



# The Mobile Advertising Ecosystem

WHITE PAPER

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There has been a lot of talk and a lot of hype around mobile advertising for the past couple of years, but the stats show that the market is still small when compared to online advertising.

Two of the reasons for this are fragmentation and a lack of understanding. Mobile optimization platforms like Smaato can help to address the first issue, making it easier for advertisers to buy across multiple networks, and for publishers to sell their inventory.

As for the lack of understanding, Smaato's commitment to producing regular metrics which show the devices, operating systems and geographic territories that are delivering the best results, can only be good for the nascent mobile advertising industry.

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David Murphy

Founder and Editor, Mobile Marketing Magazine

# Summary

This whitepaper aims to deliver a high level overview about the mobile advertising ecosystem. It describes the different segments of the mobile advertising market as well as provides some insights on the different players and processes of the mobile advertising value chain.

The main conclusion of the whitepaper is, that the mobile advertising ecosystem has a high rate of fragmentation and diversification. On one hand the ecosystem is fragmented on a technological level since there are many devices with different operating systems and handsets on the market. On the other hand the market suffers from the very limited amount of marketing budgets in a specific geographical region. This massive fragmentation results in serious market inefficiencies that hinder advertisers to achieve campaign goals and publishers to properly monetize content.

For that reason Smaato has developed the leading mobile advertising platform SOMA to overcome the massive technological and regional fragmentation of the mobile advertising market, by enriching inventory and matching it with the best targeted advertising source available. Besides maximizing advertising revenue, Smaato's mobile advertising solution provides a single integration point to publishers and developers on almost all platforms and solves the problem of monetizing free content for them.

Since the online advertising market is a good reference for the mobile advertising ecosystem, the whitepaper starts with a short description of the basic functionality of the former.

# Learning from Online Advertising

With more and more individuals engaging in online activities all around the world, the online advertising market has experienced significant growth on a global scale over the last few years.

On a basic level the online advertising market can be divided into three different segments of advertising that have specific ad formats, characteristics and publishers.

Generally, as can be seen in table 1, the main three online advertising segments are search, premium display and non-premium display. There are also other segments with other forms of advertising like affiliate programs that shall not be considered here. The table also shows the specific differences in targeting, pricing and the roles of the publishers and advertisers.

| Segment                    | Ad Format           | Targeting                             | Pricing                                | Publisher  | Advertiser   |
|----------------------------|---------------------|---------------------------------------|--|--|--|
| <b>Search</b>              | Text                | Contextual / Behavioral               | CPC / CPA                              | Search engines / Low quality inventory                 | Mostly performance campaigns   |
| <b>Premium Display</b>     | Banner / Rich Media | Sociodemographic / Interest Targeting | High CPM surcharging for media placing | High quality inventory with direct sales relationships | High quality brands working with agencies and Premium Ad Networks                      |
| <b>Non-Premium Display</b> | Banner / Rich Media | None / Contextual / Behavioral        | Low CPM / CPC / CPA                    | High quality inventory of small publishers + Longtail  | All kinds of advertisers working with intermediaries like Ad Networks and Ad Exchanges |

Table 1: Online Advertising Segments

One difference between those segments is the advertising format. Whereas text is the main advertising format in the search segment that capitalizes on the intent and explicit interest of consumers, graphical banners and rich media units are formats of the premium and non-premium display segment. We will focus on display advertising here.

In order to understand the characteristics and differences of the premium and non-premium display advertising segment, it is important to understand the mechanics of the process and the players that are involved in the advertising ecosystem.

Premium display inventory guarantees advertisers a specific placement (specific time-frame, clearly defined inventory) of their ads for a given price. The inventory within the premium display segment is usually sold directly through the sales force of the publisher, on a CPM basis through advertising agencies representing high quality brands that are willing to pay high prices for engaged users. Usually, if an advertiser or the representing agency wants to advertise in the premium segment, they need to approach the publishers directly or go to the premium ad networks (secondary premium) which offer the inventory of the publisher as well.

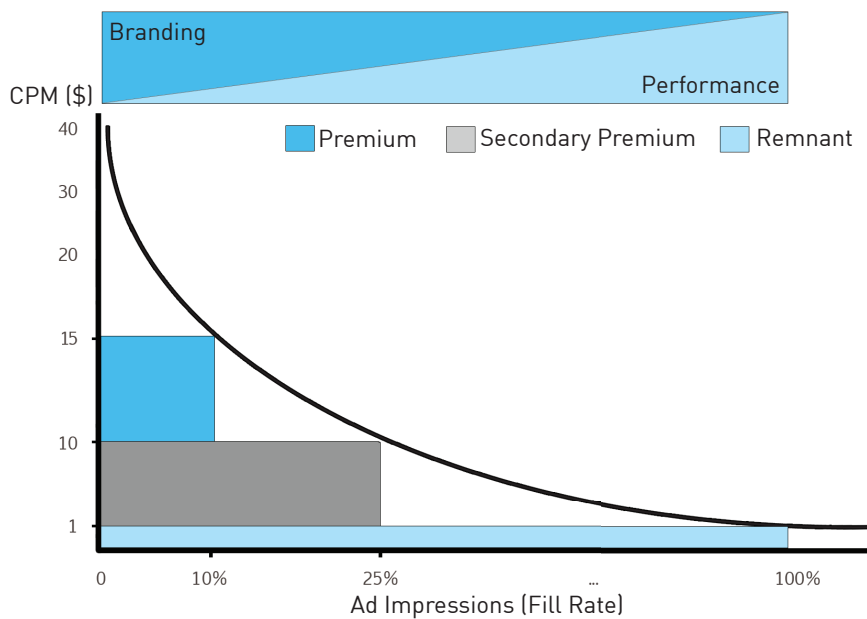


Chart 1: Display Advertising Tiers

The secondary premium inventory is mostly bundled inventory with similar quality and transparency as premium but sold through Premium Ad Networks on an automated non guaranteed basis.

Non-premium inventory (also called remnant inventory) is sold automatically through intermediaries like ad networks, with no guarantees and is usually priced on a performance (CPC, CPA) basis. This segment works with all kinds of advertisers enabling long-tail publishers to monetize their inventory as well.

In order to advertise in the secondary premium or remnant category, the advertiser or the representing agency has to use ad networks or ad exchanges to buy inventory and convert it to their campaign goals. Through a mostly automated process, those intermediaries pick the best suited inventory in their network for a given price.

The online ad networks and their sales force play a very important role for digital advertising in convincing traditional marketers to increase their spend on digital media. With the proliferation of smartphones especially in developed markets, the opportunity came to advertise on mobile devices.

# The Opportunity for Mobile Advertising

The mobile advertising ecosystem has similar processes and players as the ecosystem which has involved in the online advertising space. But pricing, ad formats and targeting possibilities as well as media budgets are significantly different from online advertising.

Even though the potential of the mobile channel is obvious, with more than 4 billion mobile subscribers (Morgan Stanley, 2009) in the world, marketers mainly conduct experimental mobile buys that make it extremely hard for them to address the right audience on scale and produce the result brands are looking for. Where \$8 billion is forecasted to be spent on online display advertising in 2010 in the US, mobile advertising is expected to create revenues in the US of around \$253 million in the same year. Mobile advertising is definitely gaining traction. J.P. Morgan (June, 2010) estimates that the mobile advertising spend will more than double in the next two years in the US alone to \$566 million in 2012.

Total US Mobile Advertising Forecast (in millions USD)

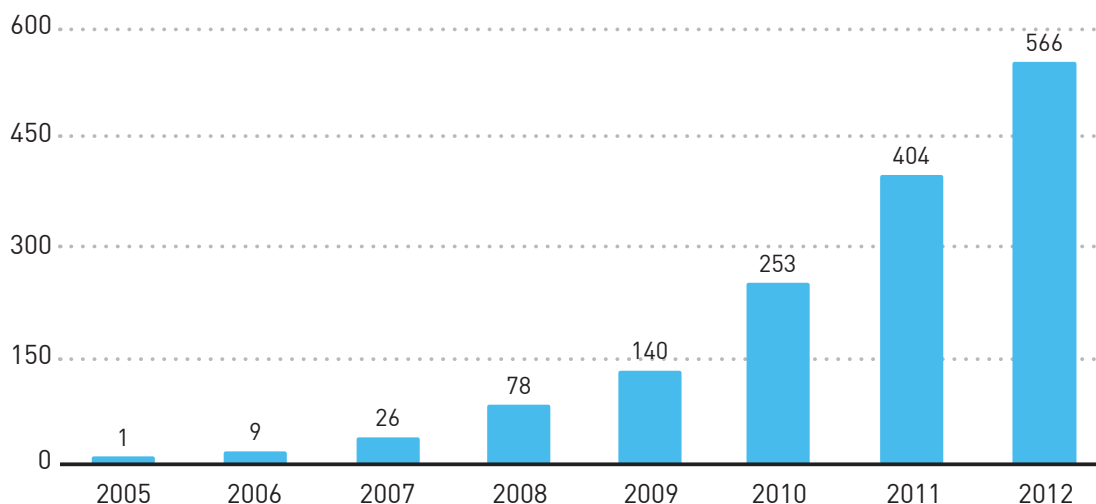


Chart 2: US Mobile Advertising Forecast, J.P. Morgan (2010)

In terms of brand and performance, studies confirm that mobile advertising can easily generate better results than online advertising. Smartphones like the iPhone are equipped with touch screens and all kinds of sensors understanding the context and usage behavior, enabling highly relevant advertisements. That's why mobile advertising features several accurate targeting opportunities, online advertising is not yet able to deliver.

For instance the precise location can be used for targeting purposes in location based services in order to increase the relevancy of the delivered ads. Placements of ads within applications, enable precise contextual targeting as well as an excellent upselling opportunity. So the question arises, why the mobile advertising market is still relatively small compared to online? The main reason for this is the massive technological (OS, devices) and regional fragmentation of the mobile advertising industry and its players today, which makes it harder for advertisers to address the right audience on scale and difficult task for publishers and developers to monetize content through advertising.

# Mobile Advertising Ecosystem

The mobile advertising ecosystem has experienced a rapid growth in the past few years. One of the most important drivers for this was of course the technological evolution of mobile devices and carrier networks enabling faster mobile bandwidth like 3G connections at flat rates. Before that, the mobile advertising industry was dominated by carriers offering on-deck-portal advertising.

With the proliferation of smarter mobile touch screen devices that are always connected to the internet and an open ecosystem of applications, mobile advertising has gained a bigger share in the mind of advertisers and has started to move away from carrier decks.

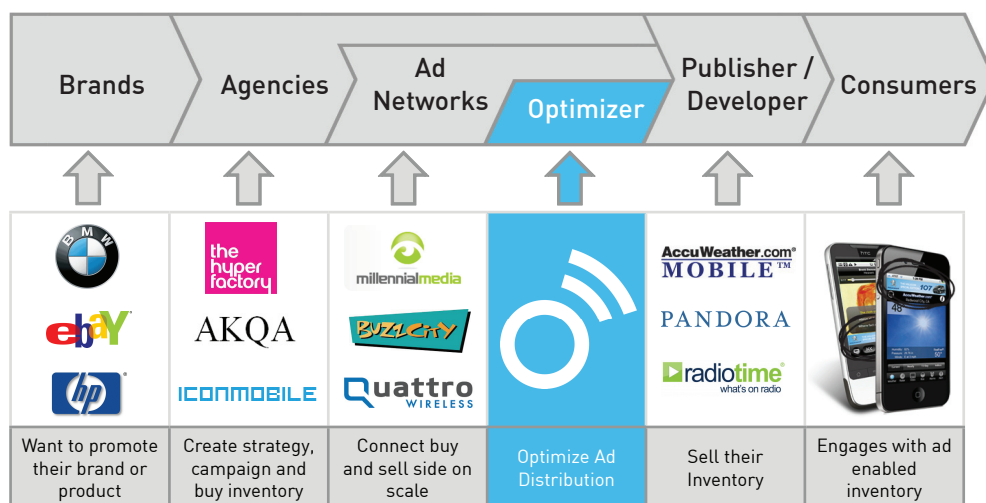


Chart 3: Mobile Advertising Ecosystem

The mobile advertising ecosystem has emerged from a place with a small amount of players to a mature and fragmented market regarding the role of the players and distribution of mobile content.

The allocation process within the mobile advertising is very similar to that of the online advertising described earlier. Media agencies that are brand representatives, are looking for inventory of publishers.

Within the non-premium segment, agencies mostly interact with intermediaries like ad networks. The role of ad networks within the ecosystem is to aggregate and connect advertisers who want to buy advertising space and publishers who offer inventory. Ad networks therefore employ a sales force to approach advertising agencies to make them invest their advertising budgets into advertising on their network.

Ad networks face one major problem though: Due to the regional specialization on a national market with its specific price points and advertising formats and only a limited amount of advertisers, publishers often are not able to monetize their ad inventory efficiently by being integrated to only one ad network.

Since distribution channels like application stores enable developers to distribute their content internationally this problem has become increasingly serious.

To find the best ad network to monetize all available impressions for an international audience is a critical but cumbersome process in today's mobile advertising ecosystem.

In the case that publishers discover the right ad networks, they are usually confronted with an even bigger problem: How to manage ad networks in order to route the traffic to the ad source with the highest pricing if the price points and available advertisers change all the time?

Advertising optimizers like Smaato offer a solution to this significant problem by optimizing the advertising distribution among ad networks and publishers, in order to maximize advertising revenues for the publisher.

The key competence of mobile advertising optimization platforms is to provide a technology that automatically routes the ad request to the highest paying ad network for a given ad unit, based on historic performance for a given targeting set.

By analyzing the ad request, enriching it with relevant targeting information and matching it with the best targeted advertising source available, ad optimizers are able to improve the price on a continuous basis and serve the most relevant ads.

Ad networks and especially ad optimizers play a key role in maintaining the efficiency of the mobile advertising marketplace. They created technological solutions that help both publishers and advertisers to find each other.



# The State of Mobile Advertising

According to the data collected by Smaato choosing the right ad network is a complicated decision, as publishers should consider fill rates, operating systems as well as response times of ad networks, to name a few criteria. Smaato's metrics are published monthly to show the state of the mobile advertising ecosystem according to data from over 40 ad networks globally & inventory of 7,000 registered publishers.

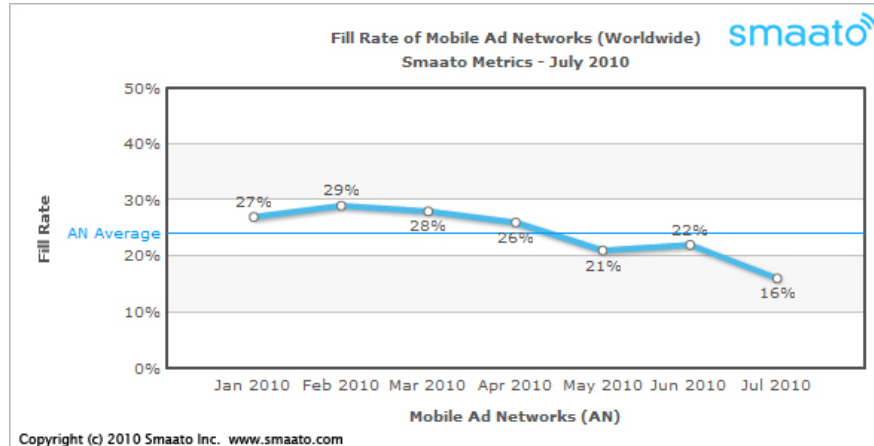


Chart 4: Fill Rate of Mobile Ad Networks, worldwide, January-July 2010

The metrics demonstrate the performance of mobile ad networks globally and the fill rate is measured as the percentage of ads delivered per ad request and varies by different factors like country, device and content type.

The Smaato Mobile Advertising Metrics are published monthly at: <http://metrics.smaato.com>

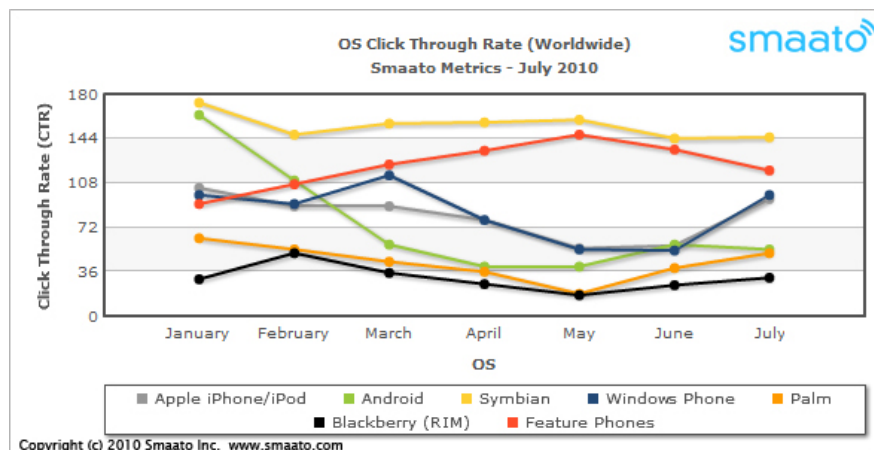


Chart 5: Operating Systems CTR (Click Through Rates), worldwide, January-July 2010

Also the Click Through Rate (CTR) and the response time of mobile ad networks are important performance indicators, measuring the success of mobile advertising campaigns. The Smaato metrics provide insights how consumers click through on different platforms and is therefore an indicator for advertisers to focus on specific platforms.

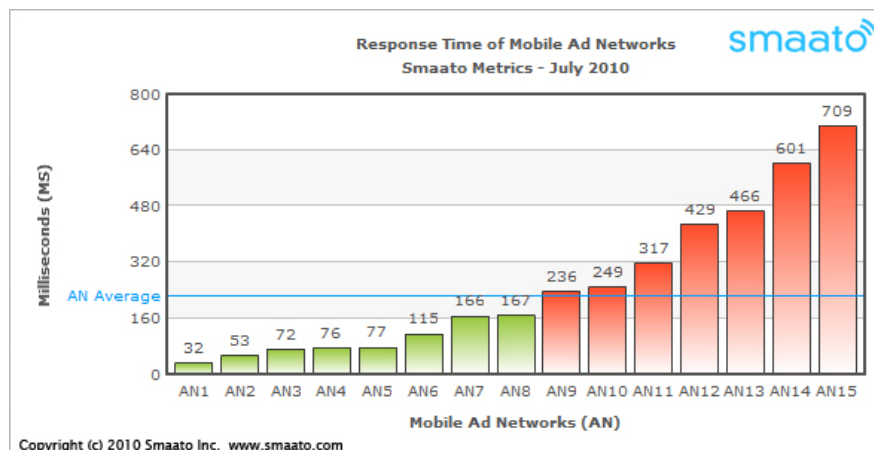


Chart 6: Response Time for Mobile Ad Networks, worldwide, July 2010

The comparison of mobile ad networks regarding their response times shows that some ad networks respond significantly slower than others. Mobile optimizers who automatically pick the ad networks with the fastest response times can solve the problem and make sure the publisher gets the highest fill rate possible without latencies.

# Mobile Advertising Glossary

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|---------------|---|
| Ad Exchanges  | Ad exchanges are technology platforms in the online ad space based on real time ad auctions for buying and selling ad impressions. Ad exchanges contribute to a better ad allocation and commoditization of ad inventory and can achieve an enormous scale.   |
| Ad Impression | An advertisement impression occurs each time a consumer is exposed to an advertisement (either prepended or appended to an SMS message, on mobile web or web page, within a video clip, or related media).  |
| Ad Optimizer  | Ad optimizers help publishers manage ad networks and optimize the monetization of their ad spaces. Ad optimizers choose the highest paying ad network for a given ad unit and maximize ad revenues for the publisher or developer. Ad optimizers are important players in the mobile advertising ecosystem because they overcome the massive regional and technological fragmentation of the market by enriching inventory and matching it with the best targeted advertising source available. |
| Ad Networks   | Ad networks provide a platform to connect advertisers with publishers. They are important aggregators of advertisers and publishers and employ sales persons convincing marketers to spend more money on their network. Ad networks are usually specialized on specific geographical regions and are selective regarding the ad impressions.  |
| Ad Server     | Ad servers are tech-solutions that collect and deliver ad units from ad networks and publishers. After processing those requests ad servers automatically select, serve and track the ads and their performance.  |
| CPA           | Is cost per action, where the advertiser only pays when an agreed action has been performed, such as making a purchase, or requesting more information.   |
| CPC           | Cost per click, where advertiser only pay each time someone clicks on their ad.   |
| CPM / eCPM    | <p>Cost per mille (in Latin mille means thousand), is a commonly used measurement in advertising, which gives an indicator how much an advertiser needs to spend to deliver 1000 ad impressions. Non performance CPM buys are especially common for high quality inventory and rich media ad units.</p> <p>Effective cost per mille (eCPM) is used to measure the effectiveness of a publisher's inventory being sold per thousand impressions.</p>   |
| CTR           | Click through rate is a way of measuring the success of an online or mobile advertising campaign. A CTR is obtained by dividing the number of clicks on an ad by the number of times an ad was delivered (impressions).   |
| Fill Rate     | The fill rate is measured as the percentage of ads delivered per 100 ad requests and varies by different factors, like country, device, content type and ad network.  |



More information can be found in the MMA Glossary on <http://mmglobal.com>

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The rapidly increasing reach of mobile advertising offers new opportunities for advertisers to reach their audience and for publishers to monetize their content on new platforms. The mobile ecosystem, however, is also very different from standard online advertising. Understanding this global market, which is complicated by a wide range of mobile devices and geographic variations, must be an imperative for advertisers and publishers alike.

Smaato's white paper offers its readers an executive overview of the mobile ecosystem and explains the important differences between online and mobile advertising, including the role that ad optimization platforms like Smaato's SOMA can play in connecting advertisers with the right audience and allowing publishers to effectively monetize their content.

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Frederic Lardinois  
Editor, ReadWriteWeb

## Smaato White Papers



<http://www.smaato.com/downloads>



## About Smaato

Smaato is a pioneering mobile advertising company that operates the mobile ad optimization platform called SOMA (Smaato Open Mobile Advertising) and partners with mobile publishers, developers, ad networks and operators. More than 7,000 publishers have signed up with Smaato as a partner to monetize their content in 220+ countries and Smaato is managing 16 billion ad requests per month.

SOMA's unique feature is the aggregation of 50+ leading ad networks globally to maximize mobile advertising ARPU. SOMA can be easily integrated with ad networks, ad inventory owners (publishers, developers and operators) and 3rd party ad technology providers.

Smaato is an active member of the Mobile Marketing Association and the German Digital Media Association BVDW. Smaato received a Top 100 Private Company Award by AlwaysOn Media (2009 & 2007) and was recently named a "company to watch in 2010" by Financial Analyst company GP Bullhound, among other awards.

Smaato Inc. is based in Redwood Shores, California. The privately held company was founded in 2005 by an experienced International management team. The European headquarters are in Hamburg, Germany and the Asia-Pacific presence of Smaato has been established in Singapore.

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