



CLEARCODE

Header Bidding Development

How to design and build header bidding solutions

Topics covered in this presentation

- The history of header bidding
- What header bidding is and how it works
- What Prebid is and its role in header bidding
- The types of header bidding solutions we can help you build
- Clearcode's header bidding development experience

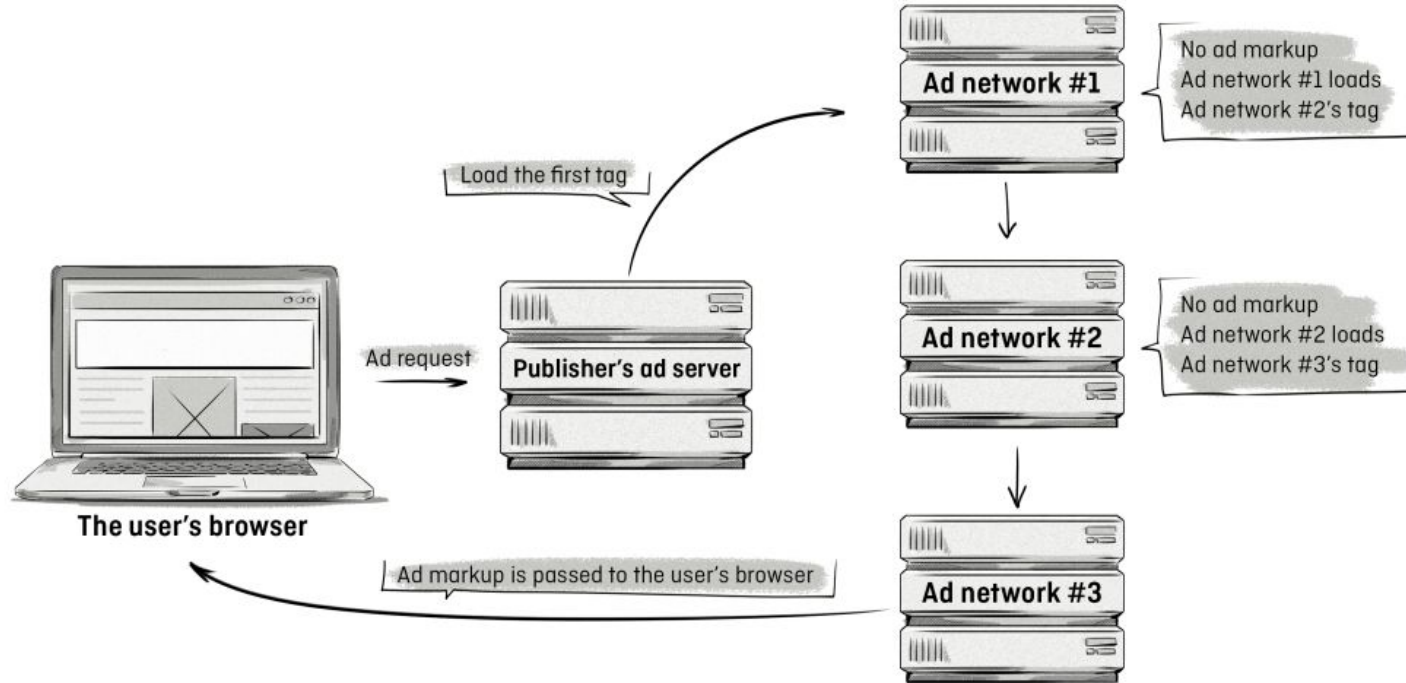
The history of header bidding

A publisher's waterfall



- For years publishers have sold their inventory via a “waterfalling” process.
- Waterfalling, also known as a daisy chain or waterfall tags, is a process used by a publisher to sell all remnant inventory.
- This process occurs when a publisher has been unable to sell its premium ad slots that are usually reserved for direct ad sales between the publisher’s internal sales team and advertisers.

How a publisher's waterfall works



The introduction of header bidding



- Header bidding emerged because of the inefficiencies of waterfalling and also because of Google's preferences towards its own ad products.
- Because many publishers use Google's ad server, Ad Manager, Google favored bids from Google Ad Exchange (AdX). This meant that bids from independent AdTech platforms were losing out.

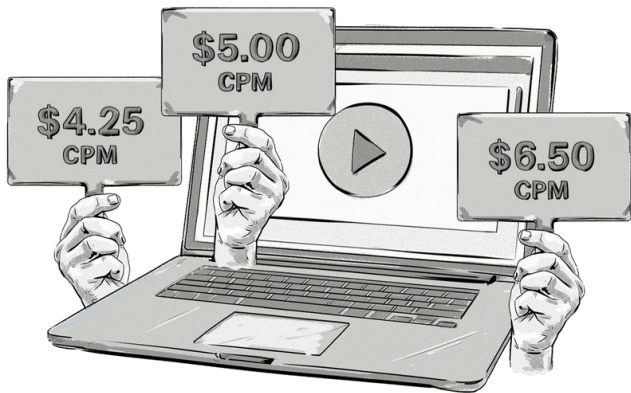
**What is header bidding
and how does it work?**

What is header bidding?



Header bidding (aka pre-bidding, advance bidding, and holistic yield management) is a media-buying process that enables publishers to simultaneously collect bids from a number of demand sources (e.g. DSPs) before their ad server loads other tags, such as direct deals.

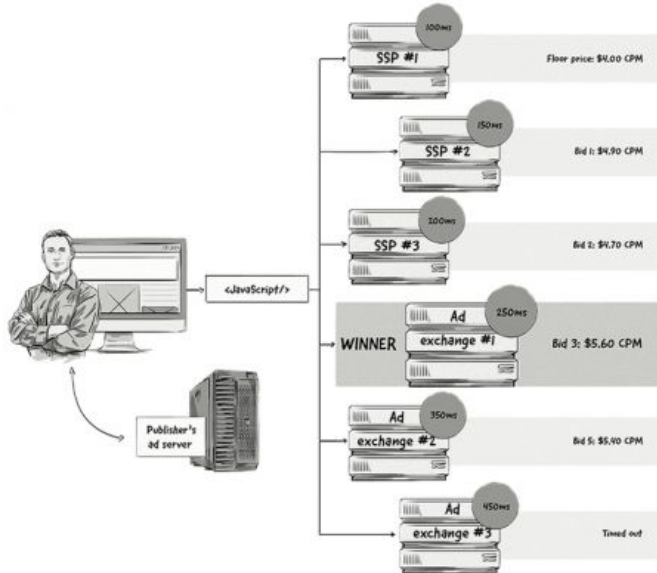
How does header bidding work?



- The bids are collected via a piece of JavaScript code located in a website's header section, hence the name header bidding.
- This JavaScript code often comes in the form of a wrapper (aka container), which is typically provided by SSPs and ad exchanges.
- There are two implementations of header bidding: client-side and server-side header bidding.

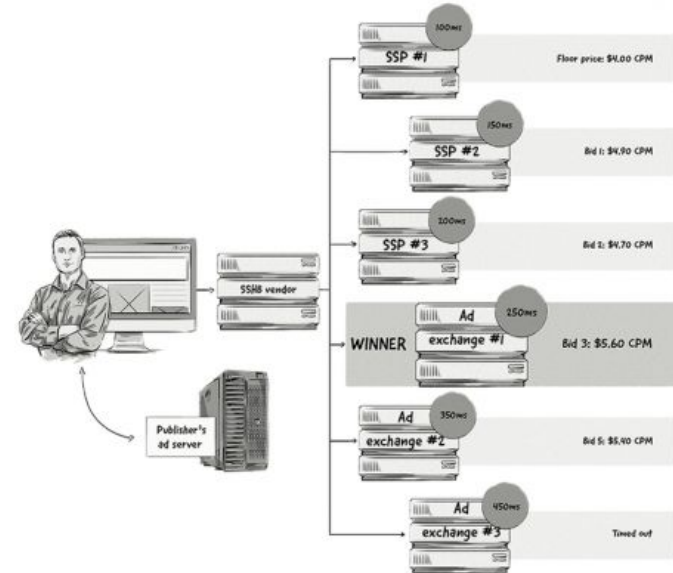
How header bidding works

Client-side header bidding (CSHB)



VS.

Server-side header bidding (SSHB)



What is Prebid and what is its role in header bidding?

What is Prebid and what role does it play in header bidding?



- Prebid.js is a 100% free and open-source JavaScript framework designed to make it easier for publishers to run pre-bid auctions and get access to more demand with minimal integration hassle.
- Prebid is the industry standard used to run header bidding auctions.
- It's available at prebid.org.

**The types of header bidding
solutions we can help you build**

We can build the following header bidding solutions for you

- Wrappers
- Adapters
- Reporting and analytics tools

We can build these solutions based on Prebid.js (client-side implementation) and Prebid Server (server-side implementation).

The header bidding solutions we can build for you

Wrappers

A wrapper is the piece of JavaScript code that's added to the publisher's website or app to send the ad requests to the various supply-side platforms and ad exchanges.

```
1 <html>
2
3     <head>
4     <link rel="icon" type="image/png" href="/favicon.png">
5     <script async src="//www.googletagservices.com/tag/js
6 /gpt.js"></script>
7     <script async src="//acdn.adnxs.com/prebid/not-for-prod/1
8 /prebid.js"></script>
9     <script>
10         var div_1_sizes = [
11             [300, 250],
12             [300, 600]
13         ];
14         var div_2_sizes = [
15             [728, 90],
16             [970, 250]
17         ];
18         var PREBID_TIMEOUT = 1000;
19         var FAILSAFE_TIMEOUT = 3000;
20
21         var adUnits = [
22         {
23             code: '/19968336/header-bid-tag-0',
24             mediaTypes: {
25                 banner: {
26                     sizes: div_1_sizes
```

The header bidding solutions we can build for you

Adapters

A header bidding adapter is a tool that allows publishers to manage the supply-side platforms and ad exchanges.

SSPs and ad exchanges can also build adapters to manage header bidding wrappers and demand sources via a user interface.

The screenshot displays the CLEARCODE 'Containers' management interface for Publisher #4. The interface includes a sidebar with navigation options: Containers, Reports, Go Premium, and Resources. The main content area shows a table of containers with the following data:

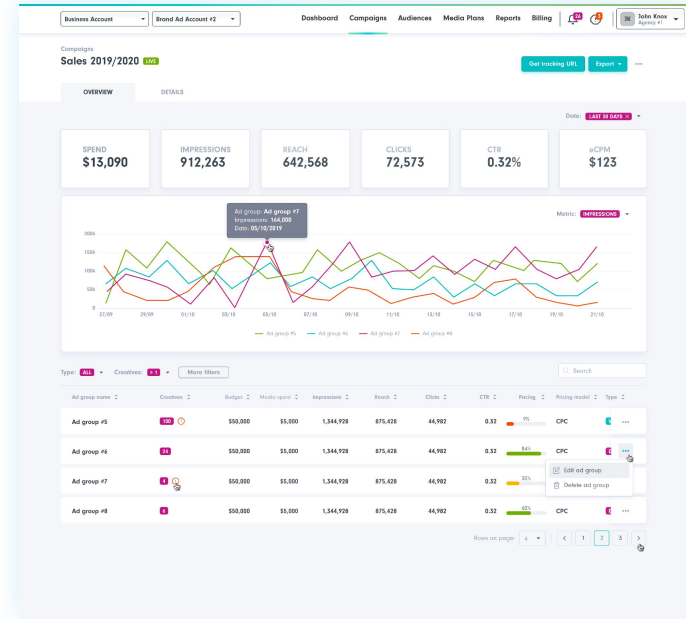
CONTAINER NAME	COUNT	STATUS	ACTIONS
Container #1	8	LIVE	...
Container #2	3	DRAFT	...
Container #3	2	PUBL	Edit
Container #4	0	FAIL	Delete
Container #5	1	DRAFT	...
Container #6	3	PENDING	...
Container #7	5	LIVE	...
Container #8	2	ARCHIVED	...
Container #9	12	LIVE	...
Container #10	2	LIVE	...

A tooltip for Container #2 displays a list of bidders: Bidder #1, Bidder #2, Bidder #3, Bidder #4, Bidder #5, Bidder #6, Bidder #7, Bidder #8. The interface also includes an 'Add Container' button, a 'Rows on page' dropdown set to 10, and pagination controls showing pages 1, 2, 3, and 4.

The header bidding solutions we can build for you

Reporting and analytics tools

Reporting and analytics tools allow publishers to view the performance of their various heading bidding deals from one user interface.



Clearcode's header bidding development experience

Case study

SSP, ad exchange and Prebid adapter

FatTail partnered with Clearcode to design and build their AdBookPSP solution – the first SSP designed specifically for deal-based programmatic transactions

About FatTail

Industry: **Advertising and marketing**

Employee size: **50+**

Location: **HQ in Calabasas, California, USA**

About the project

We built a SSP that included an ad exchange, official FatTail Prebid adapter, and reporting service. We also integrated the ad exchange with various DSPs and Google Ad Manager.

“

We chose Clearcode for their experience with header bidding technology and that expertise proved valuable in the implementation of the system.



Gerry Bates

Chief Technology Officer at FatTail

Case study

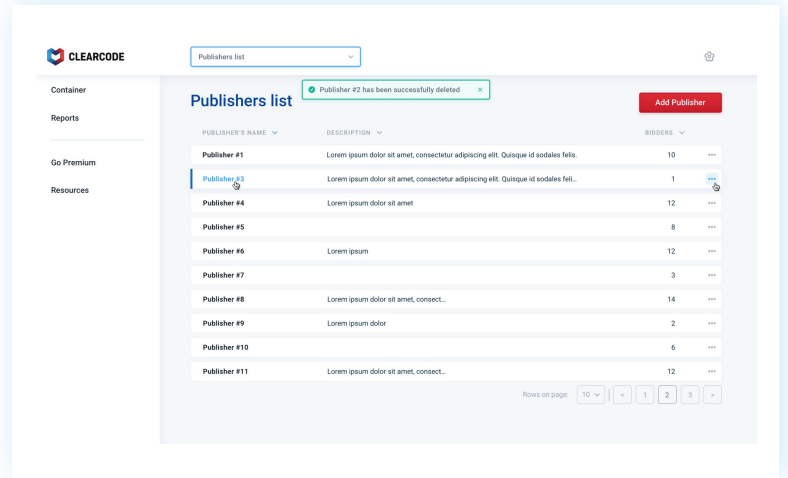
Header Bidding Control Center

We designed and built our Header Bidding Control Center to help companies manage their Prebid.js configuration and setup.

About the project

The Header Bidding Control Center is an all-in-one solution for managing your Prebid.js setup.

It allows you to change the configuration of ad units, select different demand partners, and upgrade the Prebid.js version — all without having to make any manual changes to the code directly!



“ I had a wonderful experience working with Clearcode on several projects. The Clearcode team is extremely professional and deliverables were always received on time and on budget.

SPOTX

Allen Klosowski
SVP Advanced Solutions Group at SpotX

About Clearcode

Clearcode is a full-service AdTech & MarTech development company that **specializes in designing, building and maintaining** custom programmatic, RTB, data, and analytics platforms.

Companies partner with us because of **our experience, domain expertise, and knowledge** of the inner workings of the online advertising and marketing ecosystems.



We've built custom AdTech and MarTech platforms for the following companies:



Looking to build a header bidding solution?

Get in contact with us
to find out how we can help you

Email: sales@clearcode.cc

Website: www.clearcode.cc

