Google

Header Bidding and FAN

ACM

Sept 2nd, 2016

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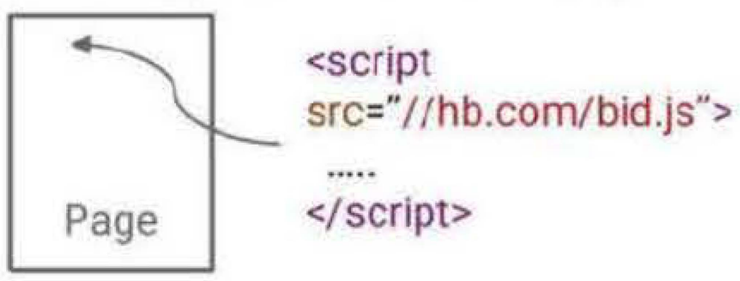
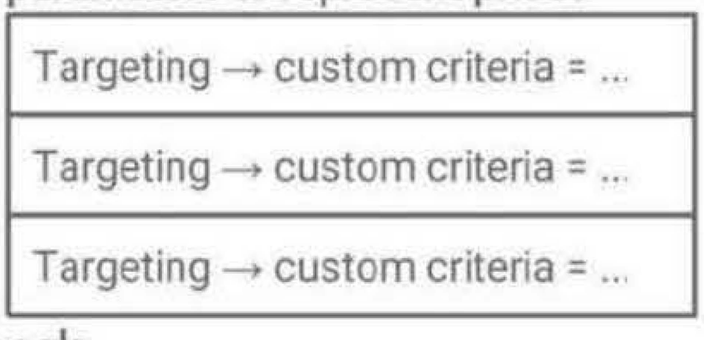
Header Bidding: collect bids from multiple sources (eg. Networks/SSPs) before calling an ad server (eg. DFP)

Setup Beforehand

1 For each header bidder, pub places code snippet to <head> of all pages

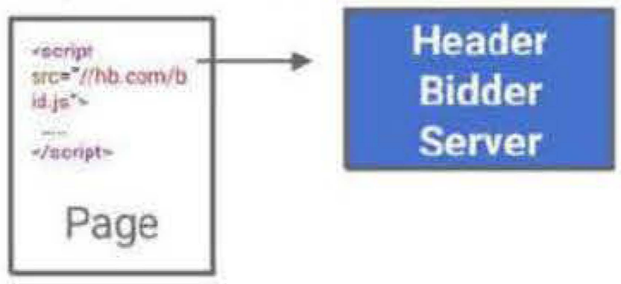


2 Pub creates ads in DFP using custom parameters to represent prices

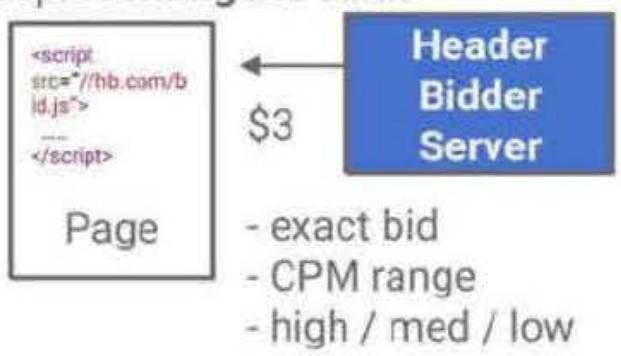


On page load

3 On page load, each snippet calls its respective bidder (SSP/DSP/network)

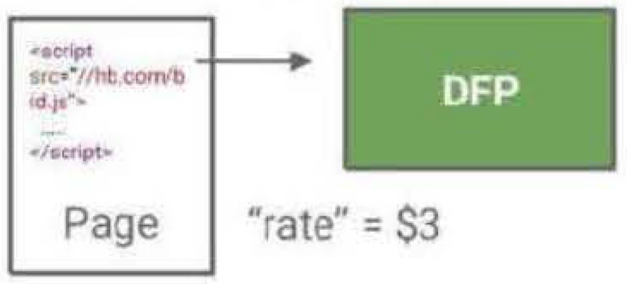


4 Bidder responds with signal representing bid value

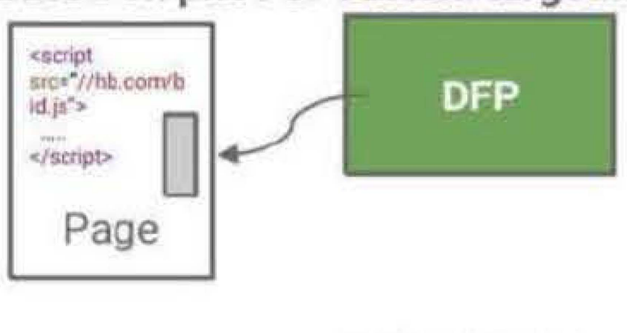


On call to DFP

5 Page calls DFP for ad, passes all header bids as custom parameters



6 DFP selects appropriate line item based on price or custom targeting



Google

Confidential + Proprietary

Header bidding benefits pubs and advertisers, challenges DRX

Publisher: more money

- Pros:
  - Universal competition with real-time pricing
  - Captures incremental demand
  - No Google policies, no Google revshare
- Cons:
  - Adds latency to every ad call
  - Consumes mobile data & battery
  - Complex setup and reporting
  - Manual management of demand sources

Buyers: secure access to supply

- Pros:
  - Control the supply chain, reduce dependence on Google decision logic
  - 100% user/placement visibility
  - Real-time pricing increases win rate
  - Rapid, ungoverned innovation
  - Can reduce fees (no sell-side revshare)
- Cons:
  - Increased QPS from pubs multi-listing
  - Risk of bidding against self
  - Higher prices due to more competition

DRX Challenges

- Creates a new auction outside our decision logic, policies, or fees
- Eliminates influence on latency and user experience
- Fewer queries matched, higher prices when we win
- Could become a competing ad platform

Header Bidding adoption is growing quickly, expanding to more buying models

Overall HB penetration continues to grow

- % of pubs with header tags on their pages:
  - OPG Tier 1: 50%, up from 40% six months ago
  - LPS: 26%*
    - AMS: 31%
    - EMEA: 24%
    - APAC: 18%

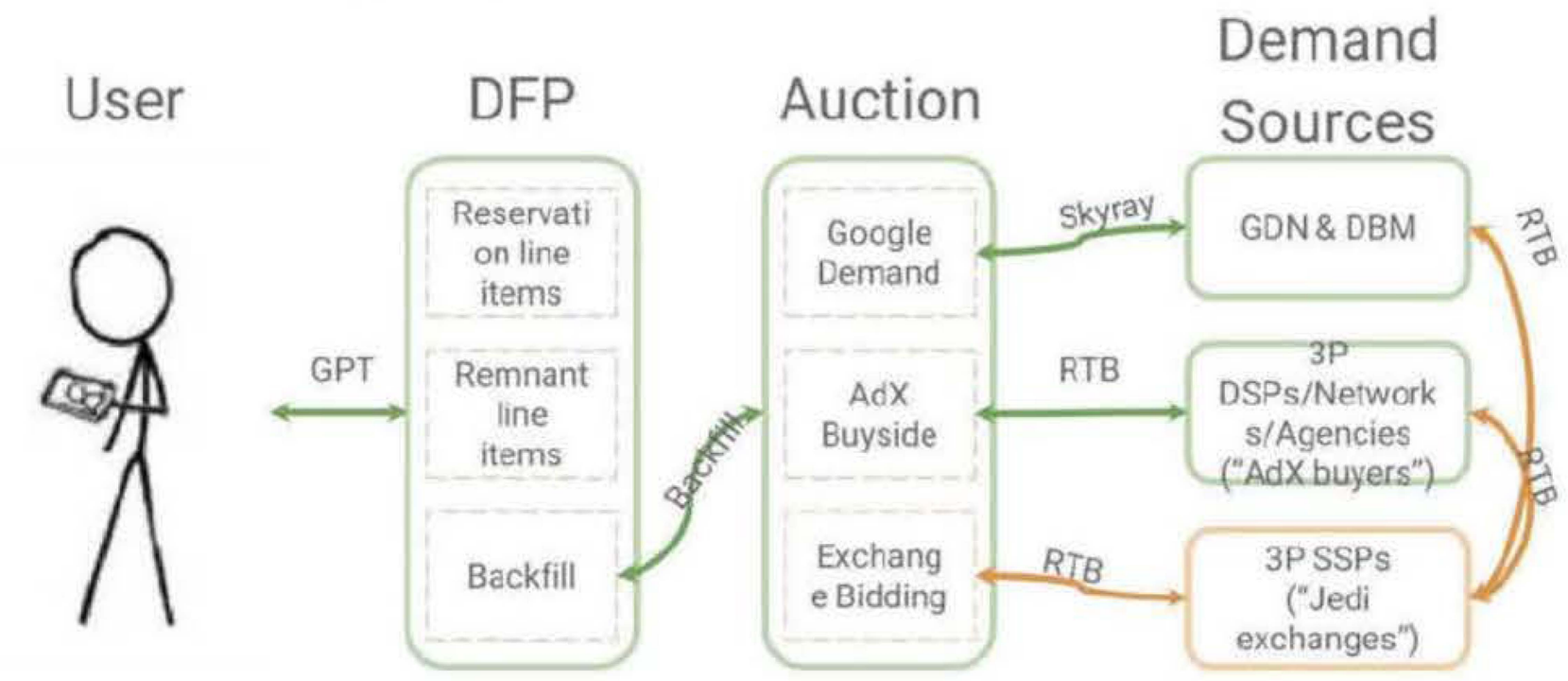
HB buying models are rapidly changing

- Remnant ("price priority")
  - Does not compete with DFP reservation sales
- Remarketing
  - Competes at price and reservation priority
- Programmatic Guaranteed
  - Competes at sponsorship/reservation priority
- Video

*PBS Revintel, May '16

DRX response to HB is Jedi (Exchange Bidding): structurally similar to HB

Green = exists today, Orange = new product



Jedi Status (alpha)
- 10 Pubs
- 3 Exchanges
- $20k/day

Jedi Status (Beta)
- 120 Pubs asked to join
- 7 Exchanges signed
- Begin Q4

Jedi Status (GA)
- 150 Pubs Interested
- N Exchanges
- Begin Q2/17

Key differences between HB vs Jedi

		HB	Jedi
Revenue Share	→	0%	5% sellside only
Latency	→	500ms+ (pub controlled)	50-100ms slower than AdX
Policies	→	N/A	Platform policies
Creative Review	→	No review before serving*	No review before serving
Inventory Access	→	Publisher Specified	Publisher Specified
Billing	→	Publisher collects	Google collects

Google

FAN is growing in App and mWeb, has now announced HB

Announced: Facebook will integrate with mWeb pubs via Header Bidding (*Ad Exchanger article*)

FAN is growing rapidly, and there is no good reason for a publisher to not work with FAN.

- Volume has grown 3x since March, but current data based mostly on anecdote
- At the end of Q2, **300 pubs in DFP across LPS and OPG were using FAN**
- **75%+ of the ACM 100 use FAN, touching 89%+ of the opportunity in the list**
- **40% of line items are set up in reservation band, breaking DFP's EDA allocation algorithm**
- Perceived as high value, low fill because of need for logged in user

FAN is using header bidding to facilitate expansion from mApp to mWeb

- FAN for mApp -- high prices good performance. Fill depends on logins, so FAN is/was participating in mApp mediation -- ***breaking news today that they may be backing out of this, we are investigating.***
- FAN expanding to mWeb -- also has high prices, so pubs want to use FAN.
  - Challenge is low fill because fewer FB logins on mWeb than in mApp.
  - FB asked how to do passbacks in DFP. We do not support it.
  - FAN is not a buyer on the Ad Exchange (we have not offered / they have not asked)
  - They have turned to HB as their solution of choices

Response options

Could be pursued in addition to one of others

FB, A9 etc. as AdX buyers (not Jedi participants)

FB as RTB buyer in AdX auction, like Criteo is now.

No current ads negotiations with FB.

Pros

- **DRX: Full control of channel.**
- FB: Can buy in DFP First Look (better inventory access).

Cons

- **DRX: Leak data for use to bolster HB.** With full inventory access FB could learn which publishers are valuable.

FB, A9 etc. as Jedi participants

Puts FB on relaxed policy and with different auction dynamics.

Does not give as broad inventory access as AdX does (yet).

Pros

- **DRX: Option of positioning EB as transparent and "good for ecosystem".**
- FB: Fewer policy restrictions, lower revshare.

Cons

- **DRX: Impact on sell side margin.**
- DRX: Opens door for other networks like Amazon and Criteo to ask the same.

Aggressively make Exchange Bidding much better than HB

Make our solution clearly preferable to publishers, even if it increases competition / lowers our sell-side margin.

Pros

- **DRX: Could deflate header-mania.**
- DRX: "Better" path (more competition, less latency) creates publisher advocacy.
- DRX: Erodes LTV of HB: disincentive for building out new tech.

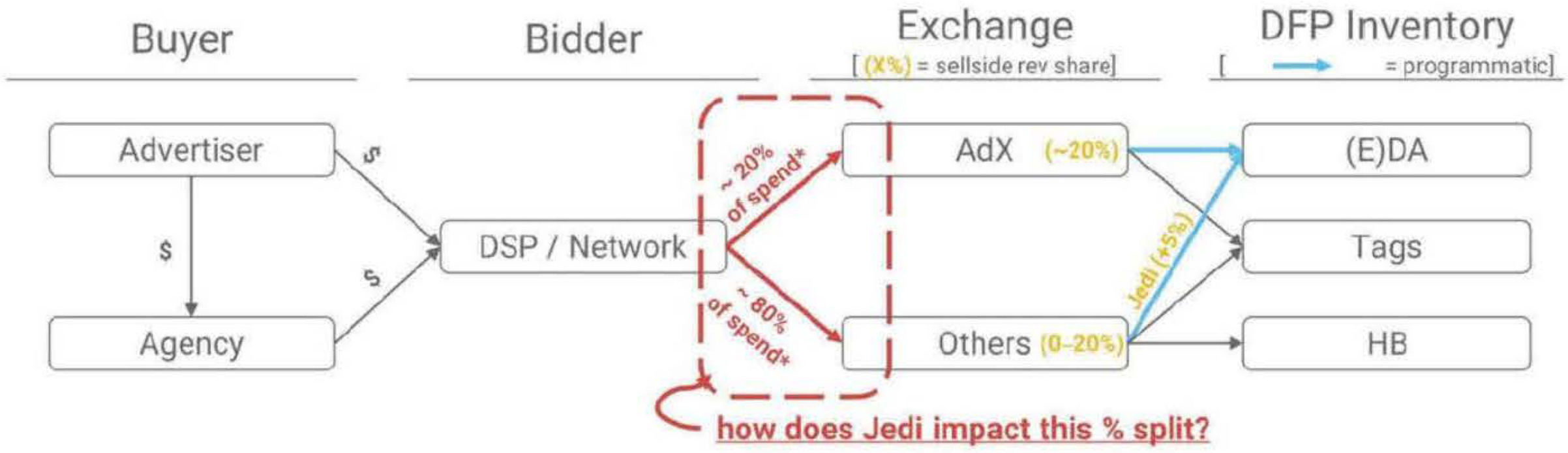
Con

- **DRX: TBD whether growth in EB would offset shift in win rates from GDN/DBM/AdX buyers toward EB partners.**

APPENDIX / BACKUPS

Evaluating impact of EB on AdX business

BACK



Potential measurement approaches we plan to explore:

- Compare AdX vs Jedi creatives to guess root DSP/Network on Jedi traffic, then monitor DSP/Network spend on AdX vs each Jedi exchange over time
- Holdbacks on AdX & Jedi to see how avails on one impacts spend on other

Google

* 20/80 is typical split today based on anecdotal feedback from tier 1 AdX buyers

FB header implementation

Anecdotes on setup suggest RMKT-like strategy for exclusive “first look”

- Header responds with Y/N, rather than a price
  - DFP LI that matches “Y” using calculated/predictive CPM but really just CPC
- DFP data shows most HB line items in reservation band

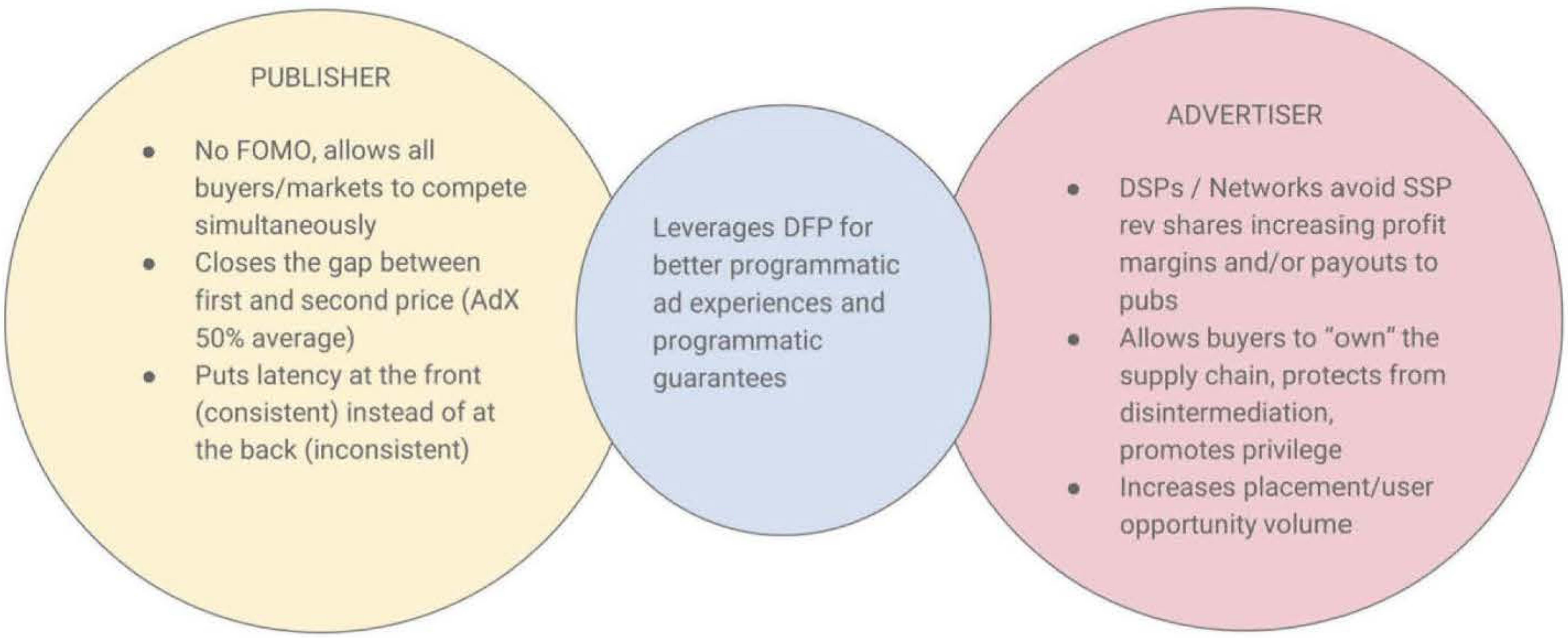
Type of Header Bidder	DSP / Network	SSP / Exchange
Examples	FAN, Criteo, Amazon	Rubicon, OpenX, AppNexus, Index
Buyer Goal	Identify and target specific users at highest DFP priorities	Inject real-time prices to influence DFP logic and compete with AdX
Reasons for Header Bidding	Can be booked at high DFP priorities and make impression by impression deicsion on whether the user is valuable Bypasses exchange rev share generating higher profit margin and/or pub revenue	Header call allows for real-time injection of accurate CPM. Levels the playing field with AdX. Pubs make more money with multiple exchanges than AdX alone
DoubleClick Response	DFP First Look allows pubs to slot AdX Buyers at highest priority in DFP. $220M ARR; $8 avg CPM	Exchange Bidding provides server-to-server solution for SSPs/Exchanges to bid and compete in real-time against AdX via Dynamic Allocation In Alpha. Working with 6 exchanges. Transaction volumes are low due to early stage of product and on-going discussions with Exchanges
FAN Impact	Criteo and Amazon have remained must implement header bidding partner for many pubs despite First Look efforts. FAN embracing header bidding means this trend is not likely going away any time soon.	Need to determine if pubs are more or less likely to encourage Exchanges to buy via Exchange Bidding
Next Steps	Continue BD conversations with FB encouraging them to buy on AdX	Determine if we should alter Exchange Bidding policies and pursue FAN as a partner

Resources

- Jedi
  - Q2 16 Jedi update
  - Q4 15 Jedi update
- FAN
  - mWeb FAN feedback (not filled yet...)
  - FAN feedback sheet
  - DFP + FAN tracking sheets
  - Pub POV on FAN expanding to mWeb (03/2016)
  - 2017 Annual Planning Facebook Refresh (08/2016 - PBS Deck)

RECAP

Why does header bidding exist?



Jedi vs. HB

	HB	Jedi
Cost	Low	High
Deals	Yes	No
Volume of demand partners	High	Low
Configurability	High	Low
Restrictiveness (policy)	Low	High
Restrictiveness (execution)	Low	High
Transparency	High	Low
Buyer integration difficulty	Low	High
Seller integration difficulty	High	Low
Payment simplicity	Low	High

Header Bidding: collect bids from multiple sources (eg. SSPs) before calling an ad server (eg. DFP)

Header bidding is implemented by putting code in the header of the web page that calls sources of demand simultaneously to collect prices. The prices are passed into the ad server and used in competition with AdX buyers.

- **Buyers like it** because they can secure their own supply with tags on publisher pages.
- **Publishers like it** because it makes them more money - competition between aggregators of demand (SSPs) is increased, pricing is more accurate.

Latency is the drawback for publishers we've focused on so far.

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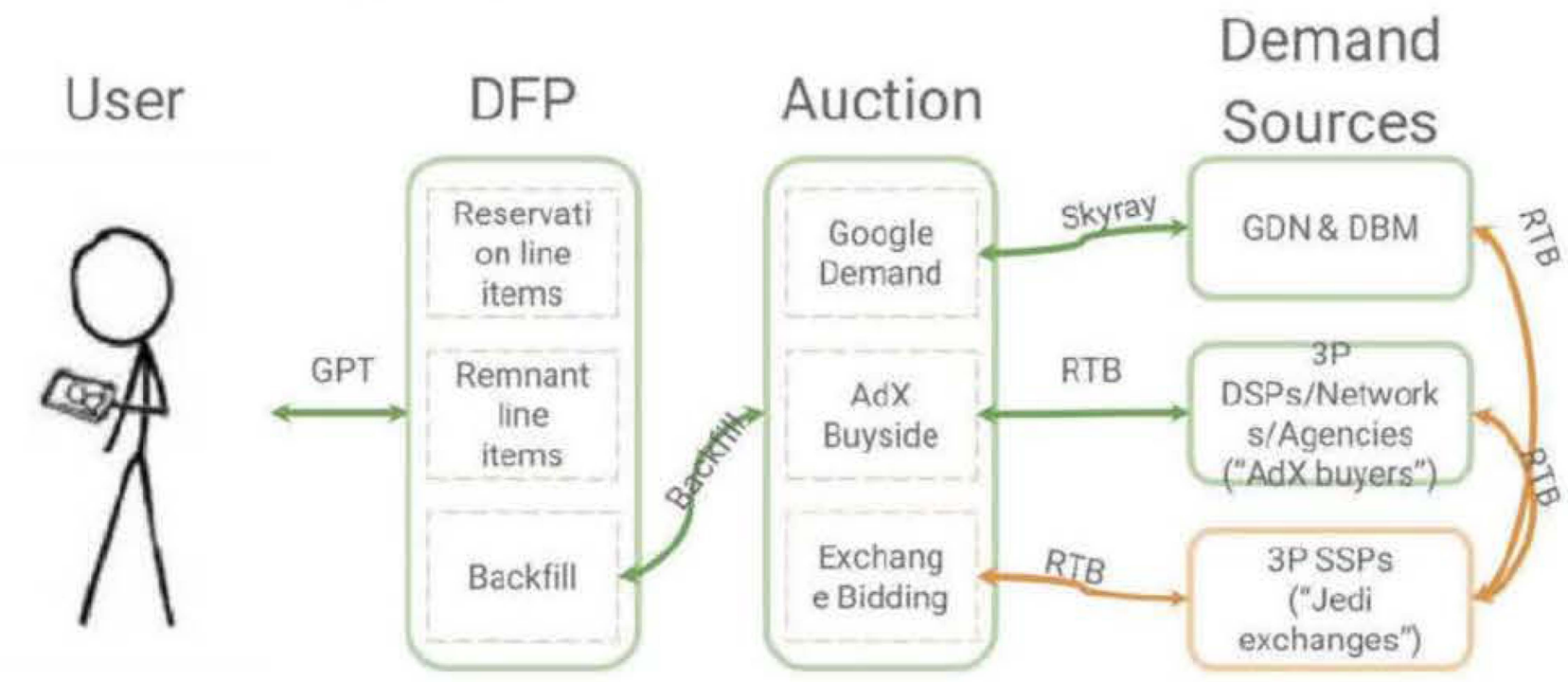

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Inventory Access	→	Publisher Specified	Publisher Specified
Billing	→	Publisher collects	Google collects

Response options

- **FB, A9 etc. as AdX buyers (not Jedi participants)**
  - No current ads negotiations with FB.
  - Pros: Can buy in DFL First Look
  - Cons: Facebook could learn which publishers are valuable and then pull them out to HB
- **FB, A9 etc. as Jedi participants**
  - With Jedi, FB subject to platform policy, not AdX policy. Auction dynamics different (1st vs 2nd price), and different access to DFP inventory (all backfilll vs selected for Jedi by pub)
  - different auction dynamics (2nd vs 1st price)
  - Impact on sell side margin?
    - DSP already going for lower margin with HB
  - Pros: Option of offering greater transparency, positioning as "good for ecosystem"
  - Cons: Opens door for other networks like Criteo. Currently against Jedi policy.
- **Aggressively make Exchange Bidding much better than HB**
  - Pros: 1) "Better" path (more competition, less latency) creates publisher advocacy 2) can deflate header-mania 3) Disincentive for building the channel 4) Erodes LTV of HB
  - Cons: Unknown impact on business

Notes Summary:

Slide 2: 'Header bidding is implemented by putting code in the header of the web page that calls sources of demand simultaneously to collect prices. The prices are passed into the ad server and used in competition with AdX buyers.

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Publishers like it because it makes them more money - competition between aggregators of demand (SSPs) is increased, pricing is more accurate.

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Slide 6: ''
Slide 7: 'How to make EB better:
- more signals
- even lower rev share
- better cookie matching (we don't need to worry about Google data leakage if pub handles cookies with only, say, Rubicon)'