

# Using Header Bidding to Improve Yield and Audience Acquisition

Mather: symposium 2017

# A Bit About Me

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- ▶ Stephen F. Johnston Jr.
- ▶ Founder/CTO - PubWise
- ▶ PubWise provides real time data analytics for programmatic monetization and streamlines the ongoing management of header bidding deployments.
- ▶ > 20 years web development
- ▶ > 10 years in online publishing



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# Covering Today

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- ▶ What is Header Bidding
- ▶ Why is Header Bidding Different?
- ▶ What Data is Available?
- ▶ Yield Improvement
- ▶ Audience Acquisition
- ▶ Wrap up & Questions
  
- ▶ If you have questions, ask!

# What is Header Bidding?

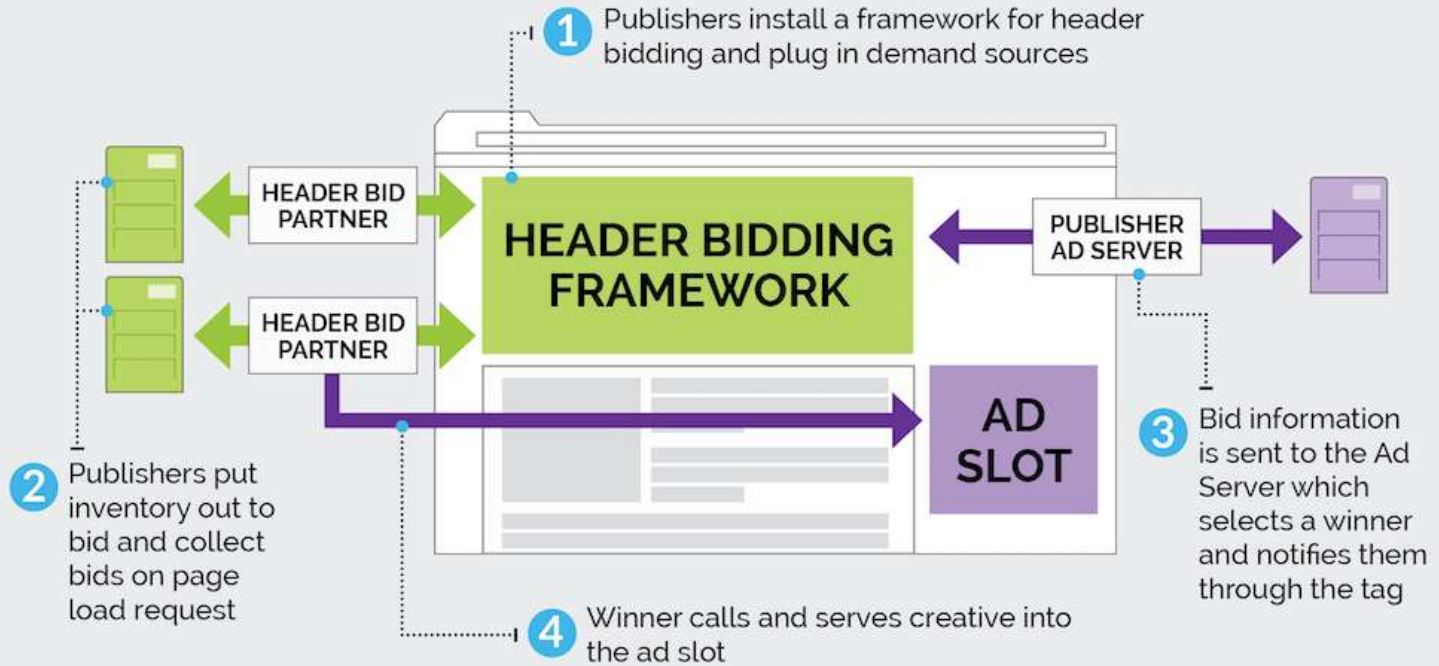
Say Goodbye to the Waterfall

# Basics of Header Bidding

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1. **Runs As Javascript in Browser**
2. **Manages Ad Loading While:**
  1. Captures multiple bids
  2. Organizes multiple bids to determine winner
  3. Modifies bids based on criteria
3. **Passes Winner to Ad Server**
4. **Ad Server price priority logic runs with HB price in competition**

# How Header Bidding Works



# Wrappers

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- ▶ **Remove Integration Work**
  - ▶ Provides code to interact with Demand Partners, RTBs, SSPs, Networks etc.
- ▶ **All HB Requires Setup**
  - ▶ Ad Server Setup
  - ▶ 2,000+ Line Items
- ▶ **Approximately 20 Available**
  - ▶ Only a Few Widely Used
  - ▶ Prebid.js
  - ▶ PubFood
  - ▶ Header Tag
  - ▶ Header Suite

# Other Aspects

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## ▶ Latency

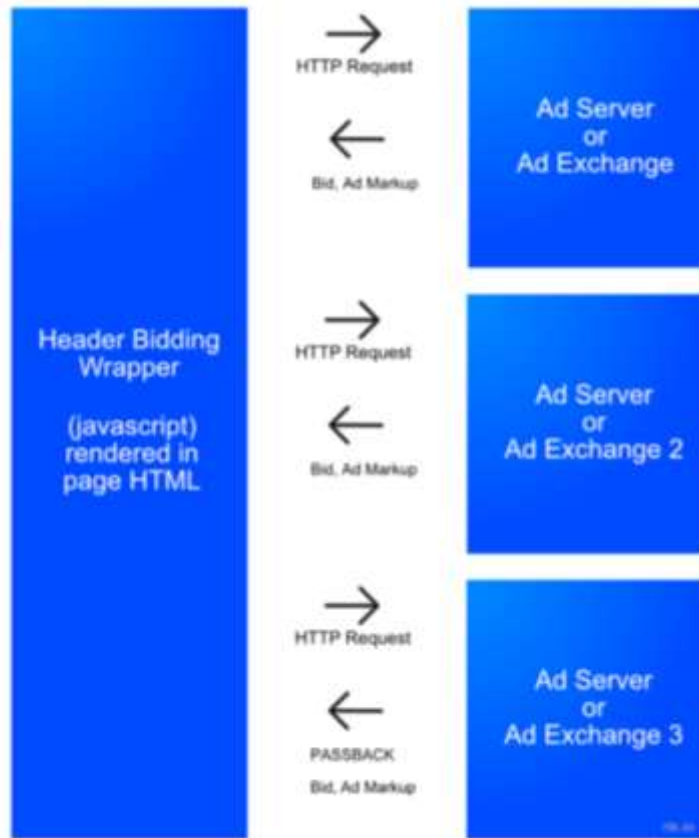
- ▶ Latency is tunable to revenue capture
- ▶ It's not new, passbacks, etc.

## ▶ Server to Server - S2S

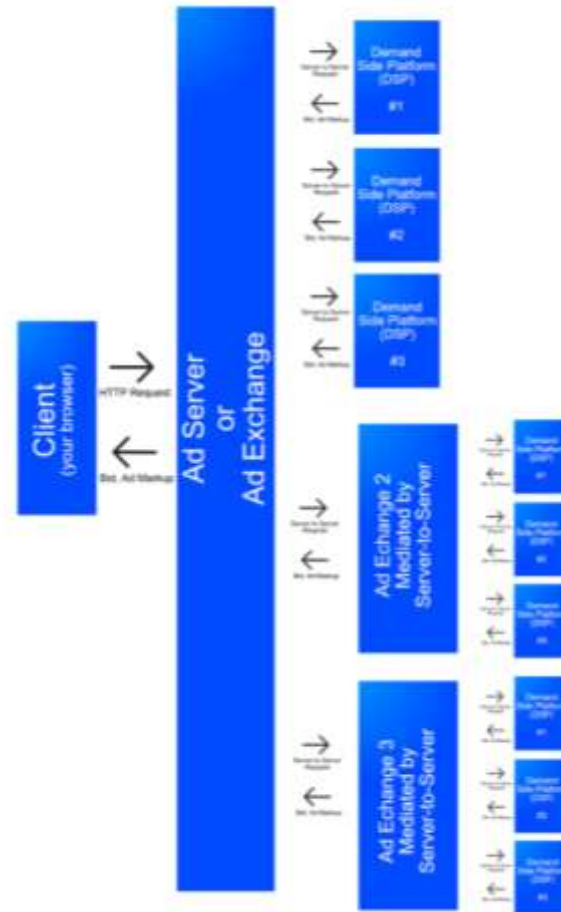
- ▶ It does reduce latency
- ▶ Cookie data is poor
- ▶ More interactions, complexity, less direct
- ▶ Introduces new form of discrepancy
- ▶ Not a counter to header bidding, S2S is complimentary



# Header Bidding



# Server to Server



# Is Header Bidding Really Different?

It's More Than Just Another Form of SSP!

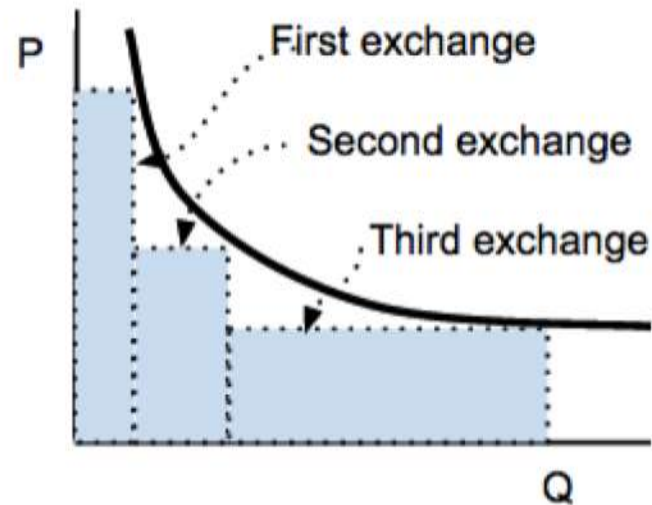
# Where the Magic Happens

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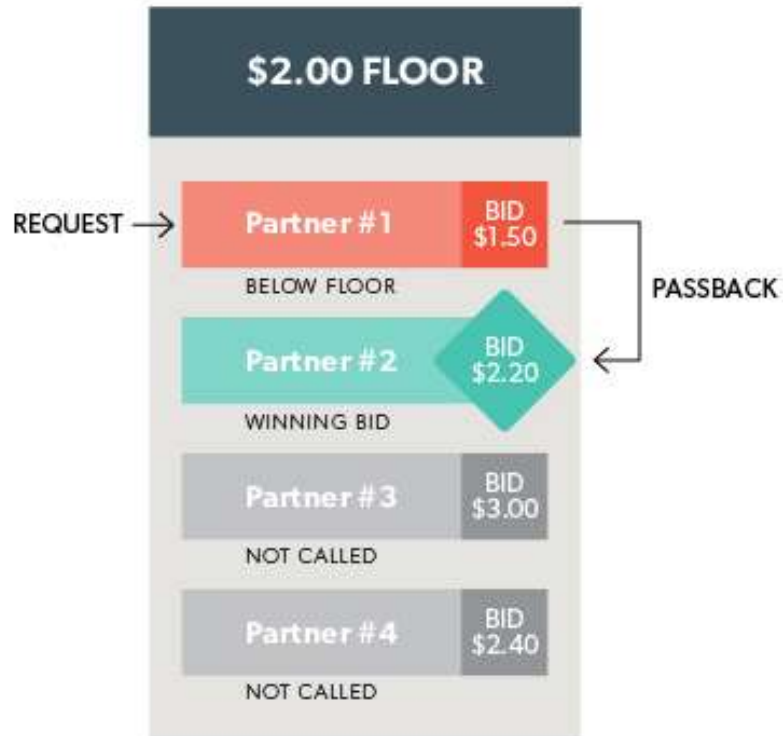
- ▶ **Eliminates Passbacks**
  - ▶ Greater overall fill
- ▶ **Flattens Waterfall**
  - ▶ Greater overall eCPM
- ▶ **Reduces Discrepancies**
  - ▶ Greater fill, reduces loss

# Effect on the Waterfall

- ▶ Each Waterfall Step is Lost Revenue



## WATERFALL AUCTION



## HEADER AUCTION



# HB Effect on Google

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- ▶ **How does Header Bidding provide lift?**
  - ▶ HB lift effect not limited to HB Fill
- ▶ **Google Sees Everything in the Ad Server**
  - ▶ Header Bidding best bid enters ad server effectively as a reserve against other sources of demand
  - ▶ Header Bidding provides a real reserve that will actually fill at that price if Google passes
  - ▶ Programmatic stack/waterfalls provide only an approximate reserve which leads to inefficient monetization

# What Data Is Available?

Lots of Advertising Value Data - In RealTime

# Data Available

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- ▶ Bid Data
- ▶ Wins & Losses
- ▶ Position
- ▶ Size
- ▶ Response Time
- ▶ Any Data You Add
  - ▶ UTM
  - ▶ Custom Parameters
  - ▶ If supported in reporting



Last 30 Days Sun, Sep 10 - Mon, Oct 09

\$1,812.75

Revenue

\$2.72

eCPM

667,231

Impressions

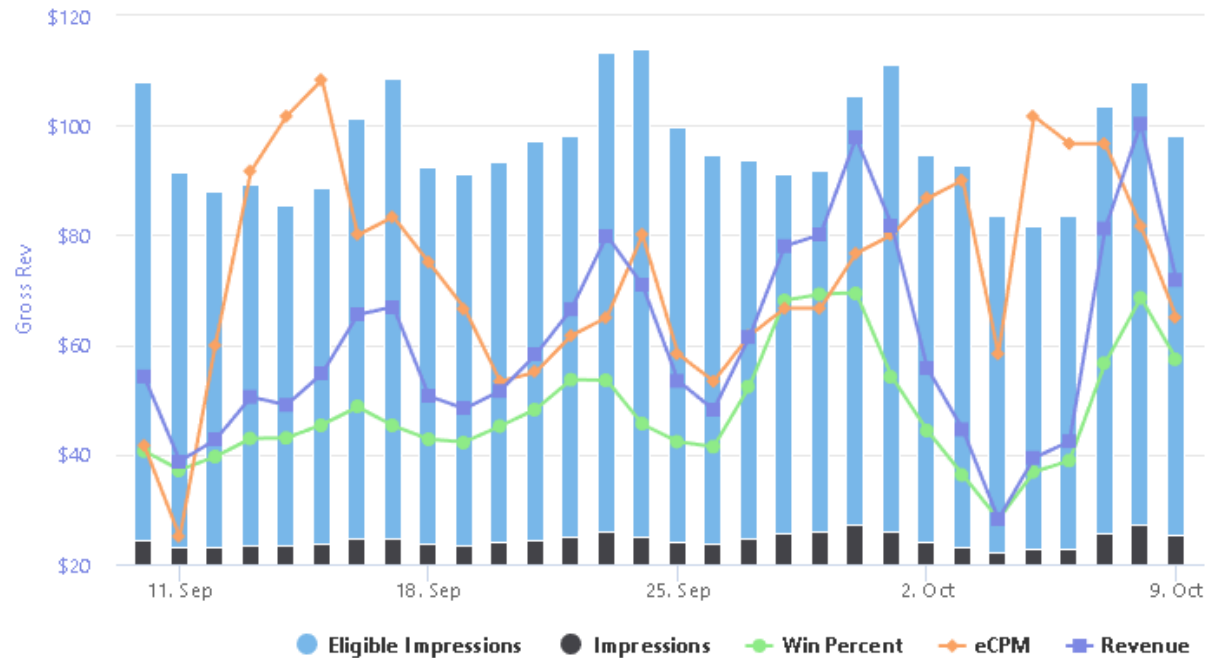
11,472,047

Eligible

5.82%

Win %

### SUMMARY



# Analytics Events

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- ▶ **Prebid.js**
  - ▶ Most Robust Analytics
- ▶ **5 Relevant Events**
  - ▶ Auction Start
  - ▶ Bid Requested
  - ▶ Bid Response
  - ▶ Win
  - ▶ Timeout

# Bid Data is High Volume

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Typical Event Volume for 4 Ad Units

## 18-24 Events/Pageview

### Typical Page Load

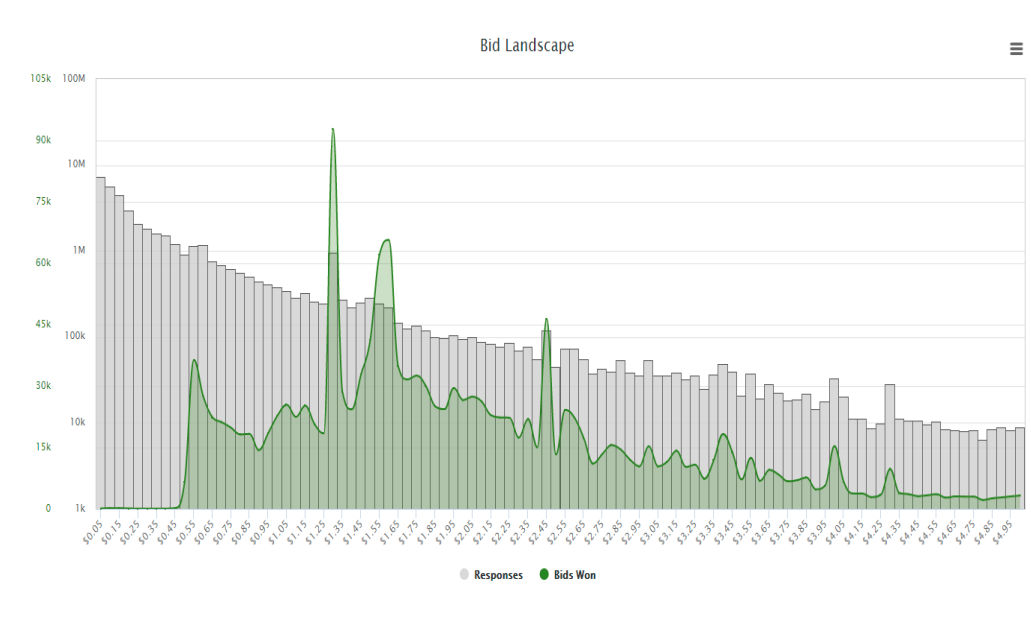
- ▶ 4 Ad Units
- ▶ 6 Bidders

### Event Volume

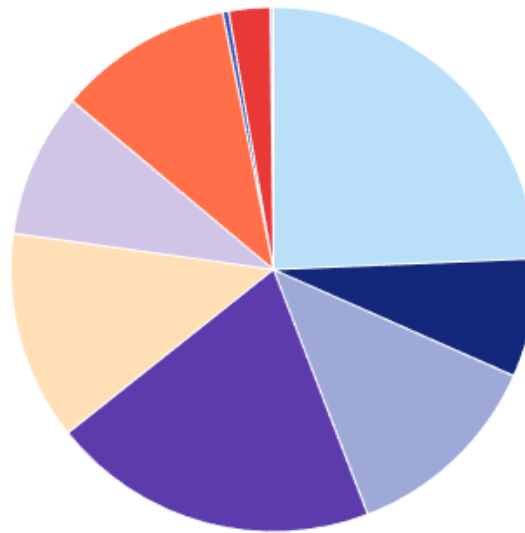
- ▶ 1 Auction Start
- ▶ 6-24 Bid Requests
- ▶ 6-24 Bid Response
- ▶ 0-4 Win
- ▶ 0-24 Timeouts

# Bid Data Covers Critical Information

- ▶ Bid Landscape
- ▶ Win/Loss Rates
- ▶ Participation
- ▶ In Your Hands, Not the SSPs



## BIDDER BREAKDOWN



● defymedia   
 ● districtmDMX   
 ● brealtime   
 ● appnexus   
 ● openx   
 ● sekindoapn   
 ● aol  
● critico   
 ● conversant   
 ● pulsepoint   
 ● sovrn   
 ● jc m

BIDDER	^	ECPM ↕	REVENUE ↕	ELIGIBLE ↕	IMPRESSIONS ↕	WIN % ↕
<b>aol</b>		\$2.22	\$195.61	7,914,989	88,211	1.11%
<b>appnexus</b>		\$3.18	\$365.25	9,465,567	114,919	1.21%
<b>brealtime</b>		\$3.26	\$226.91	10,271,680	69,538	0.68%
<b>conversant</b>		\$2.23	\$46.25	1,262,544	20,775	1.65%
<b>critico</b>		\$2.33	\$6.59	1,598,512	2,831	0.18%





# Increasing Yield

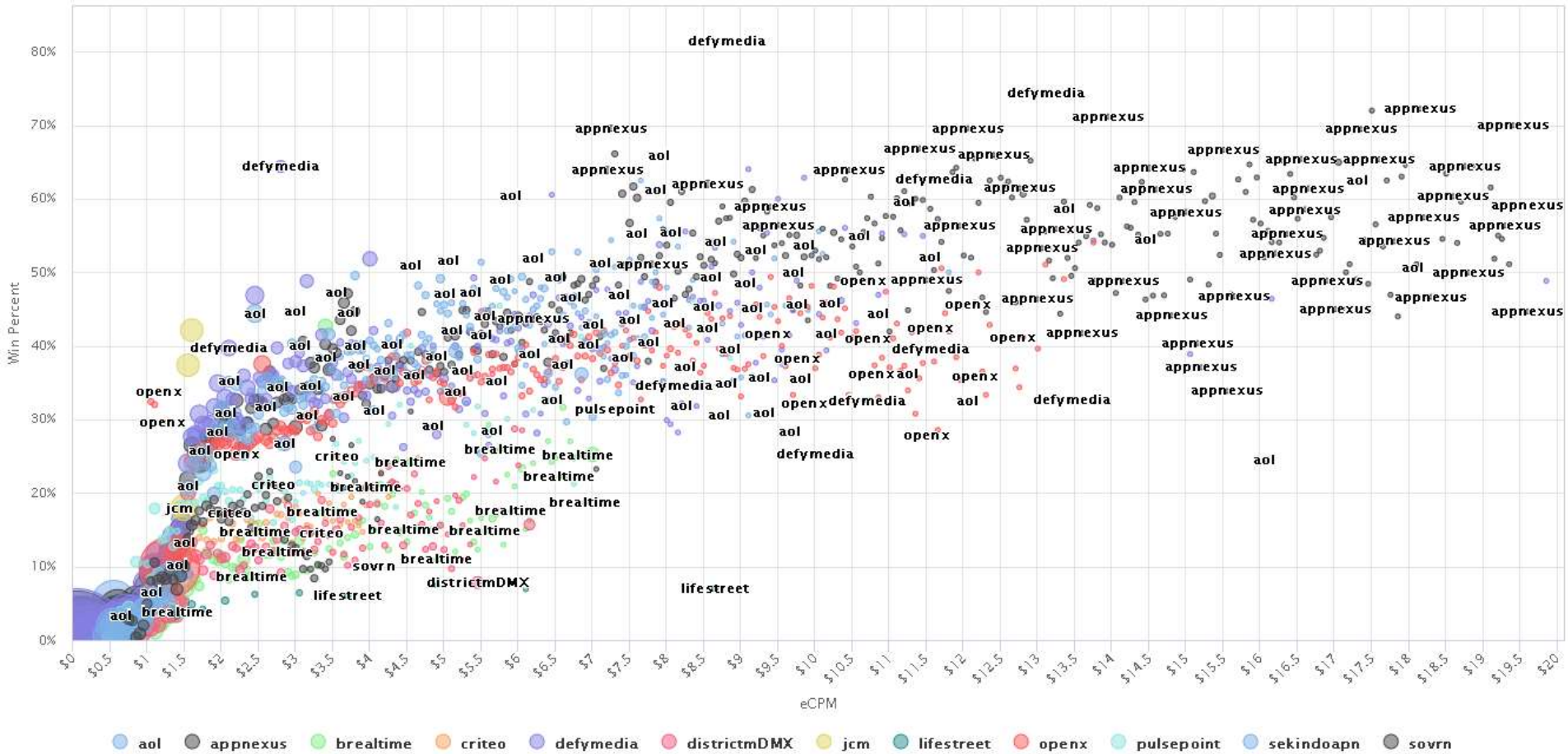
Revenue is Fundamental, Increasing Revenue is Key

# Initial Setup is Key

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- ▶ 5-6 bidders
- ▶ Different demand curves
  - ▶ each demand partner bids differently
- ▶ Existing DFP price priority line items provide floor
- ▶ Start small, measure, increase

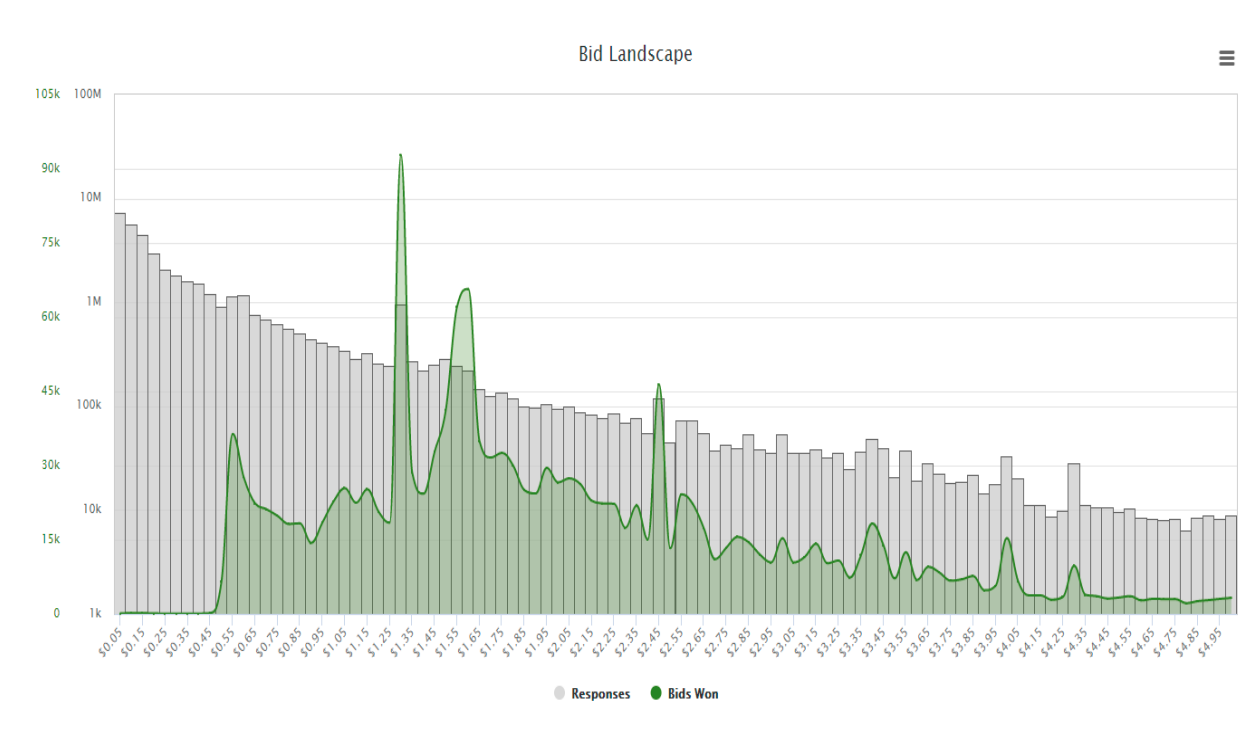
# eCPM vs. Winrate





# Waterfall Improvements are First

- ▶ Top of Waterfall Provides Floor for Header Bidding
- ▶ Push Waterfall Down in Price to Open up Demand
- ▶ Reporting Can Help Verify Setup

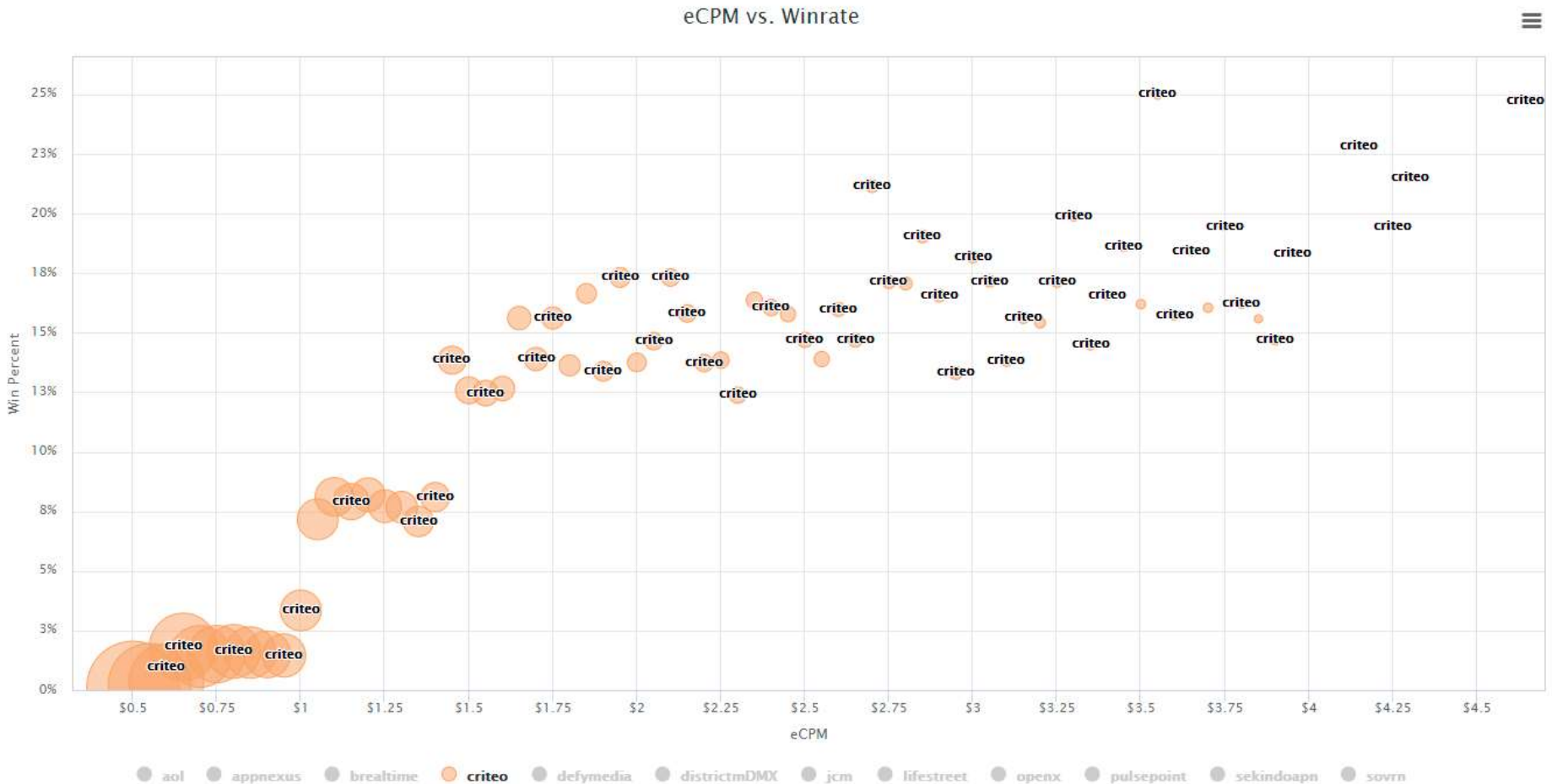


# Partner Performance

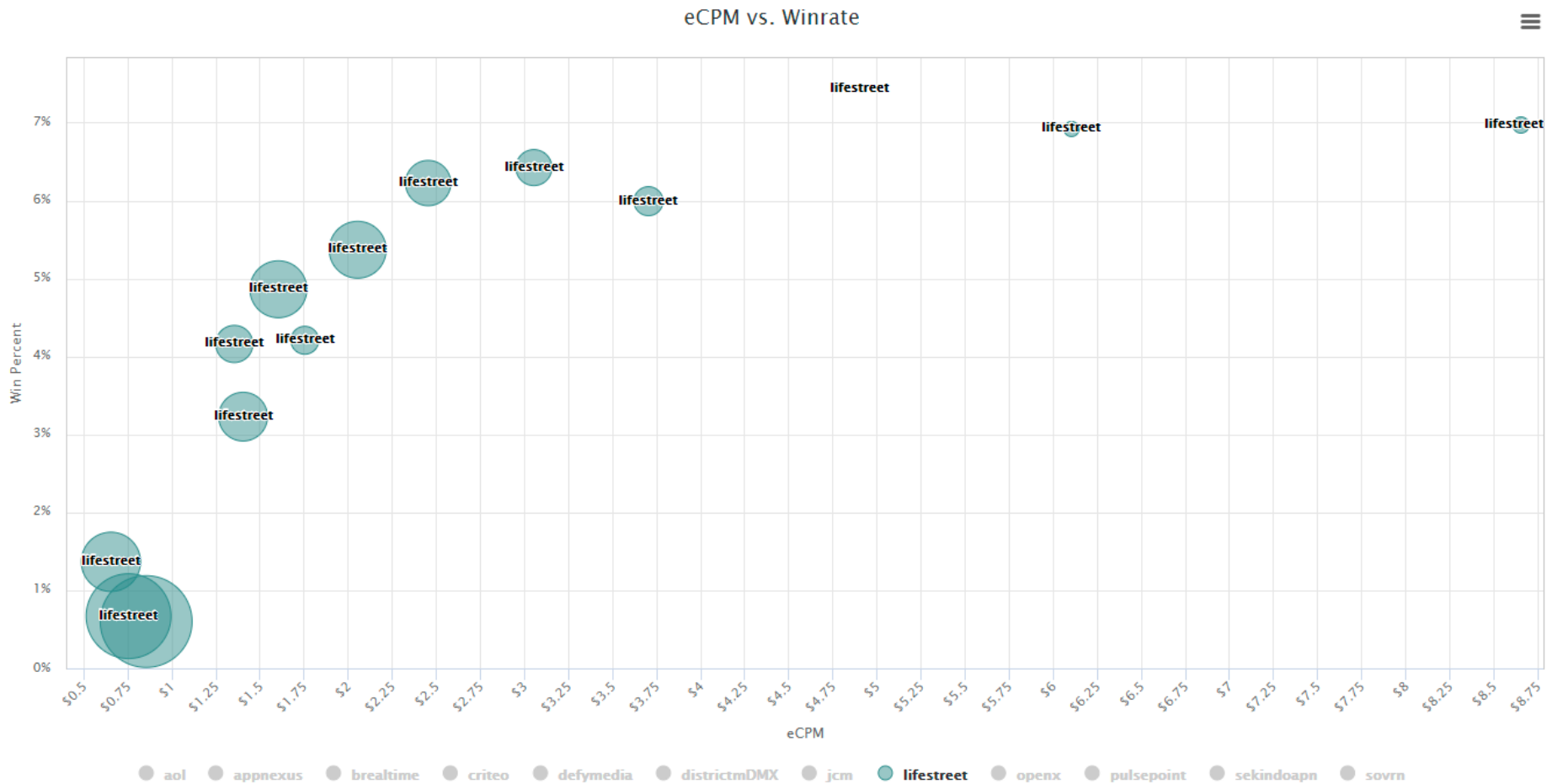
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- ▶ Understand how each partner is performing
- ▶ Is there high degrees of bid overlap? Could you remove a bidder with no effect on revenue?
- ▶ Do you have a “hole” in demand? No bids over  $X$ , no bids under  $Y$ .
  - ▶ Unlikely to be completely missing, but worth evaluating.

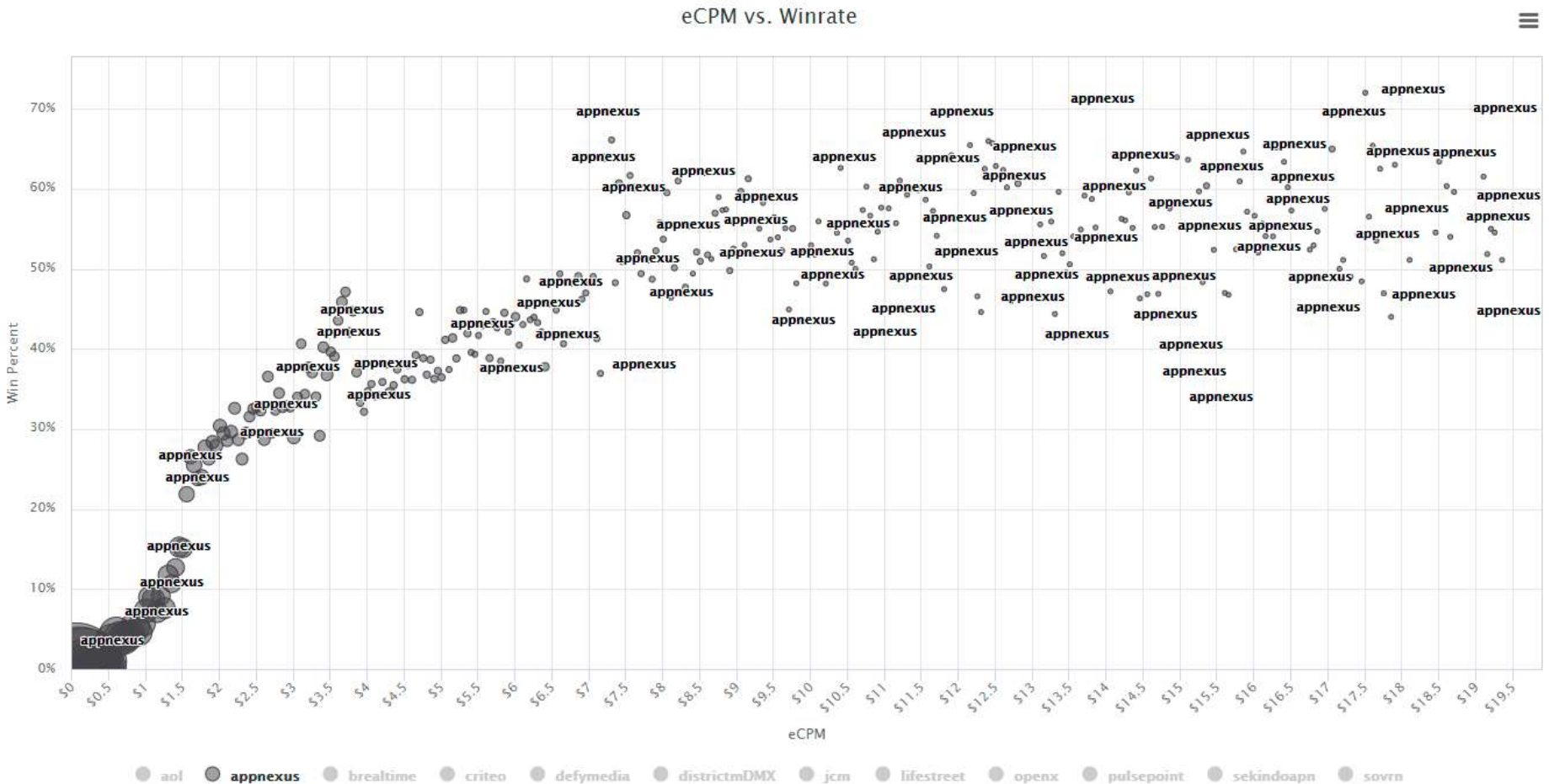
A solid all around bidder primarily in the under < \$5.00 range.



This bidder is not very strong, but do they have unique demand possibly?



A robust bid profile. Solid bidder up to \$20.00.



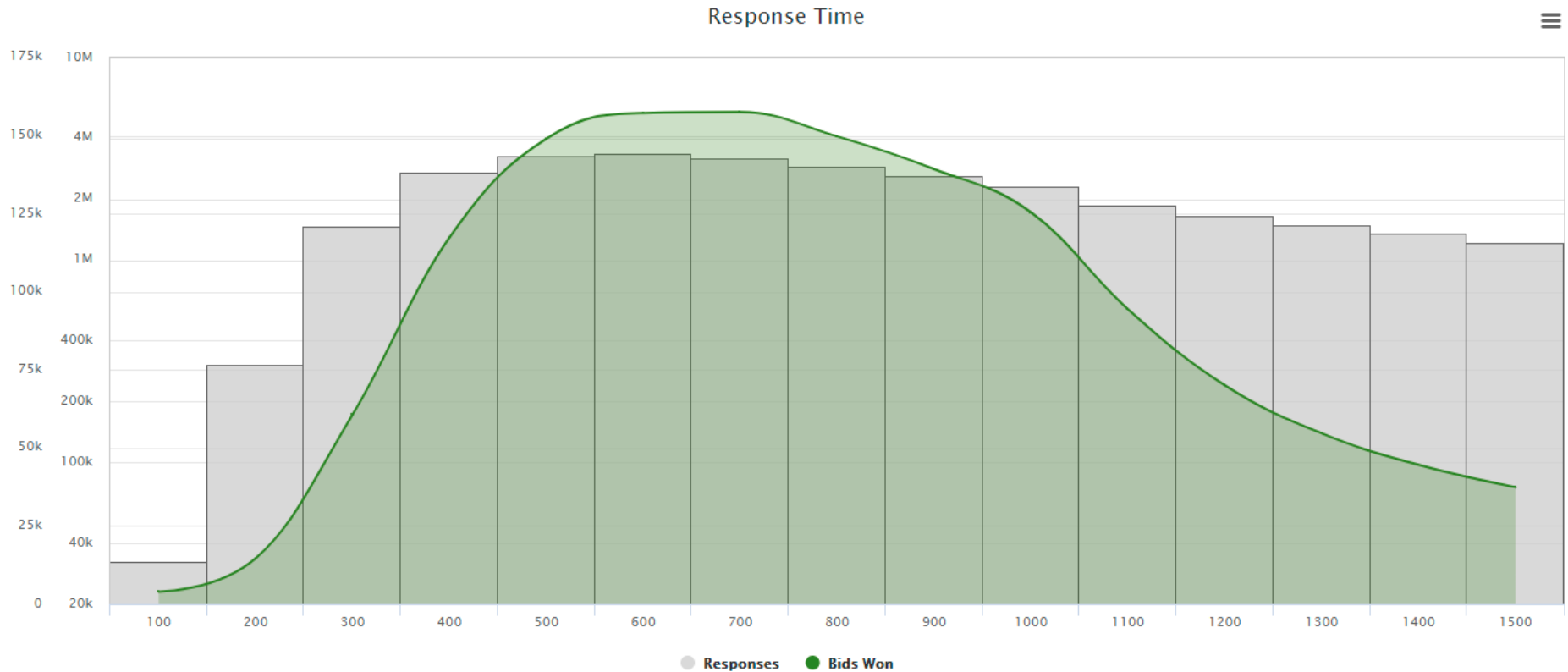
# Health and Hygiene

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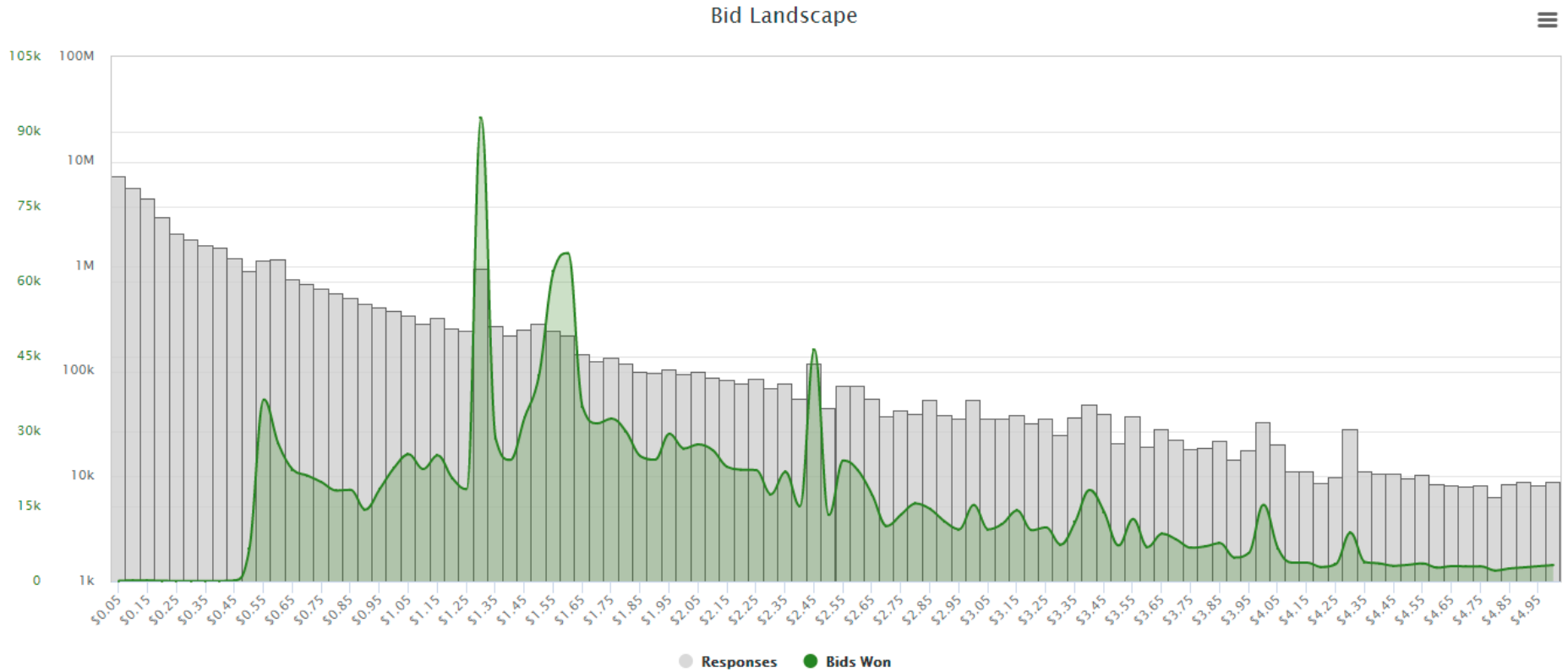
- ▶ Response time
- ▶ Bid Landscape



Can latency be reduced while maintaining revenue? What percentage of revenue is Captured at various timeouts?



Are there misconfigurations? Very low HB wins indicate HB “falling through” the Stack and/or Google/AdX/AdSense.







# Audience Acquisition

Finding Audience, and More Of It

# Top Content

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- ▶ Some content attracts more valuable traffic.
- ▶ Track it, then feed other channels the top content:
  - ▶ Recirculation
  - ▶ FB Promotion
  - ▶ Twitter Promotions
  - ▶ Highlight on Site
- ▶ **Active Monitoring, not 30 days and wait!**

# Top Monetized Content

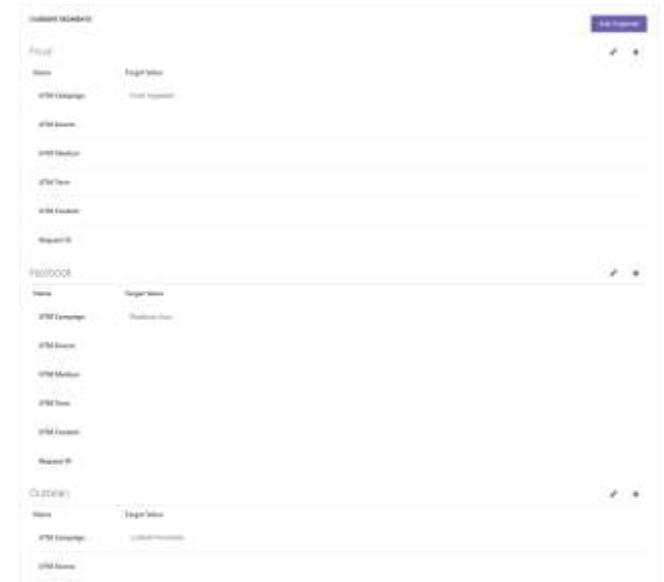
	↕ # PAGES	↕ # WON	↕ PAGE CPM	↕ UNIT CPM	↕ PAGE REVENUE
ultimate-build-guide	12,926	761	\$0.45	\$7.72	\$5.88
es-guide-all-egg-patte	12,238	791	\$0.48	\$7.38	\$5.84
complete-crafting-recipe	10,335	631	\$0.48	\$7.84	\$4.95
ading-fix <a href="#">🔗</a>	6,445	426	\$0.40	\$6.07	\$2.59
te-allocation-guide <a href="#">🔗</a>	5,994	352	\$0.26	\$4.37	\$1.54
he-ins-and-outs-of-ch	5,702	296	\$0.23	\$4.40	\$1.30
ds-for-the-112-update	5,648	327	\$0.37	\$6.39	\$2.09
rival-faq-base-alfa-vaul	5,167	372	\$0.41	\$5.66	\$2.11
with-pubg <a href="#">🔗</a>	5,161	245	\$0.28	\$5.90	\$1.45
-skill-crafting-combina	5,155	329	\$0.38	\$5.98	\$1.97
uild-for-divinity-original	5,062	296	\$0.41	\$7.03	\$2.08
-set-in-black-desert-o	3,627	263	\$0.54	\$7.50	\$1.97



# Traffic Sources Vary in Quality!

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- ▶ Do you wait 30? 7? 10 days?
- ▶ Header bidding is near real time
- ▶ Track a campaign, measure traffic quality
  - ▶ Reallocate for time of day
  - ▶ Quality traffic sources
  - ▶ Test more campaigns faster instead of waiting for high latency reporting!



Last 7 Days Thu, Aug 10 - Wed, Aug 16

Segment: No Segment

\$3450.82

Revenue

**SUMMARY**



# Wrapping it Up

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- ▶ **Run a Wrapper!**
  - ▶ Prebid is the leader, 60 demand partners integrated and active dev community
  - ▶ Wrappers don't provide analytics and deployment management, managed wrappers do
- ▶ **4-6 Bidders to Start – Tempting to go big, don't!**
  - ▶ Talk to current partners
  - ▶ Think about demand positioning, demand partners will be strong at different price points
- ▶ **Measure, measure, measure!**
  - ▶ Use a tool like PubWise
  - ▶ Validate bidder positioning
- ▶ **Put pressure on the stack!**
  - ▶ Ok to lower stack top end
  - ▶ If HB is only above stack then results will be good, not great
  - ▶ Focus on net revenue, eCPM is not a touchstone since it's not used to set position in waterfall
- ▶ **Look beyond Demand Partner performance, including:**
  - ▶ Content recirculation, promotion, etc.
  - ▶ Traffic source value

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# Questions?

I love to talk about Header Bidding and publisher monetization. You can find me online at:



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