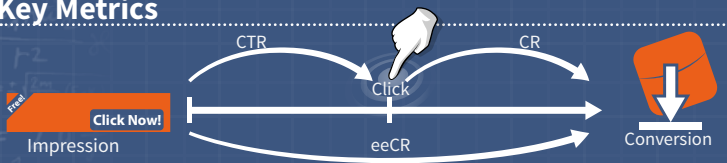


## Key Metrics



- Click-Through Rate (CTR)**

Measures the proportion of the users who click on the ad after having seen it.

$$\text{CTR} = \frac{\text{Number of Clicks}}{\text{Number of Impressions}}$$

- Conversion Rate (CR)**

Measures the number of clicks it takes before a user performs the desired action (the conversion). The nature of the conversion depends on the goal of the advertiser as well as the pricing scheme used. The most common form of conversion is the install (for CPI-based pricing).

$$\text{CR} = \frac{\text{Number of Conversions}}{\text{Number of Clicks}}$$

- End-to-End Conversion Rate (eeCR)**

Takes the whole conversion funnel into account and measures the number of impressions it takes for users to complete a defined action (a conversion).

$$\text{eeCR} = \text{CTR} \times \text{CR} = \frac{\text{Number of Conversions}}{\text{Number of Impressions}}$$

- Positive Factors of Influence Matrix**

CTR	Quality of creative	Ad format and placement	Audience fit and targeting quality
CR	App store appearance	The app matches the ad's promise	

- Effective Cost Per Mille (eCPM)**

The primary metric and revenue KPI used to determine the monetary yield of an advertising space over a certain amount of impressions. eCPM represents the amount of revenue you are effectively earning for displaying a thousand impressions within your app or within a certain inventory space.

$$\text{eCPM} = \frac{\text{Revenue}}{\text{Number of Impressions}} \times 1,000$$

Depending on the pricing method used by the advertiser, eCPM can be influenced by the CR and the CTR. Here is how to calculate the marginal value of each additional impression, depending on the pricing scheme used:

Pricing scheme	Cost Per Mille	Cost Per Click	Cost Per Install
eCPM per impression	bidCPM x 1,000	bidCPC x CR x 1,000	bidCPI x CTR x CR x 1,000

- Frequency**

The number of times an ad is shown during a session or a specific amount of time.

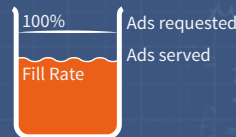
In cases where the ad is triggered naturally (no action from the user), eCPM has a negative relationship with frequency, as an ad shown more often during a single session is likely to subject your users to ad fatigue and thereby decrease the CTR (which in turn will impact revenue).



- Fill Rate**

Measures the percentage of instances in which a publisher has successfully displayed an ad out of the total number of times the ad was requested. It's important for a publisher to maximize the fill rate in order to maximize opportunities for a user to click on an ad.

$$\text{Fill rate} = \frac{\text{Number of ads delivered}}{\text{Number of ad requests}}$$

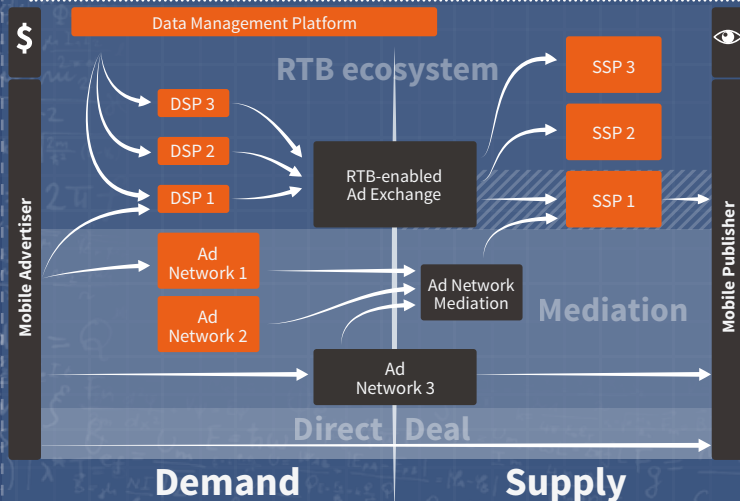


## Main Mobile Ad Formats



Format type	Banner ads	Interstitial ads	Offerwalls	Video ads
User value	Intrusive	Rather Intrusive	High user value	High user value
Necessary amount of impressions	High amount of impressions	Lower amount of impressions	Very low amount of impressions	Very low amount of impressions
Average eCPM level	Low eCPMs	Medium eCPMs	High eCPMs	High eCPMs
Main pricing model	CPC	CPC, CPI	CPA	CPV (cost per view), CPI

## The Mobile Ad Tech Landscape Simplified



## Short Ad Tech Glossary

### Ad Exchange

A technology platform that facilitates the buying and selling of online media advertising inventory from multiple DSPs, SSPs as well as ad networks through bidding practices. It functions as a sales channel between publishers and ad networks and can provide aggregated inventory to advertisers.

### Ad Network

A company that connects advertisers to publishers. It aggregates inventory from publishers to match it with advertiser demand. Ad networks use central ad servers to deliver advertisements to consumers which enable the targeting, tracking and reporting of impressions.

### Data Management Platform (DMP)

A centralized computing system for collecting, integrating and managing large sets of data from first, second, and third party data sources. It provides processing of that data, and allows a user to push the resulting segmentation into live interactive channel environments.

### Demand Side Platform (DSP)

A technology that enables advertisers to buy impressions across a range of publisher inventory targeted towards specific users, based on information such as their location and previous browsing behavior. Publishers make their ad impressions available through marketplaces on ad exchanges or SSPs, and DSPs decide which ones to buy, based on the information they receive from the advertiser, most often using real-time bidding technology.

### Direct Deal

An advertising deal whereby an advertiser buys mobile inventory directly from a publisher.

### Mediation

Commonly referred to as "ad network mediation"; a technology which delivers an integrated portfolio of ad networks to publishers and enables them to sell their inventory to the different ad networks through one single channel. Mediation platforms can also integrate DSPs. Mediation is possible at SDK and API level and mainly enables publishers to increase their fill rate.

### Real-Time Bidding

A technology that conducts a real-time auction of available mobile ad impressions by receiving bids from multiple demand sources such as DSPs within a set time interval (typically 100ms) and then delivering the ad to the winning bidder; usually a second price auction where the highest bidder pays the price bid by the second highest bidder.

### Supply Side Platform (SSP)

A technology that gathers various types of advertising demand for publishers including demand from traditional ad networks as well as ad exchanges. This demand is aggregated by Demand Side Platforms which plug into an SSP to bid on publisher's inventory, using Real-Time Bidding.