



IMPROVE DIGITAL

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Improve Digital whitepaper

The essentials of ad network optimisation

(a.k.a. ad revenue optimisation)

One of the effects of people spending more and more time online is the new content this creates. This has led to a huge growth in the supply of inventory, which is rapidly changing the pricing structures and the online advertising world - there are new rules, new players and new dynamics. In Europe and the UK, this has resulted in the terms 'ad network optimisation', or 'ad revenue optimisation', being widely used. But what do these mean exactly? Who are the parties involved, what is their role and how do ad network optimisers differ from exchanges? This white paper gives a basic overview of ad network optimisation and how it fits within the online advertising landscape.

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London
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SOME HISTORY AND BACKGROUND

The past few years have seen the online media world change dramatically. Today, advertisers are not limited to buying guaranteed advertising space directly or through their media agency and the category of 'publishers' has never been less clearly defined. Individuals spend more time online, an activity that often creates content, resulting in a surge in online advertising inventory. The online media space has become increasingly driven by data and technology and, besides media agencies and advertisers, ad networks and exchanges represent a significant proportion of online budgets spent. In 2008, for example, 44 percent of the online display expenditure went through ad networks and exchanges¹.

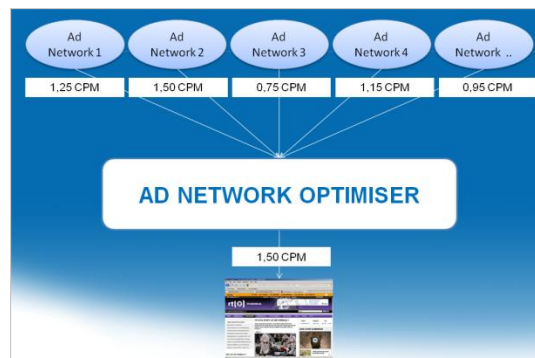
¹ Source: http://www.iabuk.net/media/images/Onlineadspendfactsheet-H22008_4293.pdf

Using manual techniques to find the ideal ad network mix and manage the various networks manually, is a complex and time consuming task. More data points, multiple logins and complexity of creative quality control, make life highly challenging for the publisher.

An ad network optimiser can solve the majority of the above pain points. Often the term ad revenue optimisation is used, as some optimisers also enable publishers to build their own performance network. However, for simplicity, in this white paper we will stick to the term ad revenue optimisation.

WHAT IS AD NETWORK OPTIMISATION?

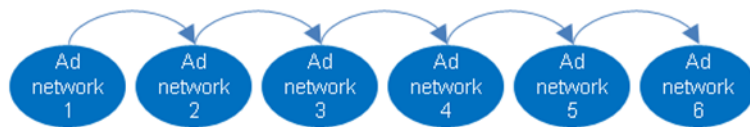
For publishers that work with a lot of different ad networks, an ad network optimiser automatically decides which one generates the highest revenues for a specific placement and allocates the ad impressions accordingly. It offers publishers and networks efficiencies (i.e. less work), more revenue and central insight and control.



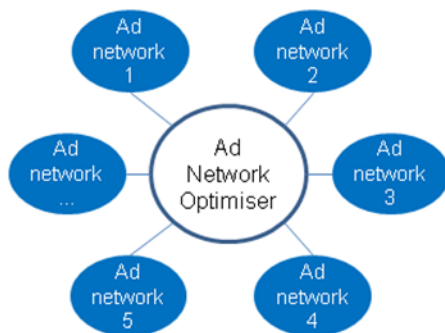
How does the optimiser collect the data from the networks? - The ad network optimiser is connected with the networks that are relevant for a certain publisher and it collects information on the price each network can pay for a certain placement on a website of a publisher at a certain time. How often this information is collected and the method by which it is done depends on two major things: the capability of the technology of the ad network optimiser and the technical capabilities of the ad network itself. So in reality, data transmissions vary from API's every 15 milliseconds, to once a day. If a network does not work with API's, a robot logs in, as often as it makes sense, to collect the latest data on pricing per placement per frequency.

How is it set-up at the publisher's end? – The ad network optimisation platform creates one tag for each placement or group of placements, depending on the requirements of the publisher. These tags are then booked into the publisher's ad serving system, like a normal campaign, but with the lowest ad serving priority. The ad network optimiser then automatically receives all unsold impressions ensuring 100 percent monetisation of the inventory. Publishers can also define a minimum eCPM level, under which they decide to run no ads at all or a house ad.

The allocation of the views to the networks - The ad network optimiser then decides which impression goes to which network based on the highest price paid. With some ad networks, there are fixed prices in place, which makes the decision relatively easy as the fee is flat. Advanced algorithms and self learning technology are needed where networks work on a non-fixed CPM, such as Google AdSense and many others. Then for example the PubMatic technology is able to predict the eCPM for the next 15 milliseconds based on historical data points and self learning algorithms that take into account variables such as volumes, frequency, context, geography and many others. More information on ad price prediction is available in the company's whitepaper: <http://www.improvedigital.com/wp-content/uploads/pubmaticadpriceprediction2009.pdf>



“waterfall”
Static chain where network mix is defined once a month



“Carrousel”
Real time dynamic ad network optimisation, changing the mix of networks every 15 milliseconds

What if a network receives an impression, but has no campaign? - Ad networks default impressions if they don't match the desired criteria of an ad network's advertising campaigns. Currently most publishers manage their ad networks' default impressions manually. They either use the views for house ads or pass it on to a second, or even a third, network. The highly manual nature of this activity makes it non-dynamic, as well as very time-consuming, and therefore far from ideal. Depending on how frequently publishers monitor their ad network earnings, this chain is set up once a week at most, and more often once a month. The result is uncaptured revenue opportunity.

An ideal approach to solving this problem and to maximise revenue is to implement dynamic management of defaults across multiple ad networks in real time. Based on historical default

² For an explanation of API, please refer to: <http://en.wikipedia.org/wiki/API>

characteristics and eCPM trends of ad networks, a real-time mechanism dynamically figures out the most optimal ad network for each impression. More information is available in this white paper: <http://www.improvedigital.com/wp-content/uploads/pubmaticdefaultoptimisation2009.pdf>

How is ad quality protected? – All categories and advertisers can be block-listed avoiding these advertisers from buying through the ad networks. An ad network optimiser gives the publishers or the ad optimisers' service team the tools to monitor and safeguard the follow up of these block-lists, read the full white paper on the subject: http://www.improvedigital.com/wp-content/uploads/wp_brandimage_sep09.pdf

The reporting and the billing – As all the data is collected from the ad networks, there is now one central intelligence system – the ad network optimiser - that contains all the information that a publisher would normally need to gather by logging into multiple ad network systems. The publisher receives their own login for the online technology, where they can check on progress and see where and when individual networks perform well. Billing becomes very simple as the publisher receives one bill / credit note for the revenue earned across all ad networks and exchanges.

AD REVENUE OPTIMISATION vs. AD NETWORK OPTIMISATION

Ad revenue optimisation goes one step further than ad network optimisation as it also optimises performance campaigns alongside ad networks and exchanges. For large publishers, it can make sense to tap into the performance budgets in a market directly, without making use of the intermediary services of an ad network or exchange. Publishers then use a direct sales team to get these types of campaigns on board. Regular rate card customers receive a guaranteed inventory and the non-guaranteed inventory is used for bulk CPM campaigns, CPC campaigns, CPA campaigns, ad networks - or a hybrid of these options.

These performance campaigns are then optimised against the ad networks in the mix, through the same software. This happens based on the eCPM of these various options. In real time the system calculates back what eCPM the publisher earns from their direct campaigns and networks and allocates the inventory accordingly.

WHAT IS THE DIFFERENCE BETWEEN AD NETWORKS, EXCHANGES AND AD NETWORK OPTIMISERS?

The first important point to note is that the various exchanges, ad networks and ad network optimisers differ hugely in their level of technology, approach to the market and services offered.

Ad networks and exchanges - The main difference between an ad network and an exchange is that an ad network fully operates and controls all that happens in its marketplace whereas the exchange is a central platform that many buyers and sellers use to run their own businesses. However, it is a thin line as some exchanges do have some form of control in place.

A second difference is that ad networks only work with advertisers and agencies and an exchange also connects to various ad networks, more like a market place.

Ad network optimisers and exchanges - The ad network optimiser and exchange are often confused because their promises to the publisher are similar. The key difference is that an ad network optimiser is 100 percent agnostic towards other ad networks and exchanges. The result is that most ad networks and exchanges can co-exist happily.

Secondly, in contrast to exchanges, with an ad network optimiser, everything that happens in the 'mini-market place' is controlled and managed, while technology is used to improve results. This ensures quality control and avoids 'cannibalisation' because permission to buy ad space, whether directly or indirectly, is restricted. However, in general, with exchanges buying space is open to all, and selling is limited to publishers.

IN SUMMARY

In summary, ad network optimisers create efficiencies for both publishers and networks, creating additional value in the online advertising eco-system. Working with multiple ad networks offers publishers maximum market buying power. For networks it connects them to more publishers in more markets than they would be able to achieve directly on their own.

ABOUT IMPROVE DIGITAL

Improve Digital is the exclusive European partner of ad revenue optimisation leader PubMatic. Premium publishers from all over the world use Improve Digital's and PubMatic's real time and predictive optimisation technology to increase revenues from ad networks and exchanges, protect their brand image and gain central insight and control. Clients benefit from local presence, local market knowledge, and 'best of breed' service. Improve Digital exclusively represents the PubMatic technology in Europe adding additional technologies, services and expertise.

Improve Digital and PubMatic have offices in London, Amsterdam, Hamburg, Paris, Palo Alto, New York and Mumbai. Improve Digital is member of the IAB.



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