Publisher First Party Segments
Working Group
Phase One Documentation

Phase one of the First Party Segments trial is intended to accomplish the following objectives:

- Prove that the pipes between publisher, SSP-DSP-Buyer are working correctly and can handle the required scale and performance
- Provide performance data on the first set of user segments (which are largely generic, interest-based segments; demographic reach segments and intender/microsegments will not be supported until Phase 2)
- Prepare for extensions to allow more granular, scaleable segments to be introduced in phase 2 and beyond

Publisher Tasks

To participate in the trial, the Publisher needs to provide the classification of its inventory into the 20 agreed segments. Using whatever methodology the publisher prefers (including DMPs, home-grown technology, or other mechanisms) the publisher should assign persistent first party identifiers (either proprietary or prebid.org's Shared ID) to each subscriber participating in the trial. Note these identifiers will not be passed to buyers and do not need to be shared with anyone outside of the publisher.

Using a DMP or classification system, the publisher should group the subscribers into as many segments as is appropriate. Some subscribers will fit into none of the 20 phase one segments — others could potentially be placed in several segments or even all 20.

Once the subscribers classification process is complete, the publisher should prepare to send the segmented bid requests to participating SSP(s). The precise format and structure of the oRTB ad requests should be specified and agreed with each SSP, but in general, the following options should be supported:

- Create a flag to illustrate that the request is FPS eligible. This flag will allow the SSP to determine which requests need to be duplicated and which should be treated normally. If the flag is not present or not readable by the SSPs, publisher and SSP should agree to an alternative mechanism to determine which requests will be formatted for FPS. This is Optional in phase one.

- Attach to each eligible request a Key Value pair indicating membership in 1-20 of the initial segments. Whenever possible, the publisher should populate the Key Value pair with the proper integer indicating membership in a segment according to IAB taxonomy. If IAB taxonomy cannot be supported, the publisher will need to work with the participating SSP to provide a translation function from the proprietary signal to the proper IAB format.
- Publisher needs to work with the participating SSPs to implement the agreed multi publisher DealIDs associated with each segment. Note these Deal IDs will be COMMON across all participating SSPs. As such, it is the publisher's responsibility to ensure these Deals can traffic with all participating SSPs via the publisher ad server. The deal does NOT need to be prioritized in the publisher ad server. All participating FPS transactions will have a DealID indicating the segment (though, as outlined below, the Deal may not be used in the transaction if the DSP supports oRTB segments).
- If the publisher wishes to pass a FPC value (such as Shared ID), it can do so using the Extended ID (`eids`) extension field in openrtb. Note these values can pass via Prebid or tag. They do not currently pass via Google OB or Amazon A9. Note, however, the EIDs are NOT required in phase one. This is optional only. As long as the Key Value pairs are populated, the transaction will work in the Phase 1 trial.
- All transactions should have normal 3pc (third party cookie) values included. These will be stripped out by the SSP for Bid Requests containing segment data. Publishers should not remove or change any cookie or identity values as this could affect normal monetization activities. The responsibility for anonymizing transactions will live with the SSP.
- Note the publisher can use whatever methodology it wants to populate the segments. There was an initial recommendation that 3 visits in the past 30 days be a segment indicator, but this recommendation was dropped due to publisher feedback. Publishers should, where possible, document the methodologies used for segment creation in order to facilitate development of best practices and guidelines — based on which publisher segments perform better or worse — for use in Phase 2. The Taxonomy task force will be distributing questionnaires after Phase 1 launches in order to develop the Best Practices guidelines.
- Documenting taxonomy FAQs HERE
- POC phase 1 taxonomy segments & IAB ID mappings can be found HERE

SSP Tasks

The SSP is the primary responsible platform for executing the trial criteria and passing the relevant data to the buyer (DSP and end buyer). Note that the required parameters can be passed to ALL DSPs — SSP does not have to restrict segment information or DealIDs to only participating DSPs. All DSPs should receive the anonymized segments (as a dealid required, as an rtb segment optional) in order to facilitate easy expansion of the trial and to minimize development changes that could impact trial timing.

The SSP will receive bid requests from publishers with an indicator that the request is eligible for FPS. This can either be via the FPS_Eligible=TRUE flag (which is not part of oRTB standards) or some other agreed methodology (such as a key value pair indicator or a site/zone indicator). Once the SSP has determined that the Ad Request is FPS eligible, it must do the following:

- The Ad Request must be duplicated into two parallel requests for the same impression. Request 1 will be a “normal” bid request with all 3pcs appended, just like requests that are not part of the FPS trial. No segment information or FPS DealIDs should be included in these requests. Request 2 should have all user ids removed, and just include the FPS DealIDs associated with the eligible segments, and the oRTB segment data (if supported by the SSP). Note many DSPs will not read the oRTB segment identifier, so those transactions will not be eligible for Open Market transactions on those DSPs not reading the fields. The SSP may choose to send the segment IDs to all DSPs, however, as in most cases they will just be ignored. Whenever possible, the SSP is encouraged to include both the FPS deals and the segment ids. Note that in some cases, there could be as many as 20 FPS dealids and segment ids.
- Both Request 1 and Request 2 should go to ALL eligible DSPs, unless the SSP determines they should be excluded for reasons such as QPS caps.
- The publisher may choose to send an FPC such as Shared ID to the SSP. If received, the Shared ID should be stripped/removed from the Bid Request. Note this could create complications for SSPs-DSPs that are currently transmitting EIDs such as Shared ID or other prebid identity modules. Rectifying this conflict needs to be resolved between the publisher and the participating SSPs. For example, the publisher may have 3 prebid identity modules active — LiveIntent, LiveRamp and ID5. For the purposes of FPS modeling, they may then activate Shared ID. The SSP would have to have a method to allow the three active EIDs to pass while removing just Shared ID. This is particularly complex in cases where the publisher is currently passing Shared ID to DSPs. It is highly recommended that if Shared ID is activated for the FPS trial, it is NOT transmitted to any DSPs. This limitation will be removed in a later phase in cases where the publisher wants to send the Shared ID value to buyers.

- If Shared ID is received by the SSP, the SSP should log the Shared ID value and the associated segments in its logs. This will be extremely valuable for later mapping of the userIDs and segment information, in order to facilitate segment federation and, potentially, extensions such as lookalike modeling in the future. These logs will also be needed to facilitate the Push Reporting requirements outlined below
- The SSP needs to map each inbound Ad Request to a multi pub Deal ID (required) and an oRTB segmentID based on IAB/Prebid taxonomy (optional). This can be done via Key Value pair OR Shared ID/FPC value. The method of mapping is left to the publisher and SSP to agree, but all eligible segments must have an FPS deal ID and may have an oRTB segment id.
    - If the use of Segment IDs is agreed upon, the OpenRTB 2.5 bid request location of this object is 3.2.22 - User:Data:Segment

DSP Tasks

DSPs and their end buyers will need to be able to read the segment information and buy on them. There will be two initial options for the DSP -- read a deal ID, or read an RTB segment. The dealid will always be present. The segment id will be present in some cases (depending on the publisher and SSP combination).

Other DSP requirements are:
-Provision multi-pub deal ids for each segment
- Establish advertiser blocks to direct FPS inventory to specific seats (if required)
- Remove/mitigate blocks that restrict bids when no id is present
- Read oRTB segments when present
- Transmit a campaignID when possible
- Read “FPS Eligible” flag when present (if needed to aid processing of the segment-based requests

Measurement: In order for this First Party Segments POC to really have any measurable efficacy, a complete feedback loop form sell-side to buy-side is critically important. The ability to effectively target in this new first-party paradigm is job one, but without measurement and attribution systems that satisfy the end-buyer’s needs this effort will fail (and push spend toward the walled gardens).

POC Measurement and Attribution base assumptions:

1. No third-party cookies
2. No logins -- unauthenticated users only

3. No fingerprinting
4. Assume that measurement is per-site only -- unless that can be solved while at the same time not violating assumptions 1-3.
5. Offline/ad hoc assembled reports are acceptable where necessary or more expedient

Measurement, Reporting

- DSP bids must contain a unique campaign identifier
    - OpenRTB bid object: `cid`
    - If supported by the DSP, also a unique creative ID, `crid`
- SSP consumes and records at least the `cid` value per impression
- The summary of measurements provided will need to be generated via cooperation between SSP and DSP. Some signals will be reported on via the SSP, some will go directly to the DSP as per normal course of operations
    - Cooperation between SSP and DSP in order to achieve the aims of this test is required
- Draft example of a report from the SSP
- Note that the POC steering committee has agreed that IP Address is a measurable input, with the acknowledgement that this as a usable signal may go away at a later date
- Assumed that DSP attribution pixels will still work, even if only measured on a site by site basis (DSP partners to confirm)
- Open question - Frequency capping: use Shared ID FPC when present. If a FPC is not present, does the DSP have a solution for fcap?
- Later phases may consider support for Apple's Private Click Measurement
- SSP and DSP must agree on a format for daily push POC reporting

Measurement Inputs, sourced from both SSP and DSP:

1. Campaign ID
2. Creative ID (if available)
3. Advertiser ID
4. Auction ID
5. Creative ID
6. Timestamp
7. IP address
8. User agent
9. Referrer

10. Click data (DSP)
11. Pixel ID, Pixel parameters (if DSP includes an attribution pixel)

Phase Two Considerations

Many of the constructs required to scale the trial into a full production service have been either removed from Phase One or made optional. This is to facilitate participation by as many group members as possible, as well as to allow us to start sooner rather than waiting for development to conclude on dozens of platforms. As such, the following items (amongst others) should be fleshed out and documented for phase two, which we target to kick off in May 2021.

Key Phase two items:

- Expand supported segments from 20 to 100
- Expand segments from interest to include “intender” and “reach curve” (subject to publisher choice to include)
- Recommendations on how publishers curate segments (depth, frequency, etc)
- Performance Reporting by DSP or Advertiser
- Transmission of Shared ID or FPC to SSP or DMP for segment federation
- Support for Open Market Transactions using oRTB Segments