

**From:** Jonathan Bellack <jbellack@google.com>  
**To:** Eisar Lipkovitz <eisar@google.com>  
**Sent:** Sat, 29 Oct 2016 00:16:22 -0400  
**Subject:** Re: DVAA Sellside Review: Jedi++ Strategy  
**Cc:** Kurt Spoerer <kspoerer@google.com>, Mike Warriner <mfw@google.com>, Aparna Pappu <apappu@google.com>, Matthew Young-Lai <myl@google.com>, Sam Cox <samcox@google.com>, Sagnik Nandy <sagnik@google.com>, Jim Giles <jimgiles@google.com>, Tobias Maurer <tmaurer@google.com>, Paul Muret <muret@google.com>, Ali Nasiri Amini <amini@google.com>, Bodhi Mukherjee <bodhi@google.com>, Guillaume-Henri Huon <ghh@google.com>, Chris Dawson <chrisdsn@google.com>, Bryan Rowley <browley@google.com>, Chris LaSala <chrisl@google.com>, Alok Aggarwal <aloka@google.com>, George Levitte <glevitte@google.com>, Payam Shodjai <pshodjai@google.com>, Per Bjorke <bjorke@google.com>, Lauren Taralli <laurentaralli@google.com>, Woojin Kim <woojink@google.com>, Nitish Korula <nitish@google.com>, Glenn Berntson <gberntson@google.com>, Brad Bender <bradbender@google.com>, Shree Madhavapeddi <shreem@google.com>, Bahman Rabii <bahman@google.com>, Nirmal Jayaram <nirmaljayaram@google.com>, Vivek Rao <vivekrao@google.com>, Michael Hopkins <mhop@google.com>, Max Loubser <maxl@google.com>, Sunil Kosalge <sunilk@google.com>, Gargi Sur <gargisur@google.com>, David Goodman <davidgoodman@google.com>

I think for the pricing & strategy we should try to separate the GDN part of AdX from the rest. Pubs see GDN as a kind of giant standing demand pool. It is valuable but you can't do deals with it or really game it much because no bid landscapes etc.

GDN is half of AdX. The other half is DBM and other DSPs, networks, etc. This is the half that pubs feel they can influence and put "in play" -- mess with floors, offer private auctions, pitch agencies & DSPs, cut programmatic deals, etc. From Eisar's numbers that non-GDN AdX is around \$700m, versus \$2-\$2.5B on all the other exchanges. In other words, ~75-80% of "in-play" demand is on other exchanges who offer lax policies, full bid landscapes, lower revshares, run auctions we think are bad, participate in header bidding, etc. This gives pubs good reason to work with lots of exchanges.

If you buy this logic, the track two projects we are talking about should be taken in this light -- not the overall size of AdX including GDN, but how do we attract more of the "in-play" demand directly onto AdX, so the pubs need the other exchanges less, and a more basic EB can be acceptable.

(Some of that demand is due to other exchanges having truly unique inventory like AppNexus having MSFT and Schibsted. But we also know an awful lot of it is DRX pubs, esp now with HB.)

On Oct 28, 2016 10:58 PM, "Eisar Lipkovitz" <eisar@google.com> wrote:

Tobias, as far as market size, I don't think programmatic is so large.

AdX and DBM are roughly the same size at \$1.4B in Q4. If you believe DBM is 25%-30% of

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most exchanges and there is about \$600m on x-exchange spend, you can back out \$2B-\$2.5B, hence the entire market on the sell side (sans walled garden) is \$3.5B-\$4B in Q4.

On Oct 28, 2016 7:42 PM, "Eisar Lipkovitz" <[elipkovitz@google.com](mailto:elipkovitz@google.com)> wrote:

Chris,

I agree the margin proposal isn't really about competing with AppNexus or Rubicon. It does provide more value to publishers, hence reducing the desire to mediate or use HB. It gets more buyers and volume on AdX and it makes it harder for competing exchanges to hide buy-side fees or pull off shenanigans.

On Oct 28, 2016 10:16 AM, "Tobias Maurer" <[tmaurer@google.com](mailto:tmaurer@google.com)> wrote:

+Goody+team

On Fri, Oct 28, 2016 at 10:07 AM, Tobias Maurer <[tmaurer@google.com](mailto:tmaurer@google.com)> wrote:

+Per

Based on our BD, AN buy side business is likely closer to 750m. On most US exchanges, DBM is the largest or second largest buyer accounting for about 1/3 of their revenue. This seems to align with some of Eisar's math. Roughly estimated, the whole exchange buy-side business is likely 3x DBM ARR. Some of the reported numbers seem to be inflated by other services they provide.

I like Payam's idea of creating more awareness about what we are doing/will be doing to protect advertisers. Per, a number of policy/spam PMs and I are working on a proposal (draft) for defining a minimum bar of protections (spam, content quality, behavioral) we should consistently enforce across buy-side. This could be a pretty strong buy-side differentiation.

On Fri, Oct 28, 2016 at 9:57 AM, Michael Hopkins <[mhopin@google.com](mailto:mhopin@google.com)> wrote:

Notes from the meeting have been added at [go/sell/side/review/notes](#) and pasted below.

Thanks,

Gargi and Michael

Jedi++ Header Bidding Response Options

10/13/2016

Doc: [Jedi++ Outline](#)

Presenter: Max Loubser

TL;DR

- HB is growing and the use cases of HB are expanding
- HB solutions + price competition from emergent ad servers + SSPs pose a competitive threat to DFP's value prop of being a broad source of access to premium inventory
- There are a number of strategic questions to answer for Jedi and for DFP / AdX more broadly
- There's general interest in making changes to maintain DFP's current access to inventory; we'll come back to sellside review with more data

## AI

- Clarify impact of giving up last look advantage in EB++ proposal
- Model impact on revenue + profit if we modify AdX rev share
  - Model for a range of rev shares, including 9 - 14% and 0%
  - Do analysis without assumptions and with reasonable assumptions built in
    - Assume you can move some margin to GDN, but not all, to prevent too much discrepancy with DBM.
  - Perform analysis on just mobile app slice as well
- Continue scoping a whitelist approach for non-HB queries (and if other AdServers would be willing to participate)
  - Perform analysis of how much inventory buy side would lose if it only bid on white listed non-HB queries
- GDN + DBM: continue to explore approach of exposing data around bids across exchanges to push for transparency in exchange fee structure
- Think about long-term competitive risks that solutions by companies like Facebook + Amazon present
- Come back with concrete proposal; only include options in presentation that have widespread support

## Meeting notes

- Goal: present options for mitigating growth of header bidding infrastructure
- Two tracks for response
  - Make EB more competitive against HB
  - Compete more aggressively against other exchanges
- Header bidding is growing; there are three use cases
  - Remarketing / big buyer
    - Response is First Look
  - Auction pressure
    - Getting more demand to compete in DFP as a result of HB - real time prices as opposed to average CPMs
  - Deals
    - Is currently feeding investment into header infrastructure
    - Header is just flexible pipe to let buyers control when to transact on deals
    - Agencies striking deals directly with pubs + leveraging header infra
- Eisar: What is the difference between HB and mediation?
  - Max: HB is just an indication of interest; with mediation you let another demand source compete and each demand source that doesn't fill does a passback
- Eisar: What does HB accomplish in comparison to mediation?
  - Best approximation for client side auction
  - HB collects valuations from multiple people in real time, less latency
  - HB is significantly increasing volume of problem compared to just remarketing buyers buying through mediation
- Brad: Are agencies looking for more control over advertiser deals with HB?
  - Sam: Both holding group level and individual advertiser
  - Sam: Both PG and PNG
- Eisar: My view is that we are only investing in platform to get access; seems like we are losing that competitive advantage w/ HB
- We will lose access if someone else implements 3p exchange bidding
  - In this case, we'd only be advantageous to pubs for gdn / dbm demand
- Aparna: 100% sponsorship is only case where we lose access completely from EDA
  - Brad: we need to track this case to see if we are losing inventory access
  - Eisar: we should block access to DFP to anyone that is using 100% sponsorships to

block EDA

- Max: sellers don't really have an incentive to do this; real worry is that 3p exchange bidding solution could create pressure for us to move to the 3p exchange + lose our tag on page
- Eisar: Why would any pub we care about give away direct deals + our ad server?
  - Aparna: worry is that someone like Amazon builds out ad server + lets others leverage it
  - Eisar: we need to create contract that if someone uses us as an ad server, they need to let us compete
- Amazon is doing exchange bidding service themselves with no rev share, just serving fee
  - They don't have market power right now though
- Make exchange bidding more competitive versus HB
  - EB++
    - Massive engineering investment in Jedi
      - Make it ultimate tool for all your demand
      - Floor setting, blocking rules, etc. in our interface so you don't even need to go into other SSP's UIs
        - We would essentially be a proxy, we wouldn't have a direct relationship with those SSP's
    - Give up last look (currently worth around 5-10% of AdX revenue on Jedi queries)
      - **AI: clarify this number (sell side vs. buy side)**
  - Open Jedi
    - Lower rev share, less restrictive policies
    - Buyers would prefer open Jedi to current AdX
    - Becomes very attractive place for publishers to access demand
    - Allow SSP's to buy without a pub contract
    - Chris: Open Jedi could be implemented by anyone
      - We want to get ahead of this, keep our tag on page, so we have inventory access
- Compete more aggressively with other exchanges - DRX changes
  - Put pressure on companies providing header bidding infra
  - Levers we could pull
    - Lower AdX revshare to 9 - 14%
      - We currently do 10% for private auctions; creates incentive for pubs to move inventory to private auctions from open auction
    - Eisar: Is there quantitative data on impact?
      - Max: yes, we did simulations but they didn't account for increased volume that would result
      - Max: our high rev share creates a market opportunity for header infra, exploiting the fact that other SSPs have lower rev shares Eisar: problem is that you are giving up revenue / profit for sure with goal of stopping acceleration of HB
    - Jim: makes gap between AdX + Jedi small when you add Jedi rev share to rev share of other SSPs
    - **AI: Model profit loses if we decrease AdX rev share; model increases in volume in analysis**
      - Nirmal: roughly revenue neutral; 10 - 15% drop in overall profit
      - Eisar: Green light to do all necessary analysis; should do base model with no assumption + variants w/ reasonable assumptions
- Engineering investment in programmatic deals
  - Having a rich feature set for programmatic deals makes your tag important to have on page
  - We see programmatic deals as a major trend in the industry
  - Main concerns: flexibility + letting buyers decide what they want to buy

- Eisar: how is this different than private auction?
  - Max: private auction requires inventory to be accessed through DFP stack; current HB solution lets buyer see all inventory upfront
    - We essentially don't support all use cases in market today
  - Eisar: sounds like good idea, I'm worried about unintended consequences; Can you add clear carrot for us that can't be unbundled?
    - Max: Carrot is that we are part of txn and we maintain control of inventory + what deal wins (to a certain extent)
  - Eisar: I want to make it clear that you shouldn't let pubs use sponsorships to lock us out of inventory
    - Kurt: by maintaining access to inventory we can show pub opportunity costs of decisions which is very valuable
- Full bid landscape
  - Lack of full bid landscape is currently one of biggest sources of lack of trust in Google
    - Almost all exchanges have this
      - Let's you see gap between bids + txn price
      - Exposes "inner guts" of auctions
  - Eisar: I thought other SSPs were running dirty auctions, how can they be more transparent?
    - Max: pubs don't care if the auctions are dirty, they just want to make more money
  - Other exchanges don't offer opt out to buy side from full bid landscape
- Prevent self-flooring
  - DBM + GDN would only bid on queries that are known to come from ad server
    - Essentially, don't bid on HB queries
  - Effect in short term would be to move a lot of rev to AdX and put pressure on HB infra
  - Aparna: if we can detect this, should we do this (question to product buy side)?
    - Alok: problem is that we don't know how to detect HB, we would do this if we could
    - Aparna: practically speaking, there are 3 ad servers, we should try to get them to contribute to white list of non-HB queries
    - Overall consensus from buy side: we don't want to compete on HB queries
    - Woojin: there are cases where EDA locks buy side out - there could be incremental queries w/ HB as result
      - Buy side also wants efficient access (e.g. lower exchange / SSP rev share)
    - Is buy side willing to give up some inventory in making the decision to only bid on non-HB queries?
      - Eisar: principle should be that you don't buy on inventory if you aren't sure if it's HB
      - Jim: Tag has adopted a notion of a path that an ad request has gone down
      - **AI: Go down path of forming coalition of ad servers to whitelist non HB queries**
      - **AI: Quantify how many queries buyers (out of the universe of all possible queries) would lose with "prevent self-flooring" option**
    - Eisar: would we make an announcement?

- Max: it would really help the industry if we showed DBM + GDN take this seriously
  - Brad: we'd have to come up with the objective measures for why we believe HB is bad for buy side (e.g. fraud protection, latency)
    - Payam: PR positive message that we are protecting buyers
- Payout transparency
  - Putting pressure on exchanges in terms of how they are pricing buyside + sellside
  - Proposal is to have DBM + GDN express how much they are paying across exchanges so pub can see delta between what buyside pays + how much they receive
  - Max: idea is for UI to be in DFP
  - **AI: DBM + GDN -- continue to investigate this approach + if feasible, supply this data to push for transparency**
  - Aparna: DBM said this is hard to do + might not be possible
  - Payam: Even DBM doesn't know how much it will be charged by exchange until the end of the month
  - Payam: We should really look into "payout transparency" + investigate feasibility
- Nuclear options
  - Chris: why is making sell-side free not best option?
    - Max: very big financial implications
  - **AI: do analysis for margin of 0% to see of financial impact; assume you can move some fee to buy side but not too much**

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- Payam: is it possible to have 0% fee for pubs with 10% fee to buy side?
  - Chris: problem is that this doesn't kill HB unless it is a true value prop
  - Problem: we are Google, we can't compete on "being slimy"
- Paul: nuclear proposal is strongest response but cuts off a lot of our revenue
  - Payam: we may not have this option in the future, value in timing
    - There are things we can do on buy side to make additional margin (e.g. taking risk away from buyers with Market Maker)
    - Woojin: massive margin compression in the market right now
    - Aparna: reason HB has been rising is b/c there are pockets of demand we are missing through things like policies; big leap to say it's inevitable that our margin will collapse
    - **AI: involve app analysis in buyside / sellside margin considerations**
    - **AI: estimate Amazon + Facebook's future trajectory + competitive risks**
    - **AI: next deck is concrete proposal w/ options that people don't like not presented as options**

On Fri, Oct 28, 2016 at 11:07 AM Chris LaSala <[chrisla@google.com](mailto:chrisla@google.com)> wrote:

On the point about our pricing strategies...and how low to drop our AdX margins (14%, 9%, 0% or whatever)...I think there is a business case where the pricing pressure is coming from Amazon (their recent 1c SSP) and threat of FB following - where the 2 of

them truly commoditizing the pipes with investments in HB and place less value on the rest of what AdX does (which we should be able to combat). We want to keep a pub from thinking that they should use HB because the price of not doing it (20%) is just too high, when every \$\$ to them means too much.

I don't, however, think we need to compete with AppNexus/Rubicon on price (even though it may seem that is what we are in fact doing). It is a nuanced difference, wondering if anyone sees it differently?

On Fri, Oct 28, 2016 at 10:47 AM, Eisar Lipkovitz <[elisar@google.com](mailto:elisar@google.com)> wrote:

Yep, totally agree, which is why I want to see the combined plan and timelines. As you point out, DBM not buying on HB has to be primarily about Advertiser ROI. Surely we can find corner cases where HB is actually providing value for advertisers but like Spam fighting we do chose frequently to lose access to good inventory if we are worried a particular source of traffic is mostly but not wholly bad.

If we lower the margins on AdX and provide full buyer/publisher transparency we can say with a straight face that buying on such inventory is the best for a buyer. Hence getting a coalition of other willing parties, most likely AdServers, will strengthen the case.

In that vain, the alternative crazy aggressive proposal could be indeed (a) AdX margins go to Zero (b) DBM only buys AdX inventory and traffic from publishers that Google have no relationship with.

Put together it's highly defensible, less work for us, but sub optimal for an advertiser (reach wise) and problematic to publishers in the long run as it transfer all the power to the buy side, no point in building any kind of SSP.

On Fri, Oct 28, 2016 at 7:17 AM, Payam Shodjai <[pshodjai@google.com](mailto:pshodjai@google.com)> wrote:

I tend to agree that we might be overestimating DBM's market power if we limit our actions to "stop bidding on HB inventory." Yes, we need to be smarter about how we bid and what we bid on based on some of the good proposals that were presented yesterday. I also think that the key here is to get other DSPs to play with us, so that this effort scales and actually moves the market. One way to do this is through a carefully crafted marketing campaign that raises awareness and creates pressure on other DSPs to follow suit. The marketing campaign I envision is primarily targeted to buyers and couples spam + HB into a single story around "Google provides better protection." While HB != spam, I think we want to do some coupling here so that advertisers who don't use DBM ask themselves "Is TubeMogul really protecting me from all of these things? From fraudulent traffic? From second pricing myself?" Would be good to see what upcoming spam launches we could package into this story. The cherry on the top would be if this marketing push includes a few case studies that show that performance and ROI go up by X% as a result of our superior protection.

On Fri, Oct 28, 2016 at 10:14 AM, Max Loubser <[mloubser@google.com](mailto:mloubser@google.com)> wrote:

Thanks for the feedback Eisar. We are tracking the follow up work in a doc, including the points you mention below:

<https://docs.google.com/document/d/1JL1KEwhBqarQj-K58QNVf1sdFKPJe1prh10JF4NoBBk4/edit#>

On Fri, Oct 28, 2016 at 3:06 AM, Eisar Lipkovitz <[eisara@google.com](mailto:eisara@google.com)> wrote:

One other interesting (to me ) tidbit, is how DBM spends on other exchanges as it appears in the following [graph](#).

I've excluded YT and created the following buckets: AdX, {other}, Rubicon, AppNexus, Pubmatic, OpenX and Verizon/AOL/Yahoo.

It's pretty remarkable how fragmented is this market. These "big" 5 have 3%-7% share. That does mean that we can't be impacting that much revenue by not bidding into HB queries, though conversely it might mean we don't have that much leverage on those other SSPs.

Another angle is whether we should be rushing to lower margins if the competition is so fragmented.

Rubicon - "managed revenue" around [\\$112M](#) growing at 40% YoY

OpenX - had [\\$140M](#) net in 2015, assuming they do 25% margin like Rubicon and 40% growth, 2016 is \$800M

Pubmatic - only [2014 data](#), seem to suggest the same ball park of the above.

AppNexus - Also [2014 data](#) but claim to be larger.

We are buying about \$15M/month from each one of them, so call it \$200M.

On Thu, Oct 27, 2016 at 10:39 PM, Eisar Lipkovitz <[eisara@google.com](mailto:eisara@google.com)> wrote:

Max and Sam (and everyone else who helped).

Thanks for presenting today and thoughtfully going over this complex topic. I hope my super brash style today wasn't taken personally I was just trying to move the conversation quickly and make sure we sharpen our POVs. My sincere apologies.

It was a great discussion overall.

Sounds like we have a bunch of AIs. My hope is the next time we meet you can present a comprehensive proposal that includes more details on the various recommended/green tracks we discussed.

The most critical pieces to resolve are

- 1) The analysis of the impact from changing rev share both for the proposed solution (9%-14%) as well as the super aggressive one (0%). Make some reasonable assumptions on how much margin we can move to GDN and some second order effects.
- 2) Understand whether other other AdServers would be willing to share the TAG data in the RTB callout.
- 3) Properly analyze the consequences of bidding on only TAG queries and the impact to loss of access to truly incremental impressions, especially for DBM.

On Wed, Oct 26, 2016 at 4:53 PM, Sam Cox <[samcox@google.com](mailto:samcox@google.com)> wrote:

All,  
Please find the deck for tomorrow's sellside review [here](#). Looking forward to seeing you all on the [call](#) at 12:30pm EST.

Best,

Sam Cox

Samuel R. Cox | AdX Group Product Manager | Buyside and Policy

"It is not enough that we do our best; sometimes we must do what is required." - Winston Churchill

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Eisar

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