

Making Money:

The App Monetization Playbook



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Making Money: The App Monetization Playbook

Mobile is deeply embedded in our daily lives – in fact, it seems we’re almost obsessed with our apps. Out of the 34 hours and 45 minutes users spend on mobile each month, 89% of that time* is spent on apps.

The future is bright for mobile apps and their developers, but the road to success isn’t always smooth. With challenges all along the way – in designing, developing, growing and monetizing mobile apps, the process can be overwhelming without the right tools and resources to help.

In a July 2014 survey, Google asked a variety of app developers around the world to share their experiences with the mobile app development process. They told us that the most challenging areas were growing their audience (30%) and monetization (25%) – and that those areas were where they found the fewest resources and support.

This guide was created to bridge that gap – providing a detailed map of Google’s tools and resources for app developers like you. Whether you’re part of a large company building multiple apps or you’re just getting started building your first app on your own, you’ll find helpful tips and best practices that you can use right away.

*(*Nielsen Research, 2014)*

Mapping out your app’s success

Creating and publishing a mobile app is a journey. One that isn’t without potential pitfalls and detours. So before you take your first step, it’s important to know where you’re going and to plan a clear route to get there.

You have your big app idea. But who are your users? Get to know them first – before you even begin to build your app. Then, once your app is published, you can use data and insights gathered through user interaction to tweak it for greater success.



Out of the 34 hours and 45 minutes users spend on mobile each month, 89% of that time is spent on apps.

Use Google Analytics to guide you

What do you want your app to do for users? Answering this question will help you decide what data to measure and what insights you need.

Google Analytics provides a variety of tools and capabilities that give you the data you need about your business and audience so you can optimize your app for success.

From cars that talk to us when we're lost, to houses that know when we're too hot or cold, to phones that can take our vital signs and notify your doctor, mobile apps can do anything and everything. So before you get started bringing your mobile app to life, spend some time thinking about what you need to know about how users interact with your app. What insights would help your app be smarter?

For example, if by level 2 in a game you've already lost over 50% of your traffic, you'll need to take a look at what's happening for users while playing that first level. Depending on what the analytics show you, you may want to add an additional tutorial or make the levels shorter or easier.

Here are some other questions you may want to ask:

- ✓ How many installs has your app generated? And how much does each download cost you?
- ✓ Where did your downloads come from?
- ✓ Are your users high-quality and loyal to your app?
- ✓ Do you want to achieve a certain engagement time?
- ✓ If you make a few tweaks to your app interface, would people be more engaged?
- ✓ When's the best time to offer in-app purchases?
- ✓ What's your user retention rate?

Whatever question you want to answer, Google Analytics gives you the data you need.

How to use Google Analytics for Mobile

Google Analytics is Integrated right into the AdMob interface, so you can access it right from your account. Once you've completed the set up, you'll be able to access the full set of Mobile App Analytics reports on your Analyze tab in AdMob. Use this data to find answers to your questions and take action immediately, tweaking your app based on what you learn.



START MEASURING MOBILE IN 3 EASY STEPS

- 1 Create a new Google Analytics account or select an existing account
- 2 Select which apps you want to analyze and set up the Google Analytics tracking ID for each app
- 3 Implement the Google Analytics SDK for each selected app (if you haven't previously done so)

For more detailed step-by-step instructions visit:

<https://support.google.com/admob/answer/3508133>



ADMOB BY THE NUMBERS



\$1 billion+ paid to developers
Since July 2012



Advanced Tips

Handle your tags like a pro – By implementing Google Analytics in your mobile app, you can start collecting data for things like audience analytics, attribution modeling, conversion tracking and even remarketing. But tagging can be time-consuming, and highly technical – you need to be able to add code to your app, and poorly-implemented or slow tags can corrupt your data.

That's where Google Tag Manager comes in. Google Tag Manager is a free tool that lets you create and update tags across your website and mobile apps, any time you like. Manage your tags and configure your mobile apps yourself with its easy-to-use interface in the cloud. With Google Tag Manager, you can lower your maintenance and deployment costs, and more importantly, you'll save time.

Know your audience, and what they're worth – Stay on track with your monetization and user goals by measuring in-app purchases and creating user segments. By segmenting your audience based on actions they have taken over a set period of time, you can create tailored experiences that help improve conversion rates. With Google Analytics for Mobile, you can measure the overall effectiveness of your paid acquisition campaigns and understand the real value of your advertising dollars.

Don't lose your users – Use the Behavior reports help you discover how users interact your app. You can use this set of reports to track a wide range of information about your users, including:

- ✓ the total number of screens seen per session
- ✓ the order in which screens are viewed
- ✓ the number of technical errors, including app crashes
- ✓ how often users return to the app
- ✓ how long sessions last
- ✓ how long individual app elements take to load
- ✓ specific content actions unique to your app, like a social recommendation or an ad click

Many of the Behavior reports require additional setup in your app tracking code. For more details about setup, visit <https://support.google.com/analytics/answer/2568878?hl=en>

Maximize your earnings with In-App Purchases (IAPs)

It's essential to consider monetization early on, as you're creating your app, not something you plan to figure out later on. Monetizing your app doesn't automatically mean charging upfront to download it from an app store, though – you have options.

In-App Purchases (IAPs) are a great way to make money from free apps. IAPs are premium content, virtual goods, or subscriptions that you sell within your app. These could be power-ups, unlocked features or faster progression through levels, for example. These are often impulse buys and can be big money makers, especially in gaming. In fact, according to a recent study done by IHS, a world-class global research company, US respondents said that up to 89% of the money they spend on gaming apps was for in-app purchases.

BENEFITS

Attract users with a free app, but still make money – By providing in-app purchasing opportunities for users, you can let users download your app for free and earn money by selling in-app incentives. Compete with the 1.5M available apps in Google Play, and still earn the money you deserve.

The draw of faster progression – Some people don't want to pay for apps up front, but that doesn't mean they would mind paying for items within your app once they've started using it. By selling virtual currency or power-ups that enable faster progression or by providing an additional benefit that is only available if purchased, you can draw users in and drive revenue.

In-app purchases are convenient and popular – AdMob surveyed game-playing smartphone users, to ask them what percentage of their recent spend on gaming apps could be attributed to in-app purchases. Respondents in the US indicated that up to 89% of their gaming spend was for in-app purchases, and the other markets surveyed were at a comparable level.



If you have a free game and choose to limit some features, you won't get as many downloads because users might think they have to buy everything. If they can't play without buying things they will get demotivated and will no longer play with the app.

TONI FINGERROOS

Founder and CEO of Fingersoft

BEST PRACTICES

Start with a large user base – To effectively monetize using in-app purchasing, you'll need to increase the number of users of your app who are prepared to make in-app purchases. AdMob research shows that only a minority of users make those kinds of purchases, so it's likely you'll earn very little revenue from most of your user base if you're dependent on this as a single monetization strategy.

Provide plenty of value in the free version – Toni Fingerroos, Founder and CEO of Fingersoft gives this advice, "If you have a free game and choose to limit some features, you won't get as many downloads because users might think they have to buy everything. If they can't play without buying things they will get demotivated and will no longer play with the app."

IMPLEMENTATION

To help you promote in-app purchases to users in a more relevant way, you can also use in-app purchase ads. You can use these ads to promote in-app items at the right time to the users who are most likely to make a purchase, while still showing AdMob ads to those who aren't. Segmentation tools enable you to quickly find these users, and then in-app purchase ads can be used to build relevant interstitial ads to reach them. For example, you can discover which of your users began playing your game in the last 48 hours, and promote a 'welcome pack' of extra lives at a 50% discount. This creates a more customized experience for users and can help prolong engagement.

Use house ads to offer IAPs within your apps – AdMob allows you to place custom ads in your own apps for free and allows you to refine the targeting settings so you connect with those you most want to reach, be it a certain demographic or region, or those most likely to buy.



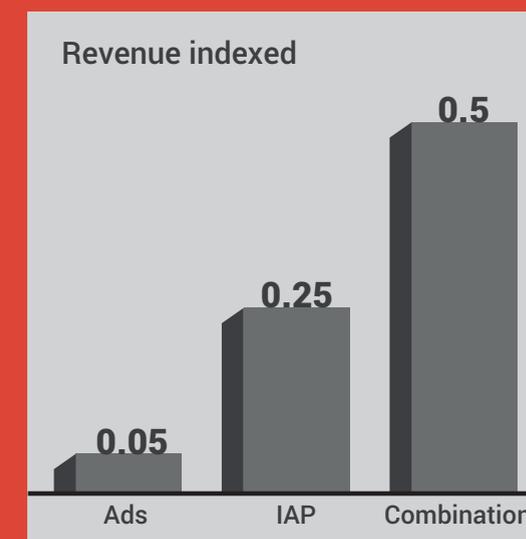
Things to keep in mind: You will only receive in-app purchase (IAP) ads if you specifically configure an IAP ad campaign in the AdMob front end.

Combine IAP with ads to supercharge your revenue

We did an analysis among game app developers who are generating more than 10MM downloads per month, and compared the value they're getting per download, depending on what business model they adopt.

Game developers who use a combination of IAP and advertising models are getting more than double revenue per download than the developers only focusing in IAP.

By getting creative with Google's powerful audience segmenting and analytics, you can show IAPs to only those who are likely to buy, and show ads to the rest – maximizing your profits.



**Source: Google Internal*

Use the Right Ad Type

If you've decided your app will be monetized through ads, it's essential to plan for this early in your design process. Advertising should fit seamlessly into the experience of your app and not interrupt it's flow. The ad type you choose should depend on the type of content you're offering and how users engage with it.

Let's take a look at some of your options. You don't need to settle on just one – consider mixing and matching ad types to fit the structure of your app and the audience to provide the best user experience.

Banners

Banners are simple ads that fit a specific size slot within an app. When touched, banner ads take the user to some form of full-screen in-app browsing experience.

BENEFITS

Prompt users to take action – Banner ads appear at the top or bottom of your app screen and encourage users to take a specific action like install an app, visit your website, get directions, view products or even call a phone number.

Cross-promote your own apps – Use house ads to drive downloads of your other apps

BEST PRACTICES

Use image banners – With a static or animated image banner, advertisers can effectively build awareness by grabbing users' attention. At cost-effective prices, image ads are a great way for advertisers to expand their reach within apps like yours.

Provide full immersion with Interactive Video Ads – If an advertiser wants to give users a deep dive into their brand, there's no better way than with Interactive Video Ads. Starting off as a banner, once a user engages with the ad or launches your app, they enter a full-immersion video that showcases the advertiser's product or service. Mixing the power of audio and video, this touch-screen interactivity provides deeper engagement for advertisers.

IMPLEMENTATION

Use the Google Mobile Ads SDK to place banner ads in your application. There are detailed installation guides available for Android, iOS and Windows Phone 8 to help you along (<https://developers.google.com/mobile-ads-sdk/>). Once you've set up ad placement within your app code, ads will be displayed based on guidelines you set in your account. The Google Mobile Ads SDK is available to AdMob, DoubleClick for Publishers (DFP), and Ad Exchange customers.

Standard sizes for AdMob banner ads

Phones & Tablets:	Tablets only:
Standard: 320x50	IAB Full-size banner: 468x60
Large: 320x100	IAB Leaderboard: 728x90
IAB Medium rectangle: 300x250	

Note that in addition to the standard AdMob ad units, DFP allows you to serve custom-sized ad units into an app.

Interstitials

Interstitials present rich HTML5 experiences or "web apps" at natural app transition points such as in between game levels. They are browsing experiences that appear within your app that feature a simple close button and their own custom navigation.

BENEFITS

Engage users with an immersive experience – Leverage a large creative canvas to express the specific message you'd like to send, and give users a full-screen experience during breaks in your app so that there's no interruption.

Better ad, better results – Typically, these campaigns achieve higher CPMs than banner ads.

BEST PRACTICES

Integrate the latest SDK – It's important to always stay updated with the latest SDK, which will give you access to the latest ad formats, features, and bug fixes.

Avoid implementing your own version of interstitials. You must use the ad format provided by Google when using AdMob ads. The Google ad formats don't require any additional navigational elements.

Think about the flow – Think about the flow of user engagement within your mobile app. Poorly placed interstitial ads can often lead to poor user experience and accidental clicks.

Make sure interstitials are a good fit for your app – Interstitial ads are best suited for apps with linear user experiences. There should be very clear starting and stopping points in an app. If you have an app that has limited clear starting and stopping points (e.g., utility apps like flashlight apps), consider using another AdMob ad format such as a banner ad.

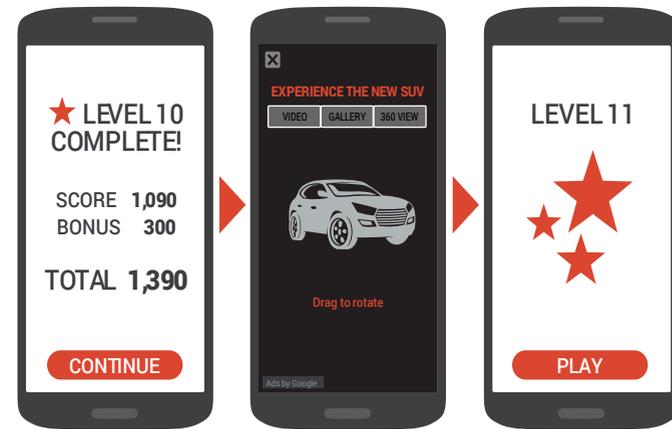
Choose interstitial ad placement with care – Following are some guidelines and best practices for interstitial ad placement in your app.

There are two questions to always consider when implementing interstitials:

- ✓ What is the user's engagement with the app currently?
- ✓ And is this the right time for an interstitial?

IN BETWEEN LEVELS OR STAGES (RECOMMENDED)

If your app is a game with different levels or stages, consider placing an interstitial ad in between each one. A break between levels provides a natural stopping point for the user and gives time to evaluate the ad. Interstitial ads should appear before the break page rather than after. Break pages often use a "Next" button or something equivalent, so placing the interstitial ad before the break page may reduce accidental ad clicks from users who unintentionally click the ad instead of the "Next" button. If your app isn't a game but has many pages or sections, consider placing an interstitial ad every 2-3 pages or actions taken. Avoid placing an interstitial ad every single time the user takes an action.



ACCOUNT FOR POTENTIAL AD LATENCY (RECOMMENDED)

Since we're dealing with mobile, network latency can potentially slow down delivery of interstitial ads in your mobile app. This latency may cause the ad to appear on the user's screen at inopportune or unintended times. Consider pre-loading your interstitial ads to reduce latency.

NOT ON APP LOAD OR EXIT

Interstitials are meant to be placed in between content, so avoid placing them on app load, on back buttons and when exiting apps.



Advanced Tip

Use interstitials to promote in-app purchases to your users who are most likely to buy. Use audience segmentation in Google Analytics to group your users based on the actions they take within your app. That way, you can promote your in-app purchases to those users who are most likely to buy, and show ads to everyone else.



Keep in mind

Interstitial ads are typically more expensive and subject to impression constraints. AdMob research shows the majority of mobile app users prefer banner ads to be placed at the top of the screen, or between activities.

AVOID NUMEROUS INTERSTITIALS

Don't overwhelm users with interstitial ads. Multiple ads often lead to poor user experience and accidental clicks. If you're showing interstitial ads at a set time interval (e.g., every 60 seconds), make sure the duration between ads is long enough to not be intrusive.

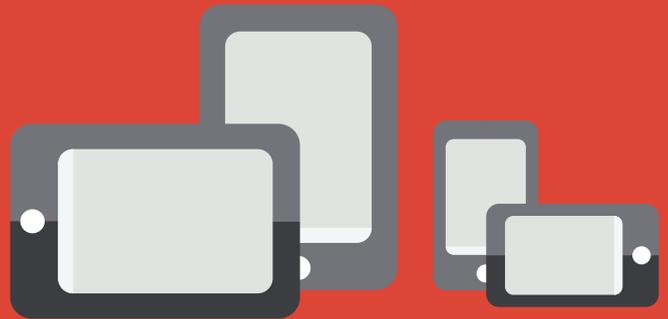
NOT DURING PERIODS OF USER SCREEN INTERACTION

Avoid placing interstitial ads while the user is engaged in on-screen interaction. If the user is focused on a task or game, they may not expect an interstitial ad to pop up on the screen. Ads that appear unexpectedly interrupt the flow of your app and result in accidental clicks (and annoyed users).



IMPLEMENTATION

Interstitial ad units can be defined with one of the four common sizes, regardless of the actual screen size of individual devices. The ad will automatically be rendered correctly on screens which are of slightly different sizes.



Phones:
320x480 (portrait)
480x320 (landscape)

Tablets:
768x1024 (portrait)
1024x768 (landscape)

There's no need to define a separate ad unit for landscape mode. Utilize Smart Banners to get the most appropriate ads for your apps. Smart Banners help deal with increasing screen fragmentation across different devices by "smartly" detecting the width of the phone in its current orientation, and making the ad view that size. They are easy to implement in the Google Mobile Ads SDK.

Native Ads

AdMob native ads, currently in beta and available to a limited group of publishers, are ad units that are customized to match the look, feel, and content of your app. This provides a better experience to users, with ads that are less intrusive and more relevant. Advertisers are happy, seeing better engagement and performance. By satisfying both advertisers and users, publishers are seeing great success with native ads, which are currently in limited beta.

BENEFITS

Better engage your users – With native ads, advertisers can tell a story, creating a more attractive brand experience, resulting in higher CPMs. Users are more likely to engage with formats that resemble the look and feel of content. A Forbes study found that users were 25% more likely to look at a native ad than they were a banner ad, and they looked at native ads 53% more frequently!

Scalable revenue – As a publisher, you can make money from your native inventory on a large scale using our templated approach that lets you show ads from thousands of advertisers.

Easy ad creation – On the advertiser side, access a wide range of native inventory across our extensive network of publishers – all you have to do is provide the ad assets and Google handles the rest.

BEST PRACTICES

Be subtle – Native ads must be focused on the user first, rather than the brand – it needs to be a subtle sales pitch in the form of something the user wants to see. At the same time, the user should still be able to distinguish ads from content.

Be relevant – Ads that are targeted and relevant to your users will perform best. According to a recent IAB survey, 82% of respondents claimed that "subject matter expertise" was the most important factor in how they responded to native advertising – so ads that feature case studies, data points and storytelling will see more conversions.



ADMOB BY THE NUMBERS



Over 650,000 apps
Using AdMob



IMPLEMENTATION

Designed to support mobile apps, mobile web and desktop, you can implement native ads across all platforms. You have the option to use raw assets for publisher-side rendering, or take advantage of fully styled native ads.

AdMob provides various native ads templates, including App install ads and Content ads. When you request a native ad from AdMob, you'll receive the key elements of the ad (such as the headline, app icon and store rating), and render it in a way that you choose, within our creative and policy guidelines.

Standard mobile ad sizes supported by AdMob

Size	Portrait or Landscape	Text ads?	Image ads?
320x50	iPhone, Windows Phone 8, and most Android phones in Portrait	Yes	Yes
360x50	Android widescreen devices in Portrait	Yes	Yes, with 20px fill on each side
480x32	iPhones in Landscape	Yes	No
533x32, range of sizes from 480x32 to 682x32	Android and Windows Phone 8 devices in Landscape	Yes	No
768x90	iPads in Portrait	Yes	Yes
1024x90	iPads in Landscape	Yes	Yes, centered with 150px fill on each side
800x90	Android tablets in Portrait	Yes	Yes, centered with 36px fill on each side
1280x90	Android tablets in Landscape	Yes	Yes, centered with 276px fill on each side
600x90	Kindle Fire in Portrait	Yes	No
1024x50	Kindle Fire in Landscape	Yes	No

*Note: Some mediation ad networks do not yet support Smart Banners—verify with the particular network.
<https://developers.google.com/mobile-ads-sdk/docs/admob/android/banner#smart>

Make More Money with AdMob Mediation

The more ads you show, the more money you can earn. With AdMob Mediation, you can maximize the number of ads shown in your app, pulling from multiple networks to increase your ad space fill rate. More simply put, AdMob Mediation lets you better manage your ad sales and earn more money from your inventory. The service is free, and it is entirely compatible with most networks. In a perfect world, your fill rate would be 100%, meaning that an ad is displayed to a user every time they generate an impression. The more ads AdMob Mediation shows in your app, the more likely users are going to click, and the more money you can make!

BENEFITS

High CPMs, low stress – AdMob Mediation, an ad network optimization feature, automatically evaluates the CPM of each network in your mediation stack and dynamically reorders them so the network with the highest CPM is used in your app.

Bigger supply for better results – Most ad networks can't provide developers with a 100% fill rate due to low supply that can't meet the ad space demand. With AdMob Mediation, you can show ads from multiple networks, increasing the supply to meet the demand.

BEST PRACTICES

Choose an ad mediation tool with yield management – Discover exactly how well each ad in your mobile app is doing with yield management. With this tool, you'll see the highest paying ad for each impression you get in your app, allowing you to use those ads that will give you the best reward.

Cross-promote with AdMob's House Ads – With AdMob's House Ad campaigns, you can cross-promote your new app to users of your other established app(s) to expand your audience. AdMob provides this service for free and allows you to refine the targeting settings so you connect with those you most want to reach, be it a certain demographic or region. By combining House Ads with AdMob Mediation, you can maximize your use of the impressions in your app. In other words, when a mediation stack can't fill an ad space, you can place your ad there rather than having an empty slot. Plus, it helps you grow your audience.



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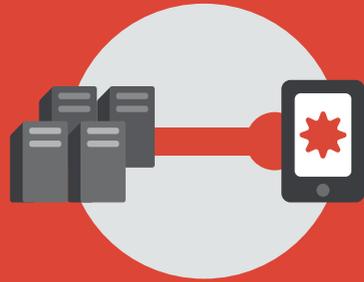


200% increase in CPMs Since 2013

AdMob connects to major sources of real-time demand. DoubleClick Ad Exchange powers more daily transactions than NYSE and NASDAQ combined.



ADMOB BY THE NUMBERS



200 billion
Global ad requests per month



IMPLEMENTATION

To get started, set up AdMob Mediation for your app and add the relevant network SDKs. Then sort them by order of priority to serve ads to your app. For example, the first network you'd select is the one with the highest CPM, the second you'd select would be the next highest, and so on.

Go Global with AdWords and AdMob



APPS HAVE NO BORDERS

Powered by the Internet and our mobile devices, apps have the potential to touch the lives of people in small villages and big cities, crossing borders of language and culture. Through Google's global network and localization tools, you can extend the reach of your app worldwide.

AdWords is your gateway to reaching AdMob's network of over 650,000 apps. Paid ad campaigns through AdWords can reach users across apps, the mobile web, YouTube and Google search. Run ads across multiple networks and measure how well each performs and costs, so you can determine which is the best option for you.

If you have a library of apps, you can cross-promote them to drive downloads using house ads in AdMob—for free. Use text or display ads to tailor your message, and maintain full control over when and where the ads appear in your app.



BENEFITS

Increase downloads – Get more people around the world to download your app using Mobile app installs campaigns in AdWords

Customized audience targeting – AdWords can help customize targeting, keywords, and ads for all your audiences based on your app ID and other information.

Automated ad creation – AdWords helps create your app install ads based on your app icon and reviews, and these ads take people straight to the app store to download your app.

BEST PRACTICES

Leverage best-in-class advertising tools – Use Remarketing in AdWords to drive engagement and revenue by prompting users to return to your app. You can even give them an incentive to return with special offers or promotions.

Optimize and track conversions – Take advantage of our Conversion tracking tool, which you place into your app to determine what ads are driving installs across Android and iOS. Set a target cost-per-acquisition and let Conversion Optimizer handle the rest. With this free tool, your campaigns will be automatically adjusted to serve ads to those most likely to click and install your app.

Tailor your app for a personalized experience – It’s important to deliver tailored, localized versions of your app so you can hit home with users all over the world. Why? According to a recent AdMob survey, 53% of Chinese respondents and more than one third of Japanese and South Korean users felt that the app they were using was poorly adapted to their needs – 25 - 30% of users discounted app usage because of it. According to 10% of users in China and Japan, even if the app was great, they would stop using it if it wasn’t adequately localized. Adjust your user interface to meet users’ needs, and make sure you’re culturally sensitive.

What are your promotional goals?

	“Mobile app installs” campaigns	“Mobile app engagement” campaigns	“Ads in mobile apps” campaigns
Advertising goal	Increase app downloads with ads sending people directly to app stores to download your app.	Re-engage people who use your app with ads that deep link to specific screens within your mobile app.	Show ads for your website exclusively in mobile apps. Learn more
Campaign type	Search Network campaigns Display Network campaigns AdWords for Video campaigns	Search Network campaigns Display Network campaigns	Display Network campaigns
Available ad formats	App install ads Image app install ads Video app install ads	App engagement ads	Text ads Image ads App install ads

IMPLEMENTATION

Find people who enjoy your app and you’ll want to be able to find those people wherever they are in the world. With AdWords, you can promote your app to specific audiences through a variety of channels, giving you the opportunity to connect with those most likely to be interested in your app – worldwide.

Select from a variety of designs and formats so you can create something that really speaks to your ideal users and captures their attention. This allows you to show ads within other apps, reaching specific audiences that may be interested in your app.

Localize your apps to appeal to a global audience by using Google Translate for simple words or phrases, or for more advanced translations, use Google App Translation Services, which includes a list of pre-selected vendors that have been vetted by us to provide high-quality translations at an affordable price.

Types of Mobile Ads

Where mobile ads can appear	Ad types
On mobile devices with full browsers, such as smartphones or tablets	<ul style="list-style-type: none">  Text ads  Image ads  App promotion ads  HTML 5 ads built with Google Web Designer
Within apps on smartphones or tablets	<ul style="list-style-type: none">  Text ads  Image ads  App promotion ads  Image app promotion ads  Video app promotion ads
Only on devices that can make calls	<ul style="list-style-type: none">  Call-only ads

Important – To create image ads, your campaign must be opted into the Display Network, either as “Display Network only” or “Search Network with Display Select”.



To get started with AdWords for mobile, visit www.google.com/adwords/