Time to Press Play on Header Bidding for Video

Everything Publishers Need to Know

Introduction

Header bidding has been one of the most talked-about tools in ad tech for the last two years. Everywhere you turn, it seems like someone is talking about how header bidding is revolutionizing programmatic advertising.

But just about anyone who's used it will tell you that header bidding lives up to the hype.

Let's start with a quick refresher on what header bidding actually does. With a snippet of Javascript, header bidding allows publishers to auction each ad impression to multiple demand partners at once, rather than going through the waterfall process and showing them to one demand partner at a time. Header bidding creates a more open auction, allowing direct and programmatic demand to compete against each other so that publishers can get the true, market value of each impression.

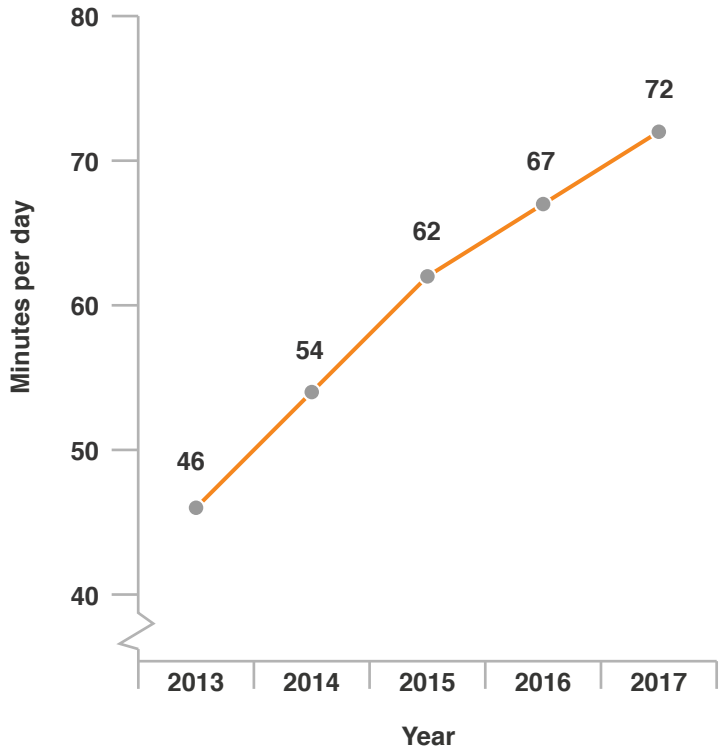
Publishers saw results soon after header bidding's arrival in 2015. Digiday reported that early adopters saw their CPMs rise by as much as 50%. Publishers have also reported other benefits such as increased yield, lower latency, and fewer passbacks since switching from a waterfall setup to header bidding. We've also seen those results firsthand with our publisher clients at AppNexus. Livingly Media, for example, achieved a 10% incremental revenue lift with header bidding and saw more than half of its ad calls get responses in under 500 milliseconds.

But so far, most publishers are only using header bidding for display inventory. In a way, that makes sense – many are probably hesitant to try out an experimental new tool on unique, higher-value types of inventory. But it also means they're missing out on a huge opportunity: header bidding for video.

Video is one of the fastest-growing channels on the Internet, with **eMarketer** reporting that the average U.S. adult now watches one hour and seven minutes of digital video a day, compared to 46 minutes in 2013.

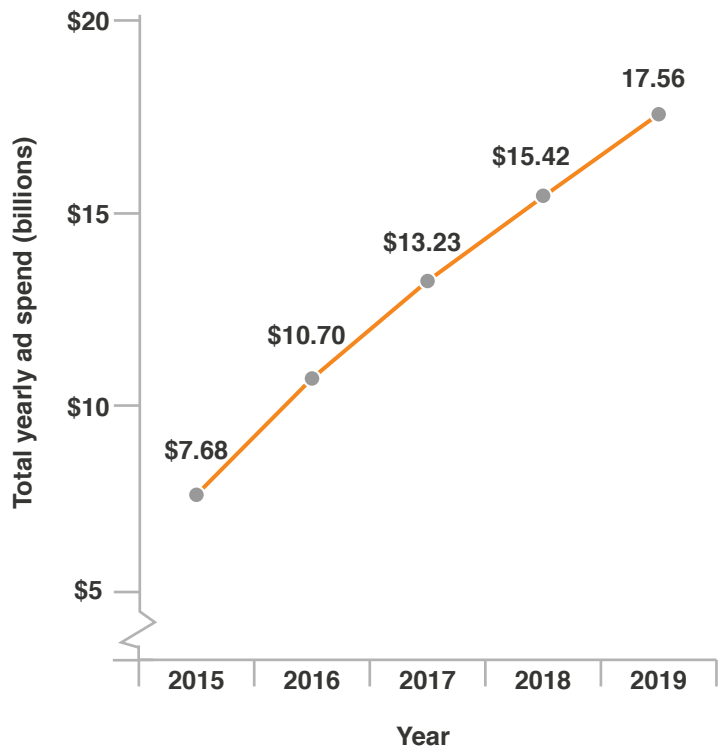
With consumption on the rise, it should come as no surprise that digital video ad spend is growing annually, growing 39% from $7.68 billion in 2015 to $10.7 billion in 2016. Analysts believe that number could be over $15 billion by 2018.

Average time spent watching online video per day by U.S. adults



Source: eMarketer

Total projected ad spend on digital video, 2015-2019

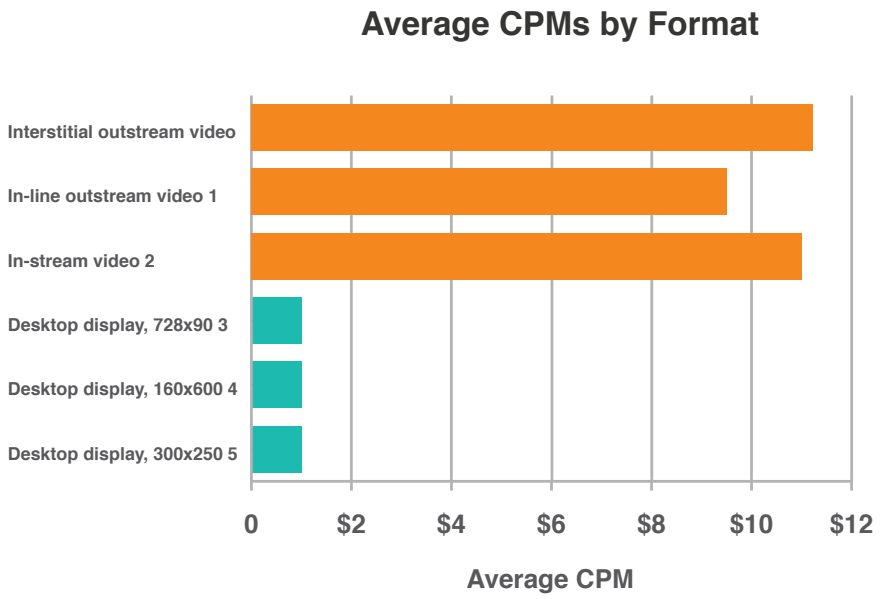


Source: eMarketer

Thanks to this growth and its proven engagement with users, video now fetches the highest CPMs of any digital ad format. While programmatic display ads get $0.50 to $1.50 on average, programmatic CPMs for instream videos on desktop range from $5 to $15+ on average. Check out the graph to the right to see how three video formats are blowing display out of the water across a common SSP.

Video ads are already incredibly valuable for publishers, but they can accelerate that inventory yield potential with header bidding.

The math is pretty simple. With header bidding, those $11.50 video CPMs could jump to $17.25, assuming the 50% bump publishers have gotten using header bidding for display. We've seen many of our clients achieve even more, with some video CPMs even breaking the $50 mark.



Source: eMarketer

So why aren't video publishers doing this already? It could be because it feels overly complex – there are more moving parts when it comes to serving video ads versus display. There are also misconceptions around header bidding for video. For instance, many publishers take it as a given that header bidding is sure to add latency for videos, when in reality it does the exact opposite under the right setup.

That's why we wrote this guide. We want to address this confusion, show publishers what header bidding can do for their video inventory, and tell them how to get started.

The benefits go well beyond more money for publishers. Header bidding adoption can lead to a virtuous cycle that fuels the continued growth and improvement of online video, which improves the internet for both advertisers and end users.

The Virtuous Cycle: How Header Bidding Improves the Digital Video Landscape for All

Part 1: Why Header Bidding for Video Makes Sense

"Film as dream, film as music. No art passes our conscience in the way film does, and goes directly to our feelings, deep down into the dark rooms of our souls."

When legendary filmmaker Ingmar Bergman said that, he probably wasn't thinking about viral videos showcasing the antics of cats. But his quote gets to the heart of why video is the most powerful story-telling medium available. The combination of sound and moving images grabs our attention in a way that's uniquely fun and engaging, while the high information-content density makes video an incredibly effective way to deliver a message. It's no wonder then that video has become such a powerful way for advertisers to connect with consumers.

Today, broadcast television ad spend dwarfs that of digital video – the score was **$70.60 billion to $9.84 billion in 2016.** But digital video has one big advantage as an ad channel over TV: data. Marketers can use the vast amounts of user data available to target their ads to the right person at the right time. With TV on the other hand, marketers can't get nearly as granular (yet programmatic TV is on the rise —but we'll save that for another time). Sure, they can buy ad slots on the shows they think their customers watch, but they can't leverage behavioral data to tailor their ads to each user, or even know for certain whether they're reaching the right audience.

Slowly but surely, as viewership for online digital video grows, we're also seeing the **audience for traditional broadcast TV shrink**, especially among younger generations. This cord-cutting phenomenon seems to be driven by consumer preference to choose the content they watch à la carte, rather than by subscribing to channel packages that contain filler they're not interested in. It also helps that online video has made huge technical strides to reduce load times, improve definition in recent years, and put itself on par with broadcast television when it comes to quality. If people continue dropping television in favor of digital options, you can expect more ad dollars to flow that way, as well.

While the future of digital video certainly looks bright, there are three core problems with the way publishers source video ads today.

1. Monetization. Compared to display, a bigger share of video inventory is sold through direct deals, especially for premium publishers. The rest is sold programmatically, typically through a waterfall process. That means that for each impression, the ad server moves down the list of the publisher's programmatic demand sources, in order of perceived value, and auctions the impression off to each, one by one, until it sources an ad. Publishers end up leaving money on the table in many of these auctions by selling impressions to a higher-priority demand partner, when someone lower down the chain may have been willing to offer more.

2. Latency. Slow load times are a huge problem for video because users are much more likely to just exit a page if their video takes too long to load. Even though digital video load times have improved tremendously in the last few years, the waterfall system often negates much of those gains. Each new demand partner the ad server calls can add one to three seconds of load time. Even worse, some of those demand partners might hold their own secondary auctions if they can't source an ad for an impression, further increasing latency.

3. Transparency. The waterfall system means that some demand sources won't get to submit a bid on many impressions, so you'll never get to know how every partner values your inventory. Plus, many providers don't provide insight into auction mechanics, which means they could be biased toward certain sources.

These issues fail to maximize publisher monetization, cut many advertisers off from even bidding on video inventory, and hurt the user experience for online video. Luckily, header bidding addresses each of them.

1. Monetization. Header bidding increases competition for each impression by opening auctions up to every demand partner a publisher works with, driving those video CPMs even higher. This increased bidding competition also offers publishers a better sense of what their video inventory is worth on the open market, which can help them negotiate better direct-sold deals.

2. Latency. Header bidding lets publishers skip the waterfall and hold one simultaneous auction across all of their demand partners. They can also set a global timeout across all partners , ensuring that the whole process is capped at a time that doesn't hurt user experience. And whether you're using header bidding or a waterfall setup, providers like AppNexus can also audit creatives for content and potentially page-impacting behavior like secondary auctions.

3. Transparency. If publishers use an open-source solution like Prebid, they can see the auction logic for themselves and ensure that no there are no biases in place. Prebid also returns a list of each bid submitted for every impression, so publishers know for sure that they're getting the best yield possible.

Any video publisher can tap into these benefits, but only if they choose the provider that makes sense for them and nail the implementation.

Myths Debunked:

A number of video publishers have misconceptions about header bidding that prevent them from giving it a shot. Here are some of the most common ones we've heard from the industry, and our explanations:

1. Header bidding is sure to add latency for videos.
This concern is borne out of a pre-header bidding understanding of video advertising. Many publishers are using a waterfall system for video now and passing impressions along a chain of as many as 30 demand partners. These publishers see header bidding as another complicating factor that will slow things down even more, when in fact it directly addresses what's most to blame for latency in the first place by circumventing the waterfall.

2. There's no header in a video player.
It's true that the header is part of the web page. But the video player itself is actually just another piece of Javascript within the page. Implemented properly, the header can easily pass the winning bids into the video player.

3. Video header bidding means data leakage.
Some publishers are concerned that if they use header bidding for video, their demand partners will be able to see how much programmatic video inventory they have available. But while on-page header bidding adapters may get information about the total number of impression requests, they'll have no idea what proportion of these impressions are already sold out in the adserver versus how many are available to programmatic demand.

Part 2: How to Implement Header Bidding for Video

The tricky thing about creating a comprehensive guide to header bidding is that every wrapper is different. At AppNexus, we recommend you use an open source solution like Prebid, which is built to work with any ad server, demand source, or video player. Other wrappers are only designed to integrate with specific providers, and some publishers may decide that route makes the most sense for them.

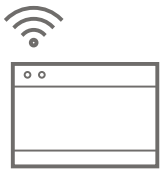
Those differences affect how a header bidding solution is implemented, so the process isn't quite the same for any two wrappers. However, we've boiled the process down to four key steps that you'll have to complete no matter which header bidding wrapper you use. Here they are, along with some best practices we recommend you follow.

The Core 4 Steps to Setting Up Header Bidding for Video

1. Create video ad units.

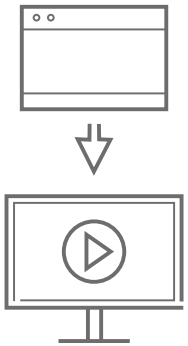
The first thing you need to do is create video ad units on any page where you have video content (or on pages where you'd like to source outstream video ads). Make sure that you specify video-specific configurations such as your video player size, minimum and maximum lengths, and whether the ad is skippable. Be sure to also include any slot-level identifiers for each demand partner you include.

2. Add those video ad units to your header bidding wrapper to request video demand.



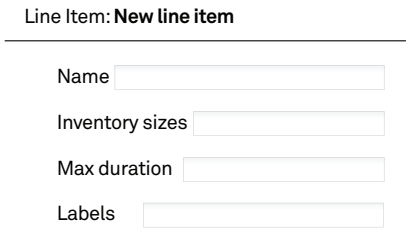
Next, you need to go into your page's header and add those video ad units you just created. When you do, make sure you set a timeout to act as a deadline for all your demand partners to return bids – this is key to limiting latency. We recommend a deadline of 700 milliseconds. During this step, you can also set up your header code to log whether or not there was video demand for each impression and to record the URL of the VAST creative served for each impression. Once this is done, your page will be able to send requests for video ads to your demand partners.

3. Integrate your wrapper and your video player.



This is what enables your header bidding wrapper to pass the creatives of winning ads to your video player. It's also one of the trickiest parts of implementation because you're connecting two customizable tools – your video player and your wrapper. If you use Prebid, we have examples of working integrations for popular video players like Video.js, JWPlayer, Brightcove, Kaltura, and Ooyala that you can look to for reference as you build your own integration.

4. Set up your ad server to source video ads.



This step can actually be done either before or after you edit the code in your wrapper and on your page. Create a new line item in your ad server and configure it to accept video ads in the appropriate sizes for your site's video players.

Best practices to keep in mind

While these techniques aren't necessary to get header bidding up and running for your video inventory, we suggest you follow them to achieve the best possible results.

1. Move the auction away from the play button. One key difference between video ads and display ads is that a web page can load before its video player loads, whereas it can't load without its display ads. So, by default, most pages don't start calling for video ads until the user hits the play button on the video player. This creates latency, as the user has to wait for the page to source an ad before they can watch their video content. Minimize that delay by setting up your page to auction off video inventory as soon as the page loads rather than when the user clicks the play button. Then, your page can pre-cache the XML of the winning video ad on the user's device so that it's retrieved extremely fast once the user actually reaches the ad slot.

2. Set up deals. Targeting the best possible advertisers for your site can lead to higher CPMs than if you just put your inventory on the open exchange. This can be especially important for video header bidding where CPMs are high; premium buyers frequently prefer transactions at these levels as video deals.

3. Manage your video playlists. If you have a playlist and make an ad request from the page level, you'll get ads aligned with the metadata and content of the page, but not necessarily every video in the playlist. Instead be sure to use the metadata associated with each video in the playlist, so that ads can align with the content in each clip.

4. Help out your developers. Setting up header bidding for video isn't the world's toughest project, but your dev team will need some time to build an integration between your unique video player and header bidding wrapper. Make sure they have the bandwidth to get everything done.

5. Work with multiple demand partners. Open header bidding wrappers like Prebid allow you to plug in to nearly any demand source, which is one of the biggest reasons we recommend using them. Remember, one of the key benefits of using header bidding for video inventory is to increase bidding competition and drive video CPMs even higher. The more demand partners you have access to, the more competition you create, and the more you can monetize.

Part 3: Prebid's Video Header Bidding Architecture

In case you're now thinking about implementing header bidding for video, here's a quick explanation of how we built Prebid Video and why we think its architecture makes it the best option for publishers.

Prebid Video has been designed to be independent of underlying video infrastructure, with the following key objectives in mind:

- Video player independence
- Video demand source independence
- Video ad server independence

The goal is to make implementation of video header bidding as easy and as flexible as possible so that video publishers of all shapes and sizes can deploy quickly. For example, one video publisher may use JW Player as a video player and access Rubicon as a video demand source; a second video publisher may use video.js as a video player and access AppNexus as a video demand source; a third video publisher, operating at global scale, may use BrightCove, Kaltura, and Ooyala as video players on different domains, and access AppNexus, Rubicon, and VertaMedia as demand sources. Prebid can support each of those publishers because of its platform-agnostic architecture. There's no proprietary lock-in to a particular demand source or video player – the video publisher has maximum flexibility to assemble the solution that meets their needs.

Another goal of Prebid is to support video ad server independence more broadly – this is aspirational but is starting to come to fruition. For example, PlayWire – one of the companies that has deployed Prebid Video – has integrated support for their own video player and uses the AdTech video ad server from AOL. Thanks to Prebid's open source solution, PlayWire was able to maintain video player, video demand source, and video ad server independence. **According to CEO Jayson Dubin,** Playwire has been able to generate video CPMs of $15 to $30 – much higher than what they were getting on the open video exchange. We expect to see more examples of this powerful capability in the coming year as Prebid Video evolves further.

If those results sound interesting to you, here are a few resources to help you get started with header bidding for video on Prebid:

A quick overview of Prebid for video

Our guide to setting up Prebid Video in DFP

Our guide to adding a new video adaptor to your Prebid wrapper

Our guide to adding video support to an existing adapter

Here are a few demos of what Prebid Video-sourced ads look to users on some popular video players:

- video.js
- JW Player
- Brightcove
- Kaltura
- Ooyala

Here are examples of code integrating Prebid with some popular video players:

- JW Cloud Player Integration
- JW Self-Hosted Player Integration
- Brightcove Player Integration
- Kaltura Player Integration
- Ooyala Player Integration
- VideoJS Player Integration

And finally, here's a recording of one of AppNexus' latest tech talks on how Prebid Video works!

We hope these resources help you! If you'd like to learn more, contact us here.

For more information regarding choosing the right header bidding solution:

CONTACT US

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