Header Bidding Explained

What is header bidding? A popular technology where publishers can run an auction among multiple ad exchanges simultaneously for their ad space, before engaging the ad server.

How does it work? As ad space is available, ad sellers can use code on their websites or apps to make calls to multiple ad exchanges, which in turn conduct auctions of ad buying tools. Typically, the winning bids from these ad exchange auctions then compete in a subsequent header bidding auction. While ad sellers can use header bidding in different ways, some ad sellers incorporate the results from the header bidding auction into their own ad servers.

Fast facts

- Header bidding auctions can require the user's device data and power to facilitate the auction. Header bidding can also increase the latency on a digital property (i.e. the time it takes ads or content to load).

- Header bidding is vulnerable to fraud, billing discrepancies and other problems that can artificially increase prices for advertisers.

  - With header bidding, it is more difficult for ad buyers to verify they are purchasing legitimate inventory compared to auctions using ad servers.

  - Header bidding can create discrepancies (e.g., differences in recorded impressions) between the ad tech tools used in a transaction.

  - Header bidding is also vulnerable to data leakage and security risks.

- Ad sellers began to adopt header bidding around 2014. Since then, it has continued to grow.

- Ad sellers have always been able to integrate header bidding with Google Ad Manager, giving ad sellers the choice to use their preferred bidding solution.

- When ad sellers choose to use Google Ad Manager, the highest eligible bid wins the auction, regardless of where it comes from (Header Bidding or other demand sources).

Google

Open Bidding Explained

What is Open Bidding? Open Bidding is a feature of Google Ad Manager through which non-Google exchanges can compete for an ad seller's ad space in a single auction in real-time.

How does it work?

- Open Bidding provides an auction of ad exchanges while avoiding many of the problems of header bidding, such as security risks, heightened latency, and billing discrepancies.

- With Open Bidding, when an ad request is placed into the auction from an ad seller, each eligible participating exchange will run its own individual auction and return the highest bid to Google Ad Manager.

- Open Bidding bids compete alongside bids from from ad buying tools bidding on Google's exchange (e.g., Google Ads, Display & Video 360, and non-Google ad buying tools), the highest header bidding bid from an auction an ad seller may have run themselves, and any reservations the publisher has.

- When ad sellers choose to use Google Ad Manager, the highest eligible bid wins the auction, regardless of where it comes from (Header Bidding, Open Bidding, Google's exchange, or other demand sources).

- With Google Ad Manager, no auction participant receives any information about any other party's bids prior to completion of the auction.

- Many different exchanges participate in Open Bidding, including exchanges like Index Exchange, InMobi, Magnite, OpenX, Pubmatic and more.

- Open Bidding has previously been referred to as "Exchange Bidding" or "Exchange Bidding in Dynamic Allocation" in the past.

Google

Enhanced Dynamic Allocation Explained

What is [Enhanced Dynamic Allocation](#)? It is a feature that allows guaranteed demand (reservations and deals that are made directly between advertisers and publishers) to compete for the same ad space alongside non-guaranteed demand like real-time bidding demand, if available. Enhanced Dynamic Allocation is now referred to as just "Dynamic Allocation."

How does it work?

- Many ad sellers make deals directly with ad buyers to show campaigns on their digital properties, including apps, websites, and streaming platforms. Ad buyers buy a certain amount of ad space with goals to reach specific audiences, and ad sellers then have impressions "reserved" for these ads.

- With Dynamic Allocation, Google Ad Manager creates a temporary CPM or "opportunity cost" for the best existing reservation.

- The temporary CPM is set by Dynamic Allocation to maximize an ad seller's revenue without causing under-delivery of guaranteed demand.

- Google Ad Manager compares the values of the temporary CPM against bids from Google's ad exchange and other demand sources in Google Ad Manager, and selects the eligible demand source with the highest CPM.

**Of note, Dynamic Allocation was a feature that was created by DoubleClick prior to Google's acquisition of DoubleClick. Google has improved upon the original DoubleClick Dynamic Allocation over time, including through the development of Enhanced Dynamic Allocation.

Google

Google Ad Manager Explained

What is Google Ad Manager? Google Ad Manager is Google's ad tech platform for website, app and video publishers to manage and sell ad space on their properties. It consists of an ad exchange (formerly known as AdX) and an ad server (formally known as DoubleClick for Publishers or DFP). Publishers can use Google Ad Manager's ad serving without using the ad exchange functionality and can use Google Ad Manager's ad exchange without its ad serving functionality.

How does Google Ad Manager's auction work?

- Google Ad Manager runs a unified, first-price auction, comparing an ad seller's prices from guaranteed campaigns alongside non-guaranteed sources, like AdX and header bidding auctions.

- When a user visits a mobile app, website, or streaming platform where ad space is available to be shown, this triggers a call for an ad, or an ad request.

- Then, Google Ad Manager requests bids from eligible sources, including: Authorized Buyers (buyers using non-Google demand side platforms to bid in Google's auction), third-party exchanges, who run their own auctions and return their highest bids through Open Bidding, Google demand from Display & Video 360 and Google Ads, mediation networks and header bidding auctions.

- All of these bids then compete with all of an ad seller's reserved and non-reserved line items, including programmatic guaranteed and preferred deals, in a unified first price auction, and the highest net bid wins.

- Google Ad Manager runs a first-price auction where the bidder with the highest bid wins the auction and pays an amount equal to its bid.

  - In a simple example of a first price auction, ad buyer A bids $1.00 and ad buyer B bids $0.75. Ad buyer A would win the auction and pay $1.00.

  - By comparison, in a second-price auction, the highest bid wins, but the advertiser is only charged as much as the second-highest bid or a fraction more.

  - For example, ad buyer A bids $1.00 and ad buyer B bids $0.75. Ad buyer A would win the auction, but only be charged $0.75 for the ad impression.

- In the unified auction, no demand source (e.g., Open Bidding exchanges, Google's exchange, header bidding) receives any information about any other demand source's bids prior to completion of the auction.

Google

Ad Tech Fees Explained

What are ad tech fees? The costs an advertising technology provider charges for use of their platforms, services and features to buy or sell digital ads.

How does it work with Google Ad Manager?

- Google Ad Manager charges an open auction rate of up to 20% of the winning bid.

- **When an ad buyer uses Google Ads or Display & Video 360 to buy inventory from an ad seller that uses both the ad serving and ad exchange functionality of Google Ad Manager, ad sellers keep approximately 69% of the total amount ad buyers paid.**

- An ad seller can use Google Ad Manager to sell ad space to a buyer who uses a third party buying tool to participate in Google's exchange. Sellers using Google Ad Manager can also sell ad space through a third party exchange to an ad buyer using a third party ad buying tool. In both of these scenarios, Google would charge less.

- When ad buyers use Google Ads to buy display ads, the vast majority only pay Google when a user takes an action after seeing their ad, such as clicking on the ad, filling out a form or making a purchase.

- Though Google only charges these ad buyers when a user takes an action, we still pay ad sellers for their ad space sold using Google Ad Manager.

- To enable this, our technology evaluates every impression and converts the ad buyers' business objectives to cost-per-mille (CPM) bids in advertising auctions to buy ad seller inventory.

- By taking on the risk of showing ads to users—regardless of whether the user takes the action the advertiser wants—Google Ads helps buyers and sellers better pay and earn in ways that best suit their businesses.

- Because Google Ads does not charge ad buyers for most impressions, it does not have a fixed per-impression fee. Instead, Google's share of revenue varies over time based on various factors, including the buyer's specified objectives, the types of display ads it chooses to run and how users respond to them.

Google

Performance Max Explained

What is Performance Max? Performance Max (sometimes commonly referred to as PMax) is a goal-based, AI-powered campaign type that allows ad buyers to access all Google Ads inventory from a single campaign.

How does it work?

- Performance Max is designed to help advertisers find more converting customers across all of Google's channels like YouTube, Display ads on third-party apps and websites, Search, Discover, Gmail, and Maps, by buying ads on whichever inventory source will drive the best performance for the advertiser.

- Advertisers input basic information, like their budget and goals, and Performance Max places their ads on whichever inventory source will optimize performance based on their specified conversion goals, delivering more conversions and value by optimizing performance in real-time and across channels.

- Performance Max uses Google AI across bidding, budget optimization, audiences, creatives, attribution, and more. This is all driven by a buyer's specific advertising objective, for example, if you have a CPA or ROAS target, and the creative assets, audience signals, and optional data feeds you provide.

- Performance Max has helped businesses, large and small, across a breadth of verticals and geographies connect with potential customers, all rooted in their business objectives.

Google