

No longer the
upstart of ad tech,

header bidding grows up

sovrn



Introduction

In 2016, header bidding grew up. Previously known as “tagless ad tech,” “advance bidding,” “header auction,” among many others, header bidding became a nearly ubiquitous term.

What began as a word of mouth technical adaptation between savvy publishers blossomed into a significant slice of the programmatic ad business. The presence of header bidding forced Google to open up their ad exchange, AdX, to more competition and participation with other partners. The absence of a header bidding focus shaved nearly **\$200M from Rubicon’s market cap**.

When viewed as part of a continuous evolution of ad tech from fixed prices and volumes, to “spray and pray” targeting, header bidding seems like less of a hack and more of a natural progression for publishers seeking more control, simplicity, and money.

Even so, it is still a gawky adolescent with much room to grow before becoming a mature technology. We expect this maturation process to continue throughout the next year, taking the form of increased adoption from the DFP user base, migration to more efficient server-to-server execution, and a greater focus on partner trust and transparency.

In this white paper, we take a look at the past, present and most importantly, the future of header bidding. We will focus on some of the publishers’ persistent challenges created by the move to header bidding, and talk about opportunities for the continued evolution of header bidding technology.



Solutions for yield optimization

With the header bidding “freshman year” out of the way, publishers’ attention turned toward the need for data-driven techniques for yield optimization. With more competitive auction dynamics and more visibility into demand bidding data, how do publishers maintain the inventory value uplift brought in by header bidding within reasonable, fair market pricing?

Many publishers have adopted tiered price floors as one solution. Tiered price floors, however, are flawed in that their maintenance is dependent on the manual manipulation and analysis of large datasets.

Without the ability to utilize real-time data to inform price floors programmatically, the value of a publisher’s advertising inventory may be widely inaccurate. The outcome is money left on the table or an artificial inflation in value which can degrade overall performance in the long term.

Employing an automatic floor pricing technique, which the industry has dubbed “dynamic floor pricing,” is a programmatic approach to what tiered floors attempted to solve.

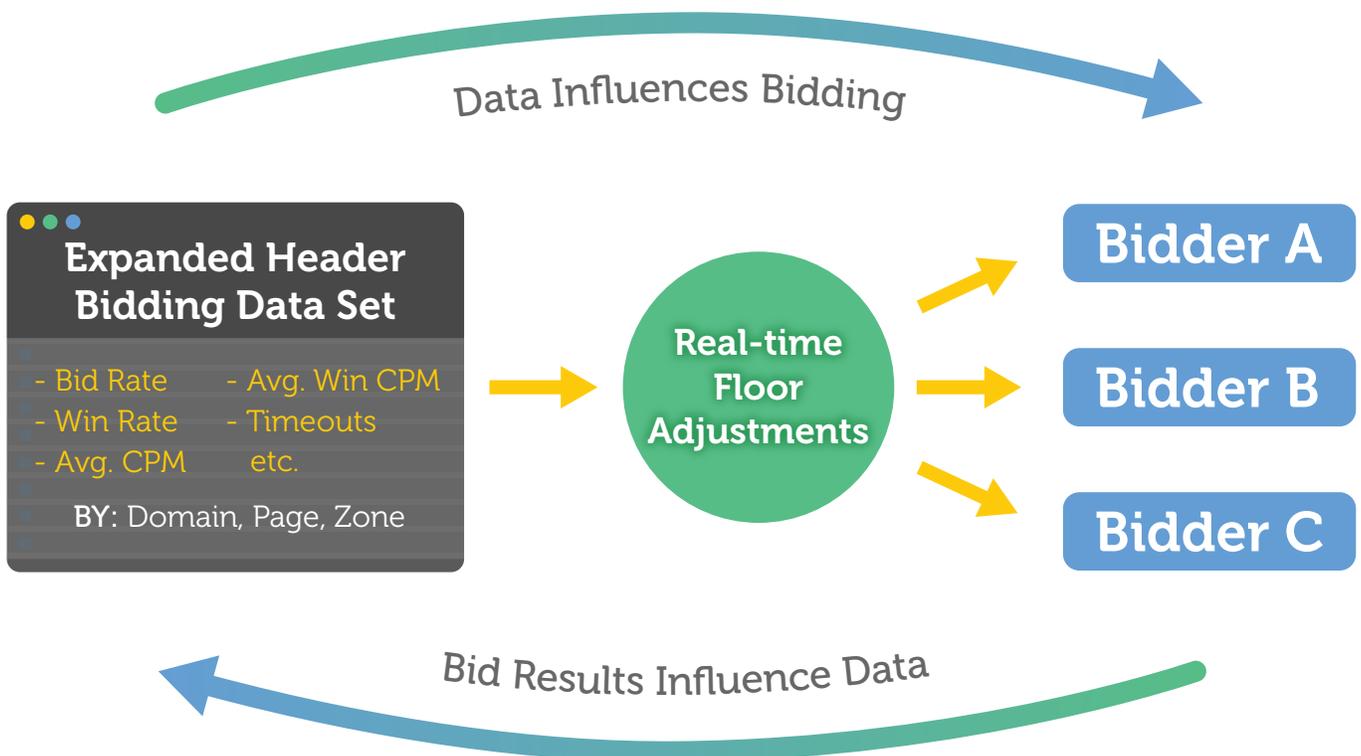
Unfortunately, dynamic floor pricing has always been a loaded term for buyers. The primary concern is that modulating price floors introduce the potential for artificial inflation in inventory valuation. Floors based on static snapshots of data rather than those that fluctuate based on real-time patterns create potential room for error.

Still, publishers need an efficient way to ensure that the increased competitive behavior generated from header auctions result in advertising yields consistent with the actual value of their inventory. It’s not just how to increase value, but how to do it fairly.

One methodology involves tying bidder performance data to the domain, page, and zone-level data in real-time which allows price floor adjustments based on a richer set of value criteria. Bidder partner data can include bid rate, win rate, average bid CPM, average win CPM, revenue, bid load time and timeout metrics.

Another advanced approach can employ a similar set of data to run sample auctions and using the CPM recommendations from those samples to inform real-time bid floor adjustments

This level of complexity and customization may not be realistic to implement or even useful for every type of publisher. These are examples of the opportunities header bidding makes available to create real monetization benefits.





Sell direct & get the benefits of header bidding

Publishers can still maintain valuable direct selling relationships with advertisers while still realizing the benefits of header bidding. Many publishers implementing a header bidding solution also want to keep a diversified selling approach to their inventory and are not willing to do away with premium, direct buyer relationships.

It is important for these publishers to ensure their header bidding implementation adds value and does not negatively impact those direct, guaranteed campaigns. With some specific DFP set up and management this can be achieved as Troy Hickock, CTO of [Movieweb.com](#) explains:



"There really shouldn't be any issues with setting up guaranteed inventory in DFP alongside a header bidding implementation. The header bidding line items in DFP are by definition setup as price priority. So they just compete with other line items at the same (network, bulk, price priority) or lower (e.g. house) priority level. If you set up the DFP line items for the guaranteed inventory as standard priority with associated impression goals, the standard priority will take precedence over the lower priority line items like those for header bidding set at price priority.

A publisher just has to remember that DFP will try to satisfy goals of the standard and sponsorship slots first. So that inventory will not be available to the header bidding line items and will reduce the number of impressions available for header bidding. Also remember that if you pause standard or sponsorship lines and you expect the inventory that was allocated to those to become available again to the header bidding line items, then you will have to use the 'Release Inventory' function on those paused line items. That will free up the inventory that was allocated to the halted item making it available for other line items to use."



Latency is still a dominant concern for publishers

There is concern that header bidding is contributing to page load latency. So much so that response time has become a main selling proposition for many header bidding providers. Despite the focus, some argue that increased latency is merely a perception or that improvements to latency can be better solved through consolidation of operations.

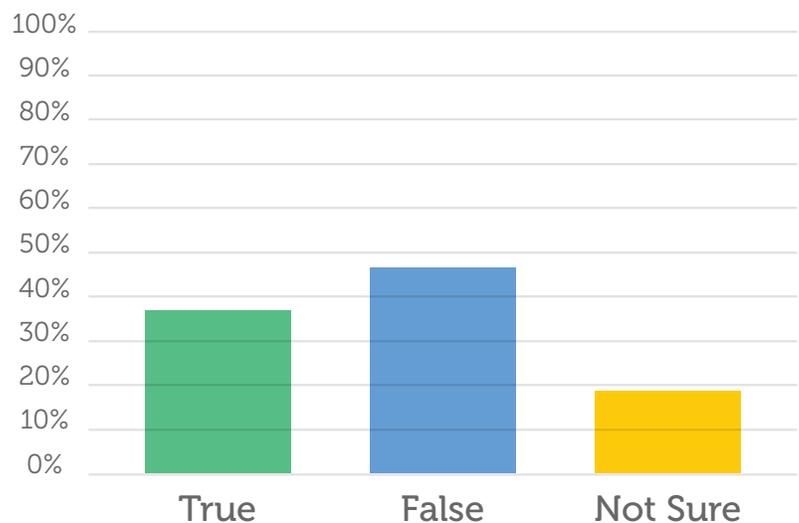
The main argument is simple: more code on the page and more 3rd party scripts mean more activity on and off the page, which inflates page load time and hurts the user experience. Header bidding adds a layer of Javascript operations that has the potential to impact latency. Page load time is predominantly vulnerable if a publisher implements different header bidding solutions from various vendors directly on the page instead of through a wrapper solution to integrate their demand sources.

Recently, Sovrn conducted a survey to try and gain more clarity around the perception vs. reality question regarding latency. Initial results showed that while some publishers responded that they did notice an increase in page load time, the majority did not. There needs to be a more in-depth investigation regarding specific contexts and set-ups (e.g. the difference between ad load time vs. overall page load), but this initial feedback lends some credence to the idea that there might be more of a perception than an actual problem in many cases.

True or False:

Header Bidding has increased page load time on my website.

Answered: 54



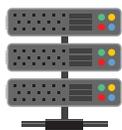
In those cases where there is a latency problem, these may have more to do with putting header wrapper implementation and web design best practices into place.

Potential Solutions:

- Using a consolidating wrapper solution that can integrate with multiple bidder demand sources
- If using a wrapper solution, make sure to use a single timeout threshold that all bidders can be held to, e.g. 700ms. Different bidders set different thresholds that can increase overall bid response times

- Setting up general advertising guidelines for your website. These may include: file size, file types per format, creative content guidelines and policies (limits to external script operations), animation/play guidelines (length and looping limits)

Additionally, there are technology solutions being developed and tested by publishers to address the core issue of how to reduce on-page code operations and any possible slowdown that can result from introducing multiple header bidding solutions to their websites.



Server-to-server header bidding

Many publishers and technology providers are looking to server-to-server header bidding solutions to answer the latency issue. Server-to-server solutions take a lot of pressure off of the page, or client-side, and deliver a more consolidated approach to the header auction.

In an on-page header wrapper solution all of the targeted ads, per partner, are loaded into the web browser based on partner response time, internet connection, and the overall page element structure and configuration. In a server-to-server solution, handling of partner auction operations happens off page/browser utilizing Open RTB methodology. In this scenario, trafficking of bid requests and responses is through a single conduit as opposed to multiple pipes (wrapper “adapters” or integrations) per partner.

Scalable, real-time server-side technology is a huge development lift. Publishers have been working with their development teams on where server-to-server fits into the queue. The result is that server-to-server solutions have been slow to arrive and become adopted.

Adoption of server-to-server will pick up speed as new implementation options, that do not require substantial development resources, arrive on the scene. Publishers will be quickly configuring their header bidding set up and deploying to their site with minimal technical resources.

There are a few undefined aspects of this emerging technology that are still in flux. First, SSPs and exchanges are wary of trusting server-to-server hosting entities which would, in theory, have visibility to all header bidding data. Second, some have recommended creating server-to-server connections to each header bidding partner. If not done effectively, would only reintroduce the problem that server-to-server is meant to solve. Finally, it would also require that all header bidding partners offer server-to-server capabilities, which is still on the horizon.



Google's response - Exchange Bidding

Header bidding was initially seen as merely an innovative hack to get around business restrictions imposed by Google. But as header bidding adoption, customization, and optimization grew, the industry waited with anticipation for Google's response. Many speculated that they would essentially shut header bidding down altogether with whatever they brought to the table.

Google's response is their own, elegantly named, alternative to header bidding; Exchange Bidding for Dynamic Allocation (EBDA). As explained by Google, "Exchange bidding in Dynamic Allocation will allow publishers to invite trusted third-party exchanges and SSPs to submit real-time prices using industry-standard RTB calls. These prices will be considered along with bids from the DoubleClick Ad Exchange and the publisher's reservation campaigns to pick the highest-paying ad. Exchange bidding also empowers publishers with unified and accurate reporting on the revenue they are earning from each exchange/SSP. And just like First Look, exchange bidding works with no additional client-side code."

Translation: publishers can now do what Google formerly didn't allow them to do; choose other quality exchanges to compete with Google's Ad Exchange in an open way without requiring development resources to update code on their website. Because the mechanics all run on Google's servers, there's no concern of on-page latency.

Will publishers abandon their current header bidding investments for Google's Exchange Bidding program like many have feared? Likely not. The influx of new rich data generated by header bidding has enlightened publishers to a new reality and power that they are unlikely to abandon.

That isn't to say that publishers won't adopt Exchange Bidding at all. Most publishers utilizing header bidding have one mantra: more competition is always better. If there isn't a large impact on operations, most publishers will continue to increase demand whenever possible. Again, for publishers, efficient and results-based diversification will be key.



The influx of data is an opportunity and a challenge

The moment a publisher goes live with their header bidding partners, they enter a whole new ballgame when it comes to reporting. They now have the opportunity to manage bidder and ad server reporting data in ways that allow for analysis and presentation to drive decisions and action.

The problem? There are about a million ways to parse header auction data in a meaningful way, and not many tools out there are designed for that specific purpose. Too often publishers see the overall yield lift from header bidding but struggle with nailing down partner-specific performance.

The specter of discrepancies is also looming with header bidding. Thankfully much less so than with waterfall setups due to the consolidation and transparency of the header auction dynamic. However, there is still the challenge of analyzing and comparing third party bidder data with an ad server's numbers.

For those publishers with data analysis resources, this creates a giant pipe of opportunities for understanding performance and informing optimization decisions.

For header bidding to find deeper adoption beyond the ComScore 1,000 sites, publishers need access to consolidated views of header bidding auction metrics. All publishers need exposure to bid

density, win rate, win price and other key performance indicators on a partner-by-partner basis to compare against ad server and third party system data. Couple this with the potential for tying in dynamic floor price data and publishers will be empowered with a robust set of data points to inform effective decisions down to the partner level.



Conclusion

Header bidding has experienced astonishing growth in its adoption, assimilation, and customized application. Many exciting opportunities and challenges remain for publishers and their advertising partners to tackle next. While a significant component of this evolution will have to do with the technology itself, standardization, best practices, and the relationship between sellers, buyers and, technology vendors of all sizes will also be key factors.

Header bidding has given publishers more control, simplicity and, most importantly, more money. Given those three things, it is hard to imagine that header bidding is just a fad. Will the header bidding of tomorrow look like it does today? Probably not, but the evolution will continue, and publishers will have more power.



Would you like advice on your header bidding strategy? We're here to help! Contact your account manager or join the discussion at [Sovrn Community](#)