Ad Network Mediation
Mobile Landscape Primer

About the Author

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As Chief Operating Officer of AerServ, Andrew oversees the company's day-to-day operations, ensuring that clients, employees, and partners have the right captains steering the innovation, solutions, and services needed for success in a mobile world. Andrew holds well over a decade of senior management experience in digital publishing. Previously, Andrew served as COO of Aerify Media. A longtime colleague of AerServ's CEO Josh Speyer, Andrew formerly worked with Josh at Source Interlink Media (now rebranded as TEN: The Enthusiast Network), where he managed the SEO team and coordinated the SEO efforts for all web properties to maximize organic traffic and search engine exposure including Automotive.com, MotorTrend.com, Automobilemag.com, and 200 others.

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The Basics

Whether you're a brand new app with aspirations of being the next Crossy Road or an established brand like ESPN, ad network mediation is a must. This complete guide will take you through the what's and why's, and help you navigate the evolving and complex mobile advertising technology landscape.

What IS ad network mediation?

There are many that don't quite know what mediation is, but in reality, mediation is very simple. A mediation platform allows app owners to connect, manage and optimize multiple ad networks from a central location. Using a singular interface, an app owner can set up connections with as many ad networks as they'd like, allowing them to manage a direct relationship with that ad network. The mediation platform does not sit in the middle or take any revenue in the transaction between the ad network and app owner — it merely serves as a *conduit*.
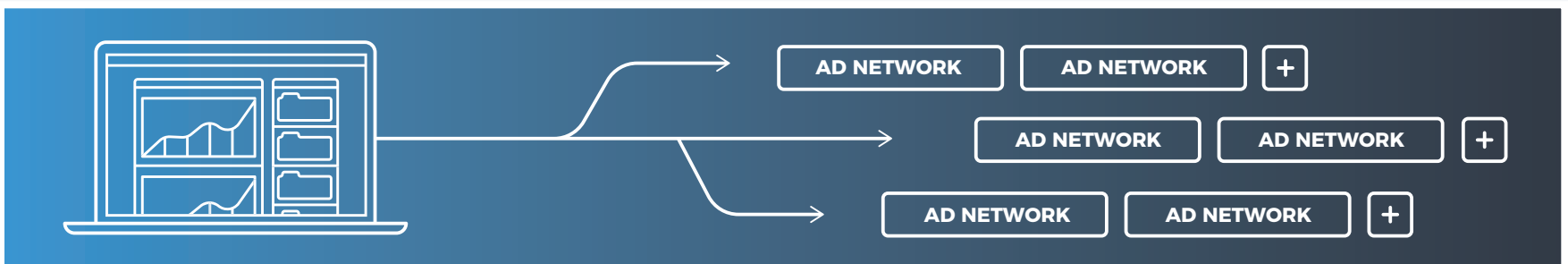
I'm new to this - break it down for me!

There are lots of acronyms and terms thrown around in the advertising world. Here's a quick rundown of some important terms we'll be using in this guide.

CPM

Cost per mille, or cost per thousand. CPM is an advertising pricing model, and used to denote the amount paid per thousand impressions served. If you are quoted a $5 CPM, you will earn $5 in revenue for every thousand ad impressions delivered, or ads shown. The user doesn't need to interact with the ad in any way for you to earn revenue.

CPI

Cost per install, or CPI, is a popular mobile advertising pricing model. If you are quoted a $2.00 CPI, you will earn $2.00 in revenue for every app install generated from the ad in your app.

CPC

Cost per click, or CPC, is another advertising pricing model – one employed at scale by Google. If you are quoted a $0.25 CPC, you will earn $0.25 in revenue for each click generated from the ad in your app.

CPCV

Cost per completed view, or CPCV, is a mobile video pricing model that's often used in rewarded video environments. If you are quoted a $0.02 CPCV, you will earn $0.02 for every user that watches 100% of the video ad. If they exit the ad before it completes in full, you won't earn any revenue.

Ad Impression

Event when an ad is viewed and billable.

Ad Opportunity

Event when there is an opportunity to show an ad.

Fill Rate

The percentage of delivered ad impressions out of the total number of opportunities to show an ad. For example, if you have 100 opportunities to show an ad, and 25 are delivered, you have an effective fill rate of 25%.

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SDK

A software development kit, or SDK, is a set of development tools that enable the development of applications for a specific platform.

API

API (application program interface) is a set of routines, protocols and tools for building software applications. The API specifies how software components should interact.

Tag

An ad tag is a piece of HTML or JavaScript code that a publisher integrates into their ad server or code of their pages/apps. The ad tag communicates back to the ad server, requesting ads for the page and handles rendering.

Pre-Caching

In an advertising context, pre-caching refers to downloading an ad ahead of time in anticipation of its use to minimize latency.

Ad Network

An ad network employs a sales force, sells ads directly to agencies & buyers, and then aggregates and "reps" inventory from publishers.

Ad Exchange

An ad exchange is a technology platform allowing buyers to bid on inventory in real-time. The ad exchange doesn't "rep" inventory, but instead provides a channel for sales between publishers and advertisers.

RTB

Real-time bidding, or RTB, is a growing part of the advertising market in which ads are bought and sold via programmatic auctions in real-time.

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- **VAST**
  Video Ad Serving Template is a specification released by the Interactive Advertising Bureau (IAB) that sets a standard for communication requirements between ad servers and video players.

- **VPAID**
  VPAID is a Digital Video Player-Ad Interface Definition from the IAB (Interactive Advertising Bureau) and is essentially a set of standards for the communication between video players and in-stream video advertising.

- **MRAID**
  Mobile Rich Media Ad Interface Definitions, or MRAID, is the IAB Mobile Marketing Center of Excellence's project to define a common API (Application Programming Interface) for mobile rich media ads that will run in mobile apps.

- **Offer Wall**
  An offer wall is a page that appears within an app that gives users incentives for completing an action.

- **Rewarded Video**
  Rewarding users with virtual currency (ex: coins, lives, emojis) in exchange for viewing a video ad to completion.

You're an ad tech lingo expert now. Let's move on!

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Why do I need ad network mediation?

Quite simply, one ad network or exchange won't be able to buy your entire pool of ad inventory at the best price possible. This becomes even more apparent as your business scales, and your number of daily active users (DAU) climbs higher. Often times, ad networks will have a limit to the amount of demand they have, or they will have a strong specialty in a particular ad format (ex: video, banner), or in a specific geographic location (ex: US, India).

Let's run through a few examples highlighting the value of a mediation platform.

EXAMPLE 1 - ABC Gaming is a company specializing in mobile app and game development. They have ten titles, four of which have over one million DAU, and span from casual card and trivia games (ex: Solitaire or Trivia Crack) to more in-depth multi-level games (ex: Subway Surfer or Sonic Dash). All of these games developed by ABC are *free-to-play*, with the majority utilizing the *freemium model*, which means they offer some form of in-appcurrency in addition to the advertisements.

ABC Gaming has implemented a 320x50 banner ad on all screens of their trivia and card games, a static interstitial when the player finishes a level, and a rewarded video ad as an option in exchange for in-app points. Within their more in-depth games, they have elected not to integrate the 320x50 banner ads, as it would be too distracting during game play. Instead, they've integrated a static interstitial in-between levels and a rewarded video ad in exchange for an extra life when the player dies.

ABC Gaming is now using three different types of ads (banners, interstitials and video) across multiple titles and has millions of ads available to serve per day. *To maximize their advertising revenue*, they work with fourteen different ad networks and exchanges, six of which require a SDK with the remaining eight offering multiple integration options.

Without mediation,
## ABC Gaming has a lot of work to do:

1. **They need to figure out** how to connect into each ad network to retrieve their ads, ensure the plumbing is correct, and how to manage each of them for one ad call.

2. **They have to handle** the creative rendering for each of the three ad units through their app, and ensure each ad network is working properly.

3. **They need to engineer** a way of minimizing lost impressions by waterfalling amongst ad networks, and how this works across different integration types like SDK and API.

4. **They need to figure out** how they'll report on all fourteen ad networks, allowing them to continuously optimize their waterfalls and yield.

5. **They have to build** a mechanism to update the prioritization of these networks, ensuring the best performing buyers are allocated appropriately in each market, and hopefully have this automated!

6. **They have to use** engineering resources every time the sales team wants to introduce a new buyer.

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If ABC Gaming opts to use a mediation platform, the hundreds of engineering and operational hours used on the projects above can instead of be used on developing games or optimizing their yield to drive their business forward.

Let's look at another use case...

EXAMPLE 2 - Tom is an independent mobile developer who released his first game a few months ago. He wanted to get as many users as possible, so he made the game *free-to-play*. By month two, his game had picked up a decent following with users in the US an Europe. Tom was contacted by a few ad networks, and decided to integrate one of their SDKs to monetize via banners and static interstitials. He monitors the metrics on almost a daily basis.

In the US, he has roughly **75% fill rate for banner** at a CPM of $0.60 and **50% fill rate for interstitials** at a CPM of $1.75. In Europe, his fill rate drops to **50% for banner** at a CPM of $0.40, and interstitials drops to **30% fill rate** at a CPM of $0.80. Tom is leaving some serious money on the table. In the US, he's losing out on 25% of his banner inventory and 50% of interstitials. It's even worse in Europe! Additionally, there are networks with CPMs far north of those prices.
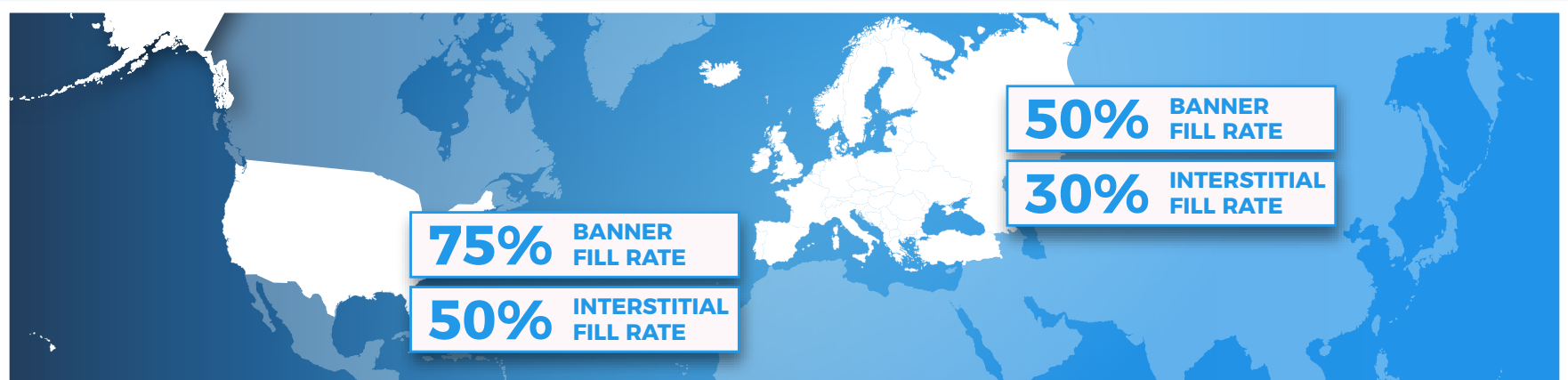
What's the problem? **Tom is relying on one ad network for everything.**

With a mediation platform, he can integrate **multiple ad networks for each ad unit**, and each GEO, and manage them easily from one interface. It won't take any additional time out of Tom's day, but it will bring Tom more revenue that he can use to develop his game or buy more users.

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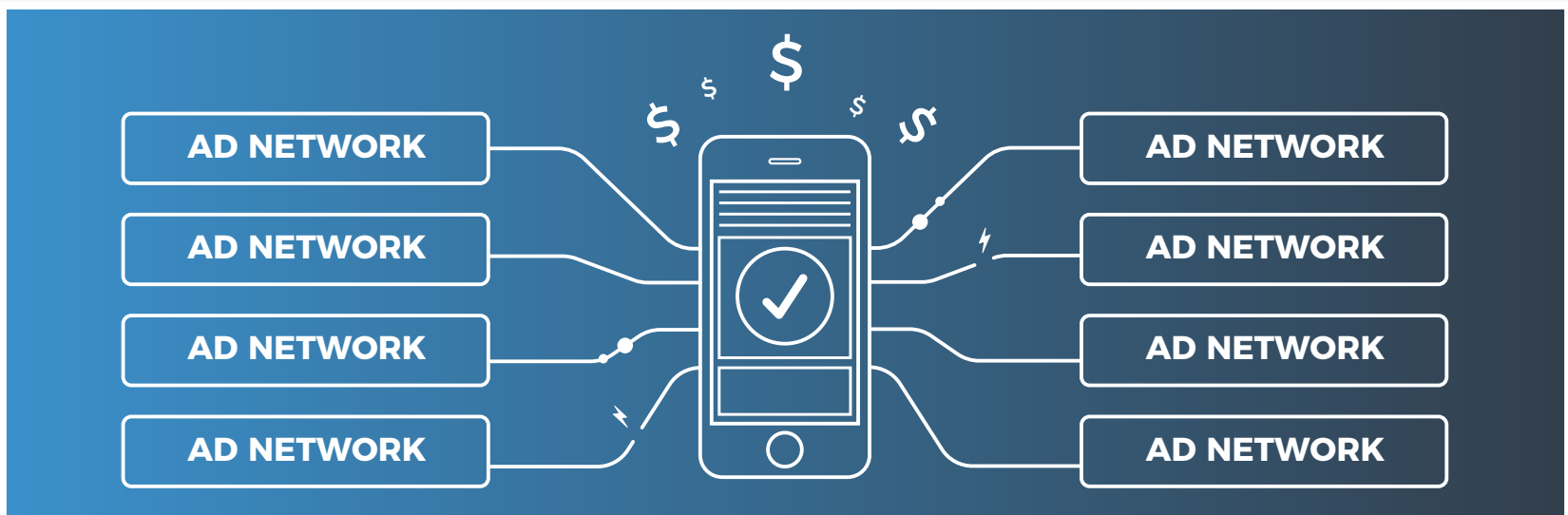
Things To Consider

Ok, you get it now. Mediation is important and ultimately helps developers drive more revenue from their inventory. How do you choose the mediation platform that's right for you? There are a number of options in the market, so consider the following when making your selection. We'll first outline each variable, and then we'll discuss each one in greater detail for each provider.

Cost
Starting with the basics, what is it going to cost you and are you ok with paying for the service? Many mediation platforms are free, but a few charge to use their platform.

Ad Units Offered
Most mediation platforms don't offer support for banner, interstitial, video, rewarded video and native ad units. You'll need to decide which ad units you want to integrate and select a platform that offers the ad formats you're integrating into your app(s), while also keeping in mind flexibility for the future.

Ad Networks Offered
How many ad networks are available within the mediation platform? Do they offer the ad networks you need? Is it easy to add new ones? How often does the platform add new networks?
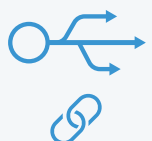
Ad Source Integration Types
How are ad networks integrated in the mediation platform? Are they integrated via SDK adapter, API or through tags? Your integration method has an impact on integration times, efficiency and bloat within your app.

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App Integration Types

What integration options does the mediation platform support for developers? Does the platform require SDK integration, or can you integrate via API? Do they have plugins for the development platform you use?
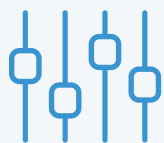
Direct / Indirect Control

Do you want to own the relationship with each ad network, keeping 100% of the revenue? Or do you prefer to be hands-off and let someone else manage the ad network relationships for you?

Size of SDK

Does the size of the SDK matter to you? Some mediation platforms integrate all ad networks via SDK and adapter, which can lead to a larger SDK and overall app size.

Reporting

How often do you want to check reports? Do you need real-time data, or is once per day enough? Do you need access to data via API for your internal systems? Does the platform pull in data from mediated ad networks through an API? Each platform provides different options and it is important to understand how the frequency and accuracy of the reporting will impact your business operations.

Pre-caching

This feature within the SDK enables the developer to call and cache ads before the ad will be delivered to the user. Pre-caching ads, especially video ads, is extremely helpful in minimizing latency and improving user experience. Is pre-caching a feature that is important to you? If so, understand which platforms and ad networks support it.

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Customer Support

If you need help, is someone available to you? Will you have an account manager? Do they offer support via phone, email or chat? Knowing the complexity of the mobile advertising landscape, a solid support system from your vendor is an important variable to consider.

Automation

Does the platform make your life easier by automating routine tasks? Does the system programmatically optimize your ad networks towards optimal yield?

Features

Are there other features you're looking for? Ability to traffic house ads or direct sold campaigns? Simultaneous ad calling vs. waterfalling? Programmatic capabilities? User segmentation?

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You're ready now. You understand what ad network mediation is, how a platform can help you, and what to look for when deciding which vendor to select. Now, let's take a look at the current vendors in the market and how each one is different.

Mobile Ad Network Mediation Platforms
There are currently four main mobile mediation platforms on the market. These platforms give you first party relationships with your ad networks, and have a broad selection of ad units and ad networks supported.

In alphabetical order, they are:

01. AdMarvel / Opera MediaWorks

Started in 2006, AdMarvel was acquired by Opera in 2010 and rebranded as Opera MediaWorks. This mediation platform is not self-serve, and focuses on premium, large-scale apps like Pandora, Shazam and the Wall Street Journal. It includes a mixture of features found in full ad servers like direct campaign trafficking, geo-fencing, and private marketplaces, while also offering support for multiple ad formats. This mediation platform supports a limited number of ad networks for mediation, as they all need to go through a formal certification process, but this number is increased when combined with their ad exchange and RTB.

Cost	Expensive! Publishers are charged a setup fee, ad serving fees & a monthly minimum
Ad Units Offered	Banner, interstitial, non-rewarded video, rewarded video & native
Ad Networks Offered	Limited number for pure mediation; 120+ through mediation & RTB
Ad Source Integration Types	SDK adapter, API, VAST tag & VPAID tag
App Integration Types	SDK, API, JavaScript tag & VAST tag
Dev Platform Plugins	Unity
Direct/Indirect; Control	Direct; Opera MediaWorks also brings demand through their exchange, OMAX
Size of SDK	Full size varies based on number of ad networks integrated
Customer Support	Dedicated account manager with availability via phone & email
Reporting	Real-time
Pre-Caching	Yes
Auto-Optimization	No
Simultaneous Ad Calls	No

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02. AdMob

AdMob, a Google product, is a widely used and basic mediation platform. AdMob currently offers 39 different ad networks for banner, interstitial and native ads, and the majority of them must be integrated via SDK adapter. In February of 2016, AdMob debuted SDK-less mediation, meaning the ad networks would be integrated without a SDK adapter. As of March 2016, only four ad networks are supported in this way. When a developer integrates AdMob, they also get access to Google's network of advertisers, which are largely performance-based and pay developers based on the number of ads clicked.

Cost	Free
Ad Units Offered	Banner, interstitial, interstitial video, non-rewarded video & native
Ad Networks Offered	39
Ad Source Integration Types	SDK adapter & API
App Integration Types	SDK
Dev Platform Plugins	Unity, Adobe Air, Phonegap, Basic4Android, Embarcadero, Telerik & Corona Labs
Direct/Indirect; Control	Direct
Size of SDK	iOS: 5.8MB (base SDK) Full size varies based on number of ad networks integrated
Customer Support	No
Reporting	Real-time
Pre-Caching	Yes
Auto-Optimization	Yes
Simultaneous Ad Calls	No

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03. AerServ

Started in 2013, AerServ specializes in video ads while offering support for banners, interstitials, non-rewarded video and rewarded video. Currently, 38 different ad networks are supported, including a mixture of SDK adapters and API connections, as well as the ability to traffick tags. This mediation platform is free and self-serve; AerServ welcomes publishers of all sizes, and offers a hands-on approach and customer service.

Cost	Free
Ad Units Offered	Banner, interstitial, non-rewarded video & rewarded video
Ad Networks Offered	38
Ad Source Integration Types	SDK adapter, API, VAST tag & VPAID tag
App Integration Types	SDK, API, JavaScript tag & VAST tag
Dev Platform Plugins	Unity, Adobe Air, Phonegap, Basic4Android, Embarcadero, Telerik, Corona Labs & Tapjoy
Direct/Indirect; Control	Direct
Size of SDK	iOS: 17MB & Android: 290KB Full size varies based on number of ad networks integrated
Customer Support	Dedicated account manager available via phone, email & chat
Reporting	Real-time
Pre-Caching	Yes
Auto-Optimization	Yes
Simultaneous Ad Calls	Yes

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04. MoPub

Acquired by Twitter in 2013, Mopub is free to use for developers. It offers a range of ad formats including banner, interstitial, non-rewarded video, rewarded video, and native ads, all integrated via SDK. The platform is limited to 14 supported pre-configured ad networks, but developers are able to add other ad networks via custom integrations as the SDK is open source.

Cost	Free
Ad Units Offered	Banner, interstitial, non-rewarded video, rewarded video & native
Ad Networks Offered	14 direct integrations; ability to add custom integrations
Ad Source Integration Types	SDK adapter, API & tag
App Integration Types	SDK & JavaScript tag
Dev Platform Plugins	Unity & Tapjoy
Direct/Indirect; Control	Direct
Size of SDK	iOS: 971KB Full size varies based on number of ad networks integrated
Customer Support	Limited
Reporting	Real-time
Pre-Caching	Yes
Auto-Optimization	No
Simultaneous Ad Calls	No

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Aggregated "Mediation" Platforms

There's a different type of platform available for publishers under the "mediation" moniker. This second bucket offers a managed service and aggregation of demand. When a developer signs up for these platforms, he integrates "one" SDK, which includes the SDKs of many different ad networks. Instead of getting paid from each individual ad network, the publisher would get a single check from the mediation aggregator.

01. Appodeal

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Started in 2014, this demand aggregator offers a bundled SDK and clearinghouse, which allows developers to collect one check from Appodeal instead of multiple checks from direct relationships with ad networks. The managed service is free to use, and unlike Fuse Powered, Appodeal does not take a revenue share of gross revenue. Instead, Appodeal competes for the inventory and tries to serve their direct campaigns if they can beat the CPM of other ad networks.

Cost	Free
Ad Units Offered	Banner, interstitial, non-rewarded video, rewarded video & native
Ad Networks Offered	Closed/aggregated demand
Ad Source Integration Types	SDK adapter
App Integration Types	SDK
Dev Platform Plugins	Unity, Cocos2D, Marmalade, Phonegap, Adobe Air & Basic4Android
Direct/Indirect; Control	Indirect
Size of SDK	iOS: 486MB / Android: 3.2MB
Customer Support	Dedicated account manager available via phone, email & chat
Reporting	Real-time
Pre-Caching	Yes
Auto-Optimization	Yes
Simultaneous Ad Calls	No

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02.Upsight

Primarily used for rewarded video, this provider began as a managed service mediation provider, bundling together multiple SDKs from performance based ad networks like AppLovin, Mopub, and others. Upsight mediation service doesn't charge any ad serving or setup fees, but the company will take a revenue share of gross revenue earned through the platform. Upsight recently debuted new user segmentation and in-app purchase tools for developers as part of their marketing automation offering.

Cost	Revenue share (tiered based on volume)
Ad Units Offered	Interstitial, video & rewarded video
Ad Networks Offered	Unknown
Ad Source Integration Types	SDK adapter
App Integration Types	SDK
Dev Platform Plugins	Unity, Corona, Adobe Air & Marmalade
Direct/Indirect; Control	Indirect
Size of SDK	iOS: 17MB / Android: 290KB
Customer Support	Dedicated account manager available via phone, email & chat
Reporting	24-hour Delay
Pre-Caching	Yes
Auto-Optimization	Yes
Simultaneous Ad Calls	No

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Rewarded Video Mediation

This subset includes platforms specializing in rewarded video ad mediation. For those unfamiliar, rewarded video is a common monetization method used by games where a user is given the option to watch a video advertisement in exchange for something within the game or app (ex: coins, lives, points).

01. Supersonic

 Originally an ad network, Supersonic merged with IronSource in September of 2015. Supersonic now offers rewarded video ad mediation under the brand Ultra. The platform is free to use, with the Supersonic ad network competing against mediated ad networks for the inventory based on price. Supersonic offers nine ad sources for mediation, and they are largely performance-based, or cost-per-install (CPI).

Cost	Free
Ad Units Offered	Rewarded video, offer walls & interstitials
Ad Networks Offered	9
Ad Source Integration Types	SDK adapter
App Integration Types	SDK
Dev Platform Plugins	Unity & Adobe Air
Direct/Indirect; Control	Direct
Size of SDK	iOS: 18MB / Android: 328KB
Customer Support	Dedicated account manager available
Reporting	Real-time
Pre-Caching	Yes
Auto-Optimization	Yes
Simultaneous Ad Calls	No

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02. Fyber

With roots as an incentivized ad network called SponsorPay, Fyber was acquired by RNTS Media in 2014. In 2016, they acquired Heyzap. Fyber is a European based platform offering mediation for rewarded video ads. The platform is free to use, with the Fyber ad exchange competing against mediated ad networks for the inventory based on price. Fyber offers fourteen ad sources for mediation, and they are largely performance-based, or cost-per-install (CPI).

Fyber also offers some advanced features including auto-optimization based on historical data and user segmentation.

Cost	Free
Ad Units Offered	Rewarded video, offer walls & interstitials
Ad Networks Offered	14
Ad Source Integration Types	SDK adapter
App Integration Types	SDK
Dev Platform Plugins	Unity
Direct/Indirect; Control	Direct
Size of SDK	iOS: 22MB / Android: 238KB
Customer Support	Dedicated account manager available via phone, email & chat
Reporting	Real-time
Pre-Caching	Yes
Auto-Optimization	Yes
Simultaneous Ad Calls	No

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03. HyprMX

A subsidiary of Jun Group, HyprMX is one of the few platforms listed that focuses on brand ads vs. performance-based ads. HyprMX is the ad network focused on delivering brand ads on mobile games, while HyprMedia is their rewarded video ad mediation platform. The mediation platform is free, and offers only three supported ad networks, all of which are integrated through SDK adapters.

Cost	Free
Ad Units Offered	Rewarded video
Ad Networks Offered	3
Ad Source Integration Types	SDK adapter
App Integration Types	SDK
Dev Platform Plugins	None
Direct/Indirect; Control	Direct
Size of SDK	iOS: 38MB / Android: 938KB
Customer Support	No
Reporting	Real-time
Pre-Caching	Yes
Auto-Optimization	Yes
Simultaneous Ad Calls	No

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Wrapping Up

You now have a comprehensive overview of mobile ad mediation and the various players in the market. This guide can be used to narrow down your choices based on the factors that are most important to you. If *rewarded video* is a large factor, you should check out AerServ, Fyber, and Supersonic. If you've chosen *native ads* as your ad unit of choice, you should look into Mopub and Admob. If you're interested in moving into brand-based advertising instead of CPI ads, look into AerServ or HyprMX.

Before making your selection, contact each company and request a demo of their platform to determine which one best suits your needs. Take notice of their response times and customer service through this process as a proxy for the service you'll get as an actual customer.

We welcome you to contact us at AerServ if you have any questions regarding mobile advertising, mediation, the information above, or how to get started. Good luck!
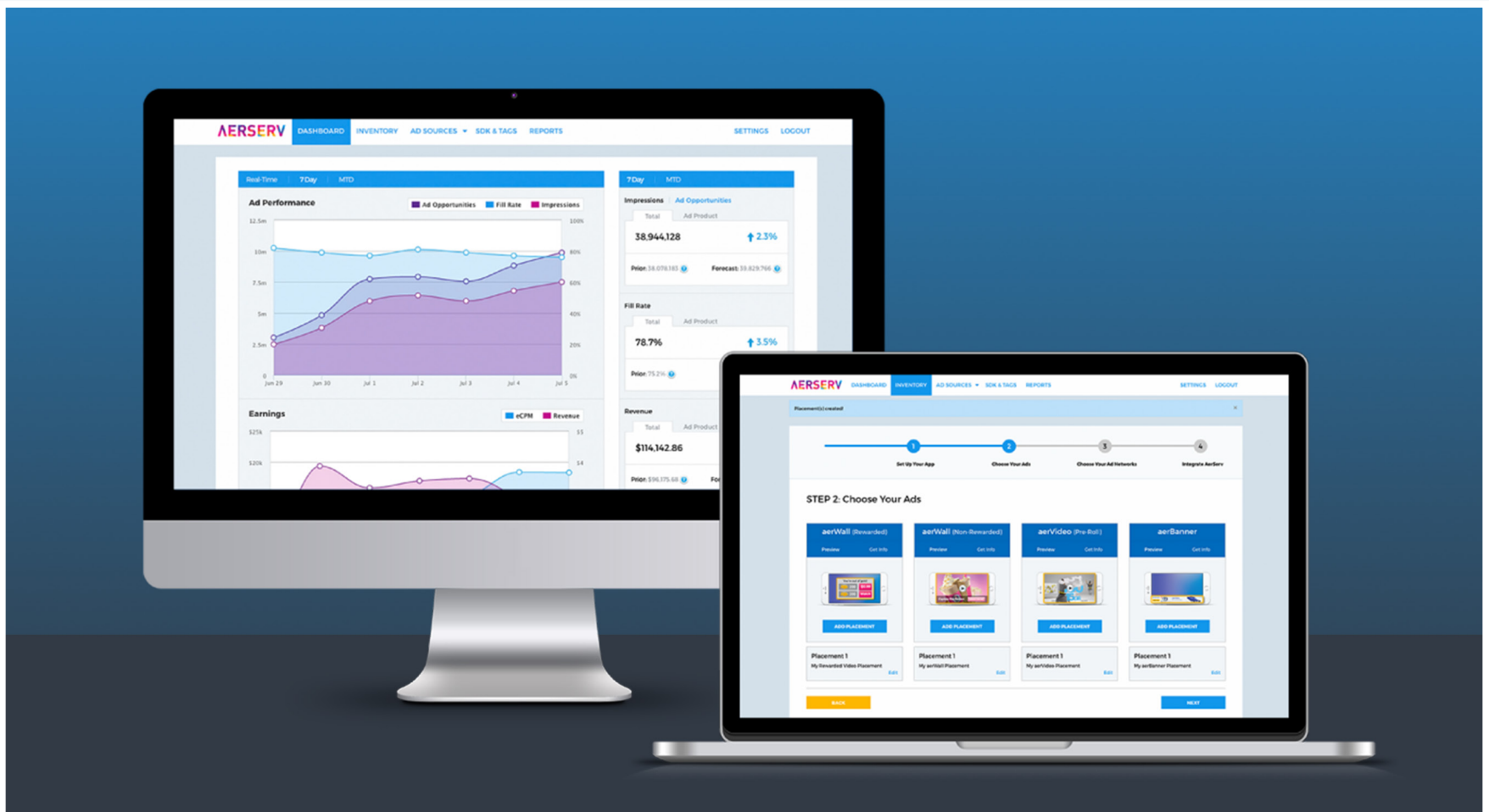
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AerServ is a free mobile mediation and monetization platform that empowers mobile publishers with a superior technology platform, supercharges their ad revenue through mobile video, and supports them with unrivaled customer service for a triple-win.

Whether you are looking for a simple way to monetize your mobile inventory or an advanced way to increase revenue, AerServ can get you there easily and efficiently.

Get started now at: www.aerserv.com

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