, ultimately resulting in much higher CPMs.

Smaato's iOS SDK will never ask for tracking opt-in: we believe this important prompt should be entirely under a publisher's control. This gives publishers an opportunity to create customized messaging around the prompt, and to deliver an engaging UX.

We recommend publishers share the "why" with users. By opting in, users may gain specific, unique features of an app, or can get customized functionality for a more tailored and personalized experience. If publishers create a branded screen with messaging that explains to a user why information is collected and why it will benefit them, they're much more likely to choose to opt in.

But for the projected 80% who won't, SKAdNetwork is critical. To minimize the revenue impact, it's best for publishers to ensure that they are ready to go with the SKAdNetwork framework. DSPs will shift towards bidding on SKAdNetwork-enabled inventory only, so publishers can get ahead by ensuring their inventory is compliant.

SKAdNetwork requires publishers to list supported ad networks in their info.plist. (Read on to see how.) Publishers can rely on Smaato to handle all SKAdNetwork-enabled ads without additional code changes. All they have to do is make sure the plist is updated regularly, to capture a growing list of SKAdNetwork-compliant marketers.

Ready to get started?

How To: Publishers

For Publishers, it is simple and straightforward to ensure SKAdNetwork compliance. First, ensure you have the latest version of NextGen SDK (or at least version 21.6.6), to ensure you have SKAdNetwork Support.

Then, you'll need to update your app with an up-to-date plist, which we provide for your convenience. Here are the steps:

1. Update to the newest version of NextGen SDK. Click [here](#).
2. Copy the latest [.plist](#) to your clipboard from our developer documentation.
3. Open up Xcode.
4. Select "Info.plist" from your project navigator on the left hand side.
5. Right click on "info.plist" and select: open as > source code
6. The source code will render. Scroll to the bottom.
7. Just before the `</dict` at the bottom, paste in the .plist from your clipboard.
8. To confirm, right click again on "Info.plist", and select open as > property list. SKAdNetwork Items should appear in this list.
9. That's it!

Search

Publishers

SPX SMAATO PUBLISHER PLATFORM

Getting Started

Inventory Setup

Smaato Demand

SPX Mediation

Direct

SPX Reporting

User Settings

FAQ

iOS NEXTGEN SDK

Getting Started

Smaato as Primary

MoPub

AdMob

ChangeLog

ANDROID NEXTGEN SDK

Getting Started

Smaato as Primary

NextGen SDK | iOS Integration

Home » Publisher Documentation » NextGen SDK | iOS Integration

If you would like to access the documentation for Smaato's legacy SDK (iOS versions 10.2.5 and prior, or Android versions 9.1.7 and prior), please [click here](#).

Integration Guide for Publishers with Smaato as a Primary Ad Server

(iOS SDK version 21.6.10)

Attention: If you are a publisher that has a custom adapter or intends to have a custom integration, please contact our Sales Engineering team before you begin.

[Contact Sales Engineering](#)

Integrate the NextGen SDK

- 1.) First, configure your SPX account: <https://spx.smaato.com/>
- 2.) Create and save the Xcode "single view" project. Name it as "myTarget". Then close the Xcode.

Select the plist, and copy to your clipboard.

Add SKAdNetwork IDs to Info.plist

Important: If your application is running on iOS 14 and above, it is required to add our demand partners' SKAdNetwork IDs to your Info.plist file in your Xcode project. You can add these IDs with the following steps:

1. Right click on **Info.plist** within your Project Navigator in your Xcode project.
2. Hover over **"Open as >"** and select **"Source Code"**.
3. Copy the code below and paste it at the bottom of your **Info.plist** file (just before the `</dict>` at the bottom).

```
<key>SKAdNetworkItems/keys</key>
<array>
</array>
</dict>
<key>SKAdNetworkItem1</key>
<string>C11Pmp-w7Y3Bk4L-skadnetwork</string>
</dict>
</array>
</dict>
<key>SKAdNetworkItem2</key>
<string>C11Pmp-7u5M74u-skadnetwork</string>
</dict>
</array>
</dict>
<key>SKAdNetworkItem3</key>
<string>C11Pmp-3uK4yBq3-skadnetwork</string>
</dict>
</array>
</dict>
<key>SKAdNetworkItem4</key>
<string>C11Pmp-4T5C13G5-skadnetwork</string>
</dict>
</array>
</dict>
<key>SKAdNetworkItem5</key>
<string>C11Pmp-8T3p476x-skadnetwork</string>
</dict>
</array>
</dict>
```

Copy to Clipboard

Next, go to info.plist, right click. Select Open As > Secure Code

MyCoolApp (Pod touch (7th generation)) MyCoolApp: Ready | Today at 1:41 PM

MyCoolApp > MyCoolApp > info.plist | No Selection

Key	Type	Value
Information Property List	Dictionary (16 items)	
Localization native development region	String	\$(DEVELOPMENT_LANGUAGE)
Executable file	String	\$(PRODUCT_BUNDLE_NAME)
Bundle identifier	String	\$(PRODUCT_BUNDLE_IDENTIFIER)
InfoDictionary version	String	6.0
Bundle name	String	\$(PRODUCT_NAME)
Bundle version type code	String	\$(PRODUCT_BUNDLE_PACKAGE_TYPE)
CFBundleShortVersionString	String	1.0
CFBundleVersion	String	1
Requires iPhone environment	Boolean	YES
UICoreManifest	Dictionary (2 items)	
UICoreManifestInputEvents	Boolean	YES
UICoreManifestName	String	LaunchScreen
UICoreManifestMain	String	Main
UICoreManifestScreens	Array (1 item)	
UICoreManifestViews	Array (3 items)	
UICoreManifestViews (iPad)	Array (4 items)	

Identity and Type

Name: Info.plist
Type: Default Property List XML
Localize: Relative to Group
Full Path: /Users/brmeisowen/Desktop/MyCoolApp/MyCoolApp/Info.plist

On Demand Resource Tags
Add to a target to enable tagging

Localization
Localize...

Target Membership
MyCoolApp

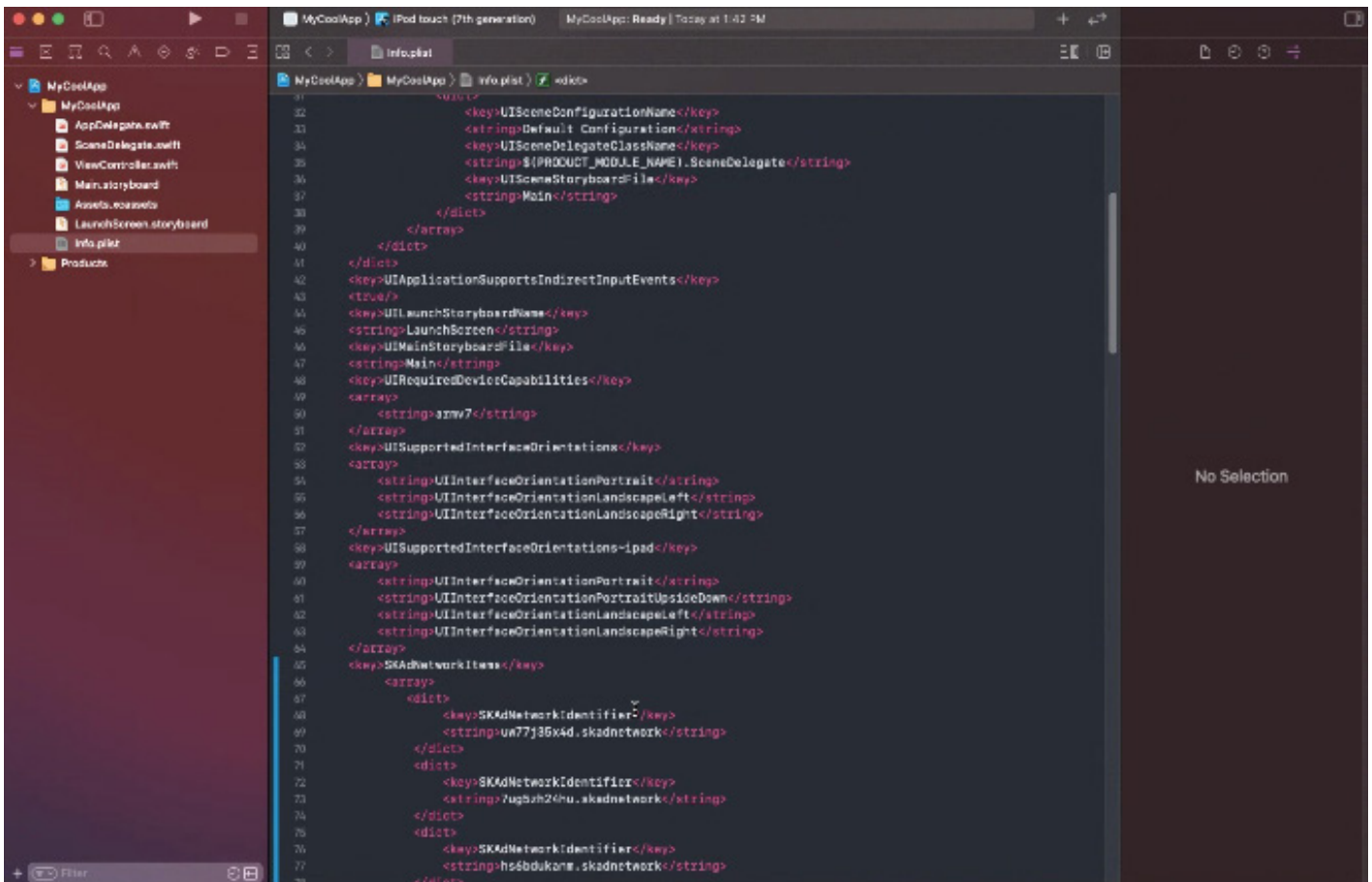
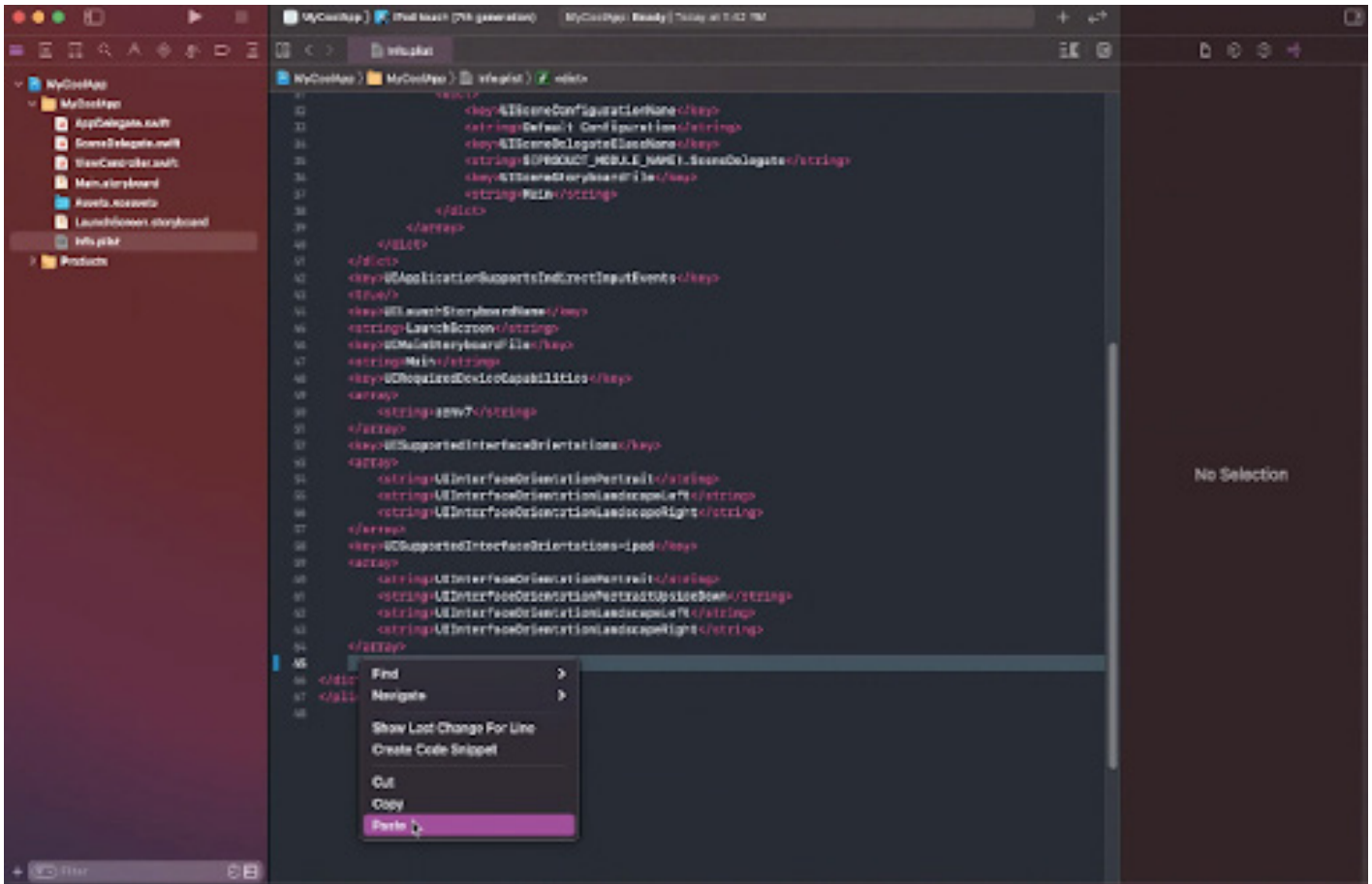
This is an example of how the code rendition will look. Scroll down.

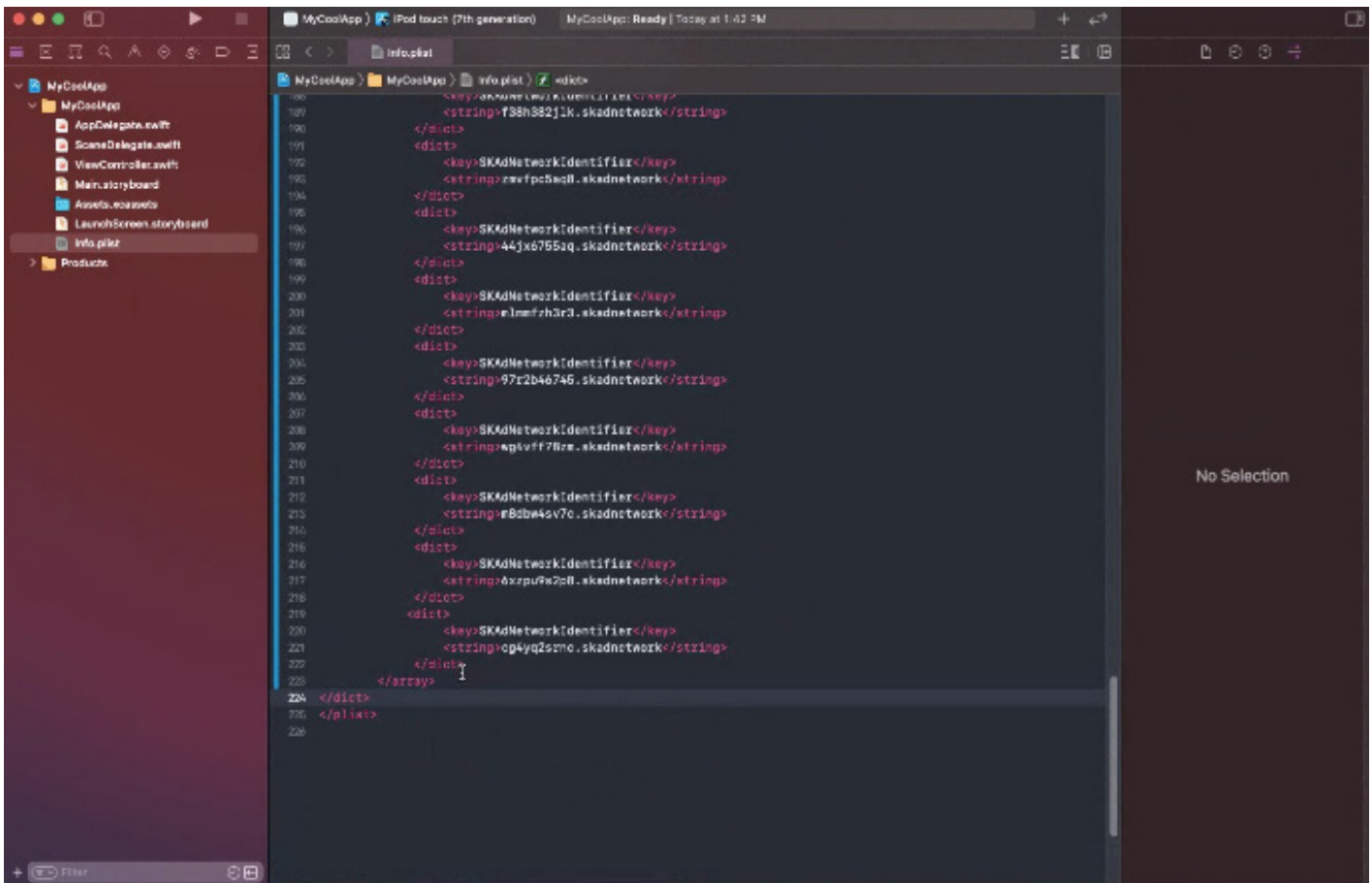
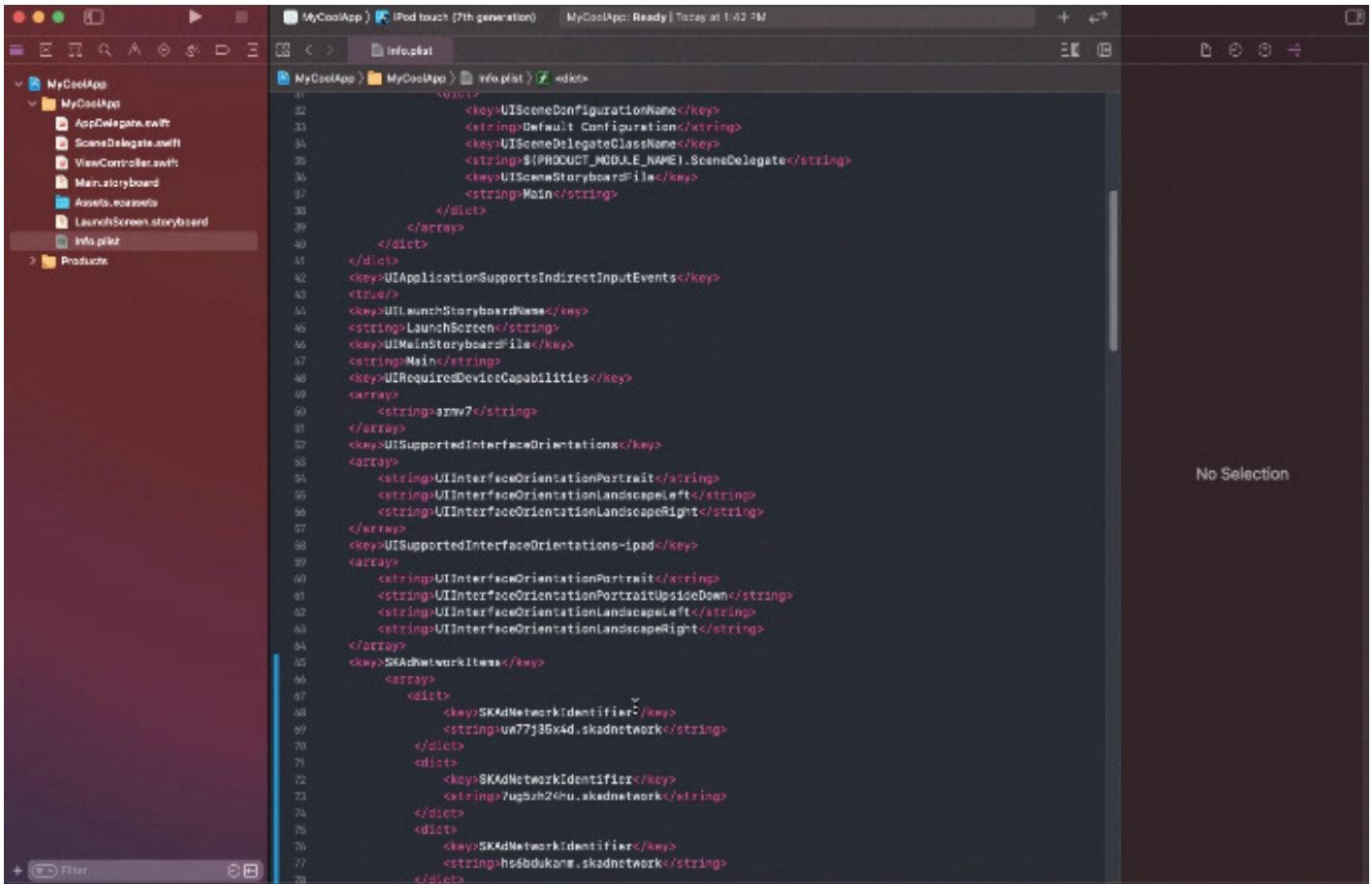
```
1 <key> CFBundleIdentifier </key>
2 <string> com.example.MyCoolApp </string>
3 </dict>
4 <dict>
5 <key> CFBundleDevelopmentRegion </key>
6 <string> $(DEVELOPMENT_LANGUAGE) </string>
7 </dict>
8 <key> CFBundleExecutable </key>
9 <string> $(EXECUTABLE_NAME) </string>
10 <key> CFBundleIconFile </key>
11 <string> $(PRODUCT_BUNDLE_IDENTIFIER) </string>
12 <key> CFBundleInfoDictionaryVersion </key>
13 <string> 6.0 </string>
14 <key> CFBundleName </key>
15 <string> $(PRODUCT_NAME) </string>
16 <key> CFBundlePackageType </key>
17 <string> $(PRODUCT_BUNDLE_PACKAGE_TYPE) </string>
18 <key> CFBundleShortVersionString </key>
19 <string> 1.0 </string>
20 <key> CFBundleVersion </key>
21 <string> 1 </string>
22 <key> LSRequiresIPhoneOS </key>
23 <boolean> YES </boolean>
24 </dict>
25 <key> UIApplicationSupportsMultipleScenes </key>
26 <boolean> YES </boolean>
27 <key> UISceneConfigurations </key>
28 <dict>
29 <key> UIApplicationSceneManifest </key>
30 <array>
31 <dict>
32 <key> UISceneConfigurationName </key>
33 <string> Default Configuration </string>
34 <key> UISceneDelegateClassName </key>
35 <string> $(PRODUCT_MODULE_NAME).SceneDelegate </string>
36 <key> UISceneStoryboardFile </key>
37 <string> Main </string>
38 </dict>
39 </array>
40 </dict>
41 </dict>
42 <key> UIApplicationSupportsIndirectInputEvents </key>
43 <boolean> YES </boolean>
44 <key> UILaunchStoryboardName </key>
45 <string> LaunchScreen </string>
46 <key> UIMainStoryboardFile </key>
47 <string> Main </string>
48 <key> UIRequiredDeviceCapabilities </key>
49 <array>
50 <string> armv7 </string>
51 </array>
52 <key> UISupportedInterfaceOrientations </key>
53 <array>
54 <string> UIInterfaceOrientationPortrait </string>
55 <string> UIInterfaceOrientationLandscapeLeft </string>
56 <string> UIInterfaceOrientationLandscapeRight </string>
57 </array>
58 <key> UISupportedInterfaceOrientations-ipad </key>
59 <array>
60 <string> UIInterfaceOrientationPortrait </string>
61 <string> UIInterfaceOrientationPortraitUpsideDown </string>
62 <string> UIInterfaceOrientationLandscapeLeft </string>
63 <string> UIInterfaceOrientationLandscapeRight </string>
64 </array>
65 </dict>
66 </plist>
```

Keep scrolling until you reach the bottom.

```
31 <key> UISceneConfigurationName </key>
32 <string> Default Configuration </string>
33 <key> UISceneDelegateClassName </key>
34 <string> $(PRODUCT_MODULE_NAME).SceneDelegate </string>
35 <key> UISceneStoryboardFile </key>
36 <string> Main </string>
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42 <key> UIApplicationSupportsIndirectInputEvents </key>
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47 <string> Main </string>
48 <key> UIRequiredDeviceCapabilities </key>
49 <array>
50 <string> armv7 </string>
51 </array>
52 <key> UISupportedInterfaceOrientations </key>
53 <array>
54 <string> UIInterfaceOrientationPortrait </string>
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56 <string> UIInterfaceOrientationLandscapeRight </string>
57 </array>
58 <key> UISupportedInterfaceOrientations-ipad </key>
59 <array>
60 <string> UIInterfaceOrientationPortrait </string>
61 <string> UIInterfaceOrientationPortraitUpsideDown </string>
62 <string> UIInterfaceOrientationLandscapeLeft </string>
63 <string> UIInterfaceOrientationLandscapeRight </string>
64 </array>
65 </dict>
66 </plist>
67
```

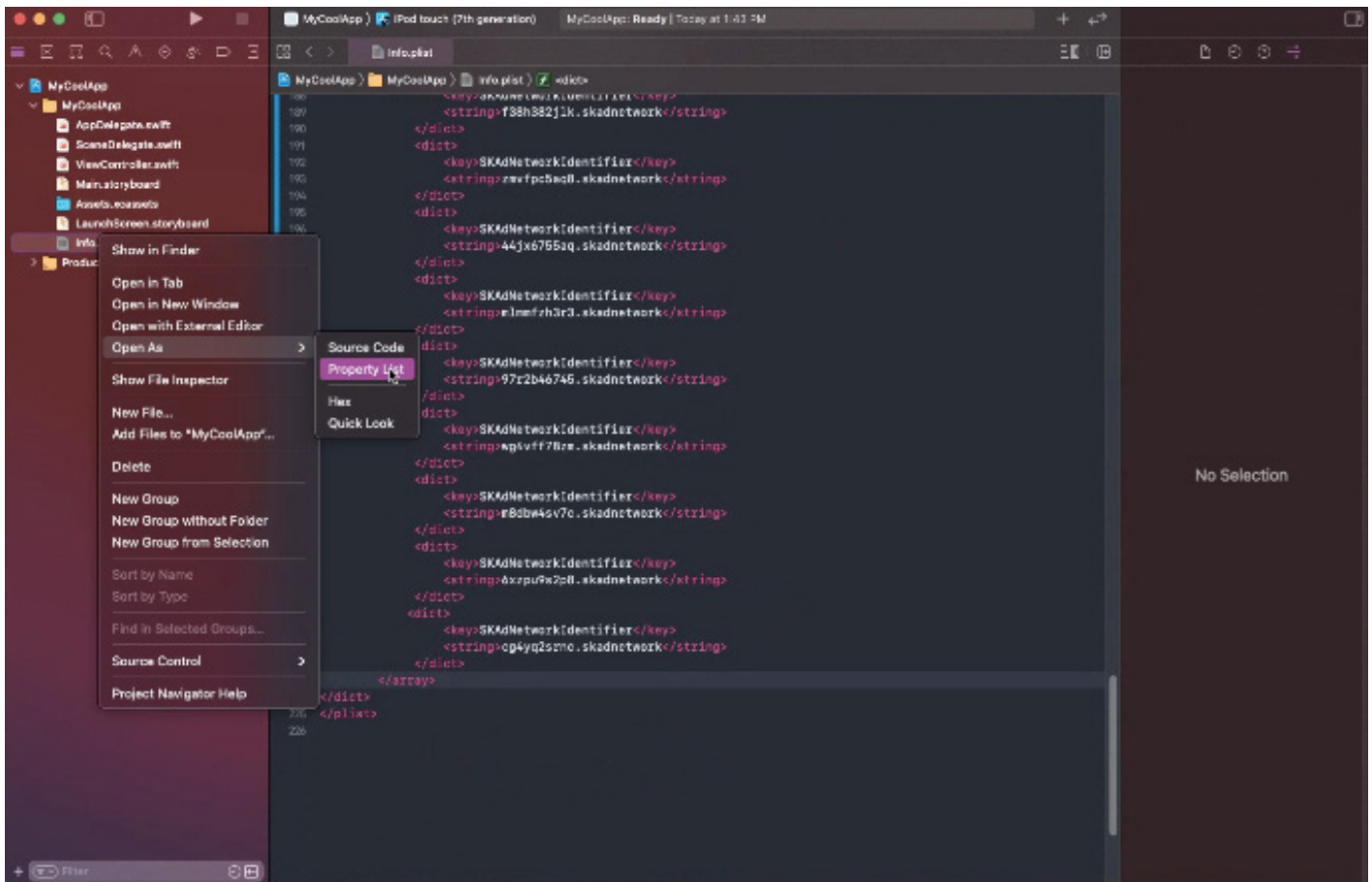
Just before where it says `</dict>`, paste the plist from your clipboard.



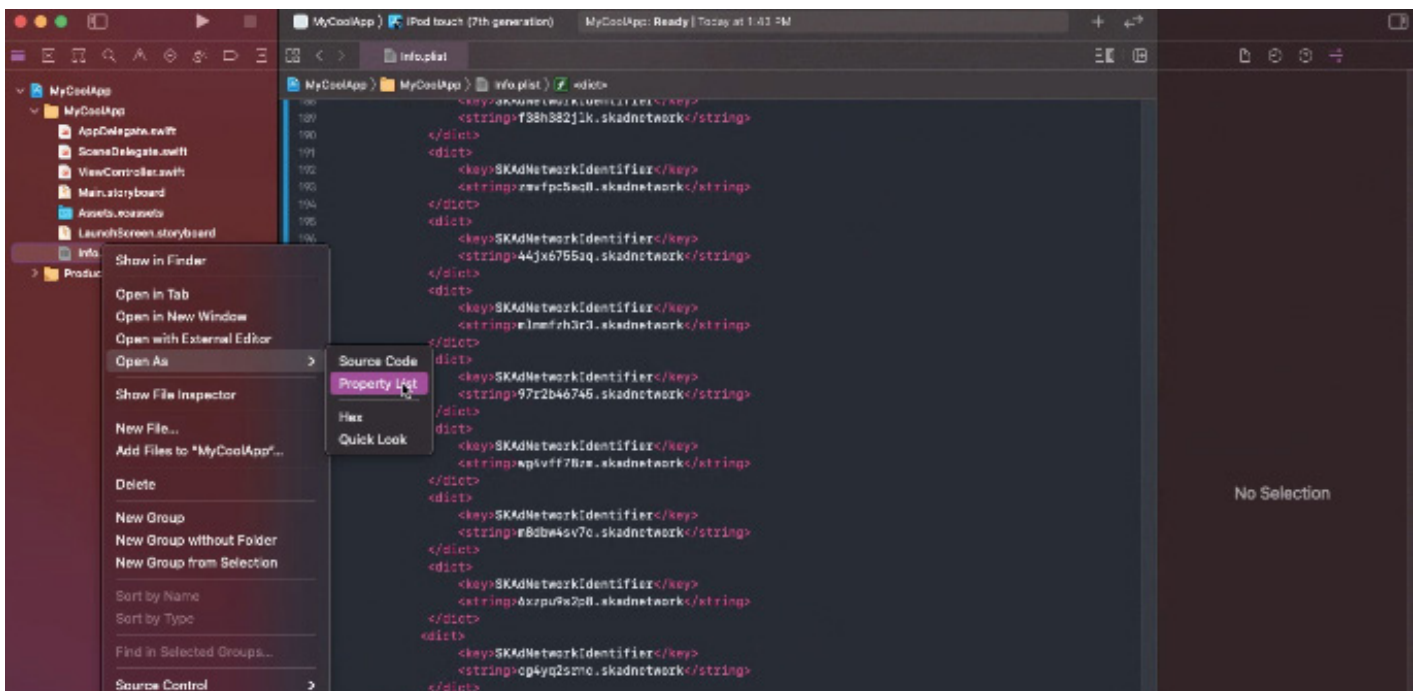


Simple!

It's easy to confirm that the necessary SKAdNetwork IDs were added correctly to your Info.plist. Return to the property list, by right clicking "plist", and selecting open as > Property List



SKAdNetwork items should appear in the plist.



That's it!

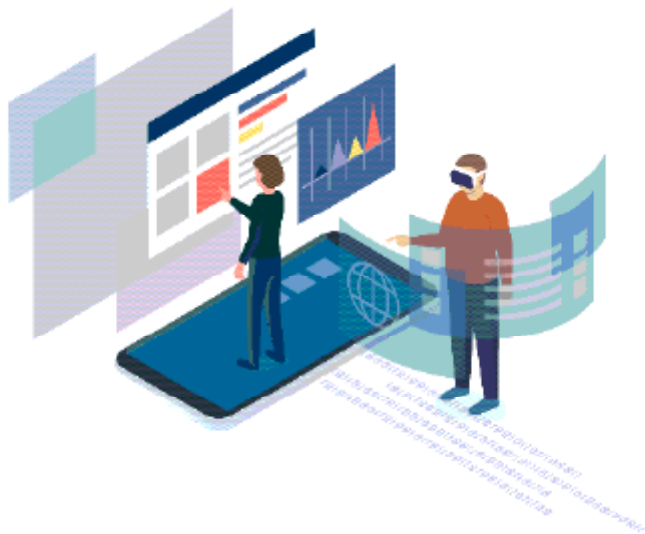
Of course, we're always available to help answer any questions you may have. Feel free to check out the [developer docs](#) on our website, or [give us a call](#).

Enabling SKAdNetwork Attribution through Smaato

DSPs/Marketers

SKAdNetwork offers an iOS 14-compliant way to measure campaign success for install attribution, even without direct-user attribution.

With SKAdNetwork, Apple will share campaign IDs along with a conversion value used to validate acquisition quality. This will come on a 24-48 hour delay, to uncouple the impression event from the installation, thereby protecting user privacy.



Apple also agrees to share re-download information, which provides invaluable retargeting insights.

What does this mean?

With the SKAdNetwork framework, you'll gain accurate and completely fraud-free clickthrough attribution for app-install campaigns. This offers greater confidence in campaign performance, and helps protect user privacy.

How To: Marketers

To ensure app-install attribution, SKAdNetwork's framework creates an install validation if a user installs (and then launches) an app after clicking an ad. This now means that ad networks must provide the ad with signed information (including a campaign number).

If an ad converts, the device can notify the ad network with the matching campaign number. So, as part of requesting your SKAdNetwork ID from Apple, you'll also need to create your unique signature.

A screenshot of a web form for SKAdNetwork account setup. The form is titled "SKAdNetwork" and is divided into three main sections: "Account Information", "Ad Network", and "SDK".
- **Account Information:** Includes fields for Name (James B Morris), Email (redacted), Organization (redacted), and Website (www.marketer.com).
- **Ad Network:** Includes a dropdown for "Is your company an ad network?" (Yes) and a dropdown for "Network Type" (Delivers ads to 3rd-party apps with an SDK).
- **SDK:** Includes a section titled "Tell us about your SDK for 3rd-party apps." with fields for SDK Name (Smaato), Documentation website (www.developers.smaato.com), and Number of app using the SDK (90000).

To get started, DSPs and Marketers need to take the following steps:

1. Request an SKAdNetwork ID from Apple. DSPs should register as an Ad Network. [Click here to register.](#)
2. Convert SKAdNetwork IDs to all lowercase, if they arrive with any CAPS.
3. Send your SKAdNetwork ID to your Smaato Account Manager. We'll add it to the plist, and our publishers will update accordingly.
4. Monitor the bid request
 - DSPs should be able to ingest the list of SKAdNetwork ID(s), version, and source bundle ID information in BidRequest.imp.ext.skadn object of the bid request.

Bid Request Example:

```
{
  "imp": [
    {
      "ext": {
        "skadn": {
          "version": "2.0",
          "sourceapp": "{SOURCEAPP_FROM_BID_REQUEST_HERE}",
          "skadnetids": [
            {LIST_OF_STRING_SKADNETWORK_IDS}
          ]
        }
      }
    }
  ]
}
```

5. Update Bid Response

- If the DSP is responding with a SKAdNetwork enabled campaign, it should respond with SKAdNetwork ID and all relevant fields in the bid response.

Bid Response Template:

```
{
  "seatbid": [
    {
      "bid": [
        {
          "ext": {
            "skadn": {
              "version": "2.0",
              "network": "{MARKETER_SKADNETWORK_ID_HERE}",
              "campaign": "{NUMBER_FROM_1-100}",
              "itunesitem": "{ITUNES_ID_OF_ADVERTISED_APP_HERE}",
              "nonce": "{UNIQUE_AD_FOR_THE_AD}",
              "sourceapp": "{APP_STORE_ID_OF_PUBLISHER_APP_SHOWING_THE_AD}",
              "timestamp": "{AD_IMPRESSION_TIMESTAMP}",
              "signature": "{CRYPTOGRAPHIC_SIGNATURE_DONE_BY_THE_MARKETER}"
            }
          }
        }
      ]
    }
  ]
}
```


6. Generate a validation signature. Apple will ask where postback notification should be sent, so you'll register a postback URL at this time.
 - DSPs should have an install tracking service to handle install data and signature from the SKAdNetwork postback.
7. Ensure Postback verification
 - Advertiser app should be registering its new users to SkAdNetwork via *registerAppForAdNetworkAttribution()*

```

#import "AppDelegate.h"

// Don't forget to import this to have access to the SKAdNetwork
#import <StoreKit/SKAdNetwork.h>

@interface AppDelegate ()

@end

@implementation AppDelegate

- (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions {

    // The first call to registerAppForAdNetworkAttribution generates the notification if the device has attribution data for that app.
    // It's best to call this method as soon as possible, that's why we call it from didFinishLaunchingWithOptions.

    // When the app is opened for the first time and this method is called, it starts a 24-hour timer, any subsequent calls to updateConversionValue reset this
    // once the first 24h timer ends, after a randomized period of time the attribution notification will be sent to the ad network.

    [SKAdNetwork registerAppForAdNetworkAttribution];

    return YES;
}

@end

```



- Apple will successfully send the install postback to the marketer at the predetermined postback URL as long as:
 - The marketer signature is valid
 - All SKADN information from is passed to Apple
 - The publisher's app is built in iOS 14 (or newer)
 - The marketer app is available in the App-Store
 - The end-user's device is running on iOS 14 or later

You'll also be able to track redownloads, so you can tell who is a unique new user and who previously installed and deleted your app before redownloading it.

With these steps in place, you'll be able to successfully bid on SKAdNetwork-enabled inventory, and will receive app-install attribution, all while maintaining compliance with Apple's privacy policy.

Conclusion

At Smaato, we have always been focused on privacy compliance, and support Apple's initiative to put more control in the hands of users.

While the IDFA default-opt-out update is a huge change, its impact can be mitigated. We're committed to making sure our partners have what they need to succeed.

SKAdNetwork offers a compliant solution for app-install attribution, without compromising user experience or privacy.

Questions

Our developer portal offers invaluable resources for our publisher and marketer partners. Check out our [developer docs](#) for more information about SKAdNetwork and how to get started.

We're also available to answer any questions you have. Contact us at www.smaato.com.

Smaato's digital ad tech platform offers an omnichannel, self-serve solution. Our ad server and monetization platform empowers publishers with the tools they need to thrive, and enables marketers to deliver memorable audience experiences worldwide – and on any device. Learn how advanced analytics, industry-leading market quality, and total transparency help set Smaato apart. Founded in 2005, Smaato is headquartered in San Francisco, with additional offices in Hamburg, New York City, Beijing, Pune, and Singapore. Learn more at www.smaato.com.