Sell side BFM Deck

GTM/PSL talking points:
- AMS talking points (Bonita)
- EMEA briefing
- APAC talking points
- OPG talking points (Scott)

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GLOBAL NARRATIVE (Chris - black text to be spoken, grey text as back up info if needed**)**

[SLIDE 6] OPENING REMARKS: As the first BFM for the sell-side our primary goal for today is to align on the framework for how we will manage the sell-side business in 2018. We will not discuss any deep dive topics (as is customary). Essentially our deep dive topic is to align on how we'll manage the business in 2018 in this forum.

Before we get into the details, let's level set on the principles that led to the decisions we made on what to track here.

- Primary goal is provide fair access to GDN/DBM to inventory so we can maximize adv spend
- Our approach for doing that is to
  - gain access (be the ads decision logic for pubs)
  - See: ensure GDN/DBM and 3rd party buyers have the opportunity to bid per query in real time
  - Win: optimize our chances of winning where Google inevitably drives revenue and margin with 20 to 32% sell-side take rates depending on whether Google demand wins or not
- Accordingly, we've chosen 6 product adoption metrics that are leading indicators of our ability to access, see and win.

[SLIDE 7] The sell-side is a $4.1b business (trailing 90 days) and we will track progress by region and channel, as is customary. But a perhaps more important frame is to ensure we are looking at an 'inventory' view of the business specifically the 4 tranches of inventory that we seek to acquire and manage: Web, App, Instream Video and Search. These tranches of inventory have different industry and competitive dynamics, different types of partners with different business models and different technology challenges.

[SLIDE 8] Sell-Side revenue metrics slide
- **Display Web**: Our Web business is our largest and most mature , with a global growth rate of 7% y/y.
  - This is a tale of 2 cities as a business that is in transition from the desktop to mobile.
    - CT ($1.2b) declining at -1% with most regions and channels declining or stagnating with the exception of EMEA LPS, which is seeing 14% growth Y/Y on the back of a growing News vertical
    - mWeb ($.9b) growing at 20%. mWeb growth is strongest in AMS and EMEA in both LPS (~40%) and OPG (~20%)
  - APAC LPS declining at -6% YoY due to -15% drop in queries and -14pp drop in

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Fill Rate, with 70% of decline coming from Japan.
        - Increased SSP competition (eg Rubicon, OpenX);
        - Disproportionate impact of Apple's ITP (Intelligent Tracking Prevention) in Safari given high vol of re-marketing (60% of Rev) and high iOS share (51%);
    - AMS LPS is lapping a strong election year, which is dragging down growth rates
    - Summary:
        - Although 7% is reasonable we should expect to face headwinds as user preferences change (web to app) and as the migration from CT web to mWeb does not translate as a 1 for 1 replacement of revenue, in part because ad density is lower in a web environment and the mobile ad unit eCPMs tend to be lower than desktop.
        - The silver lining, is that we have an opportunity to win share as more of our publishers' inventory is made available to Programmatic (e.g. higher see, win rates, or Deals)

    - ONLY ADDRESS IF ASKED:
        - APAC's decline is primarily attributed to
            - OPG: Major driver (according to Glengarry dataset) is Web traffic itself with LPS growing PV's at 5% while OPG is seeing a decline of -2.5%. Desktop is shrinking faster in OPG (-26% vs. -19% for LPS)
            - APAC LPS Additional commentary
                - Unexpected traffic drops (Kobe Shimbun, KDDI, NTT)
                - Other mkts are also impacted by competition (AppNexus in AU, FAN in SEA) and user/demand shift to mobile (Yahoo in SEA, iFeng and NetEase in CN)
                - Recovery actions: New Deals (Fairfax, Docomo, GDT); Product Activation (ITP response, Exchange Bidding) and Sales Actions (account optimization)
        - AMS 15% growth is driven by...65% of web revenue still from Desktop, growing at just 1% YoY. Mobile 35% of web revenue growing well at 40% YoY. Lapping strong prior period which includes Olympics and US Presidential election.
        - LPS EMEA outperforming because of strong growth in News on Adx (driven by direct-to-programmatic conversion) which is growing 39% Y/Y.. News represents 55% of EMEA LPS revenue and 67% of growth. Key growth partners include the Guardian (79% Y/Y), Ströer Digital Media (91% Y/Y), ItaliaOnline (85% Y/Y) and Bertelsmann (42% Y/Y).

- **Display App**: Our App business continues to perform well, growing at 54% y/y on a large base of $1.0b.
    - The apps business is largely an APAC driven export business (50% is APAC)
        - By "export" I mean driven by developers creating games and utility apps for highly-monetizing global audiences. A similar trend exists for large game developers in Europe, but not to the same degree as APAC.
    - A few other highlights worth noting
        - The recent policy decision related to "Lock-Screen" inventory will take about $340M off APAC x-channel growth (mostly in CN), so we should expect to see lower growth rates in 2018 (mApps APAC 2017 x-channel growth was 69% vs fcst of 20% in 2018 - note this is based off bottoms up

estimates - per David H.)
        - **CPMs increasing (imp +27% vs revenue +54%)** as we continue to migrate off banners to higher CPM formats, interstitials, rewarded and native
    - **Our primary growth will likely come from Gaming** is increasingly becoming a strategic area of investment for us in Apps and is proving to be highly monetizable inventory both in performance, but also increasingly becoming a brand opportunity for advertisers, with 15% of the revenue coming from video formats.
    - **Our achilles heel is that we lack a presence monetizing 'social' inventory,** where users spend a large portion of their time. However recent deals with Twitter ($100M+ in 2018) and Pinterest ($50M in 2018) are foots in the door. Both are early in their implementation.

    - ONLY ADDRESS IF ASKED:
        - AMS [Bonita]. Lower than average growth rates driven by Zynga, who paused, but has turned us back on
        - 34% of our app business is from games, 42% from utilities, 10% from communication/social, 5% Music & Audio . The remaining 9% from smaller categories (such as travel, health....) Break down here
        - OPG APAC: current growth ex Lockscreen ~50% Y/Y; particularly strong performance around native in China - some of which will disappear due to Lockscreen. In general. Native is a very top heavy business, the top pub in OPG APAC is responsible for ~15% of total native rev in OPG APAC
        - LPS APAC: Growth coming from G6. Four of the top 10 apps accounts globally are G6 publishers - Kingsoft, iHandy, Apus, Jiubang. APAC (LPS+OPG) contribute 53% of global App Revenue on AdX and Admob. Increase in Revenue primarily due by increase in queries, due to expansion of large volume, low CPM lockscreen inventory; Lack of apps inventory in Japan is hurting the business with majority of inventory generated by a few publishers: LINE, SmartNews and gaming publishers. Efforts are in place to pitch our native and rewarded solution.

- **Premium Video**: We are taking an 'inventory' approach to this view and this column reflects 'instream' formats on 'instream' video content, the closest thing to a TV commercial experience we have. There are video 'ads' running alongside other non-video content that is included in both the web and app columns. Accordingly, this view will not match your buy-side 'video revenue' exactly.
    - This part of our business represents a large growth opportunity, but is highly competitive and difficult to make traction quickly, as much of the inventory is directly sold by publishers and not broadly available to programmatic buying.

- ONLY ADDRESS IF ASKED:
    - OPG: .Publishers Clearing House, LittleThings, and OnDemand Korea are some examples of our video publishers. Unfortunately, there are few substantial pureplay video sites in the OPG segment of the market. Much of OPG's revenue is driven by a "legacy" NPM video business which we are taking a hard look at given inventory quality concerns in conjunction with Trust & Safety.
    - APAC LPS: 70% of revenue is concentrated in AUNZ (Yahoo, Telstra, SBS). Growth driven by high CPM PG deals (~25 CPMs) and slight increase in

queries. AUNZ product adoption at a whopping 23% (2x global XC and 4x LPS AMS) - market characterized by mature publishers, high dfp penetration, highest Video CPMs globally and agency/publisher appetite to transact via PG for Video.; Our pitch for Video has been largely centered on the promise of DAI which is still far from fruition from a product perspective. 2018 growth in Video will largely come from increasing PG Video adoption via a revived sales strategy for LPS and increased buy-sell collaboration with corresponding buyside teams (DBM).
   - EMEA LPS growing strongly on the back of wins with major partners (business is top heavy, with the 10 largest partners representing 60% of revenue and 75% of growth). Key wins with partners in Israel, France, Italy and Middle East.
   - AMS LPS: Top 5 pubs (Synacor, CBS, Fox, IBM, Time Warner) account for 55% of revenue YTD

- **Search**: The traditional AFS business (e.g. portals, downloadable applications) is mature and in a slow decline at -2%, primarily driven by lower desktop queries, Google product/ policy decisions and shifting priorities of large commerce players who are looking for vertical-specific formats like AFsh and solutions that complement their core transaction business.
   - This is a highly concentrated business, so at any given time a small # of large partners will drive fluctuations up or down.
   - Although this remains a material portion of the sell-side revenue, we have decided to **not make search a focus of this BFM.**
   - ONLY ADDRESSED IF ASKED:
      - EMEA LPS growth mainly due to Vinden and Team Internet (a German based AFD partner). AFSh is also growing from $2m ARR a year ago to $25m ARR today
      - AMS: -11% decline
      - The eCommerce business is currently a $1.0b annual business with another $1.0 addressable.

[SLIDE 9] Transitioning to an 'educational' section of this BFM, I'm sharing a purposely detailed version of our 'access, see, win" framework to demonstrate how see and win rates vary by inventory type and publisher front-door (DFP, AdSense, AdX Direct and AdMob)

Key Takeaways from this slide:

1. **When DFP is the ad server, we have the best opportunity to fairly compete with all other demand sources.**
    a. We don't see 'everything' as some portion of a pubs inventory is held back for direct sales or given to other networks ahead of AdX (e.g. Criteo remarketing)
    b. We see ~70% of queries and win ~40%+ (and both these rates have been increasing in recent years)
    c. EXCEPT In the Video environment, see and win rates drop as more inventory is held back to be direct sold by pubs and there is more competition for the inventory.

2. **In the App environment, when AdMob is the mediation platform we see higher see and win rates** *(caveat that these are estimates from PM as we lack reliable dashboards for comparable comparisons to DFP)* as the typical AdMob customer looks different than the typical DFP customer, with less 'direct' advertiser relationships and a different demand mix - so it is not an apples to apples comparison.

3. **When AdSense or AdMob are the only demand sources called the results are self explanatory** - we see 100% and win nearly all the time.

4. **When AdX or AdMob are served through someone else's decision logic (represented as outside of a gray box in the slide) then we are disadvantaged.**
    a. For Web, this is a relatively small % of the business
    b. For App, depending on how you cut the data, 25% to 50% of our business flows through 3P mediation players like MoPub
    c. And for Video we face a similar challenge with roughly ⅓ of our business through 3Ps, primarily FreeWheel as the dominant player

5. **Concluding point:** Although there is an opportunity to grow platform penetration, this slide also highlights that there is ample opportunity to **drive revenue growth by growing SEE and WIN RATES** on the inventory where we already have access.

- **Important to note here, these #s are not meant to approximate market share.** This is a known issue that we've been trying to solve for a while but has challenges given the requirement to leverage 3rd party data that is constantly in flux and suspect. We will continue to work on this heading into 2018.

- ONLY ADDRESS IF ASKED:
    - Worth noting is that Google Demand (GDN and DBM) win rates are a subset of this and should also be a consideration as we manage the business because when our buying pipes transact on our selling pipes is best for advertisers (better cooking matching and relevancy), best for pubs (better latency, higher eCPMs) and best for Google (better margin taking buy and sell side revenue share)
    - Definitions:

- our decision logic is on the page - defined here as "**Access**"
- AdX demand has a chance to "**See**" or bid on the inventory programmatically - on a real-time, per query basis (which would include GDN, DBM, 3rd Party Buyers, and more recently, other SSP demand).
- AdX demand has a chance to "Win" which inevitably drives 20-32% margin.

- **Market Share if asked:**
  - **Web**: per OPG analysis, estimates that we see **75% of web inventory and win 38%**, so there is still opportunity to win more.
  - **App**: 70% of the apps business is tied up in O&O (like FB and YT), and the remaining 30% is the Network Apps business. Of that part, Google **has ~20% (of the 30%)** share (when we win) - *rest goes to other networks, including FAN, other app-specific networks, directly sold*. There is also room to grow here.
  - **Video**: Of the ~$11b ($9b of OTT and $3B addressable) addressable video opportunity (excluding O&Os like YT, Hulu, AMZ) we have ~5% share (win rate). The broader market is bigger
    - $183B TV
    - $34B digital video (that includes YT and FB)
- In terms of platform coverage vs. the competition, OPG estimates ~70% of T1 and Channel Partner pubs are using DFP for Web while between 20-40% of T1 Apps Partners are using Google mediation depending on the ad format. We are aiming to solidify similar LPS metrics in the coming year. (Regional OPG details are on Appendix slide)

[SLIDE 8] So with that intro and context, let's review the 6 product adoption metrics heading into 2018 that we believe are the most critical to track to ensure we make progress on driving access, see and win rates. (EMEA support for the metrics)

The first 2 Metrics (Prog Direct & Exchange Bidding) **are tied to the evolution of the platform from 'old tag based technology' to new 'programmatic technology' to ensure we retain and grow FAIR ACCESS to inventory.**

<u>**Programmatic Guaranteed**</u>

- **WHY?** 2 reasons
  - 1. If we move tag based transactions to programmatic, we increase our ability to buy it programmatically
  - 2. There is a revenue and margin play. We estimate that $11.2B of direct sold dollars are currently running through DFP on the old 'tag' based technology. We currently charge an ad serving fee that approximates 0.5% of revenue (rev share equivalent). We have the opportunity to extract as much as 5% (sell-side only) on these high-value CPM campaigns. Even if the 5% pricing doesn't hold for the long term, there is room for growth.
- **HOW? Tracking % of a partner's direct business that is programmatic (depth metric)** WHEN a publisher is using PG, looking at the ratio of PG queries to all direct sold queries. Although we are early stages, we are interested in increasing PG share once a partner has chosen to transact this way.
  - **Goal:**
    - Ultimately: up to 70% (given part of the direct sales might not be addressable by Google (e.g. due to specific formats we will not support for example)
    - In 2018: 3% ($301m PG target / $11.2b addressable direct sales)
  - **Calculation:** # of PG MQs / [Direct Sales MQs (tags) + PG MQs for any pub that is using PG]
- BACK UP INFORMATION
  - Why would pubs be willing to pay a 10x effective fee?
    - 1. greater efficiency (less people / costs to traffic campaigns)
    - 2. we do the clearing/billing/etc (including carry AR risk) and
    - 3. and most importantly....better matching and better use of ad $$ for marketers.
  - Value to Marketer and Pub: Continued investment in prog ad serving across ALL deal types will help reduce waste (better audience targeting) and set us up to bring GAIA keyed serving to marketers on the display/video network, and PG adoption is REQUIRED to do this. Revenue estimates of how much direct sold spend will be prog by 2020?? [aks Pooja]
  - **PG:** 16B in in direct sales on DFP out of which 30% is non-addressable -> 11.2B gross rev (net expected 5%). 2018 Growth should be 75%-100% while direct sales in the market stay steady.
  - Outside of DFP, there is some non-estimated opp in other video ad servers (Freewheel being the most relevant) and display (AppNexus).
  - Currently we have 636 Global LPS publishers. 2017 YTD we have 265 publishers who have run PG deals (42% of LPS pubs are using PG). PG Data Source: https://docs.google.com/spreadsheets/d/1DFoOO36bgloJR9xlu4fCEXdh9Hs2nG-Xe0rwPSU8gFI/edit#gid=792050091
  - **Currently:** ($100 Mio captured YTD) - represents about 3% of AdX revenues -

source: OPG Q3 QBR

Exchange & Network Bidding:

- **WHY?:** Similar to PG and direct sales, there is a large portion of inventory sold via networks and exchanges that is transacting non-programmatically in the ad server. There is ~$5.8b of ad spend flowing through DFP that we believe we can become programmatic.
    a. The rise of header bidding, when pubs call other competitive networks and exchanges, like AMZN, FB or Rubicon, outside of the ad server, is exacerbating this problem. This is an issue because:
        - when HB is used, we are NO LONGER the 'decision engine' as RTB decision starts outside the ad server, even when DRX is used, eliminating our ability to take a revenue share.
        - our ability to ensure AdX has a fair look at the inventory in real-time.
    b. This is posing something of an existential risk on our sell-side business and there is a risk that **DSPs, in addition to networks and exchanges, ALSO bid in header tags**, putting much of our AdX revenue at risk.

    Exchange and Network bidding is a product to allow pubs to put all of this demand - other exchanges, DSPs, networks - in competition with each other in real time which should drive auction pressure for pubs and maximize their yield.
- **HOW? Tracking publisher adoption rate (a breadth metric):** We are tracking pub adoption even though we are early in adoption, as we believe that we will need broad publisher adoption of EB to influence all exchanges to participate. So it is more important now to get broad participation then going deep with existing partners.
    - Goal:
        - Inevitably: 100% (we'd like all partners to start using EB)
        - 2018:
    - Calculation: # of Indirect Matched Queries served in DFP by partners who have enabled EB / # of Indirect Matched Queries served by DFP
- BACK UP INFORMATION
    - **Currently**: 206 pubs with 14 exchanges ($86M captured YTD) with an ARR of $260M - represents about 4% of AdX revenues - source: OPG Q3 QBR
    - EB: Most of the$ 5b opportunity is still tied up in traditional line items transactions (avg price). Both Google and HB are going after this same opportunity.
    - Two sources of opp: defend Publishers with HB who **unfairly disadvantage AdX** by **booking HB LIs at Standard Priorities** (instead of Price Priority) and/or using correct **sub-optimal HB LIs pricing granularity** in DFP.
    - Possible question / answers but NOT part of narrative: Why not have DBM bid via header tags? Reason:
        - DBM should perform better for advert and publishers when on same stack (latency, cookie matching, etc)
        - DBM on AdX = higher margin for Google
        - DBM should NOT want bids mediated through FB or AMZ header tags
        - If DBM could buy with different margin structure, then worthy of exploring more direct (in fact, this is the purpose of the 'demand product')

The product adoption metrics to drive 'win' rates are primarily 'format focused' with 3 of our 4 specifically MOBILE FORMAT FOCUSED. For all of these metrics we are looking at depth metrics - specifically revenue from the format as a % of the relevant total revenue in the

Commented [1]: +browley@google.com +carmengh@google.com
Bryan - can you help me create a target that is reasonable for 2018. I know 100% is utopia, but what could we expect here in 2018?

Also, is 100% achievable in theory, or are there pockets of demand that would never transact this way because of technical or other limitations. Please address this on Monday AM as a priority.

Thanks!
Chris

Commented [2]: Given the way we are calculating the metric, I do believe 100% is achievable but it is true there may be some pockets of inventory we do not get access to. Our calculation does not address that.

Working on the 2018 number. Will have it tomorrow.

Commented [3]: friendly ping!

denominator, which varies by metric.

Native Web:

- **WHY?** Our ability to remain relevant in the transition from desktop web to mobile web will be tied to our ability to capitalize on the migration from banners to native as ad formats that better match the look and feel of the content it surrounds. The near-term rough opportunity for native web is a combination of 'pure play' native networks (e.g. from native only networks like Sharethrough and Triplelift - $300m ish) + incremental lift as we shift from banner to native (~$700m ish). However, the real opportunity is much larger if all banners are replaced by native in the long-term.
    - The definition of Native Formats for this review is 'component based' ads where the publisher can format the ad real-time to match the content of the page.

- **HOW:** We are tracking the % of revenue that comes from native eligible inventory slots (depth metric) as a proxy for how well we are doing activating publishers to build for native.
    - **Goal**: Ideally, we could approach 100% of revenue from Native provided that native performed better than banners. 75% is appropriate goal for Native + Hybrid in interim as the supply/demand dynamics normalize.
        - 2018 Goal: [still WIP] We are estimating $400-500M captured rev (vs. $55M today/ Q4, or $255M ARR).
    - We have chosen a depth metric to measure access, where we've convinced a publisher to call native demand OR native hybrid (which includes banners demand and native demand). The reason that we did not chose pure native, is that native eCPMs for publishers does not yet perform as well as non-native, so our goal is to convince publishers to invest in 'hybrid' - where both native and non-native can compete
    - **Calculation**: Revenue from Native or Hybrid / Revenue from AdX/AFC on web (native + banners)
- BACK UP INFORMATION - see "Why?" above
    - We are investing in mobile first formats because:
        a. Desktop web usage declining (OPG data) in favor of mWeb and mApp
        b. Although mobile web growth is flattening, it is still relevant, and aligned with broader Google strategy (e.g AMP, AMP ads, PWA, etc), so we are tracking it here
        c. Native and Rewarded are prominent 'mobile app formats'
            i. Games: High growth segment; untapped opportunity to create new ad inventory with games that have only done in-app-purchase as revenue stream
            ii. Social: Native required to win whale deals in social (e.g. Pinterest, etc). Google fighting for remaining social scraps outside of FB and Instagram
    - Aggressively, 2018 is in order of $1B opportunity for incremental revenue - if we increased the % of our business that was native-enabled (instead of display/ text) and everything that was native-enabled saw CPMs go up 20% - and we won a quarter of biz from pure-native competitors
        - AdX: from 15% hybrid to 70% hybrid, and 20% CPM lift on that: $900M
        - AdSense: from 5% native to 20% native (not text/ display) and 20% CPM lift on that: $150M
        - If we got 20% of estimated total biz of ShareThrough & TripleLift: $50M

- Revenue Currently: as of 11/22, for last 28 days: $225M from AdX, $160M from AdSense = Ttl of $385 ARR

Native App:

- **WHY?:** FAN is the market leader in 'native app, as their network ads are mostly 'native' (component based) and app inventory is more likely to be 'born' native, hence growth in this format will be a driver to grow app market share for buy and sell sides. Excluding O&O inventory, the estimated market oppty is $2.9b of 'native app revenue' flowing through networks
- **How:** Similar to Native Web, we are tracking the % of revenue that comes from native inventory (depth metric) as a proxy for how well we are doing activating publishers to build for native, although the calculation is slightly different.
    - **Goal**: 30% in 2018 (= 2018 native target / 2018 (native + banner) target).
        - In the long term, we aim for this metric to hit 50-70% depending on the portfolio of partners in each country/region and how aggressive/tolerant their markets are with regards to user experience and ads embedded in content)
    - **Calculation**: Revenue from native formats / revenue from all apps (excluding interstitials and rewarded, which are not likely to transition to native)
- BACK UP INFORMATION
    - Revenue Oppty: There is an existing $2.9b annual market opportunity in native 3rd party network revenue [i.e. not O&O] (poised to grow meaningfully as more banner ads move to native formats)
    - Currently we are at a $0.6B ARR (as per go/native-matrix). The goal for 2018 is $651M (captured rev - Apps BP).
    - The definition of Native Formats as 'component based' is consistent with web
    - Market Size for **Native apps** varies from $2b (internal estimations) to $2.9b from 3P estimates IHS Technology the future of mobile advertising: 2018 Native 3rd party in North America $1.5B, EMEA $0.6M, APAC $0.8M)
    - Current revenue - Native app runrate
        - ARR Native App Ttl: $640M [AdX: $246M, AdMob: $394M]
        - All stats 7-day ARR as of 11/22

Rewarded Ads:

- **WHY**? Our apps network business is heavy in gaming inventory and we are placing a big bet on mobile games as a means of remaining relevant in apps and to ensure reach across multiple demos (gaming not just for men 18-34 anymore as casual gaming is on the rise). The Rewarded ads market is a $1.9b opportunity and a growing. A strong rewarded ads offering can get gaming apps to create *new* inventory, where they might be just relying on in-app-purchases today

- **HOW? Similar to Native, we are tracking the % of revenue coming from rewarded (depth metric)**
    - **Calculation**: We will benchmark ourselves against our 2018 goal and against the industry benchmark,
    - **Goal**: In 2018 we are expecting to generate $391M in rewarded out of a total $4.9B in apps - this is 8%. The current rewarded market is estimated in 1.6B (source: project Contra) out of an apps addressable business of 12B (source: OPG analysis) - this is 13%.

- BACK UP INFORMATION
    - Currently we are at $110M annual runrate (as per go/rewarded-rev) - goal for 2018 is $391M (captured rev - Apps BP)
    - **Rewarded** estimations and Project Contra
    - **IDEAL METRIC BUT NOT POSSIBLE WITH EXISTING DATA**: Benchmark ourselves against our Playstore data, looking at the Apps in our network that use Rewarded ads against the Apps in the app store that use IAP.
        - IAP revenues from Apps using AdMob Rewarded / IAP revenues from all Apps using IAP in Play Store
        - **Goal**: 100% We should be able to approach 100% of Apps that use IAP to also use rewarded

And lastly....

Video Instream:

- **WHY**: The instream video opportunity in 2018 is estimated at about 11B ($9B from OTT and $3B from addressable TV).
- **HOW**: We will look at the % of revenues from video content for those partners using AdX Video.
    - **Goal:** The ideal # depends on the mix between partner types (broadcasters vs news, for example), so no one target will work for all regions. However, what is important to track is growth rates across regions - are we gaining more access to this premium inventory or not - it should be higher CPM and impact the numerator positively. Rough estimate is that should be between 10-20%
    - **Calculation**: Gross revenues from Instream from AdX / AdX Revenue from Partners using AdX Video (not just DFP)
- BACK UP INFORMATION
    - We chose this metric over increases in DFP platform penetration as DFP video flips from Freewheel and other video ad servers will take much longer and will not have material movement in the short-term.
    - slide on video estimations
    - The instream video opportunity in 2018 is estimated at about 11B ($9B from OTT and $3B from video instream). This number represents the TV OTT ad spend. There is additional non TV instream inventory that would sit somewhere between 4-10 B.
    - The target for the metric is obviously not 100% as partners with video content will have display as well but we expect the monetization of the video content to become more prominent.
    - The video opportunity in 2018 is estimated at about $20b (both instream/outstream). The main two parts are: TV OTT (instream) at 10.6 B and Other non TV sites (both instream and outstream) at 13.1 Bio. Additionally, the ad spend on FB (mostly outstream) will count for 11.2 B (these budgets could potentially flipped to Google as well but are not count as part of the opportunity).

[SLIDE 9] COMMENTARY ON ACTUAL PROD ADOPTION METRICS

- **Programmatic Guaranteed**
    - Globally 4% of the direct business runs through PG, for those partners that are using PG (so excluding those partners that are not)

- These are relatively low rates given early adoption, which is partly why we chose this metrics.
- LPS Brazil/CA (5%): Early adopters in large part because of the tight buy/sell coordination in smaller markets
- LPS APAC (10%): China is a bit of an anomaly as there are not many pubs with PG adoption, and one pub is skewing the metric (Douyu - eSports that is selling international inventory via PG)
- OPG APAC (9%): Small sample size
- OPG EMEA (18%):

- 2018 growth will require:
  - From Sales: Buy/Sell coordination and continued buy-side commercialization to sell the value that programmatic provides to reservation buying entities. Focus should be on premium video
  - From Product: continued evolution of audience buying in PG and giving more flexibility to buyers (PG with buyer decisioning) to ensure buyers have value beyond efficiencies
- BACK UP DATA
  - OPG
    - T1 data is more in line with LPS
    - EB uptake in 2017 for OPG limited for much of beta due to beta slot limits due to gTech resourcing
      - Currently ~130 live pubs, 30 more pubs in implementation stage, and 40 available slots to continue pitching.
      - DRX recontracting (and DRX pricing) has been the main sticking point during pitching
  - APAC
    - APAC above average but solely due to two publishers - Truecaller (IN) and Douyo (CN).
    - Slow adoption in other markets due to strong dependency on agencies.

- **Exchange bidding**
  - EB is in open beta and adoption currently varies significantly by region/country. Penetration rates are highest in countries where there is broader exchange participation, high header bidding penetration (e.g. US, UK)
    - Low penetration in APAC as this is a stage II roll out market. The penetration of header bidding in APAC is considerably lower in APAC than it is in the US and EMEA. For this reason APAC was not a region we initially pushed EB. That being said, we are starting to see Amazon approach pubs in APAC. Current efforts are concentrated in SEA/IN which are countries not specifically called out on the slide. At the same time we are ramping up our efforts with goals of onboarding ~5 pubs in JP, AU and IN before the end of the year.
    - BR - throughout LATAM the dominant Exchange aside from Google is Rubicon who, while testing with EB, has stalled its roll-out with us. We are making progress with Rubicon negotiations and have begun engaging with specific pubs to activate Rubicon in the past few weeks. We hope to activate Rubicon in LATAM in the near future.
    - DE - in Germany we are not covered by alpha/beta protections. We have

Commented [4]: notes from Kristen Fletcher

Carmen, can you share the raw data for these percentage metrics?

My instinct is that the percentages are a bit inflated for OPG EMEA/OPG APAC as they are likely starting from a smaller base. But I'd need to see the data to confirm.

Brazil's growth is largely attributed to the PG sponsorship feature. The majority of inventory in Brazil is sold on a flat-fee sponsorship model and DRX has the only solution that offers this via programmatic.

Canada has remained a strong PG market since the beginning. Due to the relatively smaller market size and strong DFP/DBM penetration in region there is strong buy-sell collaboration on evangelizing PG.

China is an interesting case as the dynamics there are completely different. 3rd party ad serving (DCM) never took off as a concept in China because publishers forbade it. Publishers either sold their inventory direct without any buyside tracking or they use local SSPs for Indirect that give buyers little visibility. This is starting to change as the power is shifting to agencies and they want more transparency & visibility. Agencies are pushing pubs to use PG. I also think that opening up PG to DFP Small Business when we launched to GA last year was a big growth driver as we have very little DFP Premium penetration in China.

Commented [5]: +poojakapoor@google.com can you please elaborate on why this is important to drive usage?

Commented [6]: "RTB-first buyers" (buyers who have grown up in RTB, not traditional) don't understand the concept of "guarantees" and why they'd want to commit to buying a guaranteed # of impressions when they can pass on impressions via other deal types.

Buyer decisioning provides this optionality, buy allowing buyers to pass on impressions up to a certain threshold, while giving publishers the security of a guarantee. This optionality is expected to unlock additional budgets.

+kfletcher@google.com

intentionally held back on working with any publisher on a contract associated with Germany for this reason. We consider the product to be fairly stable at this point and are discussing EB more regularly in Germany. We've had some German pubs even express interest in signing paperwork out of Ireland in order to participate. We are aiming for GA in Q1 which should allow us to work with German pubs with no issues.

- OPG: Numbers are diluted by a large number of DFP SB publishers which reside in the Torso of the business and the open beta only applies to DFP Premium. Many of our OPG pubs are on DFP SB (Paid or Free) and while we are willing to onboard strategic Small Business pubs we are not able to fully activate sales to drive adoption. Focusing just on T1, the numbers look more consistent with LPS with 59% breadth in NA, 15% in EMEA, and 2% in APAC. This distribution is consistent with the launch order of EB as well as the penetration of HB.

- **Native Web**
  - Native-eligible inventory growing fastest in EMEA due to aggressively pitching hybrid (native+banner) and optimized implementations
    - EMEA set regional OKRs for increasing % of native impressions. These targets are supported by GTM who are surfacing relevant data re native adoption opportunity for SPMs, making it easier for them to judge when/who to pitch, coupled with the recently launched GPSE Native scorecards. Looking to adopt as best practice in other regions.
    - Strong focus on enabling premium publishers using internal Design Team to create native styles.
    - The narrative focuses on hybrid implementation which is an easier sell (than pure native)
  - Brazil low → reason? Lack of demand. 40% of the book already activated on native. Native revenue share should accelerate once demand ramps up
  - APAC LPS low → "APAC adoption is at 16% only slightly behind the US (17%). SEA and Japan leading in adoption with 22% and 16% respectively. China is expected to be low (3.4%) because Native web adoption is coming from DFP partners and DFP has low penetration in China. AUNZ also low at 2.7% due lack of demand of Native web inventory." [from APAC doc]
  - OPG Low → reason?
    - Similar to EB, OPG had beta slot limits for DRX Native until August when the product moved to GA.
    - In addition, we have a massive standard ads business in the Torso/Tail where publishers might find Native challenging/unnecessary
    - Focusing on just T1 and including Matched Content revenue as native, our coverage is between 5-19% depending on region.

- **Video**
  - As stated several times today, video remains a competitive environment driving low %. In OPG legacy reseller channels driving instream revenue in OPG (under review for quality concerns) which might impact this metric negatively going forward.
  - FR high → France has the large DailyMotion as a partner, which also explains negative trend as it's not growing. The Broadcast part is still relatively small, but

FR team and is very active with deals and innovation tests, e.g. STB AI.
    - AU/NZ high → AUNZ leading adoption via Yahoo. All other markets at <10% due to scarcity of the Video inventory and high likelihood of it being sold via direct sales. AUNZ seen success off the back of successful PG deals - especially in Yahoo.

- **Native app**
    - **Note**: BR and CN are already very high given these markets are more tolerant with regards to the user experience and how aggressive developers are with embedding the ads on the content. CN has seen strong growth since August due to FAN removing their support for Lockscreen ads. Google play will remove support Jan'18.
    - **Context for Brazil**: OLX is the main publisher for native in the region, and between these dates they implemented native in their app and better in mobile web, so the increase comes from there, though Brazil also sees low native CPMs.
    - **Note**: OGP has small numbers currently as Advanced was only open to a limited portion of this channel's partners. In addition we have a large non-Native banner business for Torso/Tail publishers. Because Banner ads often outperform Native Ads, we are careful not to pitch Apps Native Ads for the sake of Native Ads.
    - **LPS GRCN**: Leading the global charge for Native Apps adoption. 95% of APAC LPS Native Apps revenue coming from China and 4 out of top 10 global Native publishers from G6 - Kingsoft (Cheetah), Apus, iHandy, Jiubang.
    - G6 adoption of Native is at 59% (~3x of global XC) which is down 23% due to an explosion of Lockscreen adoption (about half of Lockscreen renders as banner placements) as well as a concentrated effort to increase interstitial adoption for higher yield. $222M at risk in 2018 due to Lockscreen impact. Recovery plan includes increase penetration and development of high value formats (e.g. Native Video) and increasing SOW via user redirection and inventory diversification beyond Utility apps.

- **Rewarded**
    - Generally: small numbers but growing as the opportunity is a blue ocean.
    - Mostly driven by APAC both LPS and OPG (as apps business in general is bigger)